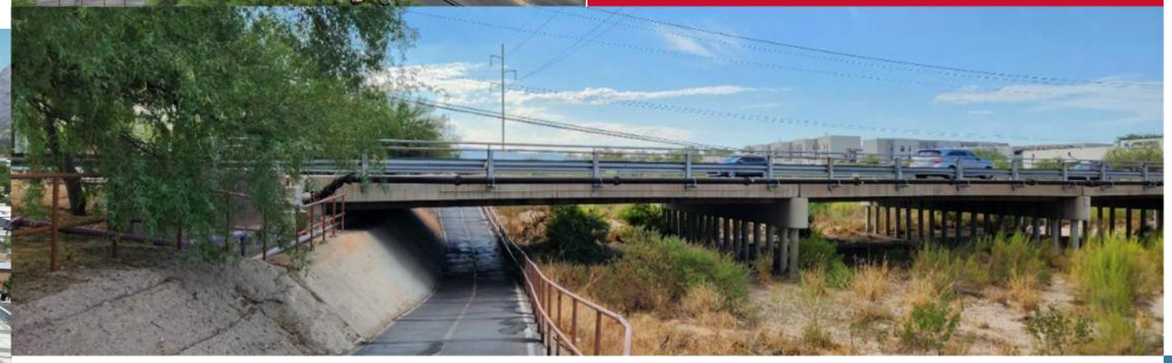


Design Concept Report

1st Avenue: River Road to Grant Road Improvement Project
City of Tucson Project Number: 230193
Tucson, Pima County, Arizona

Prepared by:
HDR Engineering
1 South Church, Suite 1400
Tucson, AZ, 85701

Prepared for:
City of Tucson
Department of Transportation and Mobility

August 21, 2026

Intentionally left blank

Acknowledgements

Citizens Task Force

Current Members

Caroline Bartelme
Dave Boston
Marci-Caballero-Reynolds
Maxine Dunkelman
Mindy Gutzmer
Melissa (Mimi) Noshay-Petro
Kathleen (Susan) O'Brien
Karl Peterson
Nancy Reid
A.M. Rivers
Ruben Robles
Kate Saunders

Former Members

Jon Barger
Mark Hachtel
Dana Higgins
Sofia Moraga Frano

Design Concept Report

1st Avenue: River Road to Grant Road Improvement Project

City of Tucson Project Number: 230193

Tucson, Pima County, Arizona

August 28, 2026

Prepared By:

HDR Engineering, Inc.

In Association With:

Kittelson & Associates, Inc.

EPS Group, Inc.

Terracon

Newton Environmental Consulting, LLC

K2 Site Assessments

J2 Design (Formerly Wheat Design Group)

Acquisition Sciences, LTD

Volume 1: Design Concept Report
Table of Contents

1. Executive Summary 1
2. Project Overview 2
3. Project Background 3
3.1 Project Limits and Study Area 3
3.2 Needs Assessment Study 3
3.3 Planning Context 3
3.4 Best Practices Case Study 4
3.5 Planned Projects Within Study Area 4
3.6 Project Goals and Design Strategies 4
4. Project Area Characteristics 5
4.1 Existing Conditions 5
4.1.1 Zoning and Land Use 5
4.1.2 Demographics 5
4.2 Transportation 7
4.2.1 Driving Today 7
4.2.2 Walking Today 8
4.2.3 Bicycling Today 8
4.2.4 Transit Today 10
4.3 Infrastructure 10
4.3.1 Roadway 10
4.3.2 Drainage 11
4.3.3 Rillito River Bridge 11
5. Safety Analysis 13
5.1 Safe System Approach 13
5.2 Field Reviews 13
5.2.1 Observations 13
5.3 Crash Analysis 15
5.4 Near-Miss Video Analysis 15
5.5 Behavior Video Analysis 16
5.6 Stakeholder Interviews 16
5.7 Concept Level Roadway Safety Assessment 16
6. Future Traffic Conditions 17
6.1 No Build Condition 17
6.2 Build Condition 18
6.2.1 Evaluation Matrix Development 22
6.2.2 Alternative Evaluation Scoring 22
7 Design Standards and Criteria 23
7.1 Roadway Design 23
7.2 Bridge Design 25
7.3 Drainage Design 25
7.4 Design Criteria Exceptions 25
8 Social and Environmental Concerns 26
8.1 Biological Resources 26
8.2 Wetlands and Riparian Areas 26
8.3 Floodplains and Water Resources 26
8.4 Sections 401/404/408 26
8.5 Section 4(f) Resources 26
8.6 Section 6(f) Resources 26
8.7 Social Resources 27
8.8 Cultural Resources 27
8.9 Scenic or Historic Route 27
8.10 Noise 27
8.11 Air Quality 27
8.12 Hazardous Materials 27
8.13 2026 BUILD Grant Award 27
9 Public Involvement 28
9.1 Citizens Task Force 28
9.2 Public Engagement Activities 28
9.2.1 Phase 1 Outreach 28
9.2.2 Project Goals and Design Strategies 30
9.2.3 Phase 2 Outreach 30
9.2.3 Phase 3 Outreach 31
10 Landscape and Aesthetics 32
Landscape Approach 32

Plant Palette....33
Stormwater Harvesting....33
Pocket Parks....34
Landscape Design Summary....35
Bridge Aesthetics....35
11 Roadway Alignment and Layout Alternatives....37
11.1 Roadway Alignment....37
11.2 Selected Roadway Cross-Sections....38
11.3 Intersection Configurations....40
11.3.1 Channelized Right Turn (Slip Lane)....40
11.3.2 Protected Intersection....41
12 Drainage Improvement Alternatives....42
13 Bridge Alternatives....43
13.1 Recommended Alternative....44
14 Recommended Roadway Alignment Alternative....45
15 Cost Estimate....46
16 Project Phasing and Implementation....47

Volume 2: 30% Design Plans

Volume 3: Appendices

- Appendix A: Public Engagement Summary Materials
- Appendix B: Bridge Scour: Desing Citeria Technical Assessment
- Appendix C: Bridge Freeboard: Design Criteria Technical Assessment

Volume 1: Design Concept Report

1. Executive Summary

The City of Tucson Department of Transportation and Mobility (DTM), in partnership with the Regional Transportation Authority (RTA), is advancing the 1st Avenue Improvement Project from River Road to Grant Road. This project will modernize the corridor using a **Complete Streets** approach to improve safety for all users, increase transportation options, upgrade existing infrastructure, support mobility, and improve the visual character, all while minimizing impacts to adjacent properties and businesses.

This corridor was first identified for improvement in the 2006 RTA plan, which called for widening of 1st Avenue from four to six lanes, with the addition of bike lanes and sidewalks. However, DTM conducted a **Needs Assessment Study** in 2021 that re-evaluated mobility and complete streets needs through 2045. The study concluded that traffic projections had changed significantly since 2006, justifying an updated project scope.

The primary project scope includes:

- Reconstruction of the existing roadway from River Road to Grant Road,
- Improvements to the existing drainage system, especially at Navajo Road
- Replacement of the existing bridge over the Rillito River
- Continuous and accessible sidewalks
- Continuous and separated bike lanes
- Continuous street lighting
- Raised median access control
- Upgraded traffic signals
- HAWK and BikeHAWK traffic signals
- Bus pullouts
- Landscaping with native and drought tolerant plans
- Passive water harvesting
- Public art

The City of Tucson established a Citizens Task Force (CTF) with members who live, work, play, commute and interact with the 1st Avenue corridor regularly to help guide the project development. Utilizing feedback received from two phases of public engagement and outreach activities the Project Team and CTF developed and prioritized six project goals:

1. Improve safety for all users
2. Increase transportation options
3. Improve the condition of existing infrastructure
4. Support mobility along the corridor
5. Minimize the impact of 1st Avenue improvements
6. Enhance the visual character of 1st Avenue

Specific design strategies were also developed and implemented to help the project achieve each of the goals. As a result of this work the project will also include:

The project is funded by RTA and with the recent passing of the RTANext program in March of 2026, the $133.5M budget is fully funded. Additionally, the City of Tucson applied for a Federal BUILD Grant for the North Segment of the project from River Road to Wetmore Road. The City was notified in June 2026 the application was successful, and the project was awarded $25M.

Due to the award of the BUILD Grant as well as significant necessary design, right-of-way and utility relocation work on the South Segment, the project is planned to be delivered in two construction phases. While design work will continue along the entire corridor, the current plan is to prioritize the design and construct of the North Segment first, Right-of-way and utility relocation activities on the South Segment are planned to occur concurrently with the North Segment construction allowing the South Segment construction to commence shortly after the North Segment has been completed.

2. Project Overview

The City of Tucson Department of Transportation and Mobility (DTM), in partnership with the Regional Transportation Authority (RTA), is advancing the 1st Avenue Improvement Project from River Road to Grant Road. This project will modernize the corridor using a **Complete Streets** approach to improve safety for all users, increase transportation options, upgrade existing infrastructure, support mobility, and improve the visual character, all while minimizing impacts to adjacent properties and businesses.

The 1st Avenue improvements include:

- Continuous, accessible sidewalk
- Physically separated bicycle facilities from motor vehicles
- Frequent pedestrian and bicycle crossings
- Upgraded traffic signals with adaptive signal technology
- Raised medians and/or pedestrian islands
- Adequate and continuous street lighting
- Upgraded transit stops
- Drainage improvements to accommodate common storm events
- Pavement reconstruction
- New bridge over the Rillito River
- Green Stormwater Infrastructure

The study corridor was first identified for improvement in the 2006 RTA plan, which called for widening of 1st Avenue from four to six lanes, with the addition of bike lanes and sidewalks. However, DTM conducted a **Needs Assessment Study** in 2021 that re-evaluated mobility and complete streets needs through 2045. The study concluded that traffic projections had changed significantly since 2006, justifying an updated project scope.

In 2021, TDTM released the new Street Design Guide. This guide provides "*guidance on incorporating a Complete Streets design approach in all transportation projects in the city*." Instead of focusing on how a roadway performs for vehicles, the Complete Streets design approach considers the needs of all roadway user. It emphasizes designing from the outside limits of the right-of-way first to ensure the needs of pedestrians and bicyclists are met along with the needs of transit, commercial, and personal vehicles.

1st Avenue: River Road to Grant Road is the City of Tucson's first arterial roadway reconstruction project to be fully designed utilizing the guidance from the Street Design Guide.

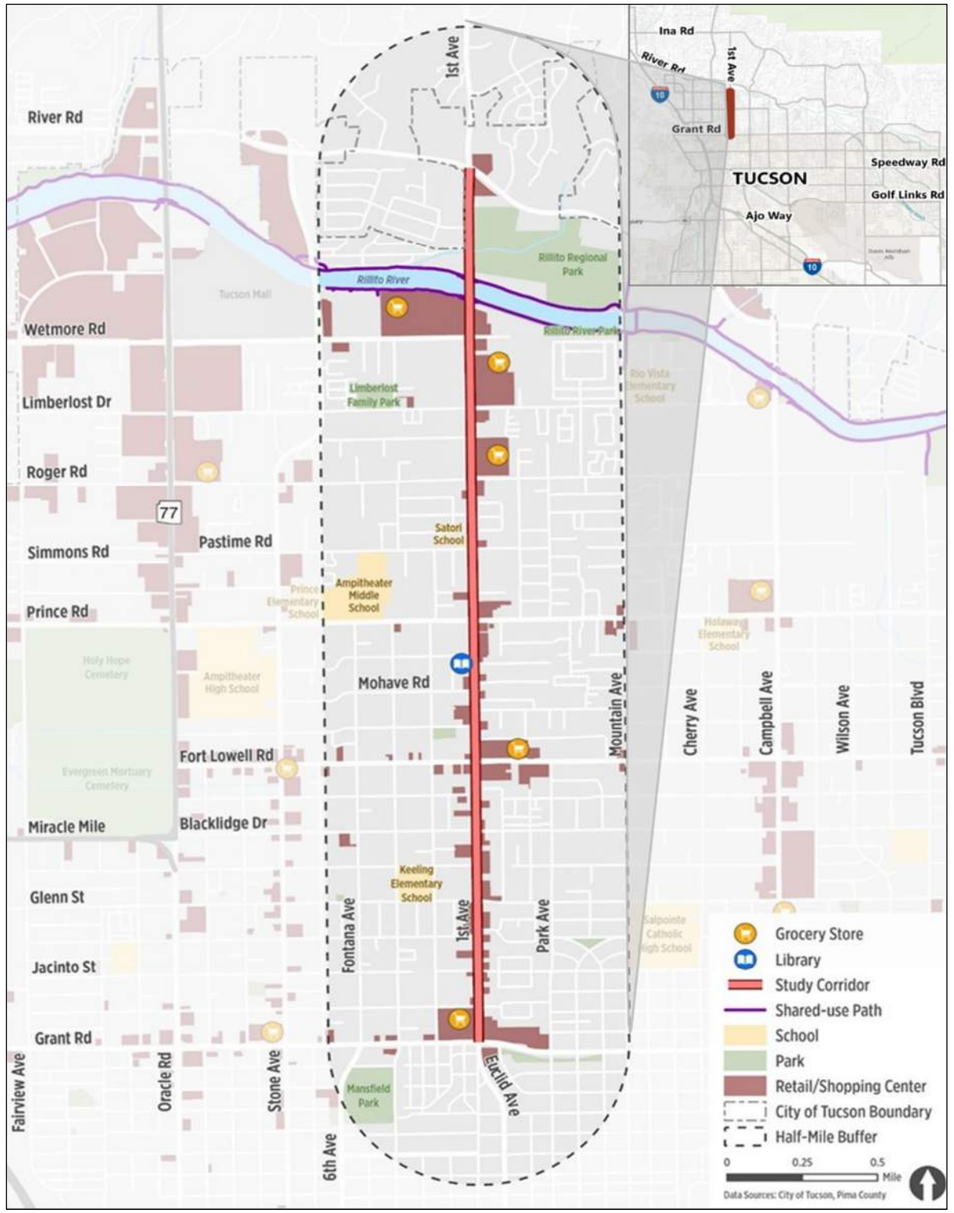


Figure 1 - Project Location Map with Study Area and Key Destinations

3. Project Background

3.1 Project Limits and Study Area

The 1st Avenue Improvements Project includes the 3+ mile long segment of 1st Avenue between River Road and Grant Road in the City of Tucson. The study corridor functions as an urban thoroughfare and provides access to residential and commercial properties. The corridor and its influence area, which extends a half-mile buffer around the corridor, is dense with key destinations, including schools, shopping and retail centers, grocery stores, and a library. A map of the area and key destinations is shown in **Figure 1.** The corridor has a documented history of high crash frequency, particularly involving pedestrians. This project aims to improve safety for all users while addressing the corridor's future mobility needs and supporting the surrounding community.

3.2 Needs Assessment Study

The study corridor was first identified for improvement in the 2006 RTA Plan, which called for widening 1st Avenue from four to six lanes, with the addition of bike lanes and sidewalks. However, DTM conducted a **Needs Assessment Study**, completed in 2021, that reevaluated mobility and complete streets needs through 2045. The Needs Assessment determined that a four-lane cross-section would accommodate 2045 traffic demand and identified safety improvements for vulnerable road users. The improvements included continuous sidewalks, midblock signalized pedestrian and bicycle crossings, transit stop enhancements, raised medians, street lighting, protected or buffered bike lanes, and Intelligent Transportation System (ITS) technologies. Overall, the study recommended a Complete Streets approach with targeted capacity enhancements to better align the corridor with City and regional mobility, safety, and equity goals.

3.3 Planning Context

A literature review was conducted to review the planning documents, policies, and ordinances from the City of Tucson and the Pima Association of Governments (PAG) to assess how the Complete Streets approach proposed for the project aligns with existing guidance and priorities for the 1st Avenue Corridor. The study reviewed the following documents:

City of Tucson Plans & Policies

- Complete Streets Policy (2019)
- Tucson Street Design Guide (2021)
- Tucson Pedestrian Safety Action Plan (2019)
- Move Tucson Transportation Master Plan (2021)
- Tucson Norte-Sur Strategic Plan (2020)
- Housing Affordability Strategy for Tucson (HAST)
- Tucson Resilient Together: Climate Action and Adaptation Plan (2023)
- Tucson Comprehensive Plan (Updated 2025)
- City of Tucson Bicycle Boulevard Master Plan (2017)

PAG Plans & Policies

- 2045 Regional Mobility and Accessibility Plan (2020)
- Regional Transportation Authority Plan (2006)
- PAG High-Capacity Transit Implementation Plan (2017)
- Long Range Regional Transit Plan (2020)
- Strategic Transportation Safety Plan (2016)

The City of Tucson and PAG plans and policies collectively support the 1st Avenue Improvement Project's purpose to prioritize safety, multimodal mobility, equity, environmental sustainability, and coordinated land-use and transportation planning. Across documents, there is a consistent direction to enhance walking, biking, and transit access; reduce crashes on high-injury corridors; modernize existing infrastructure; promote carbon-reducing mode shifts; and improve access for vulnerable and underserved populations. These shared themes align directly with the project's goals to transform 1st Avenue into a safer, more comfortable, multimodal corridor that supports connectivity, affordability, and long-term regional mobility needs.

3.4 Best Practices Case Study

Two comparable case studies – Broadway Road in Tempe, AZ and Aurora Avenue in Shoreline, WA – were selected to demonstrate how Complete Streets strategies can successfully improve multimodal safety and corridor performance on arterial streets. Selection was based on comparable street classifications, posted speed limits, traffic volumes, number of lanes, and adjacent land uses.

Broadway Road (Tempe, AZ)

Goals:

- Add bike lanes
- Add landscaped median
- Add buffer wall
- Plant street trees
- Widen sidewalks

Approach:

- Repurposed travel lanes with minimal property impacts

Aurora Avenue (Shoreline, WA)

Goals:

- Increase multimodal options
- Enhance safety
- Increase connectivity

Approach:

- Pedestrian enhancements
- Dedicated bus lanes
- Landscaped median

Right-of-Way acquisition

Together, these case studies, show that reallocating roadway space, enhancing pedestrian and bicycle infrastructure, and integrating transit-supportive design can meaningfully improve safety and corridor performance without requiring major widening. Their outcomes demonstrate that Complete Streets strategies are both feasible and effective on arterials with similar volumes, speeds, and land-use contexts to 1st Avenue, reinforcing the applicability of these approaches for the corridor's modernization.

3.5 Planned Projects Within Study Area

The DTM identified the following improvement projects in the vicinity of the study corridor. The list includes *corridor modernization*, which improves safety and access for all travel modes through pavement reconstruction, continuous and accessible pedestrian facilities, lighting, enhanced bike lanes, upgraded traffic signals, and other multimodal improvements:

- **Limberlost Drive Lane Reduction: Oracle Road to Campbell Avenue.** Corridor modernization, landscaping, and safe crossings. Repurposes one travel lane (Oracle Rd-Stone Ave) for protected bike lanes. This project is funded and is currently in the design phase.
- **Roger Road Modernization: Oracle Road to Campbell Avenue.** Corridor modernization, landscaping.
- **Prince Road Modernization: Romero Road to Campbell Avenue.** Corridor modernization, landscaping.
- **Yavapai Road Bicycle Boulevard: Oracle Road to Mountain Avenue.** Implement local Street improvements to prioritize biking and walking, including enhanced major street crossings, traffic calming, wayfinding, landscaping, and pavement treatment.
- **Navajo Wash Greenway.** Construct an off-street shared use path, with occasional low-volume on-street connections.
- **Fort Lowell Road Modernization:** Oracle Road to Alvernon Way. Corridor modernization and landscaping. Currently, safety improvements are funded from Oracle Road to 1st Avenue.
- **Glenn Street Bicycle and Pedestrian Improvement: Oracle Road to Country Club Road.** Install enhanced bike lanes and repave the roadway. The improvement project is partially funded under Propositions 407 and 411.
- **Copper Street/Jacinto Street Bicycle Boulevard: Fairview Avenue to Arcadia Avenue.** Implement local street improvements that prioritize biking and walking, including enhanced major street crossings, traffic calming, wayfinding, landscaping, and pavement treatments. This project is funded and is currently in the design phase.
- **Grant Road Signal Upgrades: I-10 to Tanque Verde Road.** Upgrade traffic signals to improve safety and traffic flow along the corridor.
- **Park Avenue Bicycle and Pedestrian Improvement: Fort Lowell Road to Speedway Boulevard.** Upgrade pedestrian and bike facilities, enhance lighting and landscaping, and improve drainage.
- **Euclid Avenue Bicycle and Pedestrian Improvement: Grant Road to Speedway Boulevard.** Install enhanced bike lanes, fill landscaping and sidewalk gaps, and repave the roadway.
- **Pastime Road Bicycle Boulevard: Flowing Well Road to Mountain Avenue.** Install bicycle facilities, traffic calming, and enhanced crossings along 2.73-mile long corridor.
- **Yavapai Road Bicycle Boulevard: Oracle Road to Dodge Boulevard.** Install bicycle facilities, traffic calming, and enhanced crossings along 1.62-mile long corridor.
- **Blacklidge Drive Bicycle Boulevard: Oracle Road to Columbus Boulevard.** Install pedestrian hybrid beacons (also referred to as **H**igh-Intensity **A**ctivated Cross**W**al**K**s [HAWK]), implement traffic calming elements, reconstruct pedestrian ramps, and add landscaped features along the 4.5-mile corridor. This project is funded under Proposition 407.

The 1st Avenue Improvement Project is intended to complement these planned projects to create a more comprehensive and connected transportation network for people biking, walking, and taking transit.

3.6 Project Goals and Design Strategies

The City of Tucson established the 1st Avenue Citizens' Corridor Planning Task Force to advise the DTM, the Mayor, and the City Council on key decisions related to corridor alignment and design. Working alongside the project team and the broader community, the Task Force helped shape the project goals. In response, the design team with Task Force's input developed design strategies grounded in Complete Streets principles and the Federal Highway Administration's Safe System Approach to provide realistic, actionable approaches for achieving the project's broader goals.

1. **Improve Safety** for all users of 1st Avenue, particularly for the most vulnerable road users, such as pedestrians, bicyclists, people with disabilities, motorcyclists, and others. The following design strategies were identified with a *safety-first philosophy* in mind – to protect vulnerable road users through physical separation and conflict reduction.
    - Employ Safe Systems Approach principles in corridor design.
    - Provide physical separation of bicyclists and pedestrians from motor vehicles.
    - Manage vehicle speeds to reduce crash severity.
    - Provide adequate and continuous lighting along the corridor, particularly in the areas with the highest pedestrian activity.

- Ensure that pedestrians and cyclists have access to frequent safe crossings.
- Design intersections and upgrade traffic signals to reduce conflicts in space and time.
- To the extent feasible, design sidewalks to be dominant across driveways, maintaining the level, material, and slope of the sidewalk.

2. **Increase transportation options** and reduce barriers on 1st Avenue by improving comfort, convenience, and accessibility for people walking, biking, and using public transportation. The following design strategies were selected to emphasize and realize the *Complete Streets* vision that prioritizes equitable access for all transportation modes.
    - Install wide, continuous, and accessible sidewalks.
    - Separate sidewalks from roadway to the greatest extent feasible with a planting/amenity zone and bicycle lanes.
    - Ensure that pedestrians and cyclists have access to frequent safe crossings.
    - Provide the greatest amount of physical separation between bicyclists and motor vehicles, including through the installation of protected bike lanes.
    - Upgrade transit stops to be accessible, shaded, safe, and comfortable.
3. **Improve the condition of existing infrastructure** to ensure that 1st Avenue meets community needs now and into the future. The following design strategies were identified to implement *long-term resilience and smart infrastructure* that considers the durability and future-readiness of the corridor's infrastructure.
    - Upgrade drainage infrastructure to provide all-mode access during more frequent/common storm events.
    - Replace the 1st Avenue bridge over the Rillito River.
    - Upgrade traffic lights at signalized intersections with adaptive and transit signal priority technologies.
    - Reconstruct roadway pavement, sidewalks, bicycle lanes, and install bus shelters to improve ride quality, comfort, accessibility, and longevity of public infrastructure.
4. **Support mobility** along the corridor through the efficient movement of traffic, including transit, personal, and commercial vehicles. The following design strategies were chosen with *traffic operations and future capacity* in mind – to accommodate growth while supporting all users.
    - Upgrade Traffic Signals with Adaptive and Transit Signal Priority Technologies.
    - Implement Access Management Strategies.
    - Evaluate strategies to efficiently and safely accommodate all modes at major intersections.
    - Incorporate bus pullouts at high-demand locations.
5. **Minimize the impacts** of 1st Avenue improvements on adjacent residents and businesses. The following design strategies were selected to minimize right-of-way impacts and disruption on the corridor.
    - Align the 1st Avenue corridor to minimize acquisitions of structures and properties
    - Support businesses during construction through a partnership with the RTA Mainstreet program.
    - Maintain access for residents, businesses, and neighborhoods along 1st Avenue.
6. Enhance the **visual character** of 1st Avenue to support economic and community vitality. The following design strategies were selected to maintain and enhance community and corridor character and respond to local context:
    - Incorporate green stormwater infrastructure (GSI) into landscaping to use stormwater as a resource.
    - Integrate public art into bridges and other infrastructure elements to enhance the corridor's visual character and feel.

4. Project Area Characteristics

4.1 Existing Conditions

The existing 1st Avenue roadway was built with several projects in the late 1950s to early 1960s as the City of Tucson grew to the north. A review of available aerial photography on the MapTucson and PimaMaps GIS websites shows development from a rural and agricultural to a suburban residential and commercial land use, which remains relatively unchanged today.

4.1.1 Zoning and Land Use

The 1st Avenue corridor is primarily surrounded by commercial/office land use, with medium- and high-density residential zoning located behind those commercial parcels, presented in **Figure 2.** Several larger parcels north of Roger Road are zoned for high-density multi-family development. Although most adjacent properties are commercially zoned, many are eligible to use the City's new Community Corridors Tool, adopted in April 2025, which allows more flexible residential development while retaining underlying zoning. As this tool is implemented, the corridor may experience an increase in residential density.

4.1.2 Demographics

The study area contains just over 23,000 residents. It is characterized by a population that is **younger, more educated, and less wealthy** than the City of Tucson as a whole, with more **zero-car households and** higher rates of **walking, biking, and transit use**. Racial and ethnic diversity in the study area is similar to citywide patterns.

Employment is anchored by several major employers, including **Cenpatico Integrated Care, Fry's Food Stores, and Walmart**, with higher residential densities clustered north of Grant Road and between the Blacklidge and Limberlost areas. Much of the corridor also falls within moderate to high **Equity Priority Index** zones (see **Figure 3**),reflecting elevated social vulnerability. This demographic context reinforces the importance of improving multimodal access and safety along 1st Avenue to support the needs of residents who are more dependent on walking, bicycling, and transit.

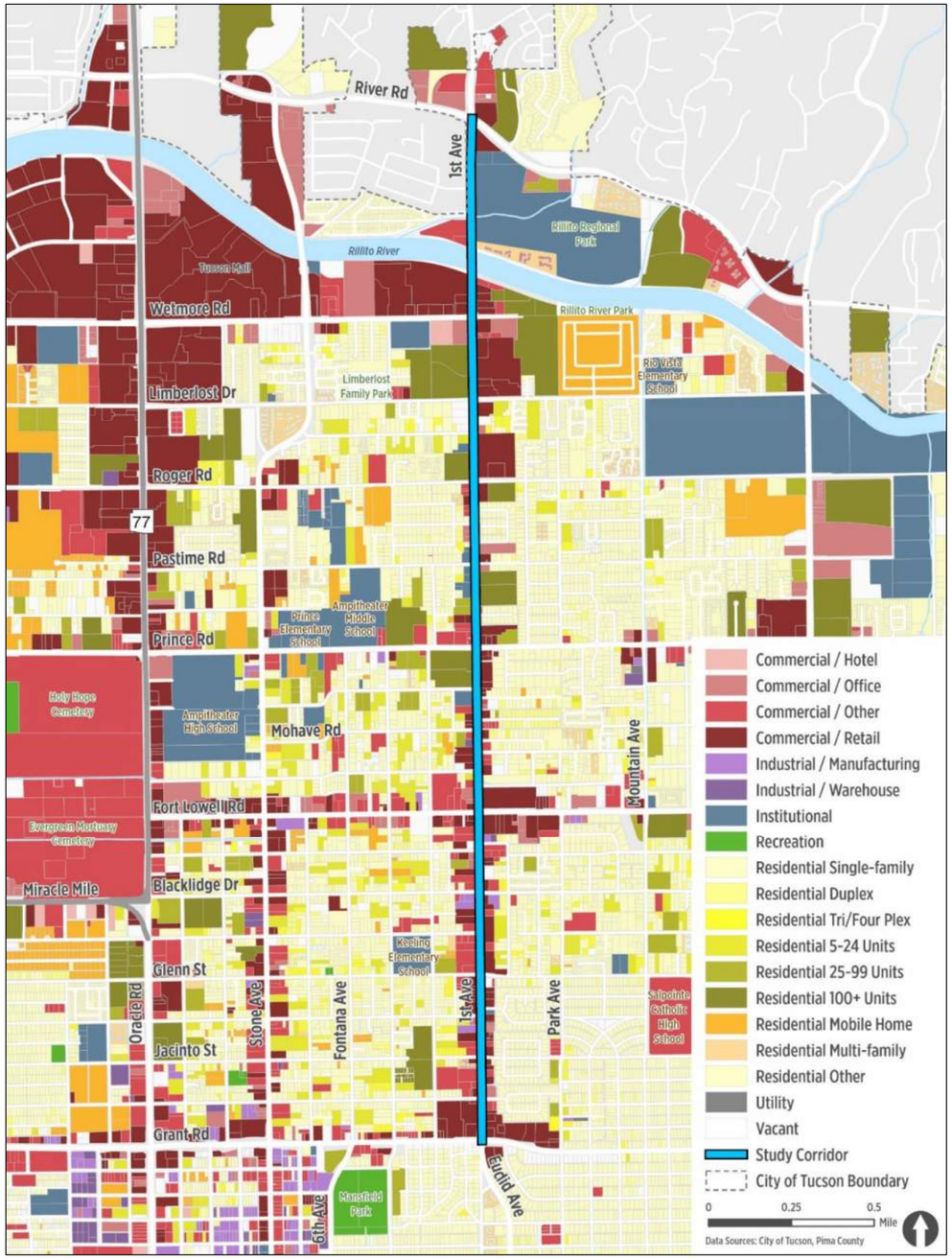


Figure 2 - Existing Land Use

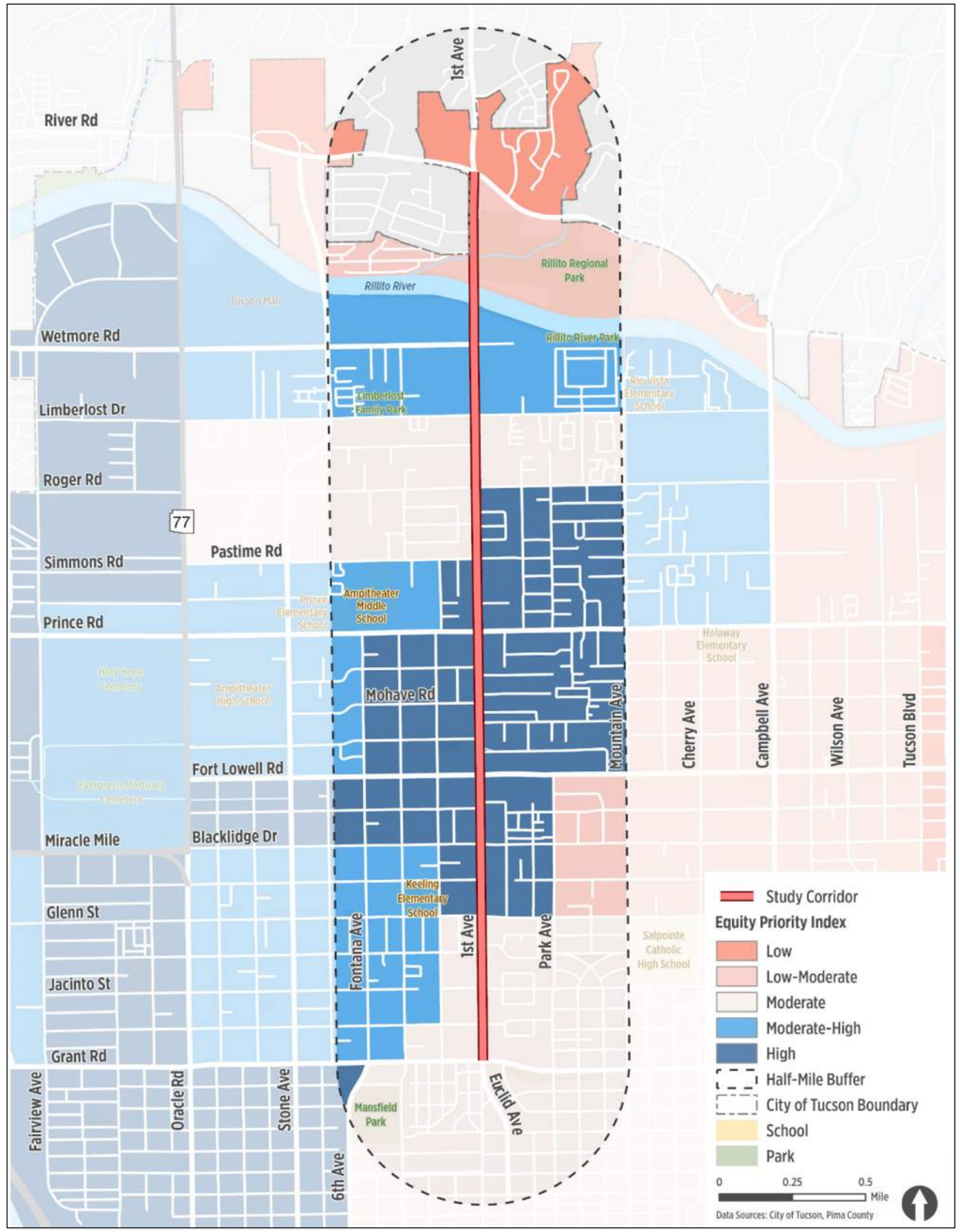


Figure 3 - Equity Priority Index

4.2 Transportation

Origin-destination data was obtained from Replica to better understand how people travel along the 1st Avenue corridor. Based on this data, it was determined that most trips on 1st Avenue between Wetmore Road and Grant Road begin and end within the corridor. On a typical weekday, approximately 82,000 trips are made through the study area; on a typical weekend day, that number drops to 76,000. As shown in **Figure 4**, a large majority of trips on the corridor are made by automobiles (78% on weekdays; 81% on weekends). However, approximately 12% of all trips on the corridor are made on foot. This statistic is supported by demographic data, which shows that residents in the study area are more likely to walk, bike, or ride transit than the typical Tucson resident. Although walking is one of the most popular modes for short trips (less than 1 mile), almost half of all short trips are still taken by automobiles (44% on weekdays; 46% on weekends).

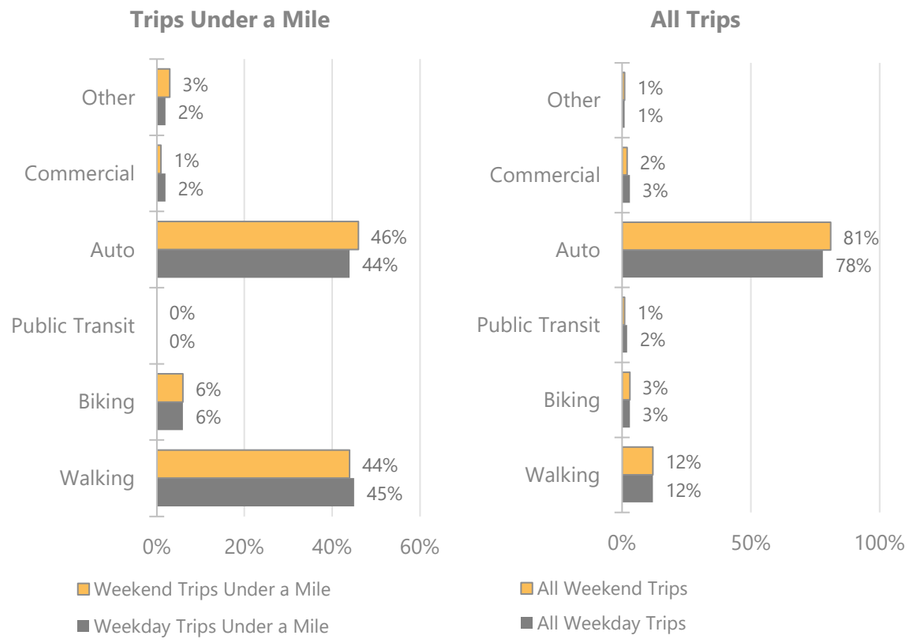


Figure 4 - Study Area Trips by Mode

4.2.1 Driving Today

The 1st Avenue corridor is a five-lane arterial with four travel lanes and a two-way left turn lane (TWLTL), supported by eight signalized intersections and two HAWK crossings. Traffic volumes have declined by about 10% since 1998, with current daily volumes ranging from roughly 25,000 to 33,000 vehicles depending on the segment. Peak-hour traffic is moderate, with AM and PM peaks representing about 7% and 9% of daily traffic, respectively, and the highest activity occurring between Limberlost and Wetmore Roads. Speed studies conducted under the previous posted speed limits (40-45 MPH during the day and 35-40 MPH at night) showed that, while average speeds generally fell below posted limits, 85th-percentile speeds exceeded them by 1-8 mph. This was especially notable north of Grant Road, where more than half of the northbound drivers were speeding before limits were reduced. In 2025, the posted speed limit was lowered to 30-35 MPH.

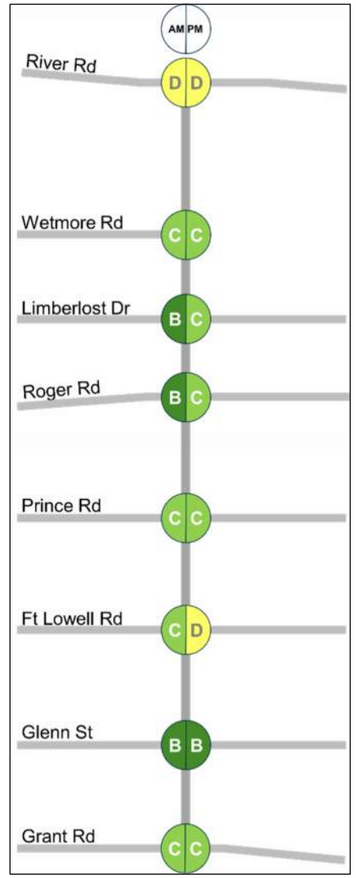


Figure 5 - Existing Weekday AM and PM Peak Hour Intersection Level of Service - System Peak

Operational conditions, including Level of Service (LOS) for signalized and unsignalized intersections, were evaluated using Highway Capacity Manual (HCM) methodologies, as implemented by Synchro 12 software.

Table 1 provides descriptions for each LOS category and its relationship to average delay. The analysis results show that all signalized intersections currently operate at LOS D or better (**Figure 5**), though several have individual movements at LOS E. Many unsignalized driveways and cross streets (especially Bromley Street, the Stonybrook/LA Fitness driveway, and Jacinto Street) experience significant delay, operating at LOS F during at least one peak period, which is common for driveways on arterials. Corridor-level travel speeds fall mostly in the LOS C–D range, with the most notable congestion occurring northbound between Prince and Wetmore during the PM peak hour. Together, this indicates a corridor that functions within acceptable LOS overall, but experiences localized operational and speed-related challenges that motivate the project's Complete Streets upgrades.

A fully validated existing conditions microsimulation model (using PTV Vissim 2024) was also developed to serve as a baseline for future scenarios. The project team created a detailed representation of the corridor and surrounding network, incorporating turning movement counts, signal timing information, speed data, transit operations, and pedestrian and bicycle activity. The resulting model accurately reflects how vehicles, transit, bicyclists, and pedestrians interact along 1st Avenue today, providing operational and multimodal insights that extend beyond the capabilities of deterministic tools such as Synchro. This model was used to evaluate future conditions, presented in Section 6.2.

Table 1: LOS Definitions

LOS	Intersection Delay (sec/veh) Signalized	Stop Controlled	Description of Operation
A	≤ 10	≤ 10	**Very low delay** and most vehicles do not stop.
B	10 - 20	10-15	**Low delay** and some vehicles stop.
C	20 – 35	15-25	**Moderate delay** and a significant number of vehicles stop.
D	35 – 55	25-35	The **limit of acceptable delay** in an urban area; many vehicles stop, and some in the queue may not make it through in one cycle.
E	55 – 80	35-50	**High delay** with poor progression; most vehicles will not make it through in one cycle.
F	> 80	> 50	**Unacceptable** delay: demand exceeds intersection capacity. Many vehicles require two or more cycles to make it through.

4.2.2 Walking Today

The 1st Avenue corridor provides **inconsistent pedestrian infrastructure**, with sidewalks on approximately 60% of the corridor, many of which are narrow, deteriorated, or not ADA-compliant. Sidewalks are often less than six feet, the preferred width for this type of street (illustrated in **Figure 6**), have steep driveway crossings, or include outdated curb ramps without truncated domes. A BikeHAWK crossing at Jacinto/Copper and a HAWK at Graybill supplement the signalized intersections, but otherwise, pedestrians rely on unmarked or signalized crossings. Access to The Loop is available on both sides of the river, though the bridge sidewalks are especially narrow. Overall, the pedestrian environment is fragmented, uncomfortable, and lacks continuous, accessible routes.

Pedestrian activity varies across the corridor, with the highest volumes observed at **Fort Lowell Road** and **Grant Road**, where peak-hour counts are comparable to other high-demand locations in Tucson such as Grant/Alvernon and Broadway/Church. Even so, most of the corridor scores poorly on the Pedestrian Level of Comfort scale, with the majority rated **PLOC 4 (undesirable)** due to narrow sidewalks, high traffic speeds, and minimal buffers (**Figure 7**). Only a few segments with wider landscaped setbacks reach more comfortable PLOC 1–2 ratings. Accessibility challenges, inconsistent facilities, and the corridor's role on the Pedestrian High Injury Network emphasize the need for upgraded, continuous, and safer pedestrian infrastructure.

4.2.3 Bicycling Today

The 1st Avenue corridor currently provides **narrow, unprotected striped bike lanes** that offer only minimal separation from fast-moving traffic, resulting in a high-stress environment for most riders. The usable width is generally less than five feet, falling short of modern design guidelines for comfort and safety. While the corridor connects to cross-streets with bike routes and The Loop, overall network connectivity remains limited, and the corridor primarily serves only **experienced, confident bicyclists**. Future bicycle boulevard projects on Blacklidge Drive, Pastime Road, and Yavapai Road, along with the in-progress Mountain Avenue protected bike lane, will improve connectivity, but do not change existing conditions on 1st Avenue today.

Bicycle volumes show relatively low but notable activity, with the highest numbers at **Glenn Street** and **Blacklidge Drive during vehicle peak hours**, likely tied to school travel. Across the corridor, roadway bicyclist activity generally exceeds crosswalk bicyclist use. The entire segment from Grant Road to River Road rates as Level of Traffic Stress (LTS) 4, the highest stress level, meaning it is only comfortable for very experienced riders (**Figure 8**). This combination of constrained facilities, high traffic speeds, and limited protection underscores the corridor's need for upgraded, physically separated bicycle infrastructure to support safer and more comfortable biking.

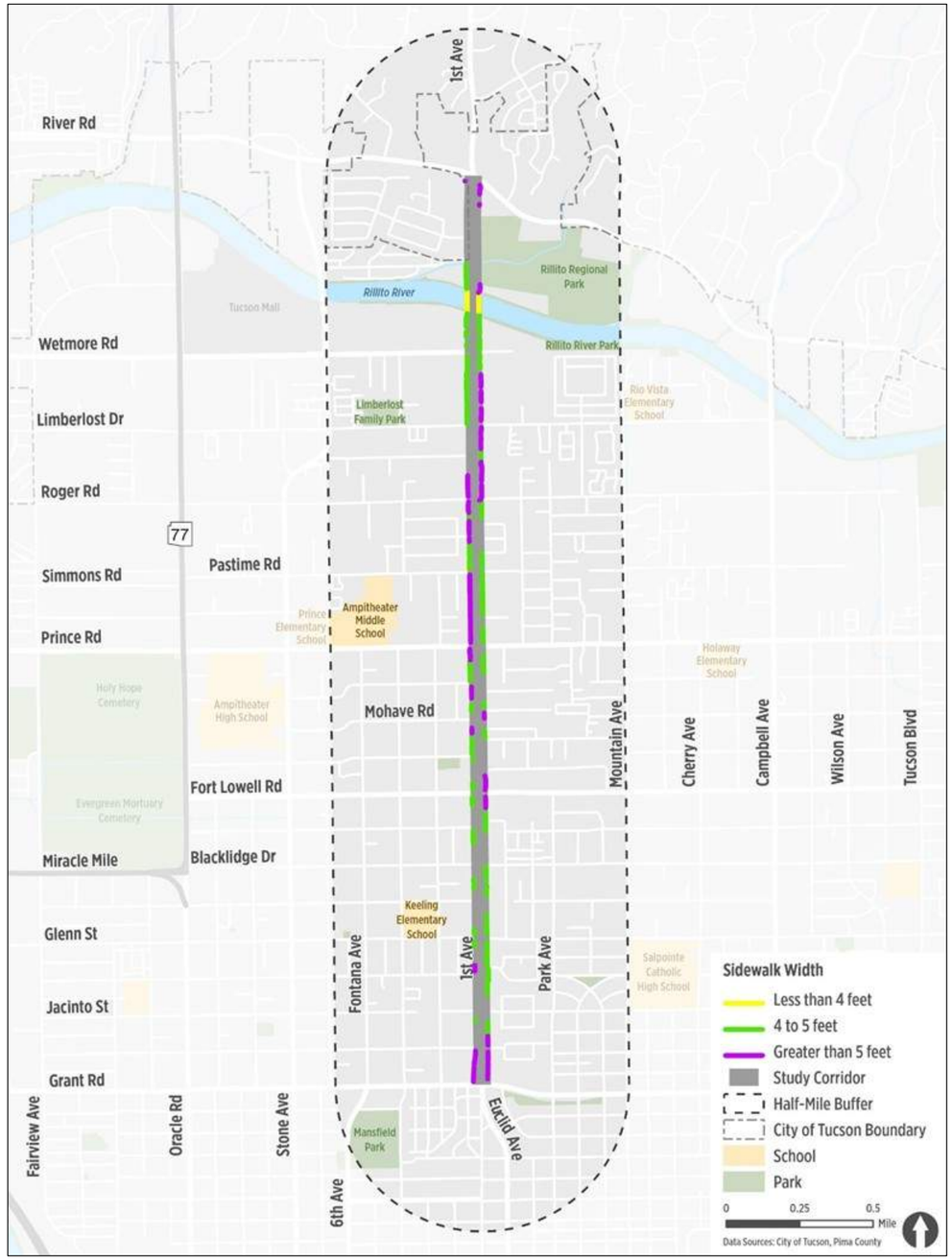


Figure 6 - Sidewalk Availability and Width

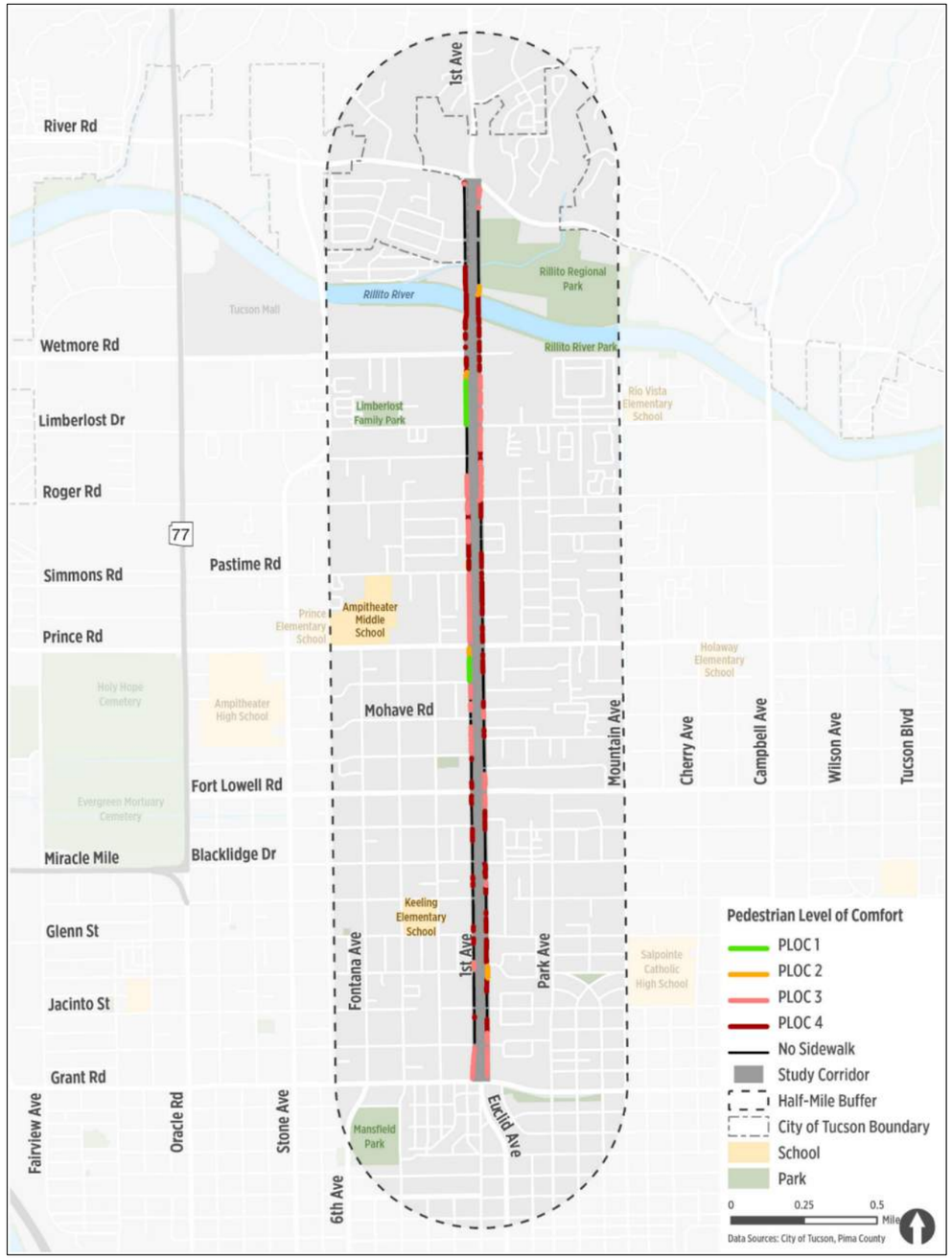


Figure 7 - Pedestrian Level of Comfort Along the Corridor

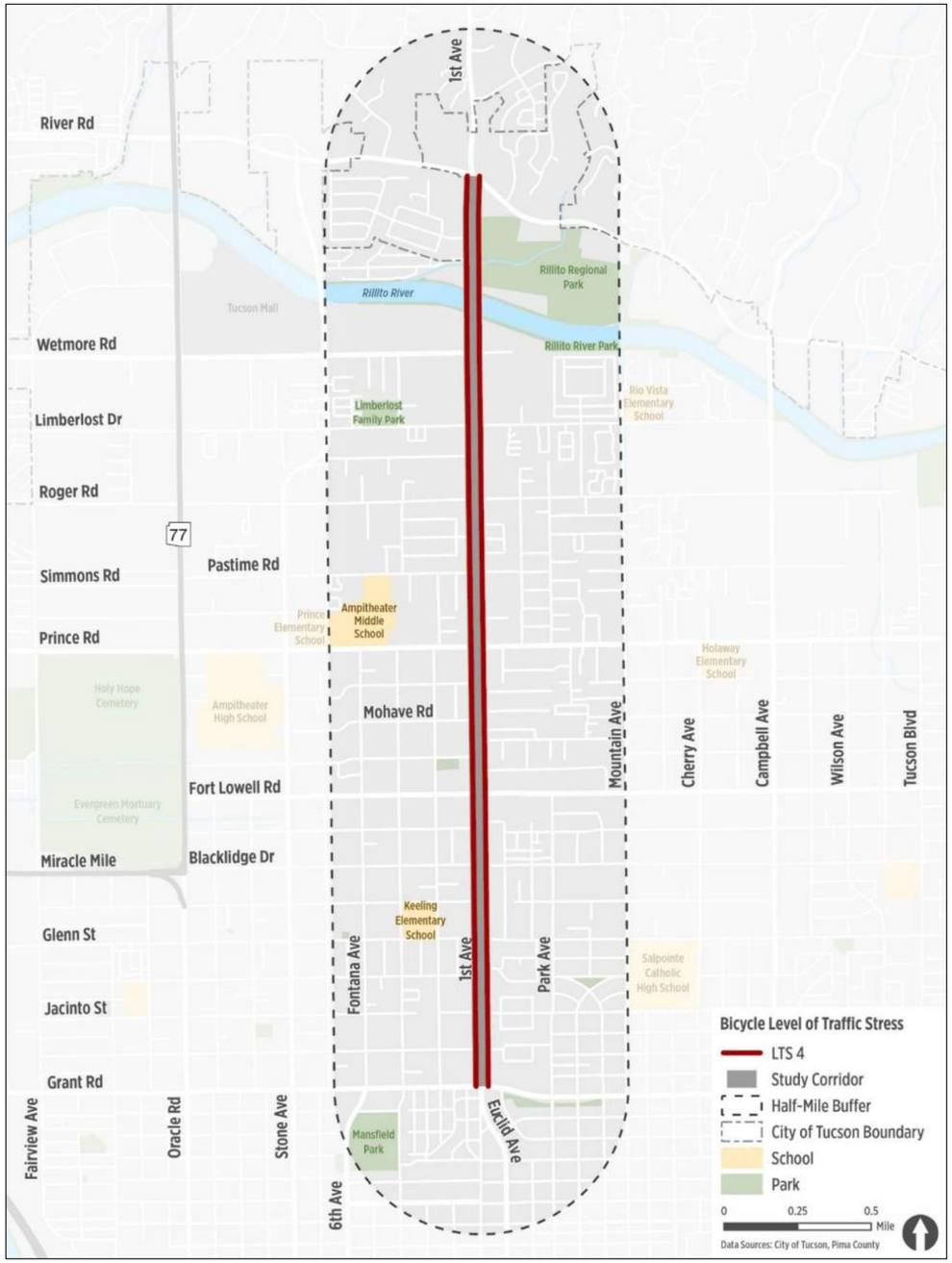


Figure 8 - Bicyclist Level of Traffic Stress Along the Corridor

4.2.4 Transit Today

Sun Tran Route 6 operates along 1st Avenue with 23 stops between Grant and Wetmore Roads (**Figure 9**). Bus stop quality varies significantly, ranging from full shelters to locations with no amenities, and the busiest stops at Fort Lowell and Grant Roads consistently generate the highest ridership throughout the week.

Transit travel times are generally reliable but slower northbound, especially during the weekday PM peak when trips between Grant and Wetmore can take up to 15 minutes. Weekend travel is steadier but continues to show directional differences, with northbound trips averaging slower commute times. Overall, the corridor supports steady transit use but lacks consistent stop amenities and comfortable access needed to fully support high-quality transit service.

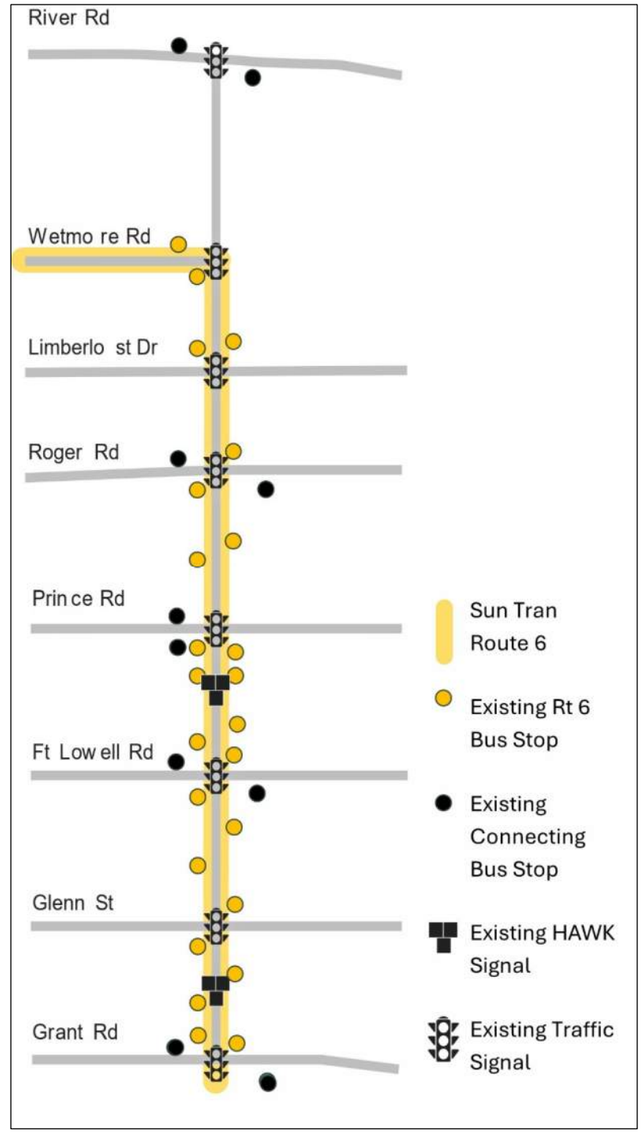


Figure 9 - SunTran Route 6 Service Along the Corridor

4.3 Infrastructure

4.3.1 Roadway

The existing 1st Avenue roadway is a five-lane cross-section with two northbound and two southbound vehicular travel lanes, as well as a center left turn lane. Review of the City of Tucson's records indicate the paved roadway was constructed with four projects. These are:

- Grant Rd to Glenn St, 1958 (Plan No. I-606)
- Glenn St to Halcyon Rd, 1958 (Plan No. I-674)
- Roger Rd to River Rd, 1961 (Plan No. I-828)
- Ft Lowell Rd to Roger Rd, 1964 (Plan No. I-813 and I-64-043)

The projects included construction of a paved roadway with concrete vertical curb. From Grant Road to Roger Road, 1st Avenue was constructed at 64' wide, and from Roger Road to River Road, 1st Avenue was constructed at 70' wide. This was sufficient width to provide five 12' vehicular lanes and either 2' or 5' wide

outside shoulders. These projects also included potable water, sanitary sewer, and limited drainage infrastructure. They did not, however, include the construction of any concrete sidewalk.

Figure 10 - Typical Roadway Segment (Looking North)

While there have been rehabilitation and improvement projects since the original construction, much of the roadway along this corridor remains in the original configuration. The only significant changes have been the addition of right-turn lanes at some intersections and private developments, and the addition of bus pullouts at some bus stop locations, primarily at the major thoroughfare (arterial) intersections. Additionally, the existing right-of-way for 1st Avenue was established only wide enough to accommodate the roadway as it was constructed at the time; in some areas this is as little as 70'. In the years since, the right-of-way has been widened through improvement projects and development in a somewhat piecemeal fashion with the widest right-of-way of way being 140' between Wetmore Road and the Rillito River. While the right-of-way width is inconsistent, there is a general pattern of the narrow right-of-way less than 100' wide being located between Grant Road and Roger Road, while the right-of way greater than 100' wide located between Roger Road and River Road.

4.3.2 Drainage

The existing drainage infrastructure along the project corridor is limited in both size and scope. Beginning from the south, from Grant Road to just south of Fort Lowell Road there is no existing storm drain system. Existing stormwater runoff is conveyed in the roadway north toward the Rillito River. Cemetery Wash is a mapped wash that crosses 1st Avenue at Blacklidge Drive. From Ft Lowell Road to the Rillito River there is an existing storm drain system that is limited in size and conveys runoff from only small storm events underground. Just south of the Wetmore intersection there is a large inlet grate across the road to capture pavement drainage. The existing storm drain system ties into this grate and is then carried to the Rillito River via a large box culvert. The Navajo Wash floodplain is a mapped Zone AE floodplain that is uncontained and approximately 1,500 feet wide where it crosses 1st Avenue between Ft Lowell Road and Yavapai Road. There is a prominent dip crossing in 1st Avenue at Navajo Road where Navajo Wash crosses 1st Avenue as it flows westward, but as noted the actual floodplain is much wider. The Rillito River floodplain and floodway is contained within the existing river channel. North of the Rillito River there are two concrete box culverts that convey the existing washes beneath 1st Avenue as they flow southwest toward the Rillito River. There is limited storm drain infrastructure that ties into these facilities.

Figure 11 - Navajo Wash Dip Crossing 1st Avenue (Looking South)

HDR has prepared a detailed Preliminary Drainage Report for the entire project corridor. Additionally, there were concerns from the project team, including City of Tucson staff, regarding the accuracy of the Navajo Wash floodplain mapping. In response to these concerns, HDR prepared an independent existing condition model for this floodplain utilizing existing ground mapping that was obtained for this project. Please refer to these documents for detailed information regarding the existing drainage conditions.

4.3.3 Rillito River Bridge

The existing 1st Avenue Bridge over the Rillito River was built in 1961 and consists of six simple spans of around 60' each for a total length of approximately 633'. The bridge has an out-to-out width of 64' with a clear roadway width of 56', consisting of four 12' lanes of undivided traffic, two 4' shoulders, and two 4' raised sidewalks. Along the roadway the bridge is level, however, the deck crowns at the centerline and a 2% cross slope provides for deck runoff to drains located in the exterior roadway girders.

Figure 12 - Existing Bridge Railing, Sidewalk and Drainage (Looking North)

The bridge superstructure is comprised of sixteen adjacent precast, prestressed inverted U-girders, with a 2” asphalt topping placed directly over the fourteen interior girders. The girders are nominally 48” wide by 30” deep. The two exterior girders are raised approximately 11” above the adjacent interior girders to function as curbed pedestrian sidewalks. Galvanized guardrail posts bolted directly into the sidewalk girders support a combination guardrail and pedestrian handrail.

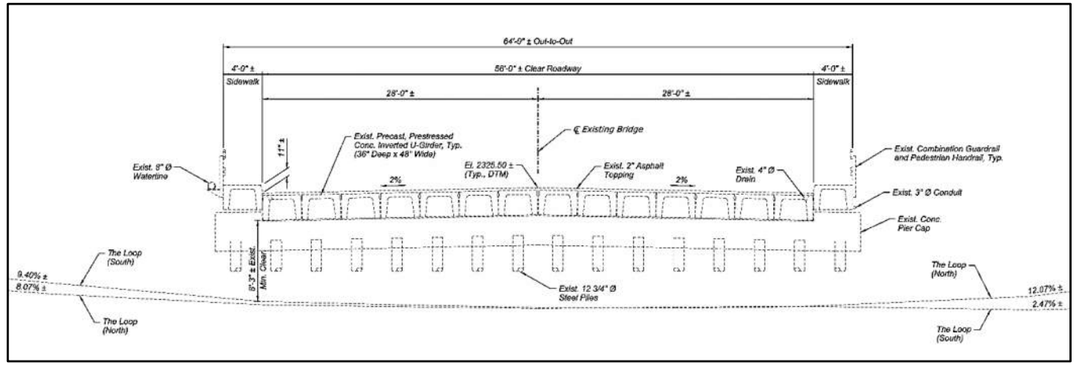


Figure 13 - Existing Bridge Typical Section

The bridge piers and abutments have an 18° skew to align with the direction of flow in the Rillito River. The abutments and all five piers consist of cast-in-place (CIP) concrete caps founded on driven steel piles filled with concrete. According to the pile record in the As-Built drawings, each of the piles originally had a furnished length of 35-feet, with field cutoffs ranging from approximately 1 to 5 feet. Measurements of the above-ground piles heights indicate that the piles extend approximately 20 to 25 feet below existing grade. Each of the five CIP pier caps are supported on 16 vertical piles. The abutment caps are supported on thirteen piles each.

Figure 14 - View of Existing Bridge Pier, Piles, and Underside of Girders

The original bank protection for the existing bridge consisted of precast concrete slabs and railroad rails. Subsequent improvements to bank protection along the Rillito River resulted in the current soil cement bank protection system at the bridge abutments, which accommodates a 10-foot-wide multi-use path, “The Loop,” as it passes beneath the existing bridge along both banks. The Loop has minimum clearances for pedestrians and cyclists under the existing bridge of 8’-7” and 8’-3” at the north and south banks, respectively.

Figure 15 - Partial Elevation View of Existing Bridge with The Loop

According to ADOT’s Structure Inventory and Appraisal (SI&A) form, the existing bridge (Structure Number 9617) was designed for the HS 20-44 vehicular live load, has an overall NBI Bridge Condition of Fair, and a Sufficiency Rating of 87.40. The July 27, 2023, ADOT Bridge Inspection Report reported the Condition and Appraisal Ratings shown in Table 2.

Table 2. Structure #9617 Condition and Appraisal Ratings (2023)

Rating Type	Code	Element	Rating	Description
NBI Condition Ratings	N58	Deck	7	Good
	N59	Superstructure	6	Satisfactory
	N60	Substructure	6	Satisfactory
	N61	Channel	7	Minor Damage
Appraisal Ratings	N67	Structural Evaluation	6	Equal Min. Criteria
	N68	Deck Geometry	5	Above Tolerable
	N69	Vert. & Horiz. Clearances	N	Not Applicable (NBI)
	N71	Waterway Adequacy	8	Equal Desirable
	N72	Approach Roadway Alignment	8	Equal Desirable
	N113	Scour Critical Rating	5	Stable w/in Footing

The SI&A form provides LFR Inventory and Operating Load Ratings of 27 and 76 tons, respectively, for the existing structure. The bridge is not load posted, because the Operating Rating Factor is greater than 1.0. The design life for bridges from this era was typically 50 years, so at nearly 64 years old, the bridge has outlived its intended lifespan.

HDR has prepared a detailed Bridge Selection Report for the project. Please refer to this document for detailed information regarding the existing bridge.

5. Safety Analysis

The study team conducted a safety analysis to evaluate safety conditions along the 1st Avenue corridor. Drawing on multiple data sources, the analysis identifies crash patterns and trends that may indicate safety concerns.

5.1 Safe System Approach

The United States adopted the Safe System Approach in late 2022 as part of the National Roadway Safety Strategy. This approach to transportation safety is comprised of six principles and five elements. The approach differs from the traditional safety approach in that it focuses on reducing fatal and serious-injury crashes through a holistic, proactive approach.

As the 1st Avenue DCR is a Complete Streets project, the goal is to design a corridor that applies the Safe System Approach regardless of who they are, where they live, and how they choose to travel. This can be achieved through safer roadway design, speed management, and educating road users on how to use the transportation network safely. The roles of these elements in the existing system will be examined throughout this section.

5.2 Field Reviews

Two rounds of field reviews were conducted to assess the existing safety conditions at five locations along the corridor: Fort Lowell Road, Wetmore Road, Yavapai Road/Graybill Drive HAWK (pedestrian), Glenn Street, Yavapai Road/Graybill Drive HAWK (bike), and the Rillito River bridge just north of the Wetmore Road intersection.

5.2.1 Observations

Field reviews revealed several safety improvement opportunities along the corridor. The observations and related safety opportunities are outlined below.

- **Frequent Midblock Crossing & Signal Noncompliance.** These behaviors place pedestrians in the roadway at times and/or locations where drivers might not expect to see them.

- **Slower-Moving Pedestrians.** Slower-moving pedestrians may not be able to cross the roadway within the time allotted during the ‘Walk’ and ‘Flashing Don’t Walk’ signal phases.
- **Insufficient Lighting Levels & Inconsistent Activation.** Reduced visibility due to darkness could lead to pedestrian crashes at night. Not providing adequate lighting when natural lighting levels are compromised may contribute to greater crash frequency.
- **High-Stress Bike Facilities.** There is limited space separating the users of the two different travel modes, increasing the chance for conflicts, particularly in areas with turning movements, driveways, or high traffic volumes.
- **Missing Accessibility Features.**
    - Pedestrians unable to press the pedestrian push button may lead the pedestrian to attempt to cross without signal protection, increasing the possibility of crashes.
    - Truncated domes are important for providing tactile cues to people with visual impairments to alert them that they are about to enter the roadway, which may cause them to enter the roadway unknowingly.
    - The absence of two curb ramps at a crosswalk may force those using mobility aids to cross into oncoming traffic to access the ramps and increase the potential of crashes.
- **Faded Pavement Markings.** Faded markings make it more difficult for road users to identify where they and other road users may be located. For example, a faded crosswalk may reduce driver awareness that a pedestrian could enter the roadway.
- **Limited Crosswalk Visibility.** The pole shown in Figure 20 reduces the ability of drivers to identify if pedestrians are in the crosswalk.
- **Reduced Number of Signal Heads.** In cases where only one overhead signal head is provided, driver visibility of the signal heads may be limited. This could result in undesirable behaviors, such as running red lights.
- **Transit Stop Locations.** Offset transit stops increase the likelihood of pedestrians crossing midblock, as riders may opt for the most direct route to or from a stop instead of using a designated crosswalk, increasing the possibility of conflicts.
- **Vehicle Queues Not Clearing.** Signal cycle lengths shorter than the time needed for a vehicle queue to safely clear the intersection may influence drivers to take inappropriate actions in an attempt to make their movement, such as speeding and/or running a red light.
- **Red Light Running.** Red light running significantly increases the likelihood of collisions caused by conflicting vehicle movements, particularly within the intersection.
- **Strong HAWK Compliance.** A notable positive behavior of pedestrians and vehicles was the strong compliance with the HAWK crossings at the 1st Avenue intersection with Yavapai Road and Graybill Drive. During both peak and off-peak pedestrian and vehicle periods, road users generally complied with the HAWK control. Pedestrians waited for the walk signal before crossing the road, and vehicles stopped a safe distance from the crosswalk to allow pedestrians to cross safely.

Figure 16 - Midblock Crossing at Ft Lowell

Figure 17 - Crossing During "Don't Walk"

Figure 18- High Stress Bike Facility

Figure 19 - Missing Truncated Domes and Curb Ramp in Poor Condition

Figure 20 - Limited Crosswalk Visibility

Figure 21 - Red Light Running (Glenn)

Figure 22 - Pedestrian and Vehicle HAWK Compliance (Yavapai / Graybill)

5.3 Crash Analysis

Five years (2019-2023) of crash data provided by the Arizona Department of Transportation (ADOT) was used to identify crash trends along the project corridor. Overarching trends are as follows:

- **Fatal and Serious Injury (FSI) Crashes.** A high number of road users are involved in fatal and injury crashes. Pedestrian and bicyclist collisions are 6-12 times more likely to result in a fatal or serious injury (see *Figure 23*).
- **Crash Types.** Sideswipe, pedestrian, bicyclist, and head-on collisions are more likely to be more severe than other crash types. Other common crash types, such as single vehicle, left turn and angle crashes, can still result in high-severity injuries, as summarized in **Table 3**.
    - Pedestrian crashes were most common at the Fort Lowell Road and Wetmore Road intersections.
    - 75% of bicyclist crashes occur at intersections, most commonly at Prince Road.
    - All 10 head-on crashes occurred at an intersection, most commonly at Prince Road.

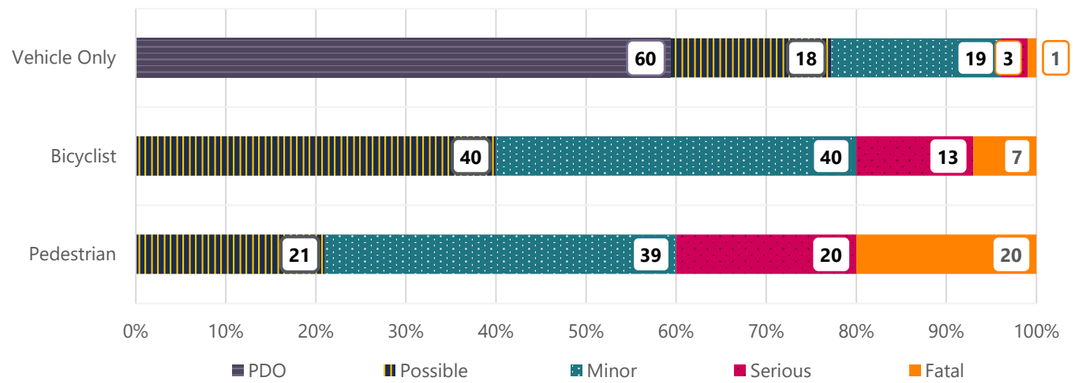


Figure 23: Crashes on 1st Avenue by Crash Mode and Highest Injury Severity (2019 - 2023)

Table 3: Crash Frequency and Rate by Type on 1st Avenue (2019 - 2023)

Crash Type	Crash Frequency	FSI Crash Frequency	FSI Crash Rate
Sideswipe (Opposite Direction)	3	2	66.7%
Pedestrian	56	22	39.3%
Bicycle	15	3	20.0%
Head-On	10	2	20.0%
Single Vehicle	51	4	7.8%
Angle	169	9	5.3%
Left Turn	266	5	1.9%
Rear-End	161	1	0.6%
Remaining Crash Types	34	0	0.0%

- **Road User Contributing Factors.** Speeding, failure to yield, and crossing outside marked crosswalks are common factors in high-severity crashes. Drivers not yielding to VRUs were observed more frequently at the Prince Road and Fort Lowell Road intersections.
- **Impairment.** 4.7% of crash-involved road users were impaired. It was more common for crash-involved pedestrians to be impaired than for crash-involved bicyclists or drivers.
- **Lighting.** Dark lighting conditions are contributing to pedestrian crashes (**Figure 24**).
    - A much higher percentage of pedestrian crashes happen in dark lighting conditions than bicyclist and vehicle-only crashes.
    - Unlike bicyclist and vehicle-only crashes, pedestrian crashes peak at nighttime.

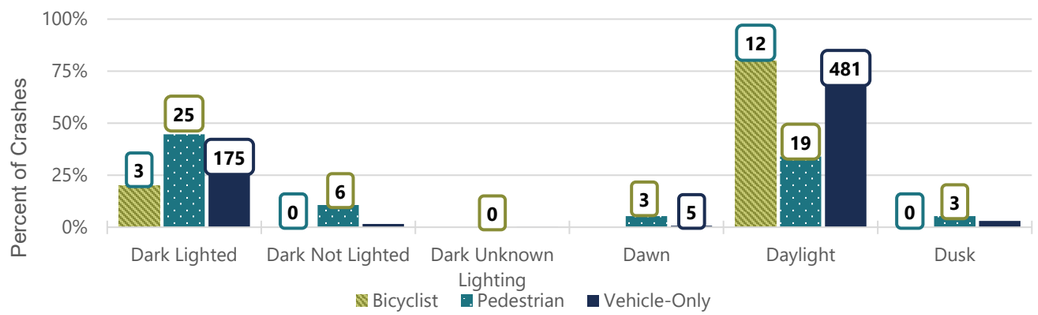


Figure 24 - Lighting Conditions by Mode for Crashes on 1st Avenue (2019-2023)

5.4 Near-Miss Video Analysis

Taking a proactive approach to safety is central to the Safe System Approach. Following this principle, 24-hour near-miss data was collected at the Fort Lowell and Wetmore Road intersections along 1st Avenue. This data was analyzed alongside the historical crash data to better identify trends associated with high-risk scenarios. The key findings from the near-miss analysis are summarized below.

- Near-misses increase during daytime at **off-peak periods**.
- Pedestrian and bicyclist near-misses:
    - vary in Post-Encroachment Time (PET) depending on the **order of arrival**.
    - often occur at the **Fort Lowell Road north and east crosswalks** and the **Wetmore Road south crosswalk**.
    - often involve **right-turning vehicles**. (see **Figure 25**)
    - Should be addressed through a **variety of countermeasures**.
- Vehicle-only near-misses:
    - involve **higher speeds**.
    - often involve a **through vehicle and a left-turning vehicle**.
    - often involve a **Northbound left-turning vehicle**.

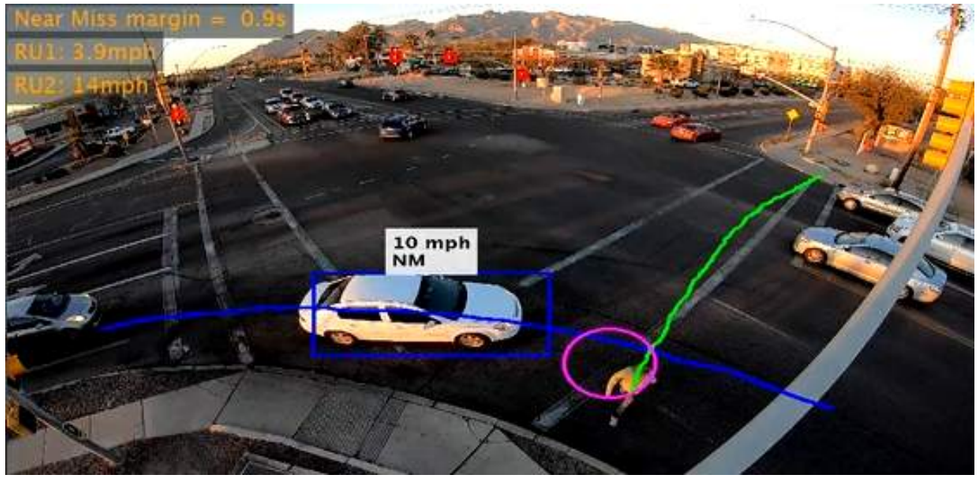


Figure 25 - Right Turning Vehicle-Pedestrian Near Miss at Ft Lowell Road

5.5 Behavior Video Analysis

Video data was also used to identify certain road user behaviors, such as red light running.

- **Red light running** had equal prevalence at both locations.
- **Crossing on red** and **crossing outside the crosswalk** were over 2X more common at the Fort Lowell Road intersection than at the Wetmore Road intersection.
- The east leg and south leg of the Fort Lowell Road intersection have the highest volumes of **pedestrian midblock crossings.**

5.6 Stakeholder Interviews

Stakeholder interviews were conducted with the Tucson Police Department, Tucson Fire Department, and Sun Tran. The following themes emerged from the meetings.

Road Safety and Traffic Management:

- Speeding is more commonly perceived as an issue at night.
- Protected left turns at signalized intersections would improve safety.
- A signal at Rillito Park might improve safety for left-turning southbound vehicles.
- Some countermeasures that would enhance safety on the corridor include pedestrian-level lighting, protected left turns, far-side bus stops, and painted bus boxes.

Lighting and Visibility:

- Lighting the corridor up as much as possible could have a big safety impact.
- Some countermeasures that would enhance safety on the corridor include pedestrian-level lighting.

Pedestrian and Cyclist Safety:

- Channelizing pedestrians and bicyclists could influence their behavior to be less unpredictable to drivers.
- High-quality, continuous sidewalks are necessary for individuals who walk and use assistive mobility devices.
- Dense concentration of businesses limits vehicle parking capacity, which encourages mid-block crossing and vehicles trying to back onto 1st Avenue.

Public Transportation:

- Bus pull-outs can result in complications for bus drivers. However, bus pullouts at signalized intersections may have minimal impact on bus operations.
- This project provides an opportunity to improve transit stop locations and spacing, particularly at signaled intersections and crossing locations.
- Some countermeasures that could enhance safety on the corridor include far-side bus stops and painted bus boxes.

5.7 Concept Level Roadway Safety Assessment

The City of Tucson is partnering with the Pima Association of Governments to conduct an independent peer review of each design submittal form outside subject matter experts to evaluate how roadway designs are prioritizing safety. This innovation approach, known as a multi-phase Roadway Safety Assessment (RSA) allows designs to adjust at earlier submittal stages in response to the independent review and incorporate best practices in the Safe Systems Approach.

6. Future Traffic Conditions

2045 has been selected as the design year for the project for which the traffic analysis was completed. Since that time, PAG updated the regional travel demand model to 2055. A secondary analysis was completed utilizing the model, and no significant differences were found compared to the 2045 analysis. Accordingly, the results presented herein represent the 2045 design year. The Final Traffic Report documents the secondary analysis conducted using the 2055 traffic volumes.

Under the 2045 No-Build scenario, conditions for people walking and biking remain largely uncomfortable and undesirable. Any improvements such as the change from BLTS 4 to BLTS 3 are minimal and attributable solely to recent speed limit reductions.

6.1 No Build Condition

The 2045 No-Build assessment for the 1st Avenue Improvements Project establishes future baseline traffic and multimodal conditions, assuming no roadway upgrades aside from the recently implemented signal and speed limit updates. Traffic projections were developed using 2024 traffic counts and the 2045 PAG regional travel demand model, with adjustments to account for upcoming retail developments in the study area. Forecasts show daily corridor volumes ranging from approximately 28,100 to 36,800 vehicles, with AM and PM peak-hour flows increasing proportionally but maintaining overall operational performance in most locations. **Table 4** and **Table 5** display existing and projected traffic volumes for comparison.

Operational analysis using Synchro and Vissim indicates that intersections generally continue to perform at LOS D or better in 2045, though certain movements (particularly at River Road, Wetmore Road, and Roger Road) are expected to experience notable delays and queuing during the PM peak-hour. Corridor-wide PM northbound performance is projected to degrade slightly to LOS D/E, reflecting increased congestion without geometric or operational improvements.

From a multimodal perspective, the corridor remains challenging for people walking and biking under No-Build conditions. Sidewalk gaps persist, and although recent speed limit reductions may improve pedestrian comfort slightly, overall pedestrian conditions generally remain “uncomfortable” to “undesirable.” Bicycle conditions similarly improve only marginally, shifting from BLTS 4 to BLTS 3 due solely to lower posted speeds, while the absence of dedicated or protected bicycle facilities continues to limit comfort and safety for most riders.

Table 4: Existing 2024 Traffic Volume Summary

1st Avenue Segment	Daily Volume	Truck %		AM Peak Hour			PM Peak Hour		
		Medium	Heavy	Vol.	K	D	Vol.	K	D
North of River Road	28,726	N/A	N/A	2,201	0.08	0.53	2,461	0.09	0.60
River Road to Wetmore Road	29,758	6.9%	2.3%	2,254	0.08	0.57	2,660	0.09	0.54
Wetmore Road to Limberlost Drive	30,804	7.1%	1.1%	2,349	0.08	0.59	2,875	0.09	0.51
Limberlost Drive to Roger Road	30,143	7.2%	1.2%	2,232	0.07	0.60	2,702	0.09	0.51
Roger Road to Prince Road	30,851	N/A	N/A	2,193	0.07	0.58	2,785	0.09	0.53
Prince Road to Fort Lowell Road	33,087	N/A	N/A	2,134	0.06	0.57	2,655	0.08	0.52
Fort Lowell Road to Glenn Street	27,480	N/A	N/A	1,864	0.07	0.57	2,284	0.08	0.52
Glenn Street to Grant Road	25,089	8.9%	1.2%	1,810	0.07	0.61	2,268	0.09	0.50
South of Grant Road	22,616	N/A	N/A	1,529	0.07	0.58	2,107	0.09	0.57

Table 5: Year 2045 Traffic Volume Projections

1st Avenue Segment	Daily Volume	Truck %		AM Peak Hour			PM Peak Hour		
		Medium	Heavy	Vol.	K	D	Vol.	K	D
North of River Road	32,100	N/A	N/A	2,459	0.08	0.52	2,772	0.09	0.60
River Road to Wetmore Road	31,500	6.9%	2.3%	2,409	0.08	0.56	2,818	0.09	0.54
Wetmore Road to Limberlost Drive	33,900	7.1%	1.1%	2,590	0.08	0.59	3,129	0.09	0.51
Limberlost Drive to Roger Road	33,000	7.2%	1.2%	2,422	0.07	0.60	2,959	0.09	0.51
Roger Road to Prince Road	34,000	N/A	N/A	2,401	0.07	0.59	2,993	0.09	0.51
Prince Road to Fort Lowell Road	36,800	N/A	N/A	2,348	0.06	0.57	2,883	0.08	0.52
Fort Lowell Road to Glenn Street	31,100	N/A	N/A	2,075	0.07	0.57	2,563	0.08	0.51
Glenn Street to Grant Road	28,100	8.9%	1.2%	2,022	0.07	0.60	2,459	0.09	0.51
South of Grant Road	24,500	N/A	N/A	1,694	0.03	0.58	2,275	0.09	0.57

6.2 Build Condition

The 2045 Build assessment evaluates the anticipated transportation conditions along 1st Avenue assuming the implementation of the 1st Avenue Improvement Project. The project identified several intersection and corridor-level treatments designed to accommodate future 2045 traffic demand and operational performance while enhancing safety for vulnerable road users.

Corridor treatments include:

- Continuous sidewalks
- Protected or buffered bike lanes
- Raised medians
- HAWKs and BikeHAWKs
- Enhanced street lighting
- Speed feedback signs
- Narrower lanes
- Adaptive signal controls
- Bus stops upgrades including bus pullouts

Targeted intersection treatments are applied to improve safety, reduce conflicts, and support multimodal operations at key locations along the corridor. These treatments include leading pedestrian intervals, protected-only left-turn phasing, flashing yellow arrow (FYA) phasing with pedestrian protected-only phasing, among other advanced intersection control strategies summarized in Table 6.

Table 6. 1st Avenue Intersection Treatment Locations

	Glenn St	Ft Lowell Rd	Prince Rd	Roger Rd	Limberlost Dr	Wetmore Rd	River Rd
Leading Pedestrian Interval	X			X	X		
Protected-Only Left-Turn Phasing						X	X
FYA / Pedestrian Protected-Only Phasing		X	X	X	X	X	
High-visibility crosswalks	X	X	X	X	X	X	X
Protected intersections	X			X	X		
Channelized right-turn lanes with raised crosswalks		X	X			X	X
Dedicated right-turn lanes				X	X		X
Bus Stop Enhancements		X	X	X	X	X	
Dual Left Turn Lanes						X	X

Under the 2045 Build scenario (with these improvements in place), all intersections are expected to operate at acceptable levels of service. As shown in **Table 7**, the level of delay at each intersection under Build conditions is similar to the delay under No-Build conditions. During the AM peak hour, most of the intersections are expected to maintain the same level of service, except for the 1st Avenue and Limberlost Drive intersection which is expected to operate acceptably at LOS C (LOS B in No-Build). During the PM peak hour, all intersections are expected to maintain the same or operate at better level of service compared to No-Build conditions.

Table 7. Year 2045 Peak Hour Intersection Operations Results (Vissim)

Intersection with 1st Avenue	Weekday AM Peak Hour				Weekday PM Peak Hour			
	No-Build		Build		No-Build		Build	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
River Road	45.1	D	44.1	D	62.2	E	54.2	D
Wetmore Road	24.5	C	28.1	C	43.2	D	34.8	C
Limberlost Drive	14.3	B	20.4	C	36.9	D	24.8	C
Roger Road	17.7	B	16.6	B	40.8	D	27.4	C
Prince Road	23.1	C	23.8	C	32.1	C	31.1	C
Fort Lowell Road	27.1	C	31.6	C	31.4	C	33.7	C
Glenn Street	11.0	B	15.2	B	14.4	B	14.5	B
Grant Road	19.1	B	19.4	B	24.8	C	25.3	C

Level of service and travel times were also determined for the roadway corridor for 2045 Build Conditions. As shown in **Table 8**, northbound operations on the corridor, particularly during the weekday PM peak hour, are expected to maintain the same level of service and significantly improve travel times under Build conditions. During the weekday PM peak hour, improvements associated with the dual northbound left-turn lanes at Wetmore Road outweigh any traffic impacts associated with multimodal improvements, resulting in a significantly better travel time along the corridor. Traffic operations for the southbound direction, however, degrade slightly under Build conditions during both peak hours, from LOS C to LOS D. Although travel times increase slightly during peak hours for southbound traffic, the level of service is anticipated to remain acceptable and within City standards (LOS D or better).

Table 8. Corridor Travel Time and Level of Service

Corridor Direction	Weekday AM Peak Hour				Weekday PM Peak Hour			
	2024 Analysis[1]	2025 Analysis[2]	2045 No-Build	2045 Build	2024 Analysis[1]	2025 Analysis[2]	2045 No-Build	2045 Build
Northbound (Travel Time)	05:56	07:33	07:47	08:25	06:56	08:36	11:10	09:22
Northbound (LOS)	B	C	C	C	C	C	D	D
Southbound (Travel Time)	06:17	07:44	08:03	09:07	06:46	08:31	08:40	09:07
Southbound (LOS)	C	C	C	D	C	C	C	D

Source: Highway Capacity Manual, 7th Edition

[1] 2024 Existing Conditions is based on a 40 MPH posted speed

[2] 2025 Existing Conditions is based on a 30 MPH posted speed

Additionally, pedestrian and bicycle safety are significantly improved under the 2045 Build scenario with projected increases in multimodal volumes. **Figures 26 thru 29** summarizes PLOC and BLTS under the existing “No-Build” and “Build” conditions for comparison.

Overall, the project delivers a safer, more accessible, visually appealing corridor that meets community needs now and into the future.

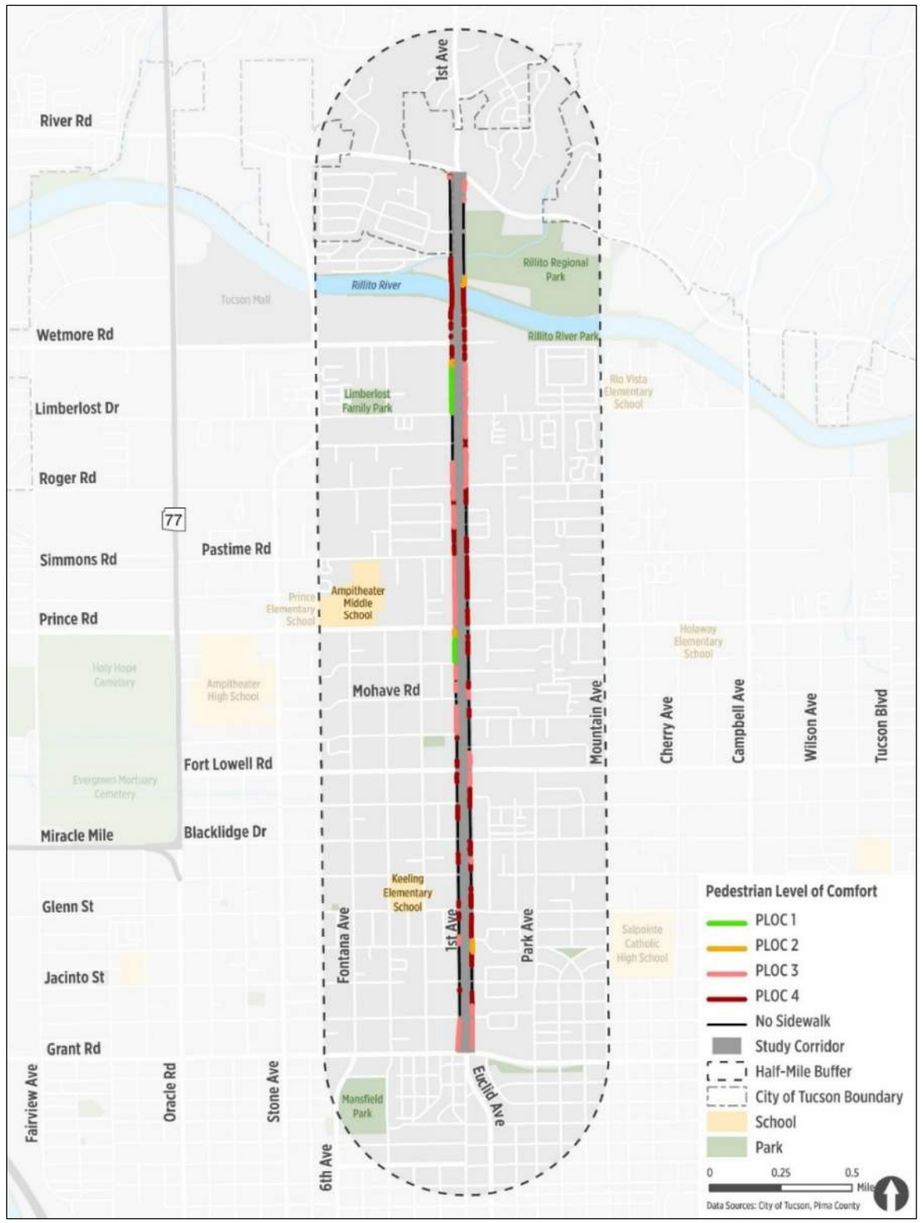


Figure 26 - 2045 No-Build Pedestrian Level of Comfort

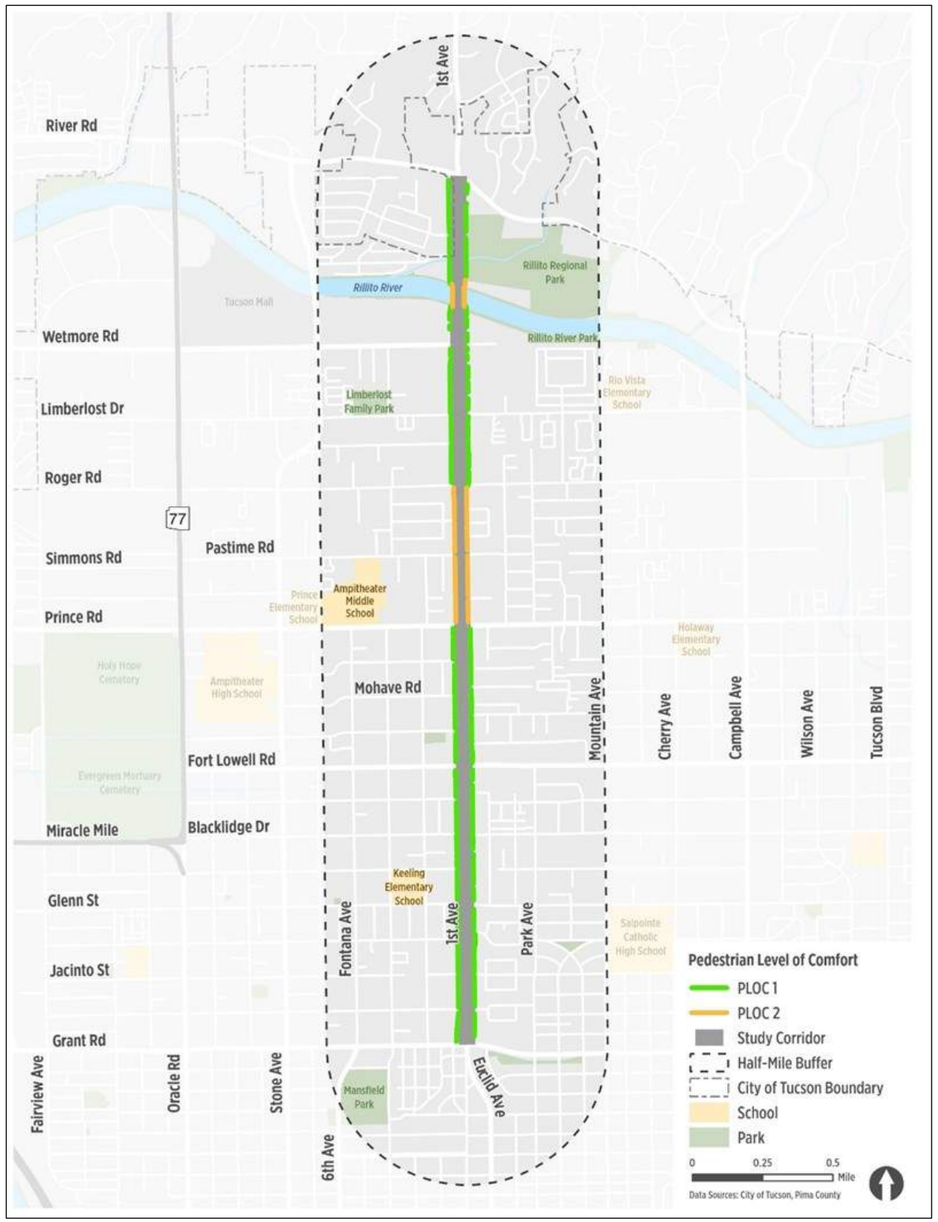


Figure 27 - 2045 Build Pedestrian Level of Comfort
NOTE: Right-of-Way constraints between Prince Road and Roger Road limit the sidewalk setback from the roadway, resulting in PLOC 2 for this segment.

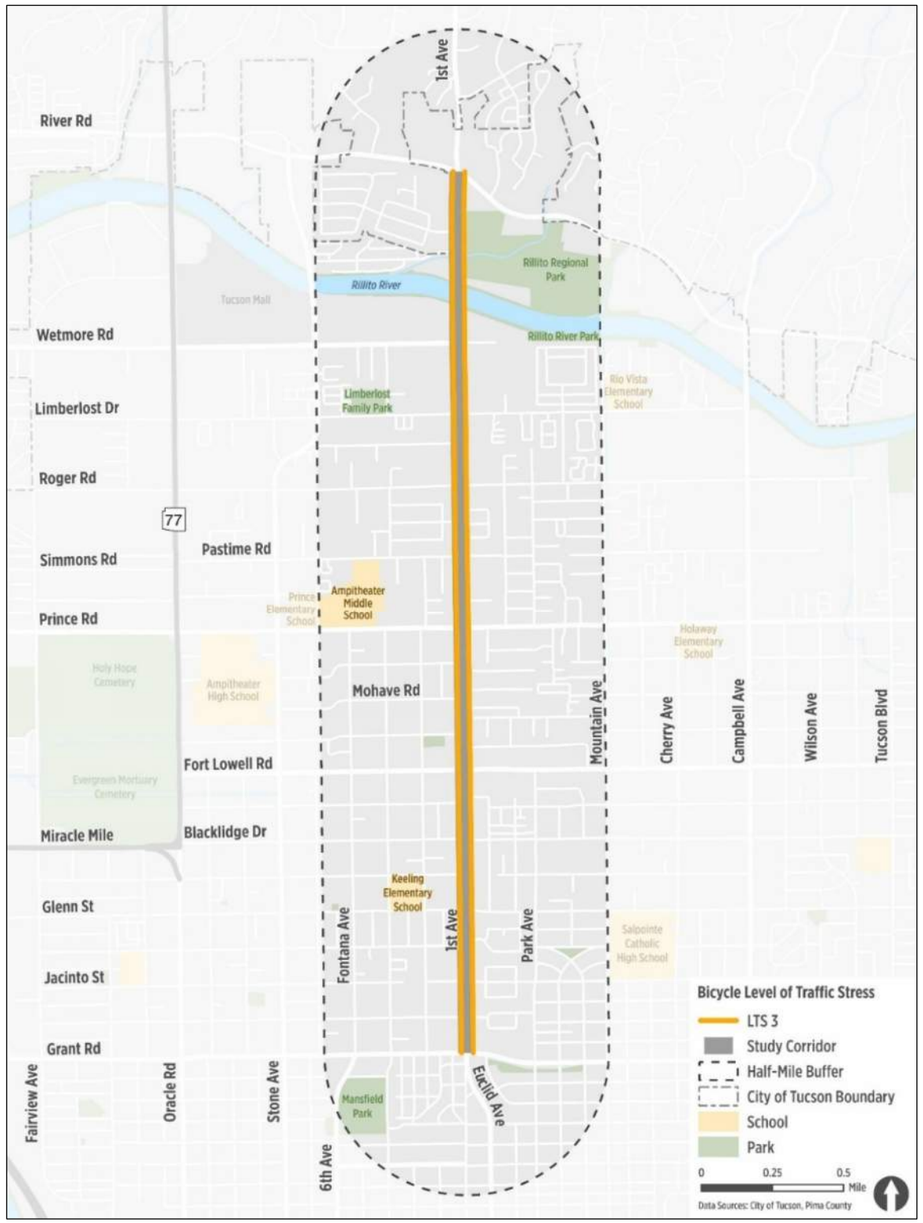


Figure 28 - 2045 No-Build Bicycle Level of Traffic Stress

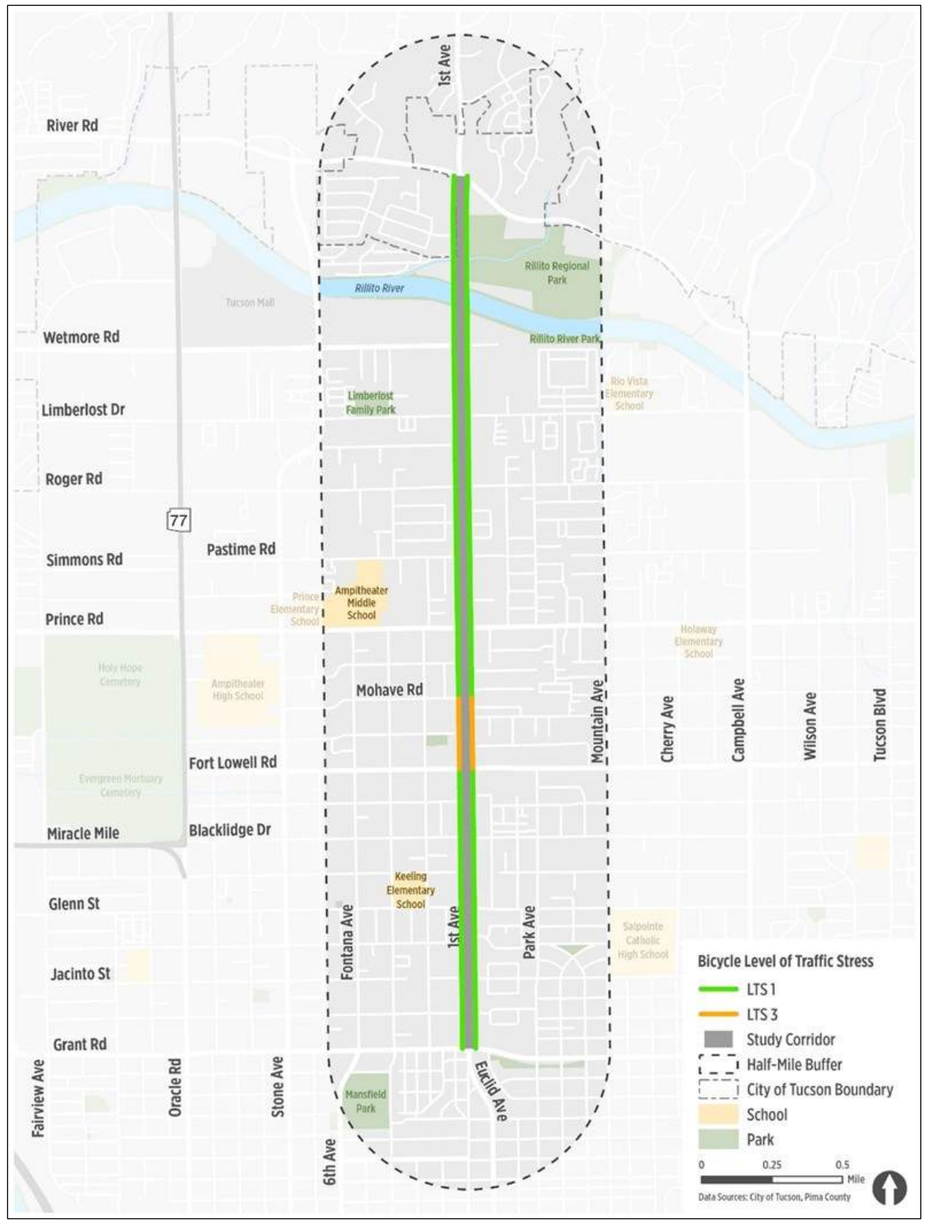


Figure 29 - 2045 Build Bicycle Level of Traffic Stress
NOTE: Ft Lowell Road to Mohave Road is in a FEMA floodplain. This limits the use of vertical elements to protect bike lanes, resulting in LTS 3 for this segment.

6.2.1 Evaluation Matrix Development

To translate the project goals into measurable evaluation components, a series of corridor improvement strategies was identified. These strategies were shaped by the Citizens Task Force and guided by recurring public engagement themes, including safety, comfort, access, equity, and multimodal connectivity.

For each strategy, metrics and criteria were developed to assess how individual treatments advance the project goals. These metrics reflect design approaches commonly discussed by the community, for example, speed-management measures, pedestrian-realm enhancements, improved lighting, driveway access management, and other treatments that respond directly to conditions along the 1st Avenue corridor. These strategies form the foundation of the evaluation matrix, ensuring scoring reflects project priorities.

Each metric is scored on a three-point scale, ranging from Most Desirable (3 points) to Desirable (2 points) to Least Desirable (1 point). For every metric, the required treatment or operational threshold needed to achieve each score tier is clearly defined.

After scoring, an average score is calculated for each of the six project goals based on the associated metrics. These averages are then weighted according to the priority ratings established by the Citizens Task Force. Improve Safety received the highest priority and a weight of 5.0×. Increase Transportation Options received a 4.5× weight, followed by Upgrade Existing Infrastructure at 4.375×. Support Mobility and Minimize Right-of-Way Impacts were each weighted 4.0×, and Enhance Visual Character was weighted 3.375×. These weights were applied to generate the weighted averages that guide the evaluation of alternatives and reflect the corridor's specific needs.

The criteria for each score level specify the minimum design features, operational characteristics, or performance outcomes required to achieve that score. This approach allows alternatives to be compared based on clearly defined expectations related to the project goals and design strategies.

Criteria were developed to identify feasible, implementable treatments within the project corridor, informed by existing conditions, applicable design standards, and feedback from the Citizens Task Force and public outreach. Where applicable, the criteria distinguish between full implementation of a strategy, partial implementation, or limited/no implementation to capture the range of potential design outcomes.

The full evaluation matrix, including evaluation criteria and scoring definitions for each metric, can be found in the Traffic Analysis Report. These criteria were applied consistently across all alternatives to generate metric-level scores, which were then aggregated and weighted as described previously to inform the selection of the preferred alternative.

6.2.2 Alternative Evaluation Scoring

The evaluation matrix described above was applied to compare roadway cross-section alternatives along 1st Avenue between Roger Road and Prince Road. Two alternatives were evaluated within this corridor segment: a narrow median configuration and a two-way left-turn lane (TWLTL) configuration.

Each alternative was assessed using the established strategies, metrics, criteria, and weighting framework to ensure a consistent and transparent comparison. The matrix was used to score how well each alternative advances the six project goals, with weighted averages calculated to reflect the priority rankings established by the Citizens Task Force.

When applying the evaluation matrix, it was determined that certain metrics and associated criteria were not uniquely differentiable between the narrow median and the TWLTL alternatives. In these cases the choices did not meaningfully affect the ability to implement or support the metric. Examples include public art installations, transit stop features, and intelligent transportation systems (ITS) improvements, which could be accommodated similarly under either alternative. When a metric did not differentiate between alternatives, no score was assigned to either alternative. This ensured the evaluation focused on factors directly influenced by the cross-section and avoided artificial advantages or disadvantages.

The Traffic Analysis Report presents the complete evaluation matrix and detailed scoring for each metric by alternative. **Table 9** summarizes the weighted-average scores for each project goal and the overall weighted score for each alternative.

Table 9. Alternative Weighted Scoring Summary

Goal	Weighted Average Score	
	Narrow Median	TWLTL
Improve Safety	13.8	11.3
Increase Transportation Options	12.1	9.1
Upgrade Existing Infrastructure	8.8	8.8
Support Mobility	-	-
Minimize R/W Impacts	4.0	12.0
Enhance Visual Character	-	-
Total Alternative Score	**9.7**	**10.3**

Based on the evaluation results, the TWLTL alternative emerged as the preferred alternative, achieving an overall weighted average score of 10.3. The narrow median alternative received an overall weighted average score of 9.7. While the narrow median alternative performed strongest in advancing the *Improve Safety* goal, it scored lower for *Minimize Right-of-Way Impacts*, particularly within this corridor segment, which contains the narrowest existing right-of-way on the project corridor. In contrast, the TWLTL alternative demonstrated more balanced performance across all project goals, resulting in a higher overall weighted score for this constrained segment.

7 Design Standards and Criteria

The City of Tucson's *Street Design Guide* was developed over many years and adopted by the Department of Transportation and Mobility in 2021. It is the document that provides the overarching guidance for project development to ensure that each transportation project is compliant with city's *Complete Streets Policy* that was established in February 2019. The *Street Design Guide* defines Complete Streets as:

> *"Complete Streets" is an approach to transportation planning and design that guides the development of a safe, connected, and equitable transportation network for everyone – regardless of who they are, where they live, or how they get around."*
> *(Street Design Guide, Pg. 1-8)*

Furthermore, this approach recognizes the context of the area surrounding each project and understands that design solutions will vary for each project based on this context. However, each transportation project will include the following regardless of context:

- *Safe, accessible, visible, and comfortable pedestrian walkways;*
- *Safe and comfortable bikeways and crossings;*
- *Appropriately sized and designed travel lanes and roadways;*
- *Accommodations for commercial vehicles and deliveries;*
- *Attractive, inviting, and welcoming public spaces.*

(Street Design Guide, Pg. 1-9)

While the *Street Design Guide* is utilized as the primary guidance for planning and conceptual design, accepted engineering standards are also utilized as supporting criteria. This approach ensures that projects are developed to accommodate all multi-modal users and in accordance with the *Complete Streets Policy* from the outset. As projects progress from conceptual design through final engineering and the design is refined, this approach is flipped; engineering standards and design criteria become the highest priority that each element is required to meet, while the *Street Design Guide* is utilized to ensure project elements are still consistent, to the extent possible, with the original guidance and concept. The Street Design Guide illustrates this process as shown in **Figures 30 and 32.**

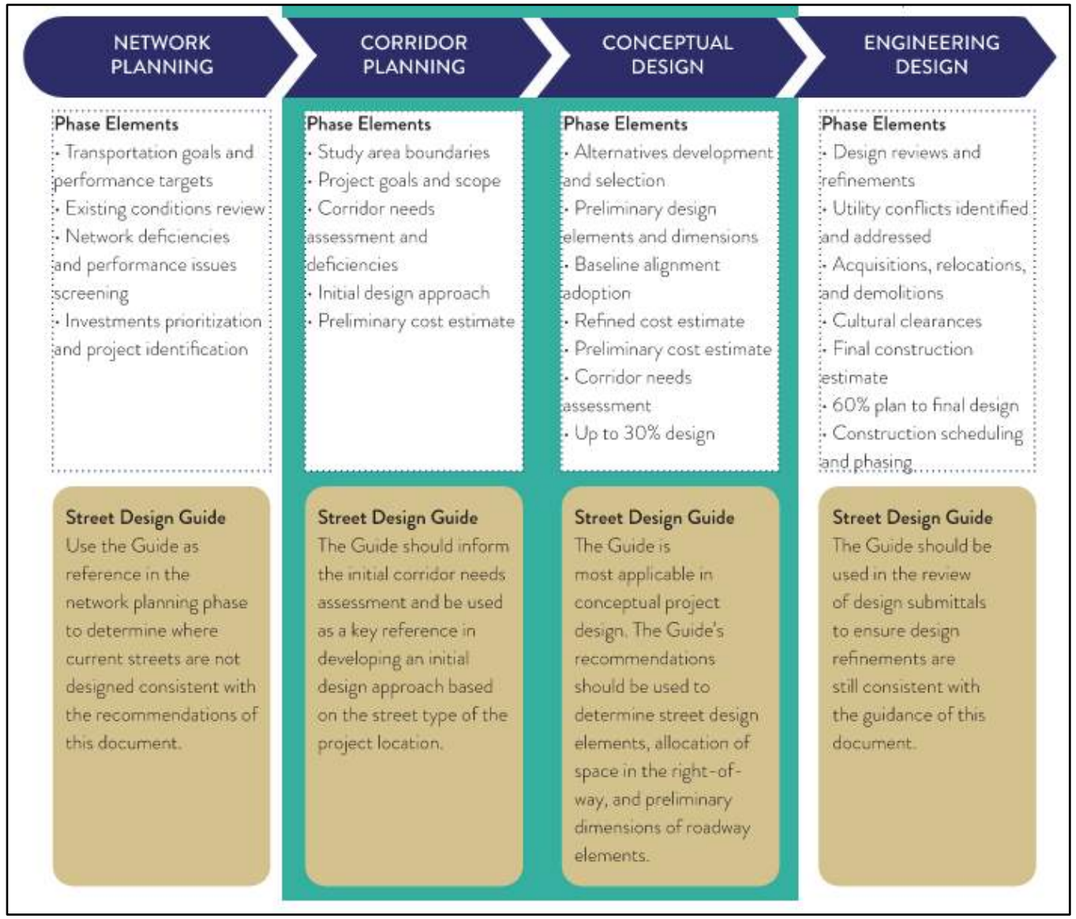


Figure 30 - Street Design Guide Figure 1.2, Complete Streets Incorporation in the Transportation Project Development Process

7.1 Roadway Design

Street Type

The *Street Design Guide* utilizes a "Street Type" system to define and classify roadways. This is similar to the FHWA classification system, but includes additional land use, modal priority, and surrounding context to provide supplemental information. This allows the available right-of-way to be allocated based on both the needs of the roadway and the context of the area it is passing through. This also provides a framework to revise this allocation as the roadway passes through areas of the City with differing needs.
Utilizing the *Street Design Guide*, 1st Avenue in the area of this project is defined as an **Urban Thoroughfare**. In the FHWA classification system, this would be considered a Principal or Major Arterial. Furthermore, the *Street Design Guide* defines the specific zones of the roadway, provides dimensions for

each, and ultimately provides sample cross sections for each street type. These cross sections utilize the preferred dimensions for each of the roadway elements. Section 14, shown below in **Figure 31**, is the 5-lane Urban Thoroughfare that is the basis for 1st Avenue.

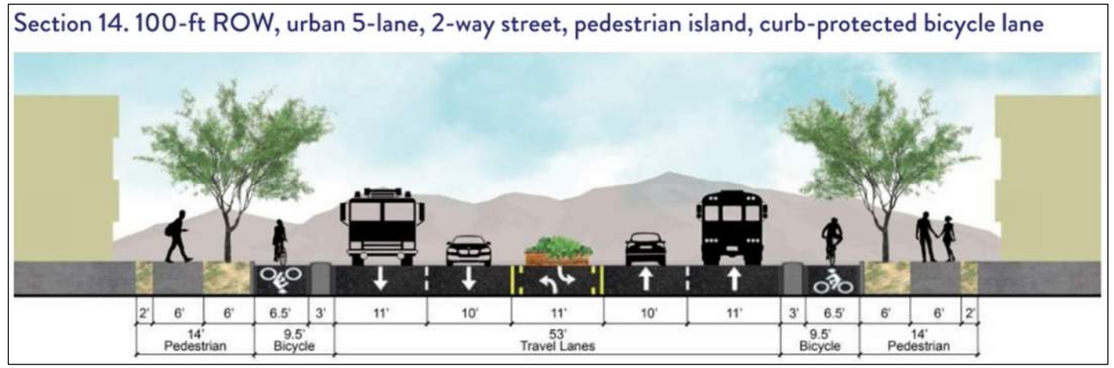


Figure 31 - Street Design Guide, Urban Thoroughfare Sample Cross Section

Geometric Design Criteria

The criteria that is utilized for the geometric design and layout of 1st Avenue is based on engineering principles and is in accordance with the documents listed in the "Engineering Design" column in **Figure 32**.

The posted speed limit on 1st Avenue at the beginning of the project was 40MPH from Grant Road to Wetmore Road, and was 45MPH from north of Wetmore Road to River Road. However, the City of Tucson recently lowered the posted speed limits to 30MPH from Grant Road to Wetmore Road and 35MPH from north of Wetmore Road to River Road. With the lowered posted speed limits the design speed can equal the posted speed limit which is an approach referred to as "target speed". This allows for the geometric elements of the roadway to be designed in accordance with AASHTO low-speed streets in urban areas.

The horizontal alignment presented in the preferred alternative utilizes a 2% normal crown cross-slope, and all curve radius values are greater than the minimum values provided in AASHTO, Table 3-13.

The minimum longitudinal grade of 1st Avenue is 0.5% to provide adequate pavement drainage along the curbed roadway.

The initial curb return radius used for the thoroughfare-to-throughfare intersections is 25' and for throughfare-to-neighborhood streets is 20'. As design progresses curb return radius at each intersection will be evaluated and refined to meet the needs of each individual intersection, and vehicle turning movements will be modeled to verify the appropriate radius has been selected.

NETWORK PLANNING	CORRIDOR PLANNING	CONCEPTUAL DESIGN	ENGINEERING DESIGN
• Move Tucson	**• Tucson Street Design Guide**	**• Tucson Street Design Guide**	• AASHTO A Policy on Geometric Design of Highways and Streets
• PAG Regional Mobility and Accessibility Plan (RMAP)	• Move Tucson, RMAP, RTA	• Tucson Technical Standards Manual	• MUTCD
• Regional Transportation Authority Plan (RTA)	• Tucson Major Streets and Routes Plan	• NACTO Guidelines	• PAG Standard Specifications and Details for Public Improvements
• Modal Plans:	• NACTO Guidelines	• AASHTO A Policy on Geometric Design of Highways and Streets	• Pima County/City of Tucson Signing and Pavement Marking Manual
- Bicycle Boulevard Master Plan	• Tucson Access Management Guidelines	• Tucson Access Management Guidelines	• TDOT Active Practice Guidelines
- Regional Freight Plan	• Transportation Research Board Highway Capacity Manual	• District specific (4th Ave/Downtown) design guidelines	• TDOT Departmental Policies and Procedures
- Pedestrian Safety Action Plan		• International Fire Code (with Tucson Amendments)	• Tucson Technical Standards Manual
- Etc.		• Tucson City Code Chapters 25/26	• Standard Manual for Drainage Design and Floodplain Management in Tucson, Arizona
• Plan Tucson		• Tucson Major Streets and Routes Plan	• Tucson City Code Chapters 25/26
• Tucson Major Streets and Routes Plan		• Landscape Design and Green Streets Active Practice Guidelines	• Tucson Water Standards Specifications and Details
• Tucson Street Design Guide		• Tucson Water Standards Specifications and Details	**• Tucson Street Design Guide**

Figure 32 - Street Design Guide Figure 1.3, Relevant Standards and Manuals by Phase

7.2 Bridge Design

The proposed 1st Avenue bridge over the Rillito River will be designed using the following codes and criteria:

Design Specifications:

- American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Bridge Design Specifications, 9th Edition, 2020
- Arizona Department of Transportation (ADOT) Bridge Design Guidelines, AASHTO LRFD, current edition
- Pima County Guidelines for Establishing Scour and Freeboard for Bridges in Pima County, 2012 Edition

Criteria:

- HL-93 Design Vehicle Live Loading
- The Bridge is located in Seismic Zone 1. Site Class and Seismic Coefficients will be determined at a later stage, after the bridge foundation investigation is completed

7.3 Drainage Design

The proposed 1st Avenue drainage improvements will be designed using the following design manual:

- Standards Manual for Drainage Design and Floodplain Management in Tucson, Arizona, December 1989 (Revised July, 1998)

Additionally, Design Criteria Technical Assessments for the scour and freeboard requirements have been prepared by HDR and approved by the City of Tucson. These documents are included in Appendix B and Appendix C, respectively.

7.4 Design Criteria Exceptions

The current design of the project has been developed in accordance with the criteria listed above. Design criteria exceptions are not necessary and are not anticipated.

8 Social and Environmental Concerns

8.1 Biological Resources

Biological resources in the project area include landscaped vegetation along 1st Avenue and wildlife and vegetation in the Rillito River under 1st Avenue. Vegetation along 1st Avenue includes plant species such as mesquite trees (*Prosopis* spp.), oleander (*Nerium oleander*), Texas sage (*Leucophyllum frutescens*), Aleppo pine (*Pinus halepensis*), African sumac (*Searsia lancea*), palo verde trees (*Parkinsonia* spp.), olive trees (*Olea* spp.), palm trees (*Washingtonia* spp.), and other native and nonnative plants. Within the Rillito River bed, vegetation includes mesquite trees, desert broom (*Baccharis sarothroides*), singlewhorl burrobush (*Ambrosia manogyra*), African sumac, Mexican palo verde (*Parkinsonia aculeata*), and tamarisk (*Tamarix* spp.), among others. Vegetation in the Rillito River includes native plant species that may be protected by the Arizona Native Plant Law and the Pima County Native Plant Preservation Ordinance.

Given the project area's urban nature, wildlife in the area is likely limited. Small mammals (e.g., rodents) and reptiles (e.g., lizards) may inhabit the landscaped areas adjacent to the road and urban-adapted animals, such as coyotes (*Canis latrans*) and javelinas (*Tayassu tajacu*), likely move through the project area, particularly utilizing drainageways such as the Navajo Wash (just north of Fort Lowell Road) or Rillito River (north of Wetmore Road). Inactive bird nests were observed in trees in the Rillito River during the biological site visit, indicating that birds inhabit or nest in the trees within the project area. Additionally, bats were observed roosting in the crevices of the 1st Avenue bridge.

A Biological Evaluation (BE) has been prepared for the project and will be updated during future design efforts. The BE will include an analysis of project impacts to vegetation, wildlife, threatened and endangered species listed in the Endangered Species Act, and special-status species (such as nesting and migratory birds and bats). The BE will include mitigation measures to protect these resources.

8.2 Wetlands and Riparian Areas

Wetlands and riparian areas are typically areas where perennial or intermittent water collects between uplands and adjacent water bodies. In addition to the presence of water, wetlands and riparian areas have certain types of vegetation associated with them.

A qualified biologist reviewed aerial imagery and conducted a pedestrian survey of the project area to determine the presence of wetlands and riparian areas; none are located in the project area.

8.3 Floodplains and Water Resources

The Federal Emergency Management Agency (FEMA) delineates floodplains in the United States. FEMA-designated floodplains intersect the project area at the Rillito River and Navajo Wash.

The Rillito River is a dynamic and highly altered drainageway that crosses the northern portion of Tucson. The river flows in response to precipitation and flows from east to west. In the proposed construction footprint, the river is lined with steep concrete bank protection on its north and south banks. The bed of the river has a sandy bottom, with vegetation including mesquite, desert broom, singlewhorl burrobush, African sumac, Mexican palo verde , and tamarisk. The Chuck Huckelberry Loop paved multiuse path runs along the north and south banks of the Rillito River and runs under 1st Avenue at the top of the concrete bank protection. The Rillito River is within FEMA Flood Hazard Zone AE, which is subject to 1% annual chance of flooding. North and south of Rillito River, there is a FEMA Flood Hazard Zone X delineated as well, which is subject to a 0.2% annual chance of flooding.

The Navajo Wash is a low-flow drainage channel that conveys stormwater from east to west across 1st Avenue at Navajo Road just north of Fort Lowell Road. Navajo Wash flows in response to precipitation events and is ephemeral. Currently, water is conveyed over the roadway and not through a drainage structure. Navajo Wash upstream (east) of 1st Avenue is vegetated with Bermuda grass (*Cynodon dactylon*) and mesquite trees. Navajo Wash is within FEMA Flood Hazard Zone AE, which is subject to 1% annual chance of flooding.

The project would install drainage improvements at Navajo Wash and 1st Avenue to better convey stormwater; however, there would be no change in the elevation of the floodplains or alteration as a result of the project.

8.4 Sections 401/404/408

Sections 401 and 404 of the Clean Water Act provide protections for Waters of the U.S., as defined by the U.S. Environmental Protection Agency (EPA) and regulated by the U.S. Army Corps of Engineers (Corps). Based on a review of the project area and in accordance with direction from the Corps, a Section 404 permit would not be needed for this project, nor would a Section 401 permit. A Stormwater Pollution Prevention Plan (SWPPP) would be required in accordance with the Construction General Permit (CGP) because the project would disturb 1 or more acre of land.

Section 408 (Section 14 of the Rivers and Harbors Act of 1899) governs the use or alteration of any Civil Works project. Sections of the bank protection along the Rillito River were Corps-commissioned projects and would be subject to regulation under Section 408. While alteration of the existing bank protection is not planned as part of this project, initial communication from the Corps has indicated that a Section 408 permit would be needed. Further coordination with the Corps is anticipated as the project design progresses.

8.5 Section 4(f) Resources

Section 4(f) of the Department of Transportation Act of 1966 specifies that the Federal Highway Administration (FHWA) and other Department of Transportation agencies "cannot approve the use of publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historic sites unless there are no existing feasible and prudent alternatives to the use of the land and the proposed action includes all possible planning to minimize harm to the property" (ADOT 2026).

Section 4(f) applies to federally funded transportation projects. Because the project has received federal funds, a review of Section 4(f) resources in the area is warranted and during project design, the project will be evaluated to determine if there would be any impacts to Section 4(f) resources. There are no wildlife or waterfowl refuges in the project area, however, there are parks and recreational areas, as well as historic sites within or near the project area.

8.6 Section 6(f) Resources

The Land and Water Conservation Fund (LWCF) provides funding for conservation and outdoor recreation facilities and is administered by the U.S. Department of the Interior's National Park Service (NPS). Section

6(f) prohibits the conversion of property acquired or funded by the LWCF to a nonrecreational purpose without NPS approval.

No LWCF-funded properties or facilities are located in the project area; therefore, the project would not affect Section 6(f) resources (LWCF 2026).

8.7 Social Resources

The project will improve bicycle and pedestrian facilities throughout the corridor through the implementation of separated bicycle lanes, High-Intensity Activated Crosswalk (HAWK) signals, connected sidewalks, and improved signalization and crossings. Intensive public involvement has been incorporated into all stages of the project to gather information from the public (see Section 9 below).

Right-of-way acquisitions will be needed along the corridor,. Although the majority of the acquisitions will have minimal impact to existing parcels and property owners, several properties have been identified that may require a full acquisition. As the project design progresses the project team will work to reduce the amount and impact of right-of-way acquisition.

Temporary effects during project construction would include a change in access to businesses or side streets, although there would be no full closures. Travel lanes may be restricted to one lane at times, which may cause traffic delays, but no road closures are anticipated. During construction of the 1st Avenue bridge, two-way travel would be maintained.

8.8 Cultural Resources

A Class III pedestrian survey for cultural resources was conducted on October 17, 2025, and a Survey Report Summary Form (SRSF) was prepared for the project. The report will be updated to incorporate a discussion of federal regulations.

Within the project area, there are three cultural resources: the Rillito Race Track Historic District, First Avenue Bridge ADOT Structure No. 09617, and the Mario's Pizza sign. The bridge previously was determined ineligible for listing in the National Register of Historic Places (NRHP). The Rillito Race Track Historic District is listed on the NRHP. The Mario's Pizza sign is recommended NRHP-eligible and is a City-designated Historic Landmark Sign.

While the project may need to widen sidewalk and add/improve the bicycle lane within the Rillito Race Track Historic District, the project would not affect the Rillito Race Track Historic District's integrity of location, setting, materials, design, feeling, association, or workmanship. Regarding the Mario's Pizza sign, the SRSF recommended avoiding or moving the sign. If these options are not feasible, the City of Tucson Historic Landmark Sign Registry should be updated prior to removal.

Because the project has received federal funding, consultation under Section 106 of the National Historic Preservation Act of 1966 (NHPA) will be required during future design efforts.

8.9 Scenic or Historic Route

Pima County has a Scenic Routes Plan however, the City of Tucson does not have a scenic or historic route plan. 1st Avenue is not identified as a scenic route in the Pima County Scenic Routes Plan.

8.10 Noise

Sensitive noise receptors are found within the project area and adjacent to 1st Avenue. A noise report has been prepared for the project. Noise impacts were identified throughout the corridor, however, noise barriers were not recommended because they did not meet the feasibility and reasonableness criteria.

8.11 Air Quality

The project area is located in an area that is in attainment of EPA's National Ambient Air Quality Standards. Air quality within and adjacent to the project area may be temporarily affected by emissions from equipment and vehicles during construction. The project would not increase traffic-carrying capacity; therefore, long-term air quality impacts are unlikely.

8.12 Hazardous Materials

A Corridor Initial Site Assessment (C-ISA) that identified sites "which may have residual soil contamination related to current or past operations" was completed for the project in June 2024. Throughout the corridor, there were 47 sites of concern: 9 low-risk sites, 24 moderate-risk sites, and 14 high-risk sites. Based on these results, the C-ISA included recommendations, including:

- City will notify the contractor regarding location and contaminant type.
- City will provide a Contaminated Media Management Plan (CMMP) to the contractor in the project's bid documents.
- City will confirm that the CMMP is being followed throughout the project's construction.

Additionally, since more than 1 year has passed since the preparation of the C-ISA, the C-ISA should be updated prior to construction to document whether any regulatory changes or development changes have occurred.

8.13 2026 BUILD Grant Award

In June 2026 the project was awarded a federal BUILD grant for $25 million for construction of the northern segment of project from Wetmore Road to River Road, which includes the replacement of the existing bridge over the Rillito River. Because the project has received federal funding, the project must comply with the National Environmental Policy Act (NEPA). NEPA requires an assessment of project impacts on environmental, social and economic resources and incorporates public input into the decision-making process. The project would likely qualify for a Categorical Exclusion, however, discussion with the FHWA environmental team will be required during future design efforts. Existing studies and reports that have been prepared for the project to date will be utilized to support the environmental clearance for the project. Some of them may need to be updated, but the existing reports and public involvement efforts to date will help streamline the environmental clearance process.

9 Public Involvement

9.1 Citizens Task Force

The City of Tucson established a Citizens Task Force (CTF) to provide guidance and input during the initial planning phase of the project. The CTF was originally comprised of 15 members who submitted applications to join. To date four members have stepped down and one new member has been seated. The CTF has partnered with the design team to create project goals, design strategies and input. They are in tune with the community they are part of and are actively working toward a 1st Avenue that is safe and accessible for all users. To date the CTF has met 15 times:

June 27, 2024	April 17, 2025
August 22, 2024	June 12, 2025
September 19, 2024	September 18, 2025
October 17, 2024	January 22, 2026
November 21, 2024	March 26, 2026
January 16, 2025	May 21, 2026
February 20, 2025	June 18, 2026
March 20, 2025	

9.2 Public Engagement Activities

The project team has completed two phases of community outreach and engagement. The first phase was in the fall of 2024 to obtain an understanding of the needs and desires for the project. This information was used as one of the bases to establish project goals. The second phase was in the fall of 2025 for the design team to present the project to the public to evaluate if their needs and desires were successfully met. During both phases the team collaborated with and utilized the Mainstreet Business Assistance Program to connect with business owners along the corridor. Additionally, a project website was launched to provide continually provide information throughout the life of the project: 1st Avenue: River Road to Grant Road Project Website

Figure 33 - Project Website, Landing Page

A summary of the outreach efforts and results from each of the phases are highlighted below. Please refer to Appendix A for a complete summary of each of the outreach effort and materials.

9.2.1 Phase 1 Outreach

In fall 2024, Community Outreach Phase I began and included a survey that sought community input on priorities for the corridor. Community input was collected from September 18, 2024, through December 8, 2024.

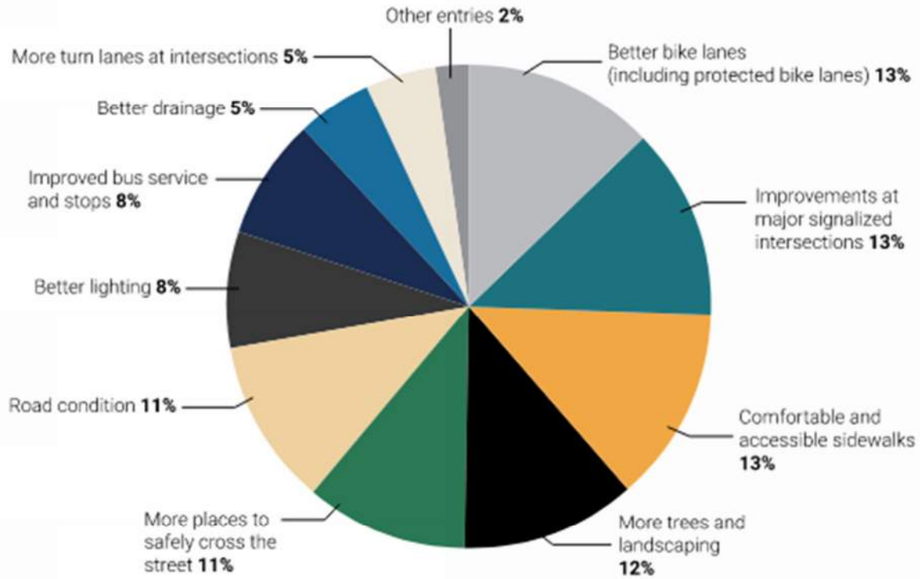
Notifications for outreach activities were delivered via posters that were hand delivered to 435 businesses and stakeholders along the corridor, a direct mailer to 6,212 residents and businesses within ¼ mile of the corridor and five digital advertisements with the Arizona Daily Star. Additionally, direct emails were sent to interested stakeholders and neighborhood associations, three email blasts were sent to individuals who signed up for the mailing list as well as a social media campaign that went from September 19th through December 4th.

Two Open House Events were held; in person on October 9th and virtual on October 10th. In addition to these, four in person Pop-Up / Tabling events were held. These were on October 20th at the Heirloom Farmers Market, October 23rd at Woods Memorial Library, November 22nd at Vantage West Credit Union, and December 7th at Cyclovita.

The survey was launched on the project website on September 18th and remained open for responses through December 18th. The survey consisted of 17 question – nine specific to the corridor and eight demographic questions. In total there were 588 survey responses. The questions specific to the corridor asked not only how and how often users travel the corridor, but what challenges they face while doing so, what challenges they care about solving most, and a ranking of project considerations.

Question #7

What are the top five things you want to make better on the corridor?



Question #8

Please rank the following project considerations in order of importance from 1 to 4 (1 = most important and 4 = least important).

Categories	Average Weight	Rank
Bicycle/pedestrian safety and comfort	3.23	1
Minimizing project costs	1.91	4
Minimizing impacts on private property and businesses	2.22	3
Reducing traffic congestion and travel time	2.64	2

Figure 34 - Results to Survey Questions #7 and #8

An interactive map was also available on the project website during the survey. Between September 18th and December 8th, a total of 31 comments were received.

A total of Fifty-three (53) comments were received by December 8, 2024, the last day of the comment period, through the following methods:

- Thirty-one (31) map comments were received.
- Nineteen (19) comments were submitted through the project website comment form.
- Three (3) comments were received on the project hotline.

General themes from these comment options are listed below:

- The need for protected bike lanes and HAWK crossings
- Better sidewalks
- More bus pullouts
- More lighting
- More safety measures to stop speeding
- Several requests to avoid widening 1st Avenue

The survey results and comments were reviewed by the design team and presented to the CTF. This information became the basis used to establish the Project Goals and associated Design Strategies to achieve these goals.

Figure 35 - Project Goals

9.2.2 Project Goals and Design Strategies

1. **Improve Safety**
    - Employ the Sage Systems Approach principles in corridor design
    - Provide physical separation between bicyclists and pedestrians and motor vehicles
    - Manage vehicle speeds to reduce crash severity through using context-sensitive roadway design principles and establishing appropriate speed limits that balance safety and mobility
    - Provide and maintain adequate and continuous lighting along the corridor, particularly in the areas with the highest pedestrian activity
    - Ensure that pedestrians and cyclists have access to frequent and safe crossings
    - Design intersections and upgrade traffic signals to reduce conflicts in space and time, including consideration or protected left-turn phasing as appropriate
    - Install raised medians and/or pedestrian refuge islands at appropriate locations
    - Coordinate with emergency responders and public safety officials to ensure the 1st Avenue project improves safety and supports efficient and reliable emergency response
    - Minimize distances between bus stops and controlled crossing locations
2. **Increase Transportation Options**
    - Install wide, continuous, and accessible sidewalks
    - Separate sidewalks from roadway to the greatest extent feasible with a planting/amenity zone and bicycle lanes
    - Ensure that pedestrians and cyclists have access to frequent safe crossings
    - Provide the greatest amount of physical separation between bicyclist and motor vehicles, including through installation of protected bike lanes
    - Upgrade transit stops and add amenities so that stops are accessible, shaded, safe and comfortable
3. **Upgrade Existing Infrastructure**
    - Upgrade drainage infrastructure to provide all-mode access during more frequent/common storm events
    - Replace and upgrade the 1st Avenue bridge over the Rillito River to a structural design life of 75 years, and to improve functionality to meet current Complete Streets design practices
    - Upgrade intersections and communications to support integration of next generation smart traffic signals
    - Use high-quality, durable materials to reduce long-term maintenance needs on the corridor
    - Reconstruct pavement roadway, sidewalks, bicycle lanes, and install bus shelters to improve ride quality, comfort, accessibility and longevity of public infrastructure
4. **Support Mobility**
    - Upgrade intersections and communications to support integration of next generation smart traffic signals
    - Implement Access Management Strategies, including installation of raised medians and driveway consolidation where possible
    - Evaluate strategies, such as the addition of turn lanes and improved signal operations, to improve functionality of the corridor to efficiently and safely accommodate all modes at major intersections, accounting for current and future traffic volumes
    - Incorporate bus pullouts at high demand locations
5. **Minimize Impacts**
    - Align the 1st Avenue corridor to minimize acquisitions of structures and properties
    - Support businesses during construction through partnership with the RTA Mainstreet program
    - Maintain access for residents, businesses, and neighborhoods along 1st Avenue
6. **Visual Character**
    - Incorporate Green Stormwater Infrastructure (GSI) best practices to use stormwater as a resource to support long-term sustainability, trees and other landscape enhancements
    - Use drought-tolerant, locally sourced, native landscaping to match the desert environment and improve survivability
    - Utilize bridge and other infrastructure elements to enhance the visual character of the corridor by incorporation community-supported public art and other aesthetic enhancements

9.2.3 Phase 2 Outreach

In fall 2025, the city initiated the second phase of community outreach. Phase II was designed to gather feedback on the options that had been suggested by the community in and the Citizens Task Force members in Phase I, focusing on safety improvements for the entire corridor. Phase II included an Online Meeting portal on the project website that contained all the materials that were presented at the second Open House event and gave people the chance to go through all the proposed improvements and vote on items and leave comments.

Similar to the Phase 1, notifications for outreach activities were delivered via posters, a direct mailer, digital advertisements, direct emails to stakeholders and neighborhood associations, email blast and a social media advertising campaign.

An In-Person Open House event was held on October 15th. Instead of a single Virtual Open House event, an Online Meeting Portal (First Avenue Improvement Project: River Road to Grant Road Online Open House) was also launched on October 15th. This portal was accessible via the project website and featured the same materials presented at the In-Person Open House, walked attendees through each of the informational boards, and allowed attendees to leave comments and vote. The Online Meeting Portal remained open to receive comments and votes through November 26th.

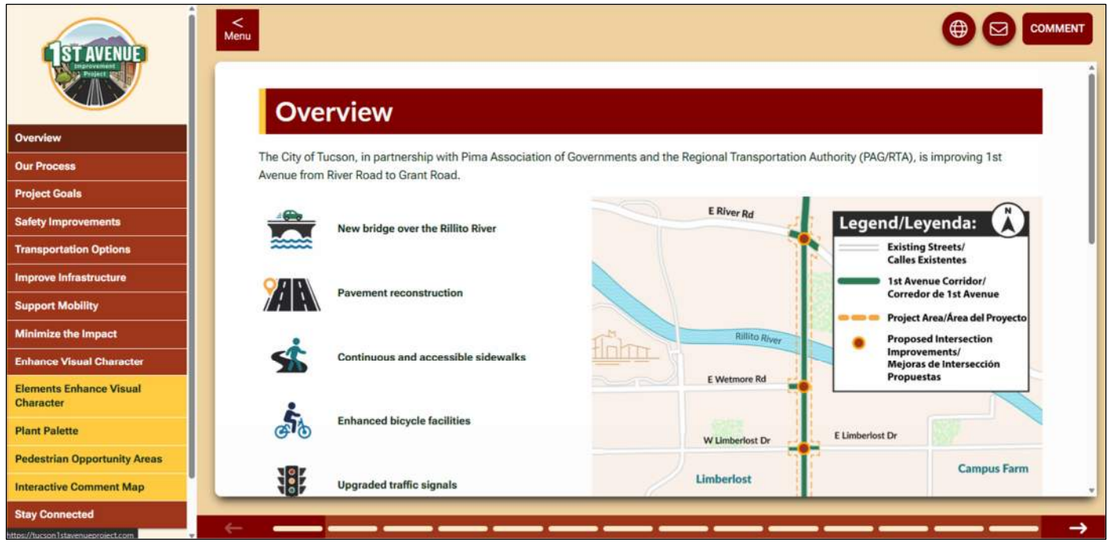


Figure 36 - Online Meeting Portal, Landing Page

In addition to the Open House, three in-person Pop-Up / Tabling events were held. These were on October 26th at Cyclovia, November 16th at the Rillito Farmers Market and November 18th at Amy's Donut Store.

A total of 144 comments were placed on boards, banners, and roll plot maps during the In-Person Open House and on the Online Meeting portal. An interactive map was available on both the project website and Online Meeting portal. A total of 117 comments were received on this map. Lastly, a total of 211 votes were tallied on the banners at the Open House and the Online Meeting. All comments and votes can be found in Appendix A. The overall public sentiment and feedback collected during the fall of 2025 was positive and supportive of the proposed improvement options presented to the community. A brief summary of received comments is presented here:

- **Key comment themes included:**
  - Would like to see protected bike lanes added
  - Medians as refuge islands for pedestrians
  - Support / request for bike boxes at Glenn Street
  - Crosswalk addition at Halcyon to connect to Mountain Avenue Bike Boulevard
  - Bus Stop locations discussed for what is best for riders
  - Prioritizing shade along the corridor
  - Addressing traffic flow issues when you exit the Rillito Farmers Market on Sundays
  - General dislike of bus pullouts
  - Requests for more transit options like streetcar or bus rapid transit
- **The intersection with the highest number of comments was 1st Avenue and Fort Lowell Road. This included the following comment themes:**
  - The majority of comments about the 1st Avenue and Fort Lowell Road intersection are about bike rider safety and the dislike of the of the proposed use of a protected right turn or "slip lane".
  - People are generally concerned with the safety of bike riders along 1st Avenue.
  - Requests for changing the location of the proposed bus pullouts near this intersection.
  - Questions regarding the locations of bus stops at this intersection.
- **Other intersections with many comments / likes / replies included:**
  - River Road Intersection and area: Comments about connecting sidewalks and paths to The Loop and requests for pedestrian and bicyclist safety here.
  - Prince Road: More bike safety issues with proposed slip lanes. Positive feedback on protected bike lanes.
  - Wetmore Road: More issues with slip lanes. Request to make it easier for bikes to reach The Loop and positives on protected bike lanes.
  - Grant Road: Comments about pedestrian safety in this area.

9.2.3 Phase 3 Outreach

In July 2026, the city initiated the third phase of community outreach. Phase III was designed to present the project and gather any comments before proceeding to final design activities. Similar to the previous phases, notifications for outreach activities were delivered via posters, a direct mailer, digital advertisements, direct emails to stakeholders and neighborhood associations, email blast and a social media advertising campaign

An In-Person Open House event was held on August 5th and an Online Meeting Portal (First Avenue Improvement Project: River Road to Grant Road Online Open House) was also launched on the same day. The comment response period is open until September 5th. However, the feedback received to date continues to be positive.

10 Landscape and Aesthetics

Landscape Approach

A well-designed pedestrian realm is a core element of a Complete Street, creating a safe, comfortable, and engaging environment for people traveling on foot. By designing the space between the roadway and adjacent land uses, the pedestrian realm supports walking as a viable mode of transportation while enhancing the overall character of the corridor. Elements such as wide sidewalks, landscaping, lighting, street furniture, and accessible amenities work together to promote safety, encourage active use, and strengthen connections to surrounding neighborhoods and transit.

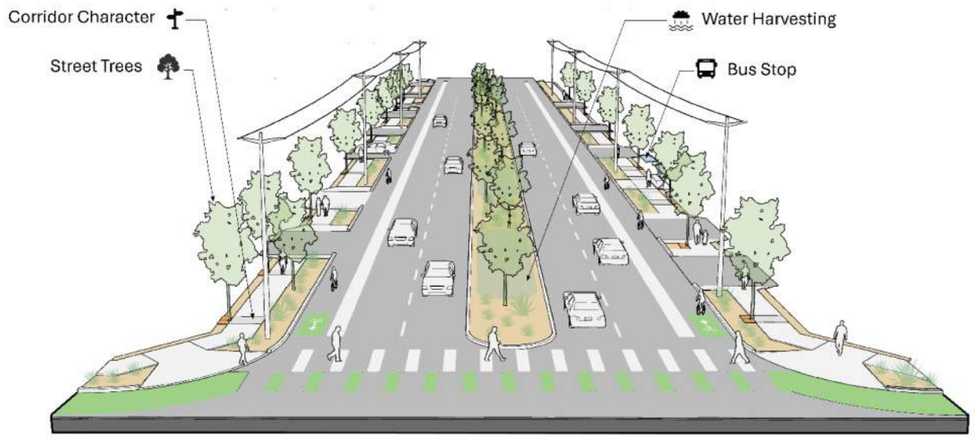
For the 1st Avenue project, two typical scenarios guide the landscape and hardscape design. These include the **Areas of Opportunity Right-of-Way Concept** and the **Limited Right-of-Way Concept**. Along portions of the corridor where a wider right-of-way exists, there is greater flexibility to incorporate enhanced landscaping and water-harvesting features. Additional landscaping and seating are proposed between the sidewalk and the public right-of-way, particularly near bus stops, to improve comfort and usability. Where space allows, a secondary pedestrian pathway will be introduced, providing a more pleasant walking experience and allowing transit riders to wait for buses at a greater distance from traffic.

Areas of Opportunity Right-of-Way Concept

Opportunities
Enhanced Bus Stops
Corridor Character
Seating Nodes
Street Trees
Water Harvesting
Off-street Pathways

Constraints
Overhead Utilities
Underground Utilities

Limited Right-of-Way Concept



Opportunities
Enhanced Bus Stops
Corridor Character
Street Trees
Water Harvesting

Constraints
Smaller Landscape Areas
Many Driveway Openings
Overhead Utilities
Underground Utilities

A 5-foot amenity zone will be provided between the back of the curb and the sidewalk edge. This area will feature new landscaping and hardscape treatments, tailored to adjacent land uses.

Amenity Zone for Pedestrians

Plant Palette

Native Sonoran plant species will be incorporated into the plant palette. These plants are more resilient than non-native species and help reinforce a strong sense of place within the desert urban environment.

Many of the medians along the corridor are wide enough to accommodate trees. These trees will help create a natural green corridor, visually narrowing the roadway and encouraging drivers to slow down. In locations where medians are too narrow to support landscaping, decorative concrete patterns or pavers will be used to enhance the corridor's hardscape character and overall visual appeal.

Decorative Concrete and Paving Patterns

Stormwater Harvesting

In accordance with the City of Tucson's Green Streets Policy, water-harvesting features will be incorporated along the 1st Avenue corridor wherever feasible. Curb cuts with scuppers will be used in locations where stormwater runoff from the roadway can be directed into landscaped areas. Where roadway runoff cannot be captured, six-inch recessed planting areas will be provided. Although these areas do not receive stormwater from the street, they collect direct rainfall, offering supplemental irrigation to support healthy plant growth.

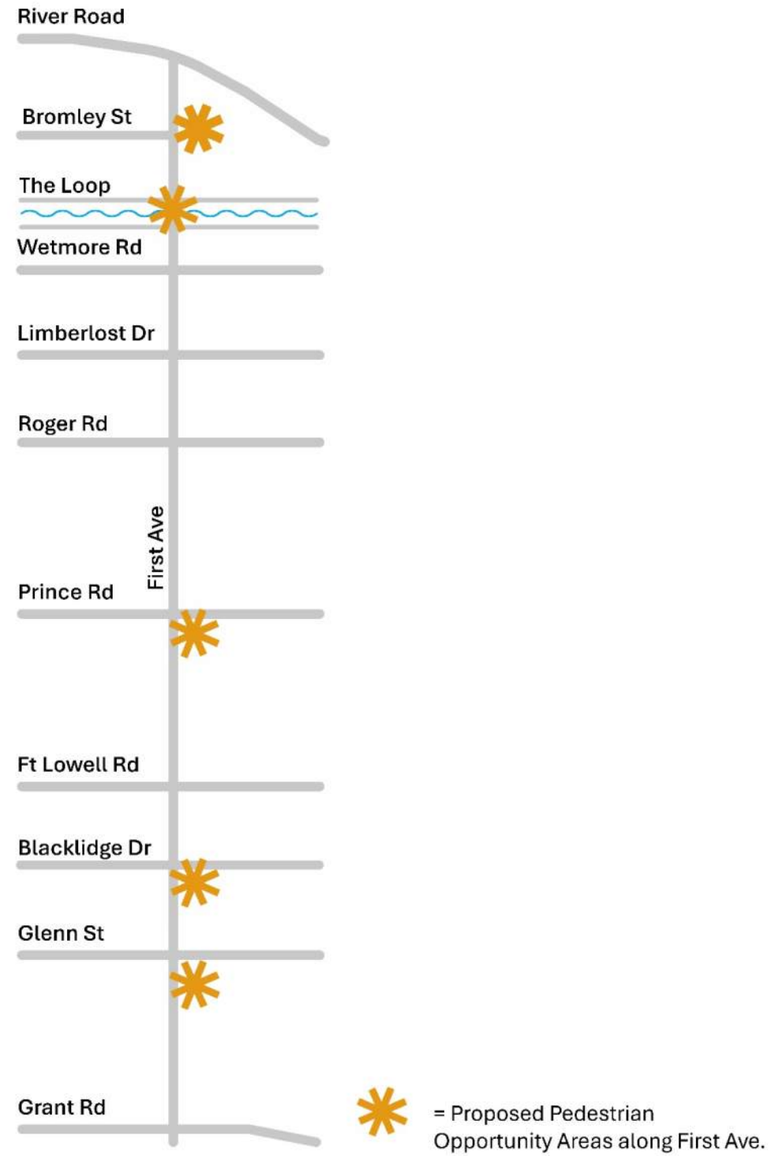
Stormwater Harvesting on St. Mary's Rd. and the Mesa Fiesta District

Pocket Parks

Several locations along the corridor present opportunities to integrate pocket parks into the project design.

Example of Pocket Parks

These areas benefit from additional space within the public right-of-way, allowing for the inclusion of enhanced amenities for pedestrians and bicyclists. Pocket parks may feature green space, shade, seating, public art, bicycle repair stations, water fountains, and trash receptacles. The image below illustrates these proposed pedestrian opportunity areas.



Landscape Design Summary

In conclusion, J2 Design served as the landscape architects for the Grant Road corridor and will apply the same successful design approach to the 1st Avenue Corridor project. The segment between Stone Avenue and Park Avenue has demonstrated the effectiveness of this approach through its functional water-harvesting systems, use of native plantings, and visually appealing crosswalks with shade structures. Together, these elements create an attractive and welcoming roadway that supports pedestrians, bicyclists, and motorists within Tucson's urban environment.

Enhanced Crosswalk on Grant Road Corridor

Bridge Aesthetics

The new 1st Avenue bridge over the Rillito River has opportunity for both bridge aesthetics and enhancing the pedestrian and bicyclist entry points onto the Chuck Huckelberry Loop. At the entry points from the bridge onto the Loop, seatwalls, signage, and new landscape will be included as part of the project design.

Entryway Signage and Seating

Bridge aesthetics can include the use of formliners on the bridge barriers and retaining walls, a new fresh paint palette, and decorative metal railing.

Bridge Barrier Formliner

Retaining Wall Formliner

A public artist(s) will be involved with this project. Contributing to the bridge aesthetics or entry points onto the Loop would be ideal locations for public artist collaboration.

Examples of Art on the Loop

11 Roadway Alignment and Layout Alternatives

11.1 Roadway Alignment

As noted previously, the existing right-of-way width along 1st Avenue is inconsistent, and in many places is only 70' wide; much less than the minimum of 100' necessary to accommodate the City's preferred cross section. This was recognized during the Needs Assessment Study when the evaluation was between the original 6-lane alternative and the currently proposed 4-lane alternative. Working toward Project Goal 6 – Minimize Impact, the design team initially evaluated three options for achieving the necessary 100' of right-of-way width:

- **Option 1 – Straight Alignment, Widening Right-of-Way Symmetrically**
- **Option 2 – Straight Alignment, Widening Right-of-Way to the West**
- **Option 3 – Straight Alignment, Widening Right-of Way to the East**

Right-of-Way acquisition is a process that occurs at a later phase in a project after the ultimate footprint of a project has been determined. It is a complicated process that takes into items such as area to be acquired, current use of the area, potential use of the area, ability of the property owner to continue using the property, relocation of owners to new properties, and many others. Because of this it is not possible to accurately estimate the overall impact of the necessary acquisition, or the ultimate cost of right-of-way acquisition. However, there are **Three Tiers of Property Impact** as well as **Three Guiding Principles** the design team used to evaluate the impact to each parcel and to estimate the magnitude of the necessary acquisition. These are:

- **Three Tiers of Property Impact**
  1. Acquisition with no Economic Impact (Example: Frontage Landscape)
  2. Acquisition with Economic Impact that can be "Cured" (Example: Loss of Parking and/or Modified Site Circulation)
  3. Full Property Acquisition (Example: Complete Loss of Parking and/or Building)
- **Three Guiding Principles**
  1. No Impact is the Best Impact (Impact is Only Allowed to Satisfy a Project Need)
  2. Design Decisions May be Used to Move Impact to a Lower Tier (Narrowing Cross-Section Features is Allowed if Impact is Lessened and Project Goals are Still Met)
  3. Design Decisions Will Not be Used to Move Impact to a Higher Tier (Widening of Cross-Section Features Will Not be Allowed if Doing So Increases Property Impact)

Upon laying out the 100' right-of-way width for the three options above, the design team completed an initial high-level evaluation of property impacts and identified properties with the potential for

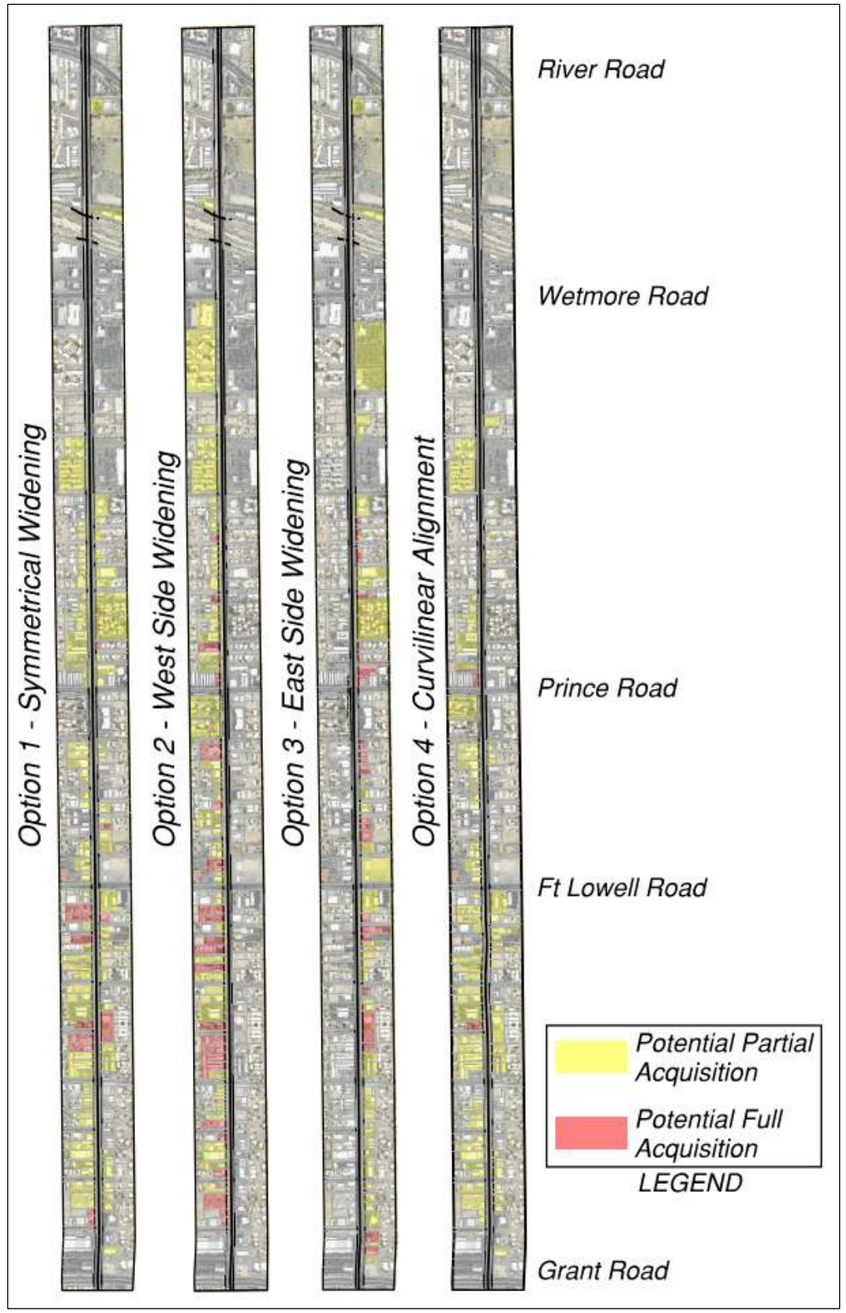


Figure 37 - Right-of-Way Impacts of Widening Options

partial and full acquisition. Options 1, 2, and 3 showed significant impacts along the corridor and these can be seen in **Figure 37**. Due to the uneven nature of the existing right-of-way, the design team decided to layout **Option 4 – Curvilinear Alignment**. By allowing the roadway to curve back and forth through the corridor the design team was able to take advantage of areas where existing right-of-way and buildings are set back further from the existing roadway while avoiding to the extent possible areas where they are closer. Again, estimating the actual cost of the necessary acquisition is not possible at this time, but as shown in **Figure 37**, ***Option 4 provides the least amount of impact and best achieves Project Goal 6***.

Figure 38 provides a detail view of 1st Avenue between Glenn Street and Ft Lowell Road to illustrate how the curvilinear alignment reduces minimizes the impact of the necessary right-of-way acquisition by utilizing available space on either side of the existing roadway.

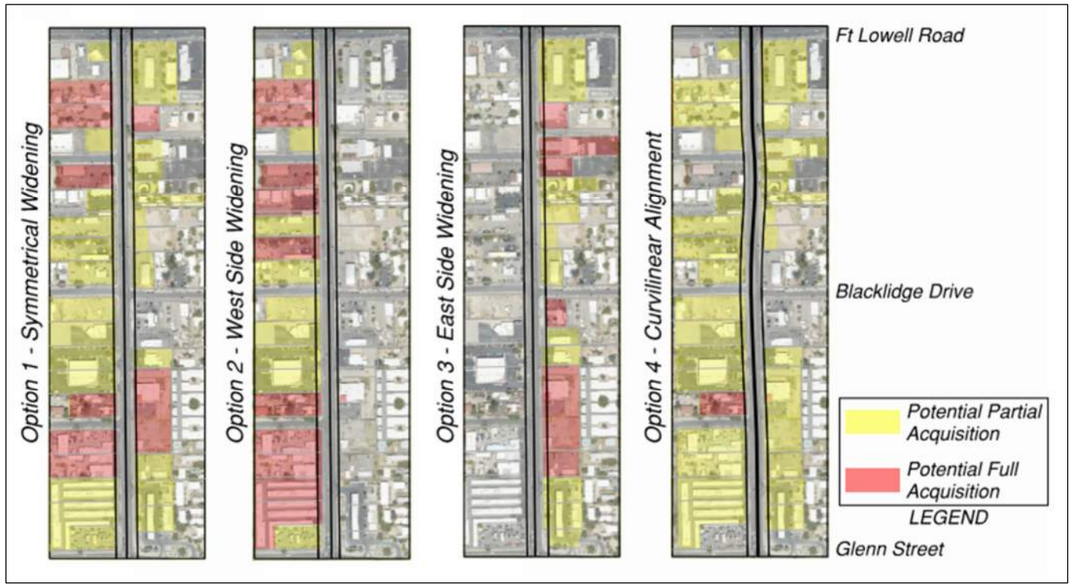


Figure 38 - Right-of-Way Impacts of Widening Options, Detail View

11.2 Selected Roadway Cross-Sections

Beginning with the city's preferred dimensions, the design team added 5' to the median. This provides the width needed to accommodate physically separate left turn lanes at intersections, as well as mid-block U-turning movements for typical passenger vehicles. An extra 0.5' was also added to the landscape area between the roadway curb and sidewalk.

Through the stretch of 1st Avenue between Prince Road and Roger Road, however, the curvilinear alignment does not provide a benefit while laying out the necessary proposed right-of-way. The existing right-of-way in this area is between 80' and 85', with the adjacent parcels primarily residential and/or small commercial with structures located close to the right-of-way, and regardless of the alignment, the right-of-way impact would be significant. To mitigate this, the CTF was presented with two potential cross-sections that require only 90' of right-of-way width, and could be utilized.

Both of the potential cross-sections are shown below in **Figure 39**; the presentation slide that was presented to the CTF. The pros and cons of each as identified by the design team and CTF and noted below:

- "Top" Cross-Section
  - Pro: Maintains the 16' raised median and left turn access for vehicles
  - Con: Reduces widths of sidewalk, bike lane and buffers, moving users close to vehicles
  - Verdict: Meets All Project Goals
- "Bottom" Cross-Section
  - Pro: Maintains sidewalk, bike lane and buffers, keeping users farther away from vehicles
  - Con: Narrow median eliminates left turn access for vehicles
  - Verdict: Does Not Meet Project Goals

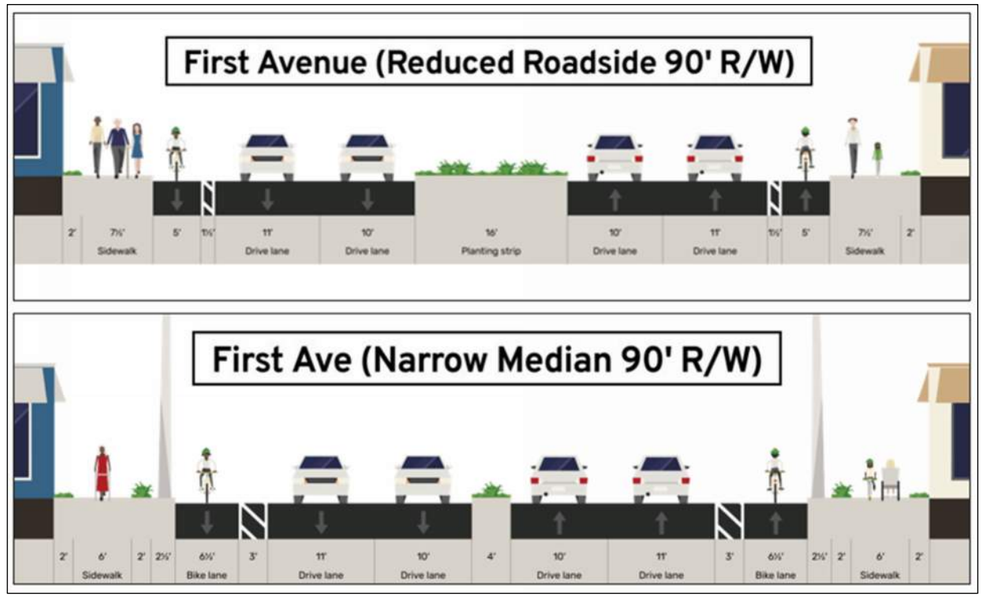


Figure 39 - Potential "Narrow" Cross-Sections Presented to the CTF

Despite the fact the "Top" cross-section met all the project goals, the CTF wanted to explore additional options that would provide more space and comfort to pedestrians and bicyclists. Ultimately, the CTF and design team decided on a cross-section that reduced the median width by 5', the bike lane and buffer by 1.5', and the landscape area between the curb and sidewalk by 4'. While a raised median is still utilized in this area for access control, to provide vehicular access the roadway will include a two-way center turn lane, as it currently does today. Despite the total width being reduced by 16', this narrowed cross-section

still provides all the necessary complete street elements and achieves all project goals. This option also scored the highest with an empirical Measure of Effectiveness (MOE) evaluation.

Goal	Strategy	Metric	Criteria	Performance			Alternatives	
				Most Desirable (3)	Desirable (2)	Least Desirable (1)	Narrow Median	TWLTL
Improve Safety	Segment Strategies	Speed Management	Traffic Calming Measures	>3 Measures	2 Measures	1 Measure	-	-
		Street Lighting	Lighting Type	Roadway+Sidewalk	Roadway Only	Spot Locations Only	3	2
		Driveway Design	Sidewalk Setback	>80%	65-80%	50-65%	3	2
		Crossing Frequency	Distance	1/8 Mile	1/4 Mile	1/2 Mile	2	3
		Median Type	Median Protection	Continuous Median	Refuge Island	TWLTL	3	2
	Intersection Strategies	Left Turn Movements	Separate / Sight Distance	Protected Phase	Positive Offset	N/A	-	-
		Pedestrian Crossing	Pedestrian Exposure	<80'	80'-100'	>100'	-	-
		Signal Operations	Treatments	>3 Treatments	2 Treatments	1 Treatments	-	-
Safety Weight 5X - Average Score							13.8	11.3
Increase Transportation Options	Pedestrian Strategies	Sidewalk Width	Traversable Width	>8'	6'-7'	4'-5'	3	3
		Sidewalk Buffer	Buffer Width	>6'	5'	<4'	2	1
	Bicycle Strategies	Bicycle Separation	Buffer Type	Vertical Separation	Buffer Separation	Traditional Bike Lane	3	2
		Protected Intersection	# of Intersections	Major and Minor	Minor	N/A	-	-
	Ped + Bike +Transit	Shade	% Cover	>20%	10-20%	<10%	-	-
	Transit Strategies	Upgraded Stops	# of Stops	>60%	40-60%	<40%	-	-
		Proximity to Crossing	Distance	<150'	250'	>300'	-	-
		Bus Pullout (Dedicated Stop)	Transit Demand	High Demand	Medium Demand	Low Demand	-	-
Transportation Options Weight 4.5X - Average Score							12.1	9.1
Upgrade Existing Infrastructure	Drainage	Accommodate Storm Event	Scale of Improvement	Meets City Criteria	Improvement over Existing Condition	Maintains Existing Conditions	-	-
	Landscape Areas	Materials	Type	Hardscape (Concrete, Paver, Asphalt)	Natural (Rock, Vegetation)	No Treatment	-	-
	Bridge	Replace Existing Structure	Utilization and Physical Separation	All Users with Full Separation	All Users With Traditional Separation	Minimal Accommodation (Existing Condition)	-	-
	Pavement	Pavement Treatment	Constructed Alternative	Full Depth	Mill/Overlay	Surface Treatment	-	-
	ITS	Traffic Signal Technology	Treatments	Transit Signal Priority	Adaptative System	Traditional System	-	-
			Emerging Technologies	Dedicated Space	N/A	None	-	-
	Utilities	Utility Location	Location	All Behind Sidewalk	Adequate Space in Landscape Strip	Encroach into Sidewalk	2	2
Infrastructure Condition Weight 4.375X							8.8	8.8
Support Mobility	Motor Vehicular	Level of Service (LOS)	Intersection LOS D	All Int Mov at LOS D or better	LT at LOS E and TH at LOS D or better	All Int Mov at LOS E or better	-	-
	Transit	Travel Time	% from existing	<10%	10%-20%	>30%	-	-
		Bus Pullout (Dedicated Stop)	# of Stops	All Intersection Stops	High Boarding and Alighting	Major Intersections	-	-
	Access Management	Median Openings	Distance	660 ft	330 ft	No Median (TWLTL)	-	-
Support Mobility Weight 4X							-	-
Minimize R/W Impacts	Properties and Structures	Acquisitions/building impacts	# of impacts	No Impact	ROW Impacts	Structure Impacts	1.0	3.0
	Business Access	Vehicular Access to Properties	Median Opening / U-Turn Opportunity	TWLTL	Mid-Block	Signal Only	-	-
	Access during construction	Construction Impacts	% impacts	Low	Medium	High	-	-
Minimize Impact Weight 4X							4.0	12.0
Enhance Visual Character	Landscape Strategies	GSI	Pavement Area	>5%	1-5%	<1%	-	-
	Public Art	Elements	# of elements	>50%	50-20%	<20%	-	-
Visual Character Weight 3.375X							-	-
						Total Alternative Score	9.7	10.3

Figure 40 - Measure of Effectiveness Evaluation for Prince Road to Roger Road Cross-Section

Ultimately, the CTF approved the use of the two cross-sections illustrated below to be utilized as the starting point for conceptual design. The complete roadway layout will be refined through the final design process:

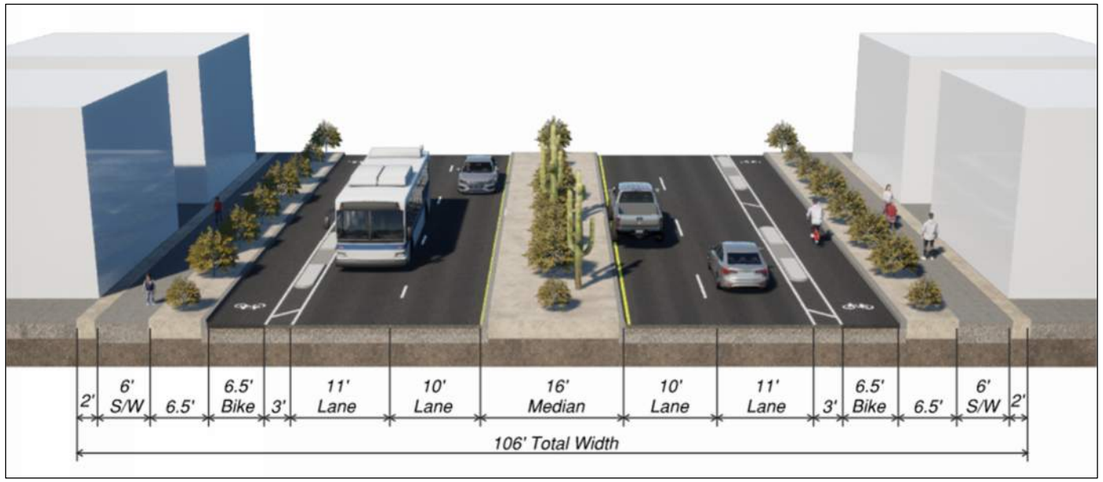


Figure 41 - Preferred Roadway Cross-Section

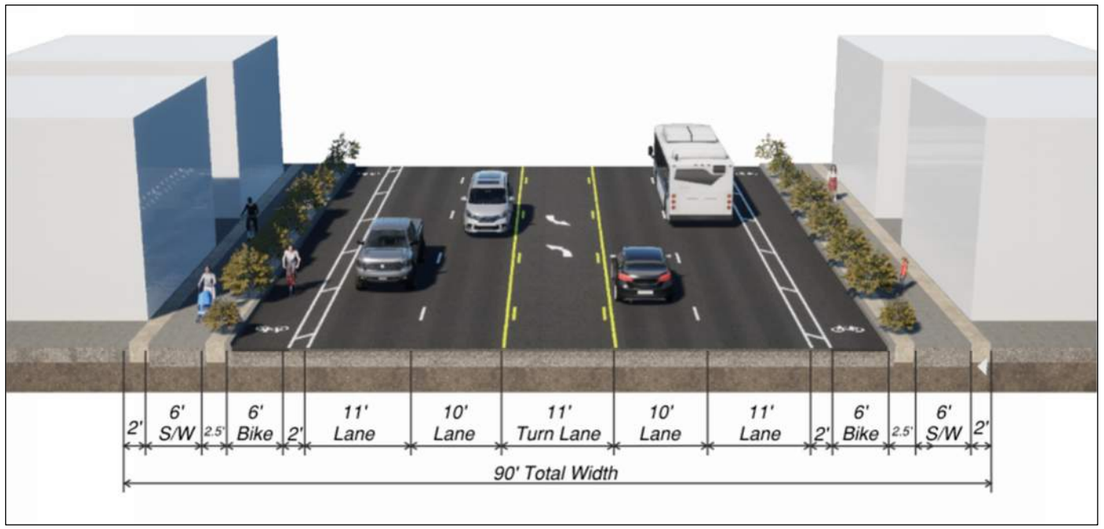


Figure 42 – CTF Selected Narrowed Roadway Cross-Section

11.3 Intersection Configurations

As previously noted, **Improve Safety** and **Increase Transportation Options** are the top two project goals. While vehicle drivers are certainly included in this, work toward these two goals primarily impacts pedestrians, bicyclists, and those with disabilities – the most vulnerable roadway users. The largest safety improvement to be achieved is arguably at the project intersections. Guided by recent safety research the design team provided potential alternative intersection layouts for initial evaluation.

11.3.1 Channelized Right Turn (Slip Lane)

Typical thoroughfare (arterial) intersections need to accommodate large design vehicles such as semi-trucks and city buses. This requires the corners to have a large radius to allow these vehicles to turn without encroaching beyond the pavement and onto the sidewalk. While this serves vehicles well, it allows smaller vehicles to turn at higher speeds and creates a longer roadway crossing for pedestrians that influences not only their safety, but also the timing operations of the signal.

Channelized right turn lanes separate the right turn movement from the thru lane movement, creating a median area. When designed correctly, this design can improve the safety and accessibility for pedestrians, while still accommodating large design vehicles. **Figure 43** is the information slide that was presented to the CTF that highlights some additional benefits.

Figure 43 - Channelized Right Turn Information Slide

It should be noted that the layout of the channelized right turn is very important. Historically, many similar movements have been designed with a single, large radius for the turning movement which promotes high speeds through the turn. Current best practice utilizes in large radius for the entry curve that creates the median separation, followed by a short radius beyond the crosswalk at the intersection. This geometric change requires vehicles to slow significantly to make the movement.

Figure 44 - Single Radius Channelized Turn (Left) and Best Practice Channelized Right (Right)

One primary downside of the channelized right turn is that it does require a larger right-of-way footprint. Despite this, the design team, with the support of the CTF decided to implement this layout at the thoroughfare intersections – Ft Lowell Road, Prince Road, Wetmore Road, and River Road – to the extent possible. **Figure 43** is the information slide that was presented to the CTF that illustrates the necessary area footprint that is required to accommodate each alternative. The inclusion of the channelized right turns will be evaluated as the roadway design is refined and the balance between improved safety and operations against right-of-way and acquisition impact is better understood.

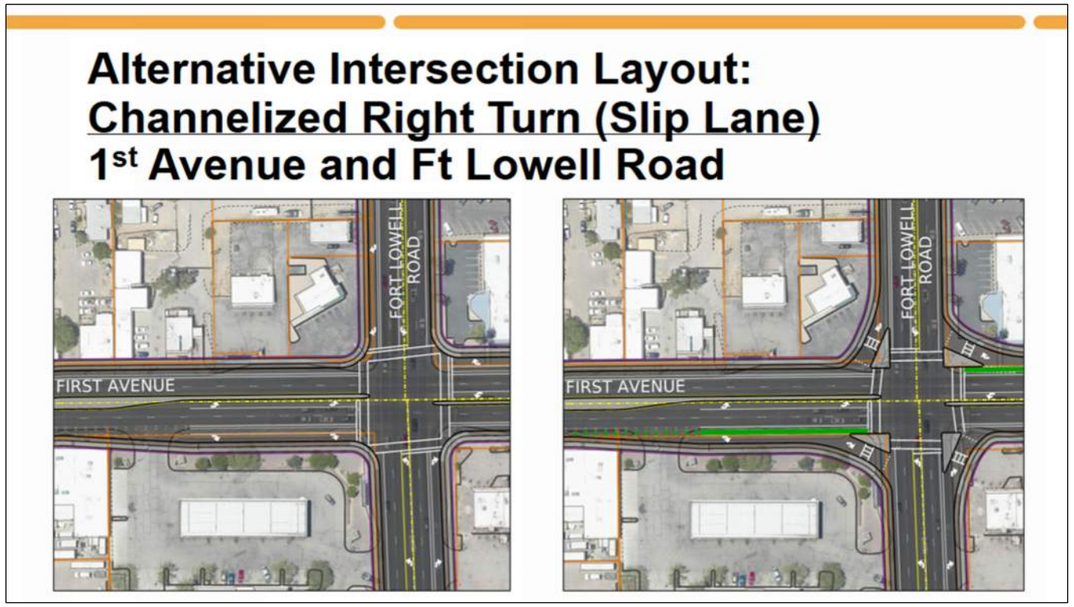


Figure 45 - Channelized Right Turn Area Footprint Information Slide

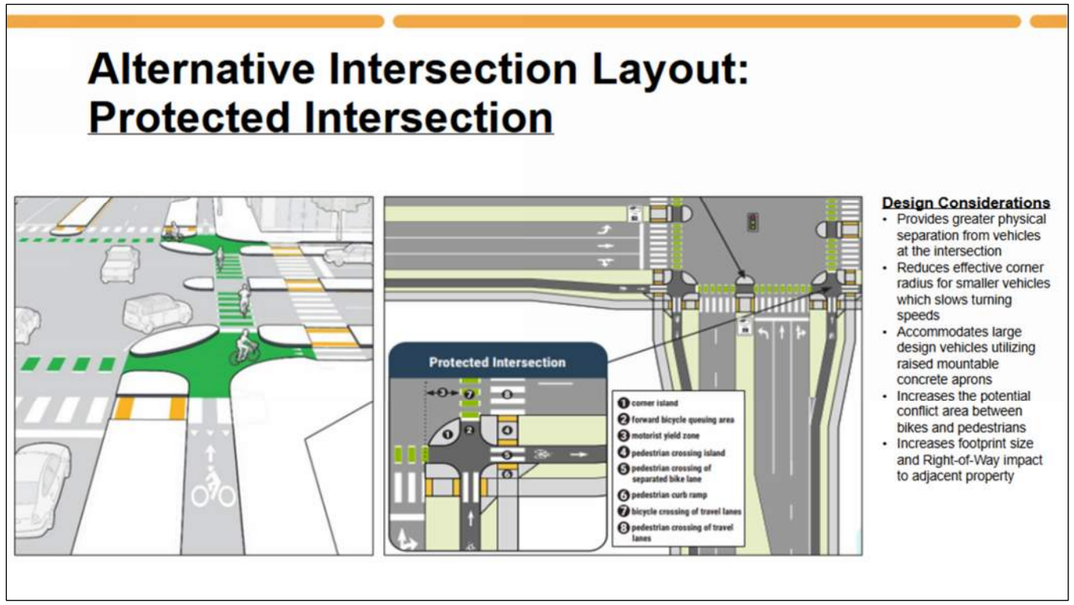


Figure 46 - Protected Intersection Information Slide

11.3.2 Protected Intersection

Similar to thoroughfare intersections, smaller collector or neighborhood street intersections must accommodate the largest anticipated design vehicle. While less intimidating for bicyclists and pedestrians, there are still improvements that can be made. A recent best practice is what is known as the protected intersection. This layout provides not only a much greater physical separation between vehicles and pedestrians/bicyclists at the intersection, but also an operational separation as bicyclists typically receive their own protected through movement from right-turning vehicles.

Figure 46 is the information slide for the protected intersection, and **Figure 47** is the information slide that illustrates the necessary area footprint required, both of which were presented to the CTF. Similar to the channelized right turn, the protected intersection does require a significantly larger area footprint. The design team, with the support of the CTF, decided to implement this at the three collector intersections – Glenn Street, Roger Road, and Limberlost Drive. The inclusion of the protected intersection elements will be evaluated as the roadway design is refined and the balance between improved safety and operations against right-of-way and acquisition impact is better understood.

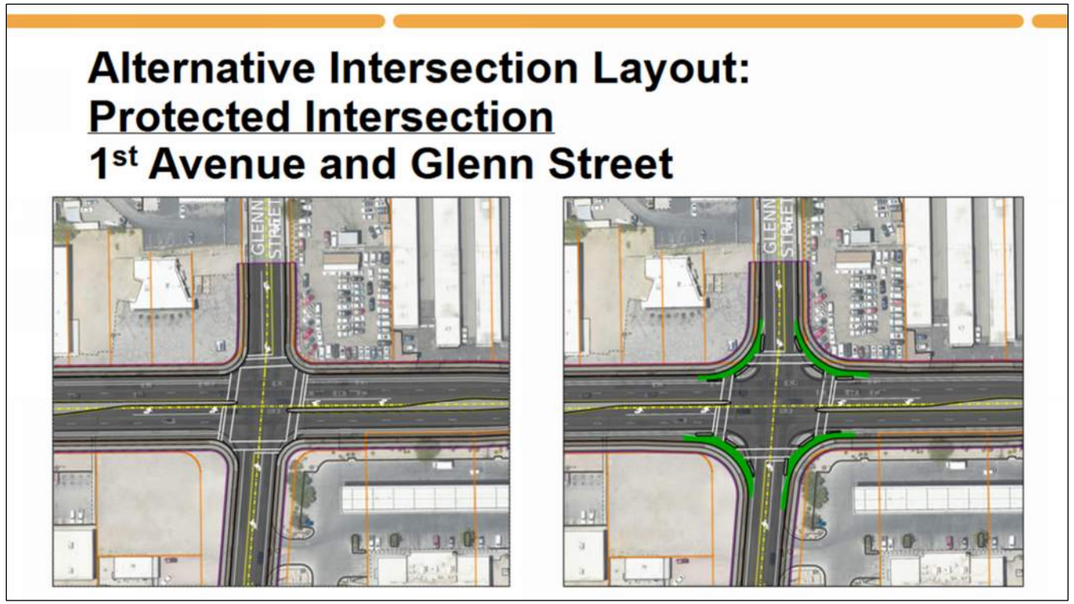


Figure 47 - Protected Intersection Area Footprint Information Slide

12 Drainage Improvement Alternatives

Analysis and evaluation of the proposed drainage improvements are on-going and being conducted in coordination with City of Tucson DTM Staff. To date the design team has completed the following activities:

- Reviewed and Verified the Design Approach with the City of Tucson
- Obtained Existing Floodplain Models and Design Reports
- Completed Rillito River and Bridge Hydraulics Analysis
- Completed Preliminary Cross-Drainage Design at Navajo Wash
- Completed Preliminary Storm Drain Design
- Completed Additional Existing Conditions Analysis of the Navajo Wash Floodplain

The project improvements will include an inverted siphon at Navajo Wash to carry a portion of the runoff from this regional floodplain beneath 1st Avenue. Additionally, a new storm drain system will be included from the proposed inverted siphon north to the existing drainage grate at Wetmore Avenue. The design and analysis of these improvements further detailed in the associated Preliminary Drainage Report.

Figure 48 – Conceptual Layout of Proposed Navajo Wash Floodplain Inverted Siphon

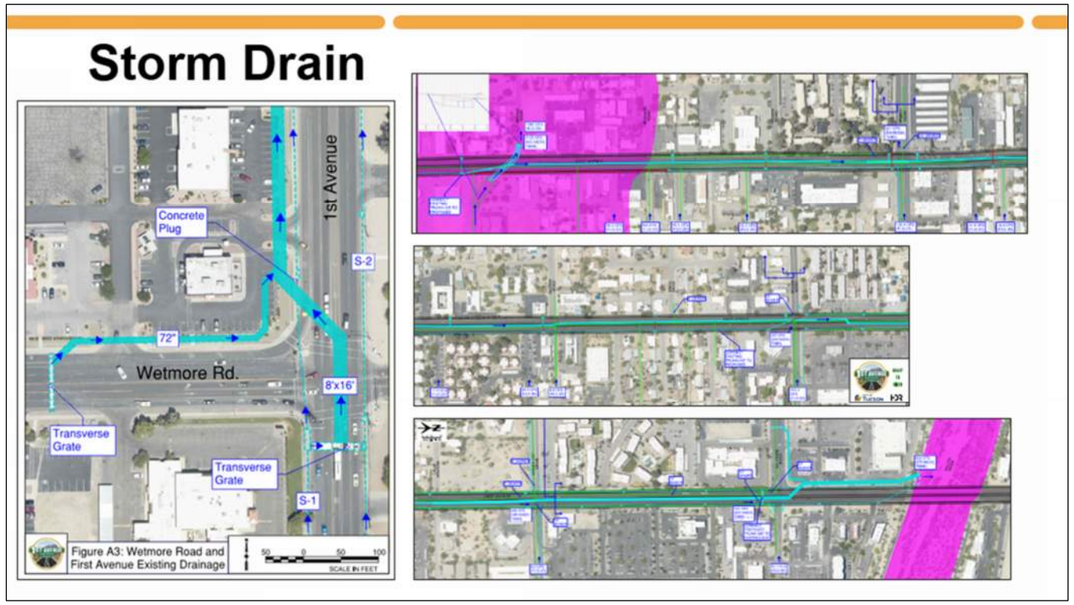


Figure 49 - Conceptual Layout of Proposed Storm Drain System

Figure 49 - Conceptual Layout of Proposed Storm Drain System

13 Bridge Alternatives

The Bridge Design Team developed a Bridge Selection Report that evaluated in detail four bridge alternatives to replace the existing 1st Avenue bridge at the Rillito River. These are:

- Alternative 1A: 3-Span Precast Prestressed Concrete Utah Bulb Tee Girder (UBT66) Bridge
- Alternative 1B: 4-Span Precast Prestressed Concrete Utah Bulb Tee Girder (UBT50) Bridge
- Alternative 2A: 3-Span Precast Prestressed Concrete AASHTO Box Beam (Type BIV) Bridge
- Alternative 2B: 4-Span Precast Prestressed Concrete AASHTO Box Beam (Type BII) Bridge

Detailed information for each of the four alternatives is provided in the following table:

1st Avenue Bridge: Alternative Summary Table				
Alternatives	Alternative 1A	Alternative 1B	Alternative 2A	Alternative 2B
	3-Span UBT66 Girder Bridge	4-Span UBT50 Girder Bridge	3-Span AASHTO Type BIV Box Beam Bridge	4-Span AASHTO Type BII Box Beam Bridge
Bridge Length	380’-3 3/4”	380’-3 3/4”	380’-3 3/4”	380’-3 3/4”
Total Bridge Width	101’-5”	101’-5”	101’-5”	101’-5”
No. of Girder Lines	10	10	22	22
Depth of Girders	66”	50”	42”	33”
Deck Thickness	8.5”	8.5”	Varies 6” (min.) to 9” (max.)	Varies 6” (min.) to 9” (max.)
Superstructure Depth	6’-6”	5’-2”	4’-3”	3’-6”
No. of Piers	2	3	2	3
Pier Column Diam.	5 ft	4 ft	5 ft	4 ft
Drilled Shaft Diam.	5 ft	4 ft	5 ft	4 ft
Estimated Bridge Construction Cost	$10,329,264	$9,983,952	$12,926,424	$13,283,496

In addition to the direct comparison in the **Alternative Summary Table**, each of the four bridge alternatives was also assigned a weighted score based on how well it addressed each of the five bridge selection drivers. The table below shows a breakdown of the weighted scores. Constructability (30% of total score) considers the number of spans and girder lines to be constructed, as well as potential conflicts with utilities. Cost (25% of total score) is scaled according to the estimated bridge construction cost for each alternative. Hydraulics (20% of total score) considers impacts to water surface elevation and disturbance to the riverbed. The Loop (15% of total score) accounts for the profile raise necessary for each alternative to provide adequate vertical clearance above The Loop. Maintenance of Traffic (10% of score) is based on ability to maintain through traffic during construction, which all alternatives achieve.

	Constructability	Cost	Hydraulics	The Loop	Maint. of Traffic	Total Score
	30%	25%	20%	15%	10%	
Alternative 1A	30	24	20	8	10	**92**
Alternative 1B	26	25	15	10	10	**86**
Alternative 2A	22	19	20	12	10	**83**
Alternative 2B	18	19	15	15	10	**77**

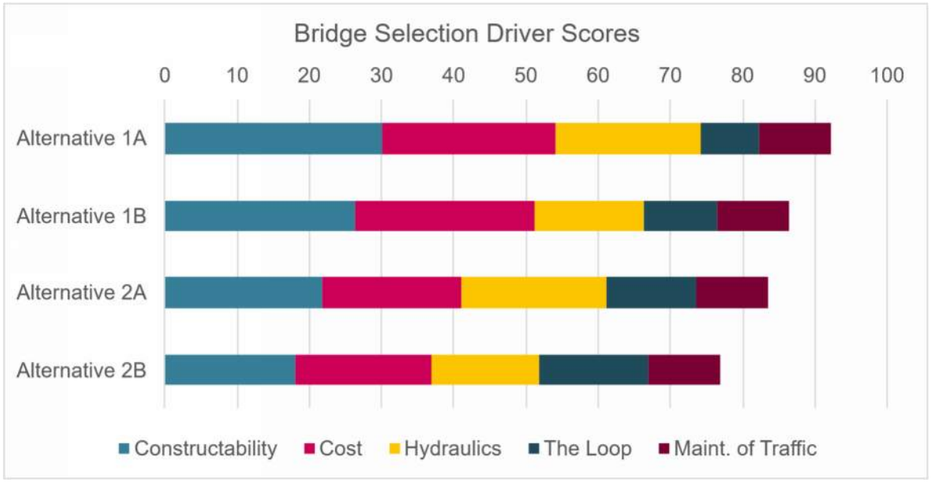


Figure 50 - Bridge Selection Scores

13.1 Recommended Alternative

While all four alternatives are viable**, the 3-Span Precast, Prestressed Concrete Utah Bulb Tee Girder Type UBT66 Bridge (Alternative 1A) is preferred as it most effectively addresses constructability concerns, hydraulic efficiency, freeboard requirements, construction risk, aesthetic considerations, and is a close second in overall cost-effectiveness.** As shown in **Figure 51**, Alternative 1A also received the highest overall bridge selection driver score.

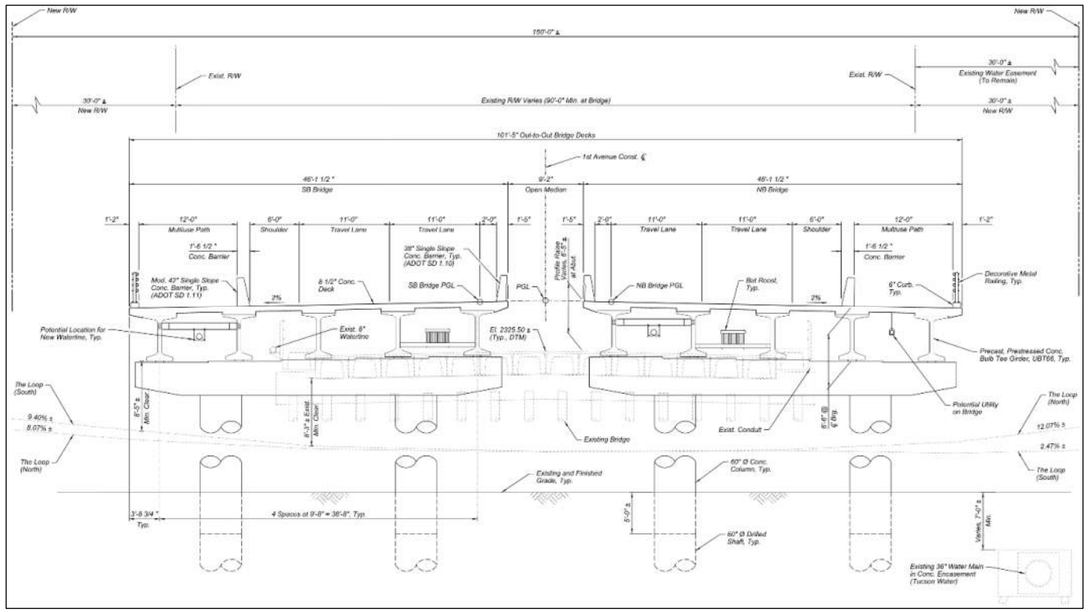


Figure 51 - Bridge Alternative 1A Typical Section

Alternative 1A has a far lower estimated bridge construction cost than the box beam alternatives, with Alternatives 2A and 2B estimated to cost $2.6M and $3.0M more, respectively. The primary advantages of Alternatives 2A and 2B are decreased roadway profiles at the bridge due to shallower girders being used, but this is heavily outweighed by the higher estimated bridge construction costs. Alternatives 2A and 2B are therefore not recommended.

While the 4-Span Utah Bulb Tee Type UBT50 Bridge (Alternative 1B) is estimated to be approximately $345K less than the recommended alternative in terms of estimated costs at this preliminary stage, this advantage is outweighed by several factors. The most important factor is the constructability issues with constructing Pier 3 in such close proximity to the overhead high-voltage TEP transmission lines. Other factors include higher construction risk due to additional pier construction in the riverbed and an undesirable raise in water surface elevation due to lesser hydraulic efficiency than the 3-span alternatives. Alternative 1B is therefore not recommended.

Alternative 1A, a 3-Span Precast, Prestressed Concrete Utah Bulb Tee Girder Type UBT66 Bridge, most effectively addresses the project drivers and is a close second for the most cost-effective alternative and is therefore the recommended bridge alternative for the 1st Avenue Bridge over the Rillito River.

14 Recommended Roadway Alignment Alternative

Utilizing the Project Goals and associated Design Strategies, the design team was able to create the Recommended Roadway Alignment Alternative. This alternative provides the preferred roadway cross-section for the majority of the corridor, and narrow roadway cross-section between Prince Road and Roger Road. By utilizing the curvilinear to acquire necessary right-of-way width from both sides of 1st Avenue, this alternative minimizes the not only the cost of right-of-way acquisition, but reduces the impact to the existing business and homes, and preserves much of the existing character along the corridor.

Figure 52 - Recommend Roadway Alignment. Approved by the CTF and Presented at the Phase III Outreach Open House

15 Cost Estimate

Based on the Recommended Roadway Alignment, the design team has calculated material quantities to develop an itemized cost estimate for the proposed improvements of $95.84M. The cost shown is an estimate of the anticipated cost to construct the project in today's dollars. This does not include final engineering design, utility relocations, environmental mitigations, or right-of-way acquisition and/or relocation costs

City of Tucson
1st Avenue: River Road to Grant Road
Project Cost Estimate

Item No.	Item Description	Units	Qty	Unit Price	Amount
	Division 200 - Grading				
2010001	CLEARING AND GRUBBING	ACRE	4	$ 10,000	$ 40,000
2020001	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	$ 350,000	$ 350,000
2020020	REMOVAL OF CONCRETE CURB	LF	78,001	$ 3	$ 234,003
2020025	REMOVAL OF CONCRETE SIDEWALKS, DRIVEWAYS, AND SLABS	SF	164,248	$ 2	$ 328,496
2020029	REMOVE ASPHALTIC CONCRETE PAVEMENT	SY	187,095	$ 8	$ 1,496,760
2020030	REMOVE ASPHALTIC CONCRETE PAVEMENT BY MILLING (2")	SY	4,051	$ 7	$ 28,357
2020034	REMOVE AND SALVAGE SIGNS AND DELINEATORS	LS	1	$ 20,000	$ 20,000
2020042	REMOVAL OF PIPE (STORM DRAIN)	LF	3,874	$ 30	$ 116,220
2020052	REMOVE (CATCH BASIN)	EACH	50	$ 500	$ 25,000
2020056	REMOVE (STORM DRAIN MANHOLE)	EACH	1	$ 600	$ 600
2030301	ROADWAY EXCAVATION	CY	57,226	$ 25	$ 1,430,650
2030901	BORROW	CY	3,216	$ 50	$ 160,800
	CONTINGENCY	%		15%	$ 634,633
	Division 200 Subtotal				***$ 4,865,519***
	Division 300 - Subgrade, Subbases and Bases				
3030102	AGGREGATE BASE	CY	37,046	$ 120	$ 4,445,520
3060002	GEOGRID BASE REINFORCEMENT	SY	70,899	$ 6	$ 425,394
	CONTINGENCY	%		10%	$ 487,091
	Division 300 Subtotal				***$ 5,358,005***
	Division 400 - Surface Treatments and Pavements				
4010010	PORTLAND CEMENT CONCRETE PAVEMENT	SY	2,559	$ 100	$ 255,900
4040111	BITUMINOUS TACK COAT	TON	65	$ 100	$ 6,464
4060004	ASPHALTIC CONCRETE (MIX NO. 2)(PG 76-22TR+)	TON	12,641	$ 175	$ 2,212,142
4060006	ASPHALTIC CONCRETE (MIX NO. 1)(PG 70-10)	TON	4,927	$ 160	$ 788,314
	CONTINGENCY	%		15%	$ 489,423
	Division 400 Subtotal				***$ 3,752,243***
	Division 500 - Drainage Facilities				
5010018	PIPE, CORRUGATED METAL, 18"	LF	96	$ 75	$ 7,200
5010107	PIPE, CORRUGATED METAL, SLOTTED, 18"	LF	39	$ 125	$ 4,824
5011013	PIPE, REINFORCED CONCRETE, CLASS III, 18"	LF	1,597	$ 115	$ 183,655
5011023	PIPE, REINFORCED CONCRETE, CLASS III, 24"	LF	1,013	$ 120	$ 121,560
5011043	PIPE, REINFORCED CONCRETE, CLASS III, 36"	LF	688	$ 170	$ 116,960
5011048	PIPE, REINFORCED CONCRETE, CLASS III, 42"	LF	433	$ 200	$ 86,600
5011053	PIPE, REINFORCED CONCRETE, CLASS III, 48"	LF	280	$ 240	$ 67,200
5011077	PIPE, REINFORCED CONCRETE, CLASS II, 78"	LF	6,878	$ 650	$ 4,470,700
5030601	CONCRETE CATCH BASIN (PAG STD DTL 308, TYPE 3) (SUMP ONLY)	EACH	12	$ 3,000	$ 36,000
5030603	CONCRETE CATCH BASIN (PAG STD DTL 308, TYPE 3) (4' WING, SINGLE)	EACH	27	$ 5,000	$ 135,000
5030604	CONCRETE CATCH BASIN (PAG STD DTL 308, TYPE 3) (4' WING, DOUBLE)	EACH	10	$ 6,500	$ 65,000
5030605	CONCRETE CATCH BASIN (PAG STD DTL 308, TYPE 3) (8' WING, SINGLE)	EACH	11	$ 5,650	$ 62,150
5030606	CONCRETE CATCH BASIN (PAG STD DTL 308, TYPE 3) (8' WING, DOUBLE)	EACH	8	$ 6,900	$ 55,200
5030607	CONCRETE CATCH BASIN (PAG STD DTL 308, TYPE 3) (12' WING, SINGLE)	EACH	3	$ 7,500	$ 22,500
5030608	CONCRETE CATCH BASIN (PAG STD DTL 308, TYPE 3) (12' WING, DOUBLE)	EACH	1	$ 8,150	$ 8,150
5030609	CONCRETE CATCH BASIN (PAG STD DTL 308, TYPE 3) (16' WING, SINGLE)	EACH	1	$ 10,000	$ 10,000
5030611	CONCRETE CATCH BASIN SPECIAL DETAIL (TRANSVERSE GRATE)	EACH	3	$ 12,500	$ 37,500
5050090	MANHOLE (STORM DRAIN) (PAG STD DTL 301)	EACH	70	$ 6,000	$ 420,000
5080000	SANITARY SEWER (MODIFY EXISTING SYSTEM)	$/Mile	3.22	$ 500,000	$ 1,610,000
5100000	POTABLE WATER (REPLACE EXISTING SYSTEM - 12" MAIN)	$/Mile	3.22	$ 1,000,000	$ 3,220,000
	CONTINGENCY	%		15%	$ 1,611,030
	Division 500 Subtotal				***$ 12,351,228***
	Division 600 - Structures				
6010220	CONCRETE RETAINING WALL (ADOT SD 7.01, 1 OF 5)	SF	3,023	$ 140	$ 423,220
6010300	BRIDGE (RILLITO RIVER)	LS	1	$ 9,323,293	$ 9,323,293
6011140	CONCRETE HALF BARRIER (32", ADOT STD 10.51)	LF	400	$ 110	$ 44,000
6018100	REINFORCED CONCRETE BOX CULVERT (EXTENSION)	LS	1	$ 500,000	$ 500,000
6018110	REINFORCED CONCRETE BOX CULVERT (SIPHON)	LS	1	$ 1,271,000	$ 1,271,000
	CONTINGENCY	%		20%	$ 2,312,303
	Division 600 Subtotal				***$ 13,873,816***
	Division 700 - Traffic Control Facilities				
7010001	MAINTENANCE AND PROTECTION OF TRAFFIC	LS	1	$ 1,000,000	$ 1,000,000
7040000	SIGNING	$/Mile	3.22	$ 100,000	$ 322,000
7040072	PAVEMENT MARKING (THERMOPLASTIC) (WHITE) (0.090")	LF	132,549	$ 0.60	$ 79,529
7040075	PAVEMENT MARKING (THERMOPLASTIC) (YELLOW) (0.090")	LF	37,720	$ 0.60	$ 22,632
7040080	PAVEMENT MARKING (GREEN PREFORMED THERMOPLASTIC) (BIKE LANE)	SF	15,215	$ 10	$ 152,150
7310010	POLE (TYPE A) (10')	EA	41	$ 4,000	$ 164,000
7310045	POLE (TYPE Q)	EA	32	$ 10,000	$ 320,000
7310050	POLE (TYPE R)	EA	10	$ 12,000	$ 120,000
7310082	POLE (ADOT TYPE W)	EA	2	$ 15,000	$ 30,000
7310055	POLE (TYPE 2A STREET LIGHT)	EA	139	$ 4,750	$ 660,250
7310078	POLE (TYPE 1 STREET LIGHT) (SINGLE MAST ARM)	EA	10	$ 5,500	$ 55,000
7310085	POST (TYPE I) (PEDESTRIAN PUSH BUTTON)	EA	58	$ 2,000	$ 116,000
7310090	POLE (DECORATIVE BRIDGE LIGHT)	EA	7	$ 5,000	$ 35,000
7310200	POLE FOUNDATION (TYPE A)	EA	43	$ 1,200	$ 51,600
7310230	POLE FOUNDATION (TYPE Q)	EA	32	$ 4,500	$ 144,000
7310235	POLE FOUNDATION (TYPE R)	EA	10	$ 5,000	$ 50,000
7310240	POLE FOUNDATION (TYPE 2A, 2B AND 2C STREET LIGHT))	EA	139	$ 2,000	$ 278,000
7310247	POLE FOUNDATION (TYPE 1 STREET LIGHT)	EA	10	$ 2,500	$ 25,000
7310248	POLE FOUNDATION (ADOT TYPE W)	EA	2	$ 5,000	$ 10,000
7310255	POST FOUNDATION (TYPE I) (PEDESTRIAN PUSH BUTTON)	EA	58	$ 1,000	$ 58,000
7310260	POLE FOUNDATION (DECORATIVE BRIDGE LIGHT)	EA	7	$ 2,500	$ 17,500
7310350	CONTROL CABINET FOUNDATION	EA	15	$ 1,750	$ 26,250
7310375	SERVICE PEDESTAL CABINET FOUNDATION	EA	15	$ 15,000	$ 225,000
7310405	MAST ARM (25 FT.) (TAPERED)	EA	1	$ 4,500	$ 4,500
7310410	MAST ARM (30 FT.) (TAPERED)	EA	5	$ 5,000	$ 25,000
7310415	MAST ARM (35 FT.) (TAPERED)	EA	10	$ 5,500	$ 55,000
7310420	MAST ARM (40 FT.) (TAPERED)	EA	17	$ 6,000	$ 102,000
7310425	MAST ARM (45 FT.) (TAPERED)	EA	2	$ 6,500	$ 13,000
7310430	MAST ARM (50 FT.) (TAPERED)	EA	6	$ 7,000	$ 42,000
7310435	MAST ARM (55 FT.) (TAPERED)	EA	1	$ 7,500	$ 7,500
7310437	MAST ARM (65 FT.) (TAPERED)	EA	2	$ 10,000	$ 20,000
7310535	MAST ARM (20 FT.) (TAPERED) (LUMINAIRE)	EA	54	$ 1,500	$ 81,000
7320020	ELECTRICAL CONDUIT (2") (PVC)	LF	31760	$ 17	$ 539,920
7320030	ELECTRICAL CONDUIT (3") (PVC)	LF	760	$ 22	$ 16,720
7320040	ELECTRICAL CONDUIT (4") (PVC)	LF	4275	$ 30	$ 128,250
7320041	ELECTRICAL CONDUIT (4") (PVC) (SECOND IN TRENCH)	LF	4275	$ 15	$ 64,125
7320400	PULL BOX (NO. 3 1/2)	EA	153	$ 700	$ 107,100
7320410	PULL BOX (NO. 5)	EA	17	$ 750	$ 12,750
7320420	PULL BOX (NO. 7)	EA	47	$ 1,000	$ 47,000
7320421	PULL BOX (NO. 7) (WITH EXTENSION)	EA	17	$ 1,500	$ 25,500
7320470	BRIDGE JUNCTION BOX	EA	7	$ 750	$ 5,250
7320601	CONDUCTORS, SIGNAL/LIGHTING (HAWK)	LS	1	$ 60,000	$ 60,000
7320602	CONDUCTORS, SIGNAL/LIGHTING (SIGNAL)	LS	1	$ 105,000	$ 105,000
7320618	CONDUCTOR (NO. 8) (INSULATED)	LF	60110	$ 3	$ 180,330
7320628	CONDUCTOR (NO. 8) (BARE)	LF	29175	$ 2	$ 51,056
7320800	SERVICE PEDESTAL CABINET	EA	15	$ 5,000	$ 75,000
7320888	ELECTRICAL SERVICE FEE ALLOWANCE	USD	1	$ 150,000	$ 150,000
7320891	ELECTRICAL SERVICE INSTALLATION	EA	21	$ 2,000	$ 42,000
7330045	TRAFFIC SIGNAL FACE (TYPE F)	EA	91	$ 1,000	$ 91,000
7330047	TRAFFIC SIGNAL FACE (TYPE F) (MOD)	EA	54	$ 1,100	$ 59,400
7330050	TRAFFIC SIGNAL FACE (TYPE Q)	EA	3	$ 1,300	$ 3,900
7330057	TRAFFIC SIGNAL FACE (TYPE R)	EA	19	$ 1,250	$ 23,750
7330200	TRAFFIC SIGNAL FACE (PEDESTRIAN) (MAN/HAND)	EA	72	$ 750	$ 54,000
7330205	TRAFFIC SIGNAL FACE (BIKE) (BIKES WAIT) (BIKES OKAY)	EA	20	$ 2,500	$ 50,000
7330220	TRAFFIC SIGNAL FACE (TYPE FYA)	EA	38	$ 1,250	$ 47,500
7330305	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE II)	EA	125	$ 200	$ 25,000
7330315	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE IV)	EA	28	$ 1,000	$ 28,000
7330320	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE V)	EA	44	$ 750	$ 33,000
7330325	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE VI)	EA	2	$ 1,000	$ 2,000
7330330	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE VII)	EA	2	$ 1,000	$ 2,000
7330350	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE XI)	EA	92	$ 500	$ 46,000
7330500	PRE-EMPT BEACON	EA	7	$ 1,000	$ 7,000
7330510	PRE-EMPT SENSOR	EA	7	$ 1,000	$ 7,000
7340100	CONTROL CABINET (AGENCY SUPPLIED/CONTRACTOR INSTALLED)	EA	15	$ 1,500	$ 22,500
7350000	VIDEO DETECTION SYSTEM	EA	7	$ 20,000	$ 140,000
7350405	PEDESTRIAN PUSH BUTTON (VIBROTACTILE) (WITH SIGN)	EA	80	$ 2,500	$ 200,000
7360190	PHOTO ELECTRIC CONTROL	EA	21	$ 250	$ 5,250
7360060	LUMINAIRE (HORIZONTAL MOUNT) (LED 175 WATT)	EA	193	$ 1,250	$ 241,250
7360050	LUMINAIRE (PENDANT MOUNT) (LED 105 WATT)	EA	7	$ 2,000	$ 14,000
7360310	LOAD CENTER CABINET (TYPE I)	EA	6	$ 10,000	$ 60,000
	CONTINGENCY	%		20%	$ 1,416,893
	Division 700 Subtotal				***$ 8,501,355***
	Division 800 - Roadside Development				
8020001	LANDSCAPE GRADING (WATER HARVESTING BASINS)	SY	5603	$ 7	$ 39,221
8030050	PLATING MATERIALS	SY	37140	$ 11	$ 408,540
8060001	PLANTING TREES, SHRUBS, & PLANTS	LS	1	$ 525,000	$ 525,000
8061700	LANDSCAPE PRUNING	HR	100	$ 200	$ 20,000
8070001	LANDSCAPE ESTABLISHMENT (2 YEARS)	LS	1	$ 400,000	$ 400,000
8070012	MISCELLANEOUS WORK (LANDSCAPE ESTABLISHMENT MAINTENANCE)	$	1	$ 100,000	$ 100,000
8080001	LANDSCAPE IRRIGATION SYSTEM	LS	1	$ 930,000	$ 930,000
9300031	SITE FURNITURE (BENCHES, SEATWALLS, TRASH RECEPTACLES, BIKE RACKS, SMALL SHADE STRUCTURES)	LS	1	$ 1,000,000	$ 1,000,000
9312000	DECORATIVE PAVING	SF	51995	$ 15	$ 779,925
8020001	EROSION CONTROL	LS	1	$ 475,000	$ 475,000
	CONTINGENCY	%		15%	$ 701,653
	Division 800 Subtotal				***$ 5,379,339***
	Division 900 - Incidentals				
9050050	IMPACT ATTENUATOR ( )	EACH	4	$ 7,500	$ 30,000
9080041	CONCRETE CURB (PAG STD DTL 209) (VERTICAL) (TYPE 2 - 6")	LF	81,367	$ 28	$ 2,278,276
9080084	CONCRETE CURB AND GUTTER (PAG STD DTL 209)	LF	1,546	$ 45	$ 69,570
9080203	CONCRETE SIDEWALK (PAG STD DTL 200)	SF	309,890	$ 8	$ 2,479,120
9080204	CONCRETE BUS PAD (6")	SF	21,317	$ 10	$ 213,170
9080290	CURB ACCESS RAMP (COT STD)	EACH	209	$ 4,000	$ 836,000
9080305	CONCRETE DRIVEWAYS (SPECIAL)	SF	84,907	$ 10	$ 849,070
9080500	PROTECTED BIKE LANE ELEMENTS	LF	4,845	$ 50	$ 242,250
9201006	CONCRETE CHANNEL LINING (6")	SY	839	$ 15	$ 12,584
9300095	BUS SHELTER (SINGLE)	EACH	9	$ 12,000	$ 108,000
9330001	HANDRAIL (PAG STD. 105)	LF	839	$ 35	$ 29,367
	CONTINGENCY	%		15%	$ 1,072,111
	Division 900 Subtotal				***$ 8,219,518***
	Construction Subtotal				***$ 62,301,023***
	Miscellaneous Project Costs				
9010000	MOBILIZATION	%		10%	$ 6,230,102
9010100	CONSTRUCTION AREA ELEMENTS	%		3%	$ 1,869,031
9250000	CONSTRUCTION SURVEY AND LAYOUT	%		5%	$ 3,115,051
9260000	ENGINEER'S FIELD OFFICE	%		1%	$ 623,010
	CONSTRUCTION MANAGEMENT	%		15%	$ 9,345,154
	CONTINGENCY	%		15%	$ 9,345,154
	Miscellaneous Subtotal				***$ 30,527,501***
	TOTAL ESTIMATED PROJECT COST:				**$ 92,828,525**

Figure 53 - Project Cost Estimate

16 Project Phasing and Implementation

The City of Tucson typically utilizes a standard Design-Bid-Build approach to deliver projects in their transportation program. With projects of this size and complexity usually completed in multiple phases. However, the design team was tasked with evaluating delivery and phasing options and developing the overall implementation plan.

During the development of the corridor alignment and layout activities discussed in Roadway Alignment and Layout Alternatives, it became evident the nature of the existing right-of-way, development density, and existing utilities create two distinct project areas; The South Segment of the project from Grant Road to Roger Road is characterized by narrow right-of-way with a large number of necessary parcel acquisitions, dense development and access, and a large number of overhead utilities immediately adjacent to the road. The North Segment of the project from Roger Road to River Road is characterized by wide right-of-way with limited necessary parcel acquisitions, less dense development and access, and overhead utilities set back from the road. Due to this, Roger Road was seen as the initial match point for the development of a two-phased delivery with an initial assumption the North Segment would be delivered first due to limited acquisition and utility activities.

In February 2025 the City of Tucson submitted a BUILD Grant application for a portion of the North Segment of the project from Wetmore Road to River Road focusing on the safety and infrastructure benefits of the proposed intersection improvements and replacement of the existing Rillito River bridge. In May 2025, the project team, including representatives from the City of Tucson and Pima Association of Governments, held a workshop to further develop the implementation plan. This was done with the understanding that if a BUILD Grant was awarded to the project, it would be necessary to deliver the North Segment as the first phase.

During the workshop approximate timelines for final design, right-of-way acquisition, utility design and relocation, and construction were developed for three alternative deliver scenarios. A simple cost model has been developed for each of these scenarios that utilized the 30% construction cost estimate of $92.84M and a fixed annual escalation of 3.5%. While simple in nature, this allowed the team to better understand to potential cost implications of each. The three scenarios are listed below:

- Single Phase Delivery
- Two-Phase Delivery, North Segment First
- Two-Phase Delivery, South Segment First

The primary finding was delivering the North Segment first resulted in the lowest construction cost. This is due primarily to the new bridge over the Rillito River. Constructing this cost-driving item as early as possible significantly reduces the overall cost-escalation when compared to the other scenarios. The cost model results are shown in Figure 54.

Construction Cost - Single Phase					
Estimated Costs	**Period Begin**	**Period End**	**Current Estimate**	**Escalation @ Begin**	**Estimate at Begin**
Phase 1 (North)	P03-30	P02-33	$ 34,880,243	13.42%	$39,560,009
Phase 2 (South)	P03-30	P02-33	$ 57,959,010	13.42%	$65,735,177
NOTE: South Segment is Grant Road to Calle Arizona				**Estimated Total Construction Cost**	**$105,295,186**
				Total Escalation from Current Estimate	**$12,455,933**

Construction Cost - Two Phase, North Segment First					
Estimated Costs	**Period Begin**	**Period End**	**Current Estimate**	**Escalation @ Begin**	**Estimate at Begin**
Phase 1 (North)	P12-27	P05-29	$ 34,880,243	5.54%	$36,813,190
Phase 2 (South)	P07-29	P06-31	$ 57,959,010	11.08%	$64,382,800
NOTE: South Segment is Grant Road to Calle Arizona				**Estimated Total Construction Cost**	**$101,195,990**
				Total Escalation for Current Estimate	**$8,356,737**

Construction Cost - Two Phase, South Segment First					
Estimated Costs	**Period Begin**	**Period End**	**Current Estimate**	**Escalation @ Begin**	**Estimate at Begin**
Phase 1 (South)	P08-29	P07-31	$ 57,959,010	11.38%	$64,551,847
Phase 2 (North)	P07-31	P12-32	$ 34,880,243	18.08%	$41,187,754
NOTE: South Segment is Grant Road to Calle Arizona				**Estimated Total Construction Cost**	**$105,739,601**
				Total Escalation for Current Estimate	**$12,900,348**

Figure 54 - Delivery Phasing Cost Model Results

In June 2026 the City of Tucson was notified their grant application was successful and the project was awarded a $25M BUILD Grant. With this award, the project team will continue with a two-phase implementation plan and deliver the North Segment first.

Volume 2: 30% Design Plans

OpenRoads Designer v10.12.02.4
8/25/2026
2:34:47 PM
Printed by: TCOLE
Print Scale: 130.0833333
Pentable: COTPNA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

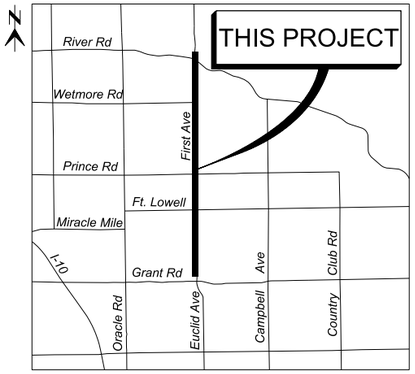
CITY OF TUCSON

1ST AVENUE
GRANT ROAD TO RIVER ROAD

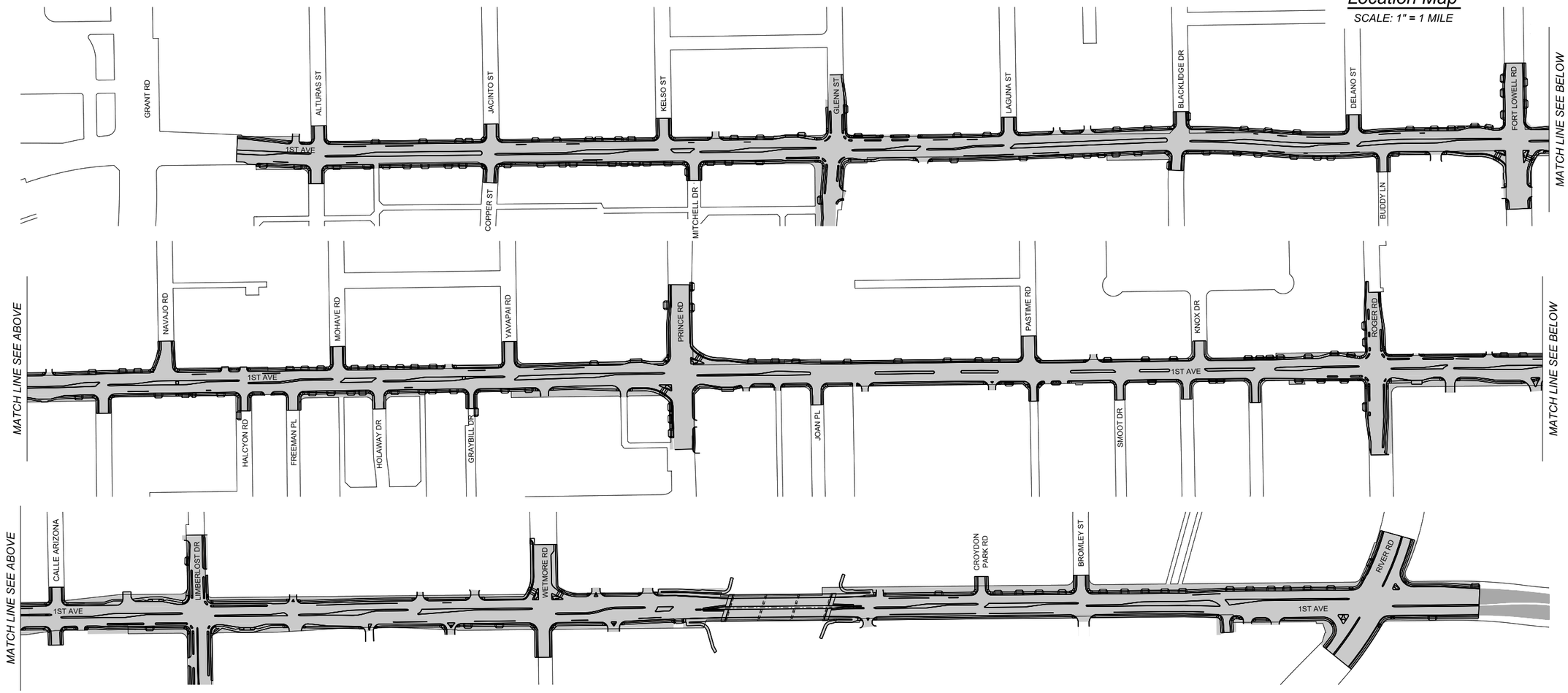
GENERAL DESCRIPTION OF PROJECT

The proposed scope of work for this project is the reconstruction of 1st Avenue to a four-lane, median divided arterial roadway. This includes sidewalk, lighting, traffic signal, and storm drain improvements. The existing bridge over the Rillito River will be replaced with three-span twin bridges.

CITY OF TUCSON PROJECT NUMBER PRJ 230193



Location Map
SCALE: 1" = 1 MILE



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

HDR

0 200 400
SCALE: 1"=200'

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY - ENGINEERING DIVISION

CITY OF TUCSON

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

Approvals	Signatory	Date
DESIGN SECTION/PERMITS AND CODES		
TRAFFIC ENGINEERING		
STREETS AND TRAFFIC MAINTENANCE		
ENGINEERING LANDSCAPE ARCH		
ENGINEERING ADMINISTRATOR		

Approved _____ 20 __
TRANSPORTATION DIRECTOR

DRWN. BY JAR 2026 | CHKD. BY JMF 2026 | APPR. BY BJK 2026

REF. _____ SCALE: N.T.S.

PLAN NO. R-2024-XXX

1 OF 504

c:\pwworking\west01\d3987900\i0C-01.dgn
8/25/2026 2:34:47 PM

OpenRoads Designer v10.12.02.4
8/26/2026
5:05:14 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMAAMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

GENERAL NOTES

1. HORIZONTAL CONTROL:
HORIZONTAL DATUM: ARIZONA COORDINATE SYSTEM, NORTH AMERICAN DATUM (NAD) 1983 (2011) WITH 2010 EPOCH, CENTRAL ZONE 0202, IN INTERNATIONAL FEET, USING A COMBINED SCALE FACTOR (CF), 0.9998910 (1/CF=1.00010901188). SURFACE NORTHING AND EASTING COORDINATES ARE DERIVED BY DIVIDING THE STATE PLANE GRID COORDINATES BY THE COMBINED SCALE FACTOR (SURFACE VALUE=GRID VALUE/CF).

2. BASIS OF BEARING:
THE BASIS OF BEARING FOR THIS PROJECT IS NORTH 00°02'30"WEST, AND WAS DERIVED USING THE PREVIOUSLY DESCRIBED HORIZONTAL DATUM AND OBSERVED BETWEEN LOCATIONS OF POINT NO. 600 AN ESTABLISHED 1/2" REBAR FLUSH WITH NO TAG LOCATED AT THE SOUTHEAST CORNER OF SECOND (2ND) AVENUE AND GRANT ROAD LAYING 19 FEET EAST OF 2ND AVENUE'S EAST RIGHT-OF-WAY LINE TO POINT NO. 606 A PIMA COUNTY'S ONLINE POSITIONING USER SERVICE (OPUS) "13S13E_N25"AND ALSO KNOWN AS PIMA COUNTY SURVEY DESIGNATION "NN-148"WHICH IS A FOUND 9/16" STAINLESS STEEL PIN IN PVC SLEEVE INCASED IN CONCRETE WITH NO LID, THE RIM IS STAMPED "NN-148 1991" LAYING 0.30' BELOW GROUND, AND LOCATED 750 FEET SOUTH OF THE INTERSECTION OF RIVER ROAD AND FIRST (1ST) AVENUE AND 48 FEET WEST OF THE RANGE LINE BETWEEN SECTION 24 OF T.13S., R.13E. AND SECTION 19 OF T.13S. R.14E., OF GILA AND SALT RIVER MERIDIAN. THE HORIZONTAL SURFACE DISTANCE BETWEEN THESE TWO MONUMENTS IS 15749.11 FEET.

3. VERTICAL CONTROL:
THE BASIS OF ELEVATION (B.O.E.) AND PRIMARY HORIZONTAL CONTROL POINT FOR THIS PROJECT IS POINT NO. 606 A PIMA COUNTY'S ONLINE POSITIONING USER SERVICE (OPUS) "13S13E_N25"AND ALSO KNOWN AS PIMA COUNTY SURVEY DESIGNATION "NN-148"WHICH IS A FOUND 9/16" S TAINLESS STEEL PIN IN PVC SLEEVE INCASED IN CONCRETE WITH NO LID, THE RIM IS STAMPED "NN-148 1991" LAYING 0.30' BELOW GROUND, AND LOCATED 750 FEET SOUTH OF THE INTERSECTION OF RIVER ROAD AND 1ST AVENUE AND 48 FEET WEST OF THE RANGE LINE BETWEEN SECTION 24 OF T.13S., R.13E. AND SECTION 19 OF T.13S. R.14E., OF GILA AND SALT RIVER MERIDIAN., AS SHOWN ON PIMA COUNTY GPS OCCUPATION SHEET PID - GPS0143, AND HAVING AN ORTHOMETRIC ELEVATION = 2322.01 FEET BASED UPON NORTH AMERICAN VERTICAL DATUM (NAVD) 1988 INTERNATIONAL FEE, AND USING GEOID18.

4. THE PRIMARY CONTROL POINT IS THE SAME PIMA COUNTY DOT OPUS CONTROL POINT "13S13E_N25" AS DESCRIBED UNDER VERTICAL CONTROL, WHICH IS AN OPUS RESOLVED STATIC SOLUTION. THE SECONDARY CONTROL POINTS WERE ESTABLISHED FOR THIS PROJECT BASED UPON THE PRIMARY CONTROL POINT. THE CONTROL POINTS USED FOR THIS PROJECT HAVE THE FOLLOWING COORDINATE VALUES:

POINT & NAME		NORTHING INTERNATIONAL FEET	EASTING INTERNATIONAL FEET	ORTHOMETRIC ELEVATION INTERNATIONAL FEET
PRIMARY CONTROL PT. & B.O.E.				
13S13E_N25 PT. #606	2011 GRID SURFACE			
SECONDARY CONTROL PTS.				
EPS CP Pt. #600	2011 GRID	455,991.8630	995,235.8940	
½"REBAR	SURFACE	456,041.572 0	995,344.3870	2415.22
LOCATED NORTHEAST OF NORTH STREET AND 2ND AVENUE.				
EPS CP Pt. #604	2011 GRID	462,701.2200	995,560.2240	
½"REBAR	SURFACE	462,751.6600	995,668.7520	2354.20
LOCATED EAST OF FIRST AVENUE IN ALLEY BETWEEN FREEMAN PLACE AND HOLMAN DRIVE.				
EPS CP Pt. #607	2011 GRID	471,224.0410	995,327.2250	
½"REBAR	SURFACE	71,275.4110	995,435.7280	2323.79
LOCATED SOUTHEAST OF FIRST AVENUE AND BROMLEY STREET.				

5. ALL STATIONING SHOWN ON THE PLANS AND PROFILES IS ALONG THE CONSTRUCTION CENTERLINE UNLESS OTHERWISE NOTED.

6. ALL CONSTRUCTION SHALL CONFORM TO 2015 EDITION OF THE PIMA ASSOCIATION OF GOVERNMENTS (PAG) STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC IMPROVEMENTS EXCEPT AS MODIFIED IN THE CONTRACT SPECIFICATIONS OR PLANS. PAVEMENT MARKING SHALL CONFORM TO THE PC/COT SIGNING & PAVEMENT MARKING DESIGN MANUAL, 2020 FIRST EDITION. REFERENCED ADOT STANDARDS ARE PER THE LATEST EDITION ADOT BRIDGE GROUP STRUCTURE DETAIL DRAWINGS, CONSTRUCTION STANDARD DRAWINGS, & SIGNING AND MARKING STANDARD DRAWINGS.

7. EXISTING OVERHEAD ELECTRIC, TELEPHONE AND CABLE T.V. UTILITIES AND UNDERGROUND ELECTRIC, GAS, T.V. AND TELEPHONE UTILITIES WILL BE RELOCATED BY OTHERS.

8. SURVEY MONUMENTS WILL BE FURNISHED AND PLACED BY THE CONTRACTOR PER PAG STD. DTL. 103 SHT. 1 OF 3 OR SHT. 2 OF 3. SEE GEOMETRIC LAYOUT AND PAVING PLAN AND PROFILE SHEETS FOR LOCATIONS.

9. ALL SURVEY MONUMENTS SHALL BE ESTABLISHED BY A LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA, AND A RECORD OF SURVEY WILL BE PROVIDED.

10. RADII ARE MEASURED TO FRONT FACE OF CURB PER C.O.T. STANDARDS.

11. CONSTRUCTION ZONE TRAFFIC CONTROL SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, EDITION OF 2023, AND THE SPECIAL PROVISIONS.

12. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

13. SOUTHWEST GAS HAS VALVES WITHIN THE PROJECT AREA THAT MAY NEED TO BE PROTECTED AND ADJUSTED TO FINAL GRADE. THE CONTRACTOR MUST CONTACT SOUTHWEST GAS FOR ADJUSTING VALVES AT LEAST TWO WEEKS PRIOR TO THE START OF CONSTRUCTION BY CALLING (520) 794-6208.

14. SOUTHWEST GAS REQUIRES A 1-FOOT MINIMUM SEPARATION WHEN CROSSING ITS DISTRIBUTION FACILITIES AND A 3-FOOT MINIMUM SEPARATION WHEN CROSSING HIGH PRESSURE MAINS.

15. SWPPP MEASURES SHALL BE INSTALLED SO AS TO PREVENT ALL STORM WATER, CONSTRUCTION WATER, FUELS, CHEMICALS OR LIQUIDS FROM BEING DIRECTED INTO OR ONTO ANY SANITARY SEWER FACILITIES. PROTECTION OF SANITARY SEWER FACILITIES SHALL BE A PART OF THE APPROVED CONSTRUCTION SWPPP AND BEST MANAGEMENT PRACTICES. PROTECTION DEVICES SHALL BE INSTALLED AND MAINTAINED AROUND ALL POTENTIALLY AFFECTED SANITARY SEWER FACILITIES WITHIN THE PROJECT LIMITS. ADDITIONAL MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO THE USE OF RAIN STOPPERS AND WATERPROOF MANHOLE COVERS AS DEEMED NECESSARY BY THE PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT.

16. THE CONTRACTOR SHALL VERIFY EXISTENCE OF ALL UTILITIES BY CALLING BLUE STAKE AT 1-800-782-5348 48 HOURS PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE, AND ARE SHOWN USING THE BEST AVAILABLE DATA. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DEPTH AND HORIZONTAL LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. ANY AND ALL DAMAGE DONE BY THE CONTRACTOR TO EXISTING UTILITIES DURING CONSTRUCTION SHALL BE THE FAULT OF THE CONTRACTOR, WITH THE CONTRACTOR BEARING ALL FINANCIAL RESPONSIBILITY.

17. THE CONTRACTOR SHALL INSTALL ALL PERMANENT PAVEMENT MARKINGS, AND ALL PERMANENT TRAFFIC CONTROL SIGNS.

18. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS, ALLEYS, AND MAILBOXES DURING CONSTRUCTION. THE CONTRACTOR WILL NOT RESTRICT EMERGENCY VEHICLES, US POSTAL DELIVERY, SOLID WASTE COLLECTIONS AND/OR ACCESS TO THE ADJACENT PROPERTIES EXCEPT AS APPROVED BY THE ENGINEER.

19. A COPY OF THESE PLANS SHALL BE KEPT IN AN EASILY ACCESSIBLE LOCATION ON THE SITE AT ALL TIMES DURING CONSTRUCTION.

20. ANY EXCESS EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE PROJECT SITE BY THE CONTRACTOR.

22. IN THE EVENT THAT HUMAN REMAINS, INCLUDING HUMAN SKELETAL REMAINS, CREMATIONS, AND/OR FUNERARY OBJECTS ARE FOUND DURING EXCAVATION OR VICINITY OF THE DISCOVERY. STATE LAWS ARS 41-865 AND ARS 41-844 REQUIRE THAT THE ARIZONA STATE MUSEUM BE NOTIFIED OF THE DISCOVERY AT (520) 621-4795 SO THAT CULTURAL GROUPS WHO CLAIM CULTURAL OR RELIGIOUS AFFINITY TO THEM CAN MAKE APPROPRIATE ARRANGEMENTS FOR THE REPATRIATION AND REBURIAL OF THE REMAINS. THE HUMAN REMAINS WILL BE REMOVED FROM THE SITE BY A PROFESSIONAL ARCHAEOLOGIST PENDING CONSULTATION AND REVIEW BY THE ARIZONA STATE MUSEUM AND THE CONCERNED CULTURAL GROUPS.

23. THE CONTRACTOR SHALL NOT DAMAGE NATURAL GROWTH WITHIN PRIVATE PROPERTY. ALL WORK SHALL BE DONE WITHIN EASEMENTS, ROADWAYS, AND ALLEYS.

24. WHEN MATCHING EXISTING PAVEMENT OR CURB AND GUTTER, THE CONTRACTOR MUST VERIFY EXISTING ELEVATIONS TO ENSURE PROPER DRAINAGE AND GRADES. ANY DISCREPANCIES WITH THE PLANS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

25. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH, HAUL, AND APPLY ALL WATER REQUIRED FOR COMPACTION, AND FOR THE CONTROL OF DUST FROM CONSTRUCTION ACTIVITY. THE COST FOR THIS WORK IS TO BE INCLUDED IN THE CONSTRUCTION PRICE.

21. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.

26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE, MAINTENANCE, REPAIR OR REPLACEMENT OF EXISTING IMPROVEMENTS IN THE WORK AREA WHICH HAVE BEEN REMOVED OR DAMAGED DURING THE COURSE OF CONSTRUCTION. ALL REPAIR, REPLACEMENT, OR CLEANUP SHALL BE DONE TO THE SATISFACTION OF THE OWNER.

27. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.

INDEX OF SHEETS

SHEET NUMBER	SHEET TYPE
1	COVER SHEET
2 - 3	DESIGN SHEETS
4 - 9	TYPICAL SECTIONS & PAVEMENT SECTIONS
10 - 14	PIPE SUMMARY SHEET
15 - 24	DRAINAGE DETAILS
25 - 69	GEOMETRIC LAYOUT SHEET
70 - 172	ROADWAY PLAN & PROFILE SHEETS
173 - 209	DEMOLITION PLAN
210 - 219	STORM DRAIN PLAN & PROFILE SHEETS
220 - 257	STRIPING PLAN
258 - 294	LIGHTING PLAN
295 - 324	SIGNAL PLAN
325 - 365	HARDSCAPE PLAN
366 - 405	PLANTING PLAN
406 - 447	IRRIGATION PLAN
448 - 450	BRIDGE AESTHETICS
451 - 455	RETAINING WALL SHEETS
456 - 464	BRIDGE PLAN SHEETS
465 - 504	RECORD OF SURVEY

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DESIGN SHEET SHEET 1 OF 2

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

2 OF 504

CITY OF TUCSON | DRWN. BY JAR AUG 2026 | CHKD. BY JMF AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: NTS | PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\0C-02.dgn
8/26/2026 5:05:14 PM

OpenRoads Designer v10.12.02.4
8/27/2026
2:25:29 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

1ST AVE DESIGN DATA

DESIGN SPEED = 45 MPH
POSTED SPEED = 30 MPH

GRANT ROAD TO GLENN STREET
2026 ADT = 25,089
2045 ADT = 28,100

GLENN STREET TO FORT LOWELL ROAD
2026 ADT = 27,480
2045 ADT = 31,100

FORT LOWELL ROAD TO PRINCE ROAD
2026 ADT = 33,087
2045 ADT = 36,800

PRINCE ROAD TO ROGER ROAD
2026 ADT = 30,851
2045 ADT = 34,000

ROGER ROAD TO LIMBERLOST DRIVE
2026 ADT = 30,143
2045 ADT = 33,000

LIMBERLOST DRIVE TO WETMORE ROAD
2026 ADT = 30,804
2045 ADT = 33,900

WETMORE ROAD TO RIVER ROAD
2026 ADT = 29,758
2045 ADT = 31,500

DESIGN VEHICLE

COLLECTOR AND LOCAL INTERSECTIONS

TYPICAL	*WB-40*
CHECK	*CITY-BUS*

LEGEND

LEGEND USED IS PER PAG STANDARD DETAIL FOR PUBLIC IMPROVEMENTS 2015 EDITION DETAIL 100 AND 101 AS FOLLOWS:

NEW	EXISTING	ITEM
		TRAFFIC SIGNAL (TWO HEAD)
		GUY WIRE AND/OR GUY POLE
		UTILITY POLE
		TELEPHONE MANHOLE
		PAVEMENT REMOVAL
		NEW STORM DRAIN
		NEW RIGHT OF WAY
		EXISTING RIGHT OF WAY
		TEMPORARY CONST. ESMT.
		NEW PAVEMENT
		MILL AND OVERLAY

BID ITEM LEGEND

ITEM NO.	Symbol	Description
9080041	Curb-6	Concrete Vertical Curb - Type 2 PAG Std. Dtl. 209, H=6"
90800XX	Curb-RO	2' Roll Curb - Type C MAG Std. Dtl. 220-1
9080006	Wedge	Concrete Wedge Curb PAG Std. Dtl. 209
9080305	DW	Concrete Driveway See Detail X
9080203	SW	Concrete Sidewalk PAG Std. Dtl. 200
9080204	Pad	Concrete Bus Stop Pad PAG Std. Dtl. 209 (6" Thick)
9080210	Shelter	Bus Stop Shelter
9350001	Ramp-A	Concrete Access Ramp PAG Std. Dtl. 207
9080290	Ramp-B	Concrete Access Ramp See Detail X
9080293	Ramp-C	Concrete Access Ramp See Detail X
9080294	PCCP	Concrete Access Ramp See Detail X
9080295	SUP	Shared-Use Path

LENGTH OF PROJECT

1ST AVENUE CONST. ℄: STA. 13+82.62 TO STA. 182+00 = 16,817.38' = 3.19 MILES

EARTHWORK SUMMARY	
ROADWAY EXCAVATION	*54,226 C.Y.*
DRAINAGE EXCAVATION	*473 C.Y.*
TOTAL EXCAVATION	*54,699 C.Y.*
ROADWAY EMBANKMENT	*11,709 C.Y.*
WASTE	*48,733 C.Y.*
BORROW	*3,216 C.Y.*

Note:

1. *Earthwork volumes presented are inclusive of both project phases: Phase 1: River Road to Wetmore Road. Phase 2: Wetmore Road to Grant Road.*
2. *Earthwork quantities presented in this summary do not include shrink or swell.*

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DESIGN SHEET *SHEET 2 OF 2*

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

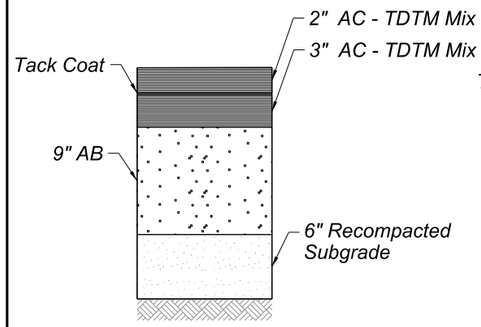
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

3 OF 504

CITY OF TUCSON

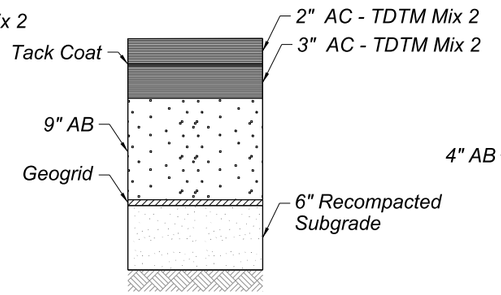
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: NTS
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\0C-02A.dgn
8/27/2026 2:25:29 PM



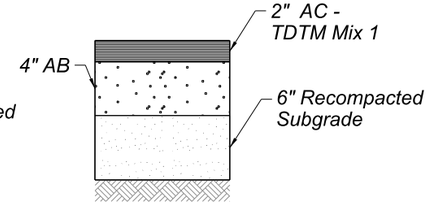
PAVEMENT STRUCTURAL SECTION NUMBER 1

1ST AVENUE
STA. 103+00 TO STA. 177+91



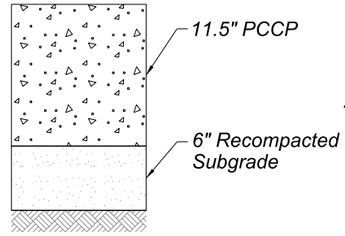
PAVEMENT STRUCTURAL SECTION NUMBER 2

1ST AVENUE
STA. 13+83 TO STA. 103+00,



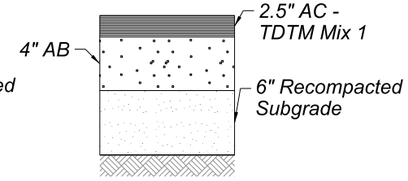
PAVEMENT STRUCTURAL SECTION NUMBER 3

MINOR SIDE ROADS, DRIVEWAYS, AND PARKING LOTS



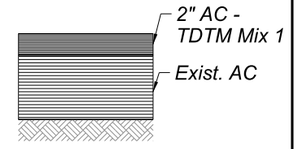
PAVEMENT STRUCTURAL SECTION NUMBER 4

BUS BAYS



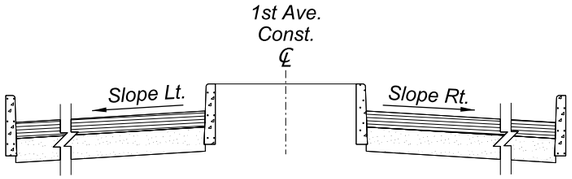
PAVEMENT STRUCTURAL SECTION NUMBER 5

MULTI - USE PATH

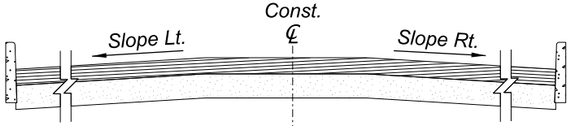


PAVEMENT STRUCTURAL SECTION NUMBER 6

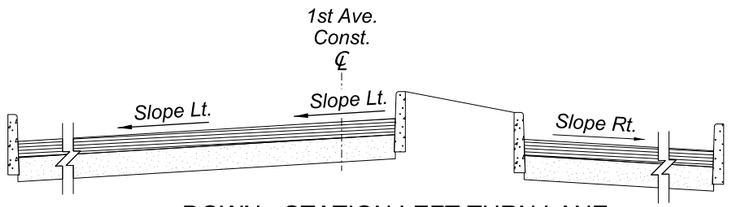
MILL AND OVERLAY
1ST AVENUE
STA. 177+90.52 TO STA. 182+00



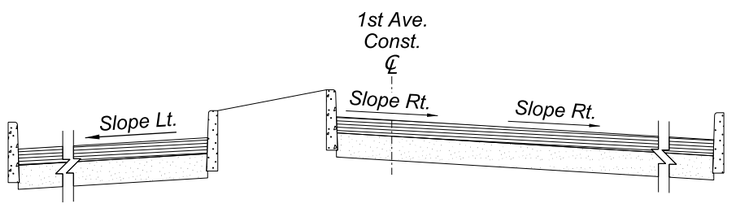
WITH MEDIAN



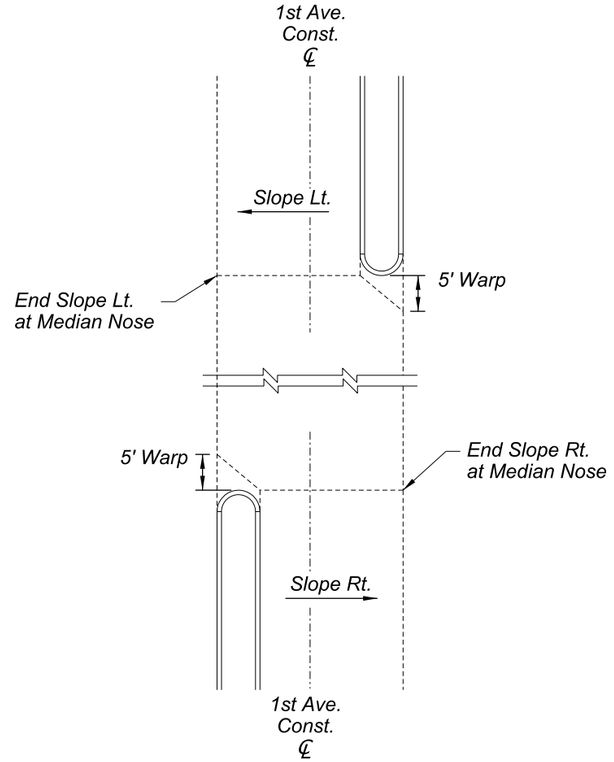
INTERSECTION WITH MEDIAN OPENING



DOWN - STATION LEFT TURN LANE



UP - STATION LEFT TURN LANE



DETAIL

PROFILE GRADE AND CROSS SLOPE CONTROL

NOTES:

1. *These Sections represent the typical roadway layout in relation to the Construction CL only. See Geometric Layout Sheets, Paving Plans, Staking Plans, and Retaining Wall Plans for additional information.*
2. *Detail sections for non-typical edge treatments at specific locations are shown on the Paving Plans.*
3. *The Existing and Proposed Right-of-Way varies throughout the project corridor. Refer to the Right-of-Way and Paving Plans for detailed information.*

TYPICAL SECTIONS *SHEET 1 OF 6*

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

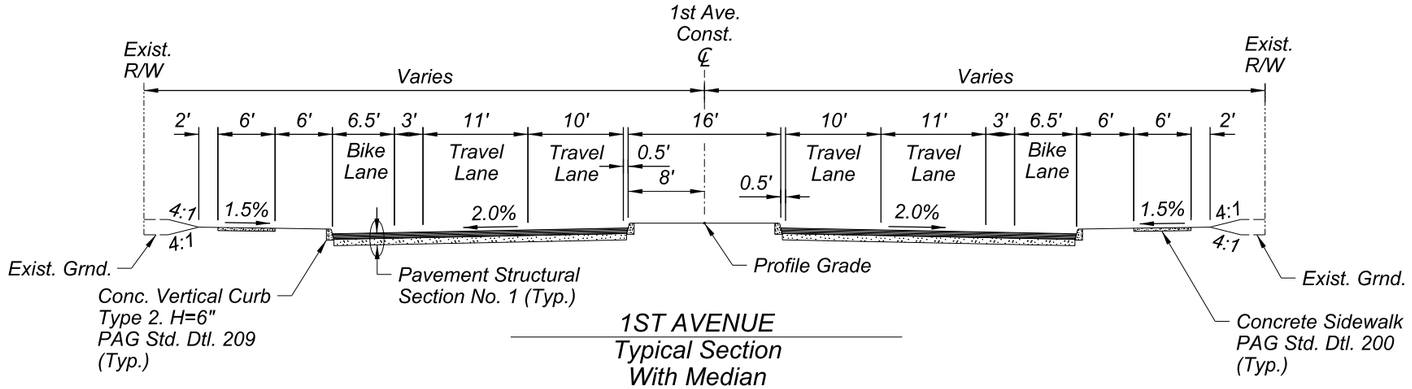
CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JMF AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: NTS | PLAN NO. R-2024-XXX

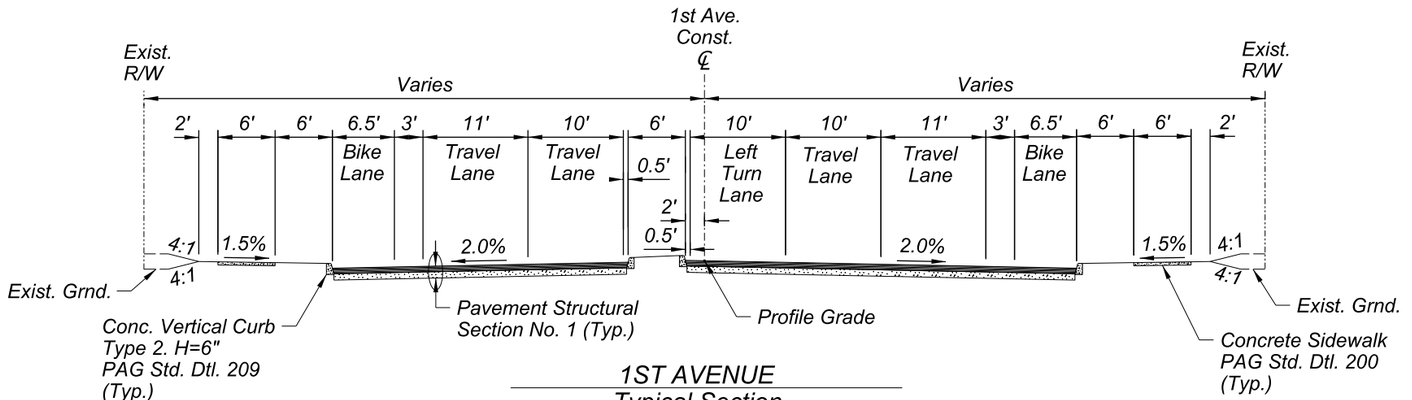
4 OF 504

Project ID: Client Number: 4109
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl Plotdriver: GN_bwpdf_SD.pltcfg
Printed by: SWESTMORELAND Print Scale: 1:0.0833333
OpenRoads Designer v10.12.02.4 8/25/2026 3:13:10 PM

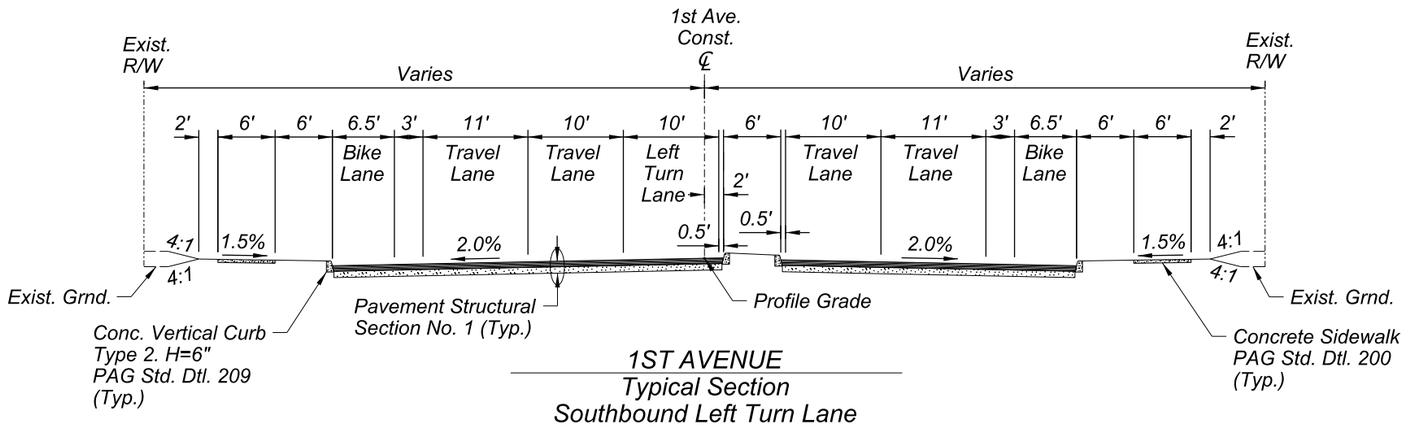
c:\pwworking\west01\d3987900\00C-03.dgn
8/25/2026 3:13:10 PM



1ST AVENUE
Typical Section
With Median



1ST AVENUE
Typical Section
Northbound Left Turn Lane



1ST AVENUE
Typical Section
Southbound Left Turn Lane

TYPICAL SECTIONS *SHEET 2 OF 6*

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

5 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

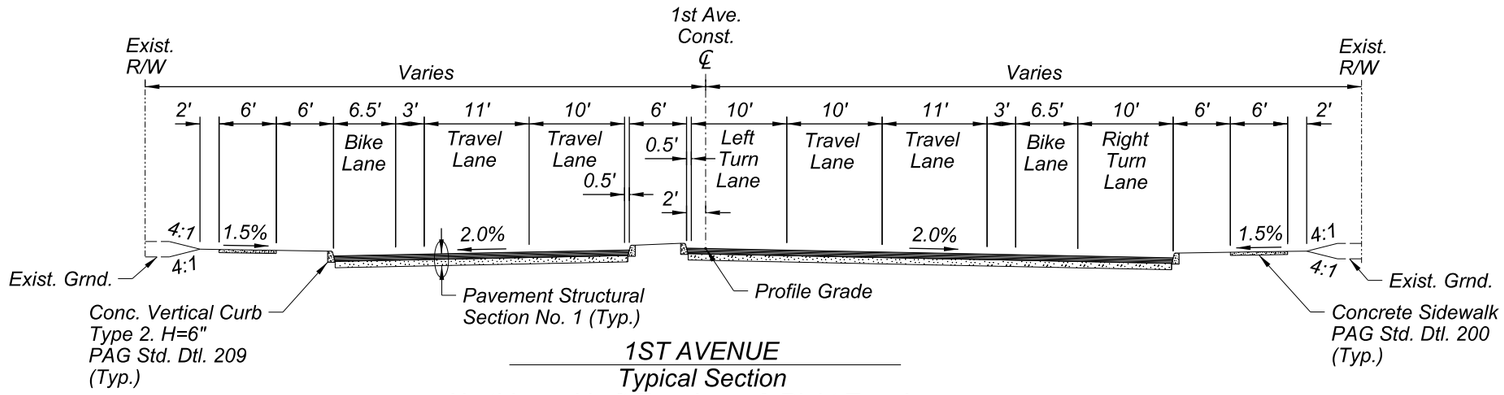
Project ID:
Client Number: 4109

Printed by: TCOLE
Print Scale: 1:0.0833333

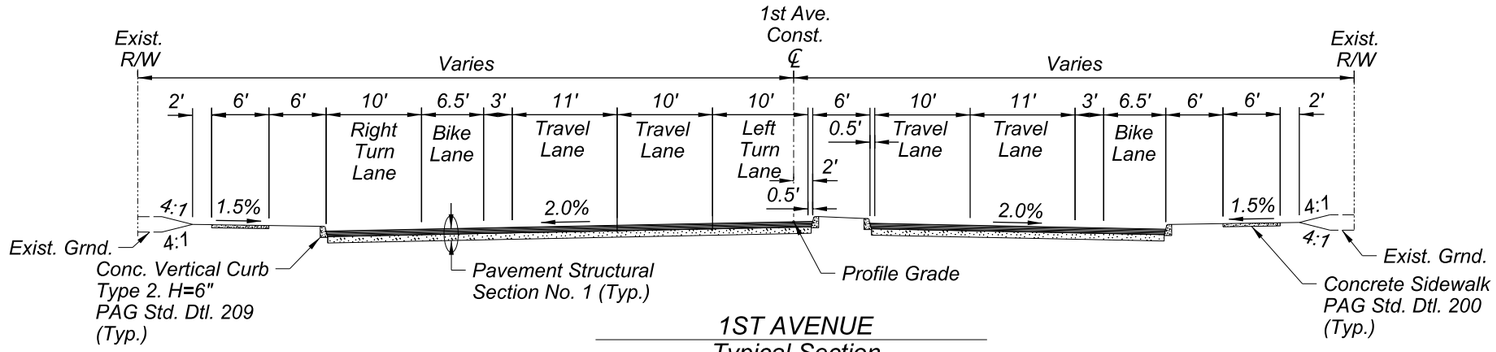
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_fwpdf_SD.pltcfg

11:12:11 AM 8/20/2026 OpenRoads Designer v10.12.02.4

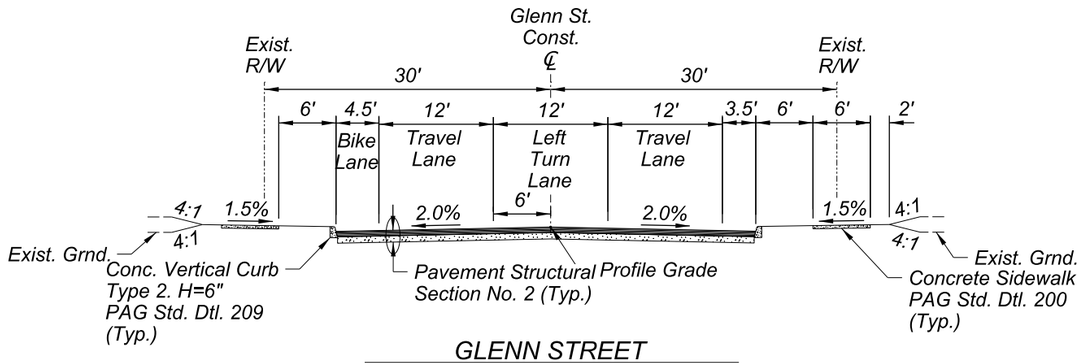
c:\pwworking\west01\d3987900\00C-03A.dgn
8/20/2026 11:12:11 AM



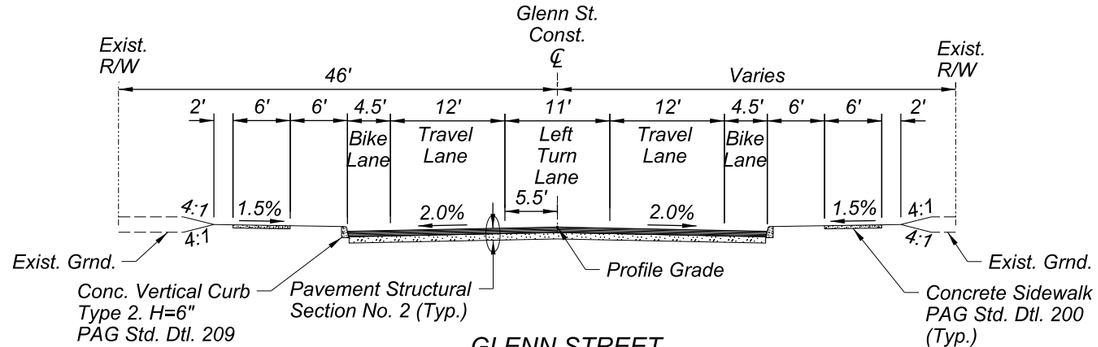
1ST AVENUE
Typical Section
Northbound Left Turn Lane & Right Turn Lane



1ST AVENUE
Typical Section
Southbound Left Turn Lane & Right Turn Lane



GLENN STREET
Typical Section
Westbound Left Turn Lane



GLENN STREET
Typical Section
Eastbound Left Turn Lane

TYPICAL SECTIONS *SHEET 3 OF 6*

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

6 OF 504

CITY OF TUCSON

DRWN. BY JAR	CHKD. BY JMF	APPR. BY BJK	SCALE: NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

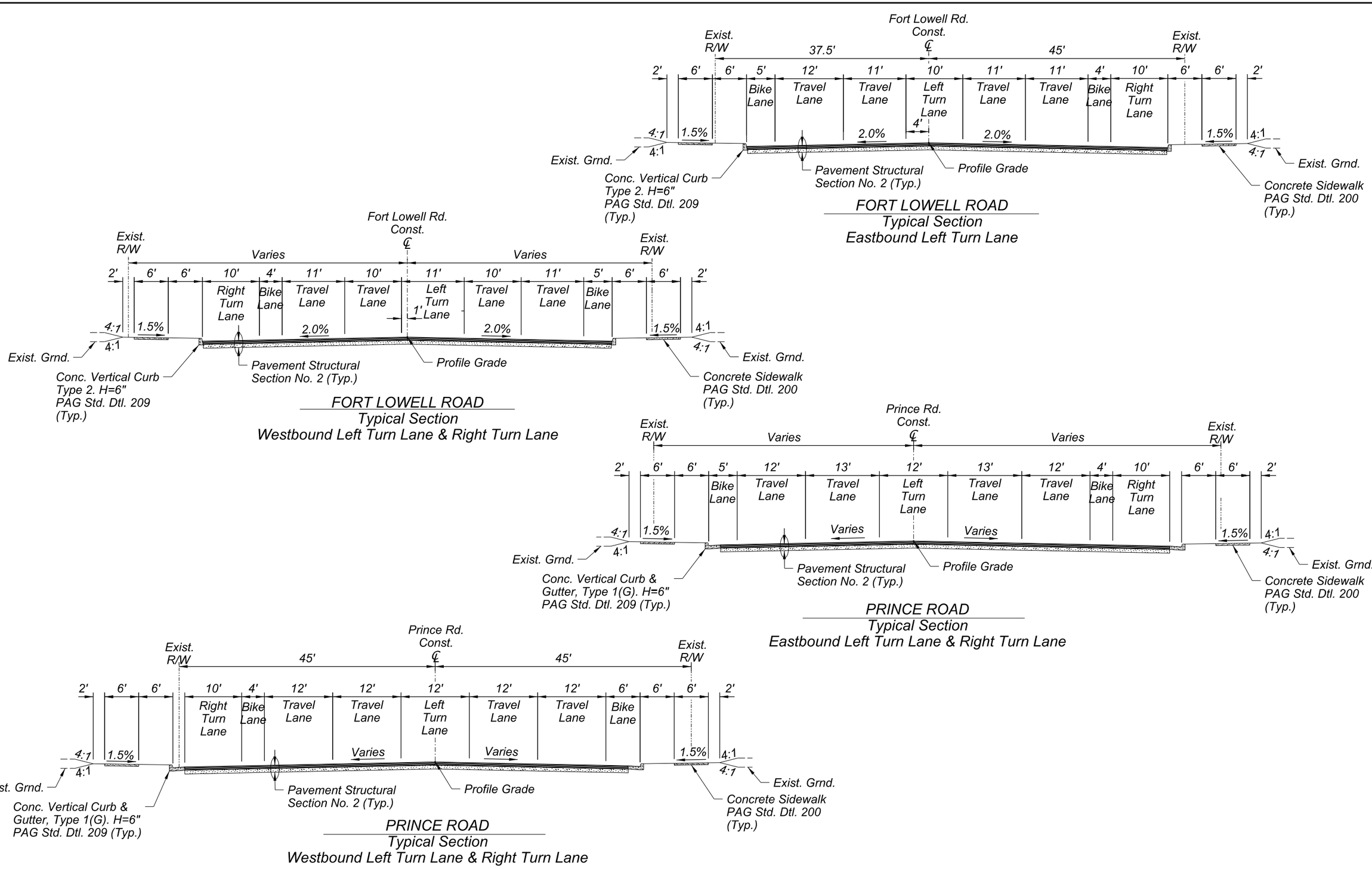
Project ID:
Client Number:4109

Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg

Printed by:TCOLE
Print Scale: 1:0.0833333

8/20/2026 11:12:58 AM OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3987900\00C-03B.dgn
8/20/2026 11:12:58 AM



TYPICAL SECTIONS

SHEET 4 OF 6

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

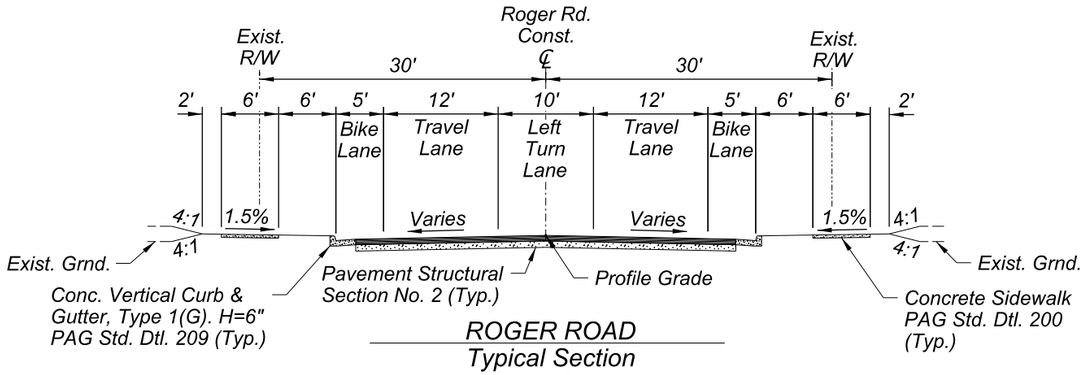
7 OF 504

CITY OF TUCSON

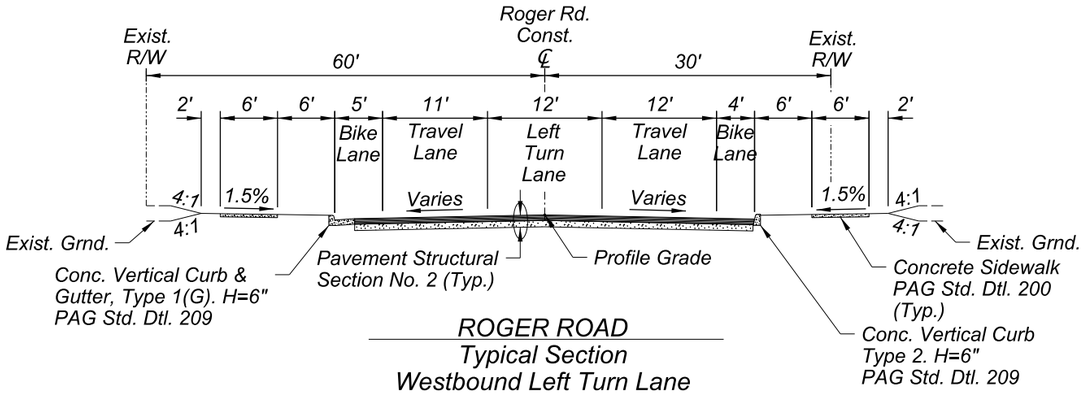
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: NTS
PLAN NO. R-2024-XXX

Project ID:
Client Number: 41109
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_hwpdf_SD.pltcfg
Printed by: TCOLE
Print Scale: 1:0.0833333
11:13:52 AM
8/20/2026
OpenRoads Designer v10.12.02.4

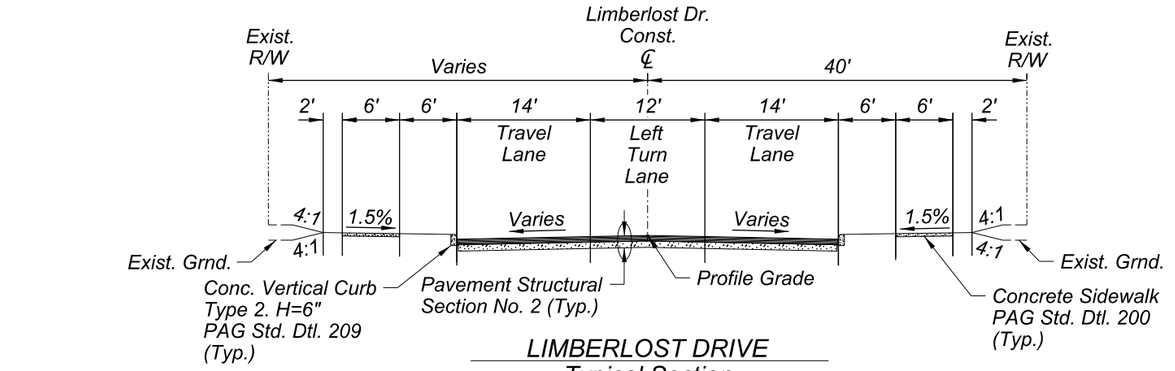
c:\pwworking\west01\d3987900\00C-03C.dgn
8/20/2026 11:13:52 AM



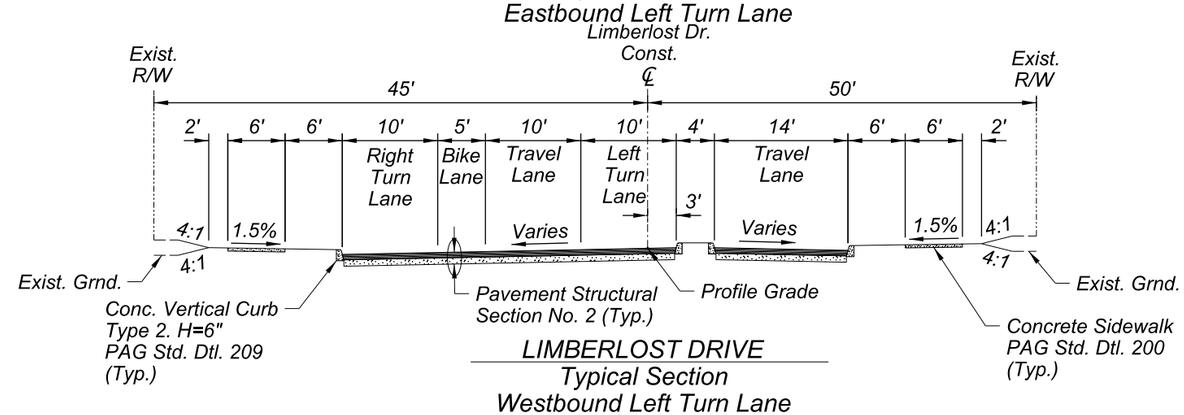
ROGER ROAD
Typical Section
Eastbound Left Turn Lane



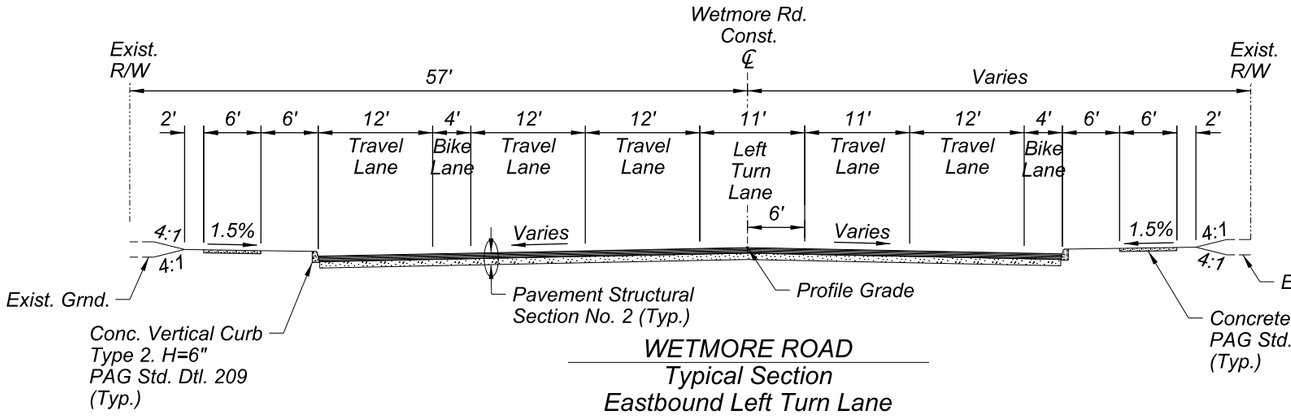
ROGER ROAD
Typical Section
Westbound Left Turn Lane



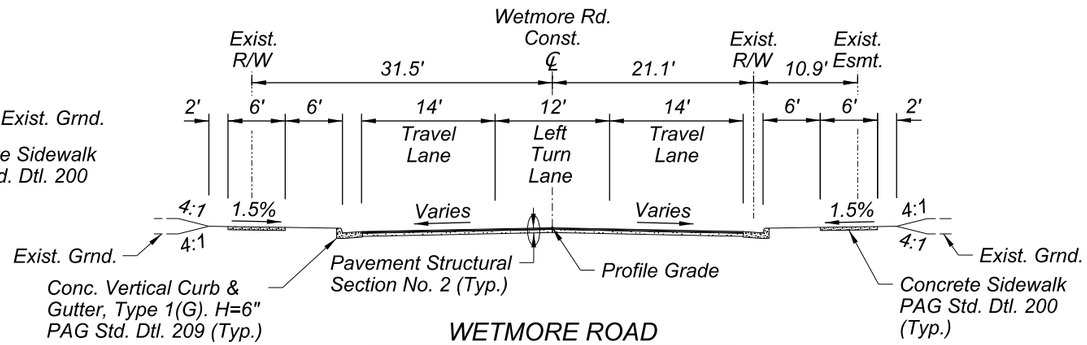
LIMBERLOST DRIVE
Typical Section
Eastbound Left Turn Lane



LIMBERLOST DRIVE
Typical Section
Westbound Left Turn Lane



WETMORE ROAD
Typical Section
Eastbound Left Turn Lane



WETMORE ROAD
Typical Section
Westbound Left Turn Lane

TYPICAL SECTIONS

SHEET 5 OF 6

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

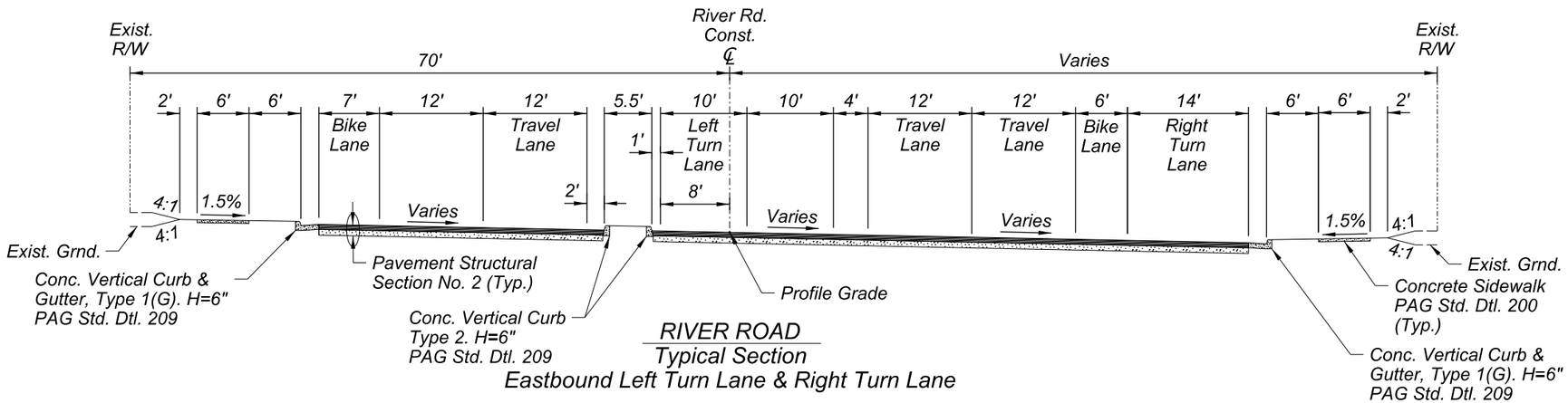
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

8 OF 504

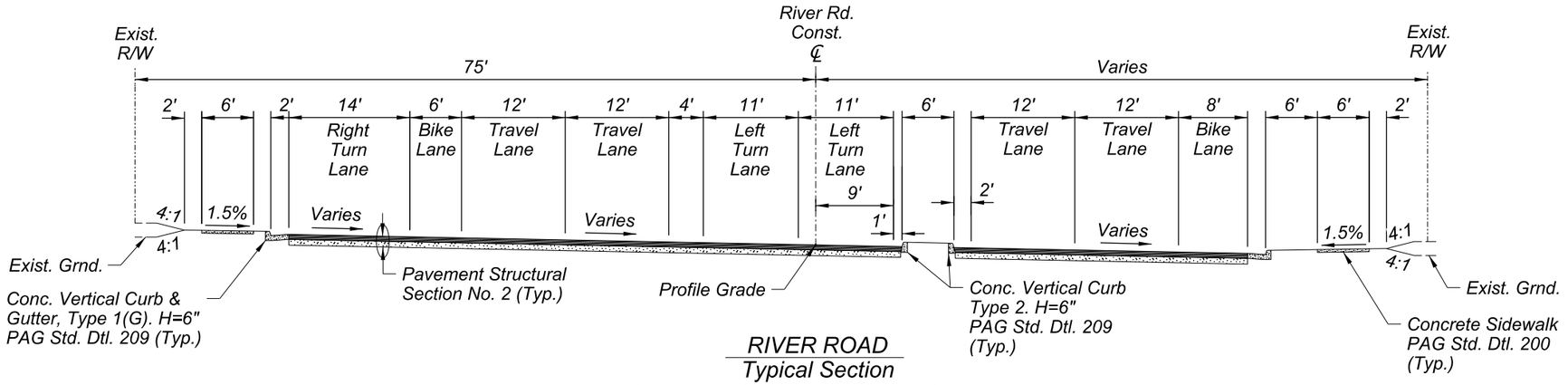
CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: NTS
PLAN NO. R-2024-XXX

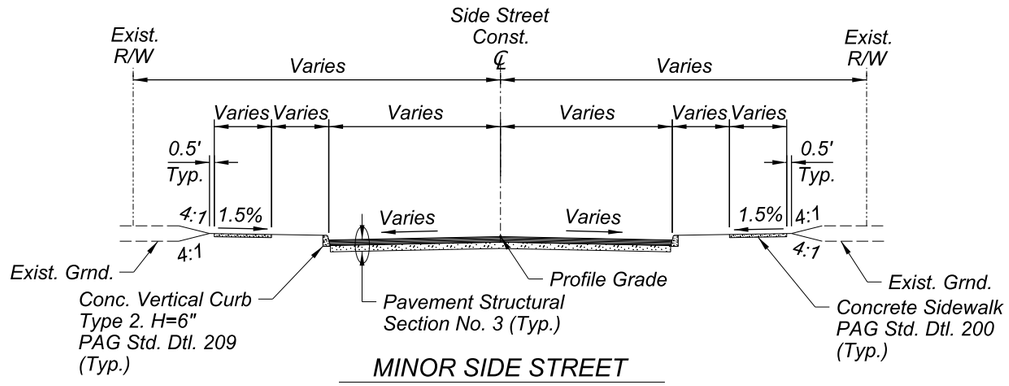
Printed by: TCOLE
Print Scale=10.0833333
8/20/2026 11:14:47 AM
OpenRoads Designer v10.12.02.4
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_fwpdf_SD.plotcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\00C-03D.dgn
8/20/2026 11:14:47 AM



RIVER ROAD
Typical Section
Eastbound Left Turn Lane & Right Turn Lane



RIVER ROAD
Typical Section
Westbound Left Turn Lane & Right Turn Lane



MINOR SIDE STREET

TYPICAL SECTIONS SHEET 6 OF 6

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

9 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/27/2026
3:40:52 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\00C-03E.dgn
8/27/2026 3:40:52 PM

NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.000) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

NOTE:
FOR PIPE CULVERT PLACEMENT SEE STANDARD DRAWINGS C-13.10 AND C-13.15

NOTE:
PIPE OPTIONS SELECTED ARE THOSE REQUIRED TO MEET MINIMUM SERVICE LIFE.
ALLOWABLE PIPE OPTIONS ARE INDICATED WITH THE LETTER 'X' IN THE SPACE. BLANK SPACES ARE NOT ALLOWABLE ALTERNATES.

CSP - CORRUGATED STEEL PIPE
CAP - CORRUGATED ALUMINUM PIPE
RCP - REINFORCED CONCRETE PIPE
NRCP - NON-REINFORCED CONCRETE PIPE
NRCIPCP - NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEPP - CORRUGATED HIGH-DENSITY POLYETHYLENE PLASTIC PIPE

		DESCRIPTION						CSP								CAP							RCP							NRCP	NRCIPCP	CHDPEPP	CPPP	END TREATMENT																		QUANTITIES	
					In.	In.	Ft.	Degree	In.	Coating						In.															In.				Each	Catch Basin, Manhole, Headwall & Junction Structure																	Cubic Yard	
	Station	Plan Reference Number	Controlling Fill Height Range	Size, Corrugated	Size, Smooth	Length (0)	Skew (0)	Corrugation	Wall Thickness (0.000)	Zinc	Bituminous Coated Zinc	Aluminum	Bituminous Coated Aluminum	Corrugation	Wall Thickness (0.000)	Uncoated	Bituminous Coated	Class - Non-Trench	Class - Trench	Class	Minimum Wall Thickness (0)	AASHTO M-294 Type S	AASHTO M-230 Type S	C-13.20 & C-13.25	Detail	Size, (In) Manhole	Standard or Detail	End Section	S-Single / D-Double	Location	H (0.0)	L Wing (0.0)	L 18" Slotted Drain (0)	L 24" Slotted Drain (0)	Type	Elevation (0.00)	Grate	Ft.	Inlet Depression C-15.70	Pipe Excavation (0)	Pipe Backfill (0) C-13.15	Drainage Excavation (0)	Berm/Dike Embankment (0)	REMARKS
																																				Ea		Ft.	Grate	Ft.	In.	Ft.							
	58•39 1st Ave.	1			24	4																																												CB01
	60•23 1st Ave.	2			24	181																																											MH01
	60•25 1st Ave.	3			18	4																																											CB02
	60•04 1st Ave.	4			24	177																																											MH02
	62•05 1st Ave.	5			18	35																																											CB03
	62•06 1st Ave.	6			18	35																																											CB04
	63•01 1st Ave.	7			36	94																																											MH03
	63•02 1st Ave.	8			18	72																																											CB05
	63•29 1st Ave.	9			18	33																																											MH04, CB06
	66•35 1st Ave.	10			36	328																																											
	66•38 1st Ave.	11			18	44																																											CB07
	66•58 1st Ave.	12			18	17																																											CB08
	66•57 1st Ave.	13			18	18																																											MH05
	67•05 1st Ave.	14			18	45																																											MH06
	67•06 1st Ave.	15			36	46																																											CB09
	67•08 1st Ave.	16			36	37																																											MH07
	68•53 1st Ave.	17			36	143																																											MH08
	72•32 1st Ave.	18			72	331																																											JS02, JS02, CB10
	73•62 1st Ave.	19			18	5																																											CB12
	75•53 1st Ave.	20			18	3																																											CB13
	77•17 1st Ave.	21			72	478																																											MH09
	77•21 1st Ave.	22			18	3																																											CB14
	81•91 1st Ave.	23			72	466																																											MH10
	81•96 1st Ave.	24			18	33																																											CB15, CB16
	87•43 1st Ave.	25			72	544																																											MH11
	86•67 1st Ave.	26			18	40																																											MH11
	88•20 1st Ave.	27			18	11																																											CB19
	Sheet Total					3227																																						X	X					

REV. DATE:

Notes:

1. *All Type 3 & Type 4 catch basins shall have concrete aprons.*
2. *Station shown is approximate. See Pipe Profiles for stationing.*
3. *Unless otherwise noted reference point for catch basins:*
   -Center of sump at face of curb for CB's in roadway.
   -Center of structure for Type 4 CB's located behind the curb.

FILL HEIGHT RANGE TABLE (Ft.)

RANGE NO.		1	2	3	4	5	6	7	8	9	10	11	12
FILL	>	1	3	5	8	11	15	20	25	30	40	55	70
HEIGHT (Ft.)	≤	3	5	8	11	15	20	25	30	40	55	70	90

◒ SHOULD FIELD CONDITIONS VARY FROM THE RANGE INDICATED, CONTACT DESIGN FOR RE-EVALUATION OF PIPE DESIGN REQUIREMENTS.

◪ PIPE CORRUGATION

A	2⅔x½	D	6x2
B	3x1	E	3x1 or 9x2½
C	9x2½		

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

PIPE SUMMARY SHEET

SHEET 1 OF 5

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

10 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JMF AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: NTS | PLAN NO. R-2024-XXX

Project ID:
Client Number:4109
Pentables:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotstrtver: GN_twpdf_SD.pltcfg
Printed by:TCOLE
Print Scale: 1:0.0833333
OpenRoads Designer v10.12.02.4
8/25/2026
3:13:19 PM
c:\pwworking\west01\d3987900\000C-04.dgn
8/25/2026 3:13:19 PM

NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.000) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

NOTE:
FOR PIPE CULVERT PLACEMENT SEE STANDARD DRAWINGS C-13.10 AND C-13.15

NOTE:
PIPE OPTIONS SELECTED ARE THOSE REQUIRED TO MEET MINIMUM SERVICE LIFE.
ALLOWABLE PIPE OPTIONS ARE INDICATED WITH THE LETTER 'X' IN THE SPACE. BLANK SPACES ARE NOT ALLOWABLE ALTERNATES.

CSP - CORRUGATED STEEL PIPE
CAP - CORRUGATED ALUMINUM PIPE
RCP - REINFORCED CONCRETE PIPE
NRCP - NON-REINFORCED CONCRETE PIPE
NRCIPCP - NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEPP - CORRUGATED HIGH-DENSITY POLYETHYLENE PLASTIC PIPE

DESCRIPTION							CSP				CAP		RCP				END TREATMENT																QUANTITIES	
				In.	In.	Ft.	Degree	In.	Coating		In.					In.	Each	Catch Basin, Manhole, Headwall & Junction Structure																Cubic Yard	
Station	Plan Reference Number	Controlling Fill Height Range	Size, Corrugated	Size, Smooth	Length (0)	Skew (0)	Corrugation	Wall Thickness (0.000)	Zinc	Bituminous Coated	Aluminum	Bituminous Coated	Corrugation	Wall Thickness (0.000)	Uncoated	Bituminous Coated	Class - Non-Trench	Class - Trench	Class	Minimum Wall Thickness (0)	AASHTO M-294 Type S	AASHTO M-230 Type S	C-13.20 & C-13.25	Detail	Size, (In) Manhole	Standard or Detail	End Section	S-Single / D-Double	Location	H (0.0)	L Wing (0.0)	L 18" Slotted Drain (0)	L 24" Slotted Drain (0)	Type	Elevation (0.00)	Grate	Ft.	Inlet Depression C-15.70	Pipe Excavation (0)	Pipe Backfill (0) C-13.15	Drainage Excavation (0)	Berm/Dike Embankment (0)	REMARKS
																	Ea																		Ft.	Ft.						
																																				In.	Ft.						
																																				Depth	L (0.0)						
88+30 1st Ave.	28			18	25																																					CB18
87+53 1st Ave.	29			3x36	173																																					MH12
88+76 1st Ave.	30			18	11																																					MH14, CB20
89+56 1st Ave.	31			18	28																																					CB21
89+55 1st Ave.	32			18	56																																					MH16
89+54 1st Ave.	33			18	42																																					MH17, CB22
89+36 1st Ave.	34			72	345																																					MH15
91+11 1st Ave.	35			18	49																																					CB23
91+21 1st Ave.	36			18	4																																					MH18, CB24
92+89 1st Ave.	37			72	465																																					MH19
97+62 1st Ave.	38			72	474																																					MH20
101+85 1st Ave.	39			18	35																																					CB25
102+44 1st Ave.	40			72	38																																					MH21
102+88 1st Ave.	41			72	265																																					MH22
105+61 1st Ave.	42			72	343																																					MH23
107+70 1st Ave.	43			18	21																																					CB27
109+12 1st Ave.	44			72	462																																					MH24
112+24 1st Ave.	45			18	23																																					CB30
112+23 1st Ave.	46			18	3																																					CB29
113+82 1st Ave.	47			72	445																																					MH25
114+22 1st Ave.	48			48	111																																					
115+43 1st Ave.	49			18	51																																					CB31
115+97 1st Ave.	50			18	9																																					CB32, CB33
115+37 1st Ave.	51			48	84																																					MH26
115+91 1st Ave.	52			18	9																																					CB35, CB34
115+90 1st Ave.	53			18	48																																					
116+00 1st Ave.	54			18	24																																					MH27
Sheet Total				3643																															X	X						

REV. DATE:

Notes:

1. *All Type 3 & Type 4 catch basins shall have concrete aprons.*
2. *Station shown is approximate. See Pipe Profiles for stationing.*
3. *Unless otherwise noted reference point for catch basins:*
   -Center of sump at face of curb for CB's in roadway.
   -Center of structure for Type 4 CB's located behind the curb.

FILL HEIGHT RANGE TABLE (Ft.)

RANGE NO.		1	2	3	4	5	6	7	8	9	10	11	12
FILL HEIGHT (Ft.)	>	1	3	5	8	11	15	20	25	30	40	55	70
	≤	3	5	8	11	15	20	25	30	40	55	70	90

◒ SHOULD FIELD CONDITIONS VARY FROM THE RANGE INDICATED, CONTACT DESIGN FOR RE-EVALUATION OF PIPE DESIGN REQUIREMENTS.

PIPE CORRUGATION

A	2⅔x½	D	6x2
B	3x1	E	3x1 or 9x2½
C	9x2½		

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JMF AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: NTS | PLAN NO. R-2024-XXX

PIPE SUMMARY SHEET *SHEET 2 OF 5*

11 OF 504

OpenRoads Designer v10.12.02.4
8/25/2026
3:22:08 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_fwpdf_SD.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\000C-05.dgn
8/25/2026 3:22:08 PM

NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.000) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

NOTE:
FOR PIPE CULVERT PLACEMENT SEE STANDARD DRAWINGS C-13.10 AND C-13.15

NOTE:
PIPE OPTIONS SELECTED ARE THOSE REQUIRED TO MEET MINIMUM SERVICE LIFE.
ALLOWABLE PIPE OPTIONS ARE INDICATED WITH THE LETTER 'X' IN THE SPACE. BLANK SPACES ARE NOT ALLOWABLE ALTERNATES.

CSP - CORRUGATED STEEL PIPE
CAP - CORRUGATED ALUMINUM PIPE
RCP - REINFORCED CONCRETE PIPE
NRCP - NON-REINFORCED CONCRETE PIPE
NRCIPCP - NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEPP - CORRUGATED HIGH-DENSITY POLYETHYLENE PLASTIC PIPE

| | | | | | | | DESCRIPTION | | | | | | |

NOTE:
THE ZEROS IN PARENTHESES (0, 0.0 & 0.000) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

NOTE:
FOR PIPE CULVERT PLACEMENT SEE STANDARD DRAWINGS C-13.10 AND C-13.15

NOTE:
PIPE OPTIONS SELECTED ARE THOSE REQUIRED TO MEET MINIMUM SERVICE LIFE.
ALLOWABLE PIPE OPTIONS ARE INDICATED WITH THE LETTER 'X' IN THE SPACE. BLANK SPACES ARE NOT ALLOWABLE ALTERNATES.

CSP - CORRUGATED STEEL PIPE
CAP - CORRUGATED ALUMINUM PIPE
RCP - REINFORCED CONCRETE PIPE
NRCP - NON-REINFORCED CONCRETE PIPE
NRCIPCP - NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEPP - CORRUGATED HIGH-DENSITY POLYETHYLENE PLASTIC PIPE

DESCRIPTION							CSP									CAP								RCP								NRCP	NRCIPCP	CHDPEPP	CPPP	END TREATMENT																		QUANTITIES	
				In.	In.	Ft.	Degree	In.	Coating								In.																In.	In.	In.	In.	Each	Catch Basin, Manhole, Headwall & Junction Structure																	Cubic Yard	
Station	Plan Reference Number	Controlling Fill Height Range	Size, Corrugated	Size, Smooth	Length (0)	Skew (0)	Corrugation	Wall Thickness (0.000)	Zinc	Bituminous Coated Zinc	Aluminum	Bituminous Coated Aluminum	Corrugation	Wall Thickness (0.000)	Uncoated	Bituminous Coated	Class - Non-Trench	Class - Trench	Class	Minimum Wall Thickness (0)	AASHTO M-294 Type S	AASHTO M-230 Type S	C-13.20 & C-13.25	Detail	Size, (In) Manhole Standard or Detail	End Section	S-Single / D-Double	Location	H (0.0)	L Wing (0.0)	L 18" Slotted Drain (0)	L 24" Slotted Drain (0)	Type	Elevation (0.00)	Grate		Inlet Depression C-15.70	Pipe Excavation (0)	Pipe Backfill (0) C-13.15	Drainage Excavation (0)	Berm/Dike Embankment (0)	REMARKS
																										Ea							Ft.		Ft.																		

OpenRoads Designer v10.12.02.4
8/25/2026
3:03:20 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109

DESCRIPTION														END TREATMENT												LENGTH OF BARREL EXTENSIONS										APPROXIMATE QUANTITIES											REMARKS
														WINGS				APRONS				MISCELLANEOUS				Construction \					Existing & Construction \					Lbs. Ea.			Cubic Yard							
Plan Reference Number & BE	Structure Number	New	Extend	Number of Barrels	Barrel Span (0.0)	Barrel Height (0.0)	Culvert Length (0.0)	Skew (Degree)(0)	SD 6.01 Miscellaneous Details	SD 6.01 Extension Details	◪ Standard _____ or Detail _____	◪ Location	Inlet Wings	Outlet Wings	◪ Standard _____ or Detail _____	Apron	◪ Standard _____ or Detail _____	Scour/Bank Protection	◪ Standard _____ or Detail _____	Energy Dissipators	Detail _____	I II III IV V	V IV III II I	◑ Reinforcing Steel (0)	◑ Place Dowels	◑ Class S Concrete f'c = 3000 psi	◑ Remove Str Concrete (0)	◑ Structural Excavation (0)	◑ Structure Backfill (0)	Berm Embankment (0)	Dike Embankment (0)	Drainage Excavation		
												Left:										▲ Left of \	▲ Right of \																						
Station:												Right:										I II III IV V	V IV III II I																						
Existing:																						Box Culvert Total																						
												Left:																																		
Station:												Right:																																		
Existing:																						Box Culvert Total																						
												Left:																																		
Station:												Right:																																		
Existing:																						Box Culvert Total																						
												Left:																																		
Station:												Right:																																		
Existing:																						Box Culvert Total																						
												Left:																																		
Station:												Right:																																		
Existing:																						Box Culvert Total																						
												Left:																																		
Station:												Right:																																		
Existing:																						Box Culvert Total																						
												Left:																																		
Station:												Right:																																		
Existing:																						Box Culvert Total																						
												Left:																																		
Station:												Right:																																		
Existing:																						Box Culvert Total																						

REV. DATE:

NOTE:

THE ZEROS IN PARENTHESES (0.0.0 & 0.00) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

◑ TOTALS SHOWN FOR THE BOX CULVERT INCLUDE THE QUANTITIES FOR HEADWALLS, WINGS, APRONS, CURBS, CUT-OFF WALLS AND LAPS AT CONSTRUCTION JOINTS.

NOTE:
FOR STRUCTURAL EXCAVATION, STRUCTURE BACKFILL PLACEMENT AND MEASUREMENT, SEE STRUCTURE DETAIL DRAWING 6.01 (4 OF 5)

◪ BRIDGE GROUP STRUCTURE DETAIL DRAWINGS SD 6.01 TO SD 6.11 TO SD 6.20

▲ Construction CL Looking Ahead

CULVERT EXTENSION SHEET

SHEET 5 OF 5

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

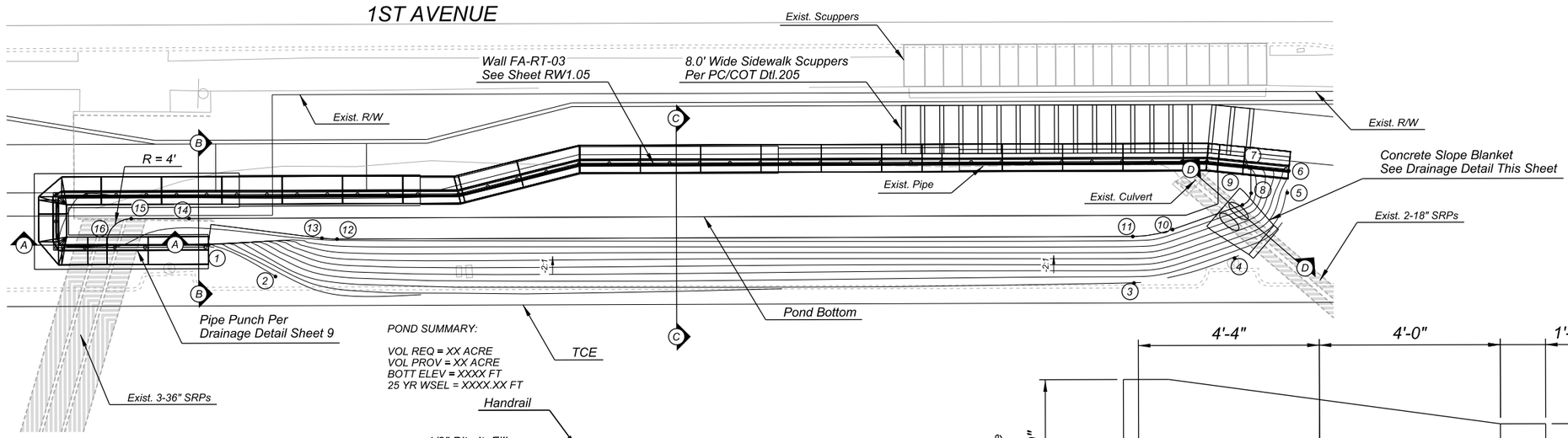
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

14 OF 504

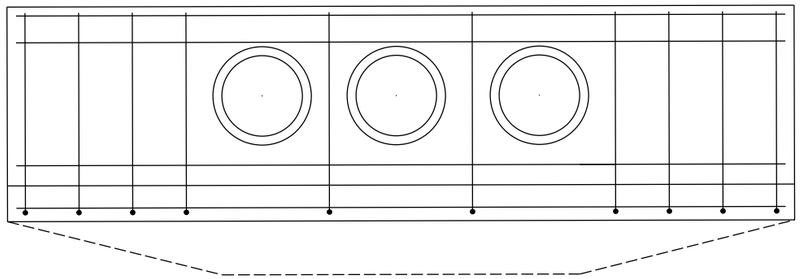
c:\pwworking\west01\d3987900\000C-08.dgn
8/25/2026 3:03:20 PM

OpenRoads Designer v10.12.02.4
8/26/2026
5:50:21 PM
Printed by:TCOLE
Print Scale: 1:1
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number:4109



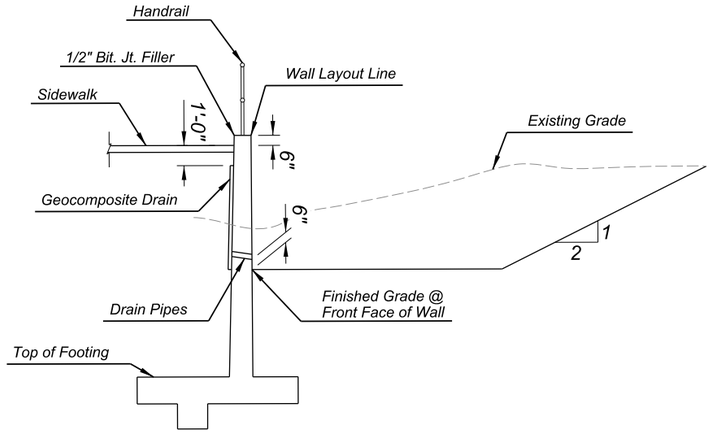
POND SUMMARY:

VOL REQ = XX ACRE
VOL PROV = XX ACRE
BOTT ELEV = XXXX FT
25 YR WSEL = XXXX.XX FT



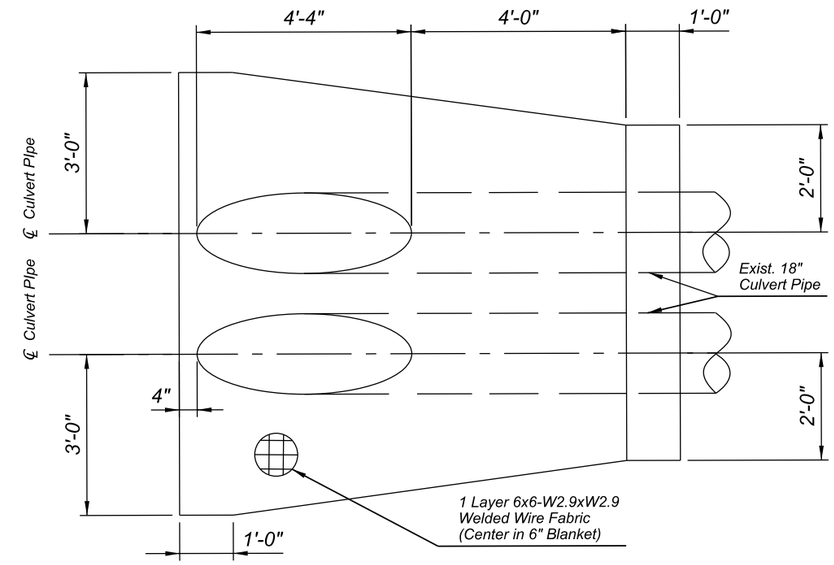
Section A-A

Outlet Headwall for 3 - 36" SRP'S
NOT TO SCALE



Section C-C

North Pond Section
NOT TO SCALE

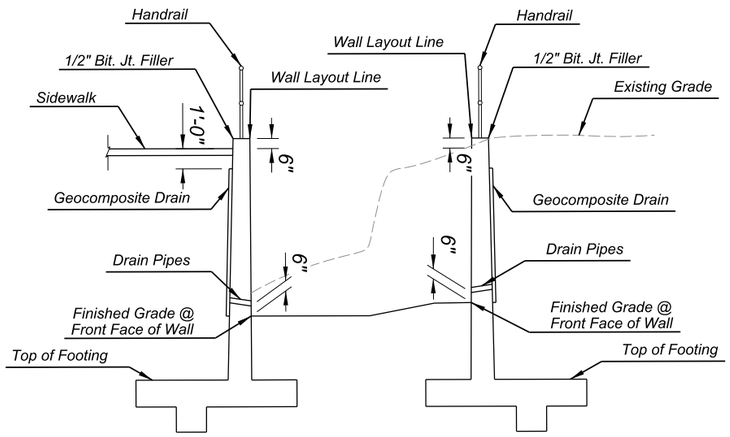


PLAN

Concrete Slope Blanket for 2 - 18" SRP'S

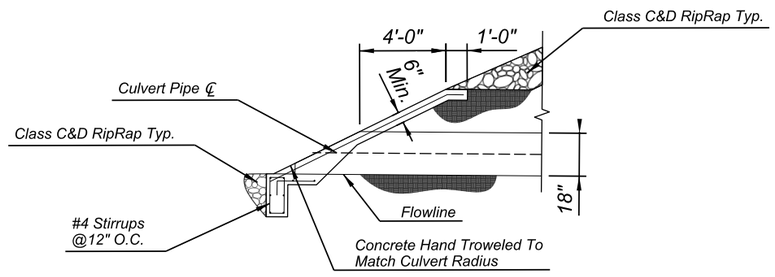
POINT	NORTHING	EASTING	EVEVATION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

TO BE COMPLETED AT 60%



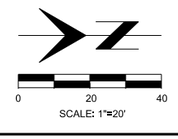
Section B-B

South Pond Section
NOT TO SCALE



Section D-D

Concrete Slope Blanket for 2 - 18" SRP'S
NOT TO SCALE



GLENN POND DRAINAGE DETAIL

SHEET 1 OF 10

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

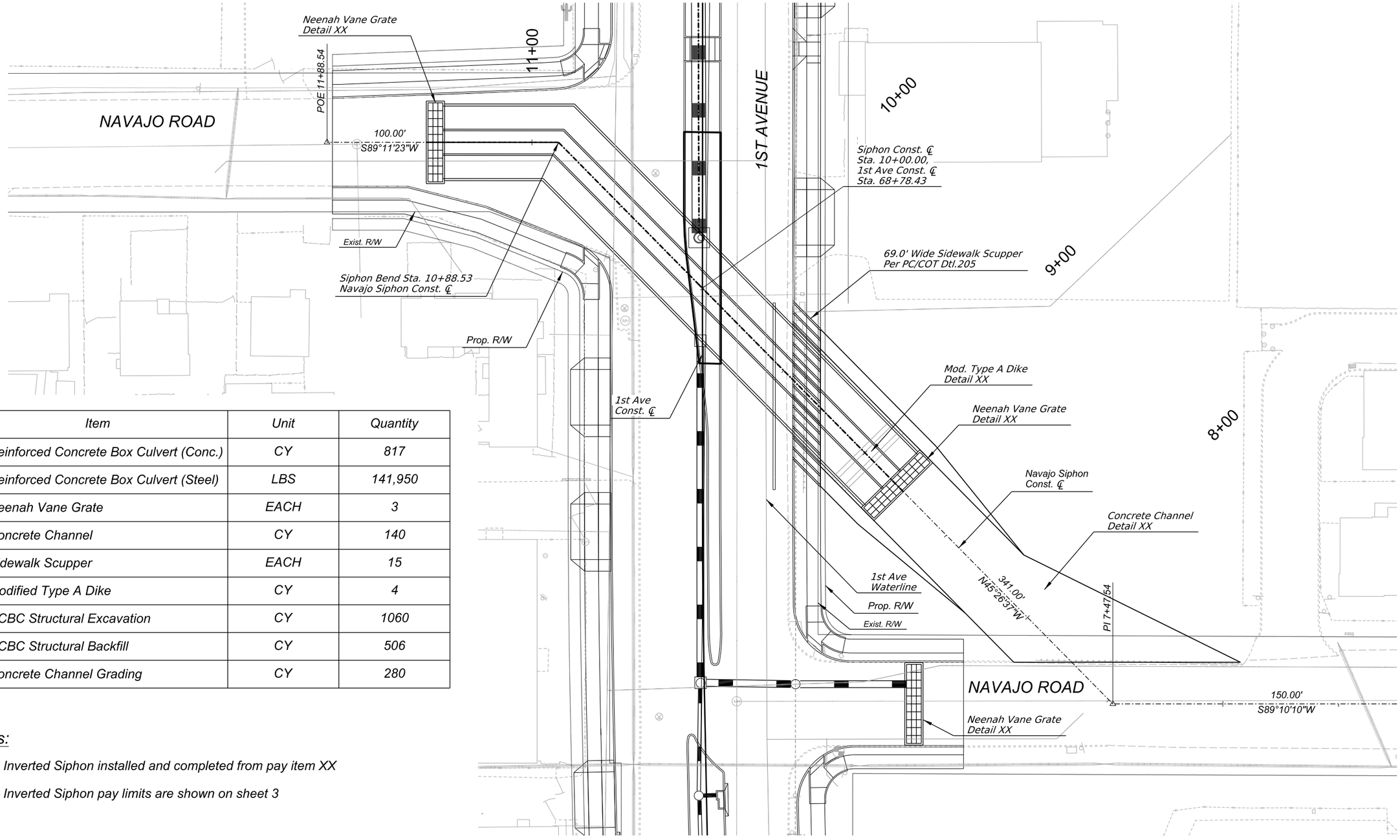
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

15 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
SKW	DP	AT	H: 1" = 10'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100



Item	Unit	Quantity
Reinforced Concrete Box Culvert (Conc.)	CY	817
Reinforced Concrete Box Culvert (Steel)	LBS	141,950
Neenah Vane Grate	EACH	3
Concrete Channel	CY	140
Sidewalk Scupper	EACH	15
Modified Type A Dike	CY	4
RCBC Structural Excavation	CY	1060
RCBC Structural Backfill	CY	506
Concrete Channel Grading	CY	280

Notes:

1. Inverted Siphon installed and completed from pay item XX
2. Inverted Siphon pay limits are shown on sheet 3

0 40 80
SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

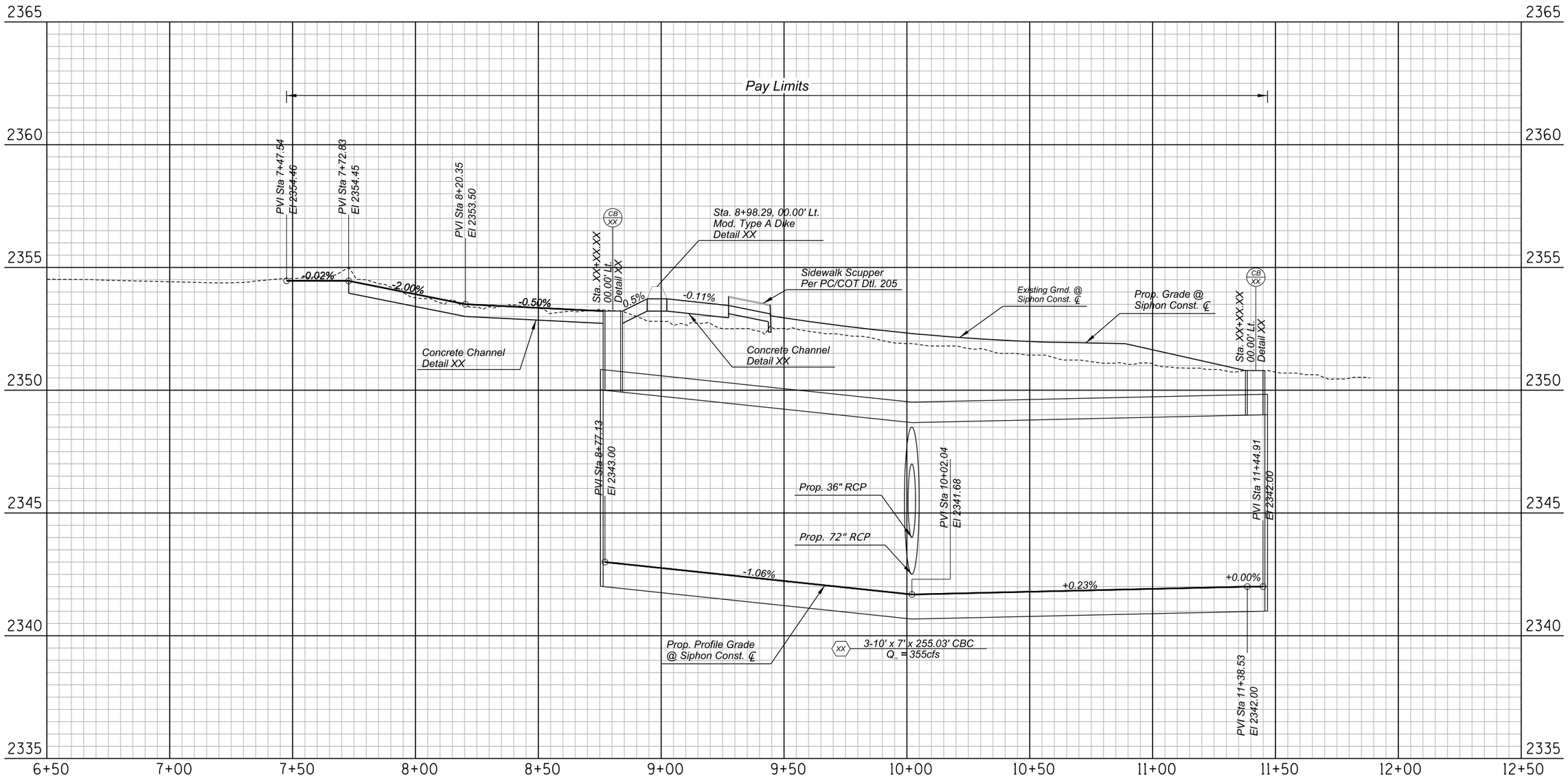
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
SKW	DP	AT	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

NAVAJO SIPHON
DRAINAGE DETAIL

SHEET 2 OF 10

16
OF
504

OpenRoads Designer v10.12.02.4
8/20/2026
11:27:26 AM
Printed by: TCOLE
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.plotcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4381915\17D-02A.dgn
8/20/2026 11:27:26 AM



NAVAJO SIPHON
DRAINAGE DETAIL

SHEET 3 OF 10

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

17 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
SKW AUG 2026	DP AUG 2026	AT AUG 2026	PLAN NO. R-2024-XXX

Project ID:
Client Number: 4109

Printed by: TCOLE
Print Scale: 1:1

Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvEr: pdf.pltcfg

OpenRoads Designer v10.12.02.4
8/20/2026
11:27:39 AM

c:\pwworking\west01\d4381915\17D-02B.dgn
8/20/2026 11:27:39 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:27:55 AM
Printed by: TCOLE
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109

TO BE COMPLETED AT 60%

NAVAJO SIPHON
DRAINAGE DETAIL

SHEET 4 OF 10

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
SKW	DP	AT	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\17D-03.dgn
8/20/2026 11:27:55 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:28:05 AM
Printed by: TCOLE
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109

TO BE COMPLETED AT 60%

NAVAJO SIPHON
DRAINAGE DETAIL

SHEET 5 OF 10

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
SKW	DP	AT	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\17D-04.dgn
8/20/2026 11:28:05 AM

OpenRoads Designer v10.12.02.4
8/25/2026
2:46:02 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

TO BE COMPLETED AT 60%

TRANSVERSE GRATE
DRAINAGE DETAIL

SHEET 6 OF 10

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

20
OF
504

CITY OF TUCSON

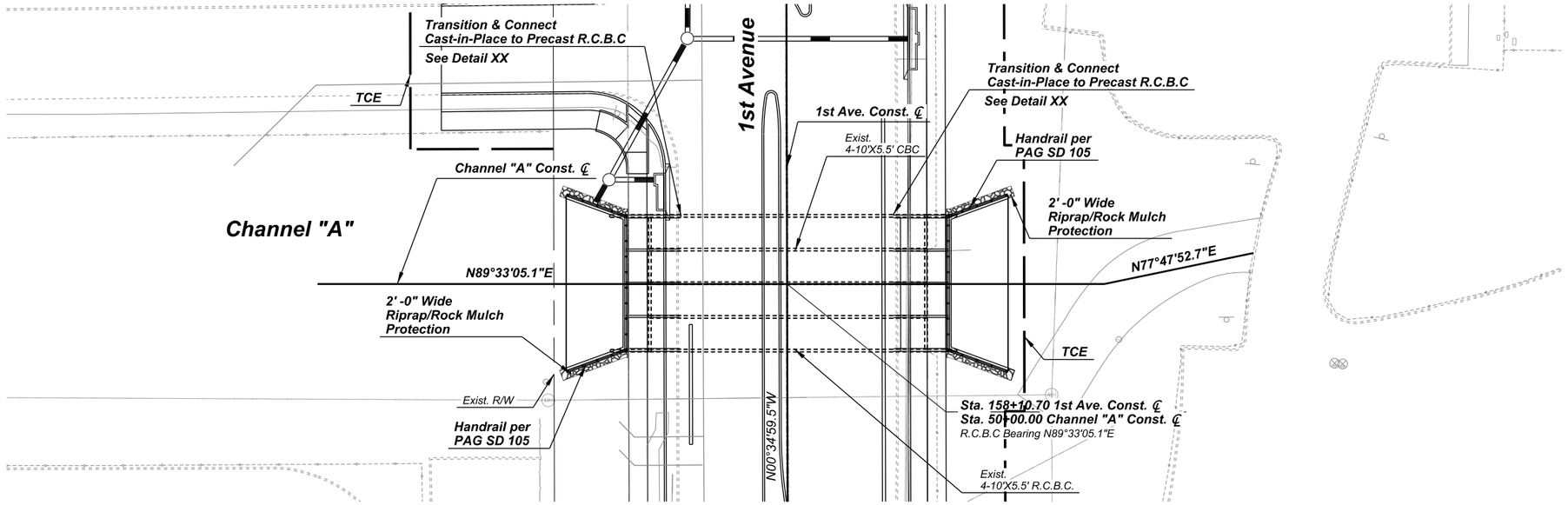
DRWN. BY SKW AUG 2026
CHKD. BY DP AUG 2026
APPR. BY AT AUG 2026

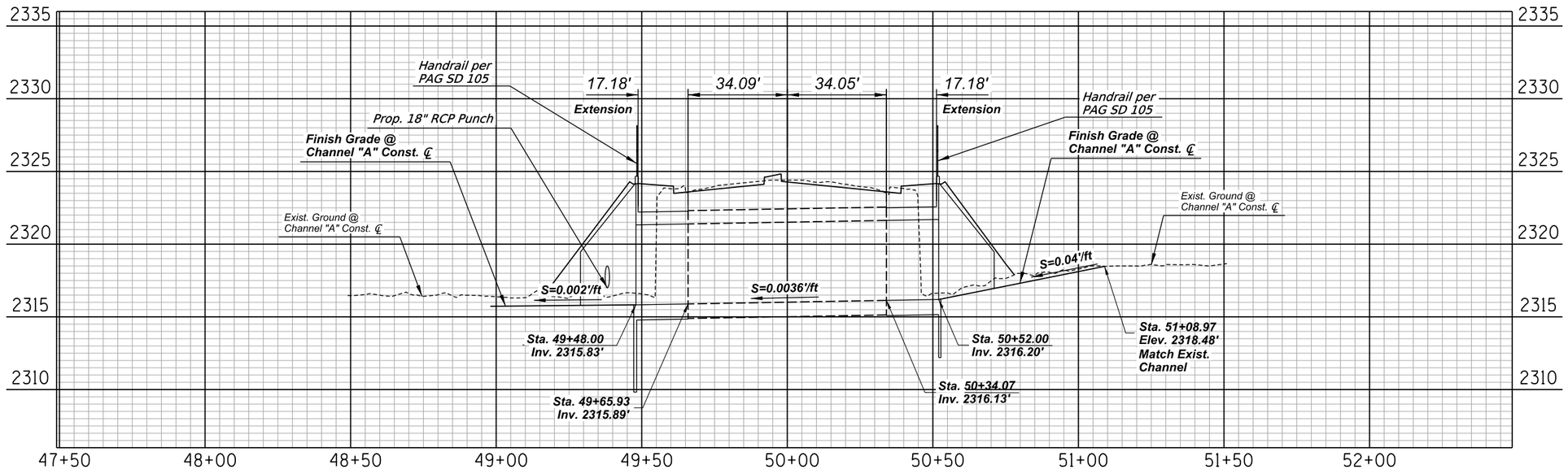
SCALE: NTS

PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

c:\pwworking\west01\d4381915\17D-05.dgn
8/25/2026 2:46:02 PM





Notes:

1. *RCBC extension per ADOT Standard Detail 6.01-3*

SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

BOX CULVERT EXTENSION DRAINAGE DETAIL

SHEET 7 OF 10

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

21 OF 504

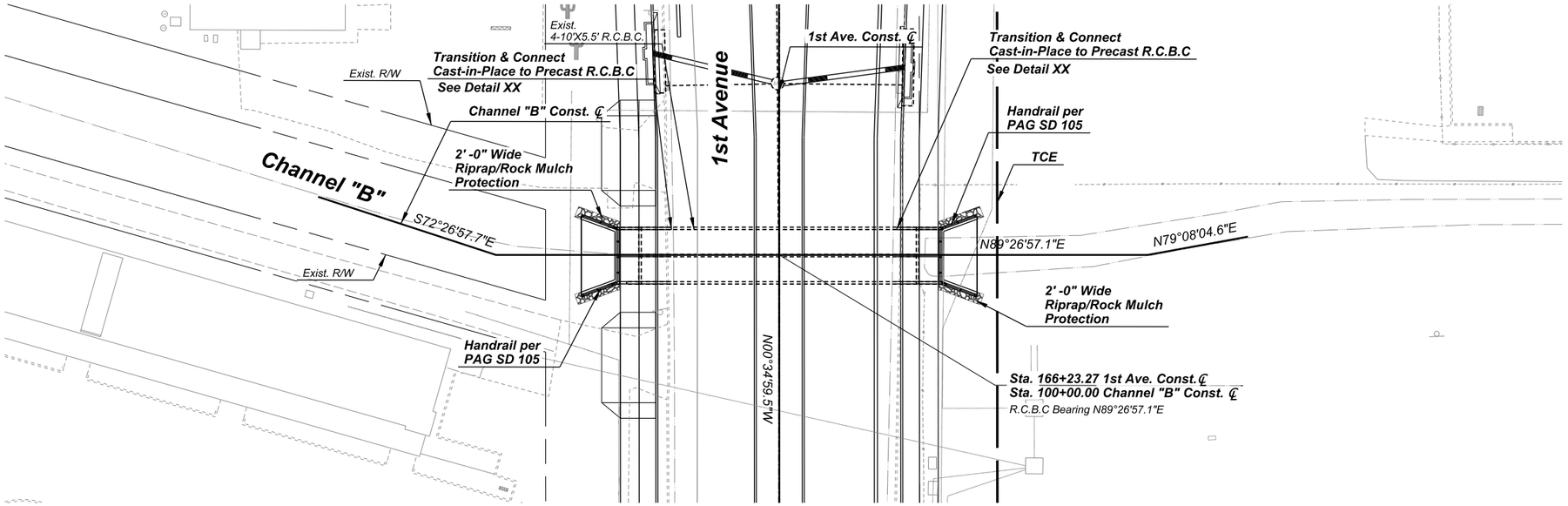
CITY OF TUCSON

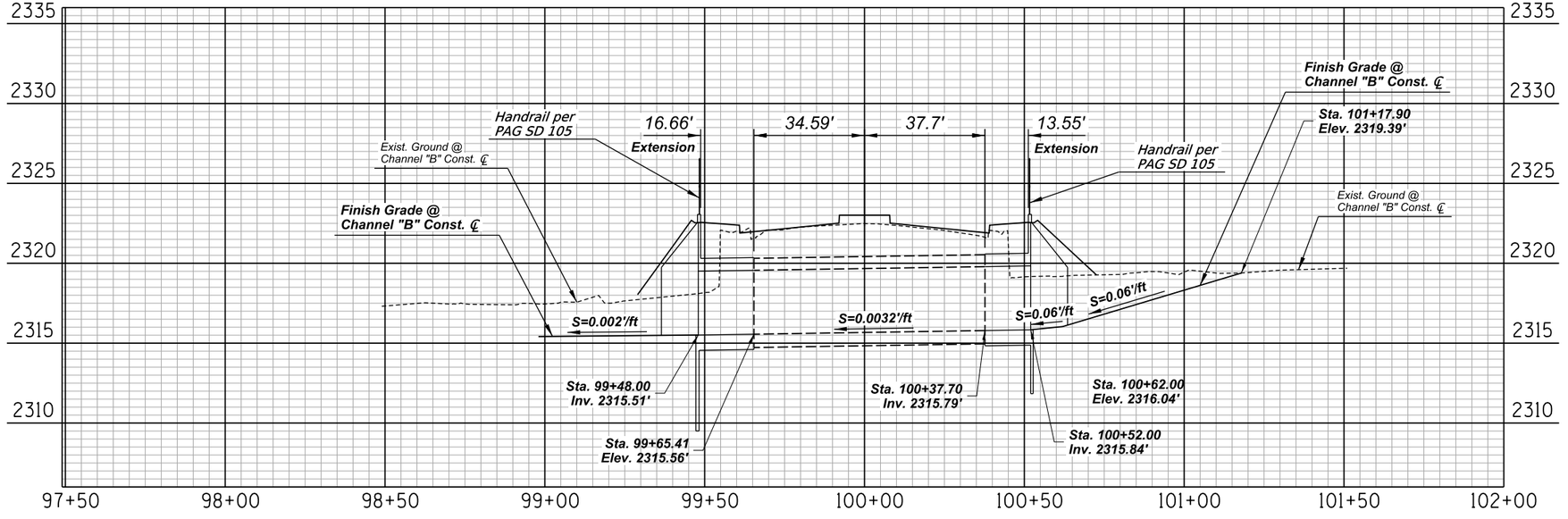
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
SKW AUG 2026	BJK AUG 2026	TCC AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

Project ID:
Client Number: 4109
Pentables: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Printed by: TCOLE
Print Scale: 1:0.0833333
OpenRoads Designer v10.12.02.4
8/25/2026 4:42:51 PM
c:\pwworking\west01\d4381915\17D-07.dgn
8/25/2026 4:42:51 PM

OpenRoads Designer v10.12.02.4
8/25/2026
4:52:54 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMAAMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109





Notes:

1. *RCBC extension per ADOT Standard Detail 6.01-3*

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

BOX CULVERT EXTENSION DRAINAGE DETAIL

SHEET 8 OF 10

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

22 OF 504

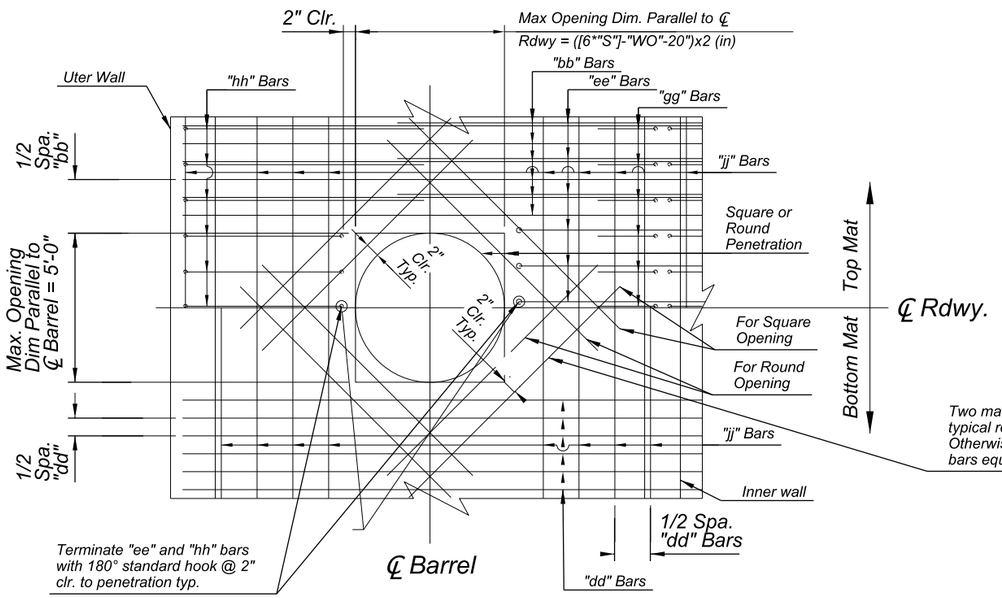
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
SKW AUG 2026	BJK AUG 2026	TCC AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\17D-08.dgn
8/25/2026 4:52:54 PM

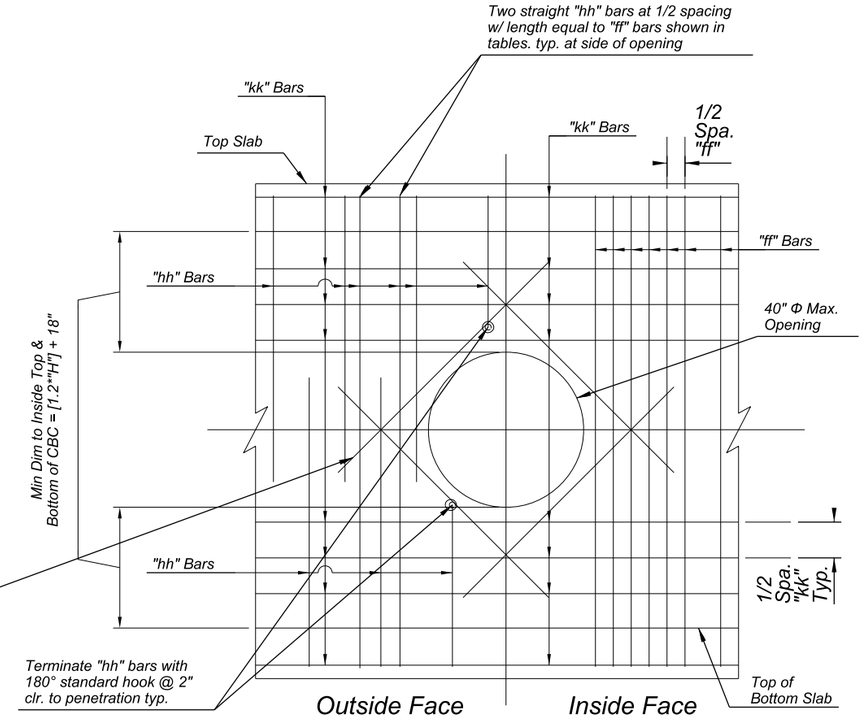
OpenRoads Designer v10.12.02.4
8/20/2026
11:28:54 AM
Printed by: TCOLE
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number: 4109



Top Slab Penetration Detail

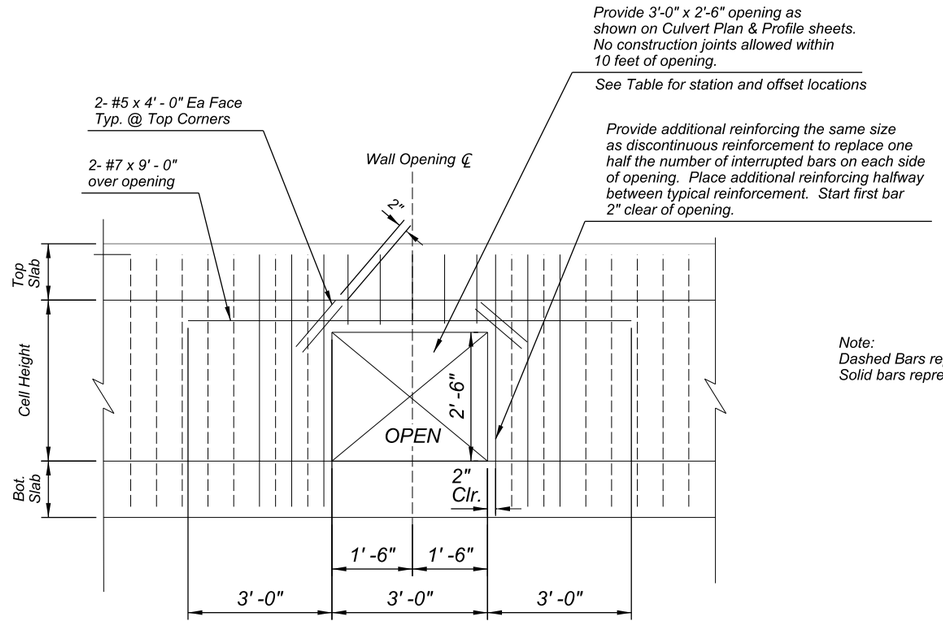
Note: Move "bb", "dd" and "jj" bars from location at penetration and place equally at 1/2 spacing on each side of opening.

Two mats of #5 bars inside of all other typical reinforcing for "TT" greater than 9". Otherwise one mat of #5 bars. Length of bars equal to twice dim. of opening.



Outer Wall Penetration Detail

Note: Move "bb", "dd" and "jj" bars from location at penetration and place equally at 1/2 spacing on each side of opening.



Box Culvert Wall Opening

Interior Walls Only

Note:
Dashed Bars represent typical reinforcement.
Solid bars represent additional reinforcement.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

PIPE PUNCH
DRAINAGE DETAIL

SHEET 9 OF 10

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

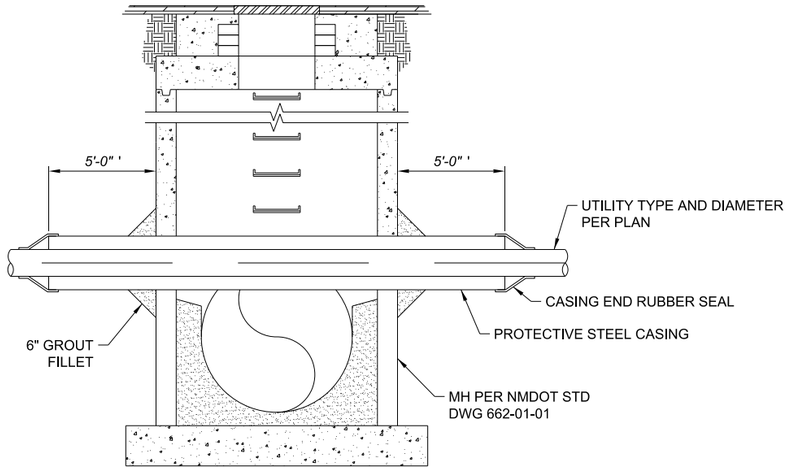
23 OF 504

CITY OF TUCSON

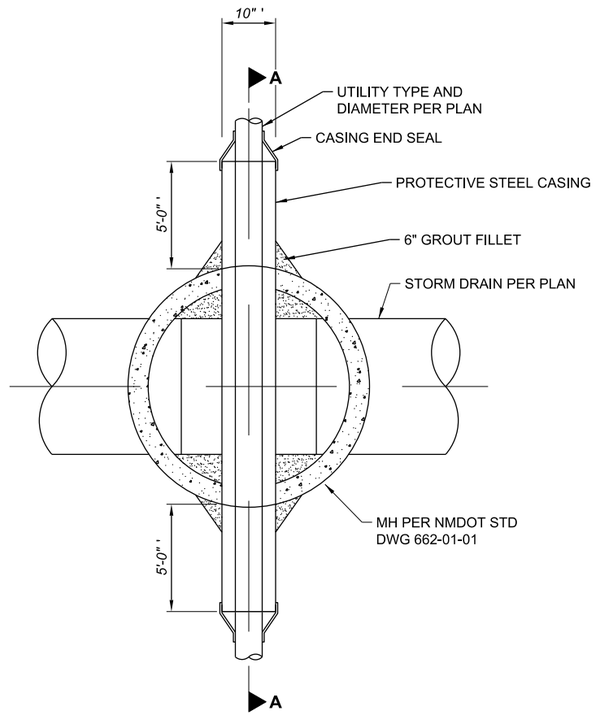
DRWN. BY SKW AUG 2026
CHKD. BY DP AUG 2026
APPR. BY AT AUG 2026
SCALE: NTS
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\17D-09.dgn
8/20/2026 11:28:54 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:29:05 AM
Printed by: TCOLE
Print Scale: 1:1
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109

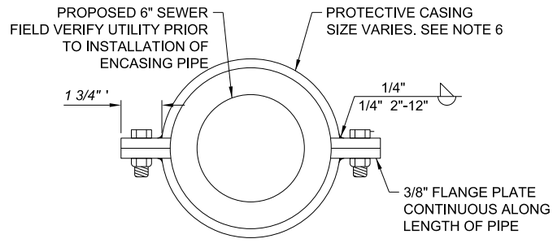


SECTION A-A

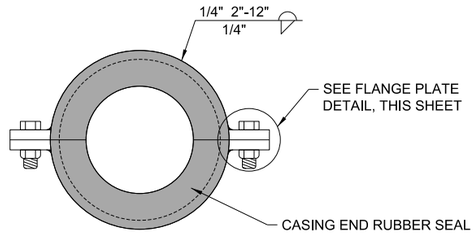


PLAN

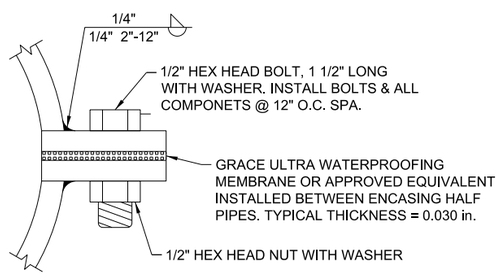
JUNCTION MANHOLE
NOT TO SCALE



PROTECTIVE STEEL CASING DETAIL
NOT TO SCALE



STEEL END PLATE DETAIL
NOT TO SCALE



FLANGE PLATE DETAIL
NOT TO SCALE

Notes:

1. *Utility Conflict Manhole paid for as Item XXXX*

UTILITY PASS THROUGH DRAINAGE DETAIL

SHEET 10 OF 10

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

24 OF 504

CITY OF TUCSON

DRWN. BY SKW AUG 2026
CHKD. BY DP AUG 2026
APPR. BY AT AUG 2026
SCALE: NTS
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\17D-10.dgn
8/20/2026 11:29:05 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:40:01 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109

1ST AVE
EUCLID AVE
Section Line
Sta 2+64.24, 0.23' Lt
Fnd. 2-1/2" BCSM
Mkd. "RLS 12537"
POB 4+24.70
N33°02'04"W
117.95'
N35°20'12"W
170.96'
Sta 9+91.36, 28.03' Rt
Section Corner
Fnd. 3.25" BCSM
Punch Only in Hand Hold
@ S.W. Cor. Sec 31
Grant Rd. Const. ℄
PC 1+46.26
GRANT RD
See Note 3
Sta. 10+00.00 1st Ave. Const. ℄=
Sta. 0+00.00 Grant Rd. Const. ℄
1st Ave. Const. ℄
N02°29'34"E
514.34'
PT 10+70.61
PC 15+84.94
ALTURAS ST
PT 17+21.95
N90°00'00.0"E
Sta. 16+86.55 1st Ave. Const. ℄=
Sta. 10+00.00 Alturas St. Const. ℄
Sta. 16+98.85 1st Ave. Const. ℄=
Sta. 10+00.00 Alturas St. Const. ℄
JACINTO ST
N89°06'38.8"E
Section Line
N00°38'50"W
2642.25'
N00°38'50"W
1912.58'
Sta. 23+58.72 1st Ave. Const. ℄=
Sta. 10+00.00 Copper St. Const. ℄
S86°34'42.6"E
COPPER ST
MATCH LINE STA 30+00
MATCH LINE STA 30+00
KELSO ST
N89°03'43.1"E
Sta. 30+19.23 1st Ave. Const. ℄=
Sta. 10+00.00 Kelso St. Const. ℄
PI 36+34.53
GLENN ST
Glenn St. Const. ℄
PC 41+64.51
PT 43+17.72
LAGUNA ST
N89°06'05.9"E
Sta. 49+99.15 1st Ave. Const. ℄=
Sta. 10+00.00 Blacklidge Dr. Const. ℄
Sta. 49+86.52 1st Ave. Const. ℄=
Sta. 10+00.00 Blacklidge Dr. Const. ℄
1st Ave. Const. ℄
BLACKLIDGE DR
POB 8+00.00
N89°07'21"E
200.00'
PRC 53+51.91
DELANO ST
N89°08'40.5"E
PRC 57+38.87
Sta. 57+71.48
1st Ave. Const. ℄=
Sta. 10+00.00
Buddy Ln Const. ℄
N00°37'36"W
1ST AVE
529.98'
N02°22'57"W
541.85'
Section Line
PI 10+00.00
PC 10+36.57
PT 11+86.57
POE 13+36.57
PC 48+59.58
36.57'
S84°58'01"E
150.00'
N89°16'59"E
Sta. 56+60.01
1st Ave. Const. ℄=
Sta. 10+00.00
Delano St. Const. ℄
PRC 53+51.91
PRC 57+38.87
BUDDY LN
N89°17'46.9"E
PT 58+58.19
MATCH LINE STA 60+00
MITCHELL DR
N89°24'59.6"E
Sta. 31+31.97 1st Ave. Const. ℄=
Sta. 10+00.00 Mitchell Dr. Const. ℄
Mid Section Line
Sta. 36+70.22 1st Ave. Const. ℄=
Sta. 0+00.00 Glenn St. Const. ℄
Sta. 43+38.80 1st Ave. Const. ℄=
Sta. 10+00.00 Laguna St. Const. ℄

NOTE:

1. See Geometric Layout Sheet 5 For Existing Found Monumentation Table, Centerline Coordinate Table, Geometry Data Tables, and Details.
2. See Right-of-Way Plans for Additional Information.
3. See COT Plan NO. I-2013-009 For Grant Rd. ℄ As-Builts

0 100 200
SCALE: 1"=100'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

GEOMETRIC LAYOUT - ROADWAY ℄ SHEET 1 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

25 OF 504

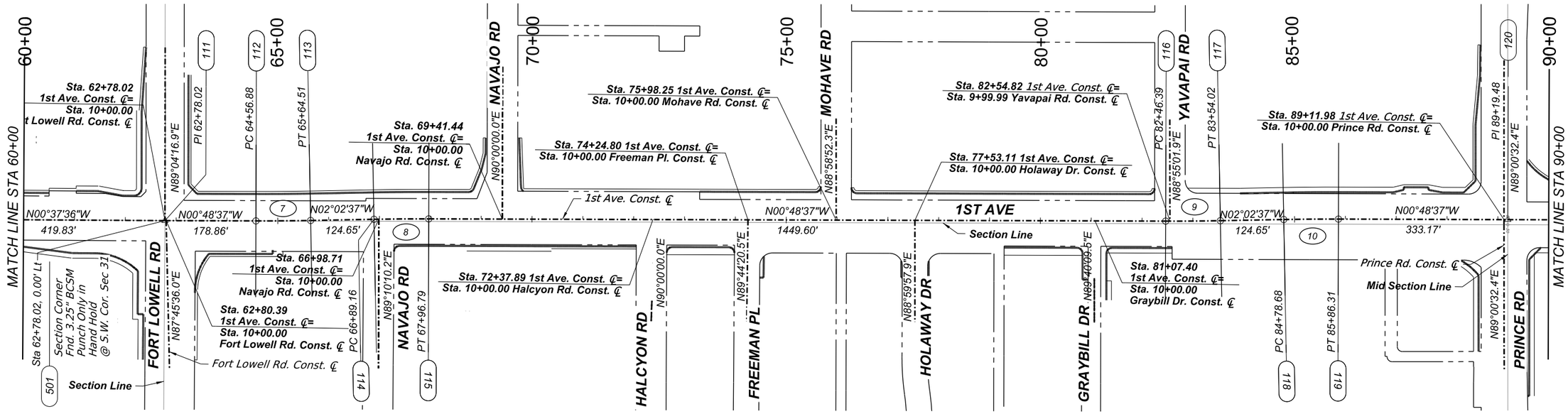
CITY OF TUCSON

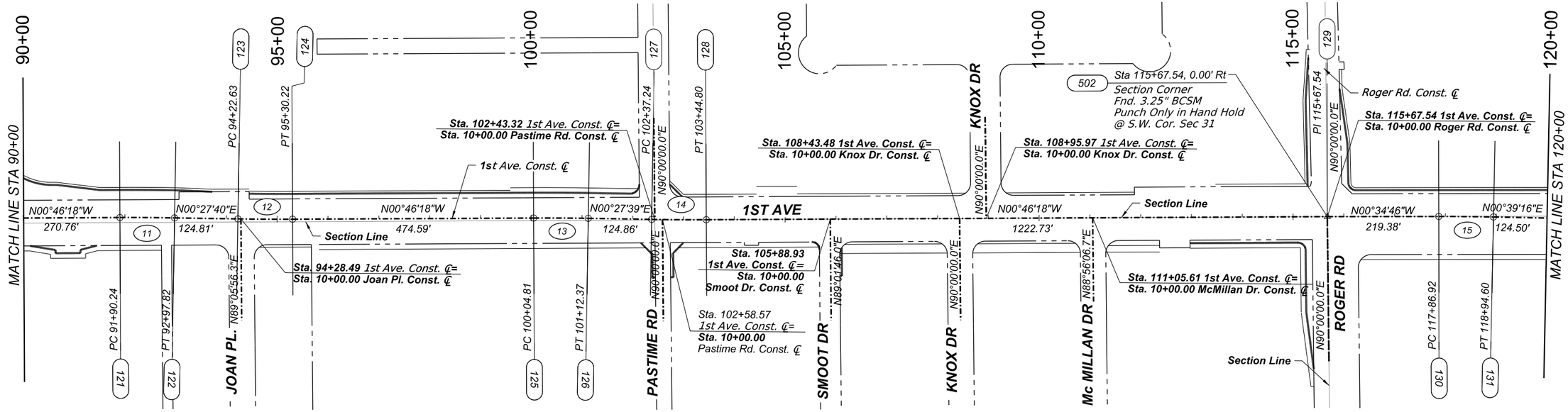
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 100'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-01.dgn
8/20/2026 11:40:01 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:46:04 AM
Printed by: TCOLE
Print Scale: 120.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109





NOTE:

1. See Geometric Layout Sheet 5 For Existing Found Monumentation Table, Centerline Coordinate Table, Geometry Data Tables, and Details.
2. See Right-of-Way Plans for Additional Information.

0 100 200
SCALE: 1"=100'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

GEOMETRIC LAYOUT - ROADWAY ℄ SHEET 2 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

26 OF 504

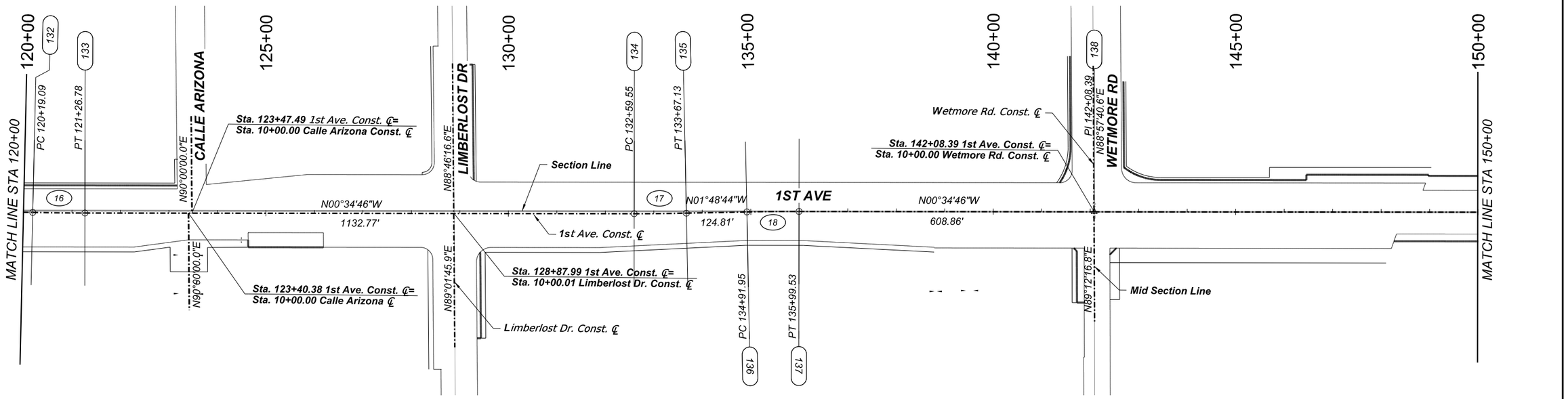
CITY OF TUCSON

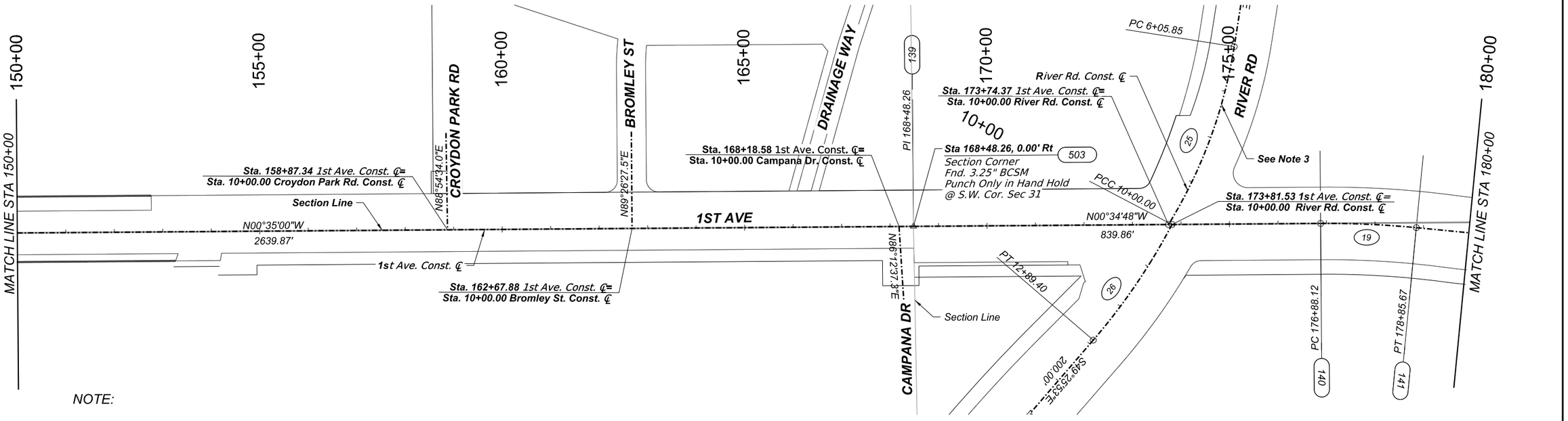
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 100'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-02.dgn
8/20/2026 11:46:04 AM

Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109
11:46:11 AM 8/20/2026 OpenRoads Designer v10.12.02.4





NOTE:

1. See Geometric Layout Sheet 5 For Existing Found Monumentation Table, Centerline Coordinate Table, Geometry Data Tables, and Details.
2. See Right-of-Way Plans for Additional Information.
3. See COT Plan No. I-91 For River Rd. ℄ As-Built

0 100 200
SCALE: 1"=100'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR JUN 2026	JC JUN 2026	BJK JUN 2026	H: 1" = 100'

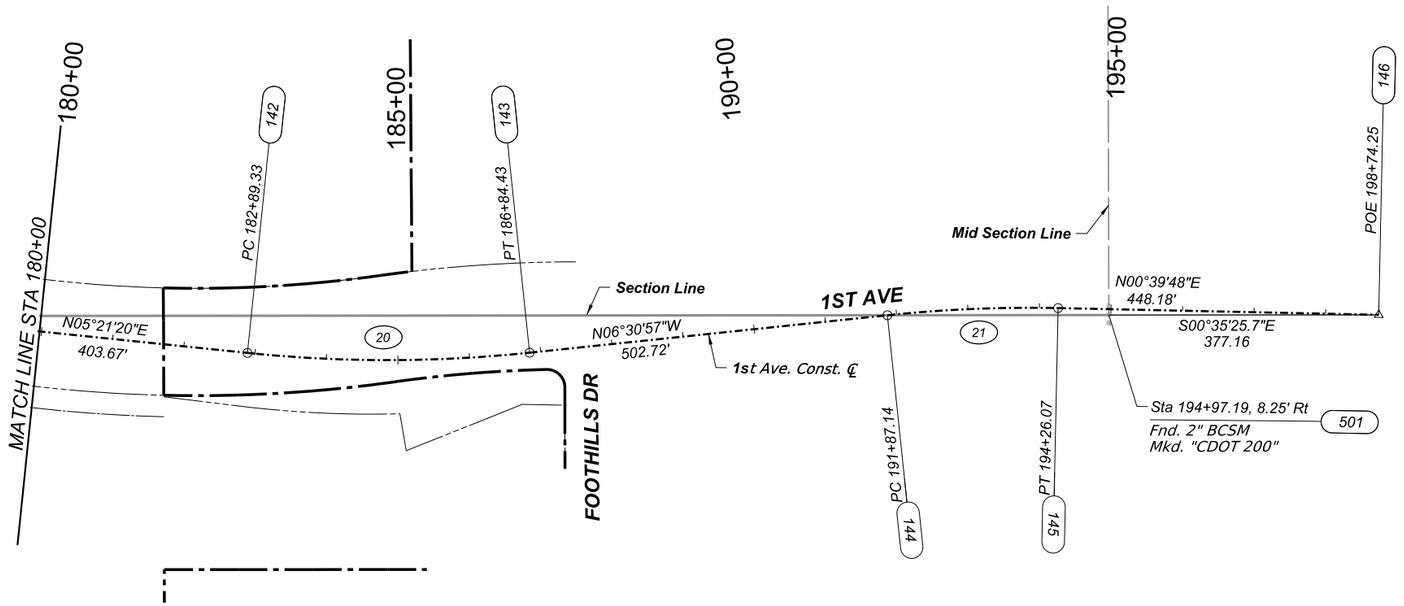
PLAN NO. R-2024-XXX

27 OF 504

GEOMETRIC LAYOUT - ROADWAY ℄ SHEET 3 OF 45

c:\pwworking\west01\d3987900\06C-03.dgn
8/20/2026 11:46:11 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:46:18 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109



NOTE:

1. *See Geometric Layout Sheet 5 For Existing Found Monumentation Table, Centerline Coordinate Table, Geometry Data Tables, and Details.*

2. *See Right-of-Way Plans for Additional Information.*

GEOMETRIC LAYOUT - ROADWAY ℄ SHEET 4 OF 45

0 100 200
SCALE: 1"=100'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

28 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 100'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-04.dgn
8/20/2026 11:46:18 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:46:26 AM
Printed by: TCOLE
Print Scale: 150.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.plotcfg
Project ID:
Client Number: 4109

NEW CENTERLINE COORDINATE TABLE

NO.	NORTHING	EASTING

EXISTING FOUND MONUMENTATION

NO.	NORTHING	EASTING	DESCRIPTION

ROADWAY CURVE DATA

CURVE NO.	Δ	RADIUS	LENGTH	TANGENT
1	37°49'46"	1400.00'	924.35'	479.73'
2	03°08'24"	2500.00'	137.01'	68.52'
3	01°45'21"	5000.00'	153.21'	76.61'
4	07°03'07"	4000.00'	492.33'	246.48'
5	09°51'14"	2250.00'	386.97'	193.96'
6	04°33'27"	1500.00'	119.32'	59.69'
7	01°14'00"	5000.00'	107.63'	53.82'
8	01°14'00"	5000.00'	107.63'	53.82'
9	01°14'00"	5000.00'	107.63'	53.82'
10	01°14'00"	5000.00'	107.63'	53.82'
11	01°13'58"	5000.00'	107.58'	53.79'
12	01°13'58"	5000.00'	107.58'	53.79'
13	01°13'57"	5000.00'	107.57'	53.79'
14	01°13'57"	5000.00'	107.57'	53.79'
15	01°14'02"	5000.00'	107.68'	53.84'
16	01°14'02"	5000.00'	107.68'	53.84'
17	01°13'58"	5000.00'	107.58'	53.79'
18	01°13'58"	5000.00'	107.58'	53.79'
19	05°56'09"	1906.86'	197.55'	98.86'
20	11°52'17"	1906.86'	395.09'	198.26'
21	07°10'45"	1906.86'	238.93'	119.62'
22	14°27'35"	1500.00'	378.55'	190.29'
23	05°23'25"	1000.00'	94.08'	47.07'
24	05°45'00"	1494.67'	150.00'	75.06'
25	22°34'59"	1000.00'	394.15'	199.67'
26	13°00'54"	1274.00'	289.40'	145.32'

COORDINATE TABLE

NO.	NORTHING	EASTING

NOTE:

See Right-of-Way Plans
For Additional Information.

GEOMETRIC LAYOUT - ROADWAY ℄ SHEET 5 OF 45

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026

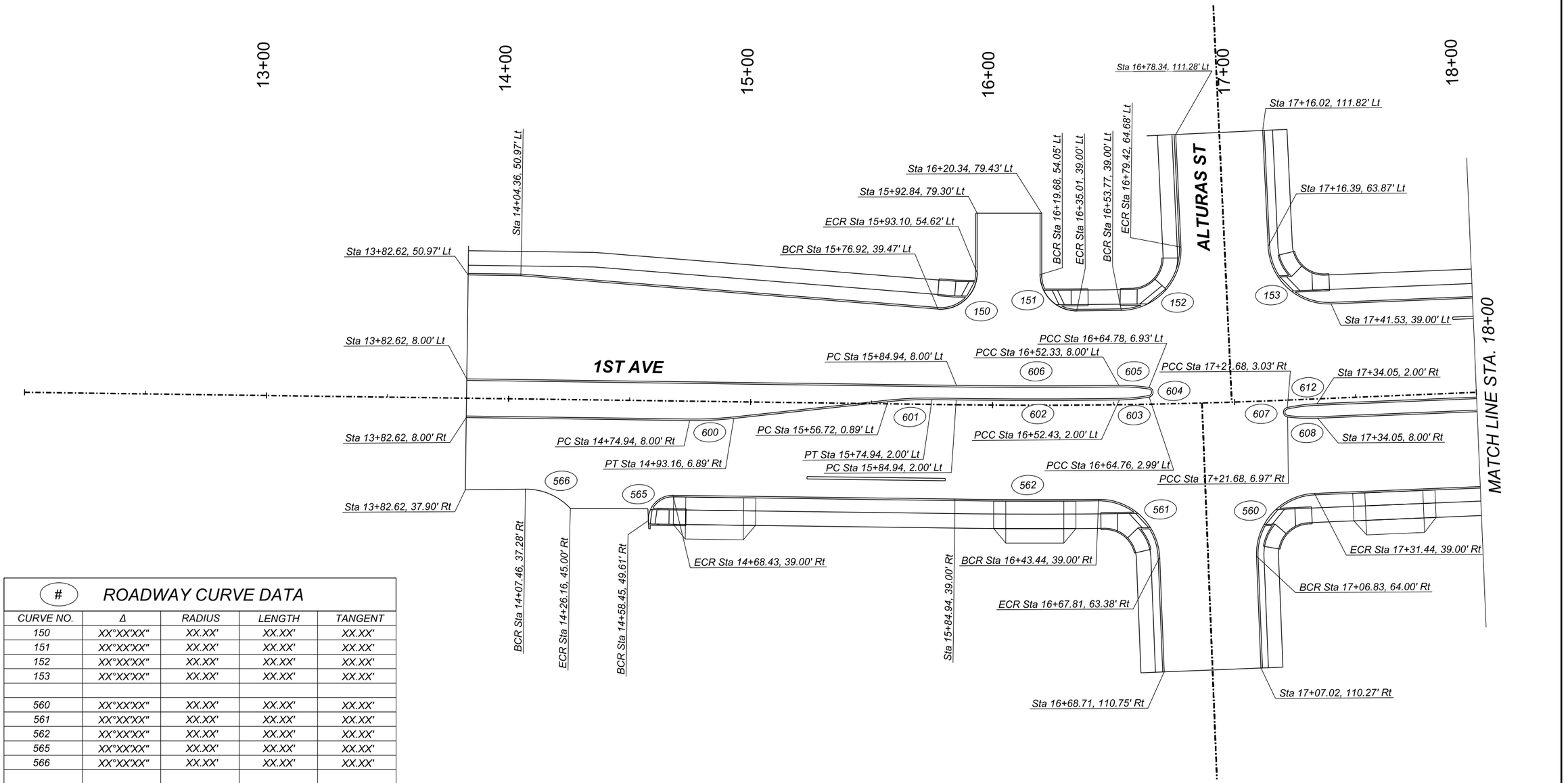
SCALE: NTS

PLAN NO. R-2024-XXX

29 OF 504

c:\pwworking\west01\d3987900\06C-05.dgn
8/20/2026 11:46:26 AM

OpenRoads Designer v10.12.02.4
8/25/2026
4:25:53 PM
Printed by:SWESTMORELAND
Print Scale:120.0833333
Pentable:COTPM&AMCDOT_BENTLEY_PRINT.tbl
Plotdriver:GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109



(#)	ROADWAY CURVE DATA			
CURVE NO.	Δ	RADIUS	LENGTH	TANGENT
150	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
151	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
152	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
153	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
560	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
561	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
562	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
565	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
566	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
600	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
601	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
602	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
603	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
604	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
605	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
606	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
607	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
608	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'
612	XX°XX'XX"	XX.XX'	XX.XX'	XX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

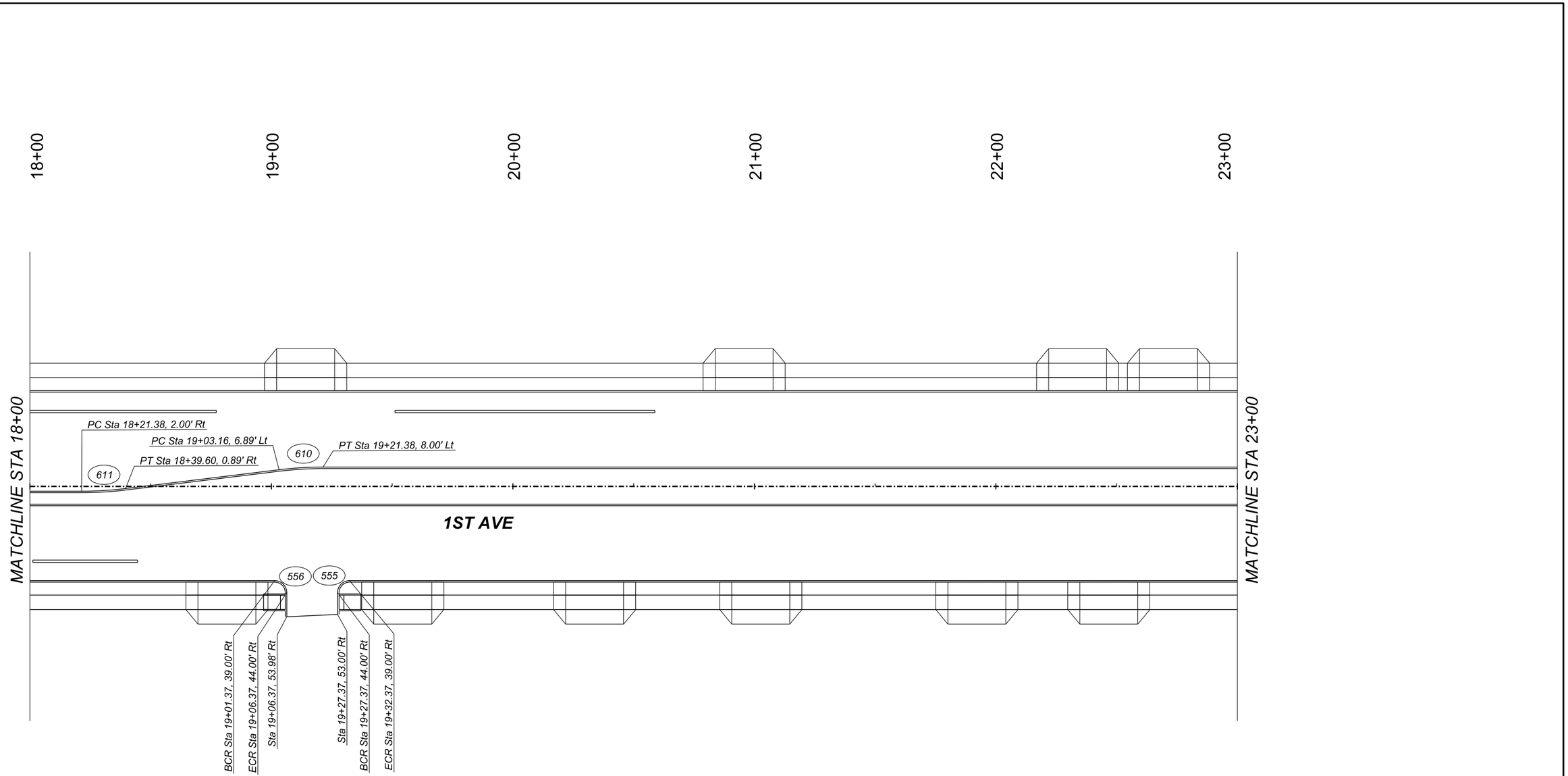
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR	CHKD. BY JC	APPR. BY BJK	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-06.dgn
8/25/2026 4:25:53 PM

OpenRoads Designer v10.12.02.4
8/20/2026
11:48:35 AM
Printed by: TCOLE
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	Δ	RADIUS	LENGTH	TANGENT
555	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
556	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
610	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
611	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 7 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

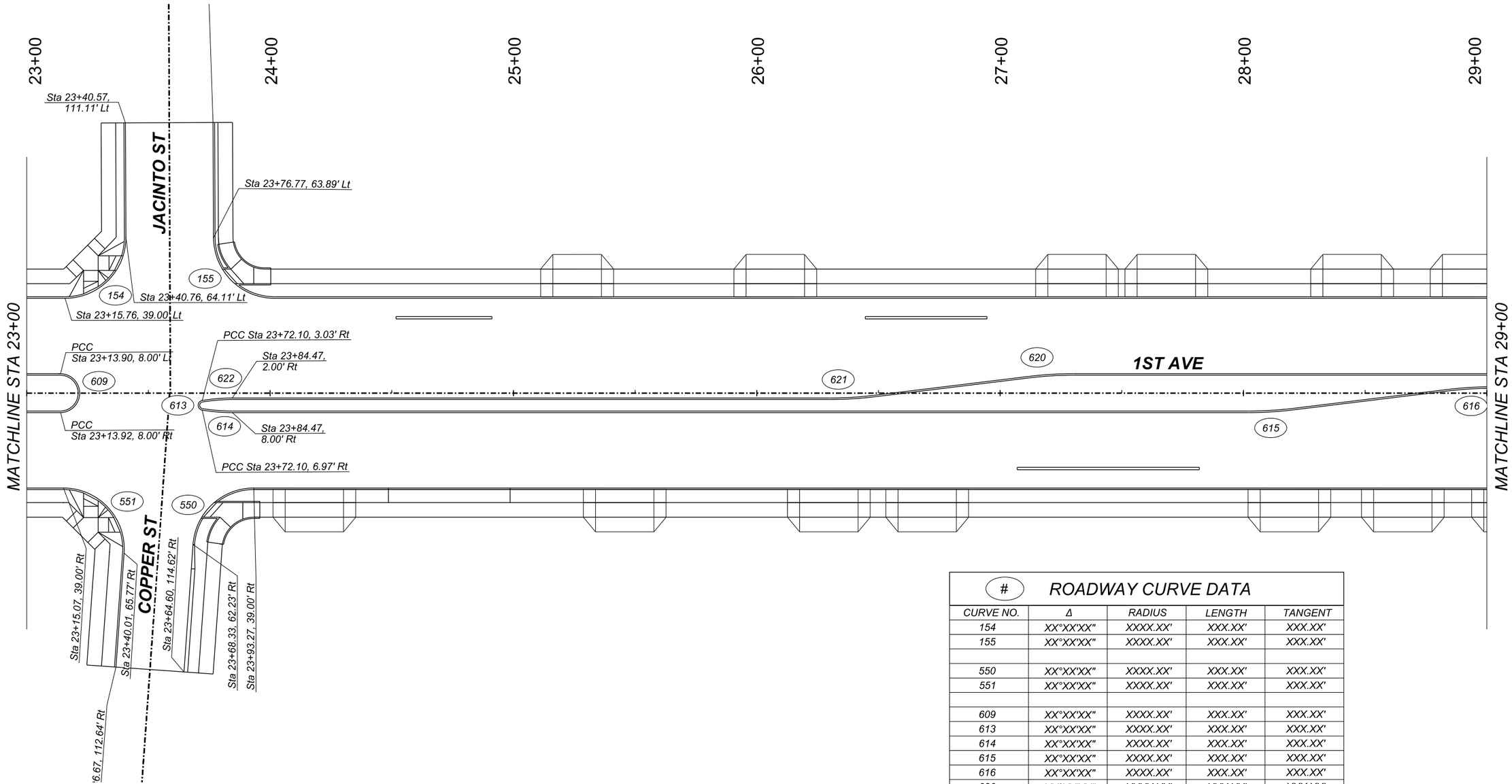
31 OF 504

CITY OF TUCSON

DRWN. BY JAR JUN 2026
CHKD. BY JC JUN 2026
APPR. BY BJK JUN 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-07.dgn
8/20/2026 11:48:35 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:57:18 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	Δ	RADIUS	LENGTH	TANGENT
154	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
155	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
550	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
551	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
609	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
613	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
614	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
615	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
616	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
620	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
621	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
622	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 8 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-4T (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

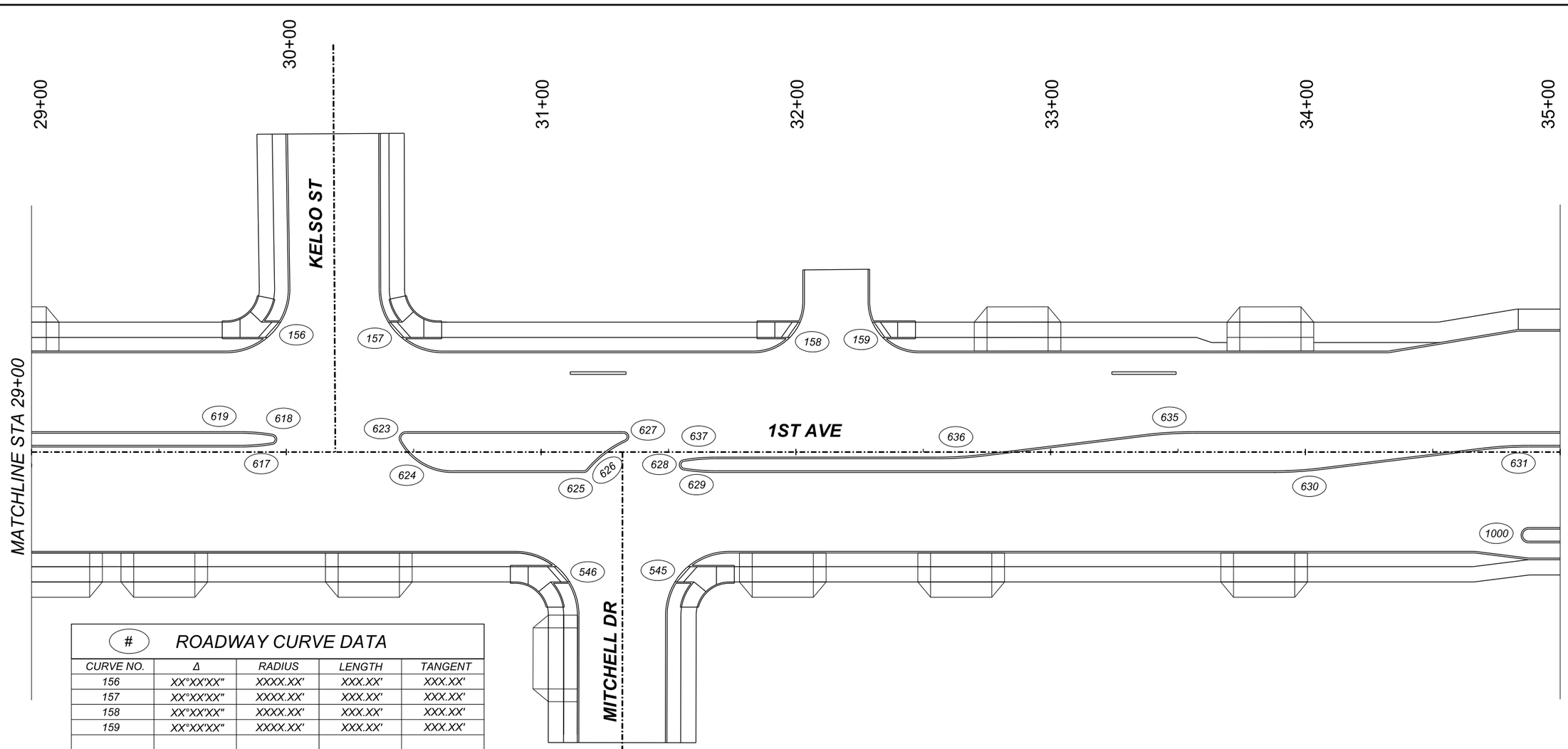
32 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE:
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-08.dgn
8/20/2026 11:57:18 AM

OpenRoads Designer v10.12.02.4
8/20/2026
12:00:47 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	Δ	RADIUS	LENGTH	TANGENT
156	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
157	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
158	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
159	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
545	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
546	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
617	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
618	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
619	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
623	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
624	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
625	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
626	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
627	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
628	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
629	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
630	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
631	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
635	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
636	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
637	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'
1000	XX°XX'XX"	XXXX.XX'	XXX.XX'	XXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

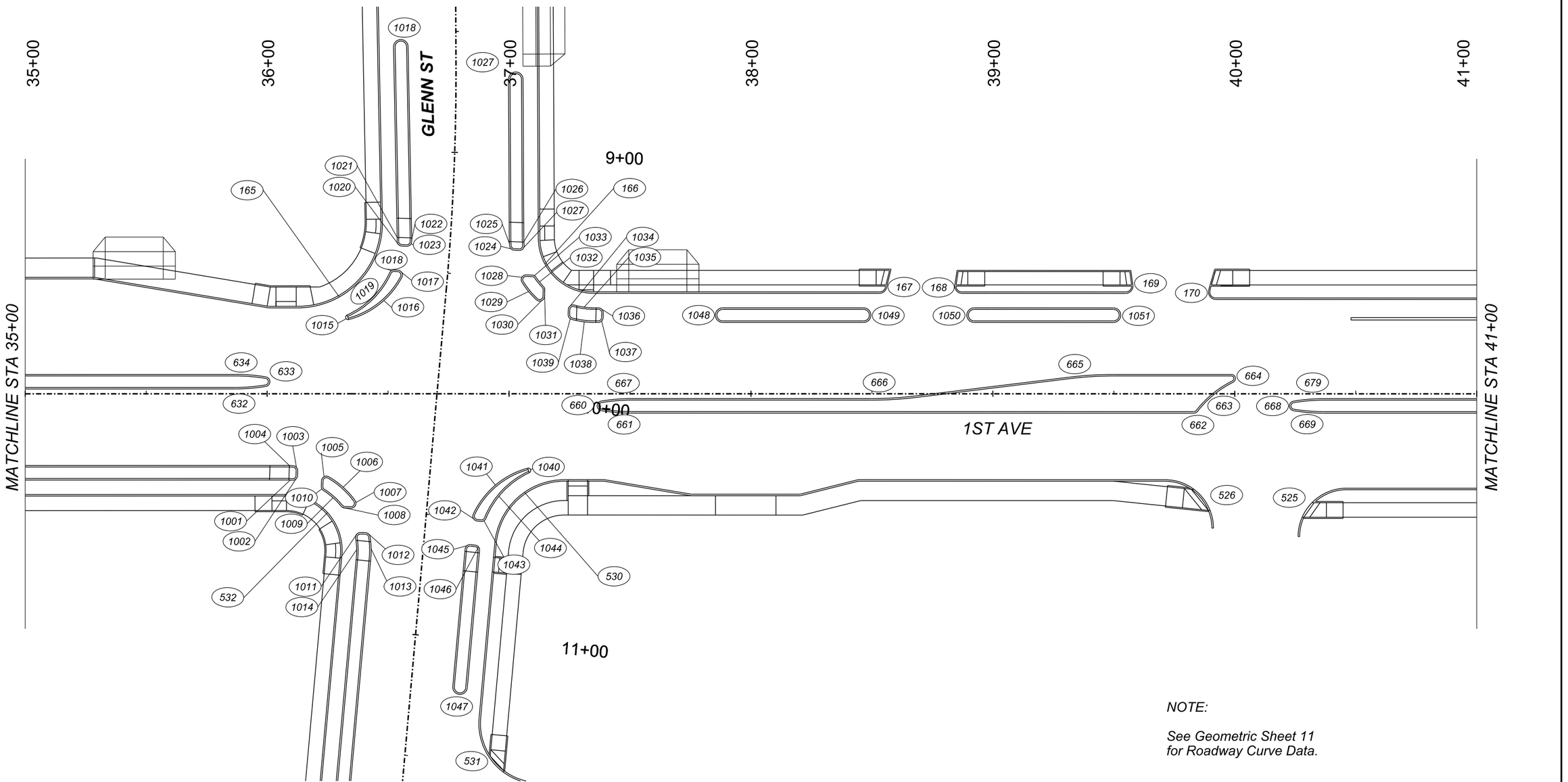
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

GEOMETRIC LAYOUT - ROADWAY SHEET 9 OF 45

c:\pwworking\west01\d3987900\06C-09.dgn
8/20/2026 12:00:47 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:02:11 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



NOTE:

See Geometric Sheet 11 for Roadway Curve Data.

SCALE: 1"=20'

Record Document Dated: ##/##/####

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 10 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

34 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JC AUG 2026 | APPR. BY BJK AUG 2026

SCALE: H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-10.dgn
8/20/2026 12:02:11 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:04:19 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
165	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
166	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
167	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
168	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
169	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
170	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
525	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
526	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
530	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
531	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
532	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
632	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
633	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
634	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
660	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
661	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
662	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
663	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
664	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
665	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
666	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
667	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
668	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
669	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
679	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1001	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1002	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1003	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1004	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1005	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1006	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1007	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1008	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1009	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1010	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1011	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1012	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1013	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1014	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1015	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1016	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1017	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1018	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1019	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1020	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1021	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1022	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1023	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1024	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1025	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1026	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1027	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1028	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
1029	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1030	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1031	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1032	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1033	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1034	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1035	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1036	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1037	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1038	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1039	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1040	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1041	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1042	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1043	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1044	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1045	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1046	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1047	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1048	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1049	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1050	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1051	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY *SHEET 11 OF 45*

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

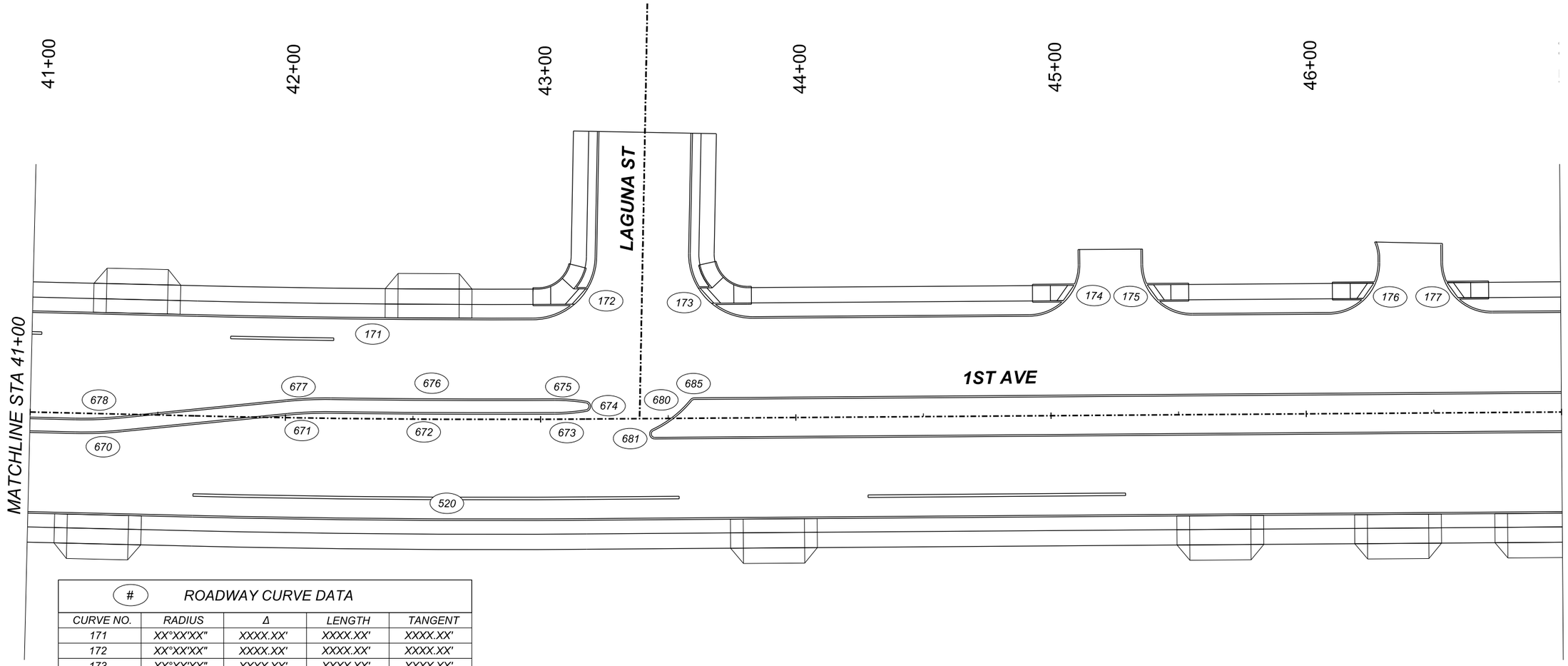
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

35 OF 504

c:\pwworking\west01\d3987900\06C-10A.dgn
8/20/2026 12:04:19 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:06:12 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
171	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
172	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
173	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
174	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
175	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
176	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
177	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
520	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
670	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
671	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
672	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
673	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
674	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
675	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
676	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
677	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
678	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 12 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

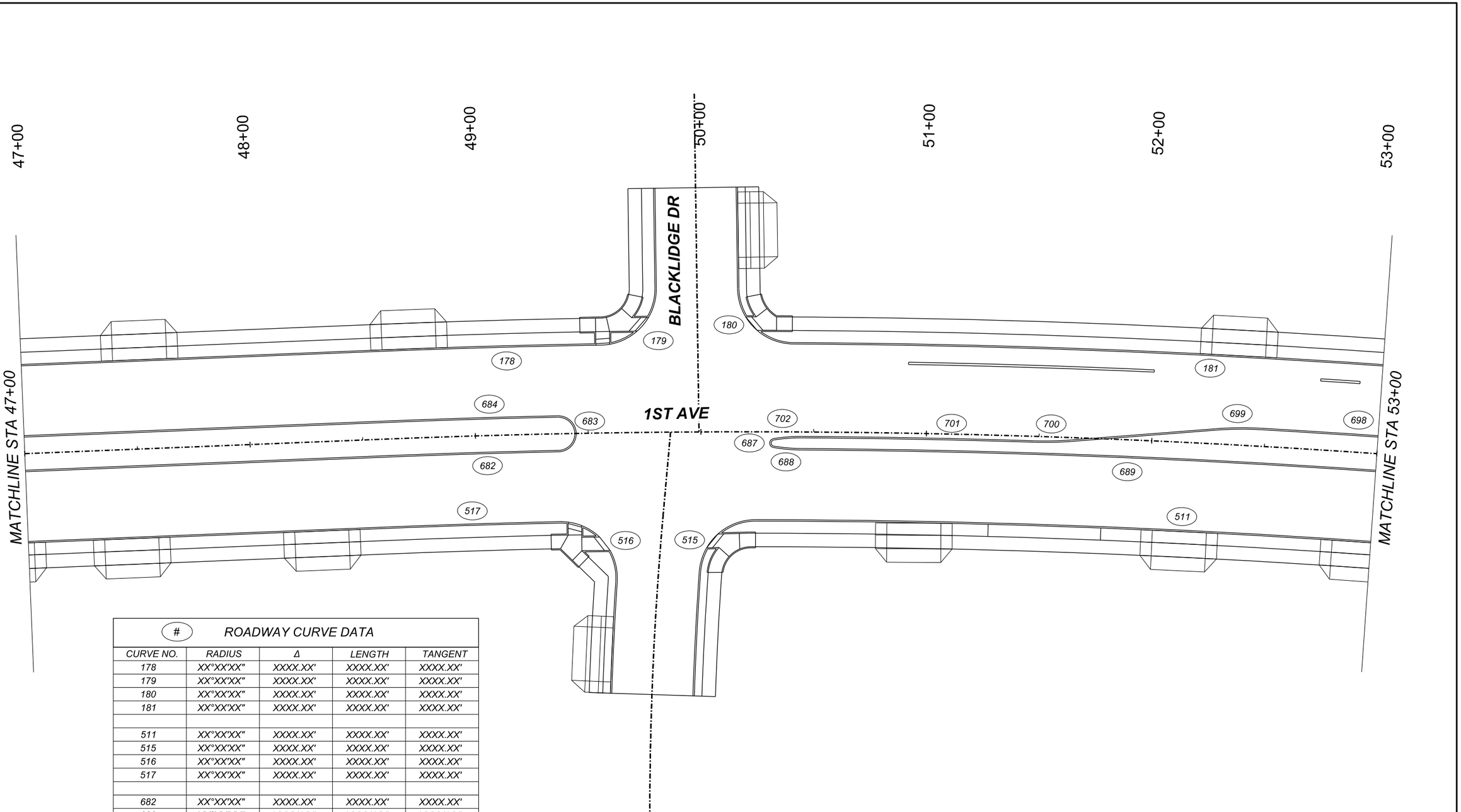
36 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-11.dgn
8/20/2026 12:06:12 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:08:30 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
178	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
179	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
180	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
181	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
511	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
515	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
516	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
517	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
682	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
683	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
684	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
687	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
688	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
689	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
698	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
699	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
700	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
701	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
702	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

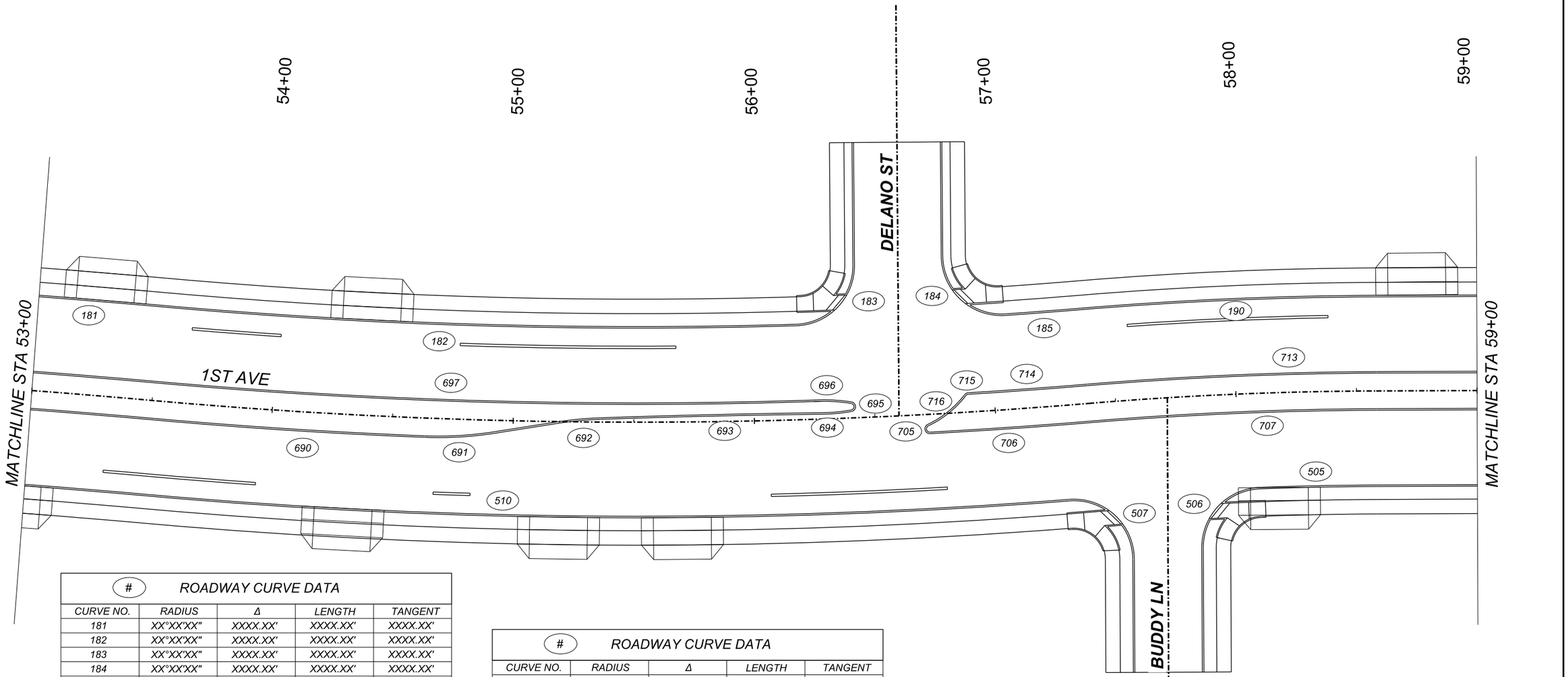
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

37 OF 504

GEOMETRIC LAYOUT - ROADWAY SHEET 13 OF 45

c:\pwworking\west01\d3987900\06C-12.dgn
8/20/2026 12:08:30 PM

12:14:11 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
181	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
182	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
183	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
184	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
185	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
190	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
505				
506	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
507				
510	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
690	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
691	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
692	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
693	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
694	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
695	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
696	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
697	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
705	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
706	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
707	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
713	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
714	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
715	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
716	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
515	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
516	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
517	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JC AUG 2026 | APPR. BY BJK AUG 2026

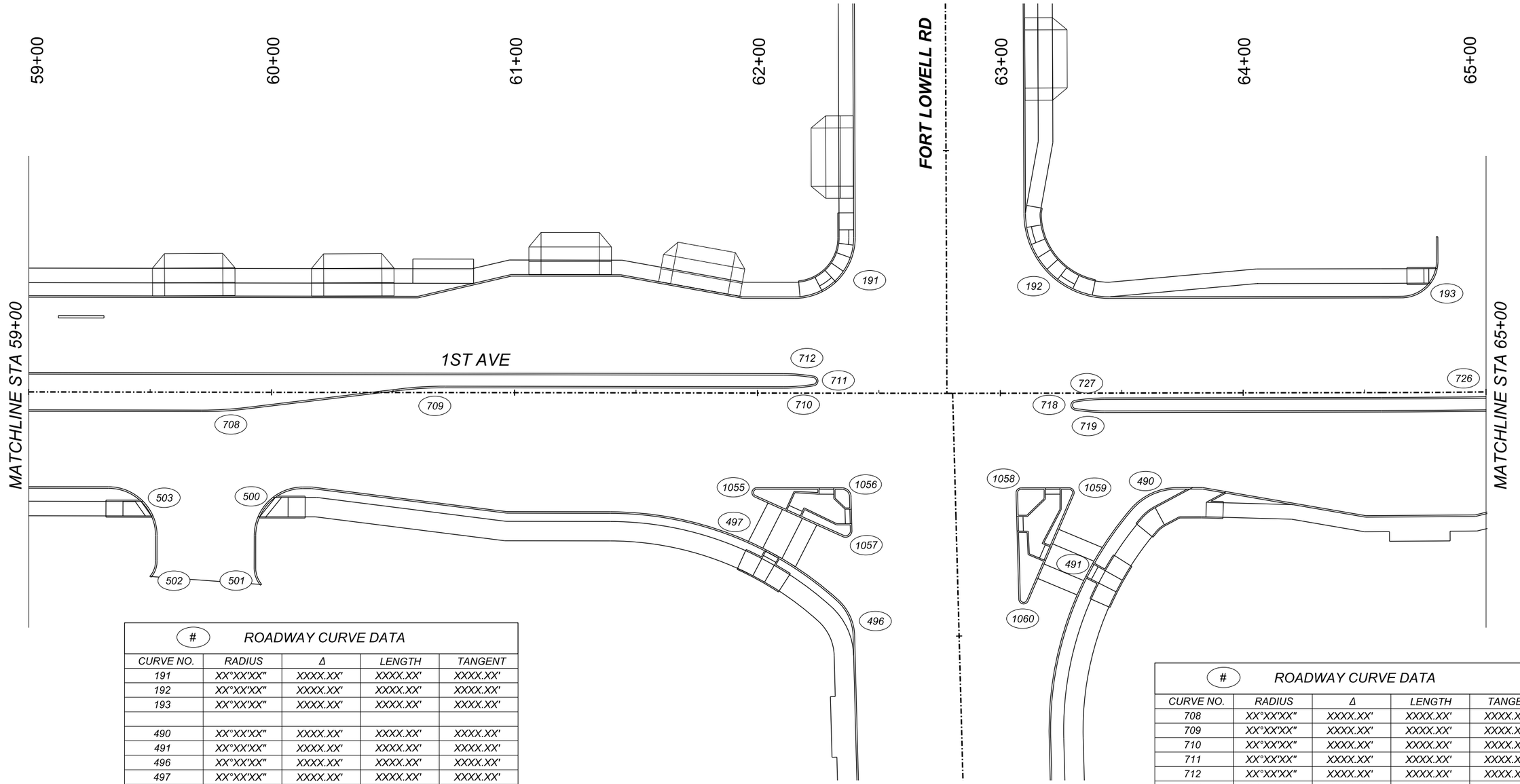
SCALE: H: 1"=20'

PLAN NO. R-2024-XXX

GEOMETRIC LAYOUT - ROADWAY SHEET 14 OF 45

38 OF 504

c:\pwworking\west01\d3987900\06C-13.dgn
8/20/2026 12:14:11 PM



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
191	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
192	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
193	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
490	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
491	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
496	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
497	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
500	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
501	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
502	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
503	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
708	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
709	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
710	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
711	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
712	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
718	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
719	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
726	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1055	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1056	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1057	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1058	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1059	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1060	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 15 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

39 OF 504

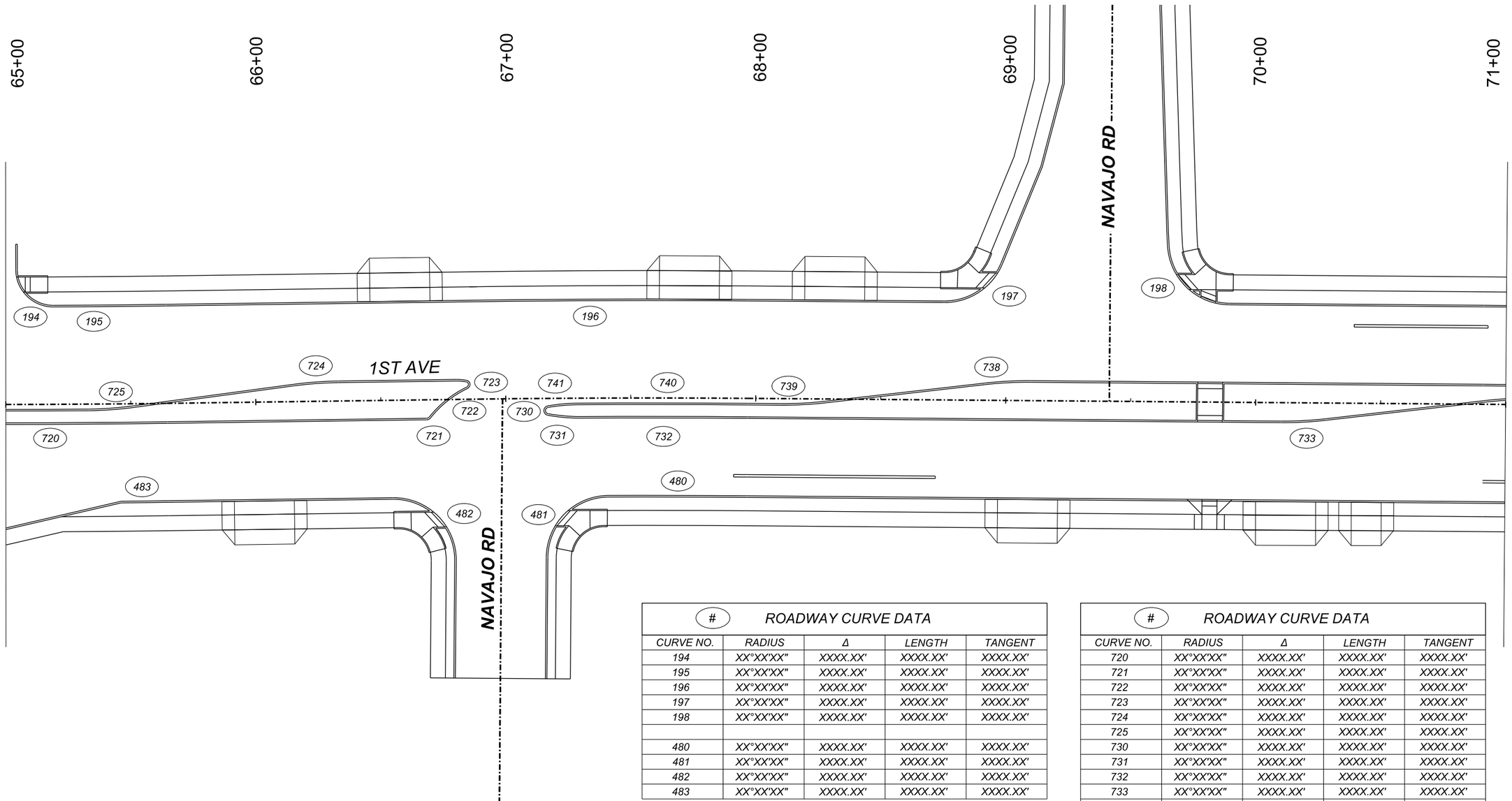
CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/20/2026
12:15:58 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d3987900\06C-14.dgn
8/20/2026 12:15:58 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:20:25 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_twpdf_SD.ptcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
194	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
195	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
196	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
197	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
198	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
480	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
481	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
482	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
483	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
720	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
721	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
722	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
723	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
724	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
725	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
730	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
731	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
732	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
733	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
738	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
739	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
740	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
741	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 16 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC		H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

40 OF 504

c:\pwworking\west01\d3987900\06C-15.dgn
8/20/2026 12:20:25 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:26:05 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

71+00 72+00 73+00 74+00 75+00 76+00 77+00

MATCHLINE STA 71+00

MATCHLINE STA 77+00

1ST AVE

MOHAVE RD

HALCYON RD

FREEMAN PL

200 201 202 203 204 205

734 735 736 737 745 746 747 748 749 750 751 752 753 754 755 759 760

470 471 472 473 474 475

0 20 40
SCALE: 1"=20'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
200	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
201	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
202	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
203	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
204	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
205	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
470	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
471	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
472	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
473	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
474	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
475	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
734	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
735	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
736	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
737	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
745	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
746	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
747	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
748	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
749	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
750	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
751	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
752	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
753	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
754	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
755	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
759	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
760	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

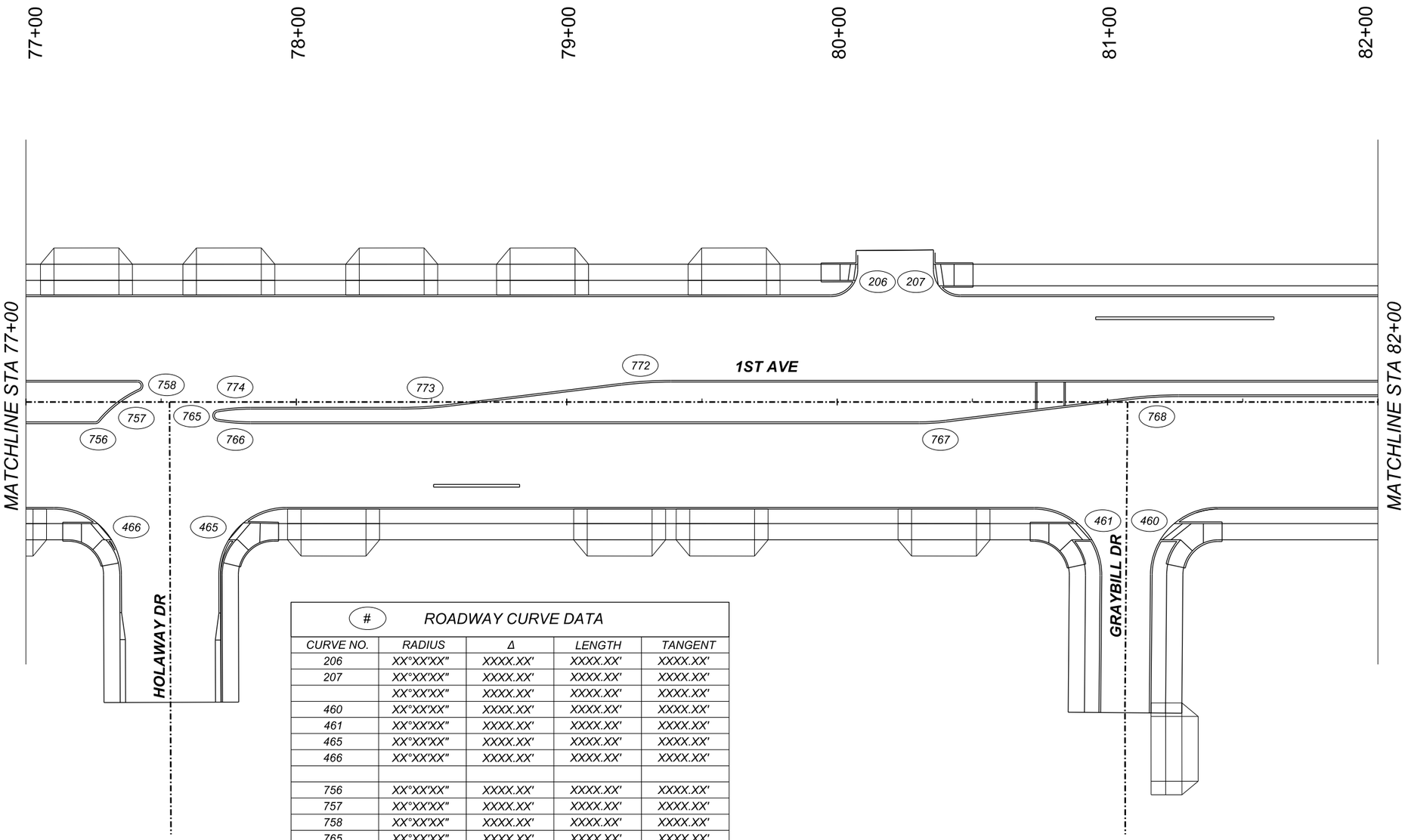
DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

41 OF 504

GEOMETRIC LAYOUT - ROADWAY SHEET 17 OF 45

c:\pwworking\west01\d3987900\06C-16.dgn
8/20/2026 12:26:05 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:31:33 PM
Plotted by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
206	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
207	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
460	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
461	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
465	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
466	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
756	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
757	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
758	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
765	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
766	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
767	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
768	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
772	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
773	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
774	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY *SHEET 18 OF 45*

0 20 40
SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

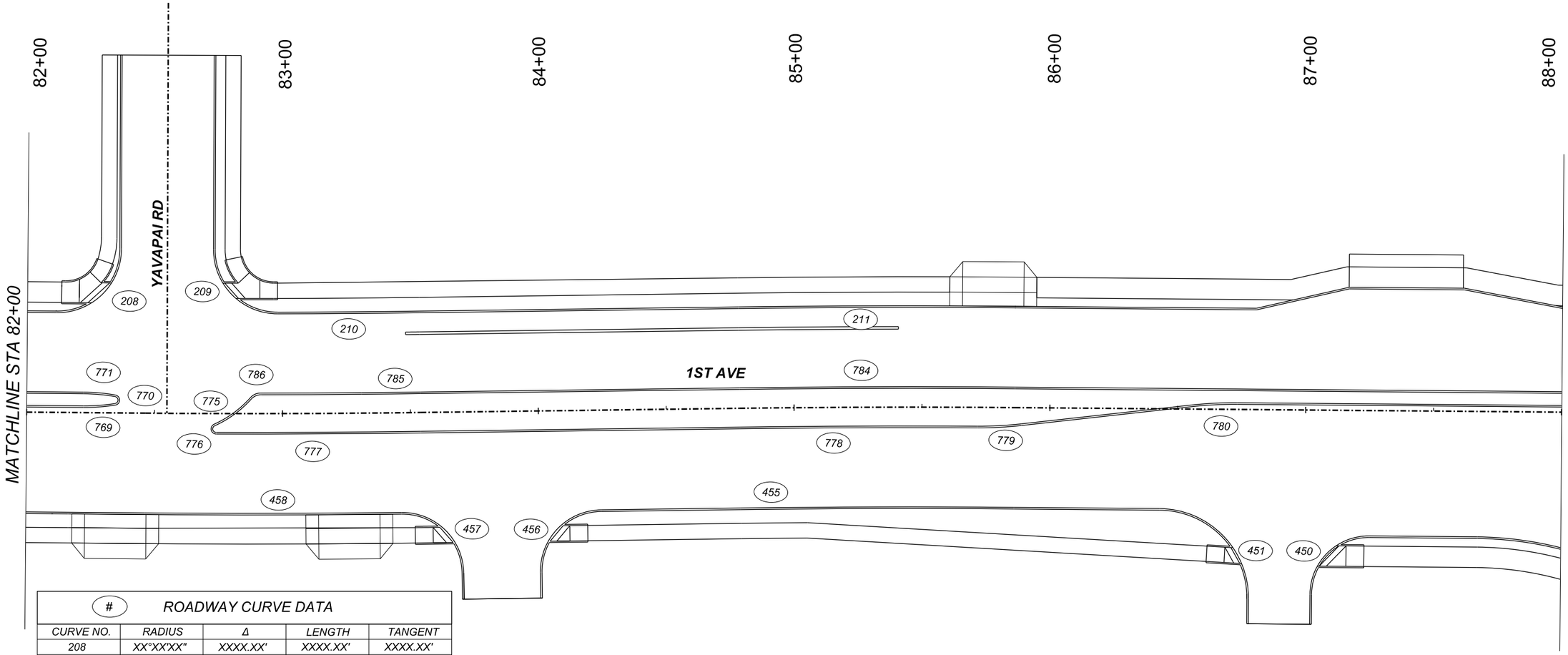
42 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-17.dgn
8/20/2026 12:31:33 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:37:59 PM
Printed by: TCOLE
Print Scale: 120.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number: 4109



# ROADWAY CURVE DATA				
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
208	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
209	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
210	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
211	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
450	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
451	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
455	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
456	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
457	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
458	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
769	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
770	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
771	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
775	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
776	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
777	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
778	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
779	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
780	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
784	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
785	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
786	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

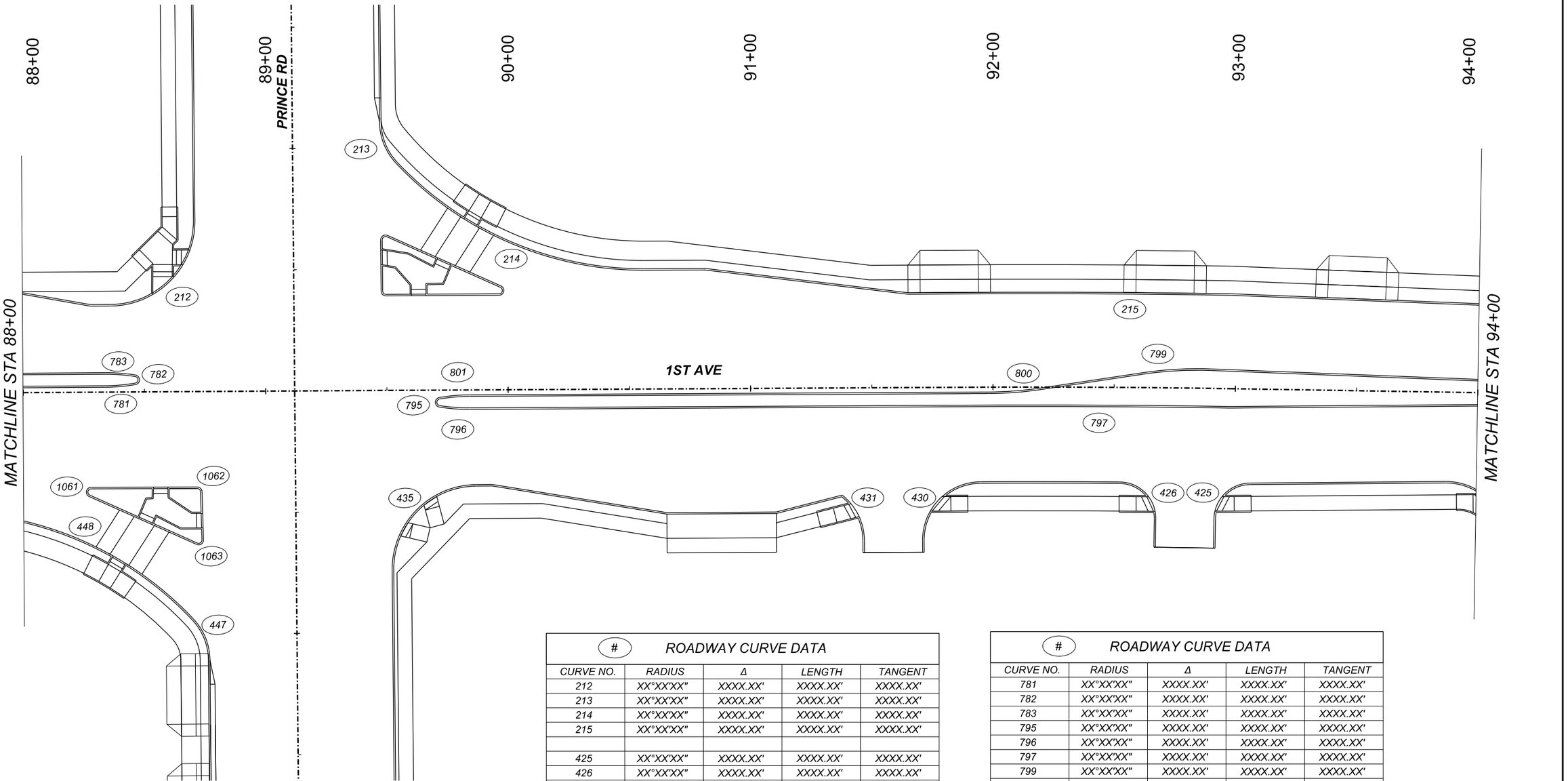
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

GEOMETRIC LAYOUT - ROADWAY SHEET 19 OF 45

c:\pwworking\west01\d3987900\06C-18.dgn
8/20/2026 12:37:59 PM



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
212	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
213	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
214	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
215	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
425	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
426	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
430	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
431	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
435	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
447	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
448	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
781	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
782	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
783	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
795	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
796	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
797	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
799	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
800	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
801	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1061	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1062	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1063	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 20 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JC AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: H: 1"=20'

PLAN NO. R-2024-XXX

44 OF 504

Project ID:
Client Number:4109

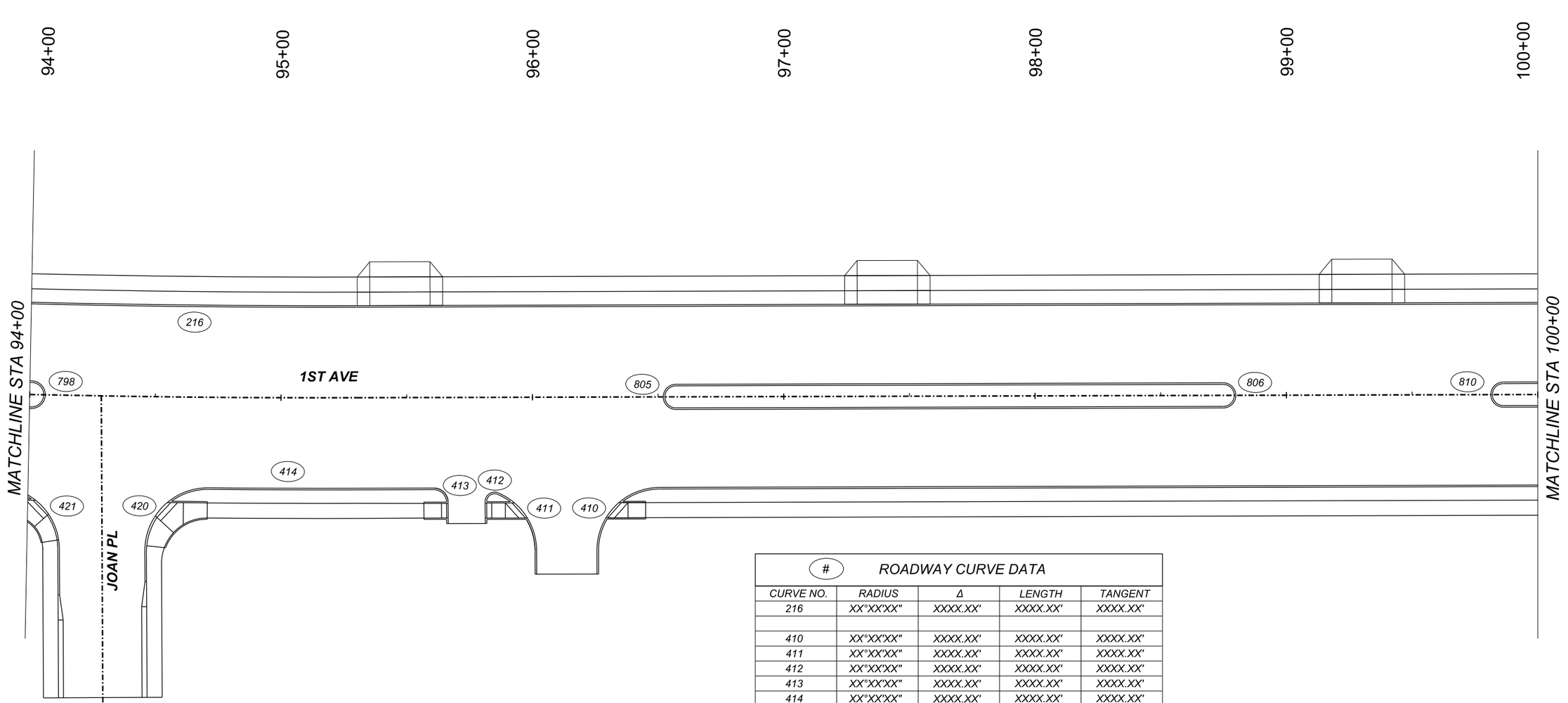
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
PlotDriver:GN_bwpdf_SD.pltcfg

Printed by: TCOLE
Print Scale: 10.0833333

6:54:30 PM 8/18/2026 OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3987900\06C-19.dgn
8/18/2026 6:54:30 PM

OpenRoads Designer v10.12.02.4
8/18/2026
6:52:01 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMAAMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
216	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
410	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
411	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
412	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
413	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
414	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
420	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
421	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
798	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
805	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
806	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
810	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 21 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

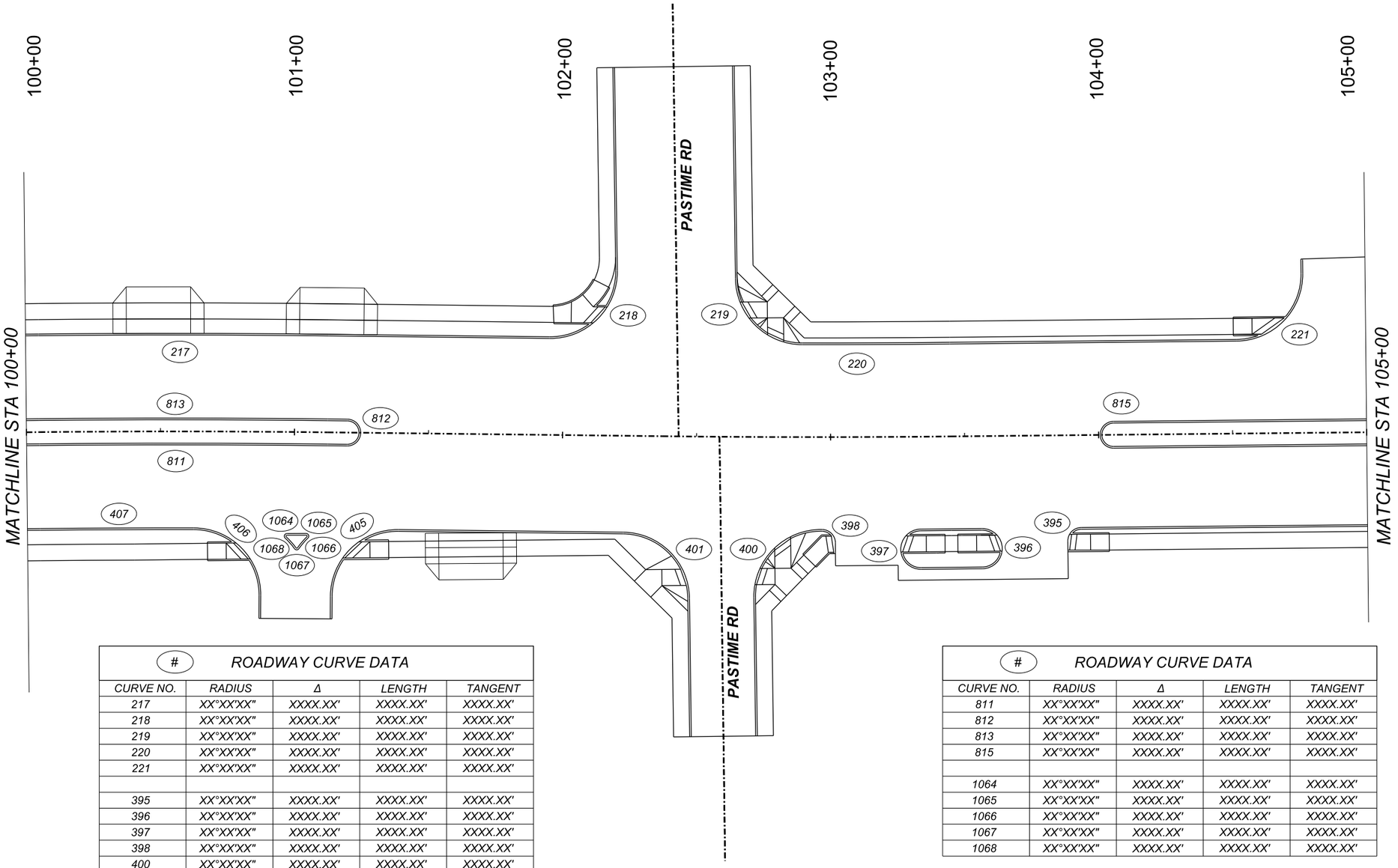
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-20.dgn
8/18/2026 6:52:01 PM

OpenRoads Designer v10.12.02.4
8/18/2026
7:01:26 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109



# ROADWAY CURVE DATA				
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
217	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
218	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
219	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
220	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
221	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
395	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
396	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
397	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
398	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
400	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
401	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
405	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
406	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
407	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

# ROADWAY CURVE DATA				
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
811	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
812	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
813	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
815	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1064	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1065	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1066	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1067	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1068	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 22 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

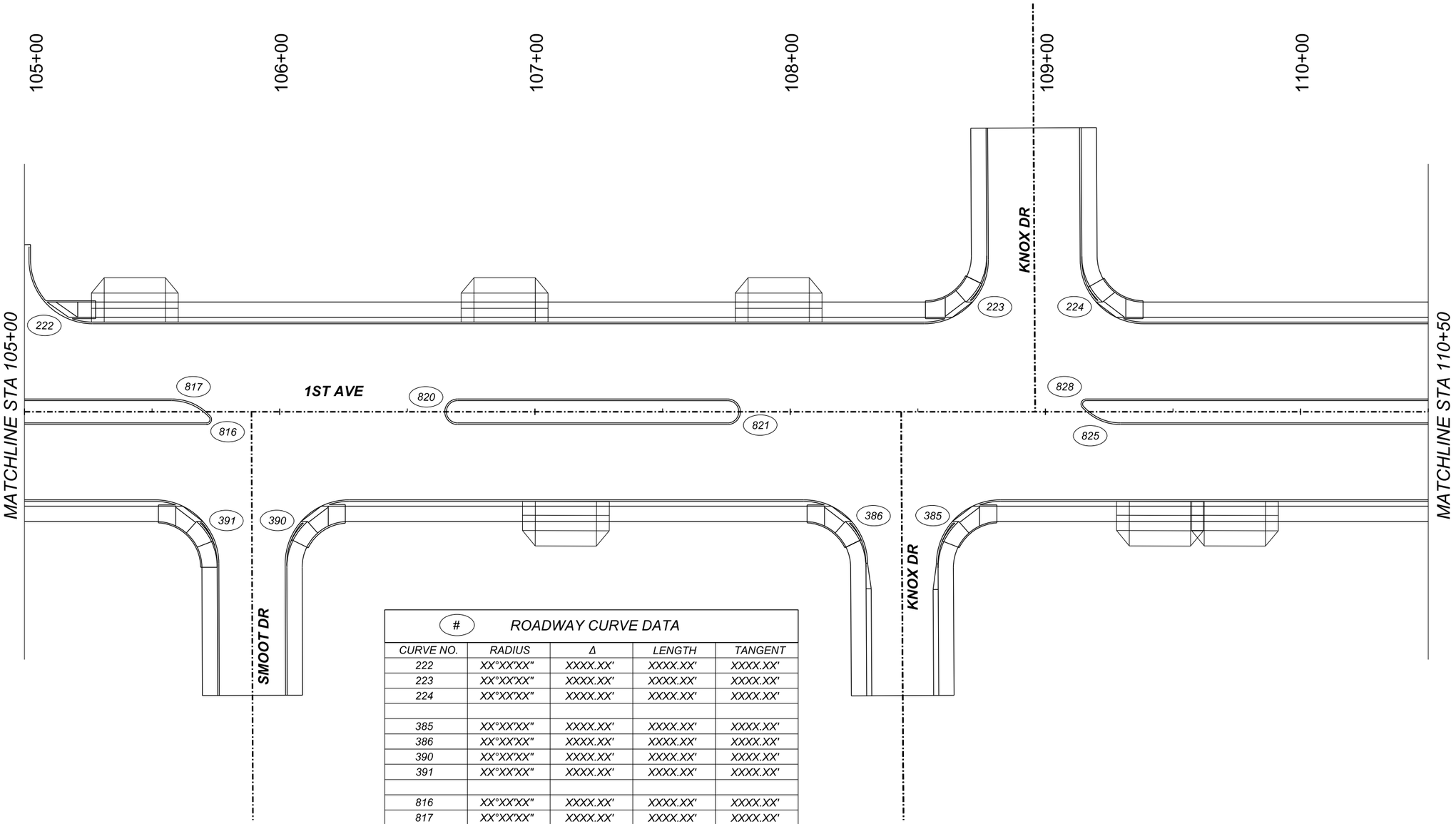
46 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-21.dgn
8/18/2026 7:01:26 PM

OpenRoads Designer v10.12.02.4
8/18/2026
7:03:29 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
222	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
223	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
224	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
385	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
386	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
390	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
391	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
816	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
817	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
820	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
821	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
825	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
828	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 23 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

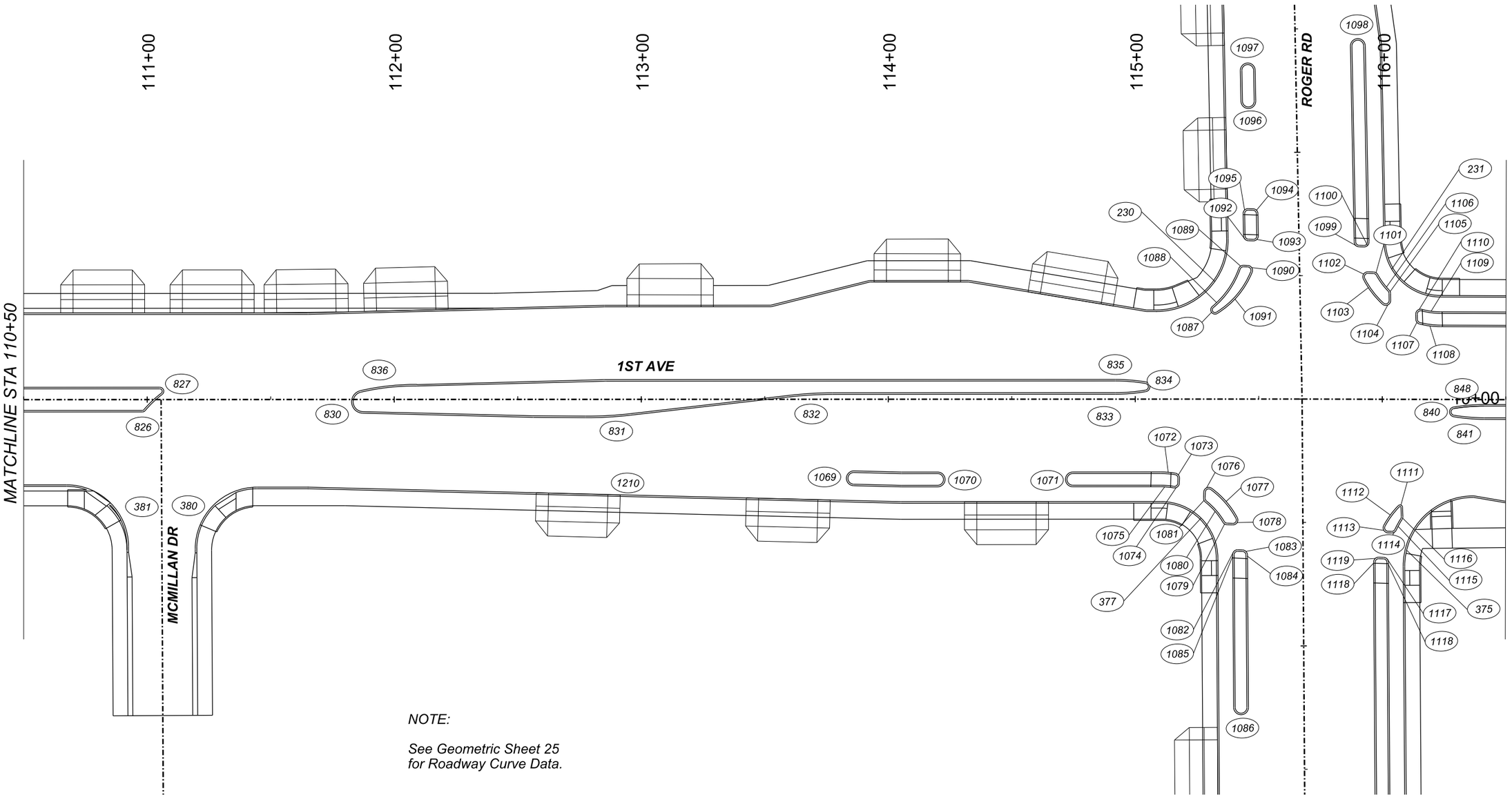
47 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-22.dgn
8/18/2026 7:03:29 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:39:26 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.ptcfg
Project ID:
Client Number: 4109



NOTE:

See Geometric Sheet 25 for Roadway Curve Data.

GEOMETRIC LAYOUT - ROADWAY SHEET 24 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

48 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1"=20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-23.dgn
8/20/2026 12:39:26 PM

# ROADWAY CURVE DATA				
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
230	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
231	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
375	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
377	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
380	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
381	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
826	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
827	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
830	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
831	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
832	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
833	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
834	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
835	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
836	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
840	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
841	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
848	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1069	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1070	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1071	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1072	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1073	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1074	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1075	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1076	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1076	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1077	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1078	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1079	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1080	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1081	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1082	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1083	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1084	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1085	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1086	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1087	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1088	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1089	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1090	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1091	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1092	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1093	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1094	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1095	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1096	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1097	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1098	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1099	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

# ROADWAY CURVE DATA				
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
1100	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1101	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1102	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1103	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1104	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1105	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1106	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1107	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1108	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1109	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1110	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1111	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1112	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1113	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1114	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1115	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1116	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1117	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1118	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1119	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1210	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109
OpenRoads Designer v10.12.02.4
8/18/2026
7:06:05 PM

GEOMETRIC LAYOUT - ROADWAY SHEET 25 OF 45

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

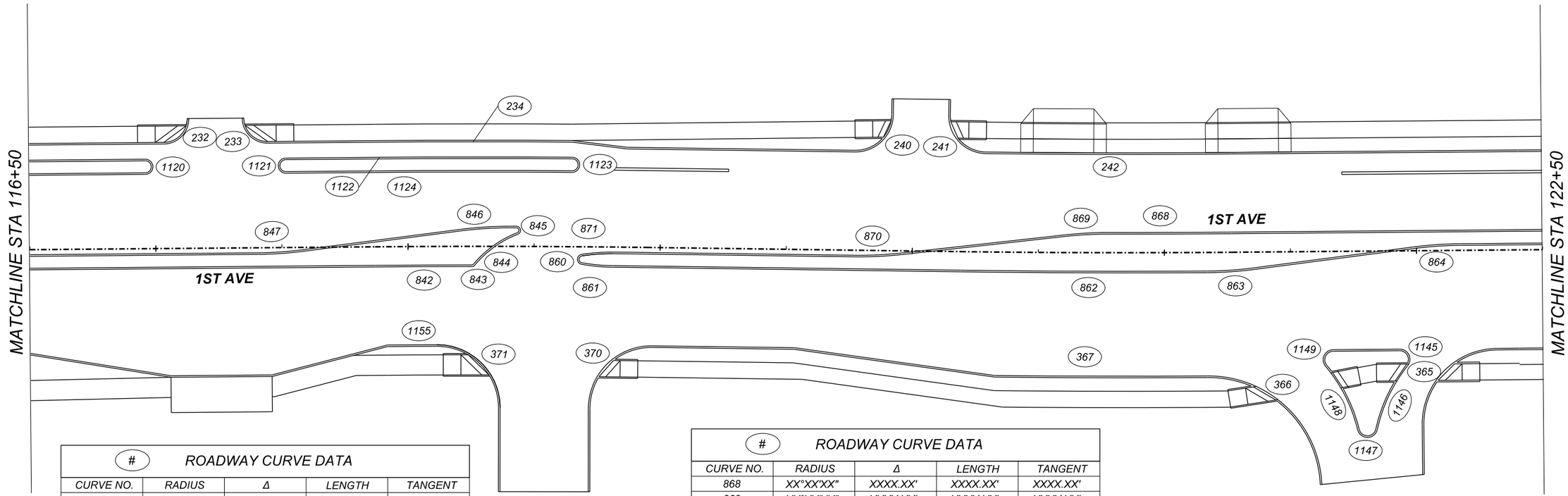
49 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: NTS
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-23A.dgn
8/18/2026 7:06:05 PM

OpenRoads Designer v10.12.02.4
8/20/2026
12:55:03 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdrvr: GN_Dwpdf_SD.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
232	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
233	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
234	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
240	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
241	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
242	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
365	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
366	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
367	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
370	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
371	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
842	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
843	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
844	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
845	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
846	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
847	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
860	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
861	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
862	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
863	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
864	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
868	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
869	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
870	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
871	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1120	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1121	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1122	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1123	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1124	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1145	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1146	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1147	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1148	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1149	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1155	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 26 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

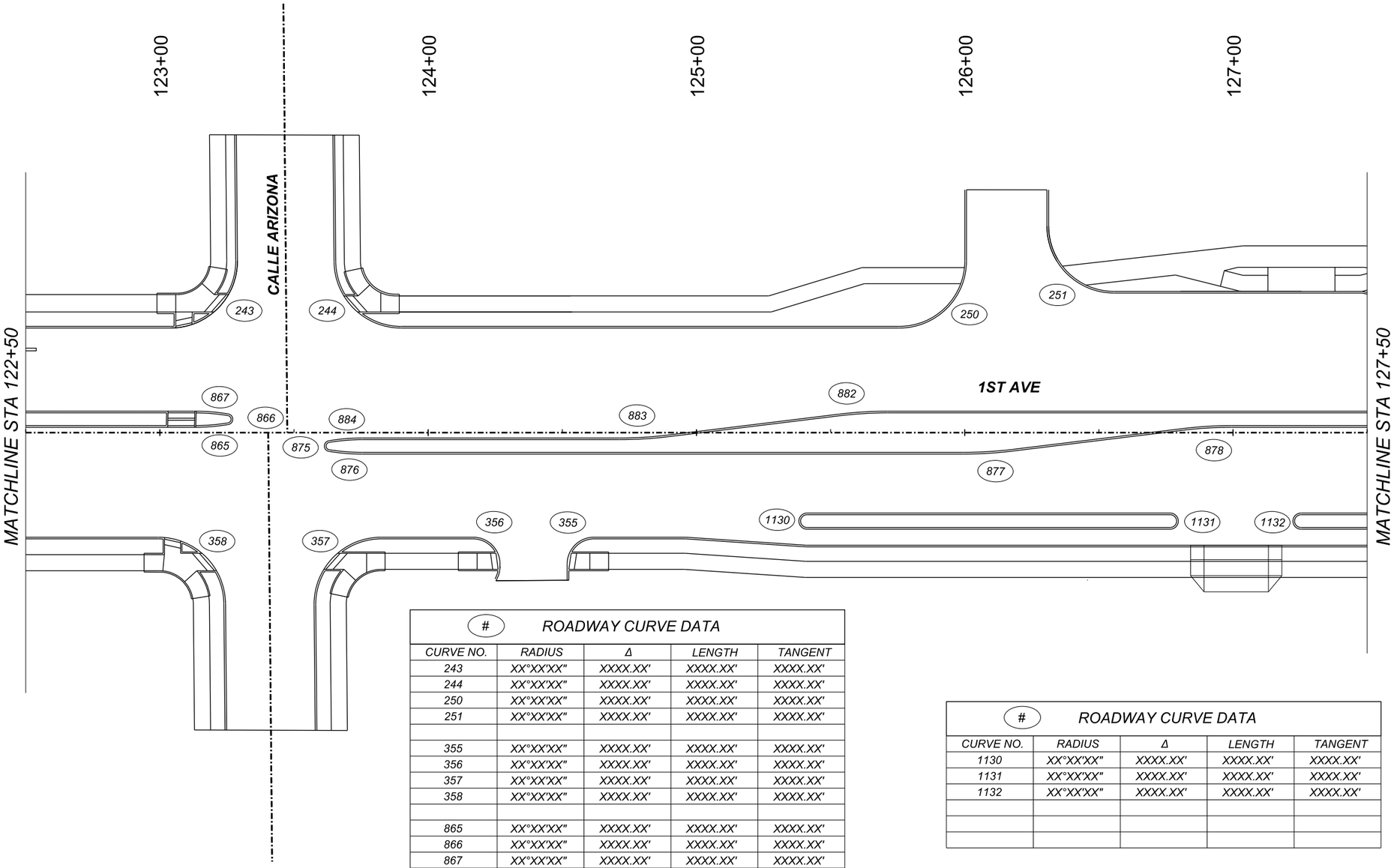
50 OF 504

CITY OF TUCSON

DRWN. BY JAR	CHKD. BY JC	APPR. BY BJK	SCALE: H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-24.dgn
8/20/2026 12:55:03 PM

7:09:05 PM 8/18/2026 OpenRoads Designer v10.12.02.4



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
243	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
244	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
250	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
251	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
355	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
356	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
357	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
358	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
865	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
866	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
867	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
875	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
876	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
877	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
878	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
882	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
883	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
884	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
1130	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1131	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'
1132	XX°XX'XX"	XXXX.XX'	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 27 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

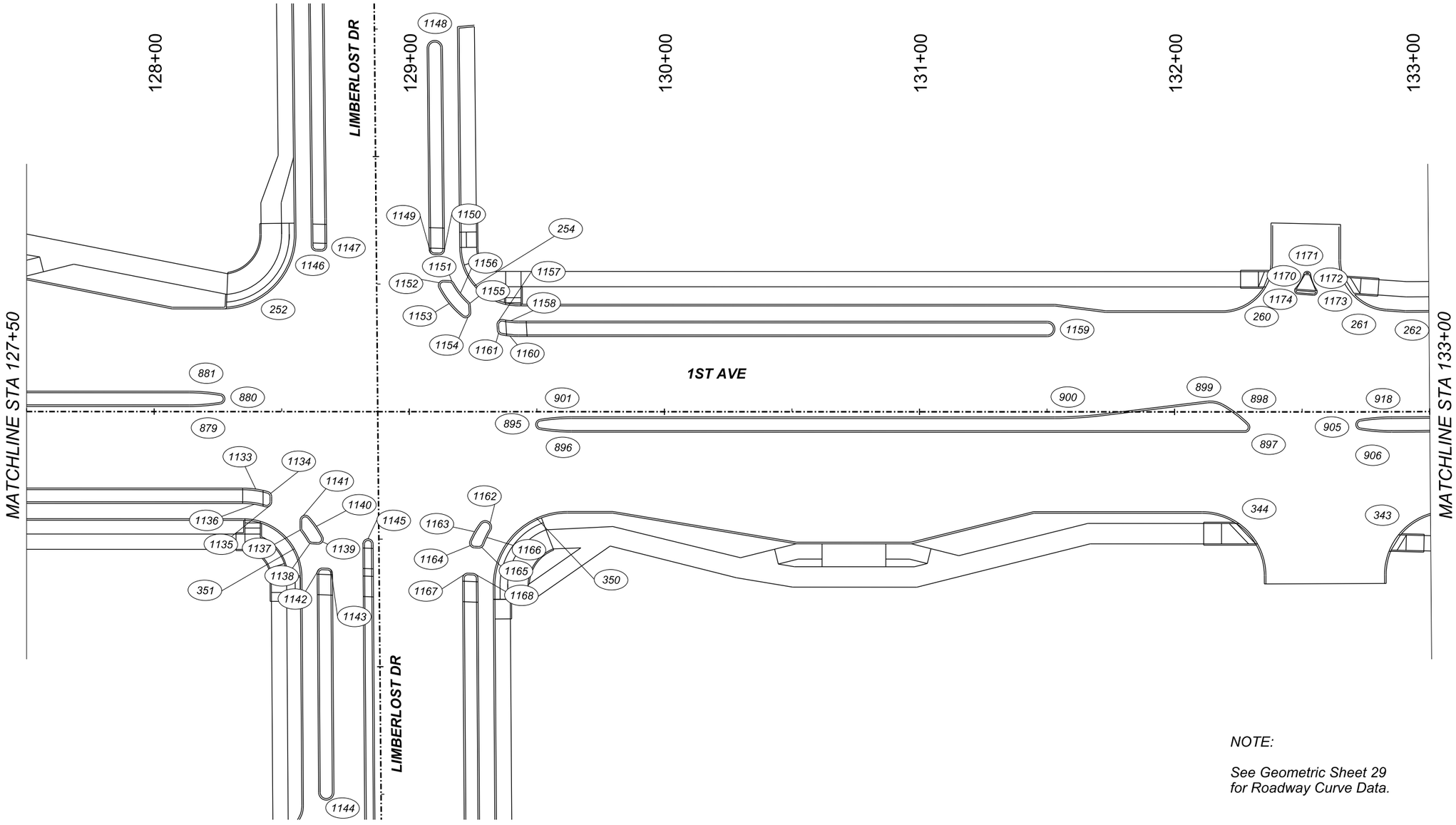
51 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\06C-25.dgn
8/18/2026 7:09:05 PM

OpenRoads Designer v10.12.02.4
8/20/2026
1:37:23 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109



NOTE:

See Geometric Sheet 29 for Roadway Curve Data.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

GEOMETRIC LAYOUT - ROADWAY *SHEET 28 OF 45*

52 OF 504

c:\pwworking\west01\d3987900\06C-26.dgn
8/20/2026 1:37:23 PM

OpenRoads Designer v10.12.02.4
8/20/2026
1:53:43 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

ROADWAY CURVE DATA

CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
252	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
254	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
260	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
261	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
262	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
343	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
344	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
350	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
351	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
879	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
880	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
881	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
895	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
896	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
897	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
898	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
899	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
900	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
901	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
905	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
906	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
918	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1133	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1134	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1135	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1136	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1137	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1138	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1139	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1140	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1141	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1142	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1143	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1144	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1145	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1146	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1147	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1148	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1149	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1150	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1151	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1152	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1153	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1154	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1155	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1156	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1157	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1158	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1159	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1160	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1161	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1162	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1163	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′

ROADWAY CURVE DATA

CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
1164	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1165	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1166	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1167	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1168	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1170	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1171	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1172	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1173	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1174	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′

GEOMETRIC LAYOUT - ROADWAY *SHEET 29 OF 45*

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

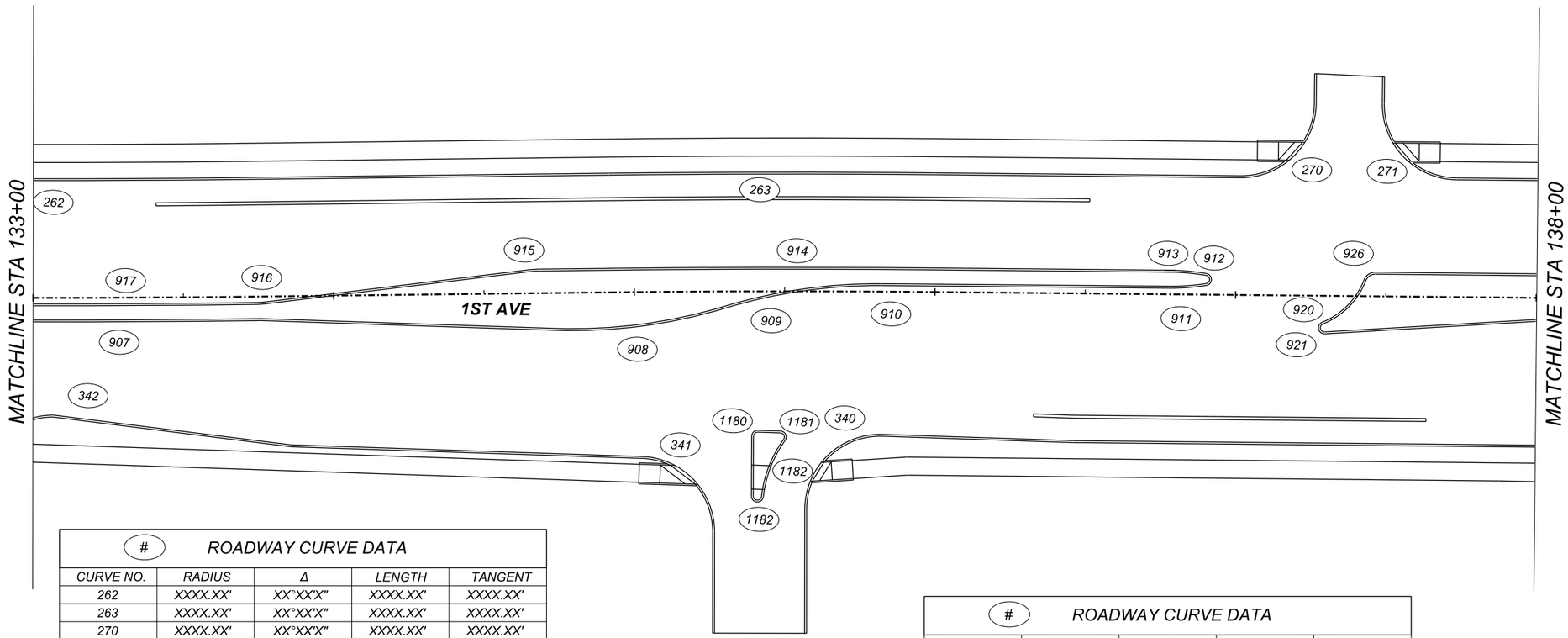
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-26A.dgn
8/20/2026 1:53:43 PM

OpenRoads Designer v10.12.02.4
8/20/2026
1:54:57 PM
Printed by: TCOLE
Print Scale: 150.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

133+00 134+00 135+00 136+00 137+00 138+00



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
262	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
263	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
270	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
271	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
340	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
341	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
342	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
907	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
908	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
909	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
910	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
911	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
912	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
913	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
914	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
915	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
916	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
917	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
920	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
921	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
926	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
1180	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1181	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1182	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1183	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 30 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

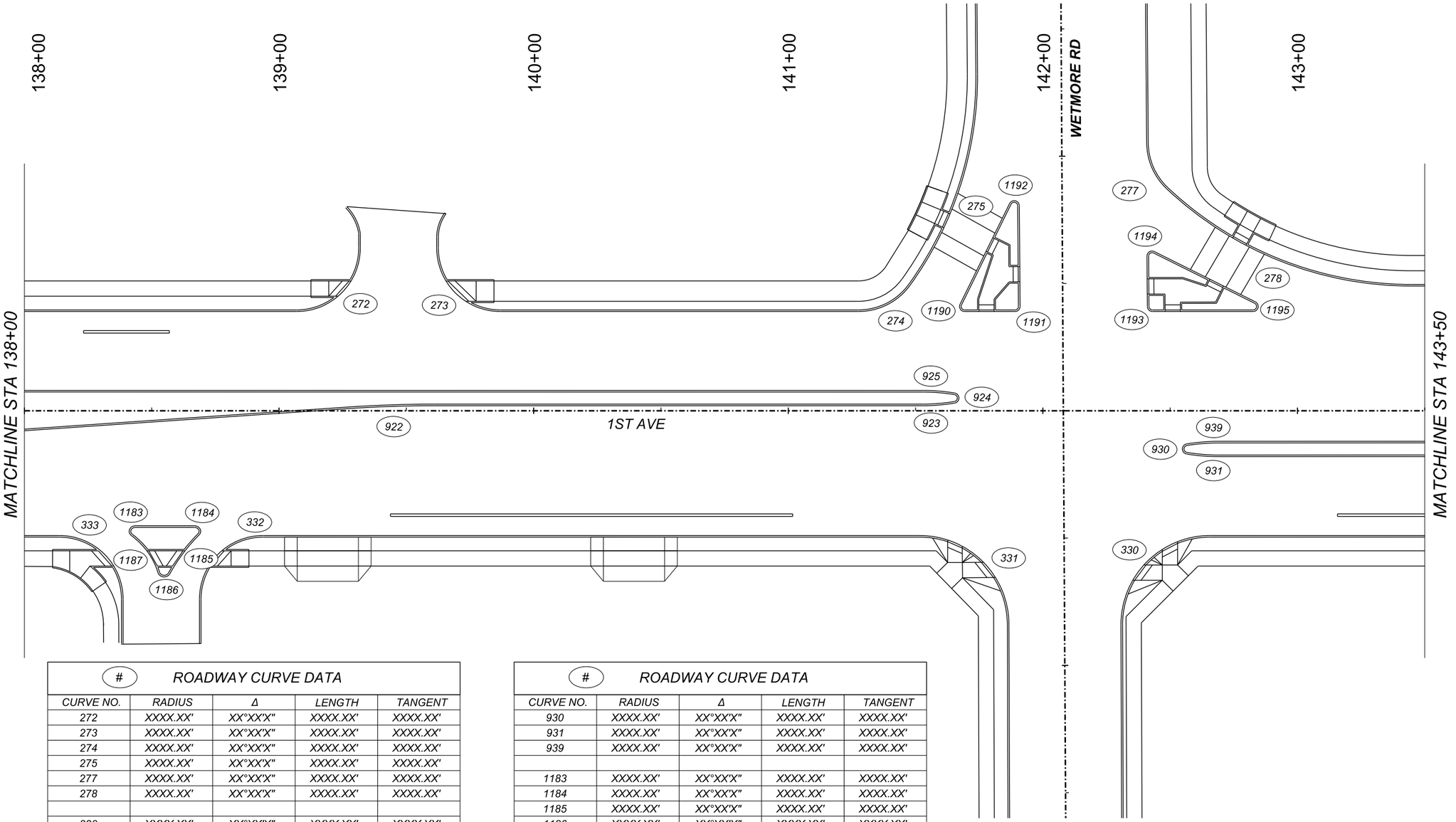
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

54 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-27.dgn
8/20/2026 1:54:57 PM



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
272	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
273	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
274	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
275	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
277	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
278	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
330	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
331	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
332	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
333	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
922	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
923	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
924	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
925	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
930	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
931	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
939	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1183	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1184	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1185	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1186	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1187	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1190	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1191	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1192	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1193	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1194	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1195	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 31 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

55 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JC AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: H: 1"=20'

PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4 8/27/2026 9:08:14 AM

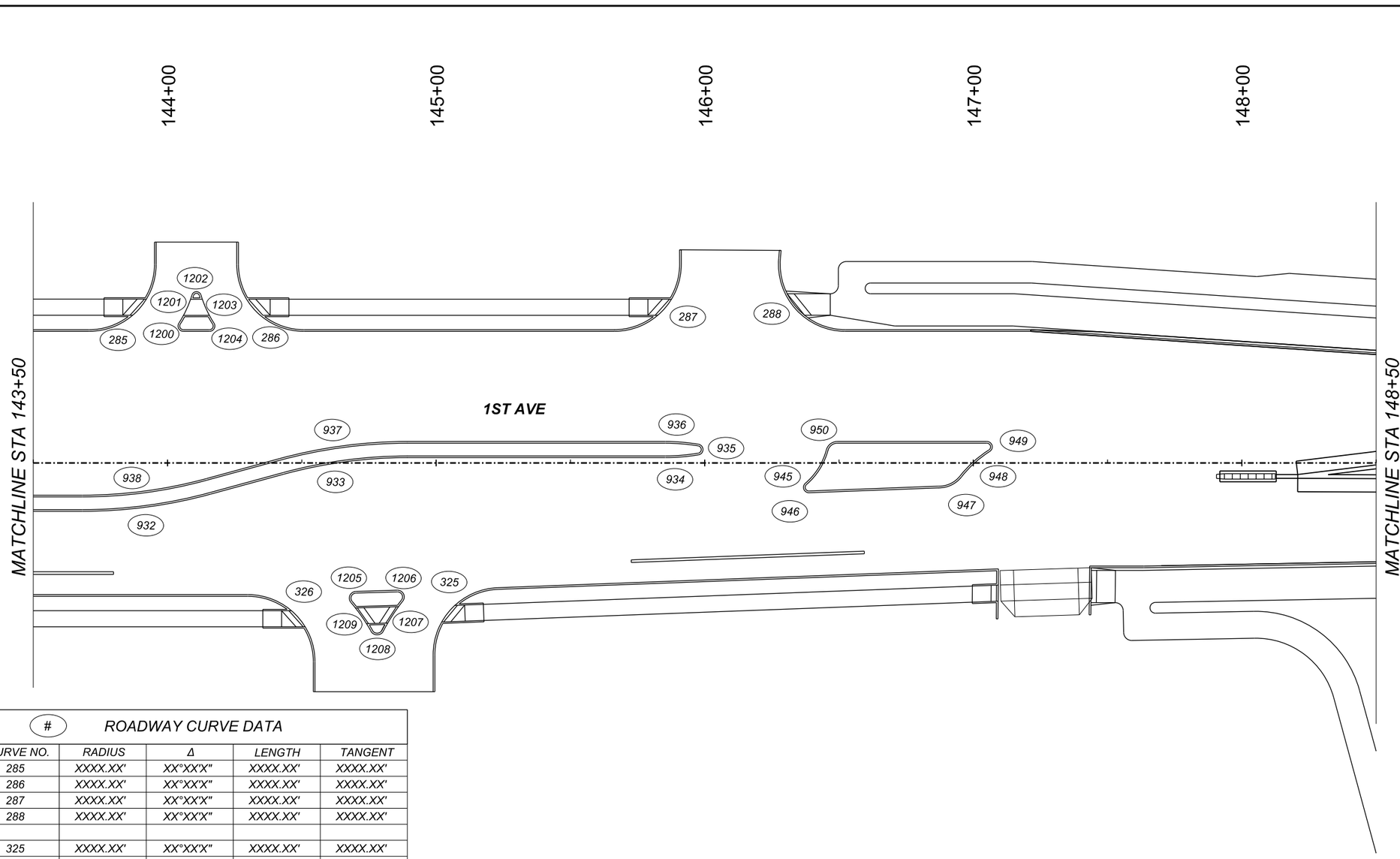
Printed by: TCOLE Print Scale: 1:0.0833333

Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl Plotdriver: GN_bwpdf_SD.pltcfg

Project ID: Client Number: 4109

c:\pwworking\west01\d3987900\06C-28.dgn 8/27/2026 9:08:14 AM

OpenRoads Designer v10.12.02.4
8/18/2026
7:13:41 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
285	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
286	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
287	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
288	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
325	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
326	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
932	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
933	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
934	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
935	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
936	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
937	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
938	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
945	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
946	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
947	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
948	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
949	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
950	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1205	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1206	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1207	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1208	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
1209	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

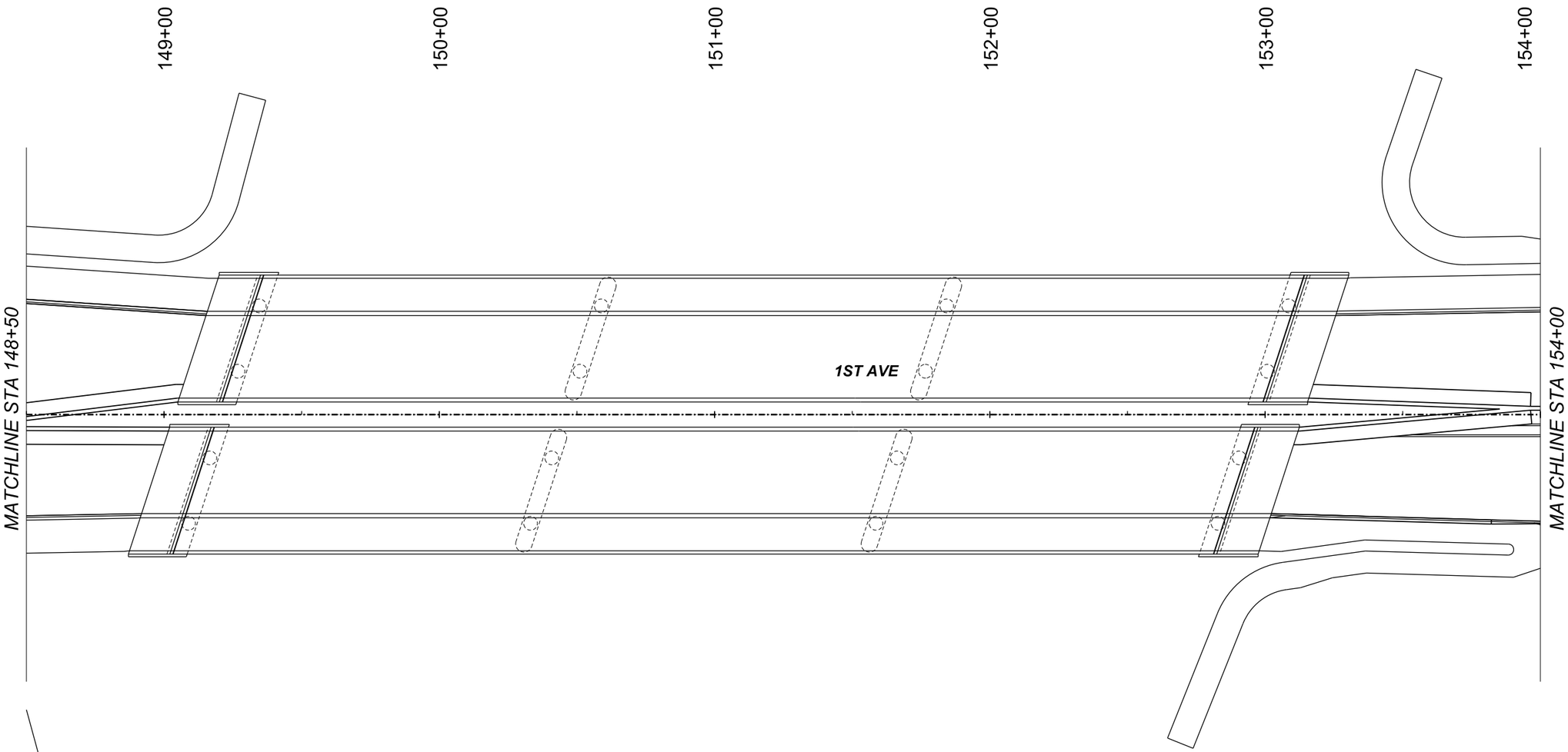
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

GEOMETRIC LAYOUT - ROADWAY *SHEET 32 OF 45*

56 OF 504

c:\pwworking\west01\d3987900\06C-29.dgn
8/18/2026 7:13:41 PM

1:57:54 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109



NOTE:

See Sheet XX & XX for
For Additional SUP Information.

GEOMETRIC LAYOUT - ROADWAY SHEET 33 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

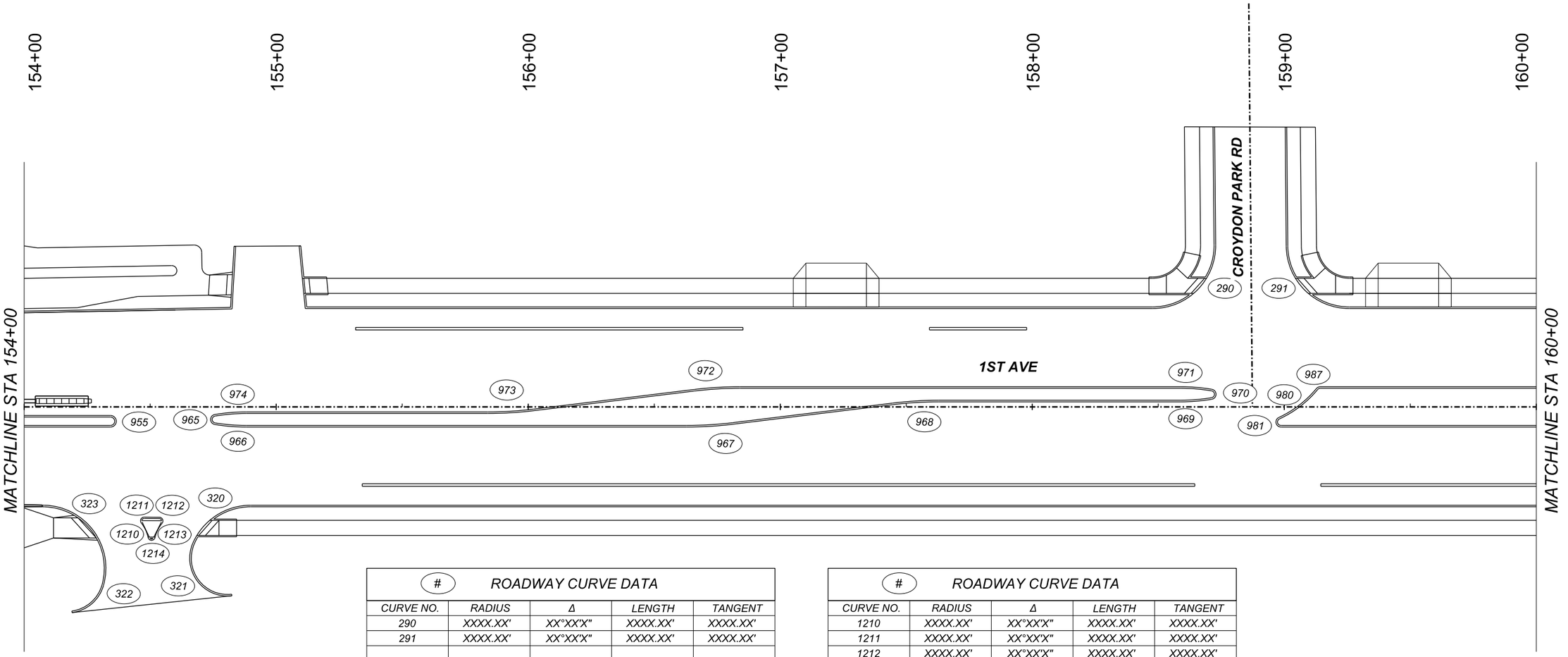
57 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-30.dgn
8/20/2026 1:57:54 PM

OpenRoads Designer v10.12.02.4
8/18/2026
7:22:41 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_fwpdf_SD.pltcfg
Project ID:
Client Number: 4109



# ROADWAY CURVE DATA				
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
290	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
291	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
320	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
321	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
322	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
323	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
955	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
965	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
966	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
967	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
968	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
969	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
970	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
971	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
972	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
973	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
974	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
980	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
981	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
987	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

# ROADWAY CURVE DATA				
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
1210	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1211	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1212	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1213	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1214	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 34 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

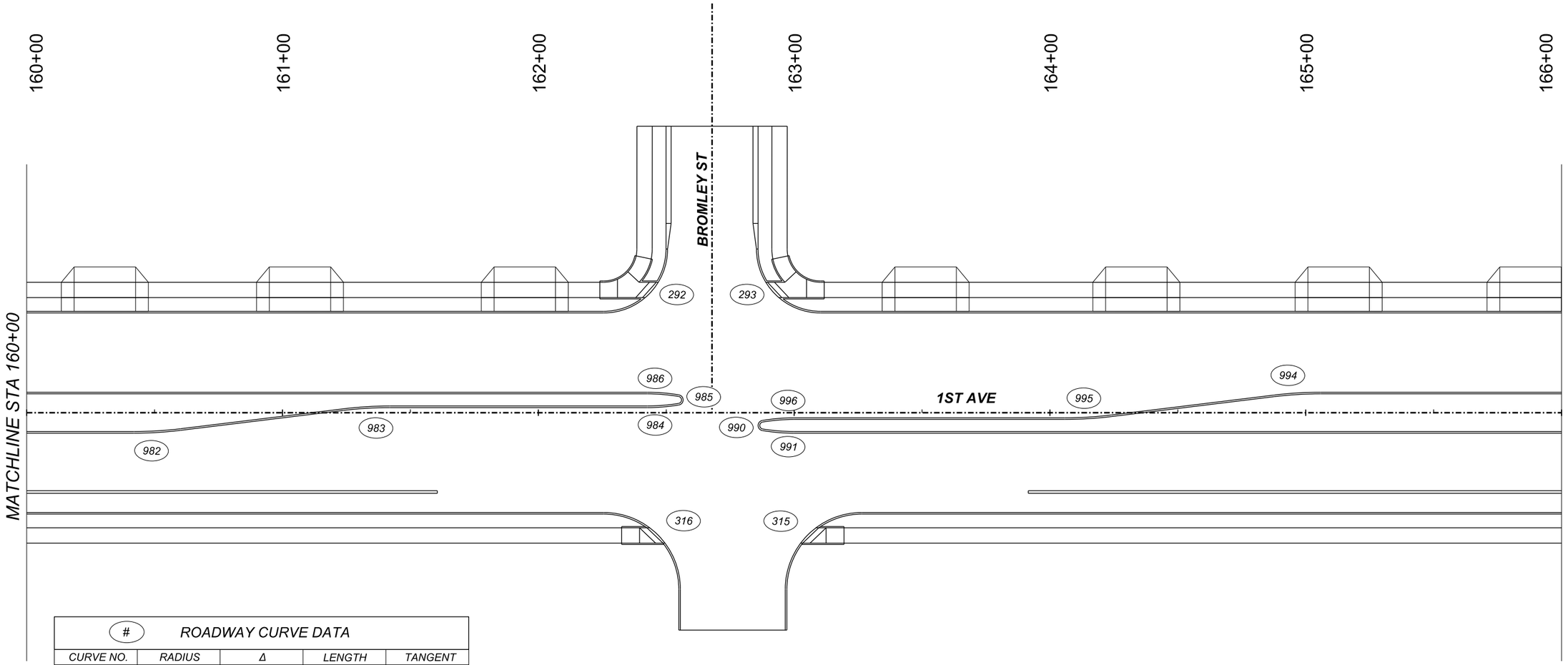
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

58 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/20/2026
2:00:22 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPM&AMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
292	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
293	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
315	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
316	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
982	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
983	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
984	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
985	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
986	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
990	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
991	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
994	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
995	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′
996	XXXX.XX′	XX°XX′X″	XXXX.XX′	XXXX.XX′

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 35 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

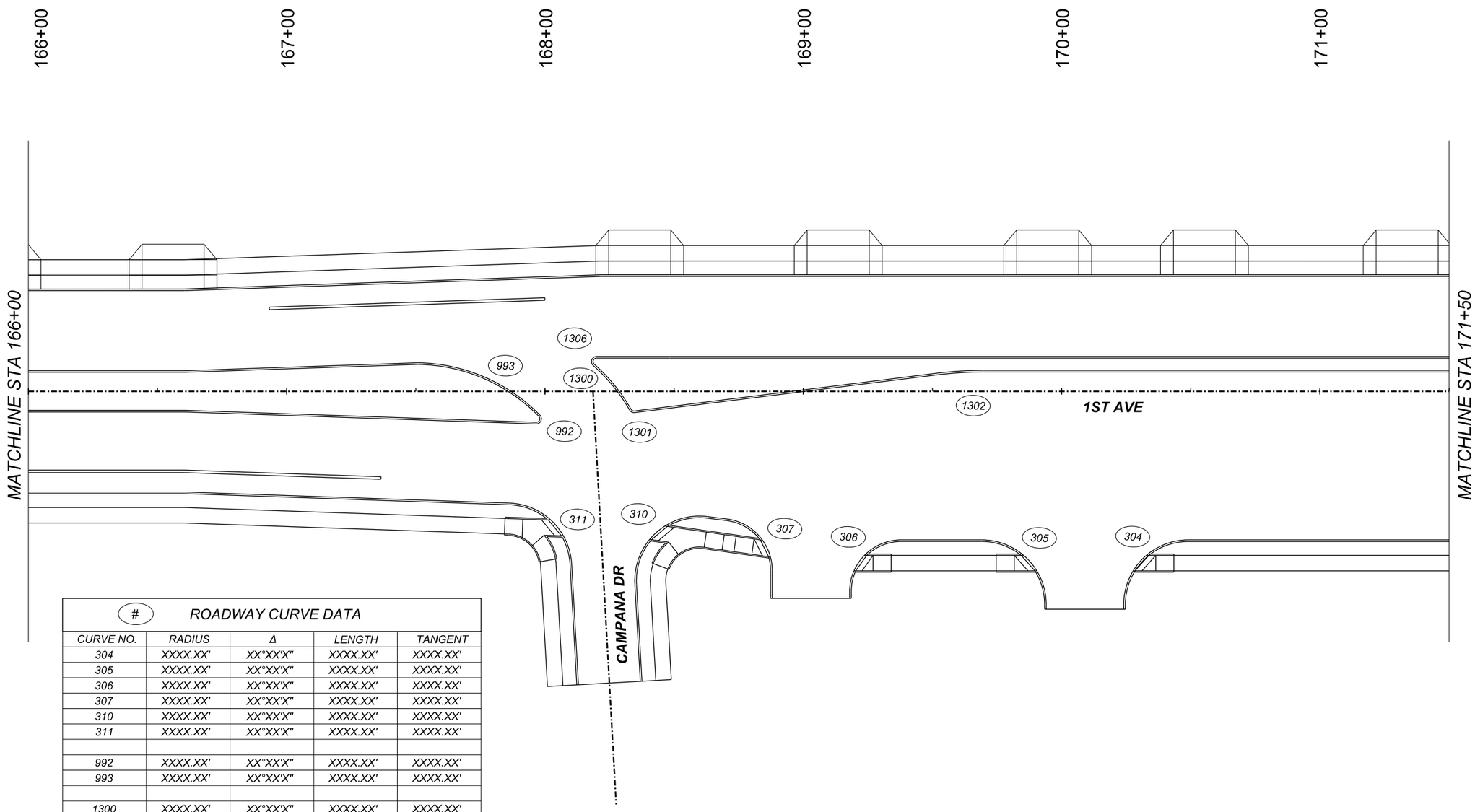
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

59 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/20/2026
2:01:43 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
304	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
305	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
306	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
307	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
310	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
311	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
992	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
993	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1300	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1301	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1302	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1306	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 36 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

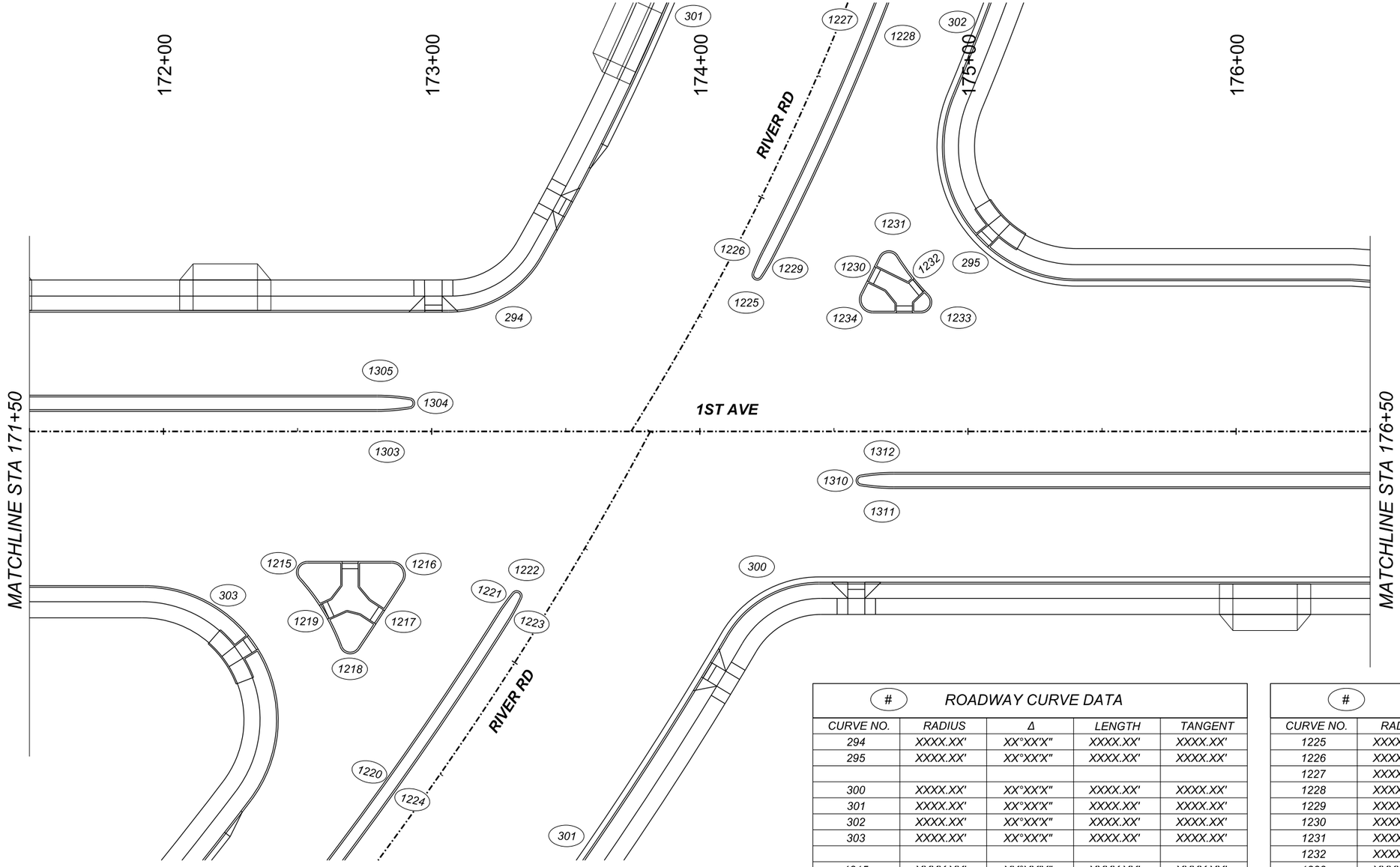
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

60 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/20/2026
2:02:50 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
294	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
295	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
300	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
301	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
302	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
303	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1215	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1216	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1217	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1218	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1219	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1220	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1221	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1222	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1223	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1224	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
1225	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1226	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1227	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1228	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1229	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1230	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1231	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1232	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1233	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1234	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1303	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1304	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1305	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1310	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1311	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
1312	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

GEOMETRIC LAYOUT - ROADWAY SHEET 37 OF 45

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

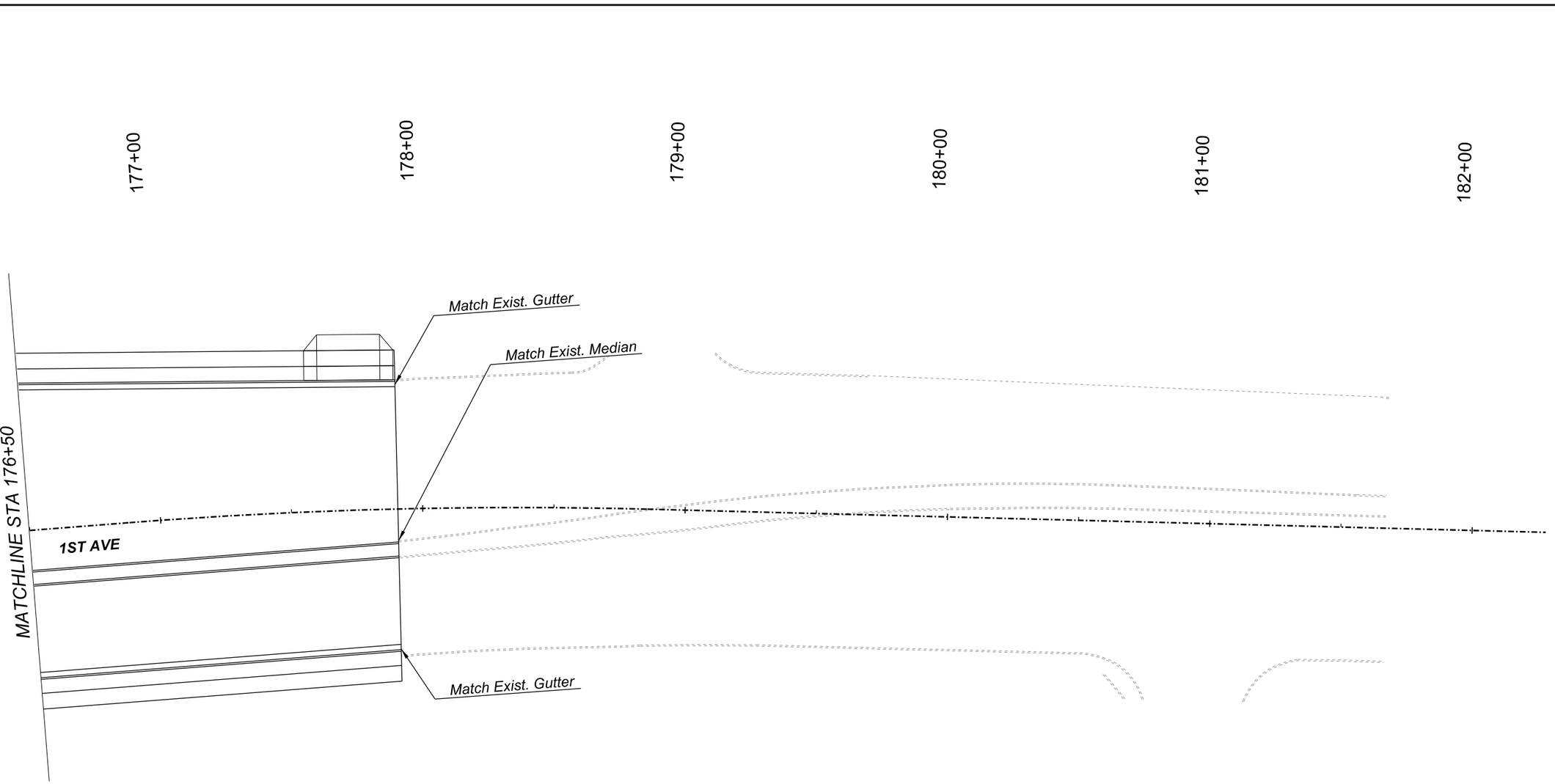
61 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-34.dgn
8/20/2026 2:02:50 PM

OpenRoads Designer v10.12.02.4
8/26/2026
8:28:59 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 38 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

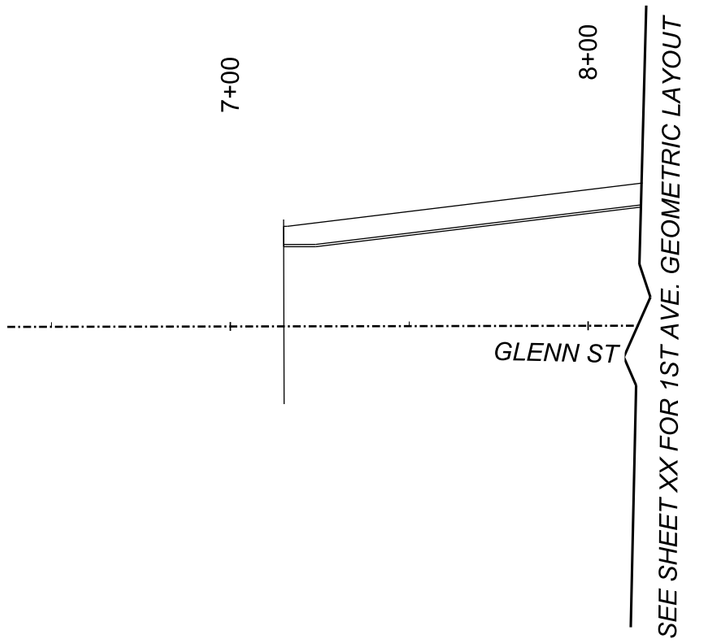
62 OF 504

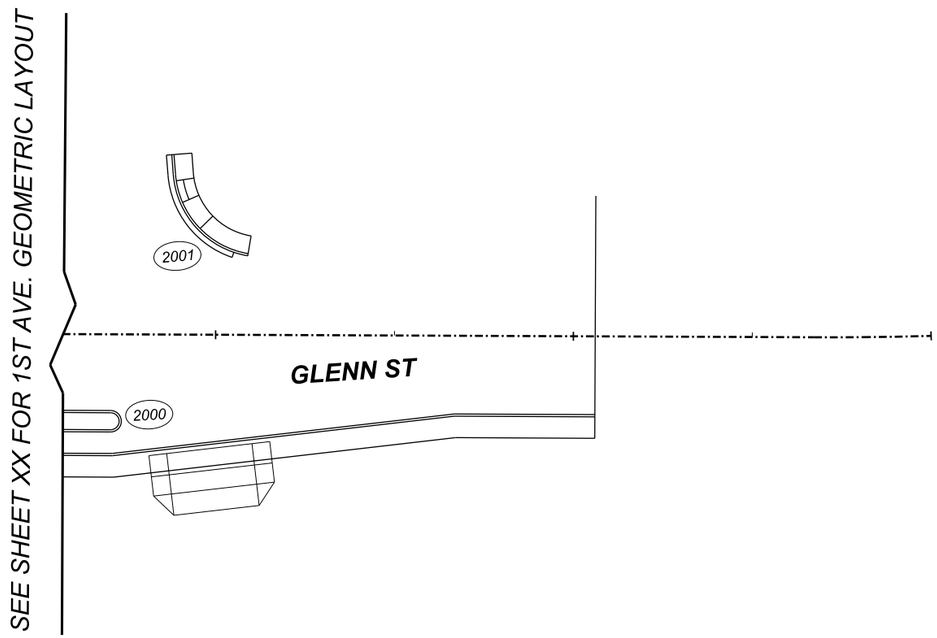
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

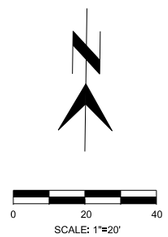
c:\pwworking\west01\d3987900\06C-35.dgn
8/26/2026 8:28:59 AM

2:06:23 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109





#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
2000	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2001	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 39 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

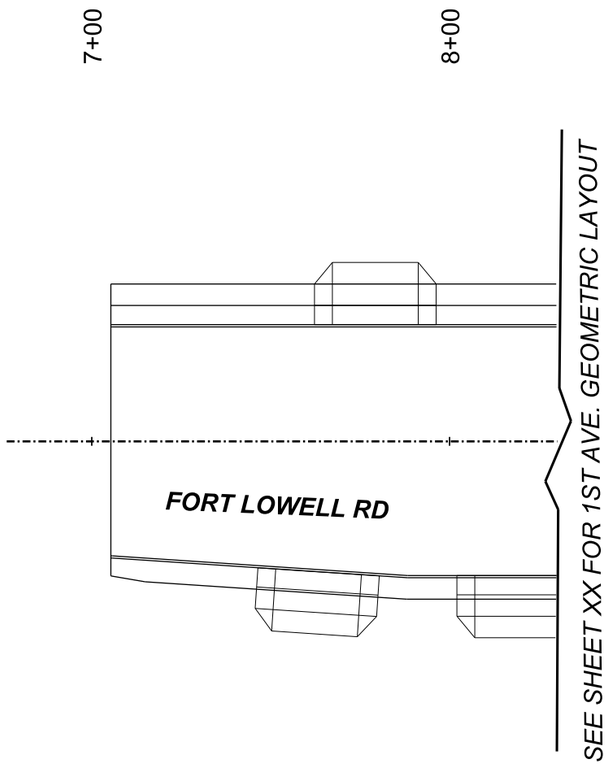
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

63 OF 504

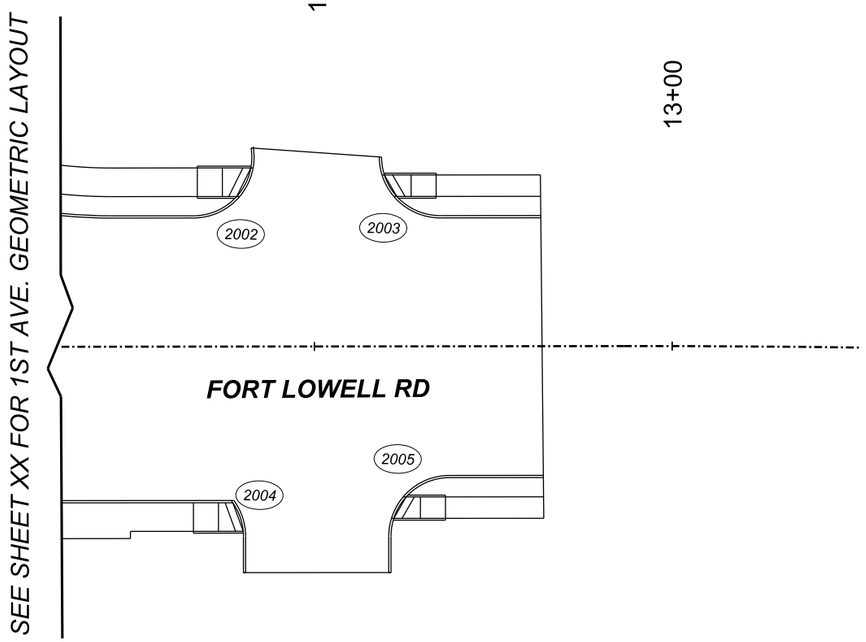
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

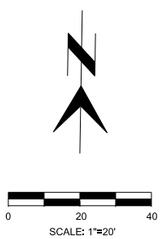
2:08:10 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1ST AVENUE



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
2002	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2003	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2004	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2005	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE4T (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

GEOMETRIC LAYOUT - ROADWAY *SHEET 40 OF 45*

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

64 OF 504

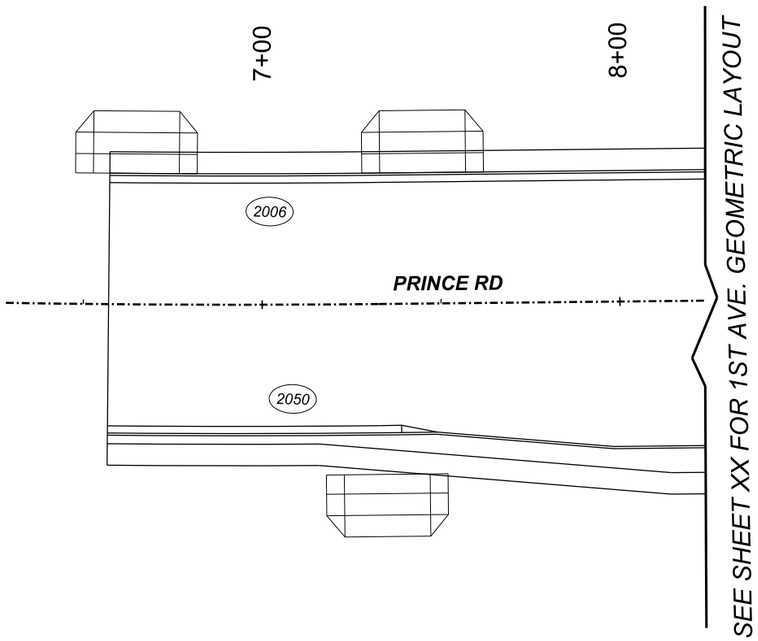
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

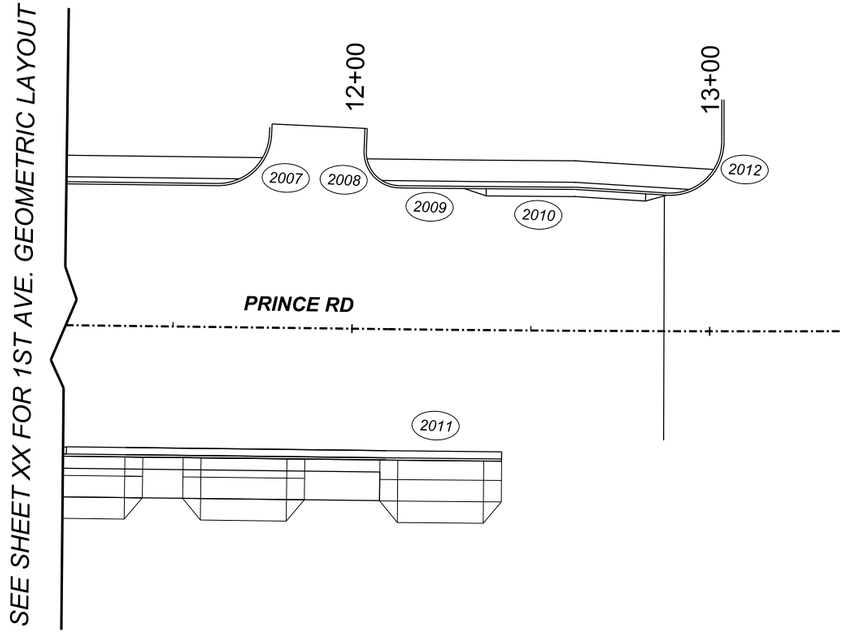
DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-37.dgn
8/20/2026 2:08:10 PM

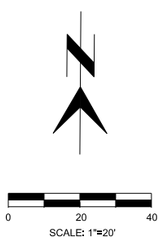
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109
OpenRoads Designer v10.12.02.4
8/20/2026
2:09:34 PM



1ST AVENUE



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
2050	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2006	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2007	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2008	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2009	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2010	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2011	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2012	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

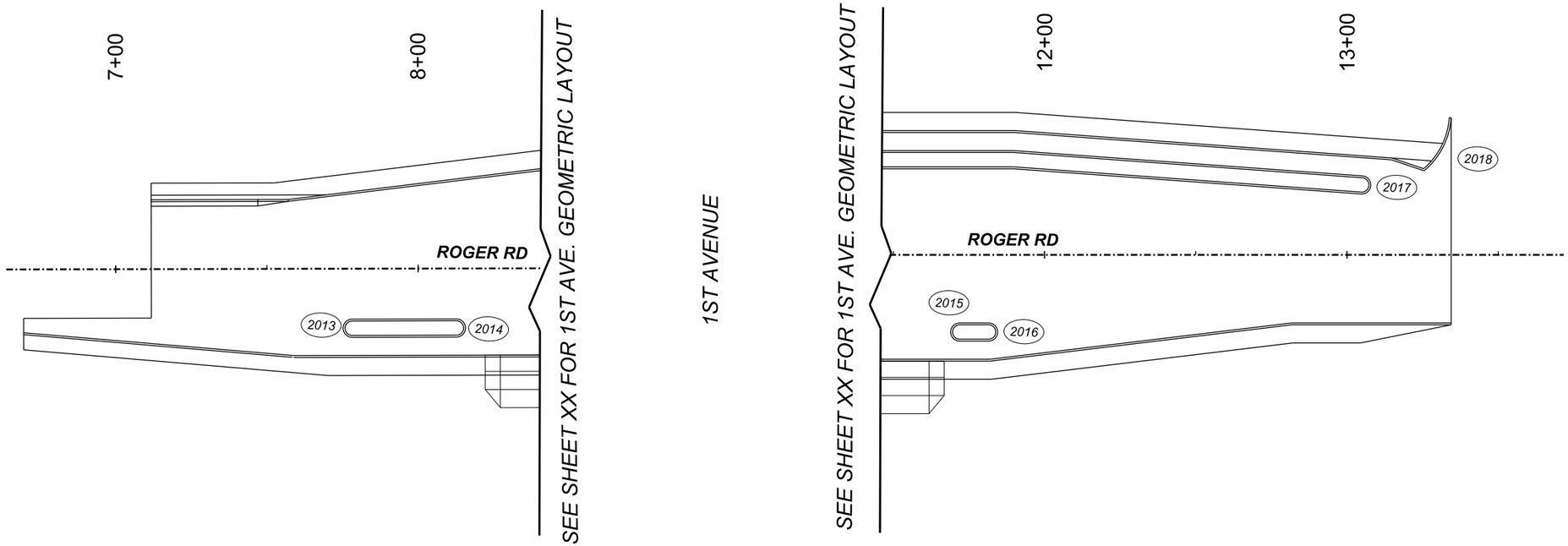
DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

GEOMETRIC LAYOUT - ROADWAY SHEET 41 OF 45

65 OF 504

c:\pwworking\west01\d3987900\06C-38.dgn
8/20/2026 2:09:34 PM

2:10:35 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
2013	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2014	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2015	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2016	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2017	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2018	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 42 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

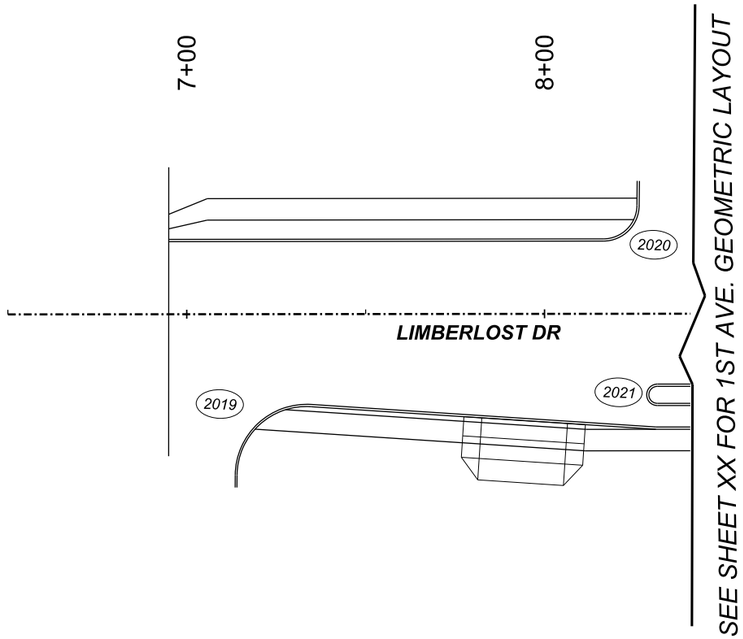
66 OF 504

CITY OF TUCSON

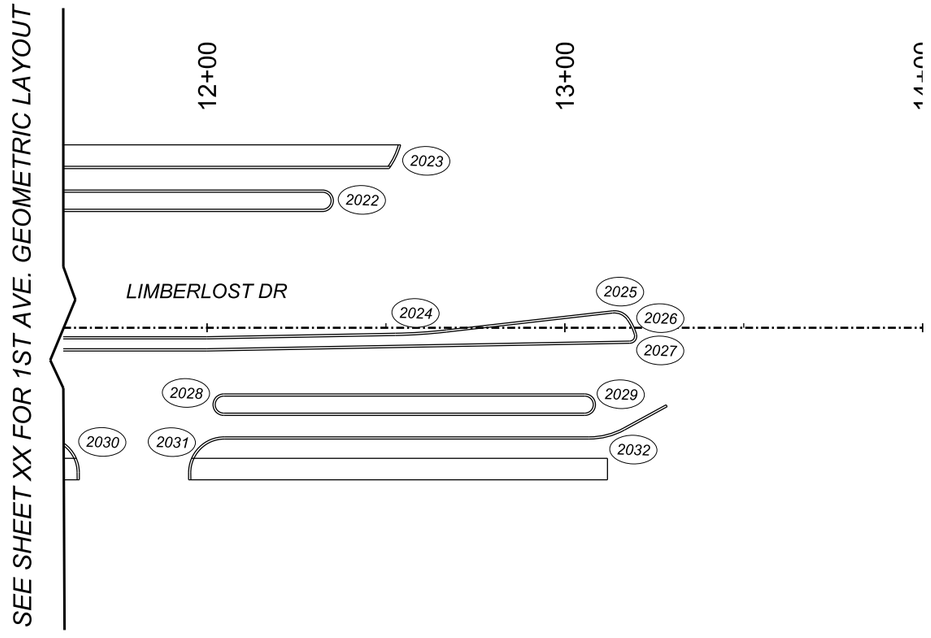
DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\06C-39.dgn
8/20/2026 2:10:35 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:11:53 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



1ST AVENUE



(#)	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
2019	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2020	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2021	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2022	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2023	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2024	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2025	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2026	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2027	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2028	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2029	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2030	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2031	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2032	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

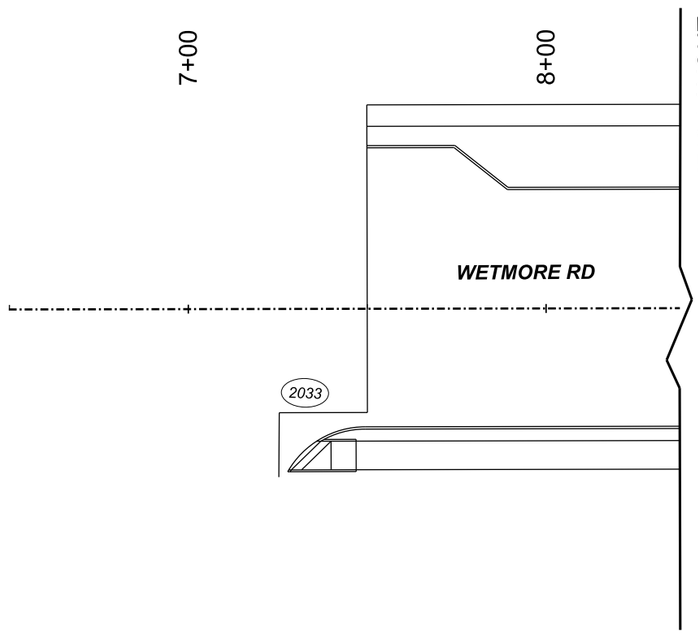
CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

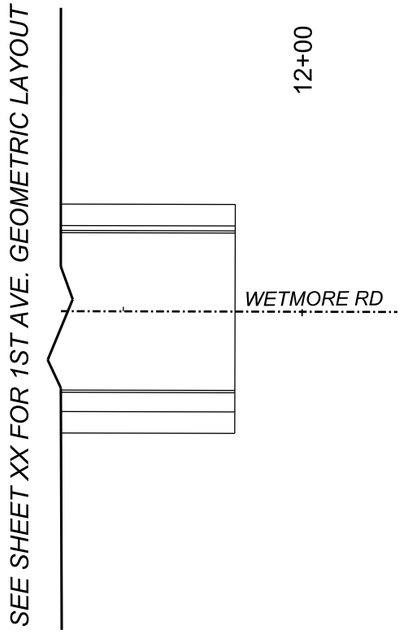
GEOMETRIC LAYOUT - ROADWAY SHEET 43 OF 45

67 OF 504

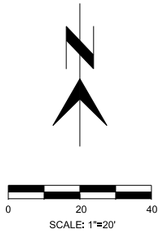
2:13:00 PM 8/20/2026 OpenRoads Designer v10.12.02.4



1ST AVENUE



#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
2033	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 44 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

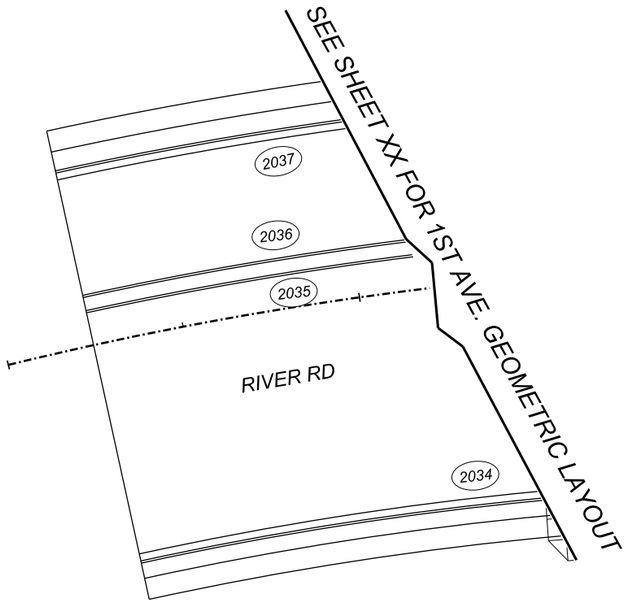
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

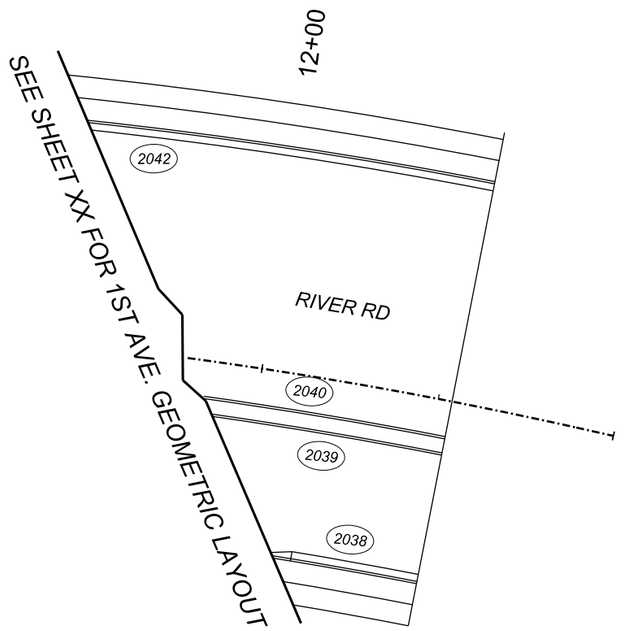
68 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

Printed by: TCOLE
Print Scale: 1:0.0833333
Printable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.plotcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\06C-41.dgn
8/20/2026 2:13:01 PM





1ST AVENUE

#	ROADWAY CURVE DATA			
CURVE NO.	RADIUS	Δ	LENGTH	TANGENT
2034	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2035	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2036	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2037	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2038	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2039	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2040	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'
2042	XXXX.XX'	XX°XX'X"	XXXX.XX'	XXXX.XX'

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

GEOMETRIC LAYOUT - ROADWAY SHEET 45 OF 45

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

69 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

Project ID:
Client Number: 4109

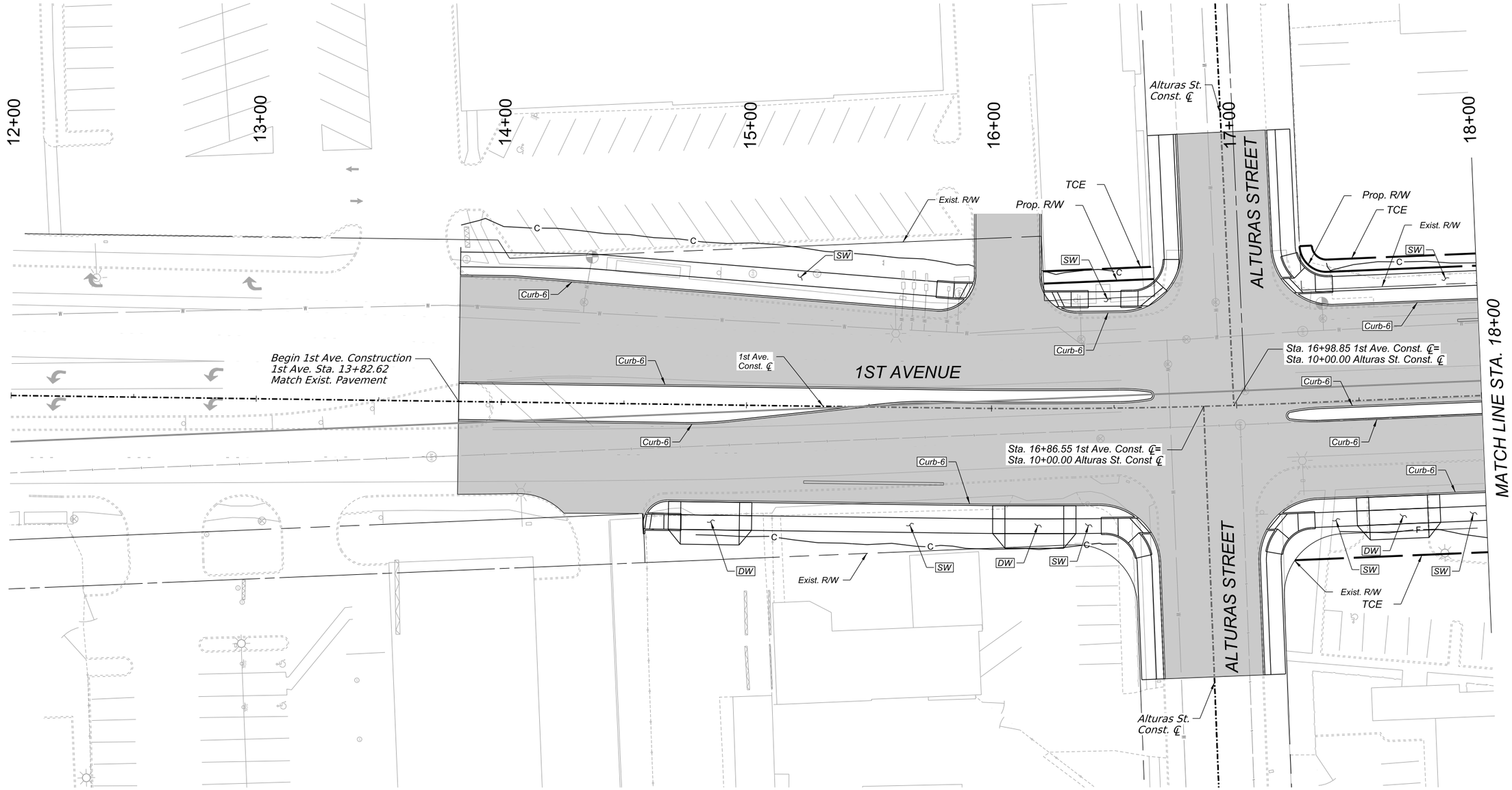
Printed by: TCOLE
Print Scale: 1:0.0833333

Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg

2:14:10 PM 8/20/2026 OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3987900\06C-42.dgn
8/20/2026 2:14:10 PM

OpenRoads Designer v10.12.02.4
8/26/2026
8:38:40 AM
Plotted by:SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109



1st Ave Begin to 18+00
PAVING PLAN

SHEET 1 OF 103

SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

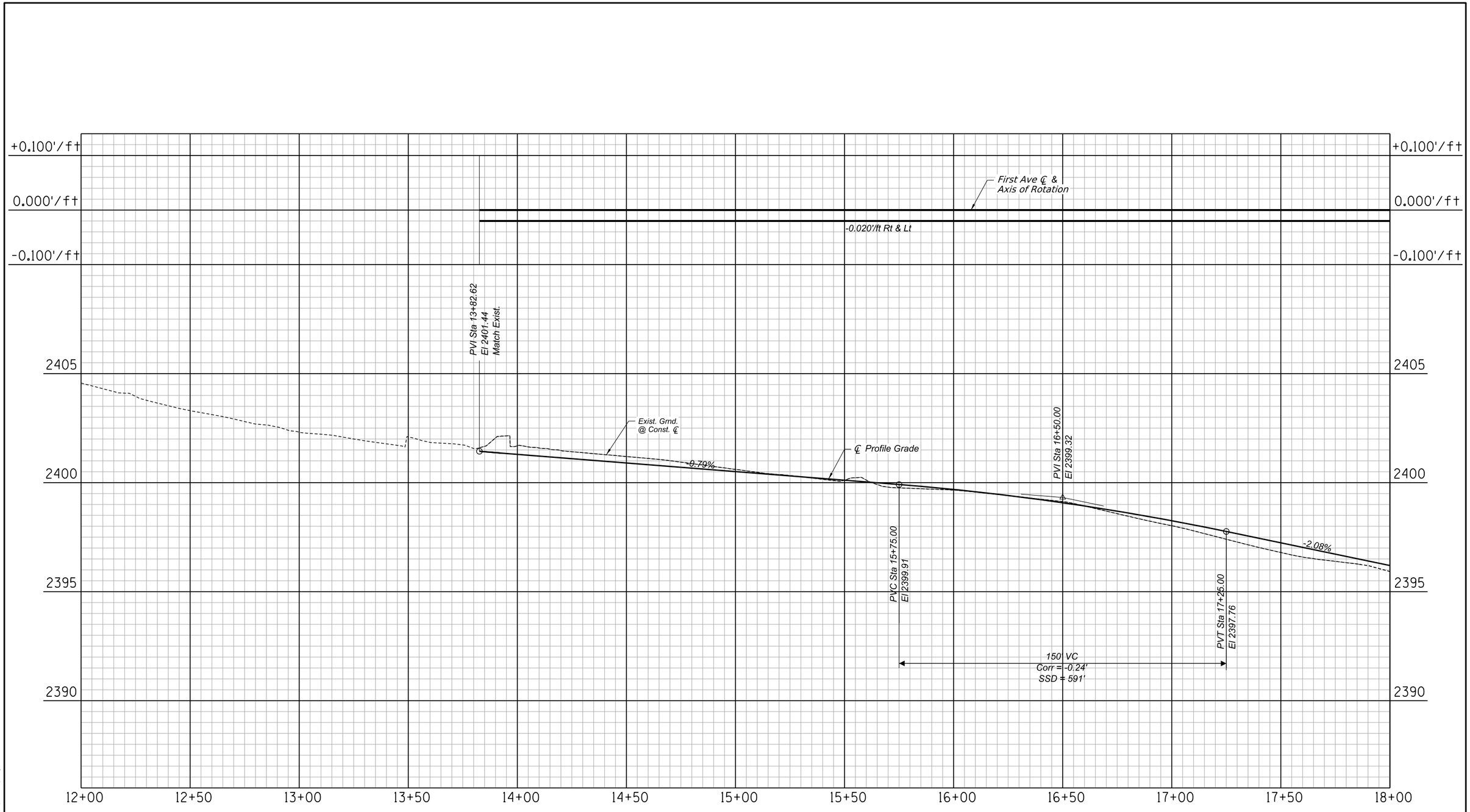
70 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-01A.dgn
8/26/2026 8:38:40 AM

OpenRoads Designer v10.12.02.4
8/26/2026
8:45:34 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPNA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave Begin to 18+00
PAVING PROFILE

SHEET 2 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

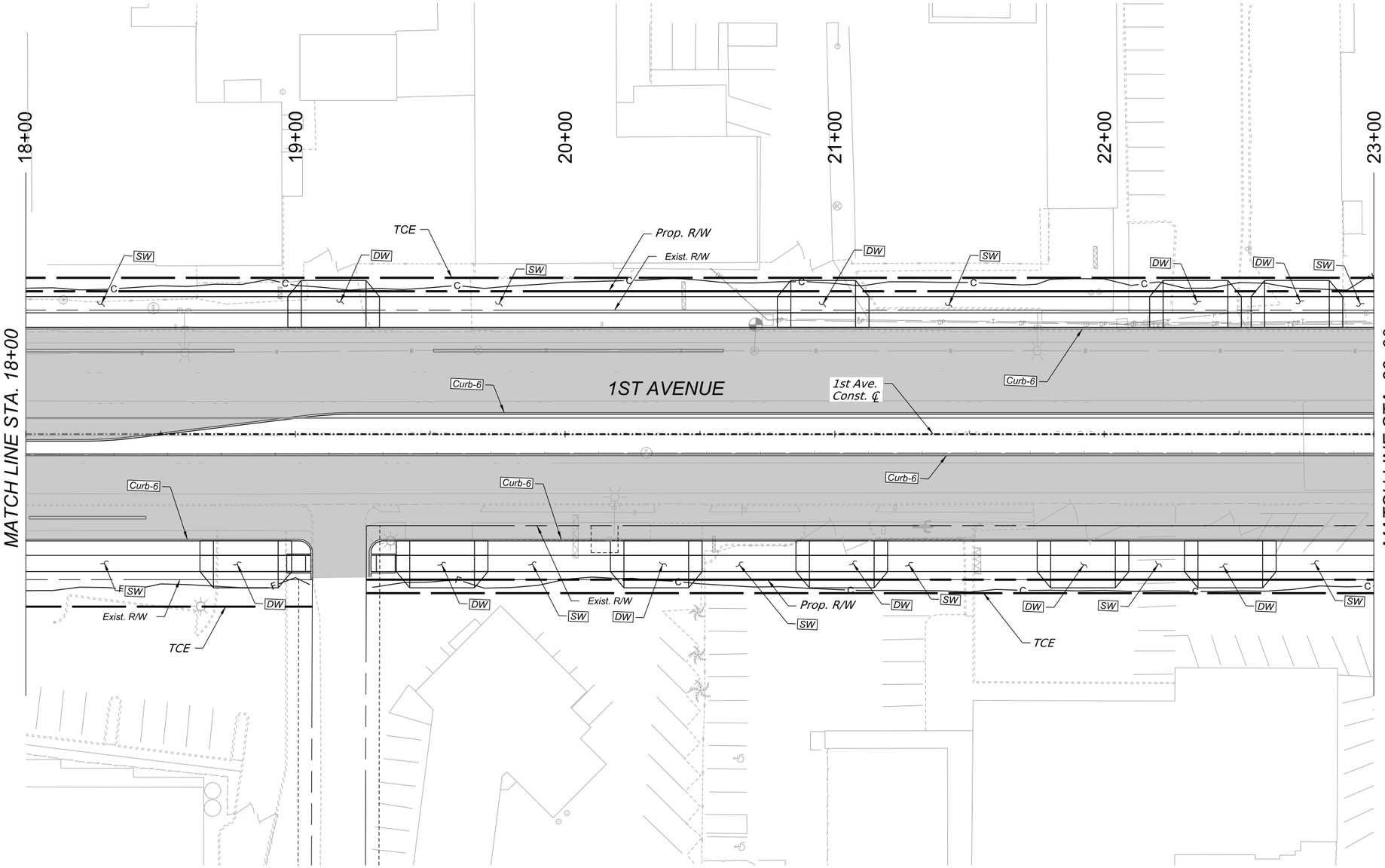
71 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-01B.dgn
8/26/2026 8:45:34 AM

1:19:57 PM 8/18/2026 OpenRoads Designer v10.12.02.4
Printed by:SWESTMORELAND
Print Scale:1:0.0833333
Pentable:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number:4109



1st Ave 18+00 to 23+00
PAVING PLAN

SHEET 3 OF 102

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

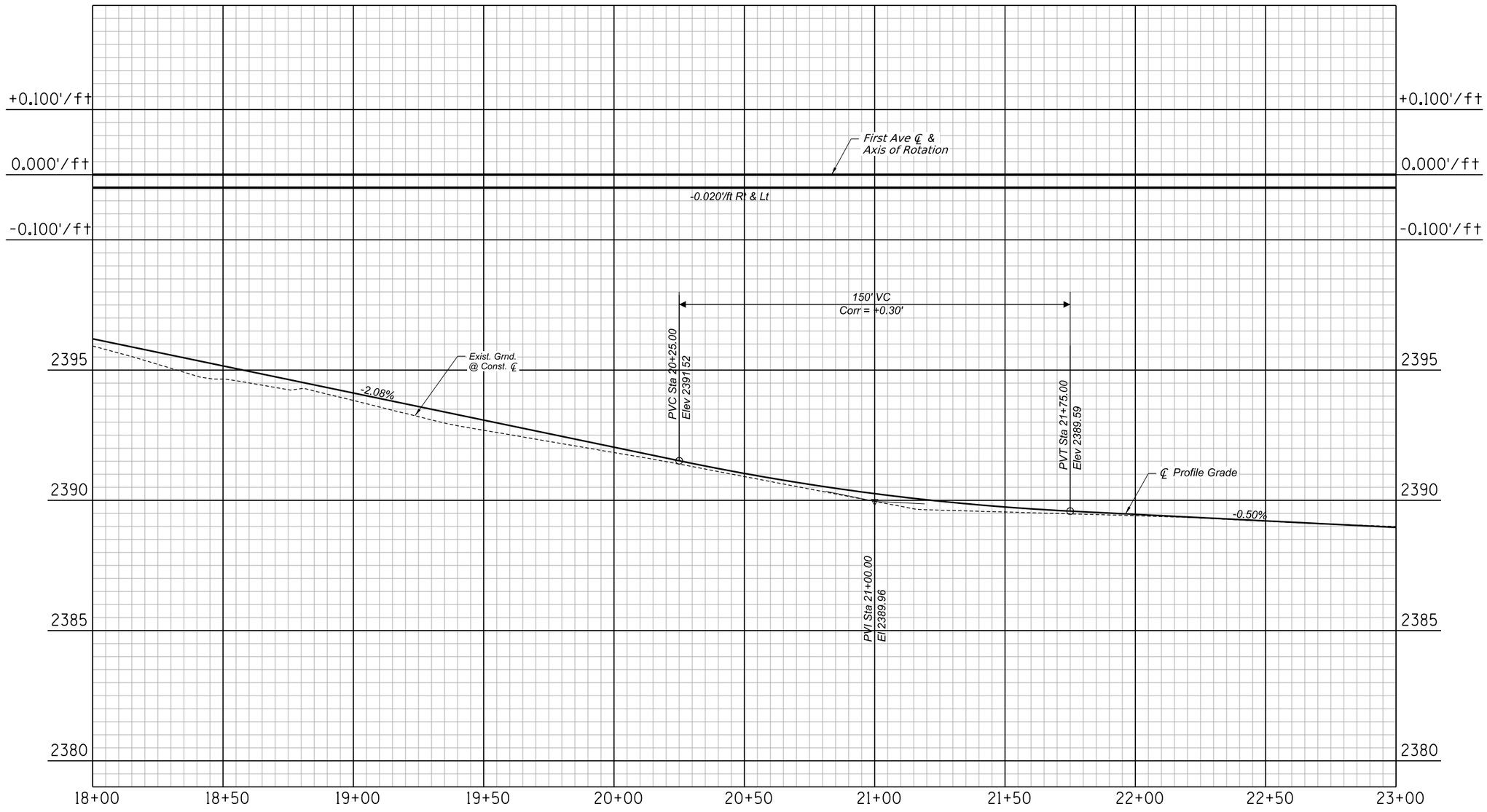
72 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-02A.dgn
8/18/2026 1:19:57 PM

OpenRoads Designer v10.12.02.4
8/26/2026
8:47:46 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 18+00 to 23+00
PAVING PROFILE

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

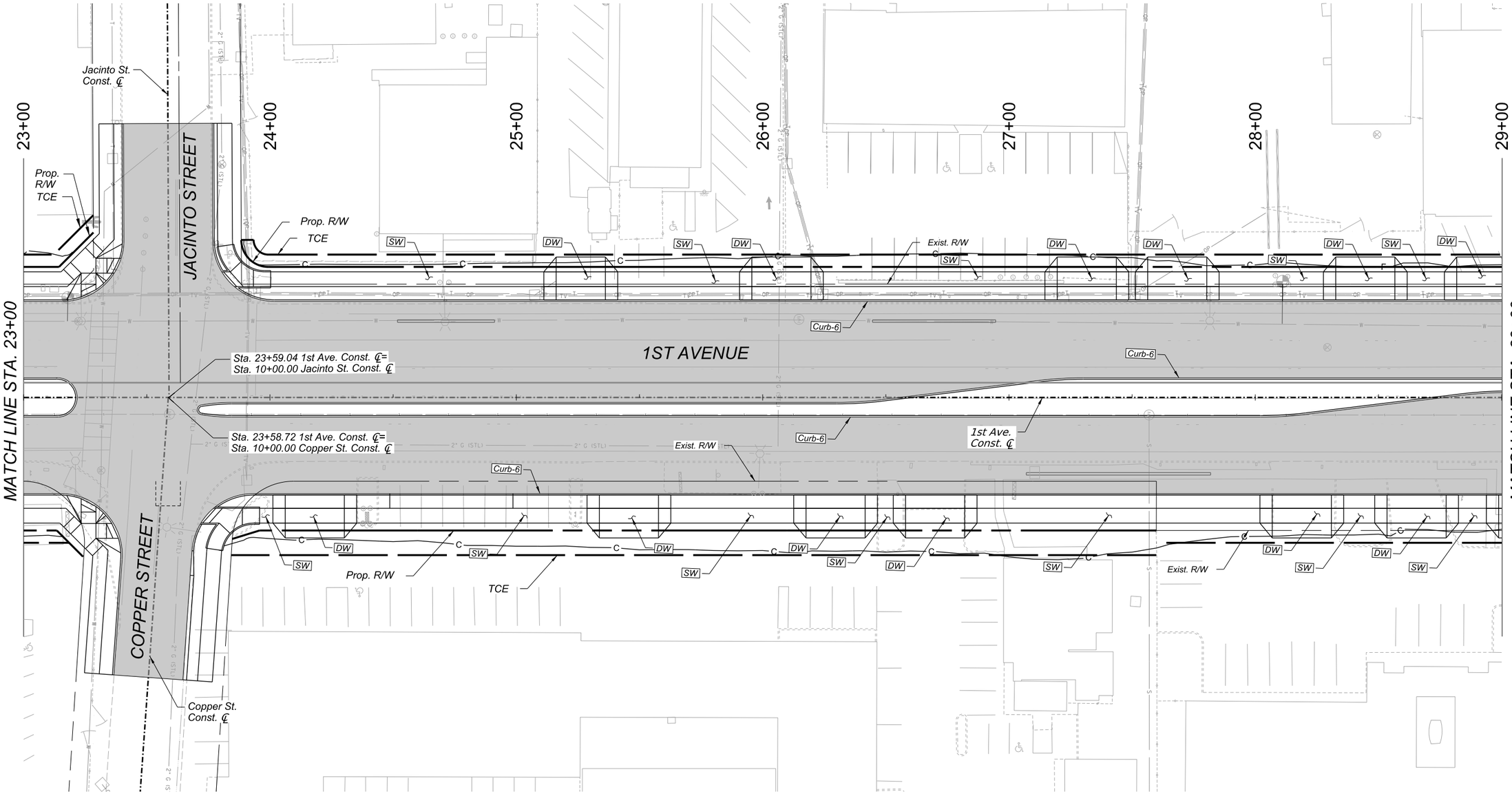
73 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-02B.dgn
8/26/2026 8:47:46 AM

OpenRoads Designer v10.12.02.4
8/18/2026
1:26:06 PM
Printed by:SWESTMORELAND
Print Scale: 1:0.0833333
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109



1st Ave 23+00 to 29+00
PAVING PLAN

SHEET 5 OF 102

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

74 OF 504

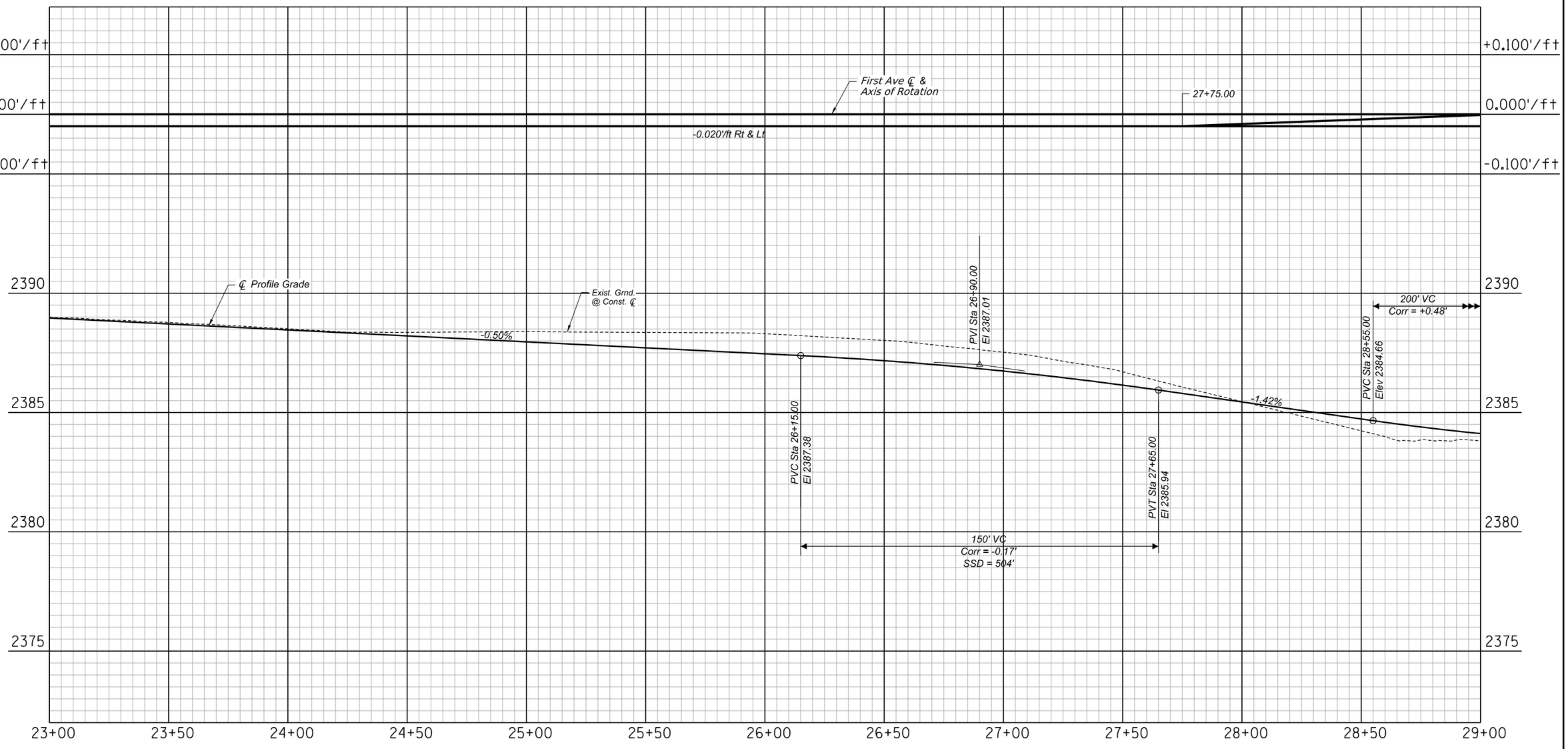
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-03A.dgn
8/18/2026 1:26:06 PM

OpenRoads Designer v10.12.02.4
8/26/2026
8:54:35 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 23+00 to 29+00
PAVING PROFILE

SHEET 6 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

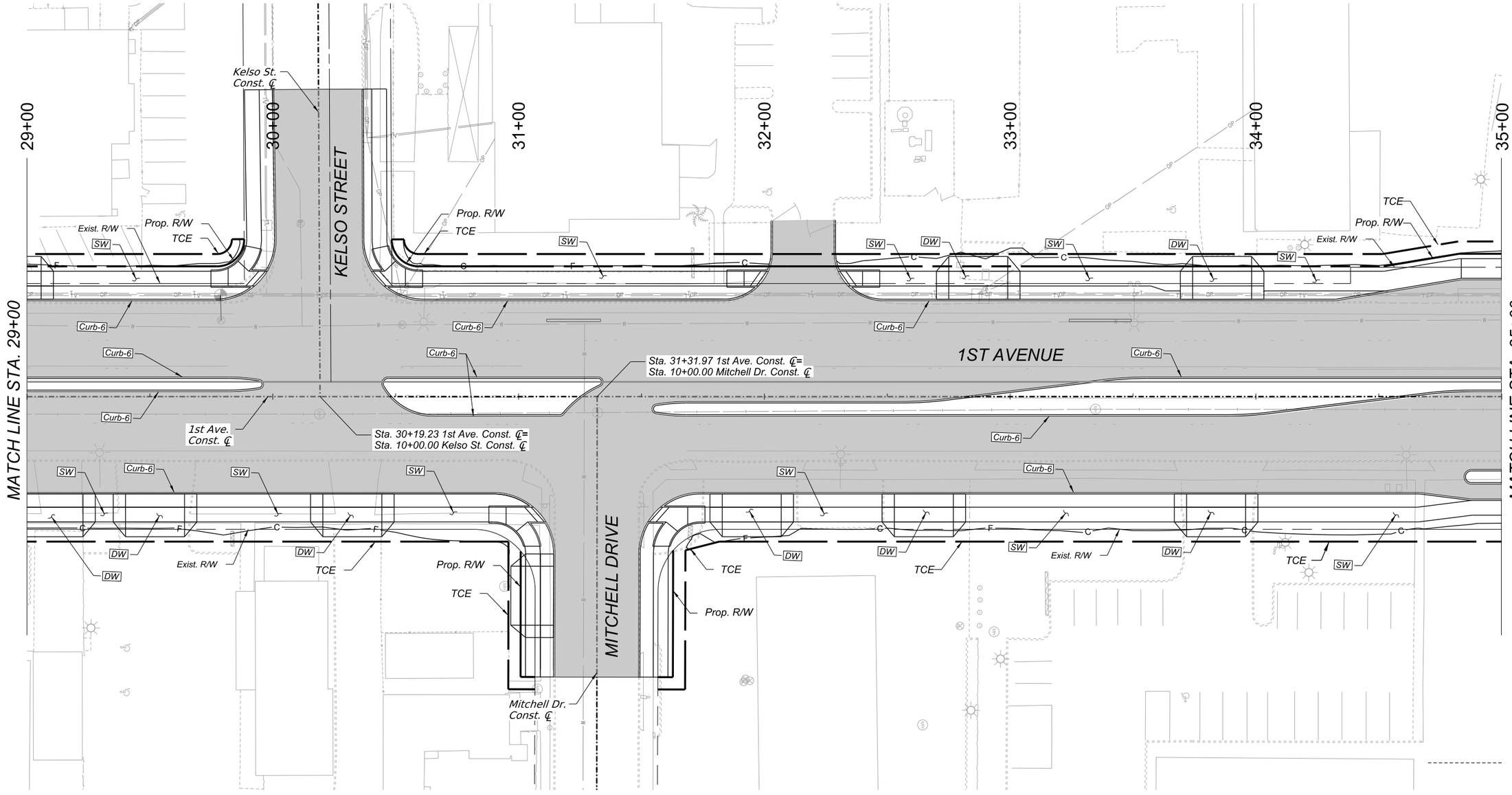
75 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20' V: 1" = 2'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-03B.dgn
8/26/2026 8:54:35 AM

OpenRoads Designer v10.12.02.4
8/18/2026
4:00:31 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

1st Ave 29+00 to 35+00
PAVING PLAN

SHEET 7 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

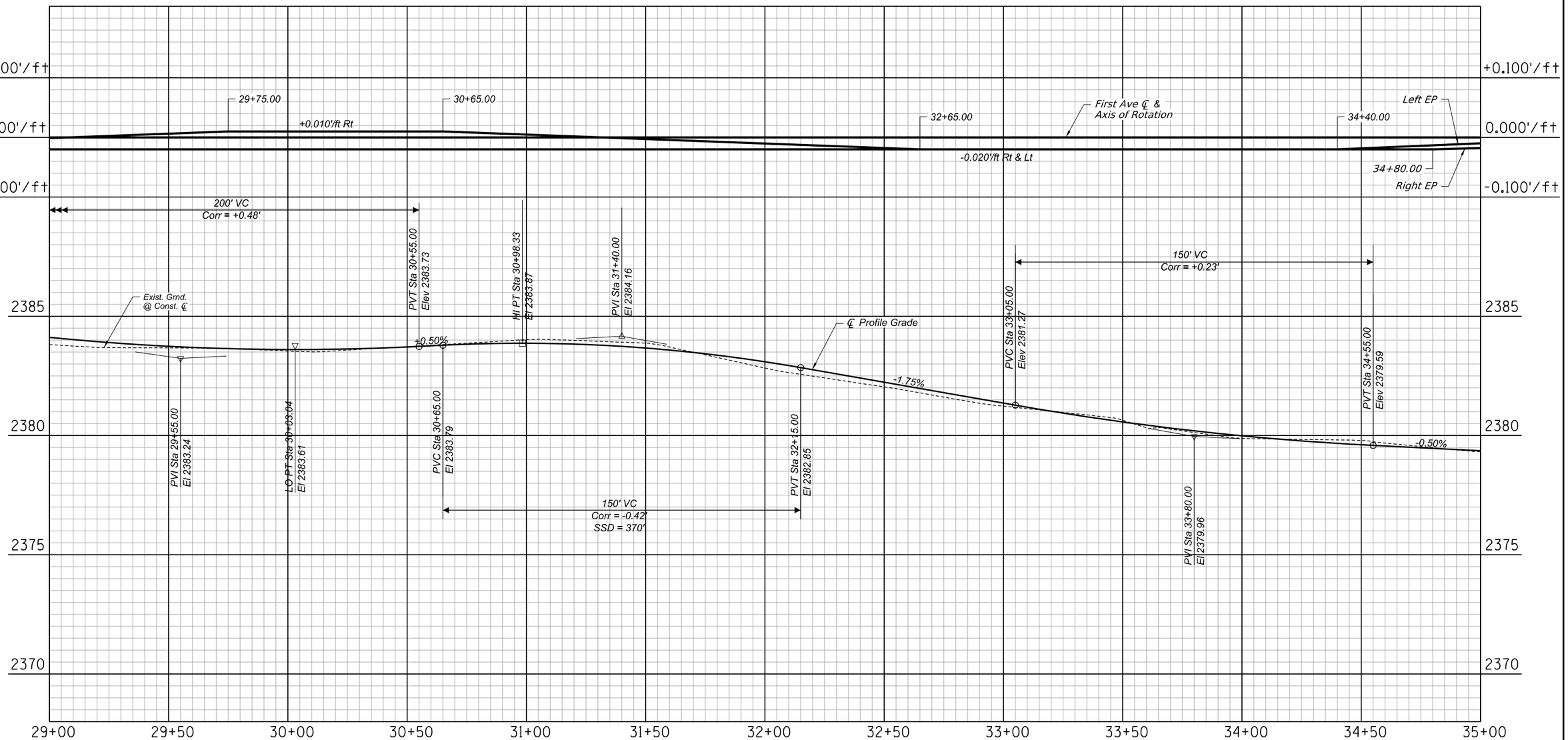
76 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-04A.dgn
8/18/2026 4:00:31 PM

OpenRoads Designer v10.12.02.4
8/26/2026
8:57:34 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 29+00 to 35+00
PAVING PROFILE

SHEET 8 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

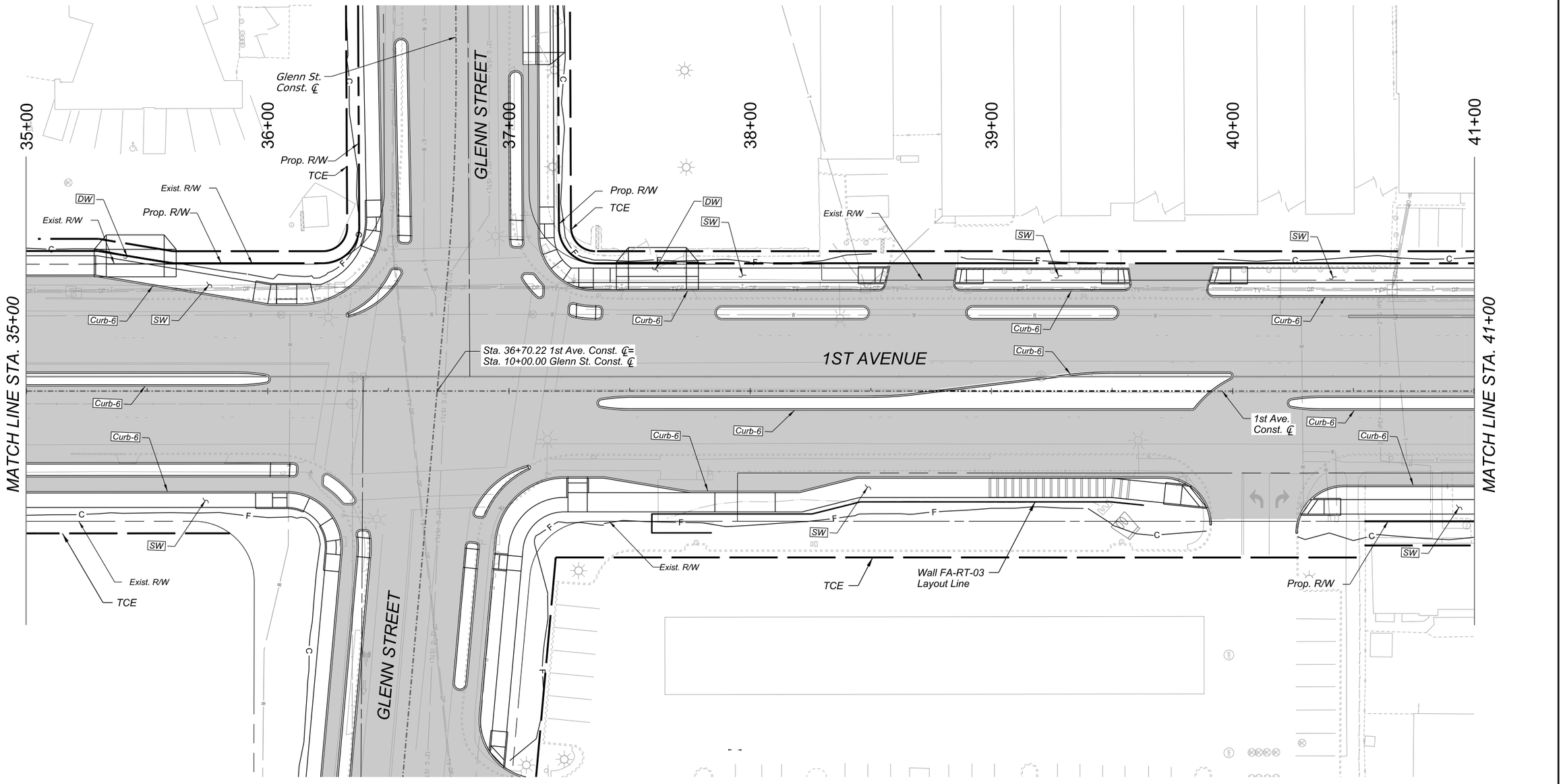
77 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-04B.dgn
8/26/2026 8:57:34 AM

OpenRoads Designer v10.12.02.4
8/19/2026
4:35:33 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 35+00 to 41+00
PAVING PLAN

SHEET 9 OF 102

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

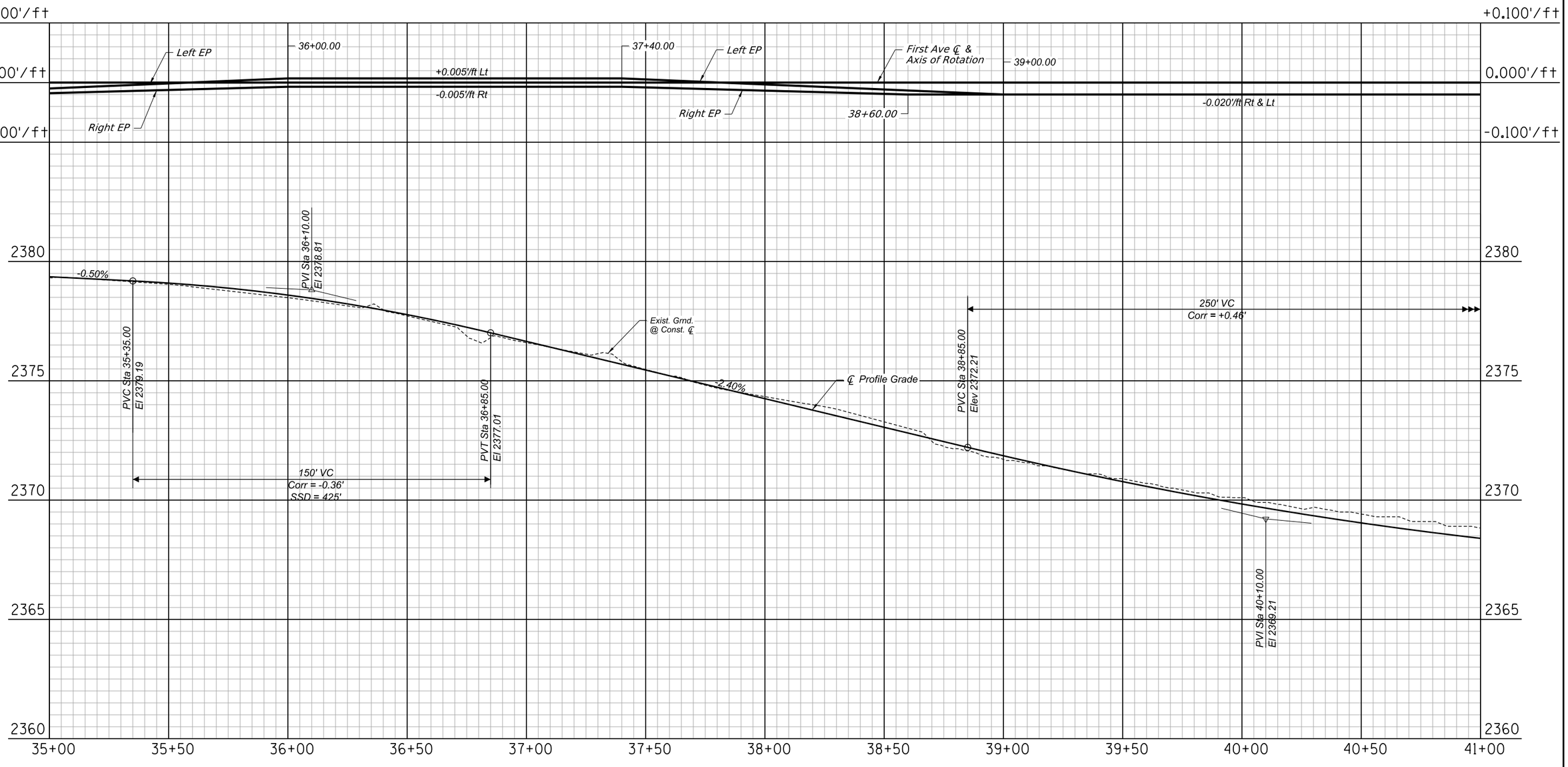
78 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-05A.dgn
8/19/2026 4:35:33 PM

OpenRoads Designer v10.12.02.4
8/26/2026
9:00:02 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 35+00 to 41+00
PAVING PROFILE

SHEET 10 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

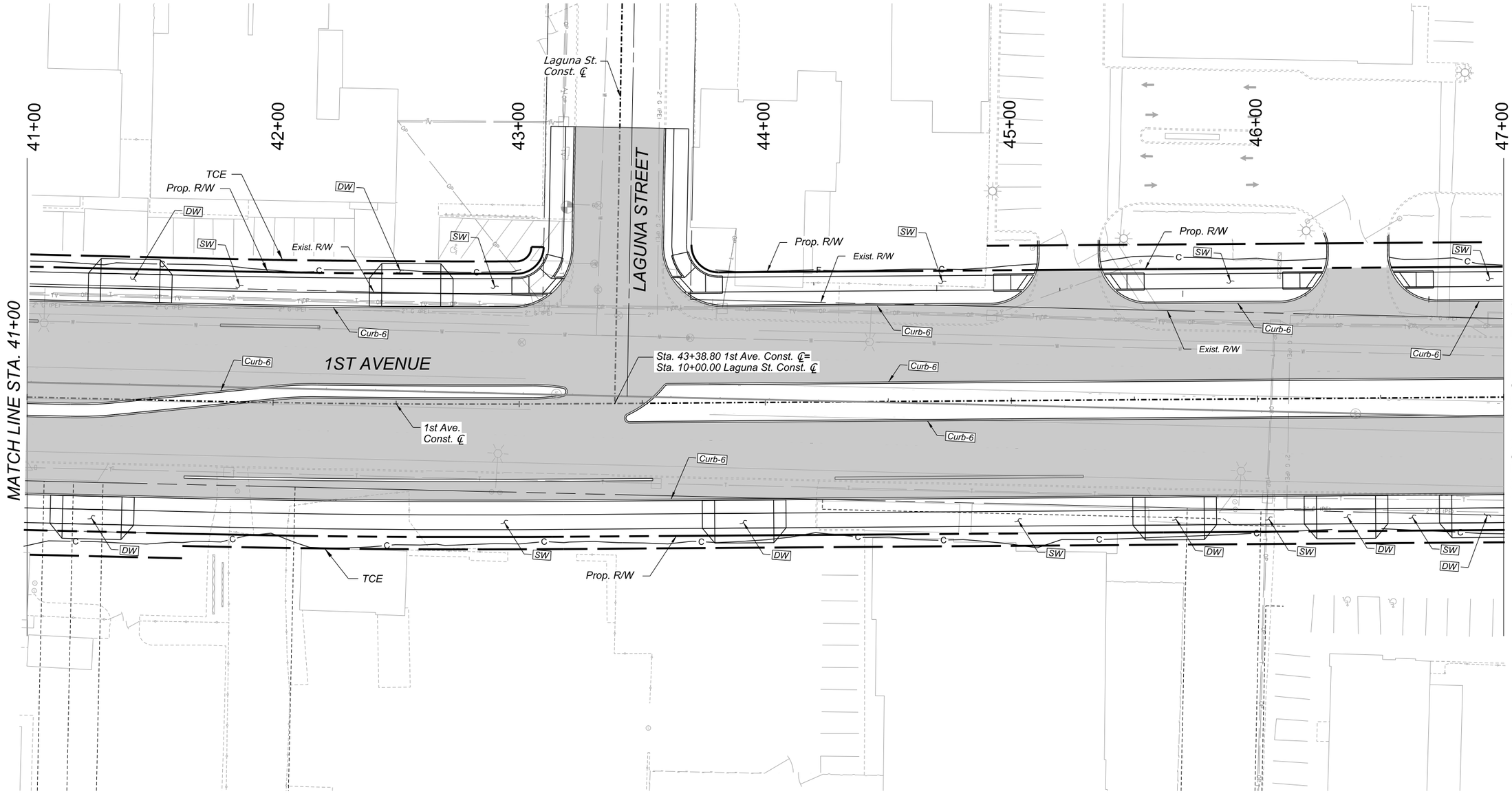
79 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-05B.dgn
8/26/2026 9:00:02 AM

OpenRoads Designer v10.12.02.4
8/18/2026
4:46:34 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

80 OF 504

CITY OF TUCSON

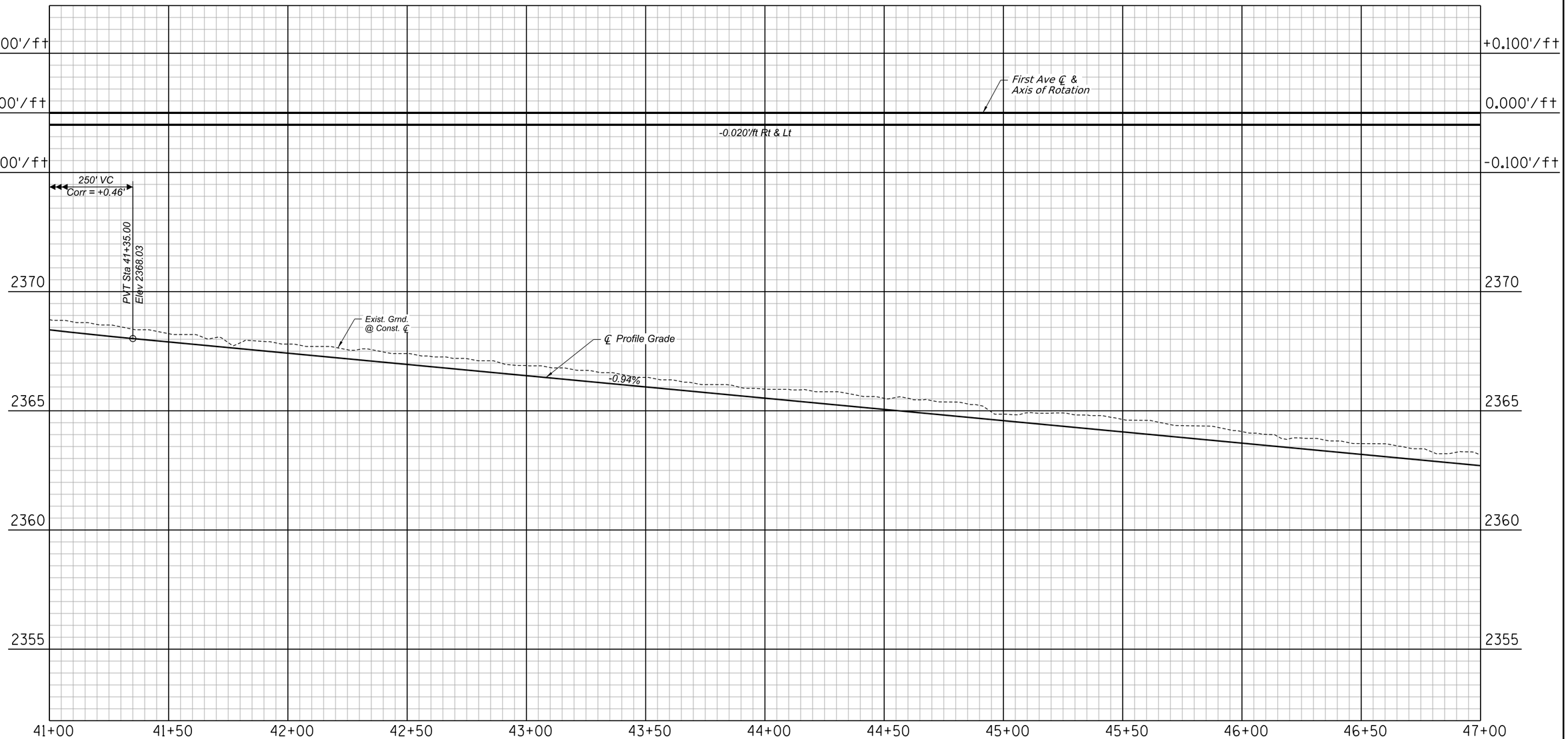
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 41+00 to 47+00
PAVING PLAN

SHEET 11 OF 102

c:\pwworking\west01\d3987900\02C-06A.dgn
8/18/2026 4:46:34 PM

OpenRoads Designer v10.12.02.4
8/26/2026
9:02:15 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 41+00 to 47+00
PAVING PROFILE

SHEET 12 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

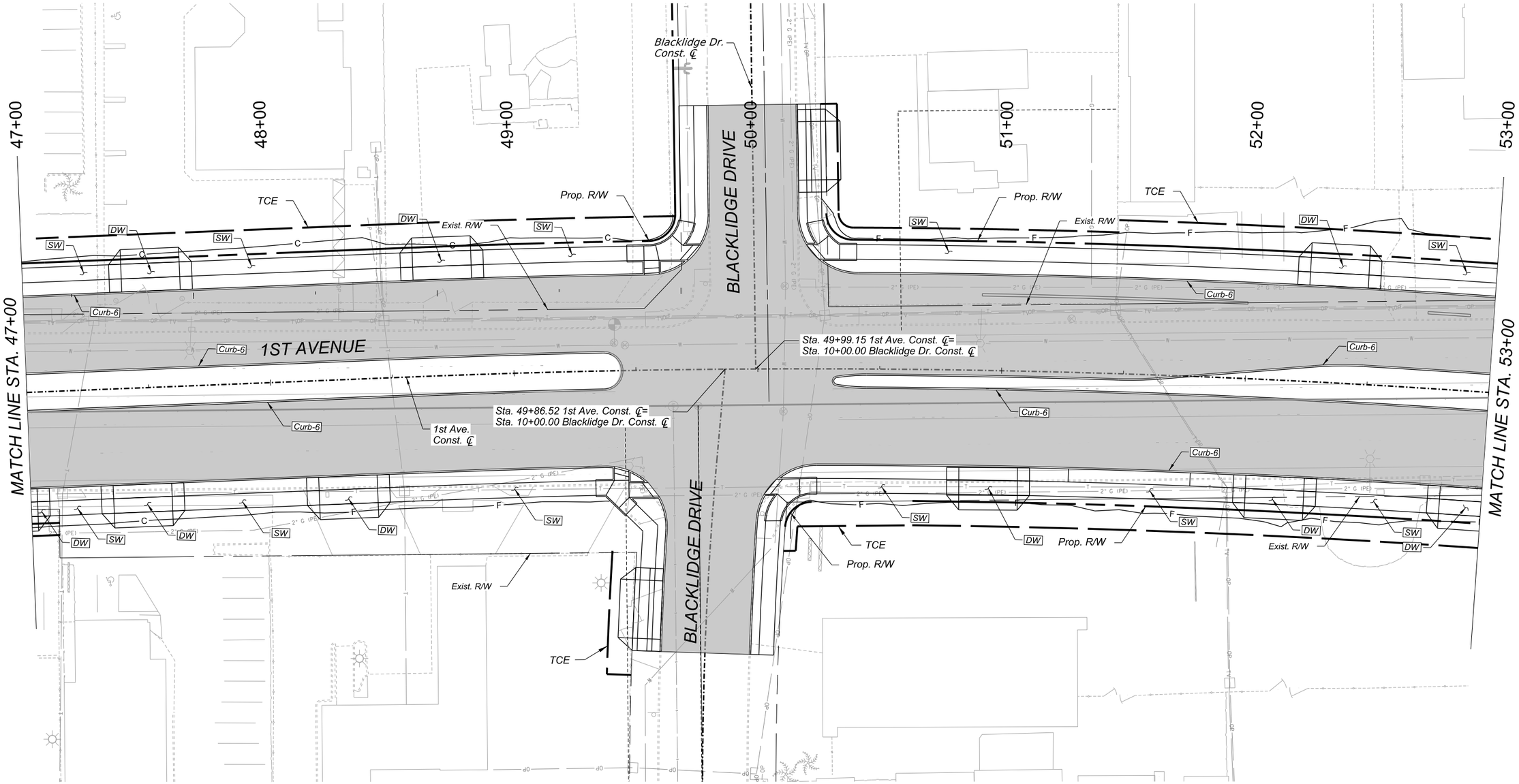
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

81 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-06B.dgn
8/26/2026 9:02:15 AM



1st Ave 47+00 to 53+00
PAVING PLAN

SHEET 13 OF 102

0 20 40
SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

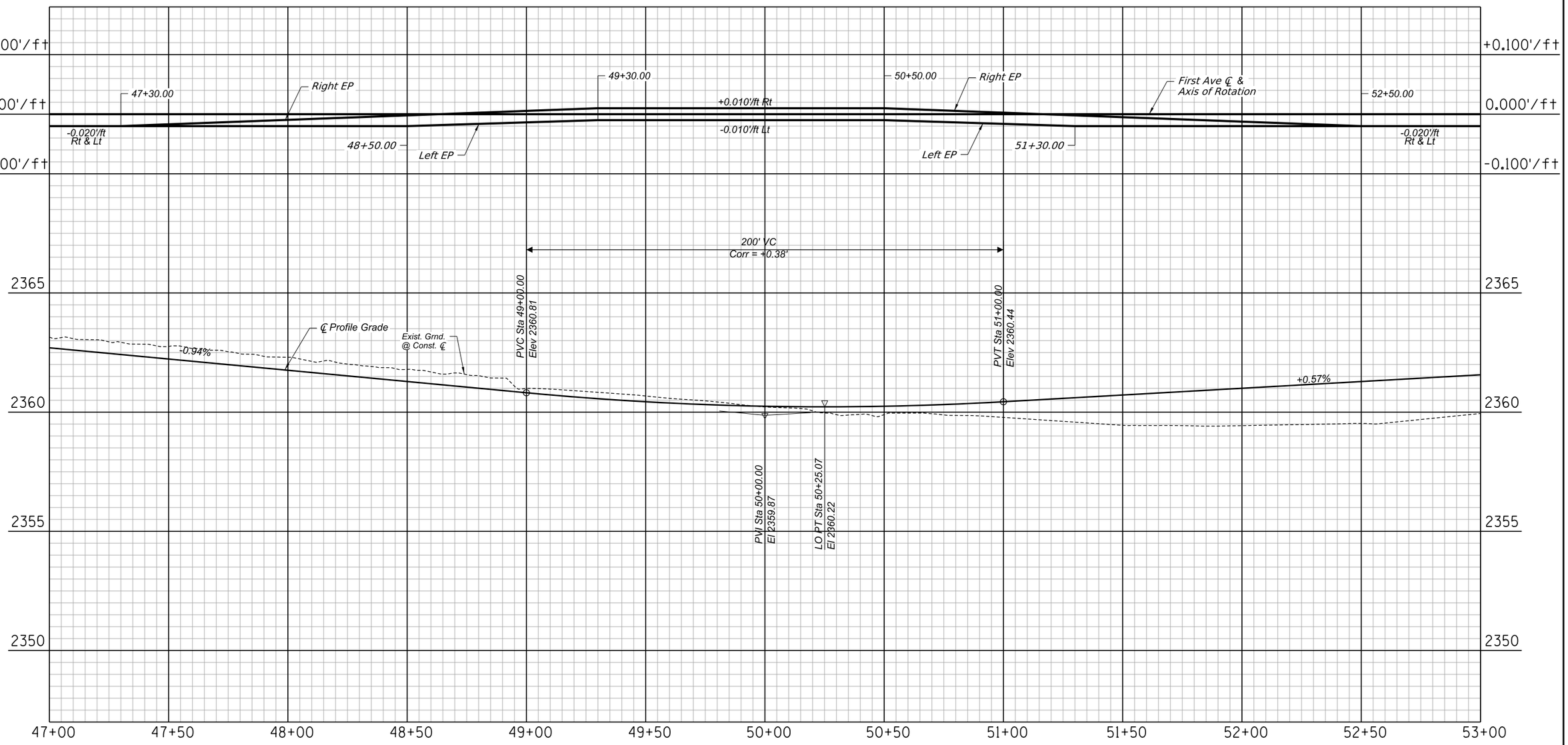
1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/18/2026 5:00:52 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\02C-07A.dgn
8/18/2026 5:00:52 PM

OpenRoads Designer v10.12.02.4
8/26/2026
9:04:39 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdrver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 47+00 to 53+00
PAVING PROFILE

SHEET 14 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

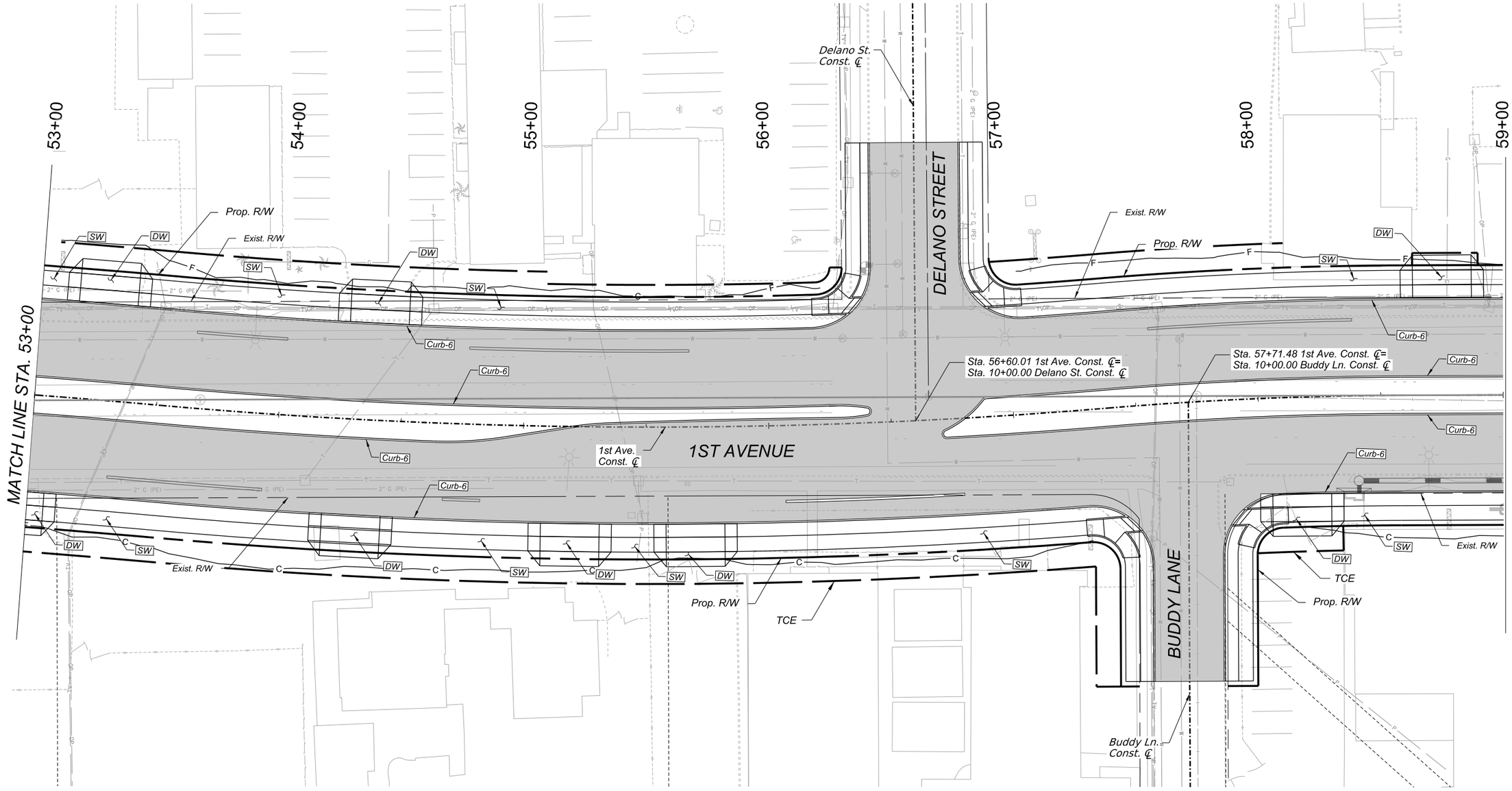
83
OF
504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-07B.dgn
8/26/2026 9:04:39 AM

OpenRoads Designer v10.12.02.4
8/18/2026
5:34:57 PM



Plotted by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109

1st Ave 53+00 to 59+00
PAVING PLAN

SHEET 15 OF 102

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

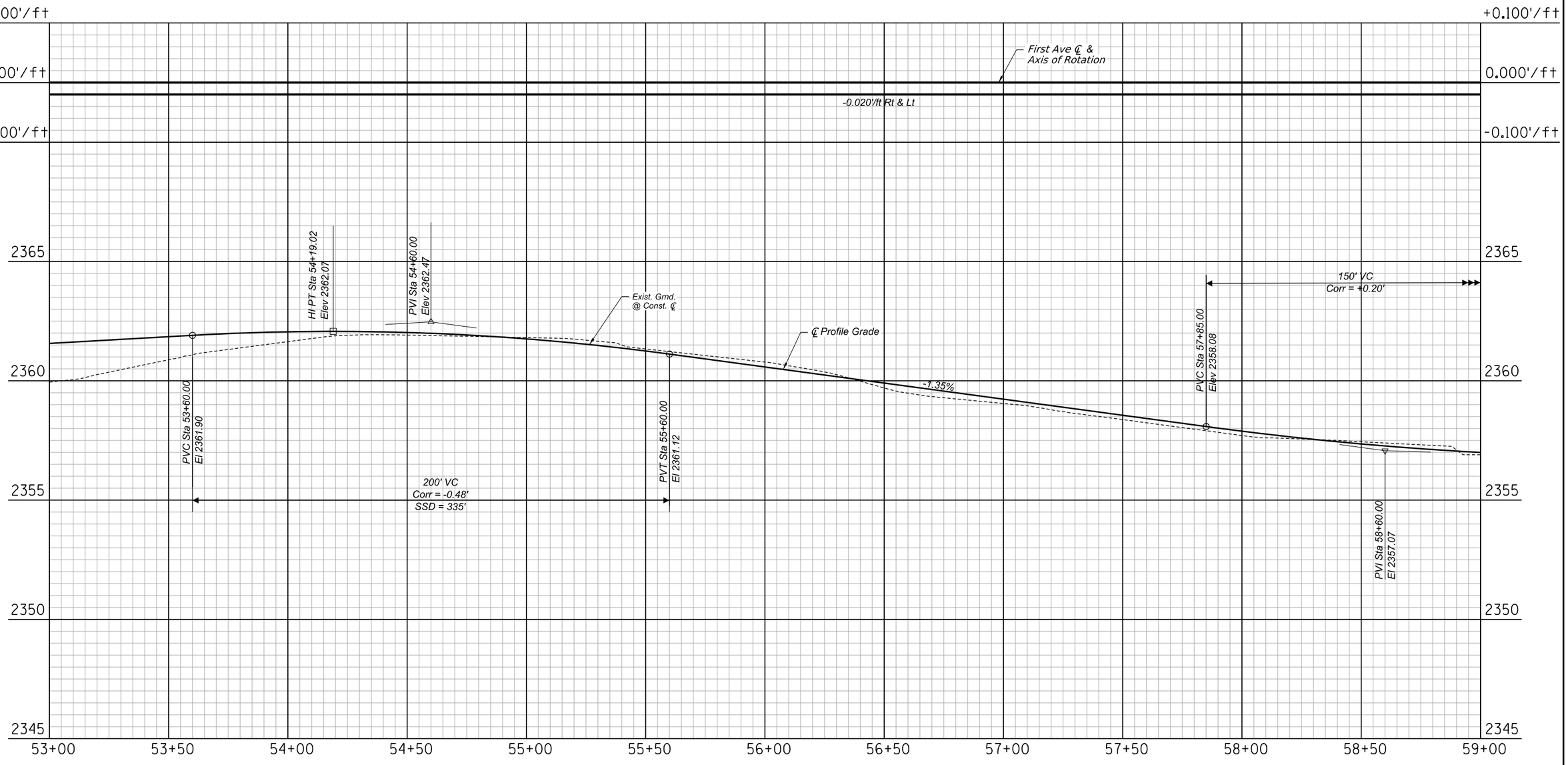
84 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-08A.dgn
8/18/2026 5:34:57 PM

OpenRoads Designer v10.12.02.4
8/26/2026
9:07:13 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPNA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 53+00 to 59+00
PAVING PROFILE

SHEET 16 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

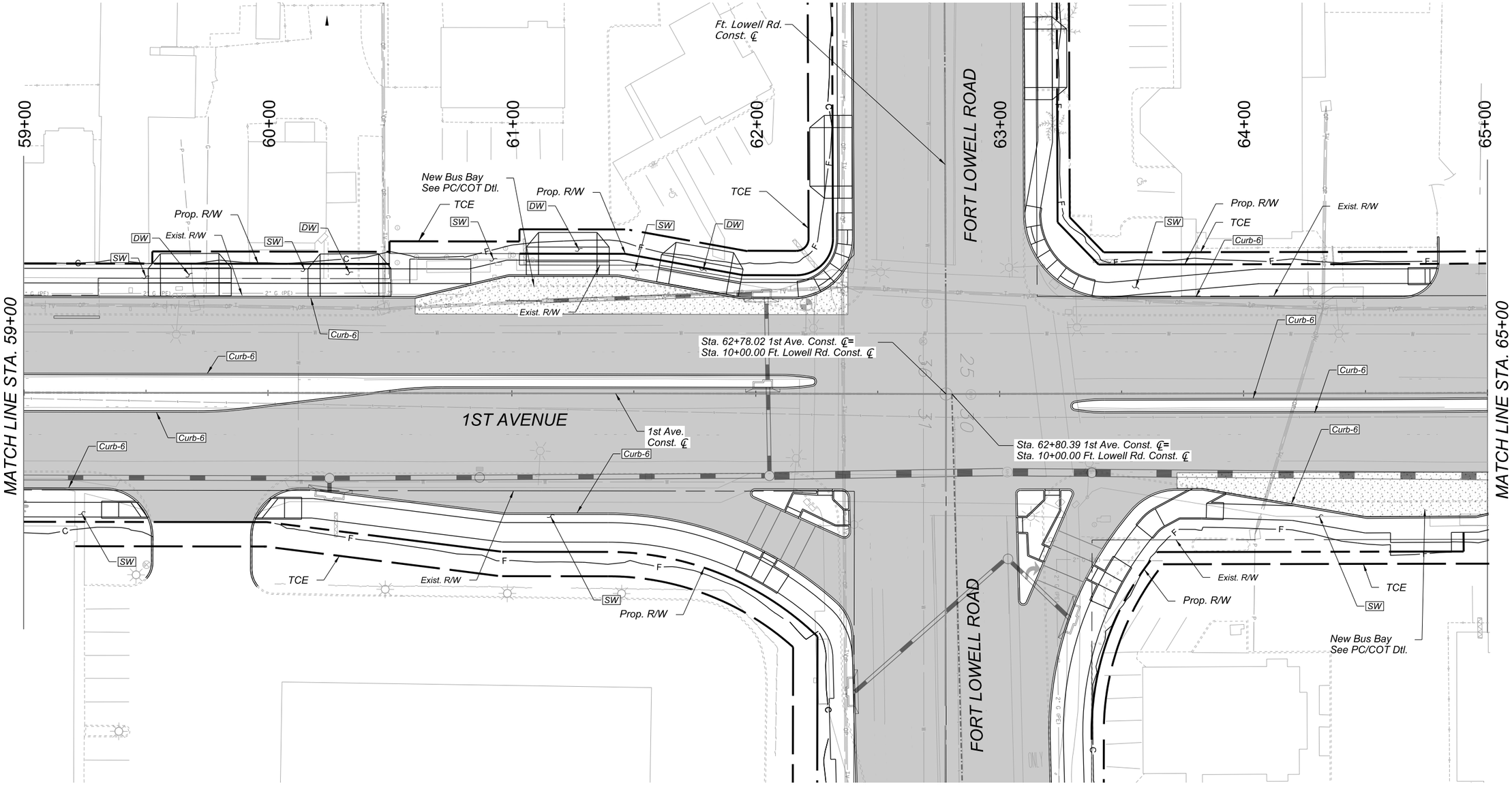
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-08B.dgn
8/26/2026 9:07:13 AM

OpenRoads Designer v10.12.02.4
8/26/2026
3:36:57 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 59+00 to 65+00
PAVING PLAN

SHEET 17 OF 103

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

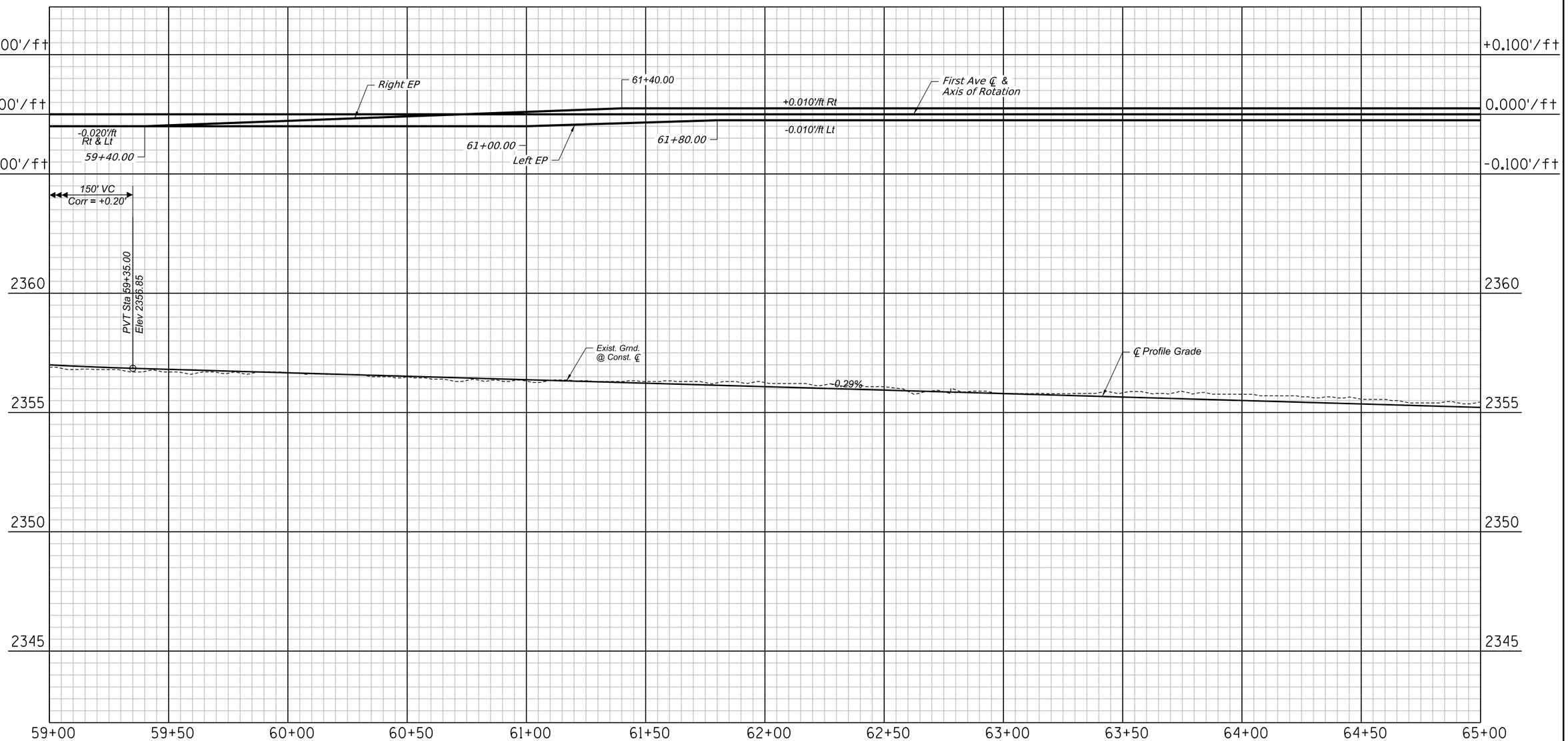
86 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-09A.dgn
8/26/2026 3:36:57 PM

OpenRoads Designer v10.12.02.4
8/26/2026
9:47:10 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 59+00 to 65+00
PAVING PROFILE

SHEET 18 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

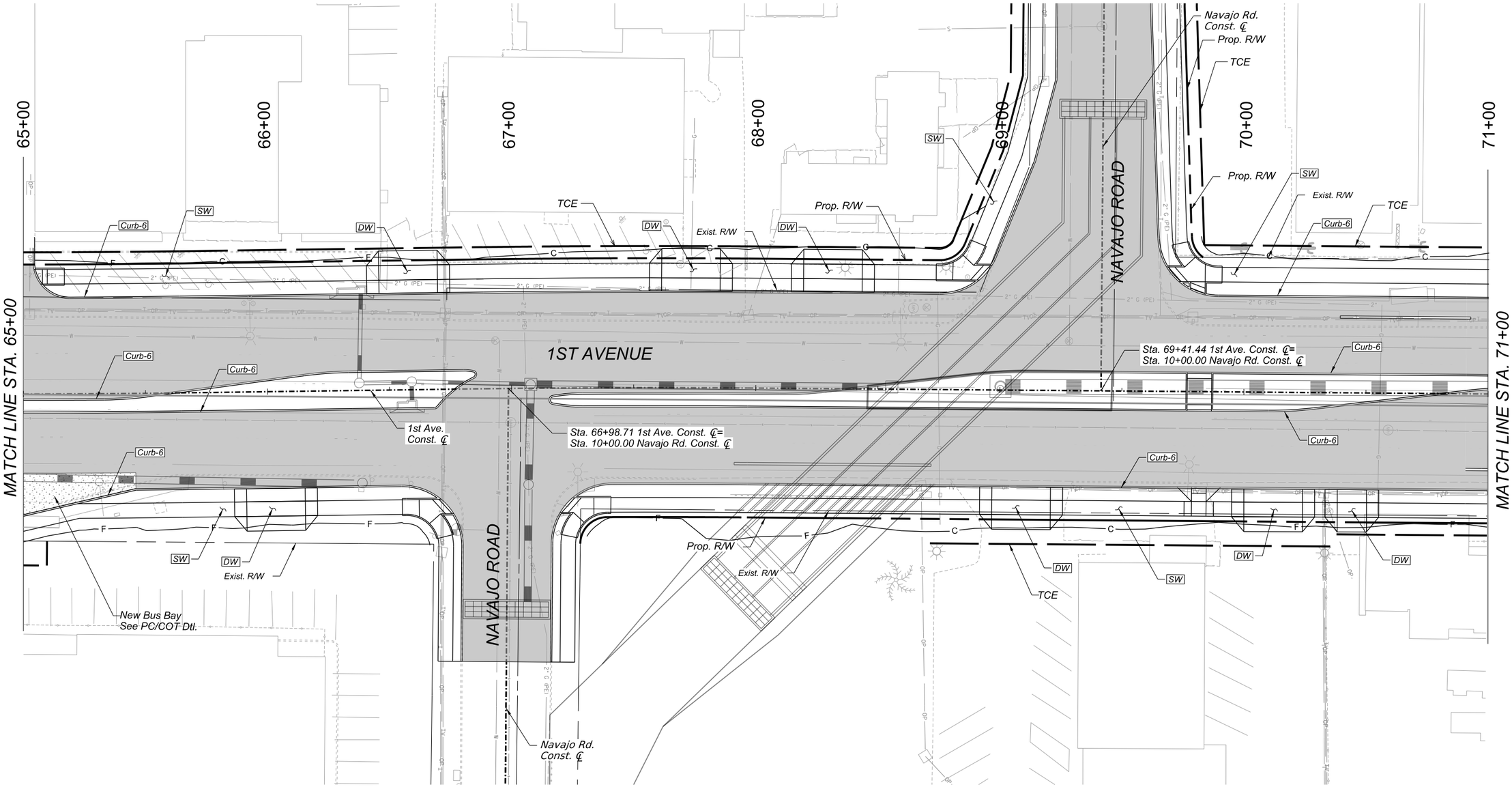
87 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-09B.dgn
8/26/2026 9:47:10 AM

OpenRoads Designer v10.12.02.4
8/26/2026
3:33:56 PM
Printed by:SWESTMORELAND
Print Scale: 120.0833333
Pentable:COTPM&AMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

1st Ave 65+00 to 71+00
PAVING PLAN

SHEET 19 OF 103

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

88 OF 504

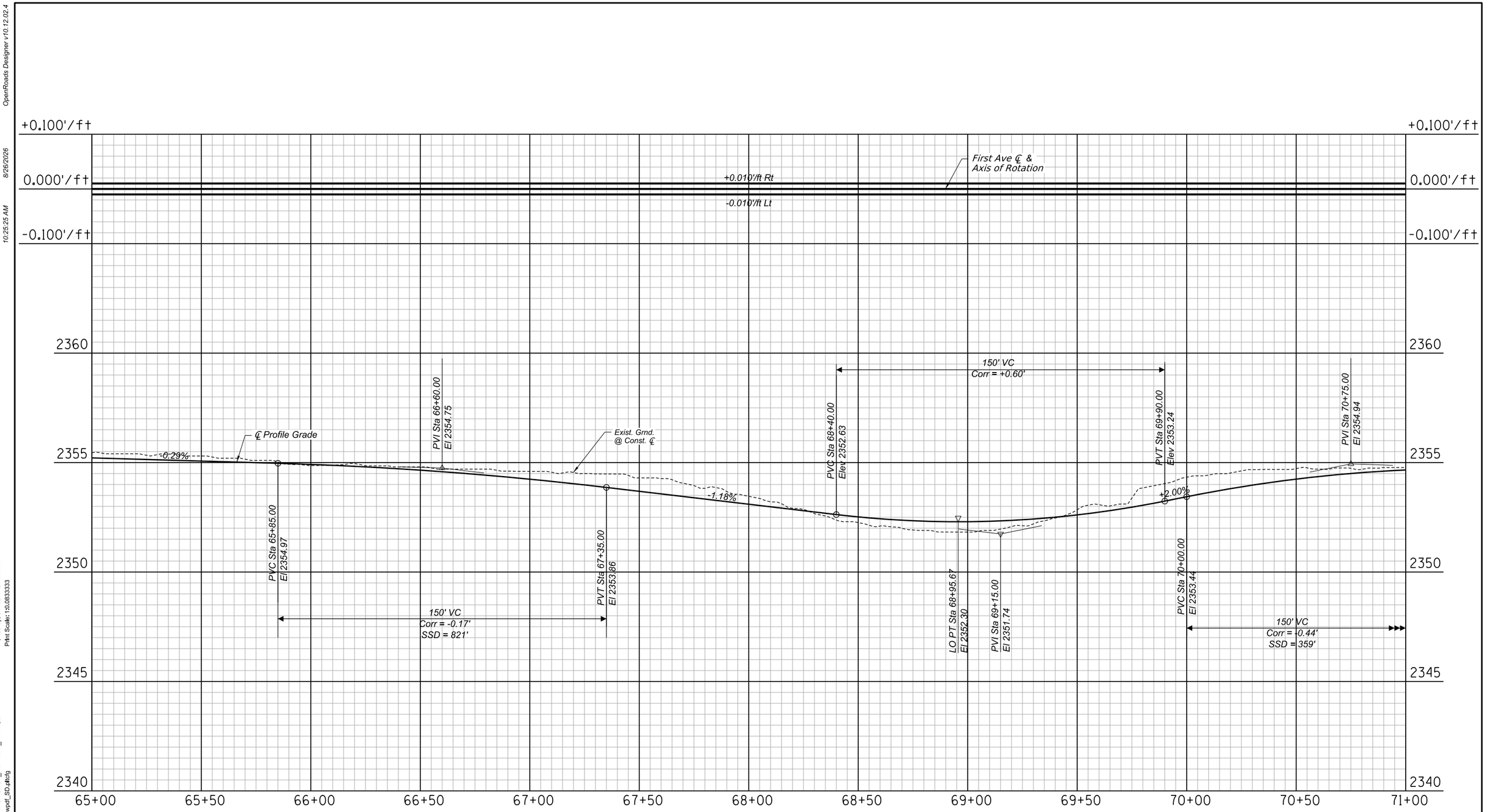
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-10A.dgn
8/26/2026 3:33:56 PM

OpenRoads Designer v10.12.02.4
8/26/2026
10:25:25 AM
Printed by: SWEST\MORELAND
Print Scale: 10.0833333
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 65+00 to 71+00
PAVING PROFILE

SHEET 20 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

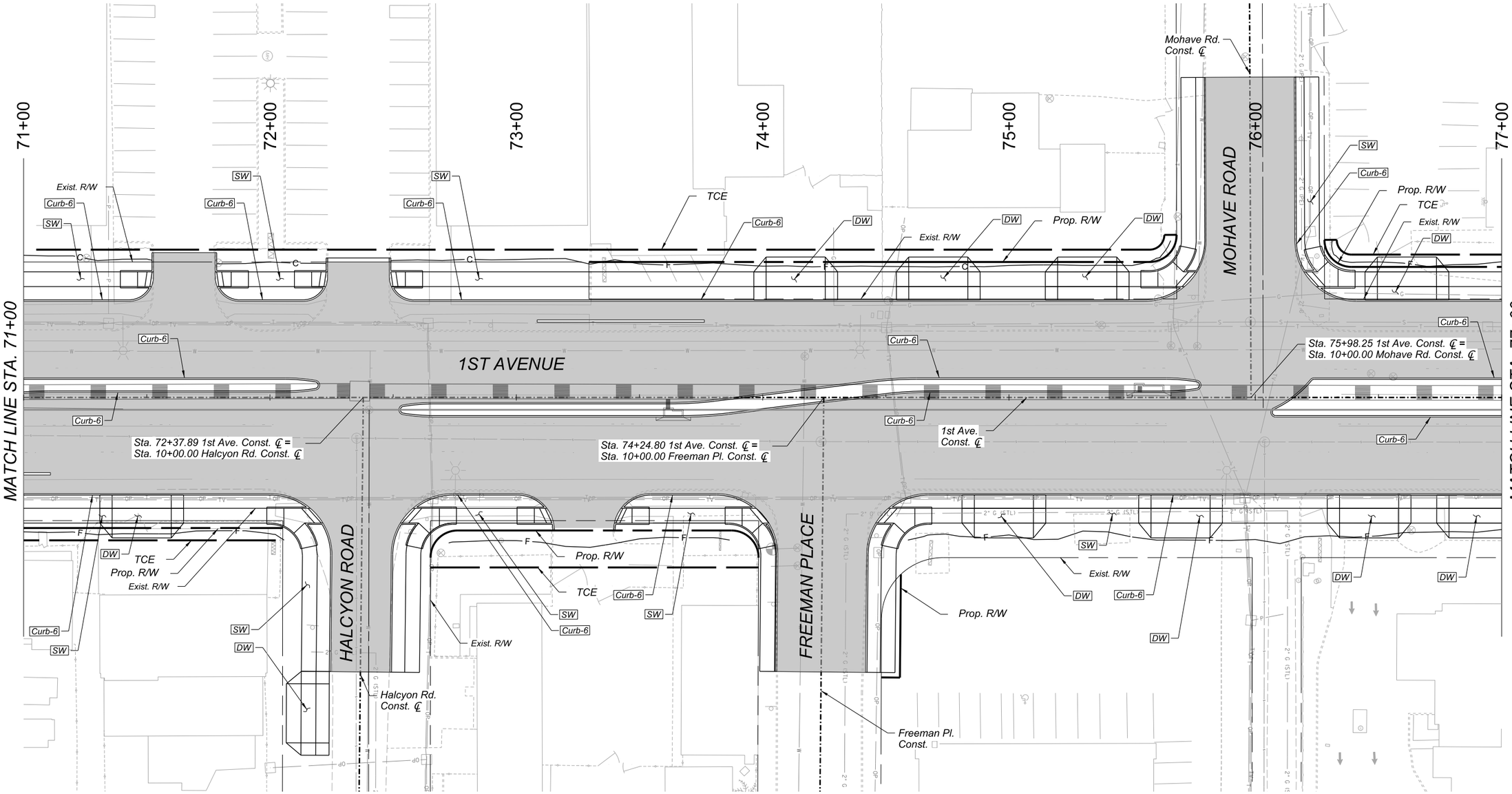
89 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-10B.dgn
8/26/2026 10:25:25 AM

OpenRoads Designer v10.12.02.4
8/26/2026
4:58:38 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

1st Ave 71+00 to 77+00
PAVING PLAN

SHEET 21 OF 103

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

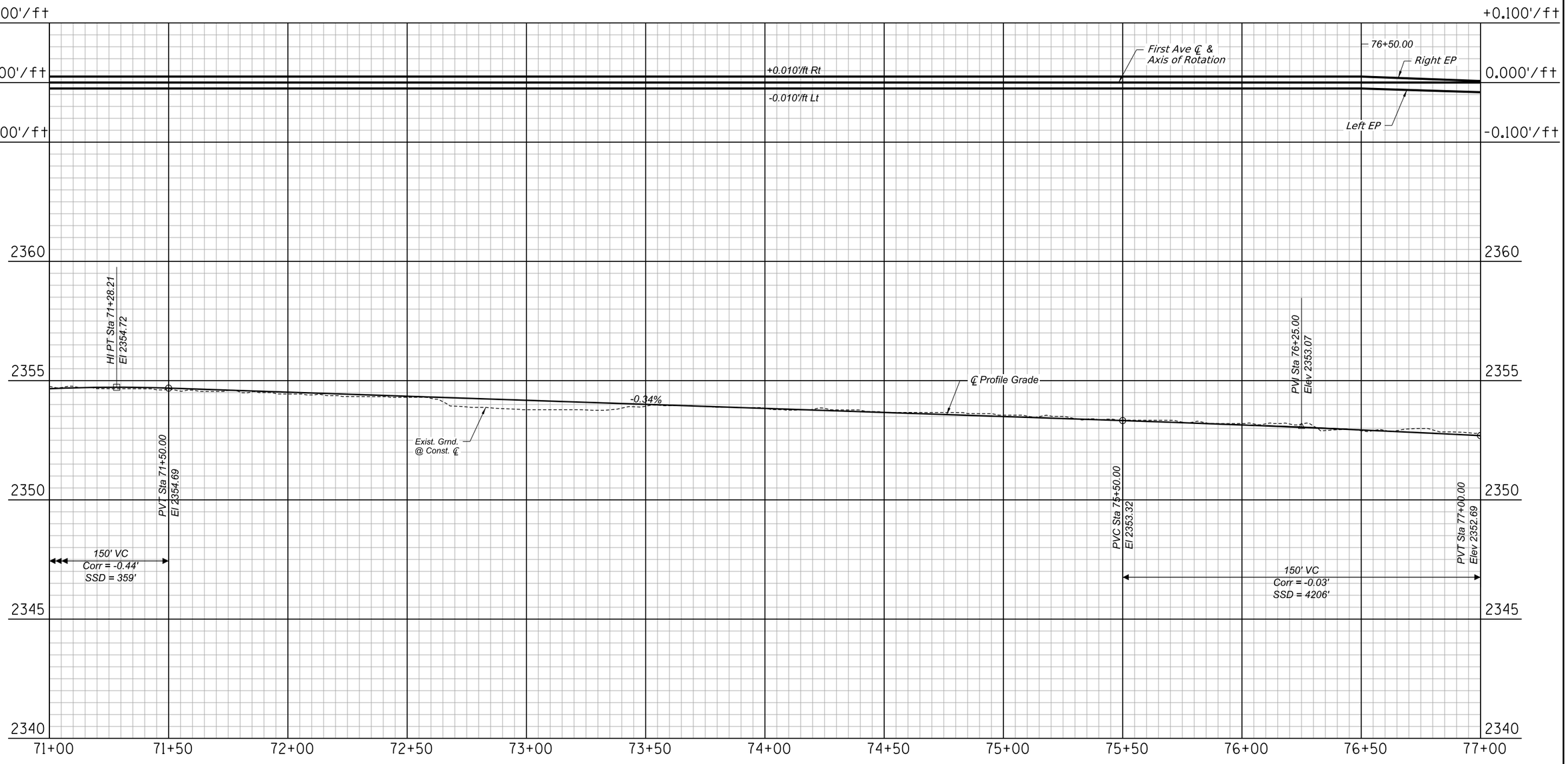
90 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-11A.dgn
8/26/2026 4:58:38 PM

OpenRoads Designer v10.12.02.4
8/26/2026
2:05:22 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 71+00 to 77+00
PAVING PROFILE

SHEET 22 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

91 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR	JMF	BJK	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

c:\pwworking\west01\d3987900\02C-11B.dgn
8/26/2026 2:05:22 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:57:28 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

77+00
78+00
79+00
80+00
81+00
82+00

MATCH LINE STA. 77+00
MATCH LINE STA. 82+00

1ST AVENUE

HOLAWAY DRIVE
GRAYBILL DRIVE

Curb-6
SW
DW
C
TCE
Prop. R/W
Exist. R/W
1st Ave. Const. ℄
Sta. 77+53.11 1st Ave. Const. ℄ = Sta. 10+00.00 Holaway Dr. Const. ℄
Sta. 81+07.40 1st Ave. Const. ℄ = Sta. 10+00.00 Graybill Dr. Const. ℄
Holaway Dr. Const. ℄
Graybill Dr. Const. ℄
2" G (STL)

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

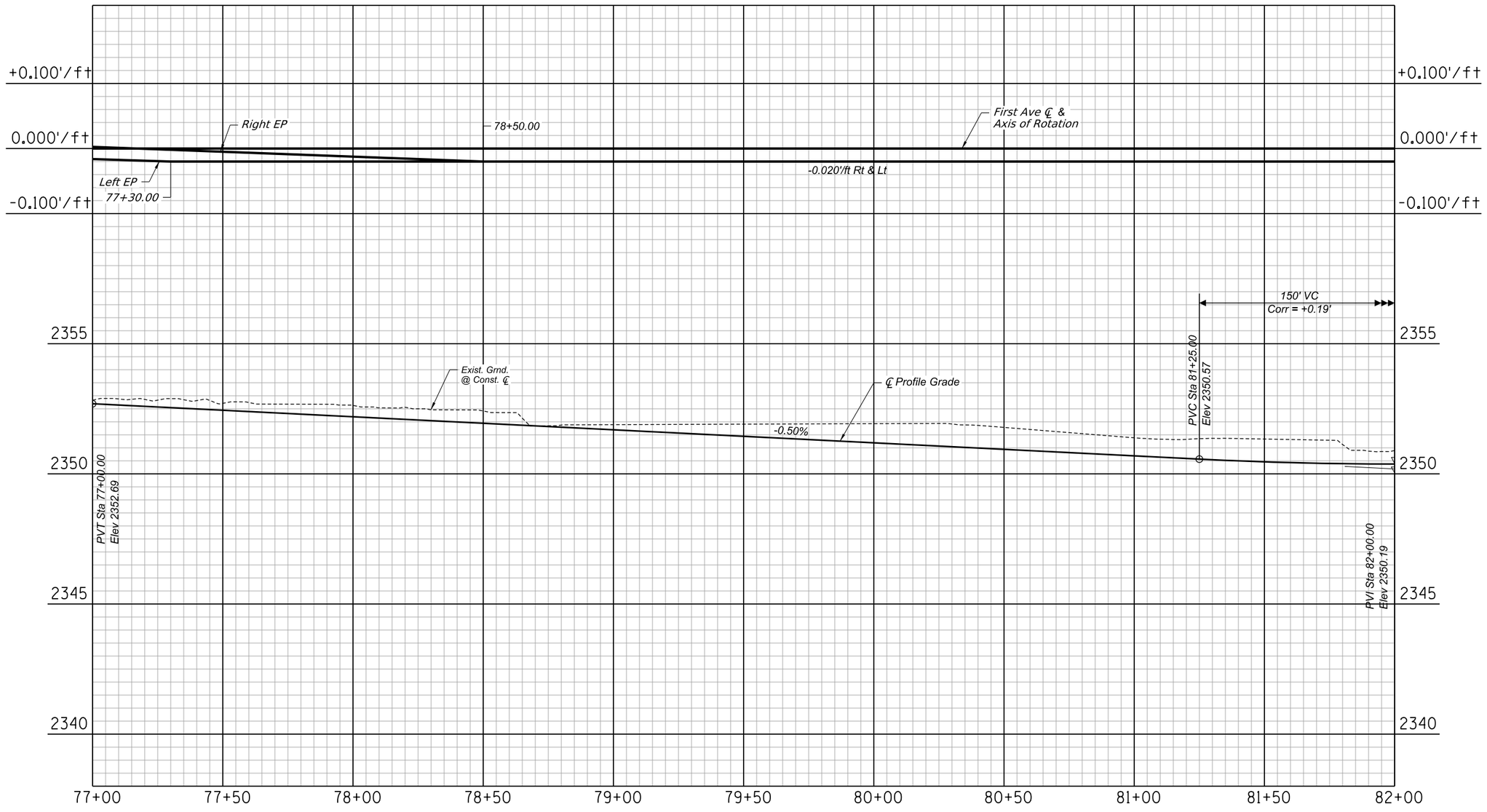
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

92 OF 504

1st Ave 77+00 to 82+00
PAVING PLAN

SHEET 23 OF 103

OpenRoads Designer v10.12.02.4
8/26/2026
2:17:16 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 77+00 to 82+00
PAVING PROFILE

SHEET 24 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

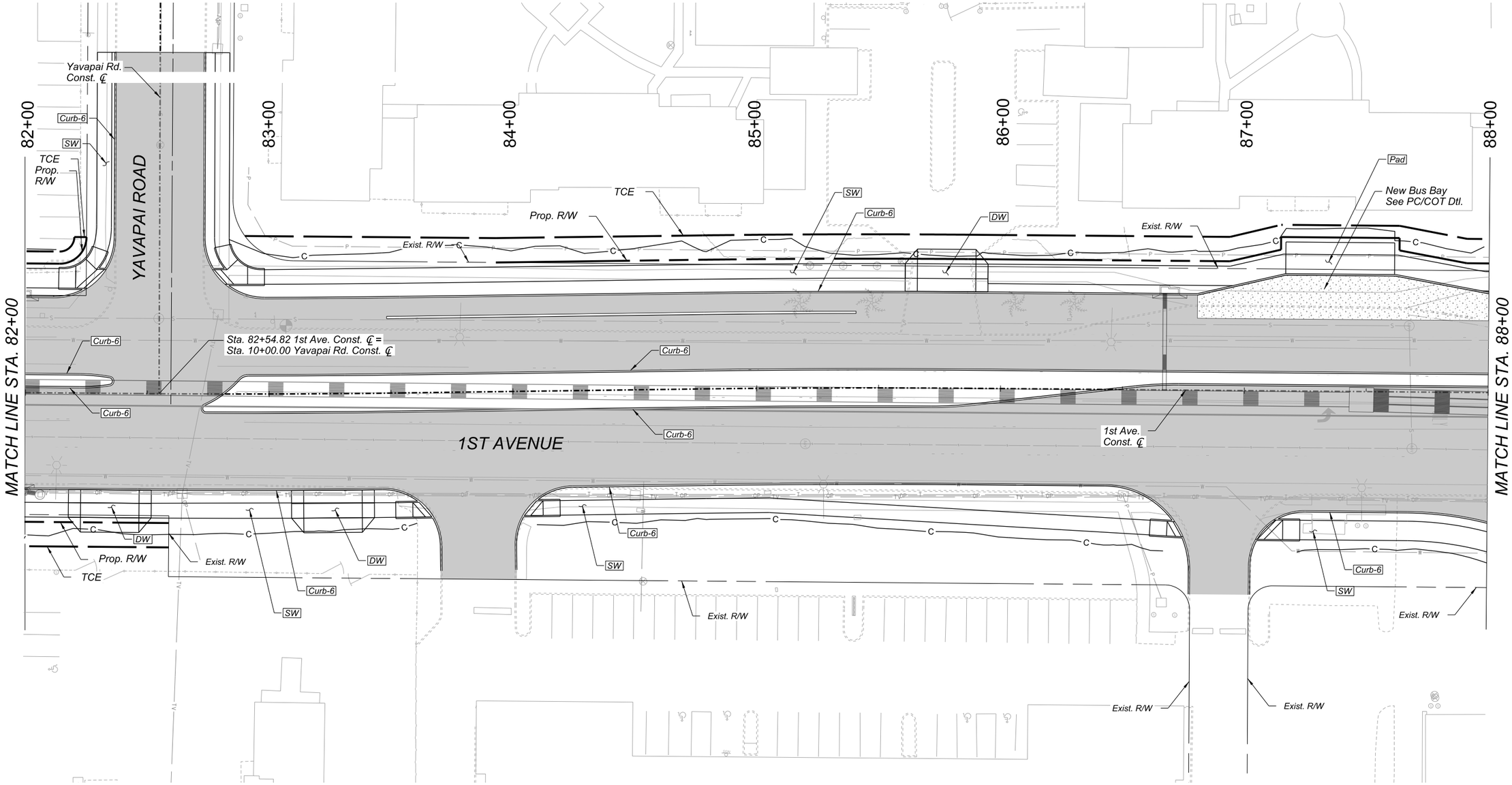
93 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR	JMF	BJK	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

c:\pwworking\west01\d3987900\02C-12B.dgn
8/26/2026 2:17:16 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:55:58 PM
Printed by: TCOLE
Print Scale: 120.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

1st Ave 82+00 to 88+00
PAVING PLAN

SHEET 25 OF 103

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

94 OF 504

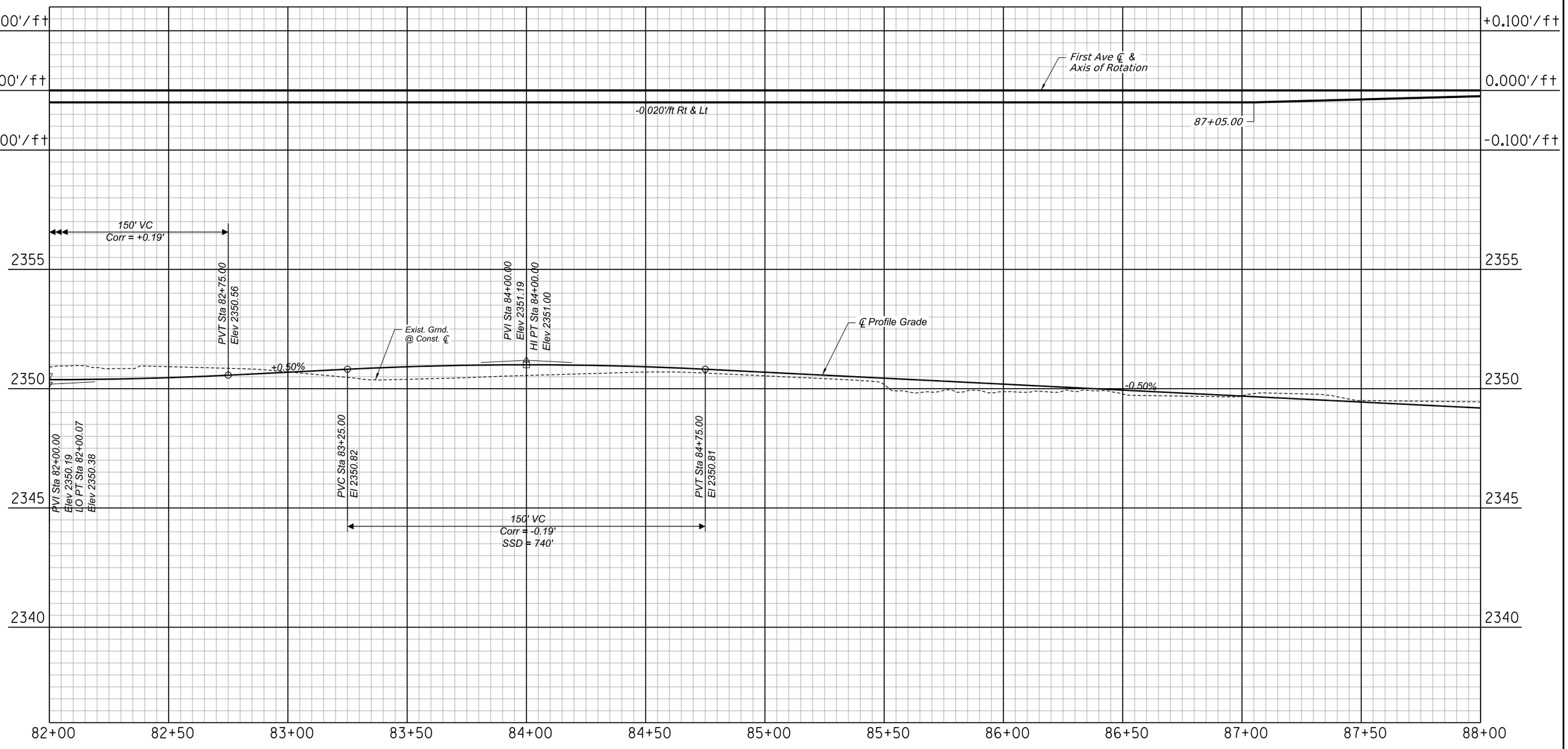
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR	CHKD. BY JMF	APPR. BY BJK	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-13A.dgn
8/26/2026 4:55:58 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:23:36 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 82+00 to 88+00
PAVING PROFILE

SHEET 26 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
Arizona Blue Stake, Inc.
ARIZONA 811
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

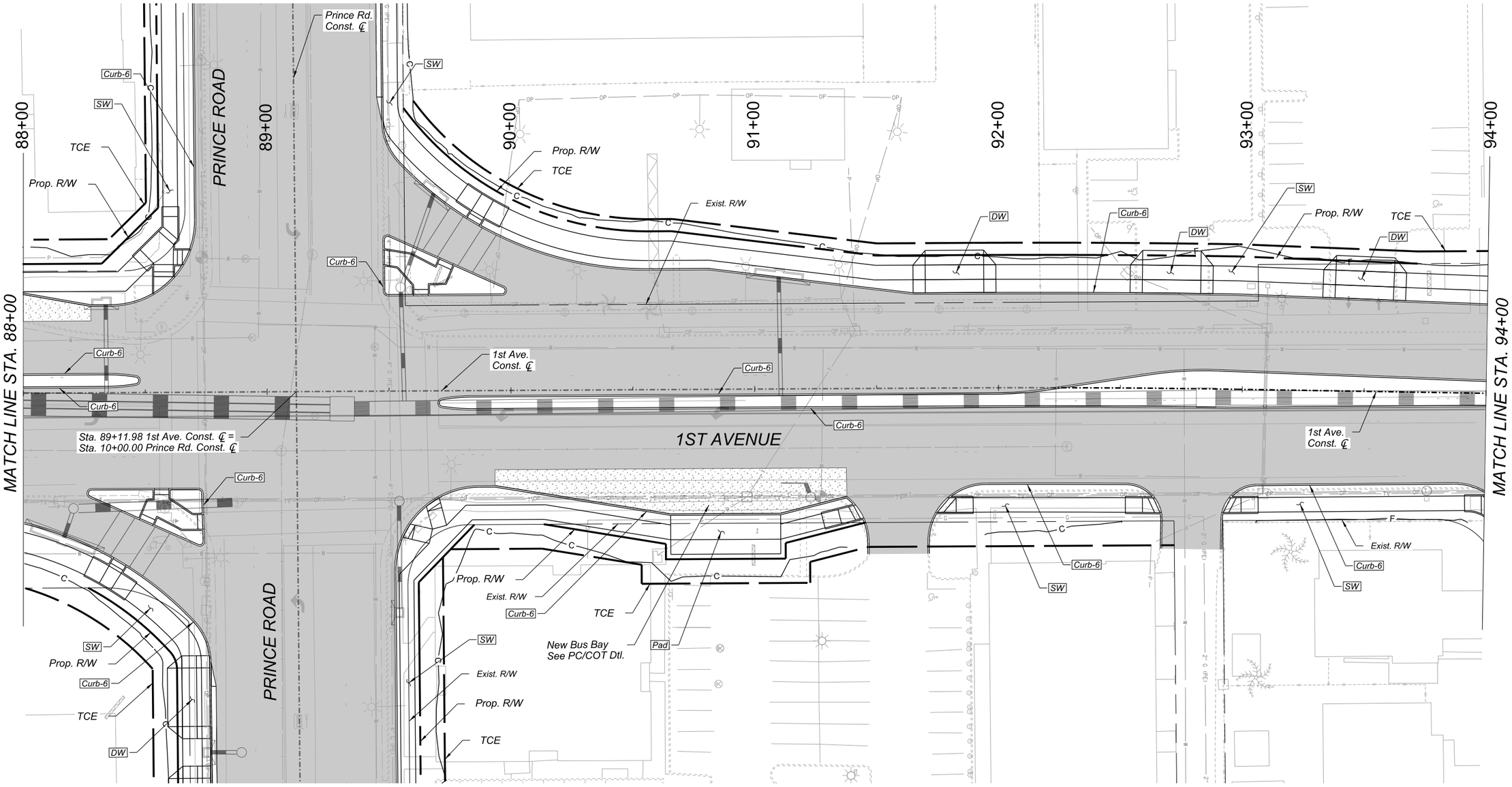
95
OF
504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-13B.dgn
8/26/2026 3:23:36 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:41:53 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

1st Ave 88+00 to 94+00
PAVING PLAN

SHEET 27 OF 103

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

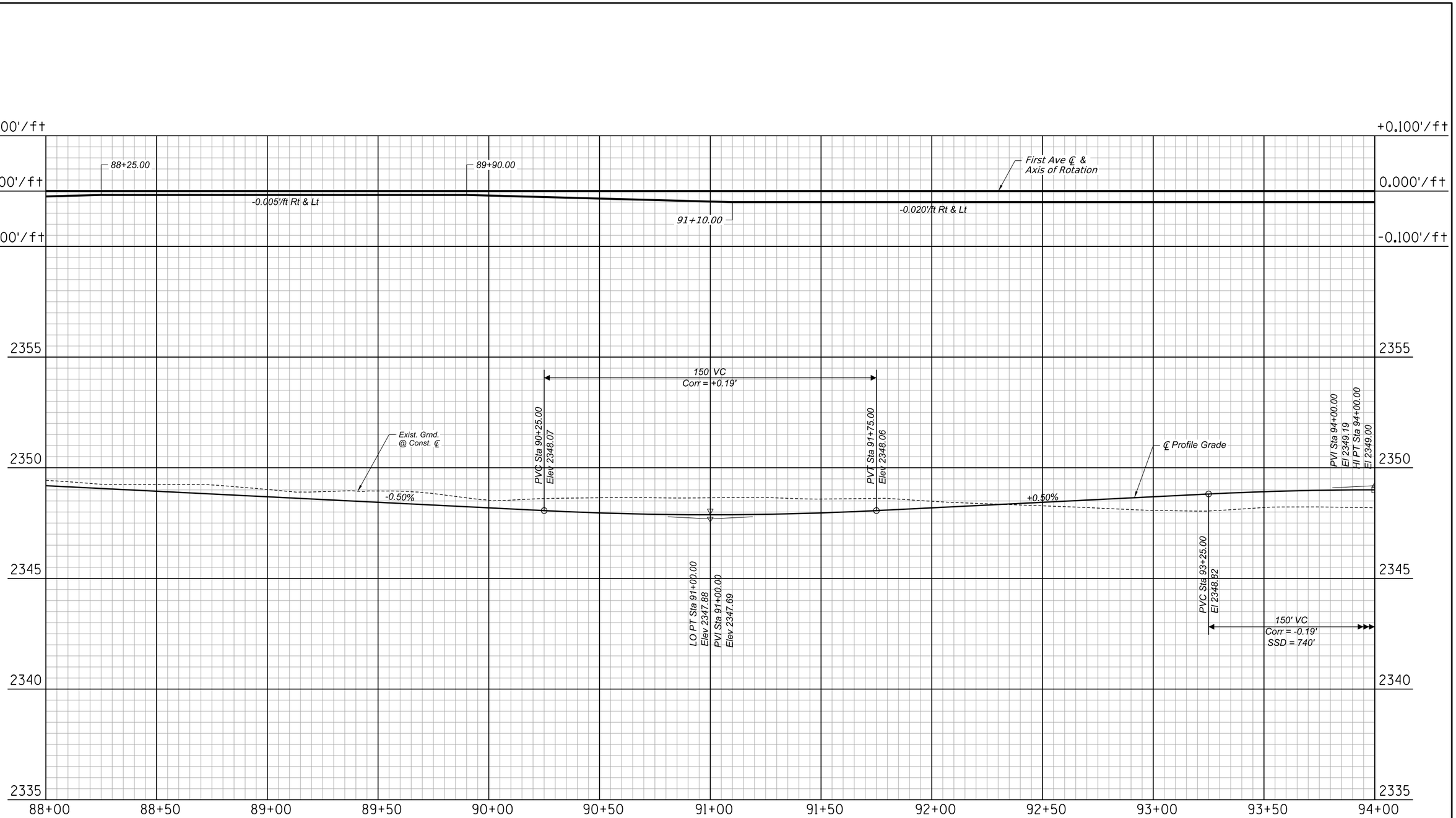
96 OF 504

CITY OF TUCSON

DRWN. BY JAR	CHKD. BY JMF	APPR. BY BJK	SCALE: *H: 1" = 20'*
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-14A.dgn
8/26/2026 3:41:53 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:44:41 PM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvEr: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 88+00 to 94+00
PAVING PROFILE

SHEET 28 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

97 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-14B.dgn
8/26/2026 3:44:41 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:46:11 PM
Printed by:SWESTMORELAND
Print Scale: 1:0.0833333
Pentables: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_twpdf_SD.pltcfg
Project ID:
Client Number:4109

94+00
95+00
96+00
97+00
98+00
99+00
100+00

MATCH LINE STA. 94+00

MATCH LINE STA. 100+00

TCE
Prop. R/W
SW
DW
Exist. R/W
TCE
DW
TCE
DW
Curb-6
SW
TCE
F
C

Curb-6
1st Ave.
Const. ℄
Curb-6
Curb-6
Curb-6
Sta. 94+28.49 1st Ave. Const. ℄ =
Sta. 10+00.00 Joan Pl. Const. ℄

1ST AVENUE

JOAN PLACE

SW
Curb-6
Exist. R/W
TCE
Curb-6
SW
Curb-6
Exist. R/W
TCE
Curb-6
SW
Exist. R/W
Joan Pl.
Const. ℄

C

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

1st Ave 94+00 to 100+00
PAVING PLAN

SHEET 29 OF 103

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION
98 OF 504

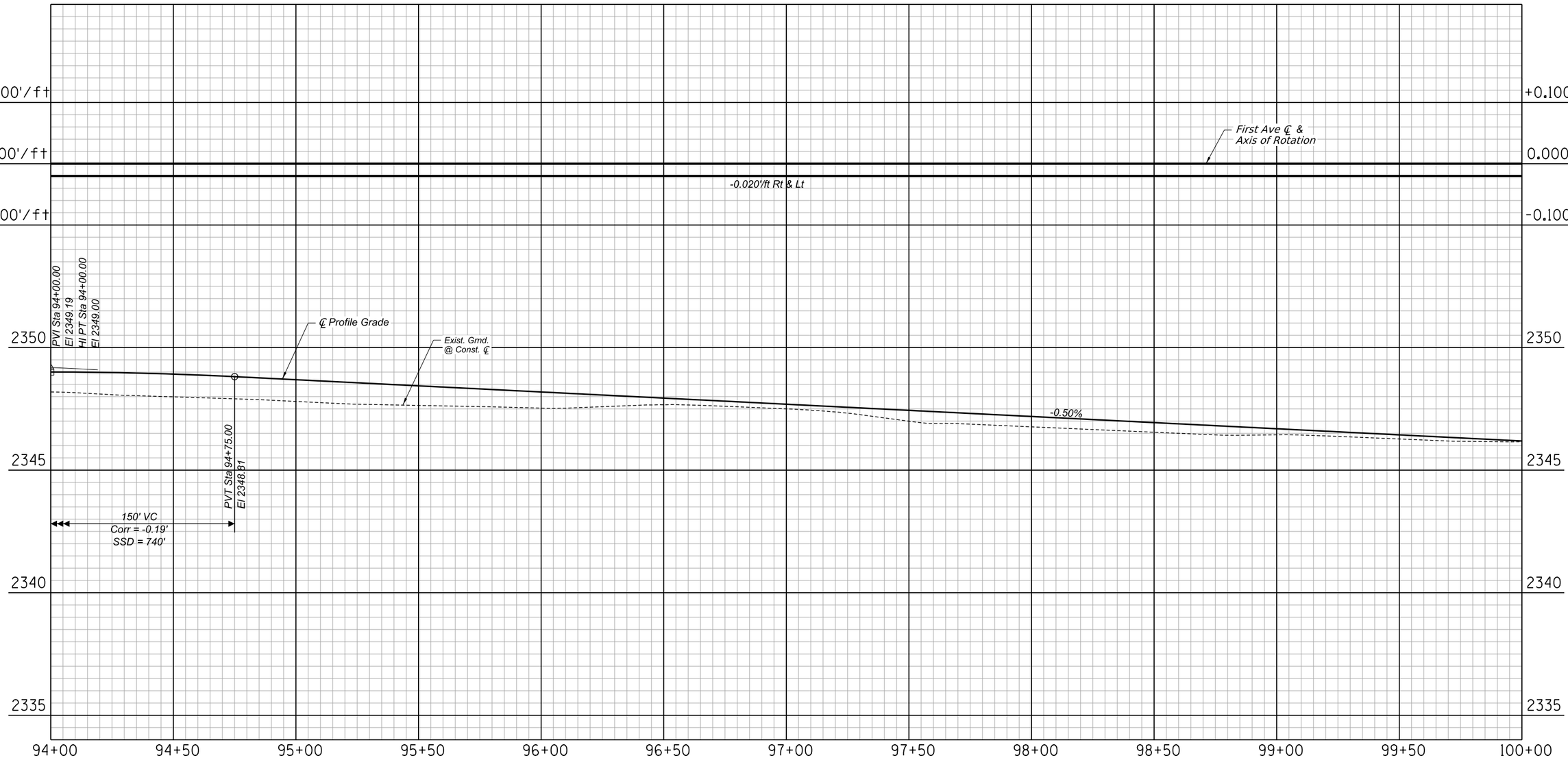
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-15A.dgn
8/26/2026 3:46:11 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:47:55 PM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdrver: GN_1wpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 94+00 to 100+00
PAVING PROFILE

SHEET 30 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

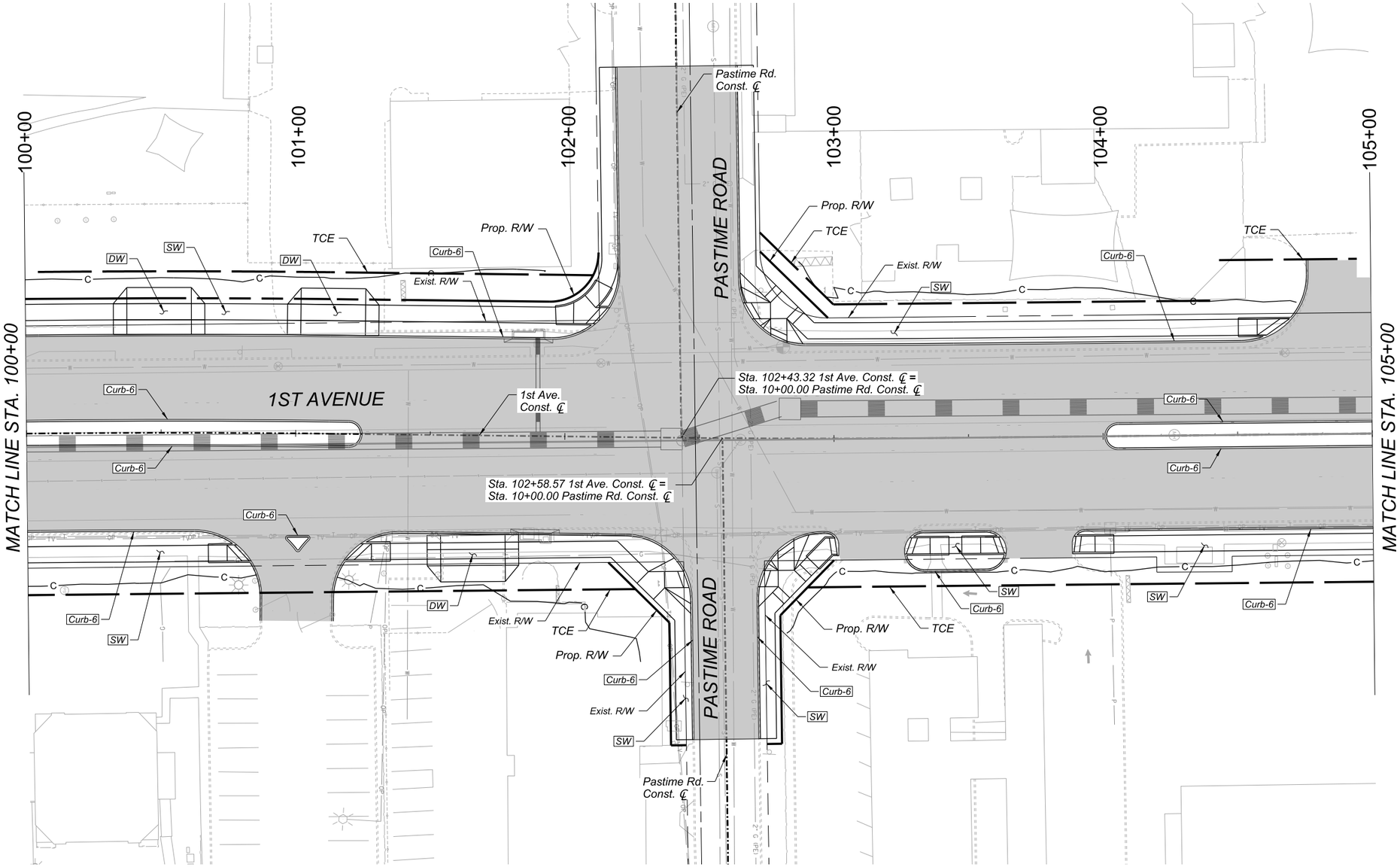
99 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-15B.dgn
8/26/2026 3:47:55 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:52:59 PM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 100+00 to 105+00
PAVING PLAN

SHEET 31 OF 103

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

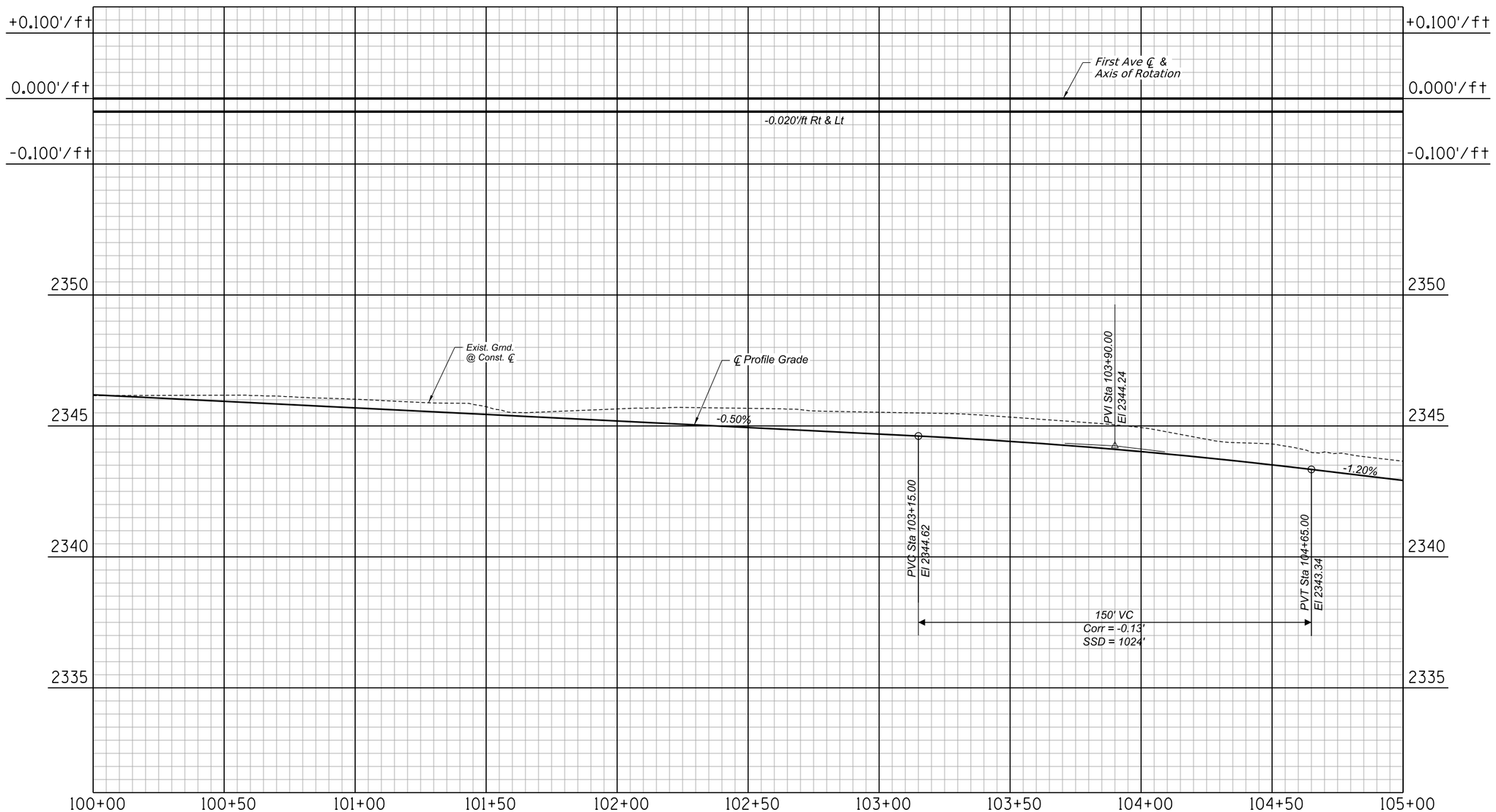
1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

100 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-16A.dgn
8/26/2026 3:52:59 PM



1st Ave 100+00 to 105+00
PAVING PROFILE

SHEET 32 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE4T (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

101 OF 504

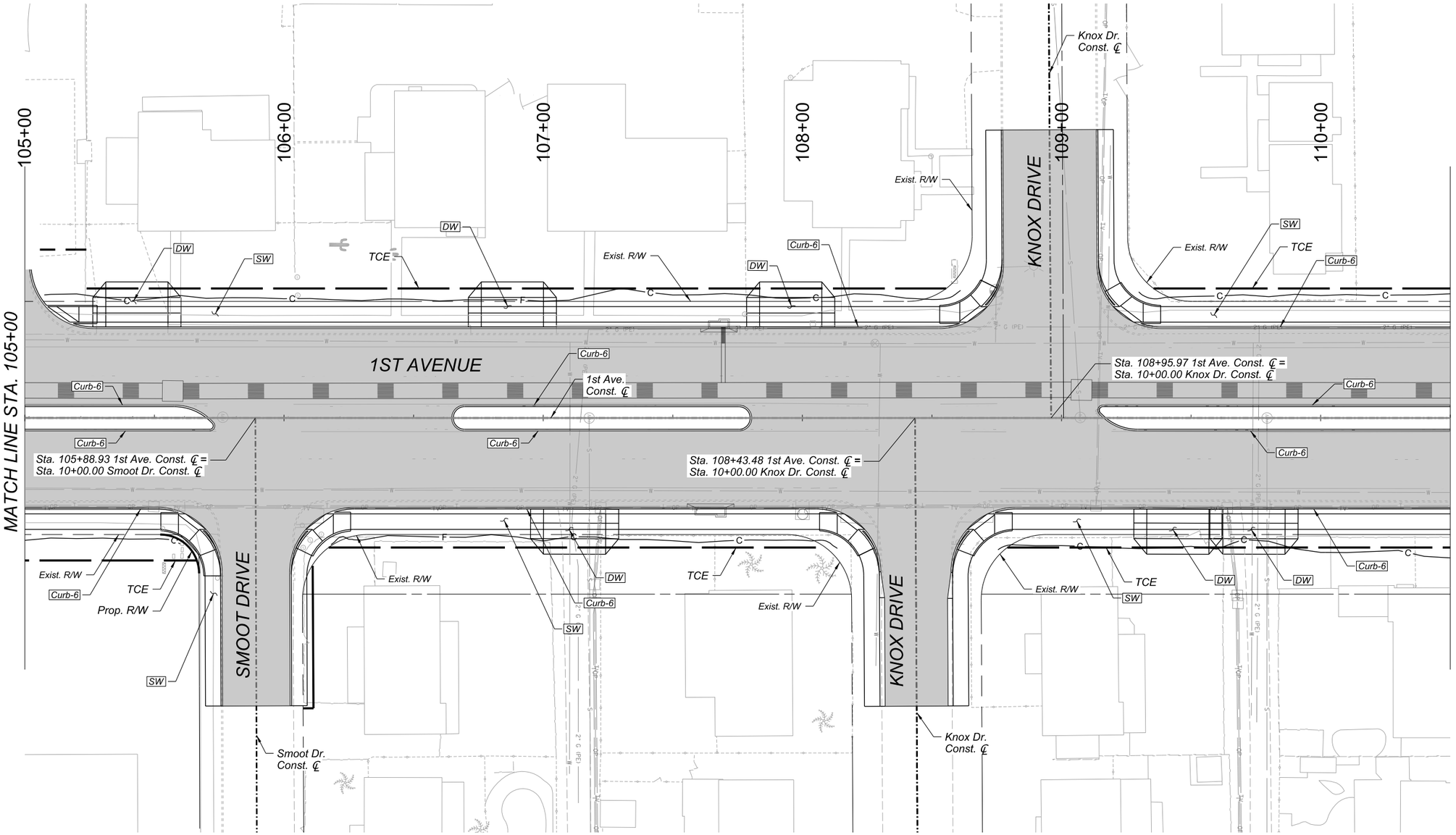
CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20' V: 1" = 2'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/26/2026
3:57:11 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d3987900\02C-16B.dgn
8/26/2026 3:57:11 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:04:26 PM
Printed by:SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number:4109



1st Ave 105+00 to 110+50
PAVING PLAN

SHEET 33 OF 103

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

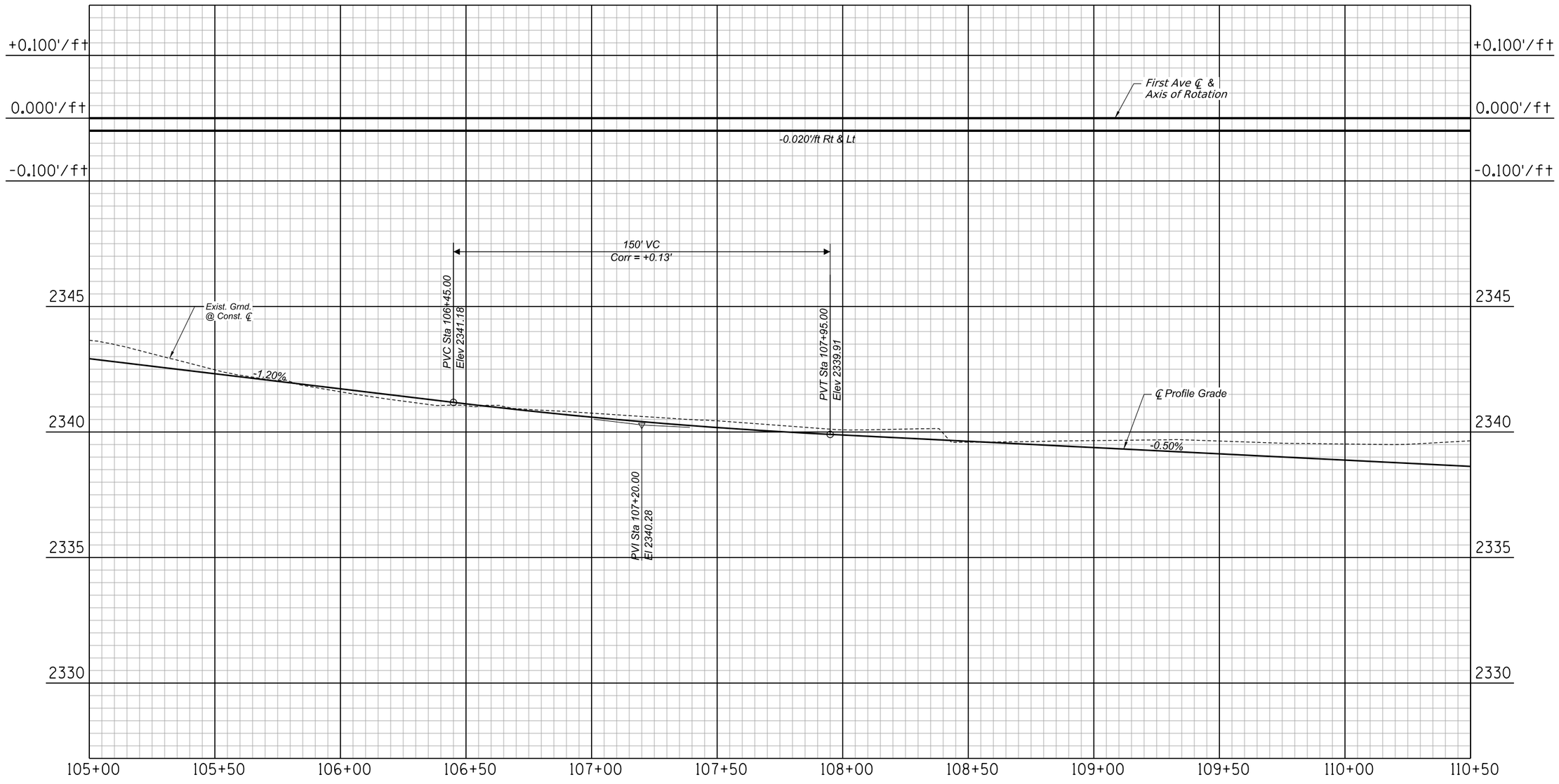
102 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-17A.dgn
8/26/2026 4:04:26 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:09:44 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPNAA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 105+00 to 110+50
PAVING PROFILE

SHEET 34 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

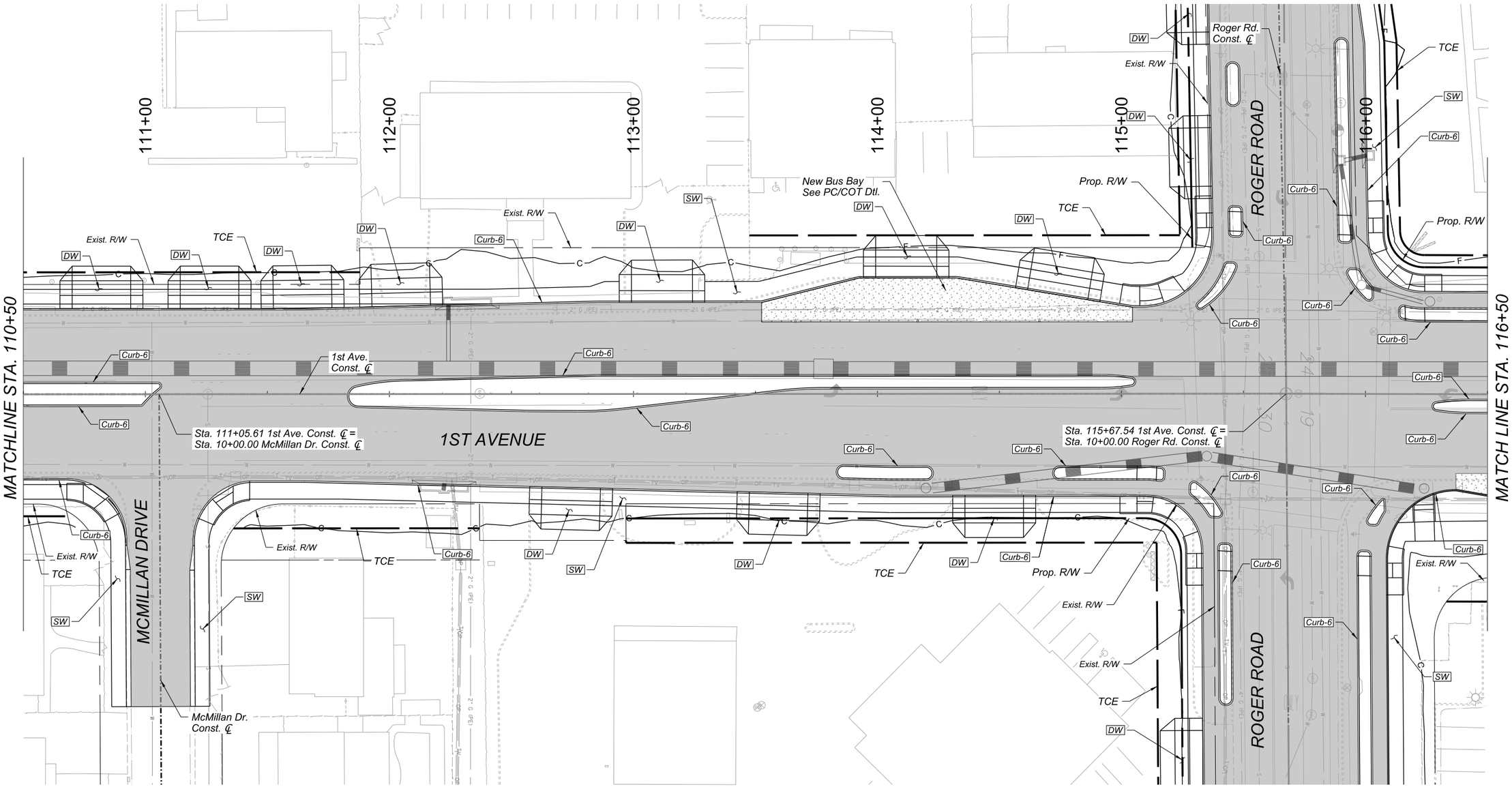
103 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR	JMF	BJK	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

c:\pwworking\west01\d3987900\02C-17B.dgn
8/26/2026 4:09:44 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:13:37 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.plotcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

1st Ave 110+50 to 116+50
PAVING PLAN

SHEET 35 OF 103

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

104 OF 504

c:\pwworking\west01\d3987900\02C-18A.dgn
8/26/2026 4:13:37 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:18:23 PM
Printed by: SWEST\MORELAND
Print Scale: 10.0833333
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.ptcfg
Project ID:
Client Number: 4109

+0.100'/ft
0.000'/ft
-0.100'/ft

First Ave ℄ &
Axis of Rotation

-0.020'/ft Rt & Lt

150' VC
Corr = +0.19'

Exist. Grnd.
@ Const. ℄

PVC Sta 111+45.00
Elev 2338.16

PVT Sta 112+95.00
Elev 2338.16

℄ Profile Grade

HI PT Sta 114+91.87
El 2339.02

PVI Sta 115+20.00
El 2339.28

-0.50%
+0.50%
-1.10%

PVI Sta 112+20.00
Elev 2337.78

LO PT Sta 112+20.00
Elev 2337.97

PVC Sta 114+45.00
El 2338.90

PVT Sta 115+95.00
El 2338.45

150' VC
Corr = -0.30'
SSD = 490'

2340
2335
2330
2325

110+50 111+00 111+50 112+00 112+50 113+00 113+50 114+00 114+50 115+00 115+50 116+00 116+50

1st Ave 110+50 to 116+50
PAVING PROFILE

SHEET 36 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

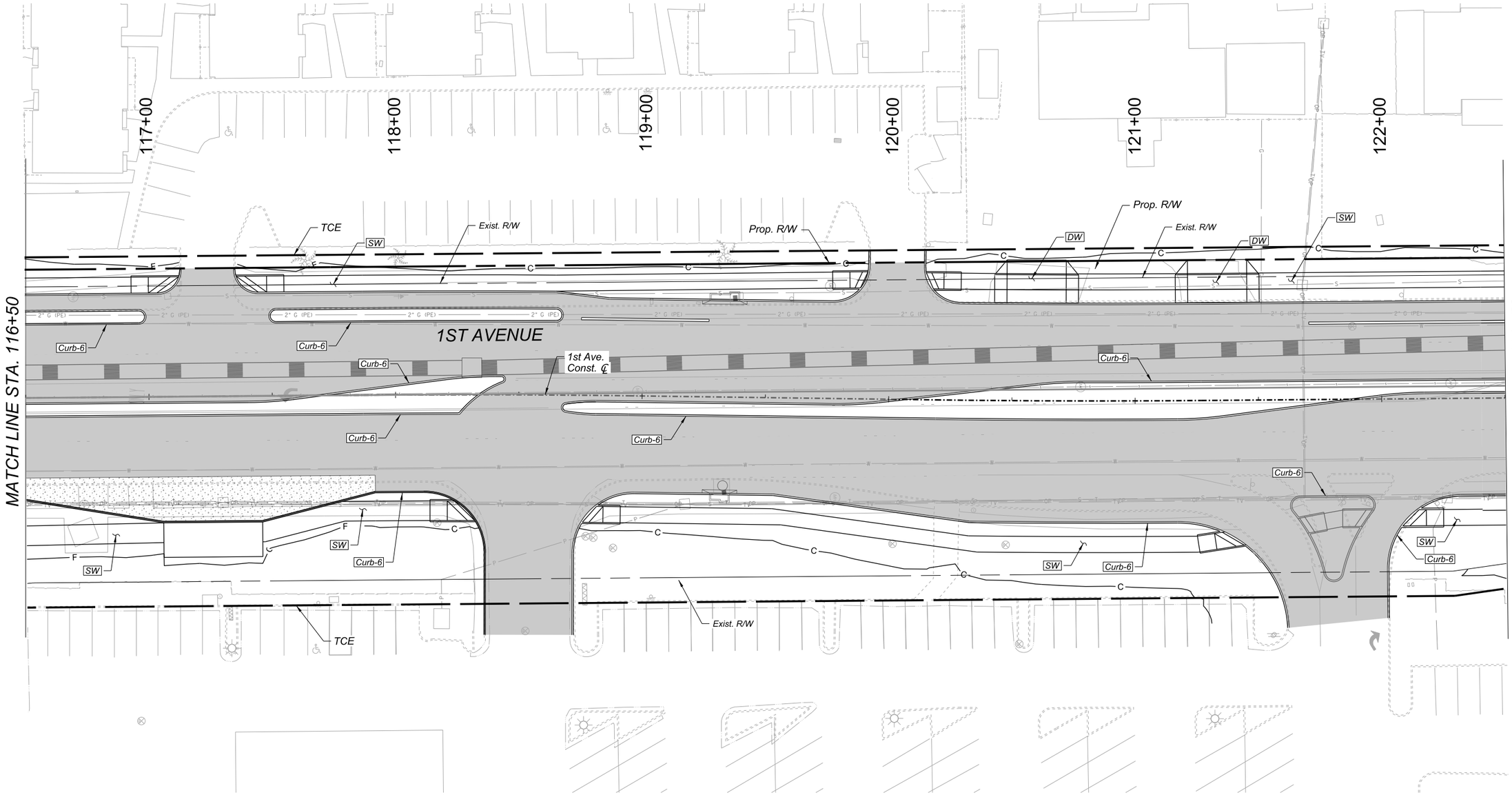
105 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-18B.dgn
8/26/2026 4:18:23 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:20:46 PM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 116+50 to 122+50
PAVING PLAN

SHEET 37 OF 103

SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

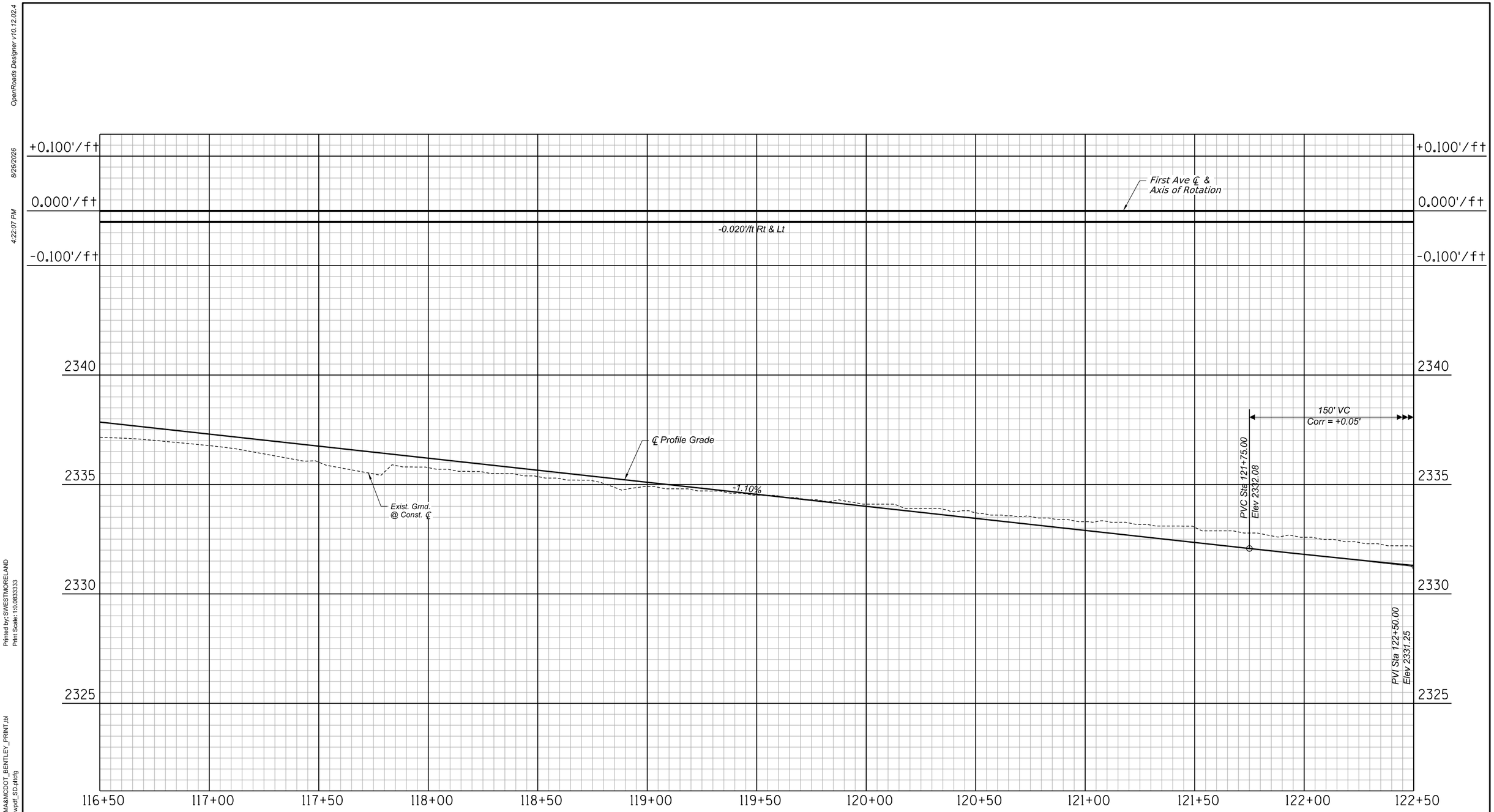
106 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-19A.dgn
8/26/2026 4:20:46 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:22:07 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdrver: GN_1wpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 116+50 to 122+50
PAVING PROFILE

SHEET 38 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

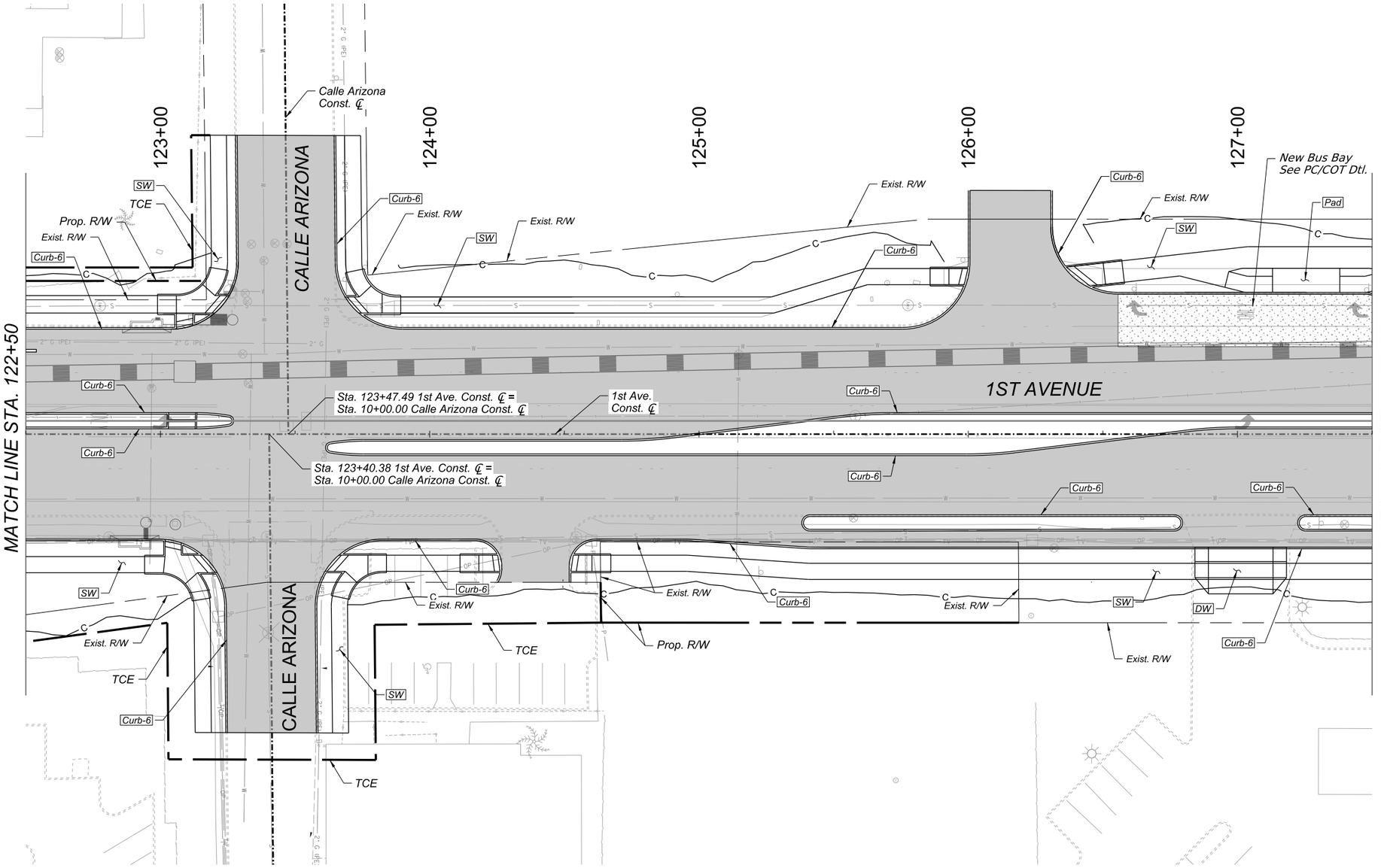
107 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-19B.dgn
8/26/2026 4:22:07 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:24:03 PM
Plotted by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

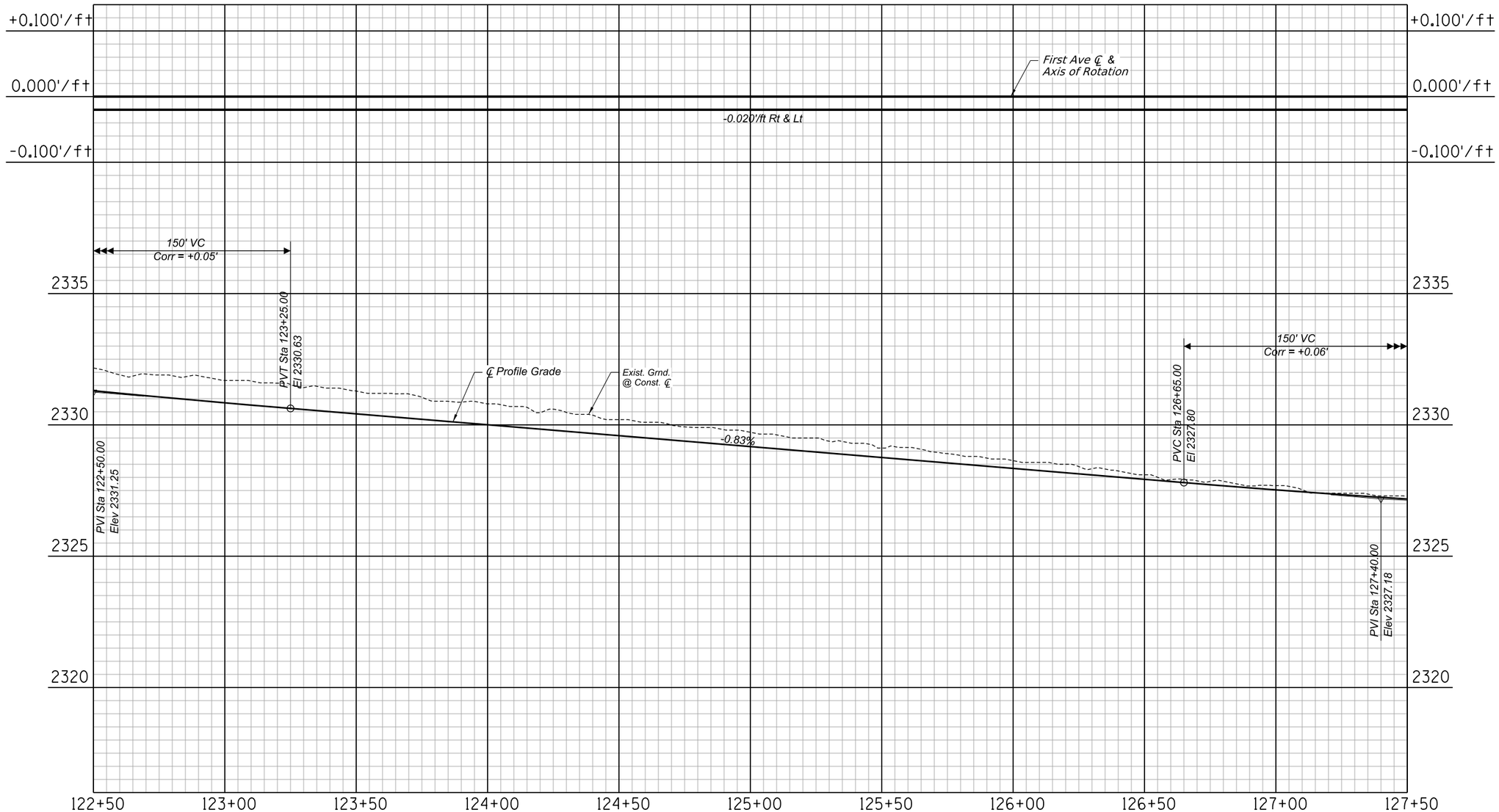
108 OF 504

1st Ave 122+50 to 127+50
PAVING PLAN

SHEET 39 OF 103

c:\pwworking\west01\d3987900\02C-20A.dgn
8/26/2026 4:24:03 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:11:45 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPNA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 122+50 to 127+50
PAVING PROFILE

SHEET 40 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

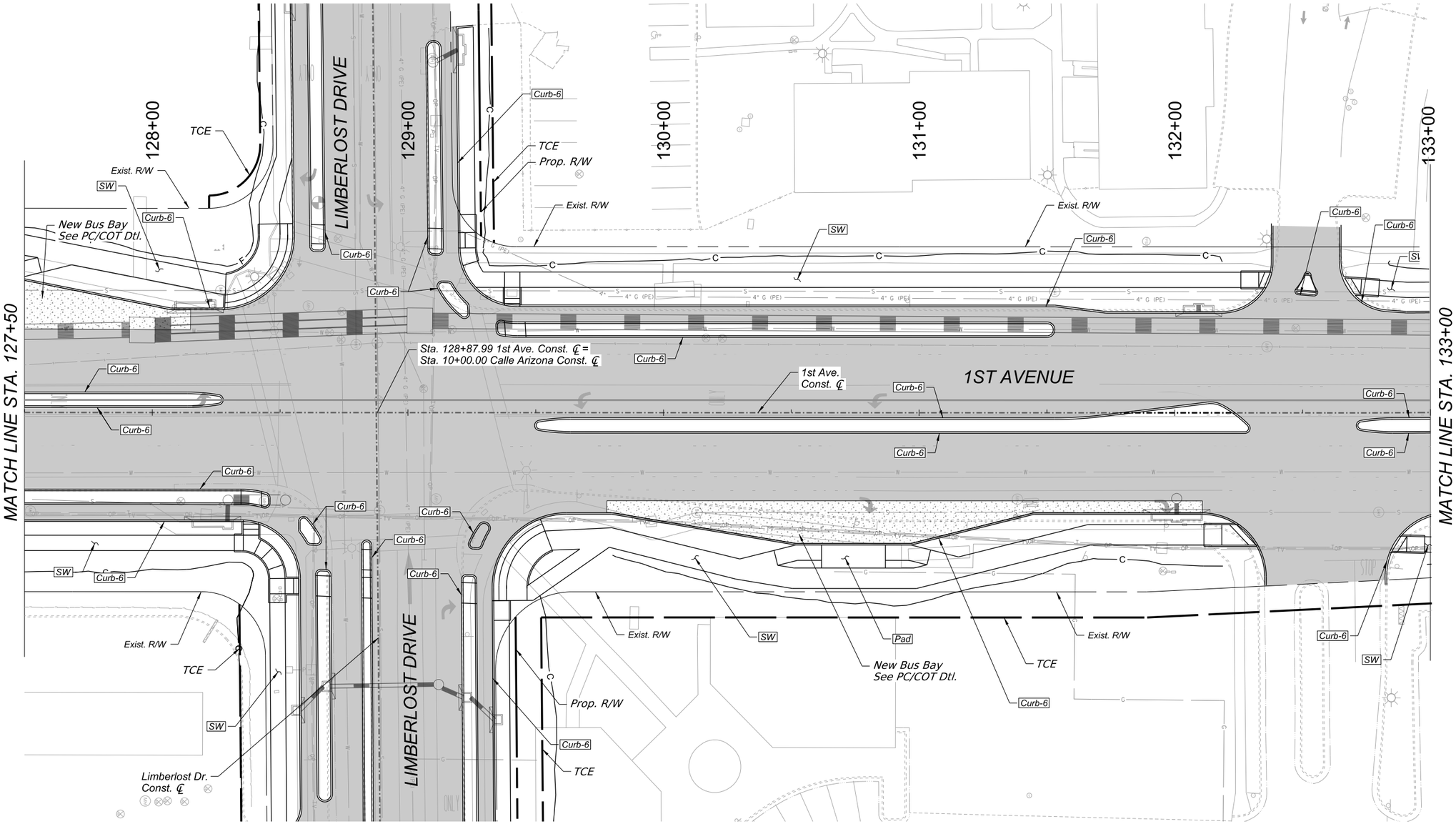
109 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR	JMF	BJK	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

c:\pwworking\west01\d3987900\02C-20B.dgn
8/26/2026 4:11:45 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:33:11 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

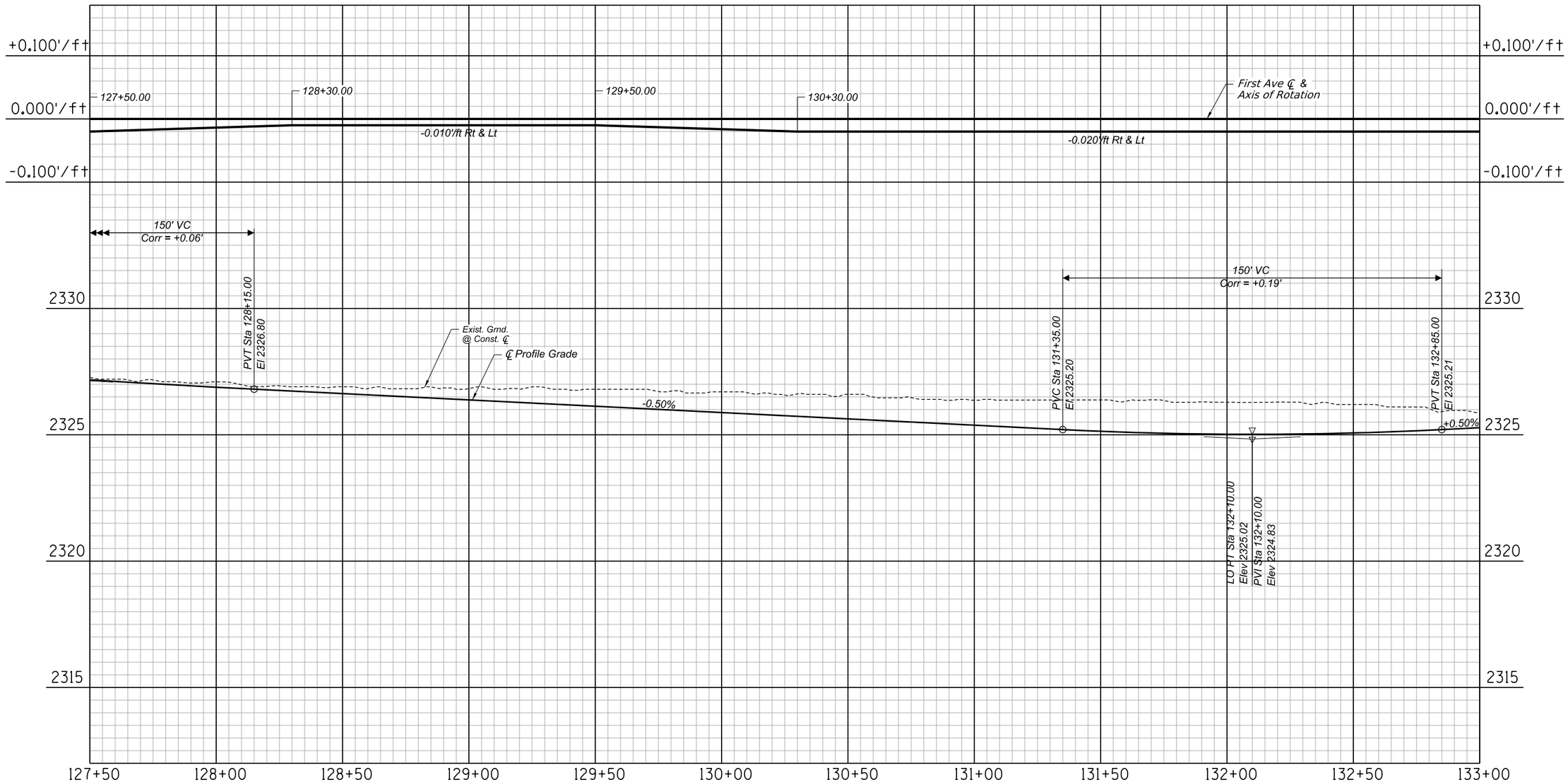
110 OF 504

1st Ave 127+50 to 133+00
PAVING PLAN

SHEET 41 OF 103

c:\pwworking\west01\d3987900\02C-21A.dgn
8/26/2026 4:33:11 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:07:10 PM
Printed by: TCOLE
Print Scale: 10.083333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvEr: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 127+50 to 133+00
PAVING PROFILE

SHEET 42 OF 103

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

111 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

OpenRoads Designer v10.12.02.4
8/26/2026
4:04:34 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentables: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_twpdf_SD.pltcfg
Project ID:
Client Number: 4109

133+00 134+00 135+00 136+00 137+00 138+00

MATCH LINE STA. 133+00

MATCH LINE STA. 138+00

Exist. R/W

Curb-6

SW

C

F

4" G (PE)

S

W

1st Ave.
Const. ℄

1ST AVENUE

TCE

OP

TV

TVOP

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

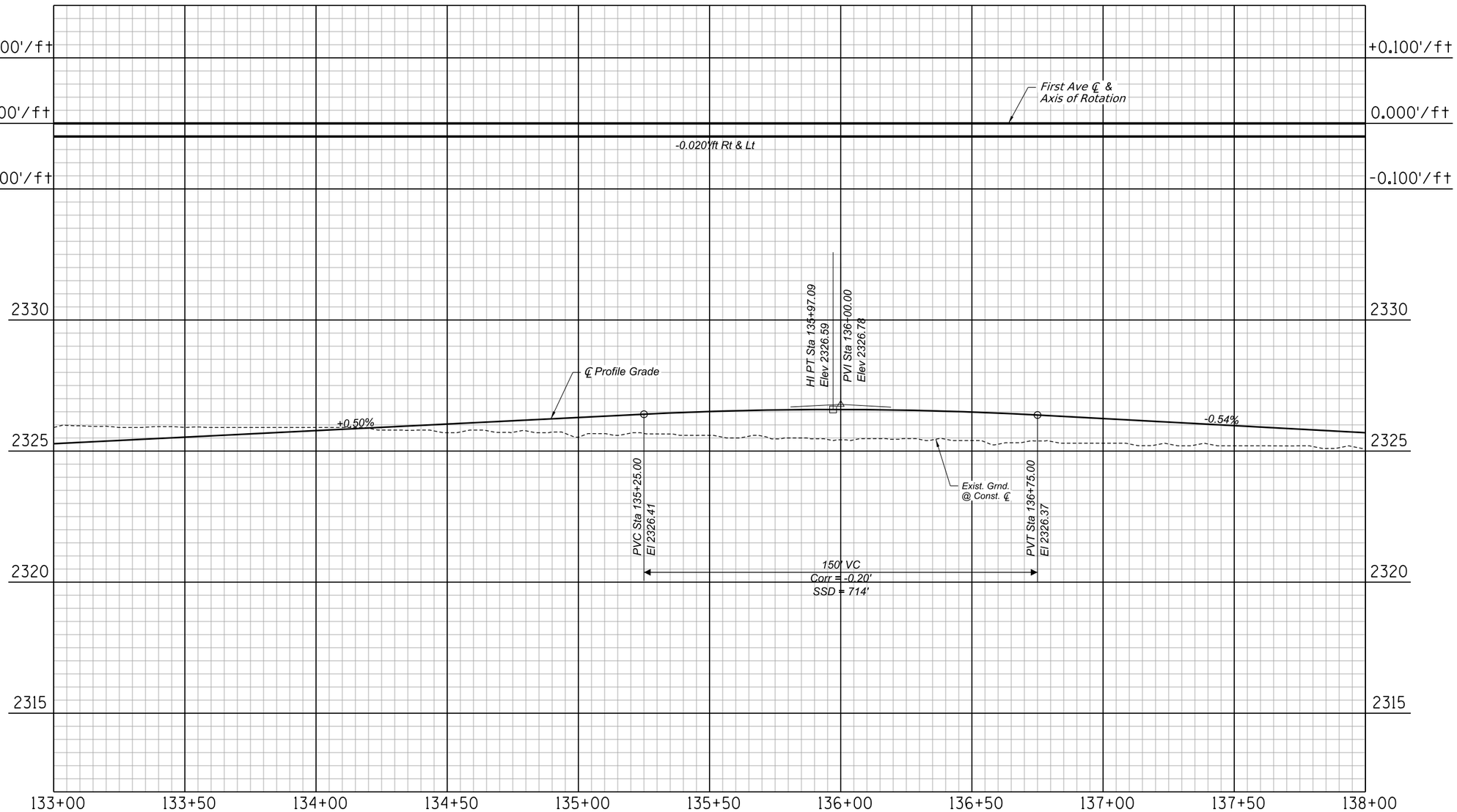
112 OF 504

1st Ave 133+00 to 138+00
PAVING PLAN

SHEET 43 OF 103

c:\pwworking\west01\d3987900\02C-22A.dgn
8/26/2026 4:04:34 PM

OpenRoads Designer v10.12.02.4
8/26/2026
4:03:11 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 133+00 to 138+00
PAVING PROFILE

SHEET 44 OF 103

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

113 OF 504

CITY OF TUCSON

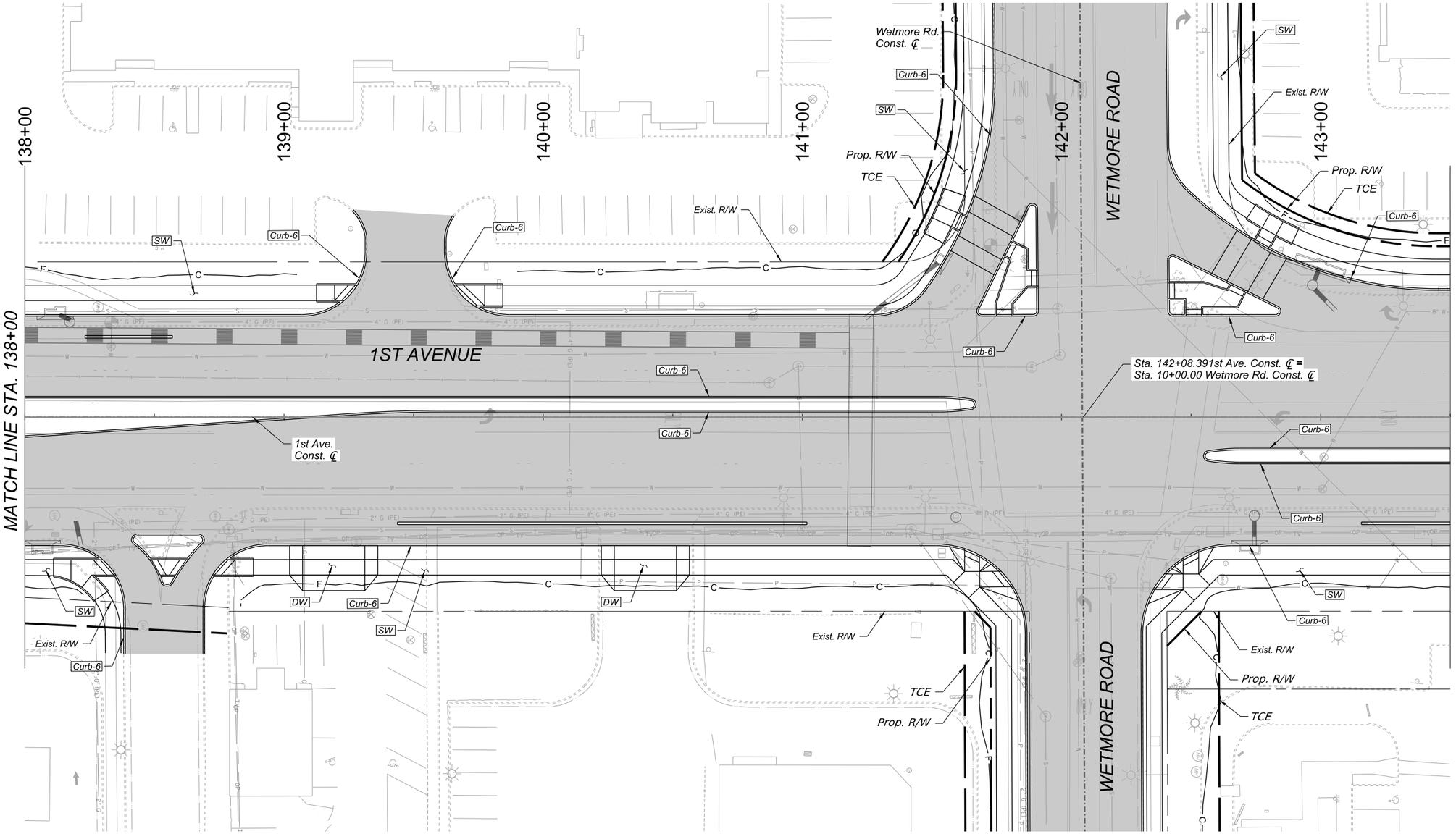
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026

SCALE: H: 1" = 20' V: 1" = 2'

PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

OpenRoads Designer v10.12.02.4
8/26/2026
3:59:48 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

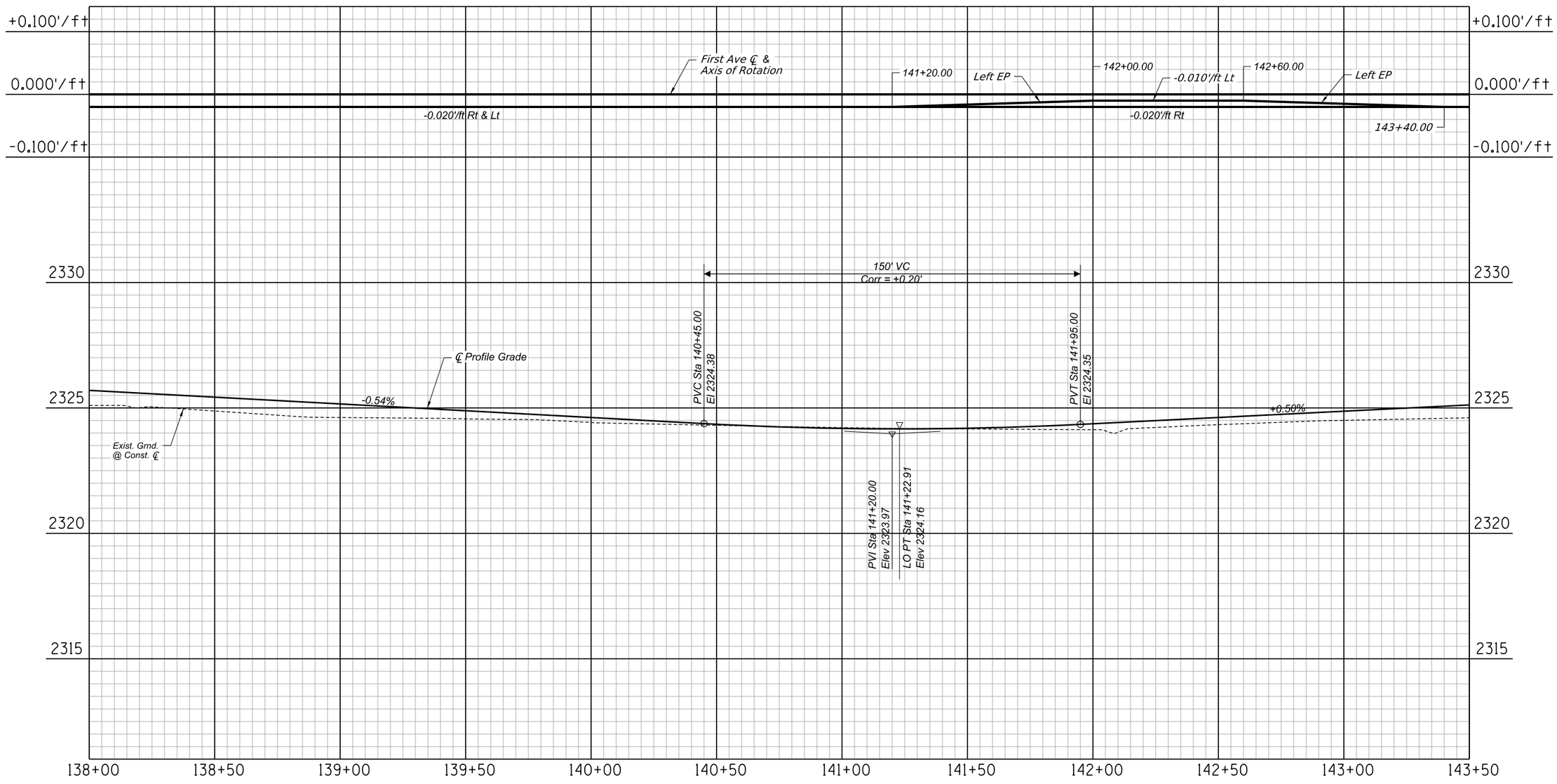
1st Ave 138+00 to 143+50
PAVING PLAN

SHEET 45 OF 103

114 OF 504

c:\pwworking\west01\d3987900\02C-23A.dgn
8/26/2026 3:59:48 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:56:01 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMAMCDOT_BENTLEY_PRINT.tbl
Plotdrver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 138+00 to 143+50
PAVING PROFILE

SHEET 46 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

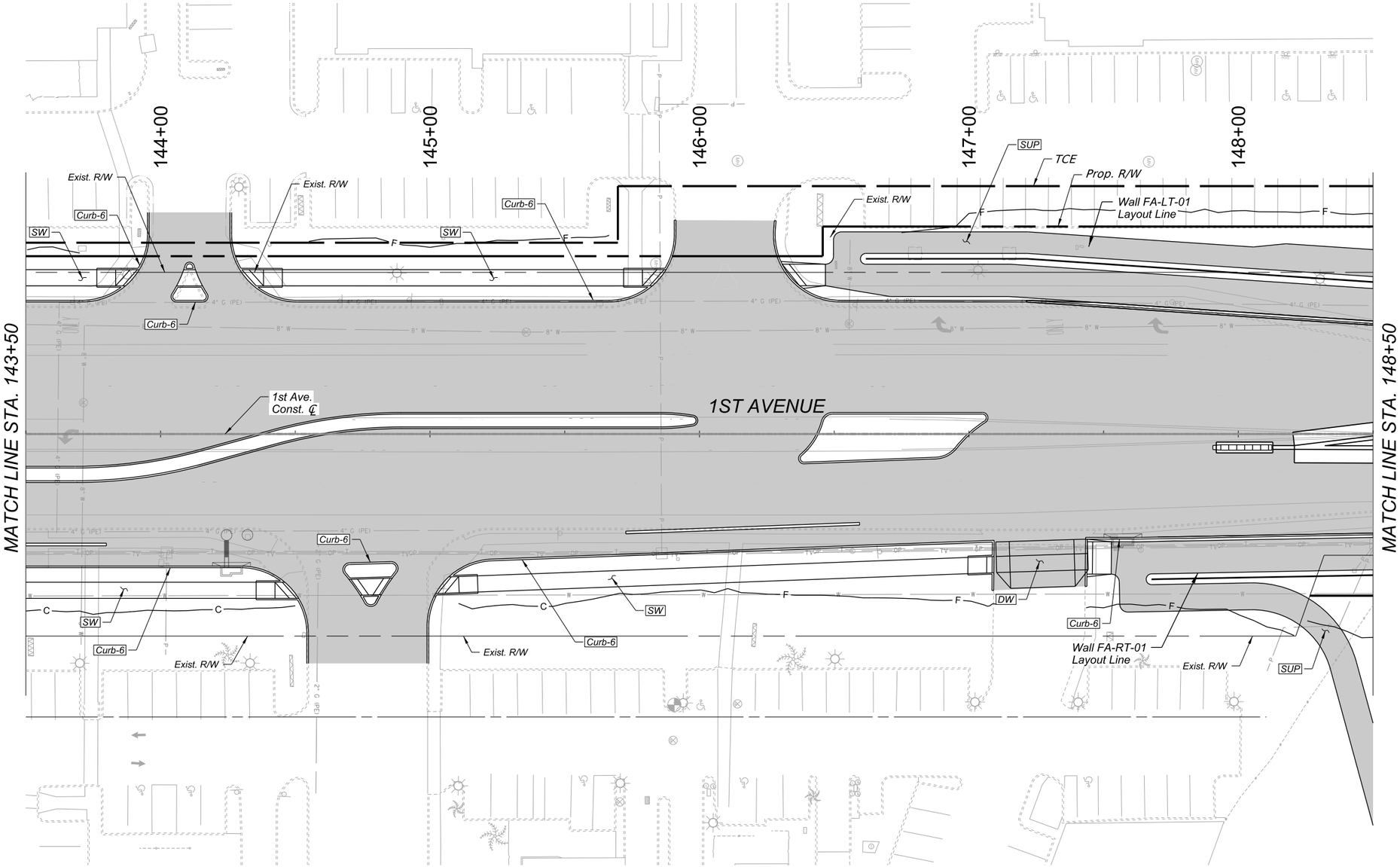
115
OF
504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-23B.dgn
8/26/2026 3:56:01 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:52:31 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentables: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_twpdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

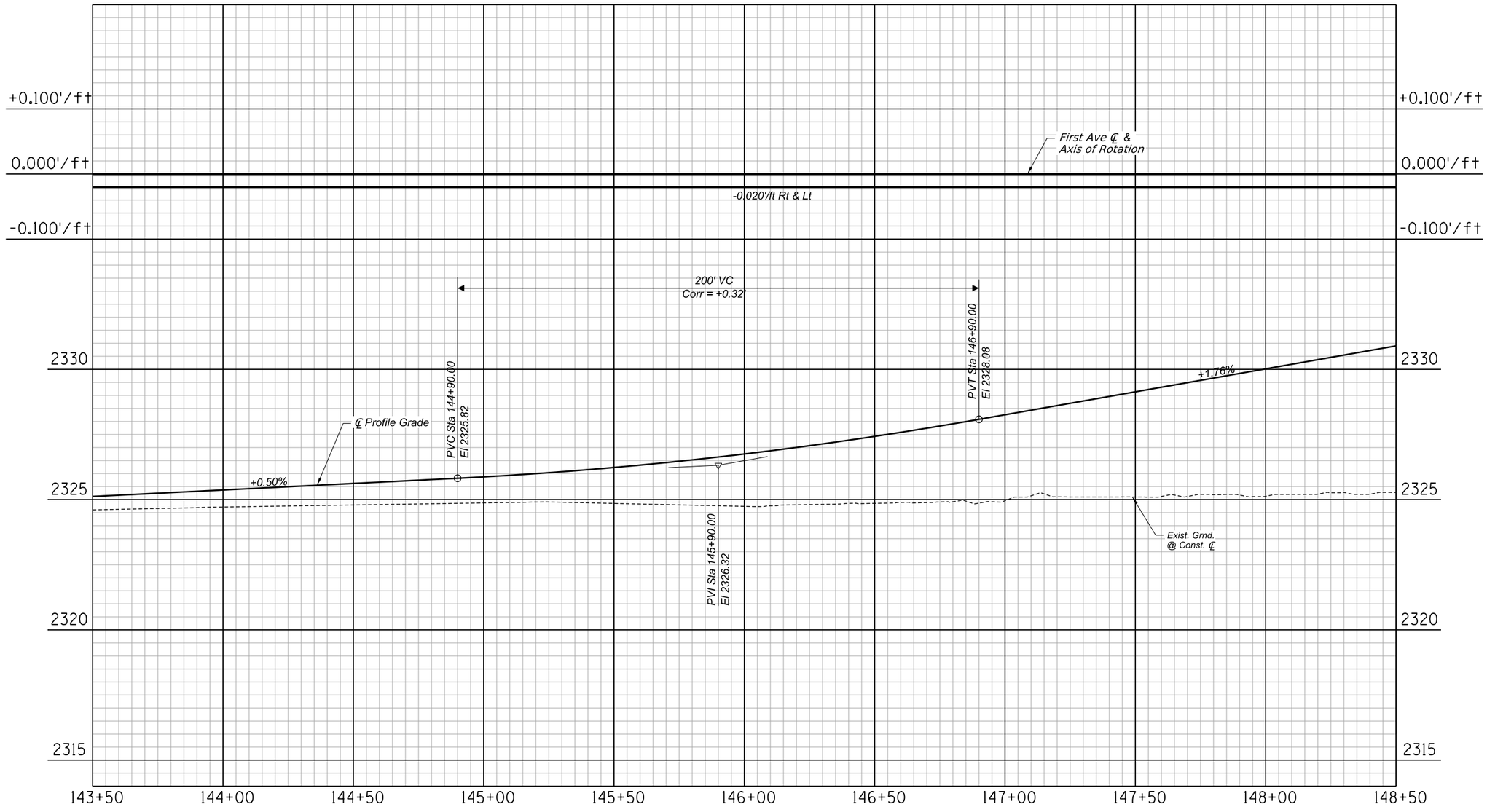
116 OF 504

1st Ave 143+50 to 148+50
PAVING PLAN

SHEET 47 OF 103

c:\pwworking\west01\d3987900\02C-24A.dgn
8/26/2026 3:52:31 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:51:14 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 143+50 to 148+50
PAVING PROFILE

SHEET 48 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

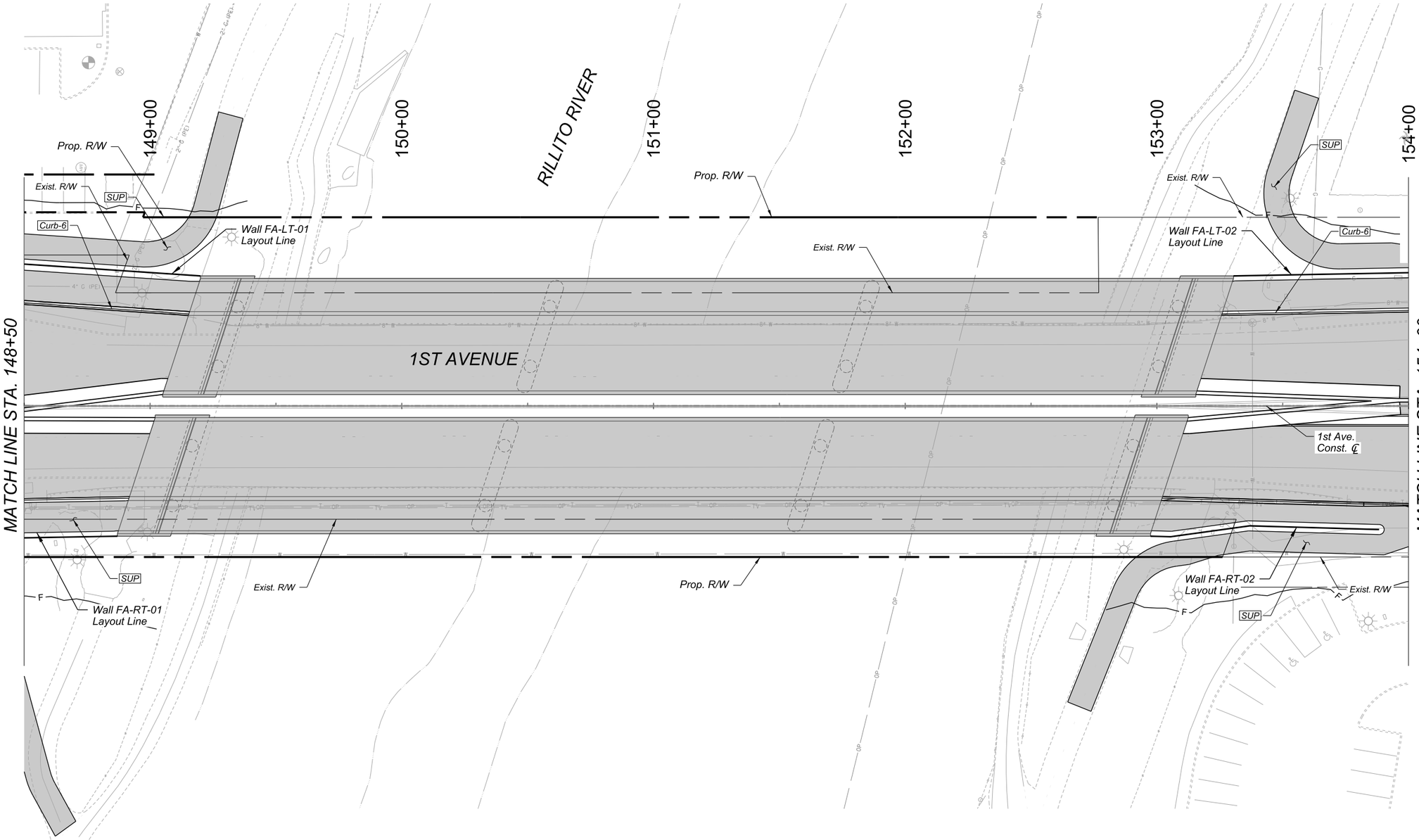
117 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-24B.dgn
8/26/2026 3:51:14 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:47:19 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



1st Ave 148+50 to 154+00
PAVING PLAN

SHEET 49 OF 103

SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

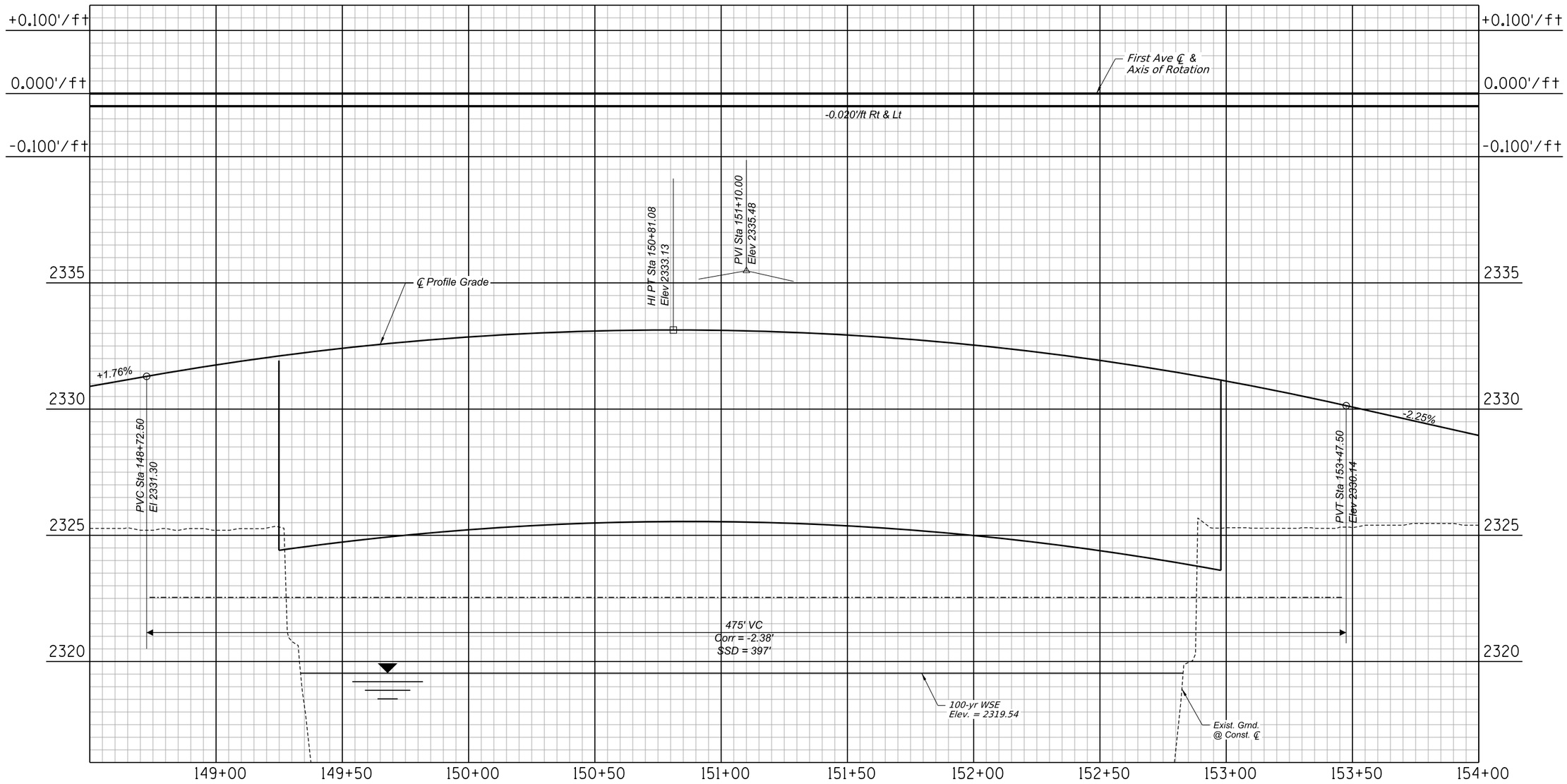
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026

SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

118 OF 504

c:\pwworking\west01\d3987900\02C-25A.dgn
8/26/2026 3:47:19 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:30:21 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvEr: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 148+50 to 154+00
PAVING PROFILE

SHEET 50 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

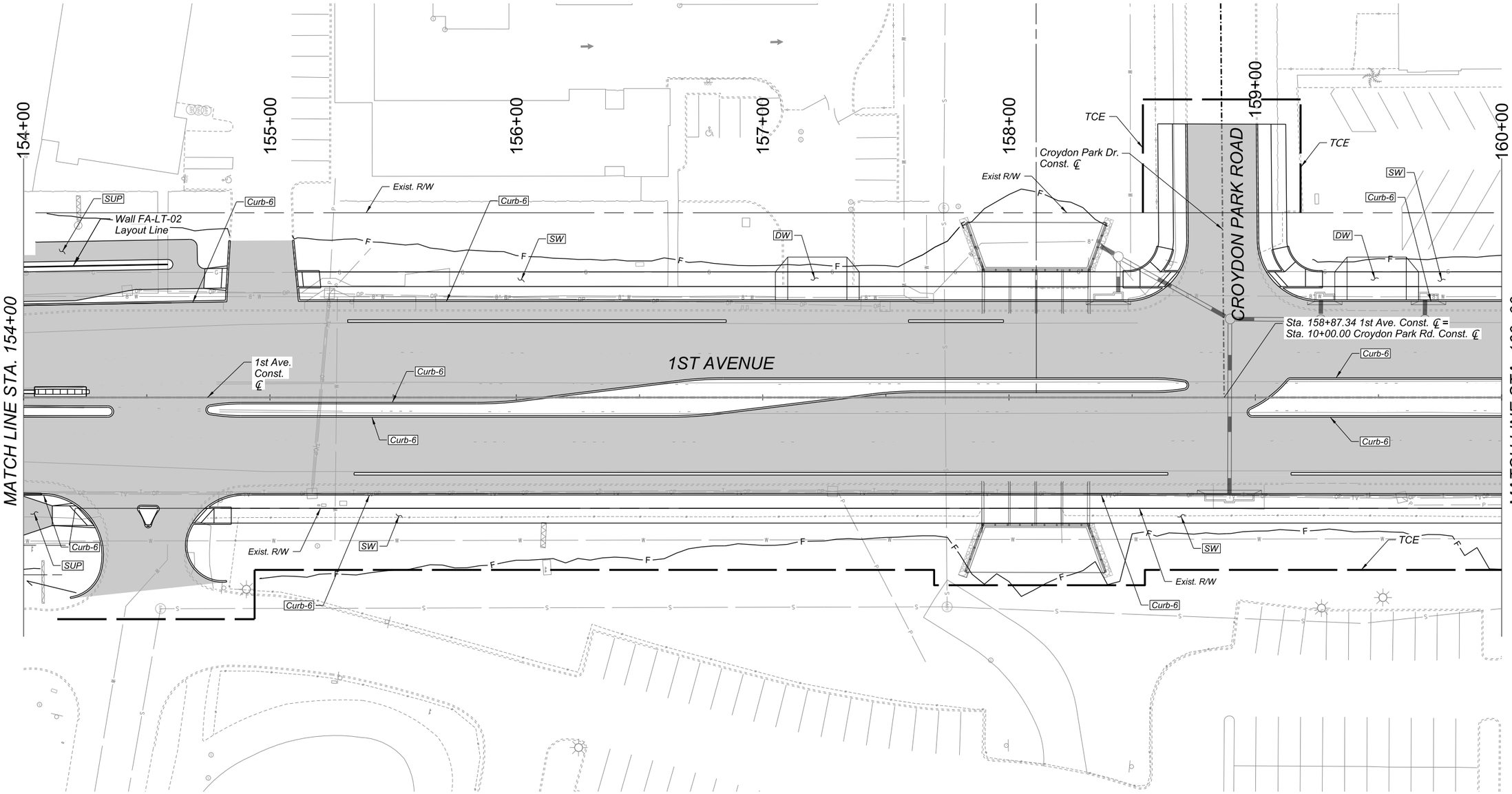
119 OF 504

CITY OF TUCSON

DRWN. BY JAR	CHKD. BY JMF	APPR. BY BJK	SCALE: H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-25B.dgn
8/26/2026 3:30:21 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:49:33 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentables: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_twpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 154+00 to 160+00
PAVING PLAN

SHEET 51 OF 103

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

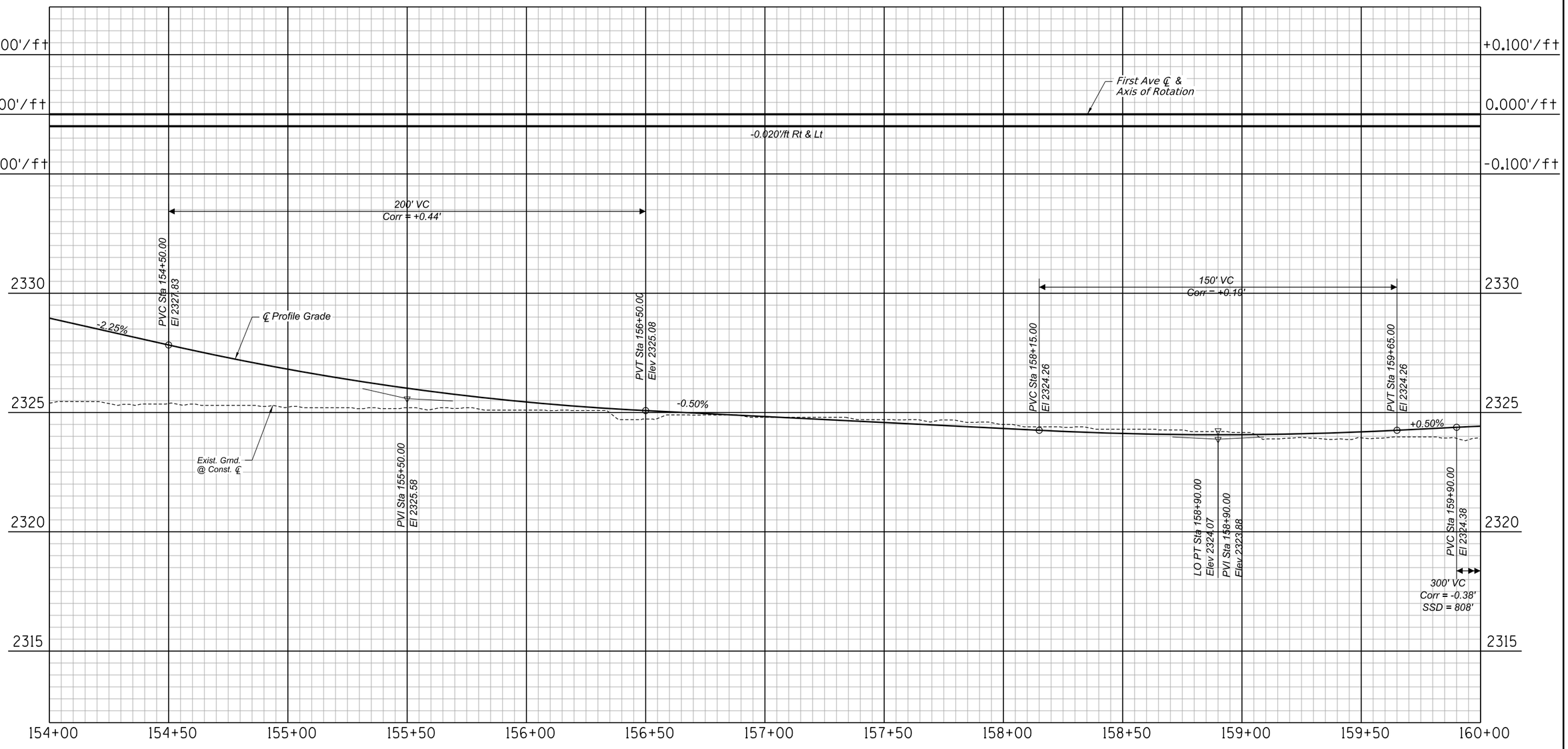
120 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-26A.dgn
8/26/2026 3:49:33 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:24:34 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPNAA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 154+00 to 160+00
PAVING PROFILE

SHEET 52 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

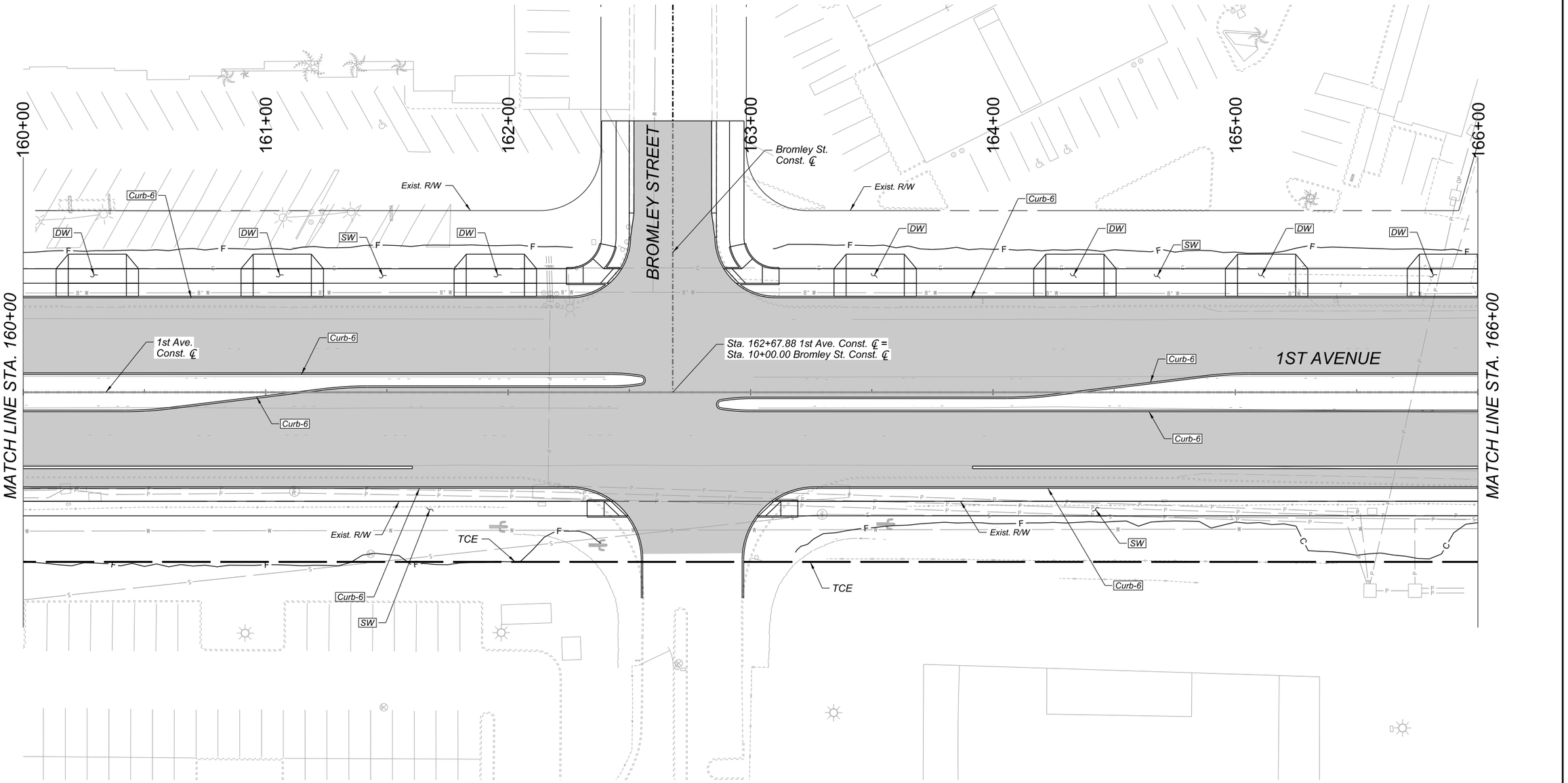
121 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR	JMF	BJK	
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-26B.dgn
8/26/2026 3:24:34 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:23:06 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

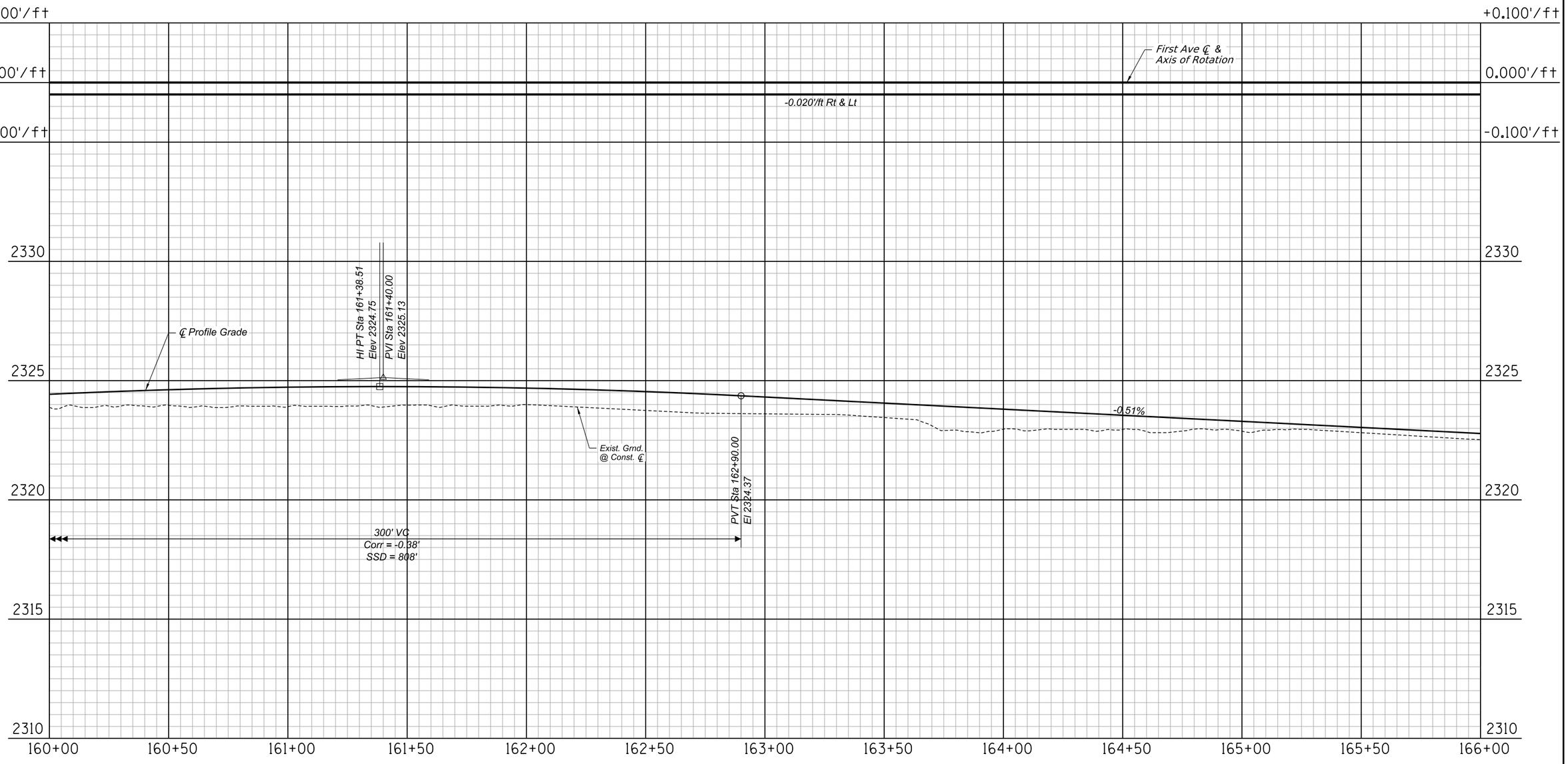
122 OF 504

1st Ave 160+00 to 166+00
PAVING PLAN

SHEET 53 OF 103

c:\pwworking\west01\d3987900\02C-27A.dgn
8/26/2026 3:23:06 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:18:52 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 160+00 to 166+00
PAVING PROFILE

SHEET 54 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

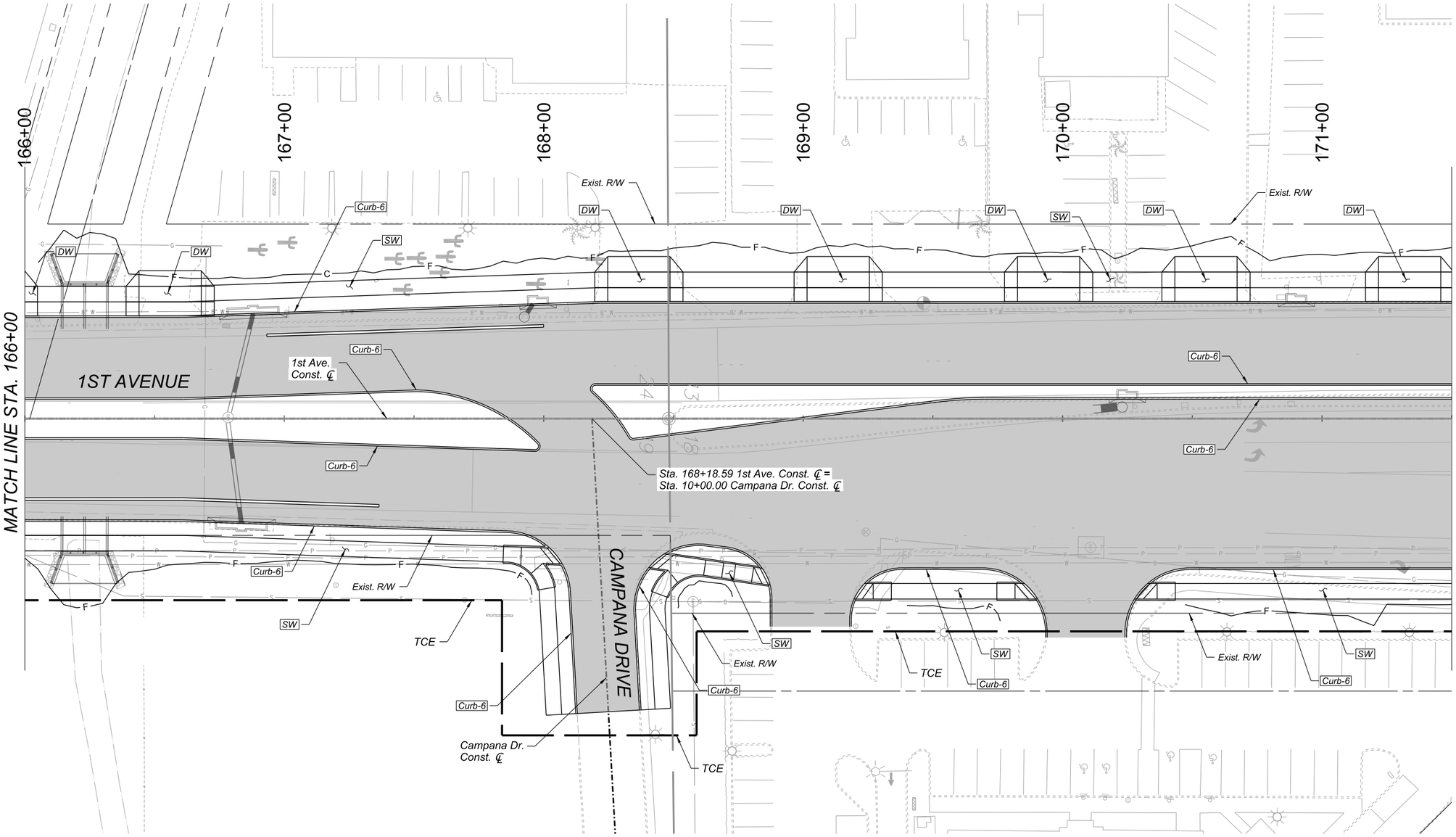
123 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-27B.dgn
8/26/2026 3:18:52 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:16:06 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109



1st Ave 166+00 to 171+50
PAVING PLAN

SHEET 55 OF 103

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

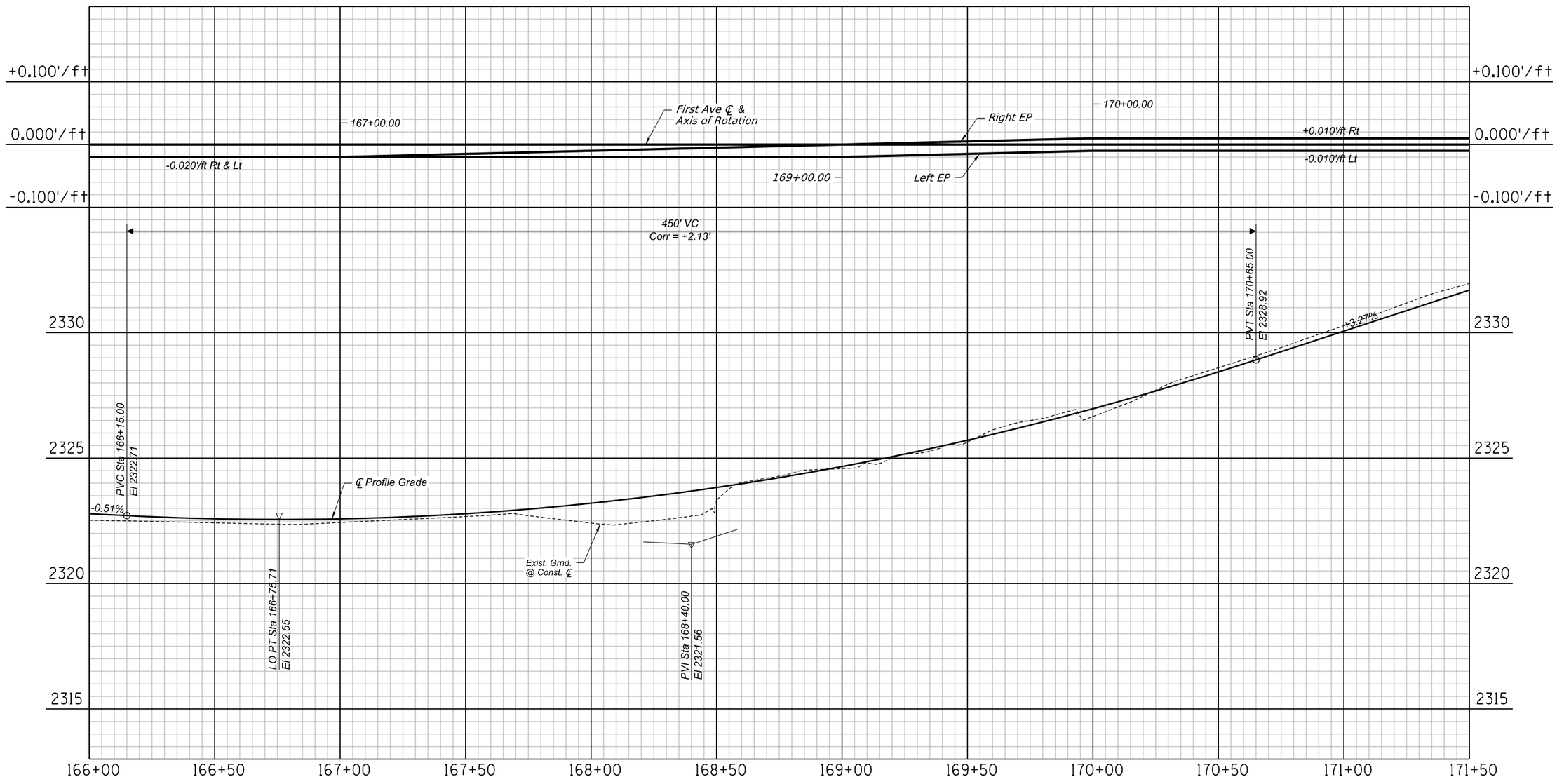
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-28A.dgn
8/26/2026 3:16:06 PM

OpenRoads Designer v10.12.02.4
8/26/2026
3:12:42 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 166+00 to 171+50
PAVING PROFILE

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

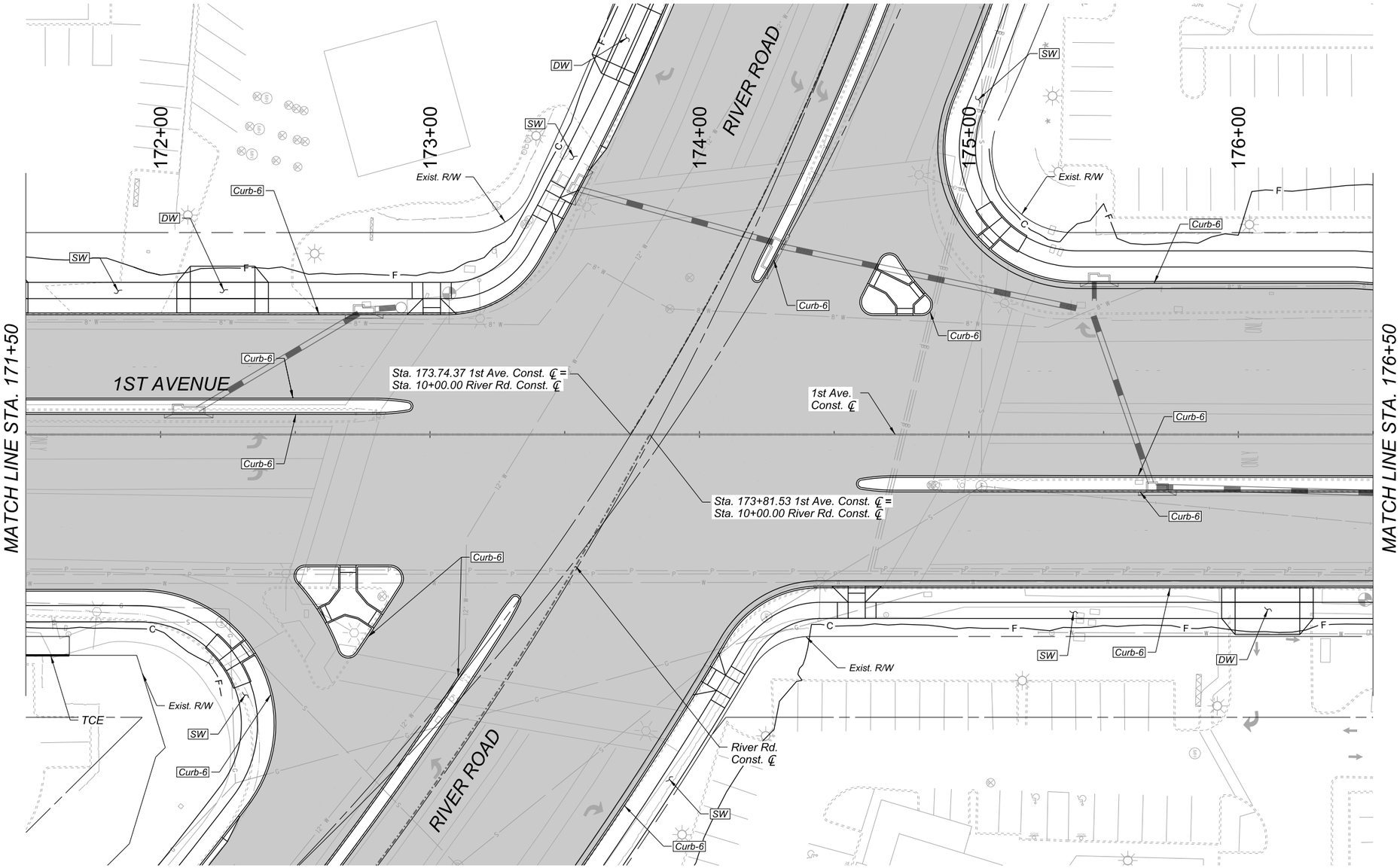
125 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR	JMF	BJK	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

c:\pwworking\west01\d3987900\02C-28B.dgn
8/26/2026 3:12:42 PM

Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109
2:20:24 PM 8/26/2026 OpenRoads Designer v10.12.02.4



1st Ave 171+50 to 176+50
PAVING PLAN

SHEET 57 OF 103

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

126 OF 504

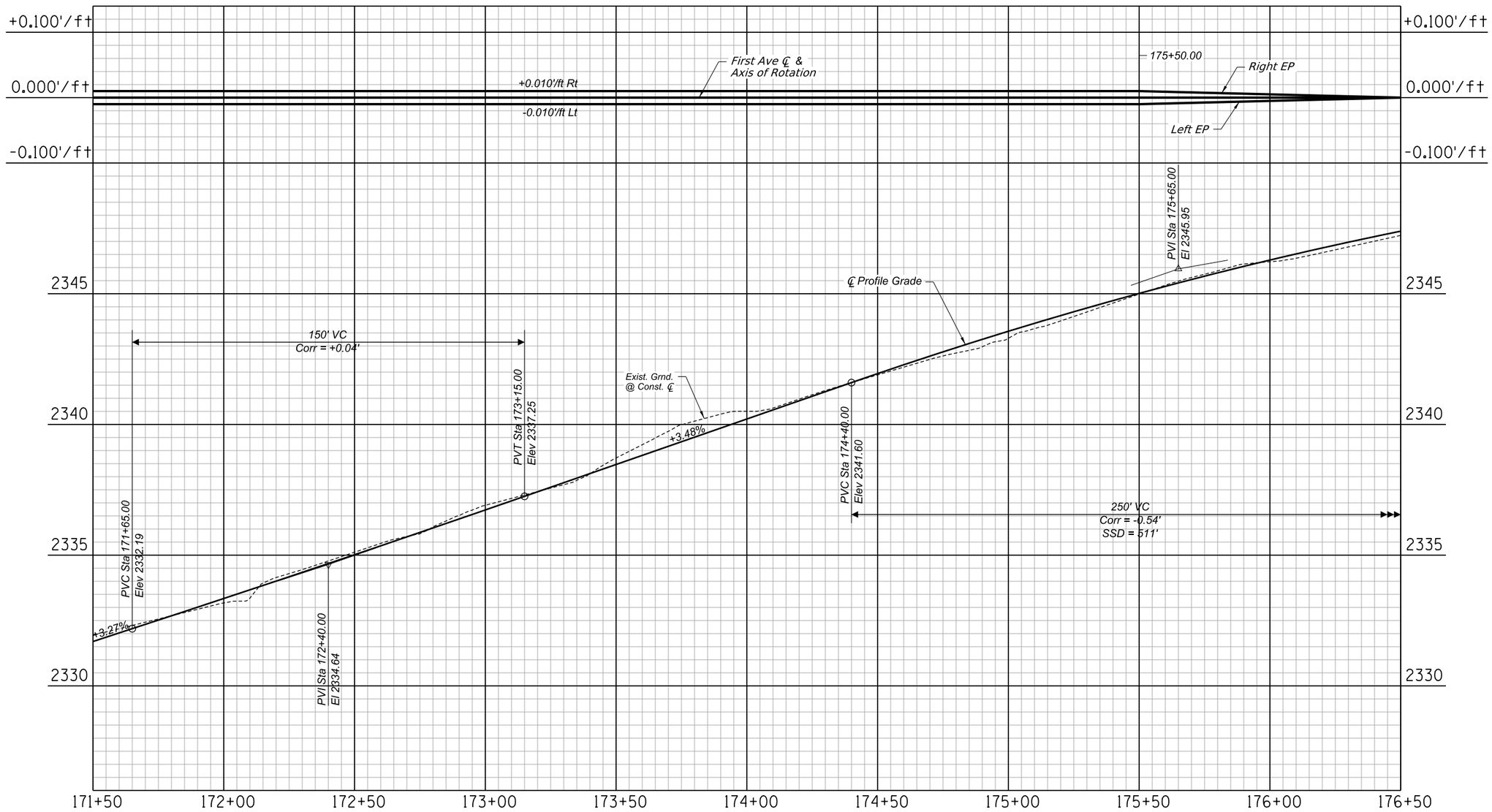
CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026

SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-29A.dgn
8/26/2026 2:20:24 PM

OpenRoads Designer v10.12.02.4
8/26/2026
2:30:34 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 171+50 to 176+50
PAVING PROFILE

SHEET 58 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

127
OF
504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-29B.dgn
8/26/2026 2:30:34 PM

OpenRoads Designer v10.12.02.4
8/26/2026
2:28:47 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMAAMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

128 OF 504

CITY OF TUCSON

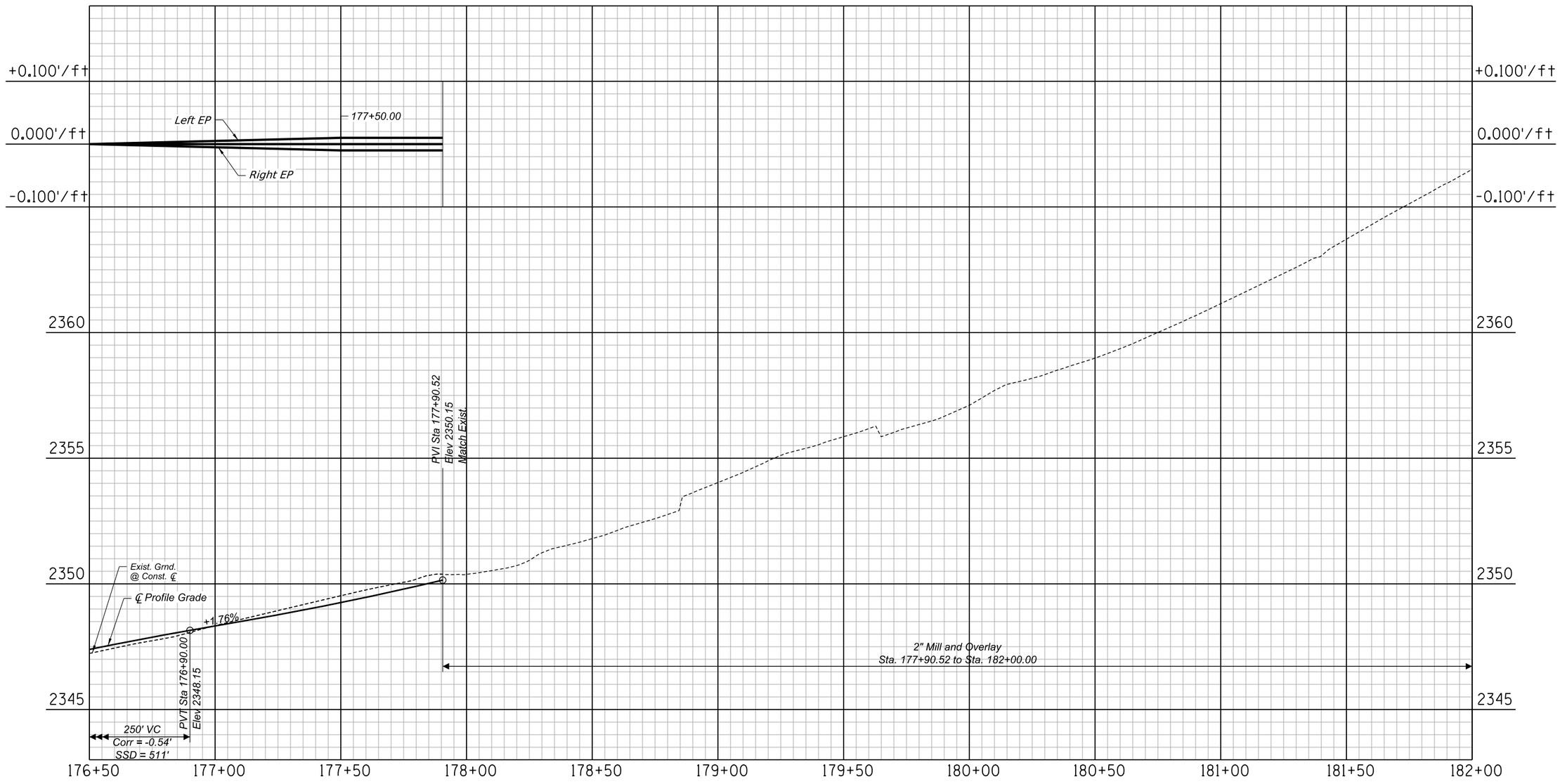
DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20'
JAR	JMF	BJK	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

1st Ave 176+50 to End
PAVING PLAN

SHEET 59 OF 103

c:\pwworking\west01\d3987900\02C-30A.dgn
8/26/2026 2:28:47 PM

OpenRoads Designer v10.12.02.4
8/26/2026
2:22:11 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1st Ave 176+50 to End
PAVING PROFILE

SHEET 60 OF 103

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

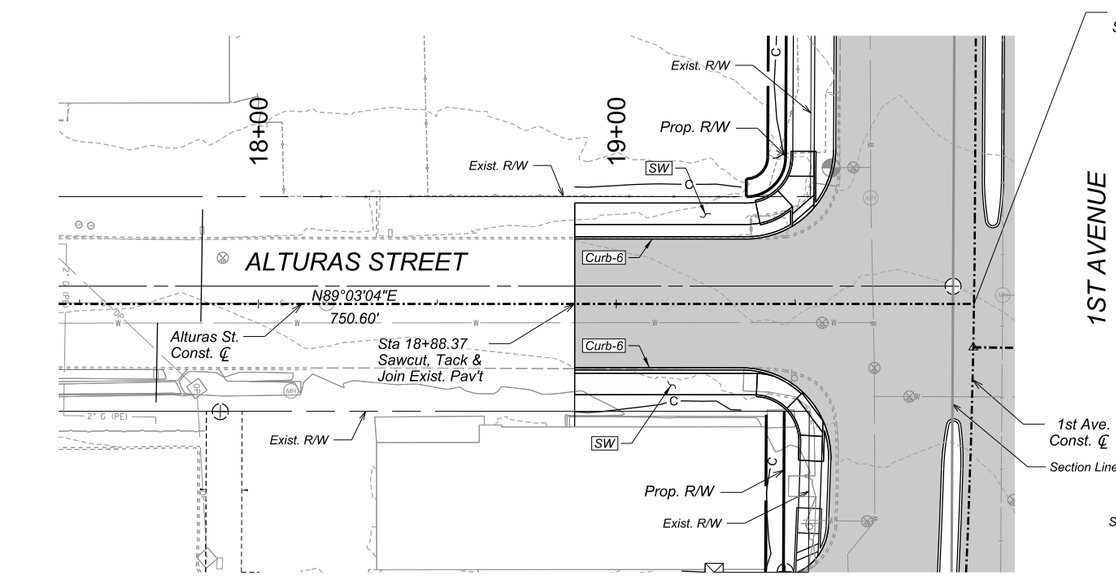
129 OF 504

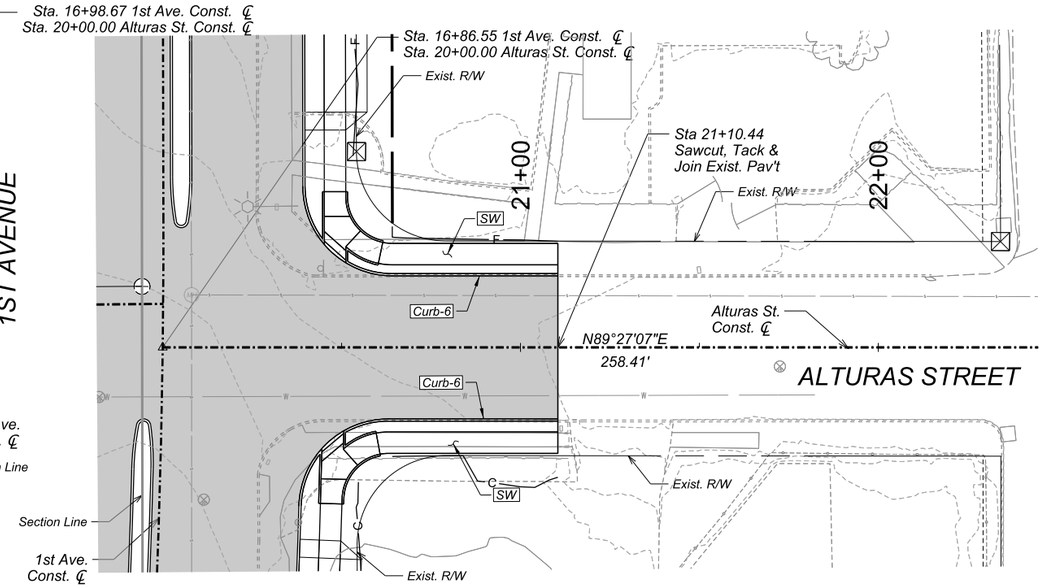
CITY OF TUCSON

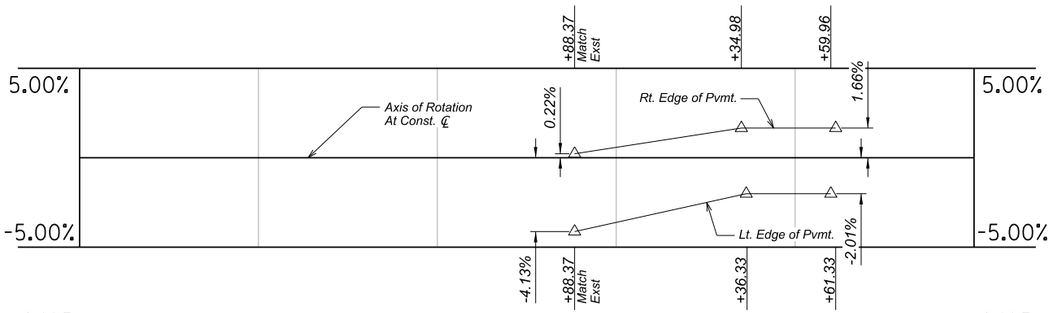
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

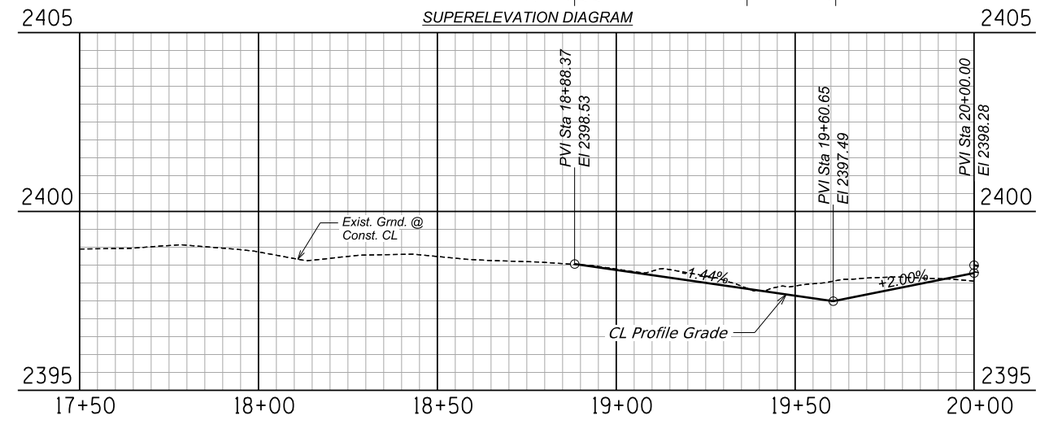
c:\pwworking\west01\d3987900\02C-30B.dgn
8/26/2026 2:22:11 PM

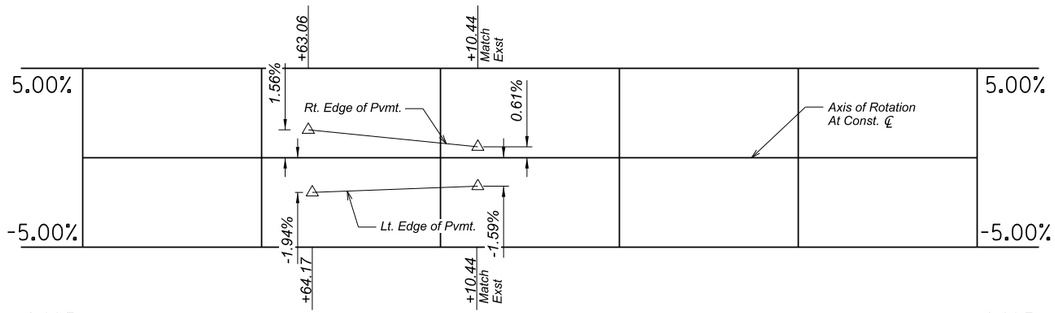
OpenRoads Designer v10.12.03.2
8/14/2026
2:34:52 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_DwgtoPlt.cfg
Project ID:
Client Number: 4109

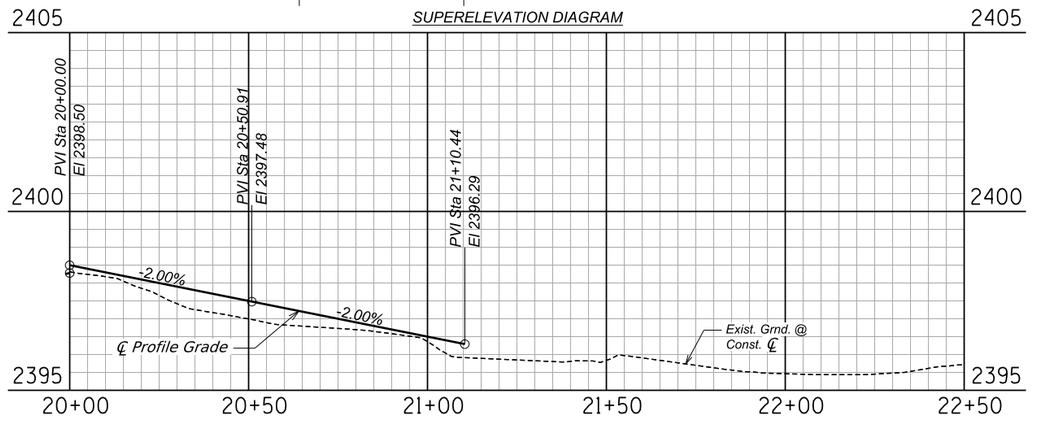


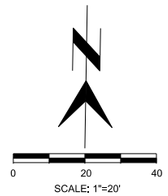












Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

ALTURAS ST
PAVING PLAN & PROFILE

Sheet 61 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

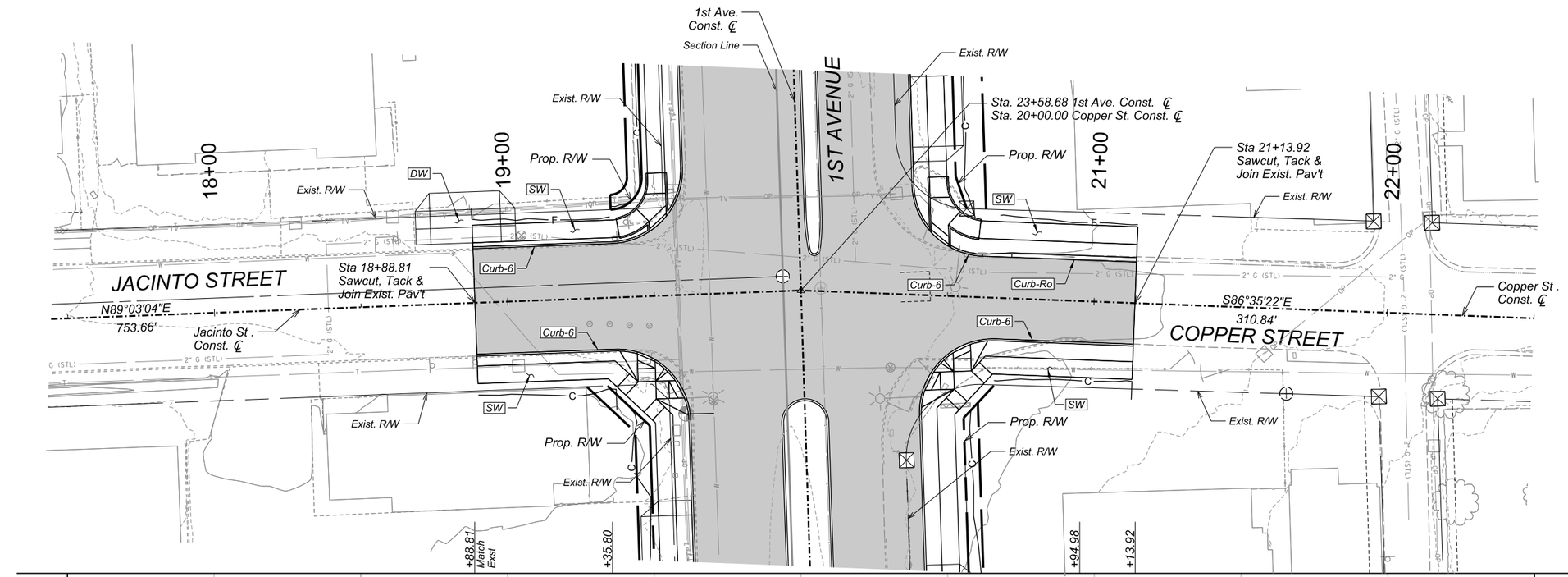
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

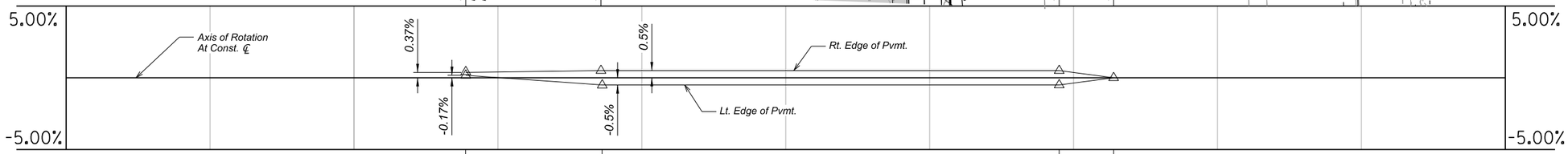
130 OF 504

CITY OF TUCSON

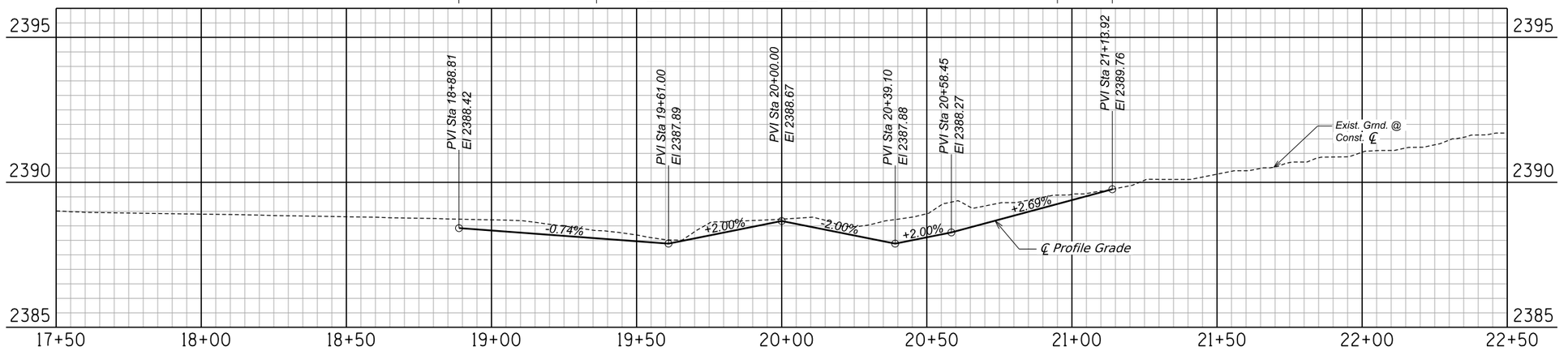
DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-31.dgn
8/14/2026 2:34:52 PM





SUPERELEVATION DIAGRAM



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

EPS GROUP

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

JACINTO ST/COPPER ST
PAVING PLAN & PROFILE

Sheet 62 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

131 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1"=20' V: 1" = 2'
REC	JDB	JDB	PLAN NO. R-2024-XXX
JUN 2026	JUN 2026	JUN 2026	

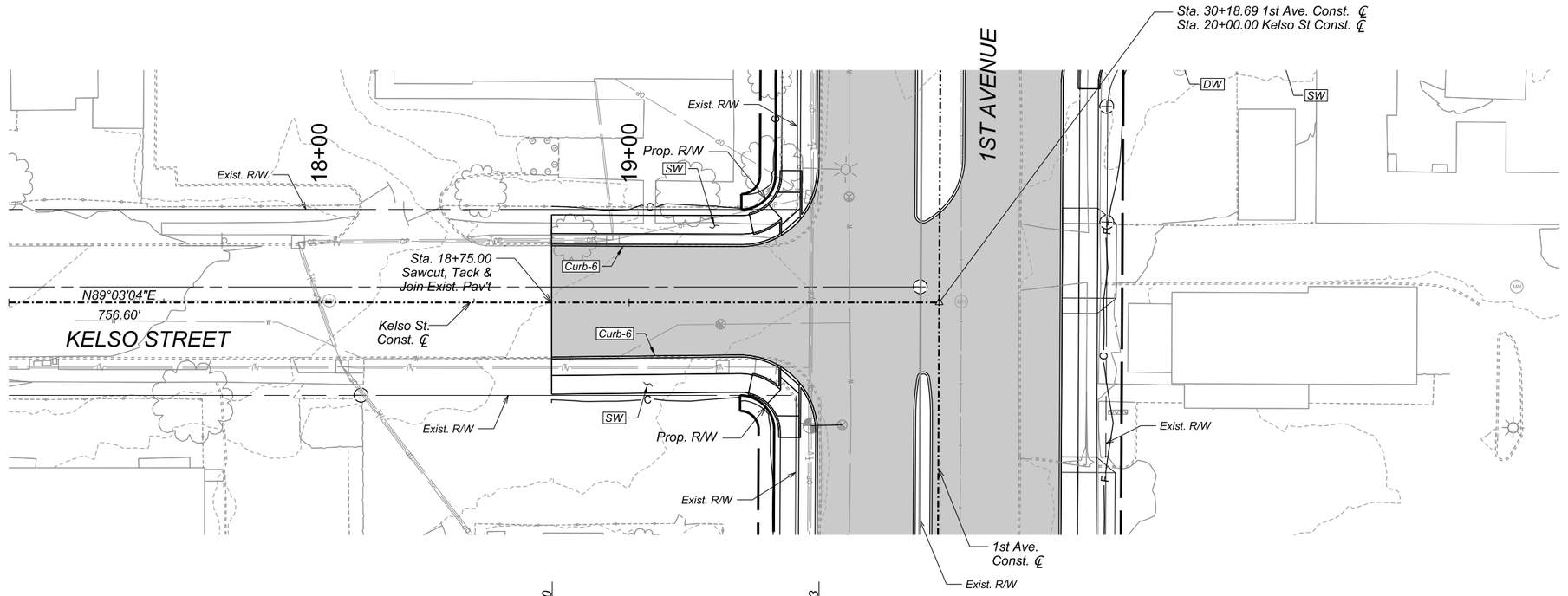
Project ID:
Client Number: 4109

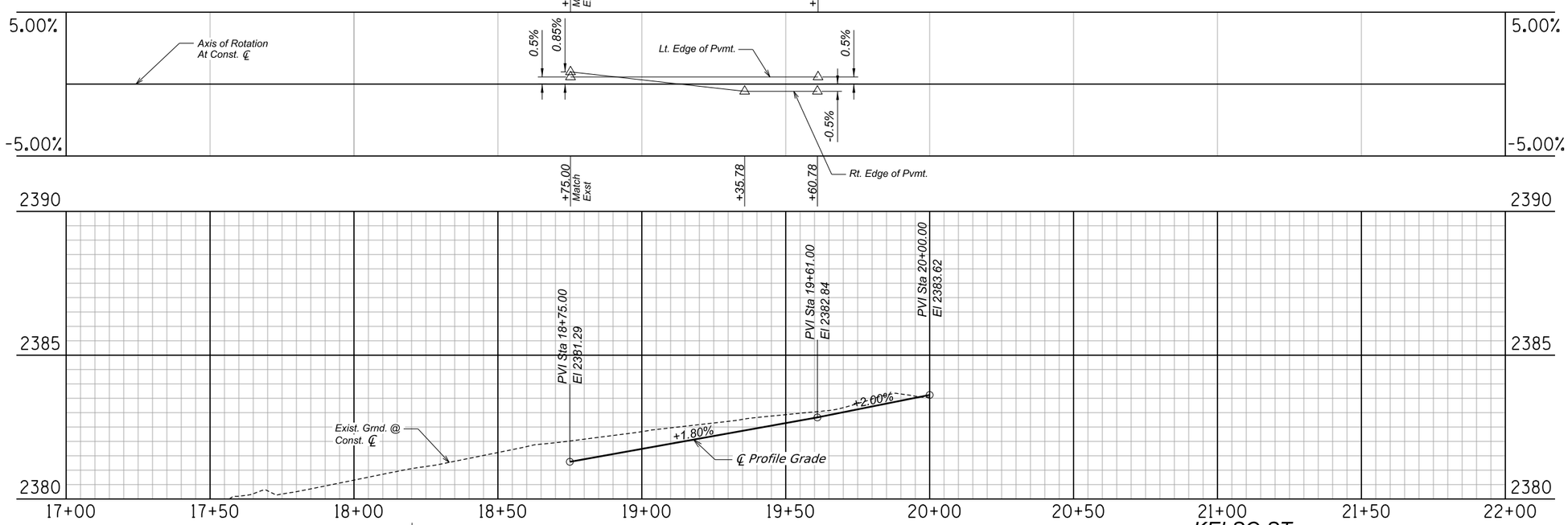
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg

Printed by: tallison
Print Scale: 1:1

8/14/2026 2:35:10 PM OpenRoads Designer v10.12.03.2

c:\pwworking\west01\d4377897\02C-32.dgn
8/14/2026 2:35:10 PM





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

KELSO ST
PAVING PLAN & PROFILE

Sheet 63 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

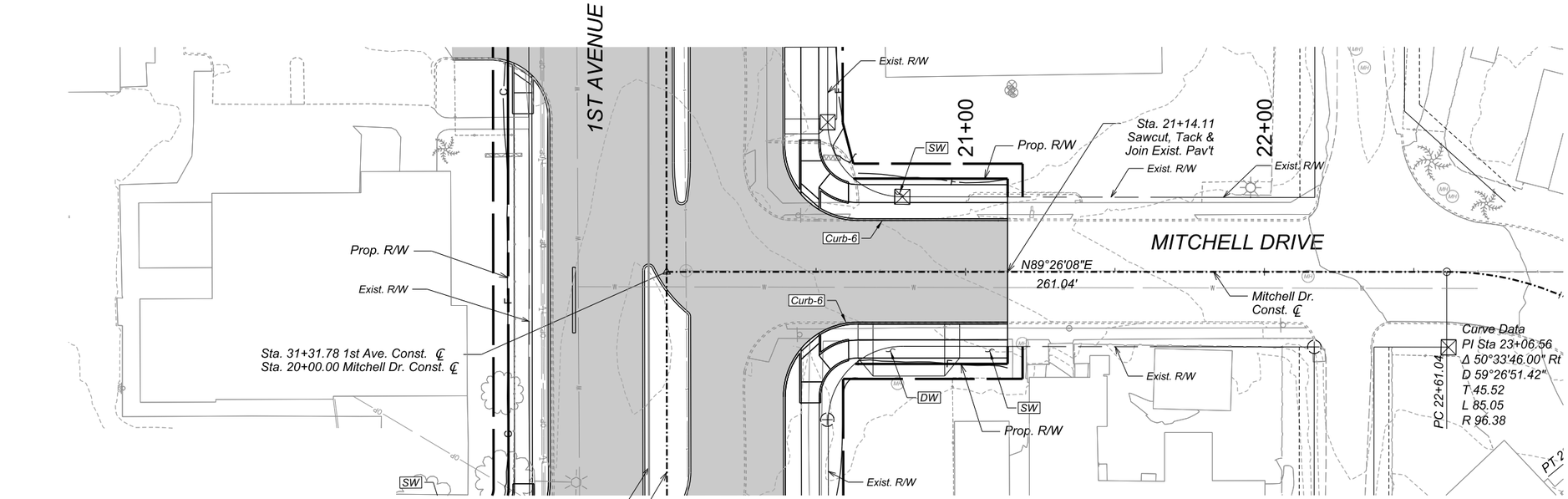
CITY OF TUCSON

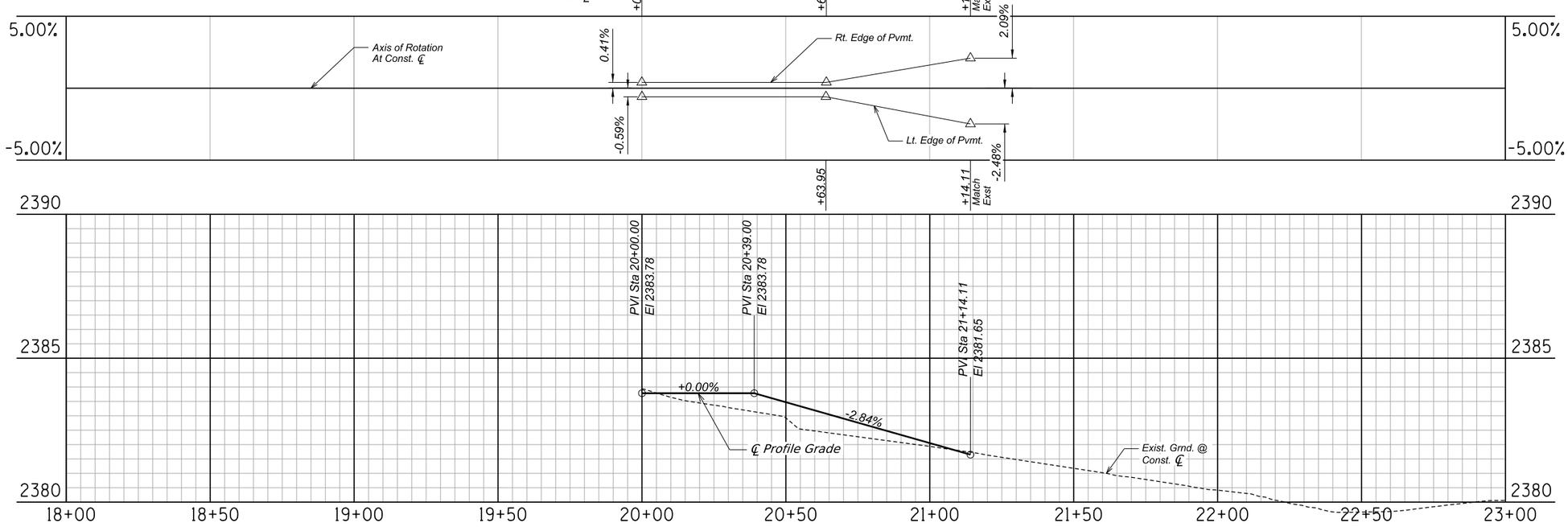
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
REC	JDB	JDB	H: 1"=20' V: 1"= 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

132 OF 504

OpenRoads Designer v10.12.03.2
8/14/2026
2:35:28 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4377897\02C-33A.dgn
8/14/2026 2:35:28 PM

OpenRoads Designer v10.12.03.2
8/14/2026
2:35:45 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.altcfg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% SUBMITTAL
Preliminary
Not For
Construction

MITCHELL DR
PAVING PLAN & PROFILE

Sheet 64 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

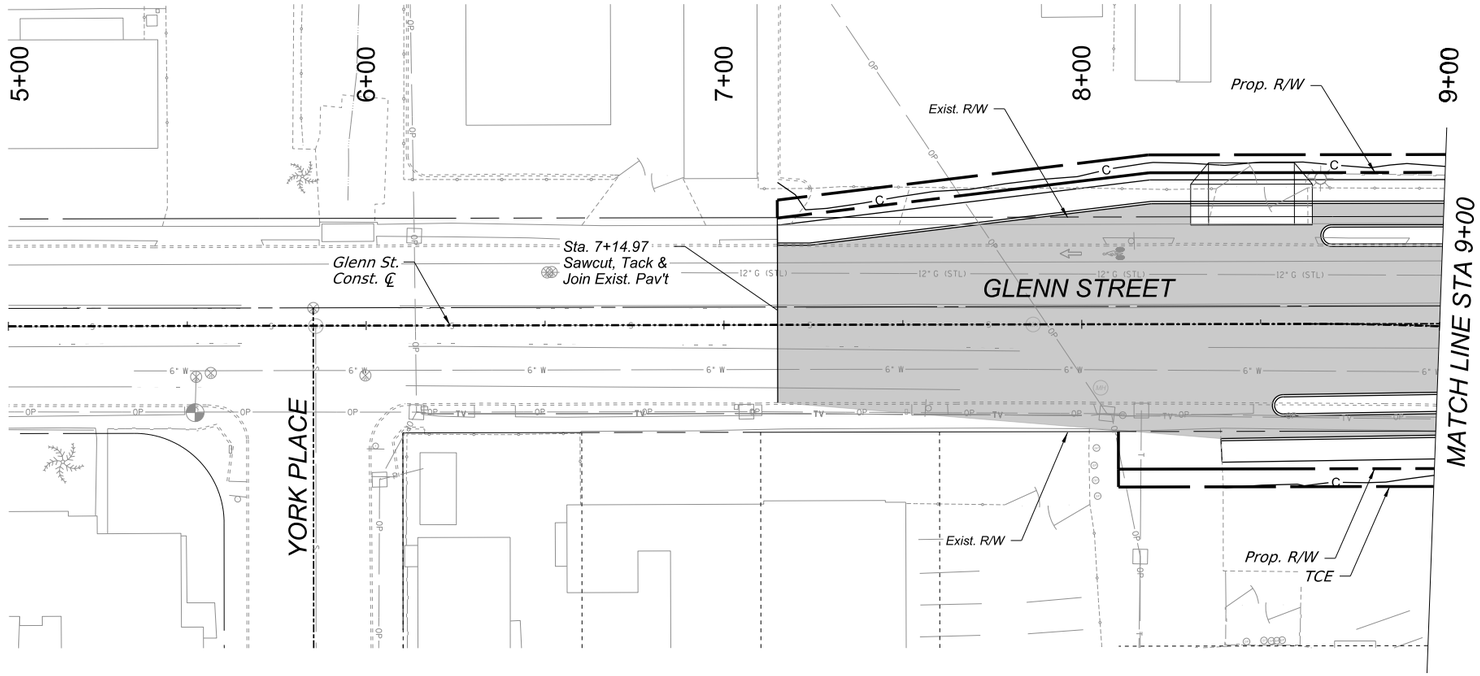
133 OF 504

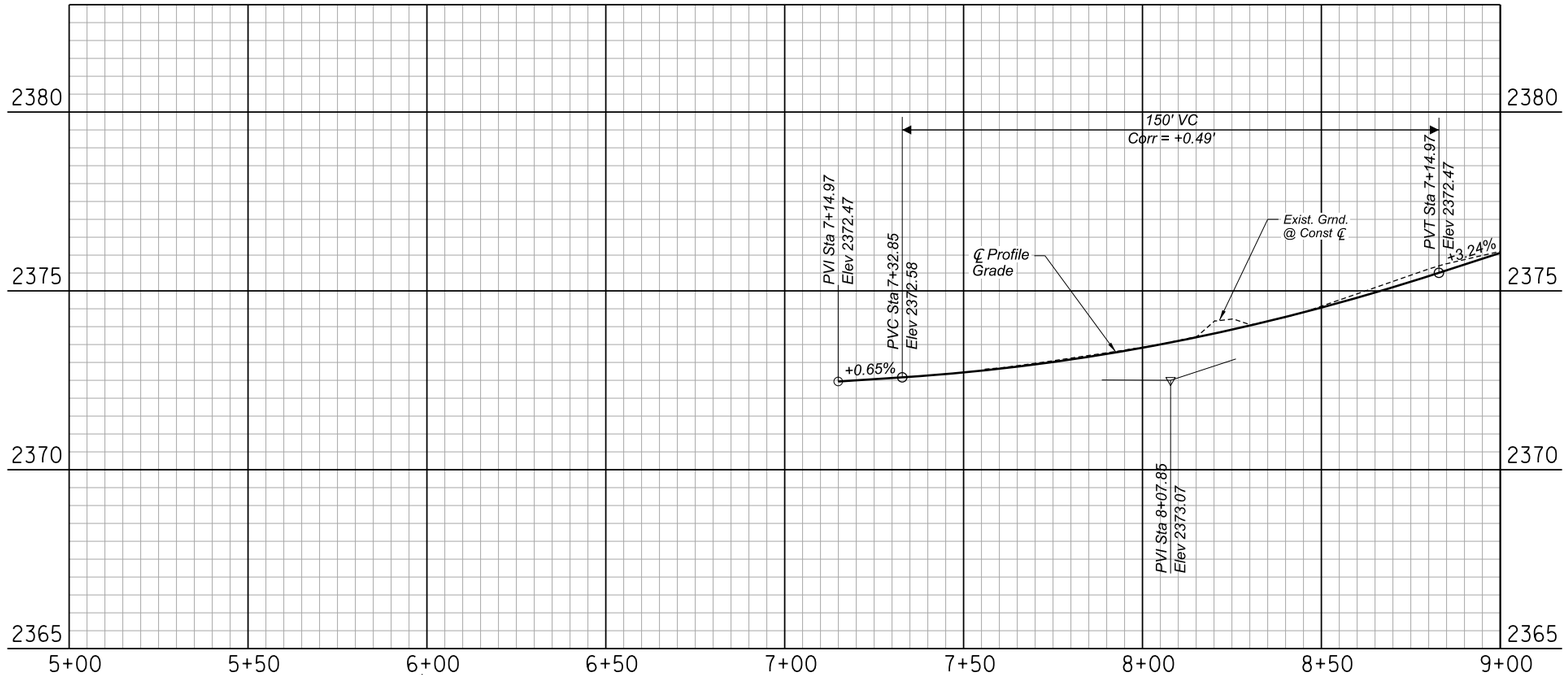
CITY OF TUCSON

DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-33B.dgn
8/14/2026 2:35:45 PM

OpenRoads Designer v10.12.02.4
8/26/2026
11:33:04 AM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

GLENN ST
PAVING PLAN & PROFILE

SHEET 65 OF 103

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

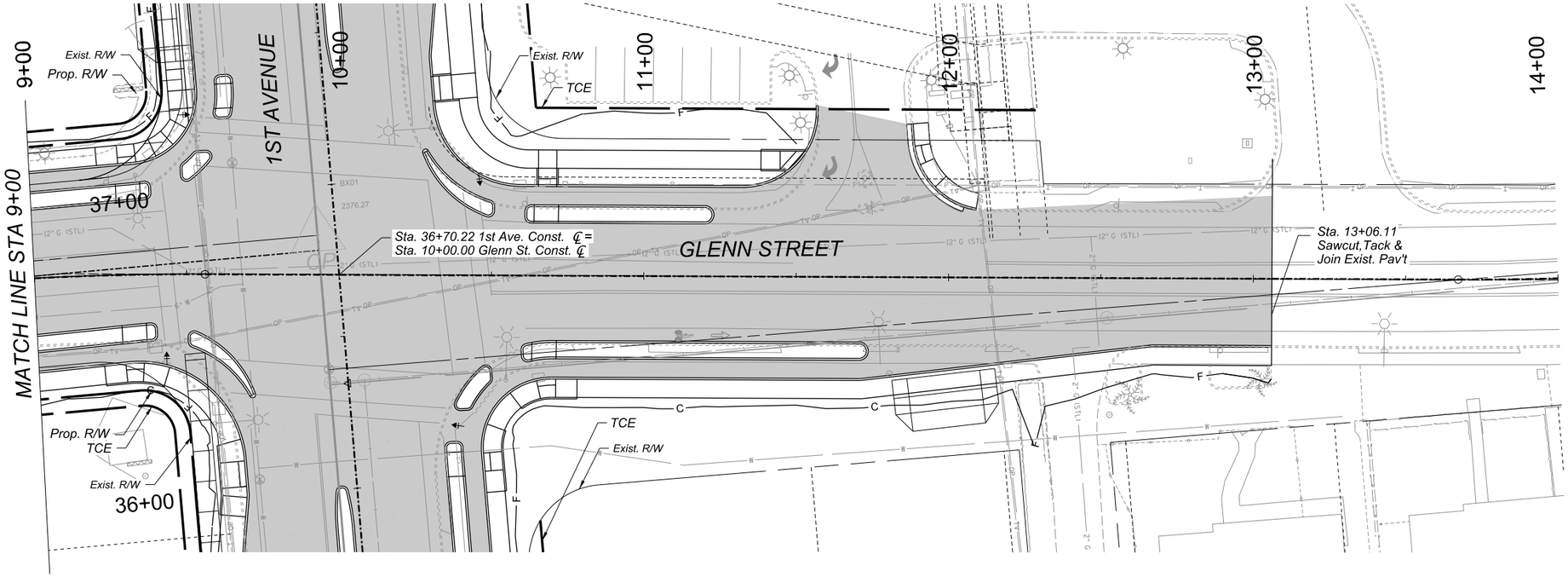
134 OF 504

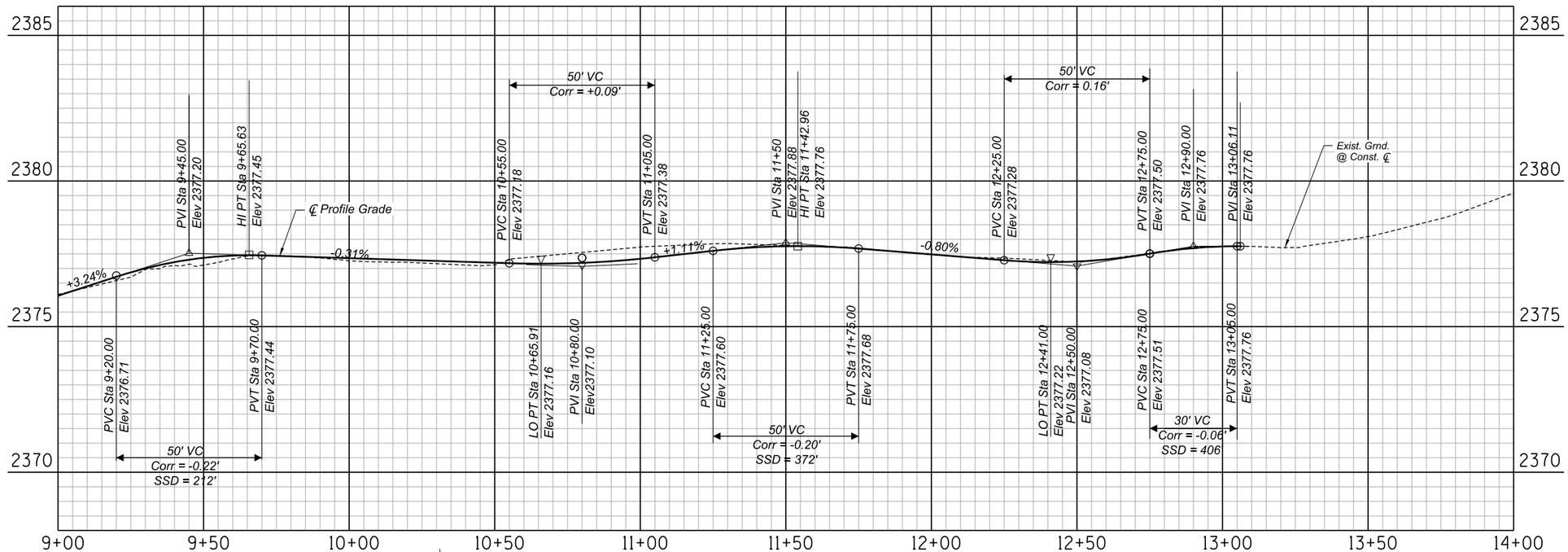
CITY OF TUCSON

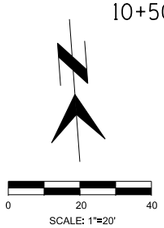
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-34.dgn
8/26/2026 11:33:04 AM

OpenRoads Designer v10.12.02.4
8/20/2026
9:24:05 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

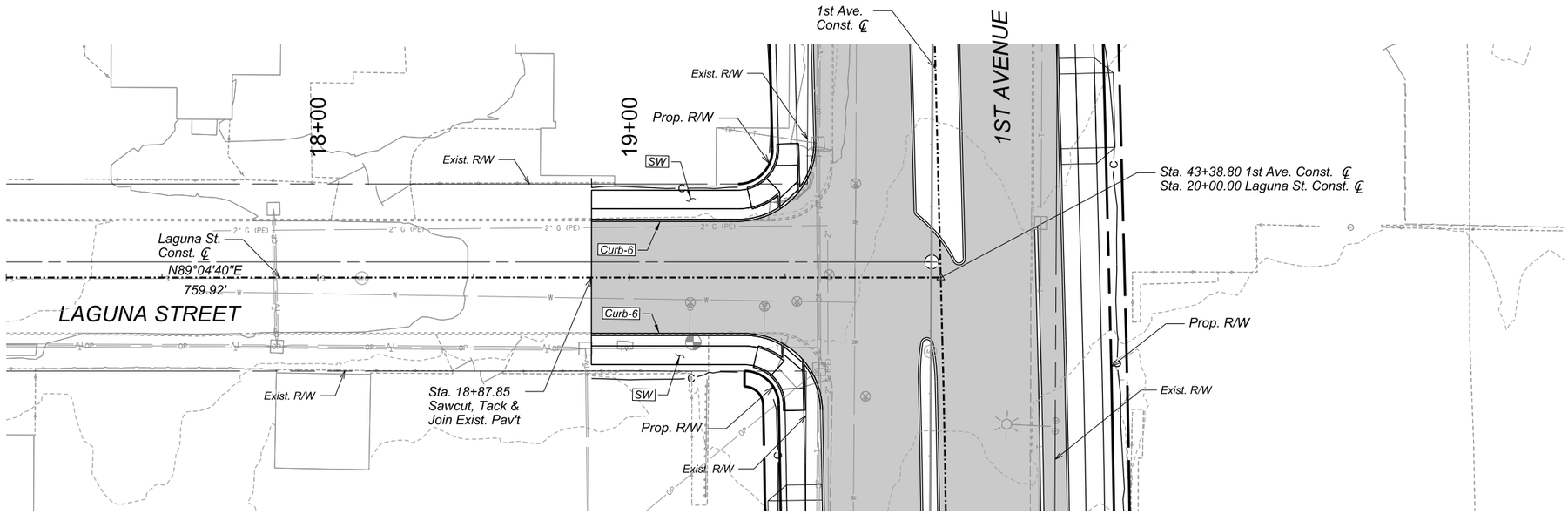
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

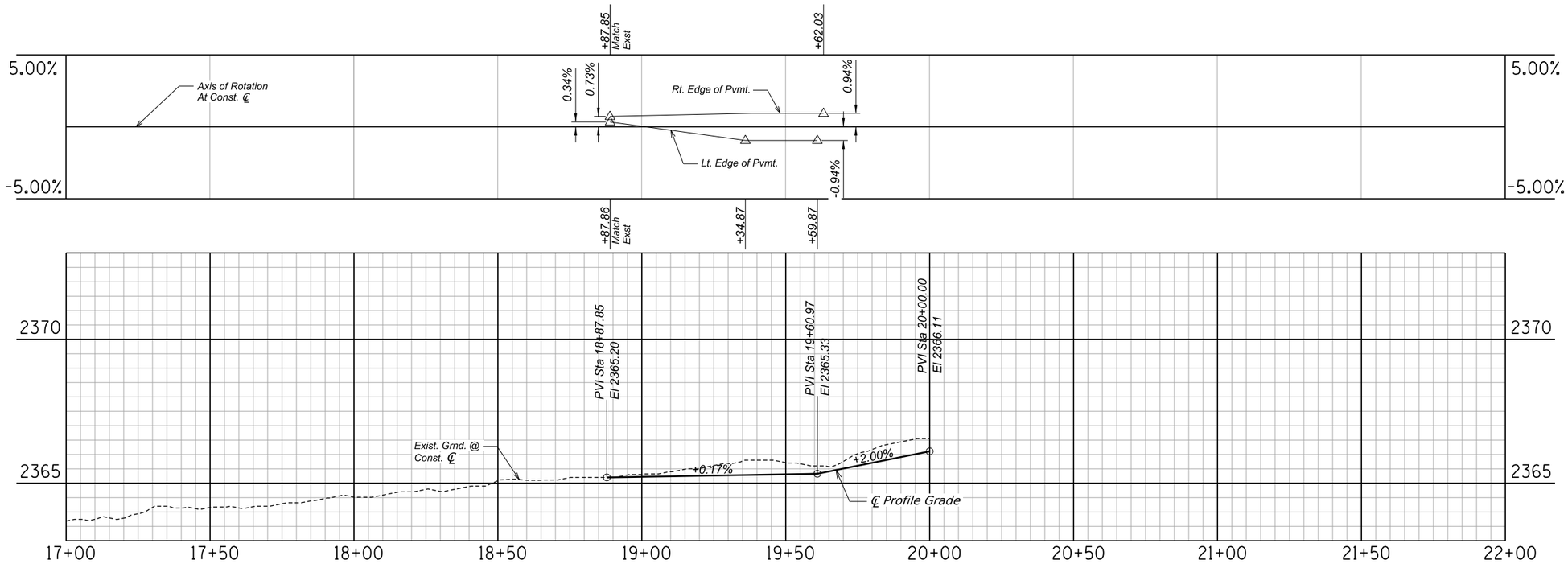
GLENN ST
PAVING PLAN & PROFILE

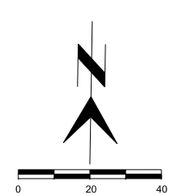
SHEET 66 OF 102

135 OF 504

c:\pwworking\west01\d3987900\02C-35.dgn
8/20/2026 9:24:05 AM







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

LAGUNA ST
PAVING PLAN & PROFILE

Sheet 67 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

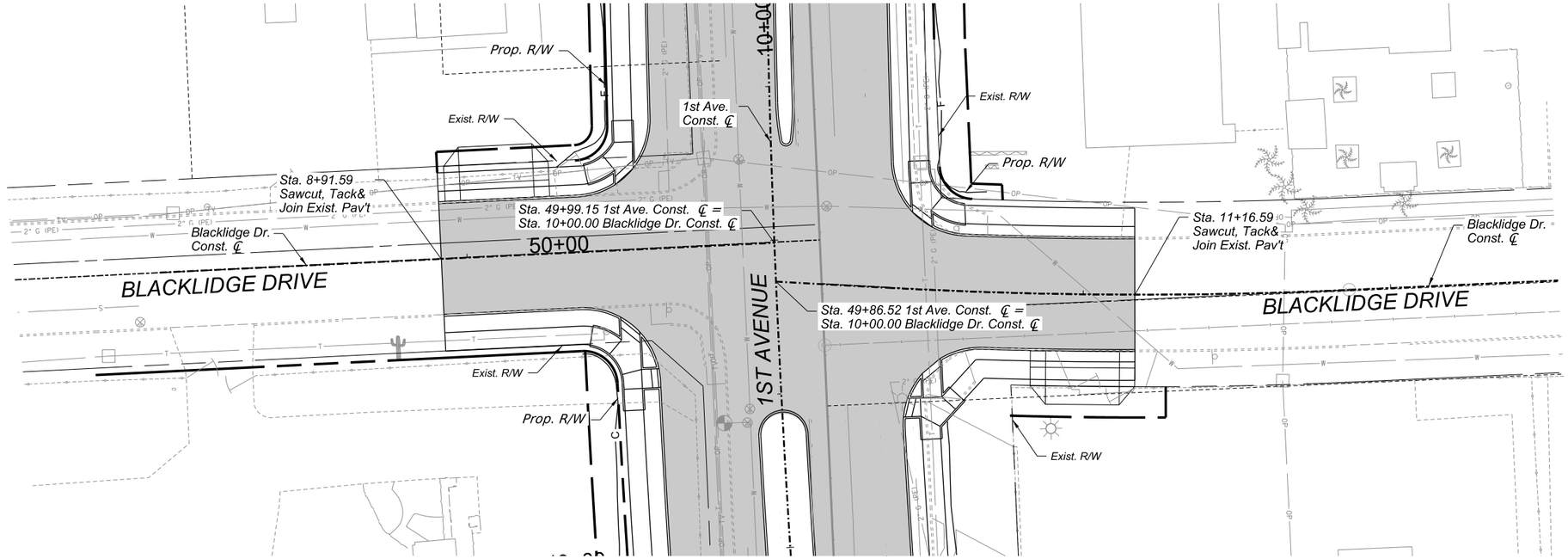
136 OF 504

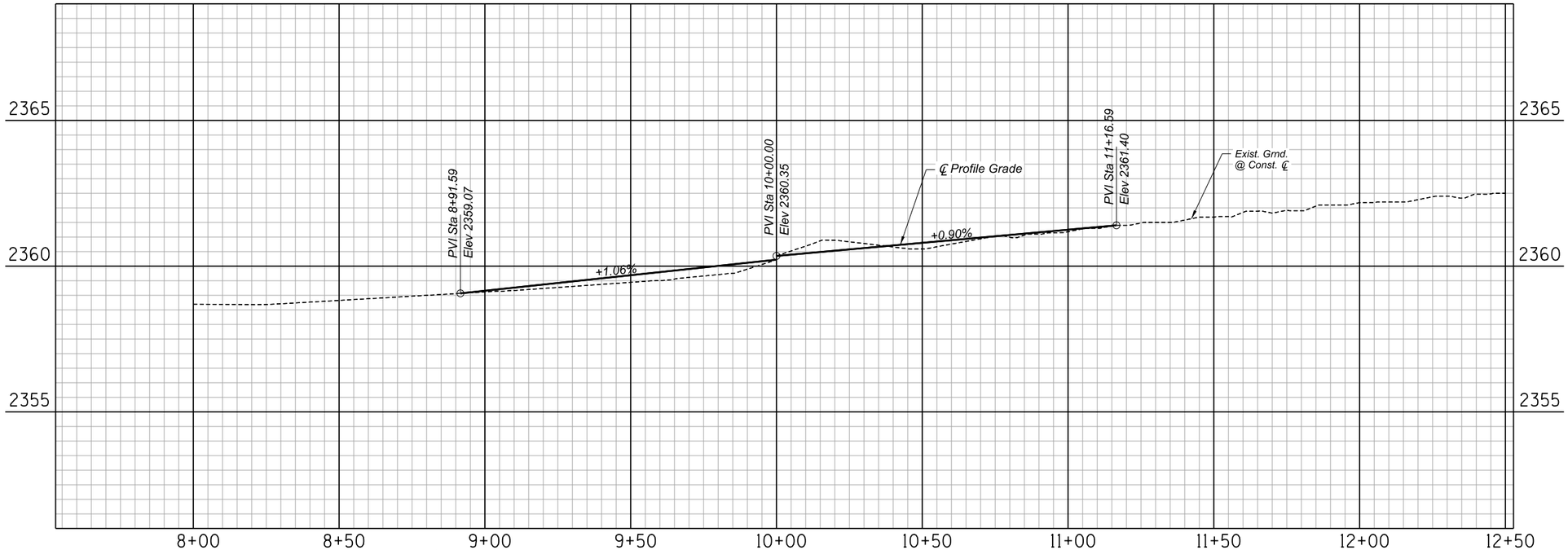
CITY OF TUCSON

DRWN. BY REC JUN 2026
CHKD. BY JDB JUN 2026
APPR. BY JDB JUN 2026
SCALE: H: 1"=20' V: 1" = 2'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.03.2
8/14/2026
2:36:03 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4377897\02C-36.dgn
8/14/2026 2:36:03 PM





SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

137 OF 504

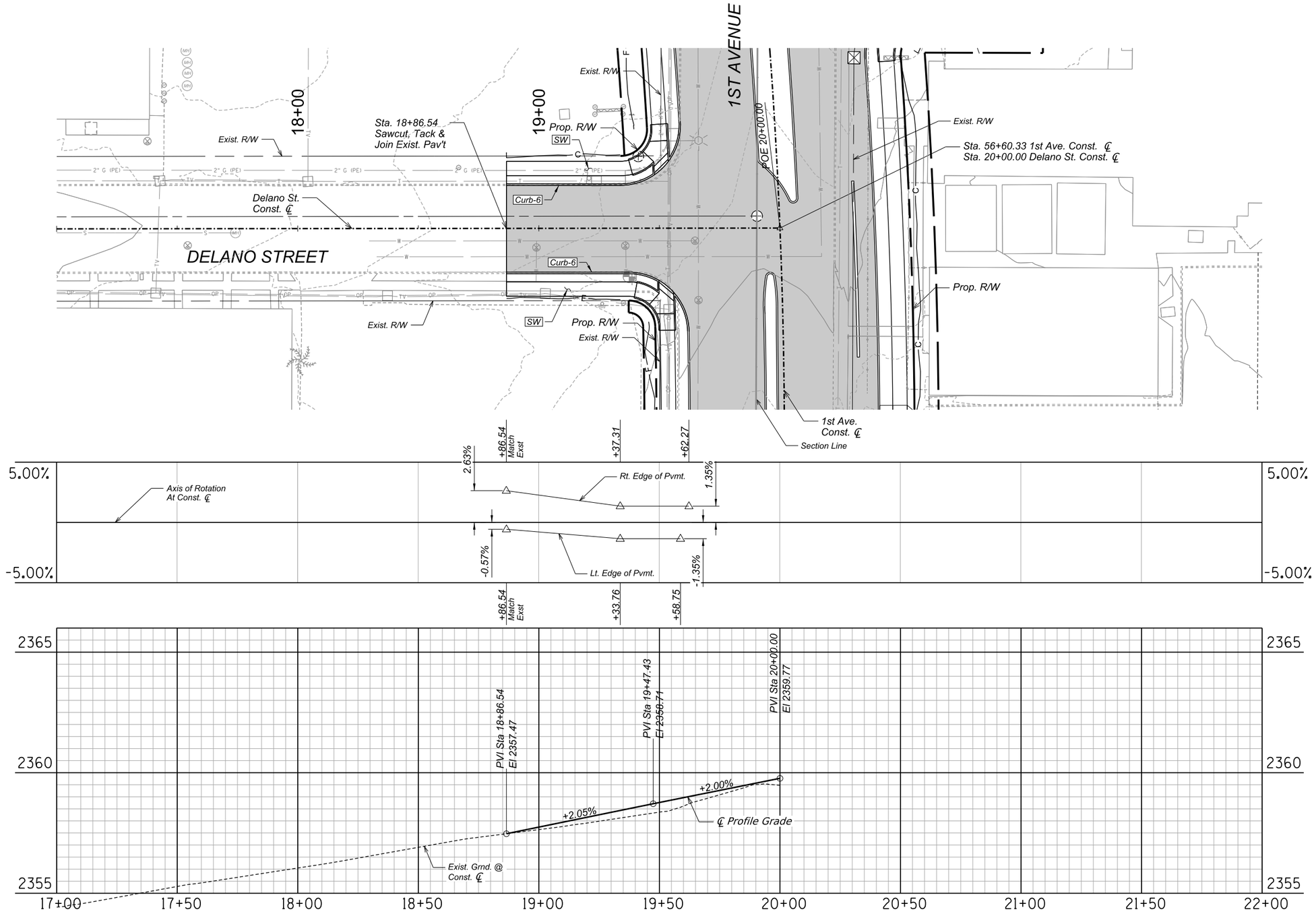
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

BLACKLIDGE DR
PAVING PLAN & PROFILE

SHEET 68 OF 102

OpenRoads Designer v10.12.02.4
8/20/2026
9:31:30 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\02C-37.dgn
8/20/2026 9:31:30 AM



0 20 40
SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

DELANO ST
PAVING PLAN & PROFILE

Sheet 69 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

138 OF 504

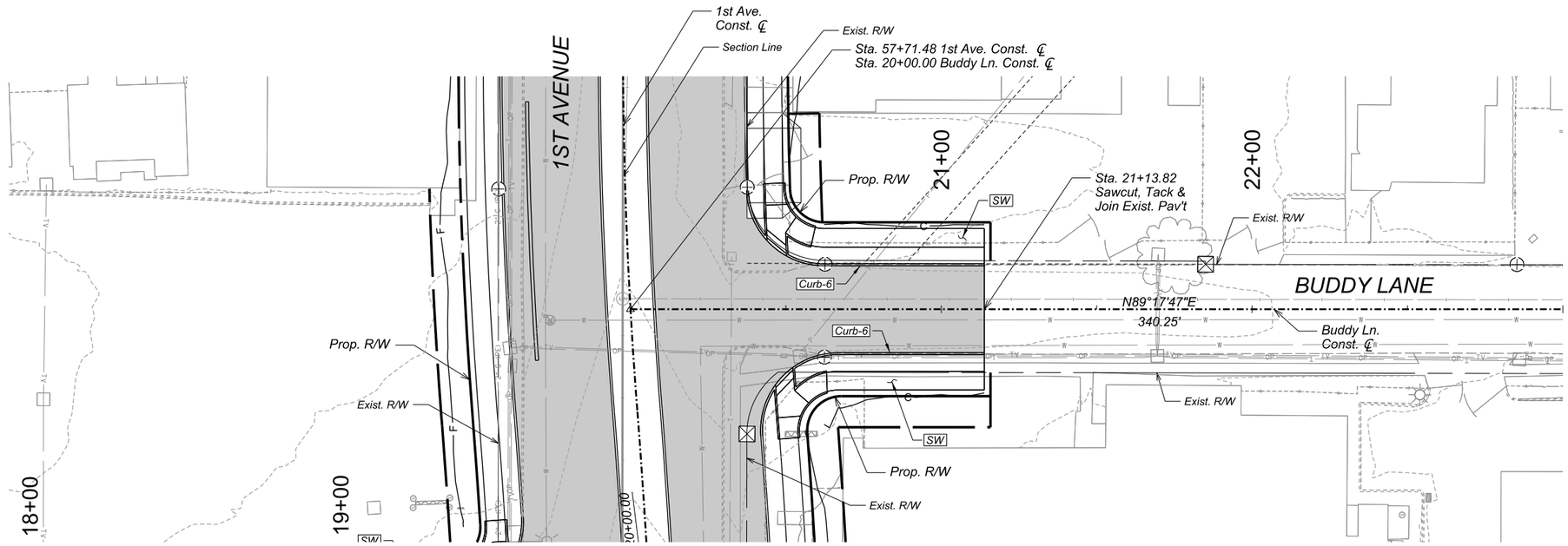
CITY OF TUCSON

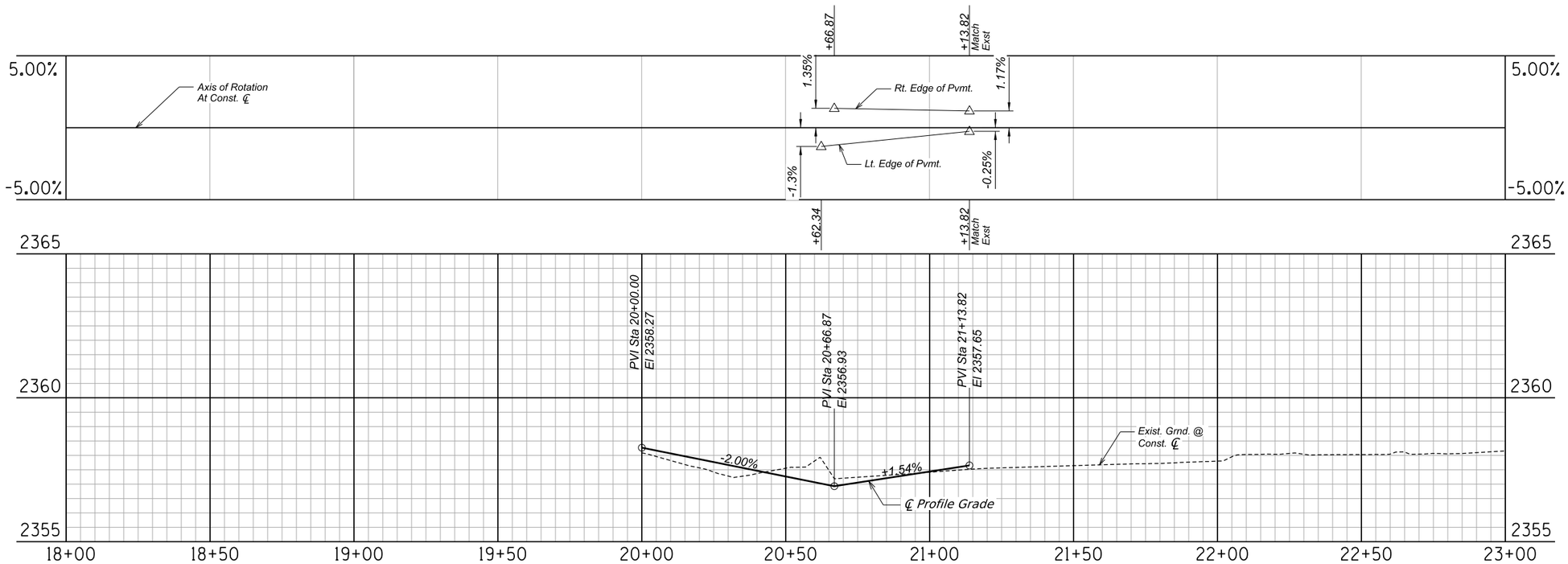
DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.03.2
8/14/2026
2:36:20 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4377897\02C-38A.dgn
8/14/2026 2:36:20 PM

OpenRoads Designer v10.12.03.2
8/14/2026
2:36:39 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109





SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

BUDDY LN
PAVING PLAN & PROFILE

Sheet 70 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

139 OF 504

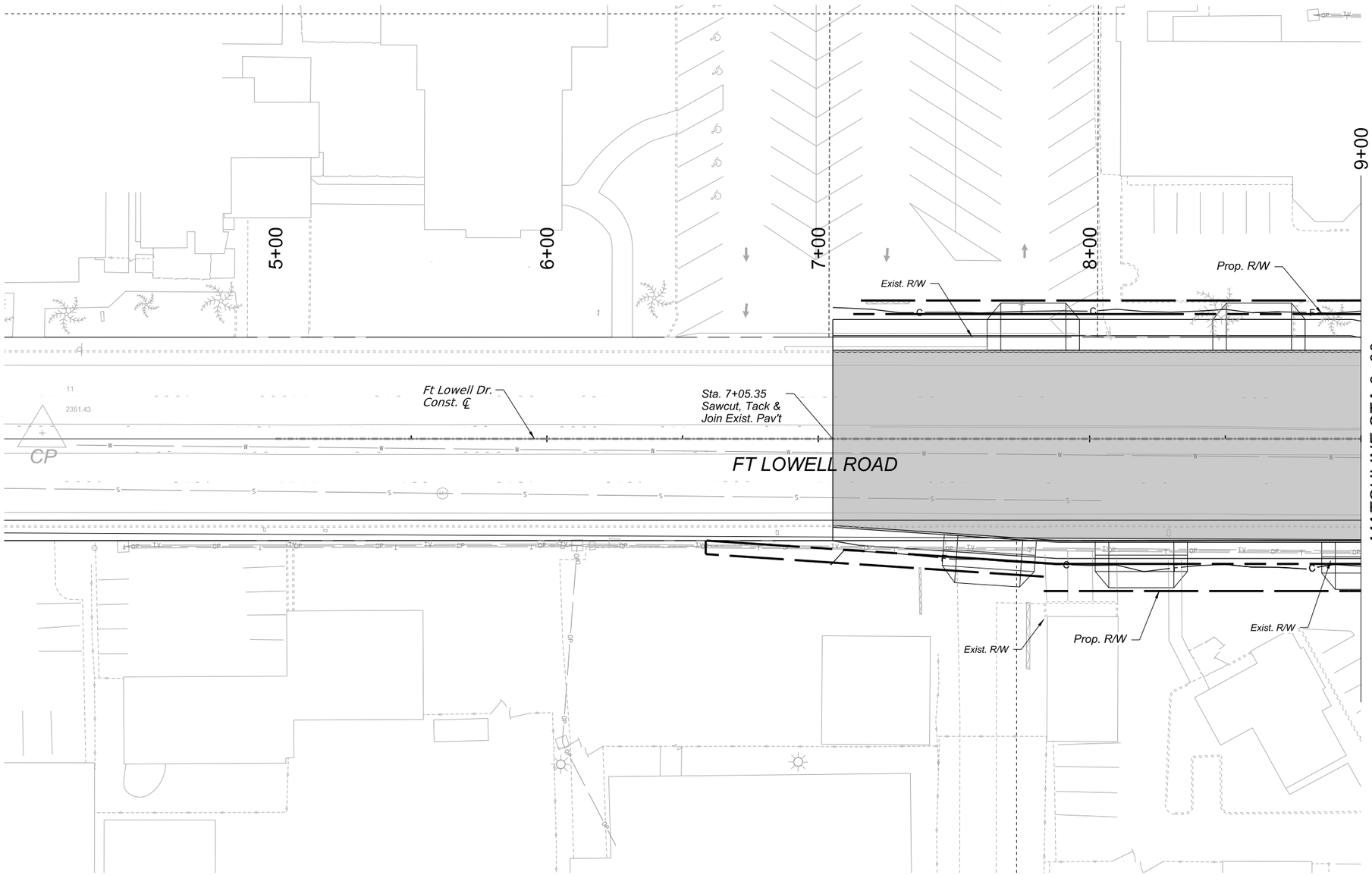
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-38B.dgn
8/14/2026 2:36:39 PM

OpenRoads Designer v10.12.02.4
8/20/2026
9:34:31 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

FT LOWELL RD
PAVING PLAN

SHEET 71 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

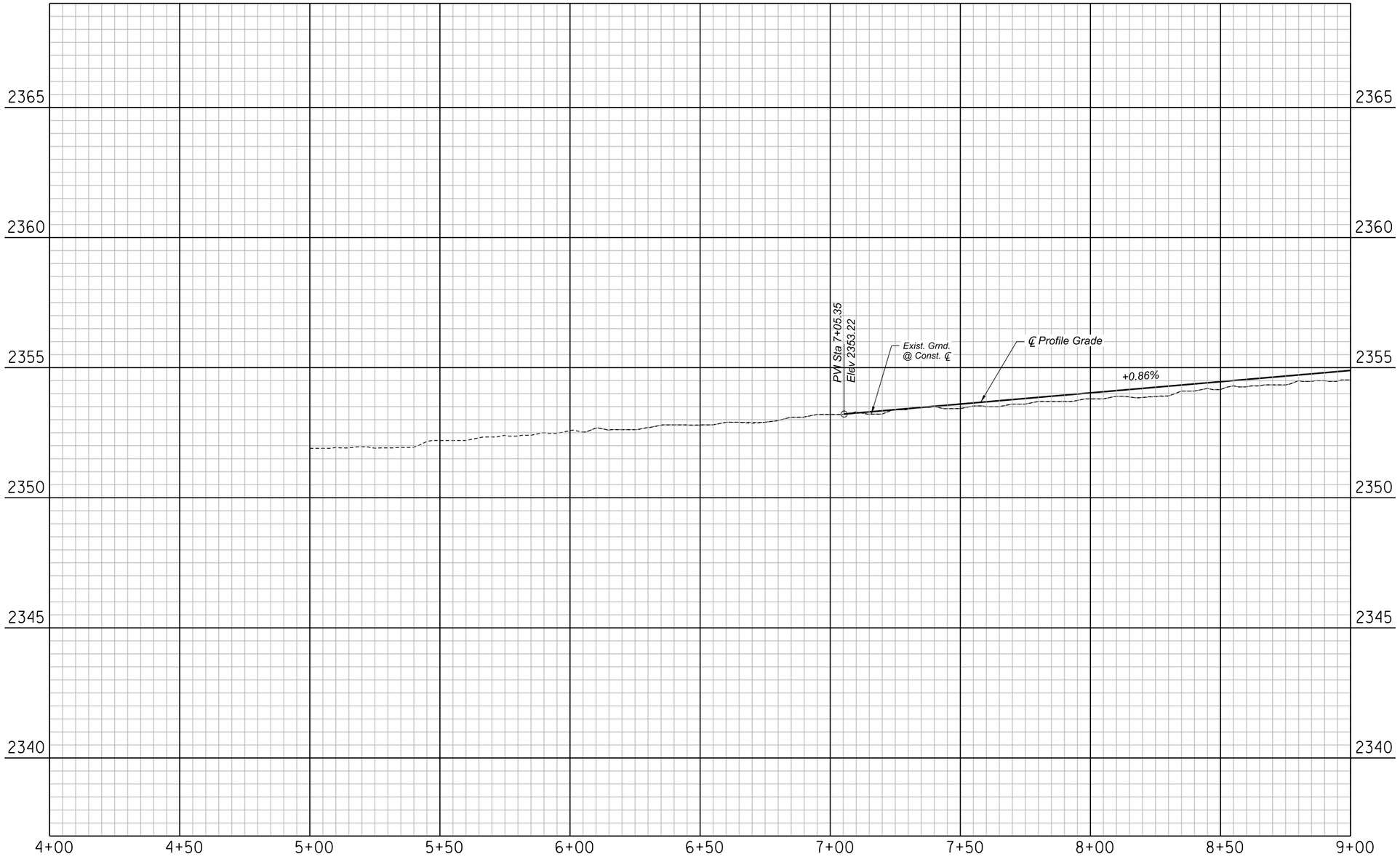
140 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-39A.dgn
8/20/2026 9:34:31 AM

OpenRoads Designer v10.12.02.4
8/20/2026
7:00:55 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



FT LOWELL RD
PAVING PROFILE

SHEET 72 OF 102

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

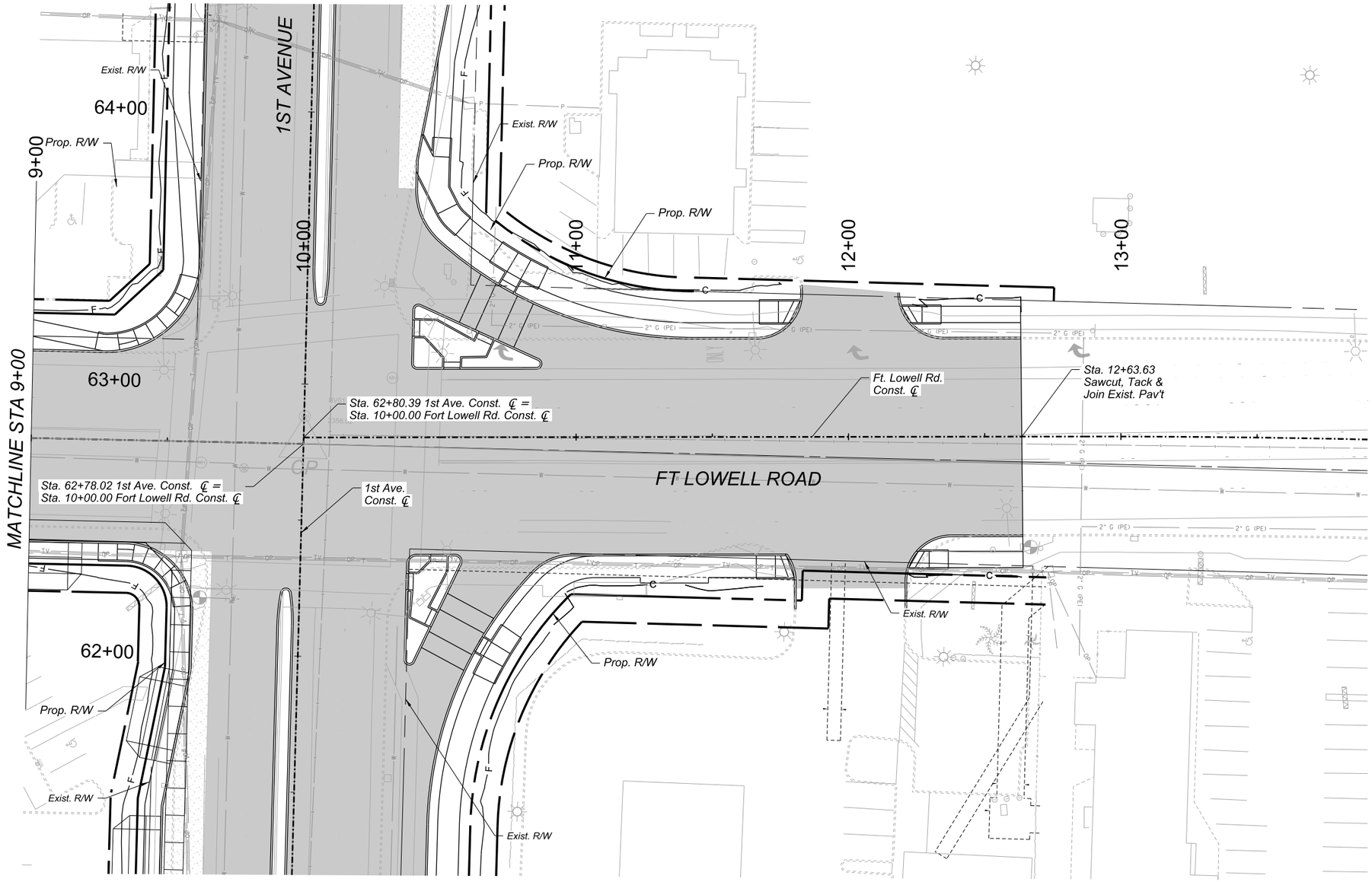
141 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-39B.dgn
8/20/2026 7:00:55 AM

OpenRoads Designer v10.12.02.4
8/27/2026
9:26:33 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

FT LOWELL RD
PAVING PLAN

SHEET 73 OF 103

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

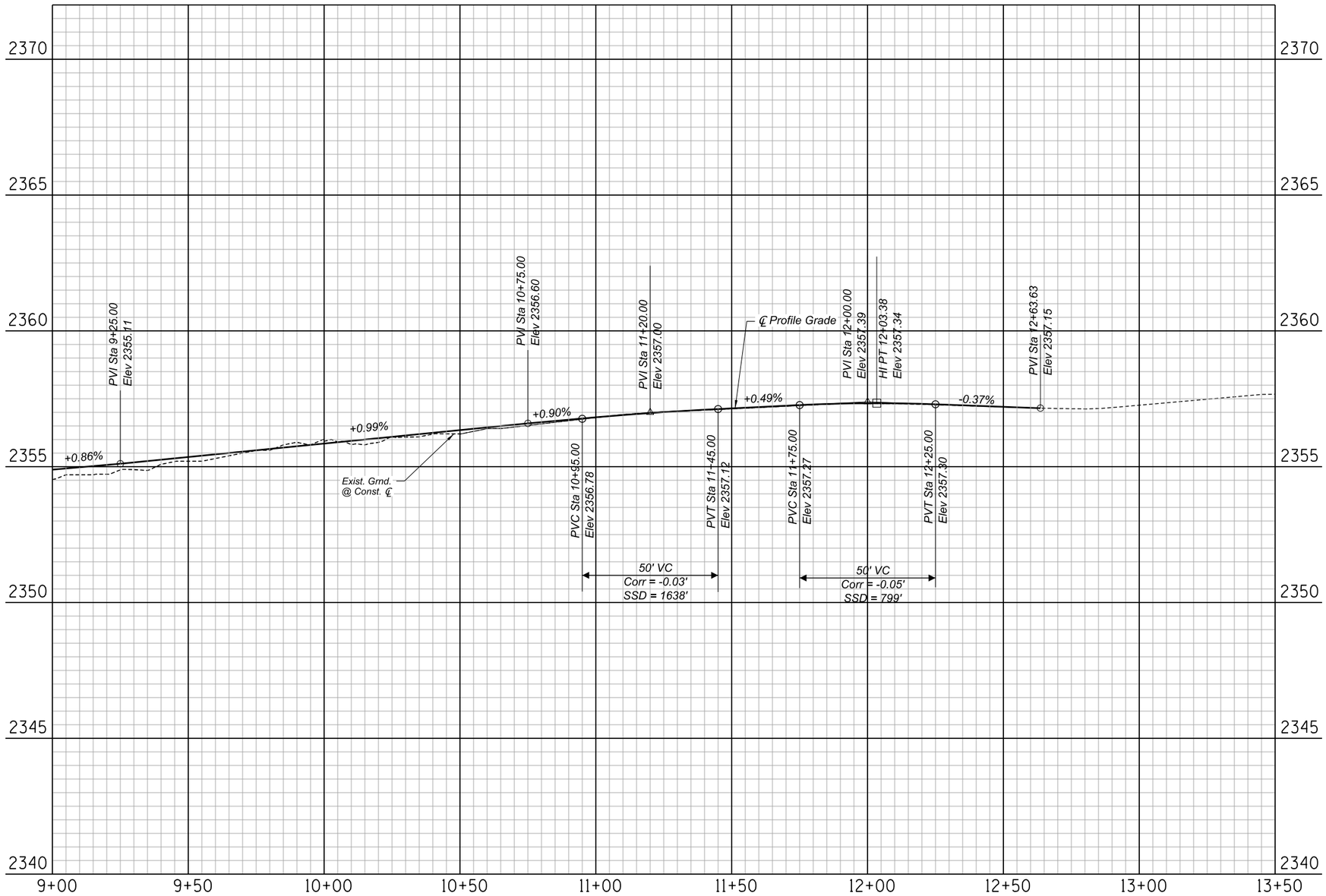
142 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-40A.dgn
8/27/2026 9:26:33 AM

7:21:13 AM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



FT LOWELL RD
PAVING PROFILE

SHEET 74 OF 102

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

143
OF
504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR	JMF	BJK	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

c:\pwworking\west01\d3987900\02C-40B.dgn
8/20/2026 7:21:13 AM

OpenRoads Designer v10.12.02.4
8/20/2026
10:07:32 AM
Printed by:SWESTMORELAND
Print Scale:1:0.0833333
Pentable:COTPM&AMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number:4109

70+00
69+00
68+00
67+00
10+00
11+00
12+00

Prop. R/W
Exist. R/W
Navajo Rd. Const. ℄
Sta. 8+29.25 Sawcut, Tack & Join Exist. Pav't
NAVAJO ROAD
Sta. 69+41.44 1st Ave. Const. ℄= Sta. 10+00.00 Navajo Rd. Const. ℄
1st Ave. Const. ℄
1ST AVENUE
Sta. 11+29.90 Sawcut, Tack & Join Exist. Pav't
Sta. 66+98.71 1st Ave. Const. ℄= Sta. 10+00.00 Navajo Rd. Const. ℄

SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

NAVAJO RD
PAVING PLAN

SHEET 75 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

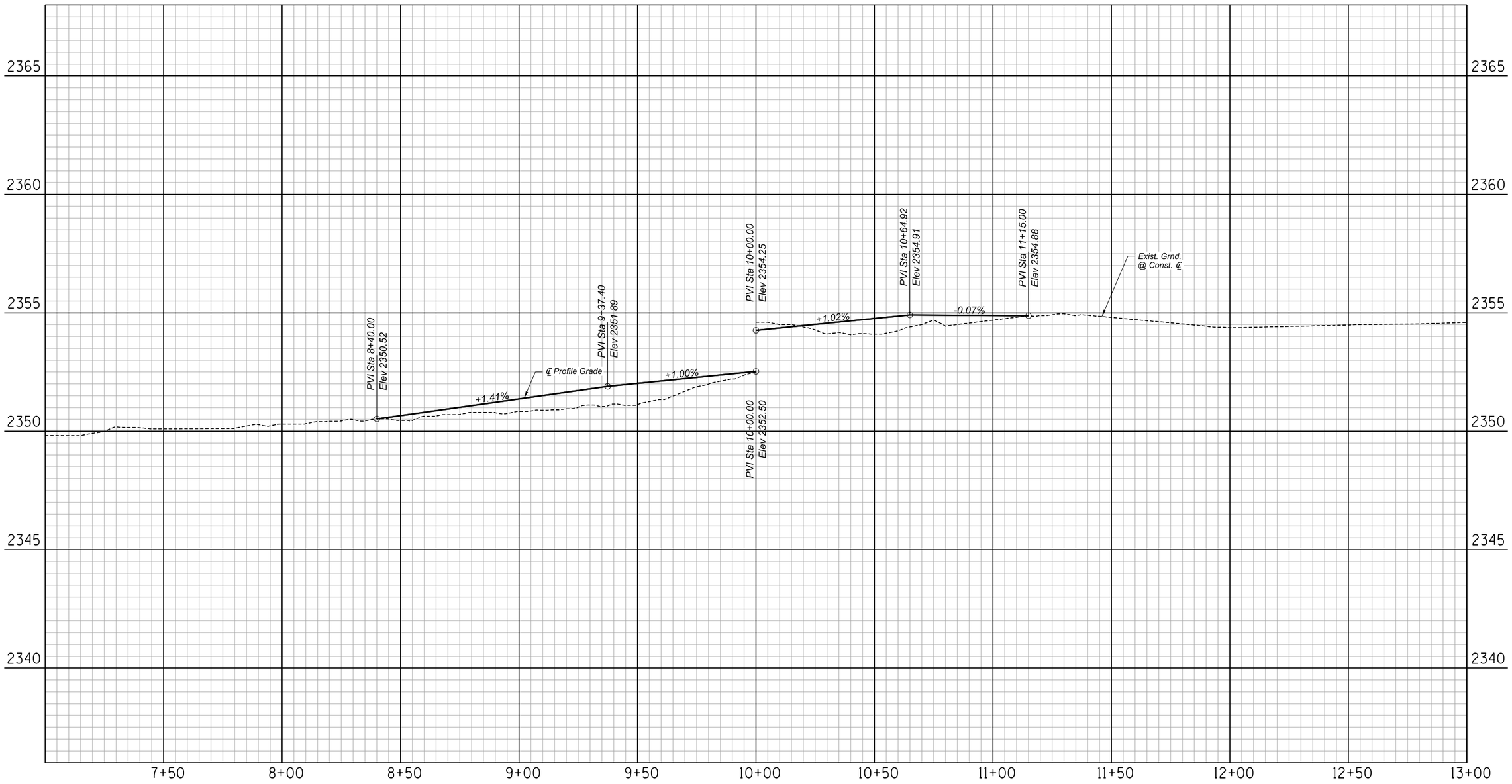
144 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-41A.dgn
8/20/2026 10:07:32 AM

OpenRoads Designer v10.12.02.4
8/20/2026
7:25:01 AM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



NAVAJO RD
PAVING PROFILE

SHEET 76 OF 102

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

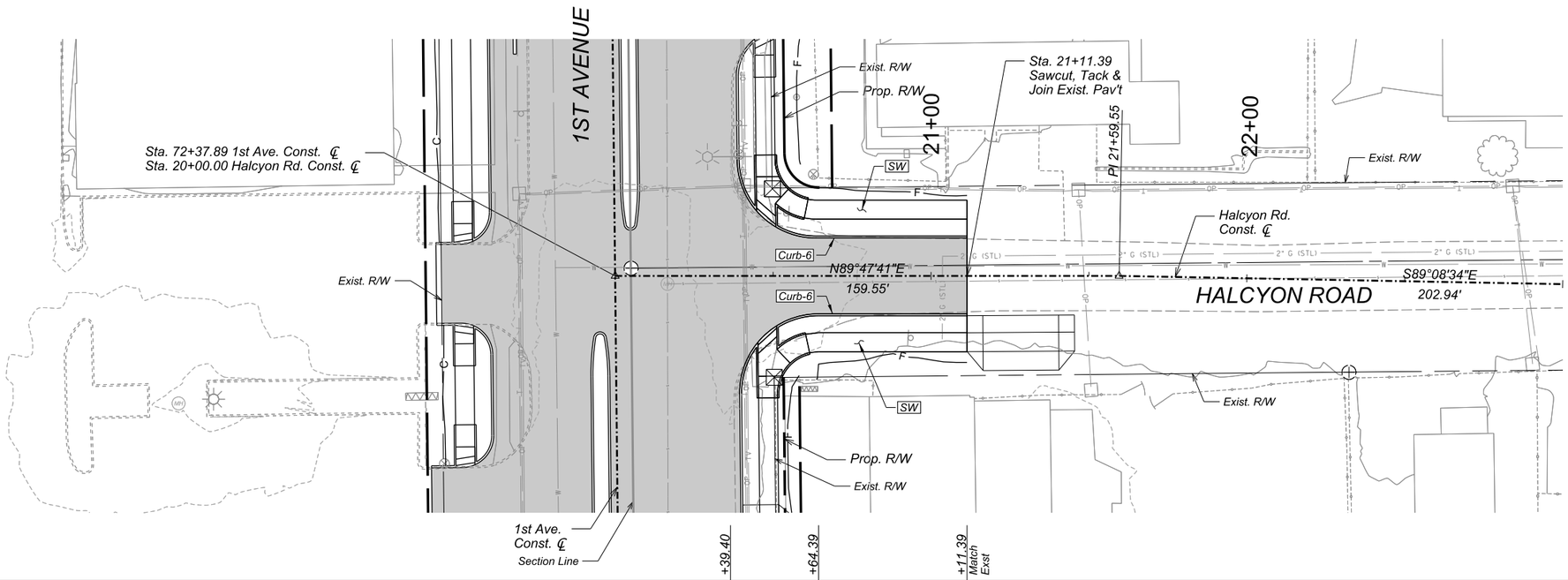
145 OF 504

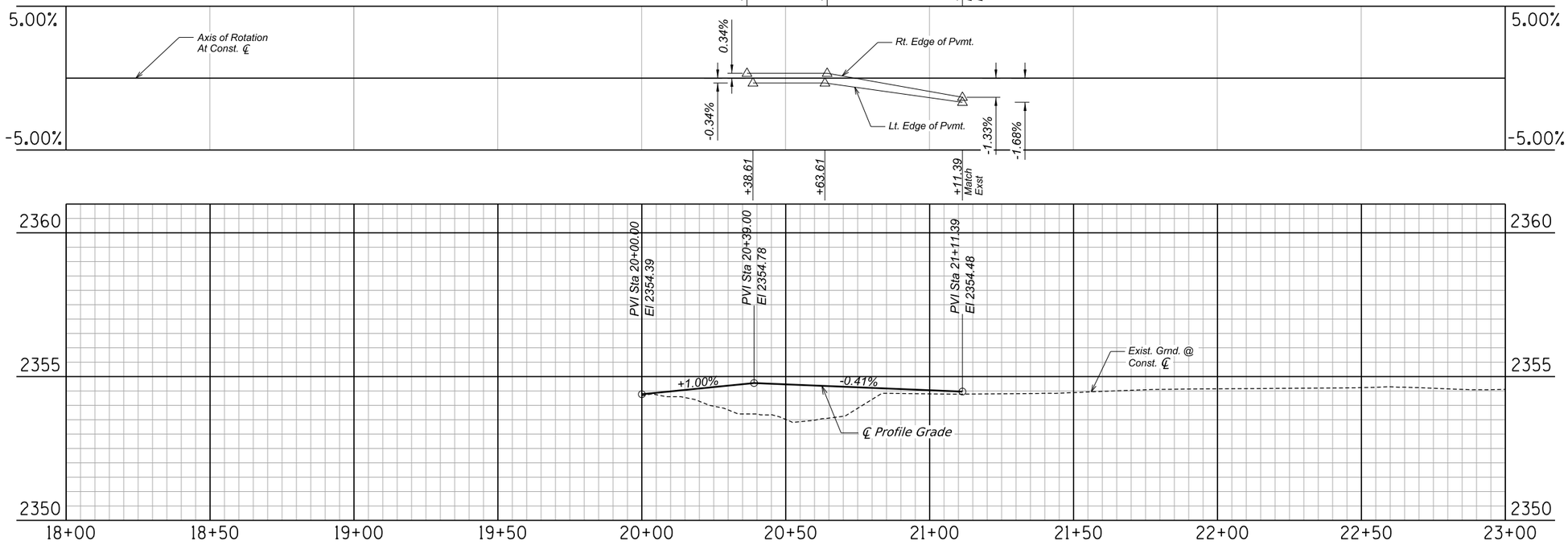
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR	JMF	BJK	
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-41B.dgn
8/20/2026 7:25:01 AM

OpenRoads Designer v10.12.03.2
8/14/2026
2:36:57 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

HALCYON RD
PAVING PLAN & PROFILE

Sheet 77 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

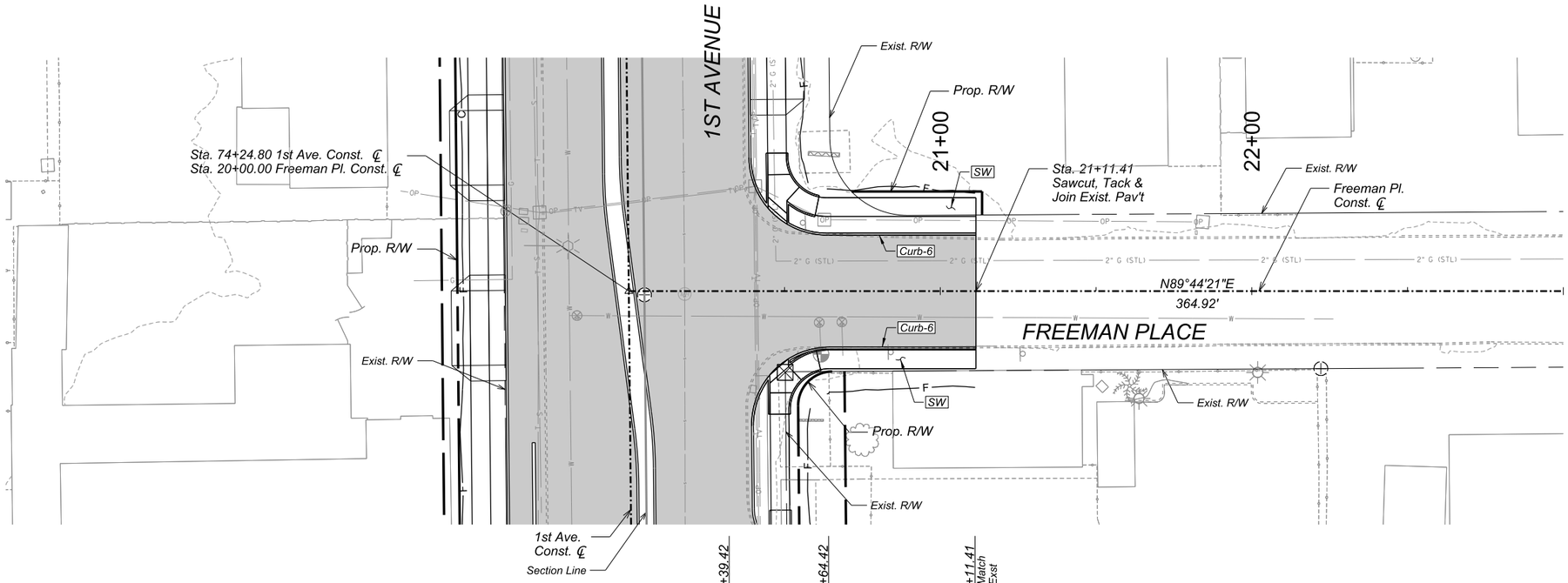
146 OF 504

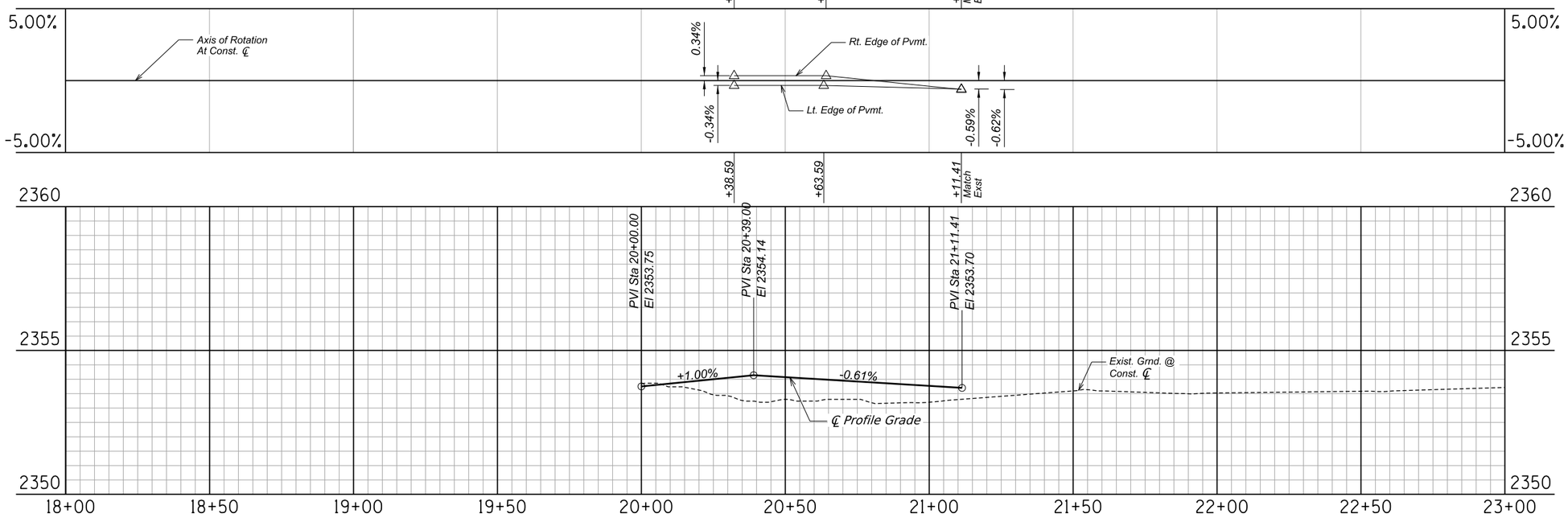
CITY OF TUCSON

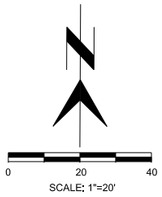
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
REC	JDB	JDB	H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-42A.dgn
8/14/2026 2:36:57 PM

OpenRoads Designer v10.12.03.2
8/14/2026
2:37:14 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.ptcfg
Project ID:
Client Number: 4109







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

FREEMAN PL
PAVING PLAN & PROFILE

Sheet 78 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

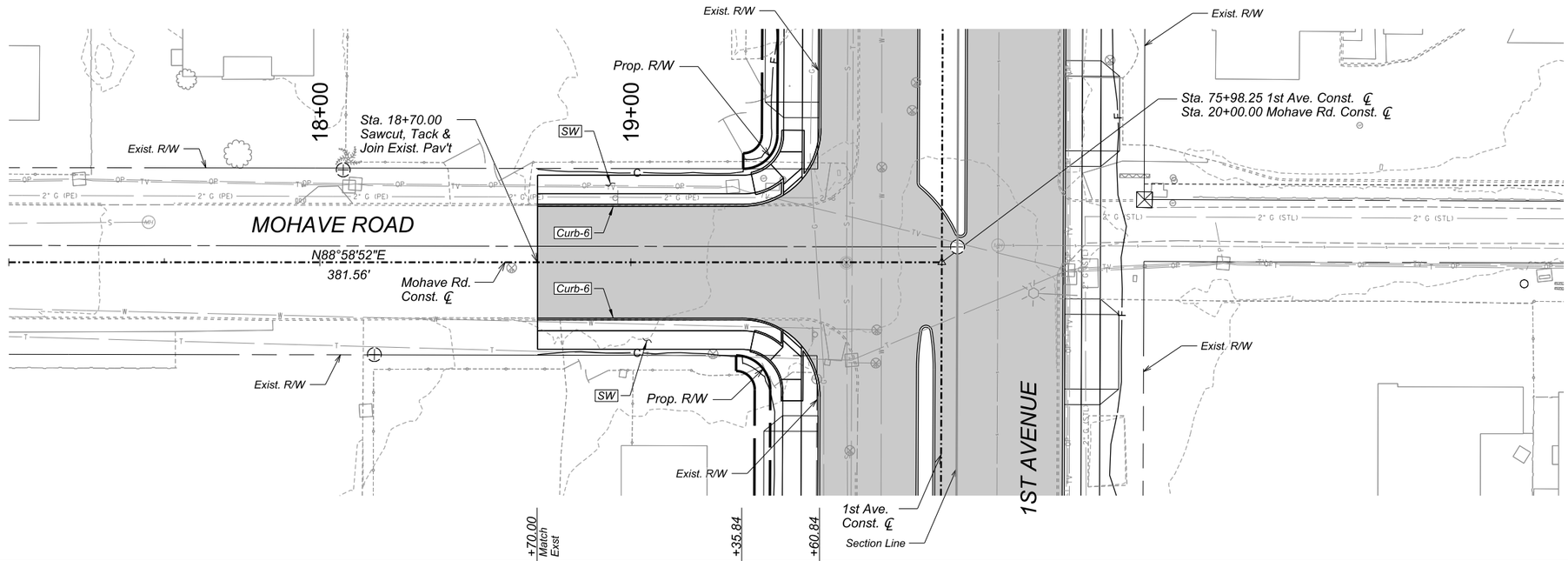
147 OF 504

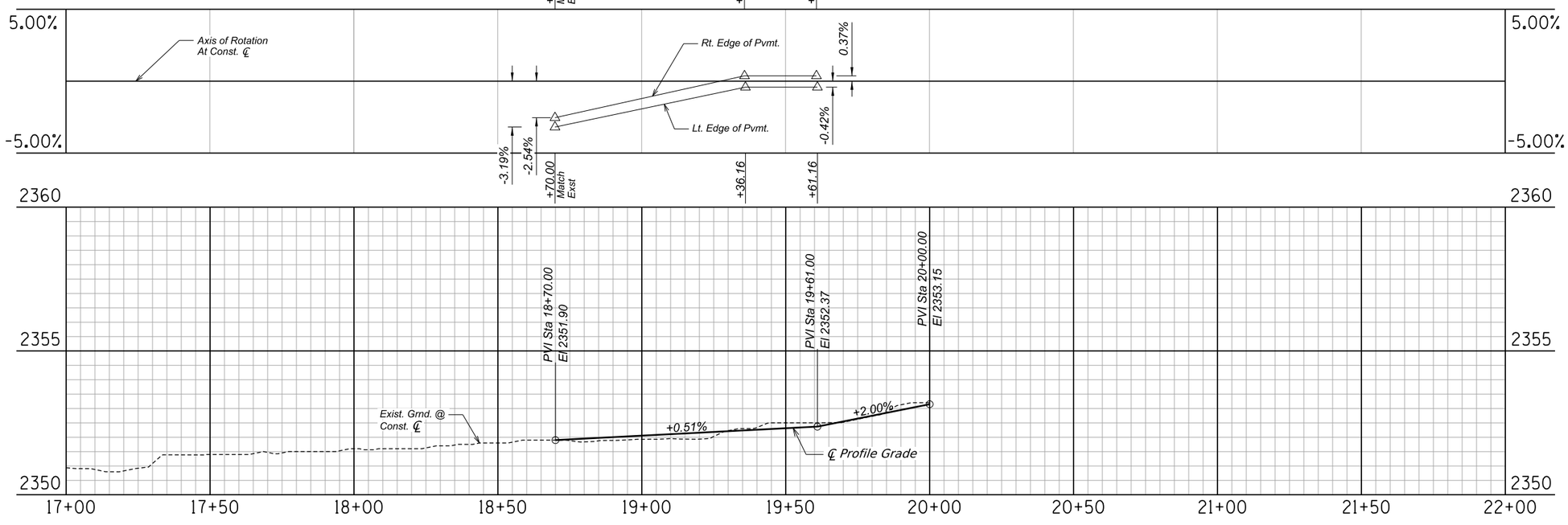
CITY OF TUCSON

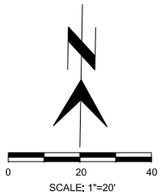
DRWN. BY REC JUN 2026
CHKD. BY JDB JUN 2026
APPR. BY JDB JUN 2026
SCALE: H: 1"=20' V: 1" = 2'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-42B.dgn
8/14/2026 2:37:14 PM

OpenRoads Designer v10.12.03.2
8/14/2026
2:37:45 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

MOHAVE RD
PAVING PLAN & PROFILE

Sheet 79 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

148 OF 504

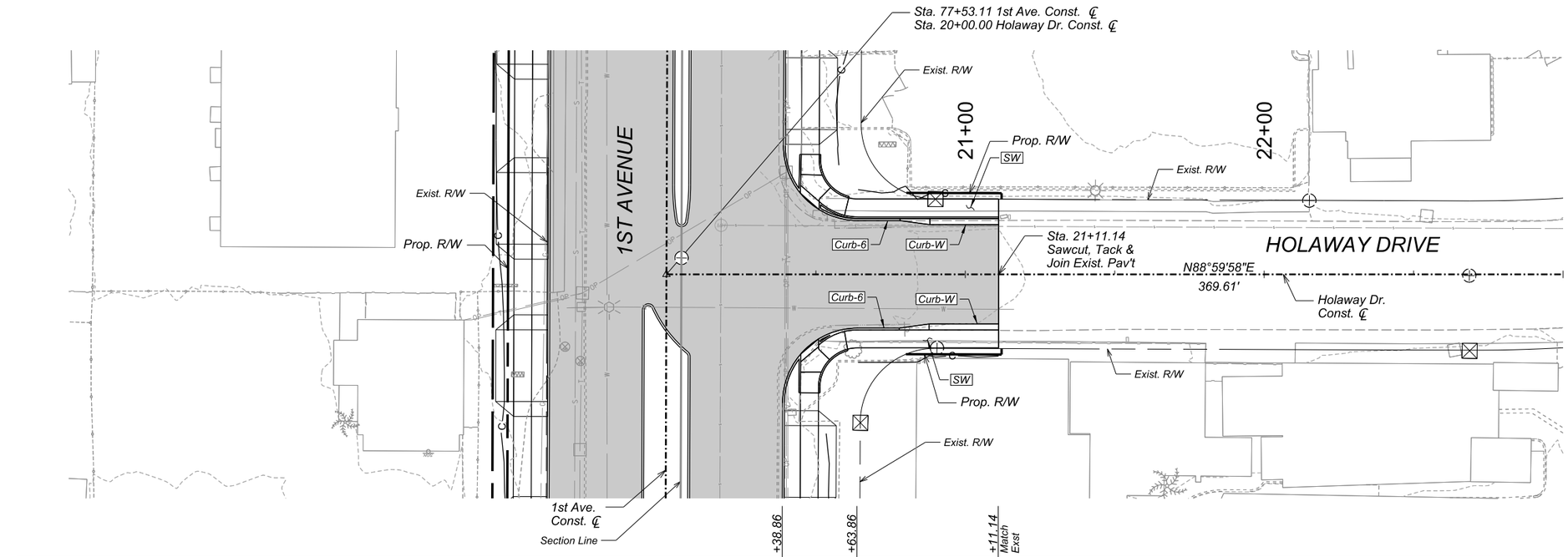
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
REC	JDB	JDB	H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-43A.dgn
8/14/2026 2:37:45 PM

OpenRoads Designer v10.12.03.2
8/14/2026
2:38:05 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf.ptcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

HOLAWAY RD
PAVING PLAN & PROFILE

Sheet 80 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

149 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

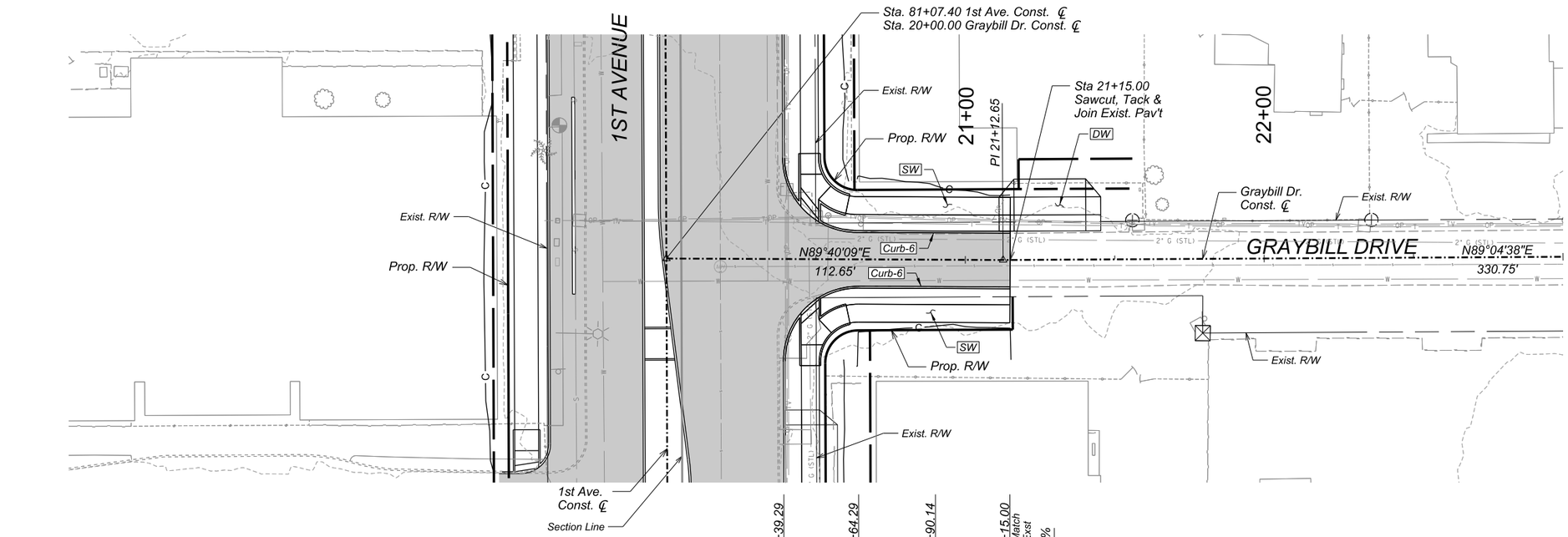
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
REC	JDB	JDB	H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

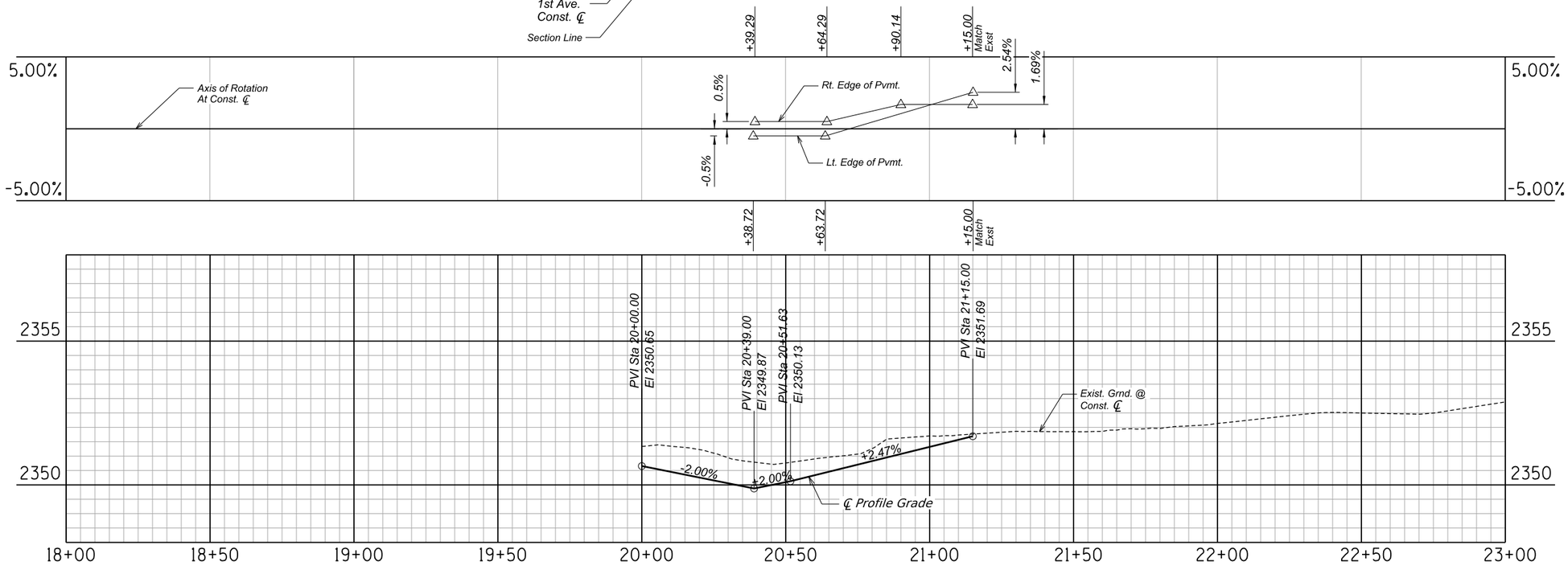
Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

EPS GROUP

c:\pwworking\west01\d4377897\02C-43B.dgn
8/14/2026 2:38:05 PM

OpenRoads Designer v10.12.03.2
8/14/2026
2:38:21 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf.ltntg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

GRAYBILL DR
PAVING PLAN & PROFILE

Sheet 81 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

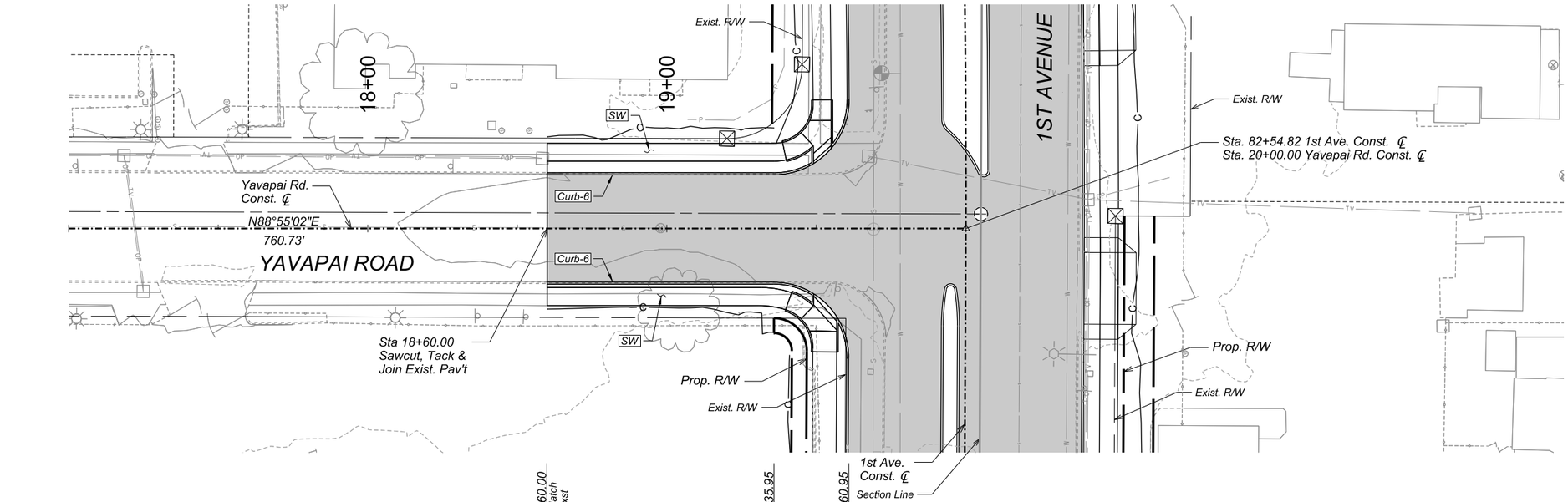
150 OF 504

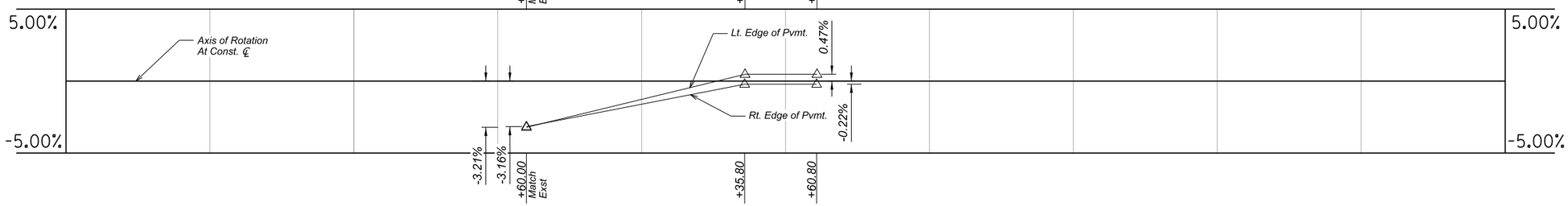
CITY OF TUCSON

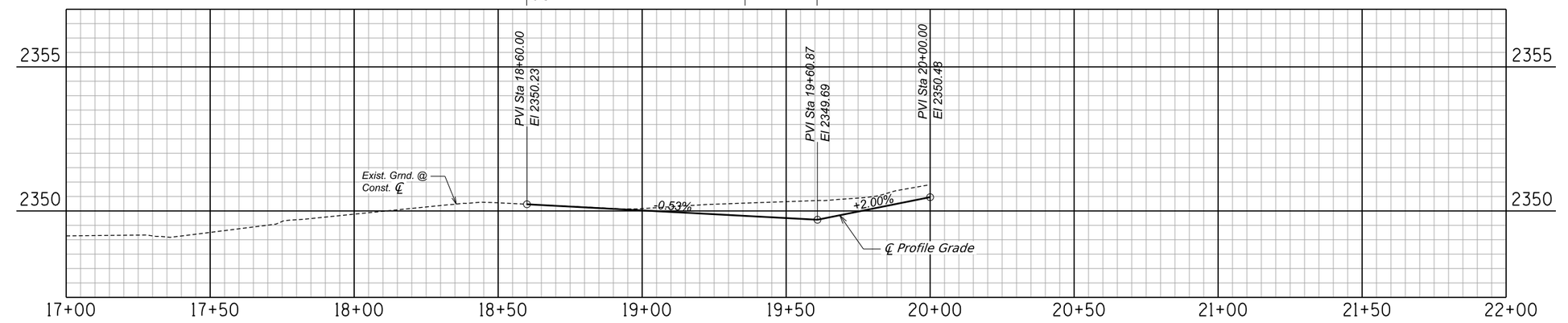
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
REC	JDB	JDB	H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

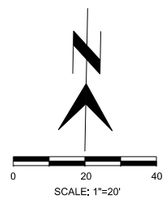
c:\pwworking\west01\d4377897\02C-44A.dgn
8/14/2026 2:38:21 PM

OpenRoads Designer v10.12.03.2
8/14/2026
2:38:36 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109









Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% SUBMITTAL
Preliminary
Not For
Construction

YAVAPAI RD
PAVING PLAN & PROFILE

Sheet 82 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

151 OF 504

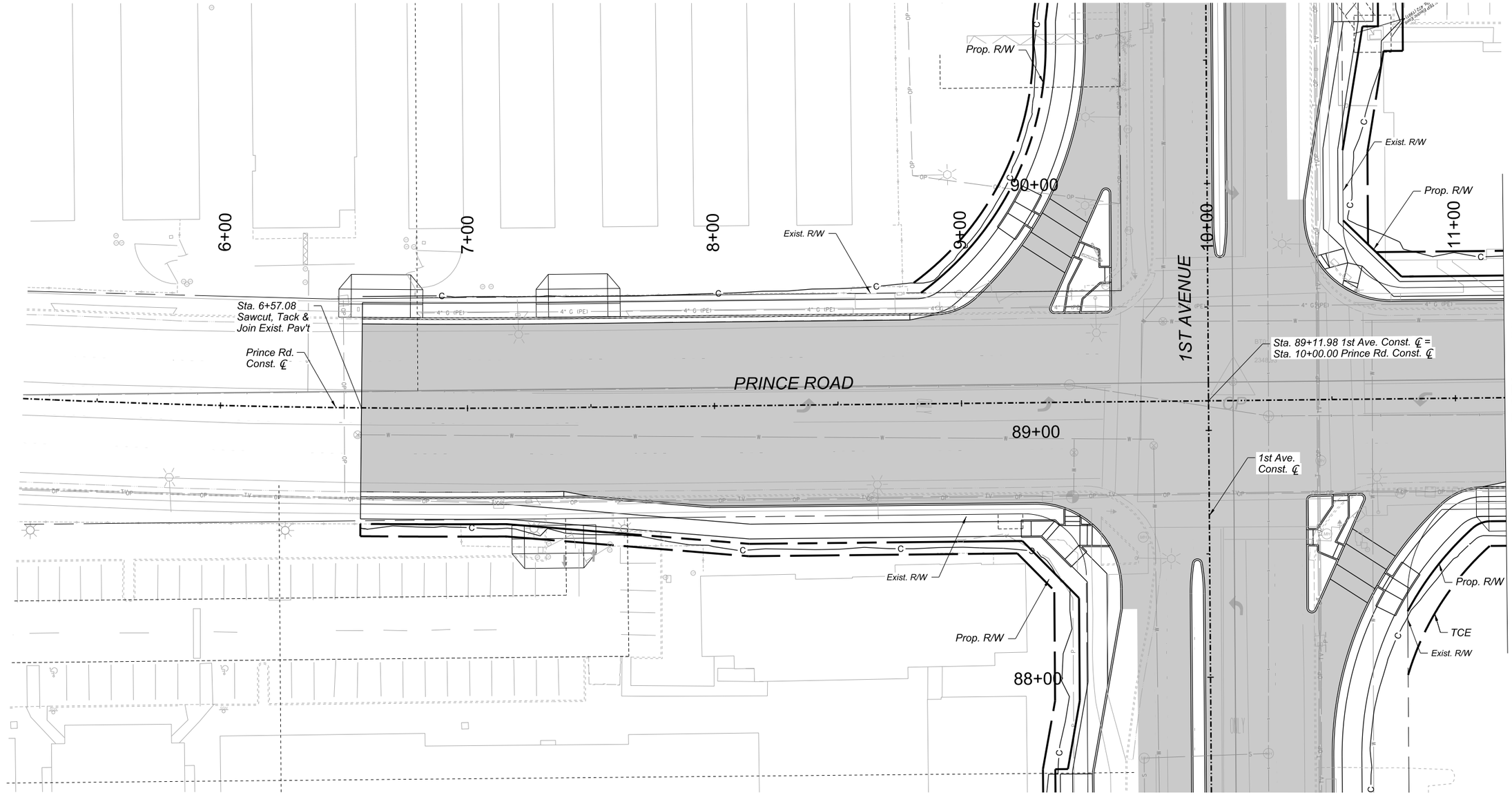
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
REC	JDB	JDB	H: 1"=20' V: 1"= 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-44B.dgn
8/14/2026 2:38:36 PM

10:15:43 AM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_fwpdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

PRINCE RD
PAVING PLAN

SHEET 83 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

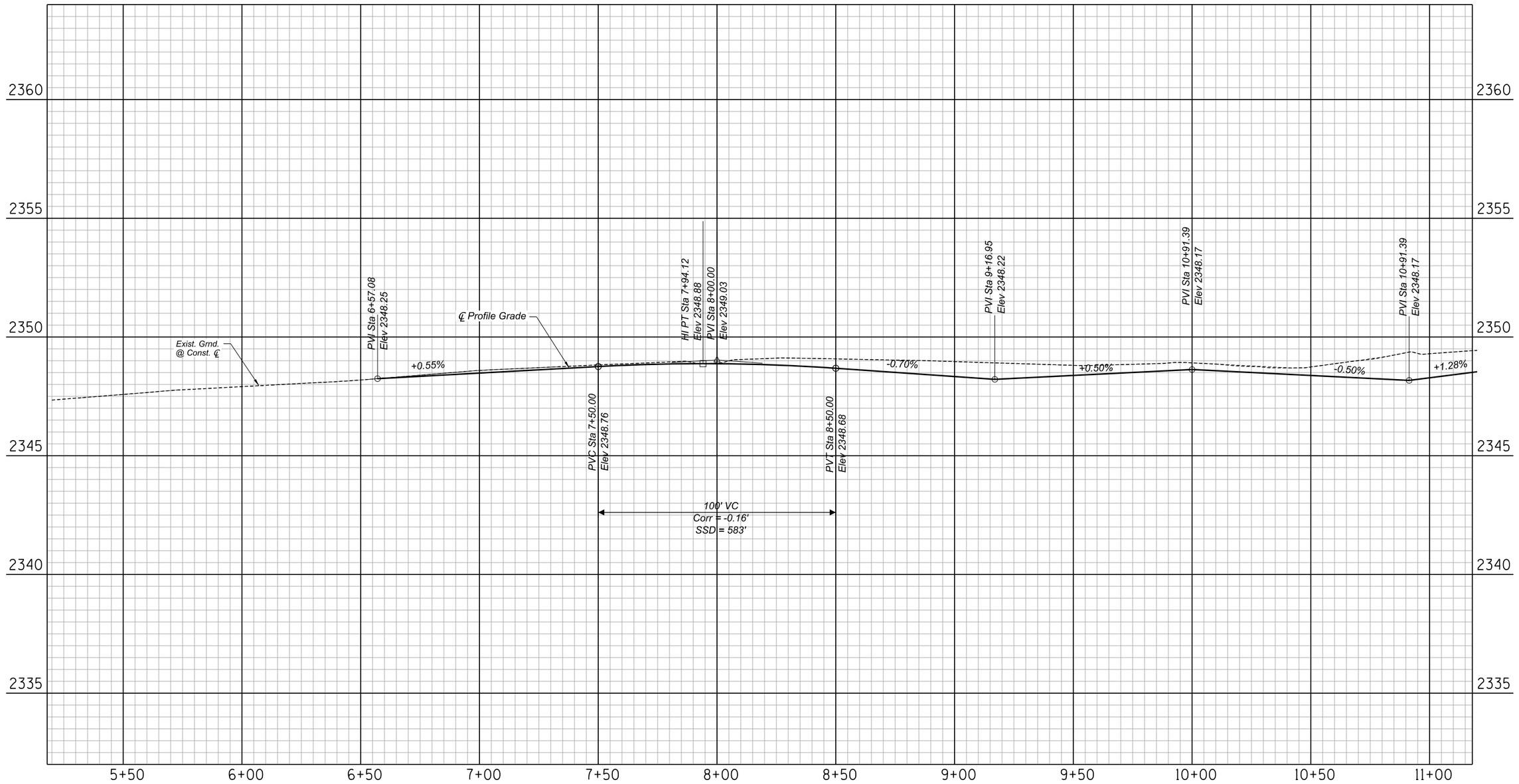
152 OF 504

CITY OF TUCSON

DRWN. BY JAR	CHKD. BY JMF	APPR. BY BJK	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-45A.dgn
8/20/2026 10:15:43 AM

OpenRoads Designer v10.12.02.4
8/20/2026
7:37:50 AM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdrver: GN_1wpdf_SD.pltcfg
Project ID:
Client Number: 4109



PRINCE RD
PAVING PROFILE

SHEET 84 OF 102

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

153 OF 504

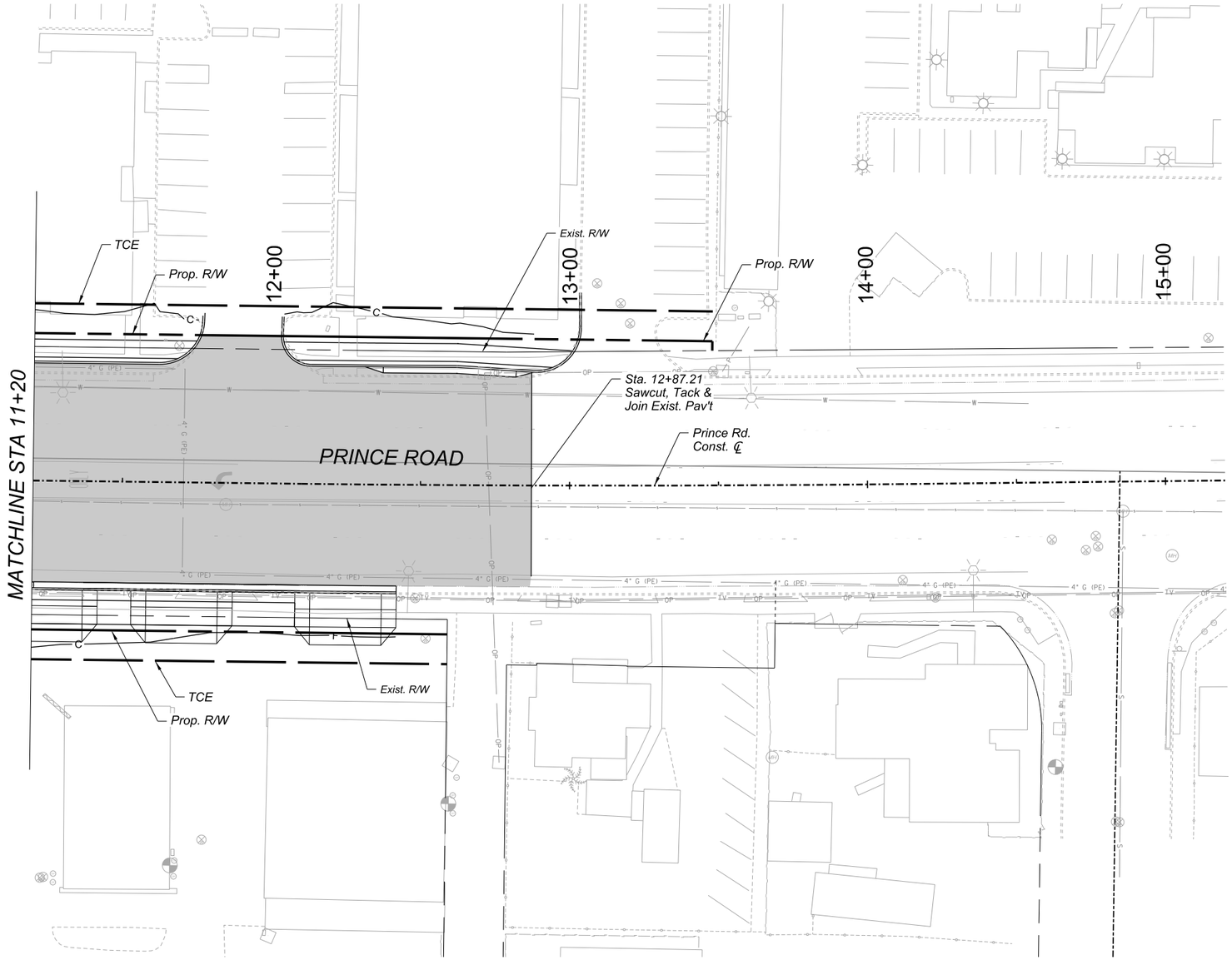
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-45B.dgn
8/20/2026 7:37:50 AM

OpenRoads Designer v10.12.02.4
8/20/2026
10:23:50 AM
Printed by:SWESTMORELAND
Print Scale: 120.0833333
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

PRINCE RD
PAVING PLAN

SHEET 85 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

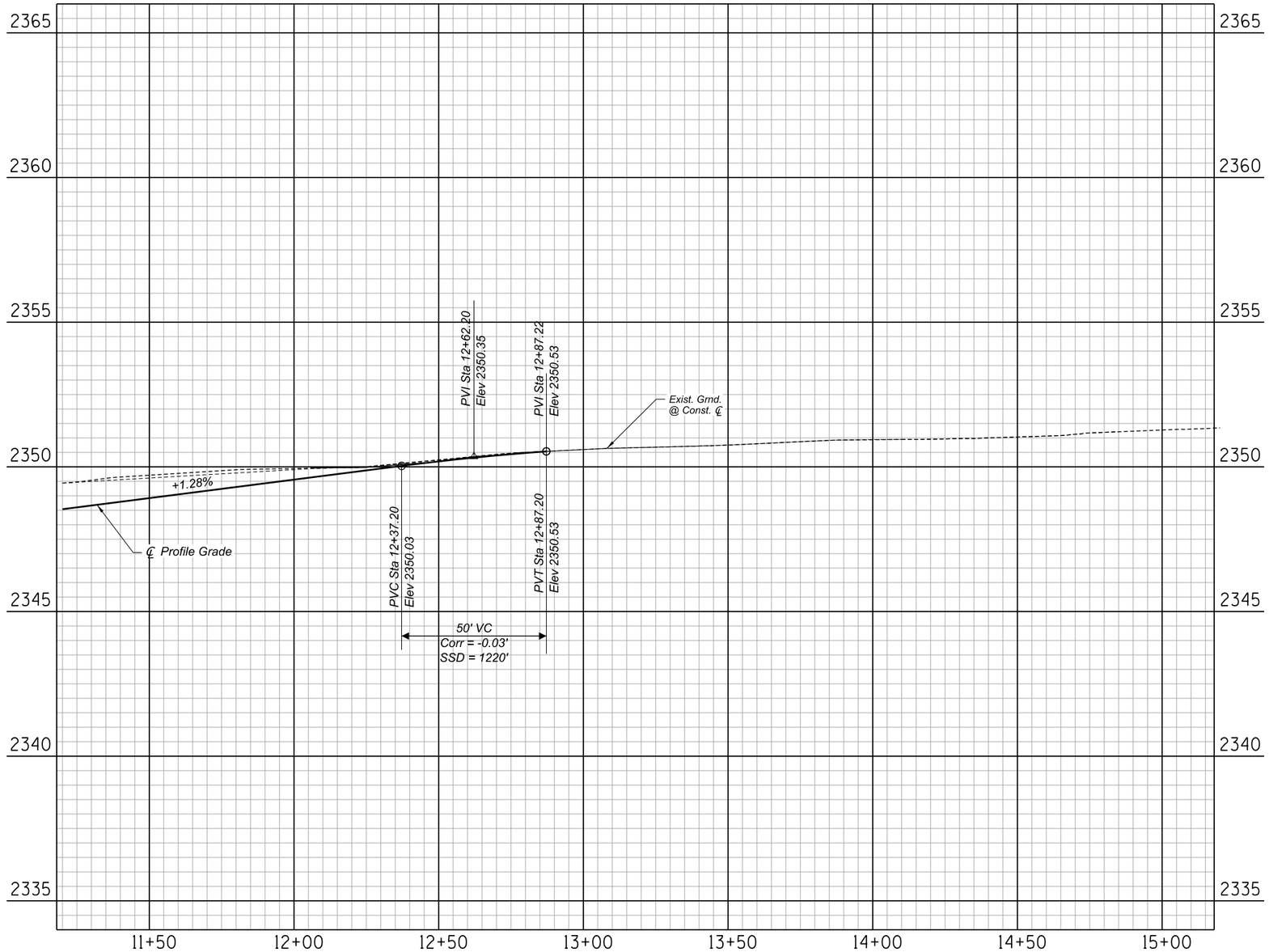
154 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-46A.dgn
8/20/2026 10:23:50 AM



PRINCE RD
PAVING PROFILE

SHEET 86 OF 102

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

155 OF 504

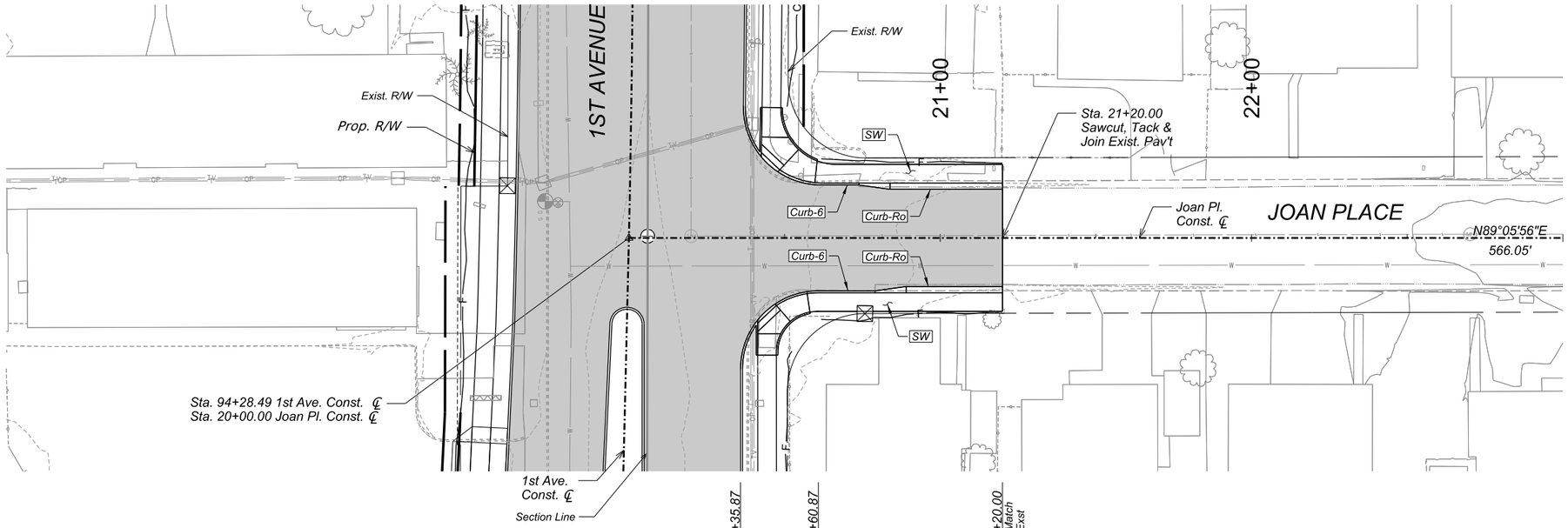
CITY OF TUCSON

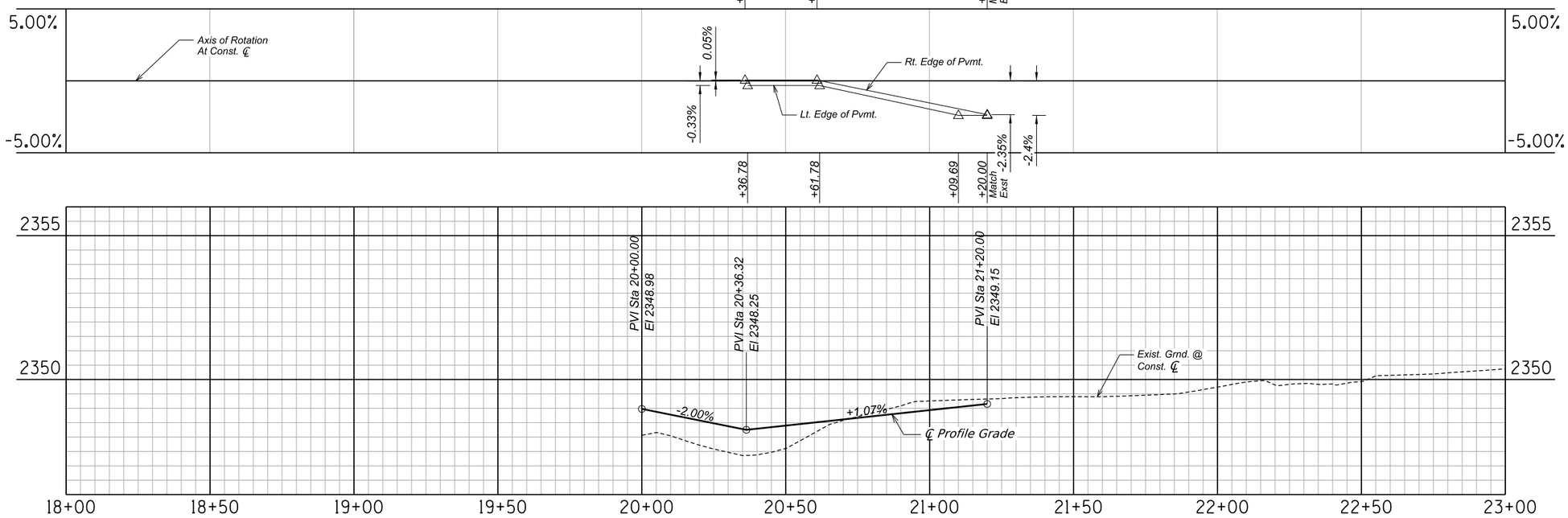
DRWN. BY	CHKD. BY	APPR. BY	SCALE:	
JAR	JMF	BJK	H: 1" = 20'	V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO.	R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvVer: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109
OpenRoads Designer v10.12.02.4
8/20/2026
7:48:47 AM
c:\pwworking\west01\d3987900\02C-46B.dgn
8/20/2026 7:48:47 AM

OpenRoads Designer v10.12.03.2
8/14/2026
2:38:53 PM
Printed by: taltson
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf.ltntg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

JOAN PL
PAVING PLAN & PROFILE

Sheet 87 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

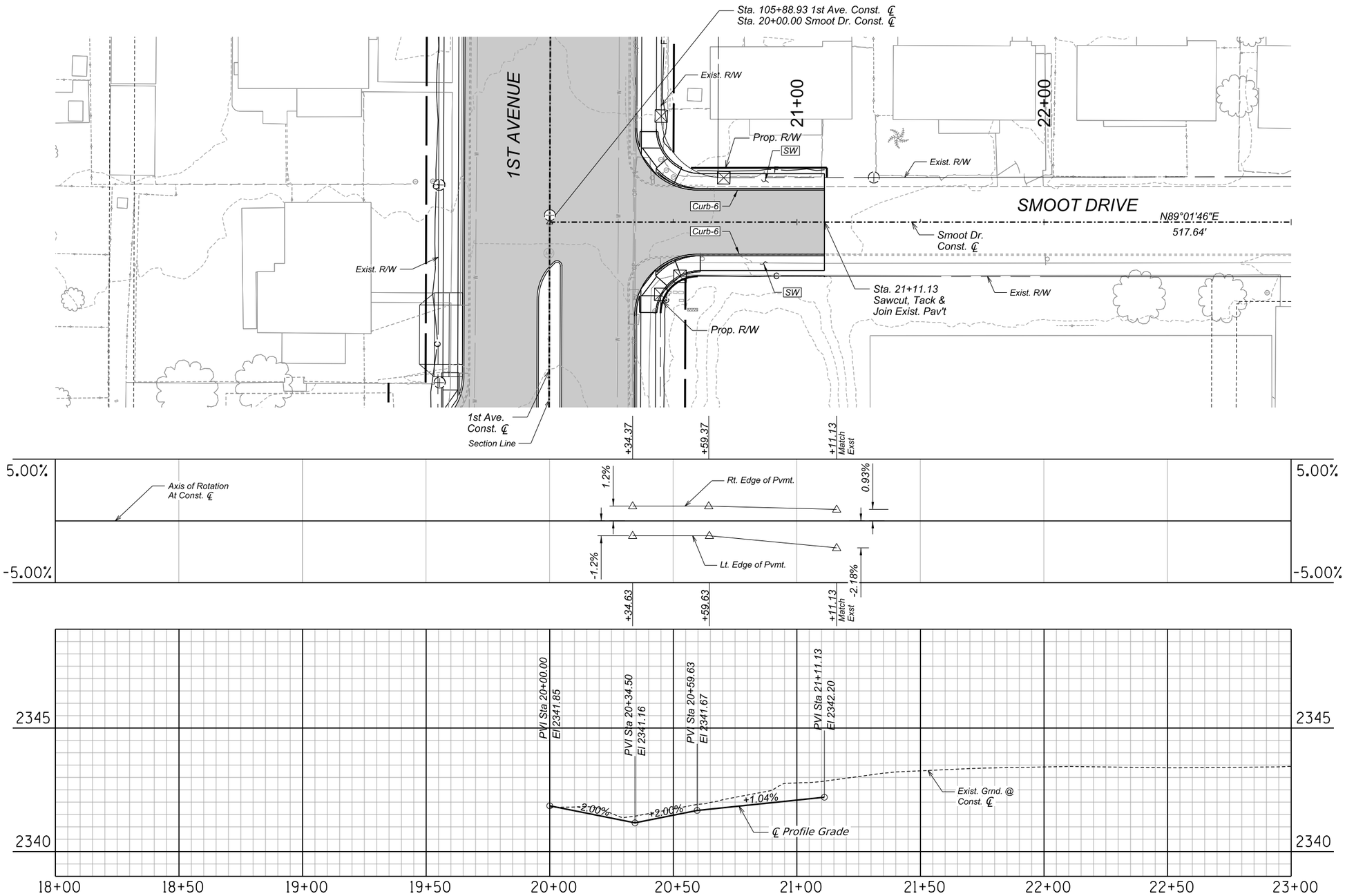
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

156 OF 504

CITY OF TUCSON

DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-47A.dgn
8/14/2026 2:38:53 PM



SMOOT DR
PAVING PLAN & PROFILE

Sheet 88 of 102

0 20 40
SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

157 OF 504

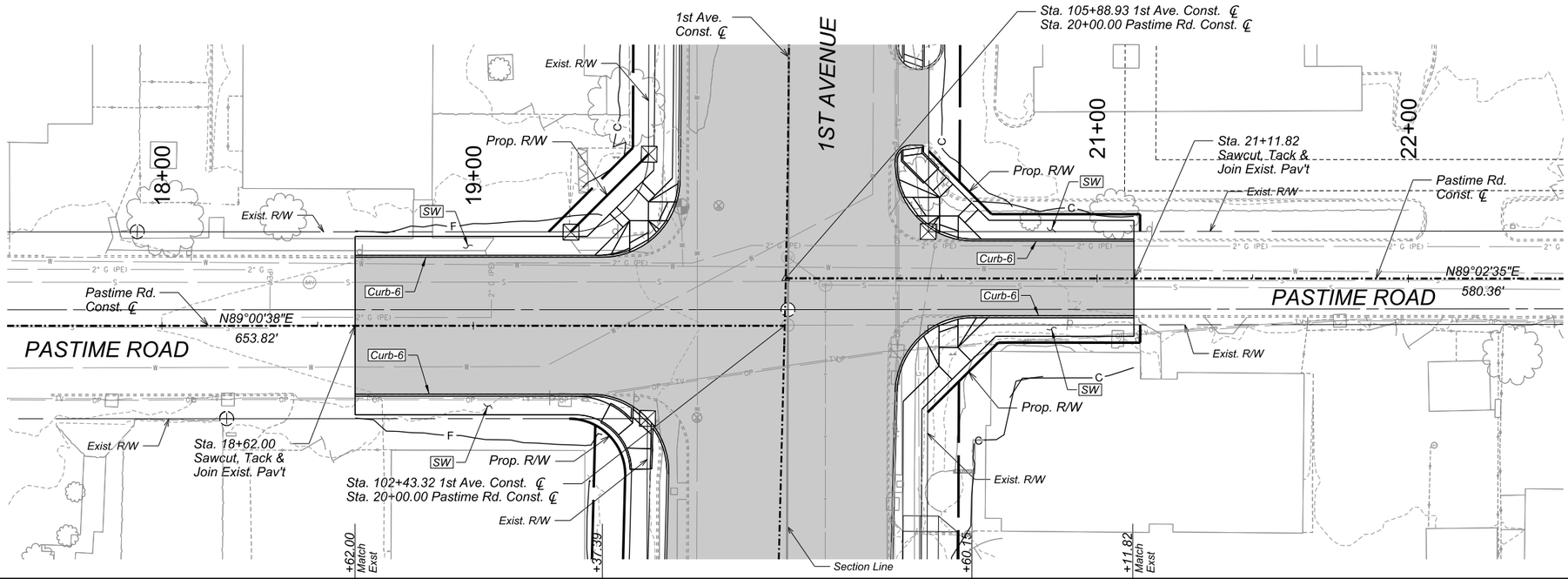
CITY OF TUCSON

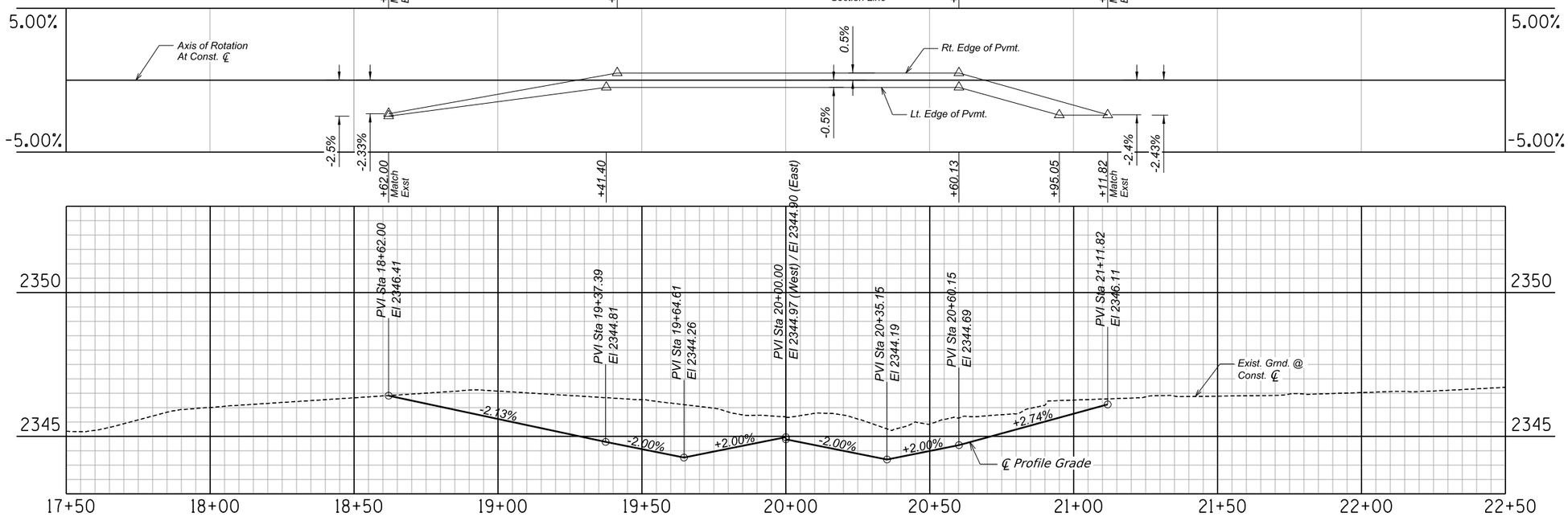
DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.03.2
8/14/2026
2:39:11 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4377897\02C-47B.dgn
8/14/2026 2:39:11 PM

OpenRoads Designer v10.12.03.2
8/14/2026
2:39:28 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdrvr: GN_Dwpdf.pltcfg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

EPS GROUP

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% SUBMITTAL Preliminary Not For Construction

PASTIME RD
PAVING PLAN & PROFILE

Sheet 89 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

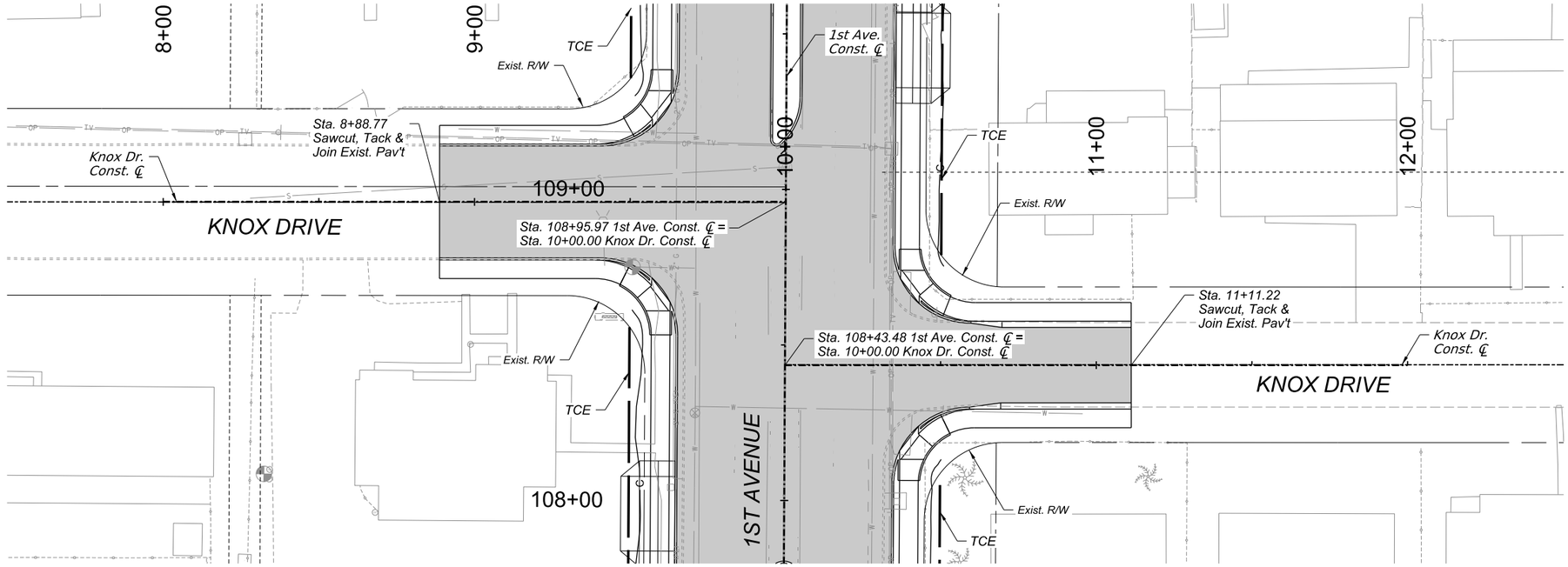
158 OF 504

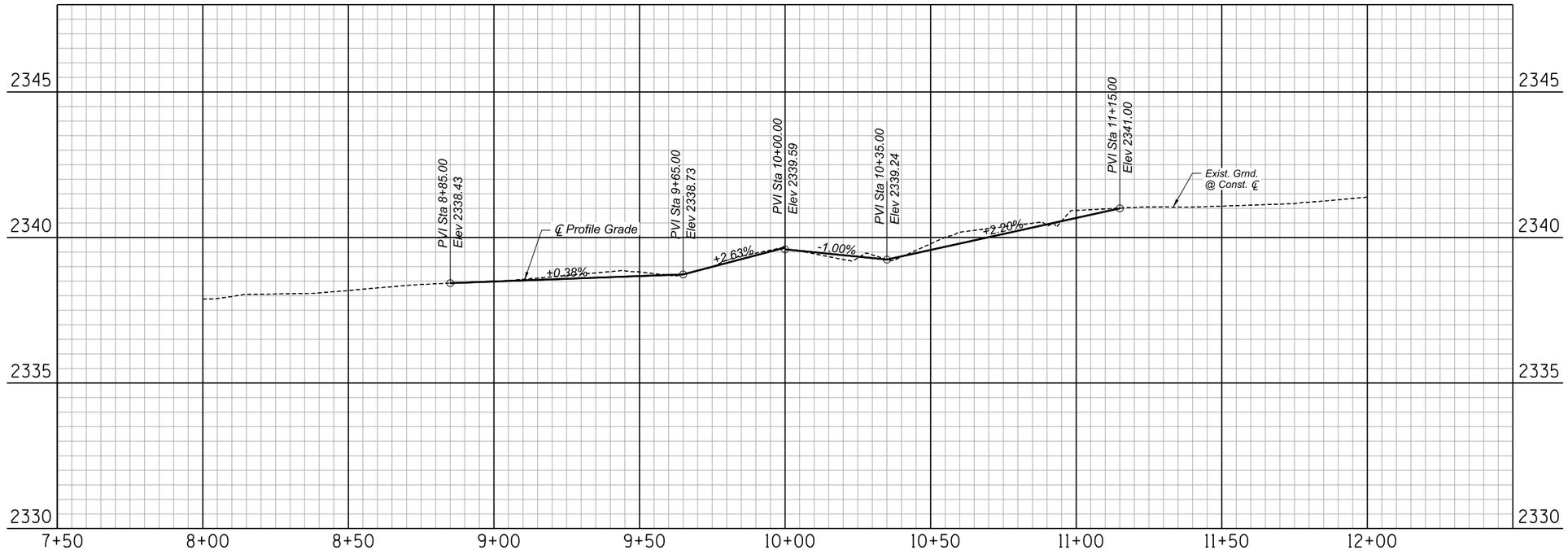
1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-48.dgn
8/14/2026 2:39:28 PM





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

159 OF 504

CITY OF TUCSON

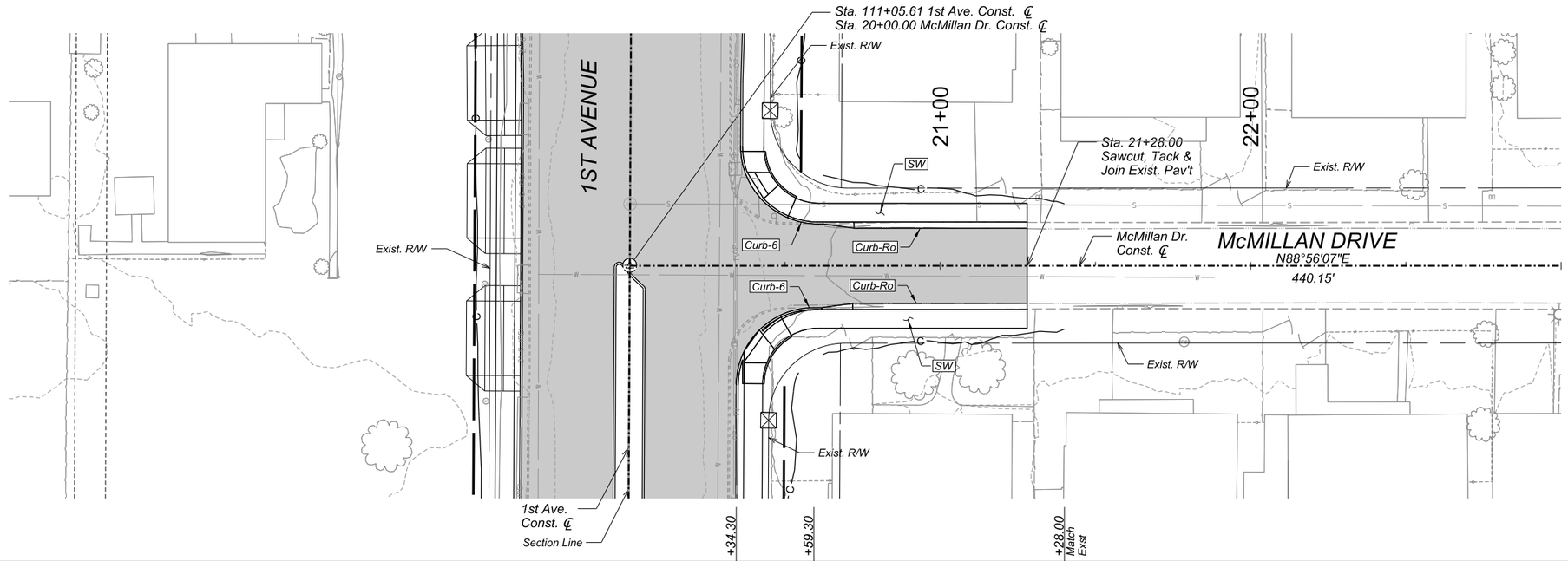
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

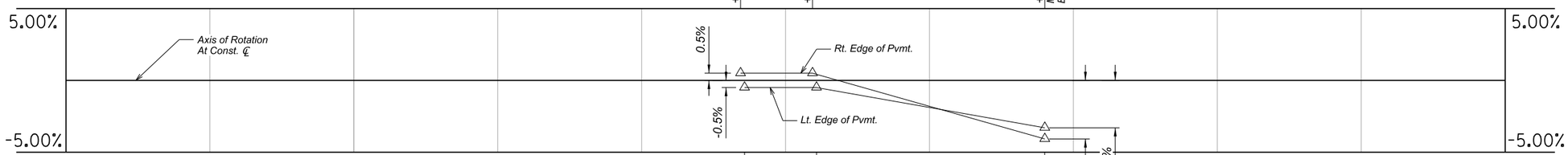
KNOX DR
PAVING PLAN & PROFILE

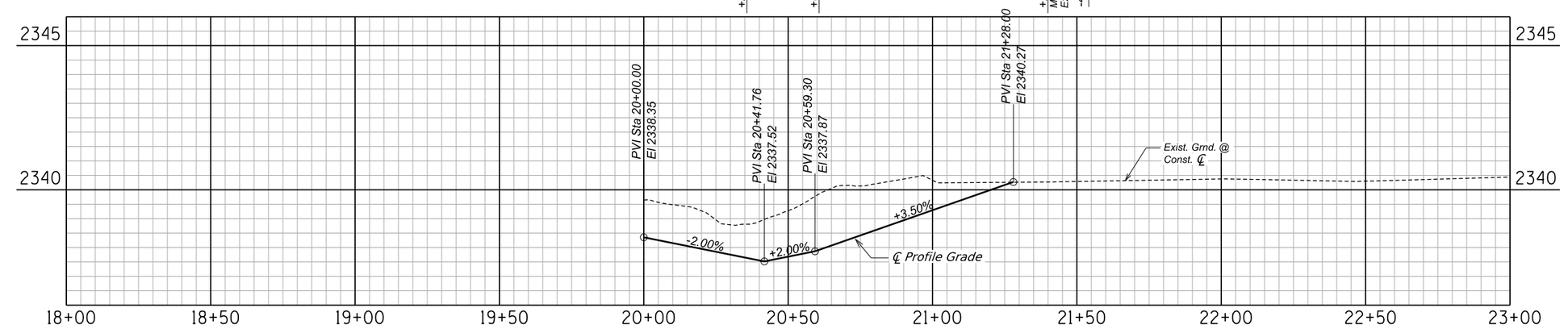
SHEET 90 OF 102

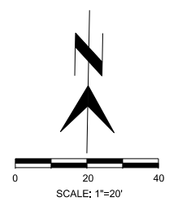
OpenRoads Designer v10.12.02.4
8/20/2026
10:27:27 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\02C-49.dgn
8/20/2026 10:27:27 AM

OpenRoads Designer v10.12.03.2
8/14/2026
2:39:45 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109









Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

EPS GROUP

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
SUBMITTAL
Preliminary
Not For
Construction

McMILLAN DR
PAVING PLAN & PROFILE

Sheet 91 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

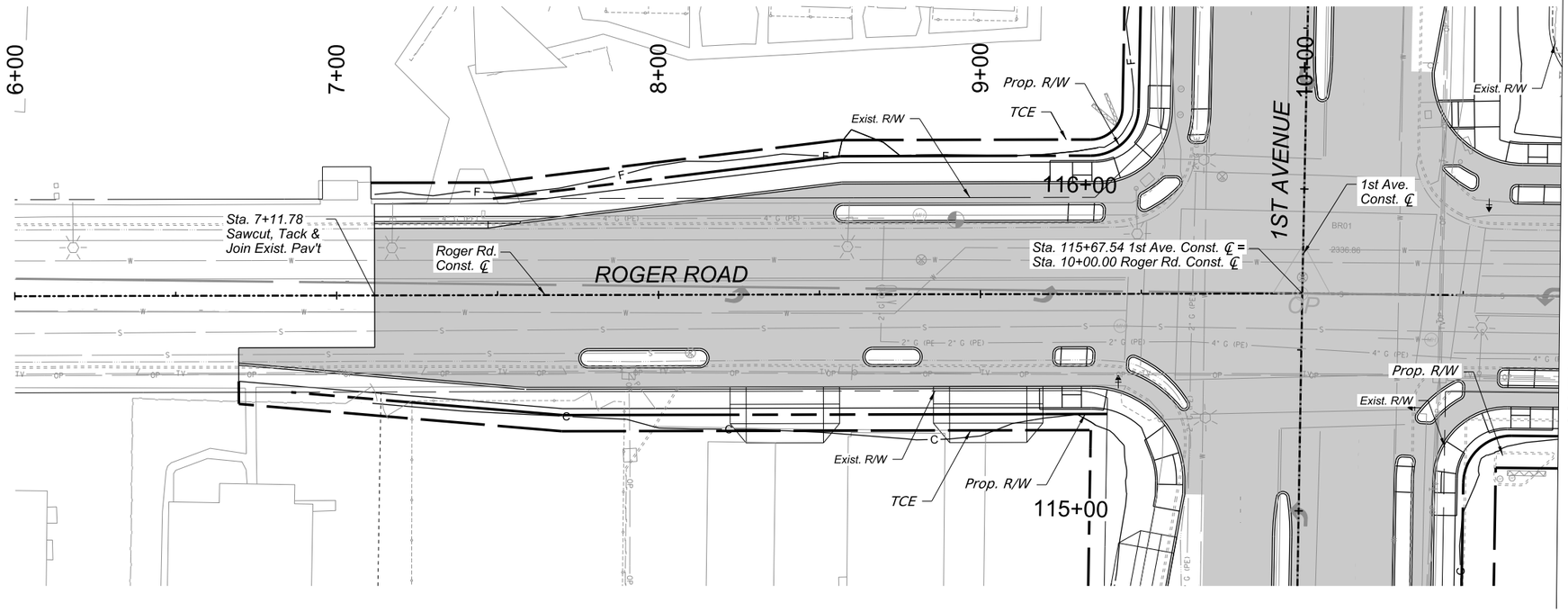
160 OF 504

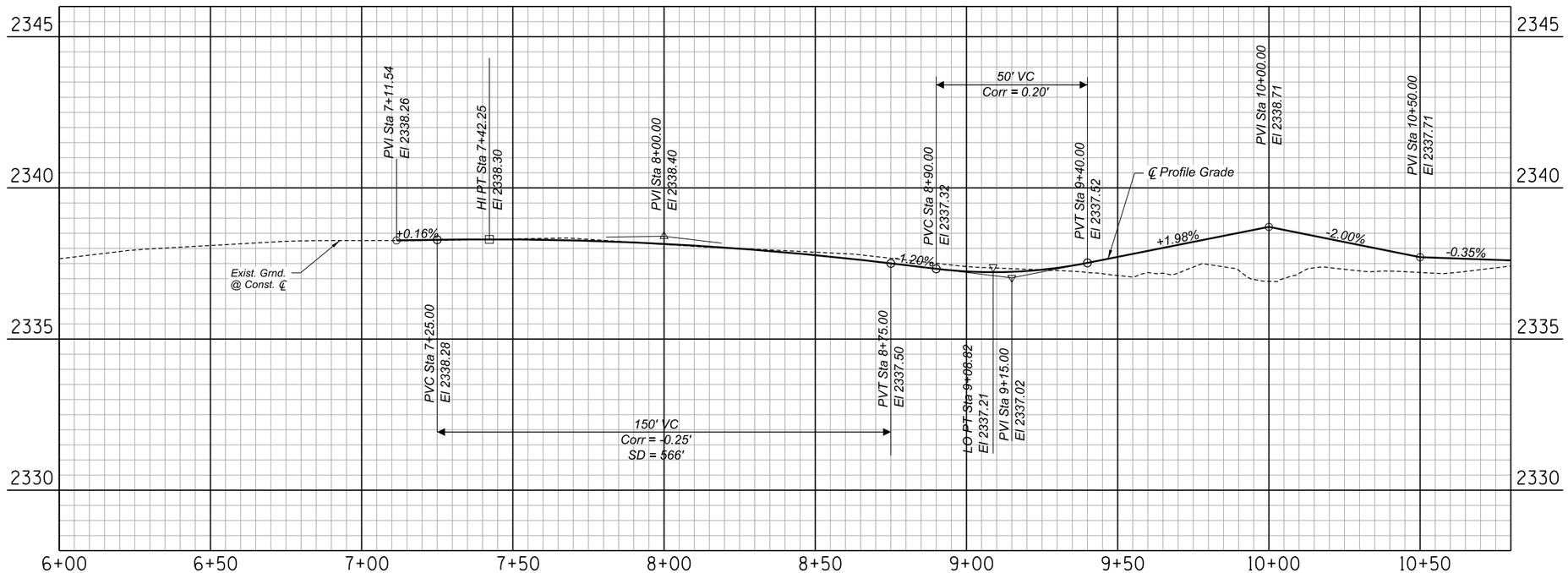
CITY OF TUCSON

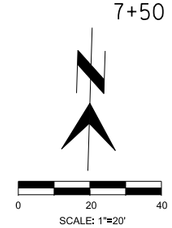
DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4377897\02C-50.dgn
8/14/2026 2:39:45 PM

OpenRoads Designer v10.12.02.4
8/20/2026
10:38:25 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109







ROGER RD
PAVING PLAN & PROFILE

SHEET 92 OF 102

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

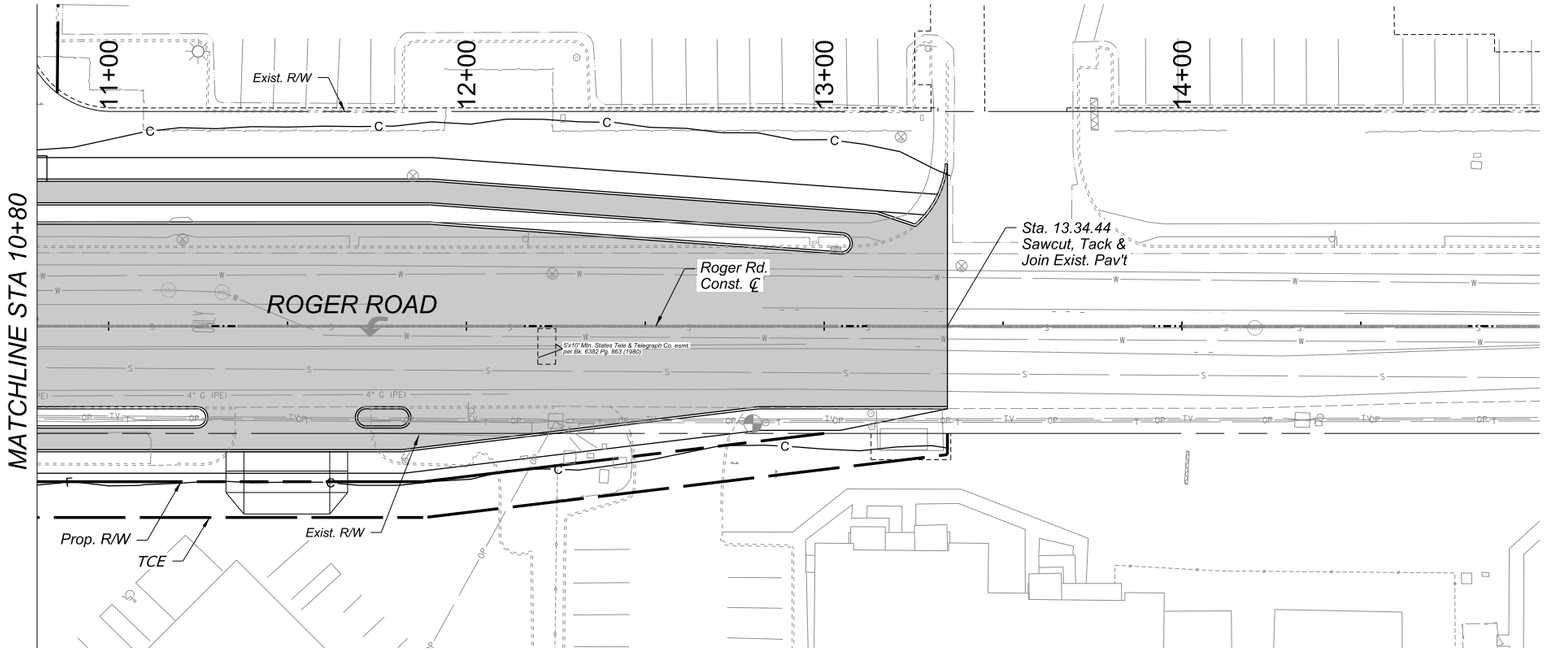
161 OF 504

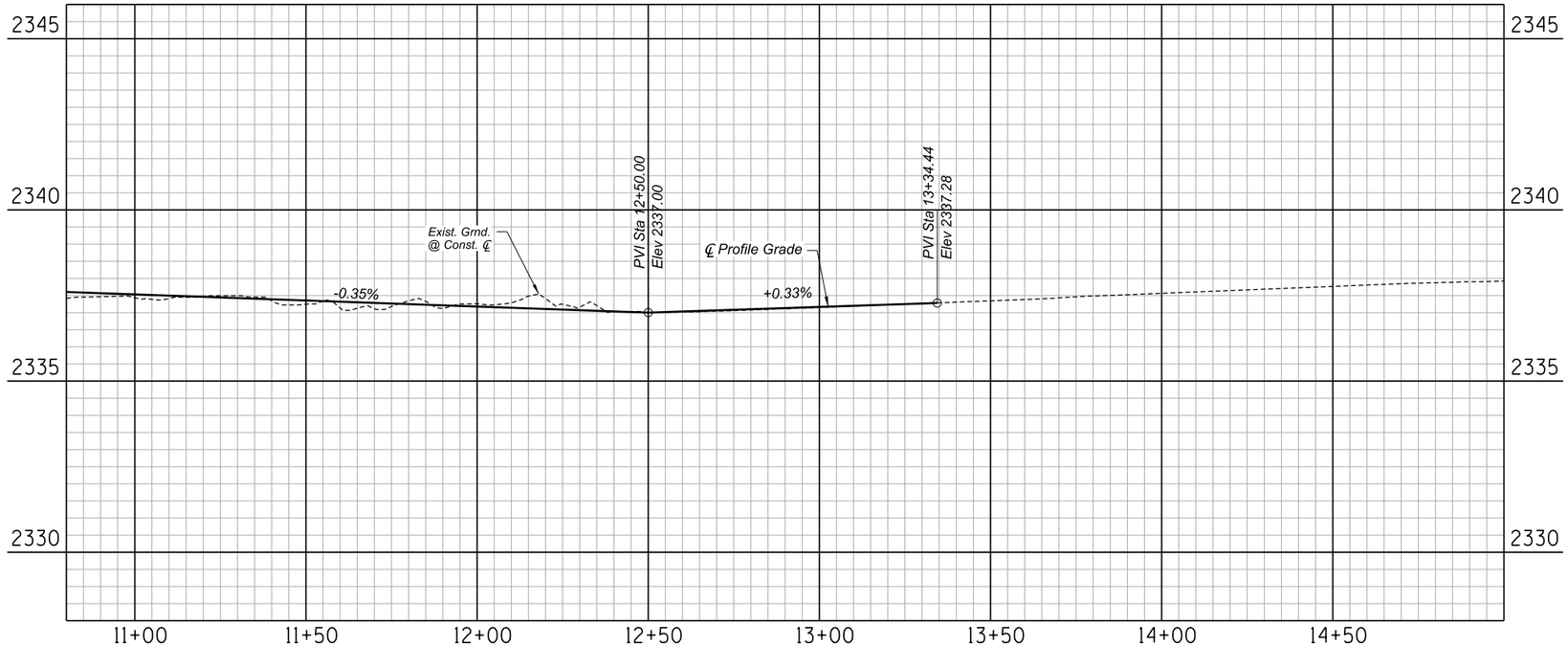
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

OpenRoads Designer v10.12.02.4
8/20/2026
10:42:20 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

ROGER RD
PAVING PLAN & PROFILE

SHEET 93 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

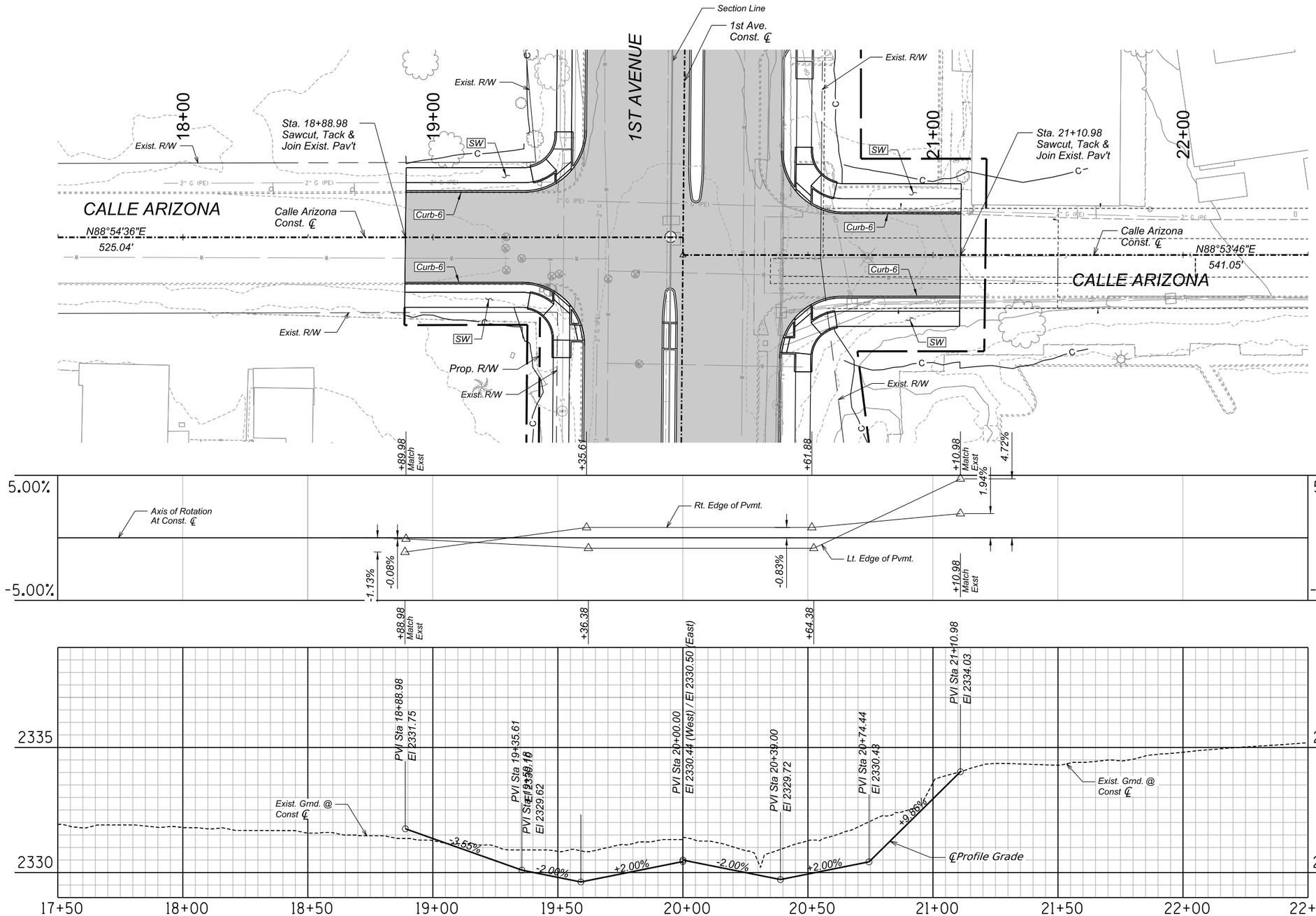
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

162 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20' V: 1" = 2'
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-52.dgn
8/20/2026 10:42:20 AM



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

EPS GROUP

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% SUBMITTAL
Preliminary
Not For Construction

CALLE ARIZONA
PAVING PLAN & PROFILE

Sheet 94 of 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

163 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

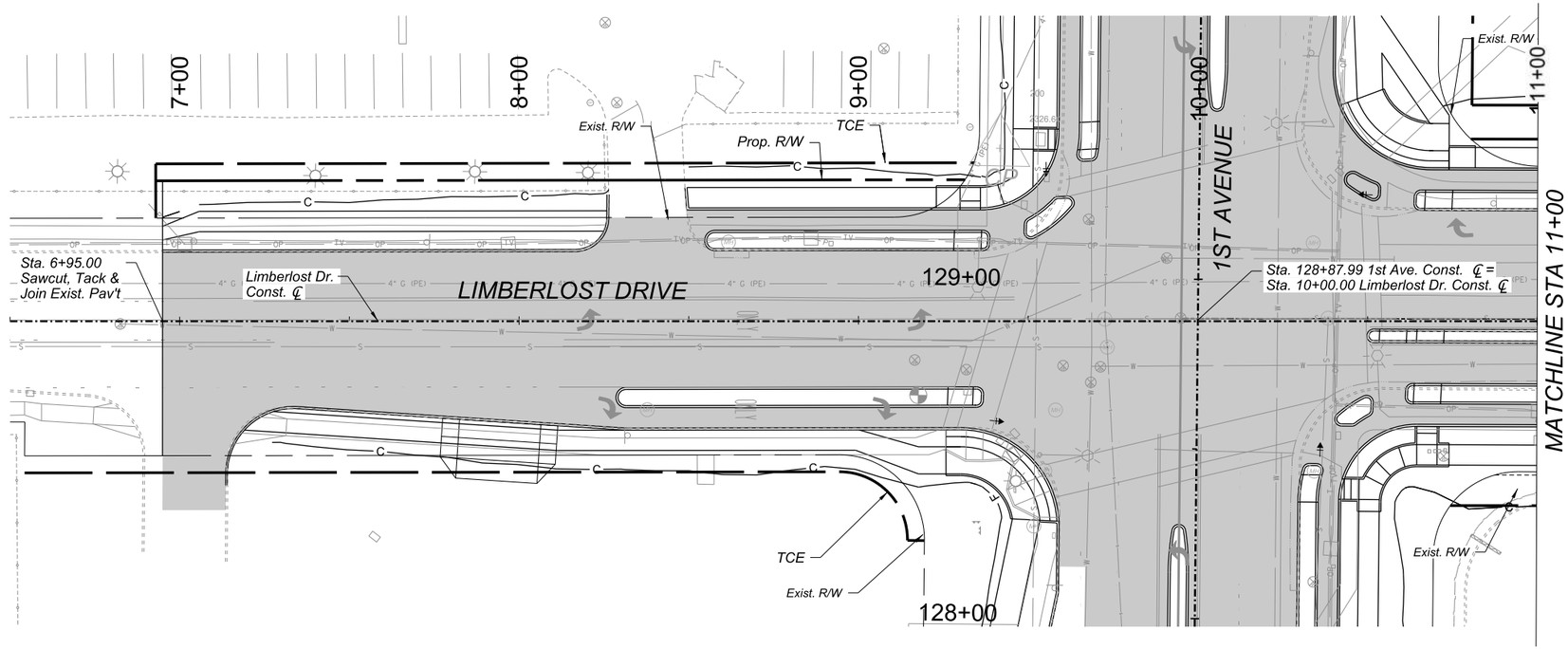
CITY OF TUCSON

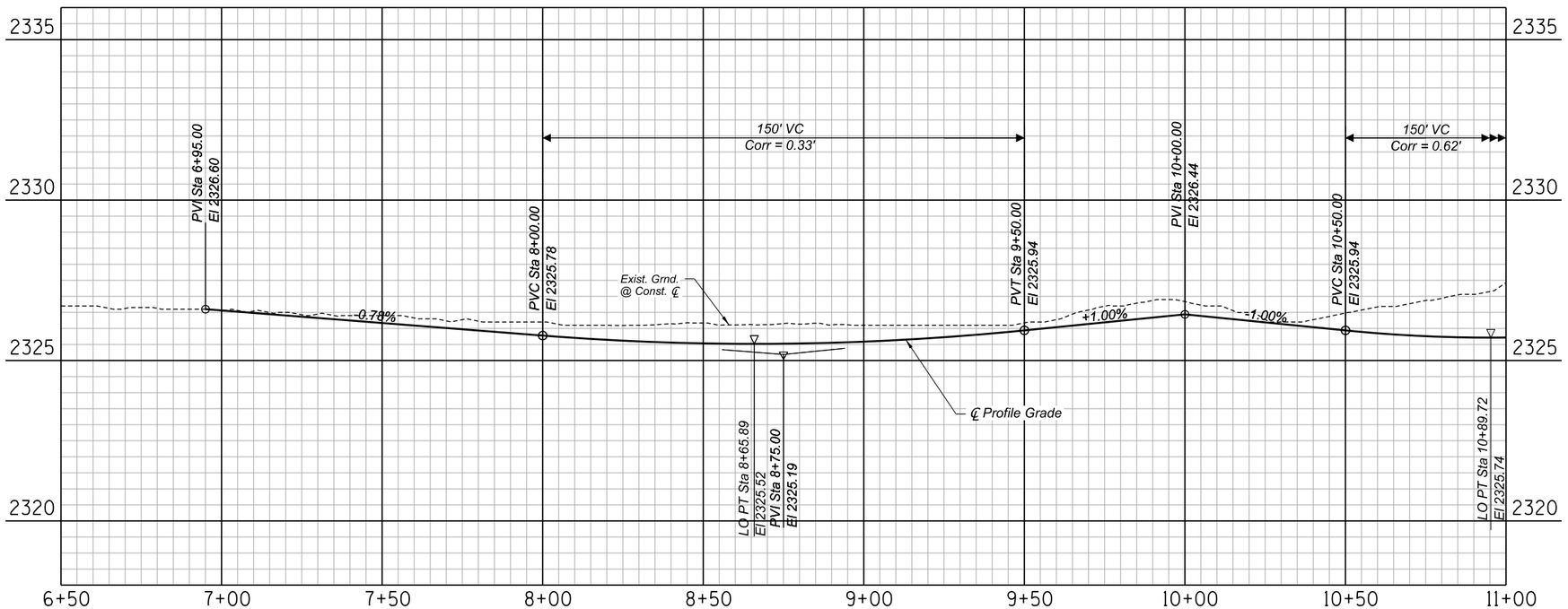
DRWN. BY REC	CHKD. BY JDB	APPR. BY JDB	SCALE: H: 1"=20' V: 1" = 2'
JUN 2026	JUN 2026	JUN 2026	PLAN NO. R-2024-XXX

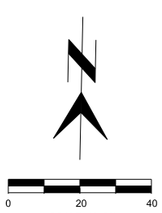
OpenRoads Designer v10.12.03.2
8/14/2026
2:40:10 PM
Printed by: tallison
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4377897\02C-53.dgn
8/14/2026 2:40:10 PM

OpenRoads Designer v10.12.02.4
8/20/2026
10:46:42 AM
Printed by: SWESTMORELAND
Print Scale= 10.0833333
Printable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.plotcfg
Project ID:
Client Number: 4109







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

CALLE ARIZONA
PAVING PLAN & PROFILE

SHEET 94 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

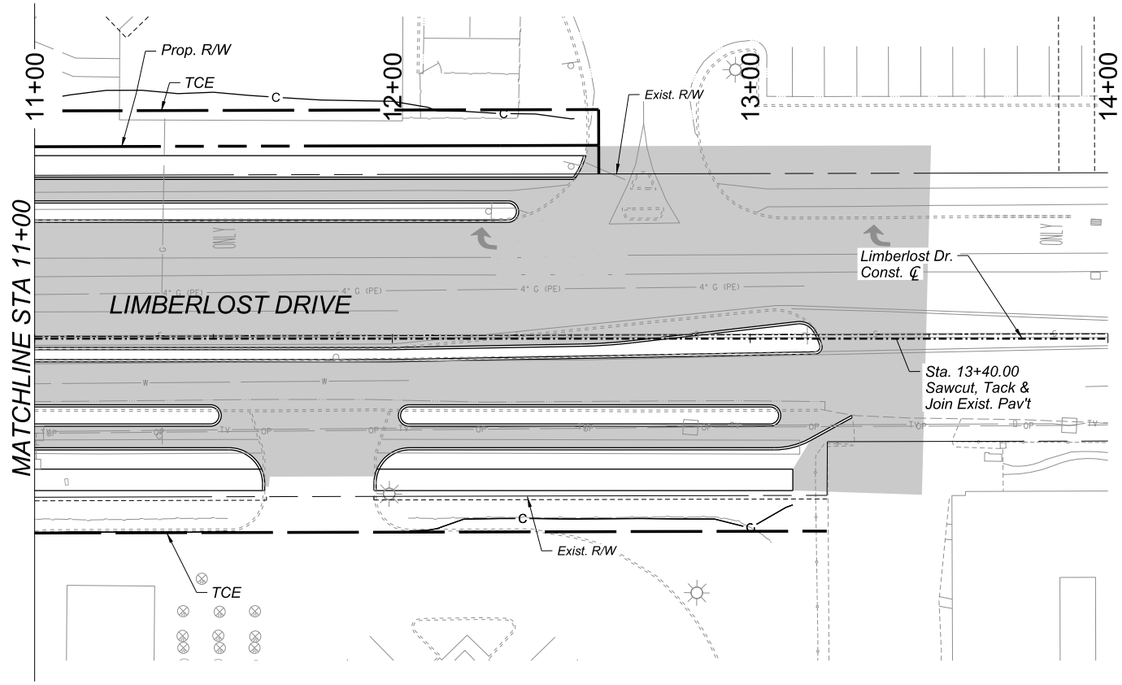
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

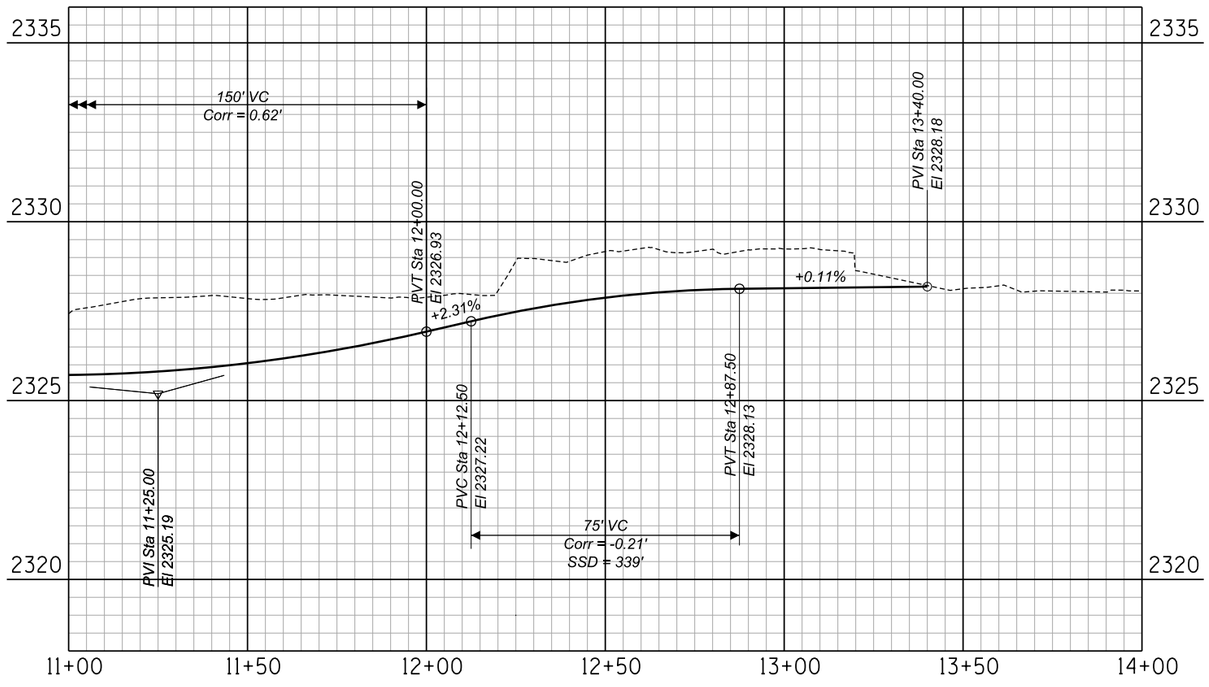
164 OF 504

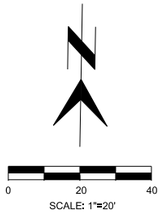
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-54.dgn
8/20/2026 10:46:42 AM







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

LIMBERLOST DR
PAVING PLAN & PROFILE

SHEET 95 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

165 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: *H: 1" = 20'*
PLAN NO. R-2024-XXX

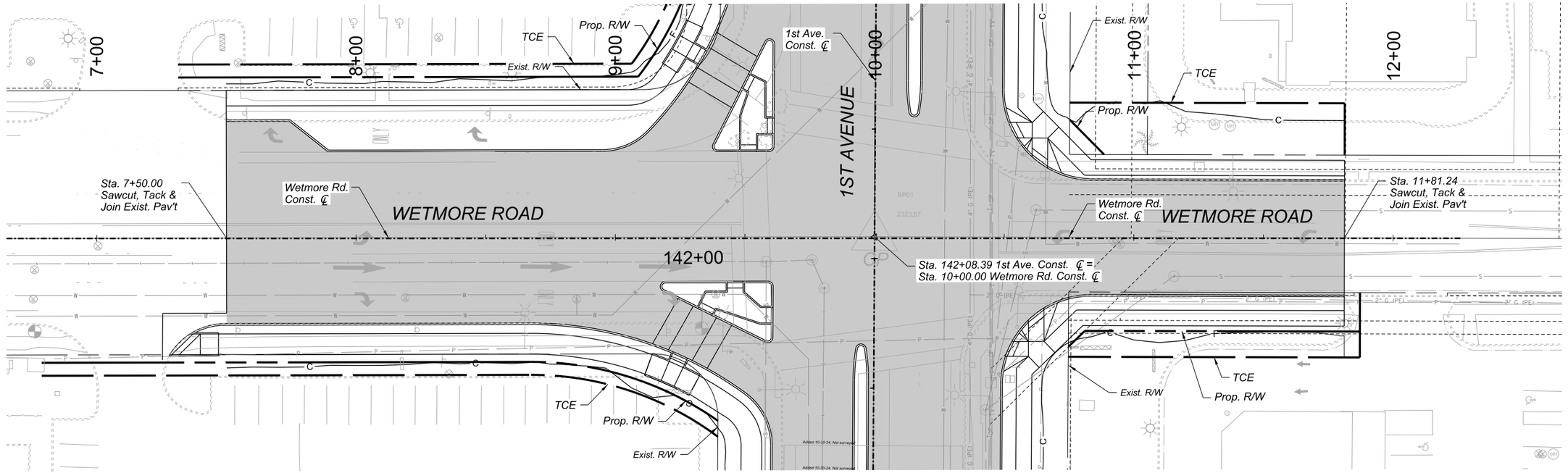
Project ID:
Client Number: 4109

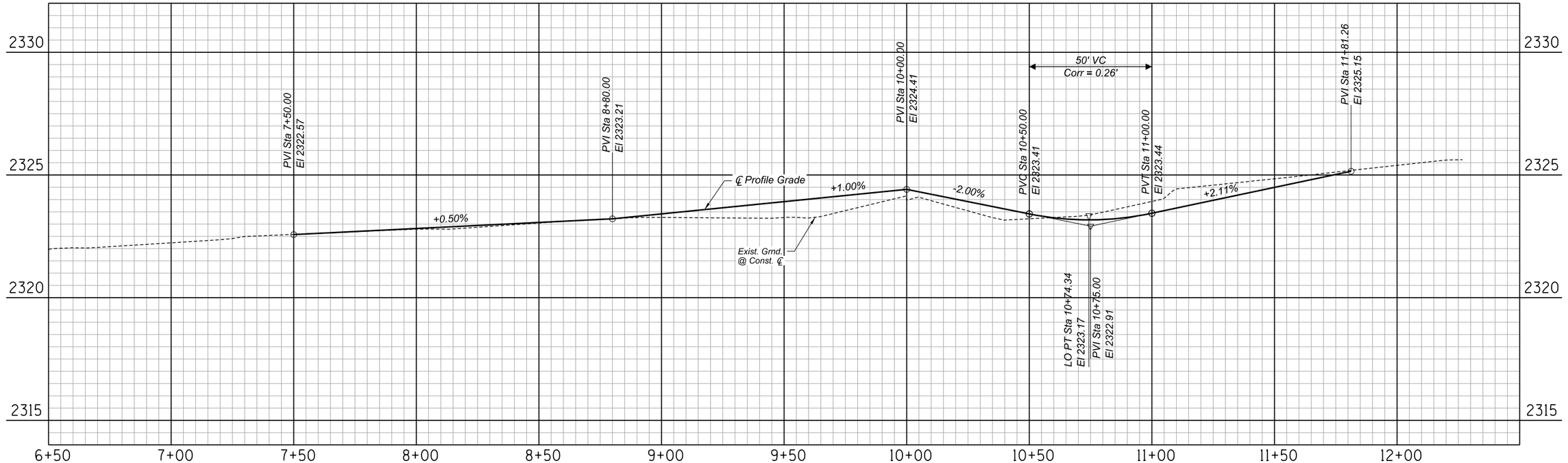
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg

Printed by: SWESTMORELAND
Print Scale: 1:0.0833333

8/20/2026 10:52:13 AM OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3987900\02C-54A.dgn
8/20/2026 10:52:13 AM





WETMORE RD
PAVING PLAN & PROFILE

SHEET 96 OF 102

0 20 40
SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

166 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:	PLAN NO.
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'	R-2024-XXX
AUG 2026	AUG 2026	AUG 2026		

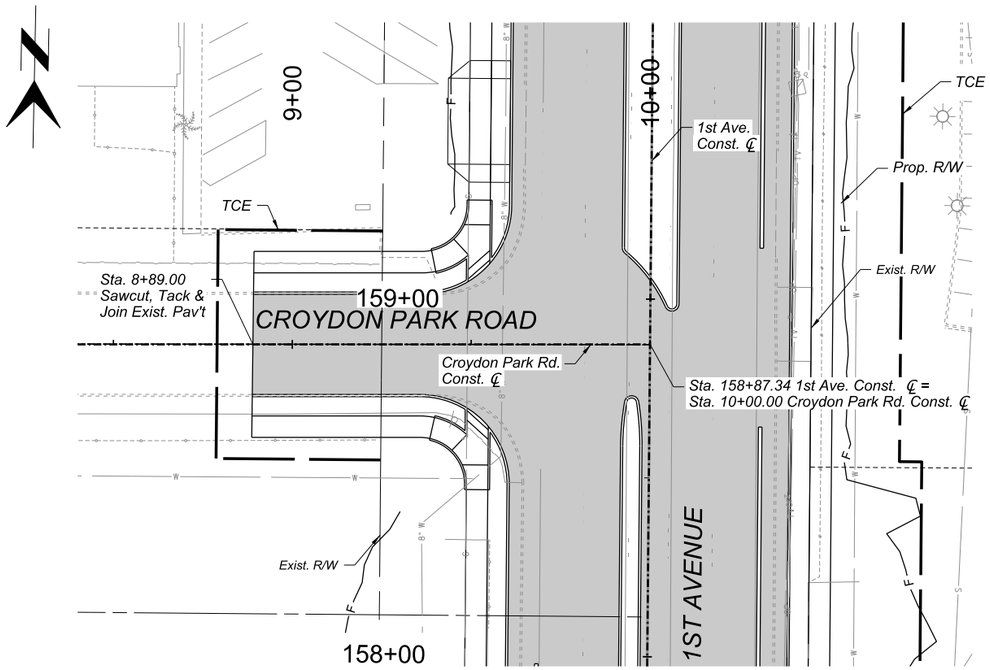
Project ID:
Client Number: 4109

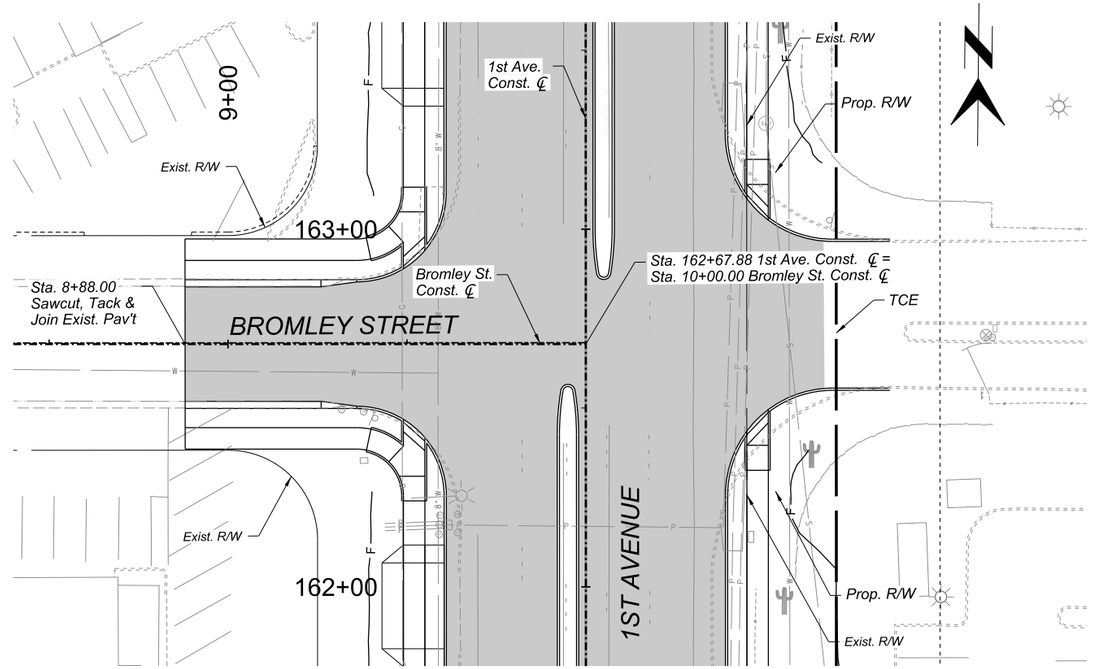
Printed by: TCOLE
Print Scale: 10.0833333

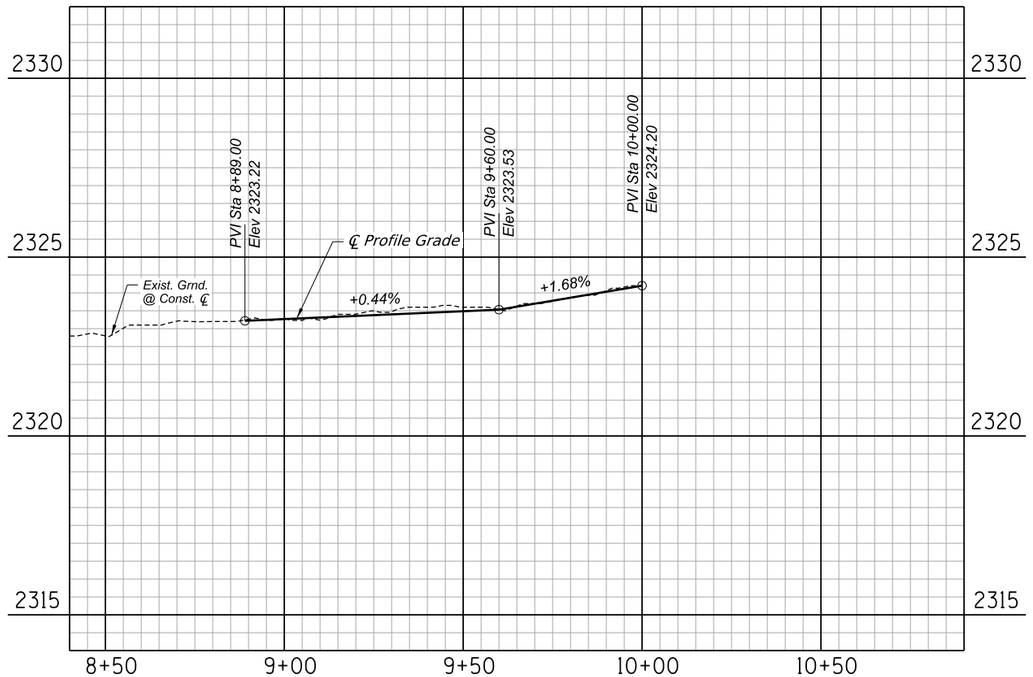
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg

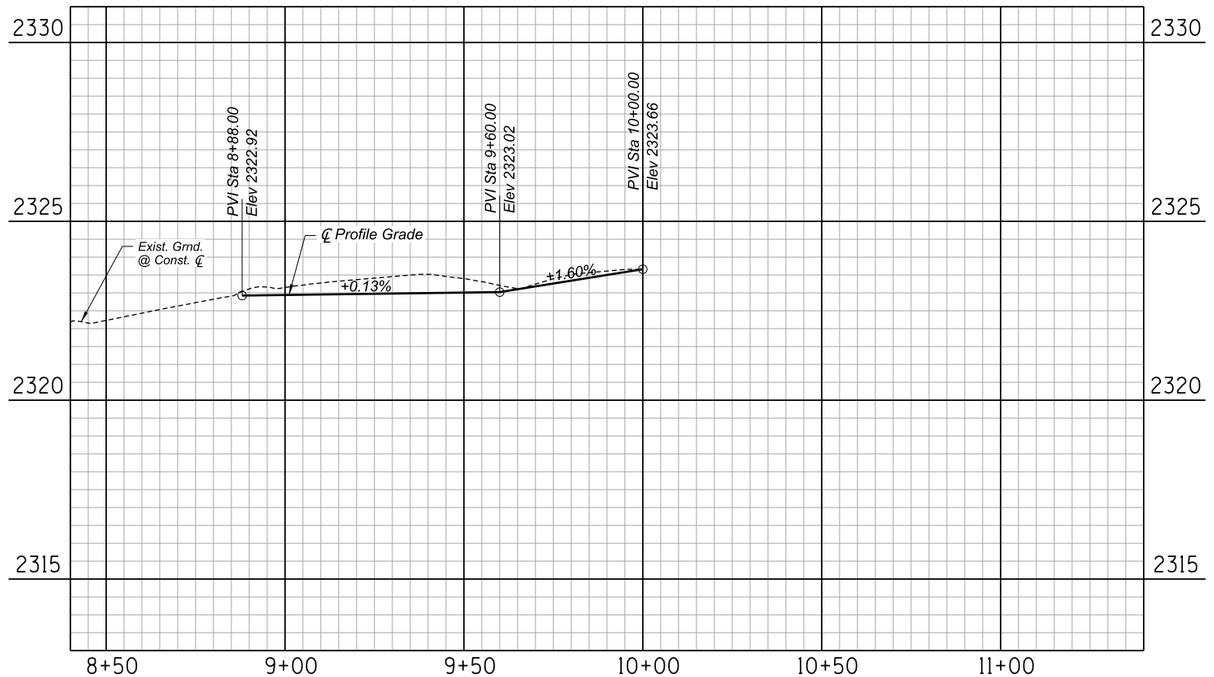
OpenRoads Designer v10.12.02.4
8/20/2026
9:26:07 AM

c:\pwworking\west01\d3987900\02C-55.dgn
8/20/2026 9:26:07 AM









CROYDON PARK RD/BROMLEY ST
PAVING PLAN & PROFILE

SHEET 97 OF 102

SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

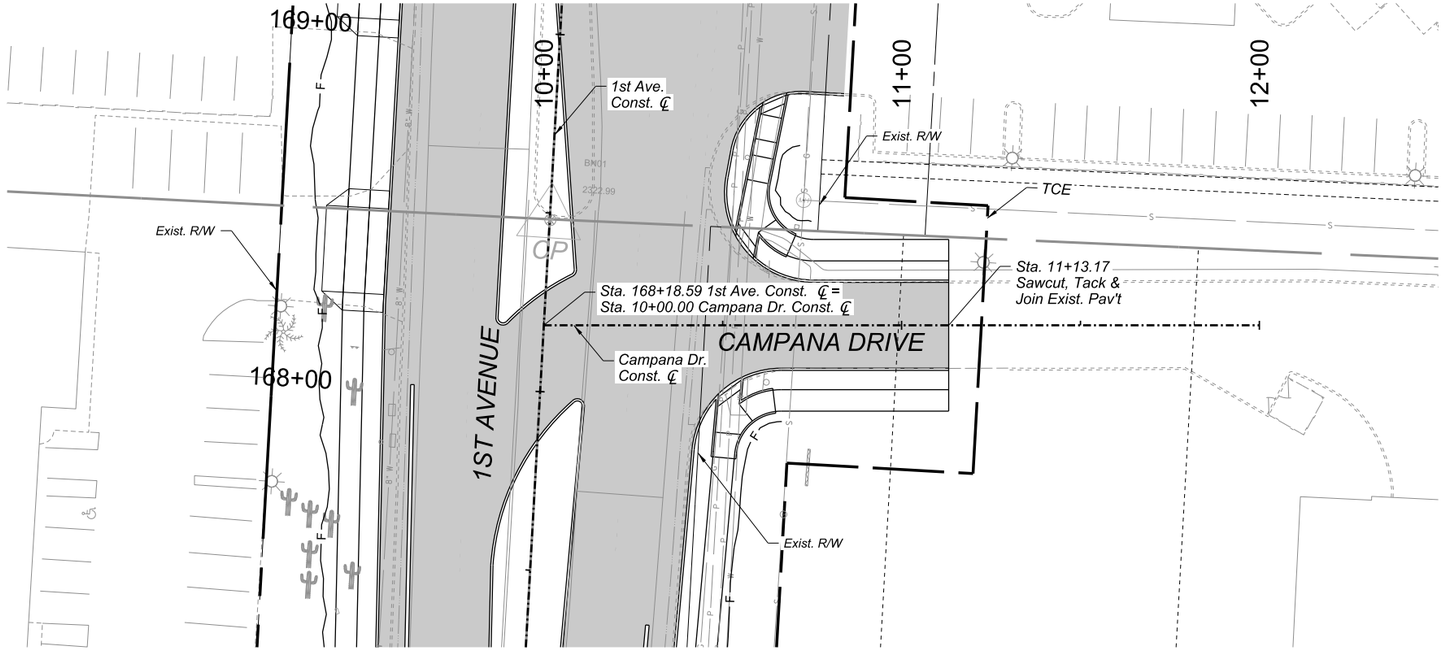
167 OF 504

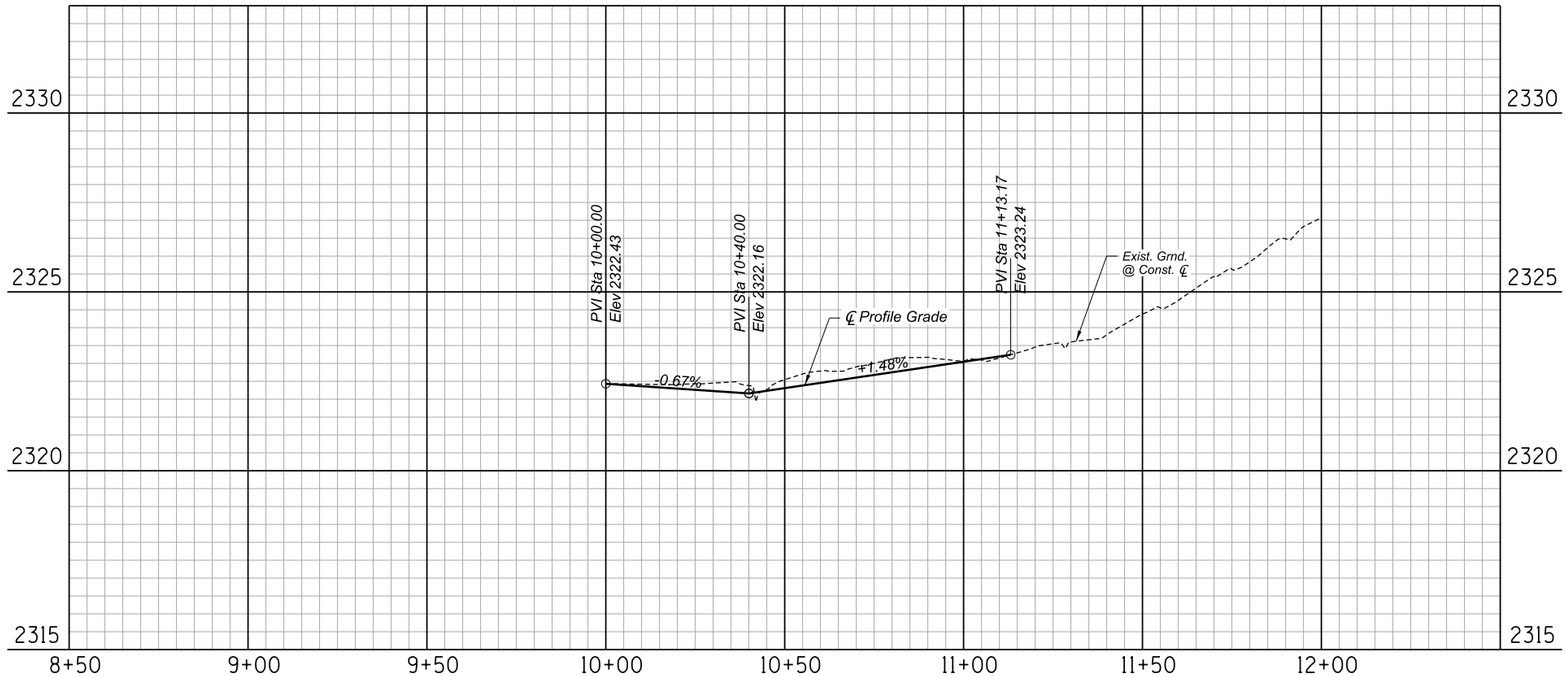
CITY OF TUCSON

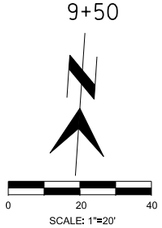
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/20/2026
11:02:48 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d3987900\02C-56.dgn
8/20/2026 11:02:48 AM

OpenRoads Designer v10.12.02.4
8/20/2026
9:38:28 AM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

CAMPANA DR
PAVING PLAN & PROFILE

SHEET 98 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

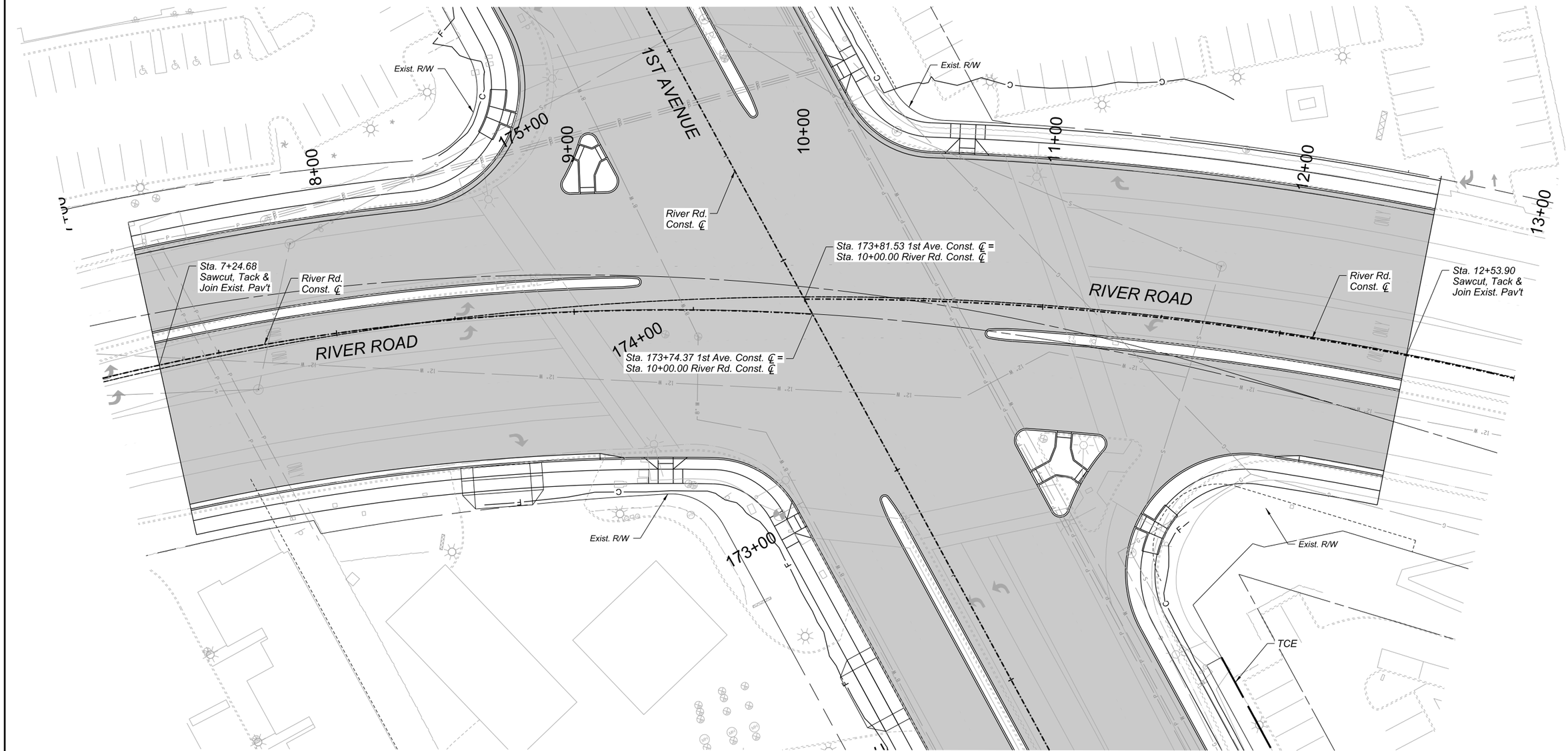
168 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-57.dgn
8/20/2026 9:38:28 AM

OpenRoads Designer v10.12.02.4
8/20/2026
11:06:17 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Printable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

RIVER RD
PAVING PLAN

SHEET 99 OF 102

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

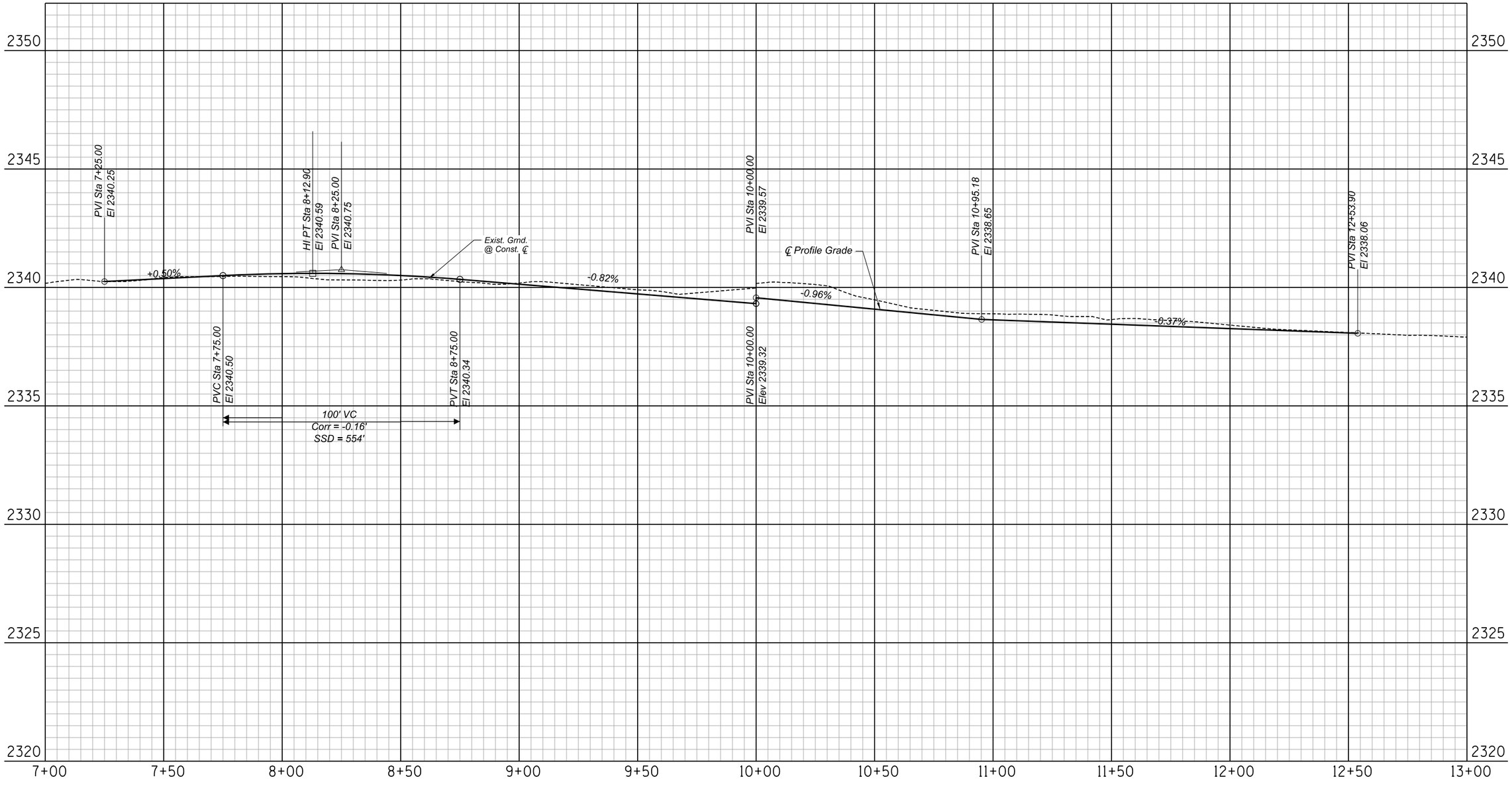
169 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\02C-58A.dgn
8/20/2026 11:06:17 AM

OpenRoads Designer v10.12.02.4
8/20/2026
10:56:01 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



RIVER RD
PAVING PROFILE

SHEET 100 OF 102

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

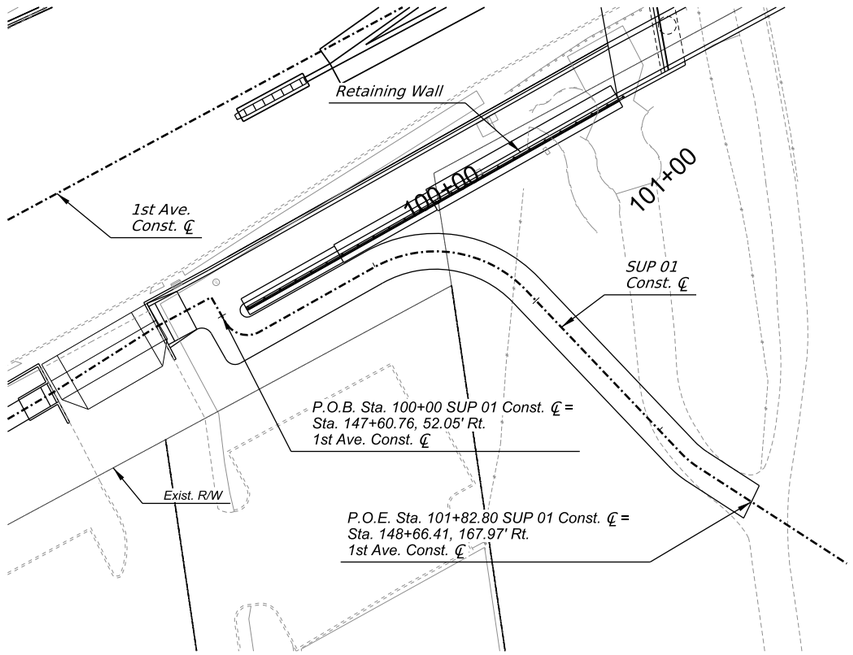
170 OF 504

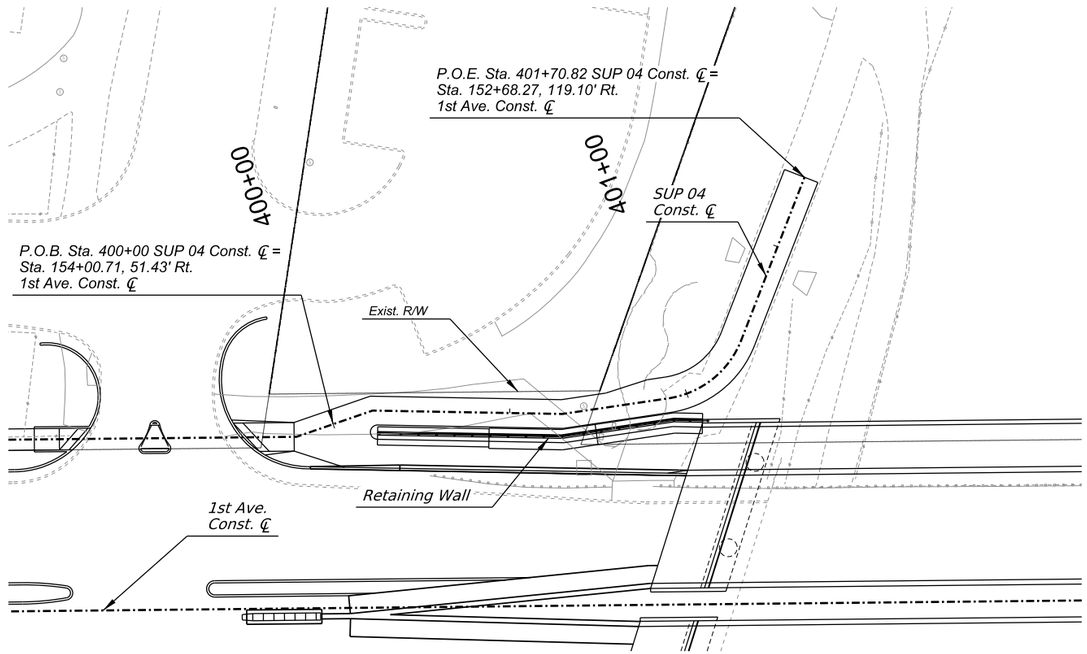
CITY OF TUCSON

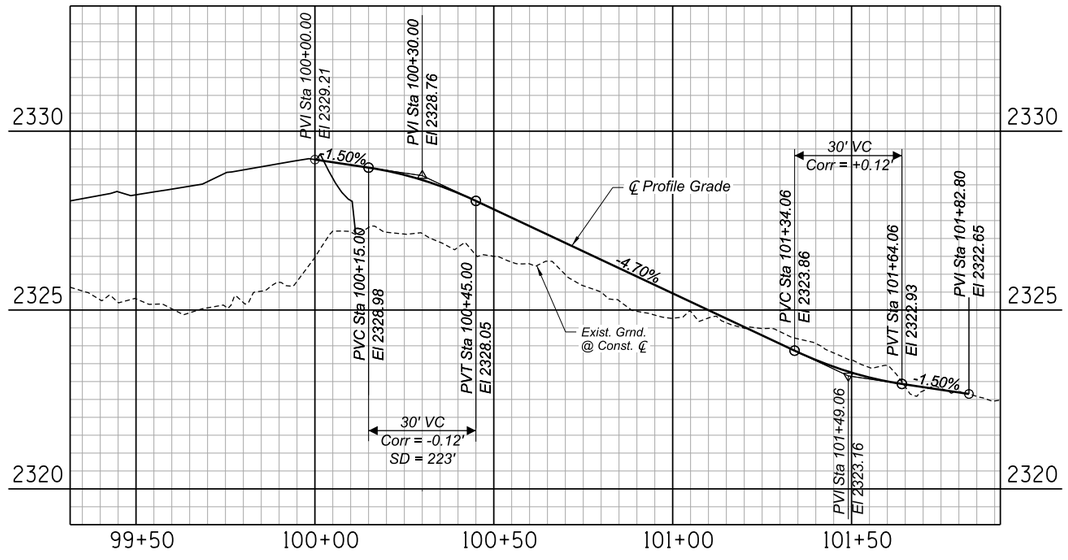
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

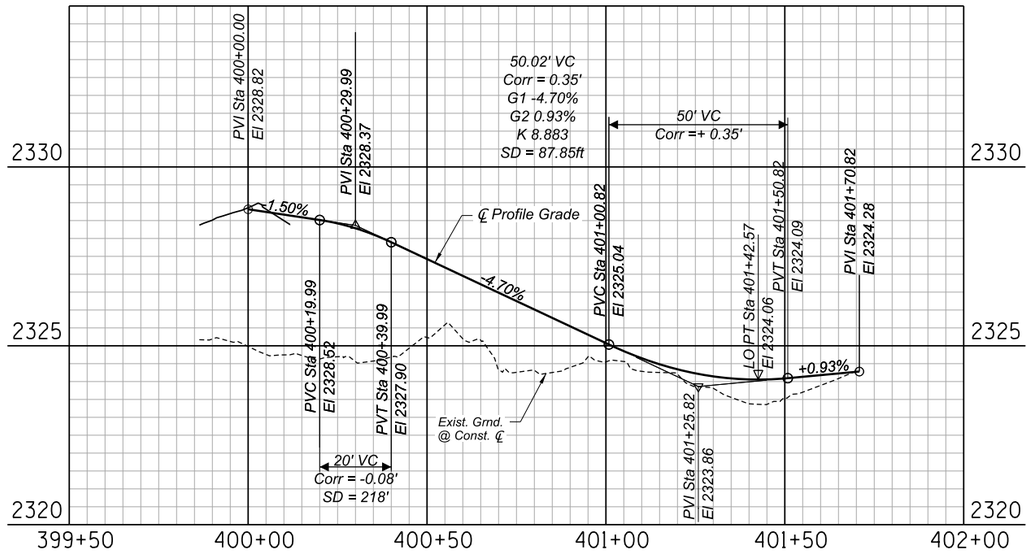
c:\pwworking\west01\d3987900\02C-58B.dgn
8/20/2026 10:56:01 AM

Printed by: TCOLE
Print Scale: 1:0.0833333
OpenRoads Designer v10.12.02.4
8/20/2026
10:58:52 AM
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg









SHARED-USE PATH
PLAN & PROFILE

SHEET 101 OF 102

0 20 40
SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

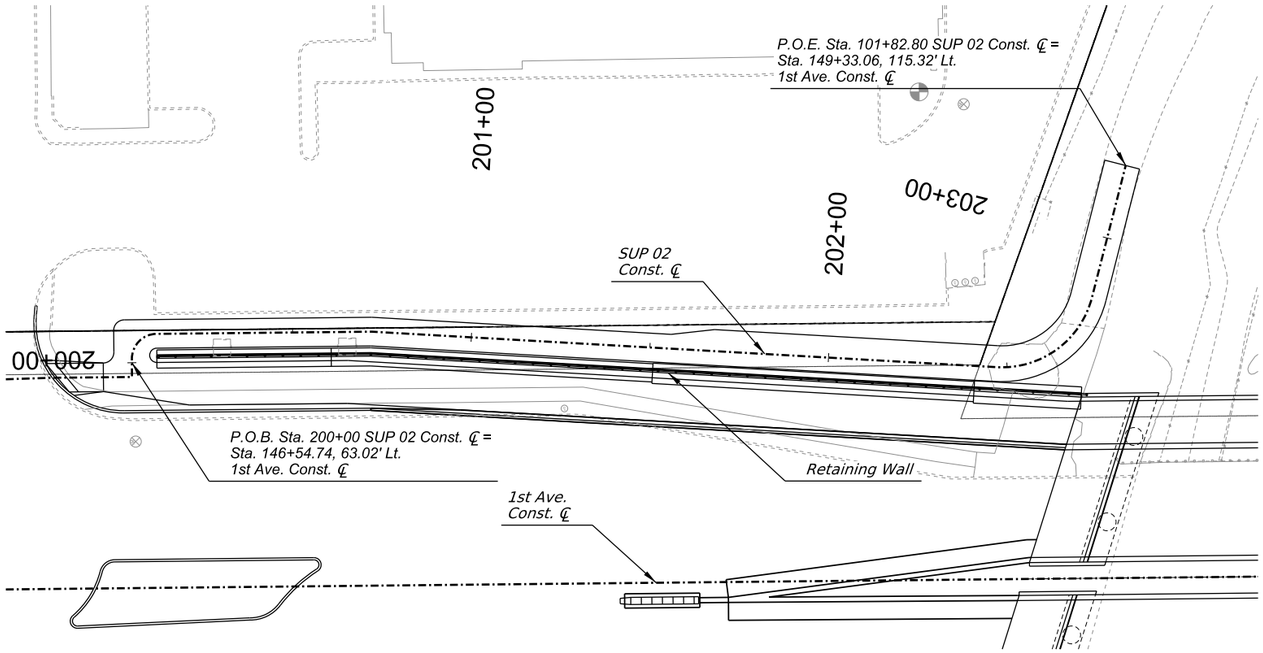
171 OF 504

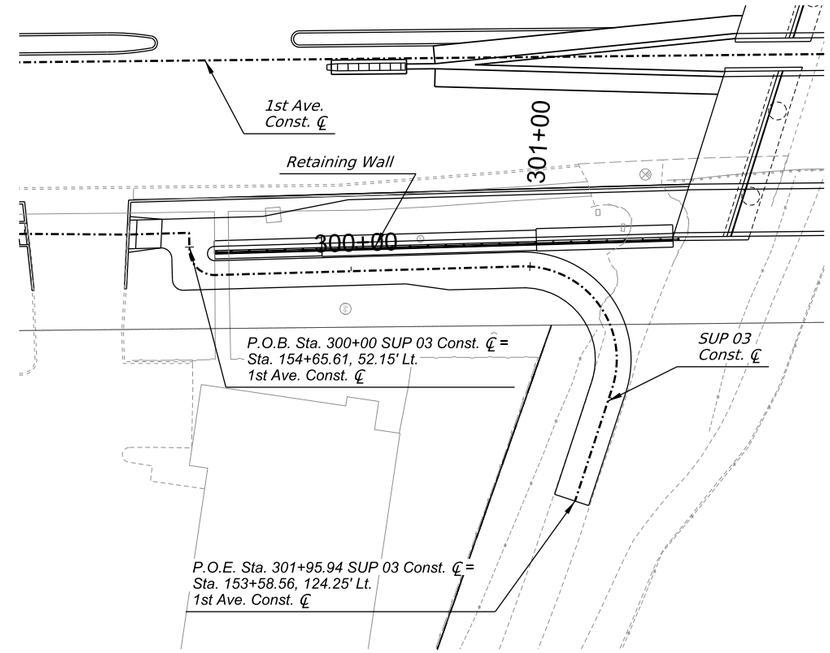
CITY OF TUCSON

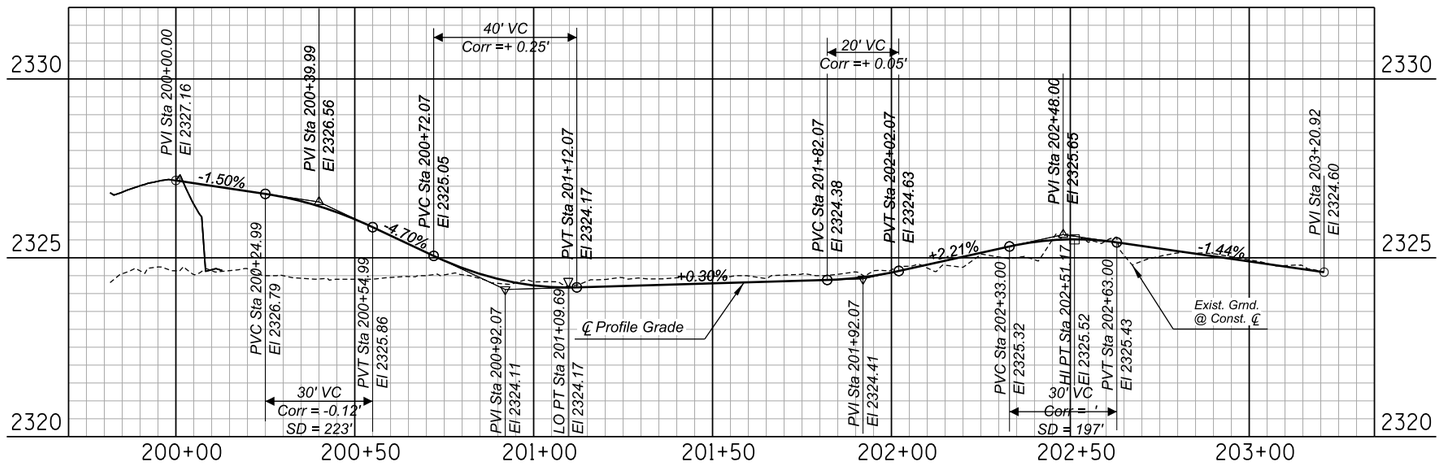
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

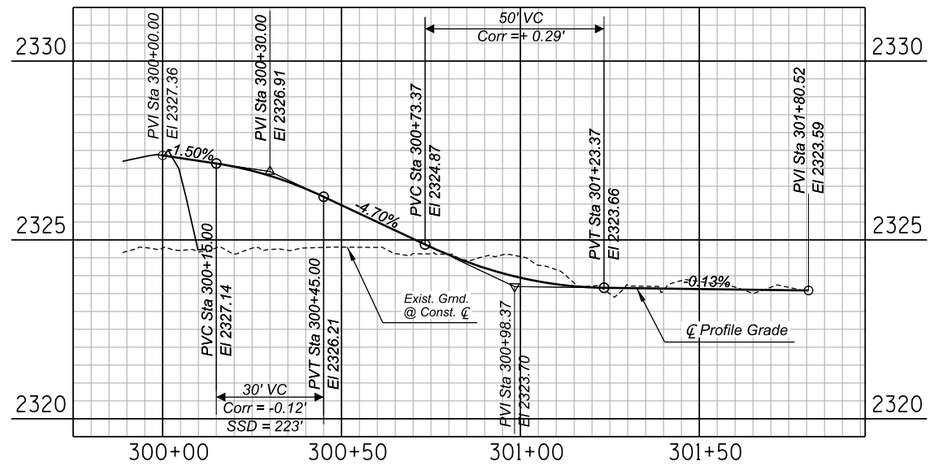
Project ID:
Client Number: 4109

c:\pwworking\west01\d3987900\02C-59.dgn
8/20/2026 10:58:52 AM









SHARED-USE PATH
PLAN & PROFILE

SHEET 102 OF 102

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

172 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JMF	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
Arizona Blue Stake, Inc.
ARIZONA 811
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Project ID:
Client Number: 4109

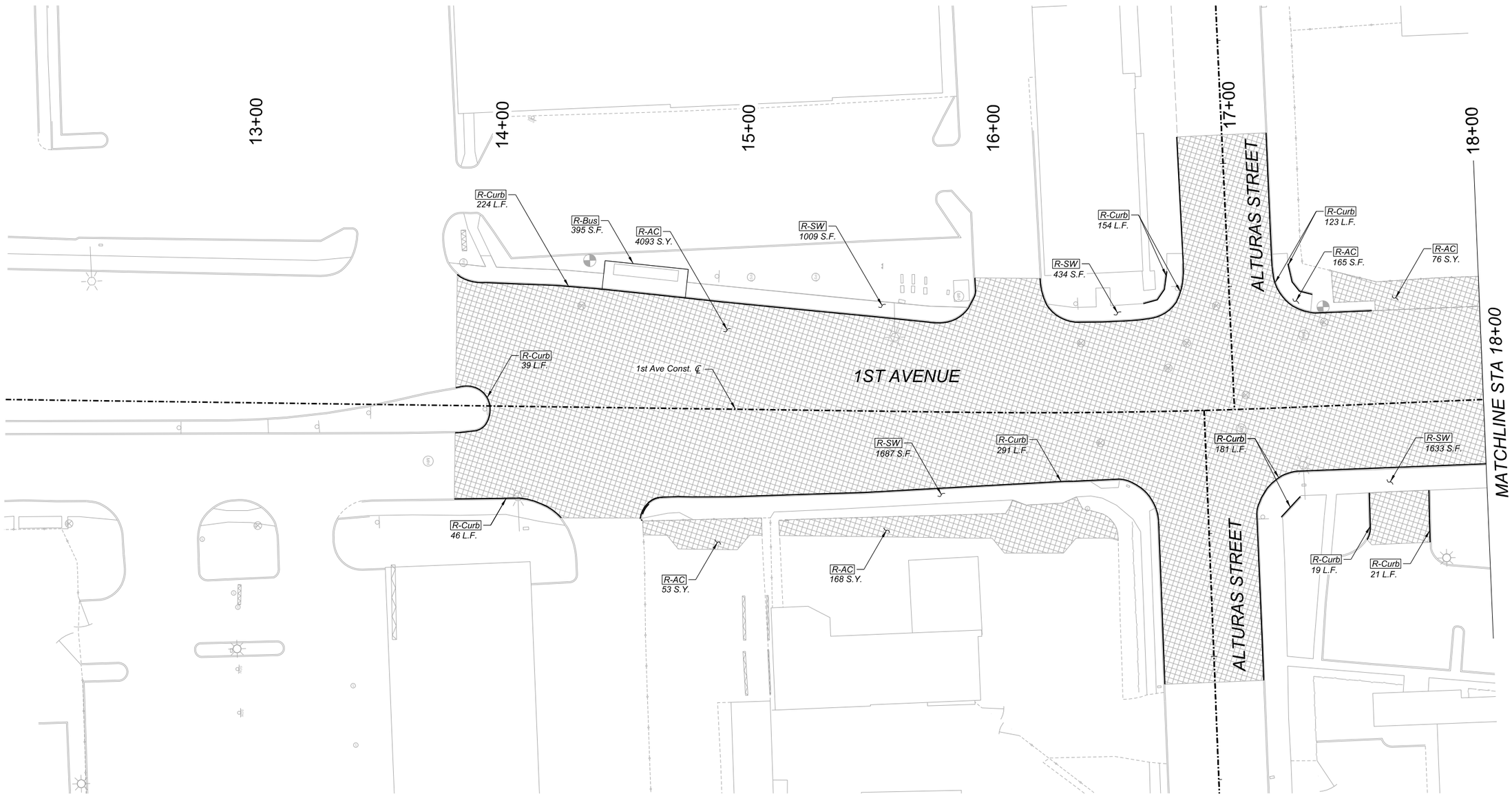
Printed by: TCOLE
Print Scale: 1:0.0833333

Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg

OpenRoads Designer v10.12.02.4
8/20/2026
11:00:29 AM

c:\pwworking\west01\d3987900\02C-60.dgn
8/20/2026 11:00:29 AM

Project ID:
Client Number:4109
Pentable:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwpdf_SD.pltcfg
Printed by:SWESTMORELAND
Print Scale: 1:0.0833333
12:55:22 PM 8/20/2026 OpenRoads Designer v10.12.02.4



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

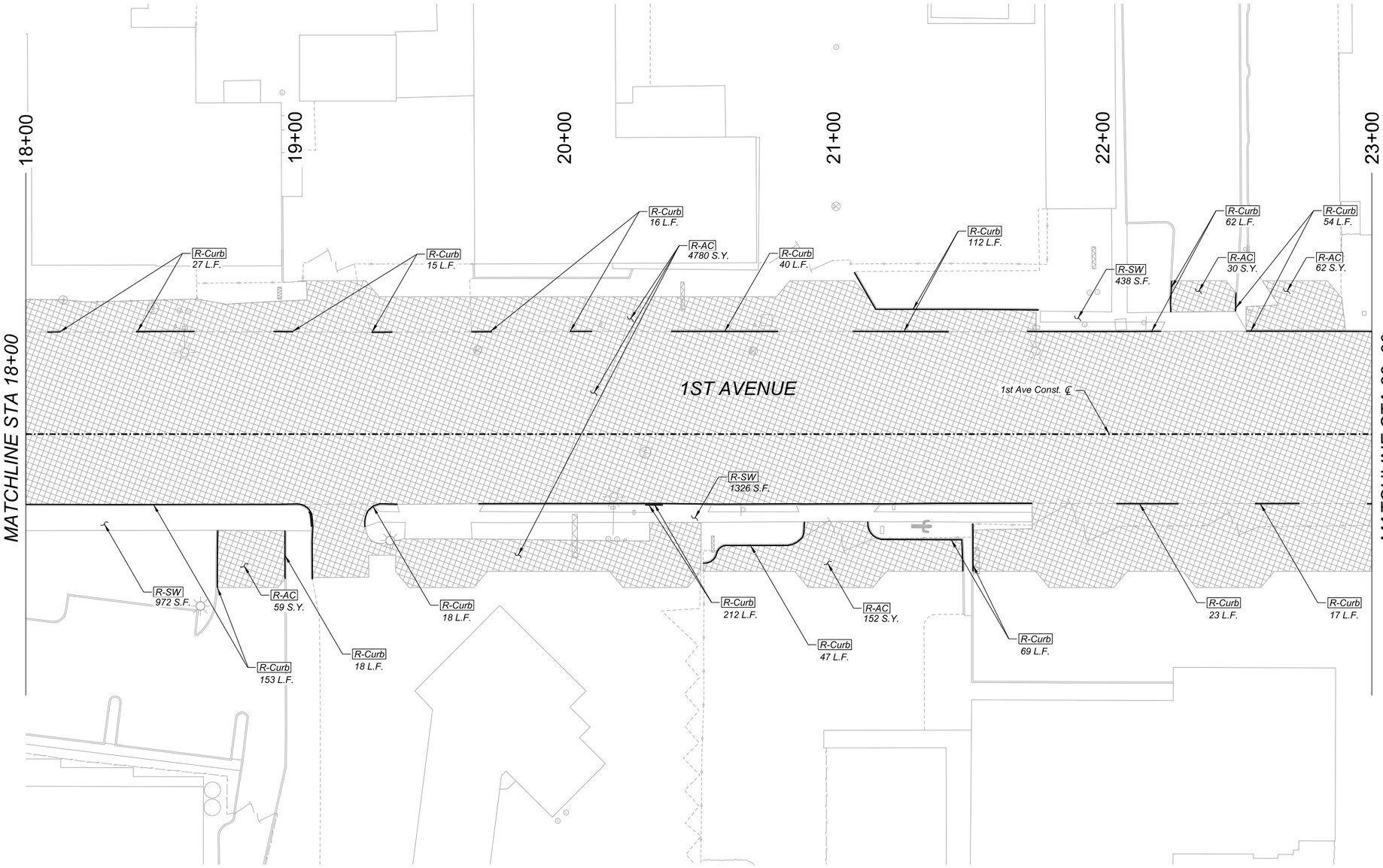
DRWN. BY JAR AUG 2026 | CHKD. BY JMF AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: H: 1"=20' | PLAN NO. R-2024-XXX

DEMOLITION PLAN

SHEET 1 OF 37

173 OF 504

12:58:17 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM		Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

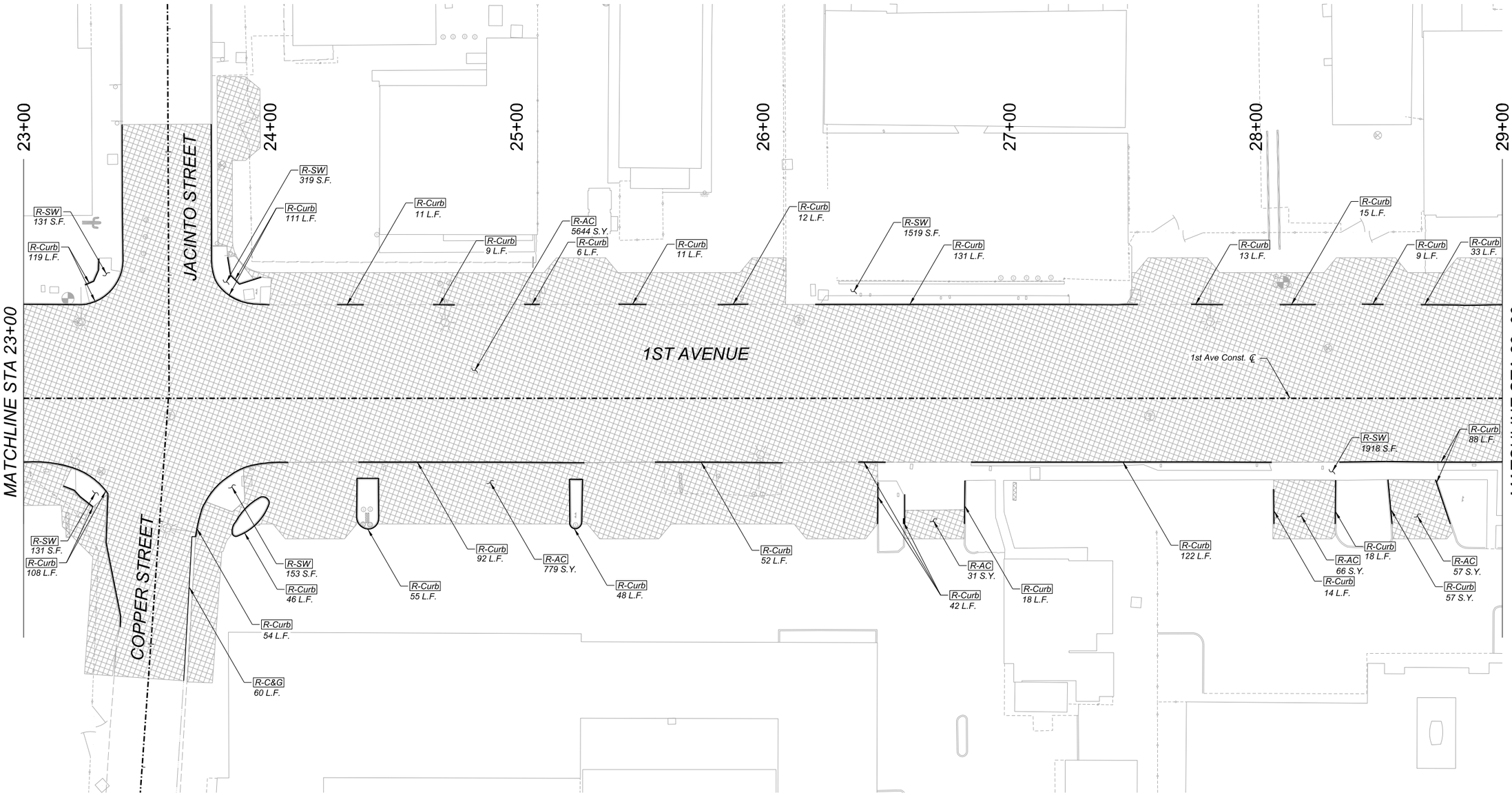
DEMOLITION PLAN

SHEET 2 OF 37

174 OF 504

c:\pwworking\west01\d3987900\08C-02.dgn
8/20/2026 12:58:17 PM

OpenRoads Designer v10.12.02.4
8/20/2026
1:12:08 PM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Printable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.plotcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

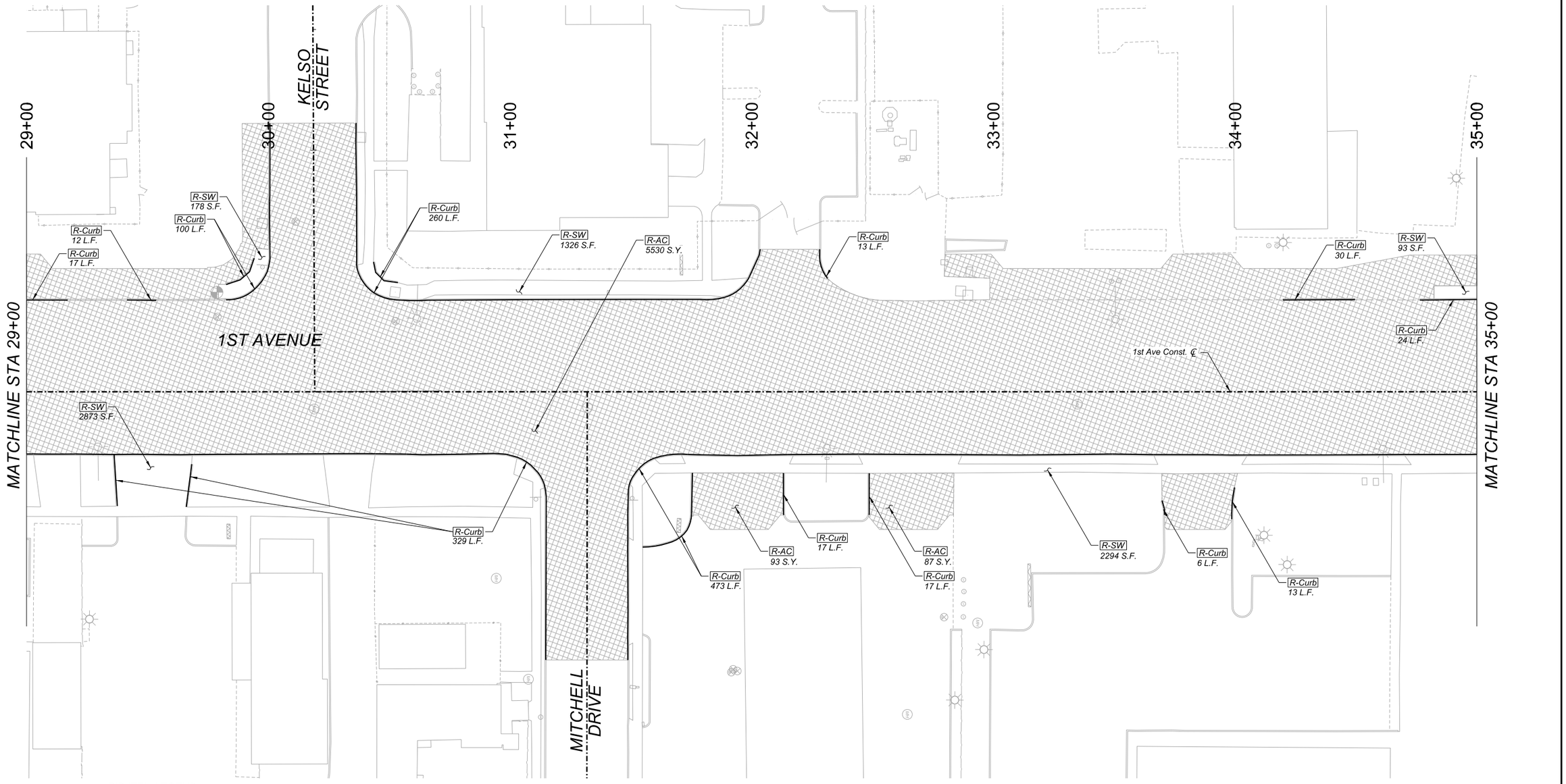
DEMOLITION PLAN

SHEET 3 OF 37

175 OF 504

c:\pwworking\west01\d3987900\08C-03.dgn
8/20/2026 1:12:08 PM

OpenRoads Designer v10.12.02.4
8/20/2026
1:15:17 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 4 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

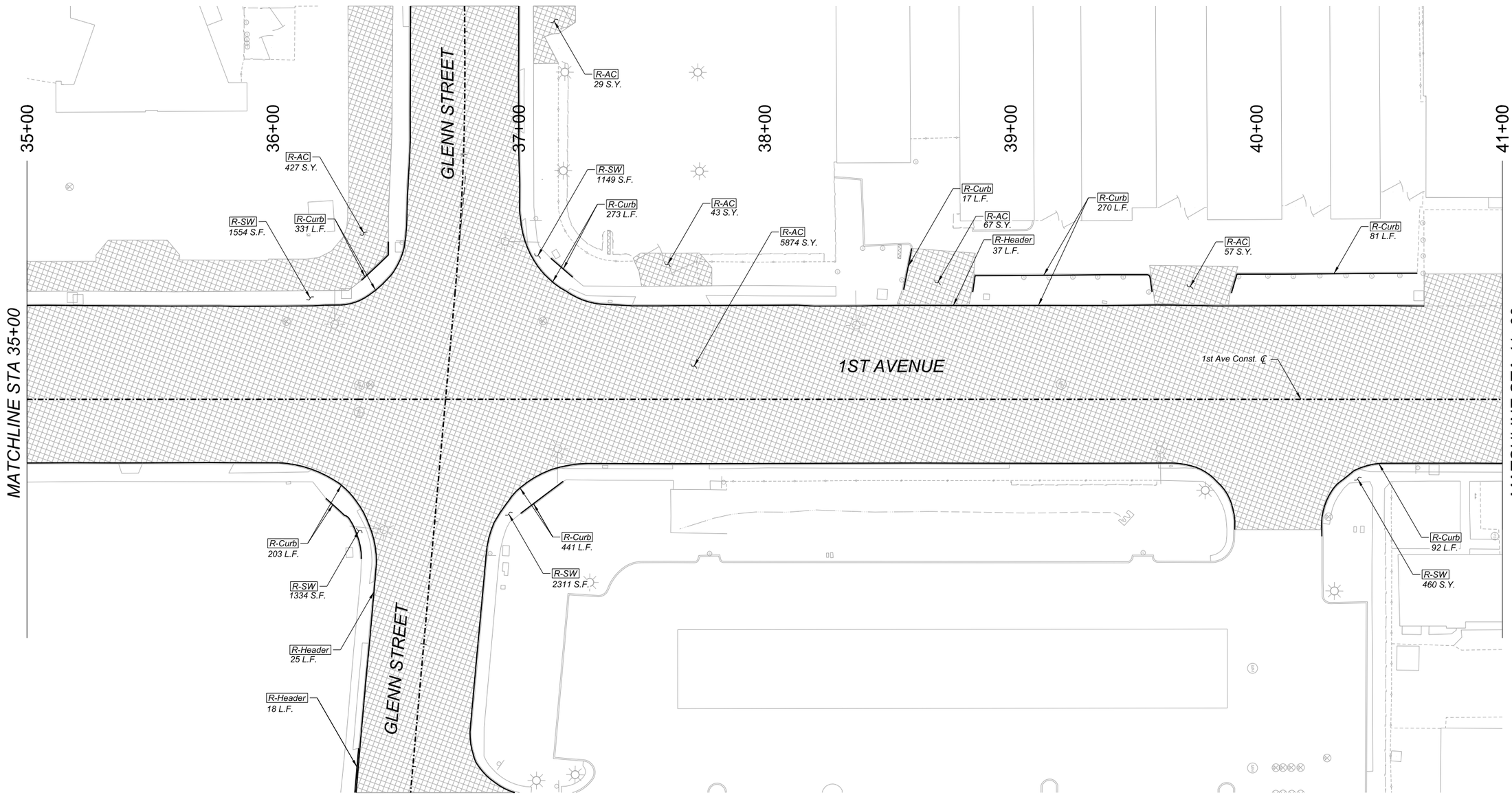
176 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-04.dgn
8/20/2026 1:15:17 PM

10:13:13 AM 8/19/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_fwpdf_SD.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEMOLITION PLAN

SHEET 5 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

177 OF 504

CITY OF TUCSON

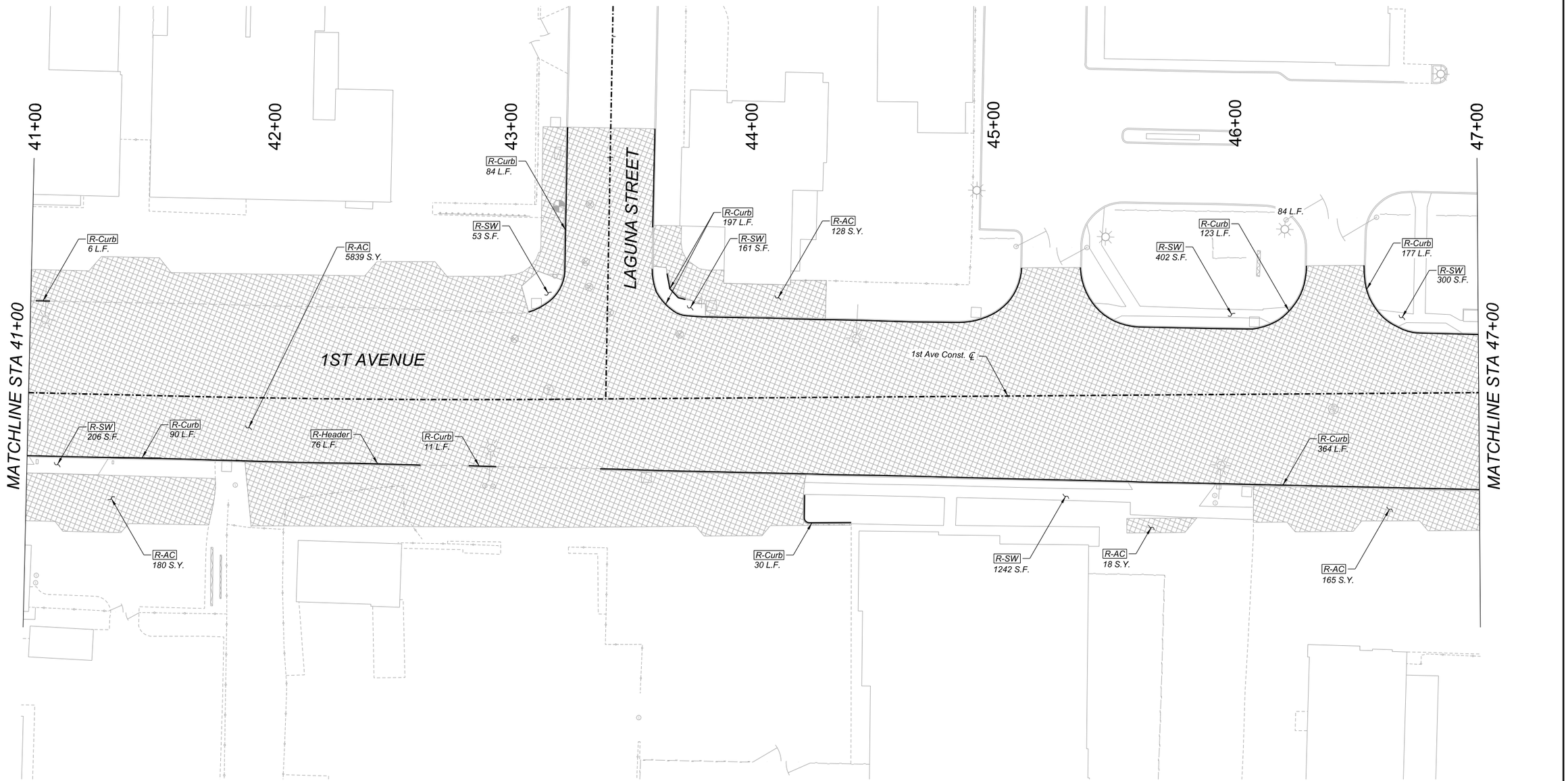
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-05.dgn
8/19/2026 10:13:13 AM

Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
8/20/2026
1:23:42 PM
OpenRoads Designer v10.12.02.4

Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg

Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

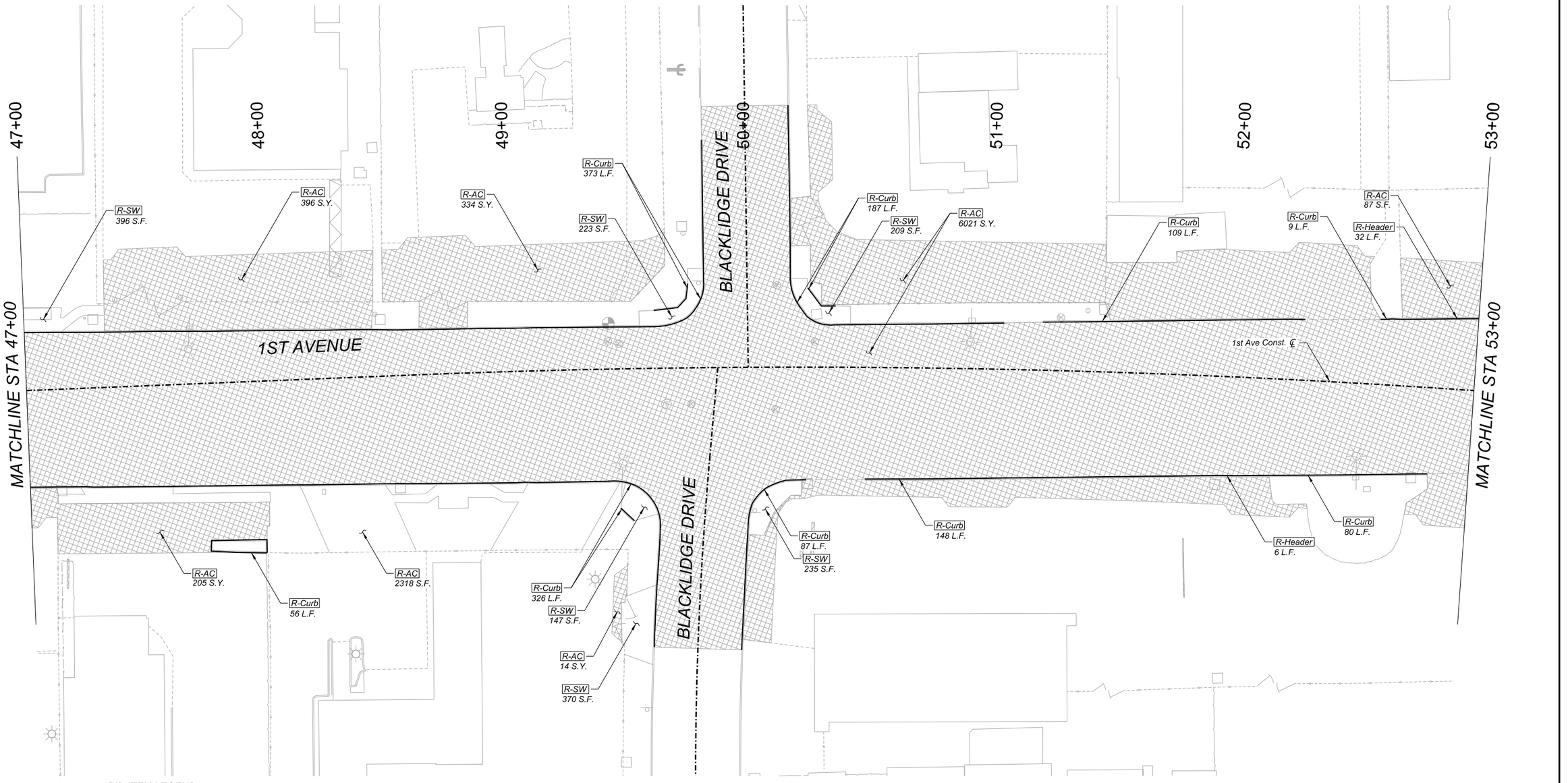
DEMOLITION PLAN

SHEET 6 OF 37

178 OF 504

c:\pwworking\west01\d3987900\08C-06.dgn
8/20/2026 1:23:42 PM

OpenRoads Designer v10.12.02.4
8/20/2026
1:26:02 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 7 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

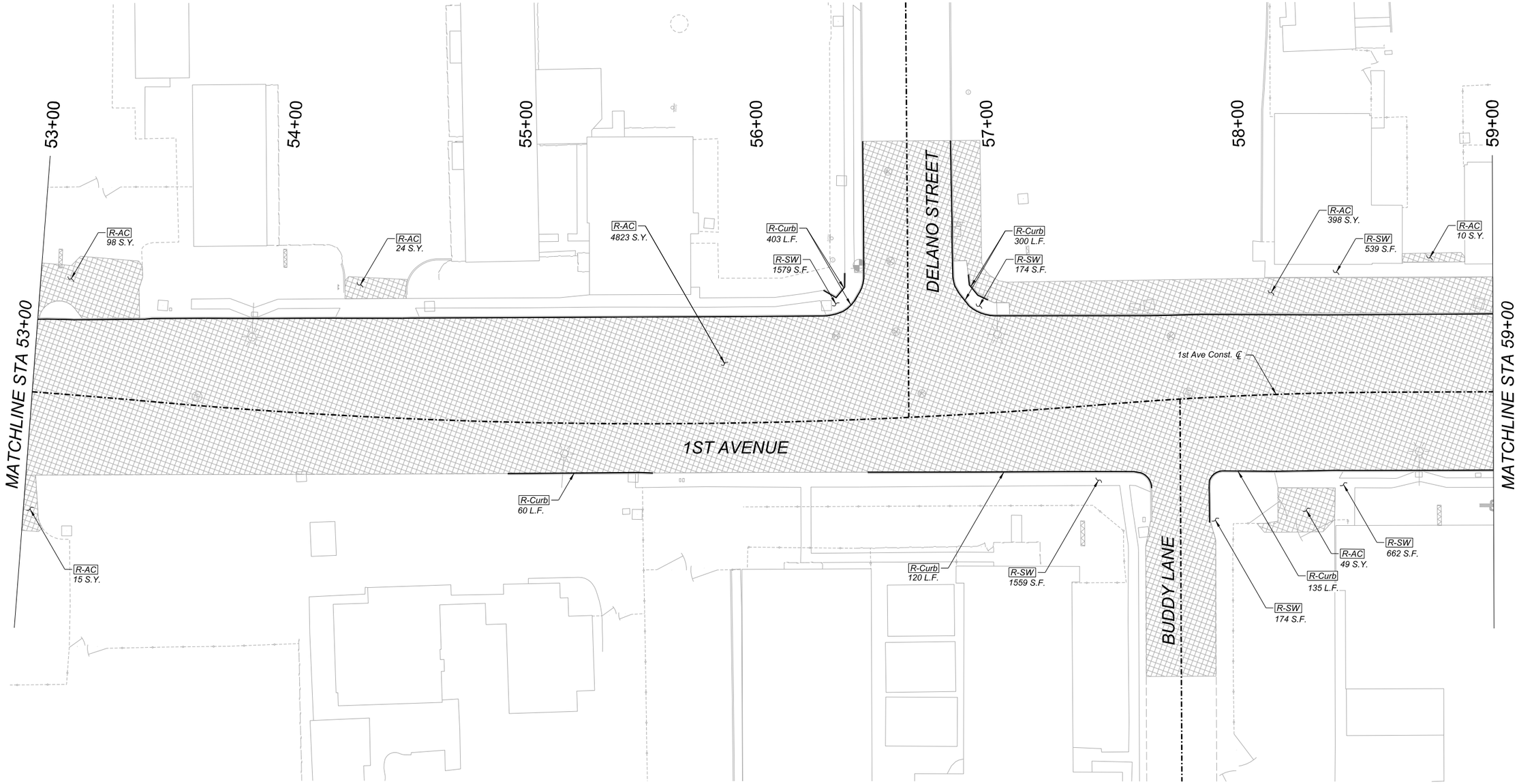
179 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-07.dgn
8/20/2026 1:26:02 PM

1:31:23 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 8 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

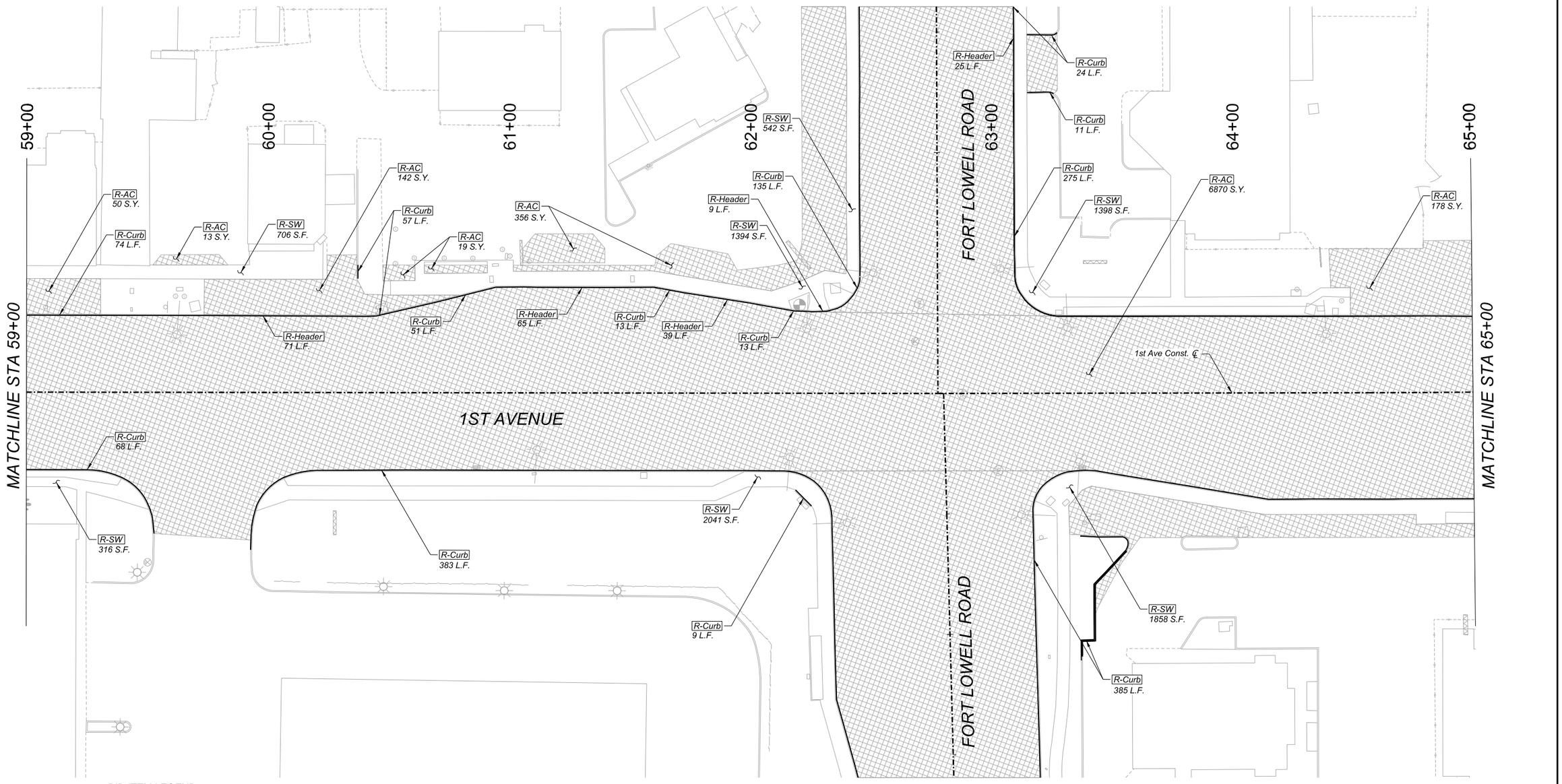
180 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-08.dgn
8/20/2026 1:31:23 PM

OpenRoads Designer v10.12.02.4
8/20/2026
1:33:50 PM
Plotted by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	H: 1"=20'

PLAN NO. R-2024-XXX

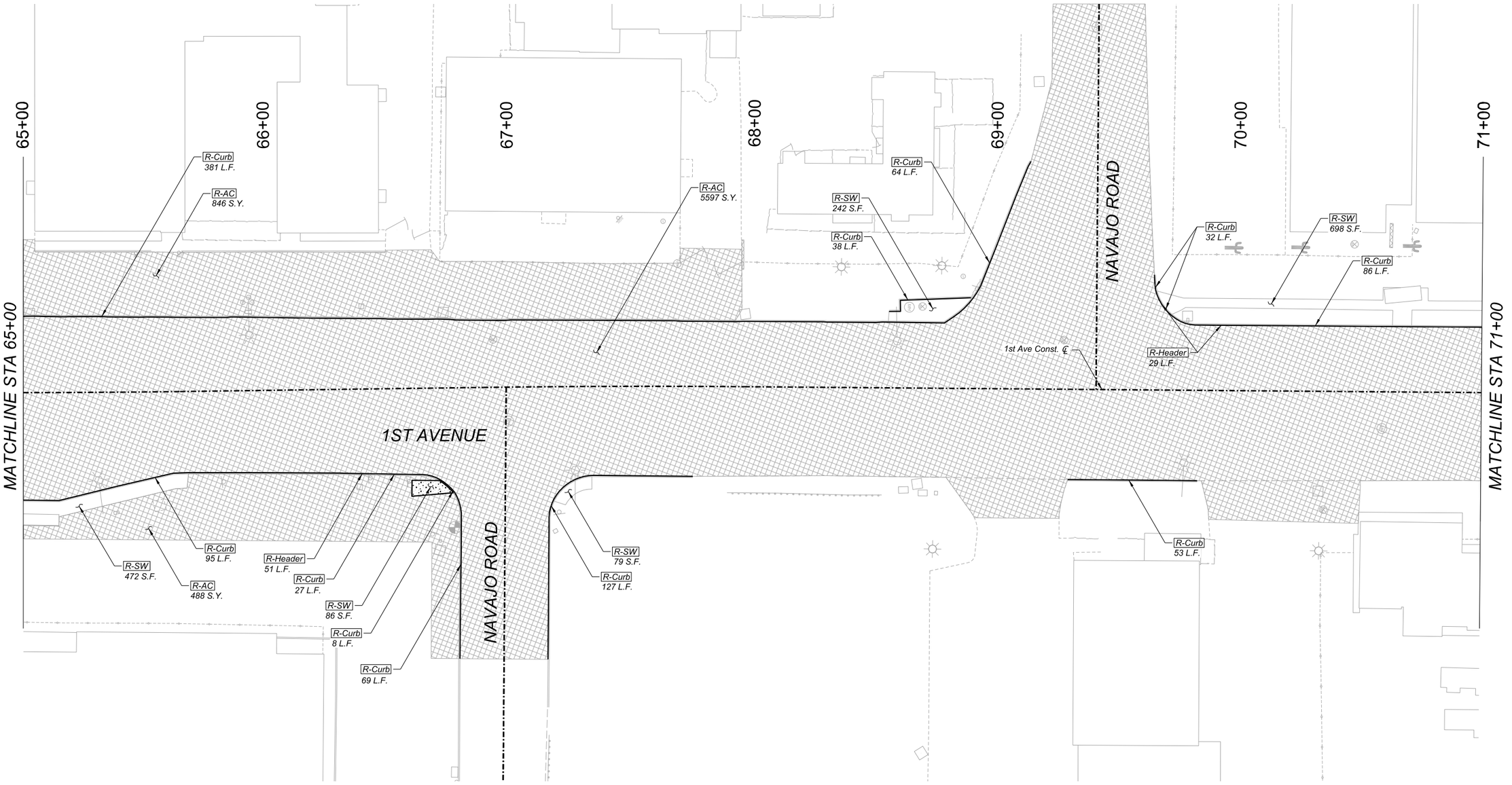
DEMOLITION PLAN

SHEET 9 OF 37

181 OF 504

c:\pwworking\west01\d3987900\08C-09.dgn
8/20/2026 1:33:50 PM

OpenRoads Designer v10.12.02.4
8/20/2026
1:35:58 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_fwpdf_SD.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

182 OF 504

CITY OF TUCSON

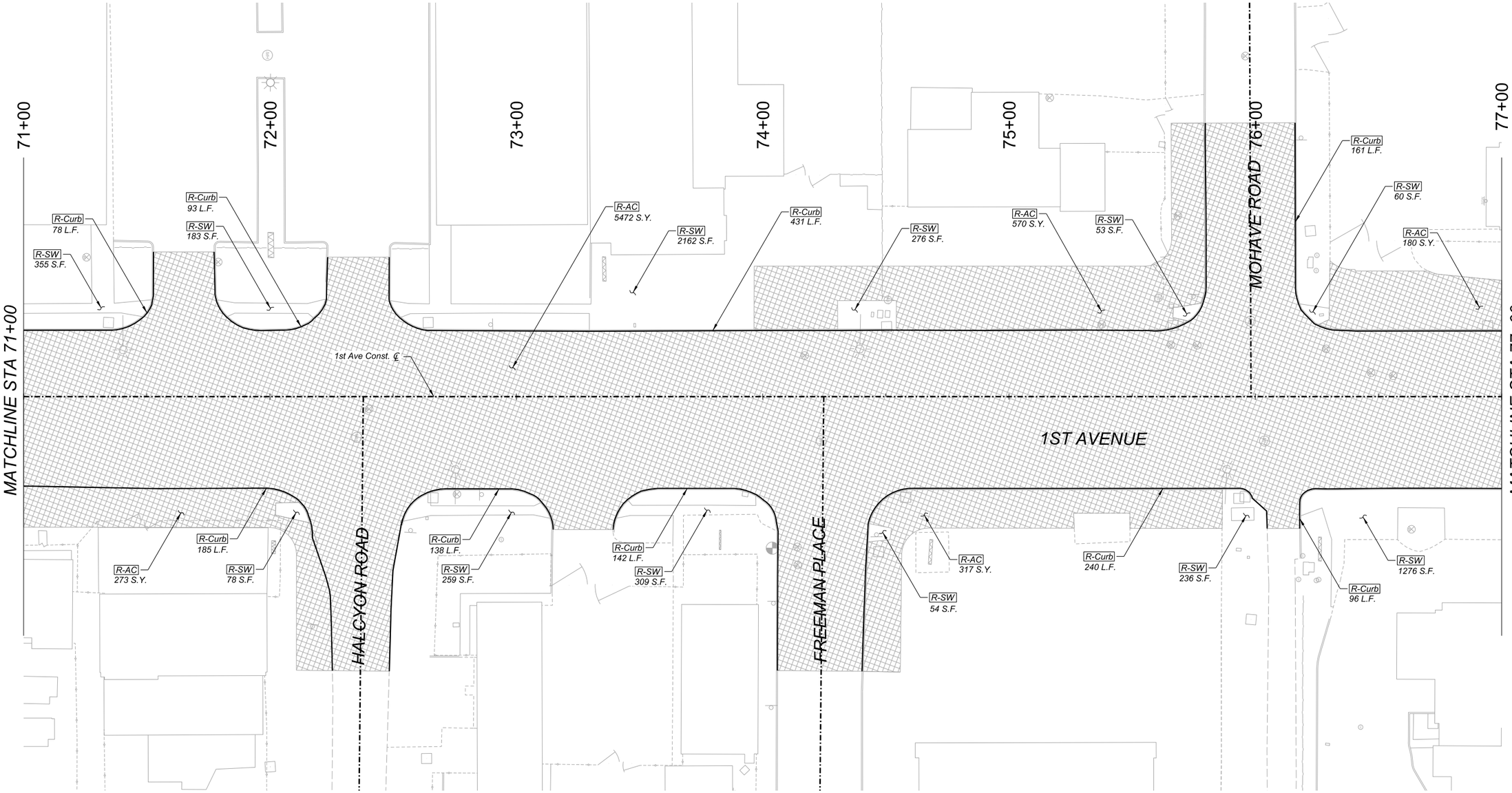
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

DEMOLITION PLAN

SHEET 10 OF 37

c:\pwworking\west01\d3987900\08C-10.dgn
8/20/2026 1:35:58 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:26:44 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEMOLITION PLAN

SHEET 11 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

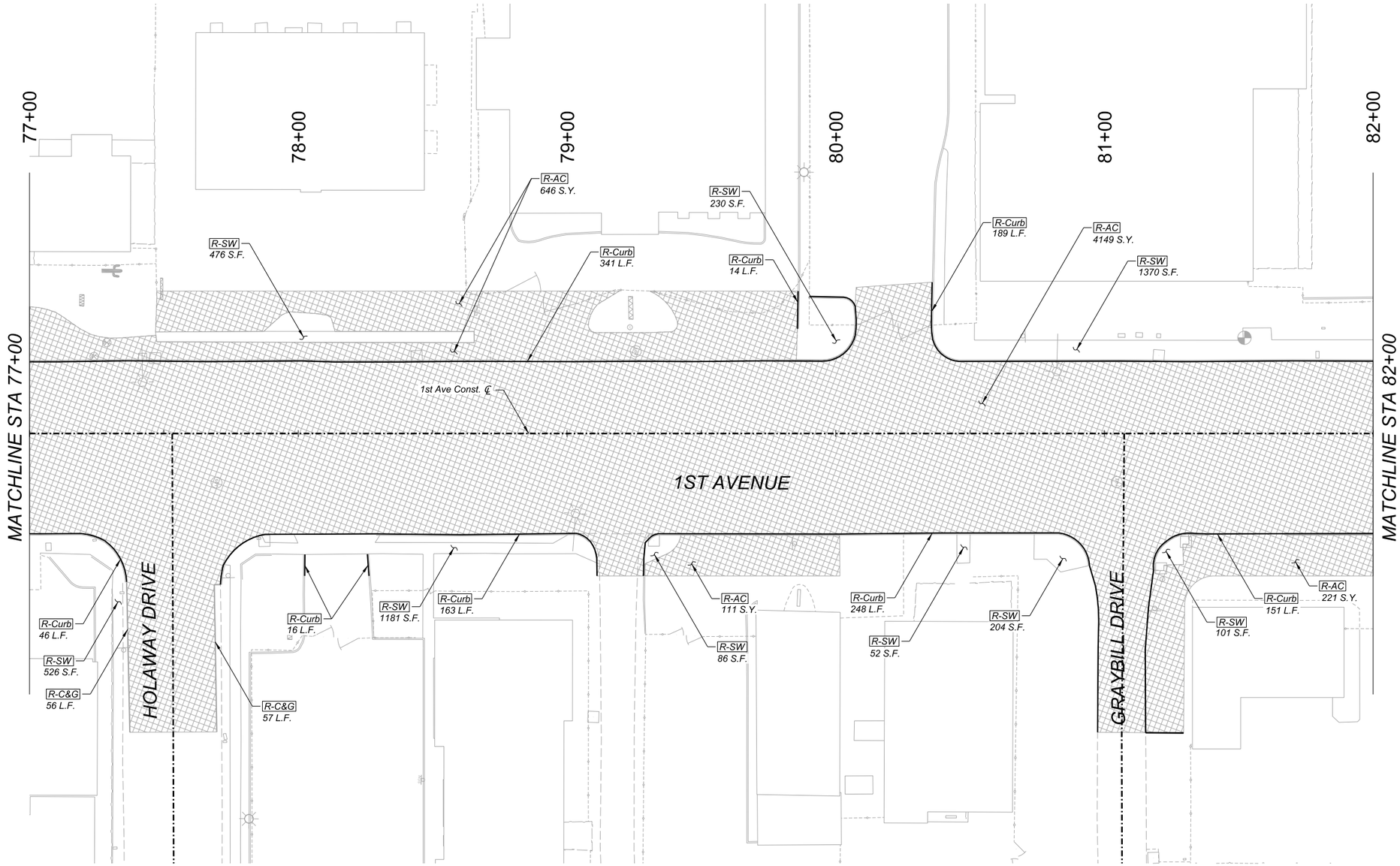
183 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-11.dgn
8/20/2026 2:26:44 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:27:01 PM
Printed by:SWESTMORELAND
Print Scale: 1:1
Pentable:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number:4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

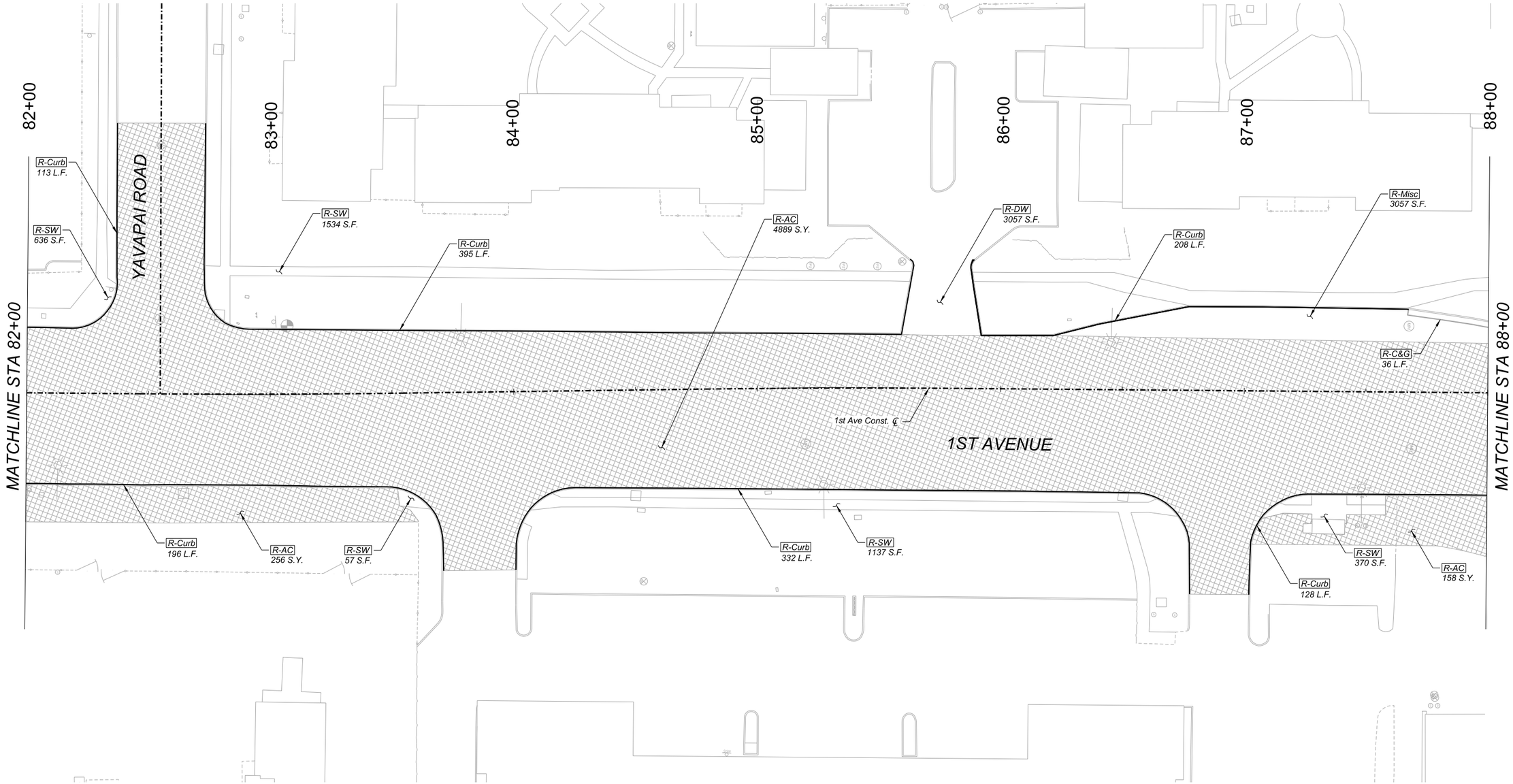
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

DEMOLITION PLAN

SHEET 12 OF 37

184 OF 504

OpenRoads Designer v10.12.02.4
8/20/2026
2:27:06 PM
Printed by:SWESTMORELAND
Print Scale:1:1
Pentable:COTPM&AMCDOT_BENTLEY_PRINT.tbl
Plotdrvr: pdf.pltcfg
Project ID:
Client Number:4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 13 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

185 OF 504

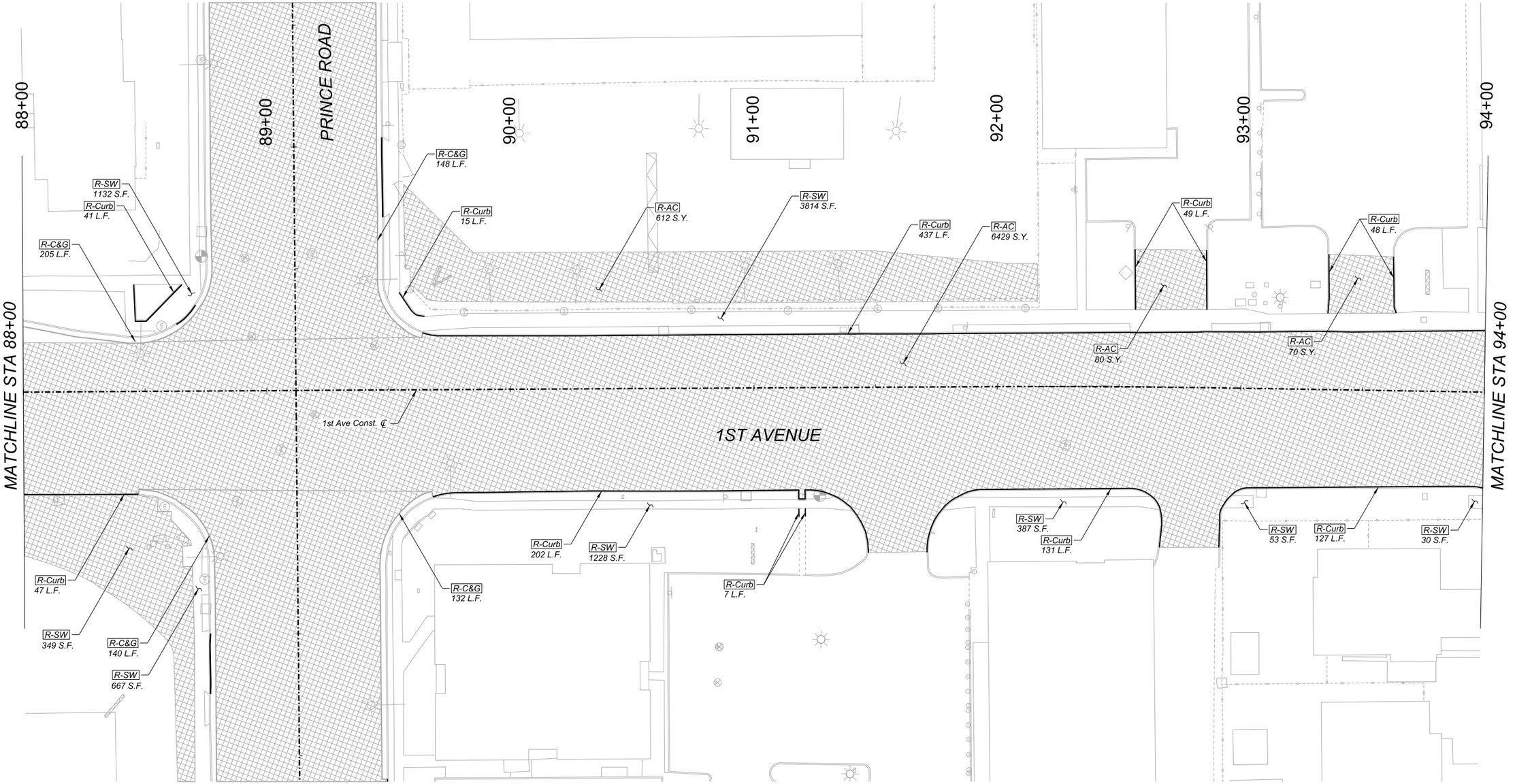
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR	CHKD. BY JMF	APPR. BY BJK	SCALE: H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-13.dgn
8/20/2026 2:27:06 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:27:11 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-ET (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEMOLITION PLAN

SHEET 14 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

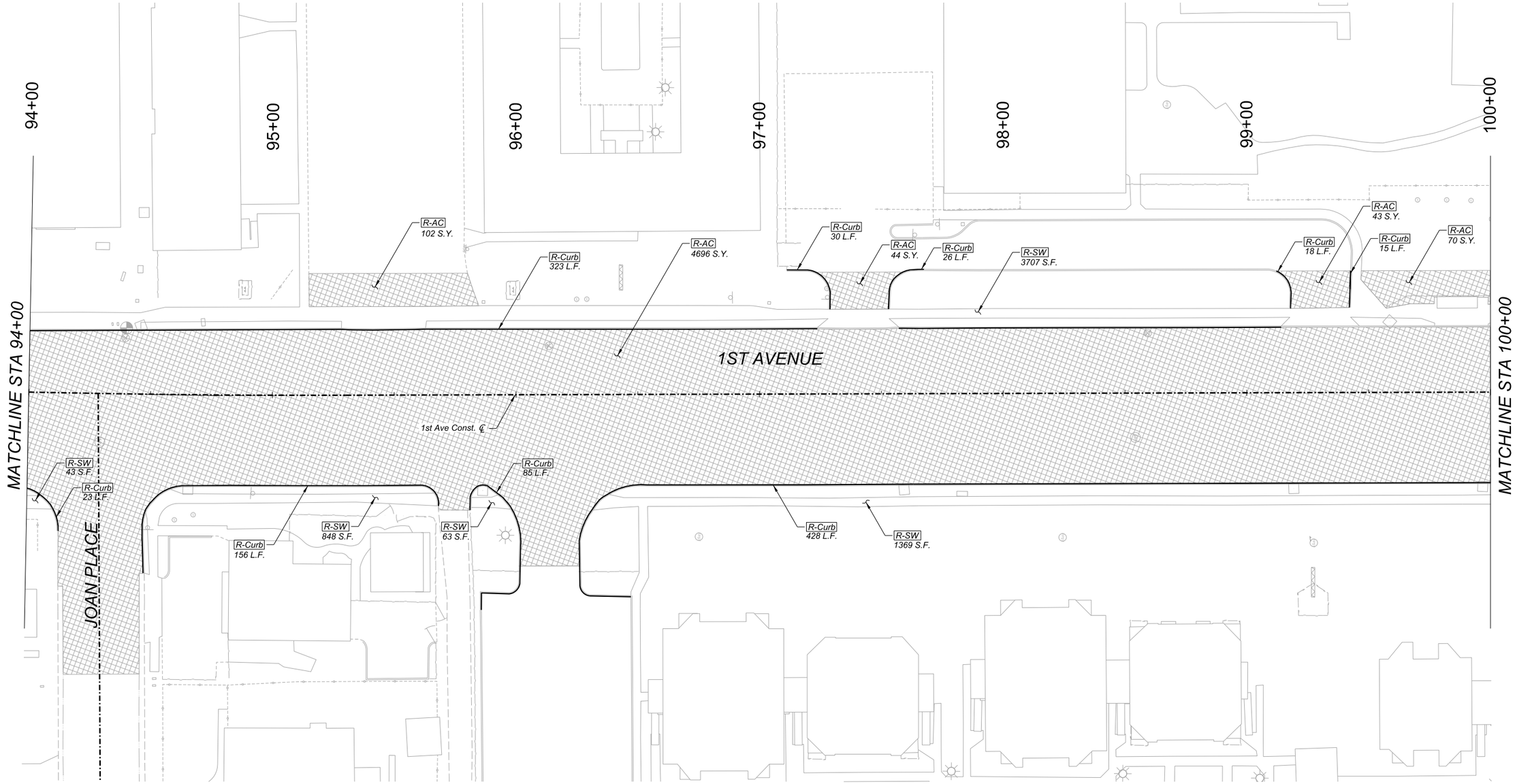
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

186 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-14.dgn
8/20/2026 2:27:11 PM



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEMOLITION PLAN

SHEET 15 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

187 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

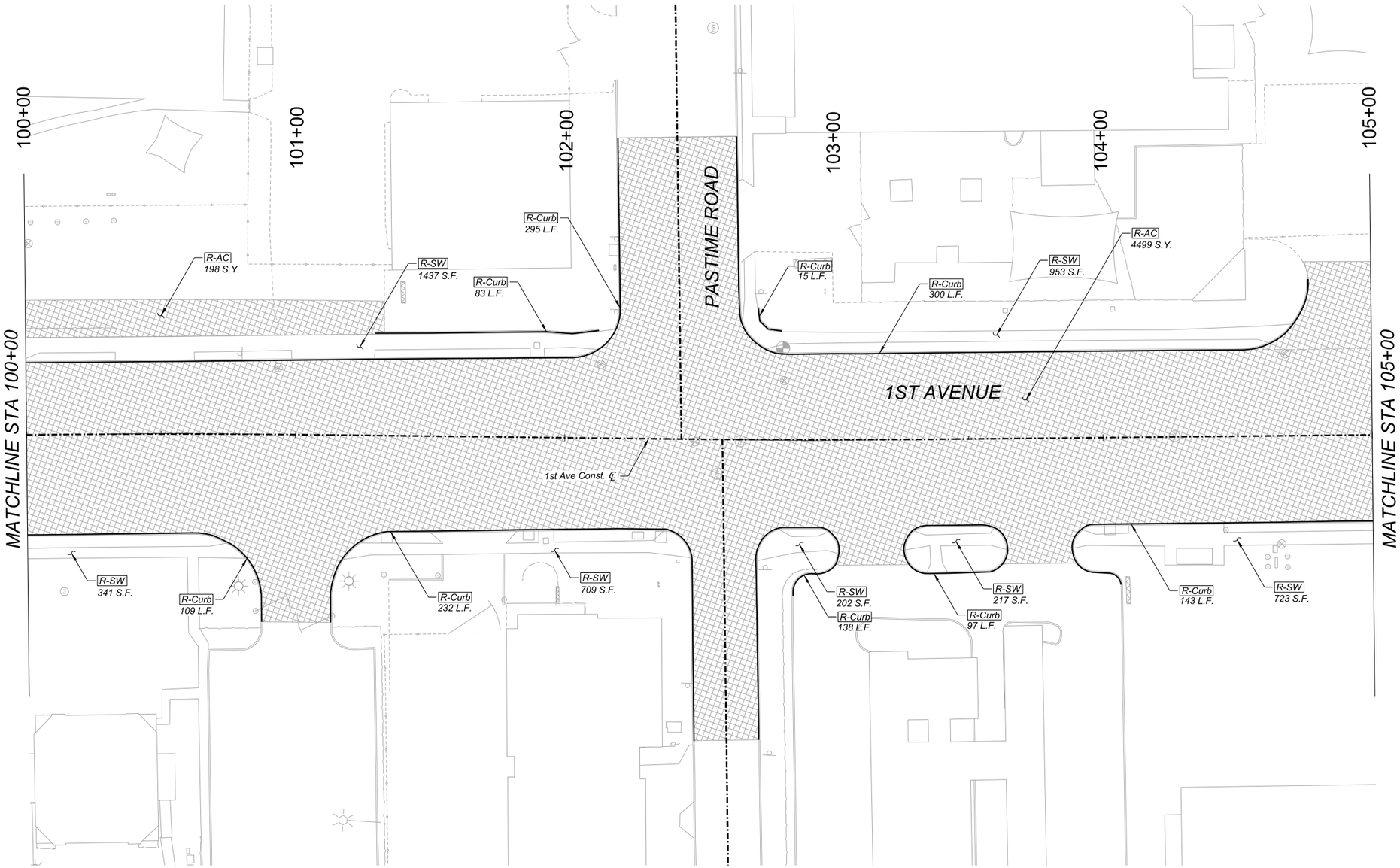
CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/20/2026
2:27:16 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d3987900\08C-15.dgn
8/20/2026 2:27:16 PM

Printed by: SWESTMORELAND
Print Scale: 1:1
2:27:21 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-ET (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

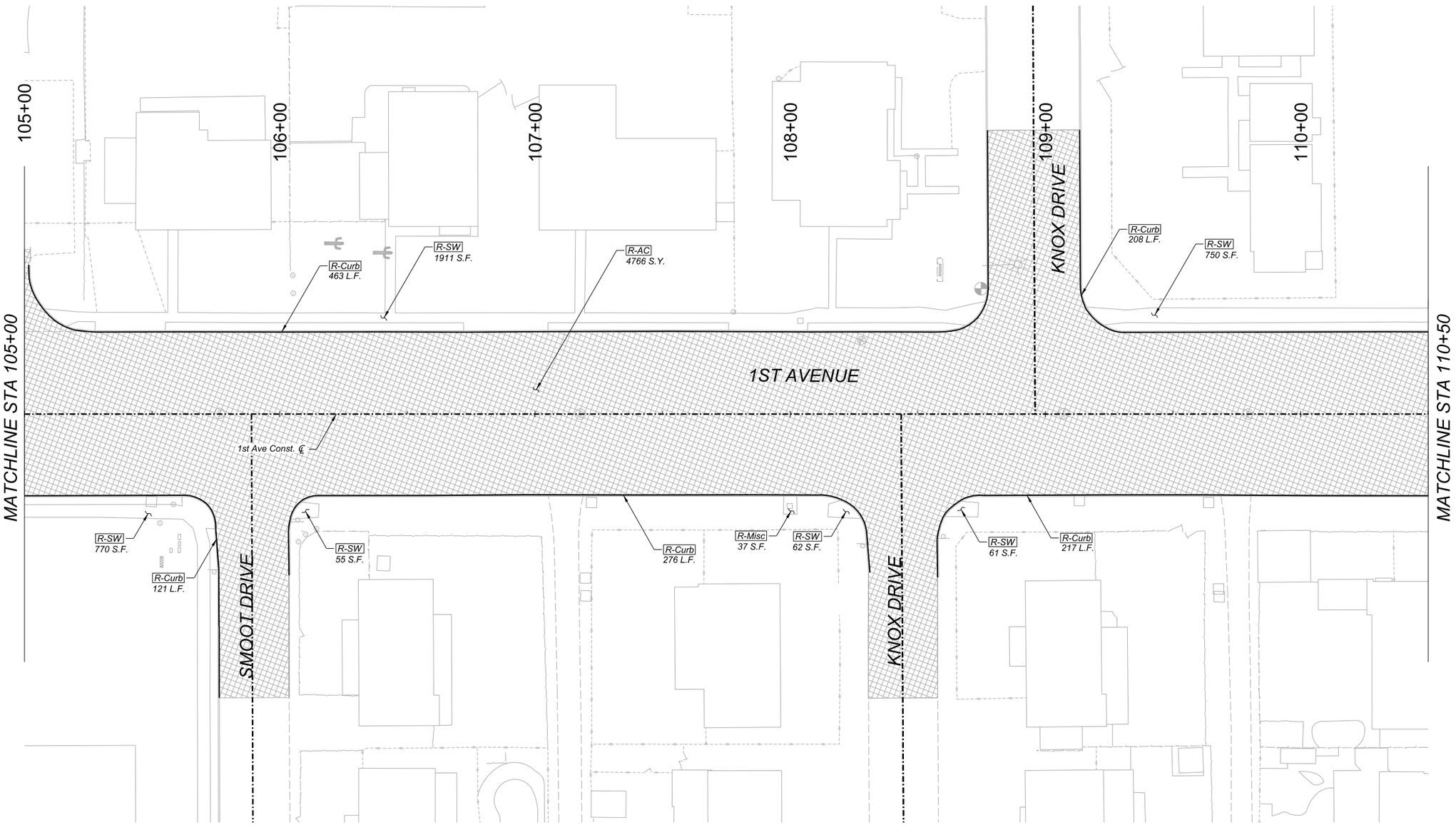
DEMOLITION PLAN

SHEET 16 OF 37

188 OF 504

c:\pwworking\west01\d3987900\08C-16.dgn
8/20/2026 2:27:21 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:27:26 PM
Printed by:SWESTMORELAND
Print Scale: 1:1
Pentable:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number:4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	H: 1"=20'

PLAN NO. R-2024-XXX

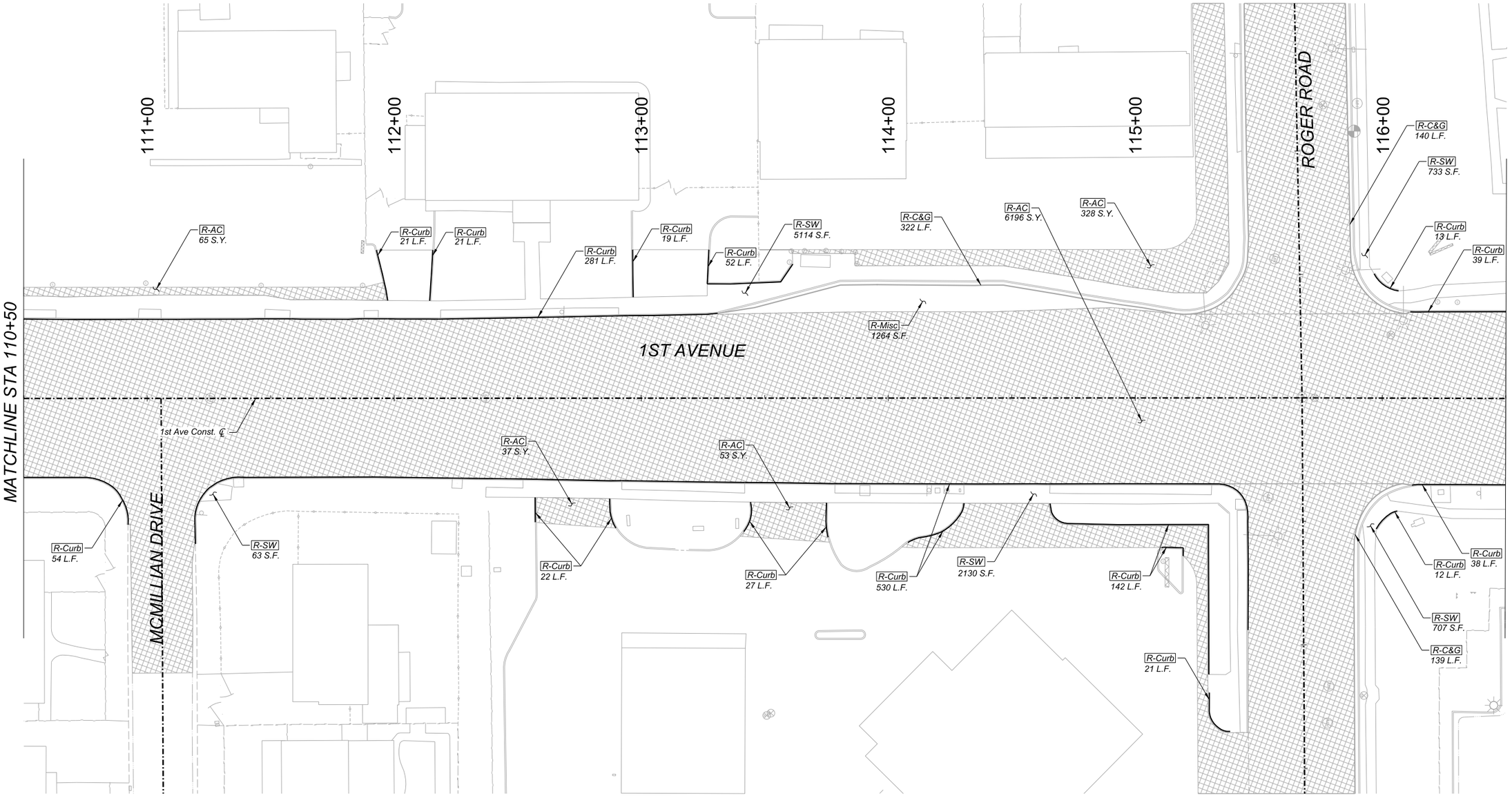
DEMOLITION PLAN

SHEET 17 OF 37

189 OF 504

c:\pwworking\west01\d3987900\08C-17.dgn
8/20/2026 2:27:26 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:14:55 PM
Printed by:SWESTMORELAND
Print Scale:1:1
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number:4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 18 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

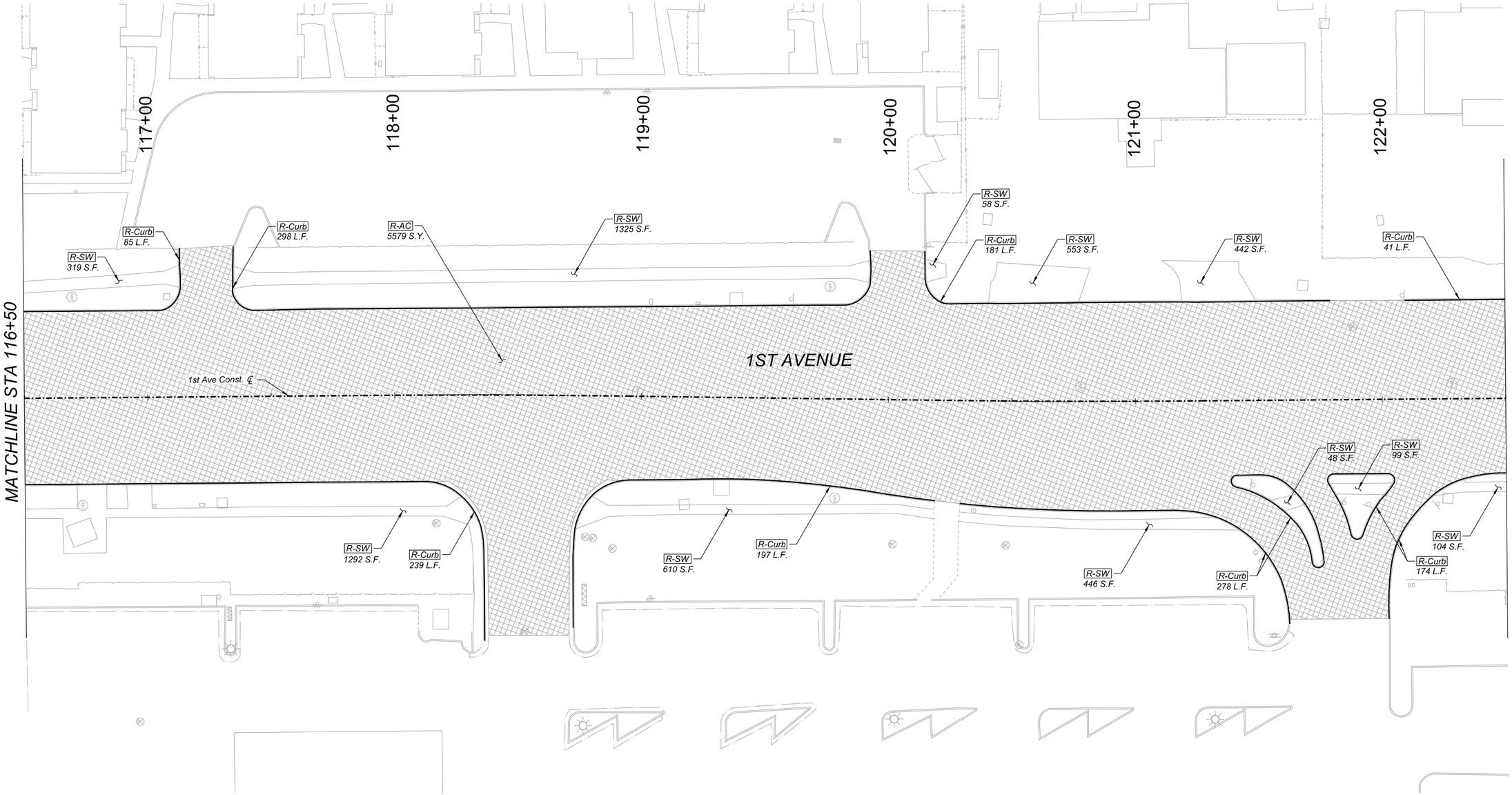
190 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-18.dgn
8/20/2026 2:14:55 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:38:11 PM
Printed by:SWESTMORELAND
Print Scale:1:1
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdrivr: pdf.plotcfg
Project ID:
Client Number:4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

191 OF 504

CITY OF TUCSON

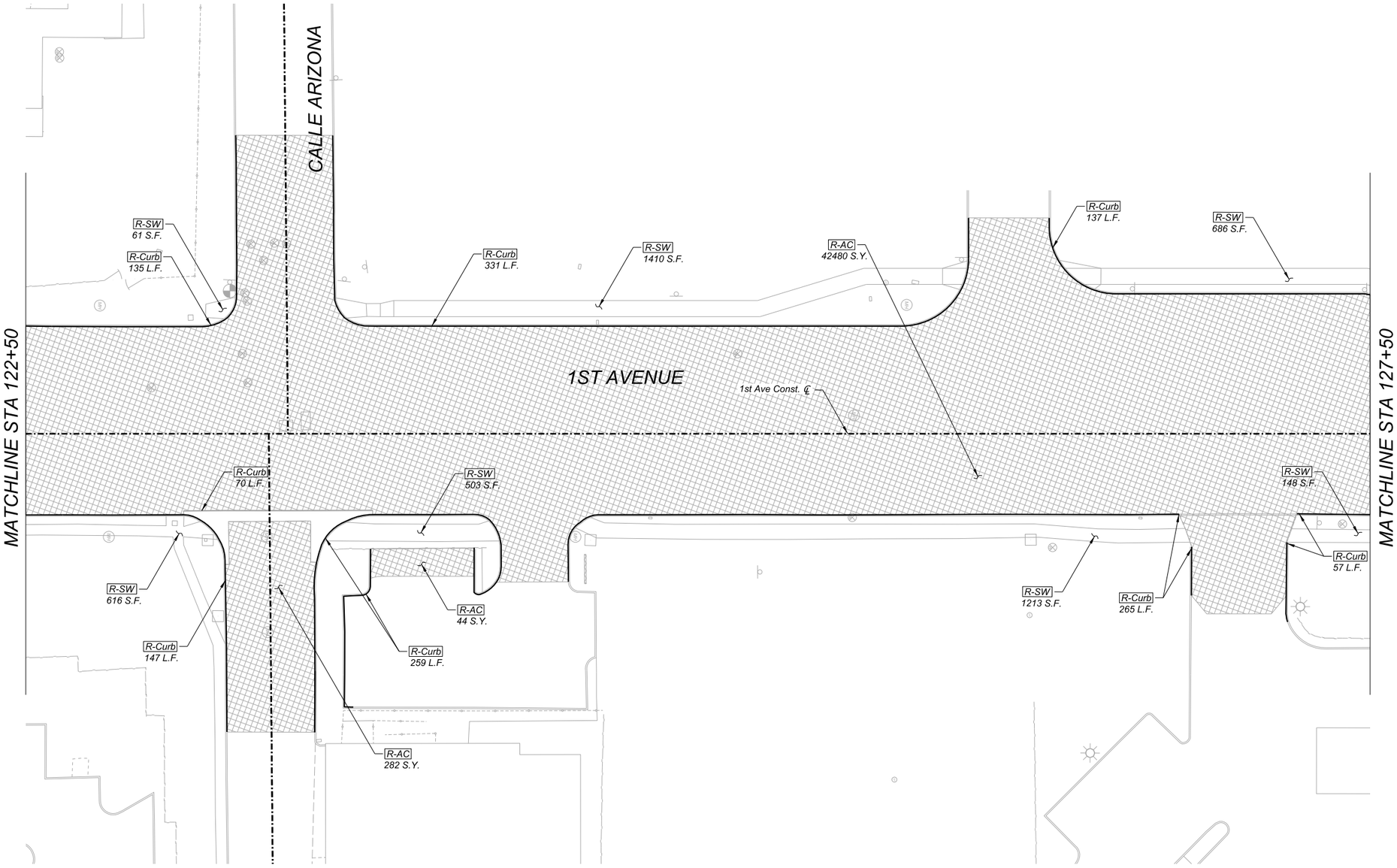
DRWN. BY JAR	CHKD. BY JMF	APPR. BY BJK	SCALE: H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

DEMOLITION PLAN

SHEET 19 OF 37

c:\pwworking\west01\d3987900\08C-19.dgn
8/20/2026 2:38:11 PM

10:26:13 AM 8/19/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.plotcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-4T (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEMOLITION PLAN

SHEET 20 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

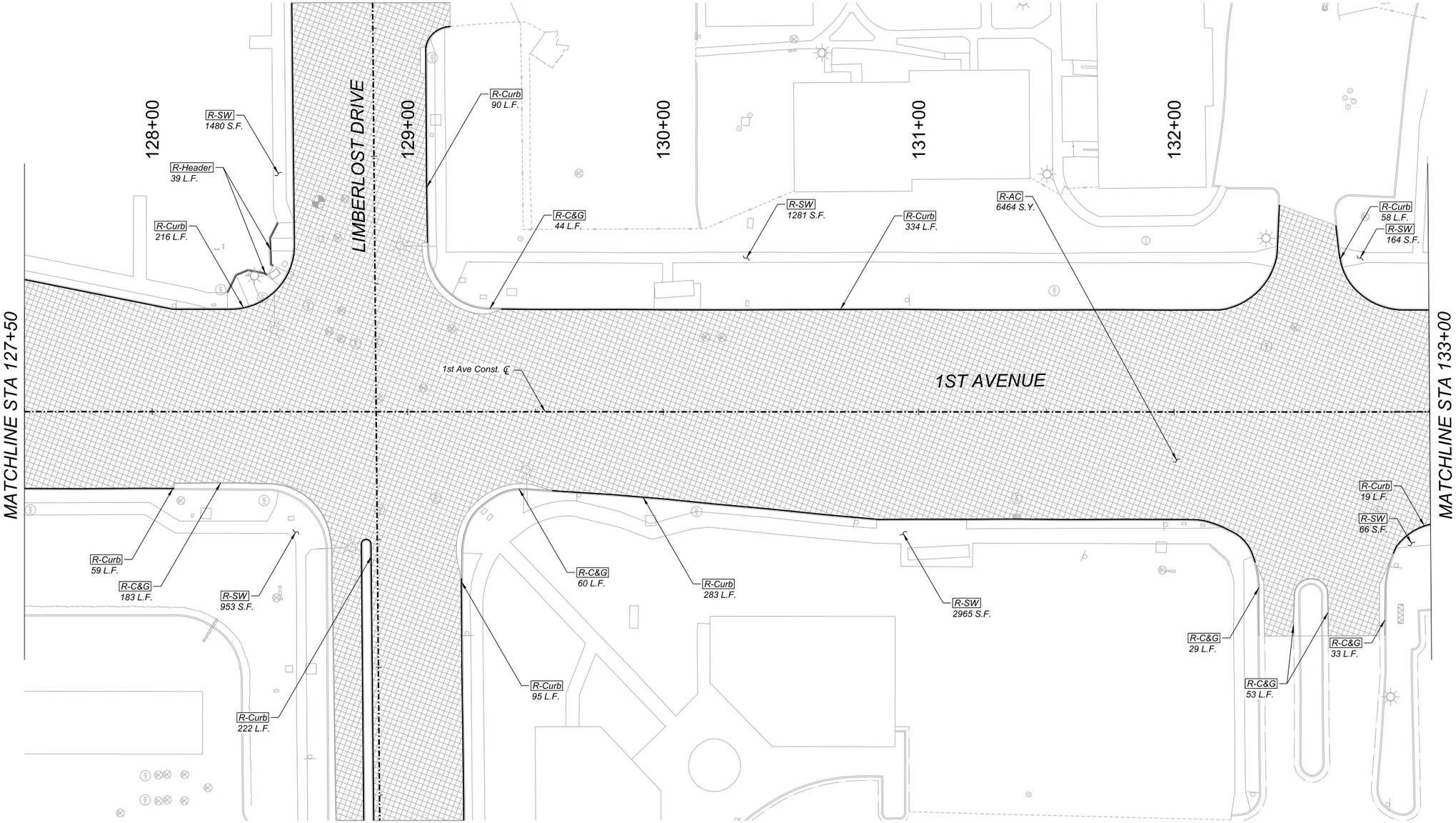
192 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-20.dgn
8/19/2026 10:26:13 AM

Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109
OpenRoads Designer v10.12.02.4
8/20/2026
2:40:27 PM



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

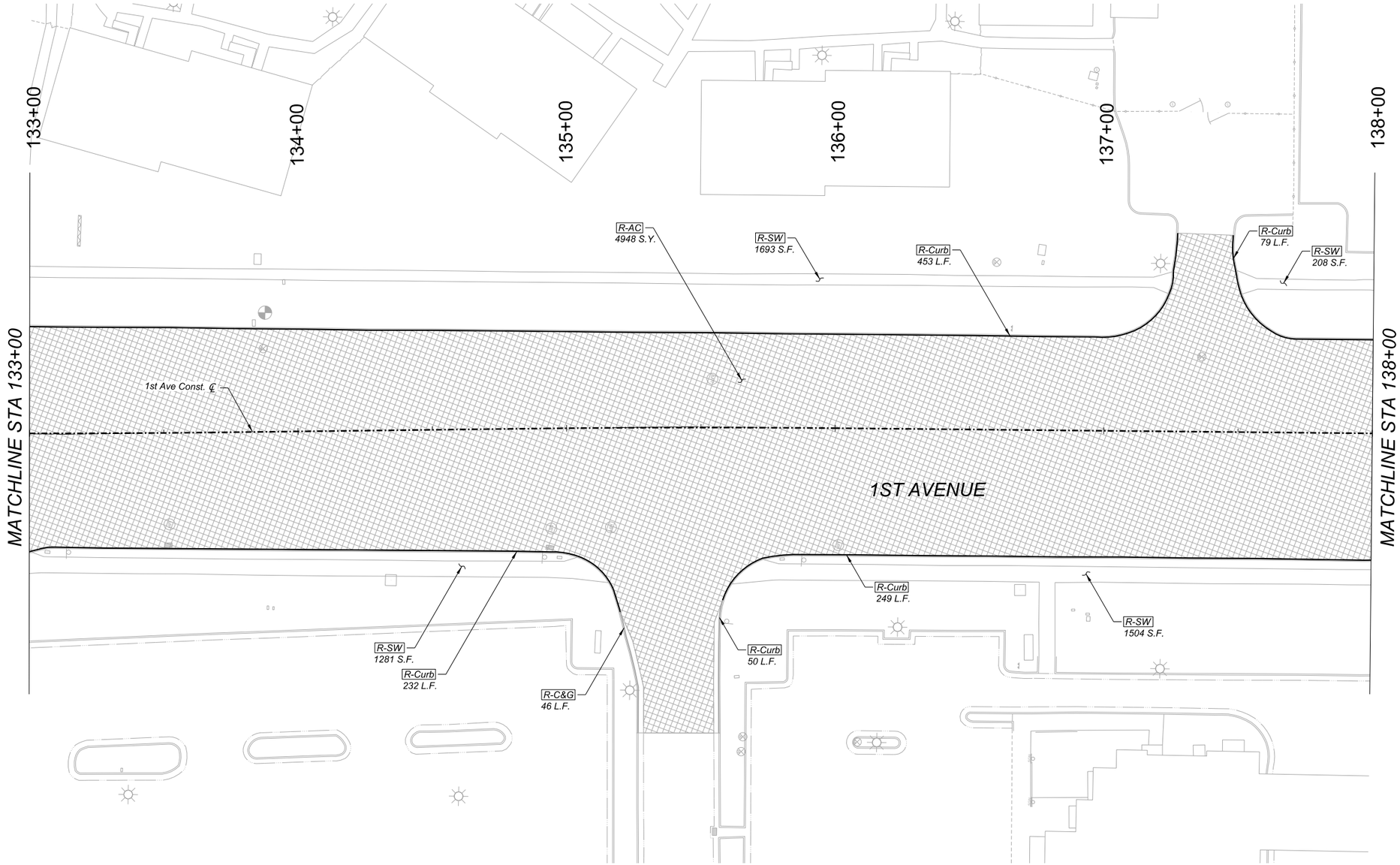
CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JMF AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: H: 1"=20' | PLAN NO. R-2024-XXX

DEMOLITION PLAN

c:\pwworking\west01\d3987900\08C-21.dgn
8/20/2026 2:40:27 PM

Plotted by: SWESTMORELAND
Print Scale: 1:1
OpenRoads Designer v10.12.02.4
8/20/2026
2:40:32 PM
Pentable: COTPMAAMCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

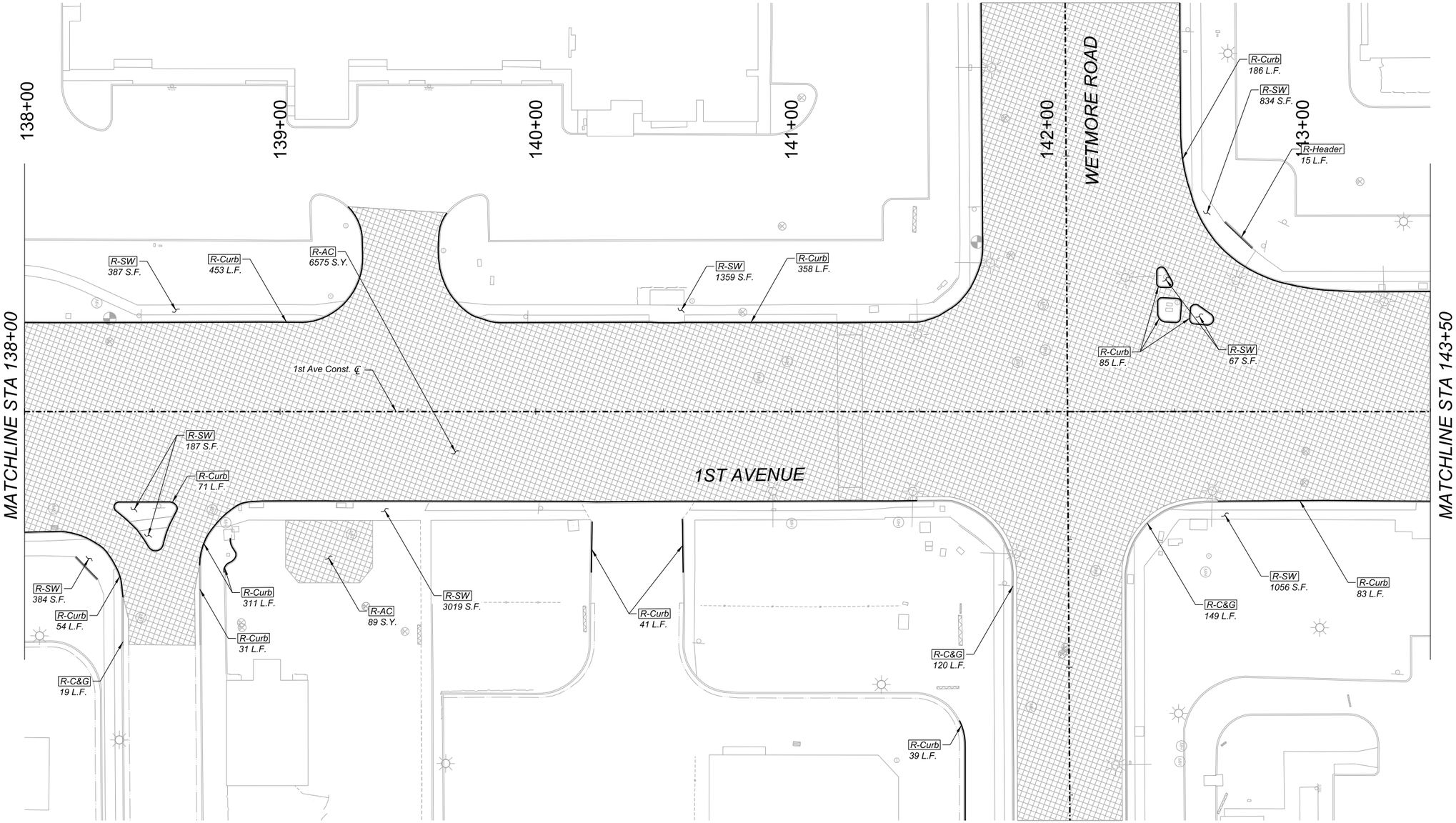
194 OF 504

DEMOLITION PLAN

SHEET 22 OF 37

c:\pwworking\west01\d3987900\08C-22.dgn
8/20/2026 2:40:32 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:40:37 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.plotcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEMOLITION PLAN

SHEET 23 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

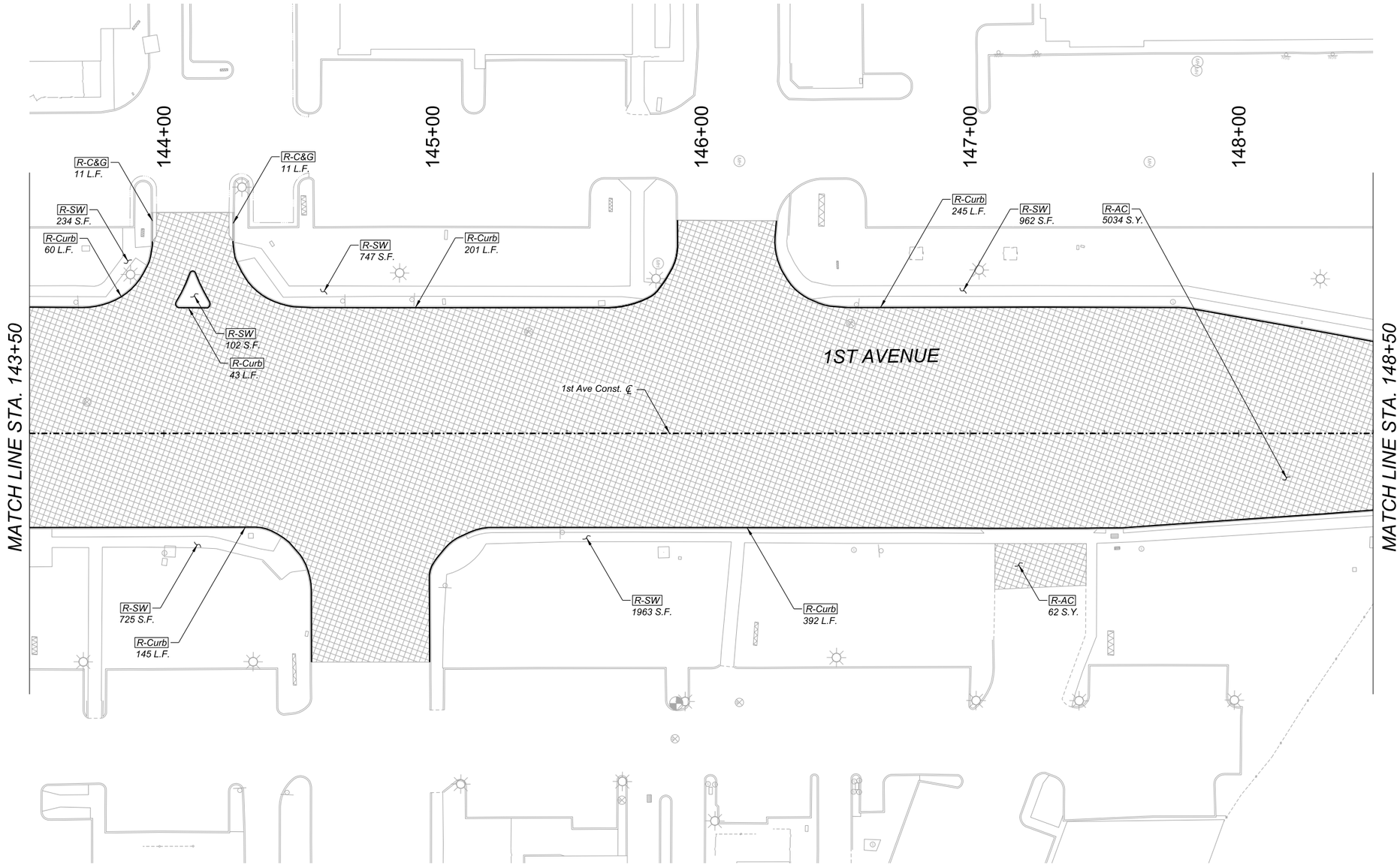
195 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-23.dgn
8/20/2026 2:40:37 PM

Plotted by:SWESTMORELAND
Print Scale: 1:1
8/20/2026
2:40:43 PM
OpenRoads Designer v10.12.02.4
Pentables:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdrvr: pdf.altcfg
Project ID:
Client Number:4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 24 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

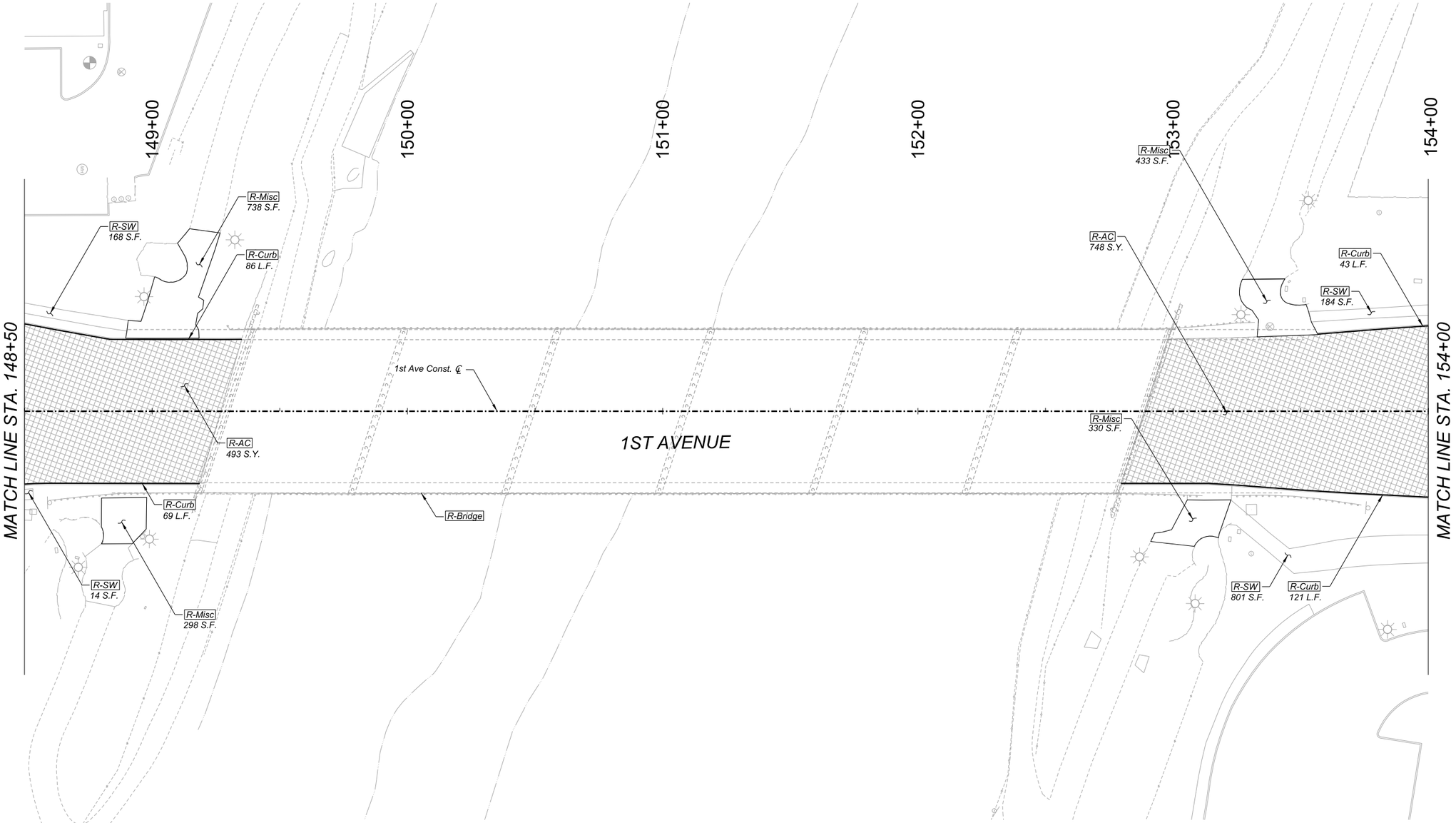
196 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-24.dgn
8/20/2026 2:40:43 PM

Plotted: 8/20/2026 2:40:47 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number: 4109
OpenRoads Designer v10.12.02.4



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020002	R - Bridge	Remove Bridge
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEMOLITION PLAN

SHEET 25 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

197 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-25.dgn
8/20/2026 2:40:47 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:40:53 PM
Printed by:SWESTMORELAND
Print Scale:1:1
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdrvr: pdf.pltcfg
Project ID:
Client Number:4109

154+00 155+00 156+00 157+00 158+00 159+00 160+00

MATCH LINE STA. 154+00

MATCH LINE STA. 160+00

CROYDON PARK

1ST AVENUE

1st Ave Const. ℄

R-Curb 21 L.F.

R-Curb 21 L.F.

R-AC 63 S.Y.

R-Curb 539 L.F.

R-SW 1832 S.F.

R-Curb 12 L.F.

R-AC 37 S.Y.

R-Curb 12 L.F.

R-AC 5119 S.Y.

R-Curb 102 L.F.

R-AC 405 S.Y.

R-Curb 40 L.F.

R-SW 353 S.F.

R-Curb 80 L.F.

R-SW 1832 S.F.

R-Curb 490 L.F.

R-Curb 58 L.F.

BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 26 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

198 OF 504

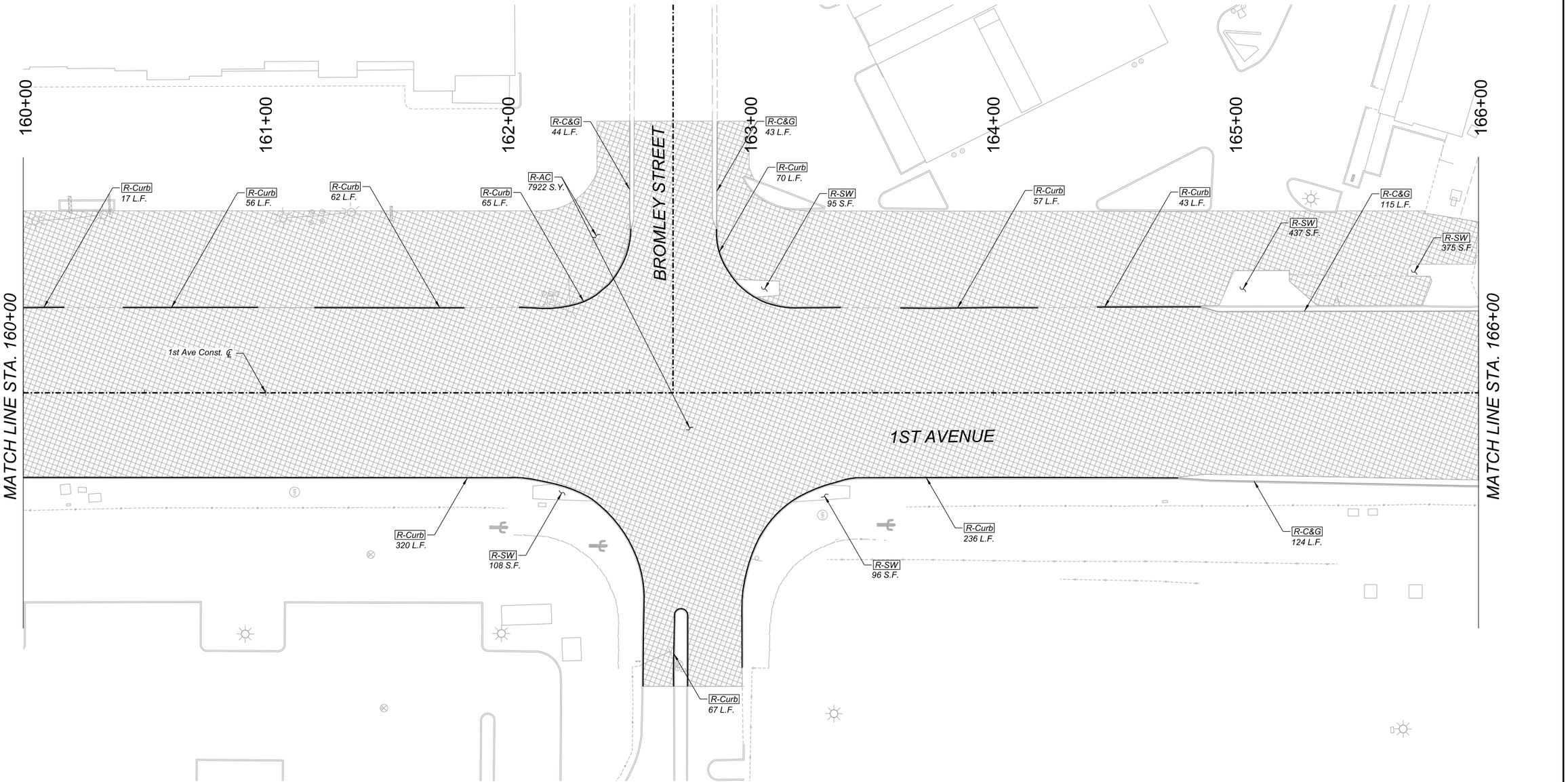
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-26.dgn
8/20/2026 2:40:53 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:40:58 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

199 OF 504

CITY OF TUCSON

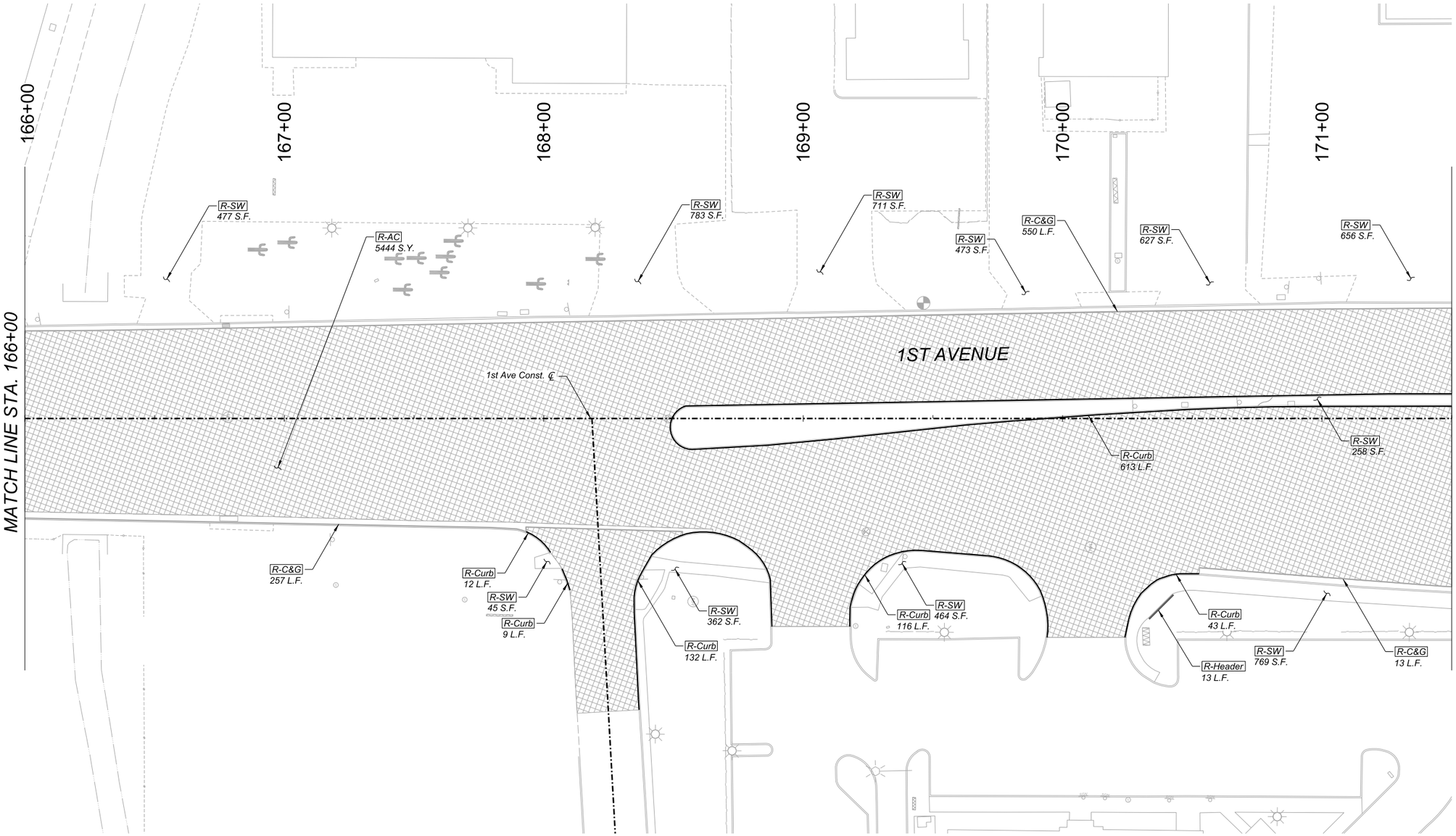
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

DEMOLITION PLAN

SHEET 27 OF 37

c:\pwworking\west01\d3987900\08C-27.dgn
8/20/2026 2:40:58 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:41:03 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEMOLITION PLAN

SHEET 28 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

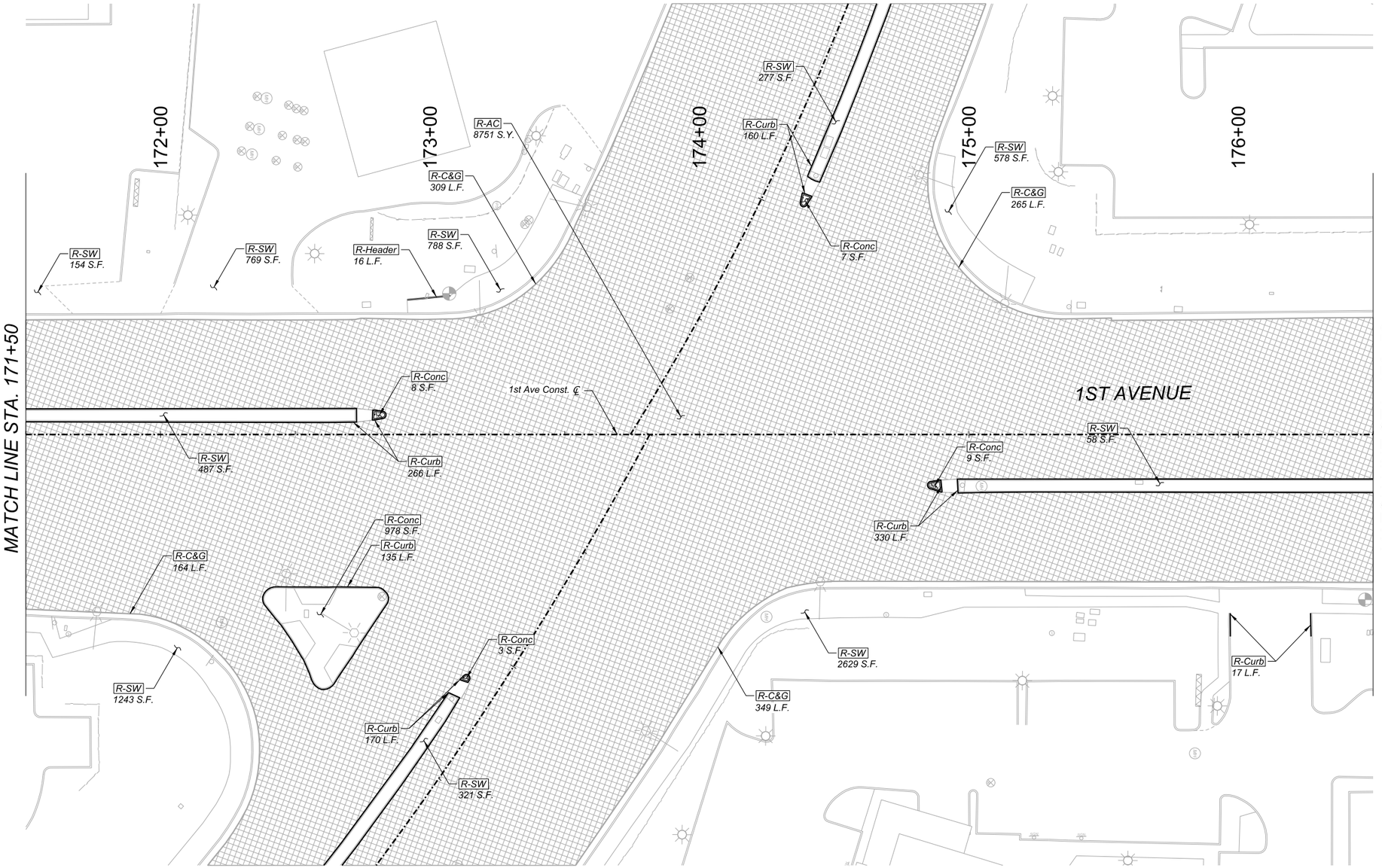
200 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-28.dgn
8/20/2026 2:41:03 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:41:08 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdrvr: pdf.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

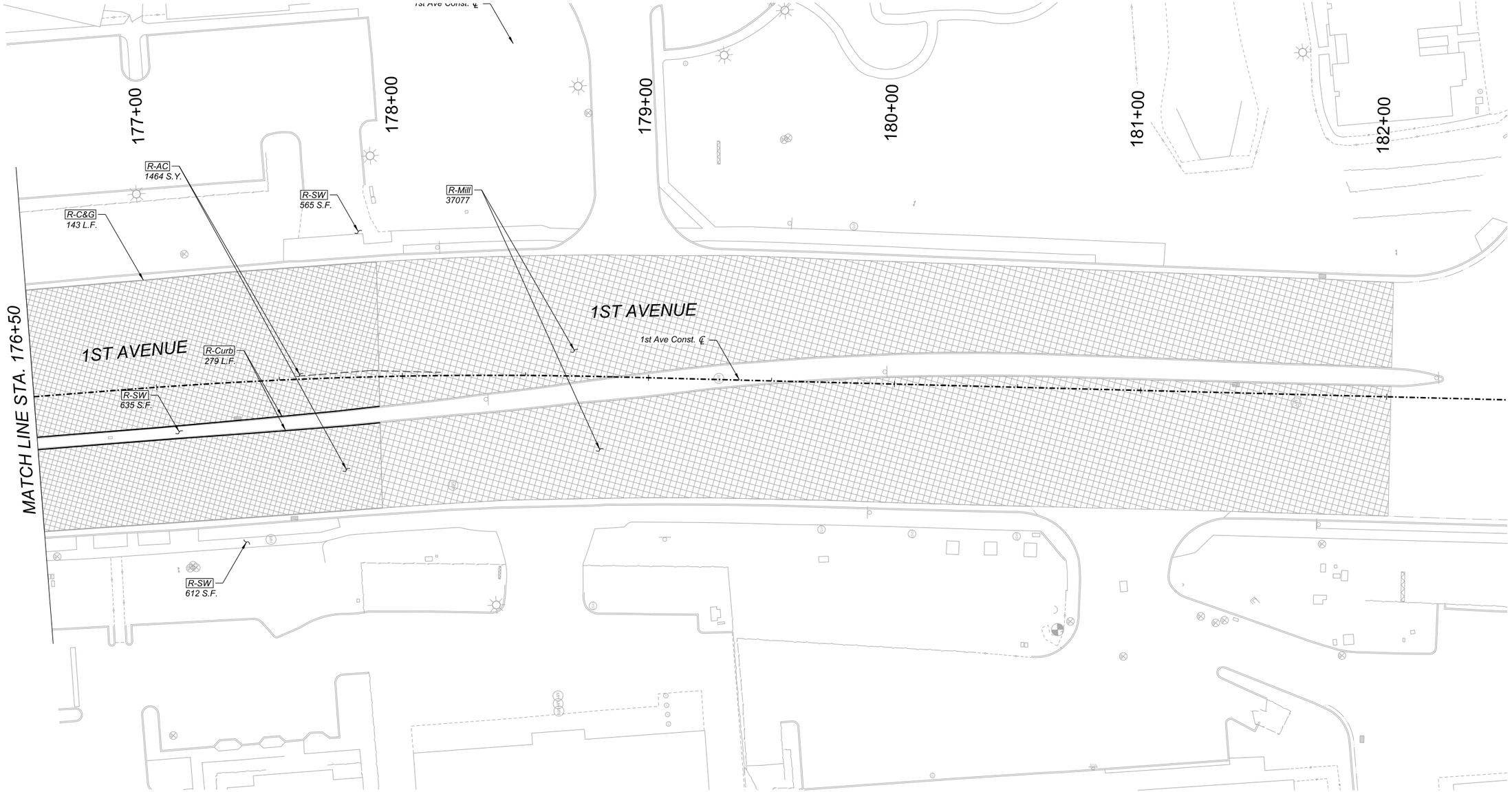
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

DEMOLITION PLAN

SHEET 29 OF 37

201 OF 504

OpenRoads Designer v10.12.02.4
8/20/2026
2:41:13 PM
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 30 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

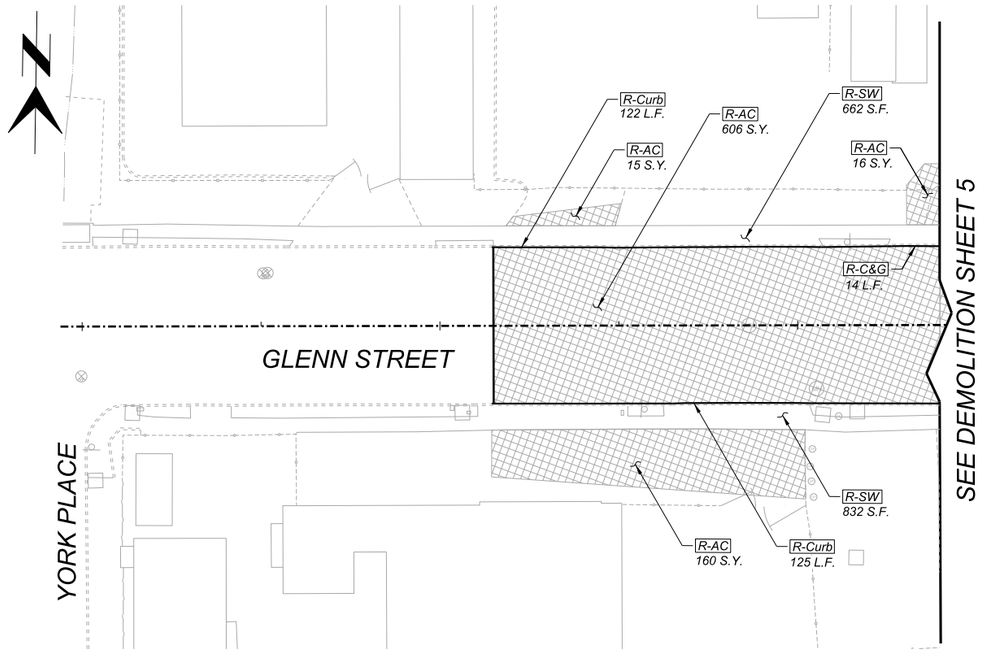
202 OF 504

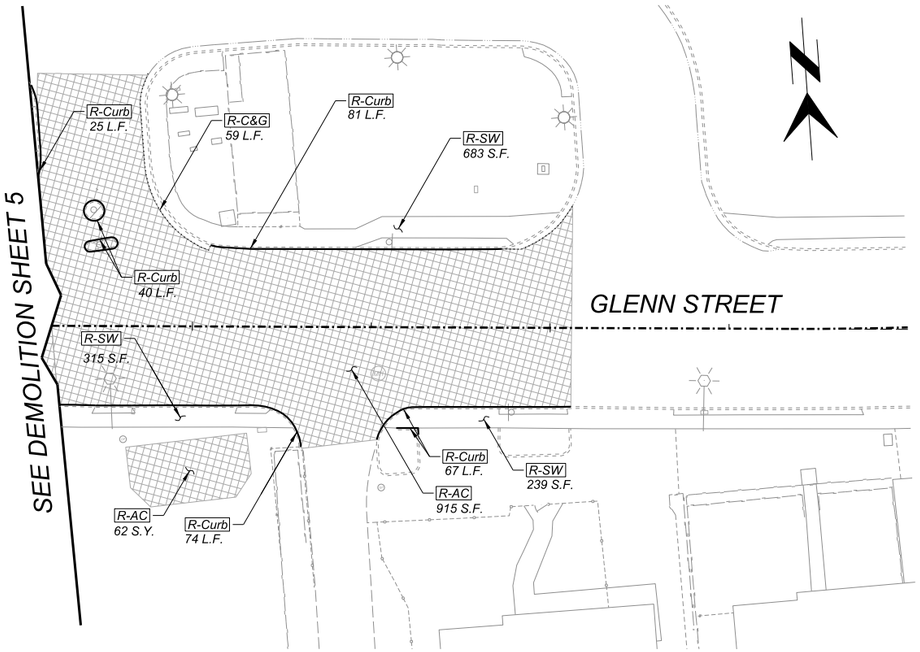
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-30.dgn
8/20/2026 2:41:13 PM

2:53:26 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: SWESTMORELAND
Print Scale: 1:1
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109





BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

203 OF 504

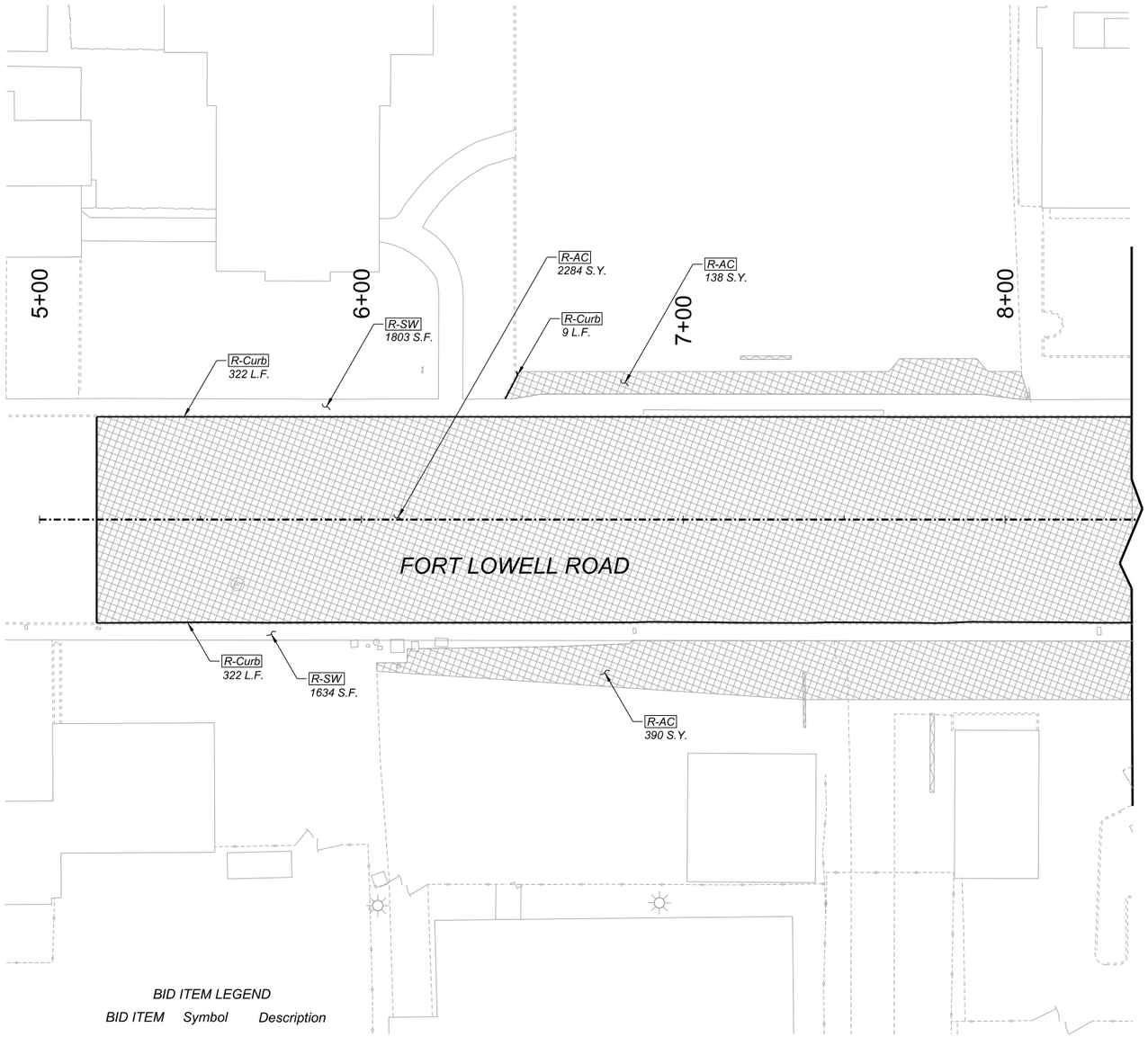
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

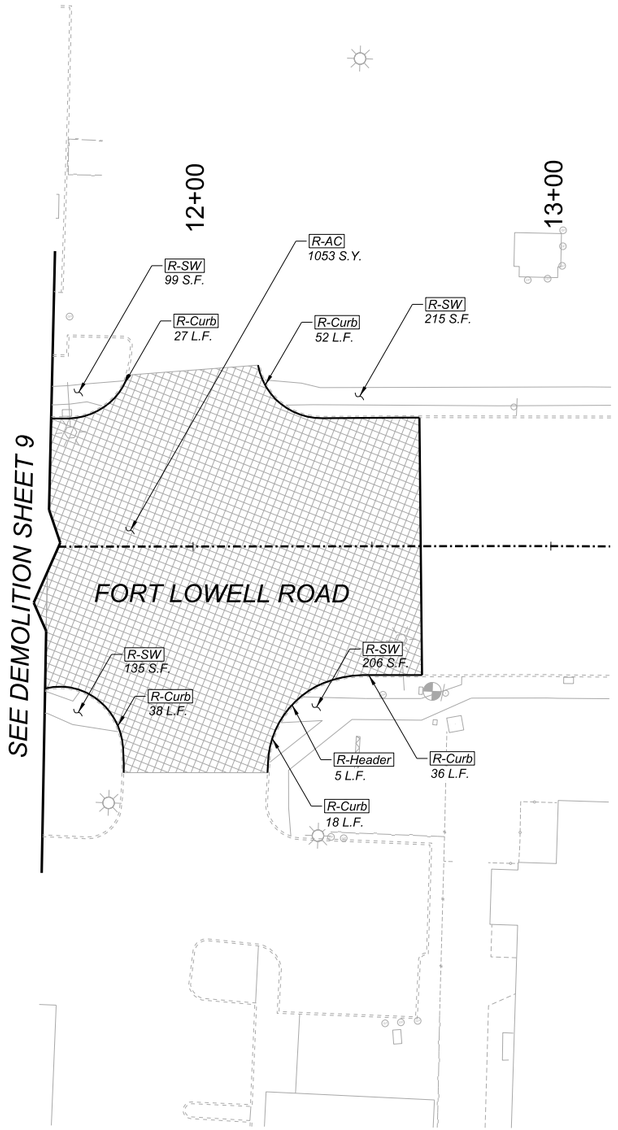
DEMOLITION PLAN *SHEET 31 OF 37*

c:\pwworking\west01\d3987900\08C-31.dgn
8/20/2026 2:53:26 PM

OpenRoads Designer v10.12.02.4
8/19/2026
11:41:39 AM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_twpdf_SD.pltcfg
Project ID:
Client Number: 4109



1ST AVENUE



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

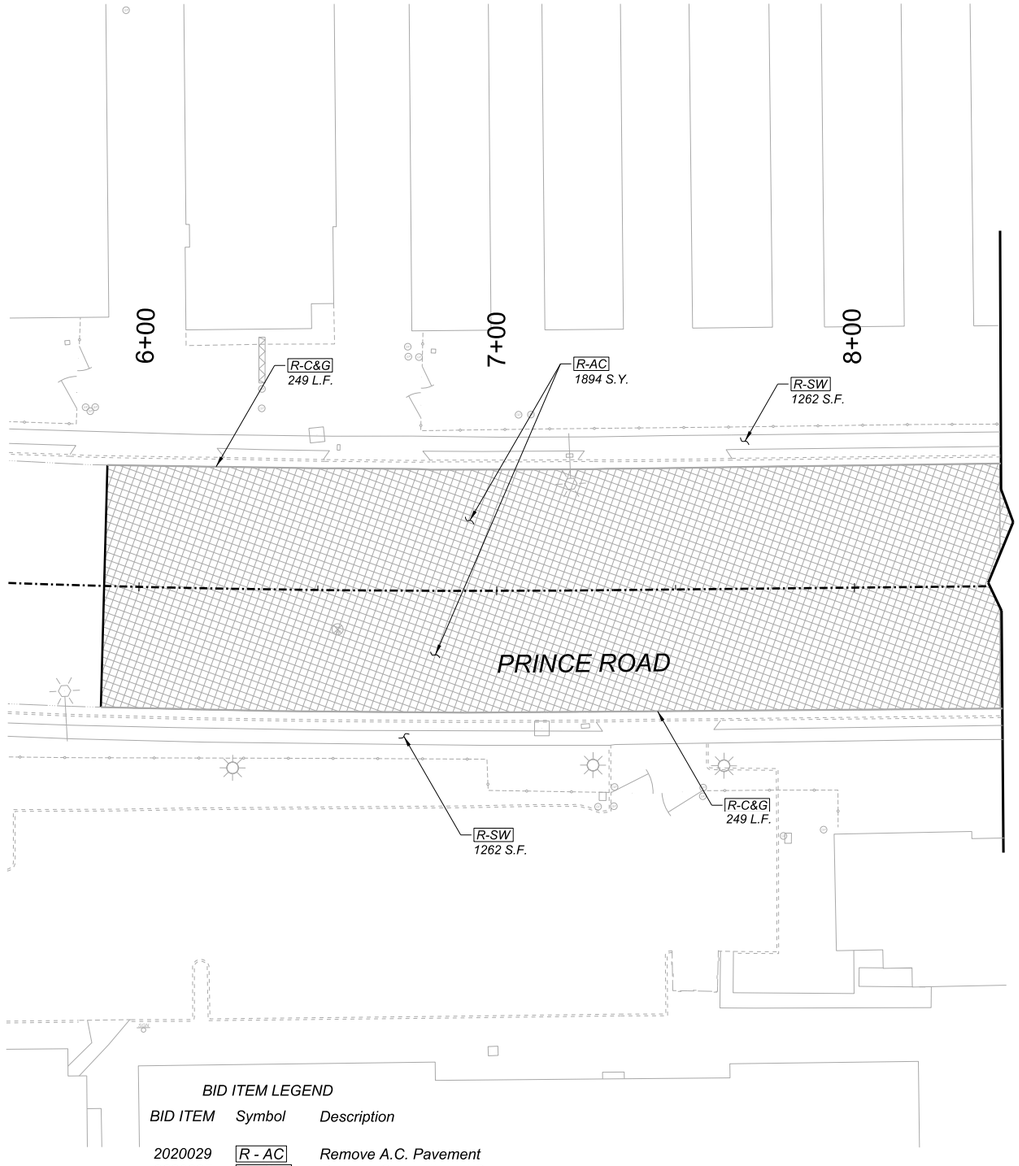
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

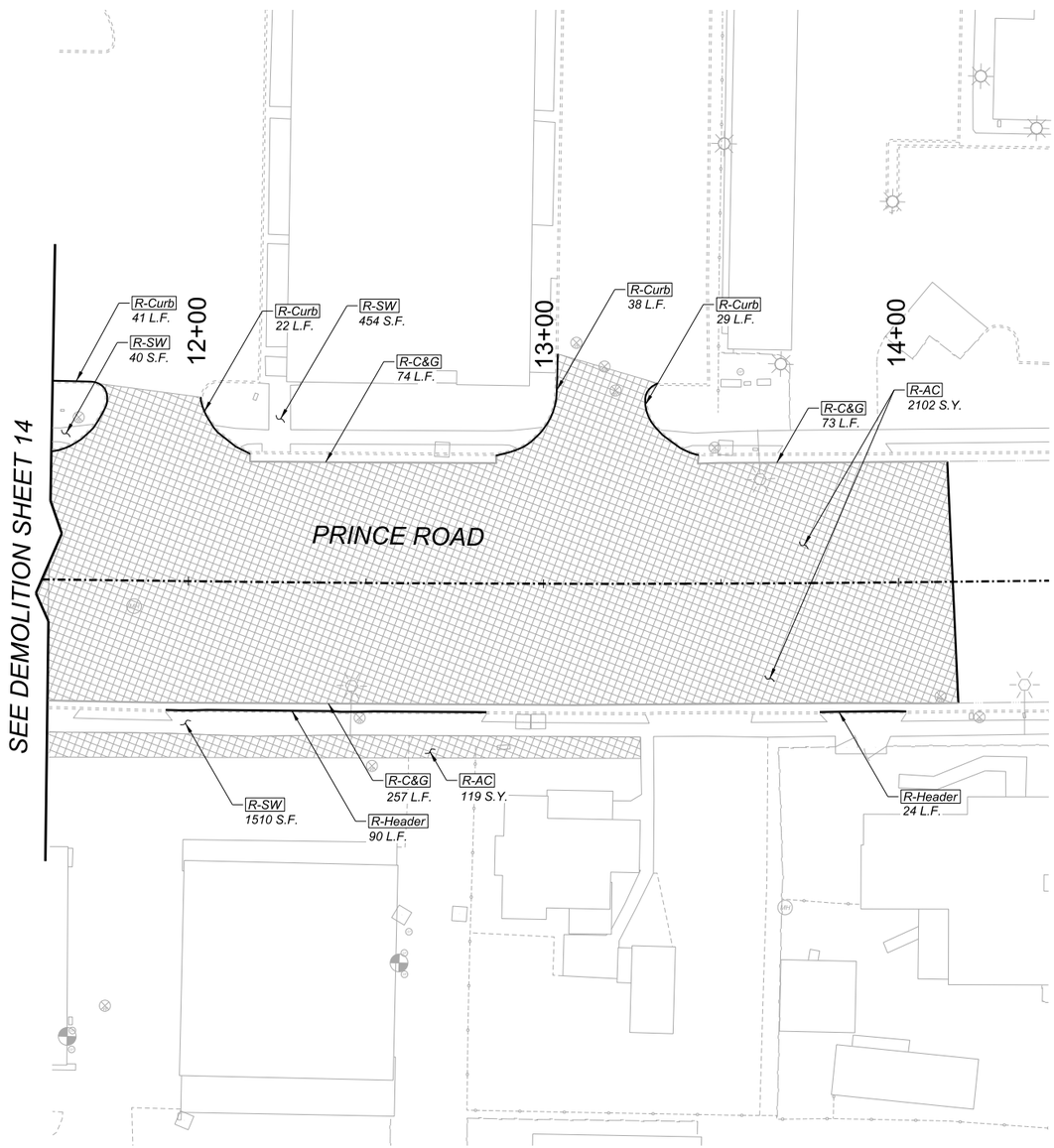
DEMOLITION PLAN

SHEET 32 OF 37

204 OF 504

11:46:38 AM 8/19/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 1\0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109





BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

205 OF 504

CITY OF TUCSON

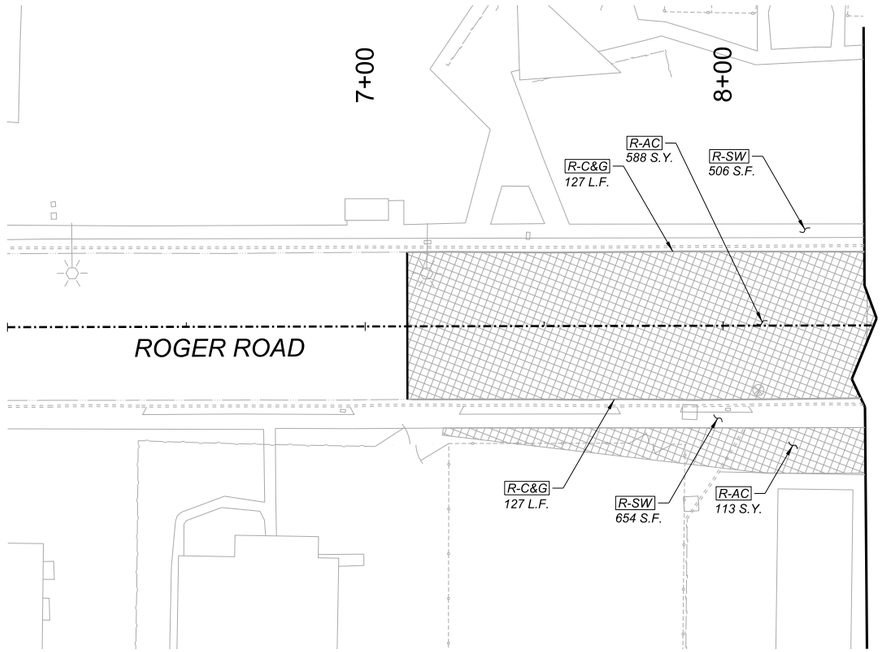
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

DEMOLITION PLAN

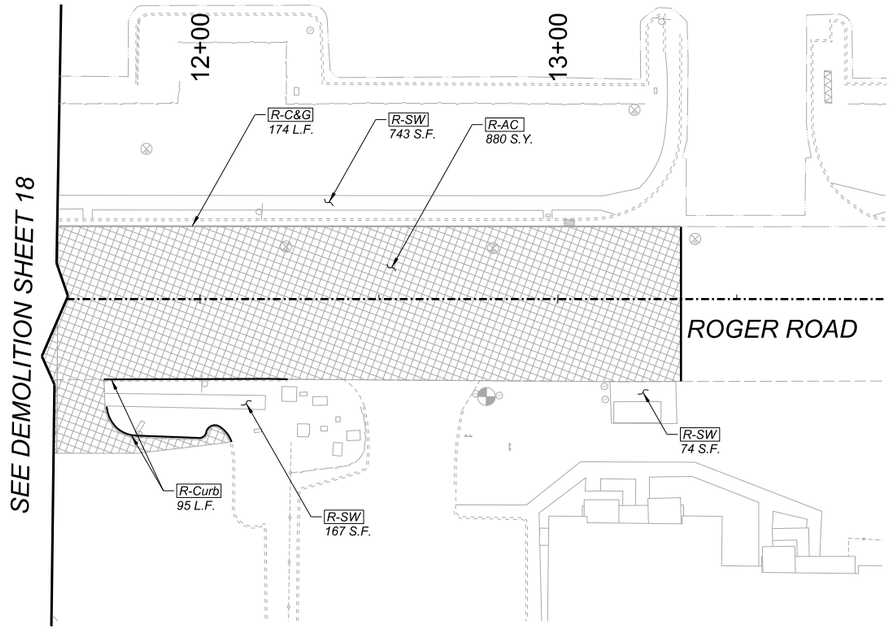
SHEET 33 OF 37

c:\pwworking\west01\d3987900\08C-33.dgn
8/19/2026 11:46:38 AM

OpenRoads Designer v10.12.02.4
8/20/2026
2:55:52 PM
Printed by:SWESTMORELAND
Print Scale: 1:1
Pentable: COTPMAAMCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number:4109



1ST AVENUE



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

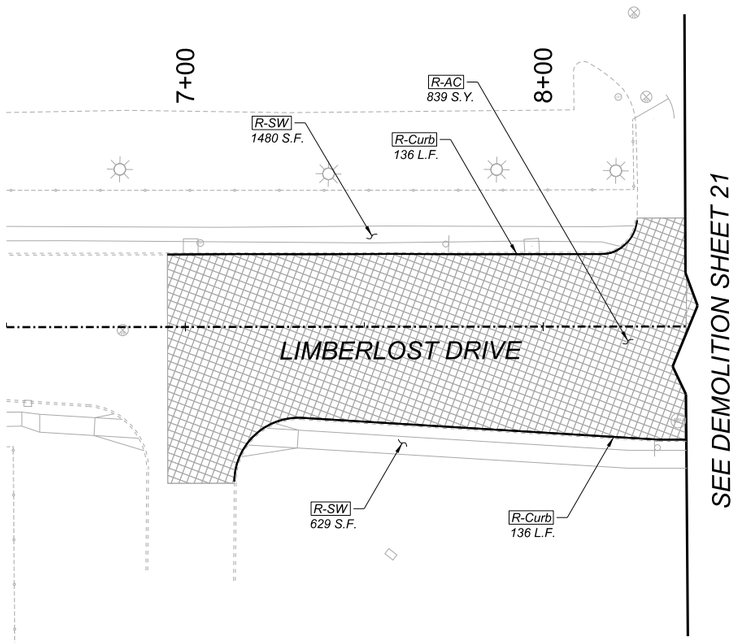
DEMOLITION PLAN

SHEET 34 OF 37

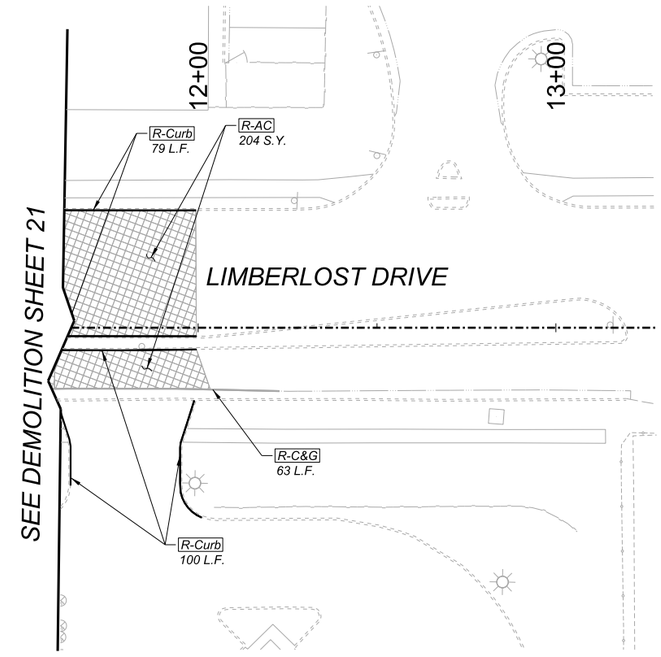
206 OF 504

c:\pwworking\west01\d3987900\08C-34.dgn
8/20/2026 2:55:52 PM

11:56:18 AM 8/19/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg
Project ID:
Client Number: 4109

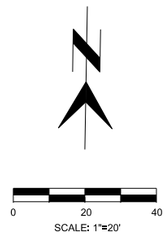


1ST AVENUE



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 35 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

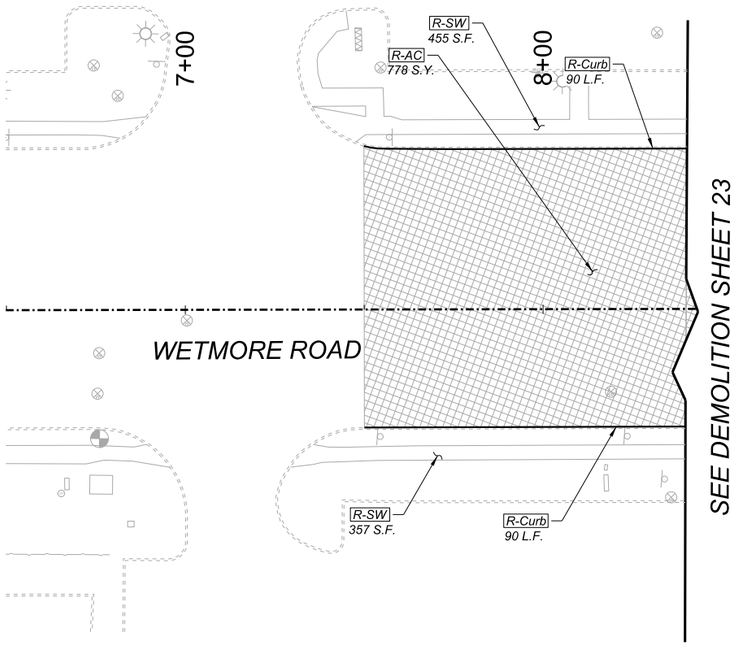
207 OF 504

CITY OF TUCSON

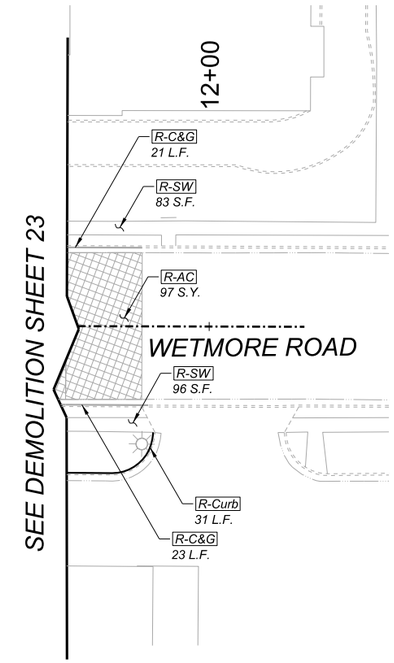
DRWN. BY JAR AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1"=20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-35.dgn
8/19/2026 11:56:18 AM

12:05:31 PM 8/19/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

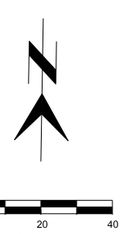


1ST AVENUE



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

208 OF 504

CITY OF TUCSON

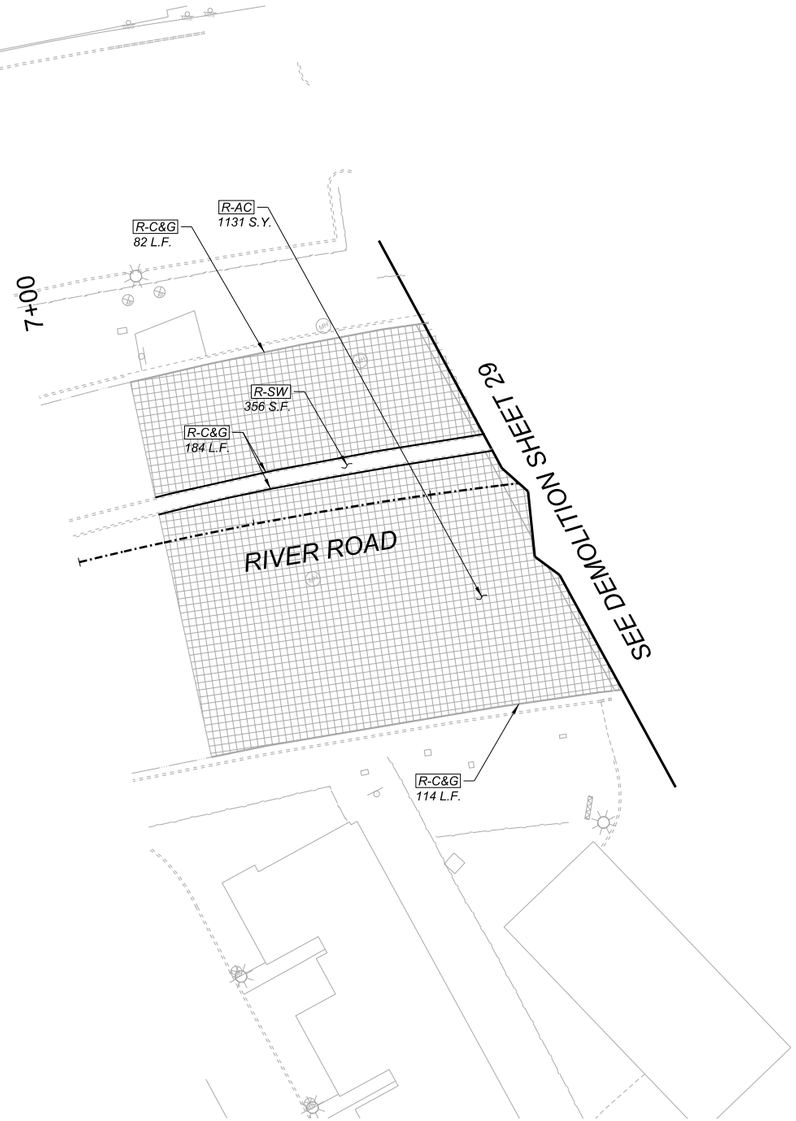
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JMF AUG 2026	BJK AUG 2026	H: 1"=20'

PLAN NO. R-2024-XXX

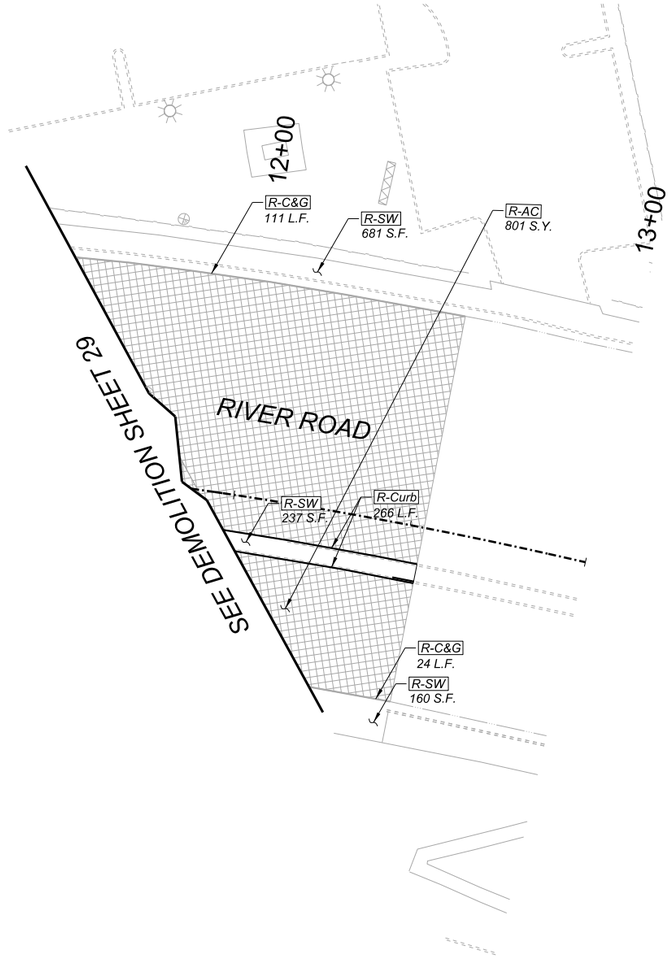
DEMOLITION PLAN *SHEET 36 OF 37*

c:\pwworking\west01\d3987900\08C-36.dgn
8/19/2026 12:05:31 PM

OpenRoads Designer v10.12.02.4
8/19/2026
4:56:24 PM
Plotted by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



1ST AVENUE



BID ITEM LEGEND

BID ITEM	Symbol	Description
2020029	R - AC	Remove A.C. Pavement
2020025	R - SW	Remove Sidewalk and Ramp
2020020	R - Curb	Remove Curb
2020021	R - C&G	Remove Curb and Gutter
2020025	R - DW	Remove Driveway Apron
2020025	R - Pad	Remove Concrete Bus Pad
2020025	R - Misc	Remove Miscellaneous Concrete
2020053	R - CB	Remove Catch Basin
2020042	R - SD	Remove Storm Drain Pipe
2020054	R - MH	Remove Manhole
2020052	R - Rail	Remove Handrail
2020100	R - Link	Remove Chain Link Fence
2020164	R - Wall	Remove Concrete Wall

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEMOLITION PLAN

SHEET 37 OF 37

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

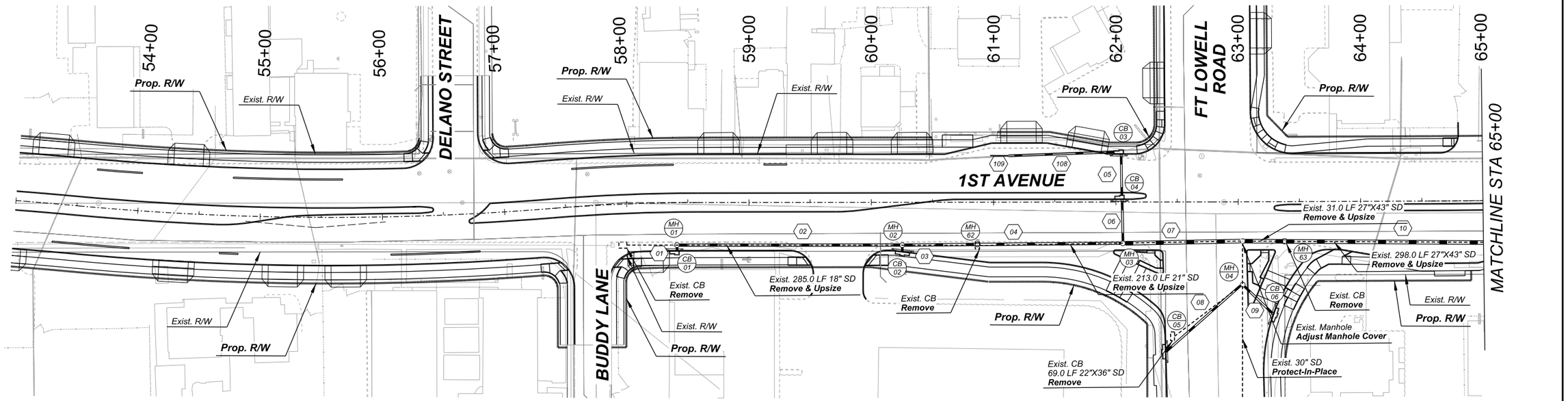
209 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JMF	BJK	H: 1"=20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\08C-37.dgn
8/19/2026 4:56:24 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:12:17 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



STORM DRAIN PLAN

SHEET 1 OF 10

0 20 40 80
SCALE: 1"=20'
SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

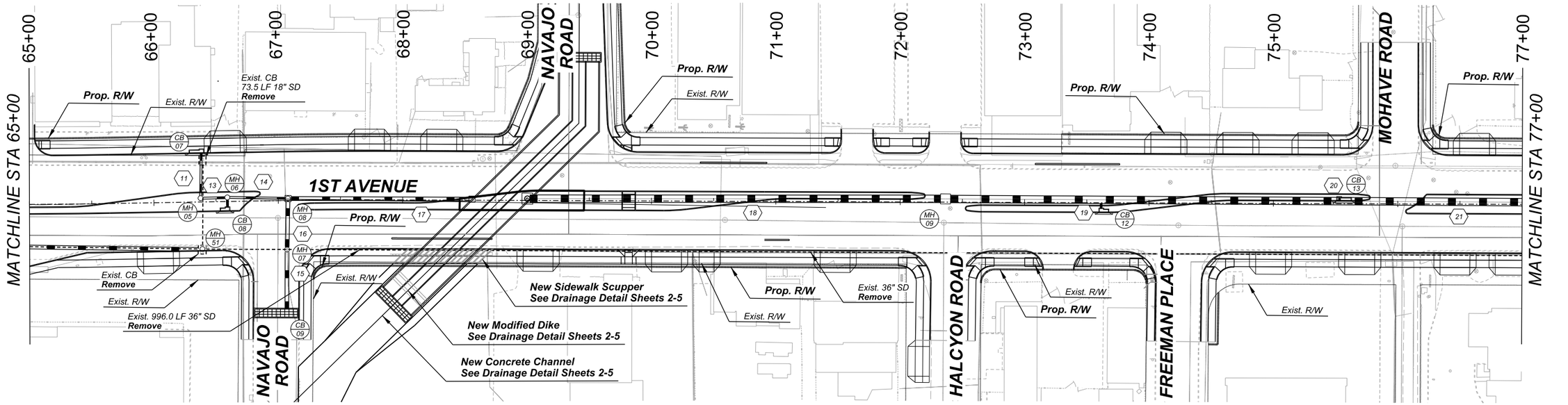
210 OF 504

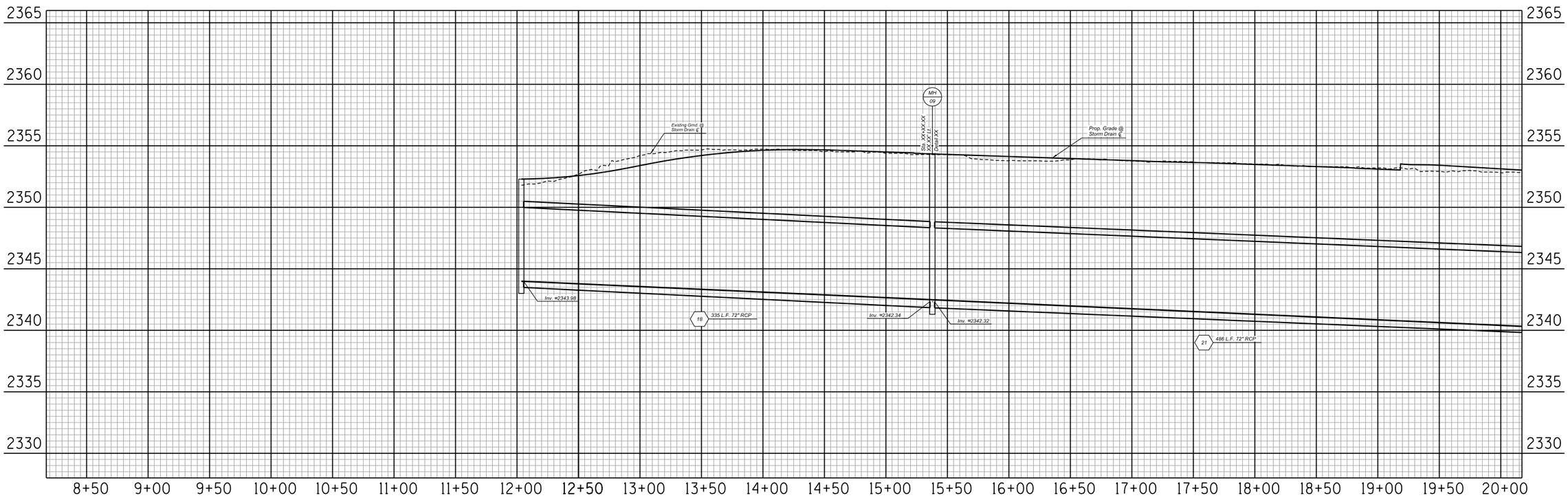
CITY OF TUCSON

DRWN. BY TCC AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 40'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\09C-01.dgn
8/19/2026 3:12:17 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:21:13 PM
Plotted by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109





STORM DRAIN PLAN & PROFILE

SHEET 2 OF 10

0 40 80
SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

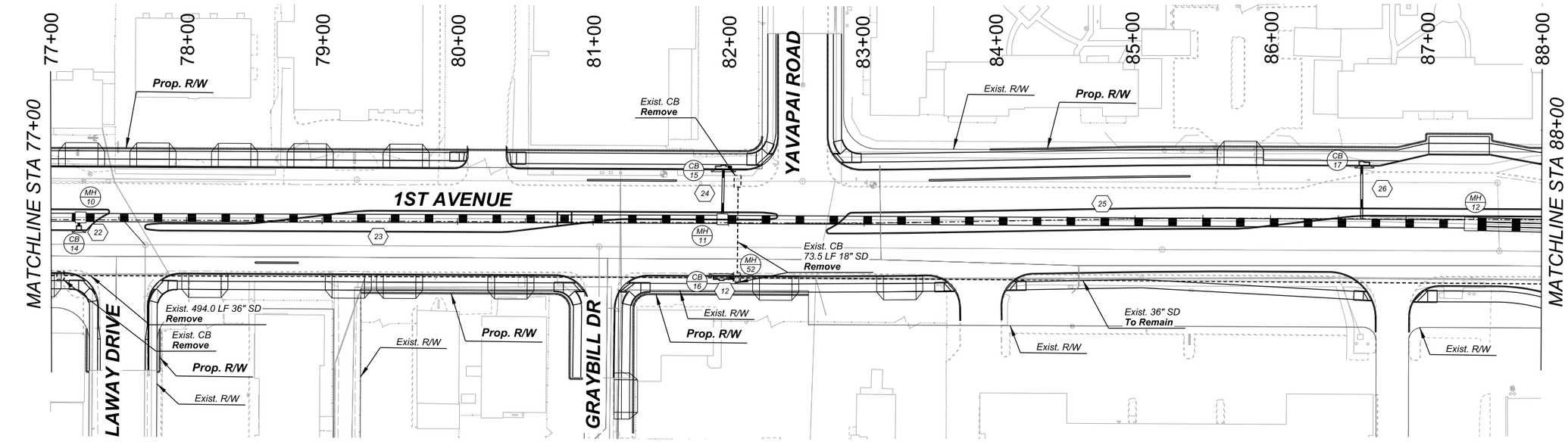
211 OF 504

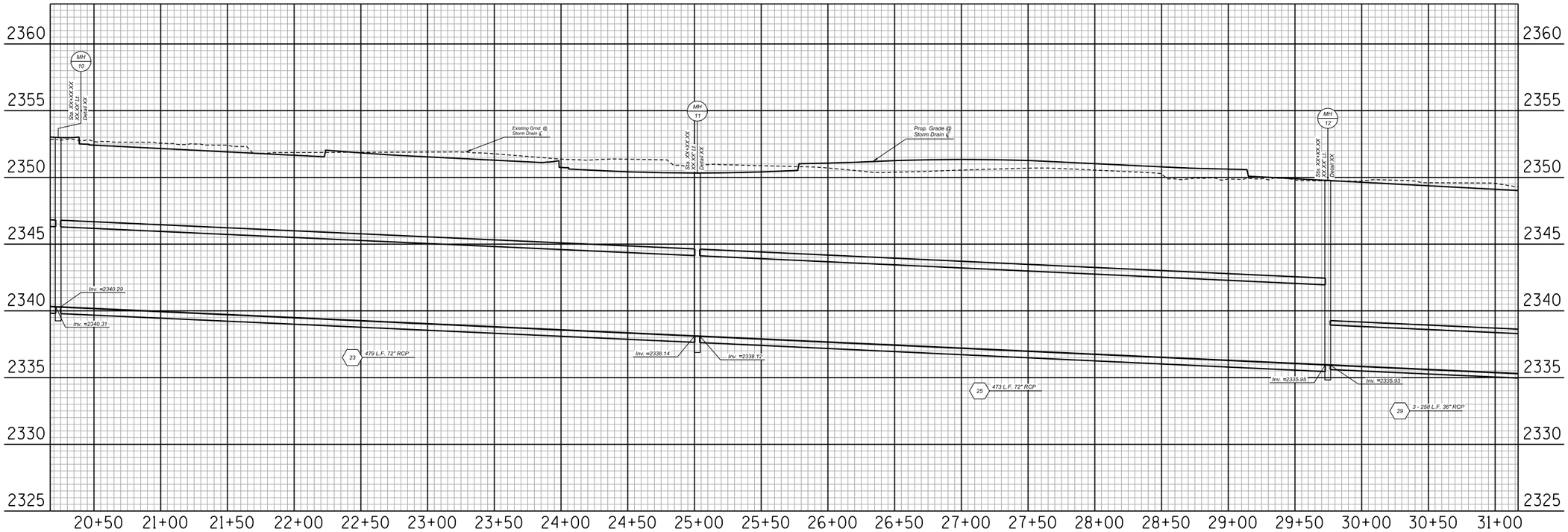
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JMF	BJK	H: 1" = 40' V: 1" = 4'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\09C-02.dgn
8/19/2026 3:21:13 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:26:09 PM
Printed by:SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_twpdf_SD.pltcfg
Project ID:
Client Number:4109





STORM DRAIN PLAN & PROFILE

SHEET 3 OF 10

0 40 80
SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

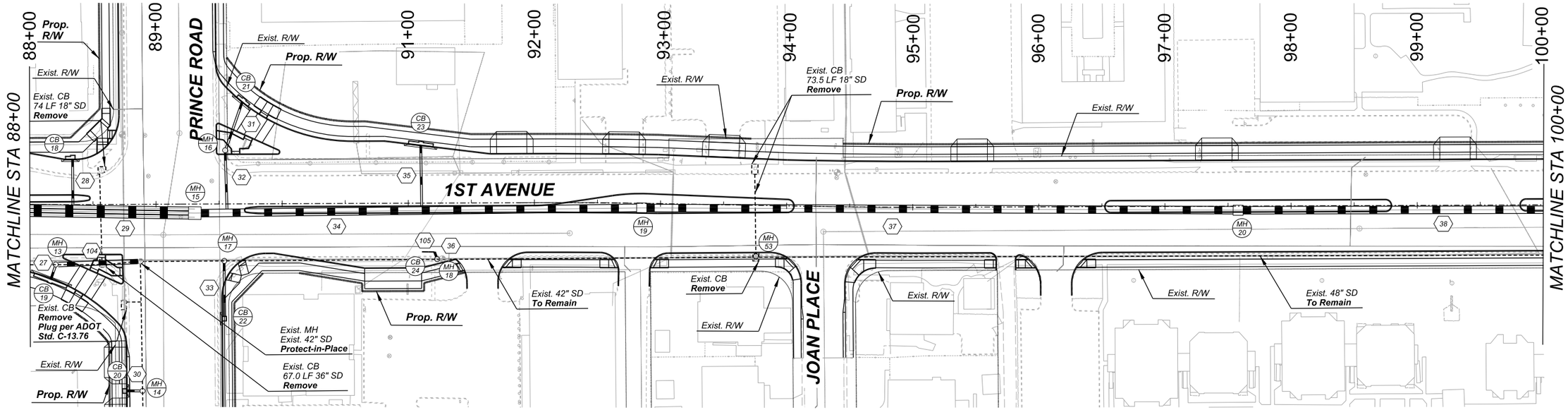
212 OF 504

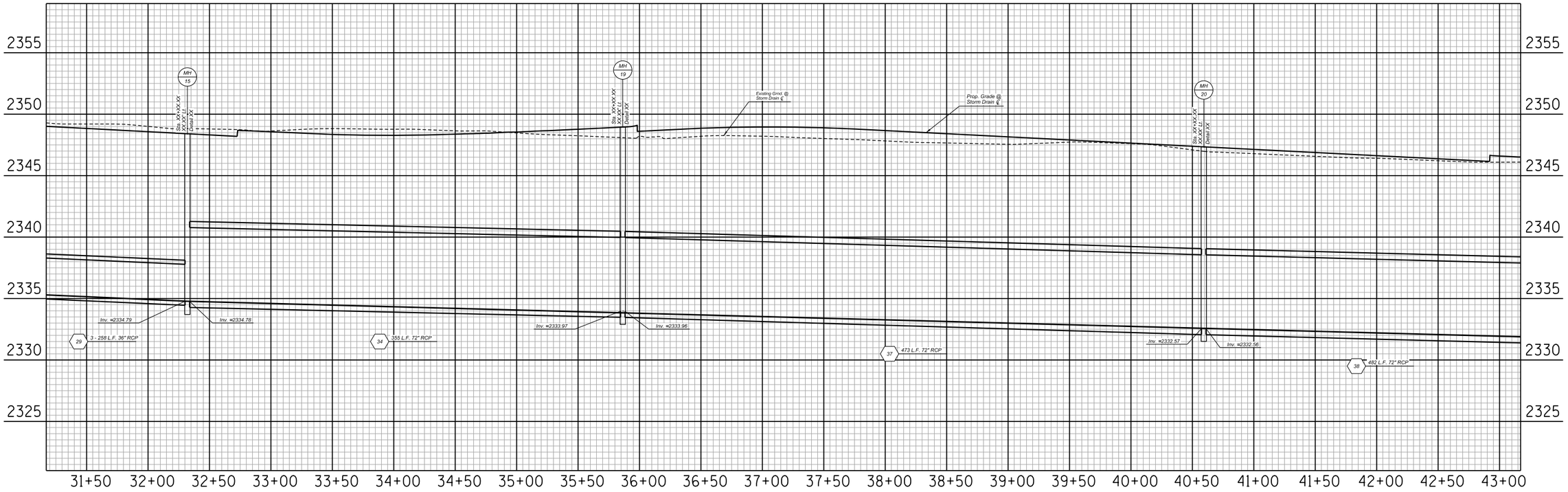
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 40' V: 1" = 4'
TCC	JMF	BJK	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

c:\pwworking\west01\d4381915\09C-03.dgn
8/19/2026 3:26:09 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:32:26 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109





STORM DRAIN PLAN & PROFILE SHEET 4 OF 10

0 40 80
SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

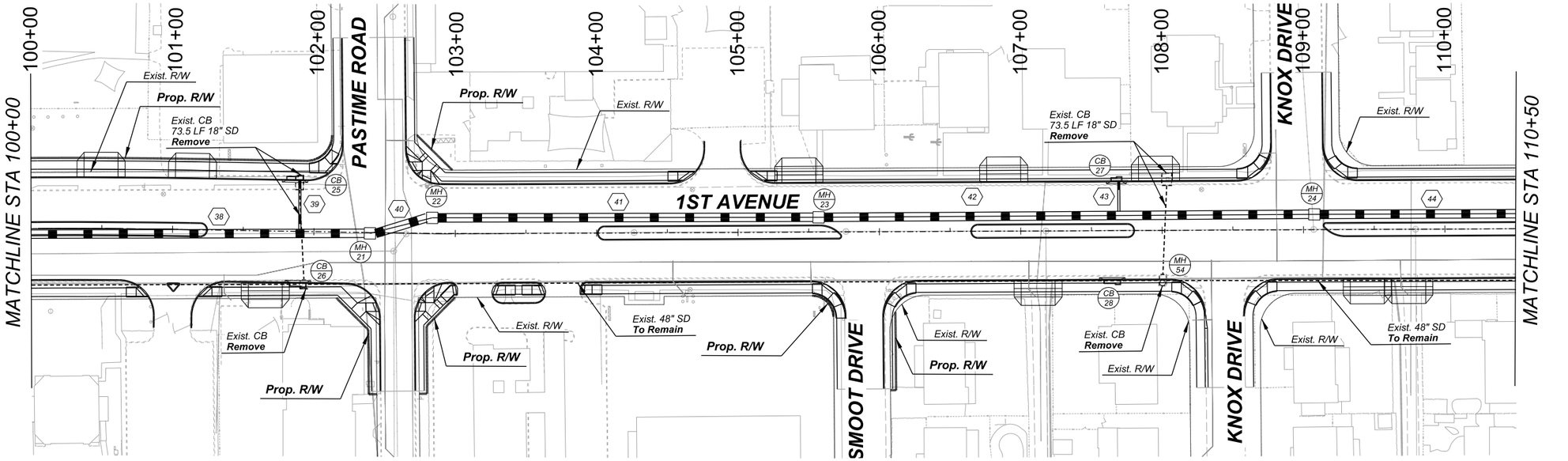
213 OF 504

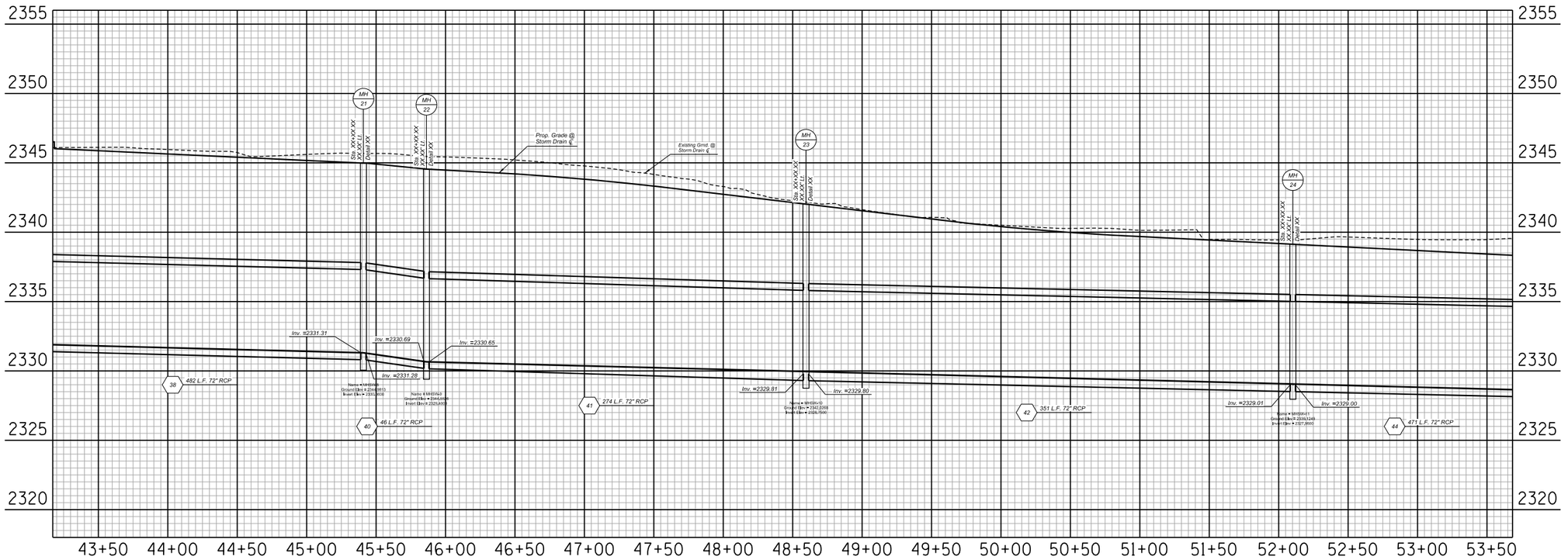
CITY OF TUCSON

DRWN. BY TCC	CHKD. BY JMF	APPR. BY BJK	SCALE: H: 1" = 40' V: 1" = 4'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\09C-04.dgn
8/19/2026 3:32:26 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:38:04 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109





STORM DRAIN PLAN & PROFILE SHEET 5 OF 10

SCALE: 1"=40'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

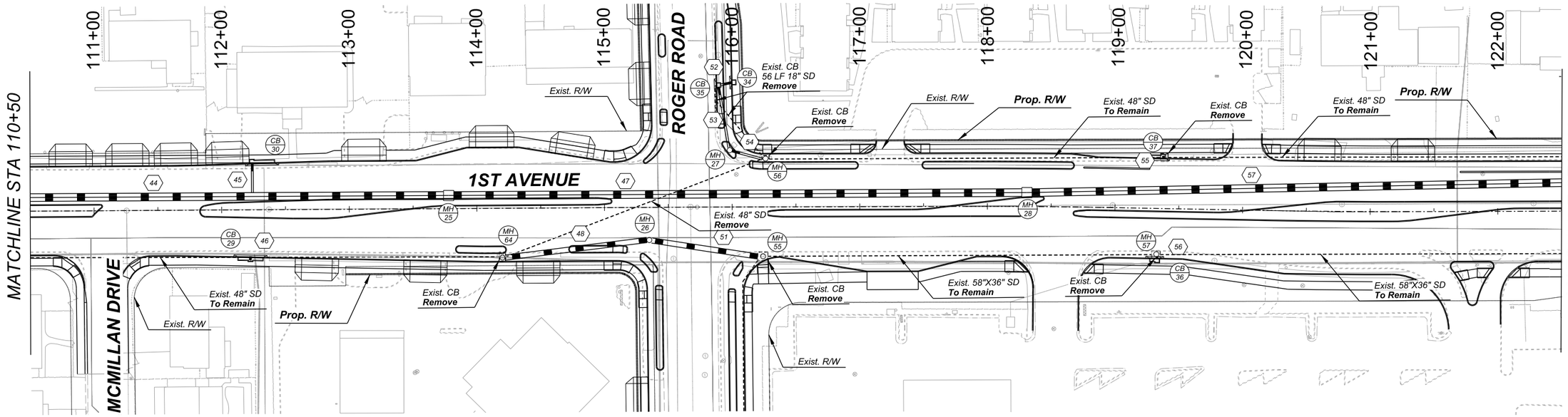
214 OF 504

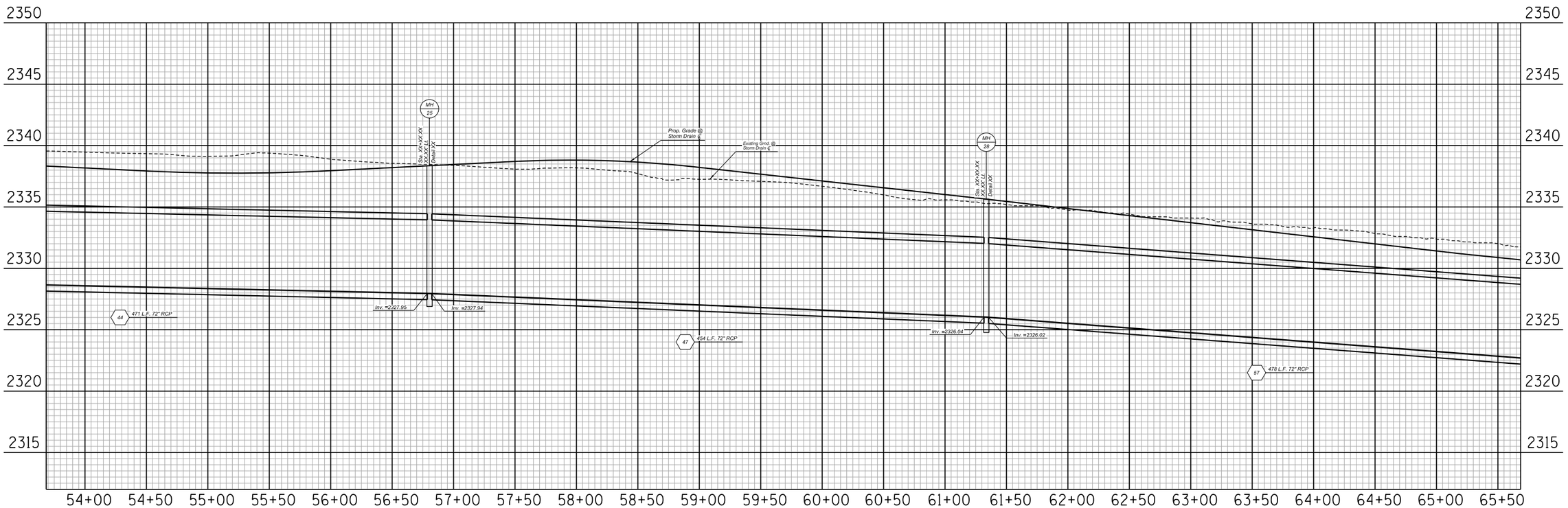
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 40' V: 1" = 4'
TCC AUG 2026	JMF AUG 2026	BJK AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\09C-05.dgn
8/19/2026 3:38:04 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:42:46 PM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109





SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

215 OF 504

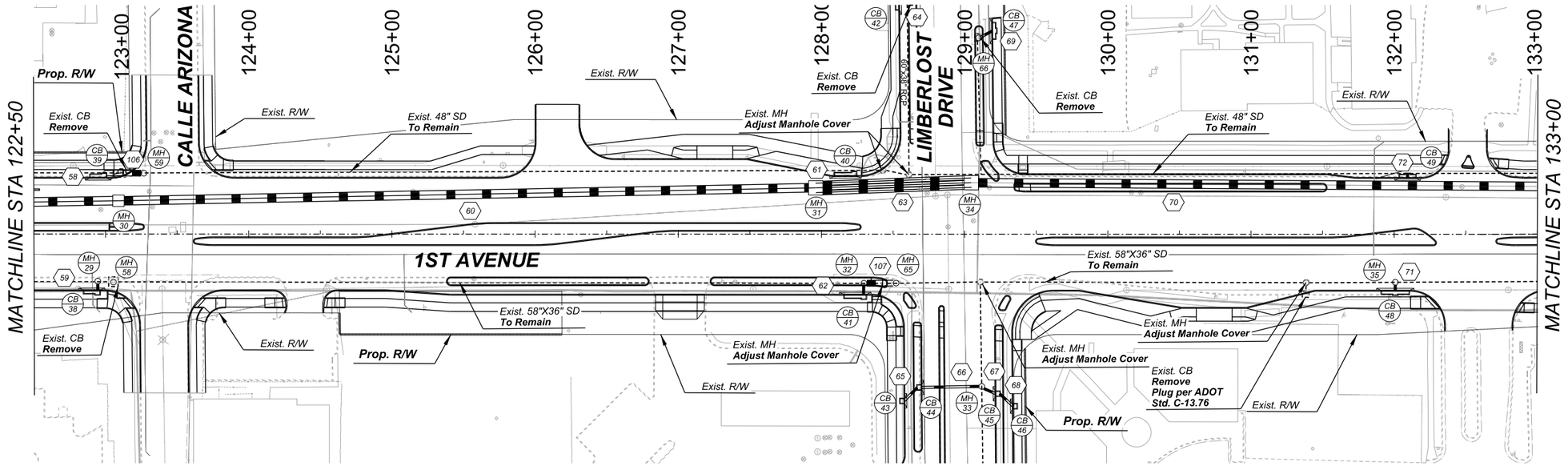
CITY OF TUCSON

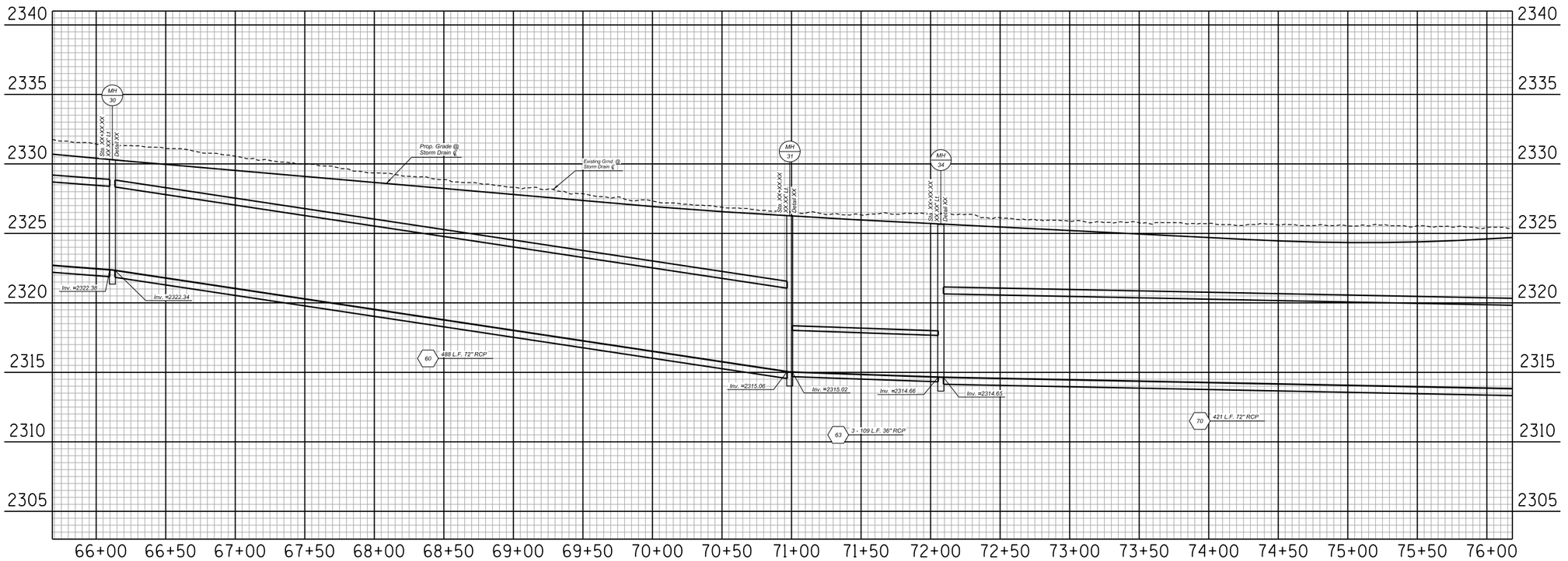
DRWN. BY TCC AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 40' V: 1" = 4'
PLAN NO. R-2024-XXX

STORM DRAIN PLAN & PROFILE *SHEET 6 OF 10*

c:\pwworking\west01\d4381915\09C-06.dgn
8/19/2026 3:42:46 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:47:29 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDrvr: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109





0 40 80
SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

216 OF 504

CITY OF TUCSON

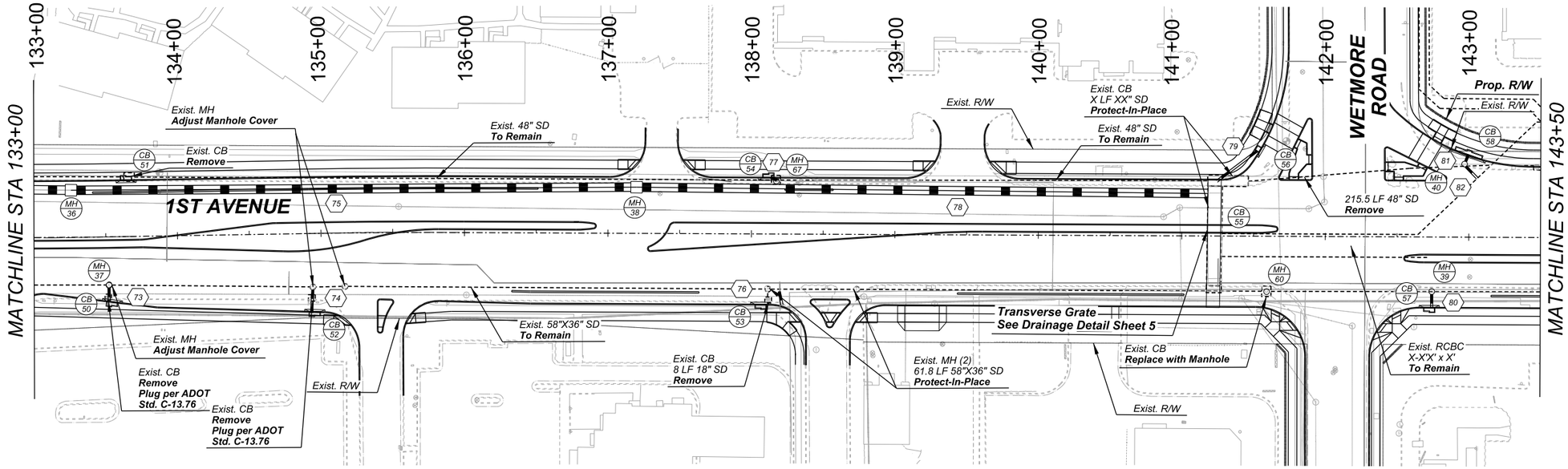
DRWN. BY TCC	CHKD. BY JMF	APPR. BY BJK	SCALE: H: 1" = 40' V: 1" = 4'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

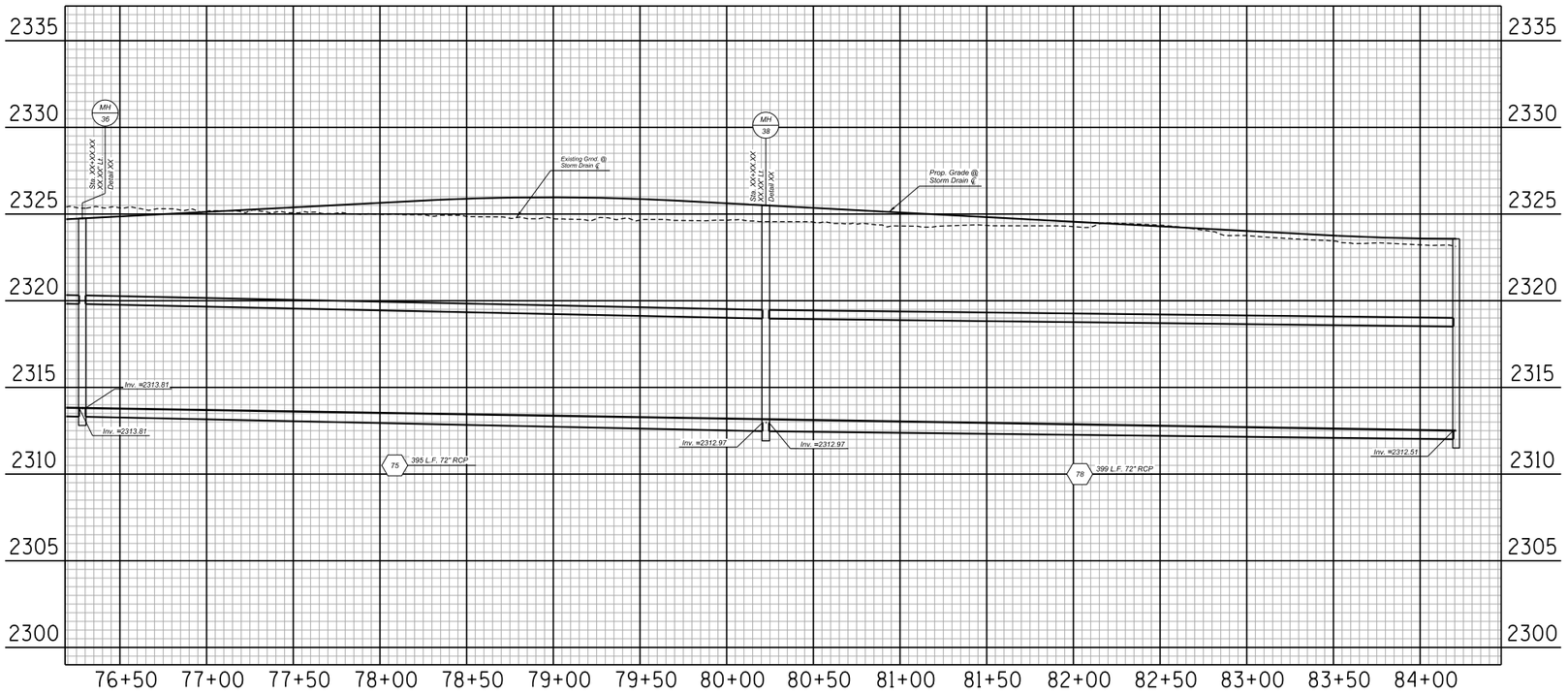
STORM DRAIN PLAN & PROFILE

SHEET 7 OF 10

c:\pwworking\west01\d4381915\09C-07.dgn
8/19/2026 3:47:29 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:54:19 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109





SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

217 OF 504

CITY OF TUCSON

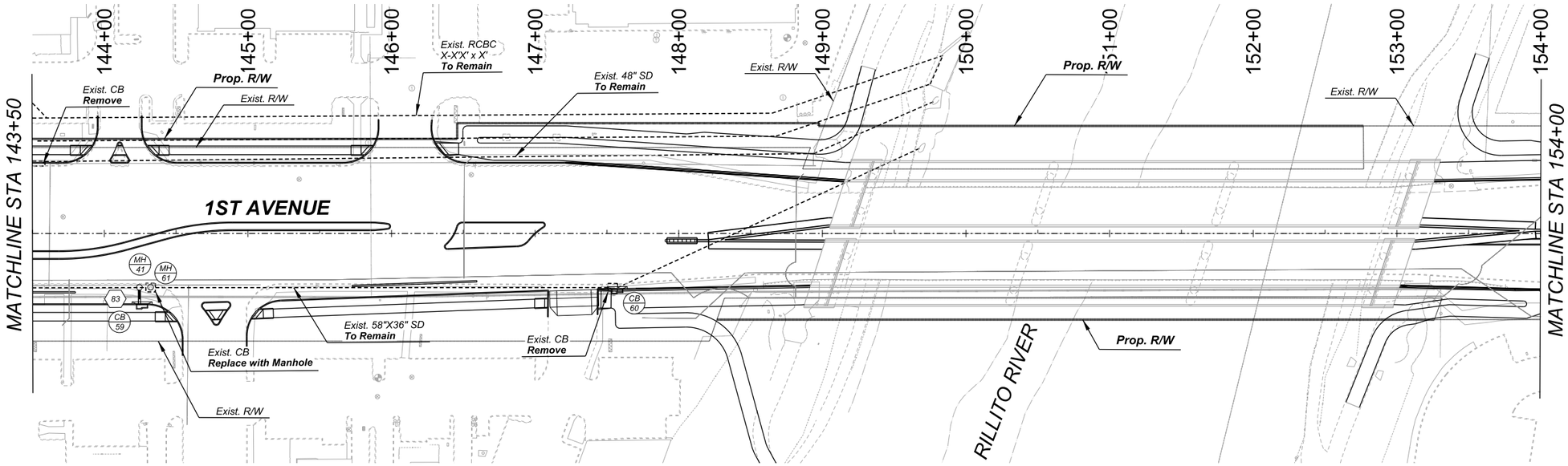
DRWN. BY TCC AUG 2026
CHKD. BY JMF AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 40' V: 1" = 4'
PLAN NO. R-2024-XXX

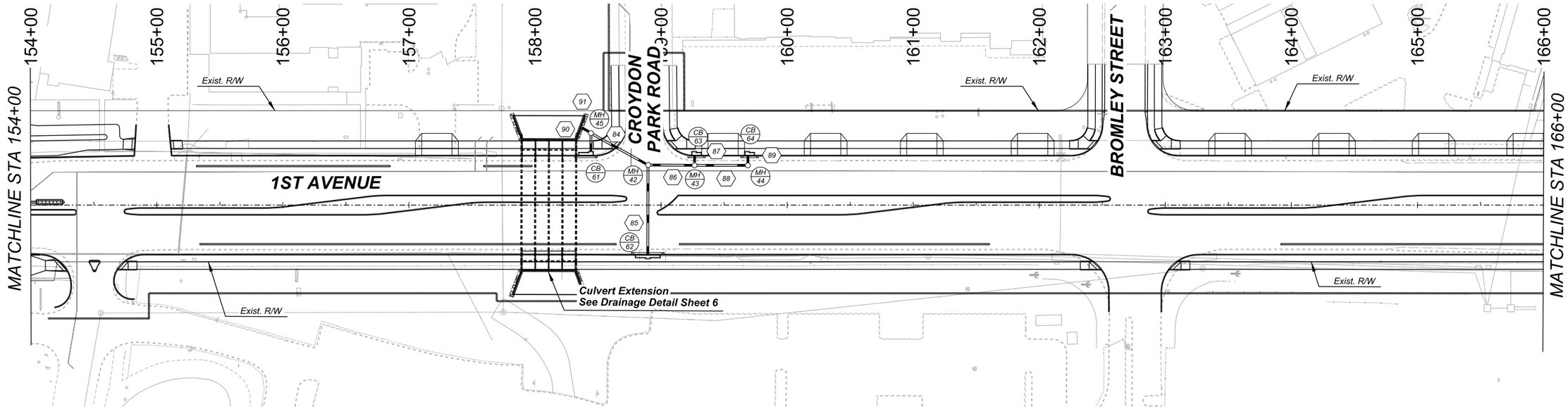
STORM DRAIN PLAN & PROFILE

SHEET 8 OF 10

c:\pwworking\west01\d4381915\09C-08.dgn
8/19/2026 3:54:19 PM

OpenRoads Designer v10.12.02.4
8/19/2026
4:03:35 PM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109





STORM DRAIN PLAN

SHEET 9 OF 10

0 40 80
SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

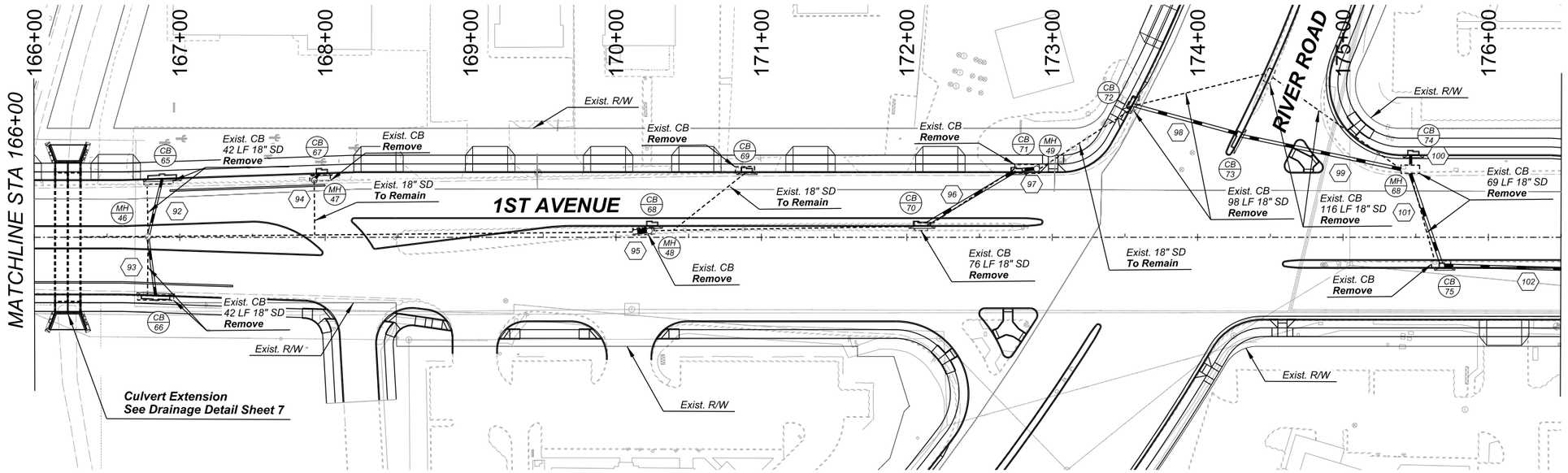
218 OF 504

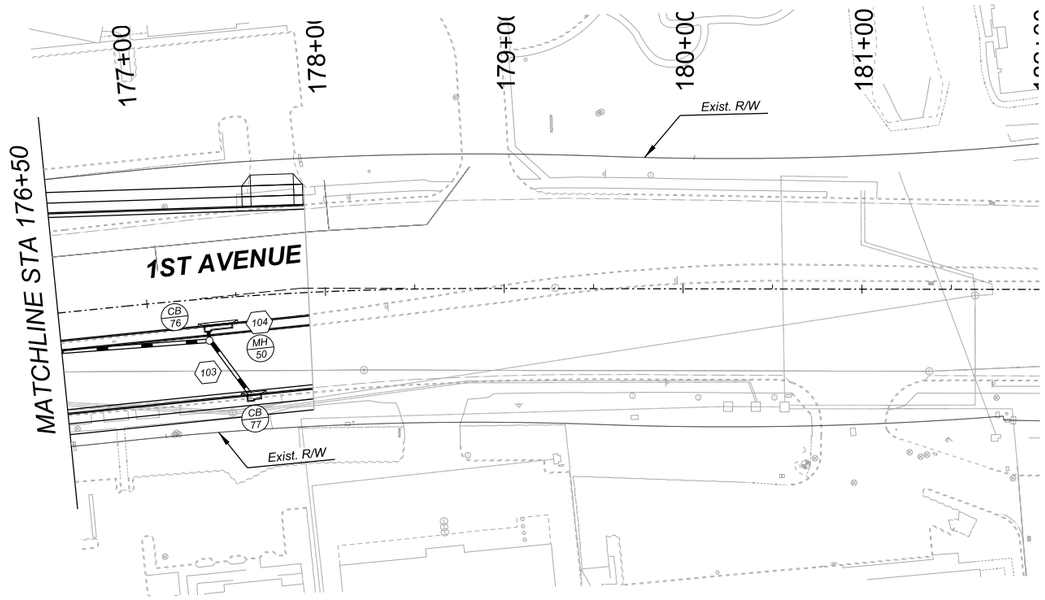
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JMF	BJK	H: 1" = 40' V: 1" = 4'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\09C-09.dgn
8/19/2026 4:03:35 PM

OpenRoads Designer v10.12.02.4
8/26/2026
11:08:02 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

STORM DRAIN PLAN

SHEET 10 OF 10

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

219 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JMF	BJK	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4381915\09C-10.dgn
8/26/2026 11:08:02 AM

OpenRoads Designer v10.12.02.4
8/20/2026
2:34:51 PM
Printed by:BKIRKMAN
Print Scale:1:40
Pentable:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number:4109

GENERAL NOTES FOR SIGNING AND STRIPING PLANS

1. All pavement markings shall conform to Pima County / City of Tucson (PC/COT) Standards and Specifications.

2. All removal of existing pavement markings shall be accomplished in accordance with section 701 of the PC/COT Standard Specifications. Painting over existing striping does not constitute approved striping obliteration.

3. The permanent pavement markings may be modified as directed by the Engineer.

4. The design speed for 1st Ave. is 35 MPH for Grant Rd. to Wetmore Rd., and 45 MPH for Wetmore Rd. to River Rd.. The design vehicle is WB-50. The posted speed limit for 1st Ave is: 30 mph from Grant Rd. to Wetmore Rd., and 40 MPH for Wetmore Rd. to River Rd. Placement shall be based on the posted speed limit.

5. The Contractor shall be responsible for the layout and installation of pavement markings on final surface course. The layout and inspection of all pavement markings shall be approved by the Traffic Engineer prior to the application of materials.

6. All lane dimensions are from center of lane line, center of double lane line, face of curb, or edge of pavement unless otherwise noted.

7. The final longitudinal striping shall be 90 mil (0.090") thick extruded or ribbon thermoplastic reflectorized striping placed over the temporary striping within 14 to 30 calendar days after completion of the final pavement surface, or as directed by the Traffic Engineer. All other markings shall be applied at the same time. Temporary striping shall be paint.

8. All final transverse markings shall be 90 mil thermoplastic striping (0.090"). All pavement arrows and legends shall be Type I preformed applications as described in Section 704 of the Special Provisions.

9. It is the Contractor's responsibility to ensure that the final surface course is placed so that the striping is offset no more than one foot clear of the construction joint, unless otherwise directed by the Engineer.

10. All raised pavement markers (RPMs) shall be installed so that the reflective face of each marker is facing the direction of traffic and is perpendicular to the direction of traffic flow. Type C pavement markers shall be installed so that the clear reflective face of each marker is facing approaching traffic and perpendicular to the direction of traffic flow.

11. Blue raised pavement markers shall be placed adjacent to fire hydrants as shown on Sheet 7-1 of the PC/COT Pavement Marking Design Manual.

12. The Contractor shall clean the roadway surface to the satisfaction of the Traffic Engineer by sweeping and air-jet blowing immediately prior to the placement of all pavement markings. The temperature shall not be less than 50 degrees F. for the placement of extruded thermoplastic striping, and 40 degrees F. for the placement of RPMs.

13. The pavement marking drawings are schematic only. The Contractor shall follow all dimensions, details, and standards when installing pavement striping, markings, and markers.

14. At intersection approaches on roadways with medians, Type C RPMs shall be placed as per PC/COT Standards or as directed by the Traffic Engineer.

15. The Engineer of Record shall be required to produce as-built striping plans within 90 days of striping completion.

16. Final inspection/acceptance of pavement markings shall be performed by the Traffic Engineer.

17. All pavement markings and signing shall be installed and shall be paid for by the Project Owner/Developer.

18. All signs shall be in compliance with the 2023 Edition of the Manual on Uniform Traffic Control Devices (MUTCD), the 2020 Edition of the Pima County / City of Tucson Signing & Pavement Marking Manual, and the Special Provisions.

19. Signs may be modified and locations adjusted to fit conditions as directed by the Traffic Engineer.

20. Post lengths indicated on sign summary sheets are approximated. The Contractor shall field verify actual post lengths.

21. All signs to be installed on square-tube posts. Posts shall be installed in a concrete foundation unless otherwise directed by the Engineer.

22. All sign locations are approximate. The Contractor shall field verify actual sign locations with the Engineer prior to the installation of all signs.

23. All warning signs shall be fluorescent yellow ASTM Type XI sheeting. All school zone signs shall be fluorescent yellow-green ASTM Type XI sheeting. All overhead signs, street name signs, yield signs, stop signs, and object markers shall be ASTM Type XI sheeting. All other sign panels shall have high intensity prismatic Type IV sheeting.

24. All new signs have aluminum backing, unless otherwise specified.

25. All existing signs to be removed as part of this project are to be delivered to the City of Tucson Sign Shop at 4004 S. Park Ave. (520) 791-3154. The Contractor is responsible for unloading the salvage material. Any salvaged sign that is to be reused shall be temporarily stored in a safe location until reinstallation.

26. The Contractor shall be responsible for coordinating all work with Arizona 811 and installing all traffic signs in the field.

27. Submit street name signs to Traffic Engineering Greg Orsini, (520) 791-4259 for approval prior to fabrication.

ESTIMATED QUANTITIES

ITEM		UNITS	QUANTITIES
SIGN SHEETING TYPE	TYPE IV	SF	-
	DG	SF	-
	STREET NAME SIGNS	EA	-
SIGN POST	P-1	LF	-
	P-1 FOUNDATION	EA	-
SIGN BANDS (for poles)		EA	-

APPROXIMATE PAVEMENT MARKING QUANTITIES

ITEM	UNIT	QUANTITY
PAVEMENT MARKING (WHITE THERMOPLASTIC) (0.09")	LF	-
PAVEMENT MARKING (YELLOW THERMOPLASTIC) (0.09")	LF	-
PAVEMENT LEGEND (WHITE EXTRUDED THERMOPLASTIC) (BIKE LANE SYMBOL w/ ARROW)	EA	-
PAVEMENT LEGEND (WHITE EXTRUDED THERMOPLASTIC) ("ONLY")	EA	-
PAVEMENT LEGEND (WHITE EXTRUDED THERMOPLASTIC) (SINGLE ARROW)	EA	-
PAVEMENT MARKING (GREEN PREFORMED THERMOPLASTIC) (BIKE LANE)	SF	-
PAVEMENT MARKING (PREFORMED ACCESSIBILITY PARKING SPACE)	EA	-
PAVEMENT LEGEND (BIKE WAYFINDING LEGEND)	EA	-
PAVEMENT LEGEND (SHARED-LANE MARKING)	EA	-
RAISED PAVEMENT MARKER (TYPE D)	EA	-
RAISED PAVEMENT MARKER (TYPE C)	EA	-
RAISED PAVEMENT MARKER (TYPE F)	EA	-
RAISED PAVEMENT MARKER (TYPE G)	EA	-
RAISED PAVEMENT MARKER (TYPE H)	EA	-

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

STRIPING PLAN

SHEET 1 OF 38

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

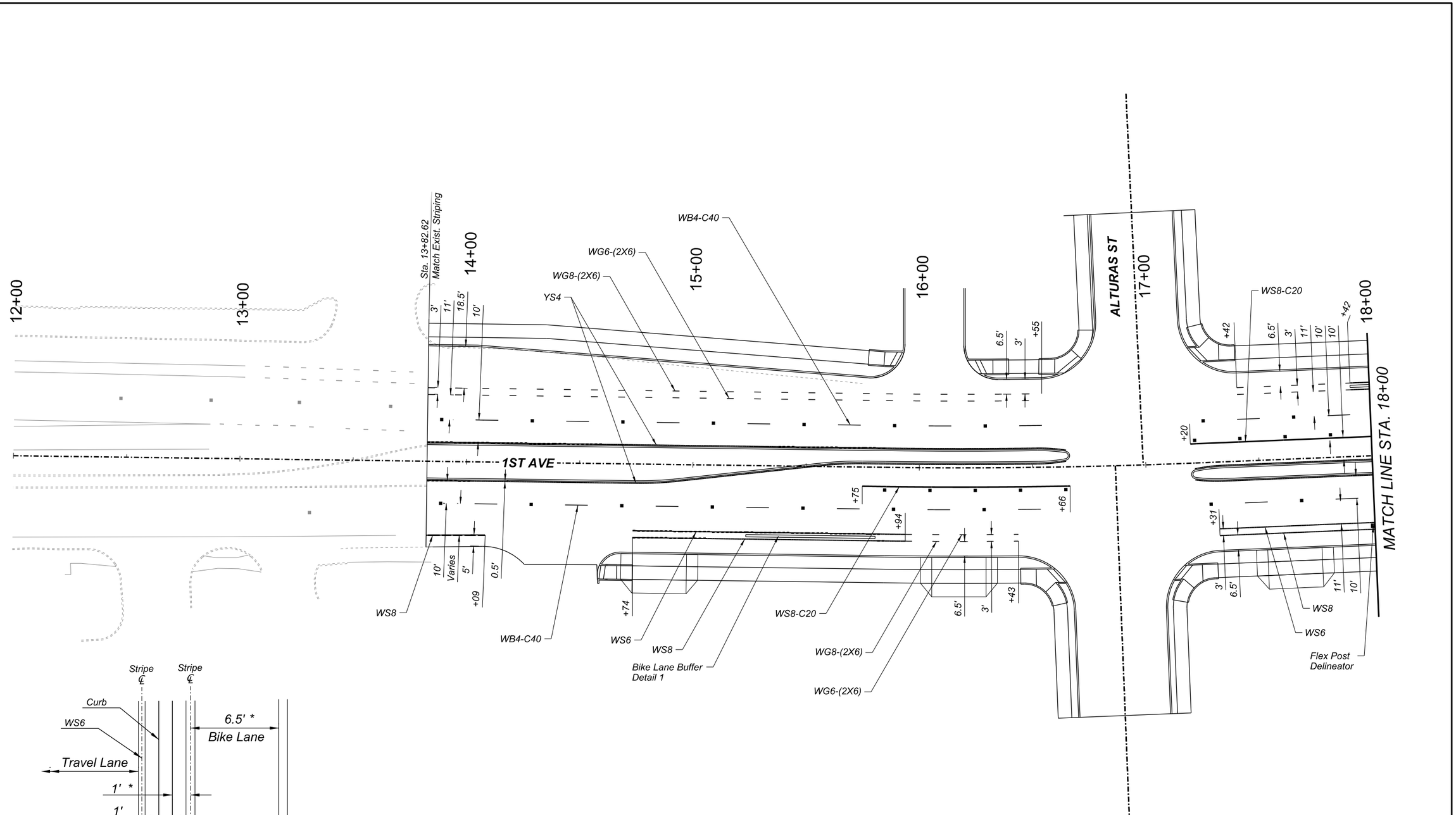
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

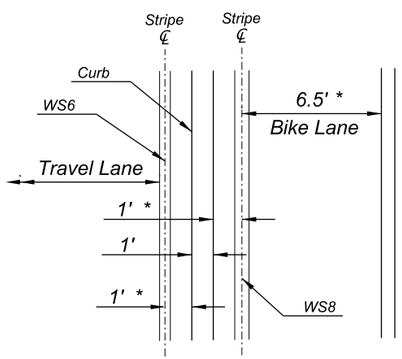
220 OF 504

CITY OF TUCSON

DRWN. BY TCC AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: NTS
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C_01.dgn
8/20/2026 2:34:51 PM





* Measured from center of stripe to center of stripe.

Detail 1
Bike Lane Curb Protected Buffer

STRIPING PLAN

SHEET 2 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

221 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Project ID:
Client Number: 4109

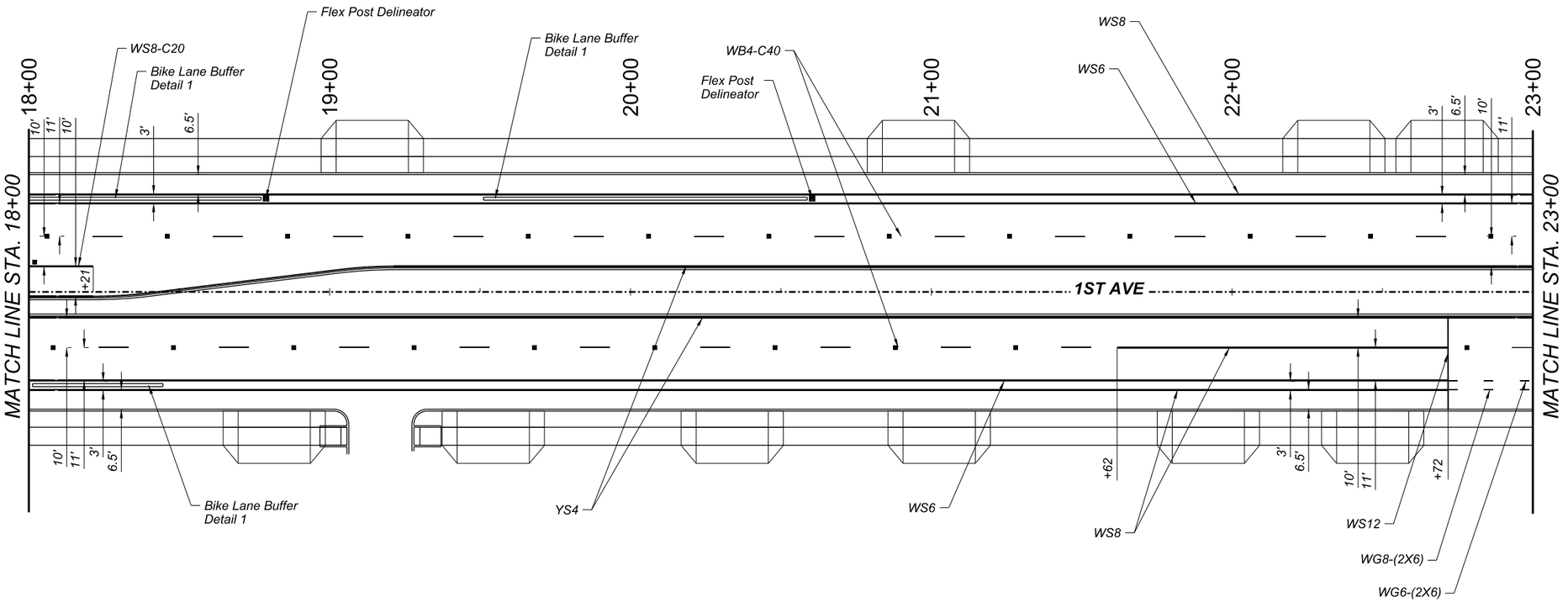
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
PlotStyler: GN_twpdf_SD.pltcfg

Printed by: TCOLE
Print Scale: 10.0833333

10:58:04 AM 8/26/2026 OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3987900\21C-02.dgn
8/26/2026 10:58:04 AM

OpenRoads Designer v10.12.02.4
8/20/2026
3:25:29 PM
Printed by: BKIRKMAN
Print Scale: 1:1
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

STRIPING PLAN

SHEET 3 OF 38

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

222 OF 504

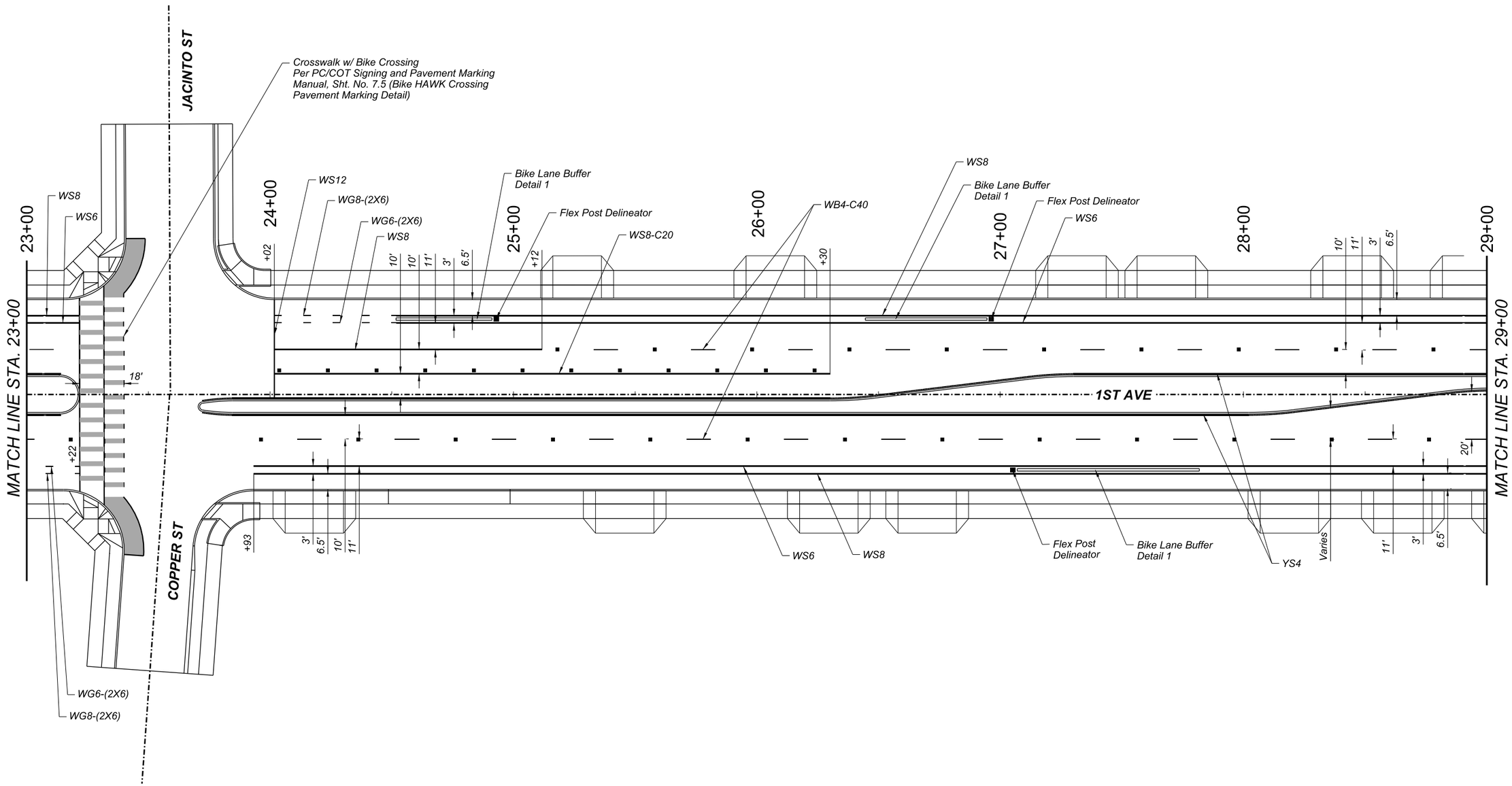
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

OpenRoads Designer v10.12.02.4
8/20/2026
3:10:43 PM
Printed by:SWESTMORELAND
Print Scale: 1:0.0833333
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109



STRIPING PLAN

SHEET 4 OF 38

0 20 40
SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

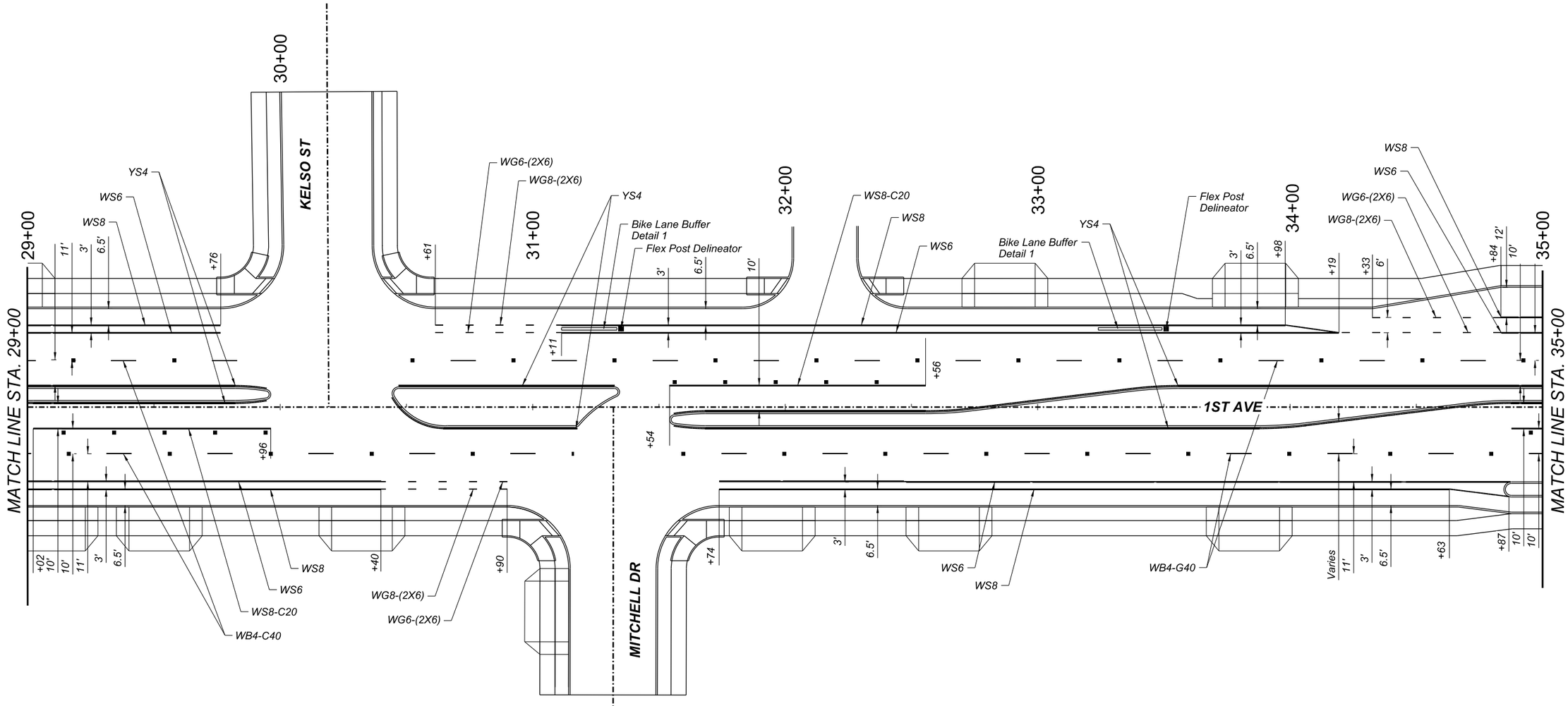
223 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-04.dgn
8/20/2026 3:10:43 PM



STRIPING PLAN

SHEET 5 OF 38

SCALE: 1"=20'

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

224 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Project ID:
Client Number: 4109

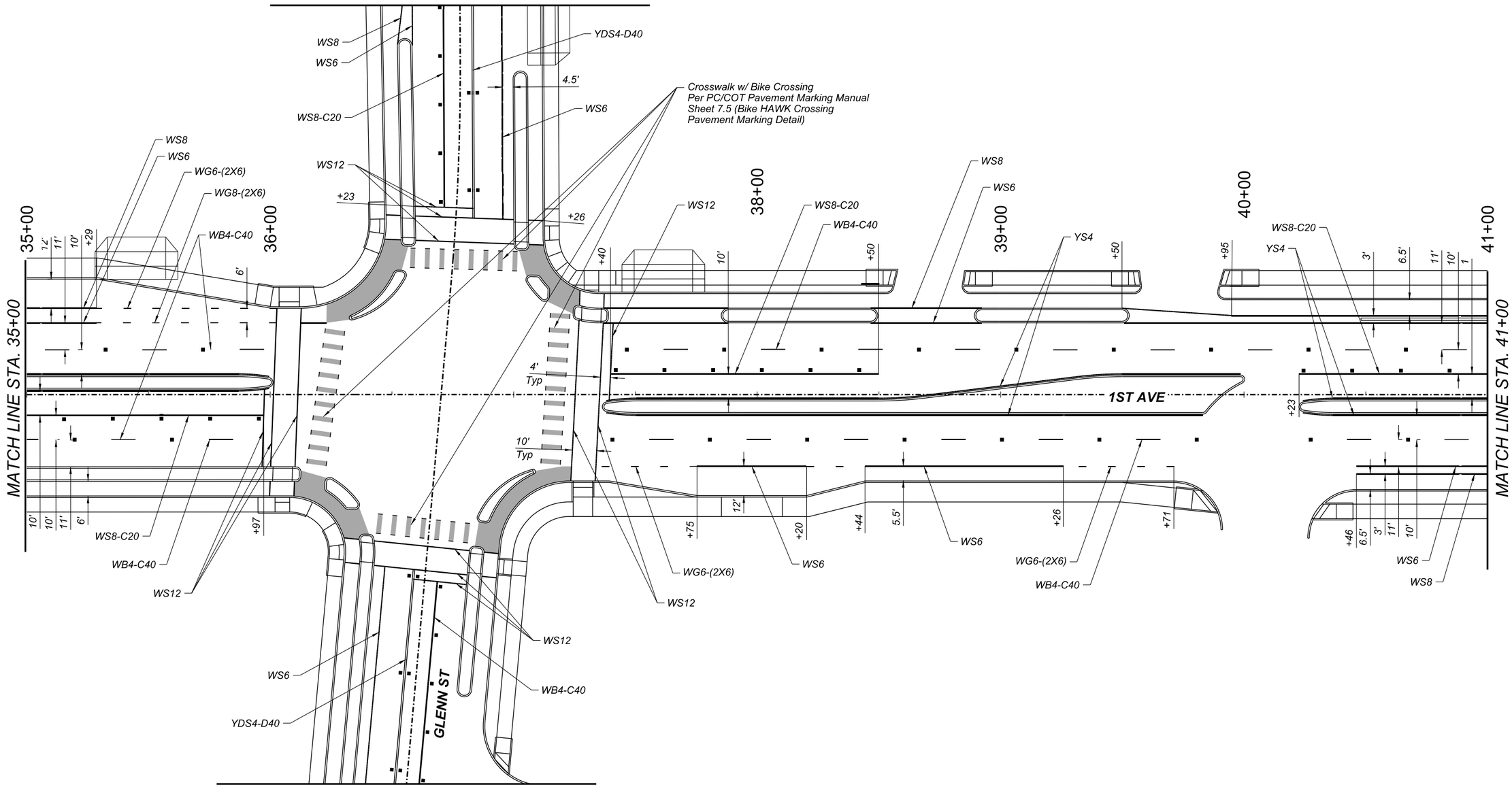
Pentable: COTPM&AMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg

Printed by: SWESTMORELAND
Print Scale: 1:0.0833333

3:12:29 PM 8/20/2026 OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3987900\21C-05.dgn
8/20/2026 3:12:29 PM

SEE SHEET 32 FOR GLENN ST. STRIPING



SEE SHEET 32 FOR GLENN ST. STRIPING

STRIPING PLAN

SHEET 6 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

225 OF 504

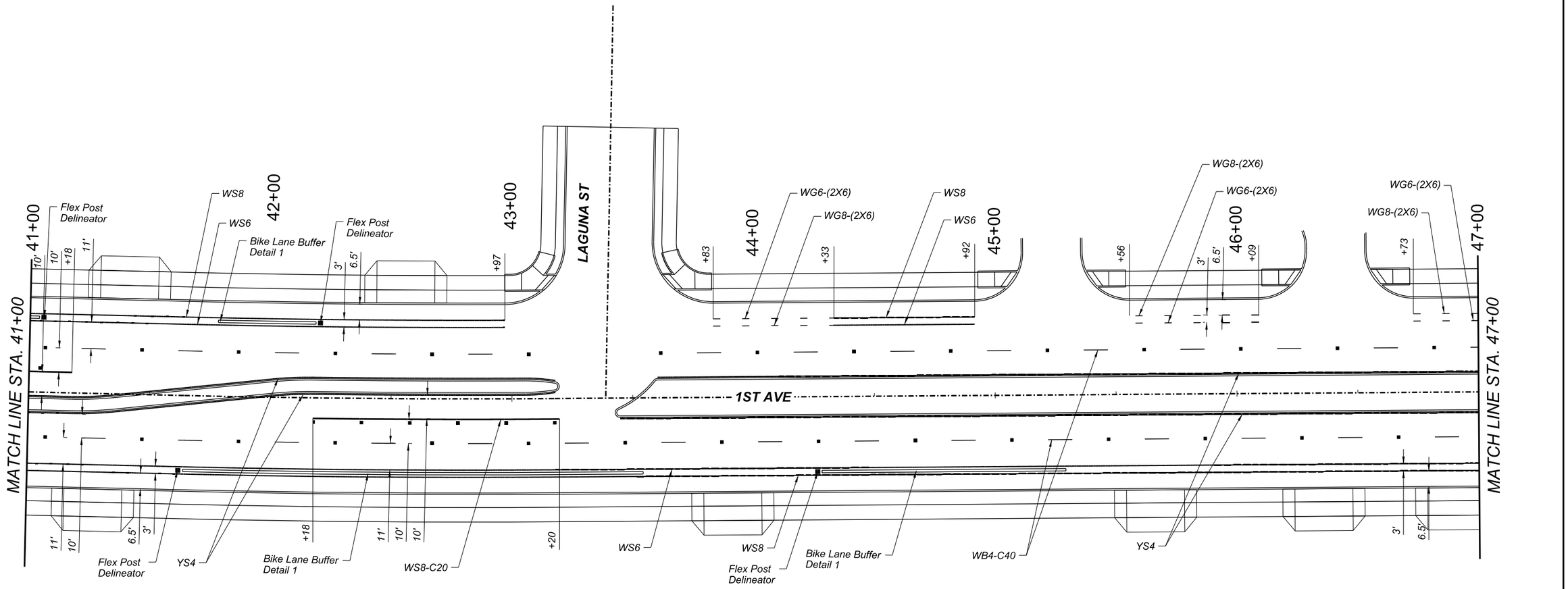
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/20/2026
3:14:14 PM
Printed by:SWESTMORELAND
Print Scale:120.0833333
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdrivr:GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109
c:\pwworking\west01\d3987900\21C-06.dgn
8/20/2026 3:14:14 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:20:20 PM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 7 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

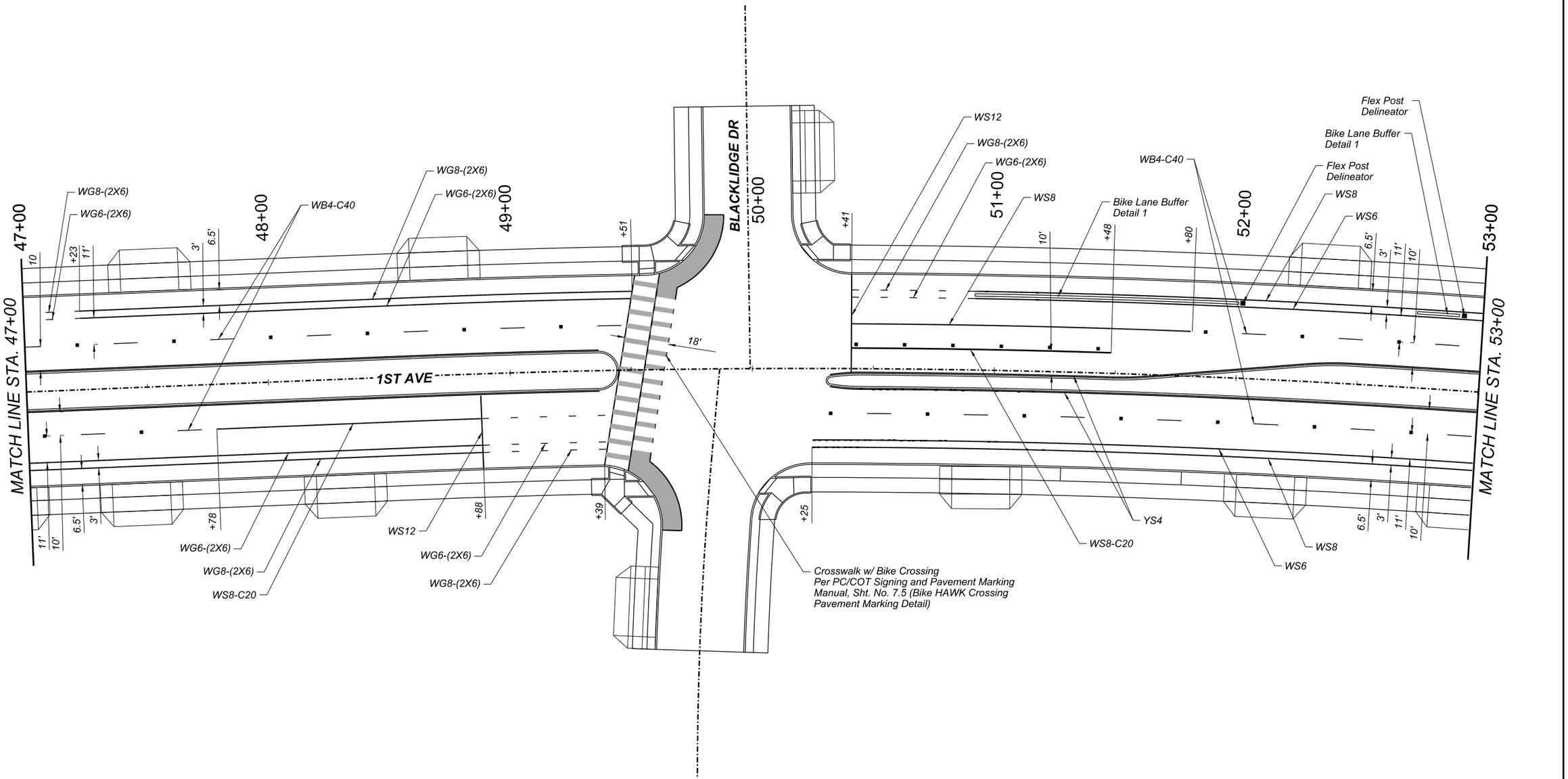
226 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-07.dgn
8/20/2026 3:20:20 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:16:44 PM
Printed by:SWESTMORELAND
Print Scale: 1:0.0833333
Pentable:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number:4109



STRIPING PLAN

SHEET 8 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

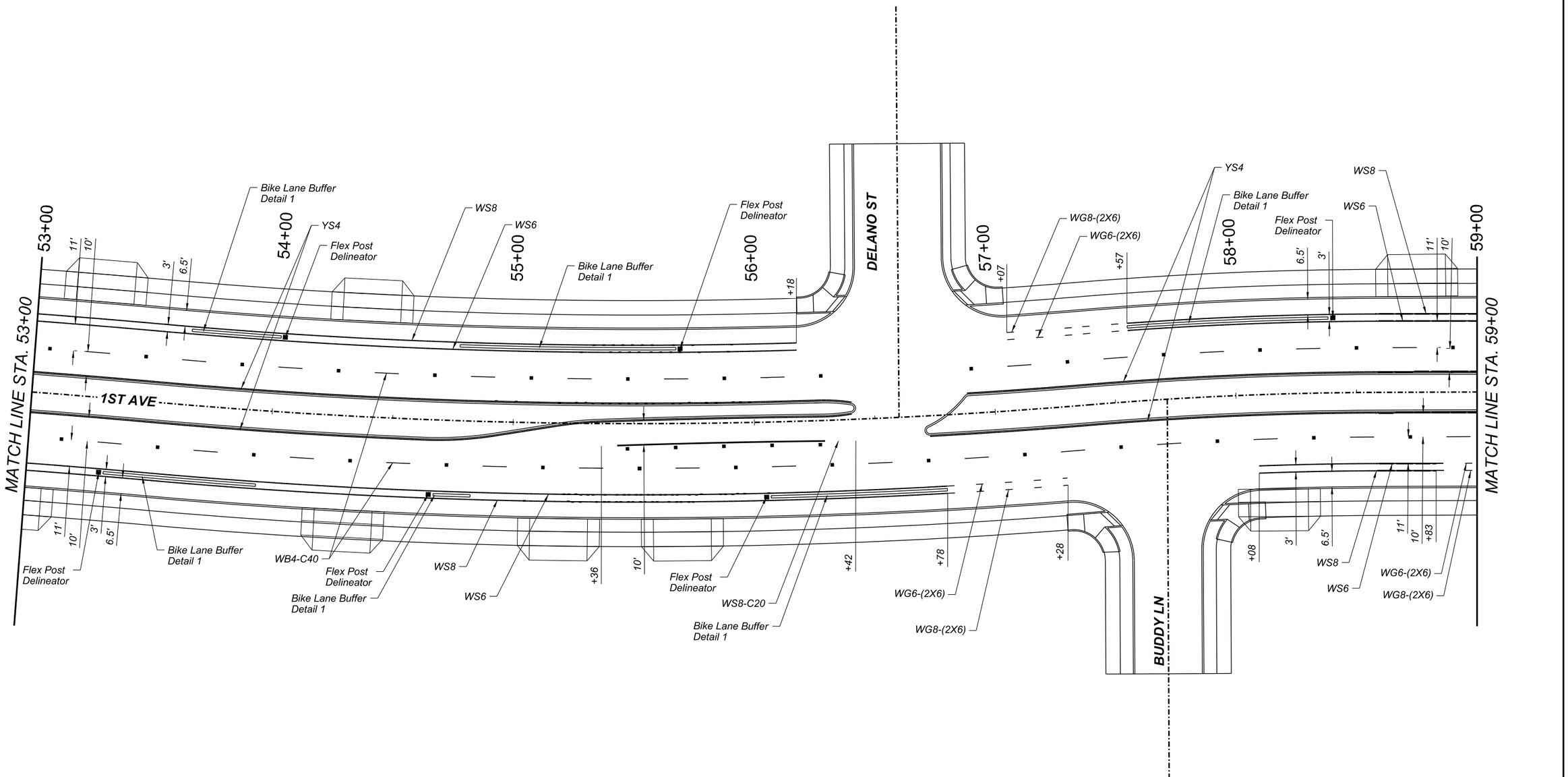
227 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-08.dgn
8/20/2026 3:16:44 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:18:01 PM
Printed by:SWESTMORELAND
Print Scale:1:0.0833333
Pentable:COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number:4109



STRIPING PLAN

SHEET 9 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

228 OF 504

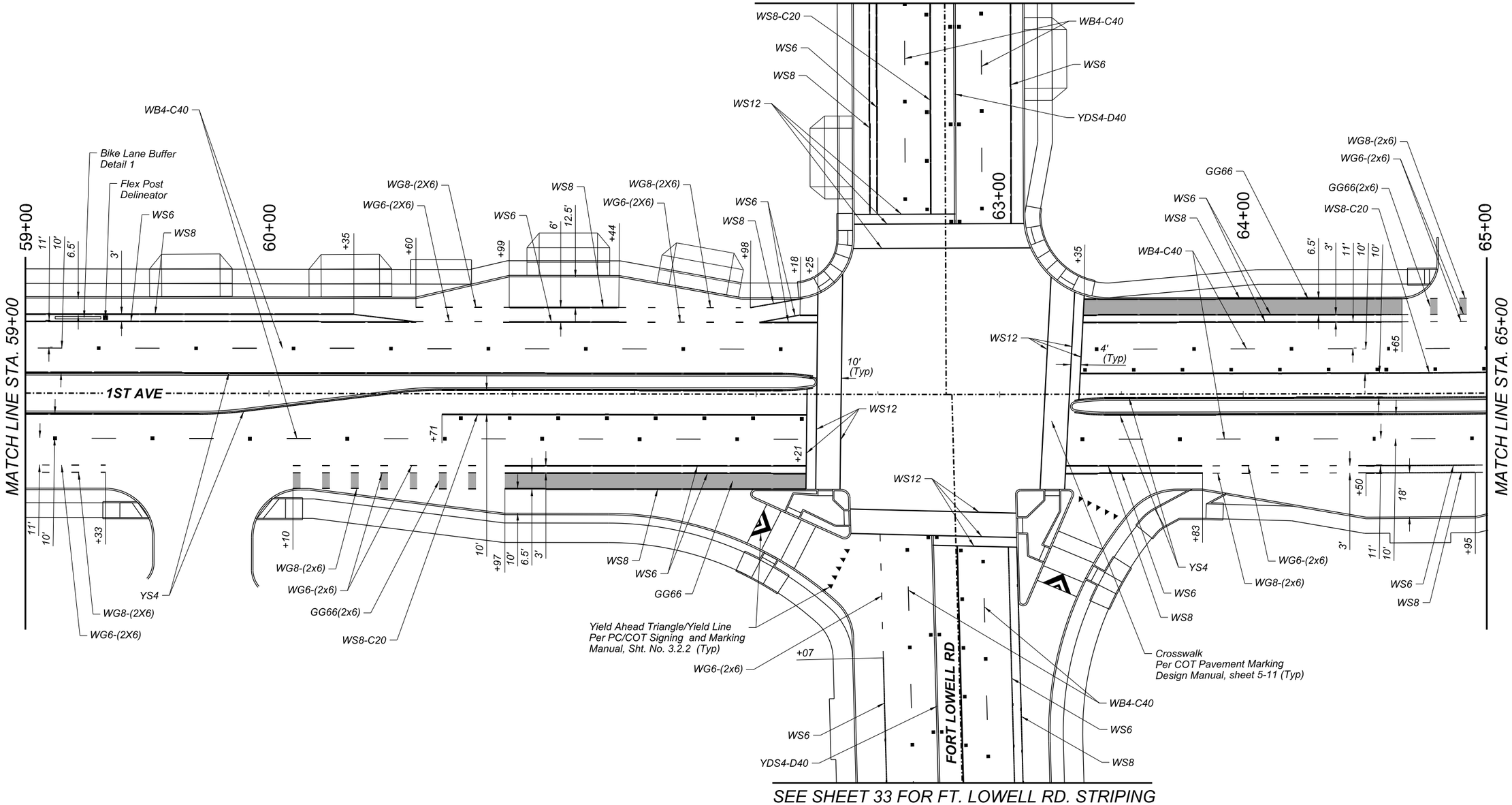
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-09.dgn
8/20/2026 3:18:01 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:21:17 PM
Printed by:SWESTMORELAND
Print Scale:1:0.0833333
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver:GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109

SEE SHEET 33 FOR FT. LOWELL RD. STRIPING



SEE SHEET 33 FOR FT. LOWELL RD. STRIPING

STRIPING PLAN

SHEET 10 OF 38

0 20 40
SCALE: 1"=20'

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

229 OF 504

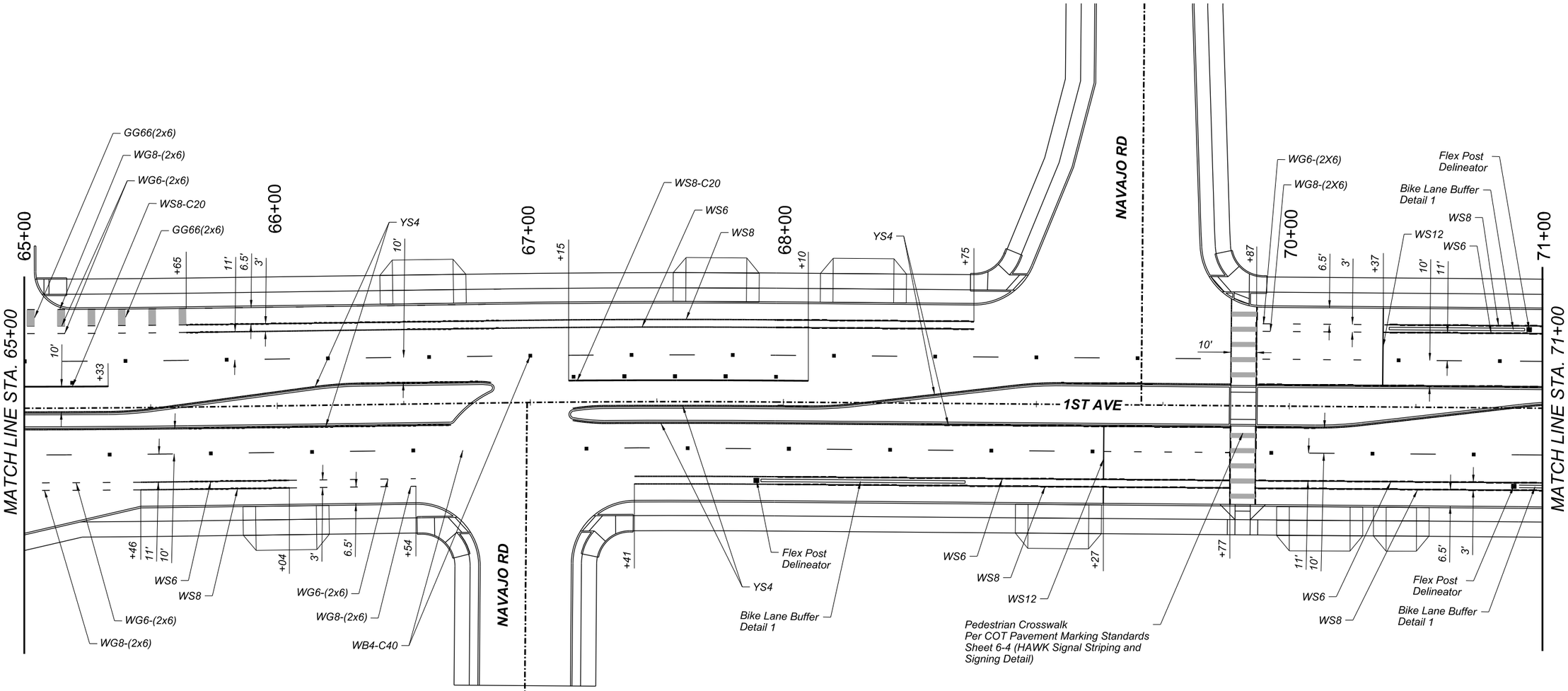
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-10.dgn
8/20/2026 3:21:17 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:20:29 PM
Printed by: TCOLE
Print Scale: 120.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 11 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

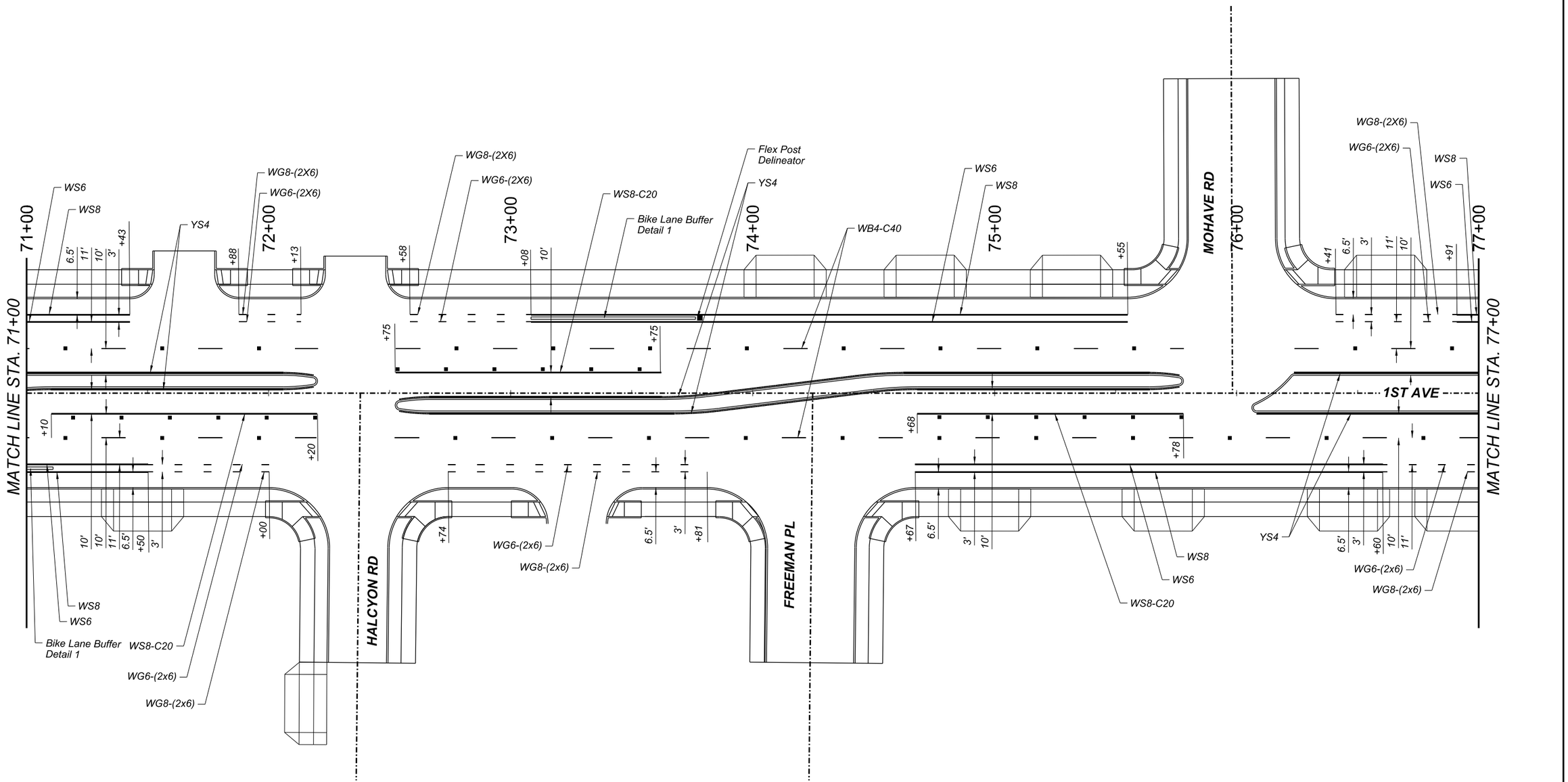
230 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-11.dgn
8/20/2026 3:20:29 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:19:29 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMAAMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 12 OF 38

SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

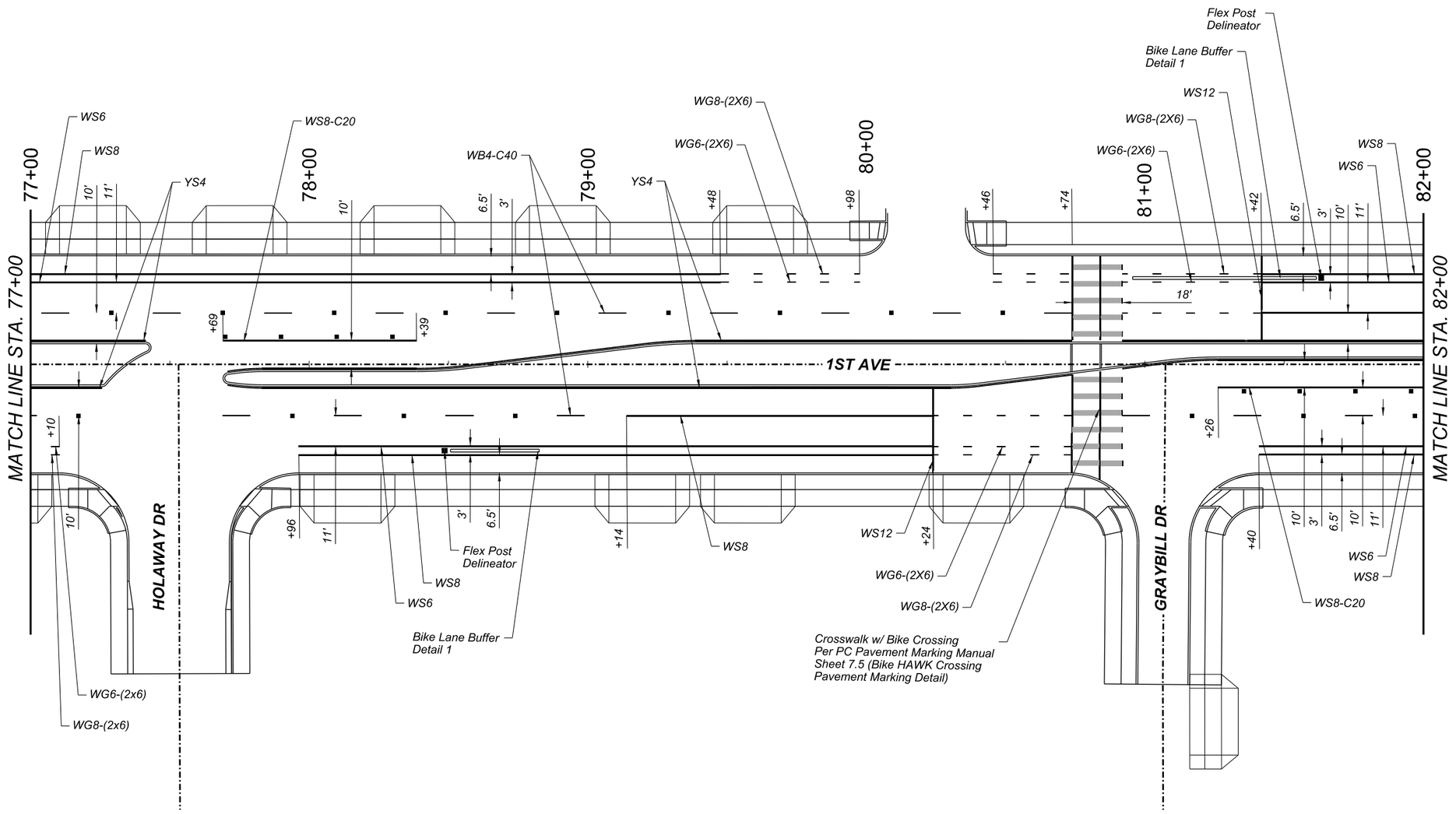
231 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-12.dgn
8/20/2026 3:19:29 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:18:09 PM
Printed by:TCOLE
Print Scale:1:0.0833333
Pentable:COTPM&AMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number:4109



STRIPING PLAN

SHEET 13 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

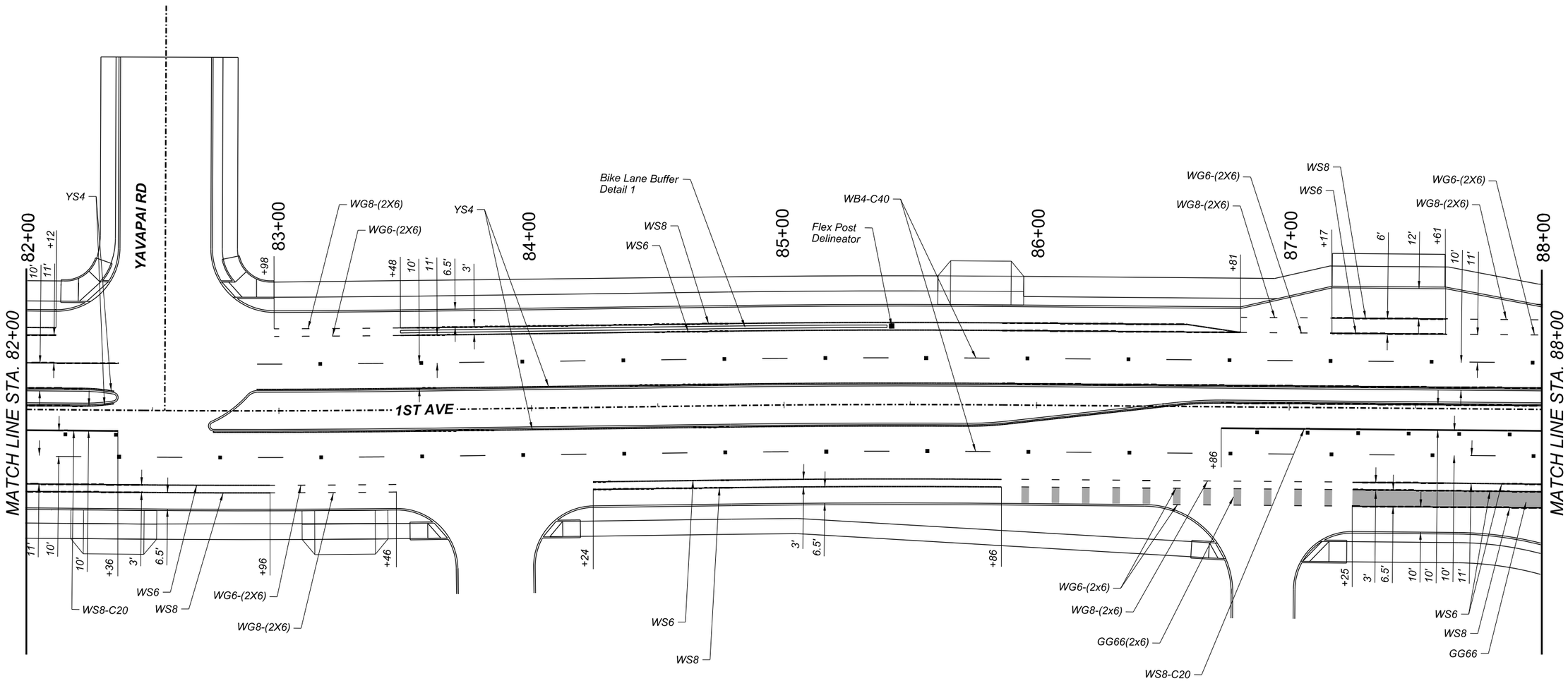
232 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-13.dgn
8/20/2026 3:18:09 PM

3:17:15 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 14 OF 38

SCALE: 1"=20'

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

233 OF 504

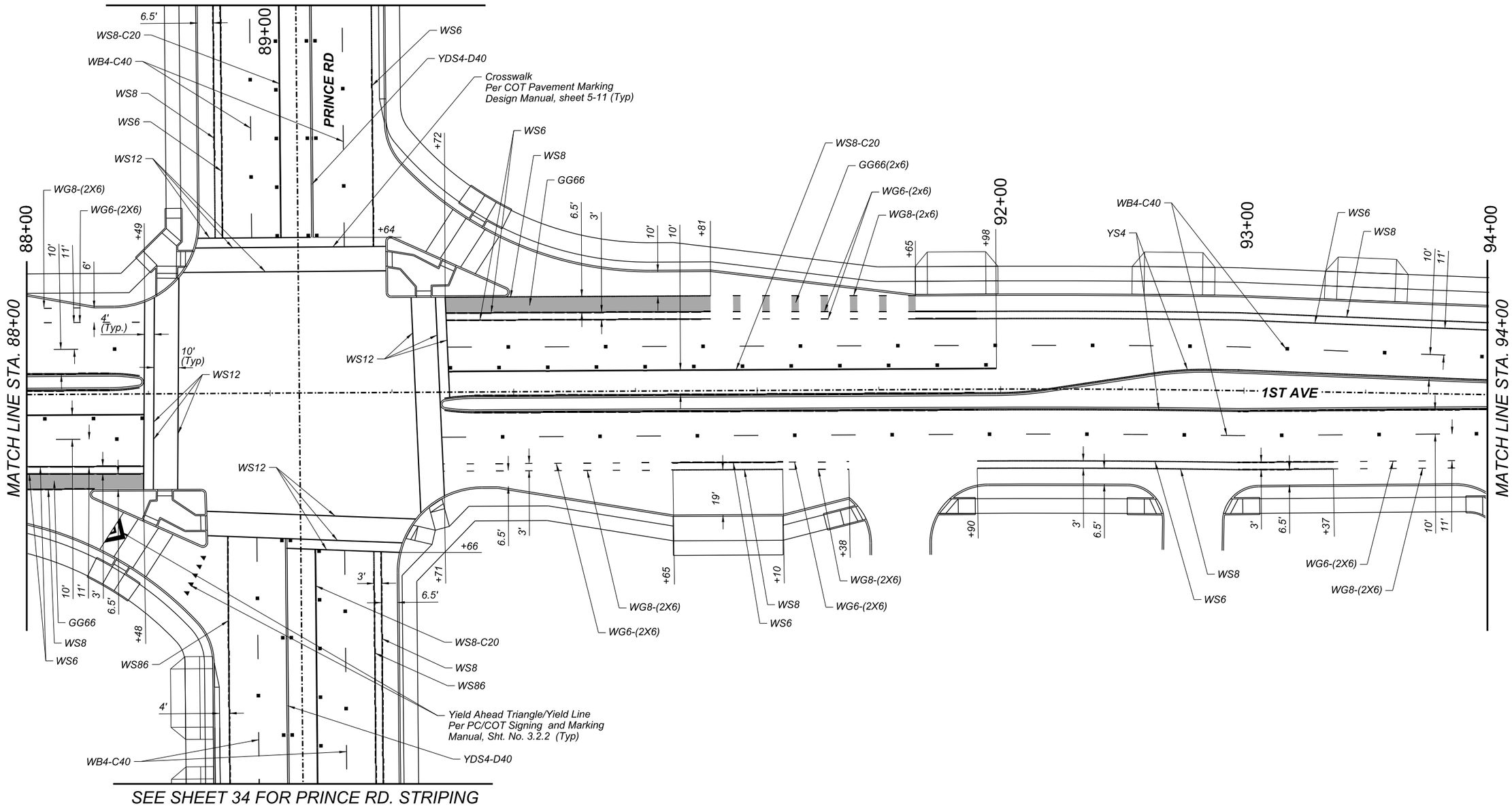
CITY OF TUCSON

DRWN. BY JAR AUG 2026 | CHKD. BY JC AUG 2026 | APPR. BY BJK AUG 2026 | SCALE: H: 1" = 20' | PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

OpenRoads Designer v10.12.02.4
8/20/2026
3:15:59 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdrivr: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number: 4109

SEE SHEET 34 FOR PRINCE RD. STRIPING



SEE SHEET 34 FOR PRINCE RD. STRIPING

STRIPING PLAN

SHEET 15 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

234 OF 504

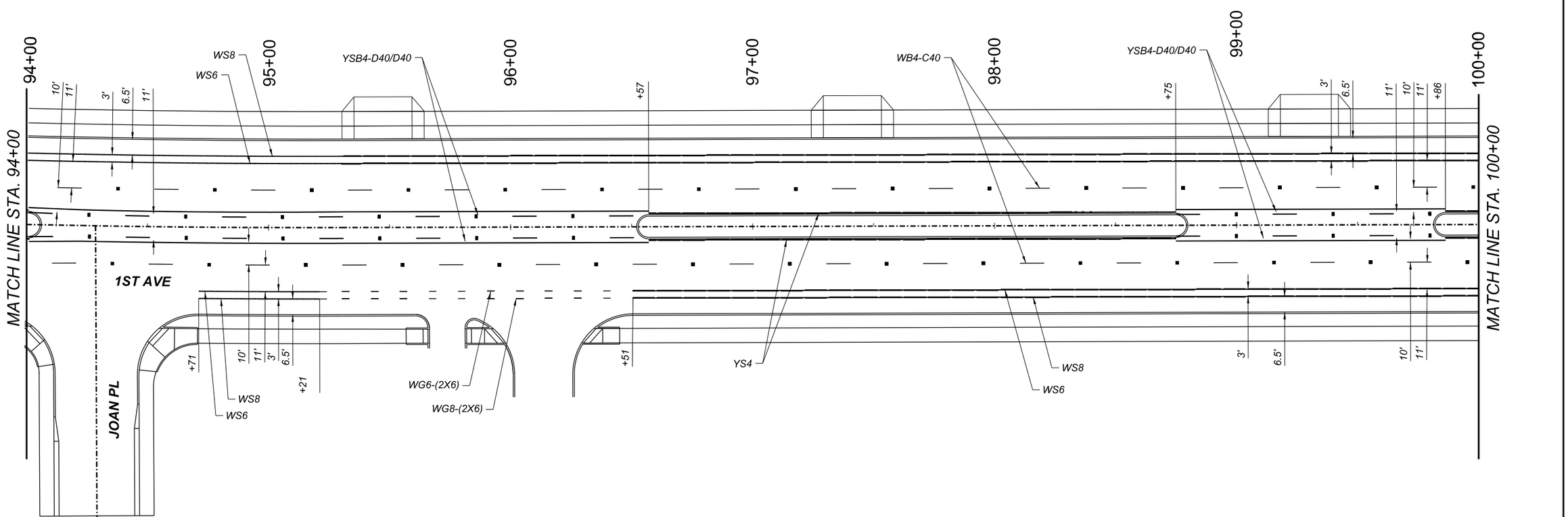
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-15.dgn
8/20/2026 3:15:59 PM

3:15:00 PM 8/20/2026 OpenRoads Designer v10.12.02.4
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.plotcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

STRIPING PLAN

SHEET 16 OF 38

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

235 OF 504

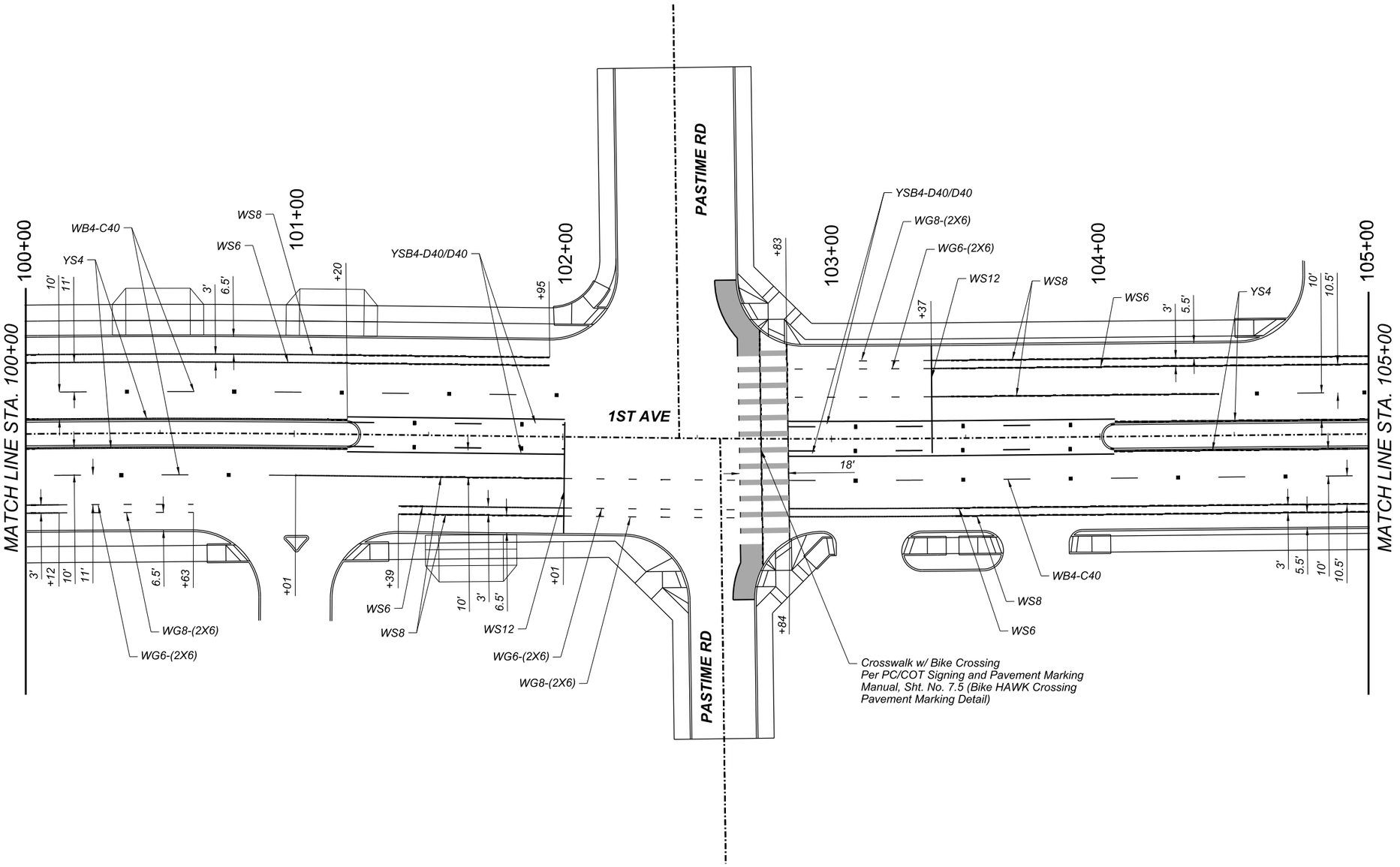
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

OpenRoads Designer v10.12.02.4
8/20/2026
3:13:53 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_Sb.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 17 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

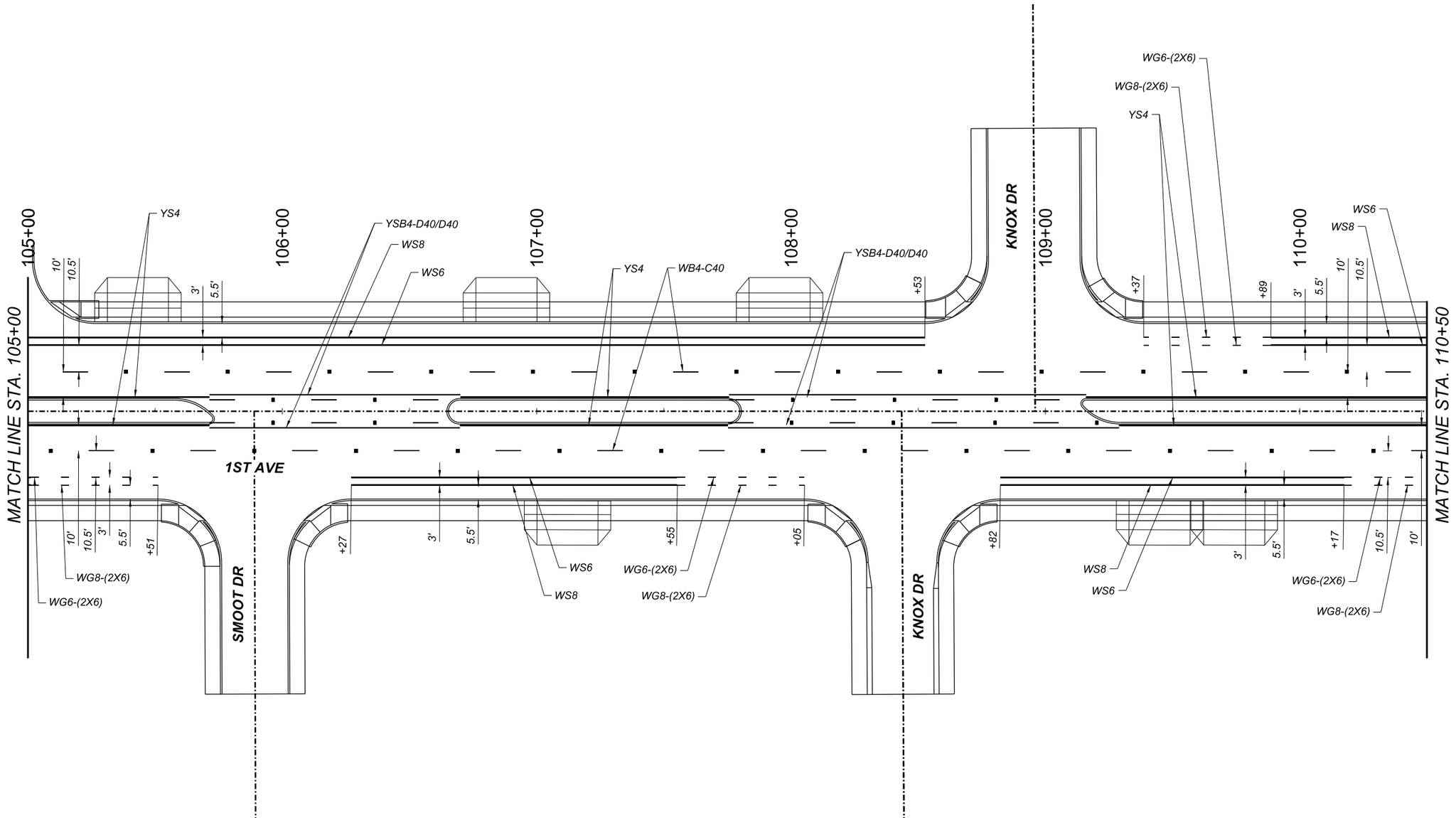
236 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-17.dgn
8/20/2026 3:13:53 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:13:00 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

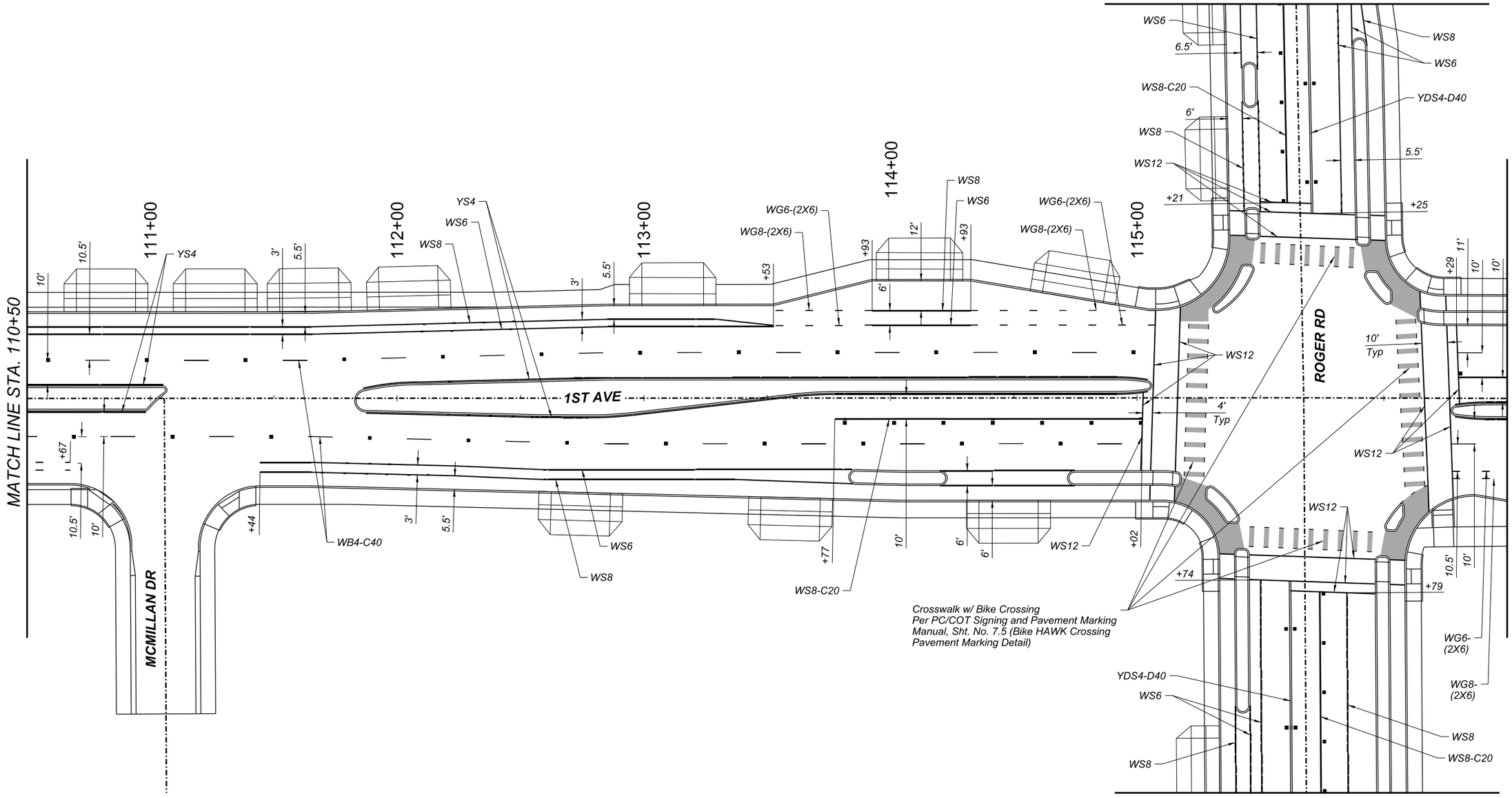
STRIPING PLAN

SHEET 18 OF 38

237 OF 504

c:\pwworking\west01\d3987900\21C-18.dgn
8/20/2026 3:13:00 PM

SEE SHEET 35 FOR ROGER RD. STRIPING



SEE SHEET 35 FOR ROGER RD. STRIPING

STRIPING PLAN

SHEET 19 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

238 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Project ID:
Client Number: 4109

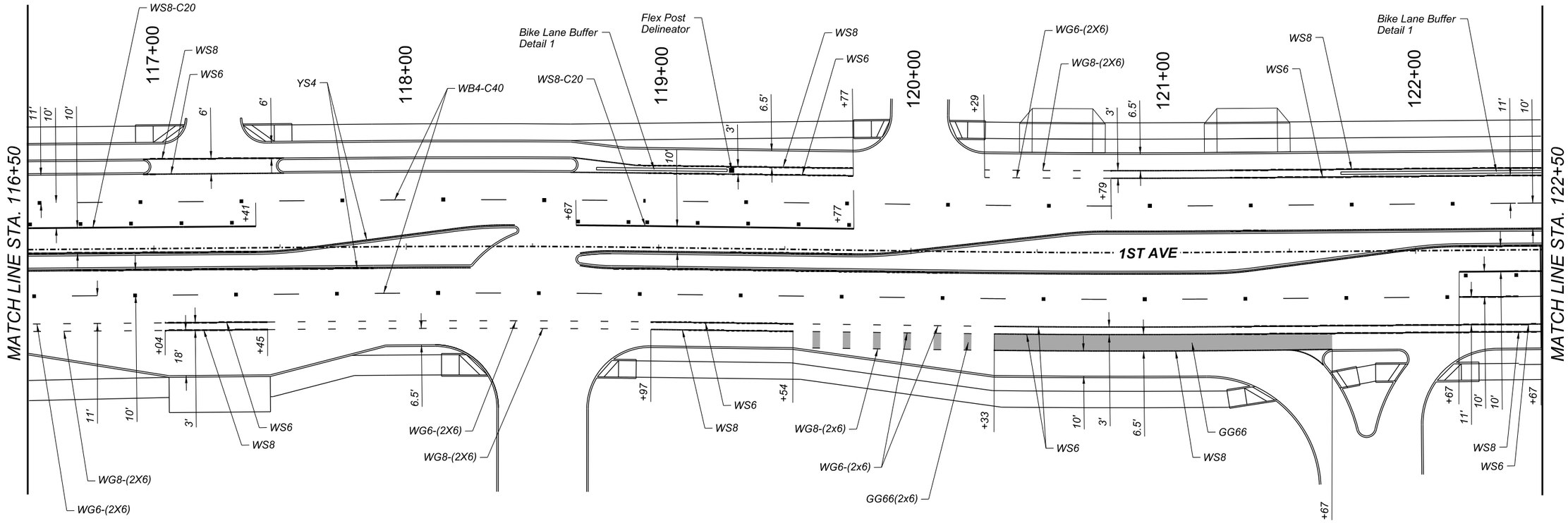
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg

Printed by: TCOLE
Print Scale: 1:0.0833333

c:\pwworking\west01\d3987900\21C-19.dgn
8/20/2026 3:12:04 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:12:04 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:10:56 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

239 OF 504

CITY OF TUCSON

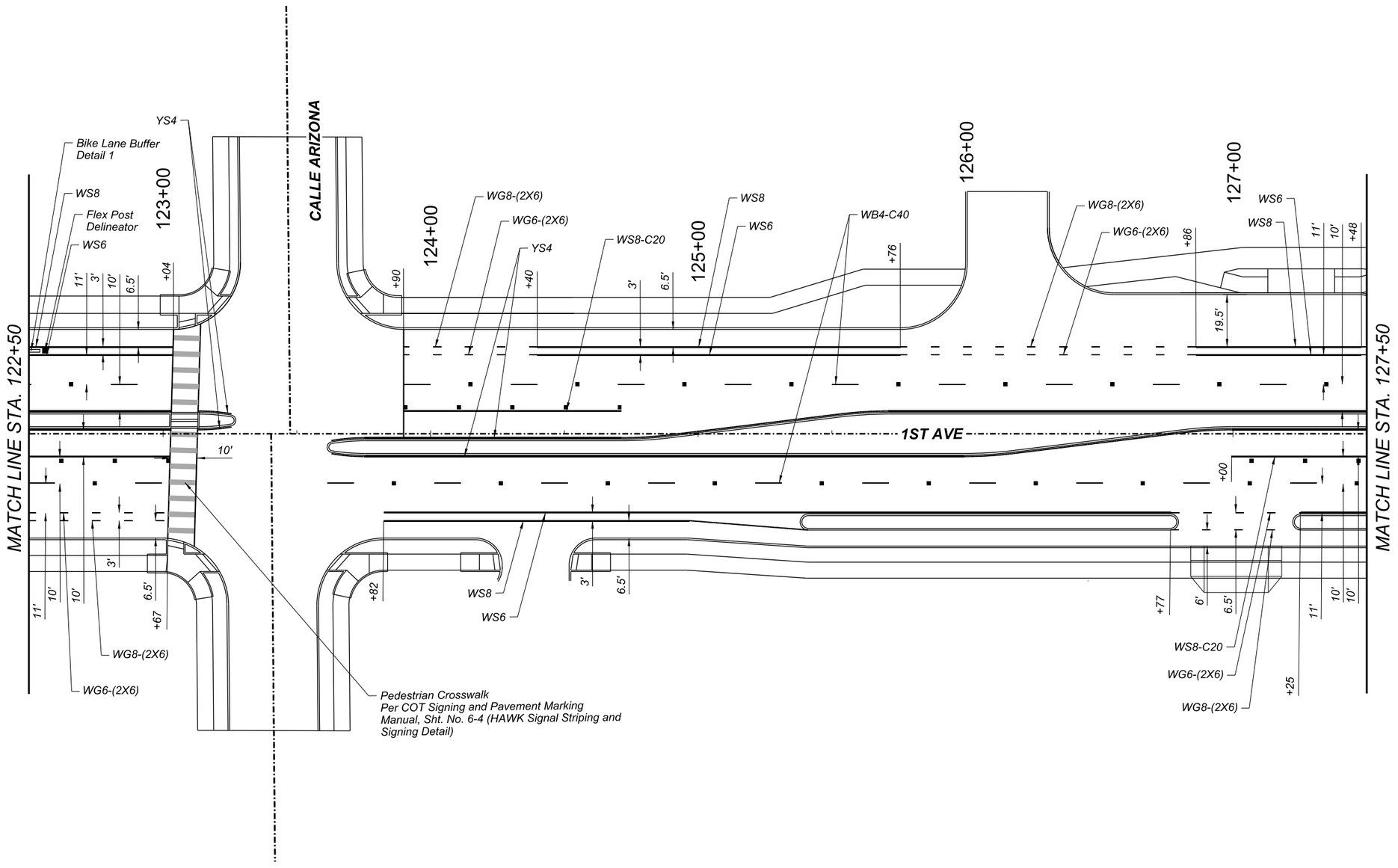
DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

STRIPING PLAN

SHEET 20 OF 38

c:\pwworking\west01\d3987900\21C-20.dgn
8/20/2026 3:10:56 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:10:04 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 21 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

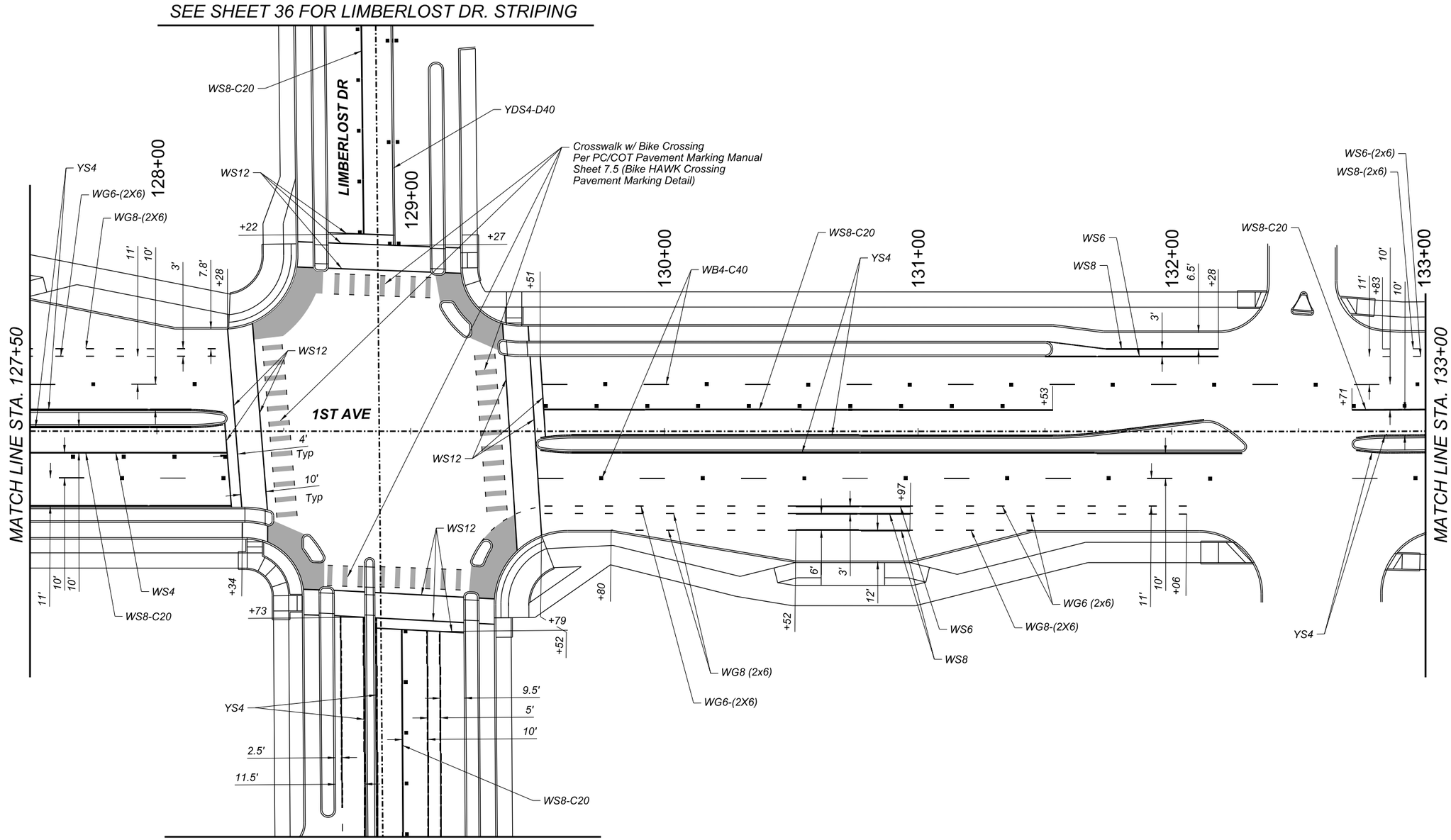
240 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-21.dgn
8/20/2026 3:10:04 PM

SEE SHEET 36 FOR LIMBERLOST DR. STRIPING



SEE SHEET 36 FOR LIMBERLOST DR. STRIPING

STRIPING PLAN

SHEET 22 OF 38

SCALE: 1"=20'

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

241 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Project ID:
Client Number: 4109

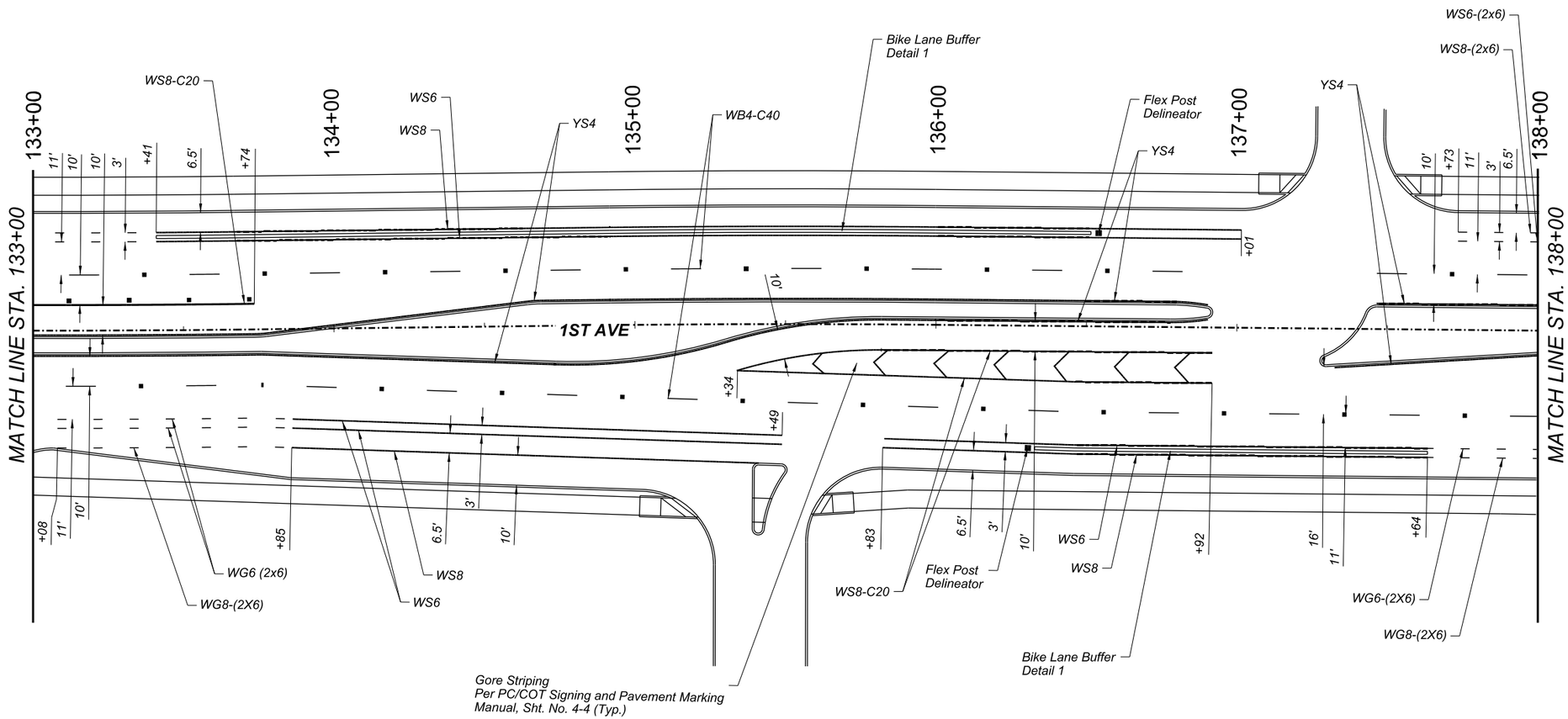
Pentable: COTPMAAMCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg

Printed by: TCOLE
Print Scale: 1:0.0833333

OpenRoads Designer v10.12.02.4
8/20/2026
3:09:01 PM

c:\pwworking\west01\d3987900\21C-22.dgn
8/20/2026 3:09:01 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:06:35 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 23 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

242 OF 504

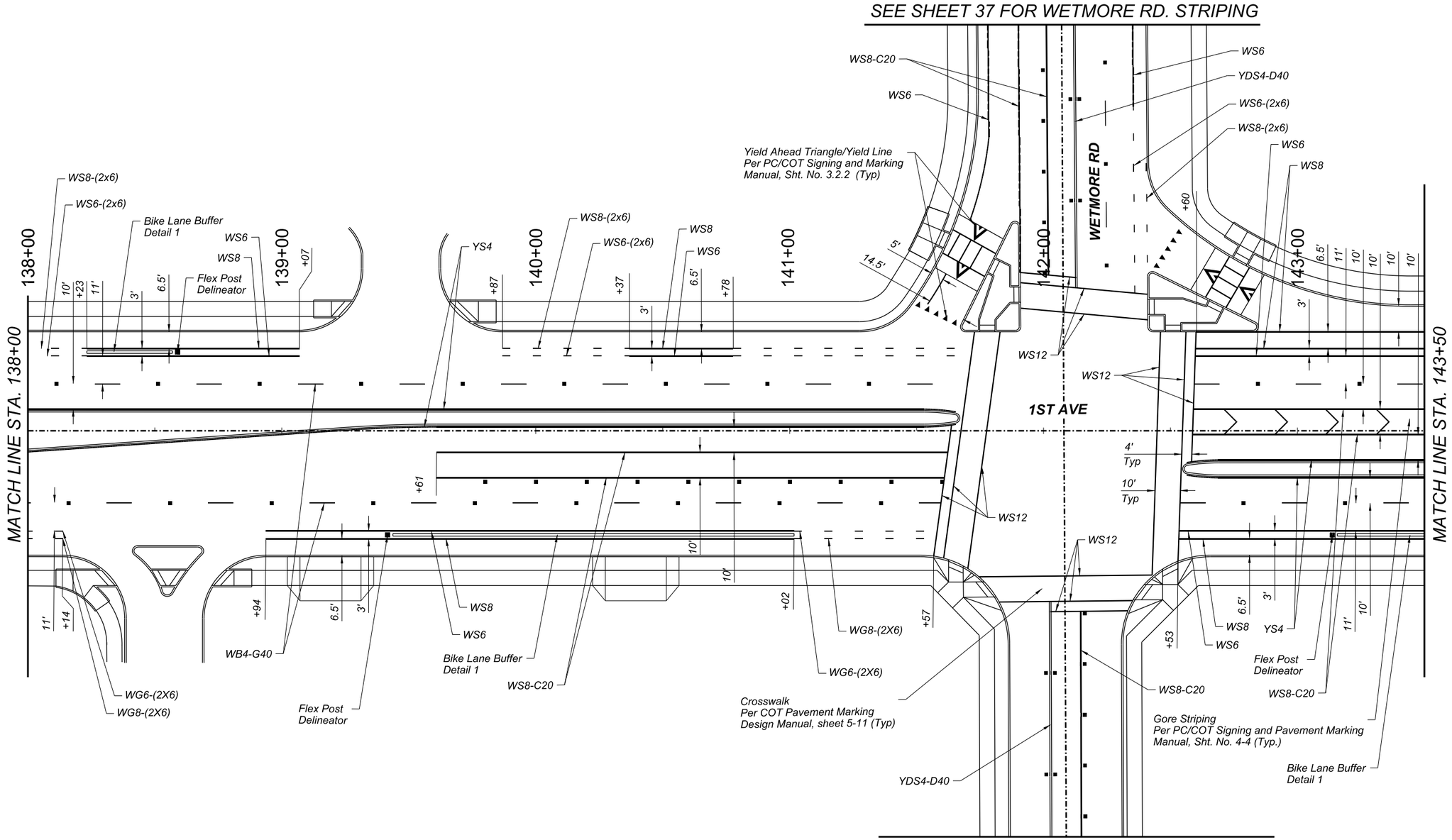
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-23.dgn
8/20/2026 3:06:35 PM

SEE SHEET 37 FOR WETMORE RD. STRIPING



SEE SHEET 37 FOR WETMORE RD. STRIPING

STRIPING PLAN

SHEET 24 OF 38

SCALE: 1"=20'

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

243 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Project ID:
Client Number: 4109

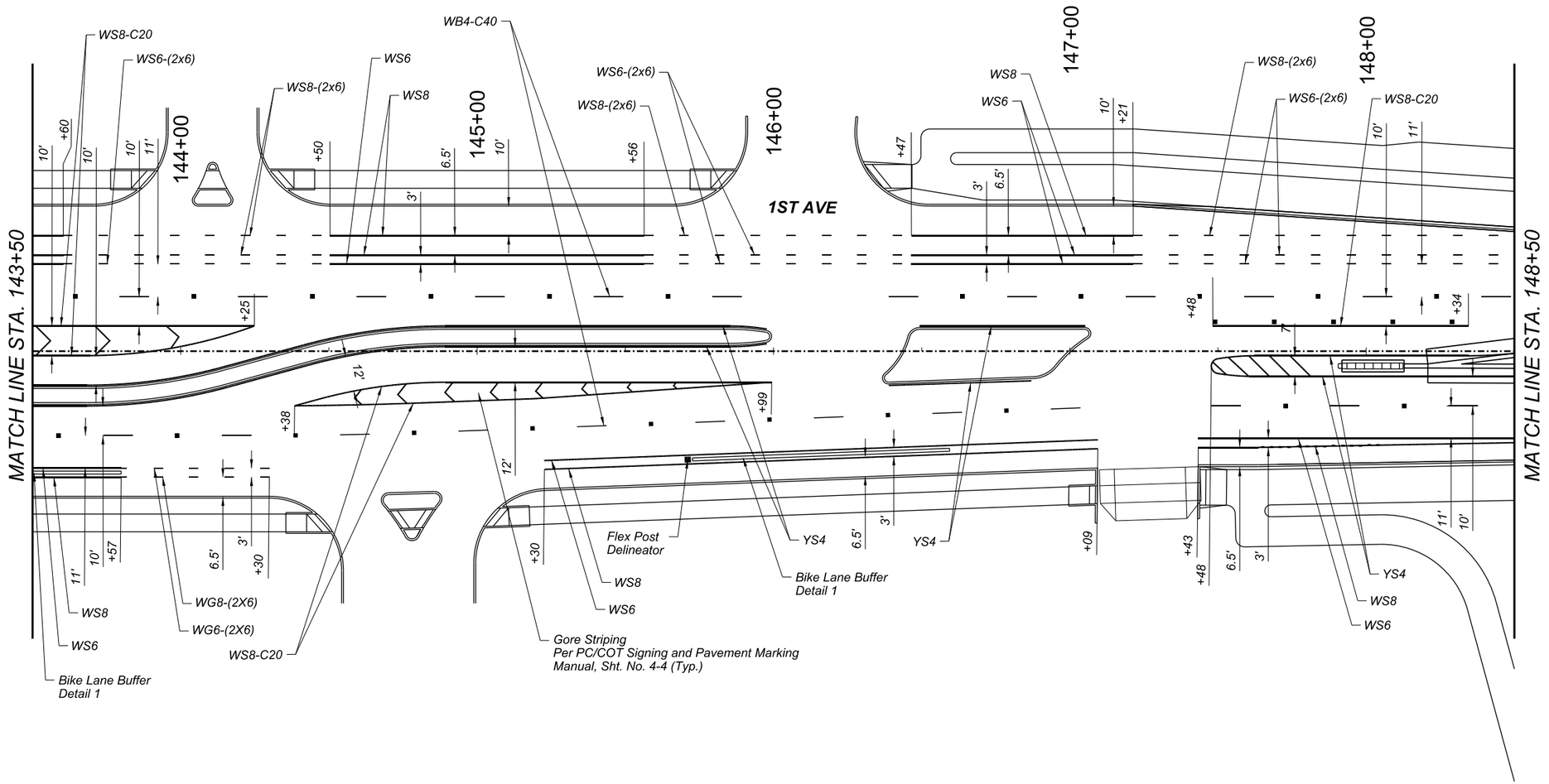
Printed by: BKIRKMAN
Print Scale: 1:1

Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg

OpenRoads Designer v10.12.02.4
8/20/2026
2:46:45 PM

c:\pwworking\west01\d3987900\21C-24.dgn
8/20/2026 2:46:45 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:04:41 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentables: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_twpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN *SHEET 25 OF 38*

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

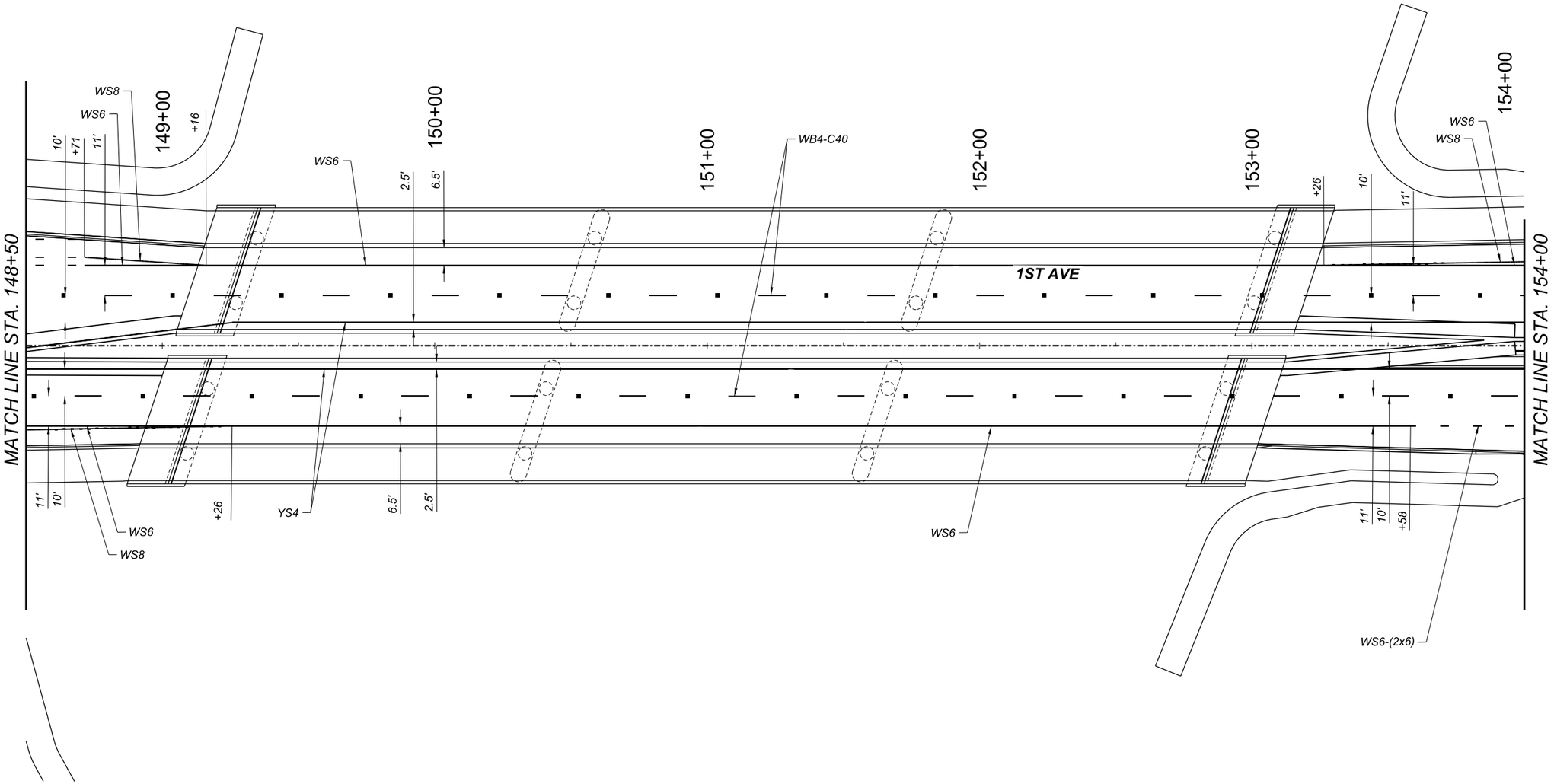
244 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-25.dgn
8/20/2026 3:04:41 PM

OpenRoads Designer v10.12.02.4
8/19/2026
2:21:07 PM
Printed by: TCOLE
Print Scale: 150.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 26 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

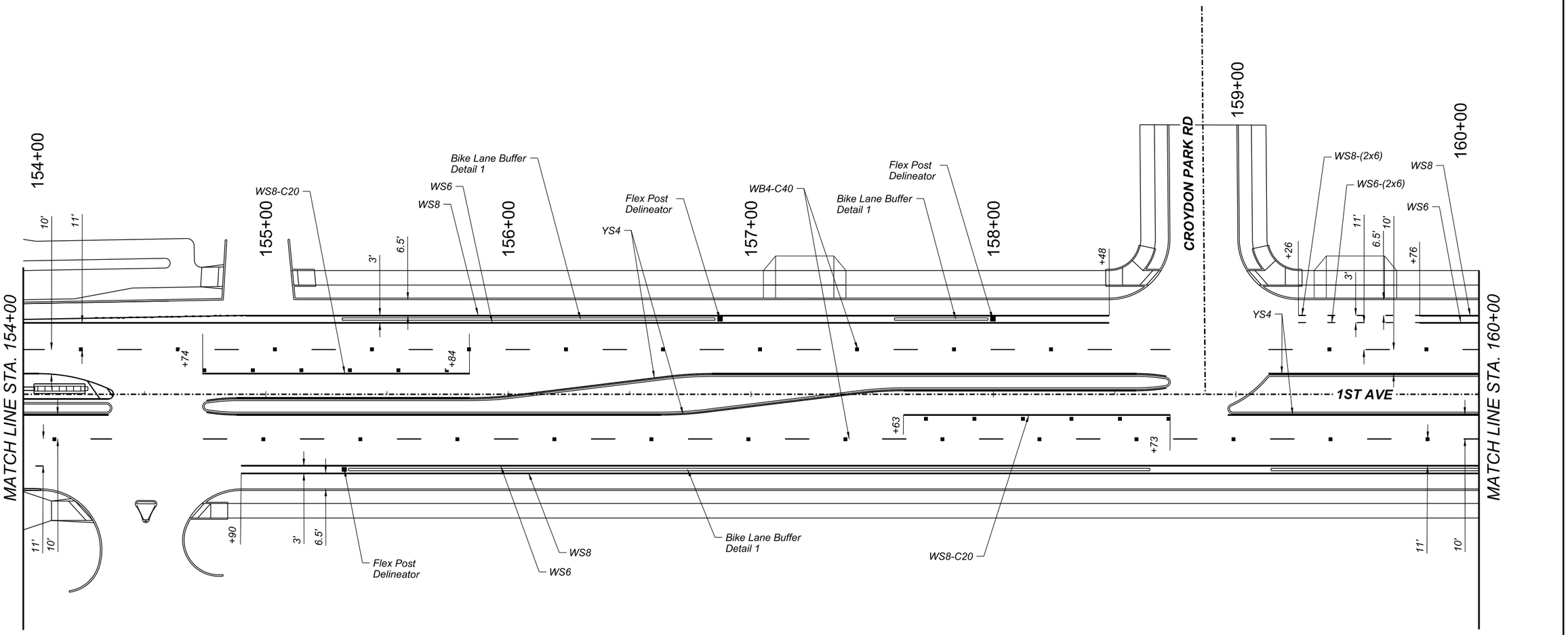
245 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-26.dgn
8/19/2026 2:21:07 PM

OpenRoads Designer v10.12.02.4
8/20/2026
3:02:11 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_5b.pltcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

STRIPING PLAN *SHEET 27 OF 38*

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

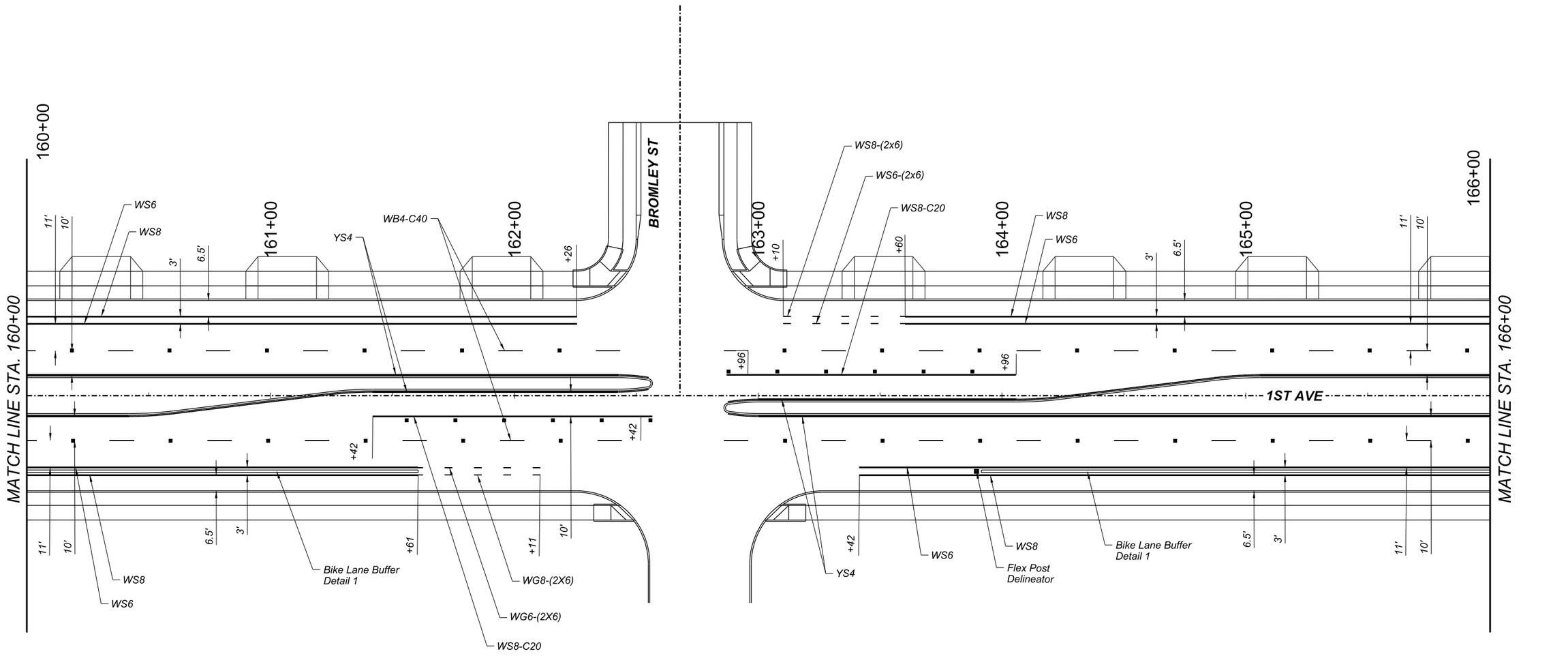
246 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-27.dgn
8/20/2026 3:02:11 PM

OpenRoads Designer v10.12.02.4
8/19/2026
2:31:26 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 28 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

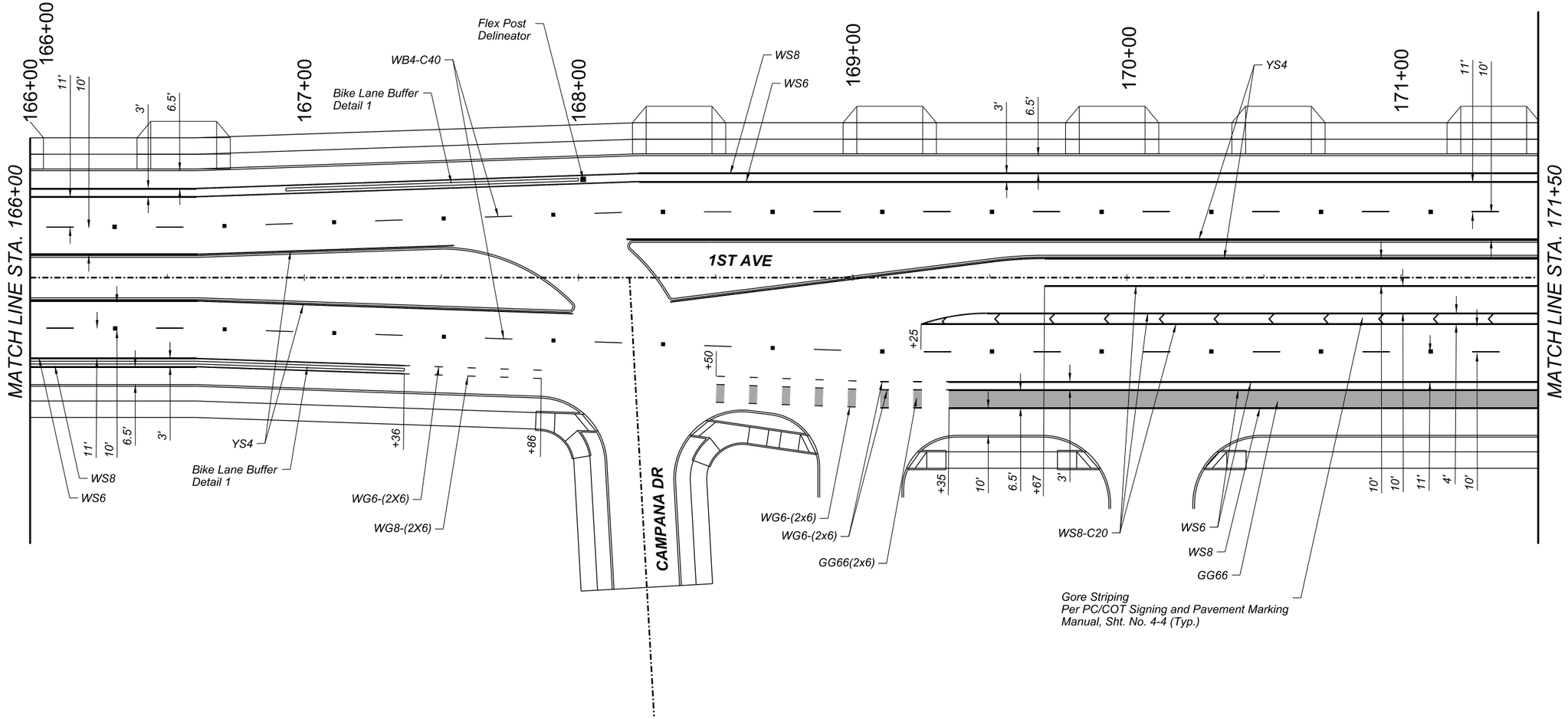
247 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-28.dgn
8/19/2026 2:31:26 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:42:11 PM
Printed by: BKIRKMAN
Print Scale: 1:1
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

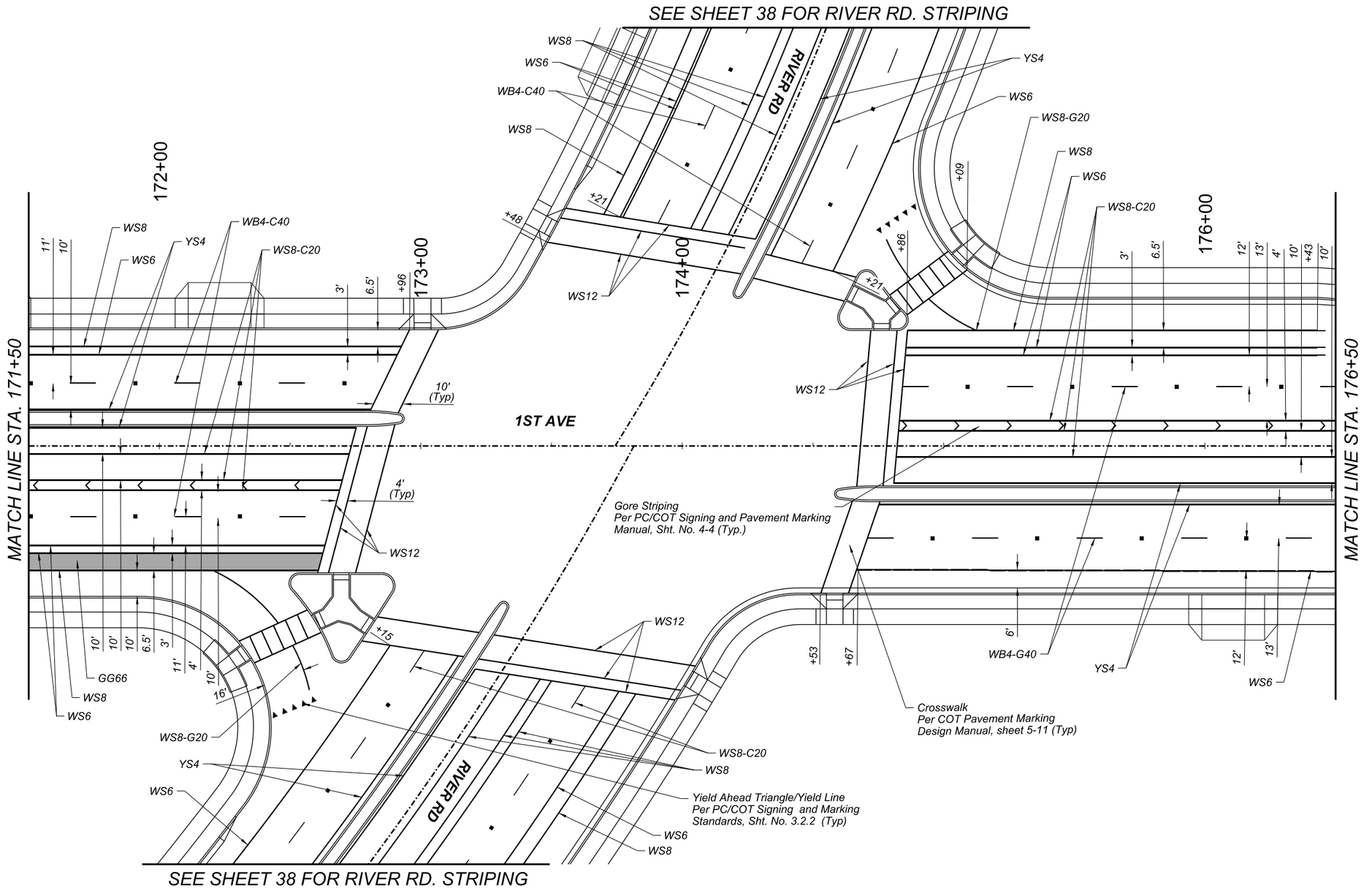
STRIPING PLAN

SHEET 29 OF 38

248
OF
504

c:\pwworking\west01\d3987900\21C-29.dgn
8/20/2026 2:42:11 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:58:54 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



STRIPING PLAN

SHEET 30 OF 38

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

249 OF 504

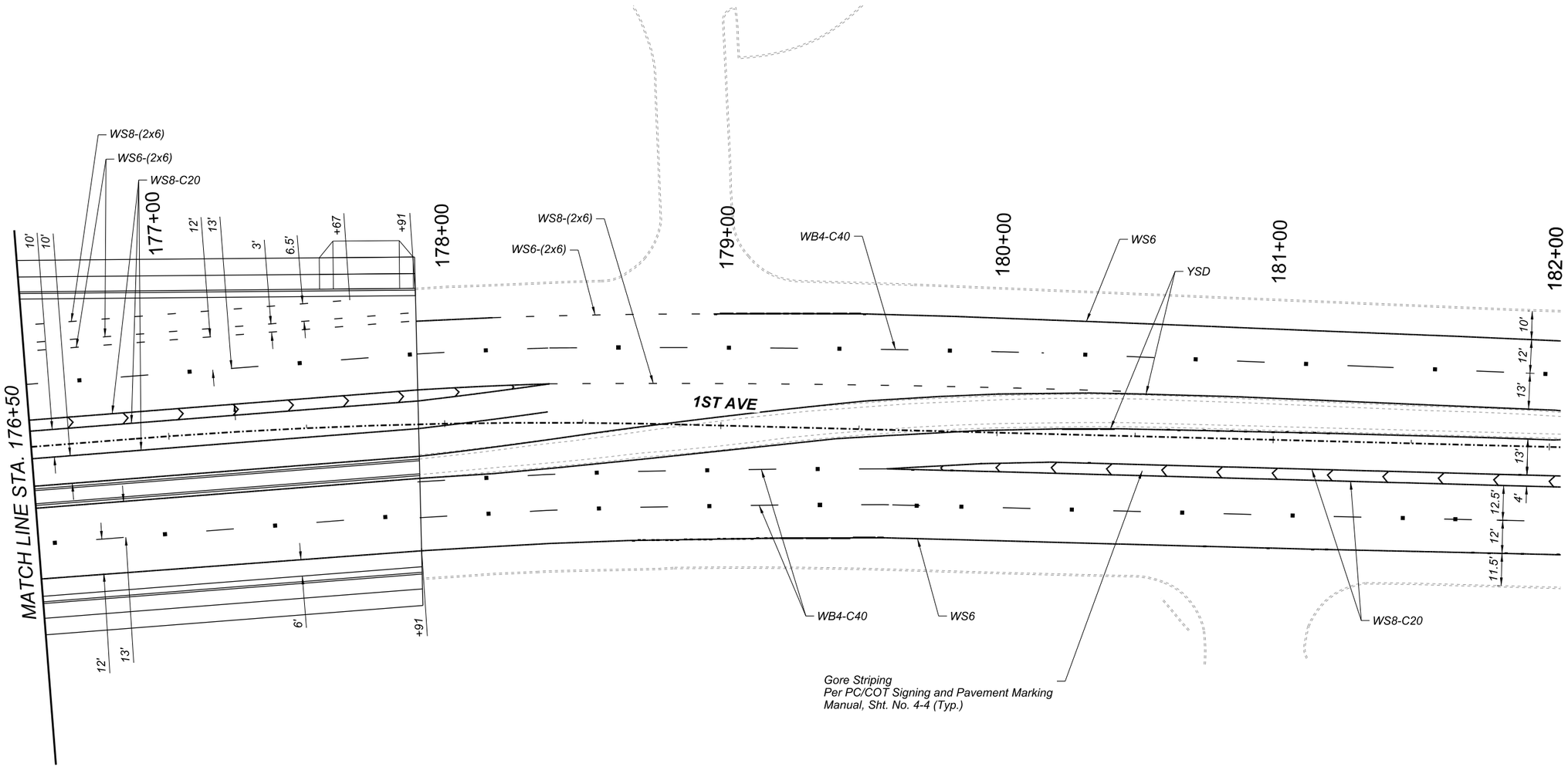
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-30.dgn
8/20/2026 2:58:54 PM

OpenRoads Designer v10.12.02.4
8/19/2026
2:39:55 PM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

STRIPING PLAN

SHEET 31 OF 38

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

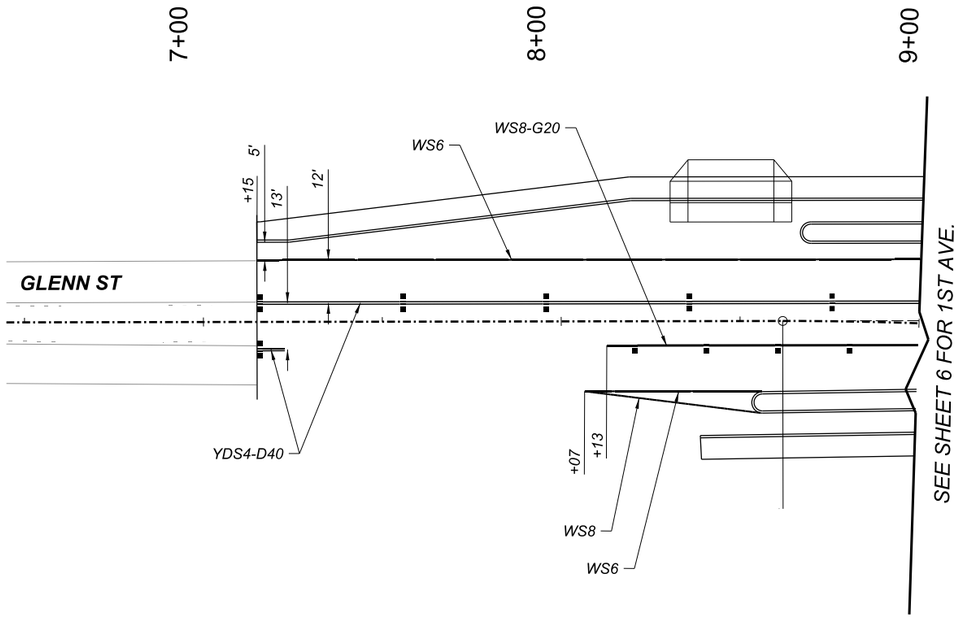
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

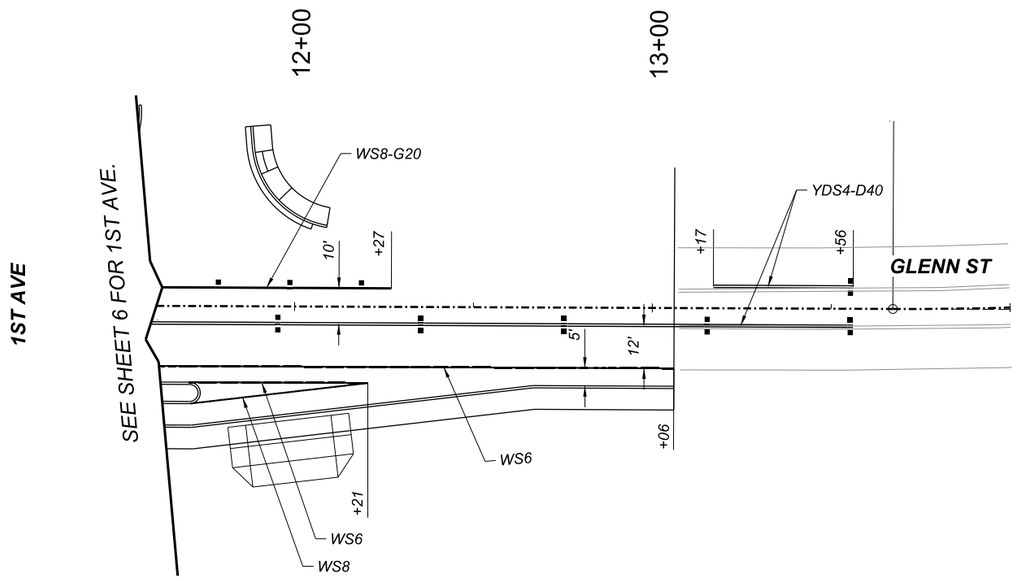
250 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-31.dgn
8/19/2026 2:39:55 PM





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

STRIPING PLAN

SHEET 32 OF 38

251 OF 504

Project ID:
Client Number: 4109

Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg

Printed by: SWESTMORELAND
Print Scale: 1:0.0833333

OpenRoads Designer v10.12.02.4

8/19/2026

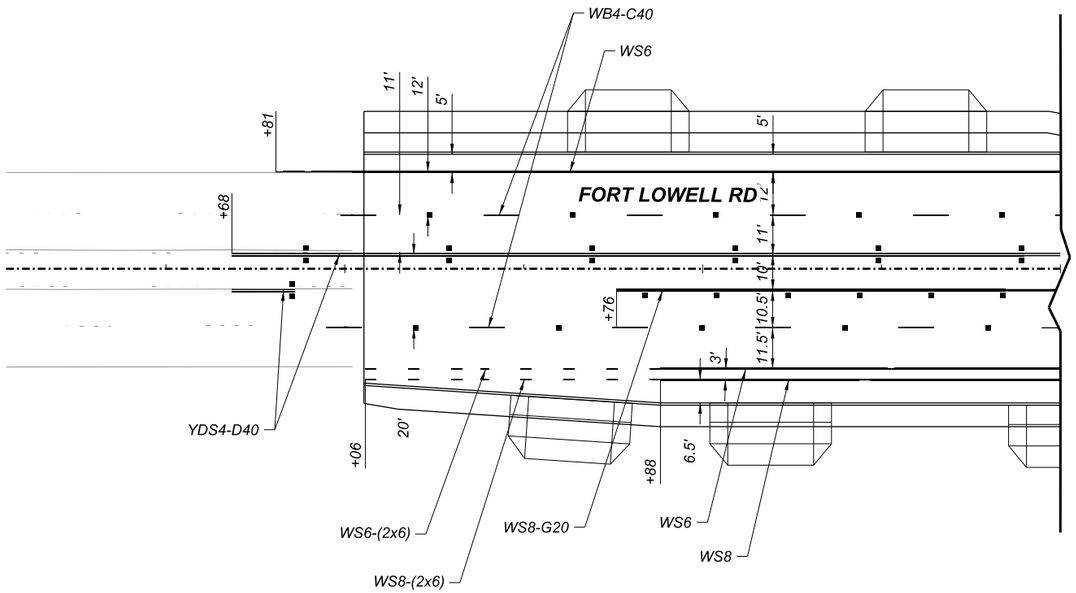
5:46:58 PM

c:\pwworking\west01\d3987900\21C-32.dgn
8/19/2026 5:46:58 PM

5:34:17 PM 8/19/2026 OpenRoads Designer v10.12.02.4
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

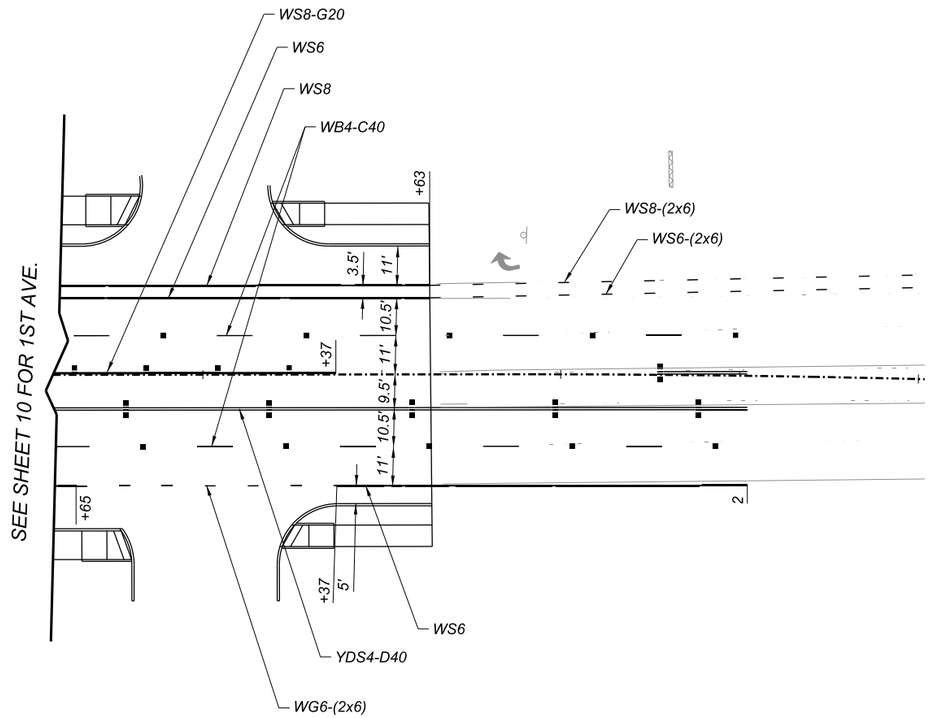
7+00

8+00



12+00

13+00



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

STRIPING PLAN

SHEET 33 OF 38

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

252 OF 504

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

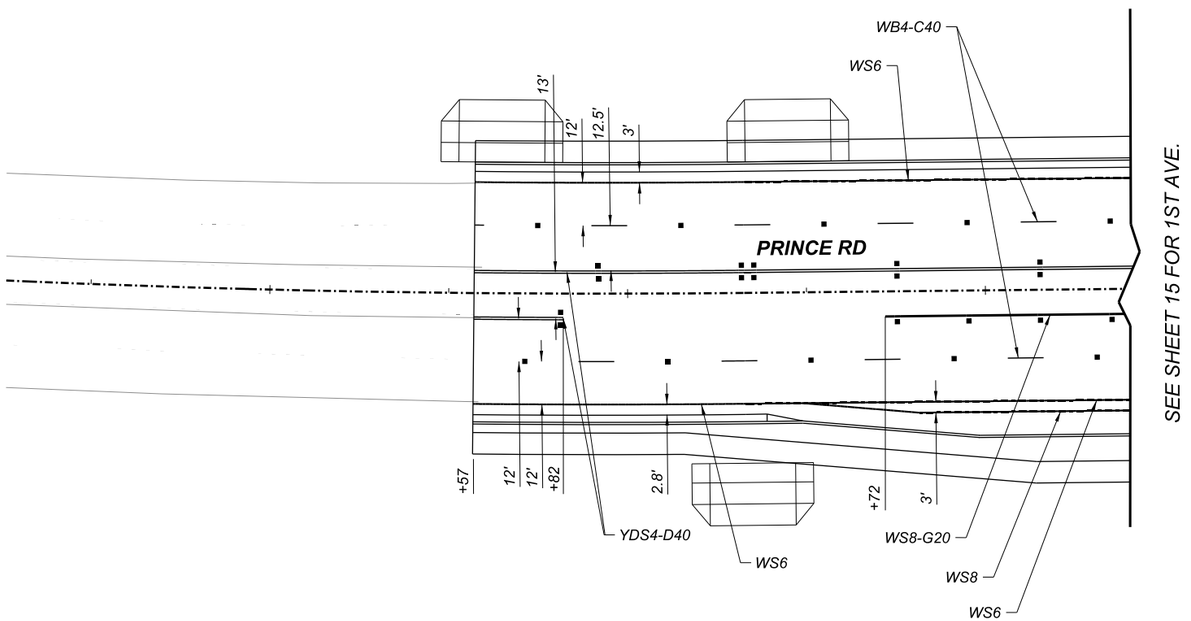
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-33.dgn
8/19/2026 5:34:17 PM

5:26:34 PM 8/19/2026 OpenRoads Designer v10.12.02.4
Printed by:SWESTMORELAND
Print Scale: 10.0833333
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdrivr: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109

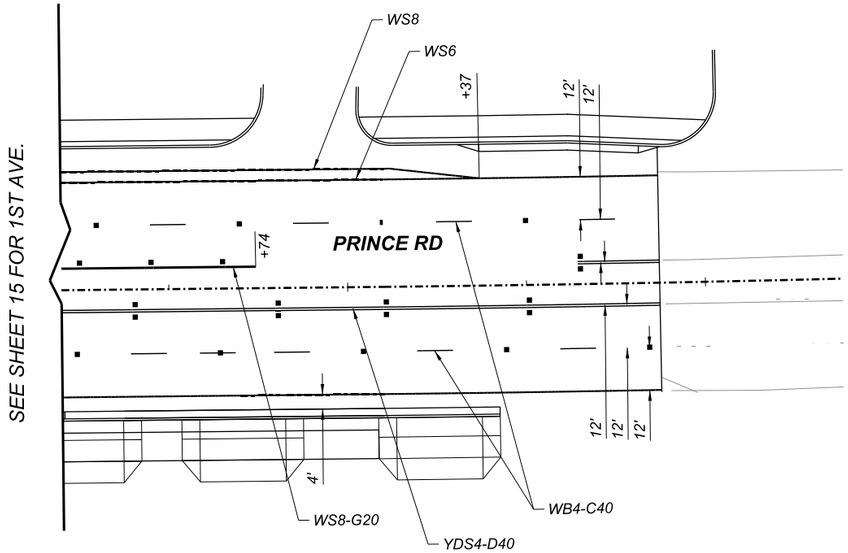
6+00 7+00 8+00



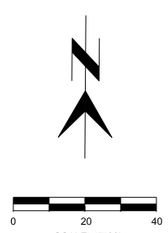
SEE SHEET 15 FOR 1ST AVE.

1ST AVE

12+00 13+00



SEE SHEET 15 FOR 1ST AVE.



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

STRIPING PLAN

SHEET 34 OF 38

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

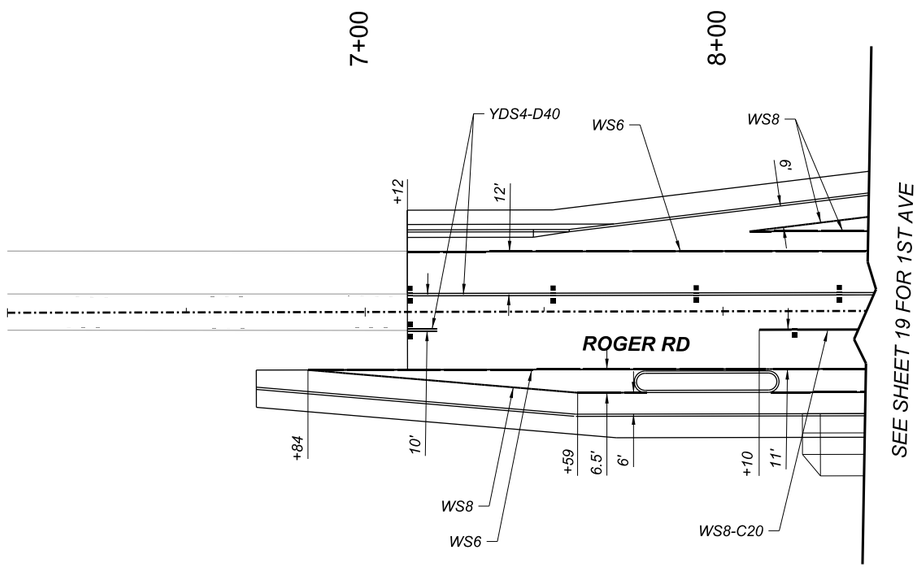
253 OF 504

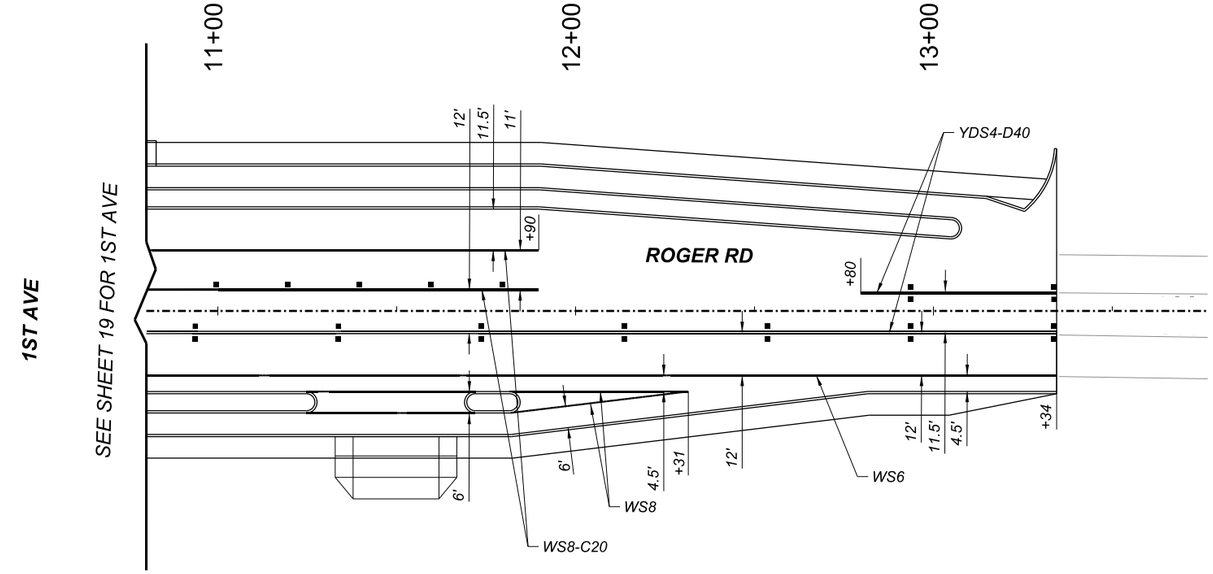
CITY OF TUCSON

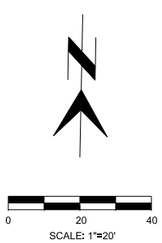
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\21C-34.dgn
8/19/2026 5:26:34 PM







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

254 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR AUG 2026	JC AUG 2026	BJK AUG 2026	H: 1" = 20'

PLAN NO. R-2024-XXX

STRIPING PLAN *SHEET 35 OF 38*

Project ID:
Client Number:4109

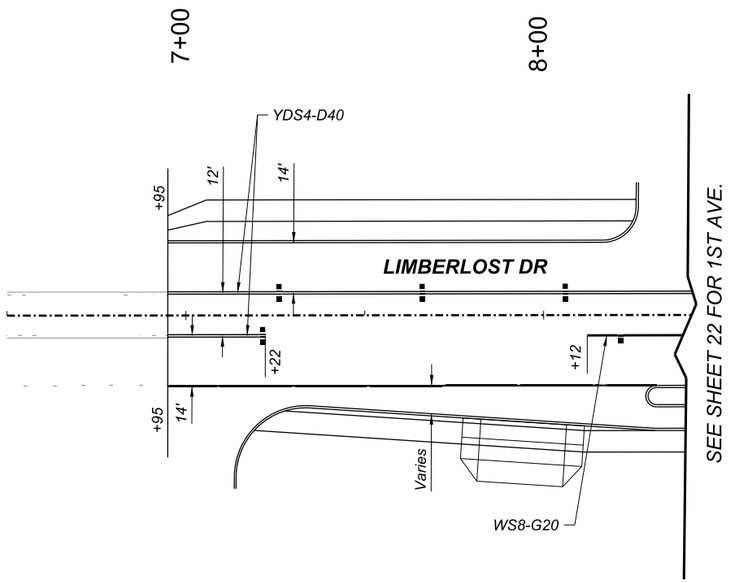
Pentable:COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg

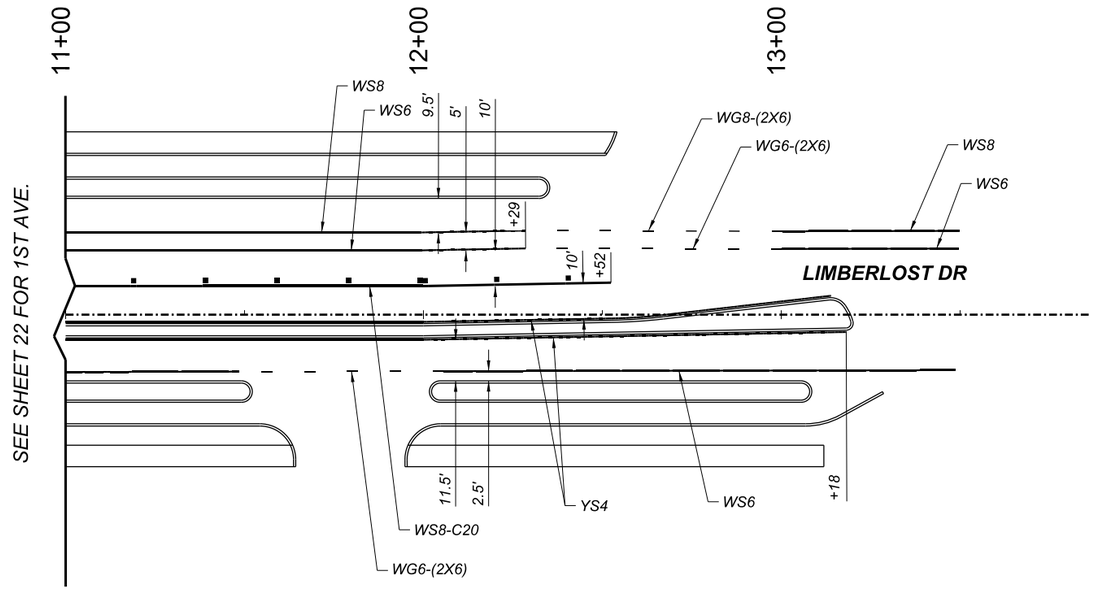
Printed by:SWESTMORELAND
Print Scale:120.0833333

8/19/2026 OpenRoads Designer v10.12.02.4
5:22:42 PM

c:\pwworking\west01\d3987900\21C-35.dgn
8/19/2026 5:22:42 PM

5:18:17 PM 8/19/2026 OpenRoads Designer v10.12.02.4
Printed by:SWESTMORELAND
Print Scale:130.0833333
Pentable:COTPM&AMCDOT_BENTLEY_PRINT.tbl
Plotdriver:GN_Dwgdf_SD.pltcfg
Project ID:
Client Number:4109





Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

255 OF 504

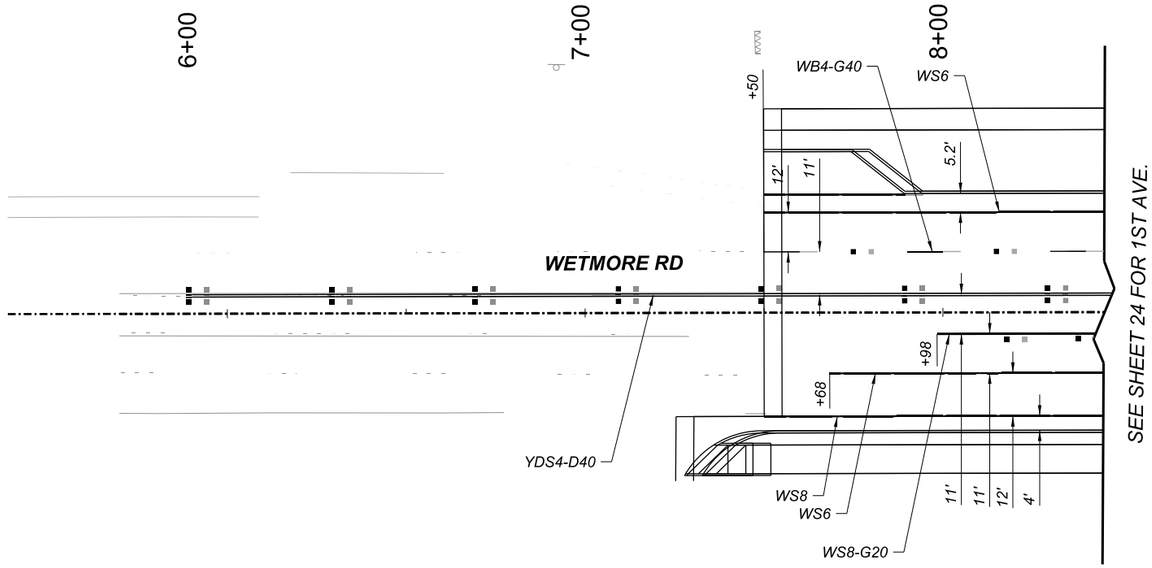
CITY OF TUCSON

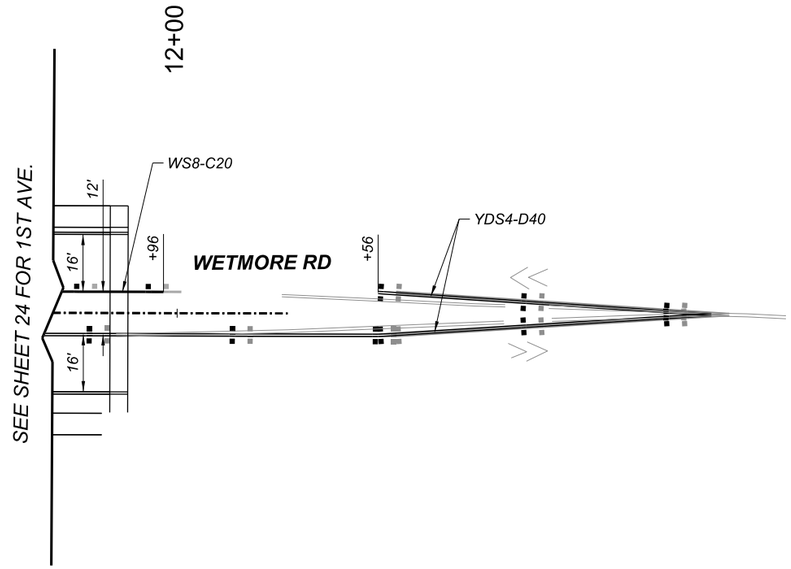
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JAR	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

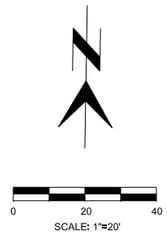
STRIPING PLAN

SHEET 36 OF 38

c:\pwworking\west01\d3987900\21C-36.dgn
8/19/2026 5:18:17 PM







Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

STRIPING PLAN

SHEET 37 OF 38

256 OF 504

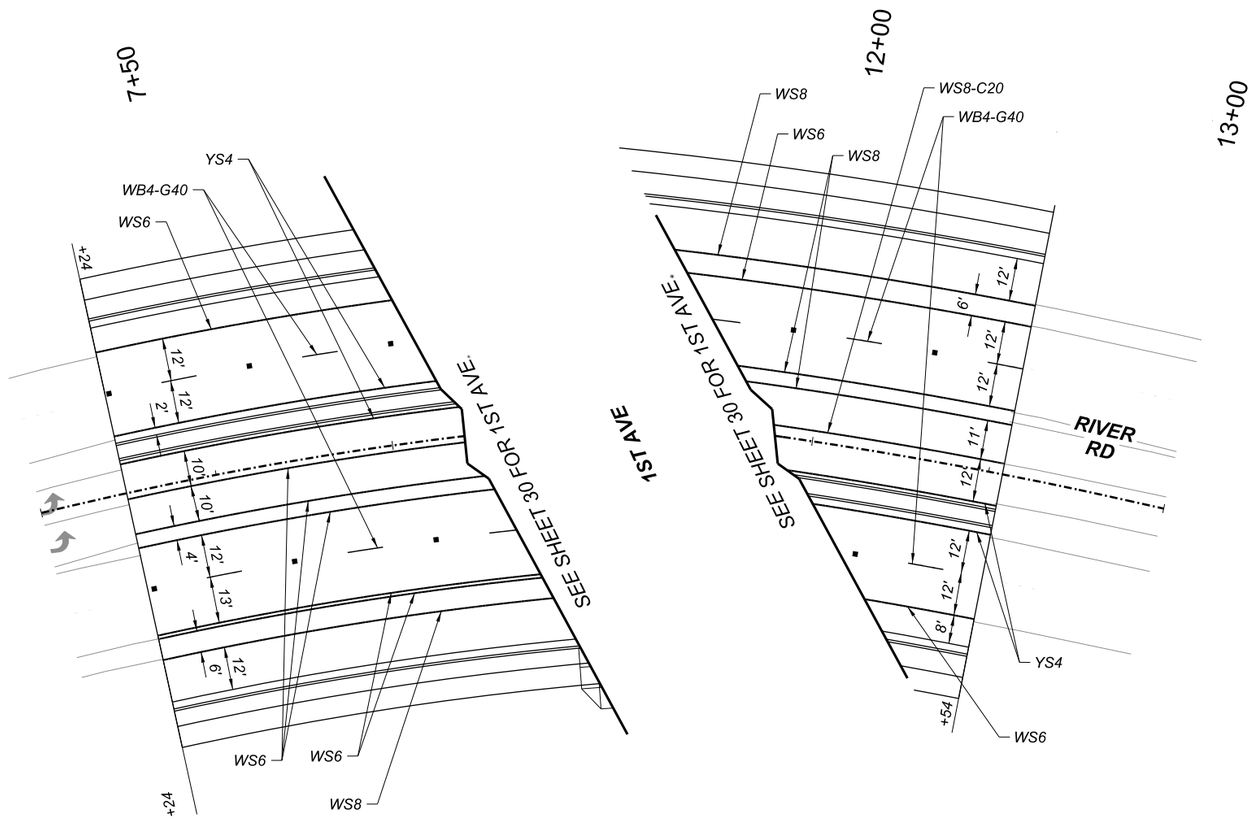
Project ID:
Client Number: 4109

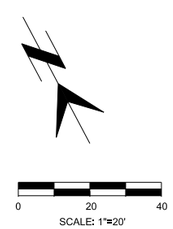
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.pltcfg

Printed by: SWESTMORELAND
Print Scale: 1:0.0833333

8/19/2026 5:11:00 PM OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3987900\21C-37.dgn
8/19/2026 5:11:00 PM





Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

STRIPING PLAN

SHEET 38 OF 38

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

257 OF 504

CITY OF TUCSON

DRWN. BY JAR AUG 2026
CHKD. BY JC AUG 2026
APPR. BY BJK AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

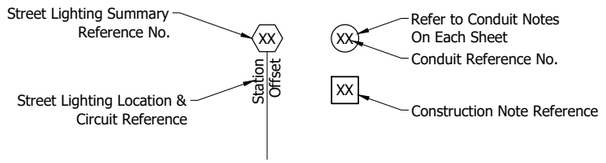
Project ID:
Client Number: 4109
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
5:05:01 PM
8/19/2026
OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3987900\21C-38.dgn
8/19/2026 5:05:01 PM

General Street Lighting Notes

1. The exact location of each street light pole, pull boxes, ground rods, and conduit runs shall be approved by the Engineer prior to excavation and installation.
2. Each pole shall be connected per the circuit designation indicated on the plans.
3. The Contractor is responsible for locating all utilities whether shown on the plans or not and shall protect them from damage.
4. All pull boxes shall be installed with a 6-inch concrete collar per PAG Std Dtl T 106.
5. Conduit locations shown on the plans are schematic. The Contractor should locate the conduit to avoid conflicts with other utilities.
6. All poles shall be PAG Std Dtl T 445 Type 2, 15' mast arm with a 30' mounting height.
7. Street lighting load center cabinet shall be Myers MEUG461-M100-AZ, 240/480V, 1 phase, 3 wires, 100A. Refer to special provisions.

Notation Legend



Legend

New	
	Metered Street Light Cabinet (Type I), See PAG Std Dtl 325; 240/480V, 1ϕ, 3W, 100A with appropriate circuit breakers.
	No. 7 Pull Box
	No. 7 Pull Box with Extension
	No. 3 1/2 Pull Box
	Conduit Run
	Existing Conduit Run
	Street Lighting Pole
XX	Street Lighting Pole Number
XX	Street Lighting Circuit Number
	Ground Rod

Overhead Power Lines

The Contractor's attention is directed to A.R.S. 40-360.41 thru 360.44 for restrictions on work in the vicinity of overhead power lines. The Contractor shall not operate power equipment placed so that any extension of the equipment and/or load carried by the equipment can reach to within 10 feet of active power lines rated at or under 50 kilovolts. Greater clearances apply for higher voltage power lines. Where work within the clearance limits is necessary, the Contractor shall contact TEP 10 working days in advance of the proposed work, to arrange for temporary deactivation, or other measures deemed necessary to permit safe operation near the overhead lines. Where excavation near existing power poles is planned, the Contractor shall contact TEP 10 working days in advance, to arrange for bracing and shoring. Before the end of the work shift each day, the Contractor shall provide drivable access to all TEP poles, equipment, and facilities.

Underground Facilities

1. Utility locations shown on plans were compiled based on the best information available. Utility locations are not intended to be exact or complete. Two full working days before beginning any excavation, the Contractor shall contact Arizona 811, dial 811 or 1-800-782-5348, to request marking of underground facilities. Underground facilities shall be exposed and located in accordance with A.R.S. 40-360.21 thru 360.29. Field adjustments for the placement of conduit, pull boxes, street light pole foundations, and street light poles, as directed by the Engineer, shall be used to avoid conflicts with existing underground or overhead utilities.The Contractor shall pothole utilities as needed or as directed by the Engineer to verify locations. This work shall be considered incidental to the other related items of work.
2. The Contractor shall take precautions not to damage water facilities that are in the area of construction. The Contractor will be responsible for any damage.
3. At pole foundations close to existing water mains, maintain a minimum of five (5) feet horizontal distance from outside of foundation to the outside of pipe. Minimum horizontal separation between existing water mains and electrical conduit is five (5) feet from outside water line to outside of electric conduit. Minimum vertical separation is one (1) foot from outside water line to outside electrical conduit.
4. Contractor shall pothole existing water mains behind curb prior to street light pole foundation work. This work shall be considered incidental to the pole foundation work.
5. For ground rods and pole foundations close to existing sanitary sewer, maintain a minimum of two (2) feet horizontal and vertical distance from outside of foundation to the outside of sanitary sewer pipe.
6. House or business sewer connections (HCS or BCS) are not part of the public sanitary sewer conveyance system. Private sewer connections constructed prior to January 2006 are not required to be Blue Staked. Any HCS/BCS encountered during construction shall be protected, repaired, or rerouted, as the situation dictates (COT/PC SD WWM 404), at no expense to the property owner or the Pima County Regional Wastewater Reclamation Department (PCRWRD).
7. The City shall not be held liable or responsible for any errors and or omissions on these plans relative to PCRWRD facilities. Items not meeting PCRWRD standards shall be repaired or replaced at no cost to the City.
8. Minimum horizontal and vertical separation between existing gas distribution facilities such as gas lines and the new street lighting conduit, pull boxes, ground rods, and pole foundations shall be one (1) foot, and two (2) foot separation from high-pressure gas facilities.
9. The Contractor shall exercise extreme caution when excavating near all Southwest Gas facilities. The Contractor shall support and/or protect in place all gas distribution and service facilities that are exposed during the installation of the lighting improvements associated with the project.
10. Minimum horizontal and vertical separation between existing communication distribution facilities and the new street lighting conduit, pull boxes, ground rods, and pole foundations shall be one (1) foot.
11. The Contractor shall exercise extreme caution when excavating near all Lumen, COX, AT&T and other underground communication facilities. The Contractor shall support and/or protect in place all existing communication distribution facilities that are exposed during the installation of the lighting improvements associated with the project.
12. When encountering tree branches or tree roots, the Contractor will contact DTM Landscape Architect to arrange an on-site meeting, prior to proceeding with removal or trimming of any tree.

Foundation Notes

1. The following foundations are applicable for the project street light poles only. The foundations specified in the Street Light Summary Table should be used unless conditions require use of an alternate. Use of an alternate shall be approved by the City Electrical Inspector.
   A. Standard foundation per PAG Std Dtl T 445.
2. The foundation depth shall be measured from the point of undisturbed earth. Grading around new foundations shall be provided to divert drainage.
3. The back fill and grading around the pole foundation shall be incidental to the foundation.
4. Foundations shall include a twenty-five (25) foot coil of #4 AWG bare copper conductor bonded to pole at the handhole with three-eighths (3/8) inch diameter bolt and ground clamp shall be installed prior to placement of concrete in foundation. For spread foundations, the coil shall be twenty (20) feet in length.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

258 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL01 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:16:00 PM

Street Light Summary Table

SL No.	Sta	Off	Circuit No.	Type[1]	Foundation[2]	Pole Height	Mast Arm Length	Distribution	Luminaire
1			2	Type 2	T 445	30	15’	R3	ATB2[3]
2			1	Type 2	T 445	30	15’	R3	ATB2
3			2	Type 2	T 445	30	15’	R3	ATB2
4			1	Type 2	T 445	30	15’	R3	ATB2
5			2	Type 2	T 445	30	15’	R3	ATB2
6			1	Type 2	T 445	30	15’	R3	ATB2
7			2	Type 2	T 445	30	15’	R3	ATB2
8			1	Type 2	T 445	30	15’	R3	ATB2
9			2	Type 2	T 445	30	15’	R3	ATB2
10			1	Type 2	T 445	30	15’	R3	ATB2
11			2	Type 2	T 445	30	15’	R3	ATB2
12			1	Type 2	T 445	30	15’	R3	ATB2
13			2	Type 2	T 445	30	15’	R3	ATB2
14	TO BE COMPLETED AT NEXT SUBMITTAL	TO BE COMPLETED AT NEXT SUBMITTAL	1	Type 2	T 445	30	15’	R3	ATB2
15			2	Type 2	T 445	30	15’	R3	ATB2
16			1	Type 2	T 445	30	15’	R3	ATB2
17			2	Type 2	T 445	30	15’	R3	ATB2
18			1	Type 2	T 445	30	15’	R3	ATB2
19			2	Type 2	T 445	30	15’	R3	ATB2
20			1	Type 2	T 445	30	15’	R3	ATB2
21			2	Type 2	T 445	30	15’	R3	ATB2
22			3	Type 2	T 445	30	15’	R3	ATB2
23			4	Type 2	T 445	30	15’	R3	ATB2
24			3	Type 2	T 445	30	15’	R3	ATB2
25			4	Type 2	T 445	30	15’	R3	ATB2
26			3	Type 2	T 445	30	15’	R3	ATB2
27			4	Type 2	T 445	30	15’	R3	ATB2
28			3	Type 2	T 445	30	15’	R3	ATB2
29			4	Type 2	T 445	30	15’	R3	ATB2
30			3	Type 2	T 445	30	15’	R3	ATB2
31			4	Type 2	T 445	30	15’	R3	ATB2
32			3	Type 2	T 445	30	15’	R3	ATB2
33			1	Type 2	T 445	30	15’	R3	ATB2
34			2	Type 2	T 445	30	15’	R3	ATB2
35			1	Type 2	T 445	30	15’	R3	ATB2
36			2	Type 2	T 445	30	15’	R3	ATB2
37			1	Type 2	T 445	30	15’	R3	ATB2
38			2	Type 2	T 445	30	15’	R3	ATB2
39			1	Type 2	T 445	30	15’	R3	ATB2

SL No.	Sta	Off	Circuit No.	Type[1]	Foundation[2]	Pole Height	Mast Arm Length	Distribution	Luminaire
40			2	Type 2	T 445	30	15’	R3	ATB2
41			1	Type 2	T 445	30	15’	R3	ATB2
42			2	Type 2	T 445	30	15’	R3	ATB2
43			1	Type 2	T 445	30	15’	R3	ATB2
44			2	Type 2	T 445	30	15’	R3	ATB2
45			3	Type 2	T 445	30	15’	R3	ATB2
46			4	Type 2	T 445	30	15’	R3	ATB2
47			3	Type 2	T 445	30	15’	R3	ATB2
48			4	Type 2	T 445	30	15’	R3	ATB2
49			3	Type 2	T 445	30	15’	R3	ATB2
50			4	Type 2	T 445	30	15’	R3	ATB2
51			3	Type 2	T 445	30	15’	R3	ATB2
52			4	Type 2	T 445	30	15’	R3	ATB2
53	TO BE COMPLETED AT NEXT SUBMITTAL	TO BE COMPLETED AT NEXT SUBMITTAL	3	Type 2	T 445	30	15’	R3	ATB2
54			4	Type 2	T 445	30	15’	R3	ATB2
55			3	Type 2	T 445	30	15’	R3	ATB2
56			4	Type 2	T 445	30	15’	R3	ATB2
57			3	Type 2	T 445	30	15’	R3	ATB2
58			4	Type 2	T 445	30	15’	R3	ATB2
59			3	Type 2	T 445	30	15’	R3	ATB2
60			4	Type 2	T 445	30	15’	R3	ATB2
61			4	Type 2	T 445	30	15’	R3	ATB2
62			1	Type 2	T 445	30	15’	R3	ATB2
63			2	Type 2	T 445	30	15’	R3	ATB2
64			1	Type 2	T 445	30	15’	R3	ATB2
65			2	Type 2	T 445	30	15’	R3	ATB2
66			1	Type 2	T 445	30	15’	R3	ATB2
67			2	Type 2	T 445	30	15’	R3	ATB2
68			1	Type 2	T 445	30	15’	R3	ATB2
69			3	Type 2	T 445	30	15’	R3	ATB2
70			4	Type 2	T 445	30	15’	R3	ATB2
71			3	Type 2	T 445	30	15’	R3	ATB2
72			4	Type 2	T 445	30	15’	R3	ATB2
73			3	Type 2	T 445	30	15’	R3	ATB2
74			4	Type 2	T 445	30	15’	R3	ATB2
75			3	Type 2	T 445	30	15’	R3	ATB2
76			4	Type 2	T 445	30	15’	R3	ATB2
77			3	Type 2	T 445	30	15’	R3	ATB2
78			4	Type 2	T 445	30	15’	R3	ATB2

1. Pole Shall be Std Dtl 445 Type 2.
2. Refer to Foundation Notes.
3. Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000K CCT with a 7-pin Road Node connector, or approved equal.
4. Luminaire shall be GlasWerks Luminescent LED Hallbrook Extended GWLF3, P80, 30k, 120V, ASY, QSM Mount, or approved equal.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

259 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\291_29660 – 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL02 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:00 PM

Street Light Summary Table

SL No.	Sta	Off	Circuit No.	Type[1]	Foundation[2]	Pole Height	Mast Arm Length	Distribution	Luminaire
79			3	Type 2	T 445	30	15’	R3	ATB2
80			4	Type 2	T 445	30	15’	R3	ATB2
81			1	Type 2	T 445	30	15’	R3	ATB2
82			2	Type 2	T 445	30	15’	R3	ATB2
83			1	Type 2	T 445	30	15’	R3	ATB2
84			2	Type 2	T 445	30	15’	R3	ATB2
85			1	Type 2	T 445	30	15’	R3	ATB2
86			2	Type 2	T 445	30	15’	R3	ATB2
87			1	Type 2	T 445	30	15’	R3	ATB2
88			2	Type 2	T 445	30	15’	R3	ATB2
89			1	Type 2	T 445	30	15’	R3	ATB2
90			2	Type 2	T 445	30	15’	R3	ATB2
91	TO BE COMPLETED AT NEXT SUBMITTAL	TO BE COMPLETED AT NEXT SUBMITTAL	1	Type 2	T 445	30	15’	R3	ATB2
92			2	Type 2	T 445	30	15’	R3	ATB2
93			3	Type 2	T 445	30	15’	R3	ATB2
94			4	Type 2	T 445	30	15’	R3	ATB2
95			3	Type 2	T 445	30	15’	R3	ATB2
96			4	Type 2	T 445	30	15’	R3	ATB2
97			3	Type 2	T 445	30	15’	R3	ATB2
98			4	Type 2	T 445	30	15’	R3	ATB2
99			3	Type 2	T 445	30	15’	R3	ATB2
100			4	Type 2	T 445	30	15’	R3	ATB2
101			3	Type 2	T 445	30	15’	R3	ATB2
102			4	Type 2	T 445	30	15’	R3	ATB2
103			3	Type 2	T 445	30	15’	R3	ATB2
104			1	Type 2	T 445	30	15’	R3	ATB2
105			2	Type 2	T 445	30	15’	R3	ATB2
106			1	Type 2	T 445	30	15’	R3	ATB2
107			2	Type 2	T 445	30	15’	R3	ATB2
108			1	Type 2	T 445	30	15’	R3	ATB2
109			2	Type 2	T 445	30	15’	R3	ATB2
110			1	Type 2	T 445	30	15’	R3	ATB2
111			2	Type 2	T 445	30	15’	R3	ATB2
112			1	Type 2	T 445	30	15’	R3	ATB2
113			2	Type 2	T 445	30	15’	R3	ATB2
114			1	Type 2	T 445	30	15’	R3	ATB2
115			4	Type 2	T 445	30	15’	R3	ATB2
116			3	Type 2	T 445	30	15’	R3	ATB2
117			4	Type 2	T 445	30	15’	R3	ATB2
118			3	Type 2	T 445	30	15’	R3	ATB2
119			4	Type 2	T 445	30	15’	R3	ATB2
120			3	Type 2	Bridge	30	5’	ASY	GELF3[4]
121			4	Type 2	Bridge	30	5’	ASY	GELF3
122			3	Type 2	Bridge	30	5’	ASY	GELF3
123			4	Type 2	Bridge	30	5’	ASY	GELF3
124			3	Type 2	Bridge	30	5’	ASY	GELF3
125	TO BE COMPLETED AT NEXT SUBMITTAL	TO BE COMPLETED AT NEXT SUBMITTAL	4	Type 2	Bridge	30	5’	ASY	GELF3
126			3	Type 2	Bridge	30	5’	ASY	GELF3
127			1	Type 2	T 445	30	15’	R3	ATB2
128			2	Type 2	T 445	30	15’	R3	ATB2
129			1	Type 2	T 445	30	15’	R3	ATB2
130			2	Type 2	T 445	30	15’	R3	ATB2
131			1	Type 2	T 445	30	15’	R3	ATB2
132			2	Type 2	T 445	30	15’	R3	ATB2
133			1	Type 2	T 445	30	15’	R3	ATB2
134			2	Type 2	T 445	30	15’	R3	ATB2
135			1	Type 2	T 445	30	15’	R3	ATB2
136			2	Type 2	T 445	30	15’	R3	ATB2
137			1	Type 2	T 445	30	15’	R3	ATB2
138			2	Type 2	T 445	30	15’	R3	ATB2
139			1	Type 2	T 445	30	15’	R3	ATB2
140			2	Type 2	T 445	30	15’	R3	ATB2
141			1	Type 2	T 445	30	15’	R3	ATB2
142			2	Type 2	T 445	30	15’	R3	ATB2
143			1	Type 2	T 445	30	15’	R3	ATB2
144			2	Type 2	T 445	30	15’	R3	ATB2
145			1	Type 2	T 445	30	15’	R3	ATB2
146			2	Type 2	T 445	30	15’	R3	ATB2

1. Pole Shall be Std Dtl 445 Type 2.
2. Refer to Foundation Notes.
3. Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000K CCT with a 7-pin Road Node connector, or approved equal.
4. Luminaire shall be GlasWerks Luminescent LED Hallbrook Extended GWLF3, P80, 30k, 120V, ASY, QSM Mount, or approved equal.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

260 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL03 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:01 PM

AVERAGE MAINTAINED ILLUMINATION DESIGN VALUES

Segment	Average Illumination (fc)*	Uniformity Ave/Min
TO BE COMPLETED AT NEXT SUBMITTAL	TO BE COMPLETED AT NEXT SUBMITTAL	TO BE COMPLETED AT NEXT SUBMITTAL

*Per PAG Standard Detail T 324

GLENN ST METERED STREET LIGHTING CABINET LOAD SUMMARY

Circuit No.	Amp (% V Drop)
Ckt 1 (Red)	TO BE COMPLETED AT NEXT SUBMITTAL
Ckt 2 (Blue)	
Ckt 3 (Brown)	
Ckt 4 (Orange)	
Total Load	

E PRINCE RD METERED STREET LIGHTING CABINET LOAD SUMMARY

Circuit No.	Amp (% V Drop)
Ckt 1 (Red)	TO BE COMPLETED AT NEXT SUBMITTAL
Ckt 2 (Blue)	
Ckt 3 (Brown)	
Ckt 4 (Orange)	
Total Load	

E WETMORE RD METERED STREET LIGHTING CABINET LOAD SUMMARY

Circuit No.	Amp (% V Drop)
Ckt 1 (Red)	TO BE COMPLETED AT NEXT SUBMITTAL
Ckt 2 (Blue)	
Ckt 3 (Brown)	
Ckt 4 (Orange)	
Total Load	

E FORT LOWELL RD METERED STREET LIGHTING CABINET LOAD SUMMARY

Circuit No.	Amp (% V Drop)
Ckt 1 (Red)	TO BE COMPLETED AT NEXT SUBMITTAL
Ckt 2 (Blue)	
Ckt 3 (Brown)	
Ckt 4 (Orange)	
Total Load	

E ROGER RD METERED STREET LIGHTING CABINET LOAD SUMMARY

Circuit No.	Amp (% V Drop)
Ckt 1 (Red)	TO BE COMPLETED AT NEXT SUBMITTAL
Ckt 2 (Blue)	
Ckt 3 (Brown)	
Ckt 4 (Orange)	
Total Load	

E RIVER RD METERED STREET LIGHTING CABINET LOAD SUMMARY

Circuit No.	Amp (% V Drop)
Ckt 1 (Red)	TO BE COMPLETED AT NEXT SUBMITTAL
Ckt 2 (Blue)	
Total Load	

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL04 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:02 PM

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

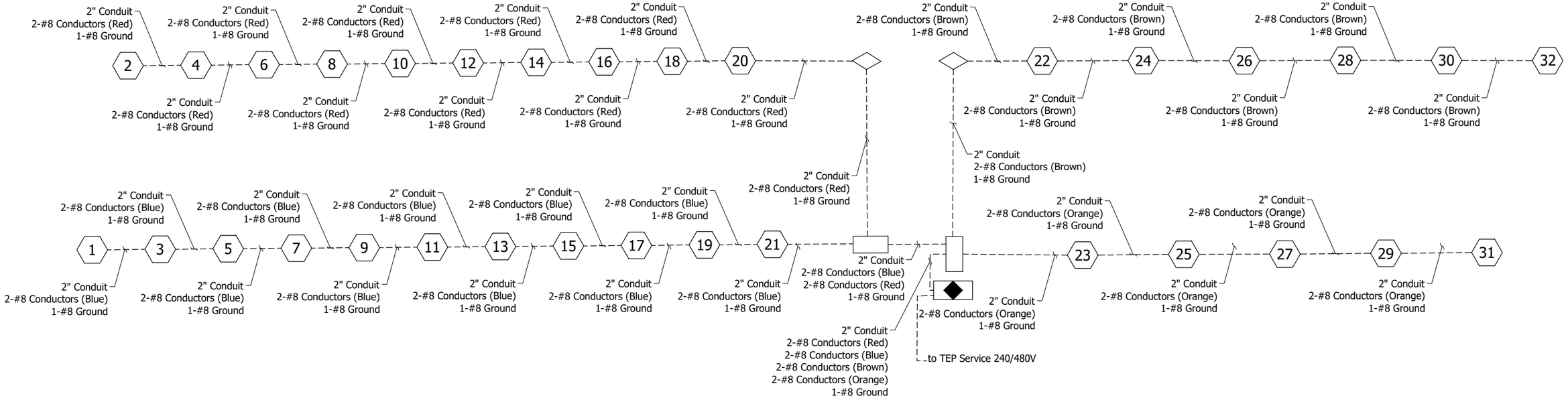
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

261 OF 504

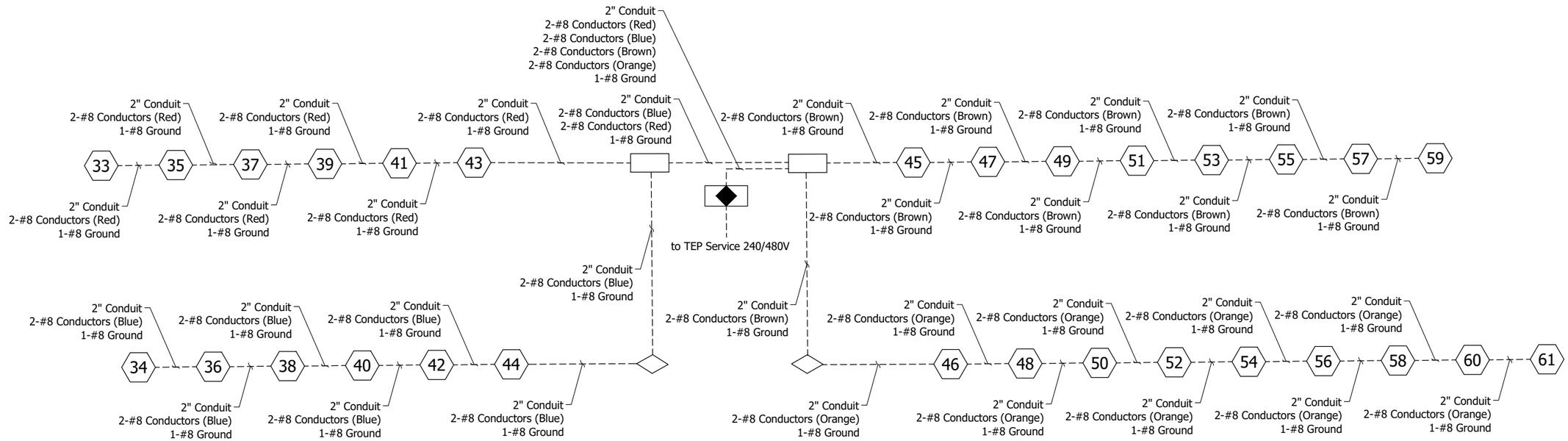
CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

E GRANT ROAD TO E BLACKLIDGE DRIVE
STA 14+00 to 49+00



E BLACKLIDGE DRIVE TO E GRAYBILL DRIVE
STA 50+00 to 81+00



SL05 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

262 OF 504

CITY OF TUCSON

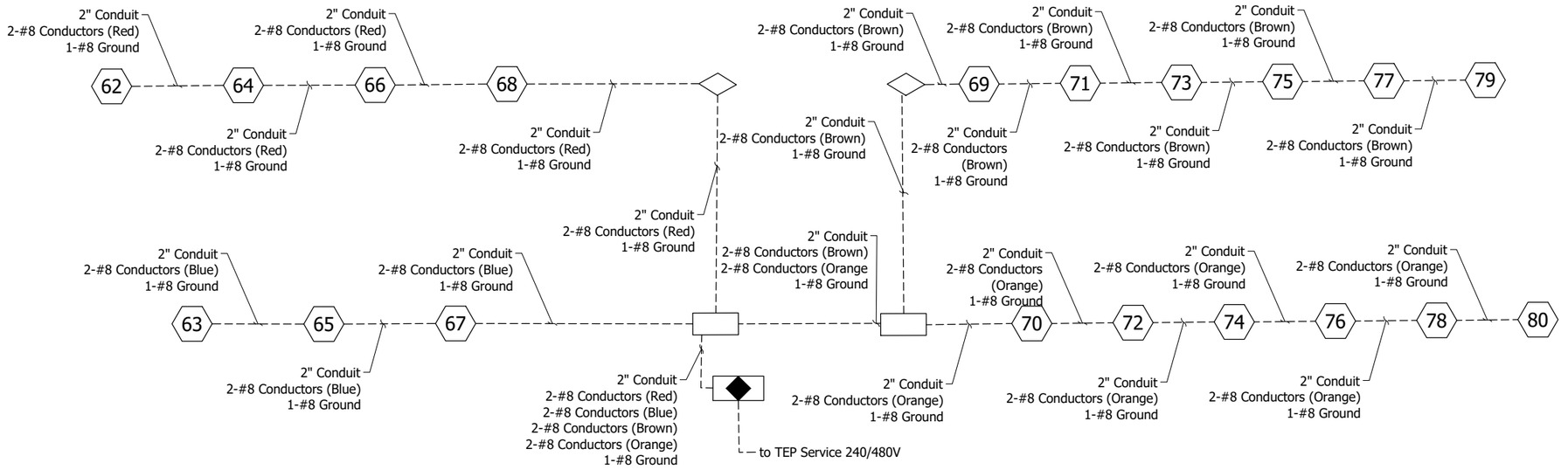
DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

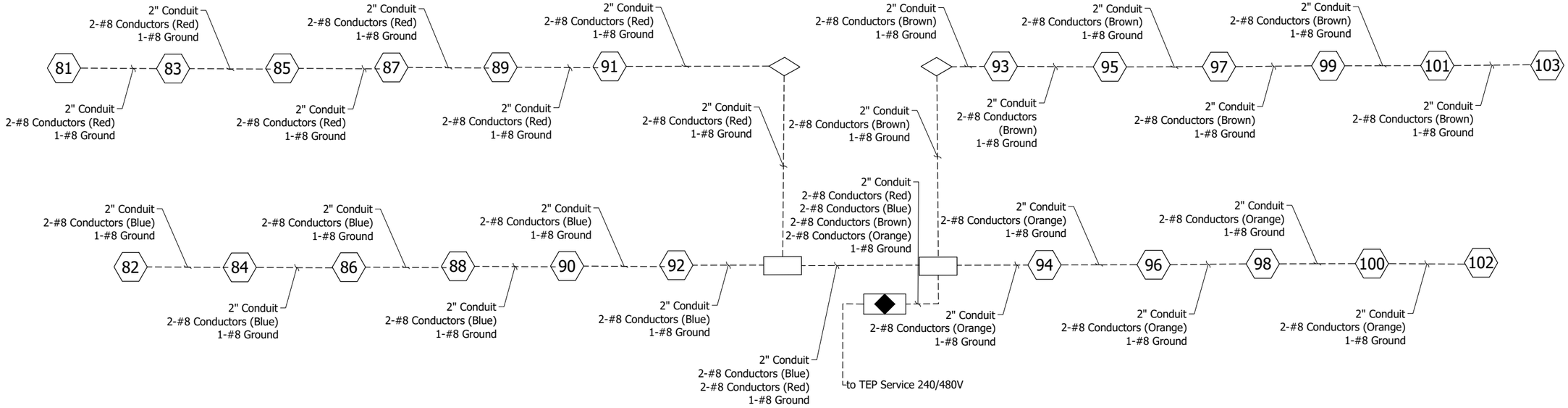
Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL05 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:03 PM

E GRAYBILL DRIVE TO E PASTIME ROAD
STA 81+00 to 103+00



E PASTIME ROAD TO E LIMBERLOST DRIVE
STA 103+00 to 129+00



SL06 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

263 OF 504

CITY OF TUCSON

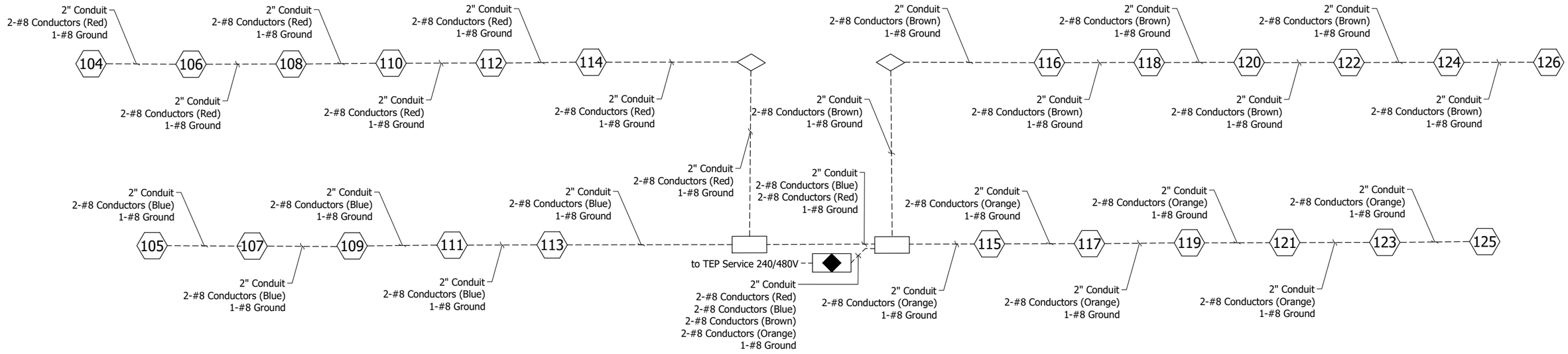
DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

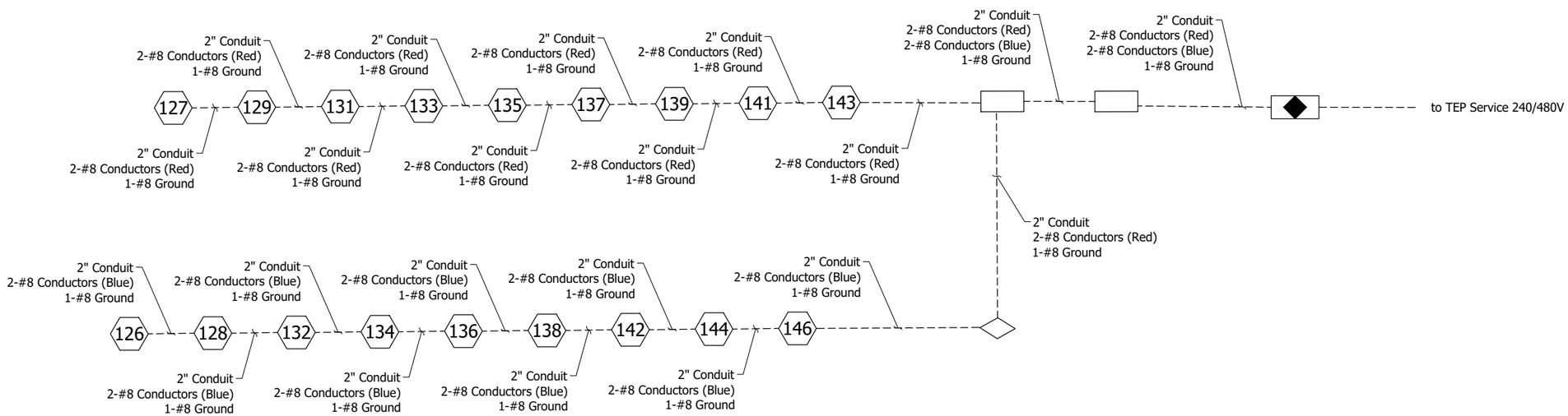
Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL06 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:04 PM

E LIMBERLOST DRIVE TO DIAMOND STREET LOOP
STA 129+00 to 154+00



DIAMOND STREET LOOP TO NORTH OF EAST RIVER ROAD
STA 154+00 to 172+00



KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

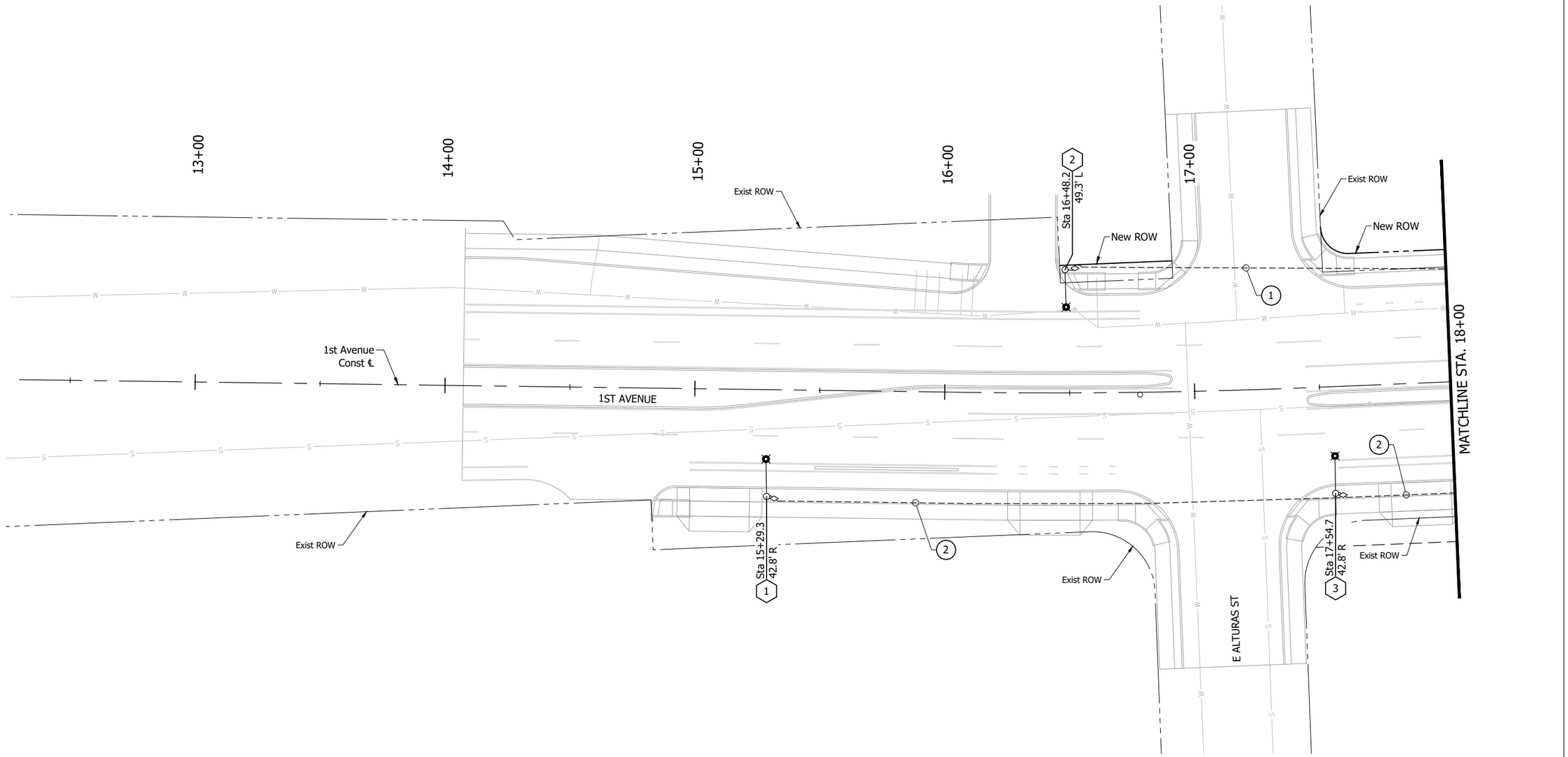
DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29_29660 – 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL07 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:04 PM



0 20' 40'

SCALE: 1"=20'

Notes

1. New 2" PVC Conduit w/ 2 -#8 Conductors (Red) 1-#8 Ground
2. New 2" PVC Conduit w/ 2-#8 Conductors (Blue) 1-#8 Ground

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

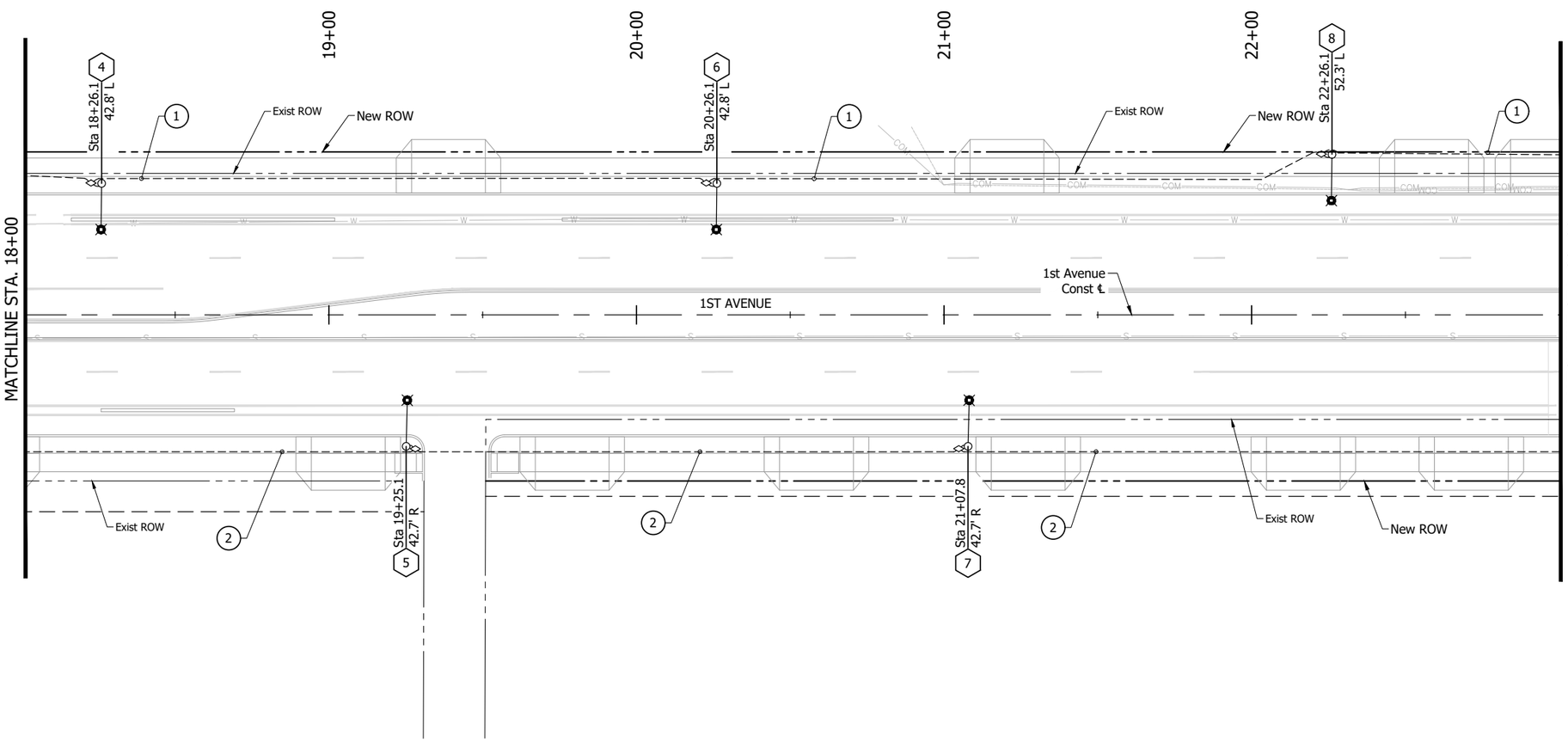
DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL08 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted: Wednesday, August 26, 2026 5:16:07 PM



Notes

(1) New 2" PVC Conduit w/
2 -#8 Conductors (Red)
1-#8 Ground

(2) New 2" PVC Conduit w/
2-#8 Conductors (Blue)
1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL09 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

266 OF 504

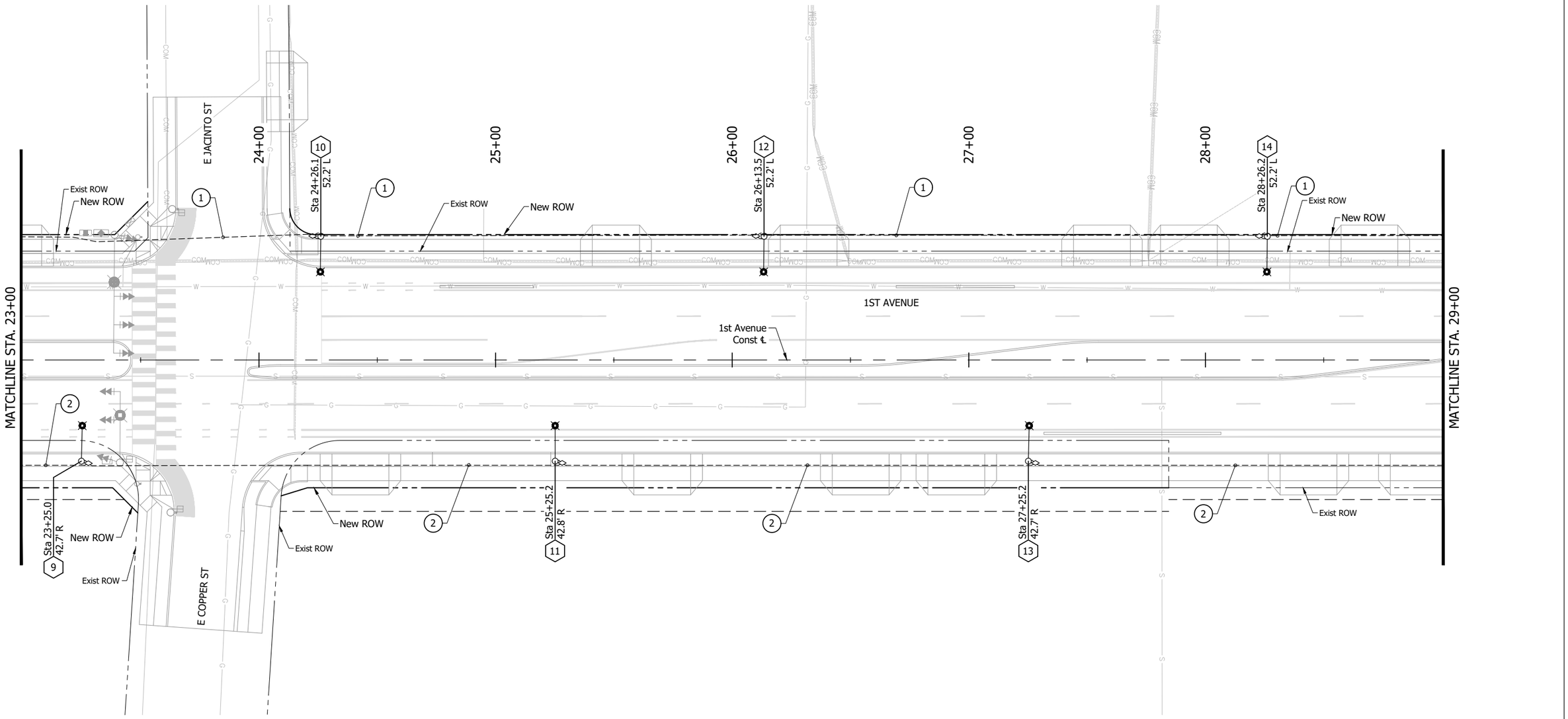
CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

H:\291,29660 – 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL09 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:09 PM



Notes

1. New 2" PVC Conduit w/ 2 -#8 Conductors (Red) 1-#8 Ground
2. New 2" PVC Conduit w/ 2-#8 Conductors (Blue) 1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL10 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

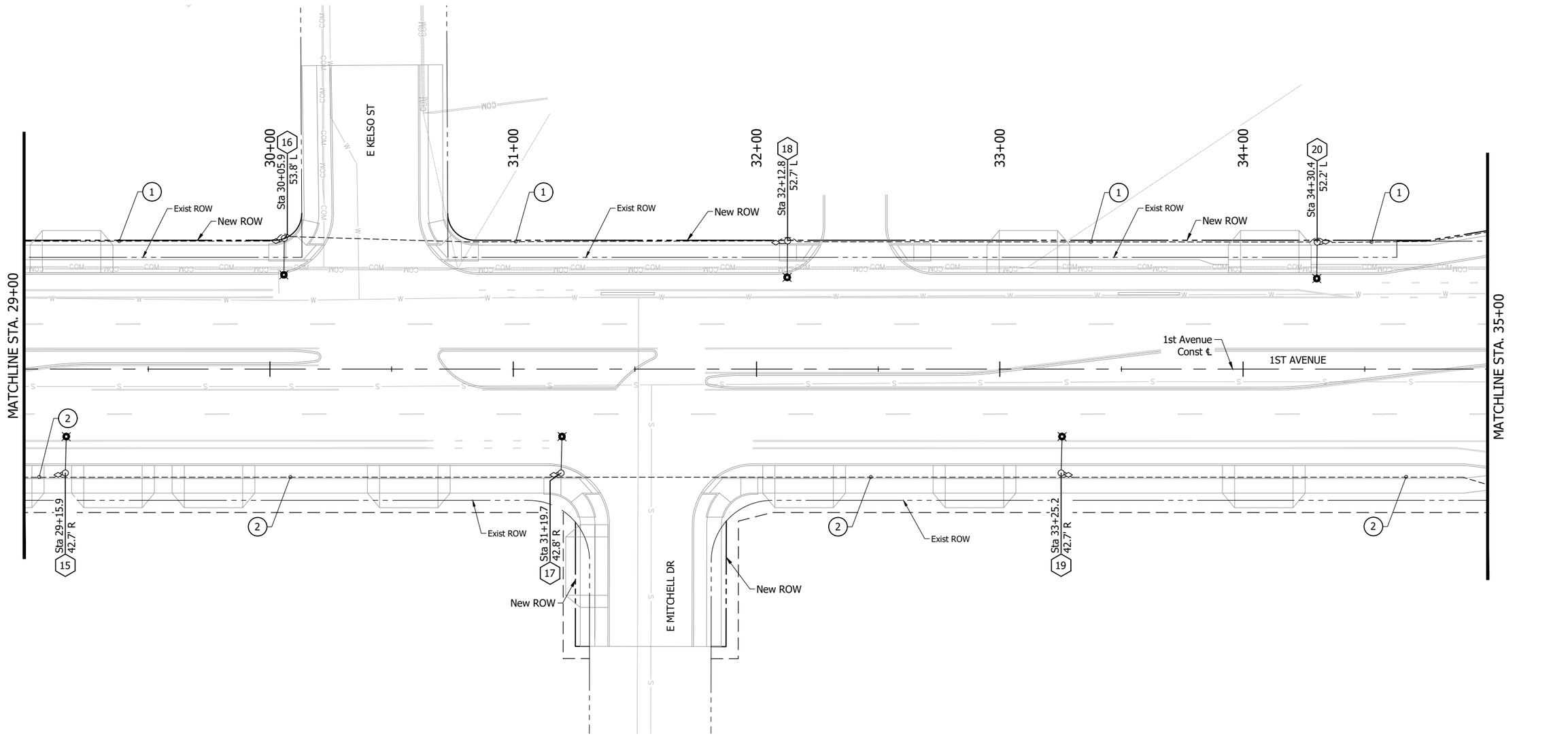
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

267 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\21\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL10 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted: Wednesday, August 26, 2026 5:16:11 PM



Notes

(1) New 2" PVC Conduit w/
2 -#8 Conductors (Red)
1-#8 Ground

(2) New 2" PVC Conduit w/
2-#8 Conductors (Blue)
1-#8 Ground

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

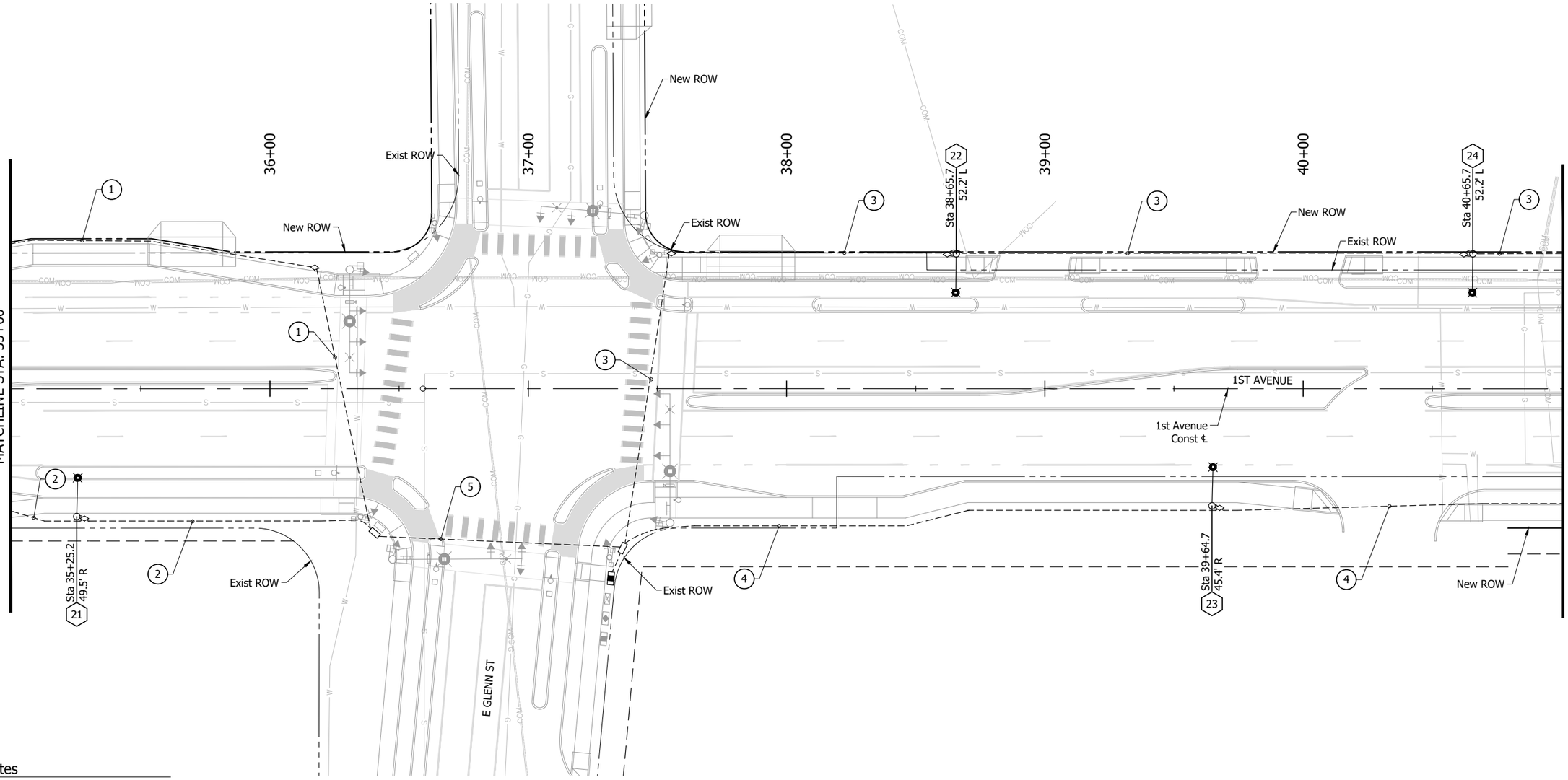
DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DGR\design_CO\29660_CO_Lighting_Plans.dwg SL11 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:16:13 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground
2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground
3. New 2" PVC Conduit w/
   2-#8 Conductors (Brown)
   1-#8 Ground
4. New 2" PVC Conduit w/
   2-#8 Conductors (Orange)
   1-#8 Ground
5. New 2" PVC Conduit w/
   2-#8 Conductors (Red)
   2-#8 Conductors (Blue)
   1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL12 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

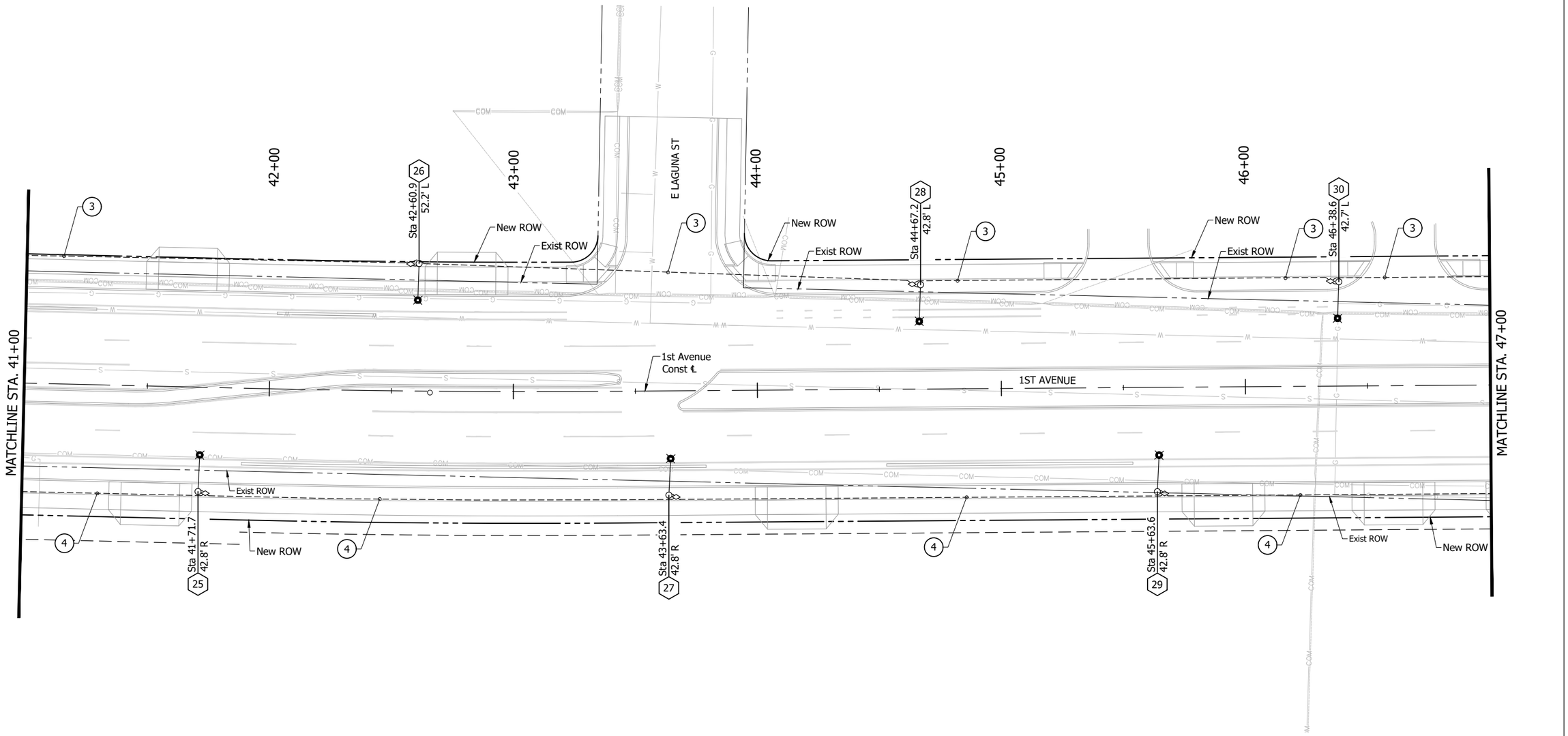
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

269 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL12 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:15 PM



Notes

(3) New 2" PVC Conduit w/
2-#8 Conductors (Brown)
1-#8 Ground

(4) New 2" PVC Conduit w/
2-#8 Conductors (Orange)
1-#8 Ground

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

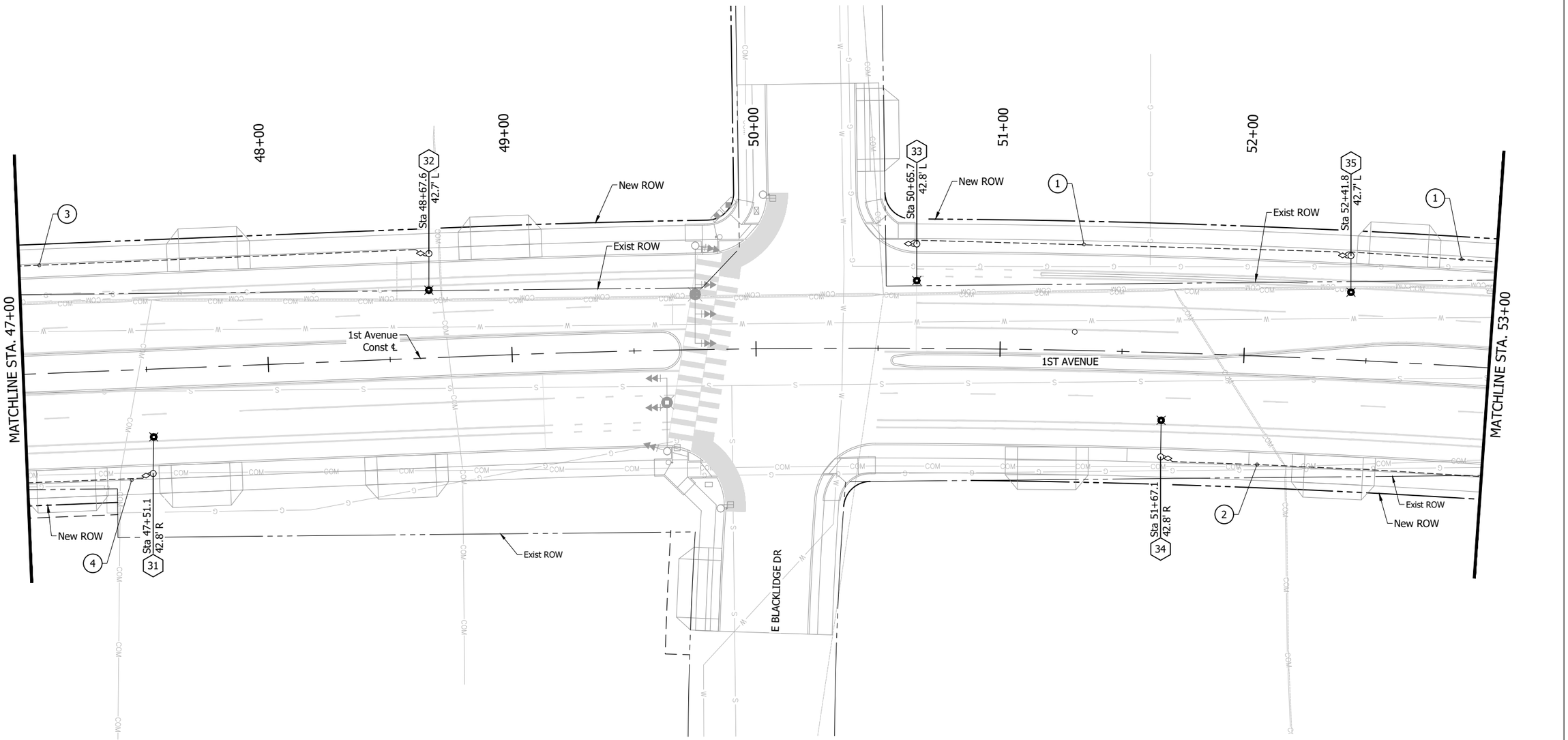
CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

SL13 OF SL37

270 OF 504

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL13 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:18 PM



Notes

1. New 2" PVC Conduit w/ 2 -#8 Conductors (Red) 1-#8 Ground
2. New 2" PVC Conduit w/ 2-#8 Conductors (Blue) 1-#8 Ground
3. New 2" PVC Conduit w/ 2-#8 Conductors (Brown) 1-#8 Ground
4. New 2" PVC Conduit w/ 2-#8 Conductors (Orange) 1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL14 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

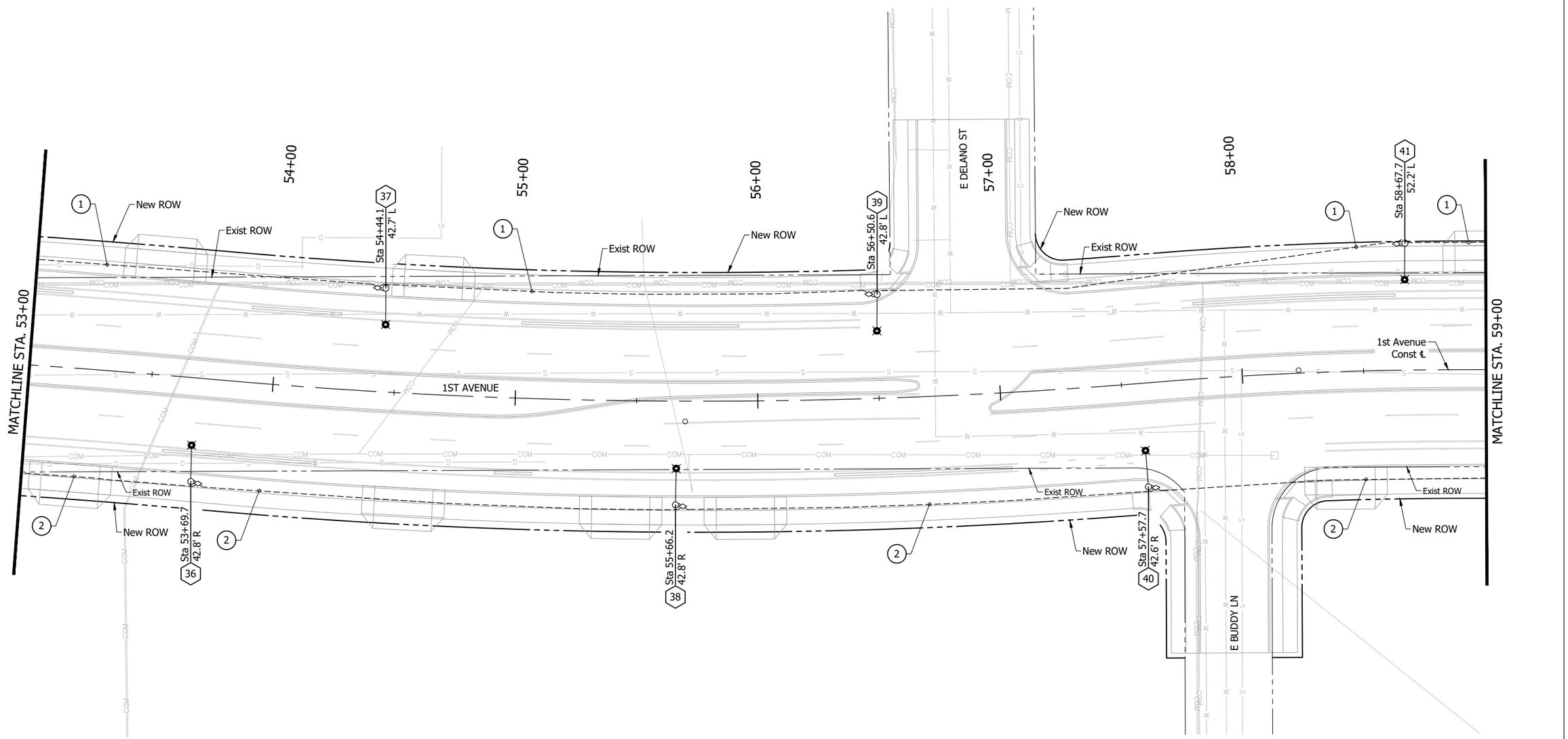
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

271 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL14 Last Saved: Wed, 26 Aug, 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:16:20 PM



Notes

(1) New 2" PVC Conduit w/
2 -#8 Conductors (Red)
1-#8 Ground

(2) New 2" PVC Conduit w/
2-#8 Conductors (Blue)
1-#8 Ground

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

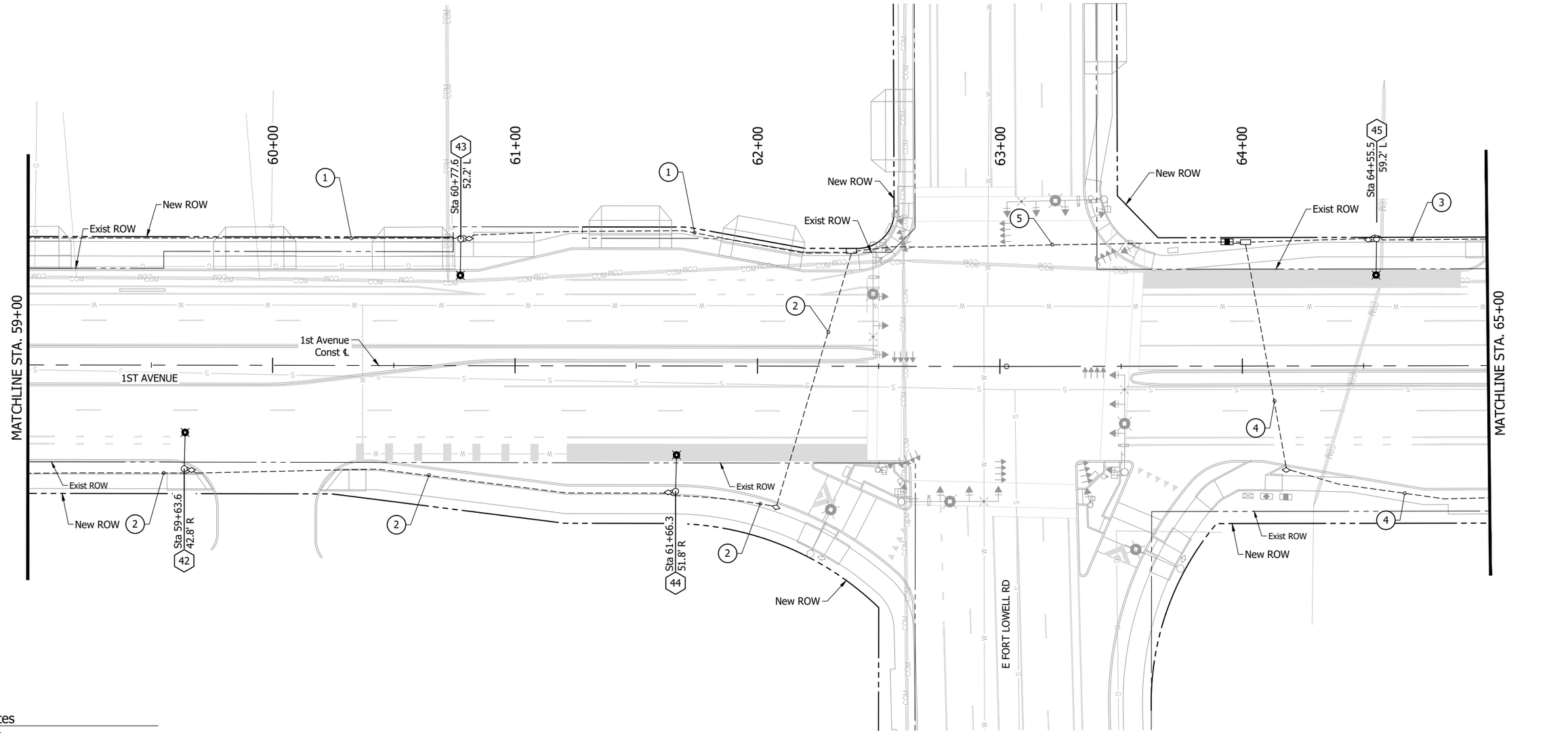
DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL15 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:16:22 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground
2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground
3. New 2" PVC Conduit w/
   2-#8 Conductors (Brown)
   1-#8 Ground
4. New 2" PVC Conduit w/
   2-#8 Conductors (Orange)
   1-#8 Ground
5. New 2" PVC Conduit w/
   2-#8 Conductors (Red)
   2-#8 Conductors (Blue)
   1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL16 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

273 OF 504

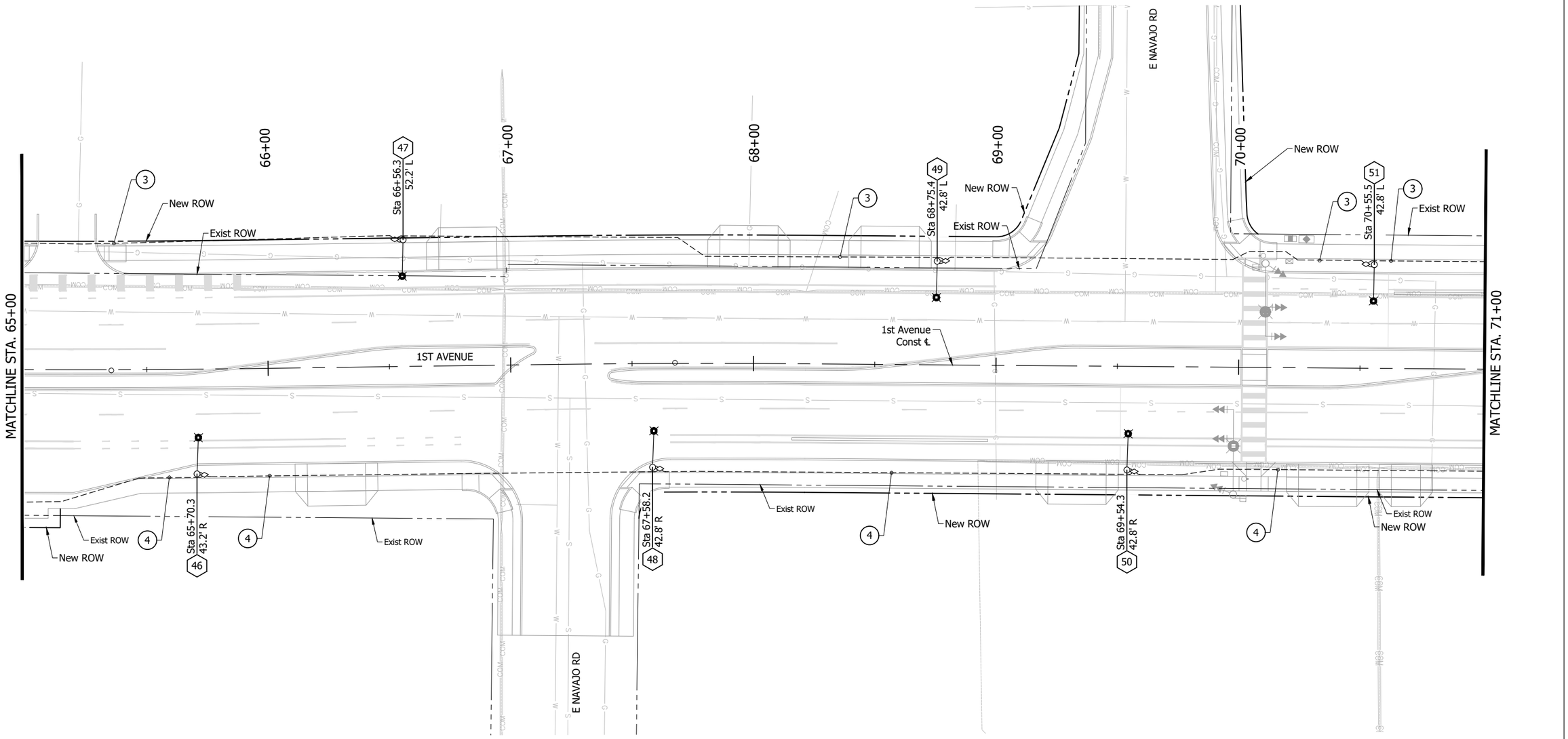
CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

H:\21\29660 – 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL16 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted: Wednesday, August 26, 2026 5:16:24 PM



Notes

(3) New 2" PVC Conduit w/
2-#8 Conductors (Brown)
1-#8 Ground

(4) New 2" PVC Conduit w/
2-#8 Conductors (Orange)
1-#8 Ground

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

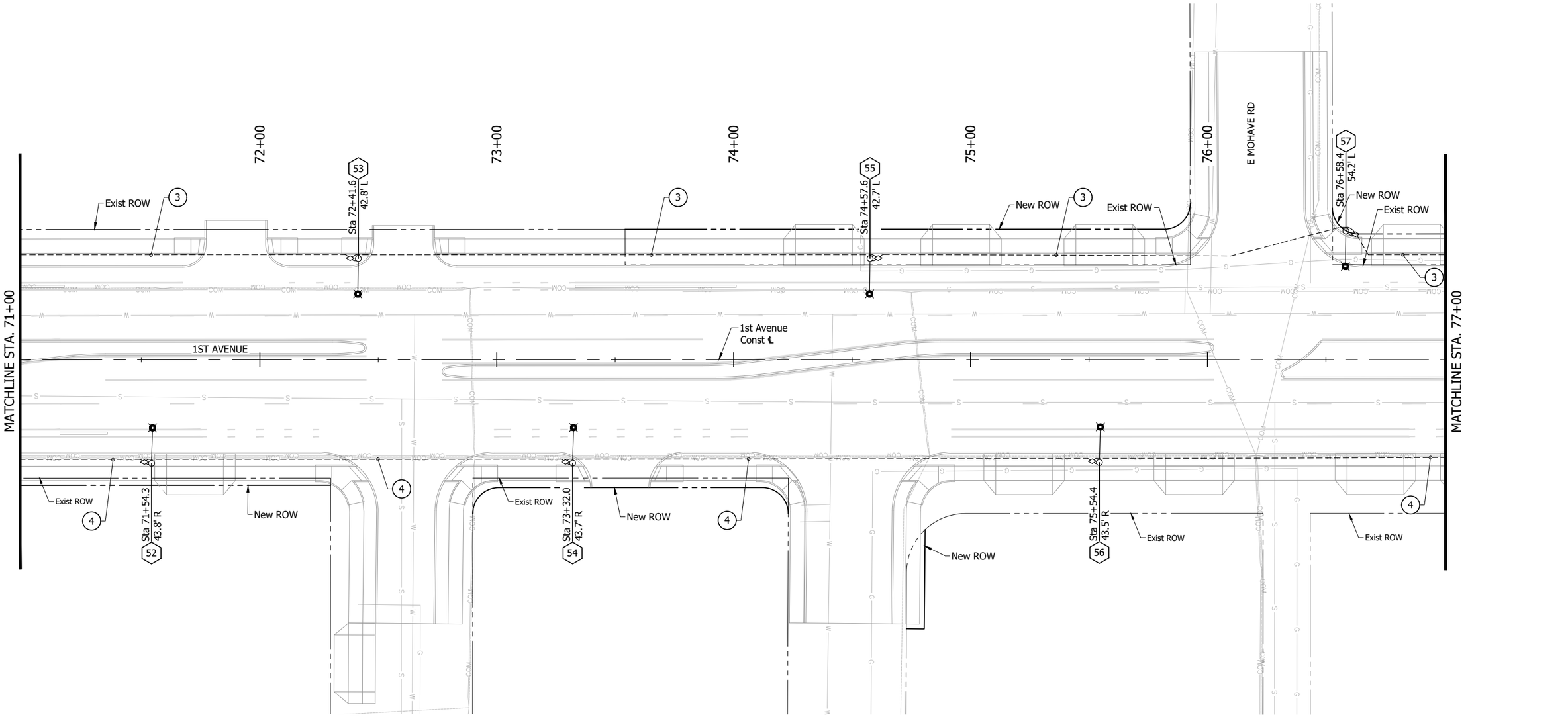
DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL17 Last Saved: Wed, 26 Aug 2026 ByBhelm Plotted:Wednesday, August 26, 2026 5:16:27 PM



Notes

(3) New 2" PVC Conduit w/ 2-#8 Conductors (Brown) 1-#8 Ground

(4) New 2" PVC Conduit w/ 2-#8 Conductors (Orange) 1-#8 Ground

20' 40'
SCALE: 1"=20'

SL18 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

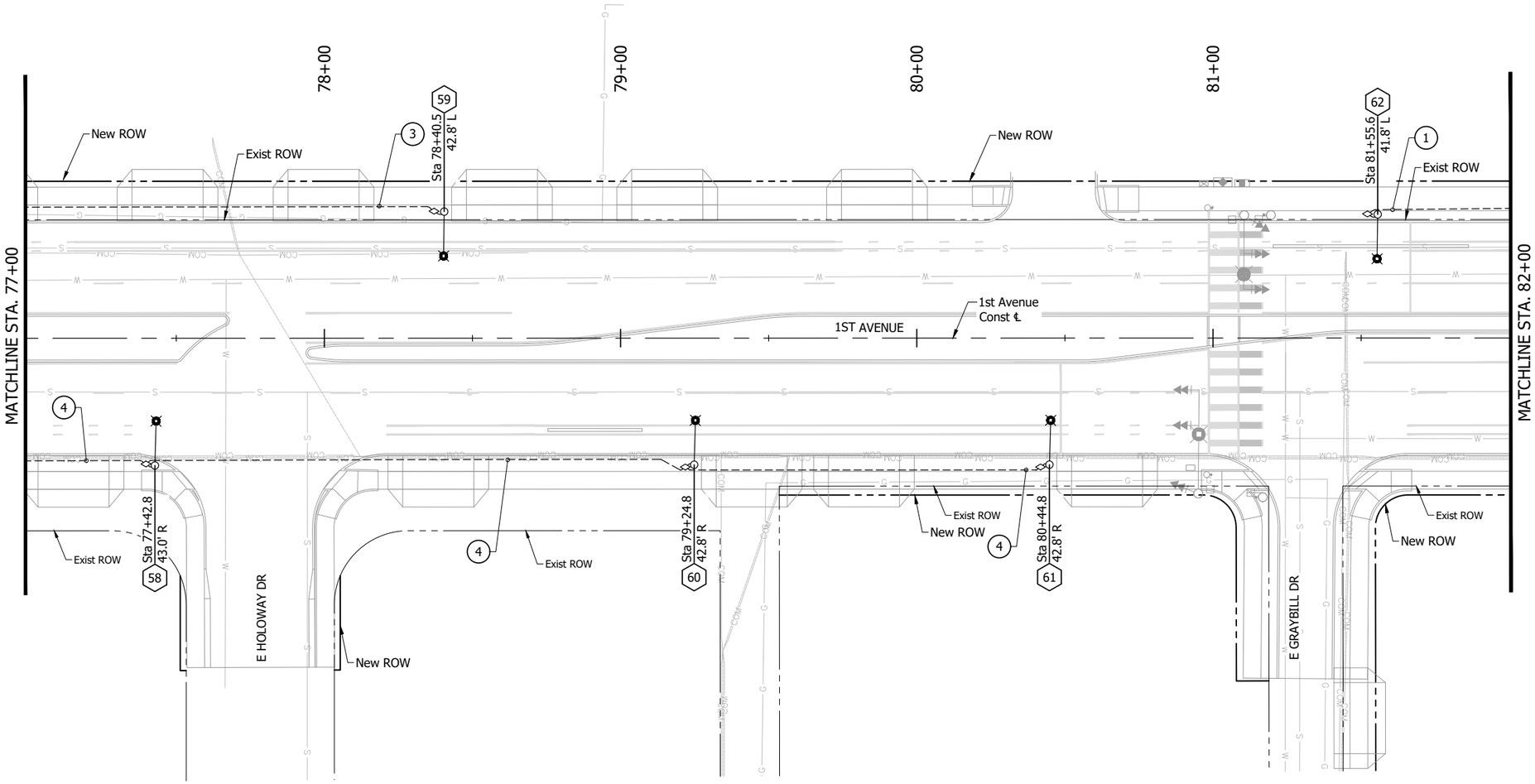
275 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26

SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL18 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:16:30 PM



Notes

1. New 2" PVC Conduit w/ 2 -#8 Conductors (Red) 1-#8 Ground
3. New 2" PVC Conduit w/ 2-#8 Conductors (Brown) 1-#8 Ground
4. New 2" PVC Conduit w/ 2-#8 Conductors (Orange) 1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL19 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

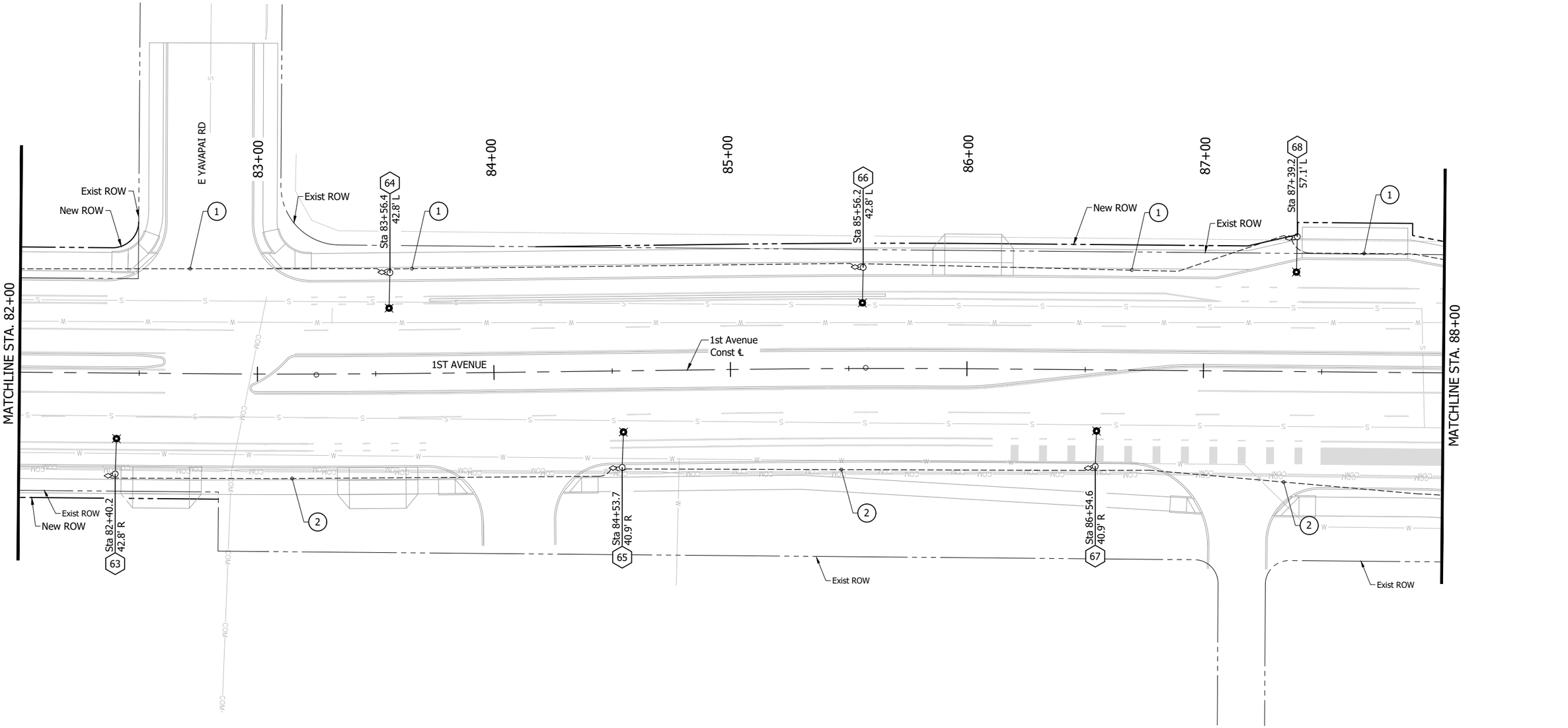
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

276 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\291.29660 – 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL19 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:32 PM



Notes

1. New 2" PVC Conduit w/ 2 -#8 Conductors (Red) 1-#8 Ground
2. New 2" PVC Conduit w/ 2-#8 Conductors (Blue) 1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL20 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

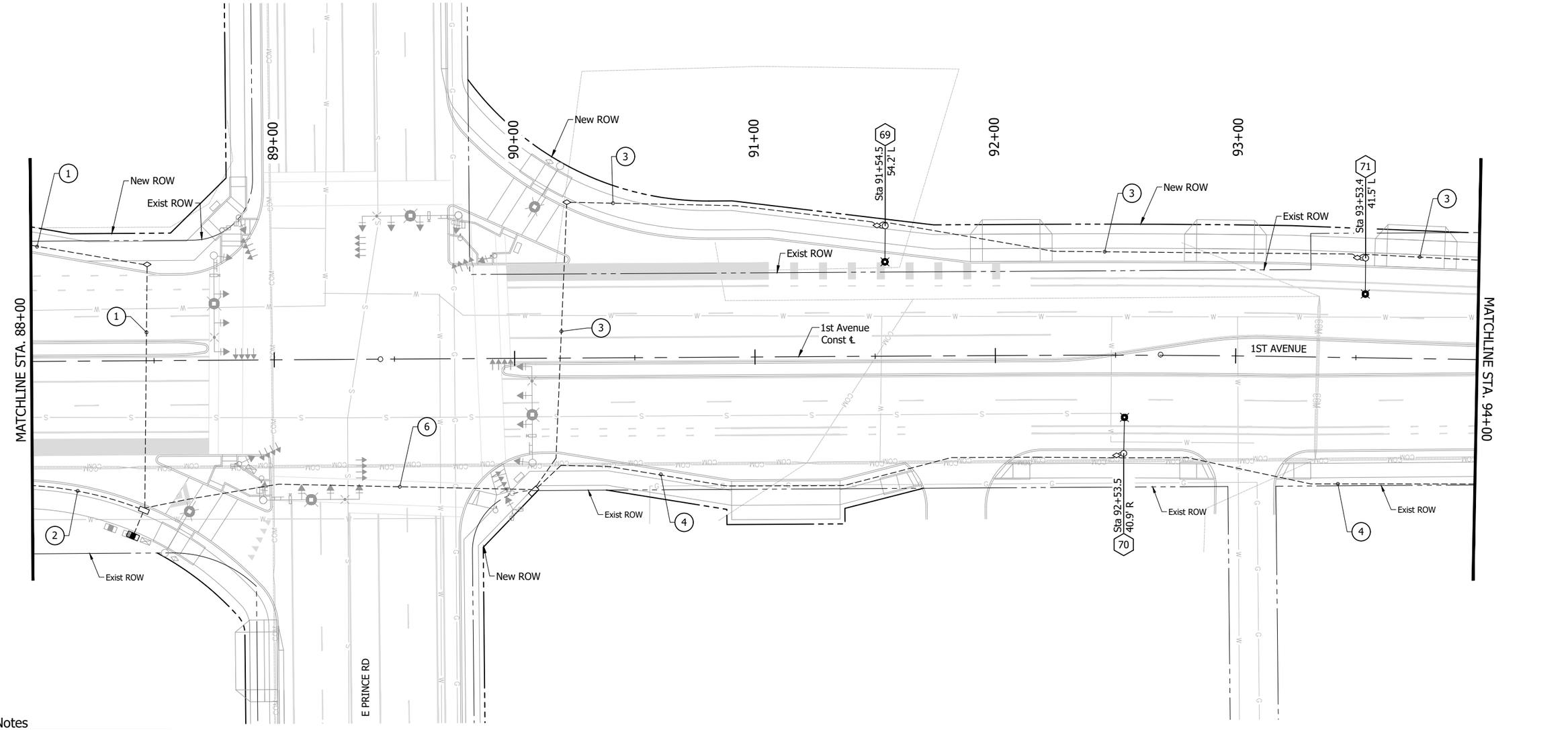
277 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26

SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 – 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL20 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted: Wednesday, August 26, 2026 5:16:35 PM



Notes

1. New 2" PVC Conduit w/ 2 -#8 Conductors (Red) 1-#8 Ground
2. New 2" PVC Conduit w/ 2-#8 Conductors (Blue) 1-#8 Ground
3. New 2" PVC Conduit w/ 2-#8 Conductors (Brown) 1-#8 Ground
4. New 2" PVC Conduit w/ 2-#8 Conductors (Orange) 1-#8 Ground
6. New 2" PVC Conduit w/ 2-#8 Conductors (Brown) 2-#8 Conductors (Orange) 1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL21 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

278 OF 504

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

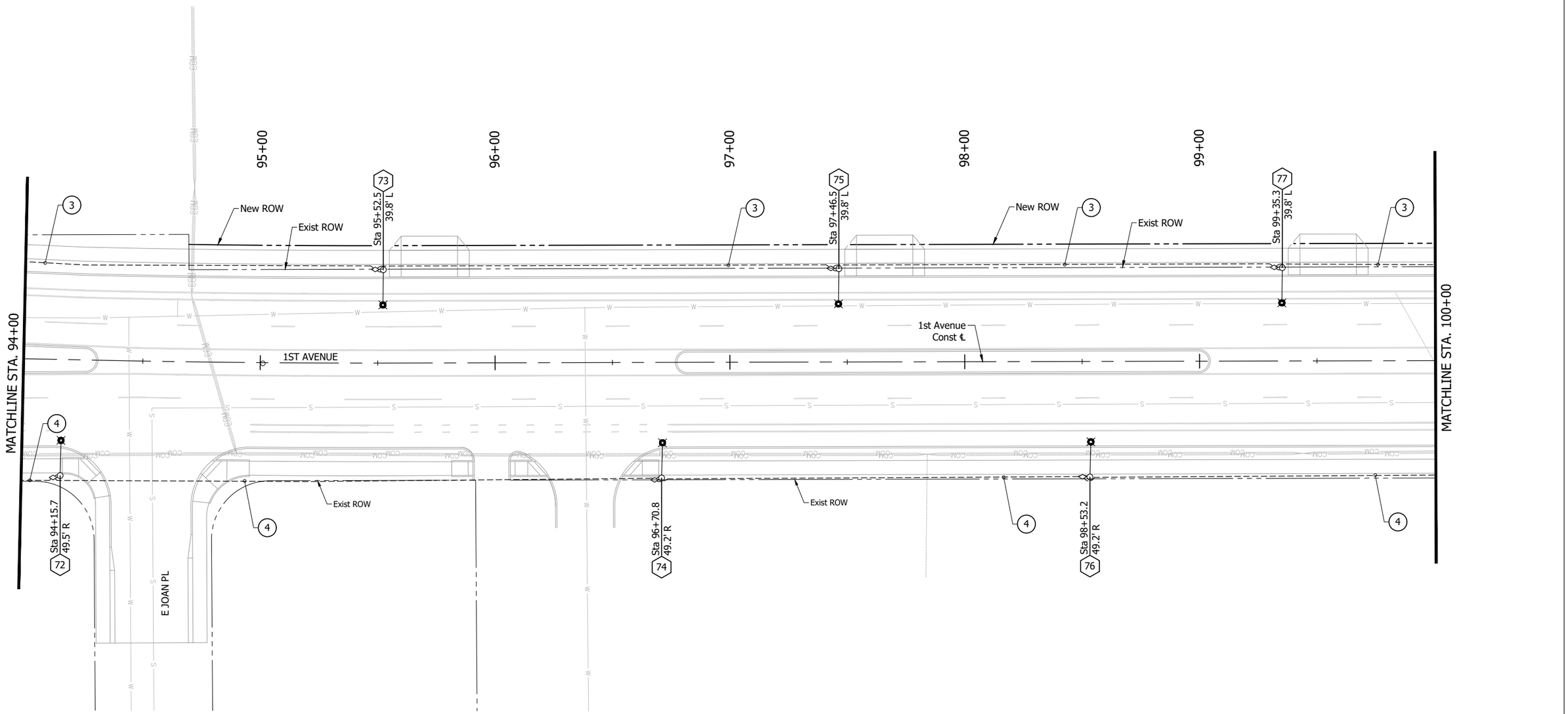
CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL21 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted: Wednesday, August 26, 2026 5:16:37 PM



Notes

(3) New 2" PVC Conduit w/
2-#8 Conductors (Brown)
1-#8 Ground

(4) New 2" PVC Conduit w/
2-#8 Conductors (Orange)
1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL22 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

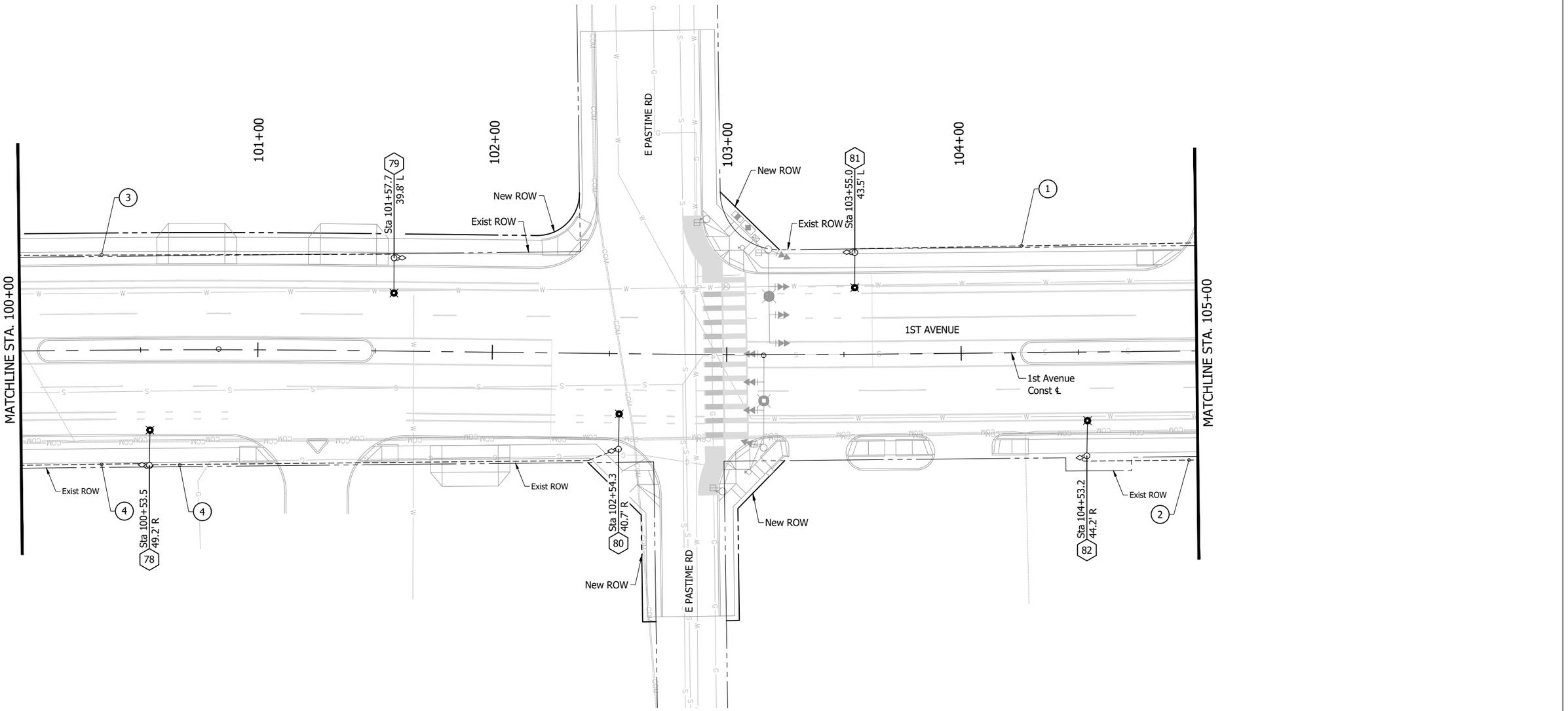
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

279 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL22 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:39 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground
2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground
3. New 2" PVC Conduit w/
   2-#8 Conductors (Brown)
   1-#8 Ground
4. New 2" PVC Conduit w/
   2-#8 Conductors (Orange)
   1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL23 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 708
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

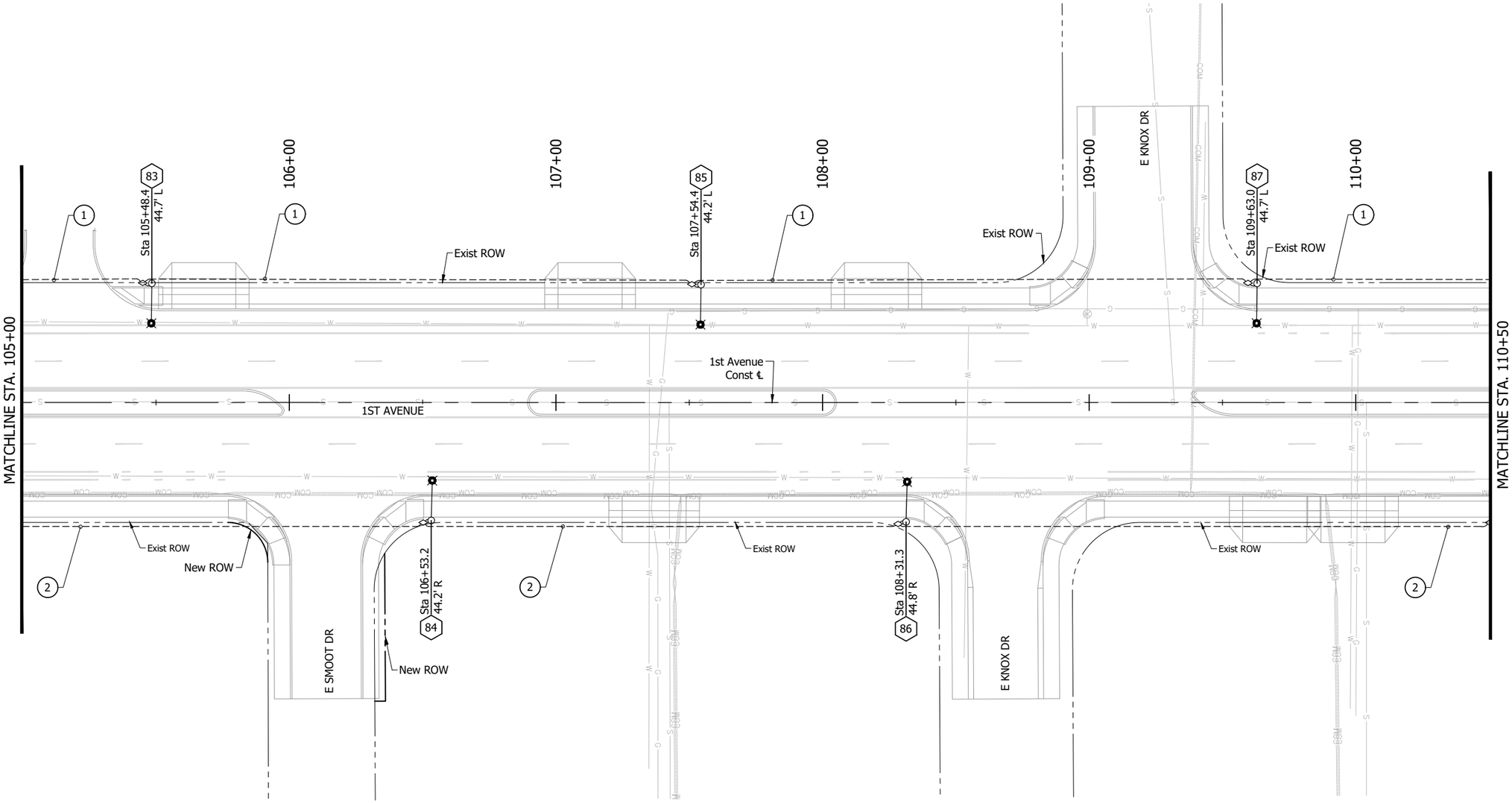
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

280 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 – 1st Avenue DOR\design_CD\29660_CD_Lighting_Plans.dwg SL23 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:41 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground
2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

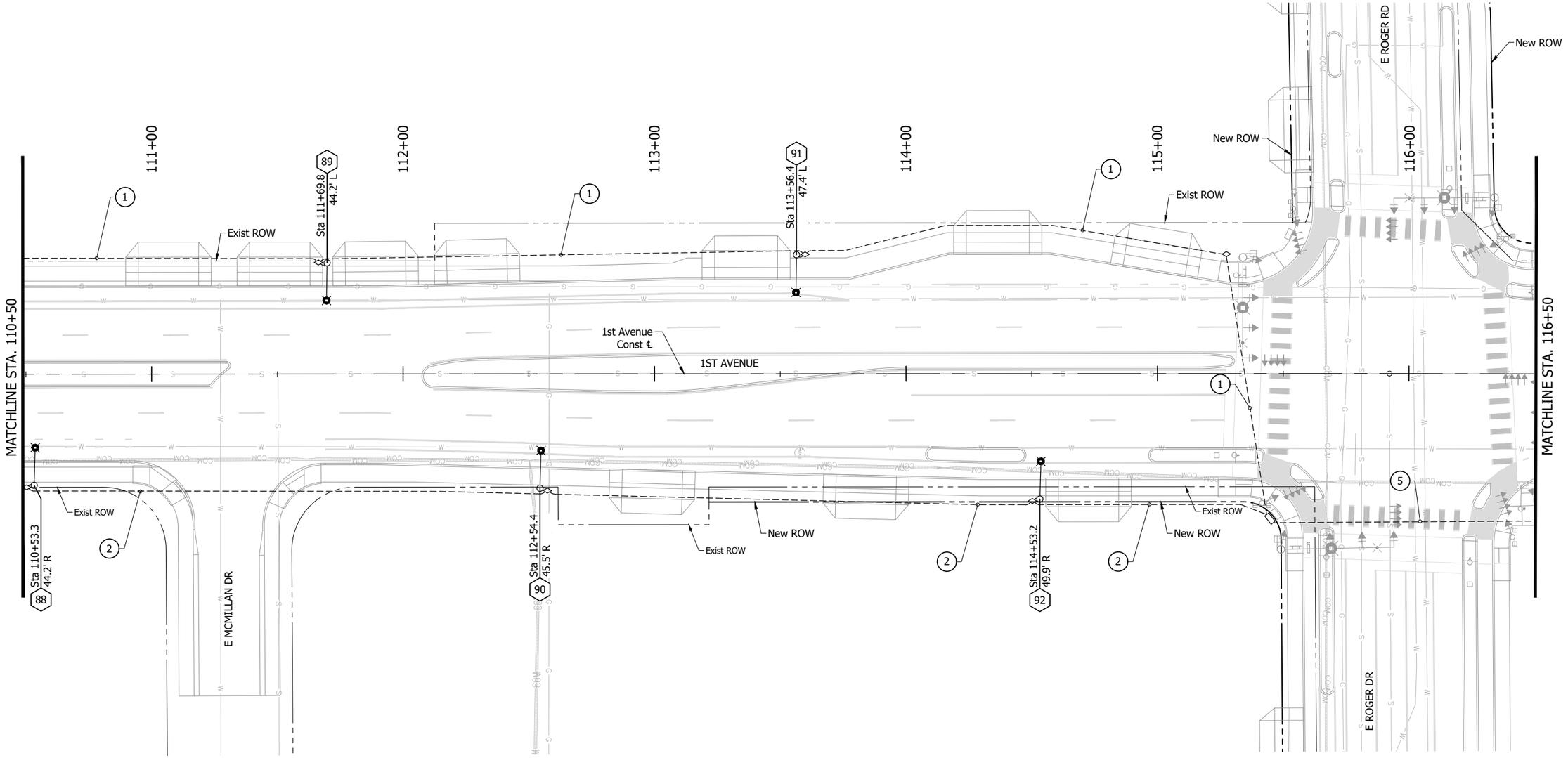
281 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

SL24 OF SL37

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL24 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:44 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground
2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground
5. New 2" PVC Conduit w/
   2-#8 Conductors (Red)
   2-#8 Conductors (Blue)
   1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL25 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 708
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

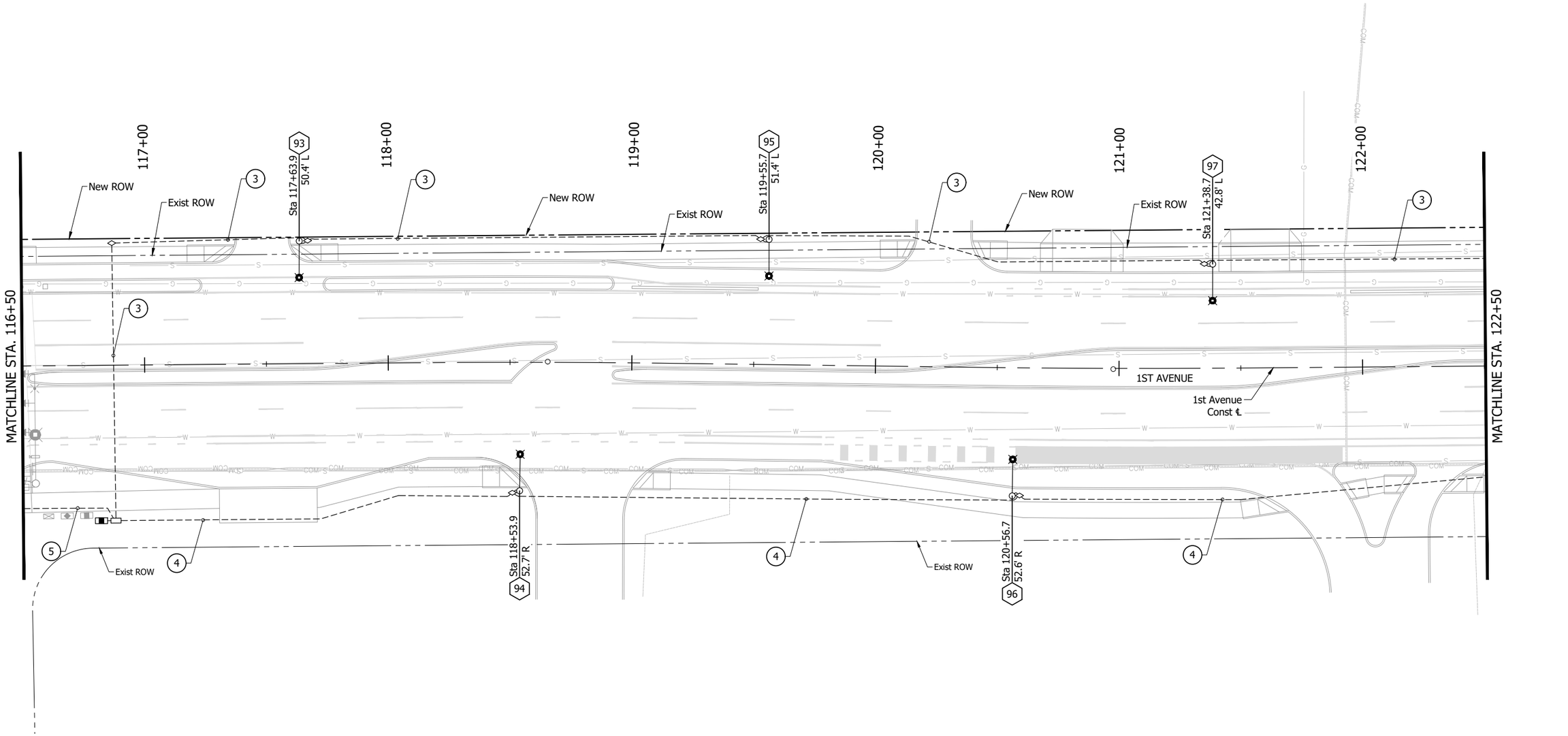
282 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26

SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL25 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:46 PM



Notes

(3) New 2" PVC Conduit w/ 2-#8 Conductors (Brown) 1-#8 Ground

(4) New 2" PVC Conduit w/ 2-#8 Conductors (Orange) 1-#8 Ground

(5) New 2" PVC Conduit w/ 2-#8 Conductors (Red) 2-#8 Conductors (Blue) 1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL26 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

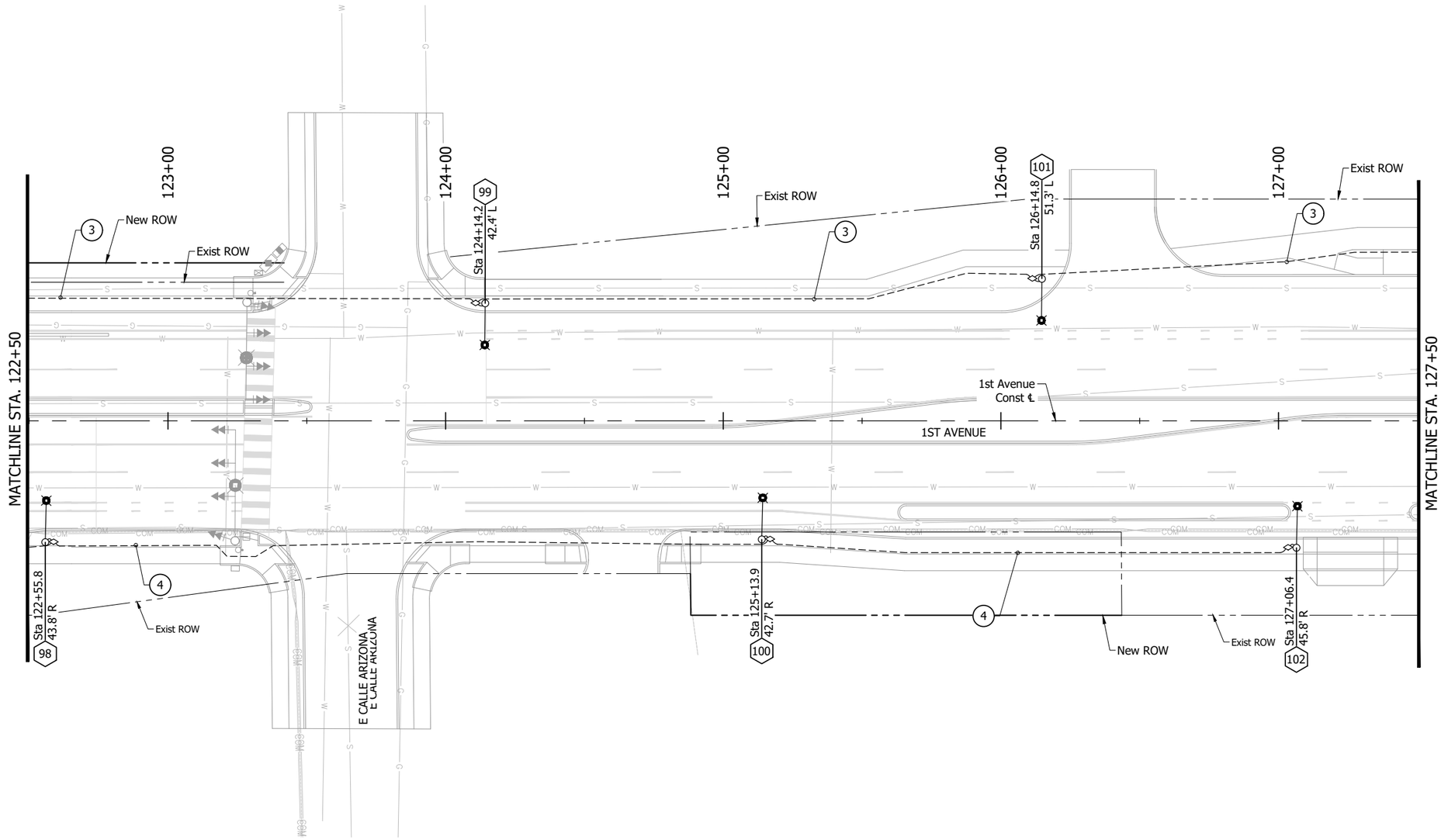
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

283 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL26 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:16:48 PM



Notes

(3) New 2" PVC Conduit w/
2-#8 Conductors (Brown)
1-#8 Ground

(4) New 2" PVC Conduit w/
2-#8 Conductors (Orange)
1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL27 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

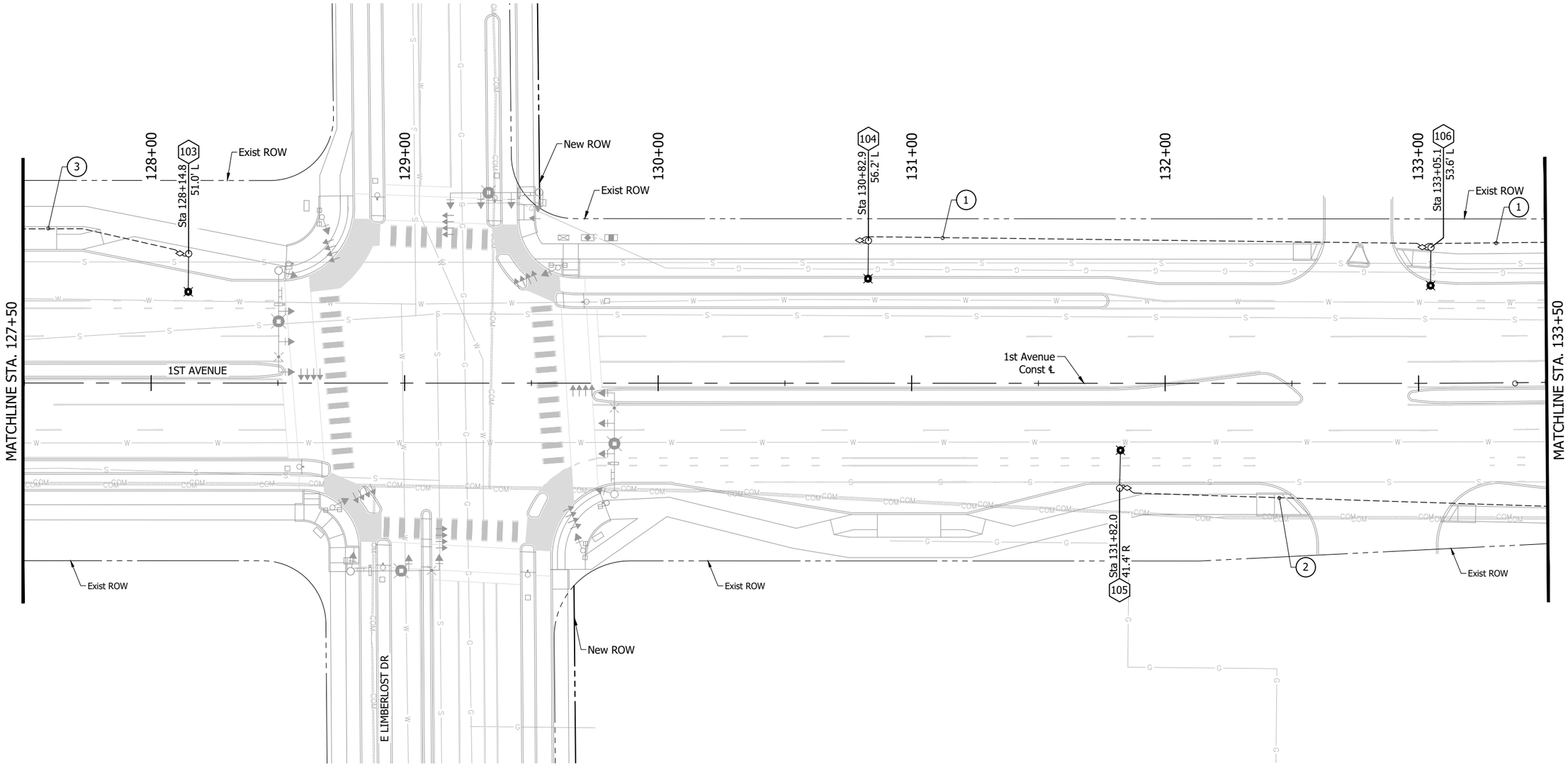
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

284 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CO\29660_CO_Lighting_Plans.dwg SL27 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:16:51 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground
2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground
3. New 2" PVC Conduit w/
   2-#8 Conductors (Brown)
   1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL28 OF SL37

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

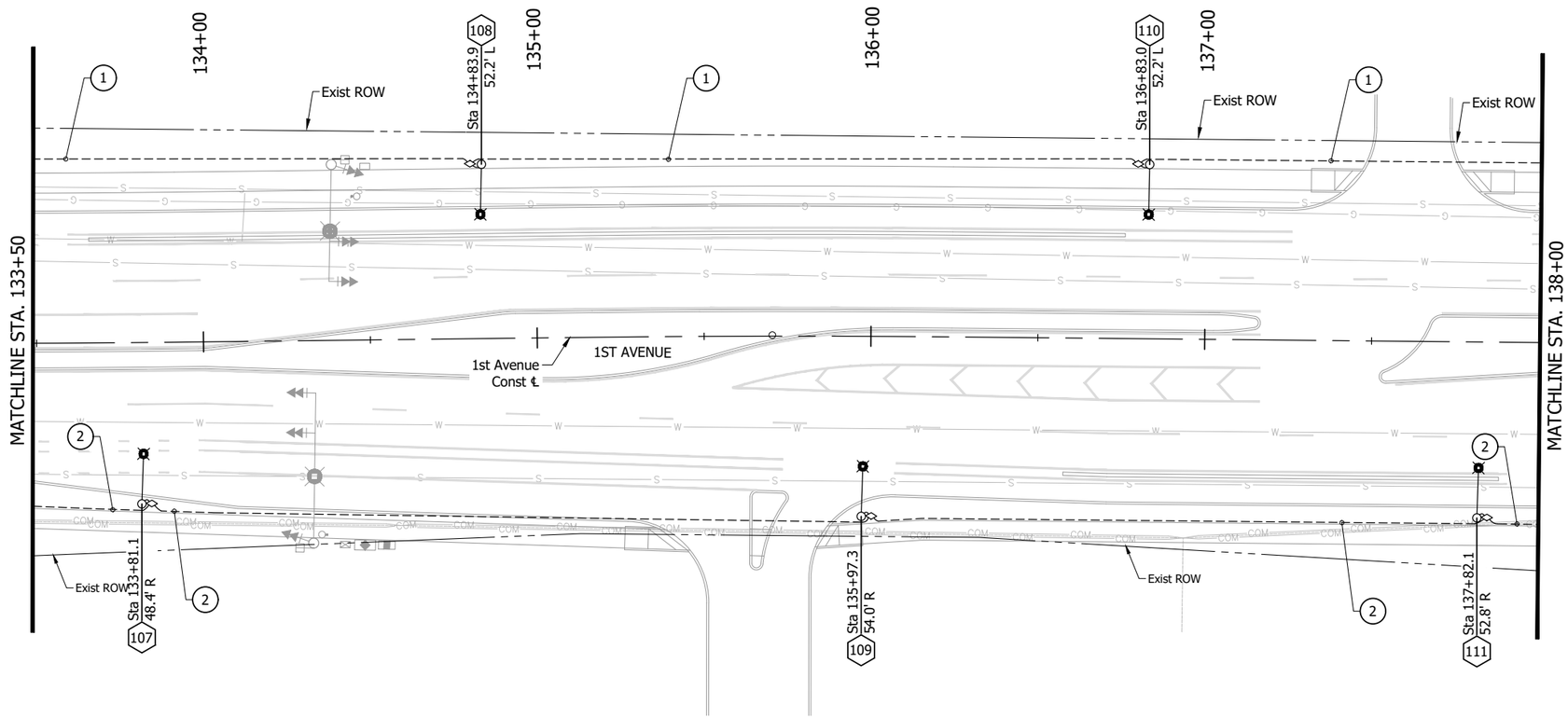
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

285 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL28 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted: Wednesday, August 26, 2026 5:16:56 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground

2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL29 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click ArizonaBlue.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

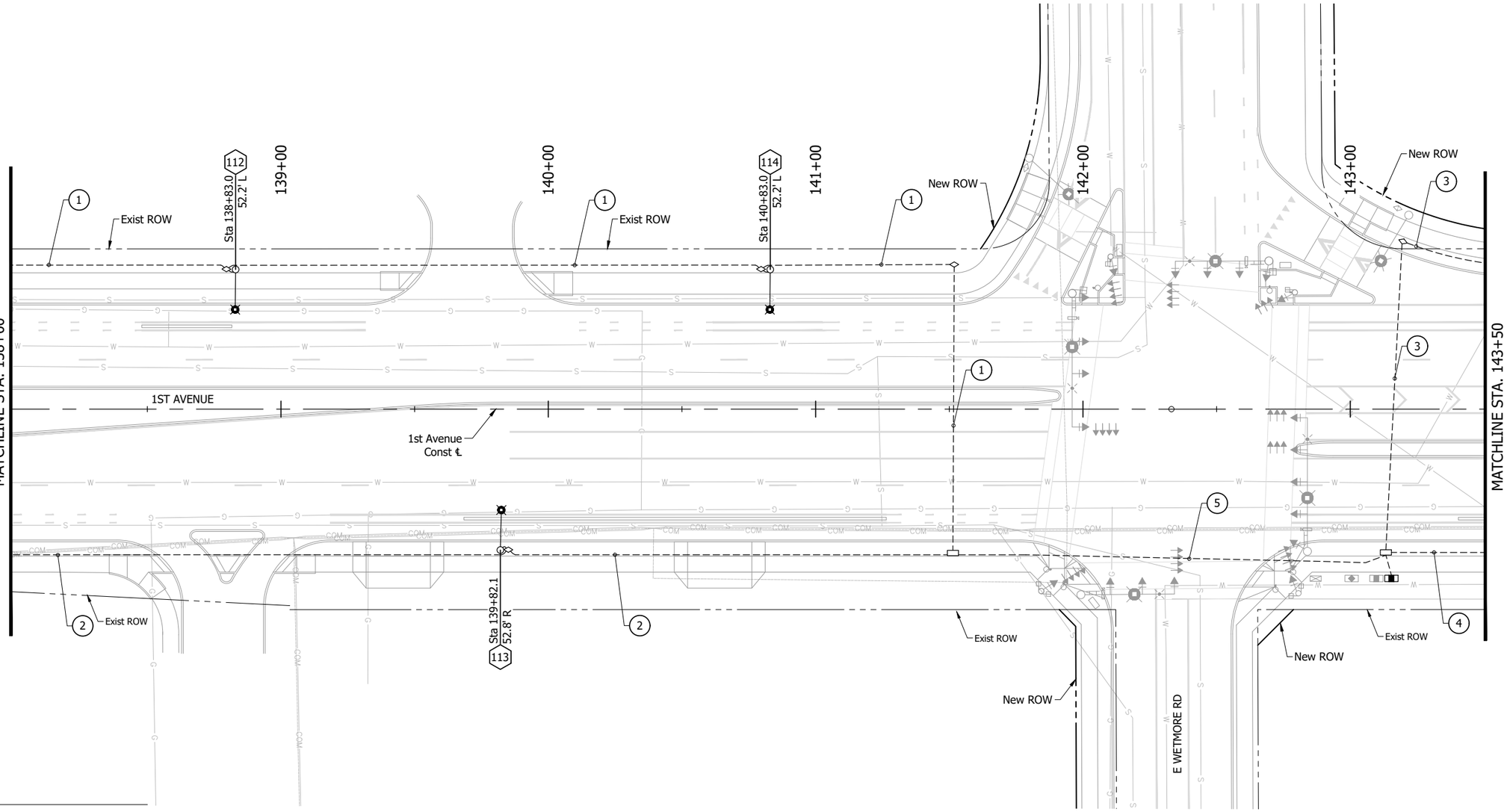
286 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26

SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL29 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:16:58 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground
2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground
3. New 2" PVC Conduit w/
   2-#8 Conductors (Brown)
   1-#8 Ground
4. New 2" PVC Conduit w/
   2-#8 Conductors (Orange)
   1-#8 Ground
5. New 2" PVC Conduit w/
   2-#8 Conductors (Red)
   2-#8 Conductors (Blue)
   1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL30 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 708
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

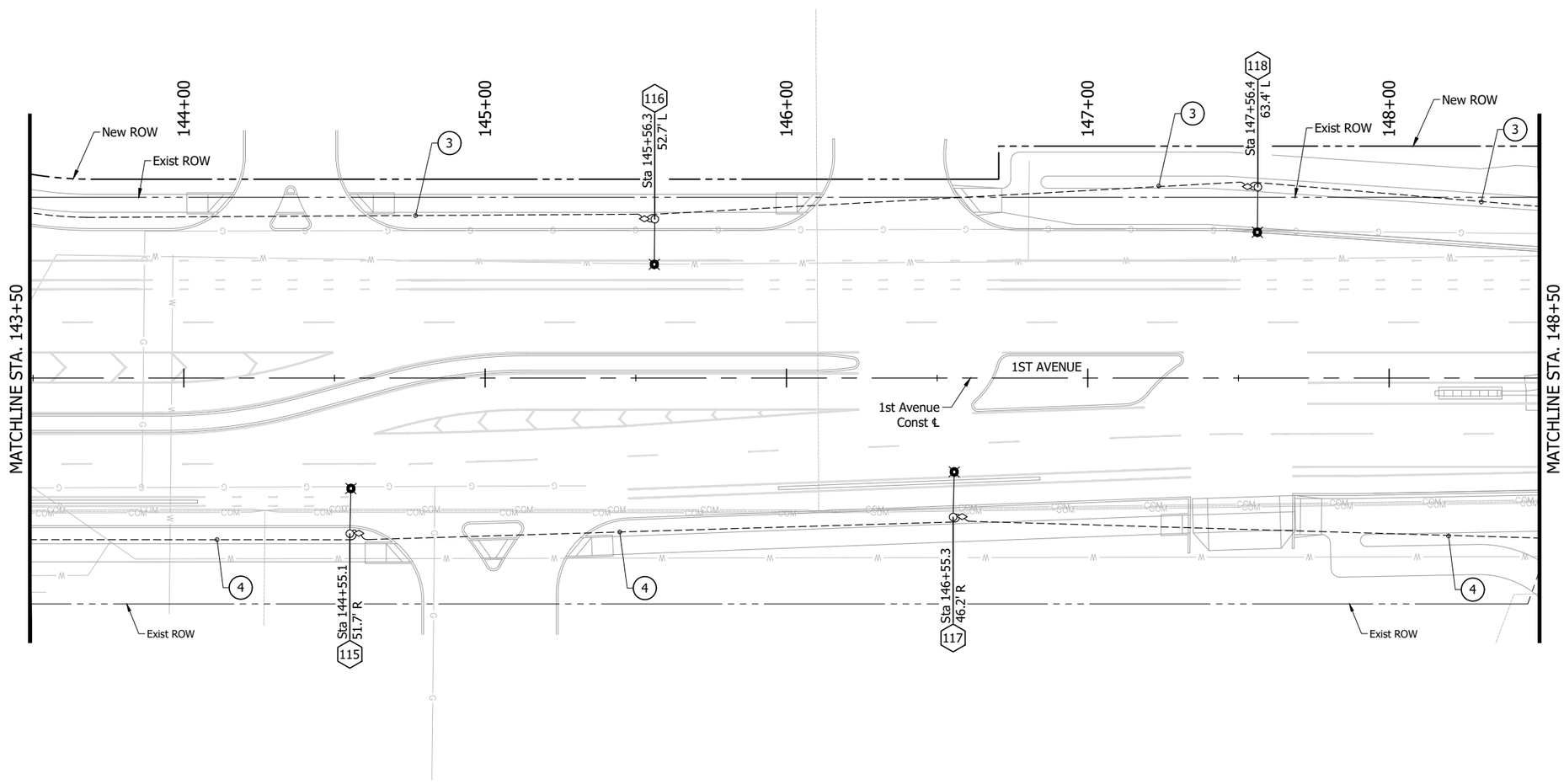
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

287 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 – 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL30 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:17:02 PM



Notes

(3) New 2" PVC Conduit w/
2-#8 Conductors (Brown)
1-#8 Ground

(4) New 2" PVC Conduit w/
2-#8 Conductors (Orange)
1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL31 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

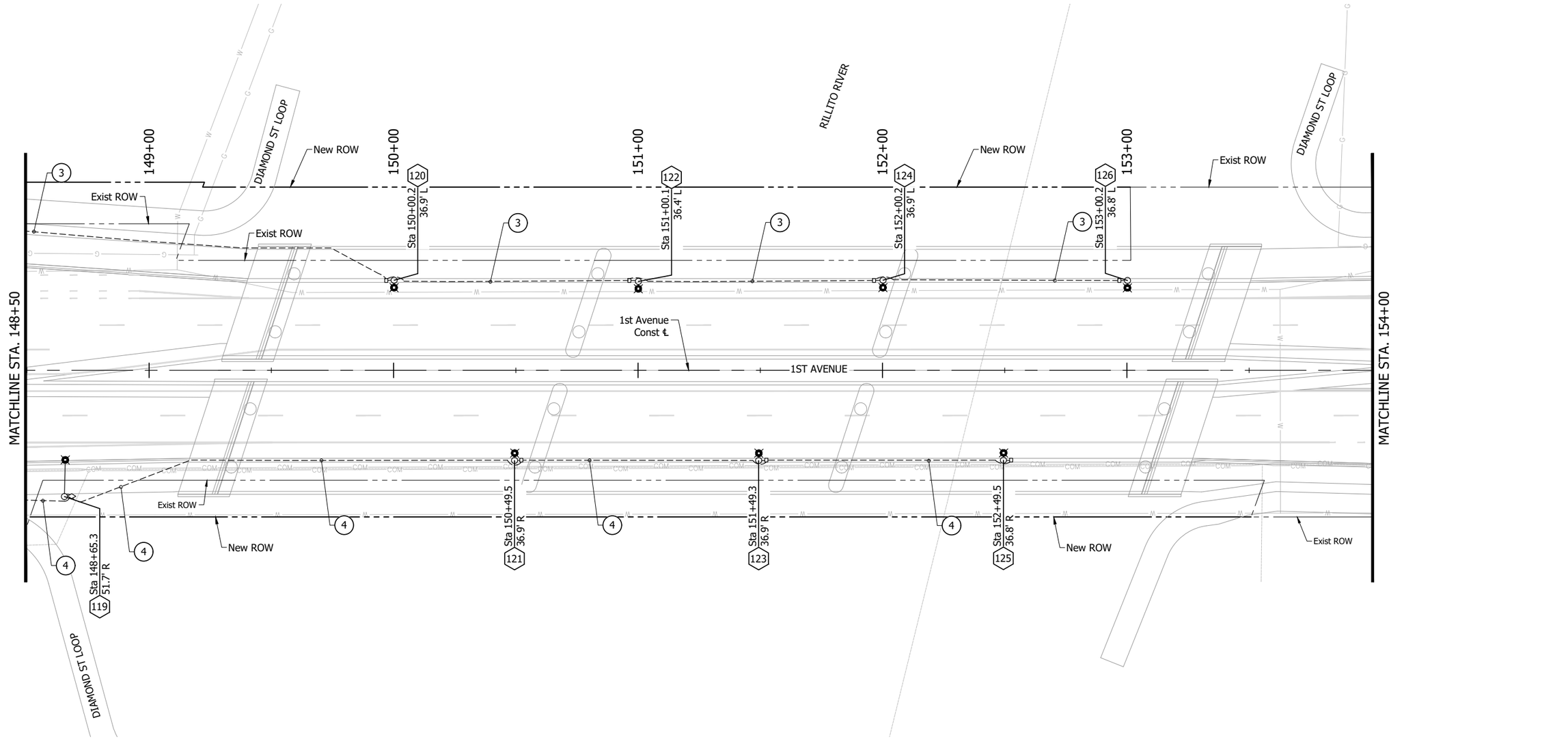
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

288 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL31 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:05 PM



Notes

(3) New 2" PVC Conduit w/
2-#8 Conductors (Brown)
1-#8 Ground

(4) New 2" PVC Conduit w/
2-#8 Conductors (Orange)
1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL32 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

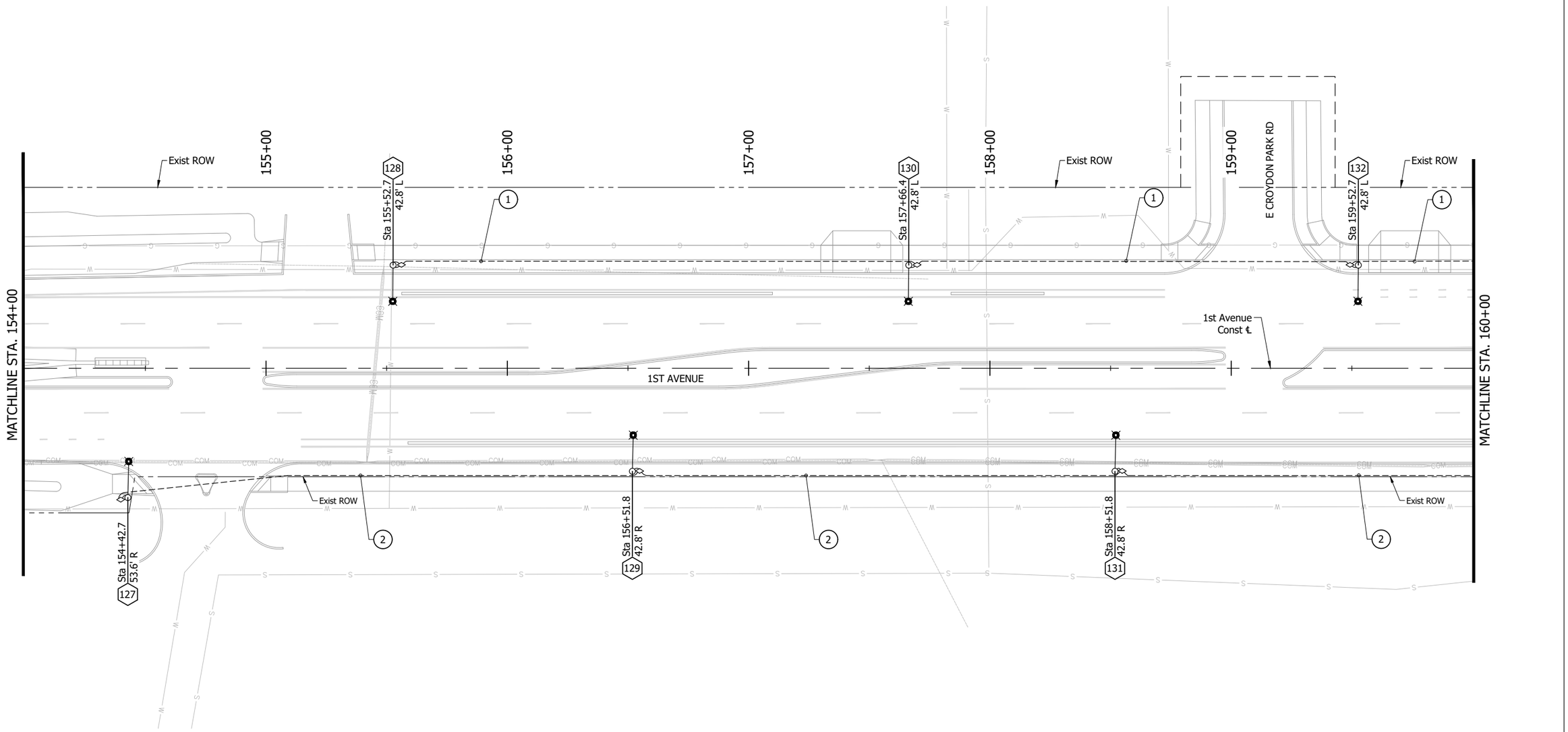
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

289 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 – 1st Avenue DCR\design_CO\29660_CO_Lighting_Plans.dwg SL32 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:07 PM



Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground

2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

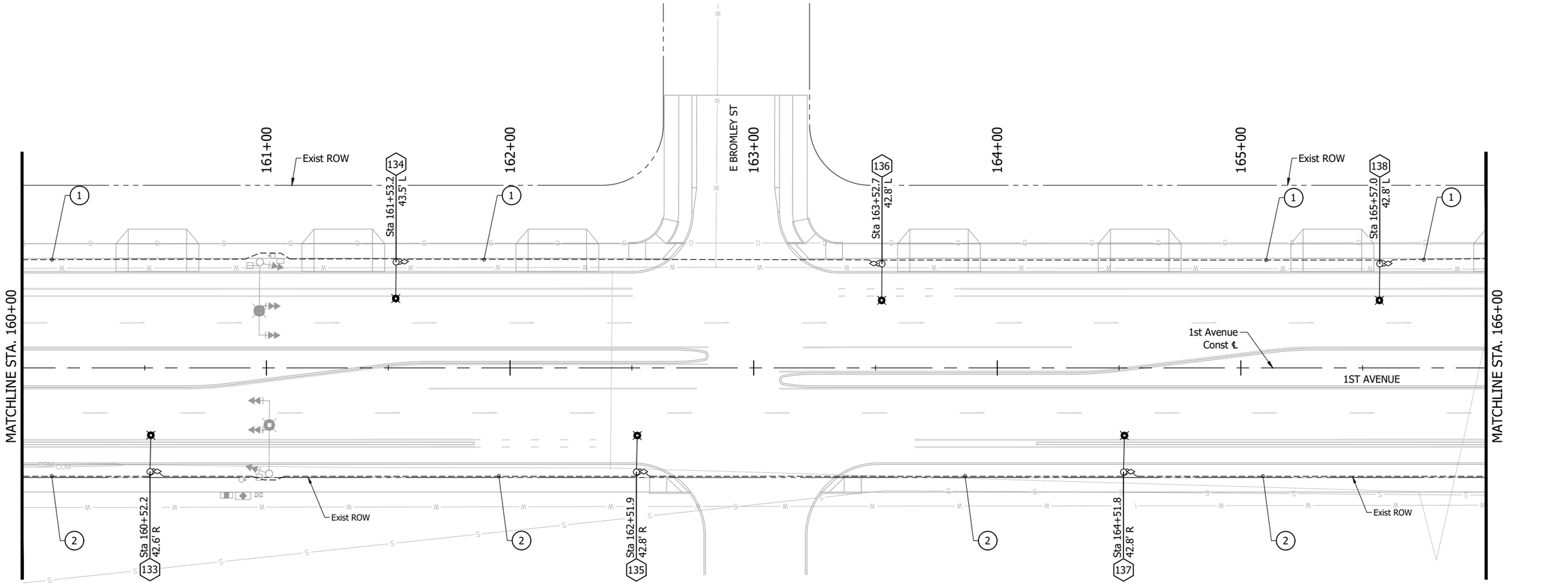
DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL33 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted: Wednesday, August 26, 2026 5:17:09 PM



0 20' 40'
SCALE: 1"=20'

Notes

1. New 2" PVC Conduit w/
   2 -#8 Conductors (Red)
   1-#8 Ground

2. New 2" PVC Conduit w/
   2-#8 Conductors (Blue)
   1-#8 Ground

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click ArizonaBlue Stake, Inc.

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

CITY OF TUCSON

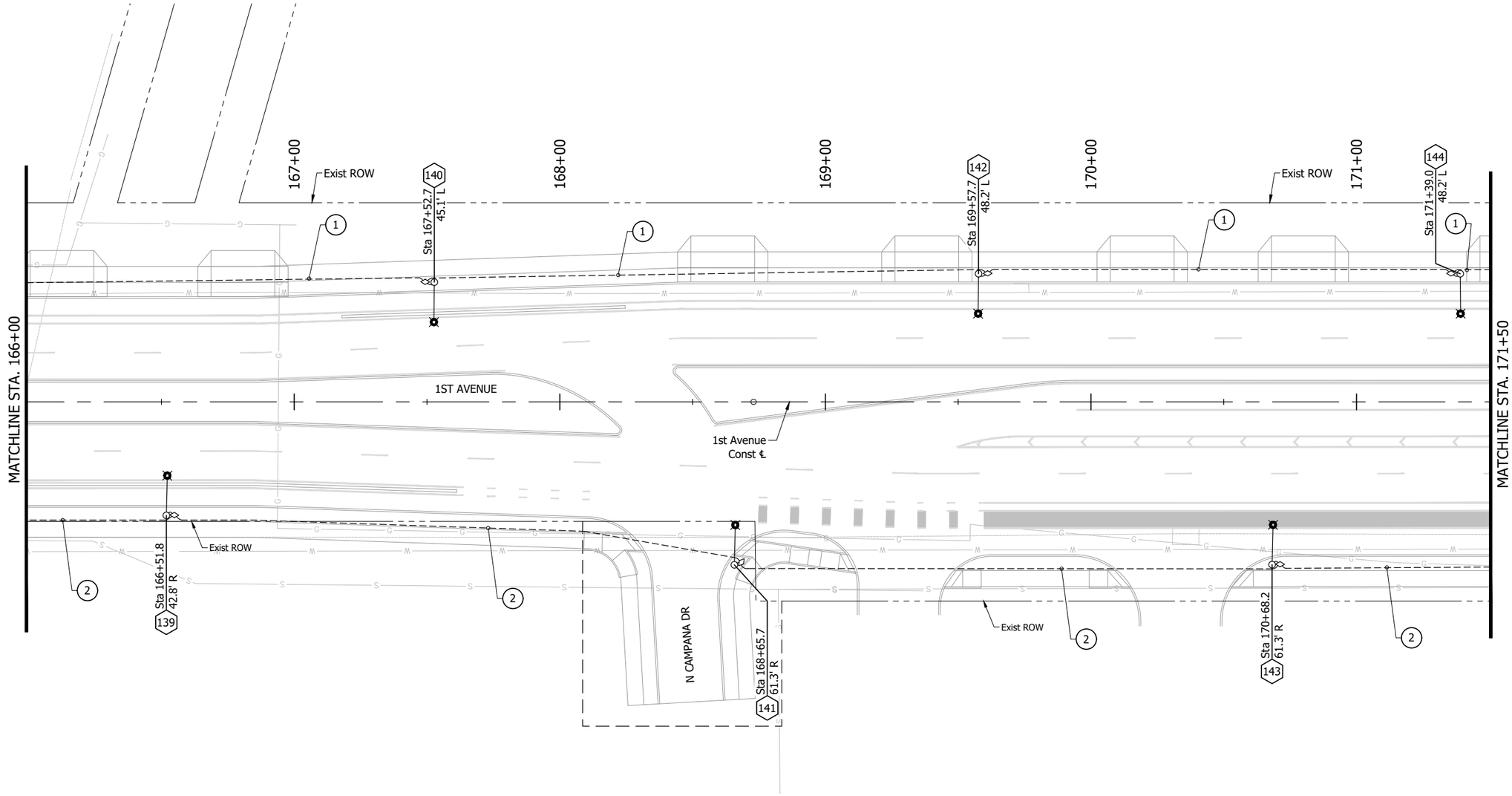
DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26

SCALE: 1" = 20'
PLAN NO. R-2024-XXX

SL34 OF SL37

291
OF
504

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL34 Last Saved: Wed, 26 Aug 2026 By:Bheim Plotted:Wednesday, August 26, 2026 5:17:11 PM



Notes

(1) New 2" PVC Conduit w/
2 -#8 Conductors (Red)
1-#8 Ground

(2) New 2" PVC Conduit w/
2-#8 Conductors (Blue)
1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL35 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

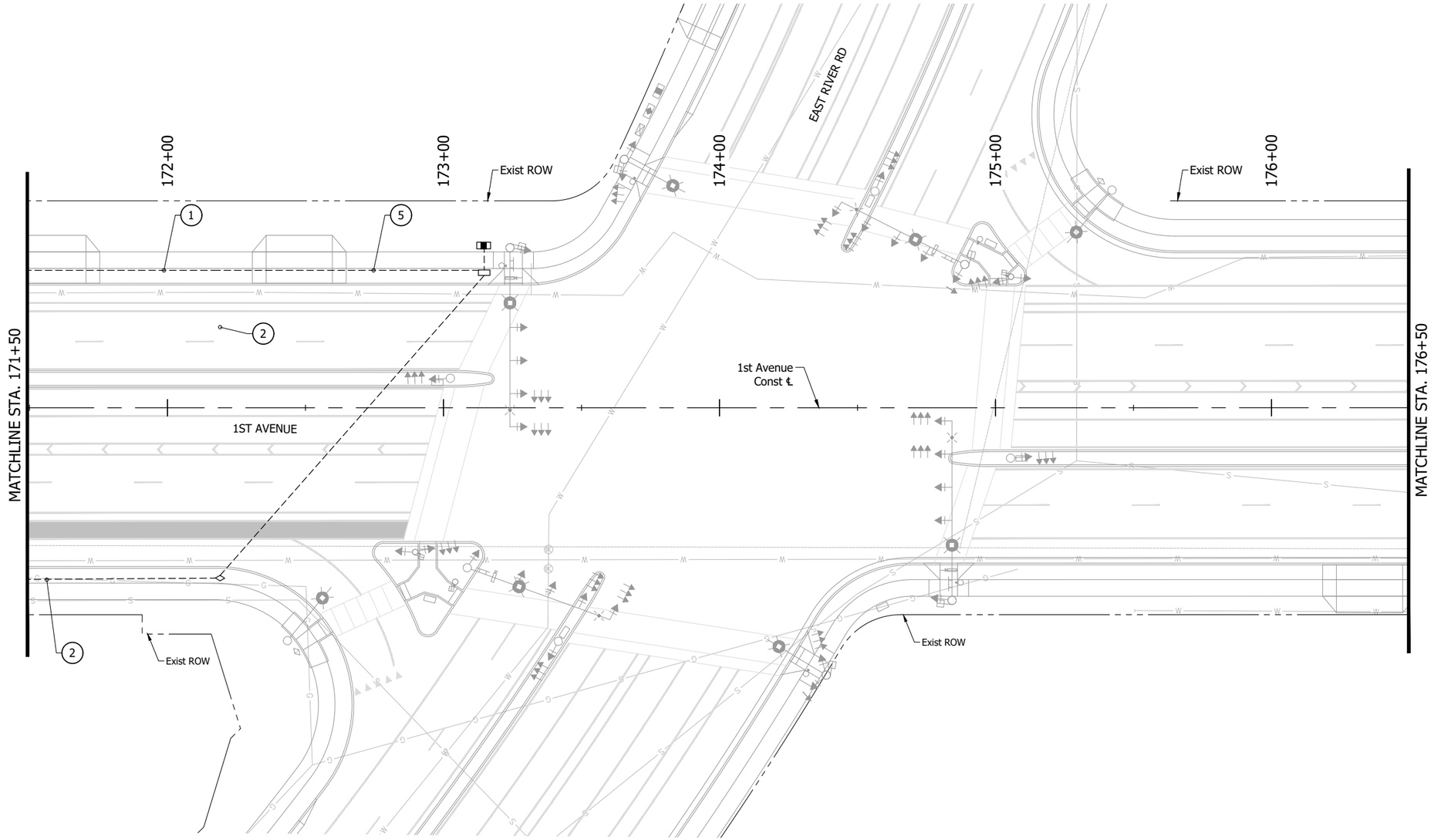
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

292 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL35 Last Saved: Wed, 26 Aug 2026 ByBhelm Plotted:Wednesday, August 26, 2026 5:17:13 PM



Notes

1. New 2" PVC Conduit w/ 2 -#8 Conductors (Red) 1-#8 Ground
2. New 2" PVC Conduit w/ 2-#8 Conductors (Blue) 1-#8 Ground
5. New 2" PVC Conduit w/ 2-#8 Conductors (Blue) 1-#8 Ground

0 20' 40'
SCALE: 1"=20'

SL36 OF SL37

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

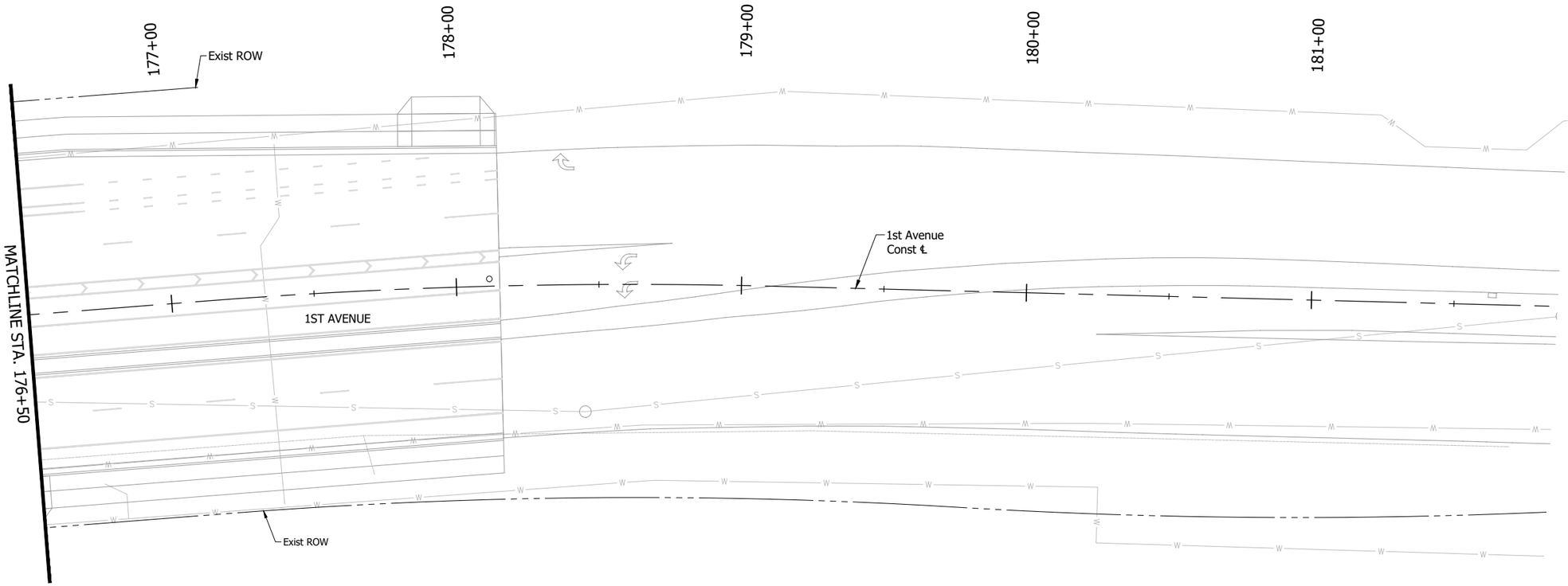
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

293 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\23\23660 - 1st Avenue DCR\design_CD\23660_CD_Lighting_Plans.dwg SL36 Last Saved: Wed, 26 Aug 2026 By:BHeim Plotted: Wednesday, August 26, 2026 5:17:15 PM



0 20' 40'

SCALE: 1"=20'

SL37 OF SL37

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Lighting_Plans.dwg SL37 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted: Wednesday, August 26, 2026 5:17:17 PM

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY

30%

REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

294 OF 504

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
LIGHTING PLANS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

GENERAL TRAFFIC SIGNAL AND LIGHTING NOTES

1. All equipment/materials and construction shall meet or exceed the current Pima Association of Governments (PAG) "Standard Specifications for Public Improvements" and "Standard Details for Public Improvements", the current MUTCD with the Arizona Supplement, the Special Provisions, and the plans.
2. The exact location of each new pole foundation and pull box shall be approved by the City of Tucson inspector prior to installation.
3. Station and offsets are to the Kino Parkway construction centerline. The exact location of each new pole foundation, pull box, controller cabinet foundation, and electric service pedestal foundation shall be approved by the City of Tucson Inspector prior to excavation and installation.
4. All pole foundations shall be installed at finished grade. If the slope of shoulder drops off from the finished grade, the contractor shall grade around the pole foundation. Refer to the PAG Standard Details for Public Improvements.
5. Only new conduit and cable shall be installed, unless otherwise specified.
6. All conduit shall be installed a minimum of 30 inches below finished grade in protected areas (behind curb) and a minimum of 36 inches below finished grade in unprotected areas, under roadways or under driveways.
7. Any conduit installed shallower than the minimum below finished grade shall be encased in concrete per PAG Standard Specification 732-3.01 (G).
8. All new and existing conduits shall be cleaned by compressed air and a properly sized conduit piston or mandrel prior to cable installation.
9. Pull boxes shall not be installed within concrete curb access ramps. In addition, any pull boxes installed behind curbs shall be installed between the curb and the proposed/future sidewalk or beyond the proposed/future sidewalk. Any pull boxes installed along an uncurbed roadway shall be installed adjacent to, but not within, the shoulder.
10. A 3/4-inch x 10-ft ground rod shall be installed in the No. 7 pull box (w/extension) adjacent to the controller cabinet. Two ground rod clamps shall be furnished for grounding the wire.
11. High voltage cables should be separated from low voltage cables as much as possible.
12. A (#14) AWG 16 conductor IMSA cable shall be installed from each traffic signal terminal strip (unspliced) to the traffic signal cabinet.
13. Conductors shall be installed from each new luminaire to the concrete pull box adjacent to the pole foundation, leaving three feet of slack for each conductor (measured from the top of the pull box) in the pull box. A 5-amp in-line fuse shall be installed for each luminaire in the associated pull box.
14. Poles with pedestrian signals and APS pushbutton stations shall use one 7-conductor IMSA cable for both the APS pushbutton station and the pedestrian signal, unless otherwise noted. The outer cable jacket shall not be removed at the hand hole height. Two conductors shall be routed to the push button station and the remaining conductors shall be routed to the pedestrian signal. The APS pushbutton station should be mounted on the same side of the pole as the pedestrian signal that it serves.
15. Coordinate the hookup of conductors and communication cables in the controller cabinet with the City of Tucson (COT) Electric Shop. Call the COT Electric Shop at (520) 791-3154 a minimum of five (5) days prior to work.
16. Contact the Tucson Electric Power (TEP) Public Improvement Coordinator Roman Felix at (520) 918-8359 for electric service hookup. The contractor shall be responsible for excavating and backfilling the trench, installing any necessary sleeves under sidewalk or driveways and supplying a galvanized sweep and riser for the electric service cable to be installed by TEP.
17. The contractor shall take precautions not to damage water facilities, sanitary sewer pipelines, and dry utility facilities that are in the area of construction. The contractor will be responsible for any damage.
18. At pole foundations close to existing water mains, sewer lines, and manholes, maintain a minimum of five (5) feet horizontal distance from outside of the foundation wall to the outside of pipe wall. PCRWRD requires the contractor to submit a Wastewater Flow Management Plan for new pole foundations that encroach the sewer impact zone. See PCRWRD SSDC 202, Section 2.2.1 for more information.
19. Minimum horizontal separation between existing water mains and electrical conduit is five (5) feet from outside water line to outside of electrical conduit. Minimum vertical separation is one (1) foot from outside water line to outside electrical conduit.
20. The location of all utilities shown on the plans is approximate. The contractor shall pothole existing utilities within the vicinity of pole and cabinet foundations prior to excavation. This work shall be considered incidental to the pole foundation work.
21. The contractor shall contact Arizona 811 at 1-800-782-5348 a minimum of 48 hours prior to any excavation.
22. The contractor shall support and protect in place all water facilities that are exposed during the installation of the traffic signal improvements associated with the project. Any damage to water facilities resulting from the installation of the project improvements shall be replaced in kind by the contractor and at the contractor's expense.
23. The traffic signal operation at existing signalized intersections shall be maintained throughout the duration of the project.
24. All signal housings shall be aluminum and yellow that are to be mounted on the mast arms, all other housings shall be poly carbonate and yellow that will be side mounted. All back plates shall be five inches (5"), black, louvered aluminum with reinforced 90-degree bent edges. All back plates shall have a two-inch (2") yellow retro reflective border. All visors shall be yellow (tunnel style) and of the material that the signal housing is made of and approved by the City of Tucson Traffic Engineer or his/her designee prior to ordering and installation.

UNDERGROUND FACILITIES

Two full working days before beginning any excavation, the contractor shall contact Arizona 811 at 1-800-782-5348 to request marking of underground facilities. Underground facilities shall be exposed and located in accordance with A.R.S. 40-360.21 through 360.29.

OVERHEAD POWER LINES

The contractor's attention is directed to A.R.S. 40-360.41 through 360.44 for restrictions on work in the vicinity of overhead power lines. The contractor shall not operate power equipment placed so that any extension of the equipment and/or load carried by the equipment can reach to within ten (10) feet of active power lines rated at or under 50 kilovolts. Greater clearances apply for higher voltage power lines. Where work within the clearance limits is necessary, the contractor shall contact TEP ten (10) working days in advance of the proposed work, to arrange for temporary deactivation, or other measures deemed necessary to permit safe operation near the overhead lines. Where excavation near existing power poles is planned, the contractor shall contact TEP ten (10) working days in advance, to arrange for bracing and shoring. Before the end of the work shift each day, the contractor shall provide drivable access to all TEP poles, equipment, and facilities.

LEGEND	PROPOSED	EXISTING
Traffic Control Cabinet with Foundation		
Metered Service Pedestal with Foundation		
Traffic Signal Pole		
Traffic Signal Face		
Pedestrian Signal		
Bicycle Signal		
Pushbutton		
Luminaire Pole		
Pull Box No. 3-1/2		
Pull Box No. 5		
Pull Box No. 7		
Pull Box No. 7 with Extension		
Street Name Sign		
Emergency Vehicle Preemption Sensor		
Emergency Vehicle Preemption Beacon		
Video Detection Camera		

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4667 F 520.544.9515

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

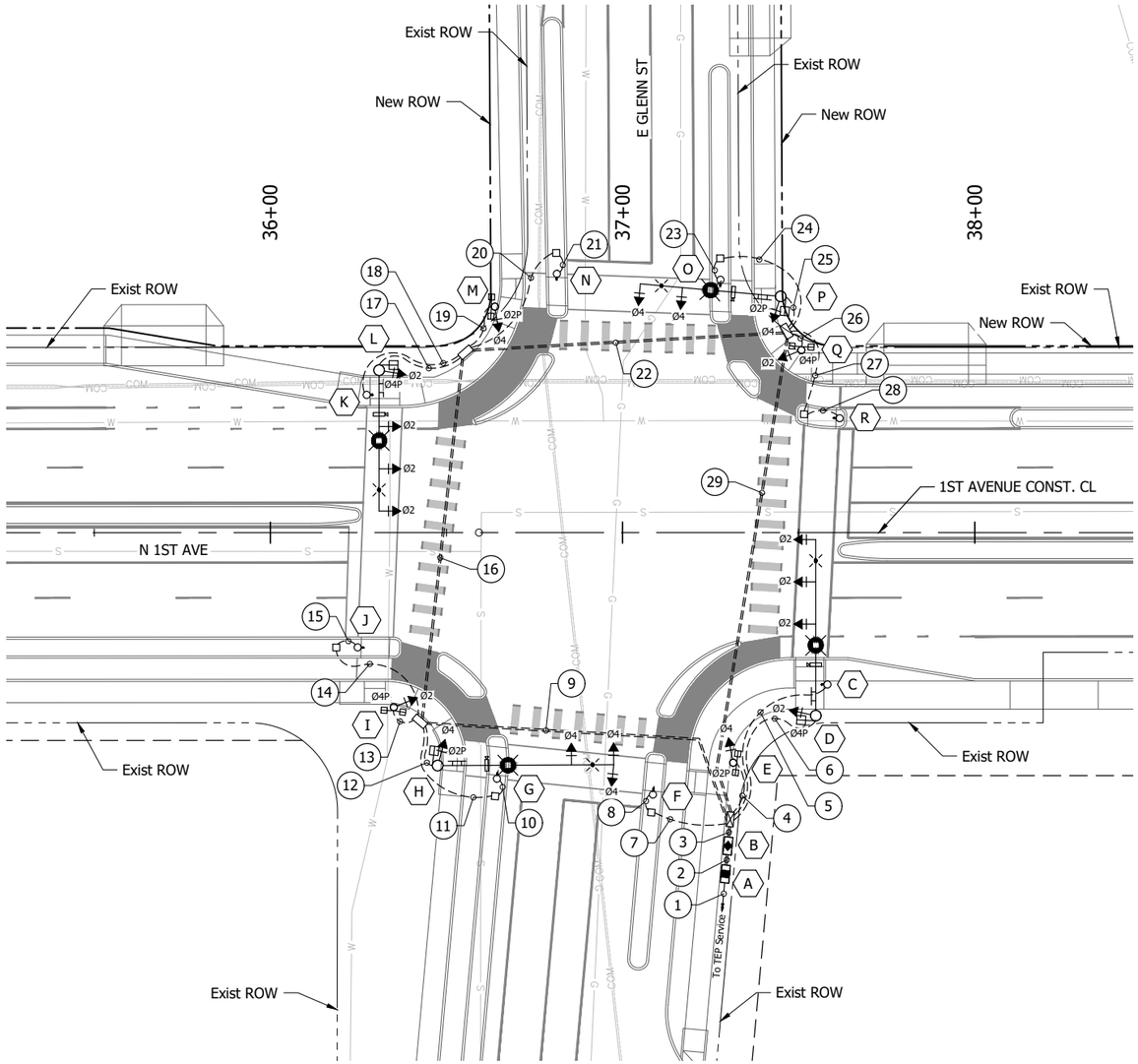
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

295 OF 504

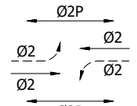
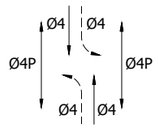
CITY OF TUCSON

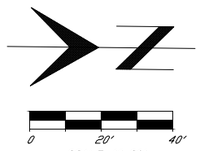
DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG01 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:19 PM



PROPOSED TRAFFIC SIGNAL PHASING

Ø2	Ø4
	



KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

CITY OF TUCSON

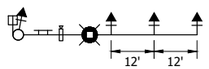
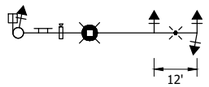
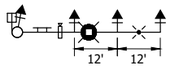
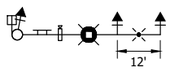
DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

296 OF 504

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG02 Last Saved: Wed, 26 Aug 2026 By:Bheim Plotted:Wednesday, August 26, 2026 5:17:21 PM

CABINET AND POLE SCHEDULE

CABINET	TYPE	CONTROLLER	AUX CONTROLLER	FOUNDATION	REMARKS	STATION, OFFSET
A	UPS/METERED SERVICE	MYERS UPS (MEUG35-UPS-200-AZ)	-	T1801	UPS/ELECTRICAL SERVICE PEDESTAL AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. FOUNDATION DIMENSIONS AND BOLT PATTERN SHALL BE DETERMINED BY THE PEDESTAL MANUFACTURER'S SPECIFICATIONS. SEE NOTE 14	
B	CONTROLLER CABINET TYPE V T 313	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER	-	T203	CONTROLLER CABINET, CONTROLLER, AUXILIARY/INCIDENTAL EQUIPMENT, FOUNDATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR SEE NOTE 14	

POLE		MAST ARMS		SIGNALS		PED. P.B. TYPE/SIGN	LUMINAIRE	REMARKS	STATION, OFFSET
NUMBER	TYPE	SIG	LUM	FACE	MTG				
C G K O	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101	-		
D 	R T413	50'	20'	(1) PED (1) F (3) F	(1) XI (1) V (3) II	-	ATB2 SEE NOTE 9	INSTALL: PHOTOCELL ON TOP OF LUMINAIRE. VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. E GLENN ST SIGN.	
E I M Q	A (10') T401	-	-	(1) F (1) PED (1) BIKE	(1) IV (1) XI (1) XI	-	-		
F J N R	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
H 	R T413	50'	20'	(1) PED (1) F (3) F	(1) XI (1) V (3) II	-	ATB2 SEE NOTE 9	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. 1ST AVENUE SIGN.	
L 	R T413	40'	20'	(1) PED (1) F (3) F	(1) XI (1) V (3) II	-	ATB2 SEE NOTE 9	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. 1ST AVENUE SIGN.	
P 	R T413	40'	20'	(1) PED (1) F (2 F	(1) XI (1) V (2) II	-	ATB2 SEE NOTE 9	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. E GLENN ST SIGN.	

CABINET AND POLE SCHEDULE NOTES:

1. *All new pedestrian pushbutton assemblies shall be an APS (audio vibrotactile type) pushbutton, Campbell Company Guardian 912 Yellow with bluetooth and wave feature or approved equal. Locations of pushbuttons shall comply with the requirments of the Americans with Disabilities Act (ADA).*
2. *Centers of pedestrian pushbuttons shall be at a height of 42 inches above finish grade of adjacent area that is accessible per ADA standards.*
3. *Pushbutton signs shall be type R10-4b, as shown in PAG Std. Dtl. TS 1104. Arrows shall point left (L), right (R), or both ways (B), as indicated in cabinet and pole schedule.*
4. *All pushbutton signs shall fit the pushbutton housing without overhangs or overlaps. All pushbutton signs shall be aluminum with Type XI (Diamond) Grade sheeting.*
5. *All pedestrian signal faces shall be LED countdown signals.*
6. *All vehicular indications shall be LED.*
7. *Station/offsets are to the 1st Avenue centerline. The exact location and elevation of each pole and cabinet shall be approved by the City of Tucson Electrical Inspector prior to installation.*
8. *Fire pre-emption system (TOMAR M913) shall include 4-Strobecom II 4090-1-ST-IC-W detectors with 4140V2-4 optical signal processor card. Pre-emption sensor cable shall run from sensor to controller unspliced.*
9. *Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000KCCT with 7-pin Road Node connector.*
10. *Street name signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest editions of the Pima County and City of Tucson Traffic Signing Design Manual, the PAG Standard Specifications, and these plans.*
11. *Street name signs shall be flag mounted from signal pole at a minimum of 24 feet above the pavement using approved mounting hardware. Refer to Std Detail 4.6 of the Pima County and City of Tucson Traffic Signing Design Manual.*
12. *Street name sign sheeting shall be Type XI or equivalent.*
13. *The City of Tucson shall review and accept the cabinet, controller, UPS, and all auxiliary equipment located within cabinet.*
14. *The City of Tucson shall review all submittals before equipment is ordered-including cabinets, controllers, monitors, UPS, and video detection units- to ensure they meet with city of City of Tucson specifications.*

TO BE COMPLETED AT THE NEXT SUBMITTAL

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

297 OF 504

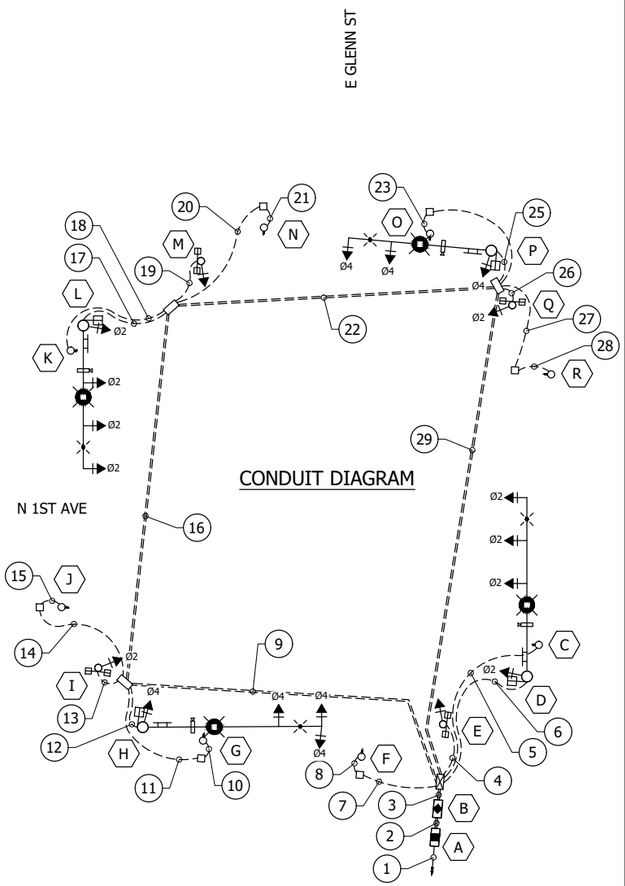
CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29_29660 – 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG03 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:17:21 PM

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT RUN NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
CONDUIT SIZE (INCHES)		2.5	2	4 (2)	2	2	3	2	2	4 (2)	2	2	3	2	2	2	4 (2)	3	2	2	2	2	4 (2)	2	2	3	2	2	2	4 (2)
CIRCUIT PHASE		SERVICE CONDUCTORS BY TEP																												
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK																													
	WHITE-SIGNAL COMMON																													
	RED-AØ SIGNAL RED																													
	GREEN-AØ SIGNAL GREEN																													
	ORANGE-PED PUSHBUTTON																													
	BLUE-AØ SIGNAL YELLOW																													
	WHITE W/B-LOW VOLTAGE COMMON			C																										
	RED W/B-AØ AUX RED			E																										
	GREEN W/B-AØ AUX GREEN			H																										
	ORANGE W/B-SPARE PED PUSHBUTTON			I																										
	BLUE W/B-AØ AUX YELLOW			L																										
	BLACK W/W-PED SIGNAL DON'T WALK			M						H																				M
	RED W/W-SPARE			P						I																				P
	GREEN W/W-BØ LEFT TURN GREEN			Q	E		D			L			H	I			L	L		M			M			P	Q			Q
	BLUE W/W-BØ LEFT TURN YELLOW																													
	BLACK W/R-SPARE																													
#14 7CC IMSA				8		1		1	1	3	1	1			1	1	1		1		1	1	1	1	1			1	1	3
#10 THW	STREET LIGHT/SIGN CIRCUIT #1 (BLK)			1			1			1							1	1												
	STREET LIGHT/SIGN CIRCUIT #2 (RED)			1						1			1													1				1
	STREET LIGHT COMMON (WHT)			1			1			1			1				1	1								1				1
	PRE-EMPT BEACON N/S			2 / 2			2			2							2	2												
	PRE-EMPT BEACON E/W			2 / 2						2			2													2				2
#8 BARE																														
	EQUIPMENT GROUND			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#4 THW	POWER HOT (RED) (BLACK)		2																											
	POWER NEUTRAL (WHITE)		1																											
3 COND. IMSA CABLE	PRE-EMPT SENSOR N/S			1 / 1			1			1							1	1												
	PRE-EMPT SENSOR E/W			1 / 1						1			1													1				1
EQUIP. NOTE 5	VIDEO DETECTION CAMERA			4			1			2			1				1	1								1				1
#18 4CC AWG	SEE CONDUCTOR NOTE 2																													



Notes

1. No splicing of traffic signal equipment conductors or cable allowed.
2. A 4-conductor #18 AWG shielded cable shall run unspliced from each pedestrian push button to its associated pedestrian head.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4007 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

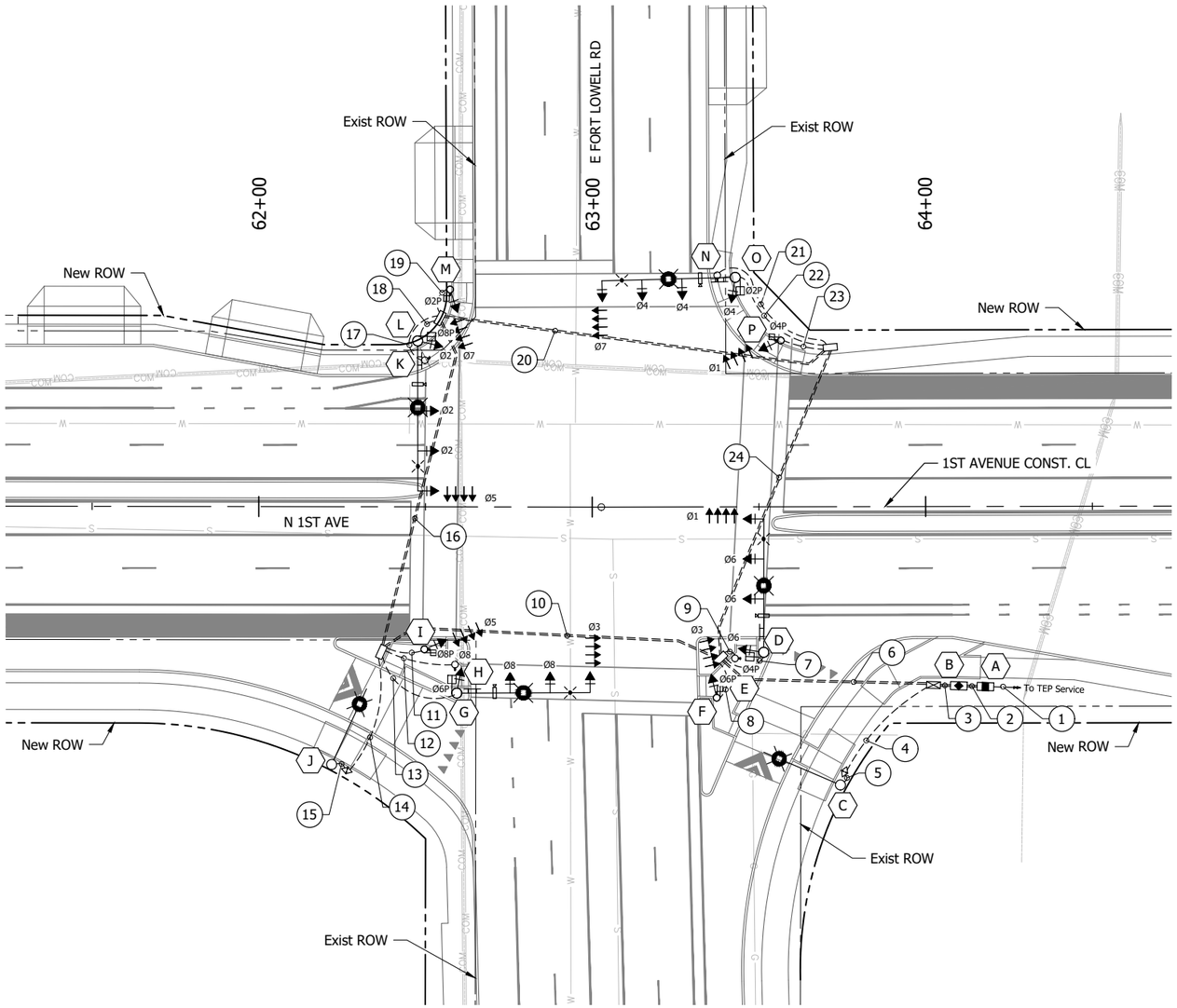
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

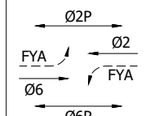
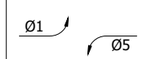
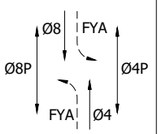
298 OF 504

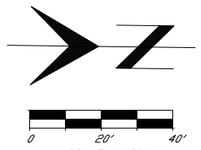
CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG04 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:23 PM



PROPOSED TRAFFIC SIGNAL PHASING			
Ø2+Ø6	Ø1+Ø5	Ø4+Ø8	Ø3+Ø7
			



KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

SG05 OF SG30

299 OF 504

H:\29\29660 – 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG05 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:17:25 PM

CABINET AND POLE SCHEDULE

CABINET	TYPE	CONTROLLER	AUX CONTROLLER	FOUNDATION	REMARKS	STATION, OFFSET
A	UPS/METERED SERVICE	MYERS UPS (MEUG35-UPS-200-AZ)	-	T1801	UPS/ELECTRICAL SERVICE PEDESTAL AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. FOUNDATION DIMENSIONS AND BOLT PATTERN SHALL BE DETERMINED BY THE PEDESTAL MANUFACTURER'S SPECIFICATIONS. SEE NOTE 14	
B	CONTROLLER CABINET TYPE V T 313	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER	-	T203	CONTROLLER CABINET, CONTROLLER, AUXILIARY/INCIDENTAL EQUIPMENT, FOUNDATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR SEE NOTE 14	

POLE		MAST ARMS		SIGNALS		PED. P.B. TYPE/SIGN	LUMINAIRE	REMARKS	STATION, OFFSET
NUMBER	TYPE	SIG	LUM	FACE	MTG				
F I M P	A (10') T401	-	-	(1) FYA (1) PED	(1) IV (1 XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
O	Q T412	40'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	INSTALL: PHOTOCELL ON TOP OF LUMINAIRE. VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
K N	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101	-		
D	Q T412	40'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. FORT LOWELL RD SIGN.	
E H	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
C J	TYPE 1 T444	-	20'	-	-	-	-		
G	Q T412	40'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	-	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
L	R T413	45'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	-	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. FORT LOWELL RD SIGN.	

TO BE COMPLETED AT THE NEXT SUBMITTAL

CABINET AND POLE SCHEDULE NOTES:

1. *All new pedestrian pushbutton assemblies shall be an APS (audio vibrotactile type) pushbutton, Campbell Company Guardian 912 Yellow with bluetooth and wave feature or approved equal. Locations of pushbuttons shall comply with the requirments of the Americans with Disabilities Act (ADA).*
2. *Centers of pedestrian pushbuttons shall be at a height of 42 inches above finish grade of adjacent area that is accessible per ADA standards.*
3. *Pushbutton signs shall be type R10-4b, as shown in PAG Std. Dtl. TS 1104. Arrows shall point left (L), right (R), or both ways (B), as indicated in cabinet and pole schedule.*
4. *All pushbutton signs shall fit the pushbutton housing without overhangs or overlaps. All pushbutton signs shall be aluminum with Type XI (Diamond) Grade sheeting.*
5. *All pedestrian signal faces shall be LED countdown signals.*
6. *All vehicular indications shall be LED.*
7. *Furnish and Install R10-101 "LEFT TURN YIELD ON FLASHING Yellow Arrow" (30"x36", Type XI) on the masts of poles C and F using Polecat Sign Bracket X2PC30-XX or equivalent.*
8. *Station/offsets are to the 1st Avenue centerline. The exact location and elevation of each pole and cabinet shall be approved by the City of Tucson Electrical Inspector prior to installation.*
9. *Fire pre-emption system (TOMAR M913) shall include 4-Strobecom II 4090-1-ST-IC-W detectors with 4140V2-4 optical signal processor card. Pre-emption sensor cable shall run from sensor to controller unspliced.*
10. *Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000KCCT with 7-pin Road Node connector.*
11. *Street name signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest editions of the Pima County and City of Tucson Traffic Signing Design Manual, the PAG Standard Specifications, and these plans.*
12. *Street name signs shall be flag mounted from signal pole at a minimum of 24 feet above the pavement using approved mounting hardware. Refer to Std Detail 4.6 of the Pima County and City of Tucson Traffic Signing Design Manual.*
13. *Street name sign sheeting shall be Type XI or equivalent.*
14. *The City of Tucson shall review and accept the cabinet, controller, UPS, and all auxiliary equipment located within cabinet.*
15. *The City of Tucson shall review all submittals before equipment is ordered-including cabinets, controllers, monitors, UPS, and video detection units- to ensure they meet with city of City of Tucson specifications.*

Type FYA Signal Head for Permitted/protected left turns

Steady Red Arrow

Steady Yellow Arrow

Flashing Yellow Arrow

Steady Green Arrow

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

300 OF 504

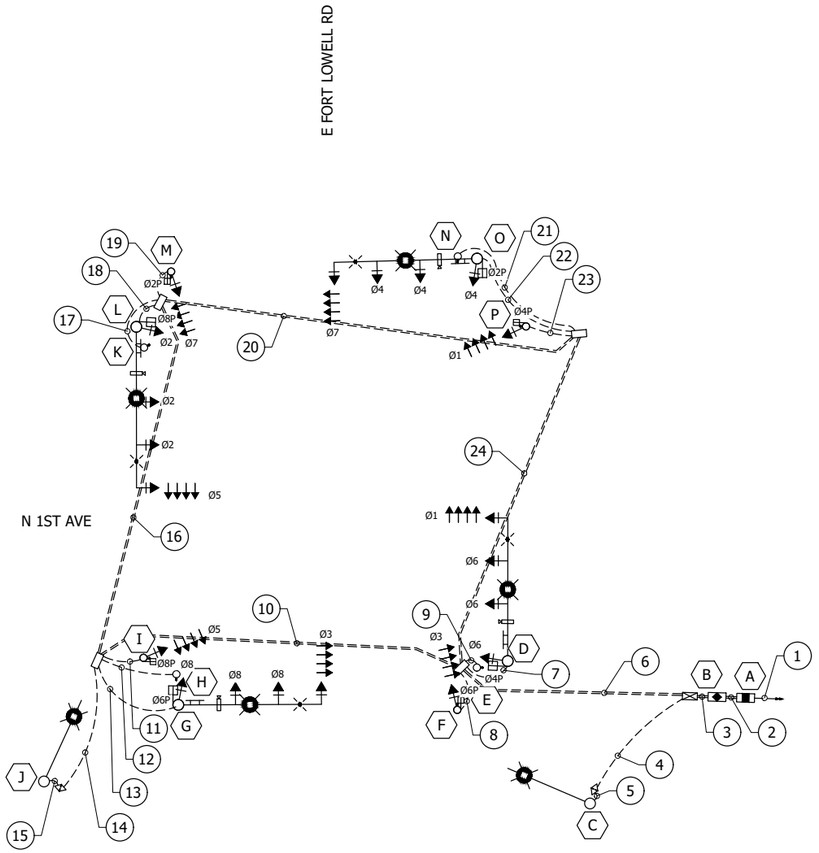
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
DXM	BDH	FLG	N/A
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG06 Last Saved: Wed, 26 Aug 2026 By:Bheim Plotted:Wednesday, August 26, 2026 5:17:26 PM

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT RUN NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
CONDUIT SIZE (INCHES)		2.5	2	4 (2)	2	2	4 (2)	3	2	2	4 (2)	2	2	3	2	2	4 (2)	2	3	2	4 (2)	2	3	2	4 (2)
CIRCUIT PHASE		SERVICE CONDUCTORS BY TEP																							
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK																								
	WHITE-SIGNAL COMMON																								
	RED-AØ SIGNAL RED																								
	GREEN-AØ SIGNAL GREEN																								
	ORANGE-PED PUSHBUTTON																								
	BLUE-AØ SIGNAL YELLOW																								
	WHITE W/B-LOW VOLTAGE COMMON			D			D																		
	RED W/B-AØ AUX RED			F			F																		
	GREEN W/B-AØ AUX GREEN			G			G																		
	ORANGE W/B-SPARE PED PUSHBUTTON			I			I																		
	BLUE W/B-AØ AUX YELLOW			L			L																		
	BLACK W/W-PED SIGNAL DON'T WALK			M			M				G														M
	RED W/W-SPARE			O			O				I														O
	GREEN W/W-BØ LEFT TURN GREEN			P			P	D	F		L	I		G			L		L	M	M		O	P	P
	BLUE W/W-BØ LEFT TURN YELLOW																								
	BLACK W/R-SPARE																								
#14 7CC IMSA				4			4			1	2		1				1	1				1			1
#10 THW	STREET LIGHT/SIGN CIRCUIT #1 (BLK)			1			1	1			1				1	1	1		1						
	STREET LIGHT/SIGN CIRCUIT #2 (RED)			1	1	1	1				1			1									1		1
	STREET LIGHT COMMON (WHT)			1	1	1	1	1			1			1	1	1	1		1				1		1
	PRE-EMPT BEACON N/S			2 / 2			2 / 2	2			2						2		2						
	PRE-EMPT BEACON E/W			2 / 2			2 / 2				2			2									2		2
#8 BARE																									
	EQUIPMENT GROUND			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#4 THW	POWER HOT (RED) (BLACK)		2																						
	POWER NEUTRAL (WHITE)		1																						
3 COND. IMSA CABLE	PRE-EMPT SENSOR N/S			1 / 1			1 / 1	1			1						1		1						
	PRE-EMPT SENSOR E/W			1 / 1			1 / 1				1			1									1		1
EQUIP. NOTE 5	VIDEO DETECTION CAMERA			4			4	1			2			1			1		1				1		1
#18 4CC AWG	SEE CONDUCTOR NOTE 2																								



Notes

1. No splicing of traffic signal equipment conductors or cable allowed.
2. A 4-conductor #18 AWG shielded cable shall run unspliced from each pedestrian push button to its associated pedestrian head.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

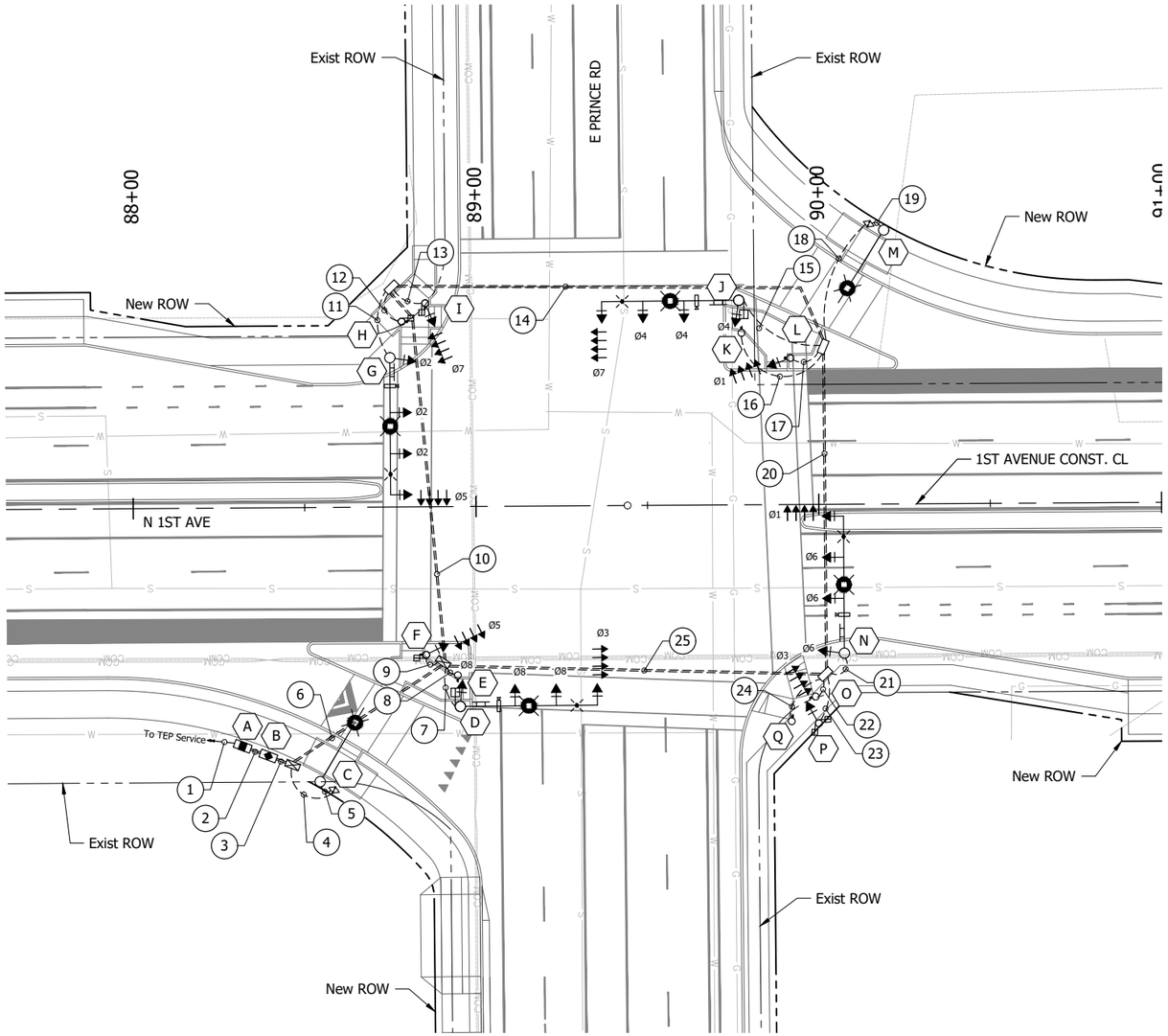
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

301 OF 504

CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG07 Last Saved: Wed, 26 Aug 2026 By:Bheim Plotted:Wednesday, August 26, 2026 5:17:27 PM



PROPOSED TRAFFIC SIGNAL PHASING

Ø2+Ø6	Ø1+Ø5	Ø4+Ø8	Ø3+Ø7
Ø2P, Ø2, FYA, FYA, FYA, Ø6, Ø6P	Ø1, Ø5	Ø8, FYA, Ø8P, Ø4P, FYA, Ø4	Ø3, Ø7

0 20' 40'
SCALE: 1"=20'

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG08 Last Saved: Wed, 26 Aug 2026 By:Bheim Plotted:Wednesday, August 26, 2026 5:17:29 PM

CABINET AND POLE SCHEDULE

CABINET	TYPE	CONTROLLER	AUX CONTROLLER	FOUNDATION	REMARKS	STATION, OFFSET
A	UPS/METERED SERVICE	MYERS UPS (MEUG35-UPS-200-AZ)	-	T1801	UPS/ELECTRICAL SERVICE PEDESTAL AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. FOUNDATION DIMENSIONS AND BOLT PATTERN SHALL BE DETERMINED BY THE PEDESTAL MANUFACTURER'S SPECIFICATIONS. SEE NOTE 14	
B	CONTROLLER CABINET TYPE V T 313	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER	-	T203	CONTROLLER CABINET, CONTROLLER, AUXILIARY/INCIDENTAL EQUIPMENT, FOUNDATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR SEE NOTE 14	

POLE		MAST ARMS		SIGNALS		PED. P.B. TYPE/SIGN	LUMINAIRE	REMARKS	STATION, OFFSET
NUMBER	TYPE	SIG	LUM	FACE	MTG				
C M	TYPE 1 T444	-	20'	-	-	-	ATB2 SEE NOTE 10		
D	Q T412	40'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	INSTALL: PHOTOCELL ON TOP OF LUMINAIRE. VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
E K Q	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
F	A (10') T401	-	-	(1) FYA (1) PED	(1) IV (1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101	-		
G	Q T412	40'	20'	(1) F (2) F (1) FYA	(1) V (2) II (1) II	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. PRINCE ROAD SIGN.	
H	A (10') T401	-	-	(1) PED	(1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101	-		
I L	A (10') T401	-	-	(1) FYA (1) PED	(1) IV (1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
J	Q T412	40'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
N	Q T412	40'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. PRINCE ROAD SIGN.	
O	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101			
P	A (10') T401	-	-	(1) FYA (2) PED	(1) IV (2) XI	-	-		

TO BE COMPLETED AT THE NEXT SUBMITTAL

CABINET AND POLE SCHEDULE NOTES:

1. *All new pedestrian pushbutton assemblies shall be an APS (audio vibrotactile type) pushbutton, Campbell Company Guardian 912 Yellow with bluetooth and wave feature or approved equal. Locations of pushbuttons shall comply with the requirments of the Americans with Disabilities Act (ADA).*
2. *Centers of pedestrian pushbuttons shall be at a height of 42 inches above finish grade of adjacent area that is accessible per ADA standards.*
3. *Pushbutton signs shall be type R10-4b, as shown in PAG Std. Dtl. TS 1104. Arrows shall point left (L), right (R), or both ways (B), as indicated in cabinet and pole schedule.*
4. *All pushbutton signs shall fit the pushbutton housing without overhangs or overlaps. All pushbutton signs shall be aluminum with Type XI (Diamond) Grade sheeting.*
5. *All pedestrian signal faces shall be LED countdown signals.*
6. *All vehicular indications shall be LED.*
7. *Furnish and Install R10-101 "LEFT TURN YIELD ON FLASHING Yellow Arrow" (30"x36", Type XI) on the masts of poles C and F using Polecat Sign Bracket X2PC30-XX or equivalent.*
8. *Station/offsets are to the 1st Avenue centerline. The exact location and elevation of each pole and cabinet shall be approved by the City of Tucson Electrical Inspector prior to installation.*
9. *Fire pre-emption system (TOMAR M913) shall include 4-Strobecom II 4090-1-ST-IC-W detectors with 4140V2-4 optical signal processor card. Pre-emption sensor cable shall run from sensor to controller unspliced.*
10. *Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000KCCT with 7-pin Road Node connector.*
11. *Street name signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest editions of the Pima County and City of Tucson Traffic Signing Design Manual, the PAG Standard Specifications, and these plans.*
12. *Street name signs shall be flag mounted from signal pole at a minimum of 24 feet above the pavement using approved mounting hardware. Refer to Std Detail 4.6 of the Pima County and City of Tucson Traffic Signing Design Manual.*
13. *Street name sign sheeting shall be Type XI or equivalent.*
14. *The City of Tucson shall review and accept the cabinet, controller, UPS, and all auxiliary equipment located within cabinet.*
15. *The City of Tucson shall review all submittals before equipment is ordered-including cabinets, controllers, monitors, UPS, and video detection units- to ensure they meet with city of City of Tucson specifications.*

Type FYA Signal Head for Permitted/protected left turns

Steady Red Arrow

Steady Yellow Arrow

Flashing Yellow Arrow

Steady Green Arrow

SG09 OF SG30

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4667 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

303 OF 504

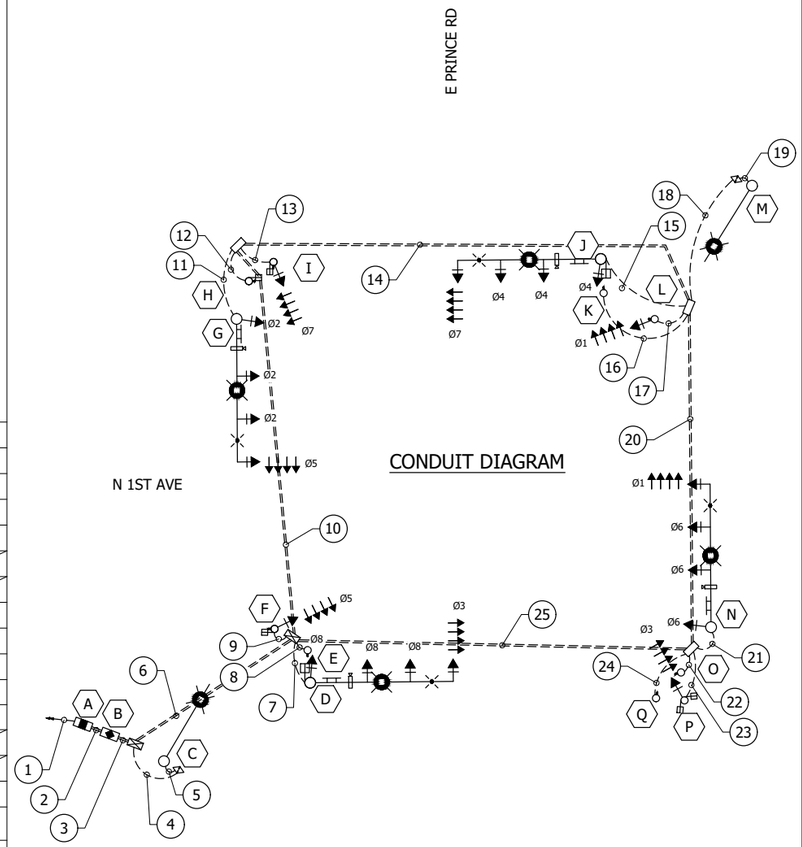
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
DXM	BDH	FLG	N/A
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG09 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:30 PM

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT RUN NUMBER			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CONDUIT SIZE (INCHES)			2.5	2	4 (2)	2	2	4 (2)	3	2	2	4 (2)	3	2	2	4 (2)	3	2	2	2	2	4 (2)	3	2	2	2	4 (2)
CIRCUIT PHASE			SERVICE CONDUCTORS BY TEP																								
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK																										
	WHITE-SIGNAL COMMON																										
	RED-AØ SIGNAL RED																										
	GREEN-AØ SIGNAL GREEN																										
	ORANGE-PED PUSHBUTTON																										
	BLUE-AØ SIGNAL YELLOW				F			F																			
	WHITE W/B-LOW VOLTAGE COMMON				D			D																			
	RED W/B-AØ AUX RED				G			G																			
	GREEN W/B-AØ AUX GREEN				H			H																			
	ORANGE W/B-SPARE PED PUSHBUTTON				I			I																			
	BLUE W/B-AØ AUX YELLOW				J			J				G															
	BLACK W/W-PED SIGNAL DON'T WALK				L			L				H															L
	RED W/W-SPARE				N			N				I															N
	GREEN W/W-BØ LEFT TURN GREEN				P			P	D		F	J	G	H	I	J	J		L			L	N		P		P
	BLUE W/W-BØ LEFT TURN YELLOW																										
	BLACK W/R-SPARE																										
#14 7CC IMSA					4			4		1								1				1		1		1	3
#10 THW	STREET LIGHT/SIGN CIRCUIT #1 (BLK)				1			1	1			1				1	1										
	STREET LIGHT/SIGN CIRCUIT #2 (RED)				1	1	1	1				1	1							1	1	1	1				1
	STREET LIGHT COMMON (WHT)				1	1	1	1	1			1	1			1	1			1	1	1	1				1
	PRE-EMPT BEACON	N S			2 2			2 2																			
	PRE-EMPT BEACON	E W			2 2			2 2																			
#8 BARE																											
	EQUIPMENT GROUND				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#4 THW	POWER HOT (RED) (BLACK)			2																							
	POWER NEUTRAL (WHITE)			1																							
3 COND. IMSA CABLE	PRE-EMPT SENSOR	N S			1 1			1 1																			
	PRE-EMPT SENSOR	E W			1 1			1 1																			
EQUIP. NOTE 5	VIDEO DETECTION CAMERA				4			4	1			2	1			1	1						1				1
#18 4CC AWG	SEE CONDUCTOR NOTE 2																										



Notes

1. No splicing of traffic signal equipment conductors or cable allowed.
2. A 4-conductor #18 AWG shielded cable shall run unspliced from each pedestrian push button to its associated pedestrian head.

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

304 OF 504

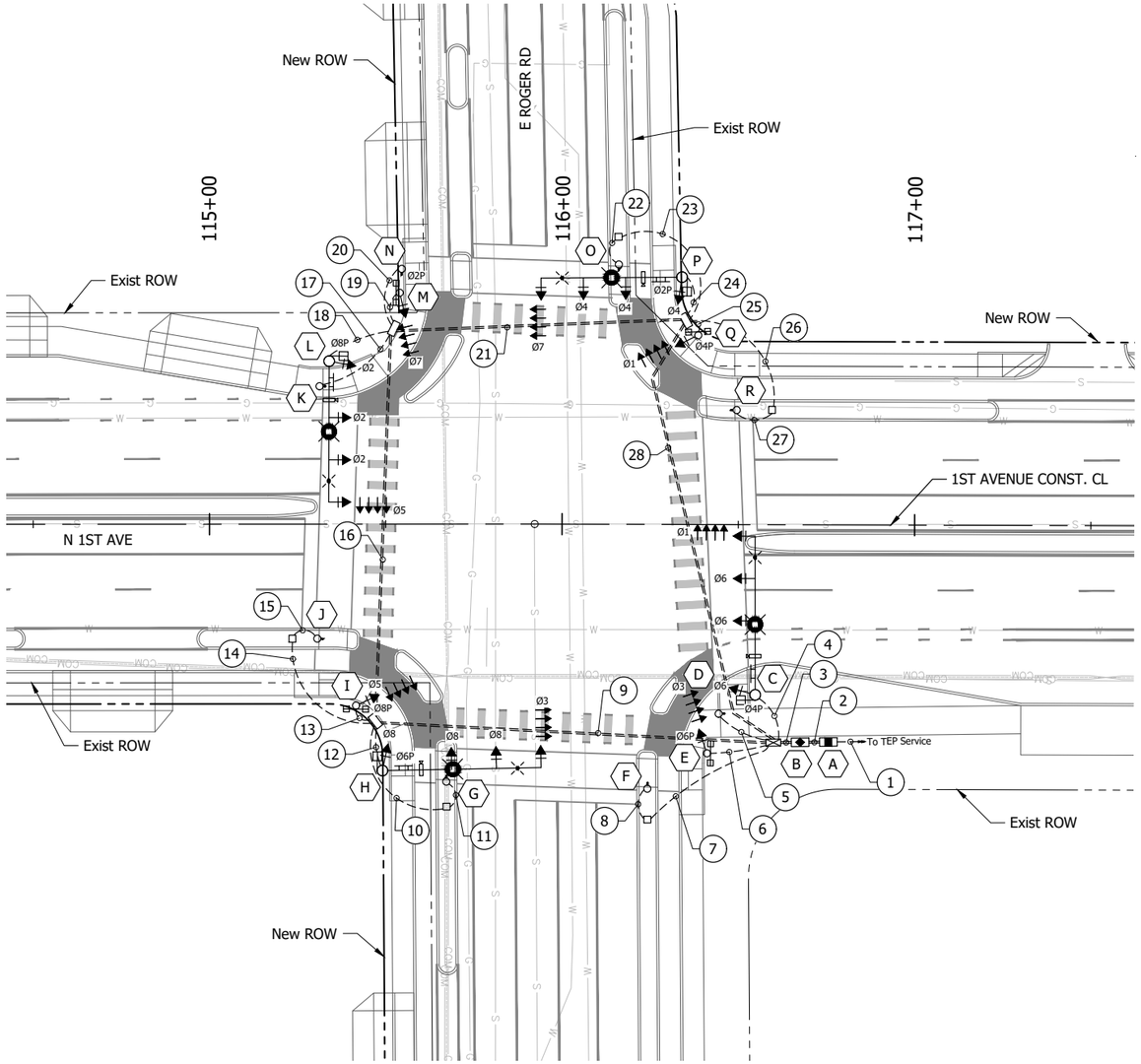
CITY OF TUCSON

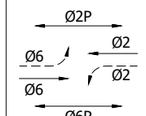
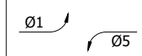
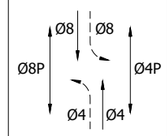
DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

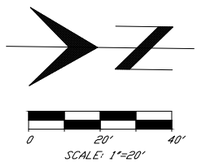
KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4967 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG10 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:31 PM



PROPOSED TRAFFIC SIGNAL PHASING			
Ø2+Ø6	Ø1+Ø5	Ø4+Ø8	Ø3+Ø7
			



KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG11 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted: Wednesday, August 26, 2026 5:17:33 PM

CABINET AND POLE SCHEDULE

CABINET	TYPE	CONTROLLER	AUX CONTROLLER	FOUNDATION	REMARKS	STATION, OFFSET
A	UPS/METERED SERVICE	MYERS UPS (MEUG35-UPS-200-AZ)	-	T1801	UPS/ELECTRICAL SERVICE PEDESTAL AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. FOUNDATION DIMENSIONS AND BOLT PATTERN SHALL BE DETERMINED BY THE PEDESTAL MANUFACTURER'S SPECIFICATIONS. SEE NOTE 14	
B	CONTROLLER CABINET TYPE V T 313	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER	-	T203	CONTROLLER CABINET, CONTROLLER, AUXILIARY/INCIDENTAL EQUIPMENT, FOUNDATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR SEE NOTE 14	

POLE NUMBER	POLE TYPE	MAST ARMS SIG	MAST ARMS LUM	SIGNALS FACE	SIGNALS MTG	PED. P.B. TYPE/SIGN	LUMINAIRE	REMARKS	STATION, OFFSET
C	Q T412	40'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	INSTALL: PHOTOCELL ON TOP OF LUMINAIRE. VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SEE NOTE 7. ROGER ROAD SIGN.	
D F J N R	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
E I M Q	A (10') T401	-	-	(1) FYA (1) PED (1) BIKE	(1) IV (1) XI (1) XI	-	-		
G K O	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101	-		
H	Q T412	35'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SEE NOTE 7. 1ST AVENUE SIGN.	
L	Q T412	40'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SEE NOTE 7. ROGER ROAD SIGN.	
P	Q T412	35'	20'	(1) PED (1) F (2) F (1) FYA	(1) XI (1) V (2) II (1) II	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SEE NOTE 7. 1ST AVENUE SIGN.	

TO BE COMPLETED AT THE NEXT SUBMITTAL

CABINET AND POLE SCHEDULE NOTES:

1. All new pedestrian pushbutton assemblies shall be an APS (audio vibrotactile type) pushbutton, Campbell Company Guardian 912 Yellow with bluetooth and wave feature or approved equal. Locations of pushbuttons shall comply with the requirments of the Americans with Disabilities Act (ADA).
2. Centers of pedestrian pushbuttons shall be at a height of 42 inches above finish grade of adjacent area that is accessible per ADA standards.
3. Pushbutton signs shall be type R10-4b, as shown in PAG Std. Dtl. TS 1104. Arrows shall point left (L), right (R), or both ways (B), as indicated in cabinet and pole schedule.
4. All pushbutton signs shall fit the pushbutton housing without overhangs or overlaps. All pushbutton signs shall be aluminum with Type XI (Diamond) Grade sheeting.
5. All pedestrian signal faces shall be LED countdown signals.
6. All vehicular indications shall be LED.
7. Furnish and Install R10-101 "LEFT TURN YIELD ON FLASHING Yellow Arrow" (30"x36", Type XI) on the masts of poles C and F using Polecat Sign Bracket X2PC30-XX or equivalent.
8. Station/offsets are to the 1st Avenue centerline. The exact location and elevation of each pole and cabinet shall be approved by the City of Tucson Electrical Inspector prior to installation.
9. Fire pre-emption system (TOMAR M913) shall include 4-Strobecom II 4090-1-ST-IC-W detectors with 4140V2-4 optical signal processor card. Pre-emption sensor cable shall run from sensor to controller unspliced.
10. Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000KCCT with 7-pin Road Node connector.
11. Street name signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest editions of the Pima County and City of Tucson Traffic Signing Design Manual, the PAG Standard Specifications, and these plans.
12. Street name signs shall be flag mounted from signal pole at a minimum of 24 feet above the pavement using approved mounting hardware. Refer to Std Detail 4.6 of the Pima County and City of Tucson Traffic Signing Design Manual.
13. Street name sign sheeting shall be Type XI or equivalent.
14. The City of Tucson shall review and accept the cabinet, controller, UPS, and all auxiliary equipment located within cabinet.
15. The City of Tucson shall review all submittals before equipment is ordered-including cabinets, controllers, monitors, UPS, and video detection units- to ensure they meet with city of City of Tucson specifications.

Type FYA Signal Head for Permitted/protected left turns

Steady Red Arrow

Steady Yellow Arrow

Flashing Yellow Arrow

Steady Green Arrow

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

306 OF 504

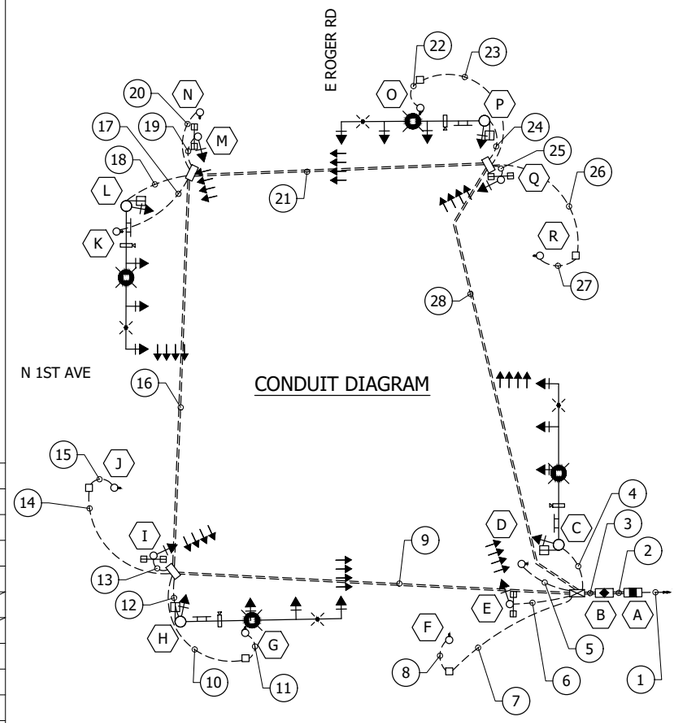
CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29\29660 – 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG12 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted: Wednesday, August 26, 2026 5:17:35 PM

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT RUN NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
CONDUIT SIZE (INCHES)		2.5	2	4 (2)	3	2	2	2	2	4 (2)	2	2	3	2	2	2	4 (2)	2	3	2	2	4 (2)	2	2	3	2	2	2	4 (2)
CIRCUIT PHASE		SERVICE CONDUCTORS BY TEP																											
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK																												
	WHITE-SIGNAL COMMON																												
	RED-AØ SIGNAL RED																												
	GREEN-AØ SIGNAL GREEN																												
	ORANGE-PED PUSHBUTTON																												
	BLUE-AØ SIGNAL YELLOW																												
	WHITE W/B-LOW VOLTAGE COMMON			C																									
	RED W/B-AØ AUX RED			E																									
	GREEN W/B-AØ AUX GREEN			H																									
	ORANGE W/B-SPARE PED PUSHBUTTON			I																									
	BLUE W/B-AØ AUX YELLOW			L																									
	BLACK W/W-PED SIGNAL DON'T WALK			M						H																			M
	RED W/W-SPARE			P						I																			P
	GREEN W/W-BØ LEFT TURN GREEN			Q	C		E			L			H	I			L		L	M		M			P	Q			Q
	BLUE W/W-BØ LEFT TURN YELLOW																												
	BLACK W/R-SPARE																												
#14 7CC IMSA				8		1		1	1	3	1	1			1	1	1	1			1	1	1	1			1	1	3
#10 THW	STREET LIGHT/SIGN CIRCUIT #1 (BLK)			1	1					1							1		1										
	STREET LIGHT/SIGN CIRCUIT #2 (RED)			1						1			1												1				1
	STREET LIGHT COMMON (WHT)			1	1					1			1				1		1						1				1
	PRE-EMPT BEACON N/S			2 / 2	2					2							2		2										
	PRE-EMPT BEACON E/W			2 / 2						2			2												2				2
#8 BARE																													
	EQUIPMENT GROUND			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#4 THW	POWER HOT (RED) (BLACK)		2																										
	POWER NEUTRAL (WHITE)		1																										
3 COND. IMSA CABLE	PRE-EMPT SENSOR N/S			1 / 1																									
	PRE-EMPT SENSOR E/W			1 / 1																									
EQUIP. NOTE 5	VIDEO DETECTION CAMERA			4	1					2			1				1		1						1				1
#18 4CC AWG	SEE CONDUCTOR NOTE 2																												



CONDUIT DIAGRAM

Notes

1. No splicing of traffic signal equipment conductors or cable allowed.
2. A 4-conductor #18 AWG shielded cable shall run unspliced from each pedestrian push button to its associated pedestrian head.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4667 F 520.544.9515

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

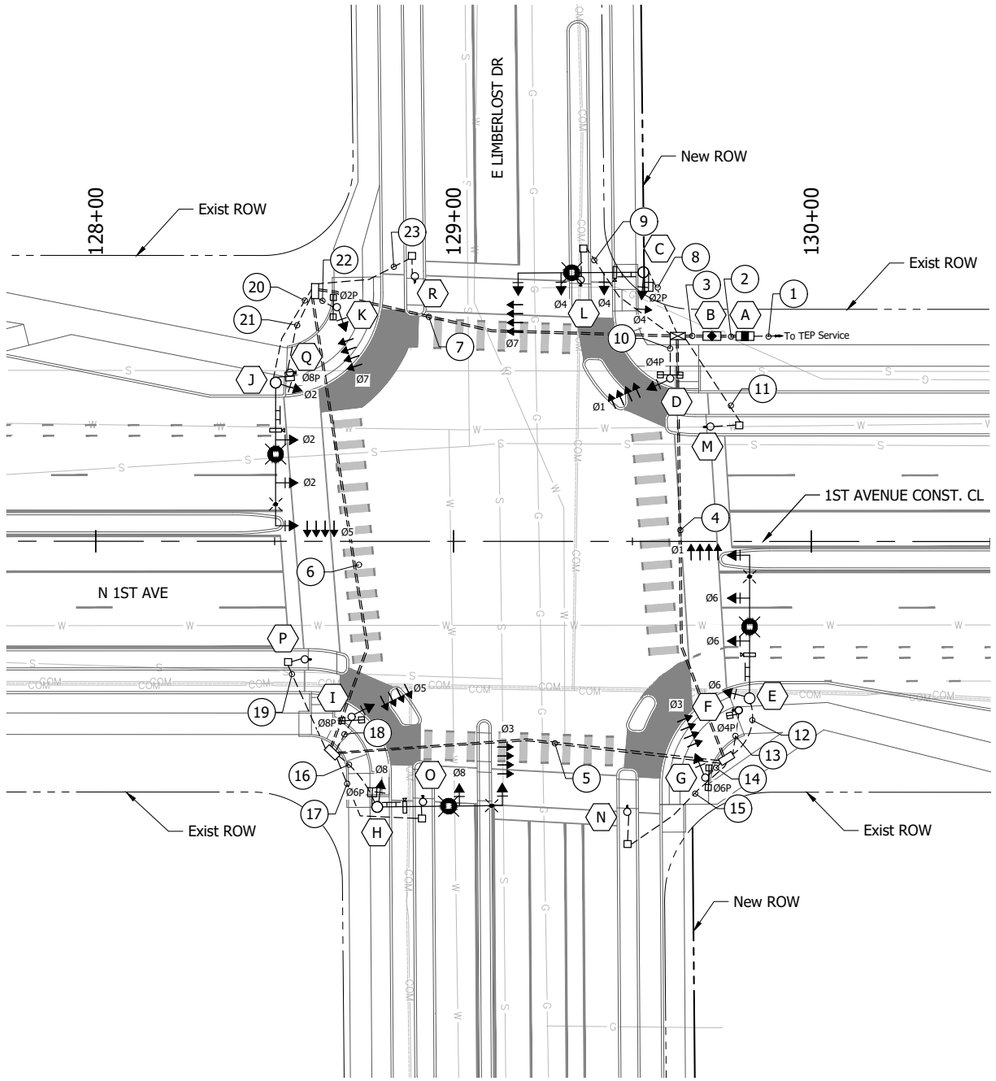
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

307 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
DXM	BDH	FLG	N/A
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG13 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:17:36 PM



PROPOSED TRAFFIC SIGNAL PHASING				
Ø2+Ø6	Ø1+Ø5	Ø4+Ø8	Ø4+Ø8	Ø3+Ø7
Ø2P, Ø2, FYA, FYA, Ø6, Ø6P	Ø1, Ø5, ØOLA	Ø8, FYA, Ø8P, Ø4P, FYA, Ø4	Ø8, FYA, Ø8P, FYA, Ø4, ØOLA	Ø3, Ø7

ØOLA = Ø4 + Ø5

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
N 1ST AVE & E LIMBERLOST DR - SIGNAL PLANS

CITY OF TUCSON

DRWN. BY ESM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

SG14 OF SG30

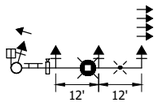
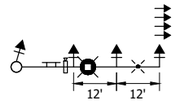
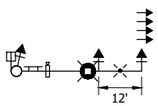
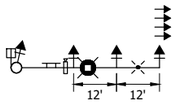
308 OF 504

0 20' 40'
SCALE: 1"=20'

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG14 Last Saved: Wed, 26 Aug 2026 By:Bheim Plotted:Wednesday, August 26, 2026 5:17:37 PM

CABINET AND POLE SCHEDULE

CABINET	TYPE	CONTROLLER	AUX CONTROLLER	FOUNDATION	REMARKS	STATION, OFFSET
A	UPS/METERED SERVICE	MYERS UPS (MEUG35-UPS-200-AZ)	-	T1801	UPS/ELECTRICAL SERVICE PEDESTAL AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. FOUNDATION DIMENSIONS AND BOLT PATTERN SHALL BE DETERMINED BY THE PEDESTAL MANUFACTURER'S SPECIFICATIONS. SEE NOTE 14	
B	CONTROLLER CABINET TYPE V T 313	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER	-	T203	CONTROLLER CABINET, CONTROLLER, AUXILIARY/INCIDENTAL EQUIPMENT, FOUNDATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR SEE NOTE 14	

POLE		MAST ARMS		SIGNALS		PED. P.B. TYPE/SIGN	LUMINAIRE	REMARKS	STATION, OFFSET
NUMBER	TYPE	SIG	LUM	FACE	MTG				
C 	Q T412	35'	20'	(1) FYA (2) F (1) Q (1) PED	(1) II (2) II (1) V (1) XI	-	ATB2 SEE NOTE 10	INSTALL: PHOTOCELL ON TOP OF LUMINAIRE. VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. E ROGER RD SIGN.	
D	A (10') T401	-	-	(1) FYA (1) PED (1) BIKE	(1) IV (1) XI (1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-	-	
E 	Q T412	40'	20'	(1) FYA (2) F (1) F	(1) II (2) II (1) V	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
F	A (10') T401	-	-	(1) PED	(1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-	-	
G	A (10') T401	-	-	(1) FYA (1) PED (1) BIKE	(1) IV (1) XI (1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-	-	
H 	Q T412	35'	20'	(1) FYA (1) F (1) F (1) PED	(1) II (1) II (1) V (1) XI	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. E ROGER RD SIGN.	
I	A (10') T401	-	-	(1) FYA (1) PED (1) BIKE	(1) IV (1) XI (1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-	-	
J 	Q T412	40'	20'	(1) FYA (2) F (1) F (1) PED	(1) II (2) II (1) V (1) XI	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
K	A (10') T401	-	-	(1) FYA (1) PED (1) BIKE	(1) IV (1) XI (1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-	-	
L M N O P Q R	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	ATB2 SEE NOTE 10	-	

TO BE COMPLETED AT THE NEXT SUBMITTAL

CABINET AND POLE SCHEDULE NOTES:

1. *All new pedestrian pushbutton assemblies shall be an APS (audio vibrotactile type) pushbutton, Campbell Company Guardian 912 Yellow with bluetooth and wave feature or approved equal. Locations of pushbuttons shall comply with the requirments of the Americans with Disabilities Act (ADA).*
2. *Centers of pedestrian pushbuttons shall be at a height of 42 inches above finish grade of adjacent area that is accessible per ADA standards.*
3. *Pushbutton signs shall be type R10-4b, as shown in PAG Std. Dtl. TS 1104. Arrows shall point left (L), right (R), or both ways (B), as indicated in cabinet and pole schedule.*
4. *All pushbutton signs shall fit the pushbutton housing without overhangs or overlaps. All pushbutton signs shall be aluminum with Type XI (Diamond) Grade sheeting.*
5. *All pedestrian signal faces shall be LED countdown signals.*
6. *All vehicular indications shall be LED.*
7. *Furnish and Install R10-101 "LEFT TURN YIELD ON FLASHING Yellow Arrow" (30"x36", Type XI) on the masts of poles C and F using Polecat Sign Bracket X2PC30-XX or equivalent.*
8. *Station/offsets are to the 1st Avenue centerline. The exact location and elevation of each pole and cabinet shall be approved by the City of Tucson Electrical Inspector prior to installation.*
9. *Fire pre-emption system (TOMAR M913) shall include 4-Strobecom II 4090-1-ST-IC-W detectors with 4140V2-4 optical signal processor card. Pre-emption sensor cable shall run from sensor to controller unspliced.*
10. *Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000KCCT with 7-pin Road Node connector.*
11. *Street name signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest editions of the Pima County and City of Tucson Traffic Signing Design Manual, the PAG Standard Specifications, and these plans.*
12. *Street name signs shall be flag mounted from signal pole at a minimum of 24 feet above the pavement using approved mounting hardware. Refer to Std Detail 4.6 of the Pima County and City of Tucson Traffic Signing Design Manual.*
13. *Street name sign sheeting shall be Type XI or equivalent.*
14. *The City of Tucson shall review and accept the cabinet, controller, UPS, and all auxiliary equipment located within cabinet.*
15. *The City of Tucson shall review all submittals before equipment is ordered-including cabinets, controllers, monitors, UPS, and video detection units- to ensure they meet with city of City of Tucson specifications.*

Type FYA Signal Head for Permitted/protected left turns

Steady Red Arrow

Steady Yellow Arrow

Flashing Yellow Arrow

Steady Green Arrow

NO.	DATE	REVISION	BY	CHKD.	APPR.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

309 OF 504

CITY OF TUCSON

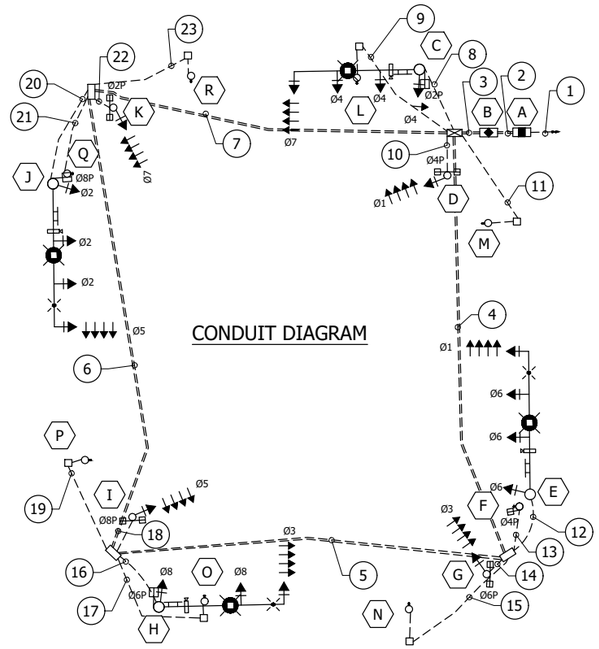
DRWN. BY ESM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG15 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted:Wednesday, August 26, 2026 5:17:38 PM

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT RUN NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CONDUIT SIZE (INCHES)		2.5	2	4 (2)	4 (2)	4 (2)	4 (2)	4 (2)	3	2	2	2	3	2	2	2	3	2	2	2	3	2	2	2
CIRCUIT PHASE		SERVICE CONDUCTORS BY TEP																						
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK																							
	WHITE-SIGNAL COMMON																							
	RED-AØ SIGNAL RED																							
	GREEN-AØ SIGNAL GREEN																							
	ORANGE-PED PUSHBUTTON																							
	BLUE-AØ SIGNAL YELLOW																							
	WHITE W/B-LOW VOLTAGE COMMON																							
	RED W/B-AØ AUX RED			C																				
	GREEN W/B-AØ AUX GREEN			D																				
	ORANGE W/B-SPARE PED PUSHBUTTON			E																				
	BLUE W/B-AØ AUX YELLOW			F																				
	BLACK W/W-PED SIGNAL DON'T WALK			G	E																			
	RED W/W-SPARE			H	F																			
	GREEN W/W-BØ LEFT TURN GREEN			I	G																			
	BLUE W/W-BØ LEFT TURN YELLOW			J	H	H		J																
	BLACK W/R-SPARE			K	I	I		K	C		D		E	F	G		H		I		J			
#14 7CC IMSA				11	7	4		4	1	1		1				1	1	1		1	1	1		1
#10 THW	STREET LIGHT/SIGN CIRCUIT #1 (BLK)			1	1	1			1								1							
	STREET LIGHT/SIGN CIRCUIT #2 (RED)			1	1			1					1								1			
	STREET LIGHT COMMON (WHT)			1	1	1		1	1				1				1				1			
	PRE-EMPT BEACON N/S			2	2			2					2								2			
	PRE-EMPT BEACON E/W			2	2	2			2								2							
#8 BARE																								
	EQUIPMENT GROUND			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#4 THW	POWER HOT (RED) (BLACK)		2																					
	POWER NEUTRAL (WHITE)		1																					
3 COND. IMSA CABLE	PRE-EMPT SENSOR N/S			1	1			1					1								1			
	PRE-EMPT SENSOR E/W			1	1	1			1								1							
EQUIP. NOTE 5	VIDEO DETECTION CAMERA			4	2	1		1	1				1				1				1			
#18 4CC AWG	SEE CONDUCTOR NOTE 2																							

CONDUIT DIAGRAM



Notes

1. No splicing of traffic signal equipment conductors or cable allowed.
2. A 4-conductor #18 AWG shielded cable shall run unspliced from each pedestrian push button to its associated pedestrian head.

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

310 OF 504

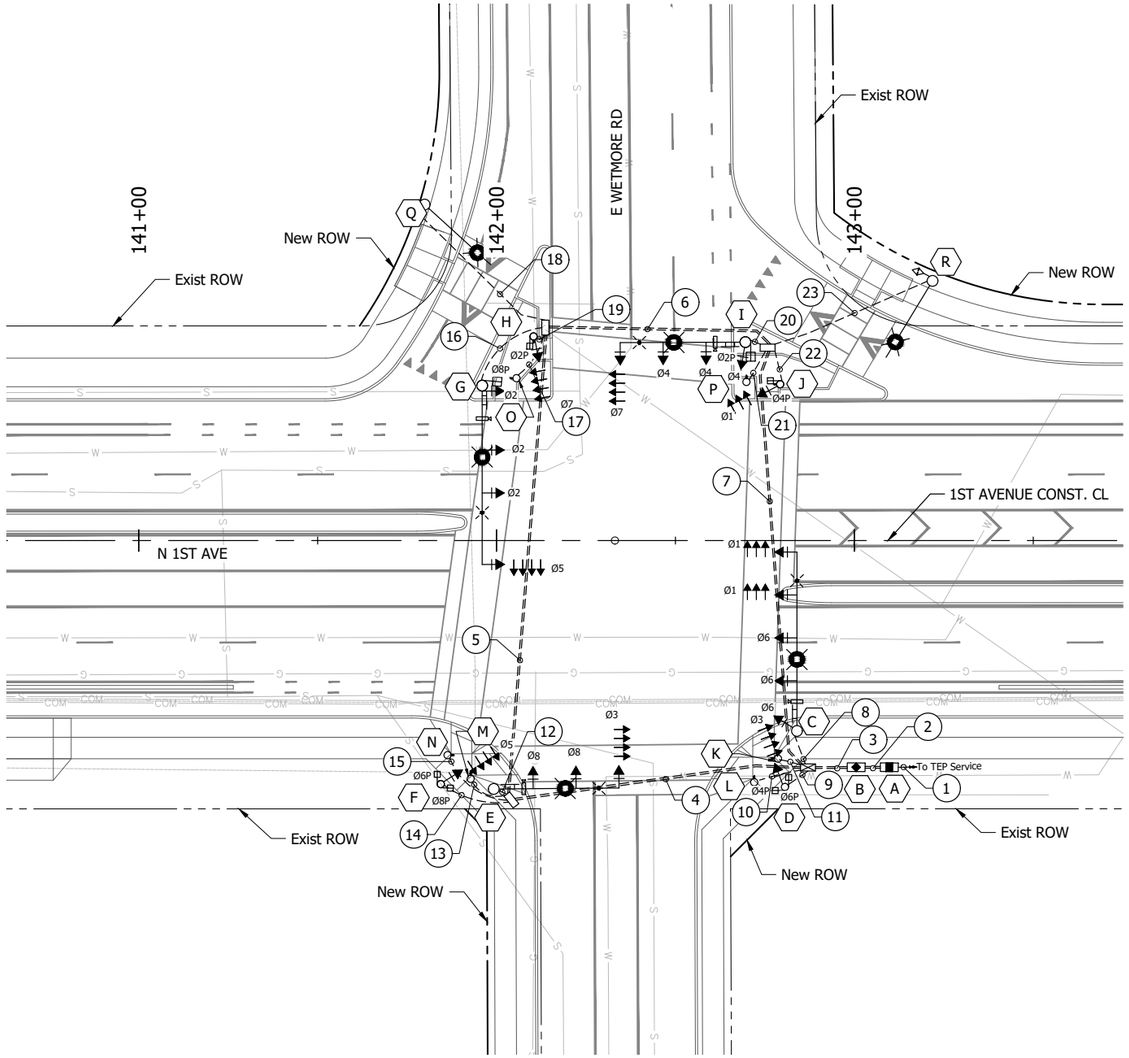
CITY OF TUCSON

DRWN. BY ESM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click ArizonaBlueStake.com

H:\29\29660 – 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG16 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:39 PM



PROPOSED TRAFFIC SIGNAL PHASING			
Ø2+Ø6	Ø1+Ø5	Ø4+Ø8	Ø3+Ø7
Ø2P, Ø2, FYA, Ø6, Ø6P	Ø1, Ø5	Ø8, FYA, Ø8P, Ø4P, FYA, Ø4	Ø3, Ø7

0 20' 40'
SCALE: 1"=20'

SG17 OF SG30

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
N 1ST AVE & E WETMORE RD - SIGNAL PLANS

311 OF 504

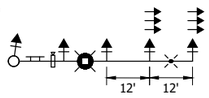
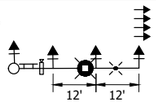
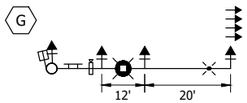
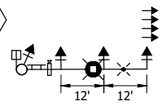
CITY OF TUCSON

DRWN. BY ESM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG17 Last Saved: Wed, 26 Aug 2026 By:Bheim Plotted:Wednesday, August 26, 2026 5:17:41 PM

CABINET AND POLE SCHEDULE

CABINET	TYPE	CONTROLLER	AUX CONTROLLER	FOUNDATION	REMARKS	STATION, OFFSET
A	UPS/METERED SERVICE	MYERS UPS (MEUG35-UPS-200-AZ)	-	T1801	UPS/ELECTRICAL SERVICE PEDESTAL AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. FOUNDATION DIMENSIONS AND BOLT PATTERN SHALL BE DETERMINED BY THE PEDESTAL MANUFACTURER'S SPECIFICATIONS. SEE NOTE 14	
B	CONTROLLER CABINET TYPE V T 313	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER	-	T203	CONTROLLER CABINET, CONTROLLER, AUXILIARY/INCIDENTAL EQUIPMENT, FOUNDATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR SEE NOTE 14	

POLE		MAST ARMS		SIGNALS		PED. P.B. TYPE/SIGN	LUMINAIRE	REMARKS	STATION, OFFSET
NUMBER	TYPE	SIG	LUM	FACE	MTG				
C 	R T413	50'	20'	(2) R (2) F (1) F	(2) II (2) II (1) V	-	ATB2 SEE NOTE 10	INSTALL: PHOTOCELL ON TOP OF LUMINAIRE. VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. E ROGER RD SIGN.	
D	A (10') T401	-	-	(1) FYA (2) PED	(1) IV (2) XI	-	-	-	
E 	Q T412	35'	20'	(1) FYA (2) F (1) F	(1) II (2) II (1) V	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
F	A (10') T401	-	-	(1) FYA (2) PED	(1) IV (2) XI	-	-	-	
G 	R T413	50'	20'	(1) FYA (2) F (1) F (1) PED	(1) II (2) II (1) V (1) XI	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
H	A (10') T401	-	-	(1) FYA (1) PED	(1) IV (1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101	-	-	
I 	Q T412	35'	20'	(1) FYA (2) F (1) F (1) PED	(1) II (2) II (1) V (1) XI	-	ATB2 SEE NOTE 10	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	
J	A (10') T401	-	-	(1) R (1) PED	(1) IV (1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101	-	-	
K L M N O P	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-	-	
Q R	Type 1 Street Light	-	20'	-	-	-	ATB2 SEE NOTE 10	INSTALL: PHOTOCELL ON TOP OF LUMINAIRE. VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. SIGN: NOTE 7. 1ST AVENUE SIGN.	

TO BE COMPLETED AT THE NEXT SUBMITTAL

CABINET AND POLE SCHEDULE NOTES:

1. *All new pedestrian pushbutton assemblies shall be an APS (audio vibrotactile type) pushbutton, Campbell Company Guardian 912 Yellow with bluetooth and wave feature or approved equal. Locations of pushbuttons shall comply with the requirments of the Americans with Disabilities Act (ADA).*
2. *Centers of pedestrian pushbuttons shall be at a height of 42 inches above finish grade of adjacent area that is accessible per ADA standards.*
3. *Pushbutton signs shall be type R10-4b, as shown in PAG Std. Dtl. TS 1104. Arrows shall point left (L), right (R), or both ways (B), as indicated in cabinet and pole schedule.*
4. *All pushbutton signs shall fit the pushbutton housing without overhangs or overlaps. All pushbutton signs shall be aluminum with Type XI (Diamond) Grade sheeting.*
5. *All pedestrian signal faces shall be LED countdown signals.*
6. *All vehicular indications shall be LED.*
7. *Furnish and Install R10-101 "LEFT TURN YIELD ON FLASHING Yellow Arrow" (30"x36", Type XI) on the masts of poles C and F using Polecat Sign Bracket X2PC30-XX or equivalent.*
8. *Station/offsets are to the 1st Avenue centerline. The exact location and elevation of each pole and cabinet shall be approved by the City of Tucson Electrical Inspector prior to installation.*
9. *Fire pre-emption system (TOMAR M913) shall include 4-Strobecom II 4090-1-ST-IC-W detectors with 4140V2-4 optical signal processor card. Pre-emption sensor cable shall run from sensor to controller unspliced.*
10. *Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000KCCT with 7-pin Road Node connector.*
11. *Street name signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest editions of the Pima County and City of Tucson Traffic Signing Design Manual, the PAG Standard Specifications, and these plans.*
12. *Street name signs shall be flag mounted from signal pole at a minimum of 24 feet above the pavement using approved mounting hardware. Refer to Std Detail 4.6 of the Pima County and City of Tucson Traffic Signing Design Manual.*
13. *Street name sign sheeting shall be Type XI or equivalent.*
14. *The City of Tucson shall review and accept the cabinet, controller, UPS, and all auxiliary equipment located within cabinet.*
15. *The City of Tucson shall review all submittals before equipment is ordered-including cabinets, controllers, monitors, UPS, and video detection units- to ensure they meet with city of City of Tucson specifications.*

Type FYA Signal Head for Permitted/protected left turns

Steady Red Arrow

Steady Yellow Arrow

Flashing Yellow Arrow

Steady Green Arrow

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 708
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
Arizona811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

312 OF 504

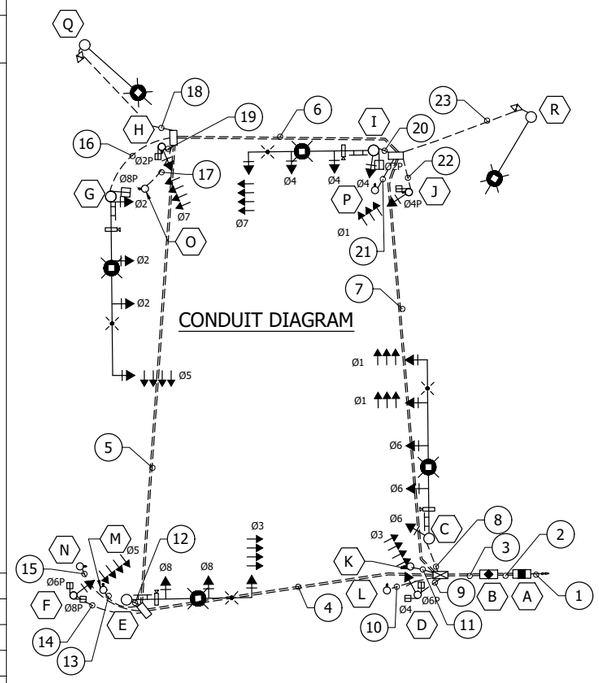
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
ESM	BDH	FLG	N/A
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG18 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:42 PM

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT RUN NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CONDUIT SIZE (INCHES)		2.5	2	4 (2)	4 (2)	4 (2)	4 (2)	4 (2)	3	2	2	2	3	2	2	2	3	2	2	2	3	2	2	2
CIRCUIT PHASE		SERVICE CONDUCTORS BY TEP																						
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK																							
	WHITE-SIGNAL COMMON																							
	RED-AØ SIGNAL RED																							
	GREEN-AØ SIGNAL GREEN																							
	ORANGE-PED PUSHBUTTON																							
	BLUE-AØ SIGNAL YELLOW																							
	WHITE W/B-LOW VOLTAGE COMMON																							
	RED W/B-AØ AUX RED																							
	GREEN W/B-AØ AUX GREEN			C				G																
	ORANGE W/B-SPARE PED PUSHBUTTON			D				H																
	BLUE W/B-AØ AUX YELLOW			E				I																
	BLACK W/W-PED SIGNAL DON'T WALK			F				J																
	RED W/W-SPARE			G				O																
	GREEN W/W-BØ LEFT TURN GREEN			H			G																	
	BLUE W/W-BØ LEFT TURN YELLOW			I	E		H		C	D			E		F		G			H	I		J	
	BLACK W/R-SPARE			J	F																			
#14 7CC IMSA				8	2		2	4			1	1		1		1	1	1			1	1		
#10 THW	STREET LIGHT/SIGN CIRCUIT #1 (BLK)			1			1	1	1								1							1
	STREET LIGHT/SIGN CIRCUIT #2 (RED)			1	1			1					1						1		1			
	STREET LIGHT COMMON (WHT)			1	1		1	1	1				1				1		1		1			1
	PRE-EMPT BEACON N/S			2 / 2	/		2	2 / 2	2				/				/ 2		/		/			/
	PRE-EMPT BEACON E/W			2 / 2	2 /			2 /					2 /				/		/		/ 2			/
#8 BARE																								
	EQUIPMENT GROUND			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#4 THW	POWER HOT (RED) (BLACK)		2																					
	POWER NEUTRAL (WHITE)		1																					
3 COND. IMSA CABLE	PRE-EMPT SENSOR N/S			1 / 1	/		/ 1	1 / 1	1				/				1 /		/		/			/
	PRE-EMPT SENSOR E/W			1 / 1	1 /			1 /					1 /				/		/		/ 1			/
EQUIP. NOTE 5	VIDEO DETECTION CAMERA			4	1		1	2	1				1				1				1			
#18 4CC AWG	SEE CONDUCTOR NOTE 2																							



Notes

1. No splicing of traffic signal equipment conductors or cable allowed.
2. A 4-conductor #18 AWG shielded cable shall run unspliced from each pedestrian push button to its associated pedestrian head.

SG19 OF SG30

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

313 OF 504

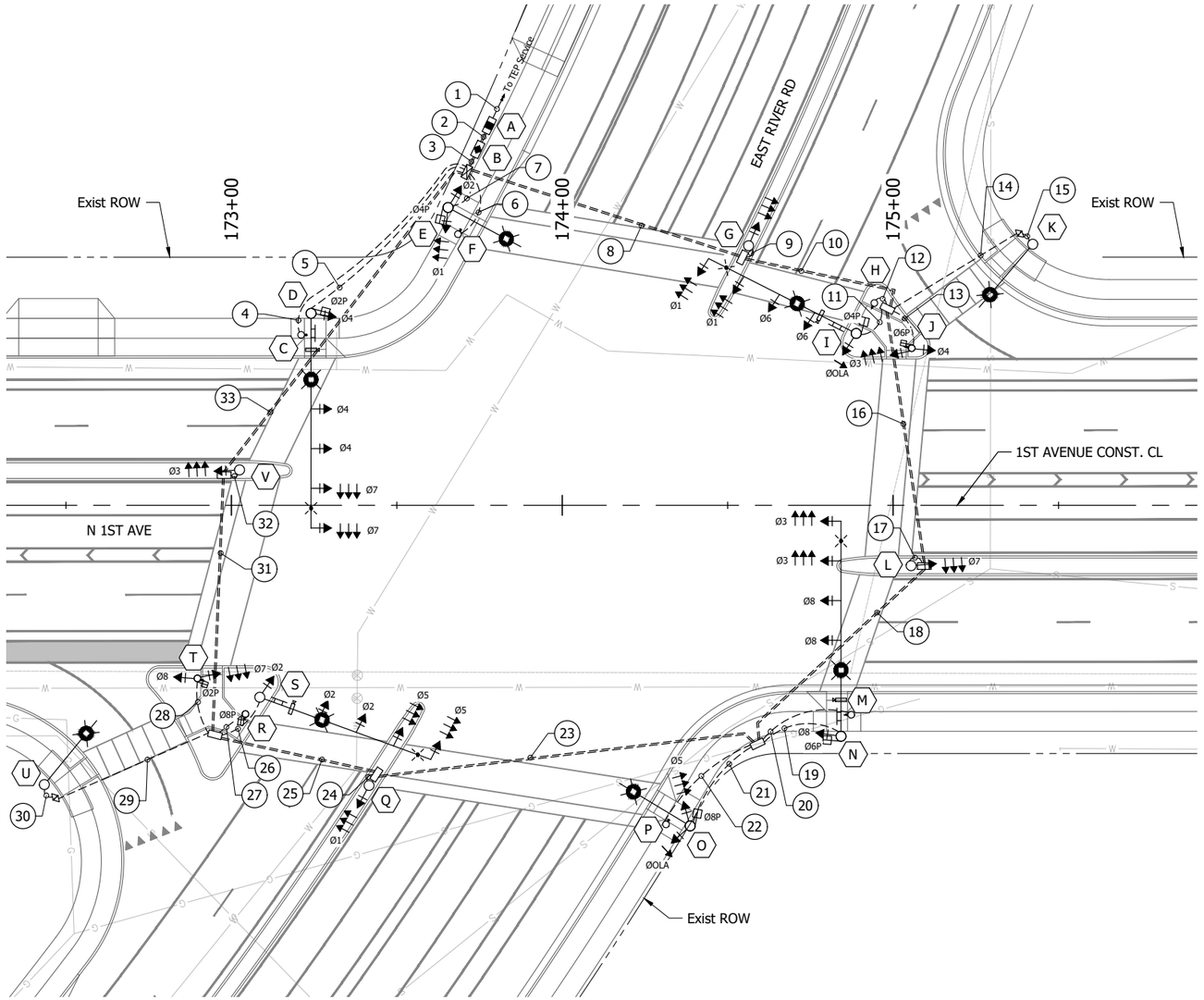
CITY OF TUCSON

DRWN. BY ESM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 708
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

H:\29\29660 – 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG19 Last Saved: Wed, 26 Aug 2026 By:BHelm Plotted: Wednesday, August 26, 2026 5:17:44 PM



PROPOSED TRAFFIC SIGNAL PHASING

Ø1+Ø5	Ø2+Ø6	Ø3+Ø7	Ø4+Ø8
Ø5 Ø1	Ø2 Ø2P Ø6P Ø6	Ø3 Ø7 ØOLA	Ø4P Ø4 Ø8 Ø8P

ØOLA = Ø6 + Ø7

0 20' 40'
SCALE: 1"=20'

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\291\29660 – 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG20 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted: Wednesday, August 26, 2026 5:17:46 PM

CABINET AND POLE SCHEDULE

CABINET	TYPE	CONTROLLER	AUX CONTROLLER	FOUNDATION	REMARKS	STATION, OFFSET
A	UPS/METERED SERVICE	MYERS UPS (MEUG35-UPS-200-AZ)	-	T1801	UPS/ELECTRICAL SERVICE PEDESTAL AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. FOUNDATION DIMENSIONS AND BOLT PATTERN SHALL BE DETERMINED BY THE PEDESTAL MANUFACTURER'S SPECIFICATIONS. SEE NOTE 14	
B	CONTROLLER CABINET TYPE V T 313	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER	-	T203	CONTROLLER CABINET, CONTROLLER, AUXILIARY/INCIDENTAL EQUIPMENT, FOUNDATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR SEE NOTE 14	

POLE		MAST ARMS		SIGNALS		PED. P.B. TYPE/SIGN	LUMINAIRE	REMARKS	STATION, OFFSET
NUMBER	TYPE	SIG	LUM	FACE	MTG				
C F H M	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(L) T1101	–		
M	ADOT W STD DTL 4-17	65'	20'	(1) PED (1) F (2) F (2) R	(1) XI (1) V (2) II (2) II	–	ATB2 SEE NOTE 9	INSTALL: PHOTOCELL ON TOP OF LUMINAIRE. VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. RIVER ROAD SIGN.	
O	TYPE 1 T444	-	20'	(1) PED (1) R (1) Q	(1) XI (1) VII	-	ATB2 SEE NOTE 9		
P	PPB T419	-	-	-	-	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
G L Q V	A (10') T401	-	-	(1) R	(1) IV	-	-		
S	R T413	55'	20'	(1) F (2) F (2) R	(1) V (2) II (2) II	-	ATB2 SEE NOTE 9	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. 1ST AVENUE SIGN.	
R	A (10') T401	-	-	(1) PED	(1) XI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
J T	A (10') T401	-	-	(1) PED (1) R (1) F	(1) XI (1) VI	SEE NOTE 1 FOR PED. P.B. SIGN R10-4b(R) T1101	-		
K U	TYPE 1 T444	-	20'	-	-	-	ATB2 SEE NOTE 9		
C	ADOT W STD DTL 4-17	65'	20'	(1) PED (1) F (2) F (2) R	(1) XI (1) V (2) II (2) II	-	ATB2 SEE NOTE 9	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. RIVER ROAD SIGN.	
E	TYPE 1 T444	-	20'	(1) PED (1) R (1) F	(1) XI (1) VII	-	ATB2 SEE NOTE 9		
I	R T413	50'	20'	(1) PED (1) Q (2) F (2) R	(1) XI (1) V (2) II (2) II	-	ATB2 SEE NOTE 9	VIDEO DETECTION ON LUMINAIRE ARM. EVP SENSOR BETWEEN SIGNAL HEADS. EVP BEACON ON OUTER SIGNAL HEAD. PAN-TILT-ZOOM CAMERA AND WIFI RADIO AT TOP OF POLE. 1ST AVENUE SIGN.	

TO BE COMPLETED AT THE NEXT SUBMITTAL

CABINET AND POLE SCHEDULE NOTES:

1. All new pedestrian pushbutton assemblies shall be an APS (audio vibrotactile type) pushbutton, Campbell Company Guardian 912 Yellow with bluetooth and wave feature or approved equal. Locations of pushbuttons shall comply with the requirments of the Americans with Disabilities Act (ADA).
2. Centers of pedestrian pushbuttons shall be at a height of 42 inches above finish grade of adjacent area that is accessible per ADA standards.
3. Pushbutton signs shall be type R10-4b, as shown in PAG Std. Dtl. TS 1104. Arrows shall point left (L), right (R), or both ways (B), as indicated in cabinet and pole schedule.
4. All pushbutton signs shall fit the pushbutton housing without overhangs or overlaps. All pushbutton signs shall be aluminum with Type XI (Diamond) Grade sheeting.
5. All pedestrian signal faces shall be LED countdown signals.
6. All vehicular indications shall be LED.
7. Station/offsets are to the 1st Avenue centerline. The exact location and elevation of each pole and cabinet shall be approved by the City of Tucson Electrical Inspector prior to installation.
8. Fire pre-emption system (TOMAR M913) shall include 4-Strobecom II 4090-1-ST-IC-W detectors with 4140V2-4 optical signal processor card. Pre-emption sensor cable shall run from sensor to controller unspliced.
9. Luminaire shall be American Electric Lighting LED Autobahn ATB2 Series, 173W, 120V, Type 3, 3000KCCT with 7-pin Road Node connector.
10. Street name signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest editions of the Pima County and City of Tucson Traffic Signing Design Manual, the PAG Standard Specifications, and these plans.
11. Street name signs shall be flag mounted from signal pole at a minimum of 24 feet above the pavement using approved mounting hardware. Refer to Std Detail 4.6 of the Pima County and City of Tucson Traffic Signing Design Manual.
12. Street name sign sheeting shall be Type XI or equivalent.
13. The City of Tucson shall review and accept the cabinet, controller, UPS, and all auxiliary equipment located within cabinet.
14. The City of Tucson shall review all submittals before equipment is ordered-including cabinets, controllers, monitors, UPS, and video detection units- to ensure they meet with city of City of Tucson specifications.

Type R Signal Head

Steady Red Arrow
Steady Yellow Arrow
Steady Green Arrow

H:\29_29660 - 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG21 Last Saved: Wed, 26 Aug 2026 By:Bheim Plotted:Wednesday, August 26, 2026 5:17:47 PM

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

315 OF 504

CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT RUN NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
CONDUIT SIZE (INCHES)		2.5	2	4 (2)	2	3	2	2	4 (2)	2	4 (2)	3	2	2	2	2	4 (2)	2	4 (2)	3	2	2	2	4 (2)	2	4 (2)	3	2	2	2	2	4 (2)	2	4 (2)
CIRCUIT PHASE																																		
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK	SERVICE CONDUCTORS BY TEP		D																														
	WHITE-SIGNAL COMMON			E																														
	RED-AØ SIGNAL RED			G																														
	GREEN-AØ SIGNAL GREEN			I																														
	ORANGE-PED PUSHBUTTON			J																														
	BLUE-AØ SIGNAL YELLOW			L																														
	WHITE W/B-LOW VOLTAGE COMMON			N																														
	RED W/B-AØ AUX RED			O																														
	GREEN W/B-AØ AUX GREEN			Q					G																								O	
	ORANGE W/B-SPARE PED PUSHBUTTON			R					I		I																					O		Q
	BLUE W/B-AØ AUX YELLOW			S					J		J																					Q		S
	BLACK W/W-PED SIGNAL DON'T WALK			T					L		L						L									O						S		T
	RED W/W-SPARE			V		D		E	N	G	N	I		J			N	L	N	N		O		O	Q	Q	S	T			T	V	V
	GREEN W/W-BØ LEFT TURN GREEN																																	
	BLUE W/W-BØ LEFT TURN YELLOW																																	
	BLACK W/R-SPARE																																	
#14 7CC IMSA				6	1		1		2		2		1				1		1		1		1	1		1		1			2		2
#10 THW	STREET LIGHT/SIGN CIRCUIT #1 (BLK)			1				1	1		1				1	1	1		1	1						1					1		1
	STREET LIGHT/SIGN CIRCUIT #2 (RED)			1		1			1		1	1										1		1		1				1	1	1		1
	STREET LIGHT COMMON (WHT)			1		1		1	1		1	1			1	1	1		1	1		1		1		1	1			1	1	1		1
	PRE-EMPT BEACON N/S			2/2		2			2		2						2		2	2														
	PRE-EMPT BEACON E/W			2/2					2		2/2																2					2		2
#8 BARE																																		
	EQUIPMENT GROUND			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#4 THW	POWER HOT (RED) (BLACK)		2																															
	POWER NEUTRAL (WHITE)		1																															
3 COND. IMSA CABLE	PRE-EMPT SENSOR N/S			1/1		1			1		1						1		1	1														
	PRE-EMPT SENSOR E/W			1/1					1		1/1																1					1		1
EQUIP. NOTE 5	VIDEO DETECTION CAMERA			4		1			2		2	1					1		1	1							1					1		1
#18 4CC AWG	SEE CONDUCTOR NOTE 2																																	

Notes

1. No splicing of traffic signal equipment conductors or cable allowed.
2. A 4-conductor #18 AWG shielded cable shall run unspliced from each pedestrian push button to its associated pedestrian head.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9616

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW
NOT FOR
CONSTRUCTION
OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

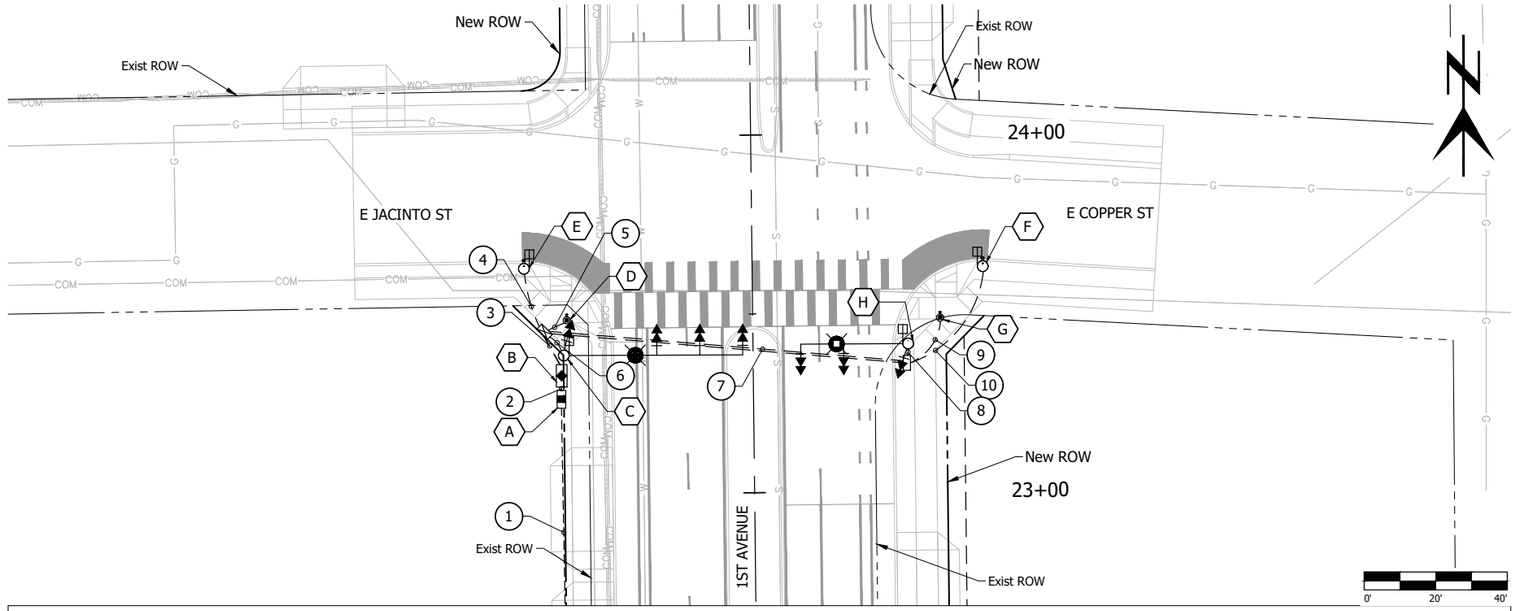
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
SIGNAL PLANS

316 OF 504

CITY OF TUCSON

DRWN. BY DXM AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: N/A
PLAN NO. R-2024-XXX

H:\29\29660 – 1st Avenue DCR\design_CD\29660_CD_Signal_Plans.dwg SG22 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:48 PM



CONSTRUCTION NOTES

1. Supply 2½" galvanized metal conduit sweep and 10' riser. See TEP Standard Specification SR 308A and SR 409.
2. See Civil Sheets for ramp construction.

CABINET SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROLLER	FOUNDATION	LOCATION	REMARKS
A	METERED PEDESTAL	MYERS 125 AMP 120/240V MUEG16-125WTB		T 1801		
B	M-49	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER		T 203		CABINET AND CONTROLLER CITY SUPPLIED AND CONTRACTOR INSTALLED

POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM SIGNAL	MAST ARM LUMINAIRE	SIGNALS FACE	SIGNALS MOUNTING	PED/BIKE PUSHBUTTON	LUMINAIRE	LOCATION	REMARKS
C (12' 12')	R T412	50'	20'	(3) MOD F (1) MOD F (1) PED	(3) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01	TO BE COMPLETED AT THE NEXT SUBMITTAL	
D	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
E	A (10') T401	-	-	(1) BIKES WAIT / BIKES OK	(1) XI	(1) TYPE I 2" ADA T 1101	-		
F	A (10') T401	-	-	(1) BIKES WAIT / BIKES OK	(1) XI	(1) TYPE I 2" ADA T 1101	-		
G	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
H (12')	Q T412	30'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		

CONDUIT AND CONDUCTOR SCHEDULE

	CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8	9	10
	CONDUIT SIZE (INCHES)	2½	2	4(2)	2	2	3	4(2)	3	2	2
	CIRCUIT PHASE	SERVICE CONDUCTORS INSTALLED BY TEP									
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK										
	WHITE-SIGNAL COMMON										
	RED-AØ SIGNAL RED										
	GREEN-AØ SIGNAL GREEN										
	ORANGE-PED PUSHBUTTON										
	BLUE-AØ SIGNAL YELLOW										
	WHITE W/B-LOW VOLTAGE COMMON										
	RED W/B-AØ AUX RED										
	GREEN W/B-AØ AUX GREEN										
	ORANGE W/B-SPARE PED PUSHBUTTON										
	BLUE W/B-AØ AUX YELLOW										
	BLACK W/W-PED SIGNAL DON'T WALK										
	RED W/W-SPARE										
	GREEN W/W-BØ LEFT TURN GREEN			C							
	BLUE W/W-BØ LEFT TURN YELLOW			H			C	H	H		
	BLACK W/R-SPARE										
#14 7CC IMSA				4	1	1		2		1	1
#8 BARE	EQUIPMENT GROUND			1	1	1	1	1	1	1	1
#10 THW	STREET LIGHT CIRCUIT #1 (BLACK)			1					1		
	STREET LIGHT CIRCUIT #2 (RED)			1			1				
	STREET LIGHT COMMON (WHITE)			1			1		1		
	PRE-EMT BEACON										
	PRE-EMT BEACON										
#4 THW	POWER HOT (RED) (BLACK)		2								
	POWER NEUTRAL (WHITE)		1								
3 COND. IMSA CABLE	TO PHOTOCELL (BLACK)			1			1				
	COMMON (WHITE)			1			1				
	FROM PHOTOCELL (RED)			1			1				

NO.	DATE	REVISION	BY	CHKD.	APPR.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

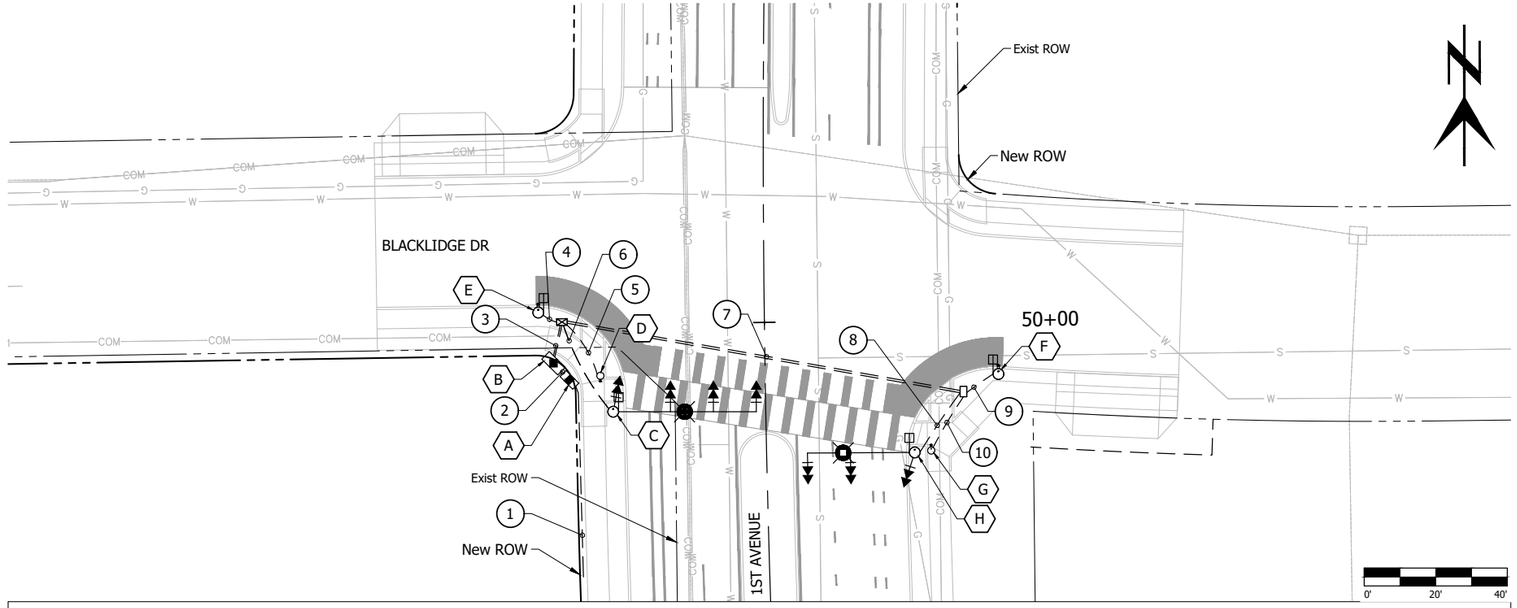
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
HAWK PLANS

317 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_HAWK_Plans.dwg SG23 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:51 PM



CONSTRUCTION NOTES

1. Supply 2½" galvanized metal conduit sweep and 10' riser. See TEP Standard Specification SR 308A and SR 409.
2. See Civil Sheets for ramp construction.

CABINET SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROLLER	FOUNDATION	LOCATION	REMARKS
A	METERED PEDESTAL	MYERS 125 AMP 120/240V MUEG16-125WTB		T 1801		
B	M-49	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER		T 203		CABINET AND CONTROLLER CITY SUPPLIED AND CONTRACTOR INSTALLED

POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM SIGNAL	MAST ARM LUMINAIRE	SIGNALS FACE	SIGNALS MOUNTING	PED/BIKE PUSHBUTTON	LUMINAIRE	LOCATION	REMARKS
C (12' 12')	Q T412	40'	20'	(3) MOD F (1) MOD F (1) PED	(3) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		
D	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-	TO BE COMPLETED AT THE NEXT SUBMITTAL	
E	A (10') T401	-	-	(1) BIKES WAIT / BIKES OK	(1) XI	(1) TYPE I 2" ADA T 1101	-		
F	A (10') T401	-	-	(1) BIKES WAIT / BIKES OK	(1) XI	(1) TYPE I 2" ADA T 1101	-		
G	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
H (12')	Q T412	30'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		

CONDUIT AND CONDUCTOR SCHEDULE

	CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8	9	10
	CONDUIT SIZE (INCHES)	2½	2	4(2)	2	2	3	4(2)	3	2	2
	CIRCUIT PHASE										
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK	SERVICE CONDUCTORS INSTALLED BY TEP		C H			C	H	H		
	WHITE-SIGNAL COMMON										
	RED-AØ SIGNAL RED										
	GREEN-AØ SIGNAL GREEN										
	ORANGE-PED PUSHBUTTON										
	BLUE-AØ SIGNAL YELLOW										
	WHITE W/B-LOW VOLTAGE COMMON										
	RED W/B-AØ AUX RED										
	GREEN W/B-AØ AUX GREEN										
	ORANGE W/B-SPARE PED PUSHBUTTON										
	BLUE W/B-AØ AUX YELLOW										
	BLACK W/W-PED SIGNAL DON'T WALK										
	RED W/W-SPARE										
	GREEN W/W-BØ LEFT TURN GREEN										
	BLUE W/W-BØ LEFT TURN YELLOW										
	BLACK W/R-SPARE										
#14 7CC IMSA				4	1	1		2		1	1
#8 BARE	EQUIPMENT GROUND			1	1	1	1	1	1	1	1
#10 THW	STREET LIGHT CIRCUIT #1 (BLACK)			1					1		
	STREET LIGHT CIRCUIT #2 (RED)			1			1				
	STREET LIGHT COMMON (WHITE)			1			1		1		
	PRE-EMT BEACON										
	PRE-EMT BEACON										
#4 THW	POWER HOT (RED) (BLACK)		2								
	POWER NEUTRAL (WHITE)		1								
3 COND. IMSA CABLE	TO PHOTOCELL (BLACK)			1			1				
	COMMON (WHITE)			1			1				
	FROM PHOTOCELL (RED)			1			1				

SG24 OF SG30

NO.	DATE	REVISION	BY	CHKD.	APPR.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4967 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
Dial 811 or click Arizona811.com

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
HAWK PLANS

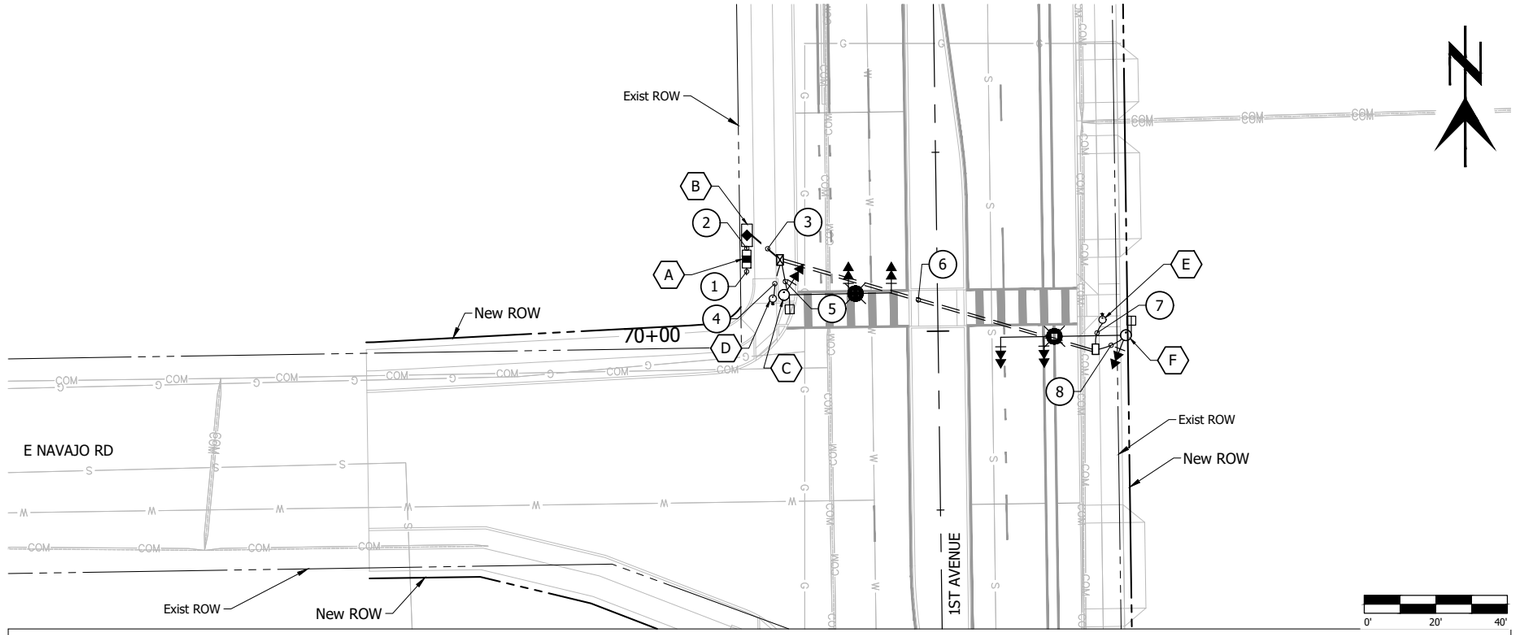
318 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26

SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_HAWK_Plans.dwg SG24 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:53 PM



CONSTRUCTION NOTES

1. Supply 2½" galvanized metal conduit sweep and 10' riser. See TEP Standard Specification SR 308A and SR 409.
2. See Civil Sheets for ramp construction.

CABINET SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROLLER	FOUNDATION	LOCATION	REMARKS
A	METERED PEDESTAL	MYERS 125 AMP 120/240V MUEG16-125WTB		T 1801		
B	M-49	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER		T 203		CABINET AND CONTROLLER CITY SUPPLIED AND CONTRACTOR INSTALLED

POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM SIGNAL	MAST ARM LUMINAIRE	SIGNALS FACE	SIGNALS MOUNTING	PED/BIKE PUSHBUTTON	LUMINAIRE	LOCATION	REMARKS
C (12')	Q T412	30'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01	TO BE COMPLETED AT THE NEXT SUBMITTAL	
D	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
E	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
F (12')	Q T412	35'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		

CONDUIT AND CONDUCTOR SCHEDULE

	CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8
	CONDUIT SIZE (INCHES)	2½	2	4(2)	2	3	4(2)	2	3
	CIRCUIT PHASE	SERVICE CONDUCTORS INSTALLED BY TEP							
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK								
	WHITE-SIGNAL COMMON								
	RED-AØ SIGNAL RED								
	GREEN-AØ SIGNAL GREEN								
	ORANGE-PED PUSHBUTTON								
	BLUE-AØ SIGNAL YELLOW								
	WHITE W/B-LOW VOLTAGE COMMON								
	RED W/B-AØ AUX RED								
	GREEN W/B-AØ AUX GREEN								
	ORANGE W/B-SPARE PED PUSHBUTTON								
	BLUE W/B-AØ AUX YELLOW								
	BLACK W/W-PED SIGNAL DON'T WALK								
	RED W/W-SPARE								
	GREEN W/W-BØ LEFT TURN GREEN			C					
	BLUE W/W-BØ LEFT TURN YELLOW								
	BLACK W/R-SPARE			H		C	H		H
#14 7CC IMSA				3	1		2		
#8 BARE	EQUIPMENT GROUND			1	1	1	1	1	1
#10 THW	STREET LIGHT CIRCUIT #1 (BLACK)			1					1
	STREET LIGHT CIRCUIT #2 (RED)			1			1		
	STREET LIGHT COMMON (WHITE)			1			1		1
	PRE-EMT BEACON								
	PRE-EMT BEACON								
#4 THW	POWER HOT (RED) (BLACK)		2						
	POWER NEUTRAL (WHITE)		1						
3 COND. IMSA CABLE	TO PHOTOCELL (BLACK)			1		1			
	COMMON (WHITE)			1		1			
	FROM PHOTOCELL (RED)			1		1			

NO.	DATE	REVISION	BY	CHKD.	APPR.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

PRELIMINARY
30%
REVIEW NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

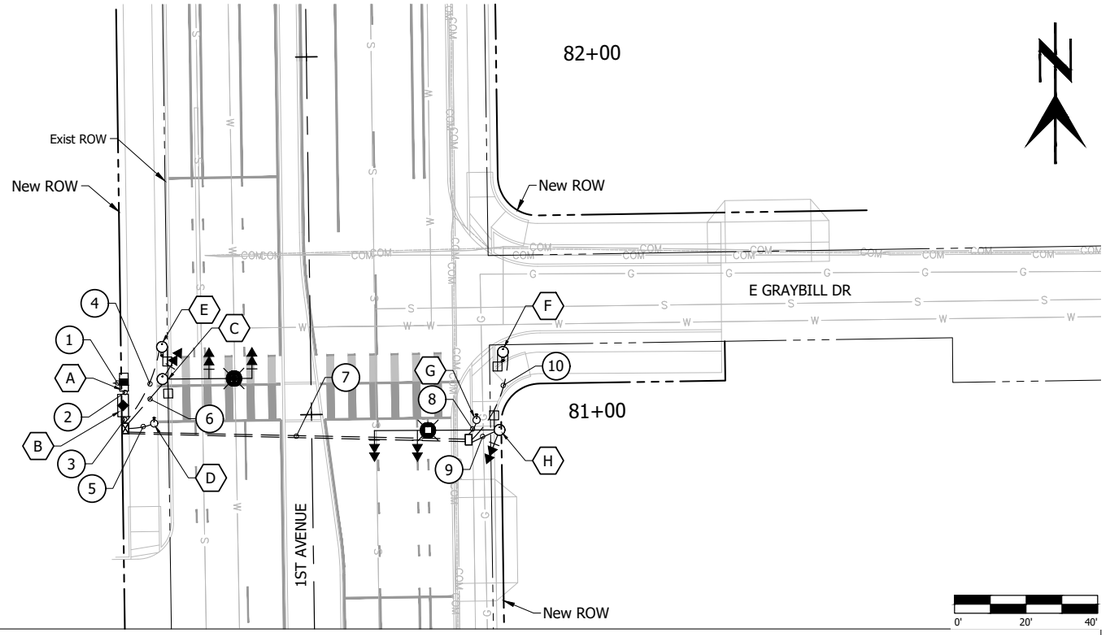
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
HAWK PLANS

319 OF 504

CITY OF TUCSON

DRWN. BY AAN AUG 20 26
CHKD. BY BDH AUG 20 26
APPR. BY FLG AUG 20 26
SCALE: 1" = 20'
PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DOR\design_CD\29660_CD_HAWK_Plans.dwg SG25 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:55 PM



CONSTRUCTION NOTES

1. Supply 2½" galvanized metal conduit sweep and 10' riser. See TEP Standard Specification SR 308A and SR 409.
2. See Civil Sheets for ramp construction.

CABINET SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROLLER	FOUNDATION	LOCATION	REMARKS
A	METERED PEDESTAL	MYERS 125 AMP 120/240V MUEG16-125WTB		T 1801		
B	M-49	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER		T 203		CABINET AND CONTROLLER CITY SUPPLIED AND CONTRACTOR INSTALLED

POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM: SIGNAL	MAST ARM: LUMINAIRE	SIGNALS: FACE	SIGNALS: MOUNTING	PED/BIKE PUSHBUTTON	LUMINAIRE	LOCATION	REMARKS
C	Q T412	25'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01	TO BE COMPLETED AT THE NEXT SUBMITTAL	
D	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
E	A (10') T401	-	-	(1) BIKES WAIT / BIKES OK	(1) XI	(1) TYPE I 2" ADA T 1101	-		
F	A (10') T401	-	-	(1) BIKES WAIT / BIKES OK	(1) XI	(1) TYPE I 2" ADA T 1101	-		
G	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
H	Q T412	35'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		

CONDUIT AND CONDUCTOR SCHEDULE

	CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8	9	10
	CONDUIT SIZE (INCHES)	2½	2	4(2)	2	2	3	4(2)	3	2	2
	CIRCUIT PHASE										
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK	SERVICE CONDUCTORS INSTALLED BY TEP									
	WHITE-SIGNAL COMMON										
	RED-AØ SIGNAL RED										
	GREEN-AØ SIGNAL GREEN										
	ORANGE-PED PUSHBUTTON										
	BLUE-AØ SIGNAL YELLOW										
	WHITE W/B-LOW VOLTAGE COMMON										
	RED W/B-AØ AUX RED										
	GREEN W/B-AØ AUX GREEN										
	ORANGE W/B-SPARE PED PUSHBUTTON										
	BLUE W/B-AØ AUX YELLOW										
	BLACK W/W-PED SIGNAL DON'T WALK										
	RED W/W-SPARE										
	GREEN W/W-BØ LEFT TURN GREEN			C							
	BLUE W/W-BØ LEFT TURN YELLOW			H			C	H	H		
	BLACK W/R-SPARE										
#14 7CC IMSA				4	1	1		2		1	1
#8 BARE	EQUIPMENT GROUND			1	1	1	1	1	1	1	1
#10 THW	STREET LIGHT CIRCUIT #1 (BLACK)			1					1		
	STREET LIGHT CIRCUIT #2 (RED)			1			1				
	STREET LIGHT COMMON (WHITE)			1			1		1		
	PRE-EMT BEACON										
	PRE-EMT BEACON										
#4 THW	POWER HOT (RED) (BLACK)		2								
	POWER NEUTRAL (WHITE)		1								
3 COND. IMSA CABLE	TO PHOTOCELL (BLACK)			1			1				
	COMMON (WHITE)			1			1				
	FROM PHOTOCELL (RED)			1			1				

NO.	DATE	REVISION	BY	CHKD.	APPR.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
Arizona811
Call 811 or click ArizonaBlue811.com

PRELIMINARY
30%
REVIEW NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

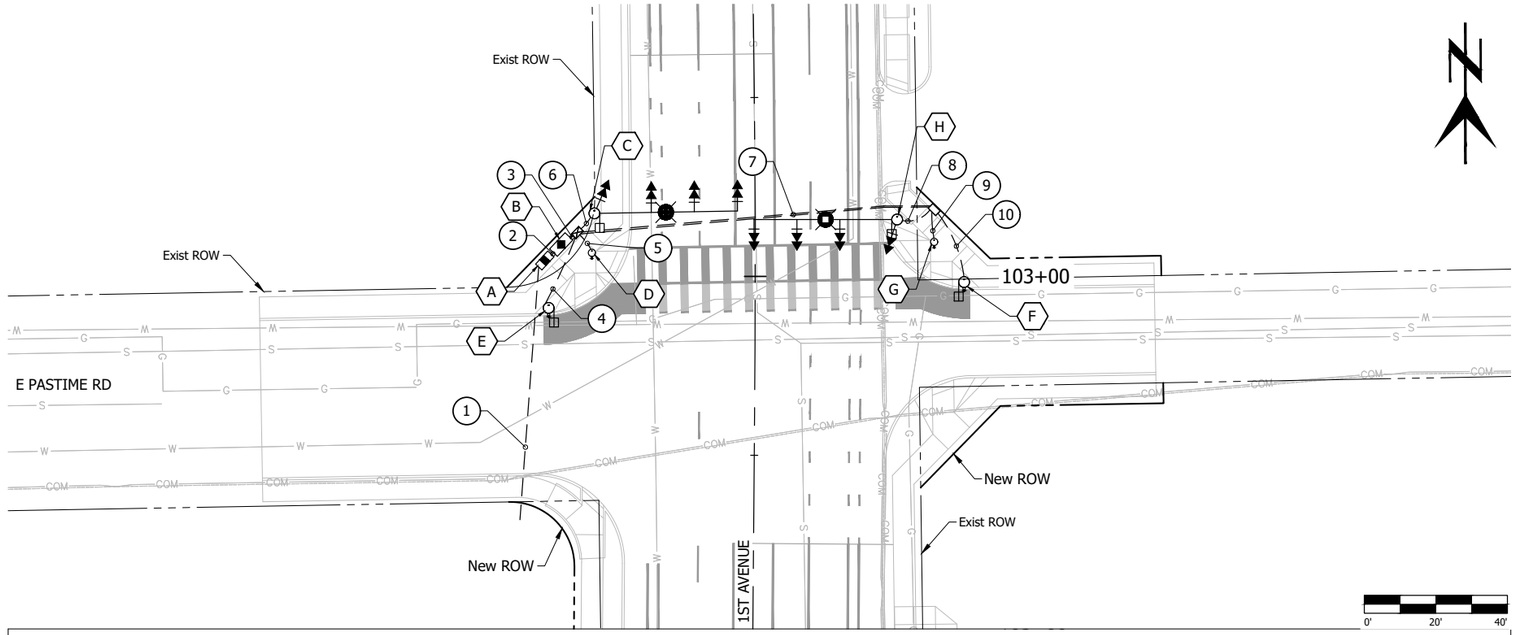
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
HAWK PLANS

320 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_HAWK_Plans.dwg SG26 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:57 PM



CONSTRUCTION NOTES

1. Supply 2½" galvanized metal conduit sweep and 10' riser. See TEP Standard Specification SR 308A and SR 409.
2. See Civil Sheets for ramp construction.

CABINET SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROLLER	FOUNDATION	LOCATION	REMARKS
A	METERED PEDESTAL	MYERS 125 AMP 120/240V MUEG16-125WTB		T 1801		
B	M-49	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER		T 203		CABINET AND CONTROLLER CITY SUPPLIED AND CONTRACTOR INSTALLED

POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM: SIGNAL	MAST ARM: LUMINAIRE	SIGNALS: FACE	SIGNALS: MOUNTING	PED/BIKE PUSHBUTTON	LUMINAIRE	LOCATION	REMARKS
C	Q T412	40'	20'	(3) MOD F (1) MOD F (1) PED	(3) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		
D	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-	TO BE COMPLETED AT THE NEXT SUBMITTAL	
E	A (10') T 401	-	-	(1) BIKES WAIT / BIKES OK	(1) XI	(1) TYPE I 2" ADA T 1101	-		
F	A (10') T 401	-	-	(1) BIKES WAIT / BIKES OK	(1) XI	(1) TYPE I 2" ADA T 1101	-		
G	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
H	Q T 412	40'	20'	(3) MOD F (1) MOD F (1) PED	(3) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		

CONDUIT AND CONDUCTOR SCHEDULE

	CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8	9	10
	CONDUIT SIZE (INCHES)	2½	2	4(2)	2	2	3	4(2)	3	2	2
	CIRCUIT PHASE										
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK	SERVICE CONDUCTORS INSTALLED BY TEP									
	WHITE-SIGNAL COMMON										
	RED-AØ SIGNAL RED										
	GREEN-AØ SIGNAL GREEN										
	ORANGE-PED PUSHBUTTON										
	BLUE-AØ SIGNAL YELLOW										
	WHITE W/B-LOW VOLTAGE COMMON										
	RED W/B-AØ AUX RED										
	GREEN W/B-AØ AUX GREEN										
	ORANGE W/B-SPARE PED PUSHBUTTON										
	BLUE W/B-AØ AUX YELLOW										
	BLACK W/W-PED SIGNAL DON'T WALK										
	RED W/W-SPARE										
	GREEN W/W-BØ LEFT TURN GREEN			C							
	BLUE W/W-BØ LEFT TURN YELLOW			H			C	H	H		
	BLACK W/R-SPARE										
#14 7CC IMSA				4	1	1		2		1	1
#8 BARE	EQUIPMENT GROUND			1	1	1	1	1	1	1	1
#10 THW	STREET LIGHT CIRCUIT #1 (BLACK)			1					1		
	STREET LIGHT CIRCUIT #2 (RED)			1			1				
	STREET LIGHT COMMON (WHITE)			1			1		1		
	PRE-EMT BEACON										
	PRE-EMT BEACON										
#4 THW	POWER HOT (RED) (BLACK)		2								
	POWER NEUTRAL (WHITE)		1								
3 COND. IMSA CABLE	TO PHOTOCELL (BLACK)			1			1				
	COMMON (WHITE)			1			1				
	FROM PHOTOCELL (RED)			1			1				

SG27 OF SG30

NO.	DATE	REVISION	BY	CHKD.	APPR.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
Arizona811
Call 811 or click Arizona811.com

PRELIMINARY
30%
REVIEW NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

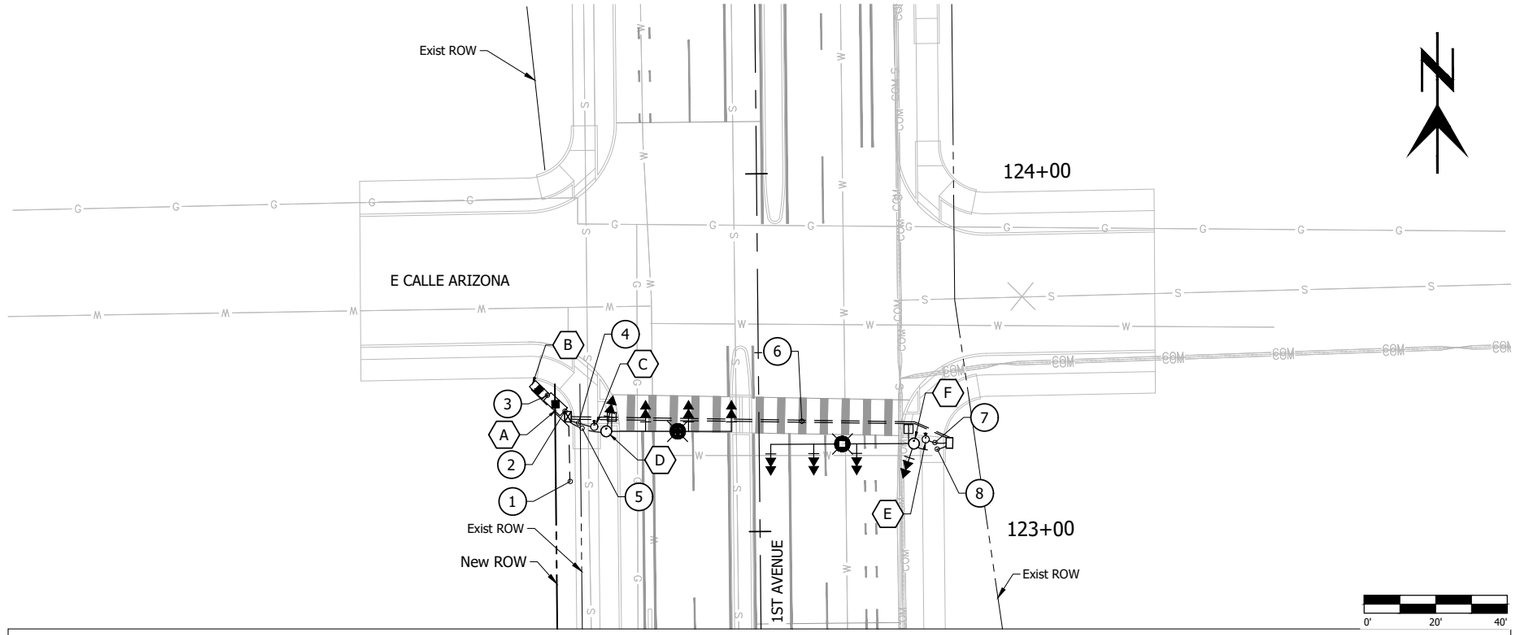
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
HAWK PLANS

321 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_HAWK_Plans.dwg SG27 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:17:58 PM



CONSTRUCTION NOTES

1. Supply 2½" galvanized metal conduit sweep and 10' riser. See TEP Standard Specification SR 308A and SR 409.
2. See Civil Sheets for ramp construction.

CABINET SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROLLER	FOUNDATION	LOCATION	REMARKS
A	METERED PEDESTAL	MYERS 125 AMP 120/240V MUEG16-125WTB		T 1801		
B	M-49	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER		T 203		CABINET AND CONTROLLER CITY SUPPLIED AND CONTRACTOR INSTALLED

POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM SIGNAL	MAST ARM LUMINAIRE	SIGNALS FACE	SIGNALS MOUNTING	PED/BIKE PUSHBUTTON	LUMINAIRE	LOCATION	REMARKS
C	Q T412	35'	20'	(3) MOD F (1) MOD F (1) PED	(3) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01	TO BE COMPLETED AT THE NEXT SUBMITTAL	
D	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
E	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
F	Q T412	40'	20'	(3) MOD F (1) MOD F (1) PED	(3) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		

CONDUIT AND CONDUCTOR SCHEDULE

	CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8
	CONDUIT SIZE (INCHES)	2½	2	4(2)	2	3	4(2)	2	3
	CIRCUIT PHASE								
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK	SERVICE CONDUCTORS INSTALLED BY TEP		C F		C	F		F
	WHITE-SIGNAL COMMON								
	RED-AØ SIGNAL RED								
	GREEN-AØ SIGNAL GREEN								
	ORANGE-PED PUSHBUTTON								
	BLUE-AØ SIGNAL YELLOW								
	WHITE W/B-LOW VOLTAGE COMMON								
	RED W/B-AØ AUX RED								
	GREEN W/B-AØ AUX GREEN								
	ORANGE W/B-SPARE PED PUSHBUTTON								
	BLUE W/B-AØ AUX YELLOW								
	BLACK W/W-PED SIGNAL DON'T WALK								
	RED W/W-SPARE								
	GREEN W/W-BØ LEFT TURN GREEN								
	BLUE W/W-BØ LEFT TURN YELLOW								
	BLACK W/R-SPARE								
#14 7CC IMSA				3	1		2		
#8 BARE	EQUIPMENT GROUND			1	1	1	1	1	1
#10 THW	STREET LIGHT CIRCUIT #1 (BLACK)			1					1
	STREET LIGHT CIRCUIT #2 (RED)			1			1		
	STREET LIGHT COMMON (WHITE)			1			1		1
	PRE-EMT BEACON								
	PRE-EMT BEACON								
#4 THW	POWER HOT (RED) (BLACK)		2						
	POWER NEUTRAL (WHITE)		1						
3 COND. IMSA CABLE	TO PHOTOCELL (BLACK)			1		1			
	COMMON (WHITE)			1		1			
	FROM PHOTOCELL (RED)			1		1			

NO.	DATE	REVISION	BY	CHKD.	APPR.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 705
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click ArizonaBlue.com

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

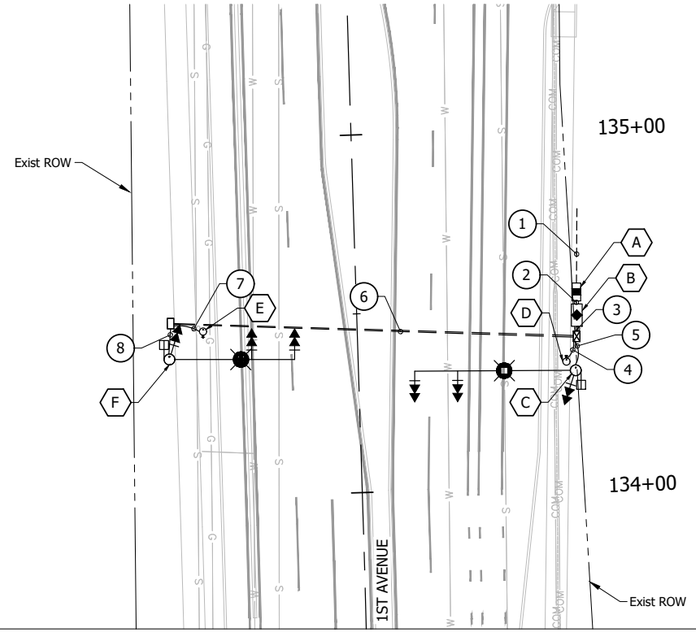
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
HAWK PLANS

322 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_HAWK_Plans.dwg SG28 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:18:00 PM



0' 20' 40'

CONSTRUCTION NOTES

1. Supply 2½" galvanized metal conduit sweep and 10' riser. See TEP Standard Specification SR 308A and SR 409.
2. See Civil Sheets for ramp construction.

CABINET SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROLLER	FOUNDATION	LOCATION	REMARKS
A	METERED PEDESTAL	MYERS 125 AMP 120/240V MUEG16-125WTB		T 1801		
B	M-49	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER		T 203		CABINET AND CONTROLLER CITY SUPPLIED AND CONTRACTOR INSTALLED

POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM SIGNAL	MAST ARM LUMINAIRE	SIGNALS FACE	SIGNALS MOUNTING	PED/BIKE PUSHBUTTON	LUMINAIRE	LOCATION	REMARKS
C (12')	Q T412	35'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01	TO BE COMPLETED AT THE NEXT SUBMITTAL	
D	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
E	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
F (12')	Q T412	45'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		

CONDUIT AND CONDUCTOR SCHEDULE

	CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8
	CONDUIT SIZE (INCHES)	2½	2	4(2)	2	3	4(2)	2	3
	CIRCUIT PHASE	SERVICE CONDUCTORS INSTALLED BY TEP							
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK								
	WHITE-SIGNAL COMMON								
	RED-AØ SIGNAL RED								
	GREEN-AØ SIGNAL GREEN								
	ORANGE-PED PUSHBUTTON								
	BLUE-AØ SIGNAL YELLOW								
	WHITE W/B-LOW VOLTAGE COMMON								
	RED W/B-AØ AUX RED								
	GREEN W/B-AØ AUX GREEN								
	ORANGE W/B-SPARE PED PUSHBUTTON								
	BLUE W/B-AØ AUX YELLOW								
	BLACK W/W-PED SIGNAL DON'T WALK								
	RED W/W-SPARE								
	GREEN W/W-BØ LEFT TURN GREEN			C					
	BLUE W/W-BØ LEFT TURN YELLOW			F		C	F		F
	BLACK W/R-SPARE								
#14 7CC IMSA				3	1		2		
#8 BARE	EQUIPMENT GROUND		1	1	1	1	1	1	1
#10 THW	STREET LIGHT CIRCUIT #1 (BLACK)			1					1
	STREET LIGHT CIRCUIT #2 (RED)			1			1		
	STREET LIGHT COMMON (WHITE)			1			1		1
	PRE-EMT BEACON								
	PRE-EMT BEACON								
#4 THW	POWER HOT (RED) (BLACK)		2						
	POWER NEUTRAL (WHITE)		1						
3 COND. IMSA CABLE	TO PHOTOCELL (BLACK)			1		1			
	COMMON (WHITE)			1		1			
	FROM PHOTOCELL (RED)			1		1			

NO.	DATE	REVISION	BY	CHKD.	APPR.

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
Arizona811
Call 811 or click Arizona811.com

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

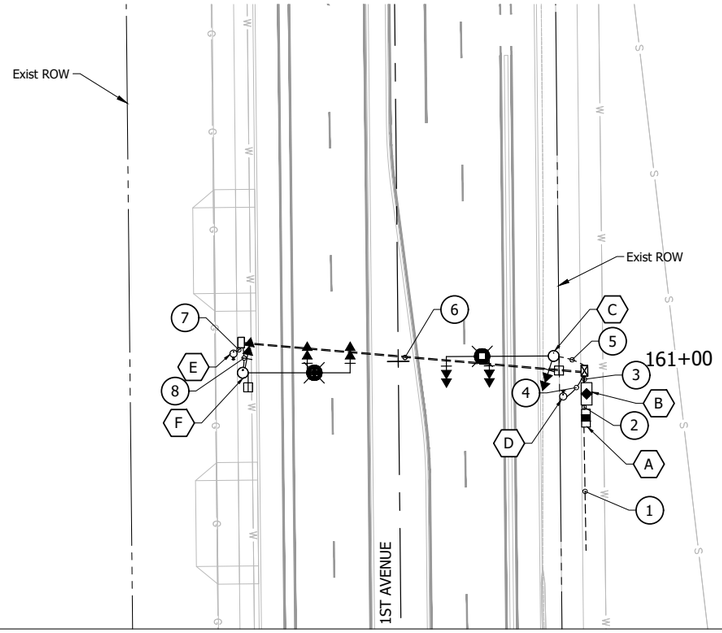
1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
HAWK PLANS

323 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_HAWK_Plans.dwg SG29 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:18:02 PM



0' 20' 40'

CONSTRUCTION NOTES

1. Supply 2½" galvanized metal conduit sweep and 10' riser. See TEP Standard Specification SR 308A and SR 409.
2. See Civil Sheets for ramp construction.

CABINET SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROLLER	FOUNDATION	LOCATION	REMARKS
A	METERED PEDESTAL	MYERS 125 AMP 120/240V MUEG16-125WTB		T 1801		
B	M-49	NEMA TS-2 TYPE 2 ECONOLITE COBALT CONTROLLER		T 203		CABINET AND CONTROLLER CITY SUPPLIED AND CONTRACTOR INSTALLED

POLE SCHEDULE

POLE NUMBER	POLE TYPE	MAST ARM: SIGNAL	MAST ARM: LUMINAIRE	SIGNALS: FACE	SIGNALS: MOUNTING	PED/BIKE PUSHBUTTON	LUMINAIRE	LOCATION	REMARKS
C	Q T412	30'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01	TO BE COMPLETED AT THE NEXT SUBMITTAL	
D	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
E	PPB T419	-	-	-	-	(1) TYPE I 2" ADA T 1101	-		
F	Q T412	30'	20'	(2) MOD F (1) MOD F (1) PED	(2) II (1) V (1) XI	-	SEE STREET LIGHTING NOTE 7 SHT SL01		

CONDUIT AND CONDUCTOR SCHEDULE

	CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8
	CONDUIT SIZE (INCHES)	2½	2	4(2)	2	3	4(2)	2	3
	CIRCUIT PHASE	SERVICE CONDUCTORS INSTALLED BY TEP							
(#14) 16 CONDUCTOR IMSA CABLE	BLACK-PED SIGNAL WALK								
	WHITE-SIGNAL COMMON								
	RED-AØ SIGNAL RED								
	GREEN-AØ SIGNAL GREEN								
	ORANGE-PED PUSHBUTTON								
	BLUE-AØ SIGNAL YELLOW								
	WHITE W/B-LOW VOLTAGE COMMON								
	RED W/B-AØ AUX RED								
	GREEN W/B-AØ AUX GREEN								
	ORANGE W/B-SPARE PED PUSHBUTTON								
	BLUE W/B-AØ AUX YELLOW								
	BLACK W/W-PED SIGNAL DON'T WALK								
	RED W/W-SPARE								
	GREEN W/W-BØ LEFT TURN GREEN			C					
	BLUE W/W-BØ LEFT TURN YELLOW			F		C	F		F
	BLACK W/R-SPARE								
#14 7CC IMSA				3	1		2		
#8 BARE	EQUIPMENT GROUND		1	1	1	1	1	1	1
#10 THW	STREET LIGHT CIRCUIT #1 (BLACK)			1					1
	STREET LIGHT CIRCUIT #2 (RED)			1			1		
	STREET LIGHT COMMON (WHITE)			1			1		1
	PRE-EMT BEACON								
	PRE-EMT BEACON								
#4 THW	POWER HOT (RED) (BLACK)		2						
	POWER NEUTRAL (WHITE)		1						
3 COND. IMSA CABLE	TO PHOTOCELL (BLACK)			1		1			
	COMMON (WHITE)			1		1			
	FROM PHOTOCELL (RED)			1		1			

SG30 OF SG30

NO.	DATE	REVISION	BY	CHKD.	APPR.

PRELIMINARY
30%
REVIEW NOT FOR CONSTRUCTION OR RECORDING

KITTELSON & ASSOCIATES
2 E CONGRESS STREET, SUITE 700
TUCSON, AZ 85701
P 520.544.4067 F 520.544.9516

Contact Arizona 811 at least two full working days before you begin excavation
Arizona811
Call 811 or click Arizona811.com

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE IMPROVEMENTS - GRANT ROAD TO RIVER ROAD
HAWK PLANS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AAN	BDH	FLG	1" = 20'
AUG 20 26	AUG 20 26	AUG 20 26	PLAN NO. R-2024-XXX

324 OF 504

H:\29\29660 - 1st Avenue DCR\design_CD\29660_CD_HAWK_Plans.dwg SG30 Last Saved: Wed, 26 Aug 2026 By:Bhelm Plotted:Wednesday, August 26, 2026 5:18:04 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:14:38 PM
Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

HARDSCAPE MATERIALS SCHEDULE

SYMBOL	ITEM	QTY	BID ITEM NO.	SIZE	COLOR/FINISH	MANUFACTURER/MODEL	DETAIL/PAGE	NOTES
	BASIN (WATER HARVESTING OR RECESSED PLANTING)	5603 S.Y.	8020001					
	DESERT COBBLE	37,140 S.Y.	8030050	25% 3/8" 50% 1/2" 20% 1"-2"	SANTA FE BROWN			
	DECORATIVE PAVING	51,995 S.F.	9312000					REFER TO PAG STANDARD DETAIL 200.
	BENCH	10	9300031					
	TRASH RECEPTACLE	10	9300031	25" x 33" x 30 Gal.				

HARDSCAPE NOTES

1. QUANTITIES SHALL BE DERIVED FROM THE PLANS. QUANTITIES SHOWN ARE FOR REFERENCE ONLY.

2. LANDSCAPE AREAS SHALL BE RECESSED FROM ADJACENT PAVEMENT 1/2", UNLESS OTHERWISE NOTED. ON-SITE WATER SHALL NOT FLOW ONTO ADJACENT PROPERTY.

3. LANDSCAPE GRADING MUST BE APPROVED PRIOR TO INSTALLATION OF HARDSCAPE ELEMENTS AND PLANT MATERIALS.

4. UNLESS OTHERWISE NOTED, ALL PLANTED MEDIANS SHALL HAVE RECESSED PLANTING AREAS. REFER TO HARDSCAPE PLANS.

5. REFER TO PAG STANDARD SPECIFICATIONS AND PROJECT SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS NOT SHOWN ON DRAWINGS.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

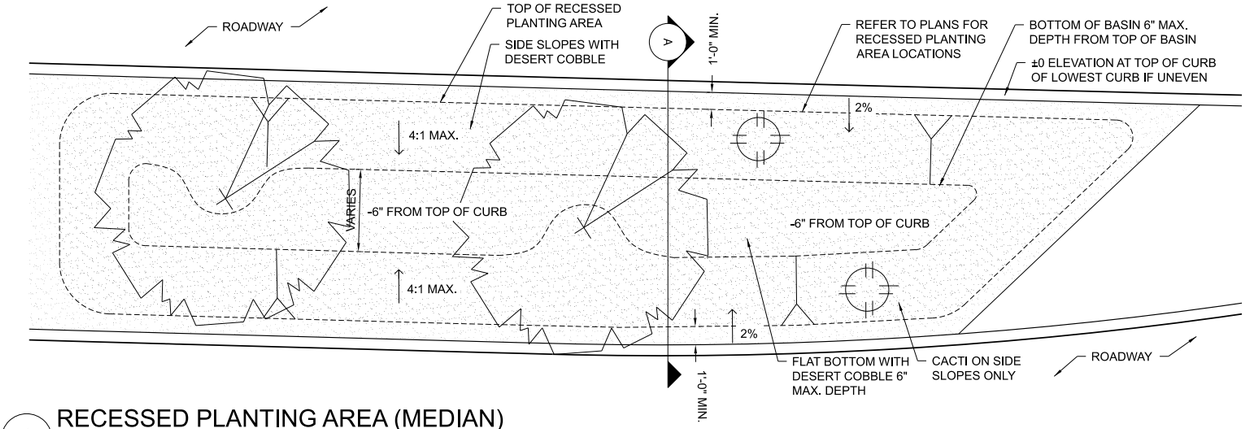
325 OF 504

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE:
PLAN NO. R-2024-XXX

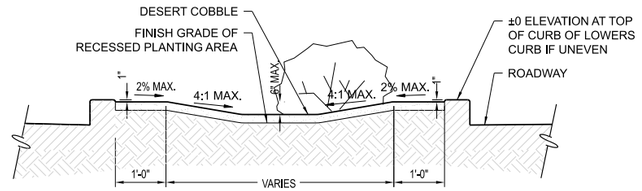
HARDSCAPE SCHEDULE *SHEET 1 OF 41*

c:\pwworking\west01\d4614768\00H-01.dgn
8/14/2026 12:14:38 PM



1 RECESSED PLANTING AREA (MEDIAN)

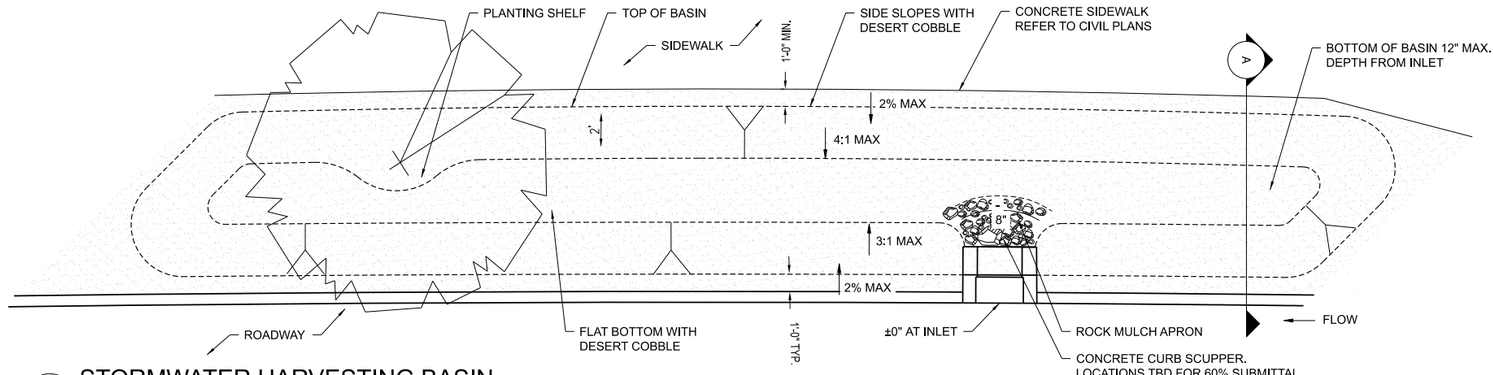
SCALE:N.T.S.



NOTES:
1. REFER TO SPECIAL PROVISIONS FOR DESERT COBBLE ROCK COLOR, SIZE AND INSTALLATION.
2. RIP SOIL IN PLANTING AREA TO A DEPTH OF 12".
3. DEPTH OF PLANTING AREA IS DEPENDENT ON AVAILABLE WIDTH OF PLANTING AREA.
4. RECESSED PLANTING AREA SHALL BE LOCATED 10'-0" MIN. AWAY FROM FACE OF BUILDING OR STRUCTURAL FOUNDATION.

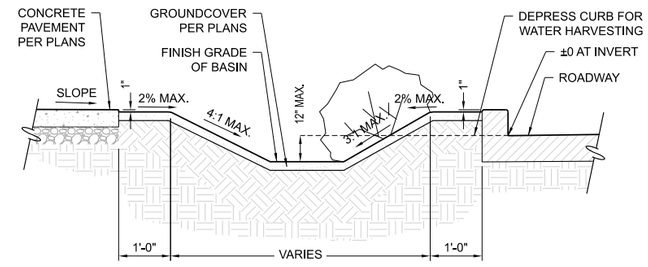
2 RECESSED PLANTING AREA - SECTION

SCALE:N.T.S.



3 STORMWATER HARVESTING BASIN

SCALE:N.T.S.



NOTES:
1. REFER TO SPECIAL PROVISIONS FOR DESERT COBBLE COLOR, SIZE AND INSTALLATION.
2. RIP SOIL IN PLANTING AREA TO A DEPTH OF 12".
3. DEPTH OF PLANTING AREA IS DEPENDENT ON AVAILABLE WIDTH OF PLANTING AREA.
4. BASINS SHALL BE LOCATED 10'-0" MIN. AWAY FROM FACE OF BUILDING OR STRUCTURAL FOUNDATION.

4 SECTION - BASIN

SCALE:N.T.S.

HARDSCAPE DETAILS *SHEET 2 OF 41*

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

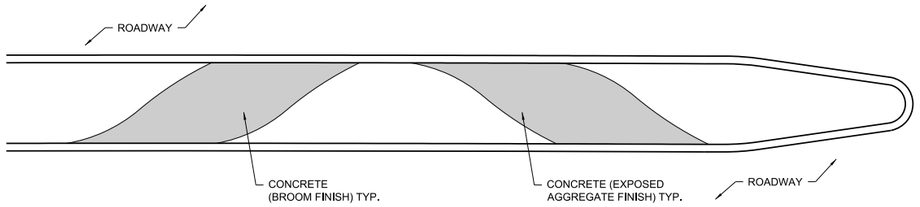
326 OF 504

CITY OF TUCSON | DRWN. BY JE AUG 2026 | CHKD. BY JM AUG 2026 | APPR. BY LM AUG 2026 | SCALE: | PLAN NO. R-2024-XXX

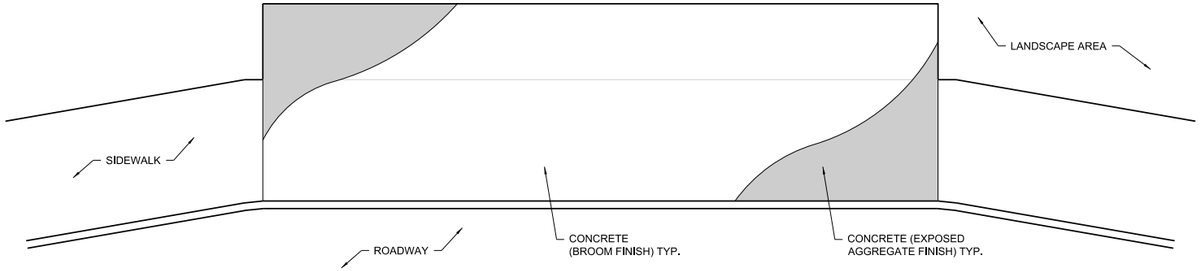
Project ID: Client Number: 4109
Printed by: JEtts Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl Plotdriver: GN_bwpdf.pltcfg
OpenRoads Designer v10.12.02.4 8/14/2026 12:14:44 PM

c:\pwworking\west01\d4614763\01H-01.dgn
8/14/2026 12:14:44 PM

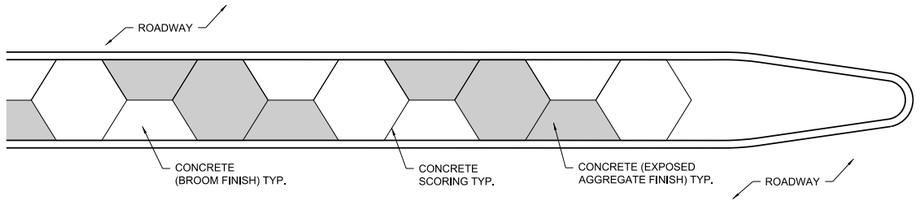
OpenRoads Designer v10.12.02.4
8/14/2026
12:47:49 PM
Printed by: JMoscato
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_hwpdf.ptcfg
Project ID:
Client Number: 4109



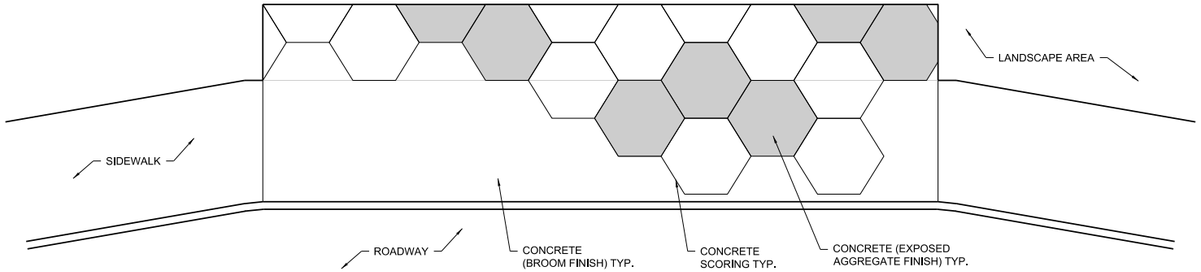
1A CONCRETE PAVING TREATMENT (MEDIAN) THEME DESERT FLOW
SCALE: N.T.S.



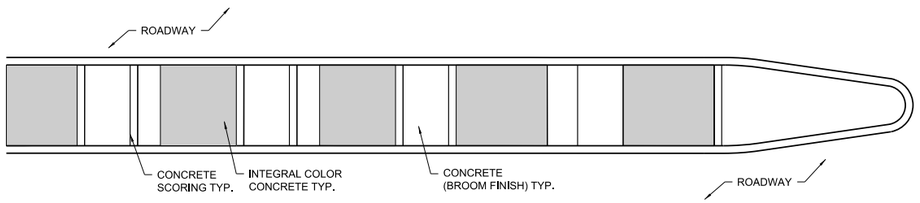
1B CONCRETE PAVING TREATMENT (BUS STOP) THEME DESERT FLOW
SCALE: N.T.S.



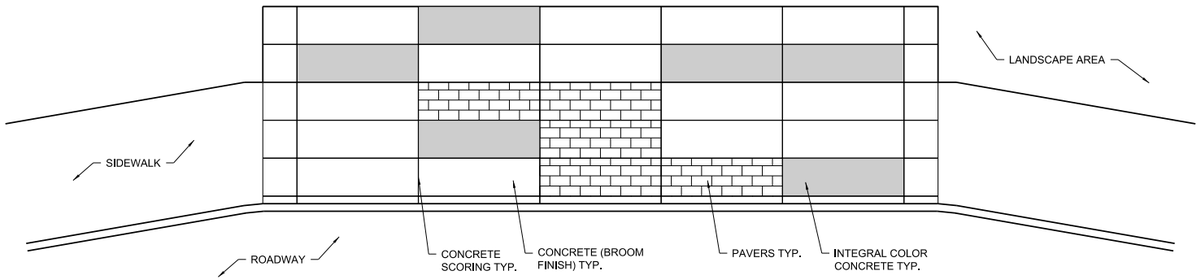
2A CONCRETE PAVING TREATMENT (MEDIAN) THEME DESERT TORTOISE
SCALE: N.T.S.



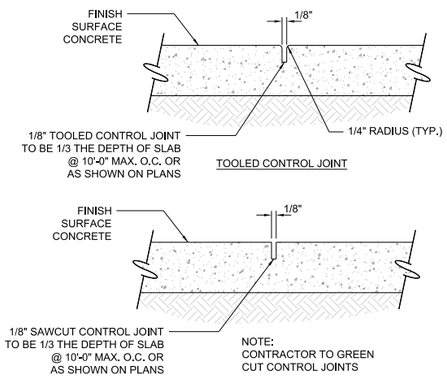
2A CONCRETE PAVING TREATMENT (BUS STOP) THEME DESERT TORTOISE
SCALE: N.T.S.

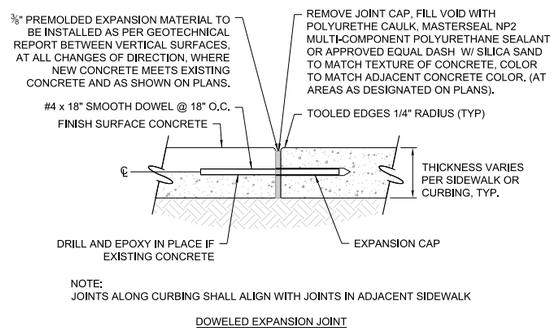


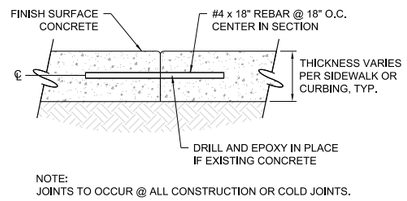
3A CONCRETE PAVING TREATMENT (MEDIAN) THEME FEATHERED FRIENDS
SCALE: N.T.S.



3B CONCRETE PAVING TREATMENT (BUS STOP) THEME FEATHERED FRIENDS
SCALE: N.T.S.







4 EXPANSION / CONTROL JOINTS
SCALE: N.T.S.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

HARDSCAPE DETAILS *SHEET 3 OF 41*

NO.	DATE	REVISION	BY	CHKD.	APPR.

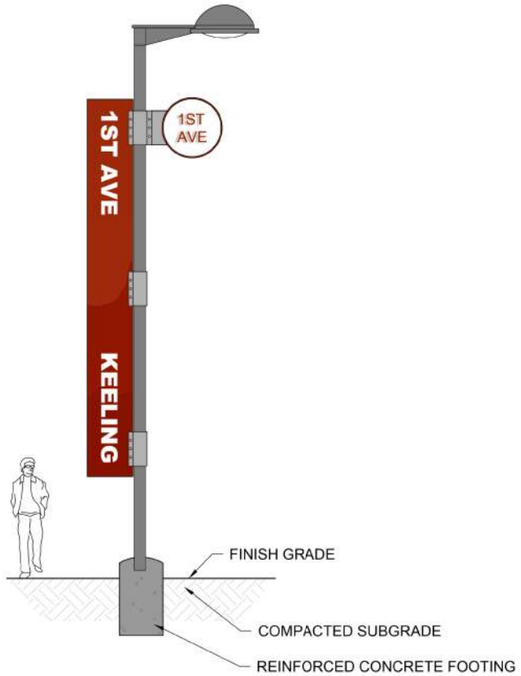
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

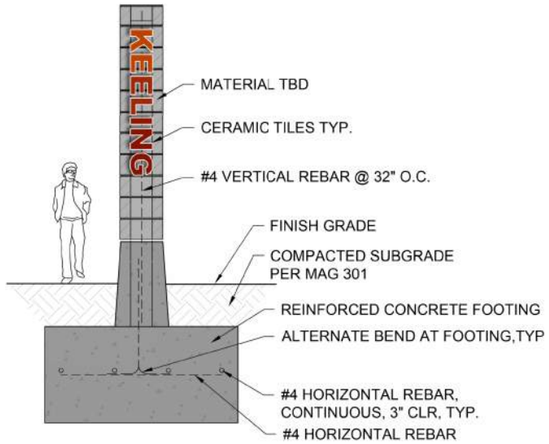
DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS
327 OF 504

CITY OF TUCSON
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE:
PLAN NO. R-2024-XXX

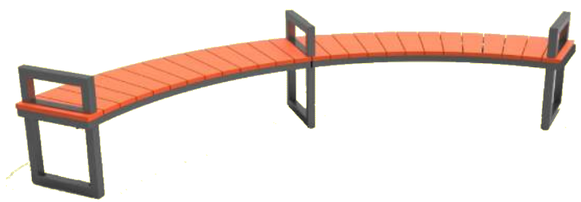
c:\pwworking\west01\d4614763\01H-02.dgn
8/14/2026 12:47:49 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:37:05 PM
Printed by: JMoscato
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.altcfg
Project ID:
Client Number: 4109





MONUMENT PRECEDENT PHOTOS
NEIGHBORHOOD IDENTITY MONUMENTS PROVIDE 1ST AVE AND ITS ADJACENT NEIGHBORHOOD ASSOCIATONS WITH A SENSE OF IDENTITY AND ACT AS WAYFINDING FOR PEDESTRIANS, CYCLISTS, TRANSIT-USERS AND DRIVERS.



SEATING PRECEDENT PHOTOS
COLORFUL SEATING WITH NEIGHBORHOOD MONUMENTS WILL ENLIVEN PEDESTRIAN ZONES.

HARDSCAPE DETAILS *SHEET 4 OF 41*

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

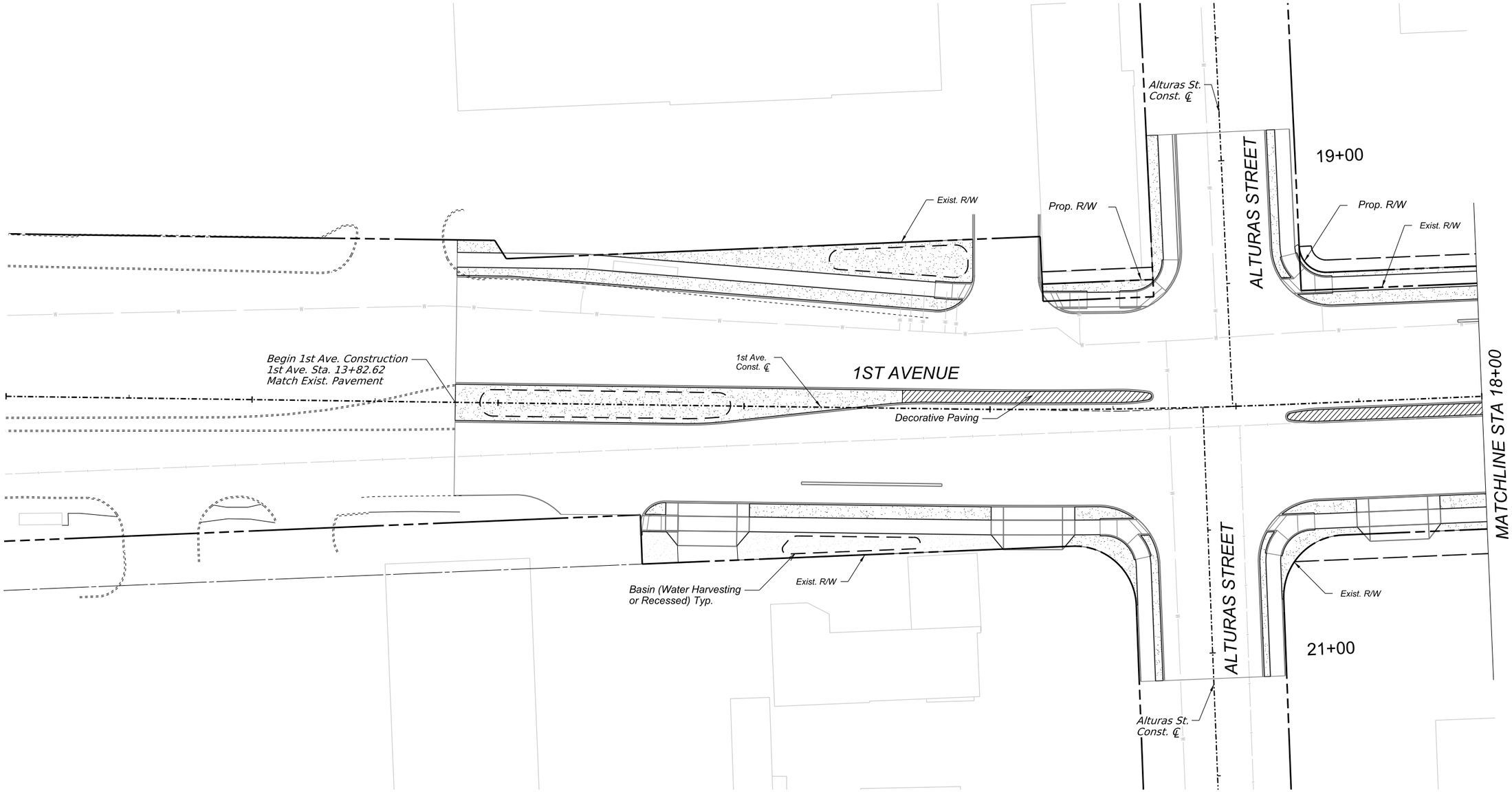
328 OF 504

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE:
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4614763\01H-03.dgn
8/14/2026 12:37:05 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:15:18 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

329 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

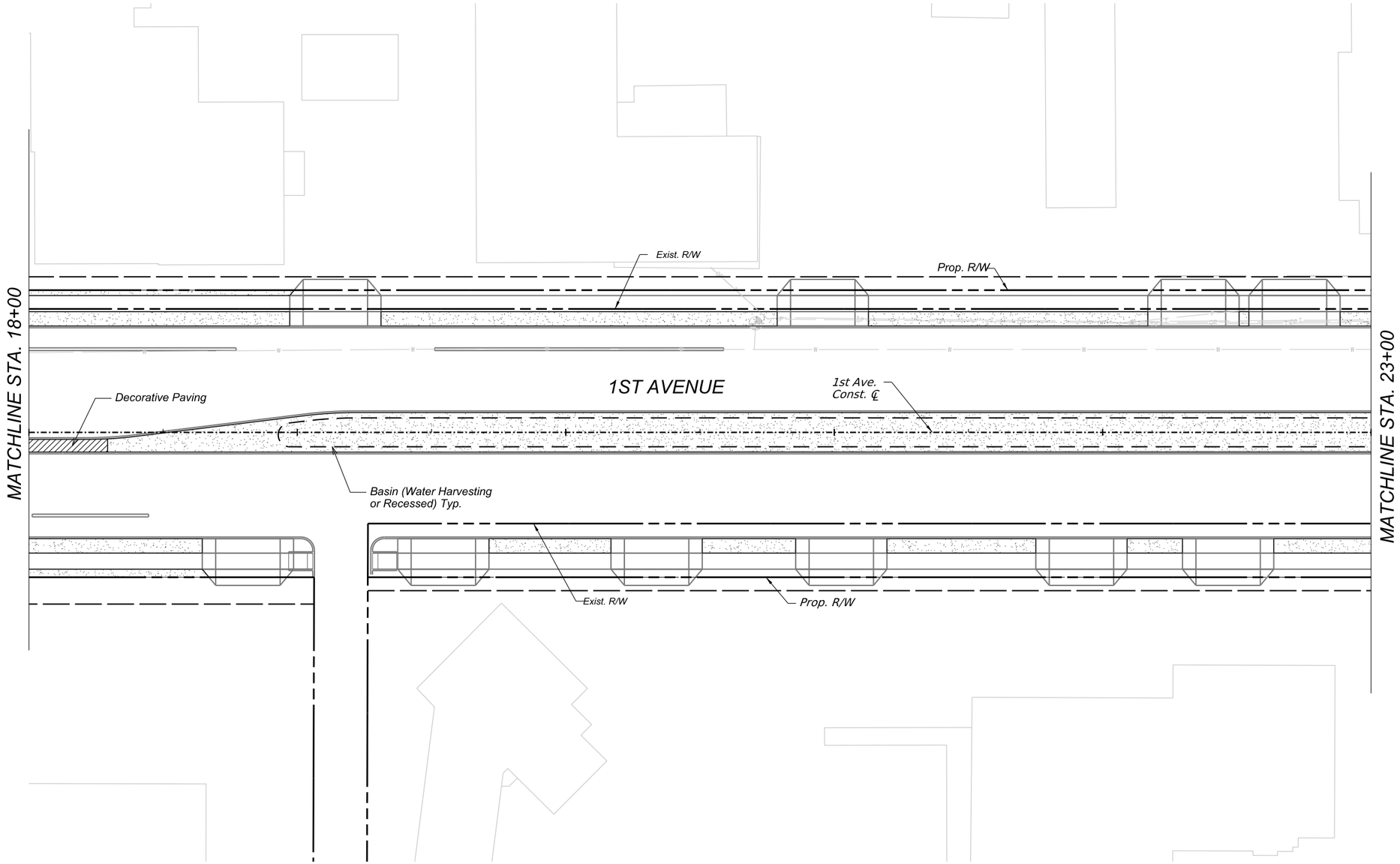
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave Begin to 18+00
HARDSCAPE PLAN

SHEET 5 OF 41

c:\pwworking\west01\d452044\102H-01.dgn
8/14/2026 12:15:18 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:15:20 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: DN_twpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

330 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

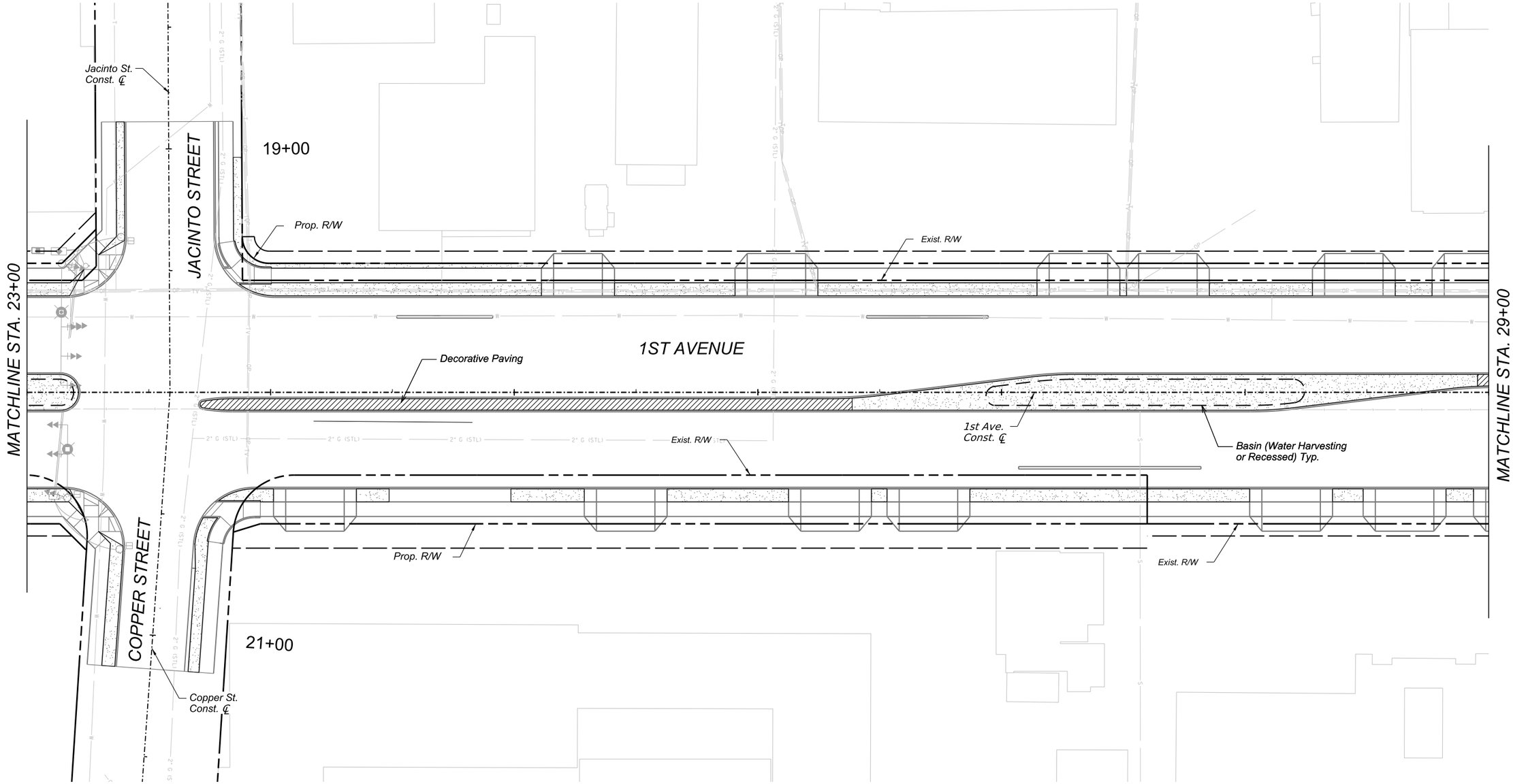
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 18+00 to 23+00
HARDSCAPE PLAN

SHEET 6 OF 41

c:\pwworking\west01\d4520441\02H-02.dgn
8/14/2026 12:15:20 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:15:22 PM
Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_fwpdf.altcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

1st Ave 23+00 to 29+00
HARDSCAPE PLAN

SHEET 7 OF 41

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

331 OF 504

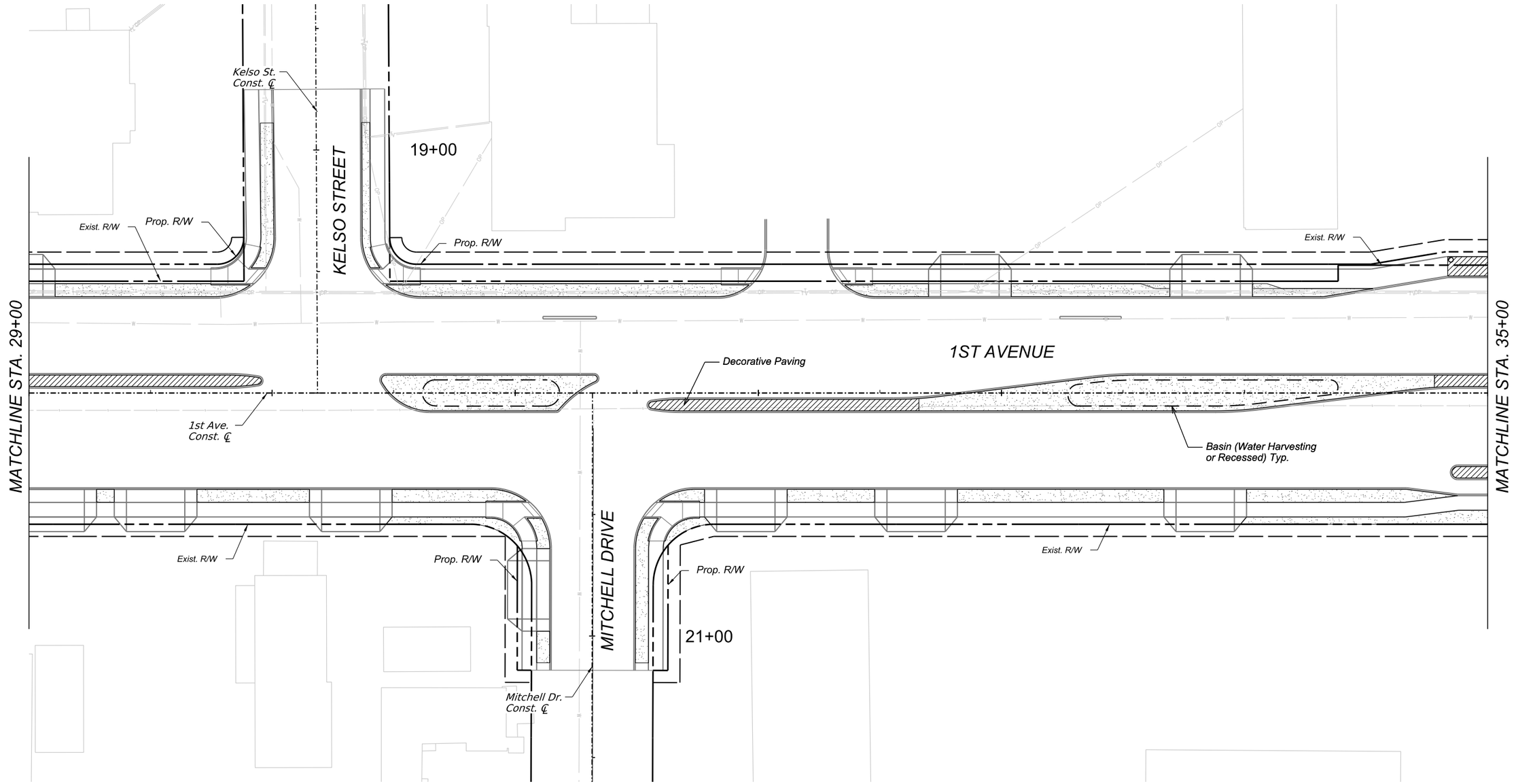
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-03.dgn
8/14/2026 12:15:22 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:15:23 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

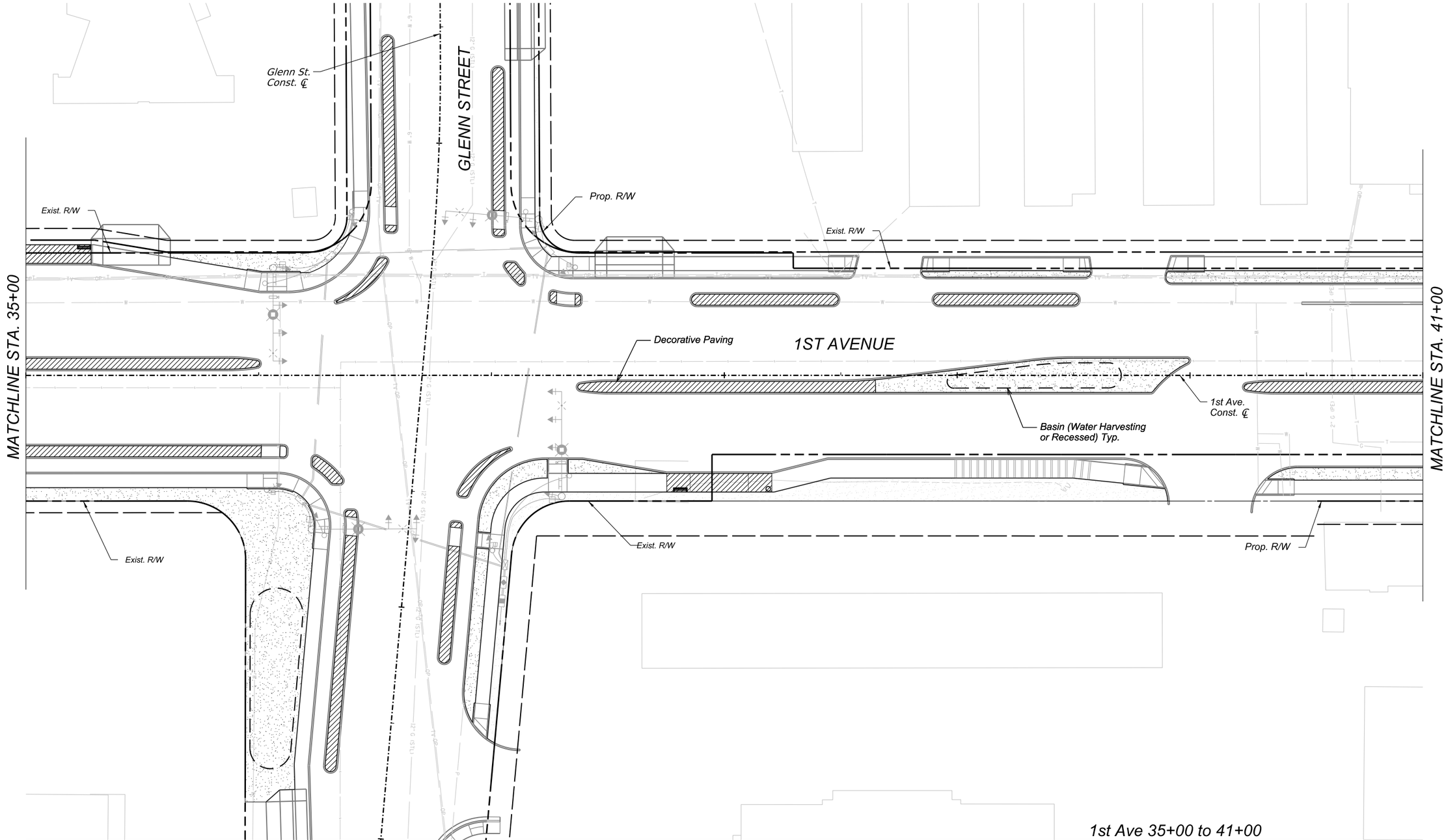
332 OF 504

1st Ave 29+00 to 35+00
HARDSCAPE PLAN

SHEET 8 OF 41

c:\pwworking\west01\d4520441\02H-04.dgn
8/14/2026 12:15:23 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:15:31 PM
Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_fwpdf.altcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

333 OF 504

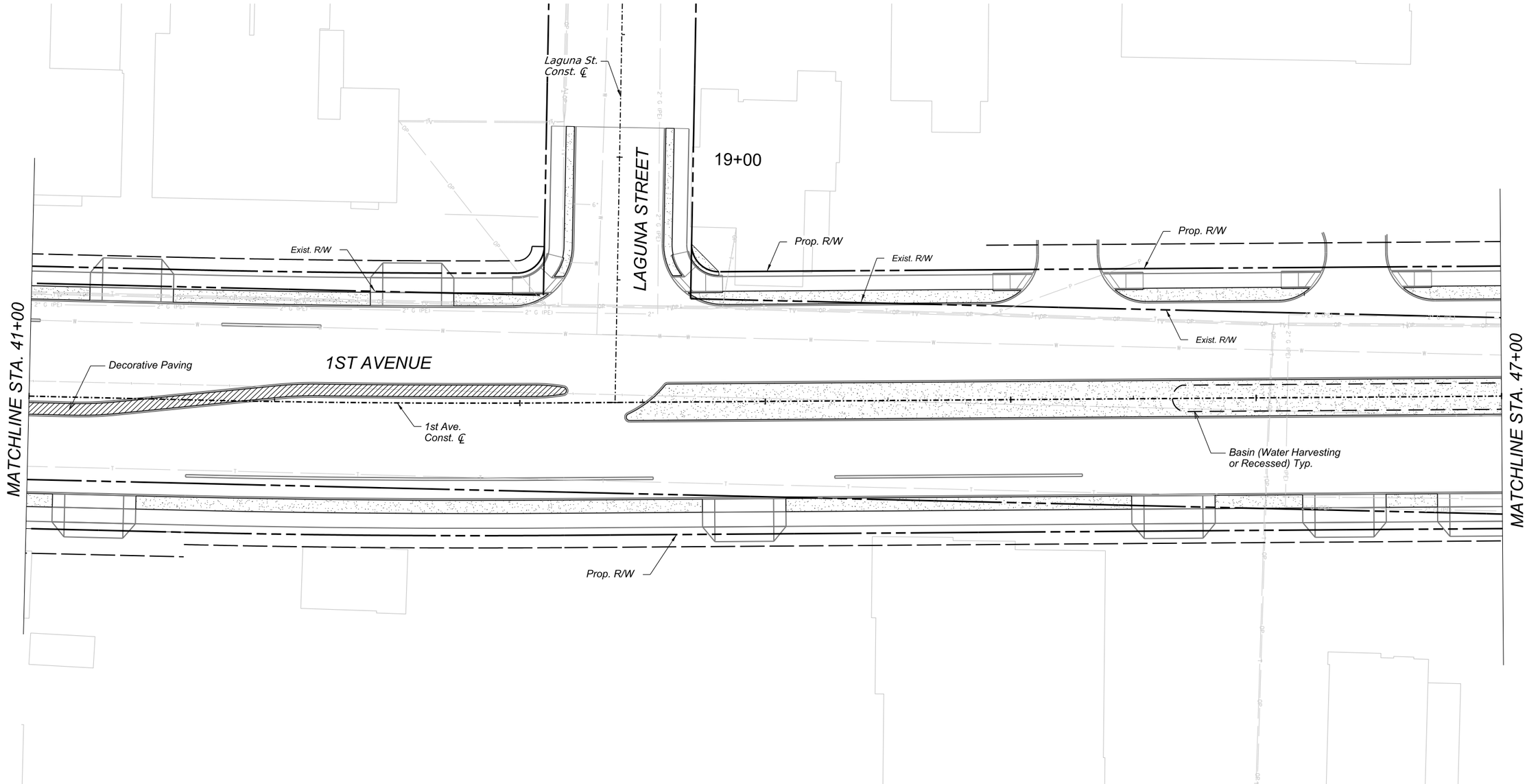
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 35+00 to 41+00
HARDSCAPE PLAN

SHEET 9 OF 41

c:\pwworking\west01\d4520441\02H-05.dgn
8/14/2026 12:15:31 PM



1st Ave 41+00 to 47+00
HARDSCAPE PLAN

SHEET 10 OF 41

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

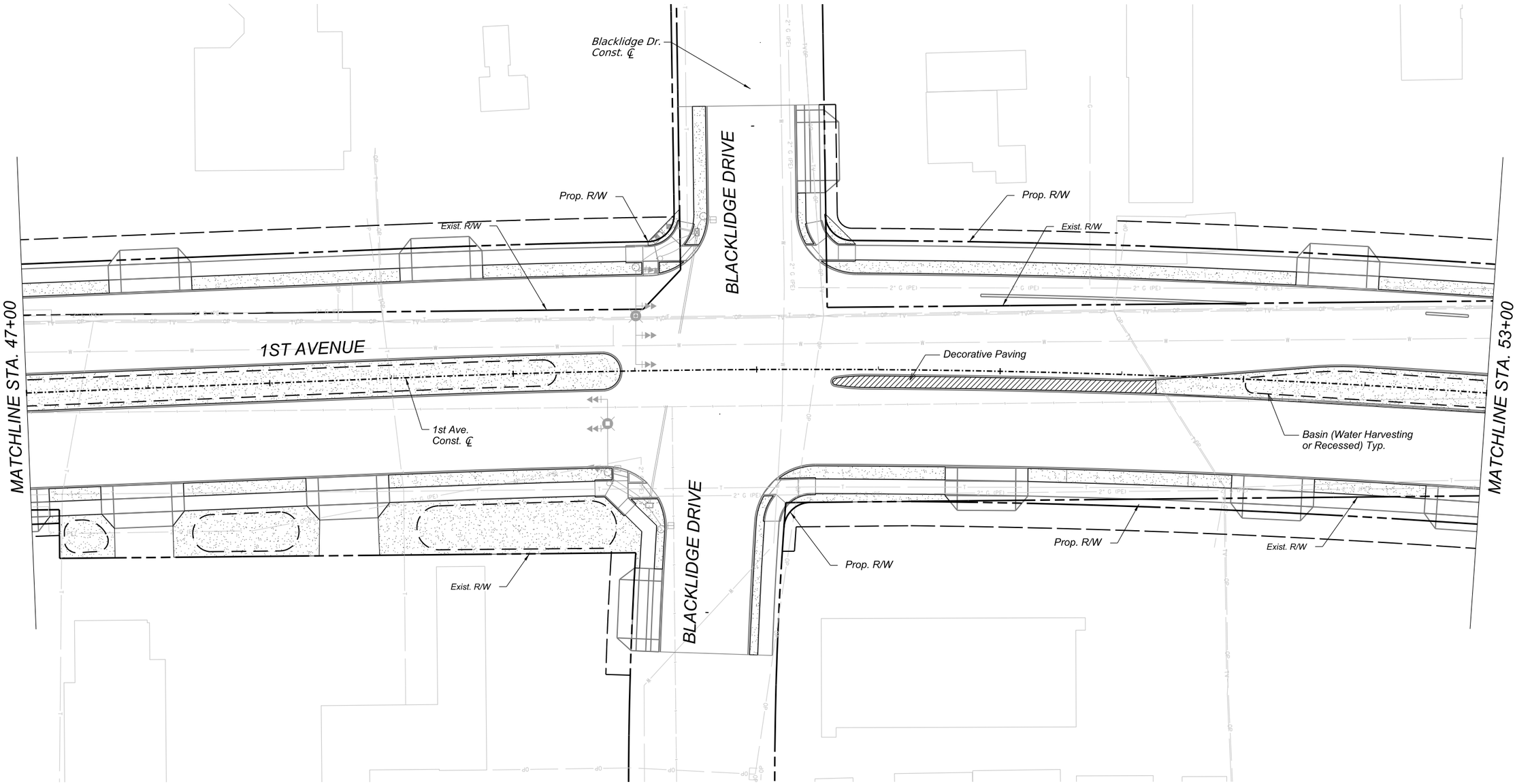
334 OF 504

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/14/2026
12:15:39 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4520441\02H-06.dgn
8/14/2026 12:15:39 PM



1st Ave 47+00 to 53+00
HARDSCAPE PLAN

SHEET 11 OF 41

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

335 OF 504

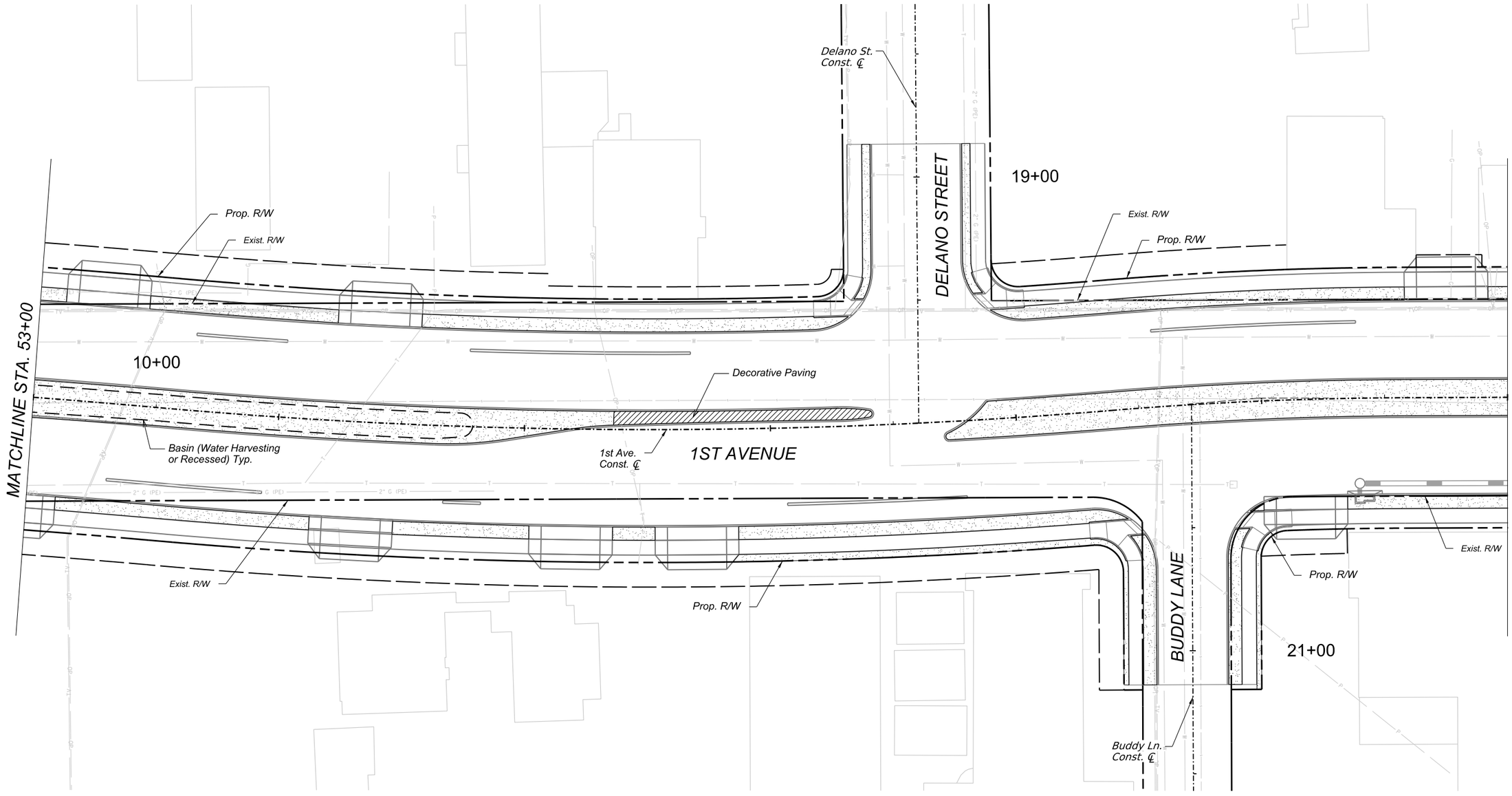
CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/14/2026
12:15:41 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4520441\02H-07.dgn
8/14/2026 12:15:41 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:15:43 PM
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

1st Ave 53+00 to 59+00
HARDSCAPE PLAN

SHEET 12 OF 41

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

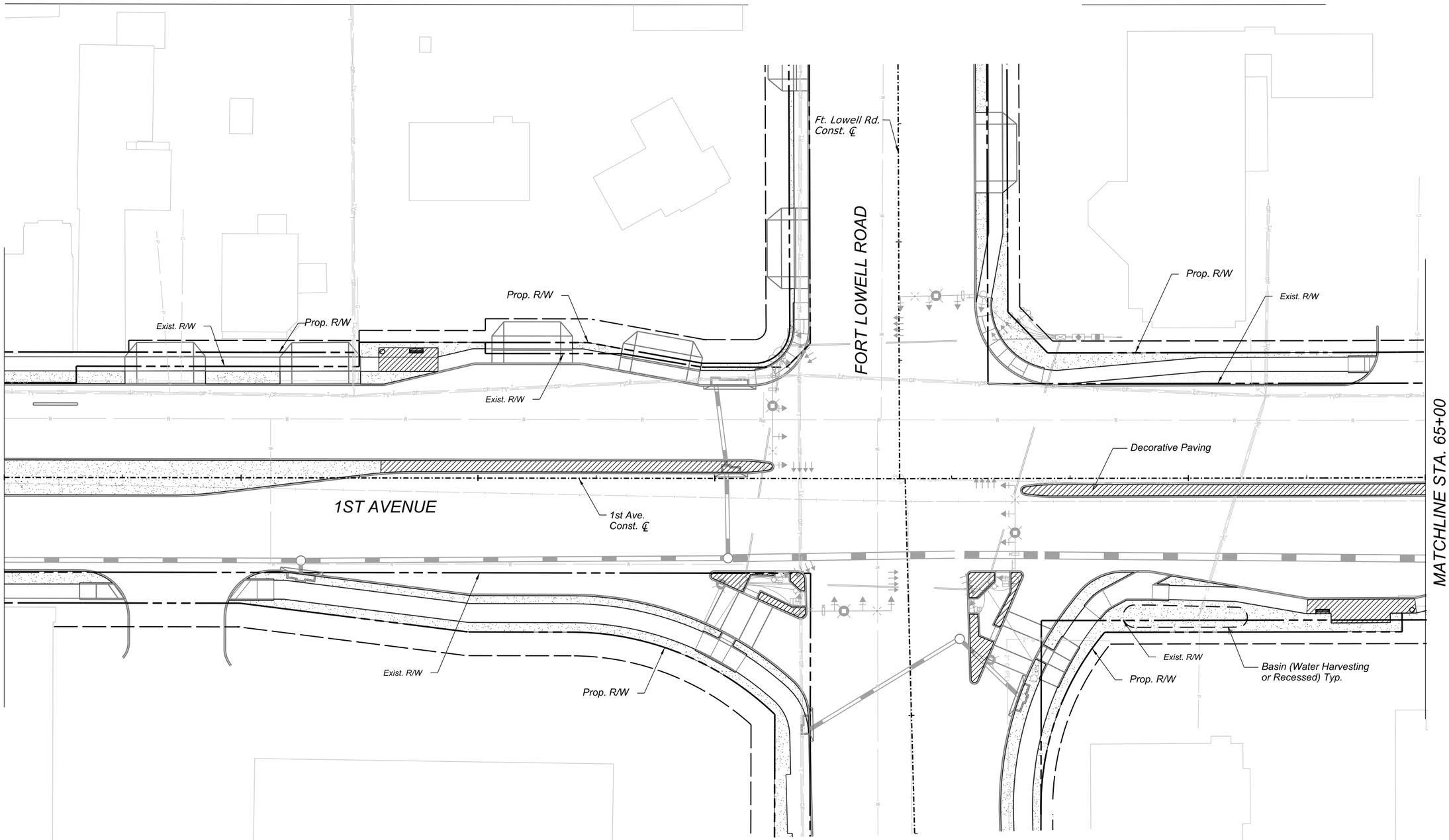
336 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-08.dgn
8/14/2026 12:15:43 PM

12:15:50 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

1st Ave 59+00 to 65+00
HARDSCAPE PLAN

SHEET 13 OF 41

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

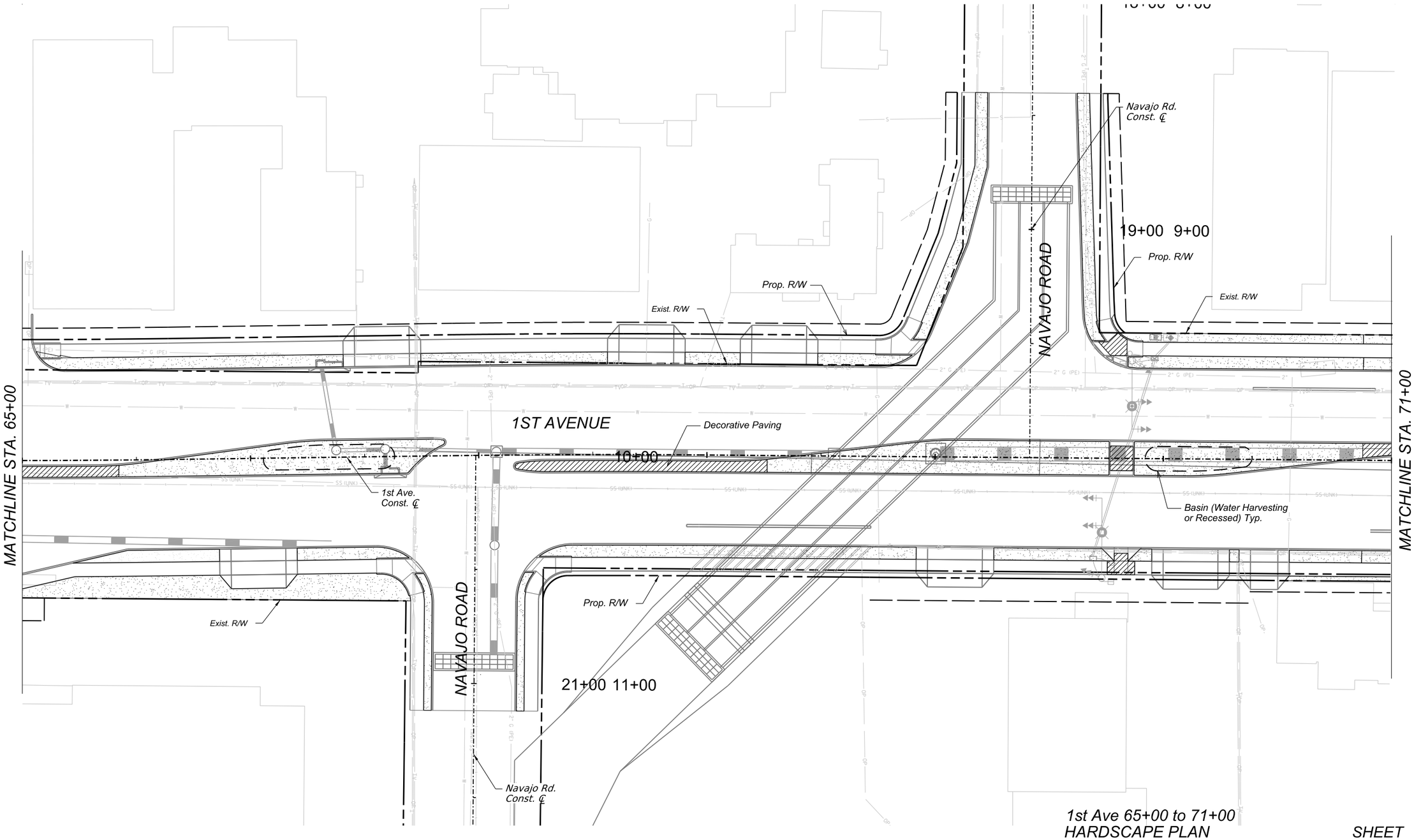
337 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-09.dgn
8/14/2026 12:15:50 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:00 PM
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

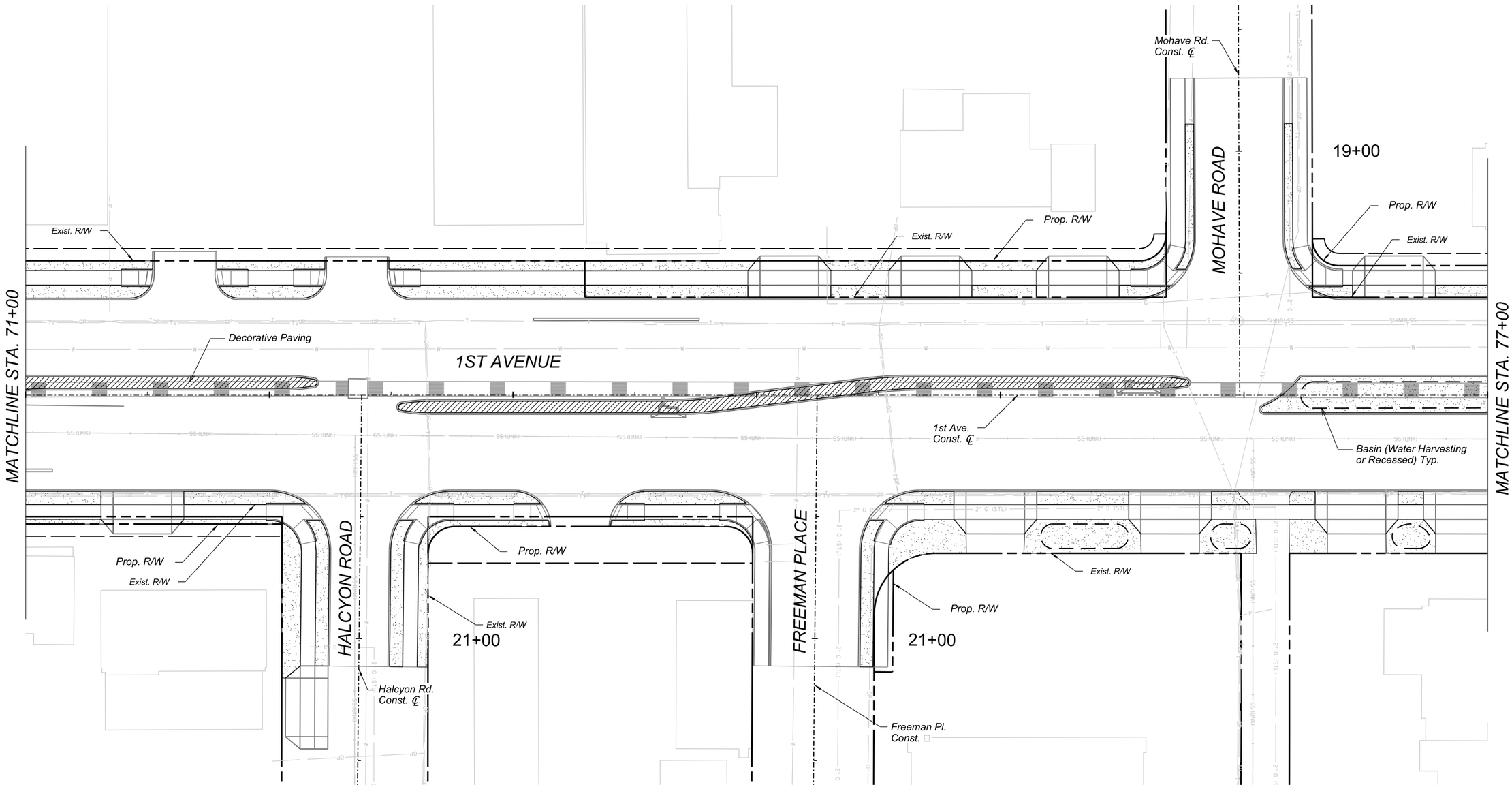
338 OF 504

1st Ave 65+00 to 71+00
HARDSCAPE PLAN

SHEET 14 OF 41

c:\pwworking\west01\d4520441\02H-10.dgn
8/14/2026 12:16:00 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:02 PM
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.ptcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

1st Ave 71+00 to 77+00
HARDSCAPE PLAN

SHEET 15 OF 41

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

339 OF 504

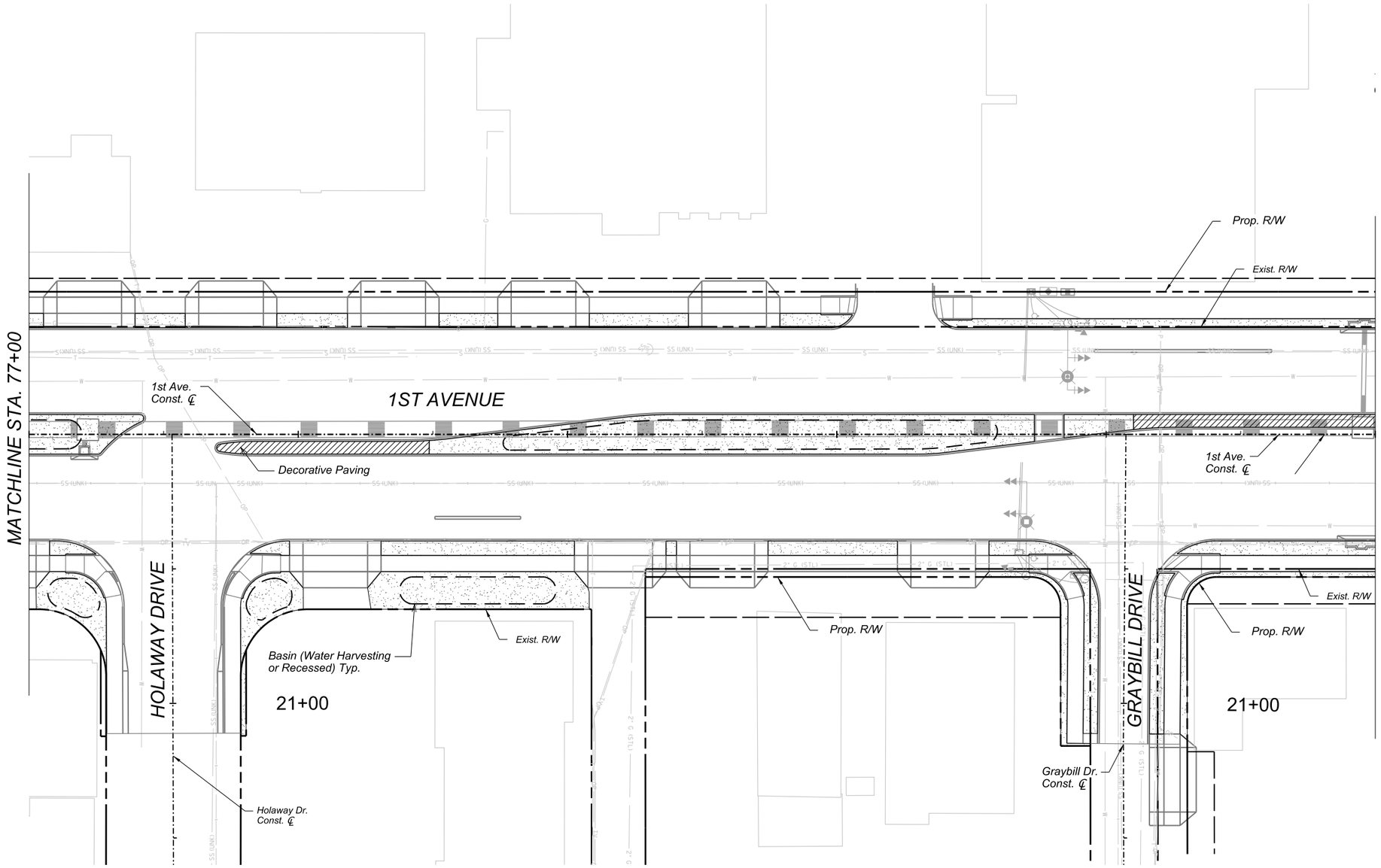
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-11.dgn
8/14/2026 12:16:02 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:04 PM
Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_fwpdf.altcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

1st Ave 77+00 to 82+00
HARDSCAPE PLAN

SHEET 16 OF 41

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

340 OF 504

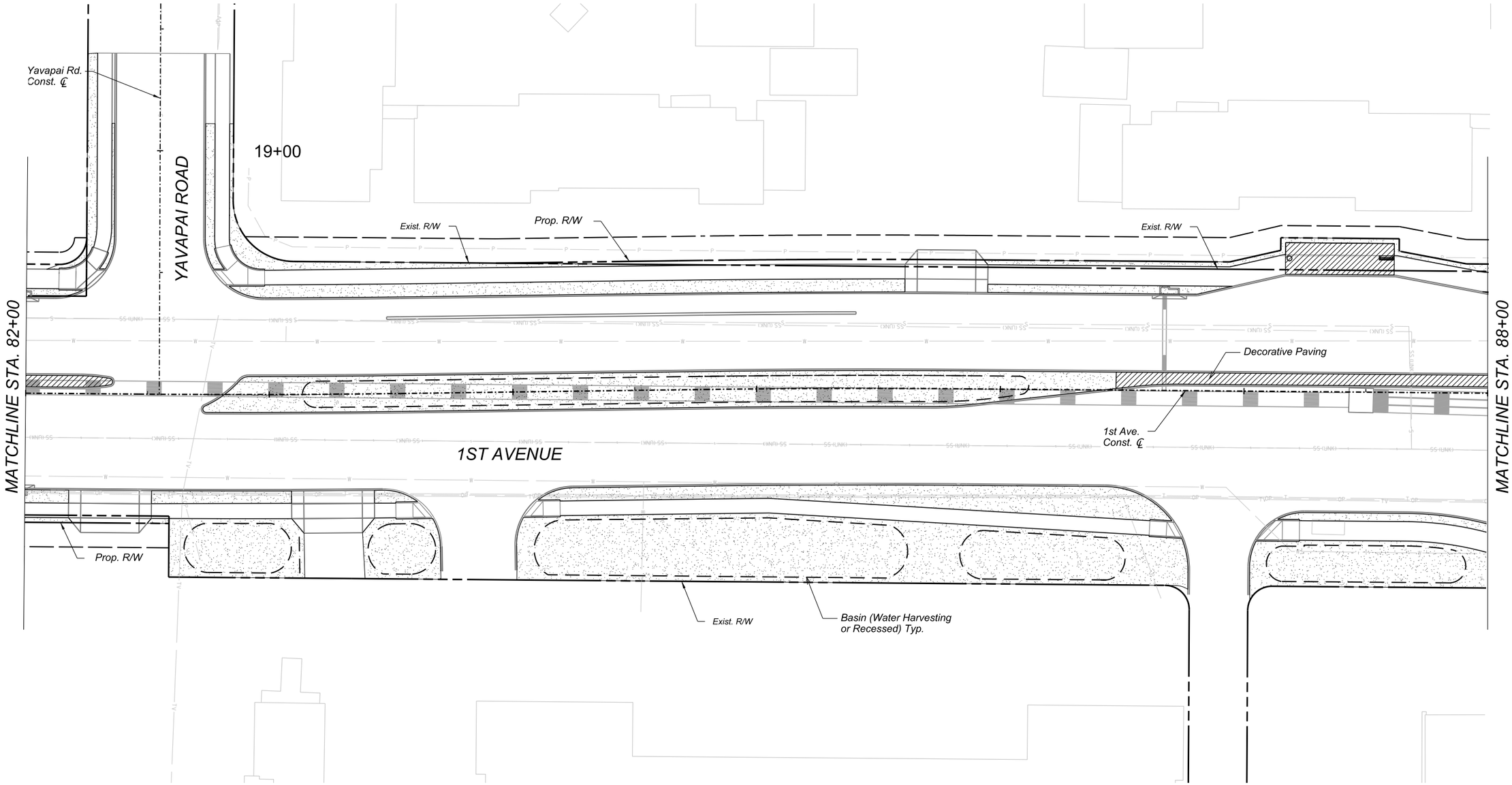
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-12.dgn
8/14/2026 12:16:04 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:05 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

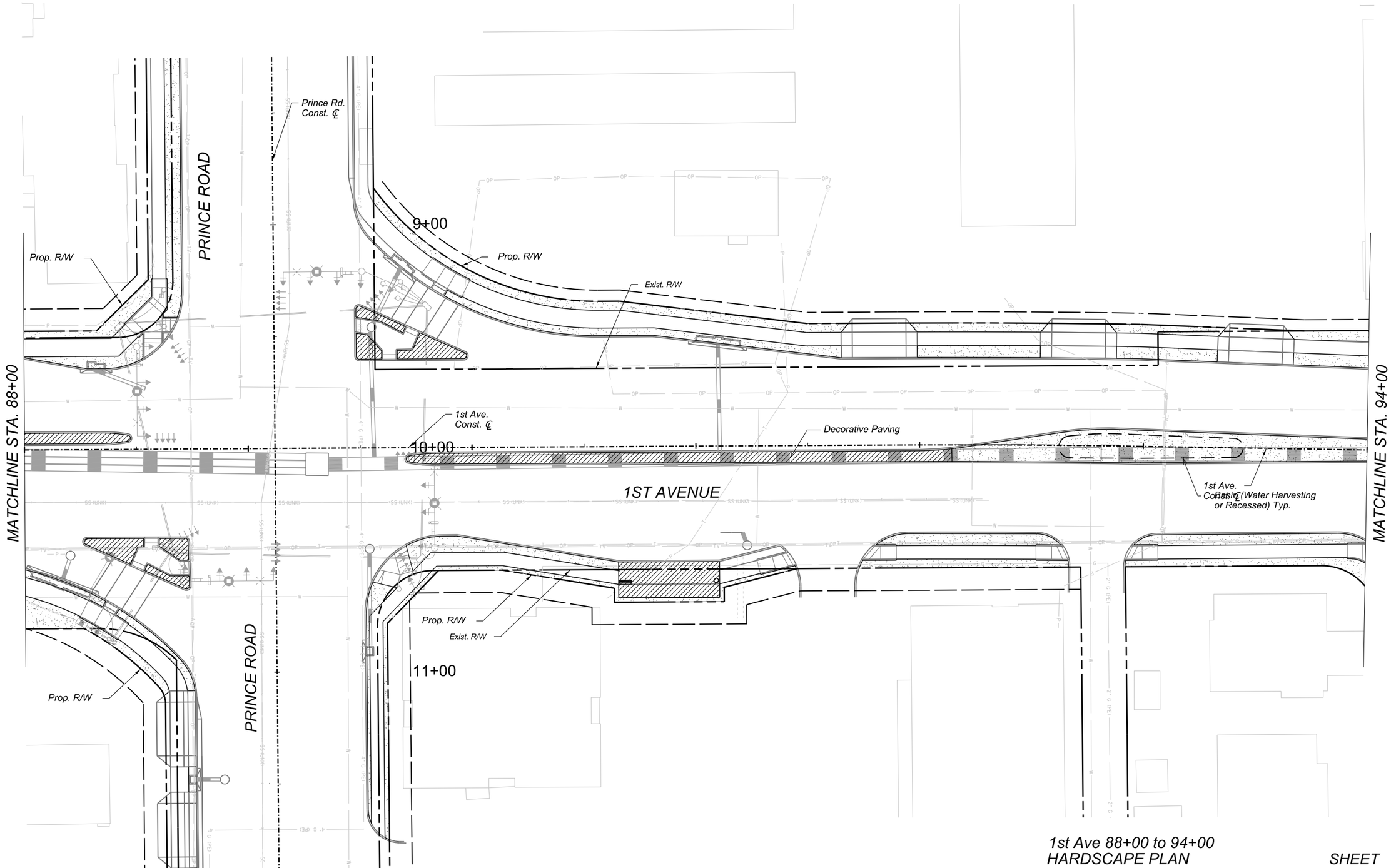
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

341 OF 504

1st Ave 82+00 to 88+00
HARDSCAPE PLAN

SHEET 17 OF 41

c:\pwworking\west01\d4520441\02H-13.dgn
8/14/2026 12:16:05 PM



1st Ave 88+00 to 94+00
HARDSCAPE PLAN

SHEET 18 OF 41

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

342 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

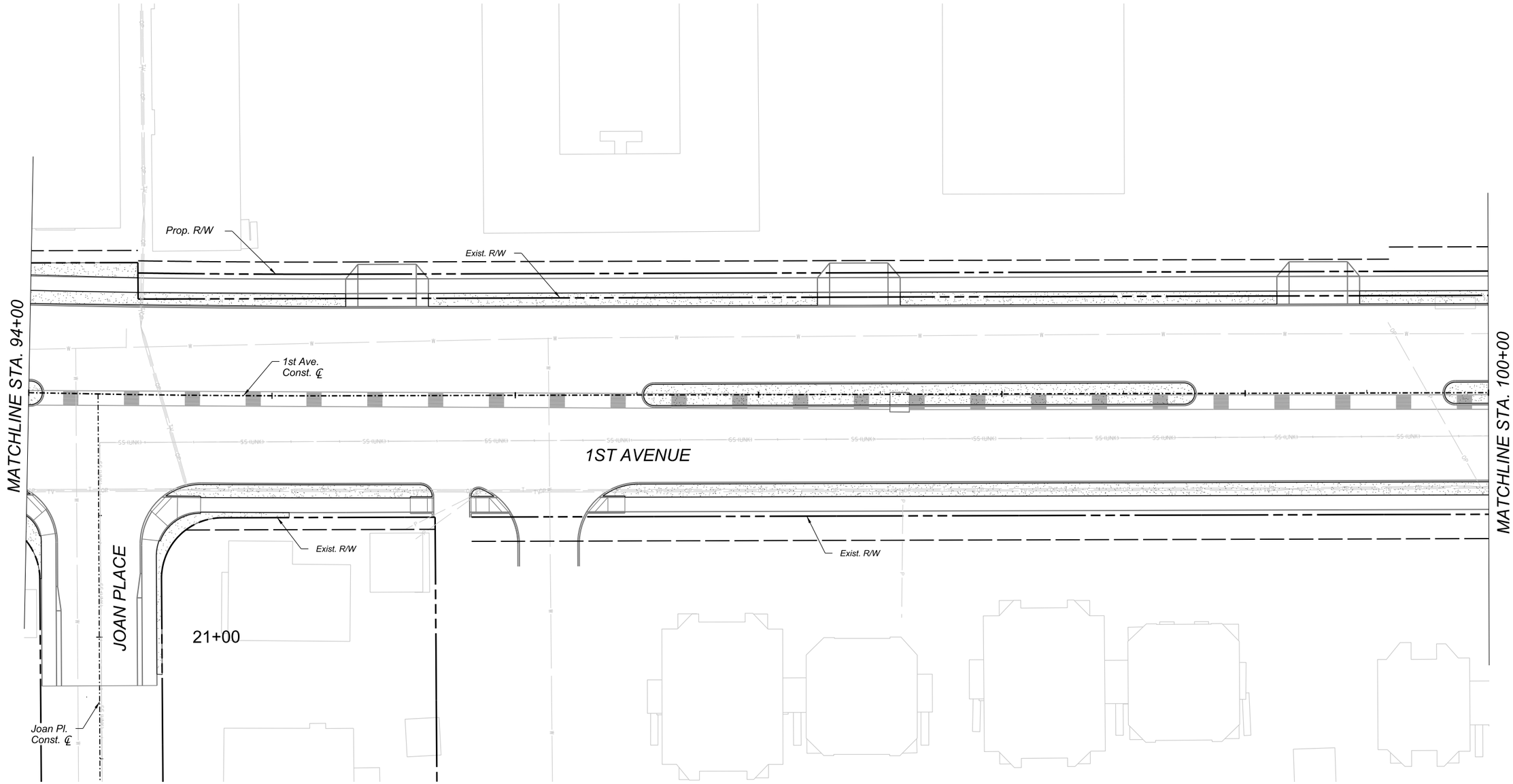
CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:13 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4520441\02H-14.dgn
8/14/2026 12:16:13 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:20 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



1st Ave 94+00 to 100+00
HARDSCAPE PLAN

SHEET 19 OF 41

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

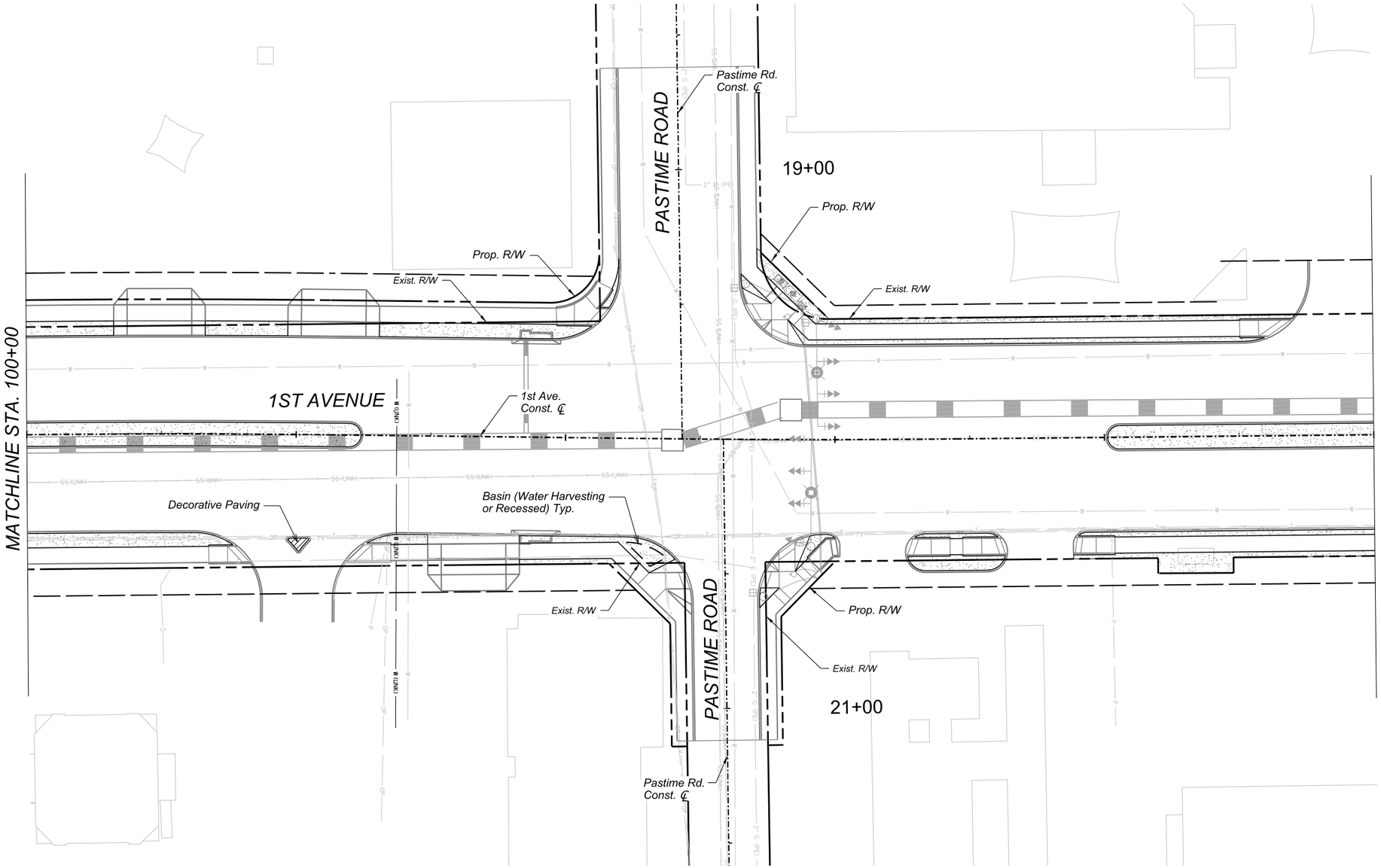
343 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-15.dgn
8/14/2026 12:16:20 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:22 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

344 OF 504

CITY OF TUCSON

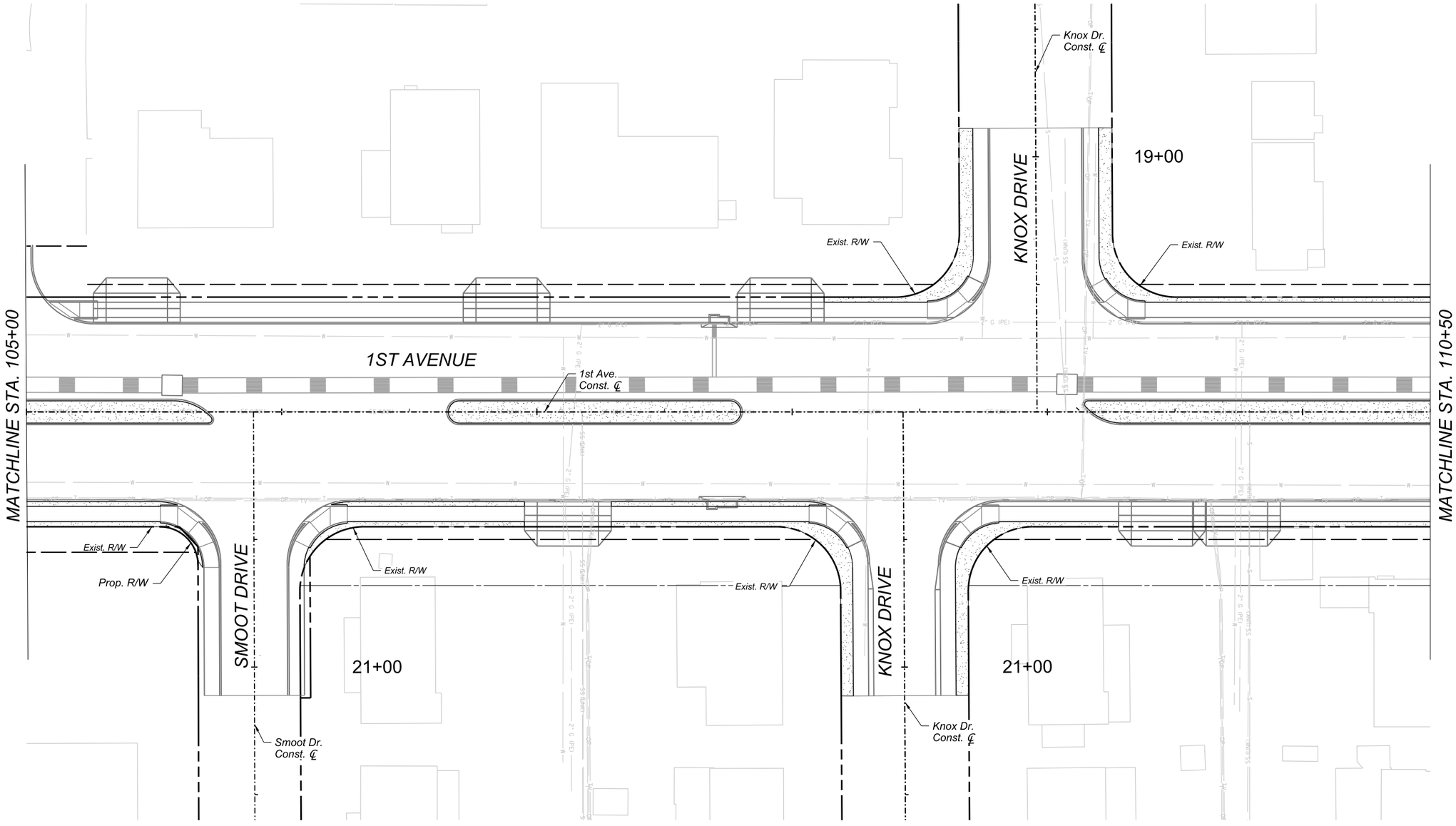
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 100+00 to 105+00
HARDSCAPE PLAN

SHEET 20 OF 41

c:\pwworking\west01\d4520441\02H-16.dgn
8/14/2026 12:16:22 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:24 PM
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

345 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

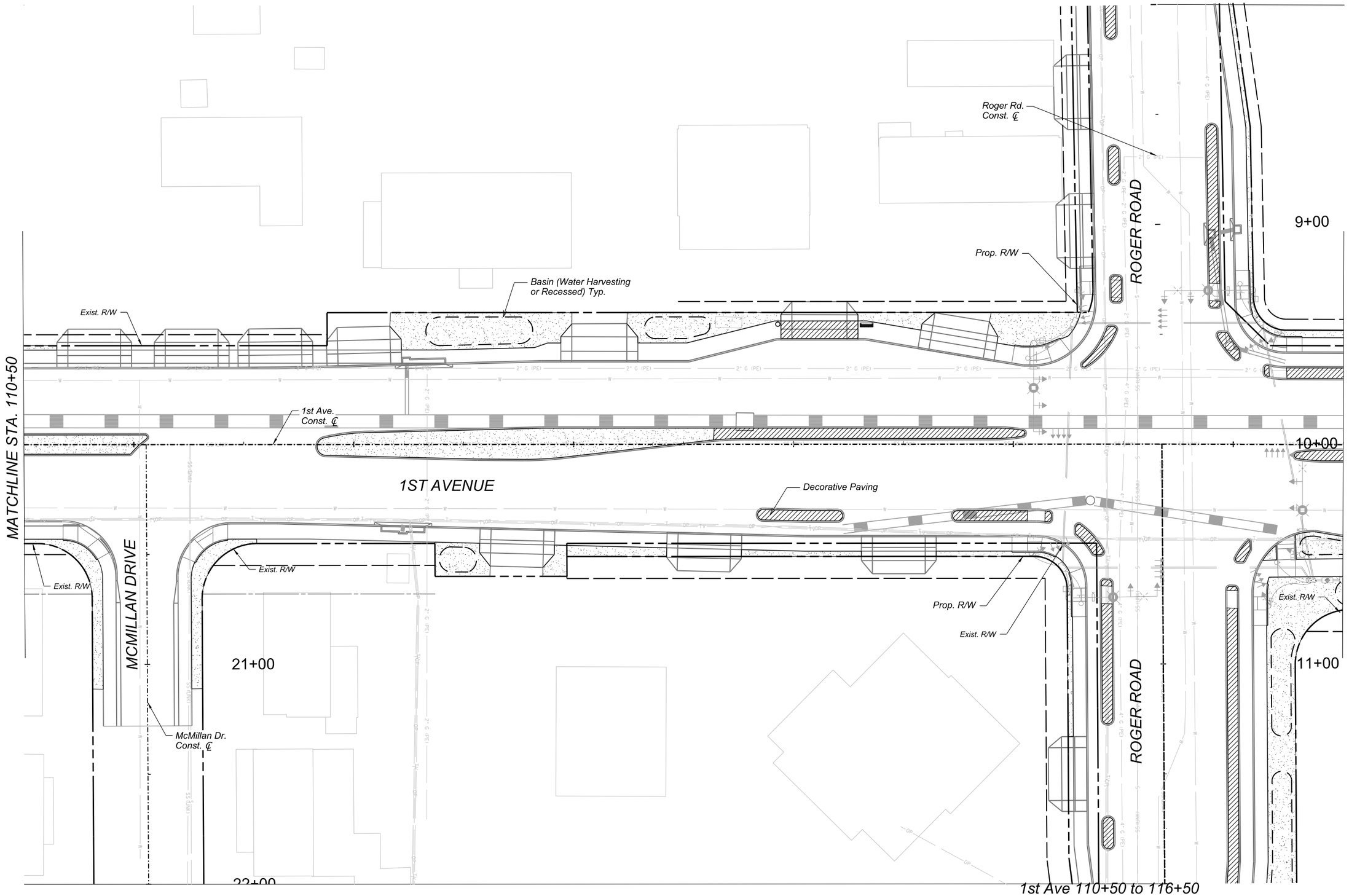
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 105+00 to 110+50
HARDSCAPE PLAN

SHEET 21 OF 41

c:\pwworking\west01\d4520441\02H-17.dgn
8/14/2026 12:16:24 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:32 PM
Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.ptcfg
Project ID:
Client Number: 4109



1st Ave 110+50 to 116+50
HARDSCAPE PLAN

SHEET 22 OF 41

SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

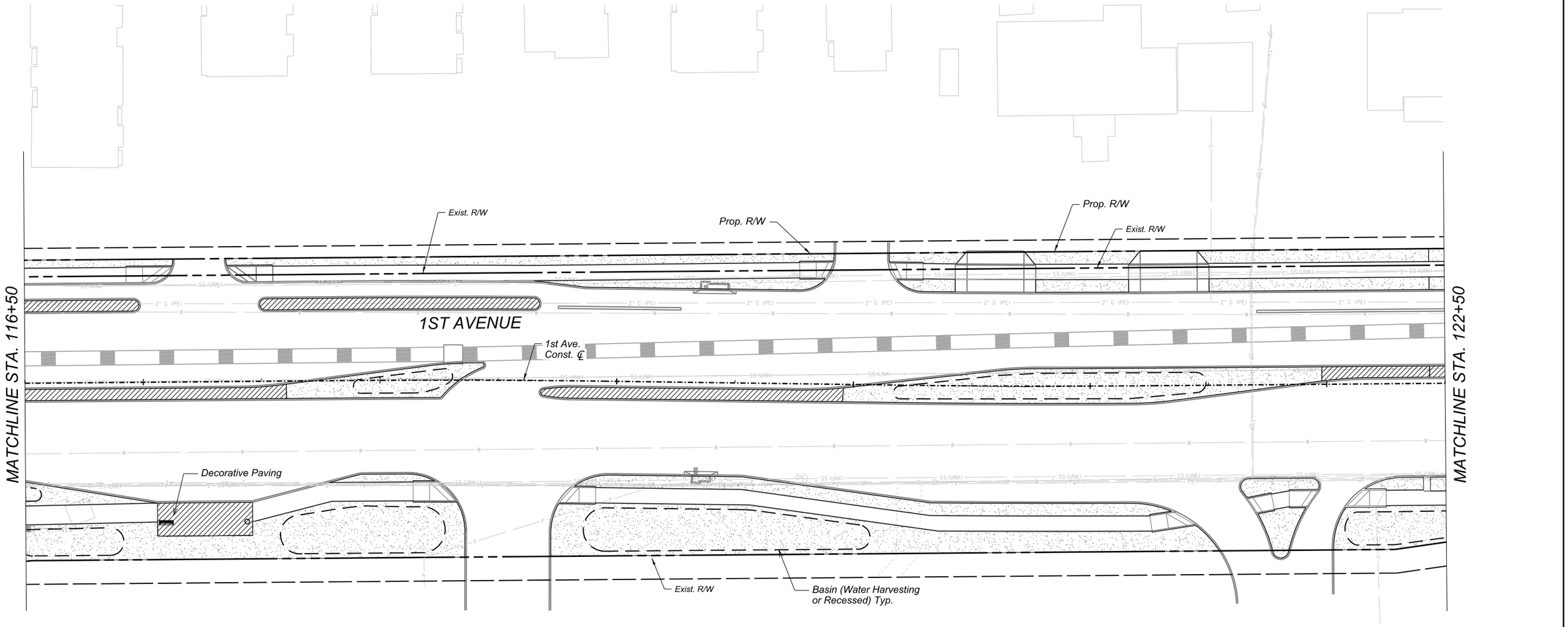
346 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d452044102H-18.dgn
8/14/2026 12:16:32 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:39 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number:4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

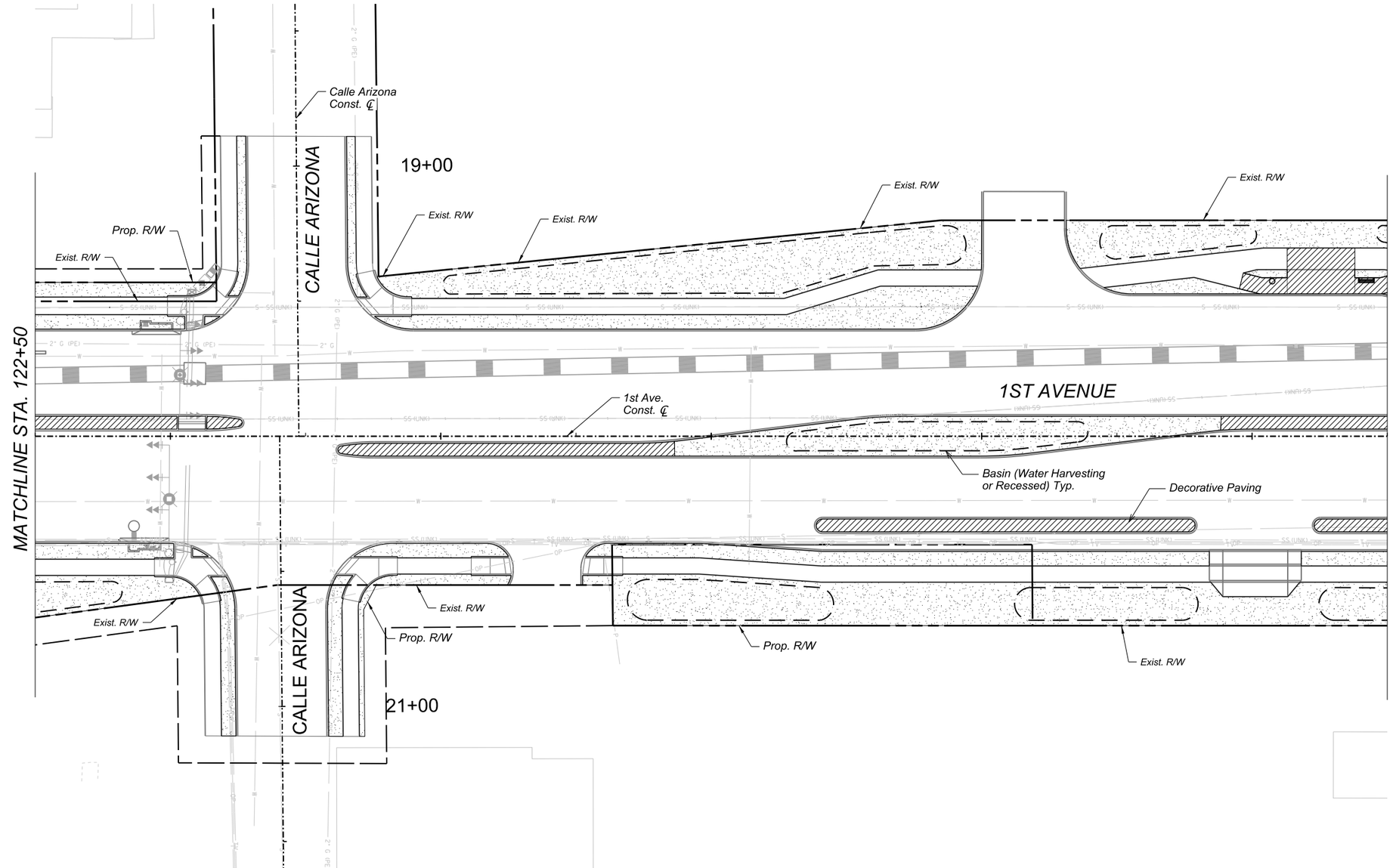
347 OF 504

1st Ave 116+50 to 122+50
HARDSCAPE PLAN

SHEET 23 OF 41

c:\pwworking\west01\d4520441\02H-19.dgn
8/14/2026 12:16:39 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:41 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

348 OF 504

CITY OF TUCSON

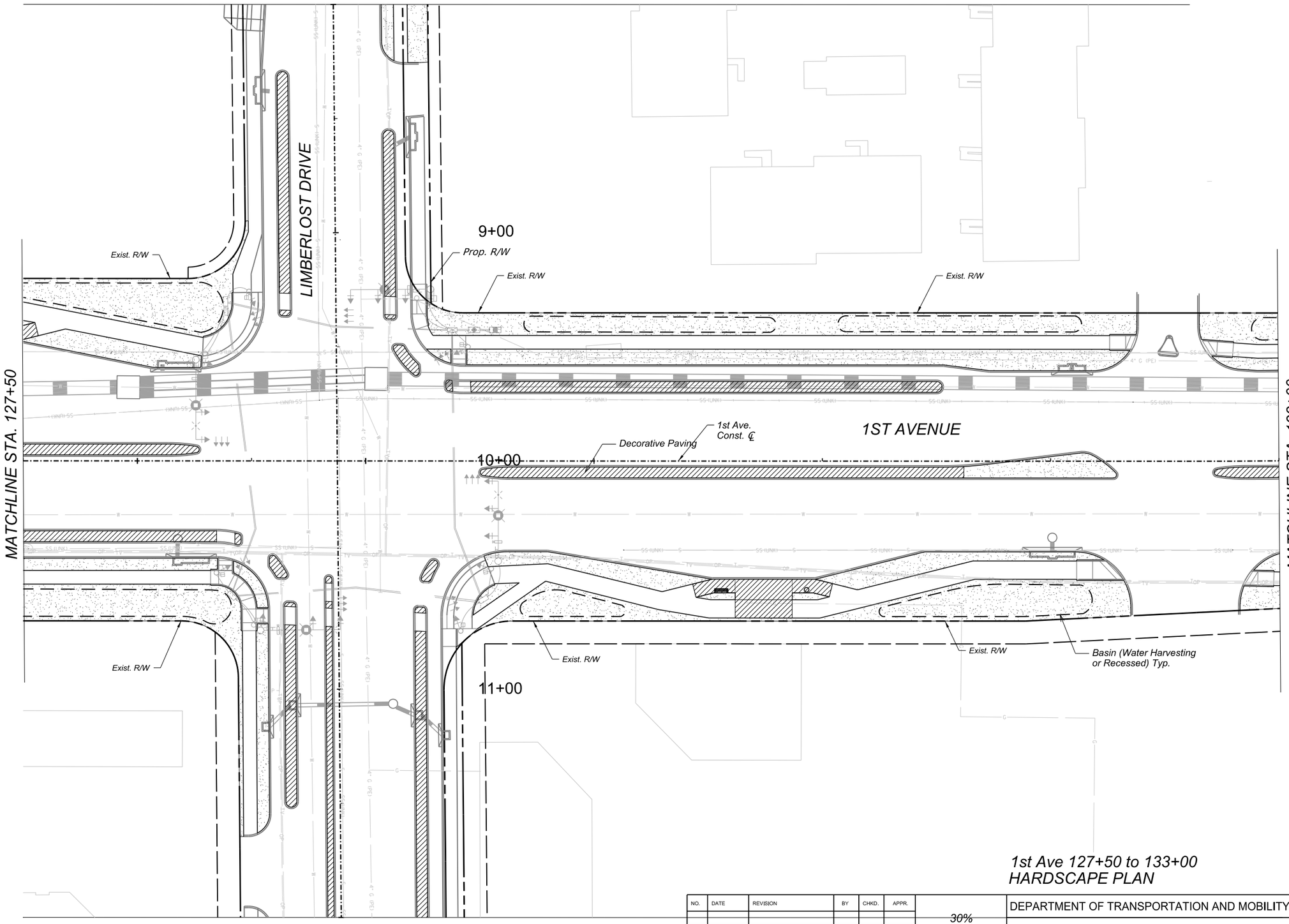
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 122+50 to 127+50
HARDSCAPE PLAN

SHEET 24 OF 41

c:\pwworking\west01\d4520441\02H-20.dgn
8/14/2026 12:16:41 PM

12:16:48 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

1st Ave 127+50 to 133+00
HARDSCAPE PLAN

SHEET 25 OF 41

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

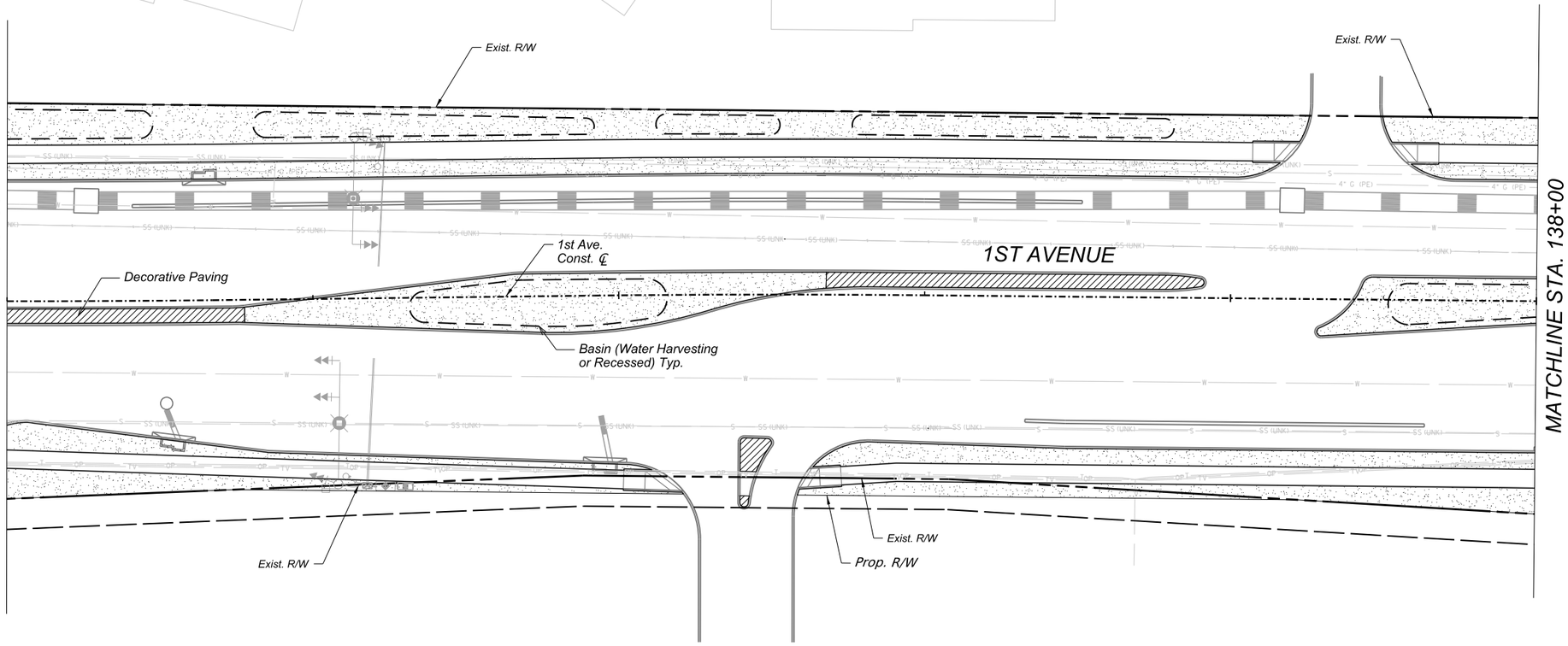
349 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-21.dgn
8/14/2026 12:16:48 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:55 PM



Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

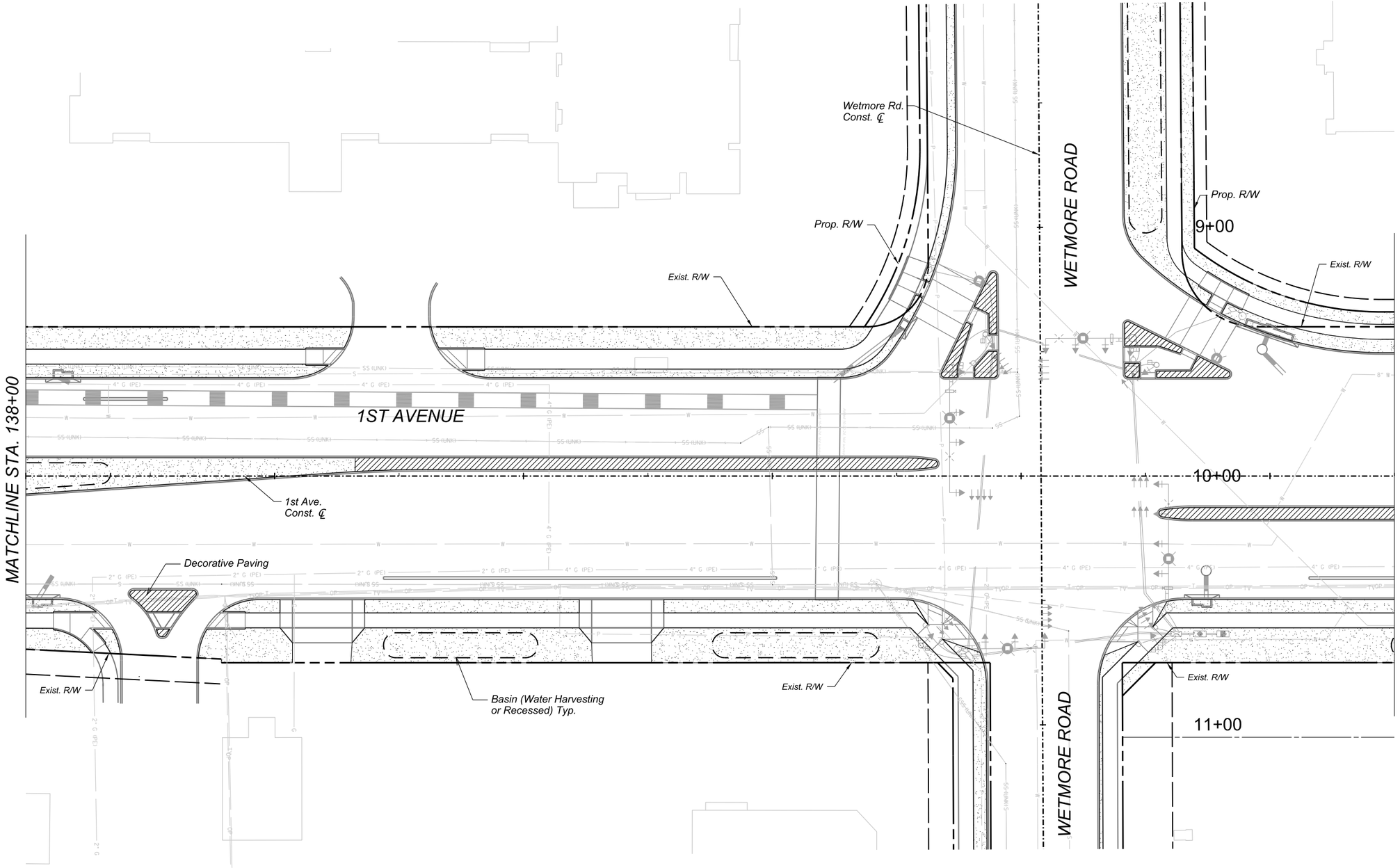
CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 133+00 to 138+00
HARDSCAPE PLAN

c:\pwworking\west01\d4520441\02H-22.dgn
8/14/2026 12:16:55 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:17:02 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf_alt.cfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

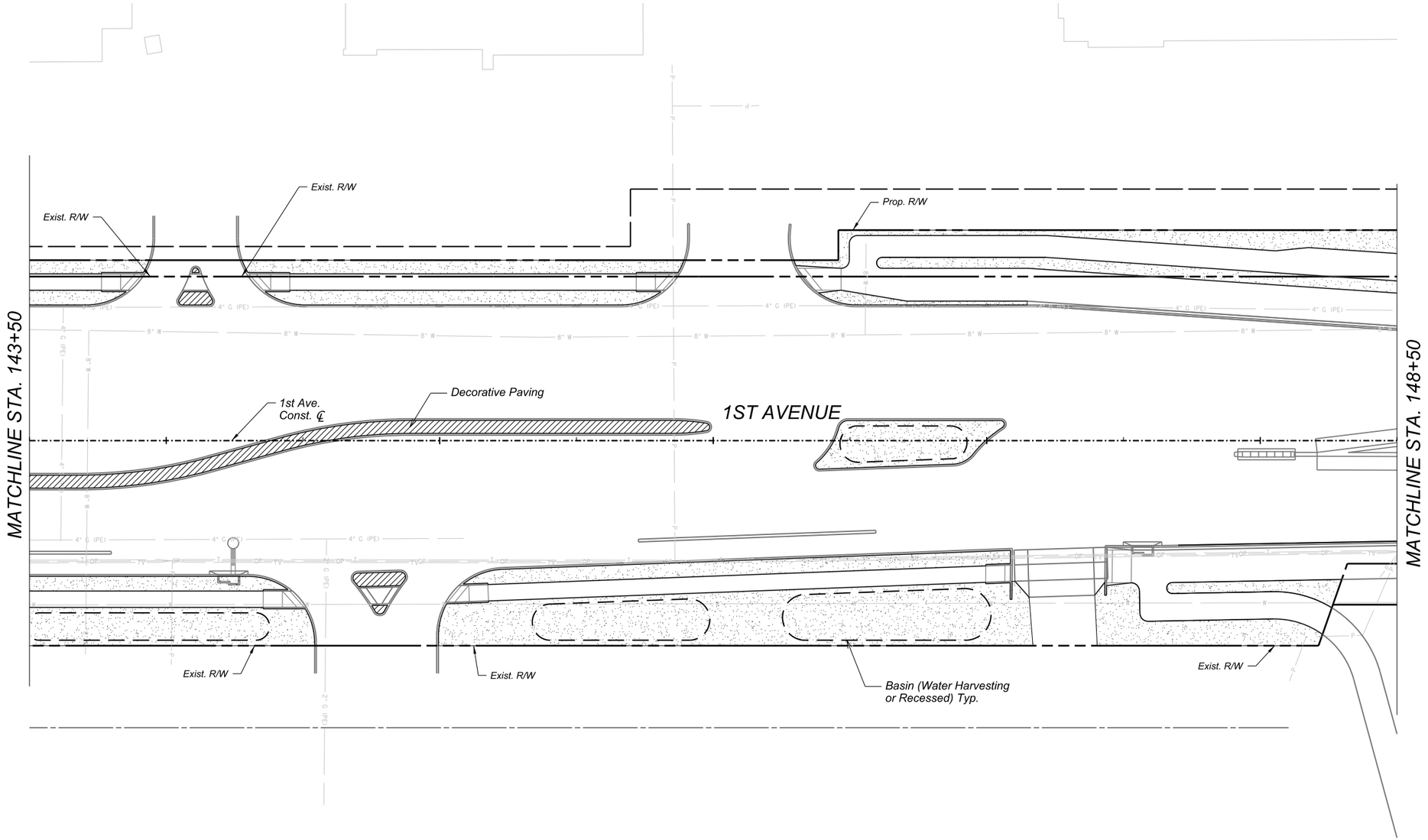
351 OF 504

1st Ave 138+00 to 143+50
HARDSCAPE PLAN

SHEET 27 OF 41

c:\pwworking\west01\d4520441\02H-23.dgn
8/14/2026 12:17:02 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:17:10 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

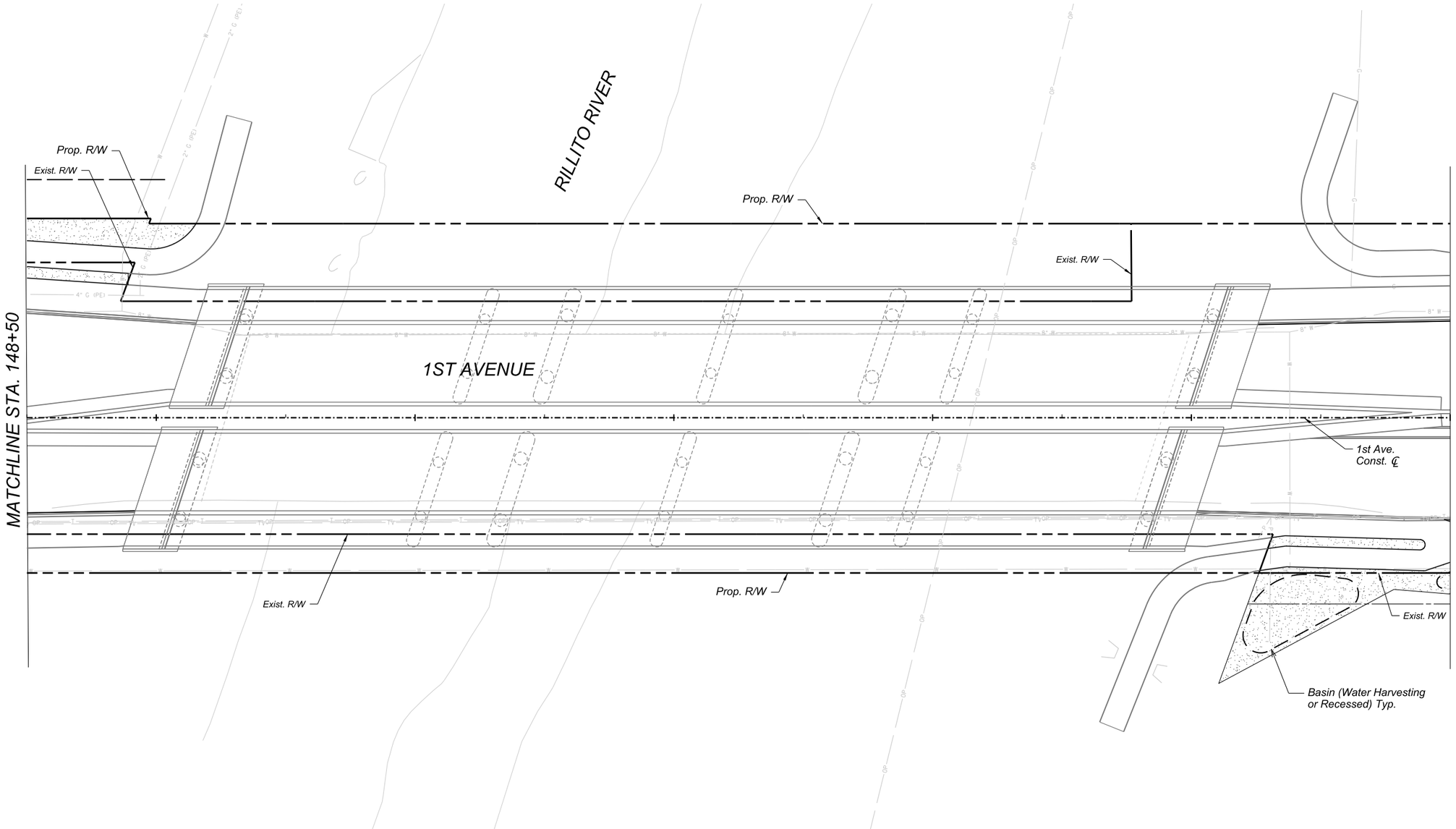
352 OF 504

1st Ave 143+50 to 148+50
HARDSCAPE PLAN

SHEET 28 OF 41

c:\pwworking\west01\d4520441\02H-24.dgn
8/14/2026 12:17:10 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:17:12 PM



Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_fwpdf.ptcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

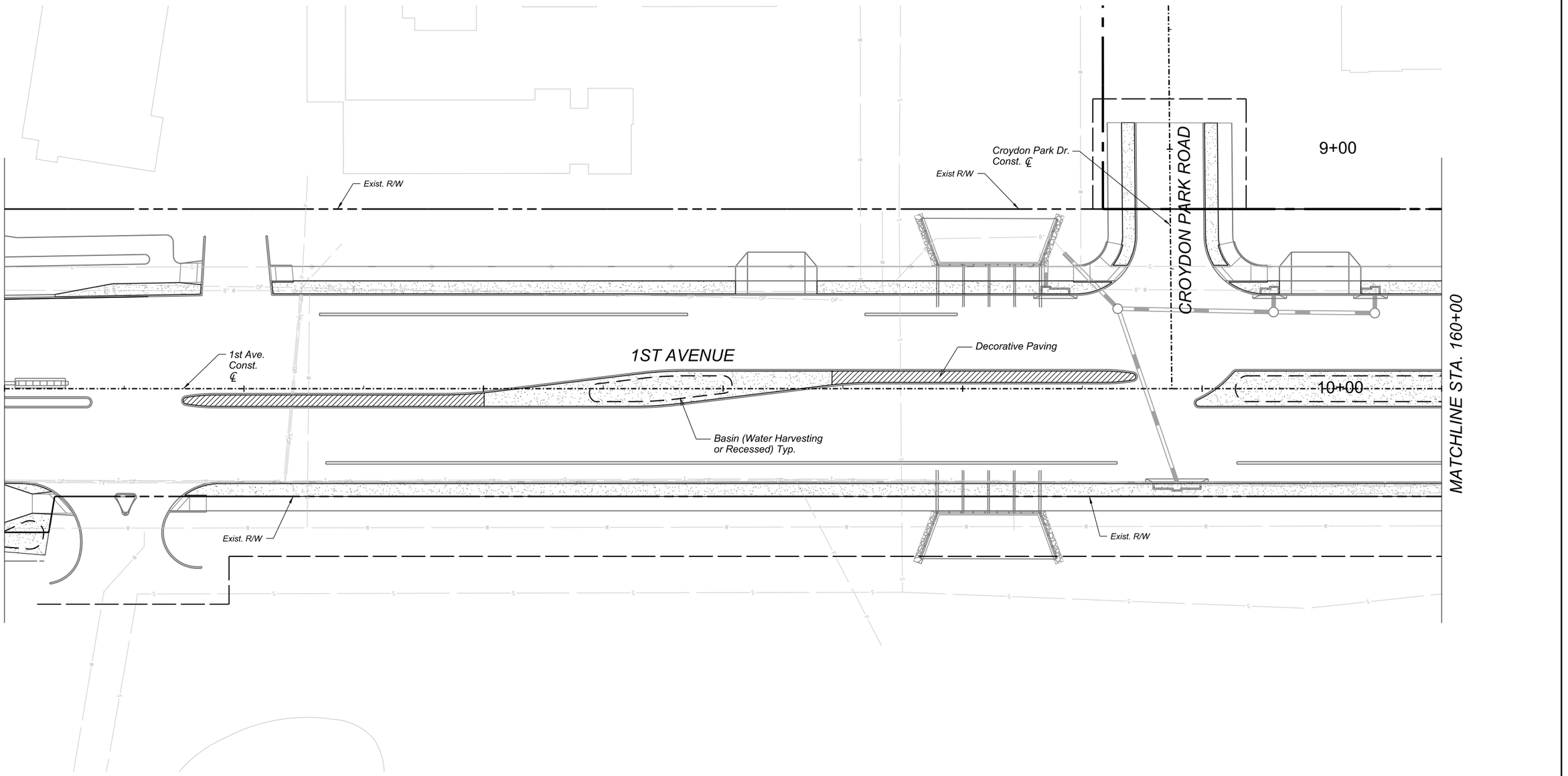
353 OF 504

1st Ave 148+50 to 154+00
HARDSCAPE PLAN

SHEET 29 OF 41

c:\pwworking\west01\d4520441\02H-25.dgn
8/14/2026 12:17:12 PM

12:17:14 PM 8/14/2026 OpenRoads Designer v10.12.02.4



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

1st Ave 154+00 to 160+00
HARDSCAPE PLAN

SHEET 30 OF 41

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

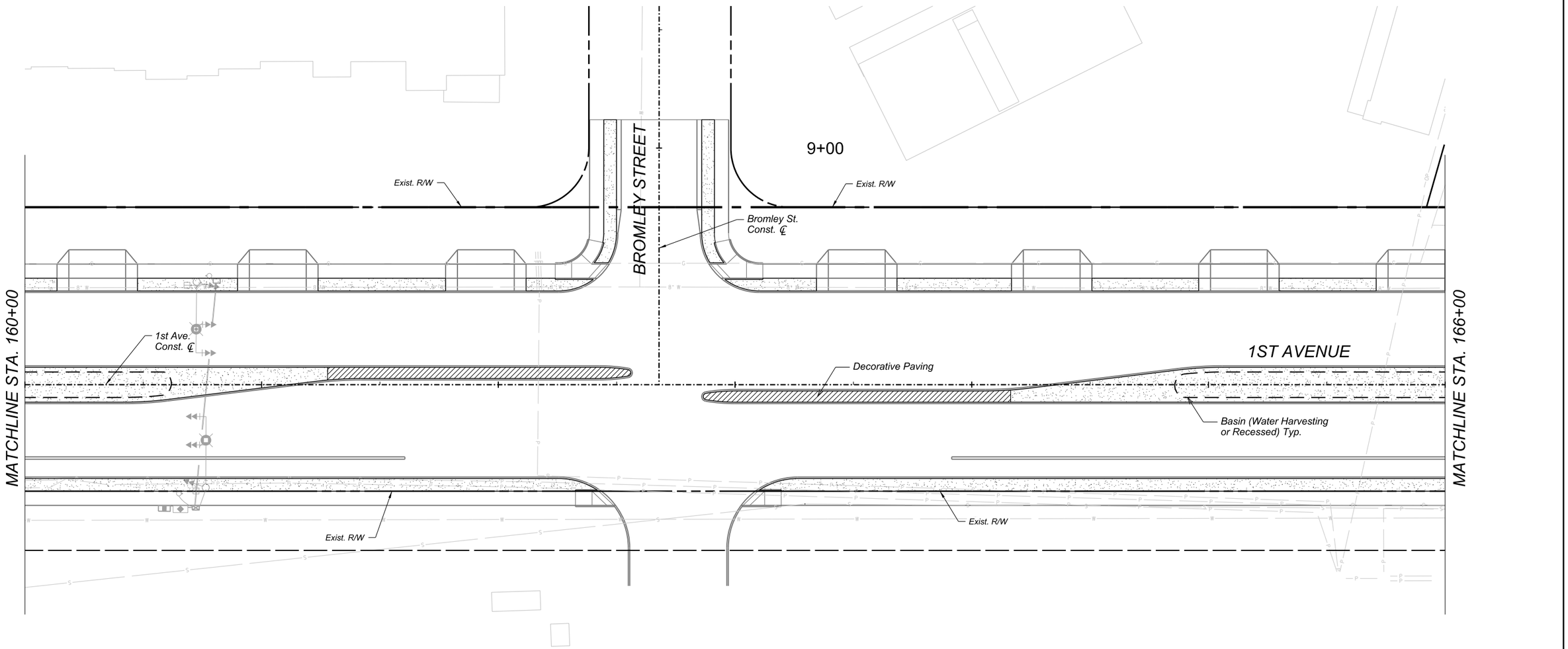
354 OF 504

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-26.dgn
8/14/2026 12:17:14 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:17:15 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

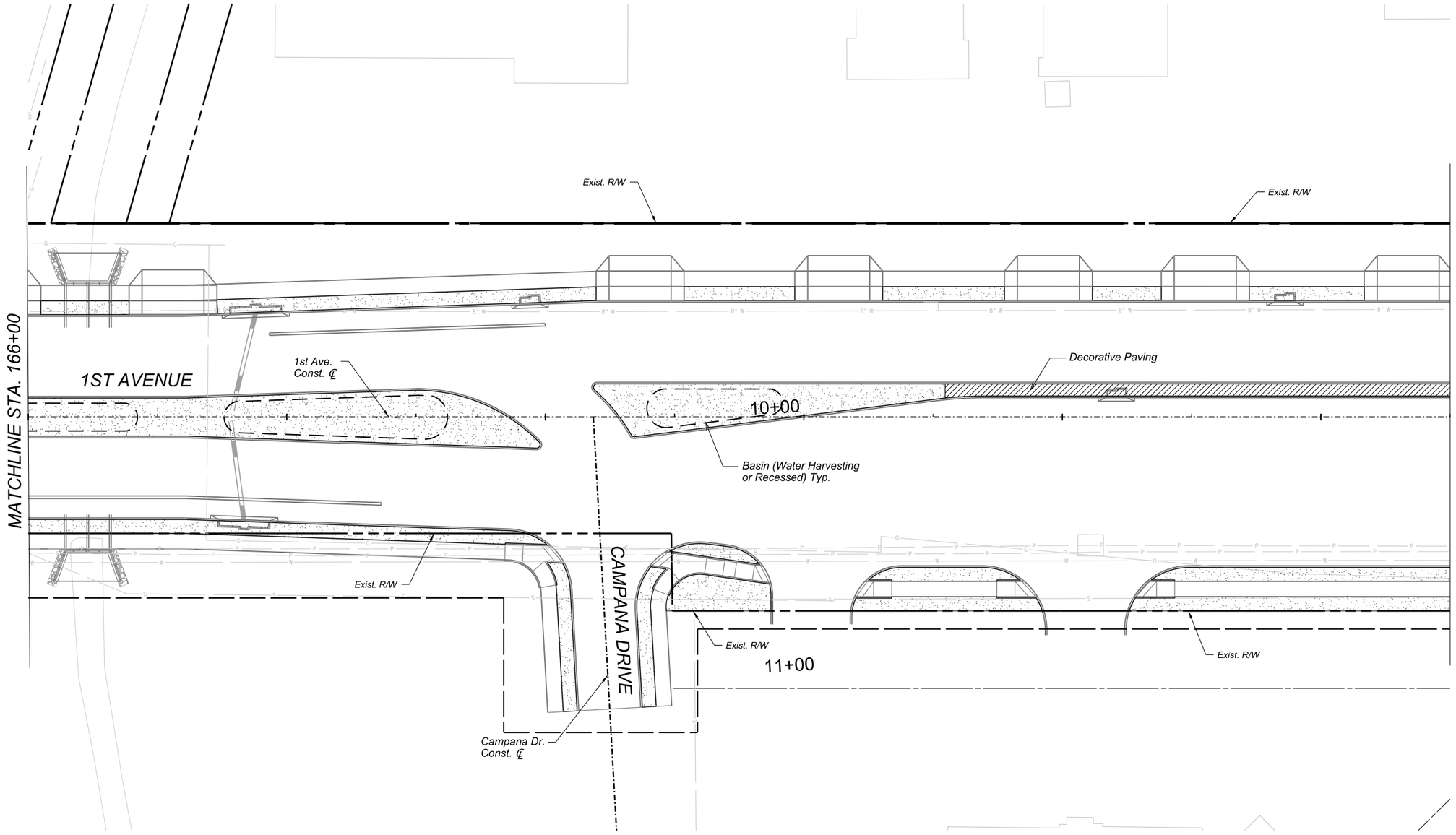
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 160+00 to 166+00
HARDSCAPE PLAN

c:\pwworking\west01\d4520441\02H-27.dgn
8/14/2026 12:17:15 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:17:17 PM
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

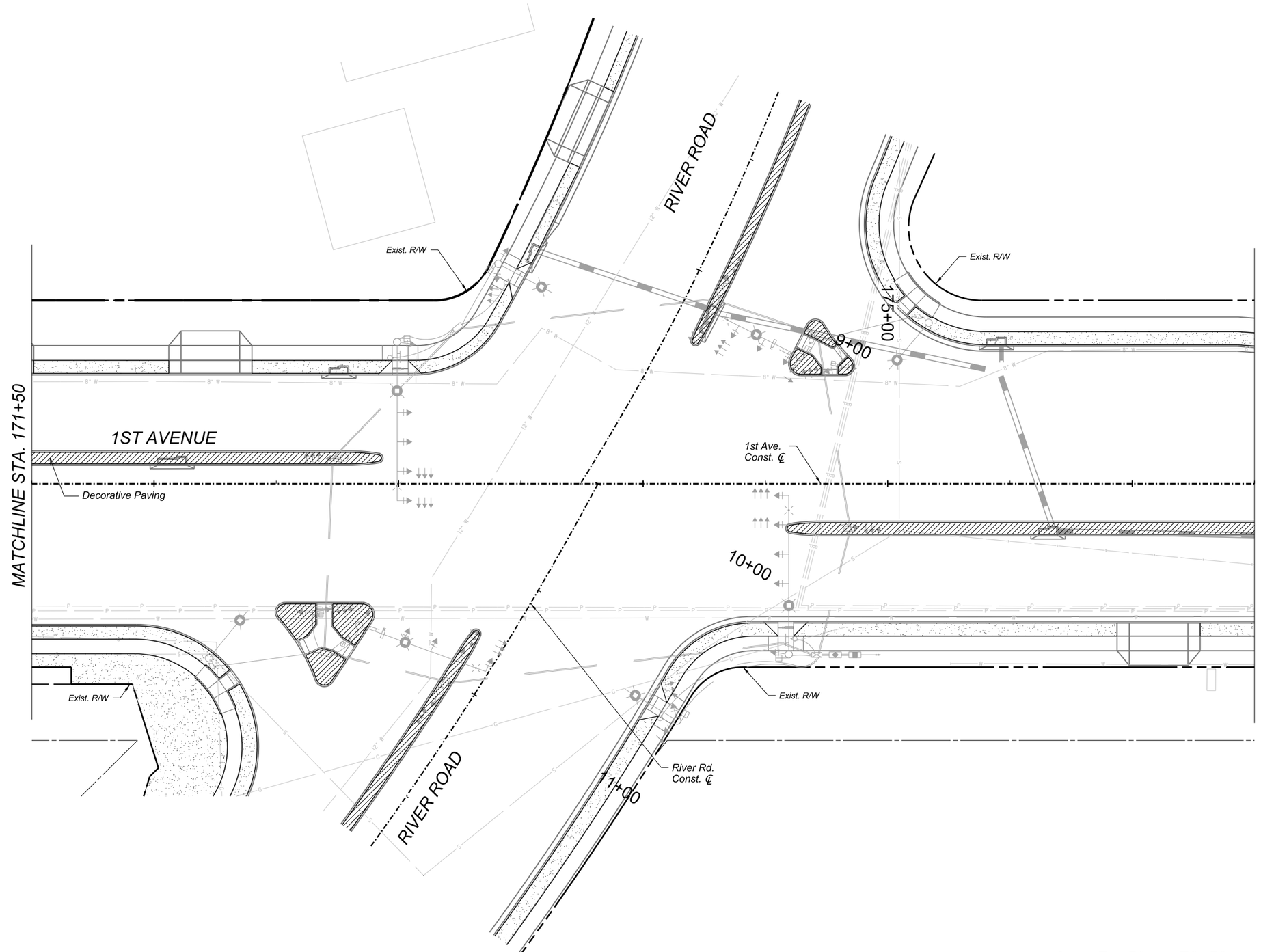
356 OF 504

1st Ave 166+00 to 171+50
HARDSCAPE PLAN

SHEET 32 OF 41

c:\pwworking\west01\d4520441\02H-28.dgn
8/14/2026 12:17:17 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:17:25 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

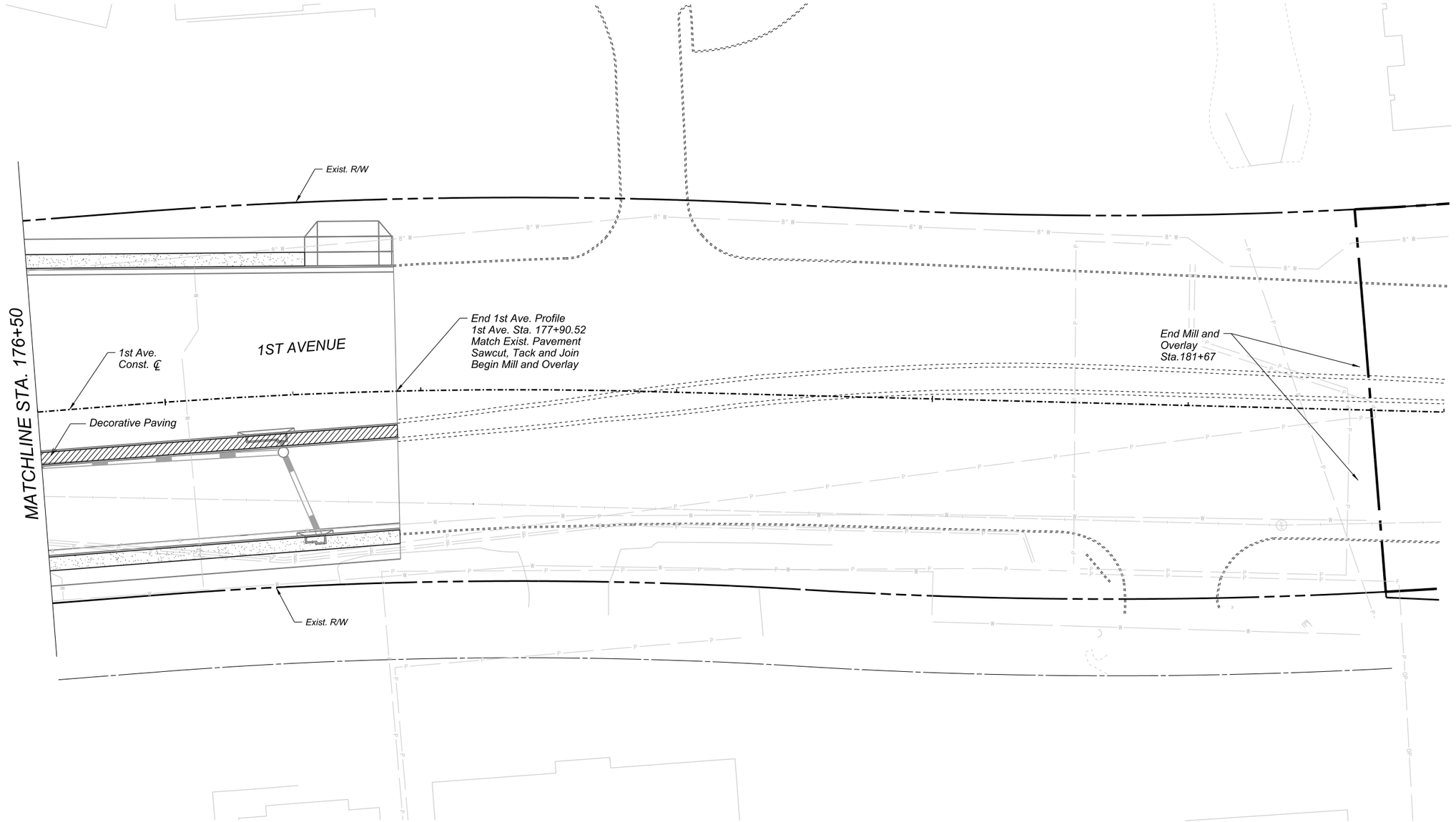
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

357 OF 504

1st Ave 171+50 to 176+50
HARDSCAPE PLAN

SHEET 33 OF 41

c:\pwworking\west01\d4520441\02H-29.dgn
8/14/2026 12:17:25 PM



1st Ave 176+50 to End
HARDSCAPE PLAN

SHEET 34 OF 41

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

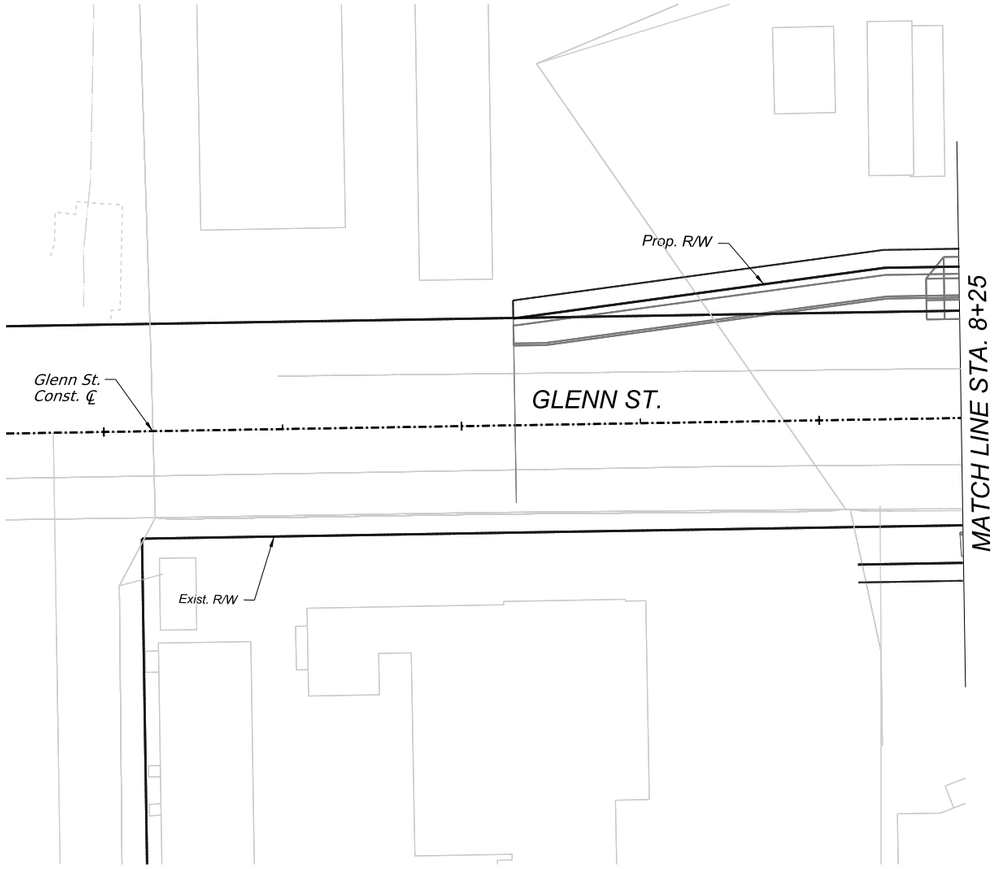
358 OF 504

CITY OF TUCSON

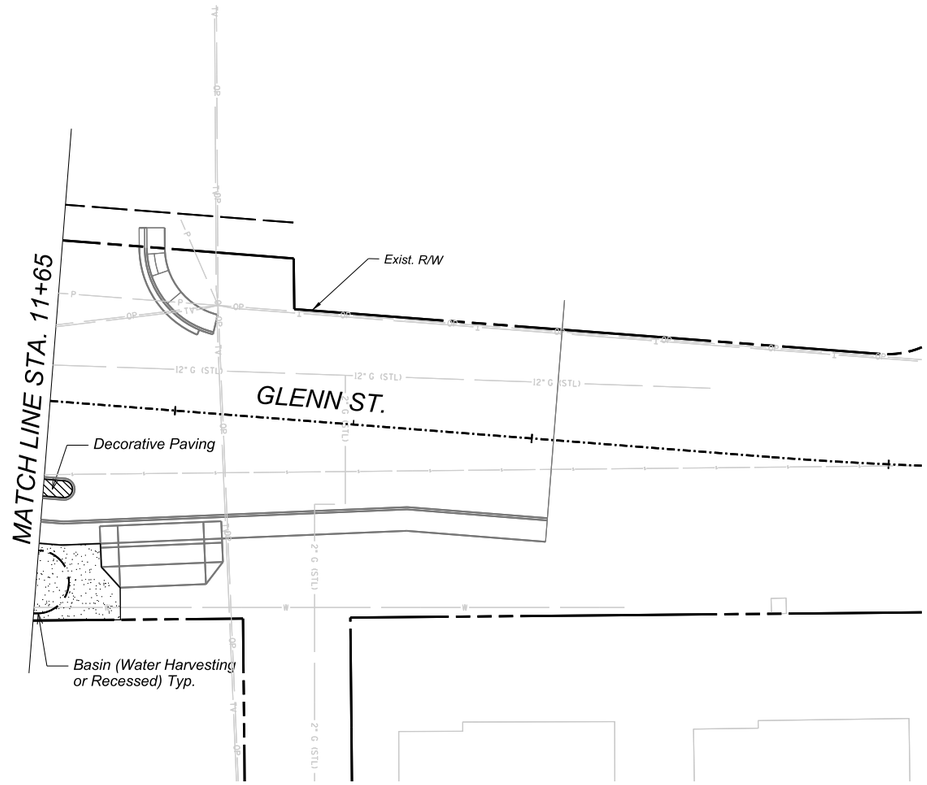
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/14/2026
12:17:32 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4520441\02H-30.dgn
8/14/2026 12:17:32 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:17:41 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_twpdf.pltcfg
Project ID:
Client Number: 4109



1ST AVENUE



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

359 OF 504

CITY OF TUCSON

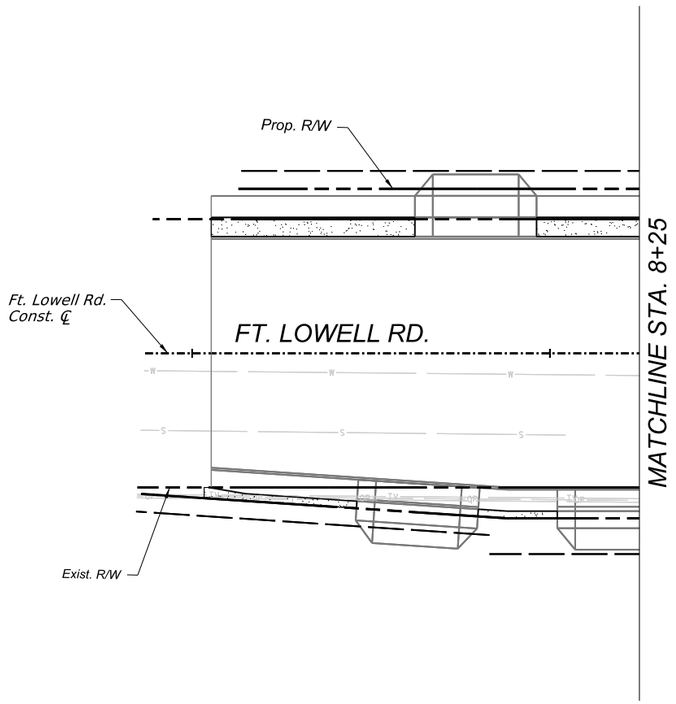
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

GLENN ST
HARDSCAPE PLAN

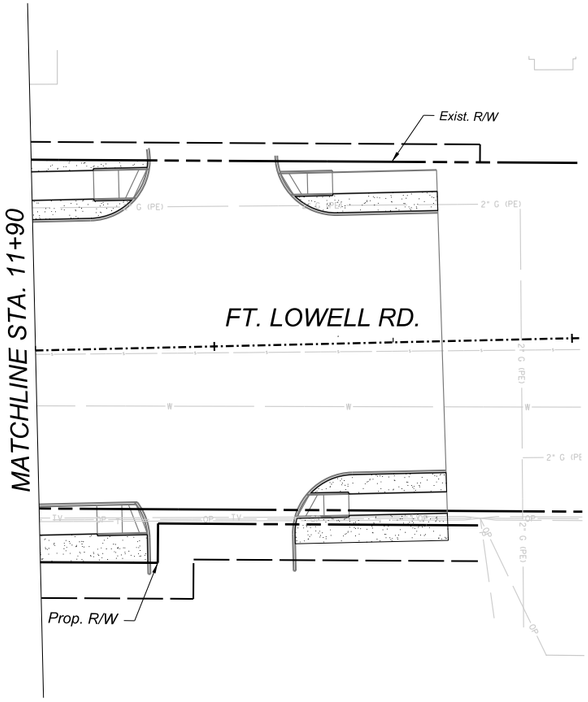
SHEET 35 OF 41

c:\pwworking\west01\d4520441\02H-31.dgn
8/14/2026 12:17:41 PM

12:17:51 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



1ST AVENUE



FT LOWELL RD
HARDSCAPE PLAN

SHEET 36 OF 41

SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

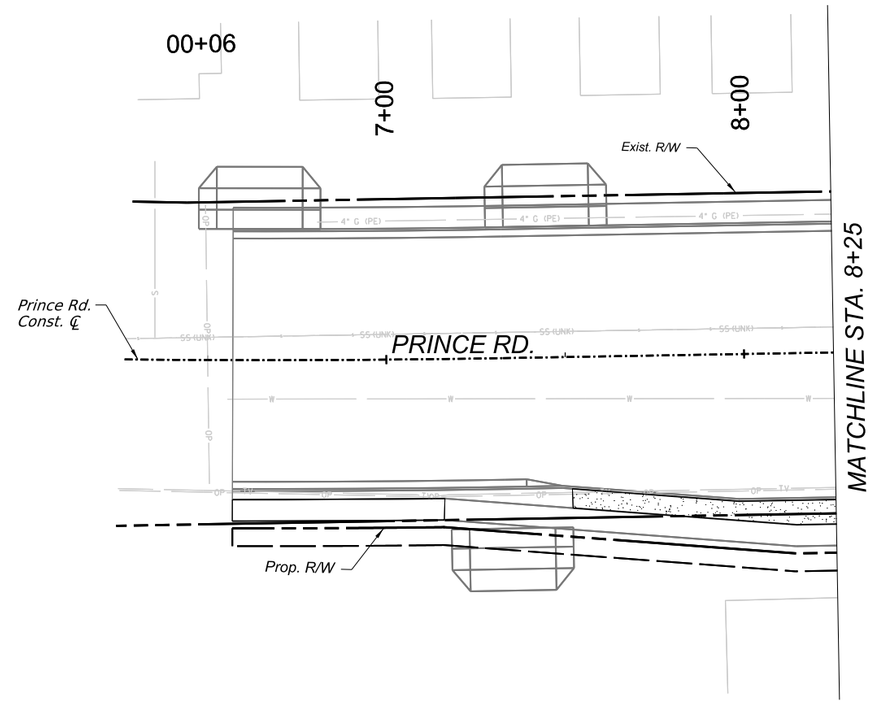
360 OF 504

CITY OF TUCSON

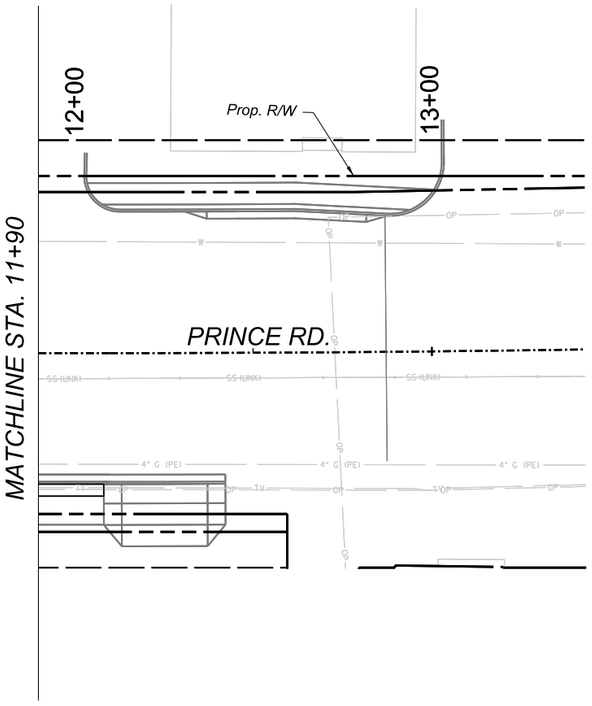
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520441\02H-32.dgn
8/14/2026 12:17:51 PM

12:18:15 PM 8/14/2026 OpenRoads Designer v10.12.02.4



1ST AVENUE.



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

361 OF 504

CITY OF TUCSON

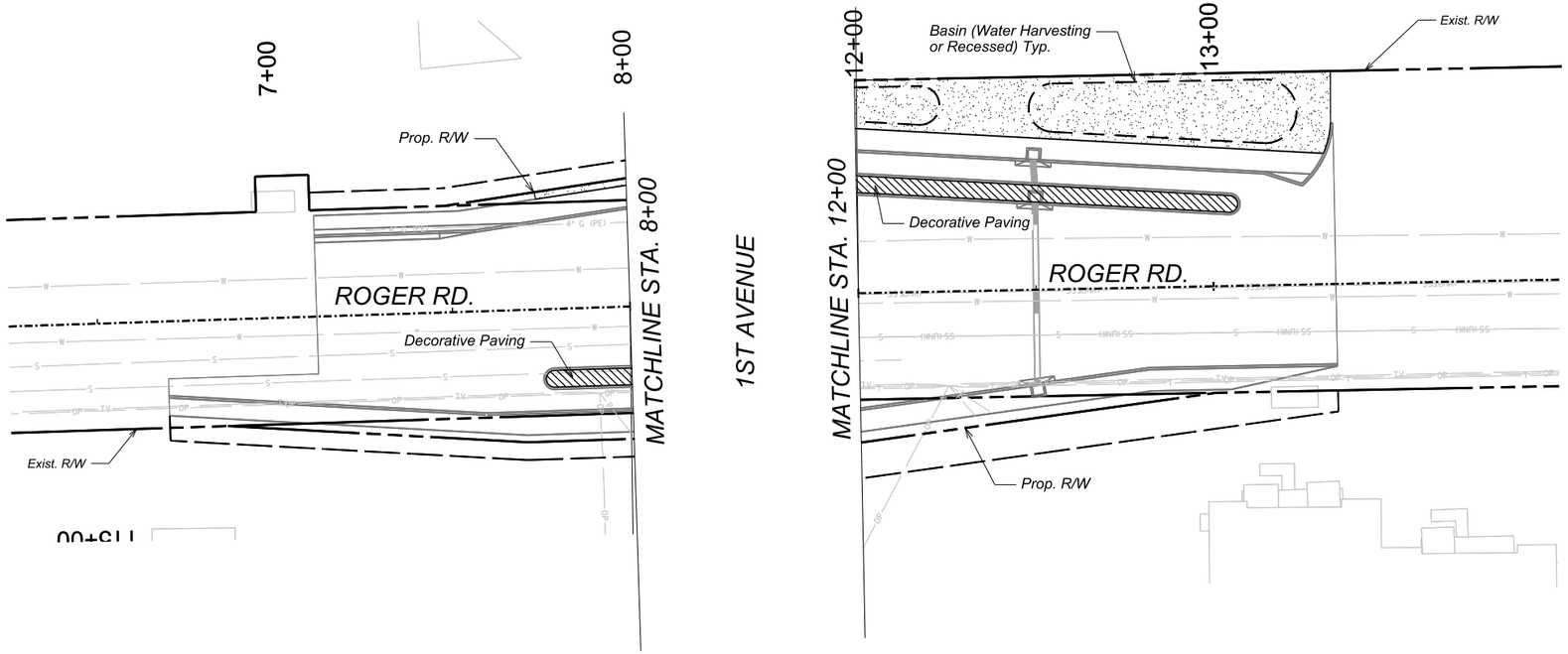
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

PRINCE RD
HARDSCAPE PLAN

SHEET 37 OF 41

c:\pwworking\west01\d4520441\02H-33.dgn
8/14/2026 12:18:15 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:16:27 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

362 OF 504

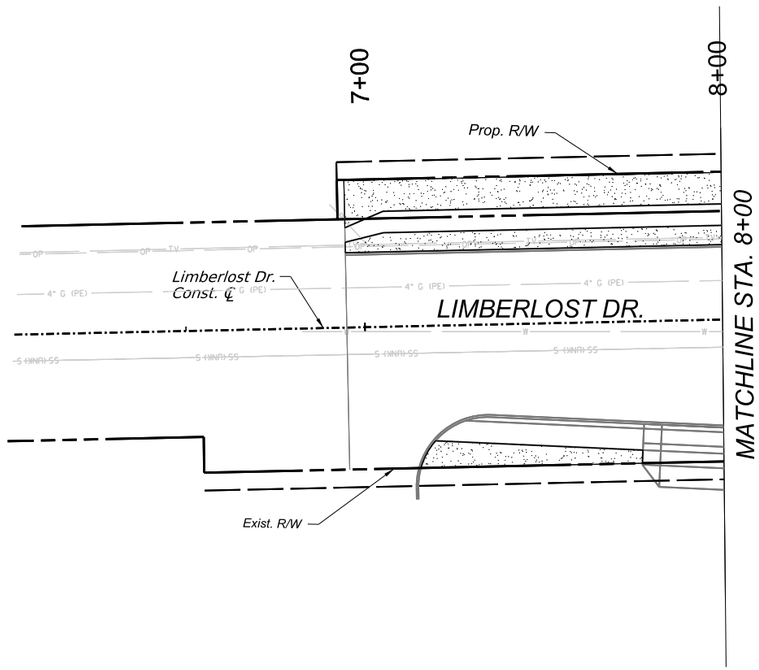
CITY OF TUCSON

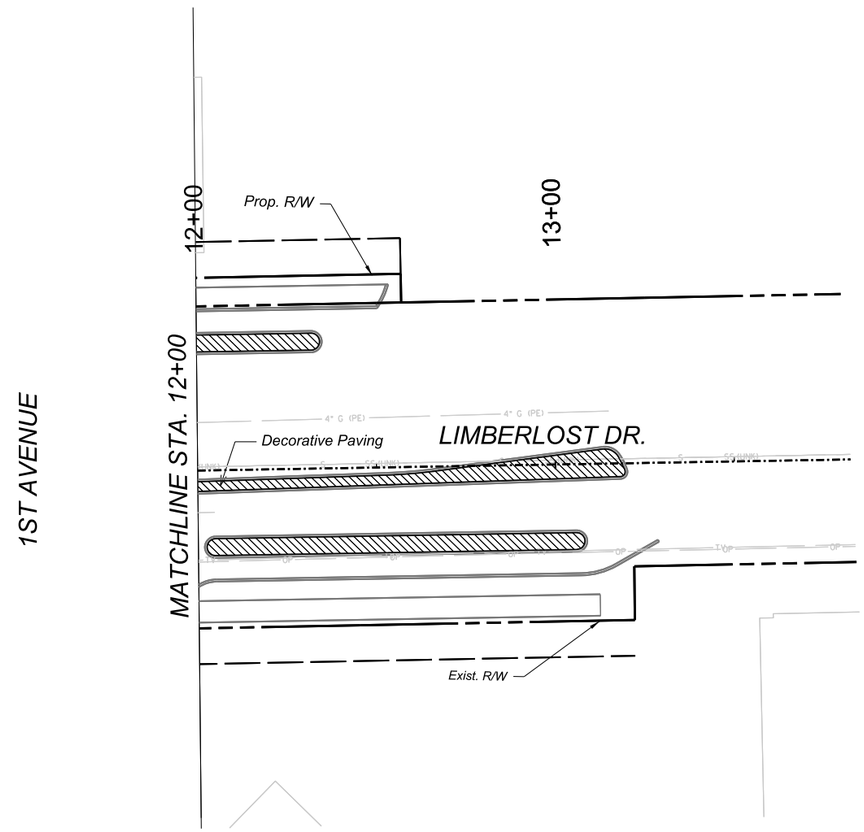
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

ROGER RD
HARDSCAPE PLAN

SHEET 38 OF 41

c:\pwworking\west01\d4520441\02H-34.dgn
8/14/2026 12:18:27 PM





LIMBERLOST DR
HARDSCAPE PLAN

SHEET 39 OF 41

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

363 OF 504

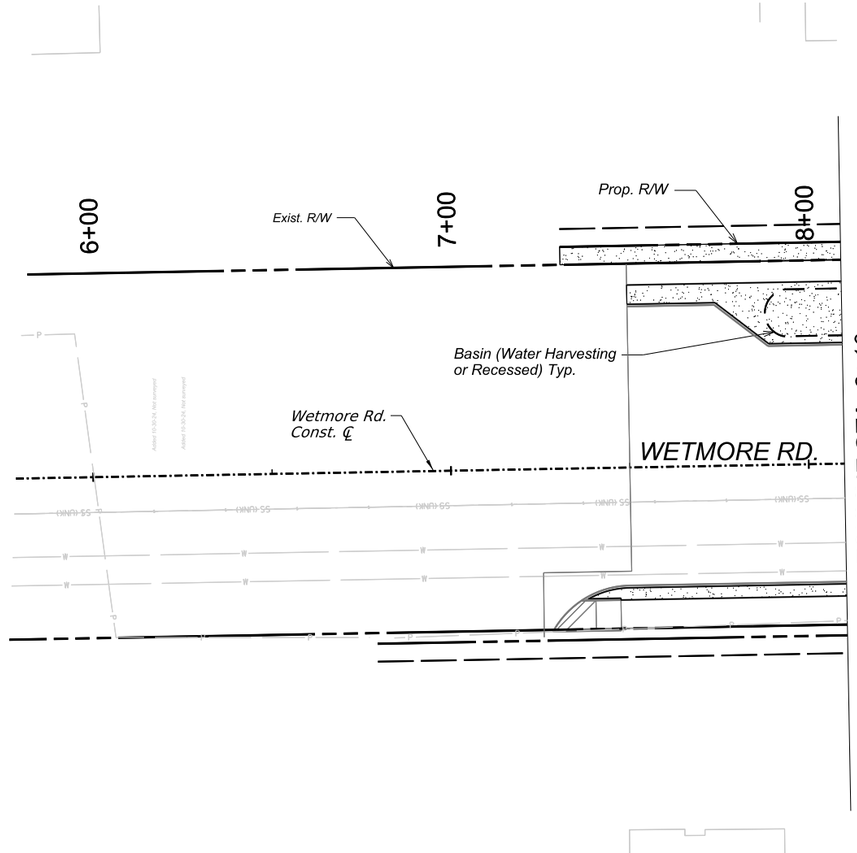
CITY OF TUCSON

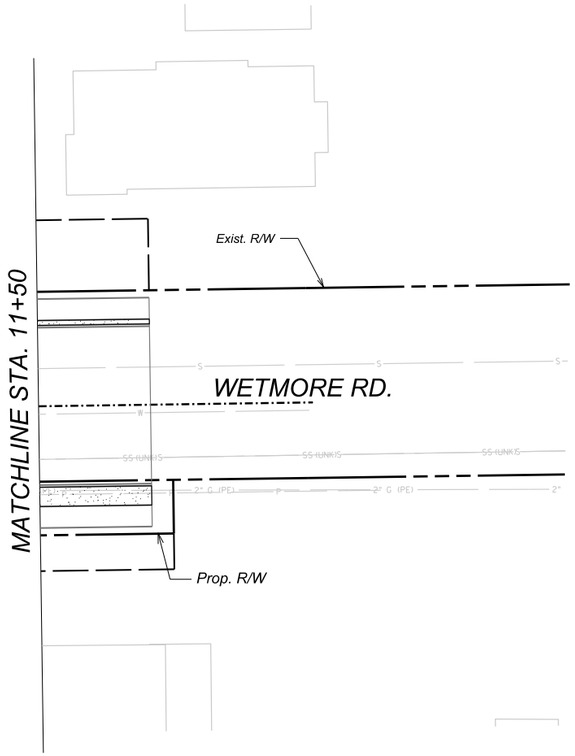
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/14/2026
12:18:37 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4520441\02H-35.dgn
8/14/2026 12:18:37 PM

12:18:46 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

364 OF 504

CITY OF TUCSON

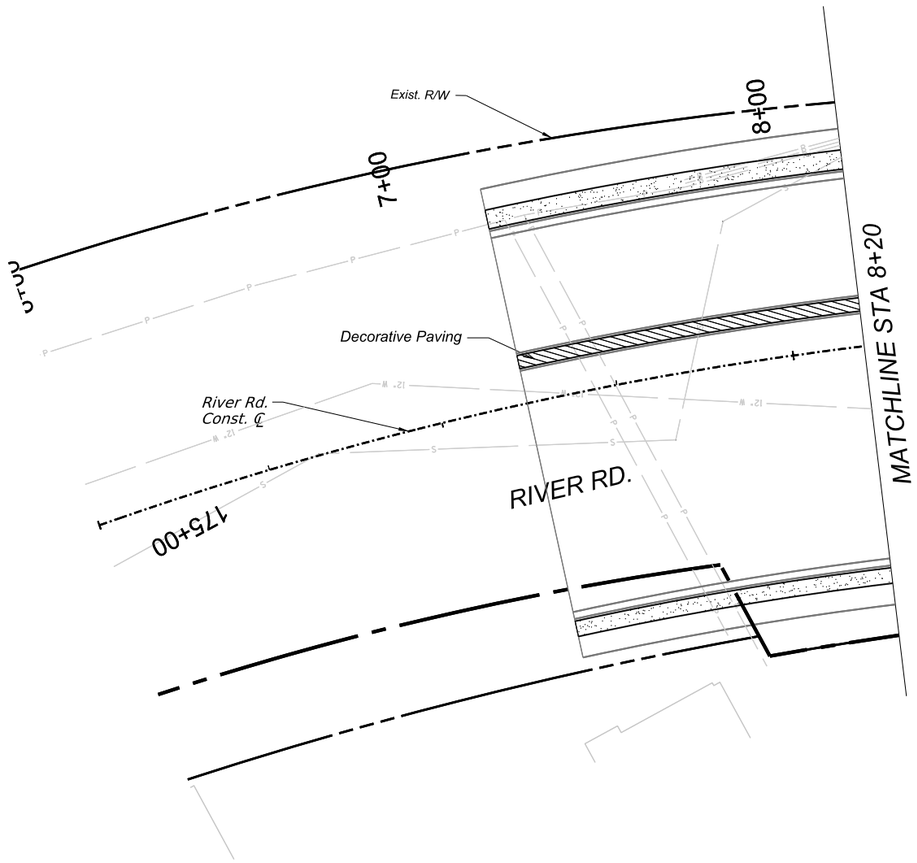
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

WETMORE RD
HARDSCAPE PLAN

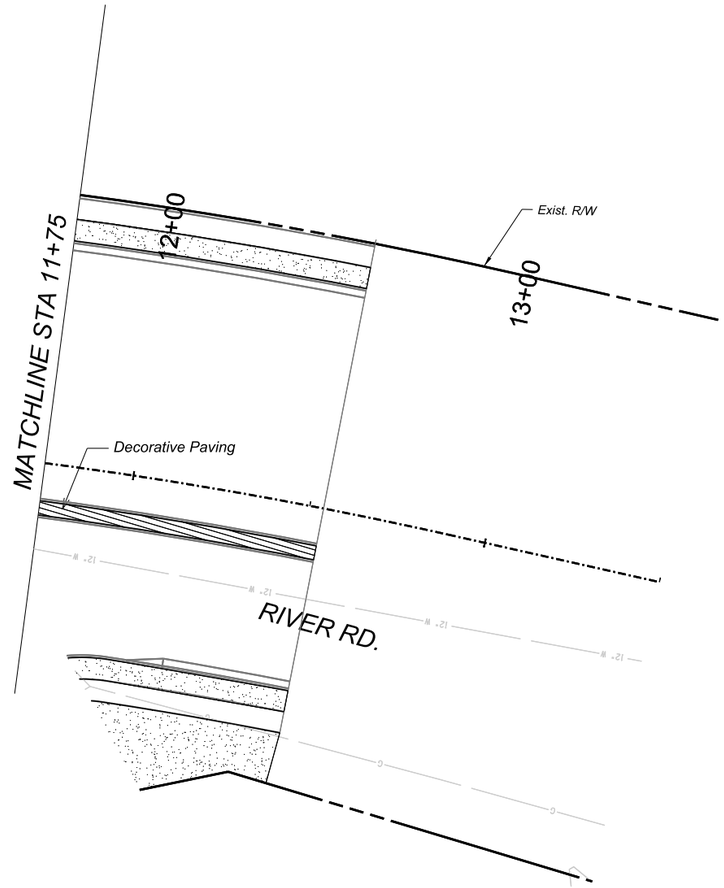
SHEET 40 OF 41

c:\pwworking\west01\d4520441\02H-36.dgn
8/14/2026 12:18:46 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:19:00 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.ahcfg
Project ID:
Client Number: 4109



1ST AVENUE



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

365 OF 504

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

RIVER RD
HARDSCAPE PLAN

SHEET 41 OF 41

c:\pwworking\west01\d4520441\02H-37.dgn
8/14/2026 12:19:00 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:19:16 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_hwpdf.ptcfg
Project ID:
Client Number: 4109

PLANT MATERIAL SCHEDULE

TREES

SYMBOL	BOTANICAL NAME COMMON NAME	CONTAINER SIZE	MIN. H/ CALIPER
	ACACIA ANUERA MULGA	15 Gal	6'/1.50"
	ACACIA GREGGII CATCLAW ACACIA	15 Gal	4-5'/0.75"
	PROSOPIS PUBESCENS SCREWBEAN MESQUITE	15 Gal	2.5'-3.5'/ 0.50"
	CHILOPSIS LINEARIS DESERT WILLOW	15 Gal	5'/0.50"
	EYSENHARDTIA ORTHOCARPA KIDNEYWOOD	45 Gal	10'-12'/ 2.5"
	OLNEYA TESOTA IRONWOOD	15 Gal	3'-5'/0.75"
	PARKINSONIA FLORIDA BLUE PALO VERDE	45 Gal	10'-12'/ 2.5"
	PROSOPIS VELUTINA NATIVE VELVET MESQUITE	15 Gal	3'-5'/0.75"

SHRUBS

SYMBOL	BOTANICAL NAME COMMON NAME	CONTAINER SIZE	MATURE SIZE W x H
	ALOYSIA GRATISSIMA WHITEBRUSH	5 Gal	3' X 3'
	BAILEYA MULTIRADIATA DESERT MARIGOLD	1 Gal	2" X 1'
	CALLIANDRA ERIOPHYLLA SONORAN FAIRY DUSTER	1 Gal	2" X 1'
	DALEA FRUTESCENS BLACK DALEA	5 Gal	12' X 10'
	ENCELIA FARINOSA BRITTLE BUSH	5 Gal	3' X 4'
	JUSTICIA CALIFORNICA CHUPAROSA	15 Gal	10' X 10'
	LARREA TRIDENTATA CREOSOTE	5 Gal	4' X 5'
	MELAMPODIUM LEUCANTHUM BLACKFOOT DAISY	1 Gal	3' X 3'
	SIMMONDSIA CHINENSIS JOJOBA	5 Gal	6' X 6'
	SPHAERALCEA AMBIGUA GLOBE MALLOW	1 Gal	6' X 8'
	GLANDULARIA GOODDINGII GOODDING'S VERBENA	1 Gal	3' X 3'
	VIGUIERA DELTOIDEA GOLDENEYE	5 Gal	3' X 3'

ACCENTS

SYMBOL	BOTANICAL NAME COMMON NAME	CONTAINER SIZE	MATURE SIZE W x H
	Carnegiea gigantea Saguaro	1 Gal	3' X 3'
	Dasylirion wheeleri Desert Spoon	1 Gal	.5' X 1'
	Ferocactus wislizeni Fishhook Barrel	5 Gal	4' X 5'
	Fouquieria splendens Ocotillo	15 Gal	12' X 10'
	Nolina microcarpa Beargrass	5 Gal	3' X 4'
	Opuntia engelmannii Engelmann's Prickly Pear	15 Gal	10' X 10'
	Yucca pallida Pale Leaf Yucca	5 Gal	4' X 5'

PLANTING NOTES

1. Contractor shall make no plant substitutions, of type or quantity, that deviate from the landscape or irrigation plans withour prior approval by the Landscape Architect and COT Representative.
2. 45 gallon is equivalent to a 36" box. 95 gallon is equivalent to a 48" box.
3. The 95 gallon Prosopis velutina specimens are to satisy Sight Visibility Triangles (SVTs) requirements with a 6' clearance. These specimens shall be single stem trunk trees with strong central leaders. The first branch shall originate at least 2' above the ground. Refer to Planting Plans for locations.
4. Shrubs installed within Sight Visibility Triangles (SVTs) shall have a mature height of less than thirty inches (30").
5. Planting setbacks: Sewer/Water: 10'; Power and Traffic Poles: 10'; Gas: 8'; Electric:3-5'; Fire Hydrants: 3'-5'.
6. The Contractor shall be responsible for locating and protecting all underground utilities, pipes and structures prior to starting work. Contractor shall take sole responsibility for any cost incurred due to damage of these utilities during the installation of plants and irrigation.
7. Finish grade of all planting areas shall be 1/2-inch below adjacent paving, unless otherwise noted on drawings.
8. Refer to PAG Standard Specifications for additional requirements not shown in plans.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

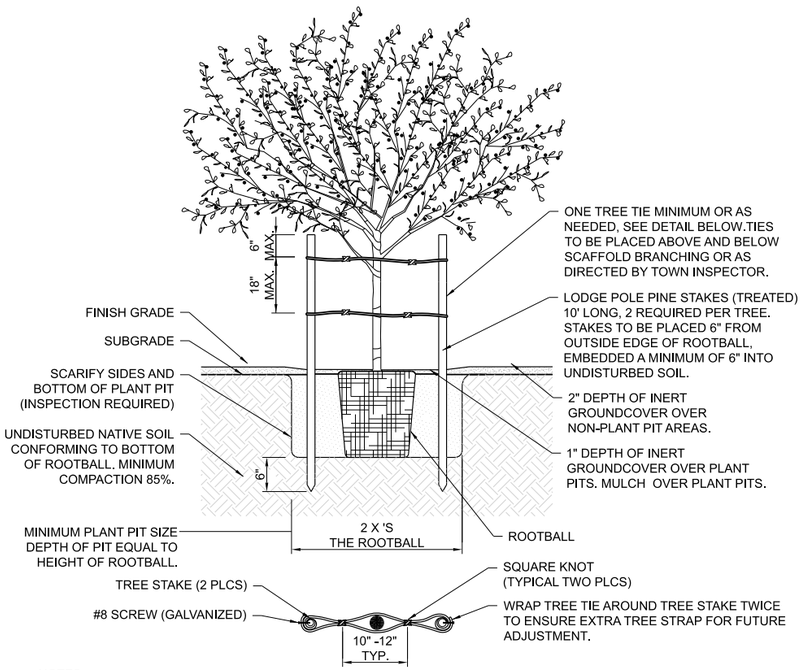
CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE:
PLAN NO. R-2024-XXX

LANDSCAPE SCHEDULE

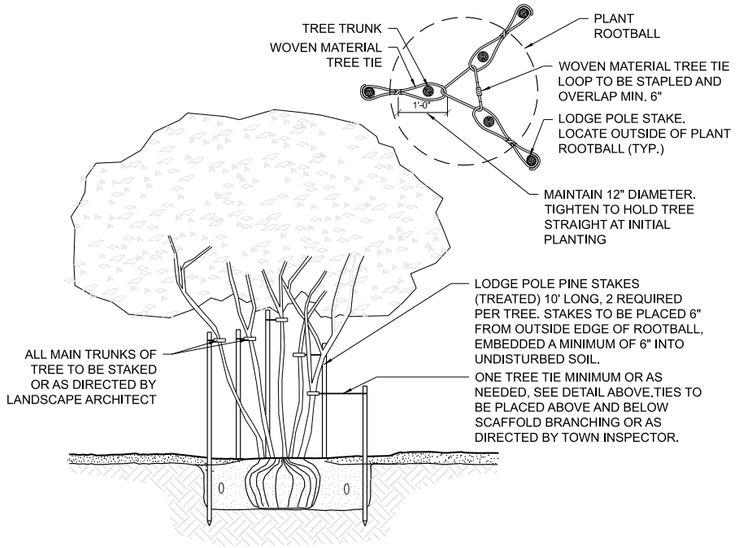
c:\pwworking\west01\d4614716\00L-01.dgn
8/14/2026 12:19:16 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:19:22 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.cfg
Project ID:
Client Number: 4109

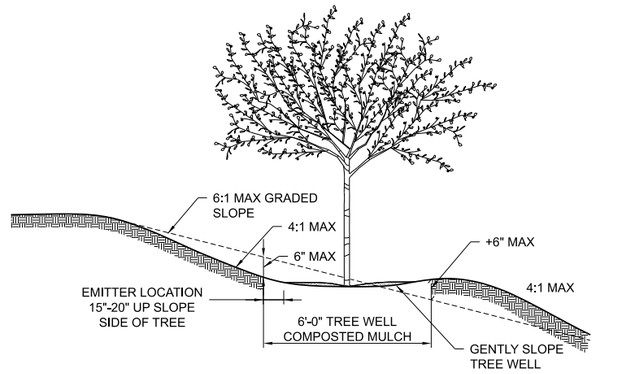


NOTES:
1. PLANTS DELIVERED WITH CRACKED OR BROKEN CONTAINERS, NOT ROOTED IN POT OR ROOT BOUND WILL BE REJECTED.
2. TREE TRUNK SHALL BE CAPABLE OF MOVEMENT IN ALL DIRECTIONS. COORDINATE WITH TOWN INSPECTOR.
3. ALL TREE ROOTBALLS SHALL HAVE ANY EXCESS NURSERY CONTAINER SOIL REMOVED TO EXPOSE CROWN OF ROOTBALL. CROWN OF ROOTBALL TO BE PLANTED 1/2" ABOVE FINISH GRADE TOP DRESSING (DECOMPOSED GRANITE OR COMPOSTED MULCH).
4. TOP OF ROOT BALL SHALL NEVER BE PLACED OR BURIED BELOW ADJACENT FINISHED GRADE.

1 TREE PLANTING AND STAKING
SCALE:NTS

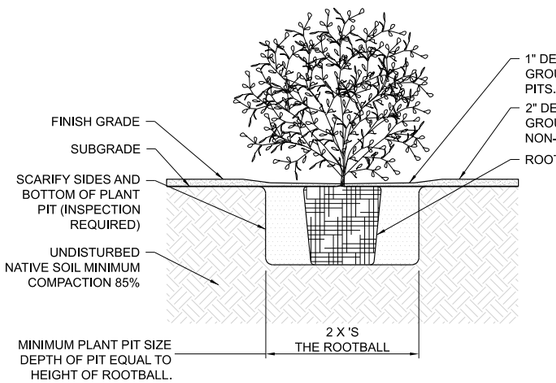


3 MULTI-TRUNK TREE STAKING
SCALE:NTS



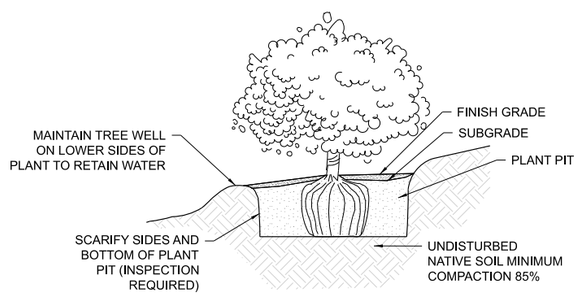
NOTES:
1. PLANTS DELIVERED WITH CRACKED OR BROKEN CONTAINERS WILL BE REJECTED.
2. STAKING AND PLANTING AS PER APPROPRIATE TREE DETAIL AND PLANTING NOTES.
3. MINIMUM PLANT PIT IS 2-1/2 TIMES THE DIAMETER OF ROOTBALL, AND NO DEEPER THAN DEPTH OF THE ROOTBALL.
4. ALL TREE ROOTBALLS SHALL HAVE ANY EXCESS NURSERY CONTAINER SOIL REMOVED TO EXPOSE CROWN OF ROOTBALL. CROWN OF ROOTBALL TO BE PLANTED 1/2" ABOVE FINISH GRADE TOP DRESSING (DECOMPOSED GRANITE OR COMPOSTED MULCH).
5. TOP OF ROOT BALL SHALL NEVER BE PLACED OR BURIED BELOW ADJACENT FINISHED GRADE.

2 TREE PLANTING ON SLOPE
SCALE:NTS



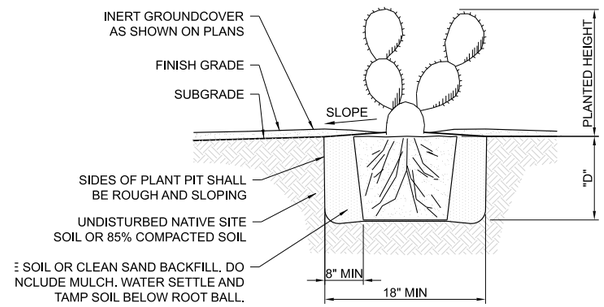
NOTES:
1. PLANTS DELIVERED WITH CRACKED OR BROKEN CONTAINERS, NOT ROOTED IN POT OR ROOTBOUND, WILL BE REJECTED.
2. ALL PLANT ROOTBALLS SHALL BE FLUSH WITH SUBGRADE.

4 SHRUB PLANTING
SCALE:NTS



NOTES:
1. MINIMUM PLANT PIT IS 2X'S THE DIAMETER OF ROOTBALL, AND NO DEEPER THAN DEPTH OF THE ROOTBALL.
4. ALL ROOTBALLS SHALL HAVE ANY EXCESS NURSERY CONTAINER SOIL REMOVED TO EXPOSE CROWN OF ROOTBALL. CROWN OF ROOTBALL TO BE PLANTED 1/2" ABOVE FINISH GRADE TOP DRESSING (INERT GROUNDCOVER OR COMPOSTED MULCH).
5. TOP OF ROOT BALL SHALL NEVER BE PLACED OR BURIED BELOW ADJACENT FINISHED GRADE.

5 SHRUB PLANTING ON SLOPE
SCALE:NTS



NOTES:
1. THIS DETAIL APPLIES TO NURSERY GROWN STOCK OF GENUS OPUNTIA.
2. DO NOT CREATE A BASIN AT BASE OF PLANT. SLOPE BACKFILL AWAY FROM STEM.
3. SET STEM SUCCULENT SO THAT TOP OF ROOT BALL MATCHES ADJACENT GRADE.
4. DEPTH ("d") OF PLANT PIT TO BE EQUAL TO DEPTH OF ROOTBALL.
5. MAINTAIN INTACT ROOTBALL. ROOT PRUNE ALL SHREDDED OR DAMAGED ROOTS. ENSURE THAT ALL WOUNDS TO THE ROOT SYSTEM ARE CLEAN CUT BEFORE PLANTING.

4 PRICKLY PEAR PLANTING DETAIL
SCALE:NTS

LANDSCAPE DETAILS *SHEET 2 OF 40*

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

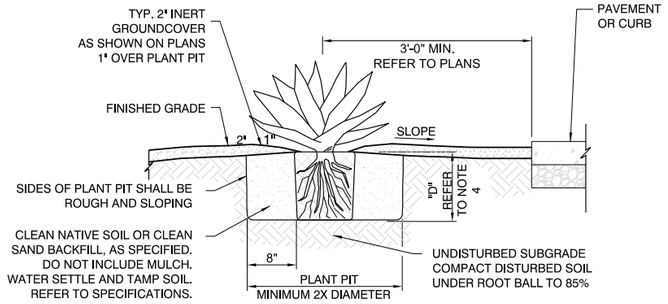
1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

367 OF 504

CITY OF TUCSON

DRWN. BY JE AUG 2026 | CHKD. BY JM AUG 2026 | APPR. BY LM AUG 2026 | SCALE: | PLAN NO. R-2024-XXX

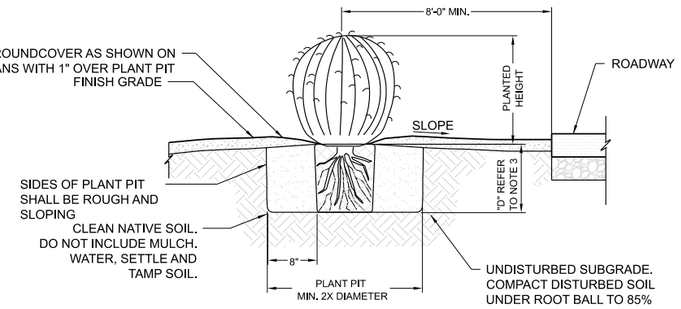
c:\pwworking\west01\d4614714\01L-01.dgn
8/14/2026 12:19:22 PM



NOTES:
1. THIS DETAIL APPLIES TO NURSERY GROWN STOCK OF THE GENERA AGAVE, ALOE, DASYLIRION, HESPERALOE, NOLINA AND YUCCA.
2. DO NOT CREATE A BASIN AT BASE OF PLANT. SLOPE BACKFILL AWAY FROM STEM.
3. SET STEM SUCCULENT SO THAT TOP OF ROOT BALL MATCHES ADJACENT GRADE.
4. DEPTH ("D") OF PLANT PIT TO BE EQUAL TO DEPTH OF ROOTBALL.

1 AGAVE AND SUCCULENT PLANTING

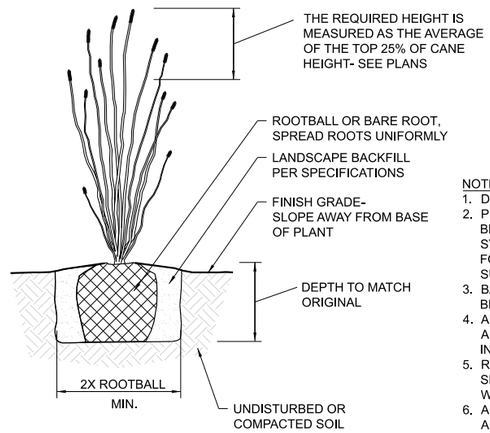
SCALE:N.T.S.



NOTES:
1. FOR FIELD GROWN CACTI, PLANT PLACEMENTS MUST MATCH ORIGINAL ORIENTATION WITH ORIGINAL NORTH SIDE FACING NORTH. NORTH SIDE OF PLANTS TO BE MARKED BY THE NURSERY. FOR INDOOR PROPAGATED CACTI, ALL PLANTS MUST BE SHADED WITH SHADE CLOTH FOR SPRING AND SUMMER PLANTING.
2. DO NOT CREATE A BASIN AT BASE OF PLANT. SLOPE BACKFILL AWAY FROM STEM.
3. DEPTH "D" OF PLANT PIT TO BE EQUAL TO DEPTH OF ROOTBALL.

2 BARREL CACTUS PLANTING

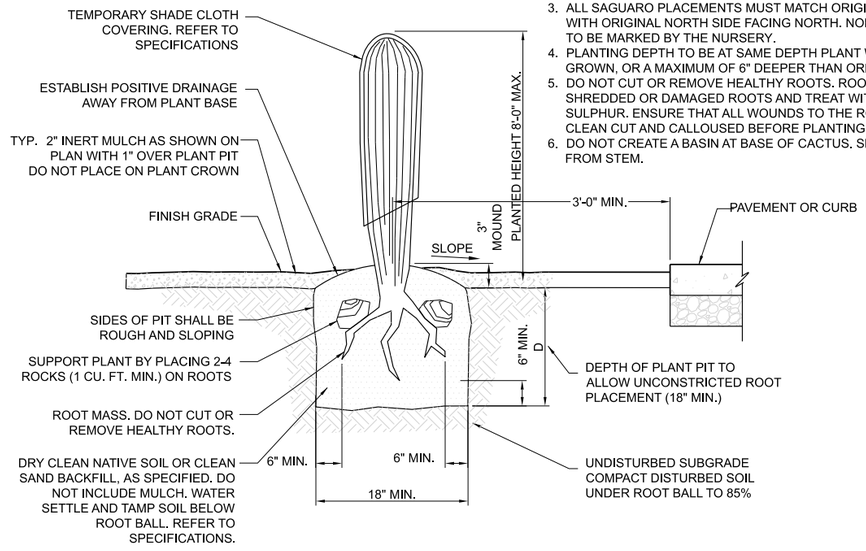
SCALE:N.T.S.



NOTES:
1. DUST ENTIRE ROOTBALL/ROOTS WITH SULFUR POWDER.
2. PRUNE ALL SHREDDED OR DAMAGED ROOTS, CLEANLY CUT ALL BROKEN ROOTS & STEMS. ENSURE ALL WOUNDS TO THE ROOT SYSTEM ARE SEALED BEFORE PLANTING BY ALLOWING TIME FOR SELF-SEALING OR APPLICATION OF WETTABLE DUSTING SULFUR, (1.5 LBS).
3. BARE ROOTS SHALL BE OUT OF THE GROUND FOR 5 DAYS BEFORE PLANTING.
4. APPLY NAPHYL ACETIC ACID OR SUPERTHRIVE, B-1 OR OTHER APPROVED HORMONE, AS PER MANUFACTURER'S INSTRUCTIONS.
5. ROUGHEN BOTTOM AND SIDES OF PLANT PIT PRIOR TO SETTING, BACKFILL WITH MOIST CLEAN NATIVE SOIL, AND WATER SETTLE IN PLANT PIT.
6. AFTER PLANTING, DO NOT WATER FOR A WEEK TO TEN DAYS TO ALLOW ANY ROOTS THAT MAY HAVE BEEN DAMAGED DURING PLANTING TO CALLUS OFF.
7. WATER WEEKLY THROUGH SUMMER, UNLESS INSTRUCTED OTHERWISE.

3 OCOTILLO PLANTING DETAIL

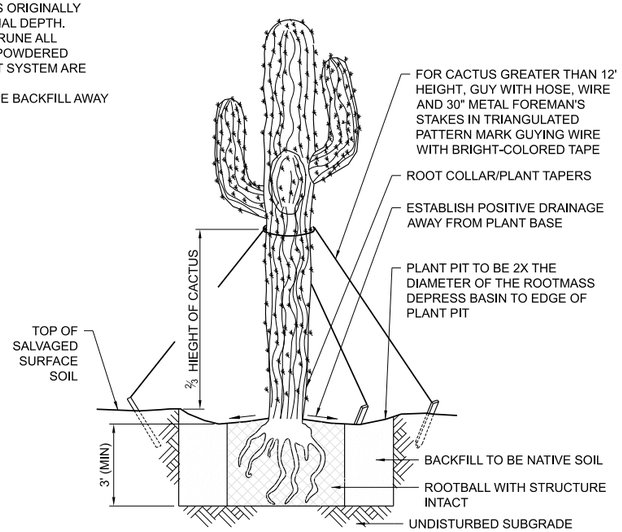
SCALE:N.T.S.



NOTES:
1. SAGUARO GREATER THAN 8 FEET PLANTED HEIGHT MUST BE STAKED.
2. SET MAIN STEM OF CACTUS PLUMB AS VIEWED FROM ALL SIDES.
3. ALL SAGUARO PLACEMENTS MUST MATCH ORIGINAL ORIENTATION WITH ORIGINAL NORTH SIDE FACING NORTH. NORTH SIDE OF PLANTS TO BE MARKED BY THE NURSERY.
4. PLANTING DEPTH TO BE AT SAME DEPTH PLANT WAS ORIGINALLY GROWN, OR A MAXIMUM OF 6" DEEPER THAN ORIGINAL DEPTH.
5. DO NOT CUT OR REMOVE HEALTHY ROOTS. ROOT PRUNE ALL SHREDDED OR DAMAGED ROOTS AND TREAT WITH POWDERED SULPHUR. ENSURE THAT ALL WOUNDS TO THE ROOT SYSTEM ARE CLEAN CUT AND CALLOUSED BEFORE PLANTING.
6. DO NOT CREATE A BASIN AT BASE OF CACTUS. SLOPE BACKFILL AWAY FROM STEM.

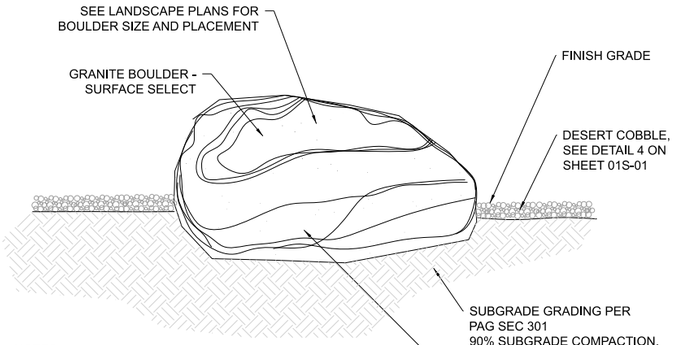
4 SAGUARO PLANTING DETAIL - SHADE CLOTH

SCALE:N.T.S.



5 SAGUARO PLANTING DETAIL

SCALE:N.T.S.



NOTES:
1. BOULDERS TO BE PLACE IN A WAY SO SCARRING DOES NOT OCCUR.
2. BURY LOWER 1/3 OF BOULDER AS NEEDED TO ACHIEVE NATURAL APPEARANCE.
3. BOULDER PLACEMENT MINIMUM 3' BACK OF CURB.
4. CONTRACTOR TO FIELD STAKE BOULDER LOCATIONS AND OBTAIN CITY OF TUCSON INSPECTOR APPROVAL PRIOR TO INSTALLATION.
5. ALL BOULDERS SHALL RECEIVE TREATMENT OF NATINA DESERT VARNISH, OR APPROVED EQUAL OVER ALL SCARRED AREAS

6 BOULDER INSTALLATION

SCALE: N.T.S.

LANDSCAPE DETAILS SHEET 3 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

368 OF 504

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE:
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Project ID:
Client Number: 4109

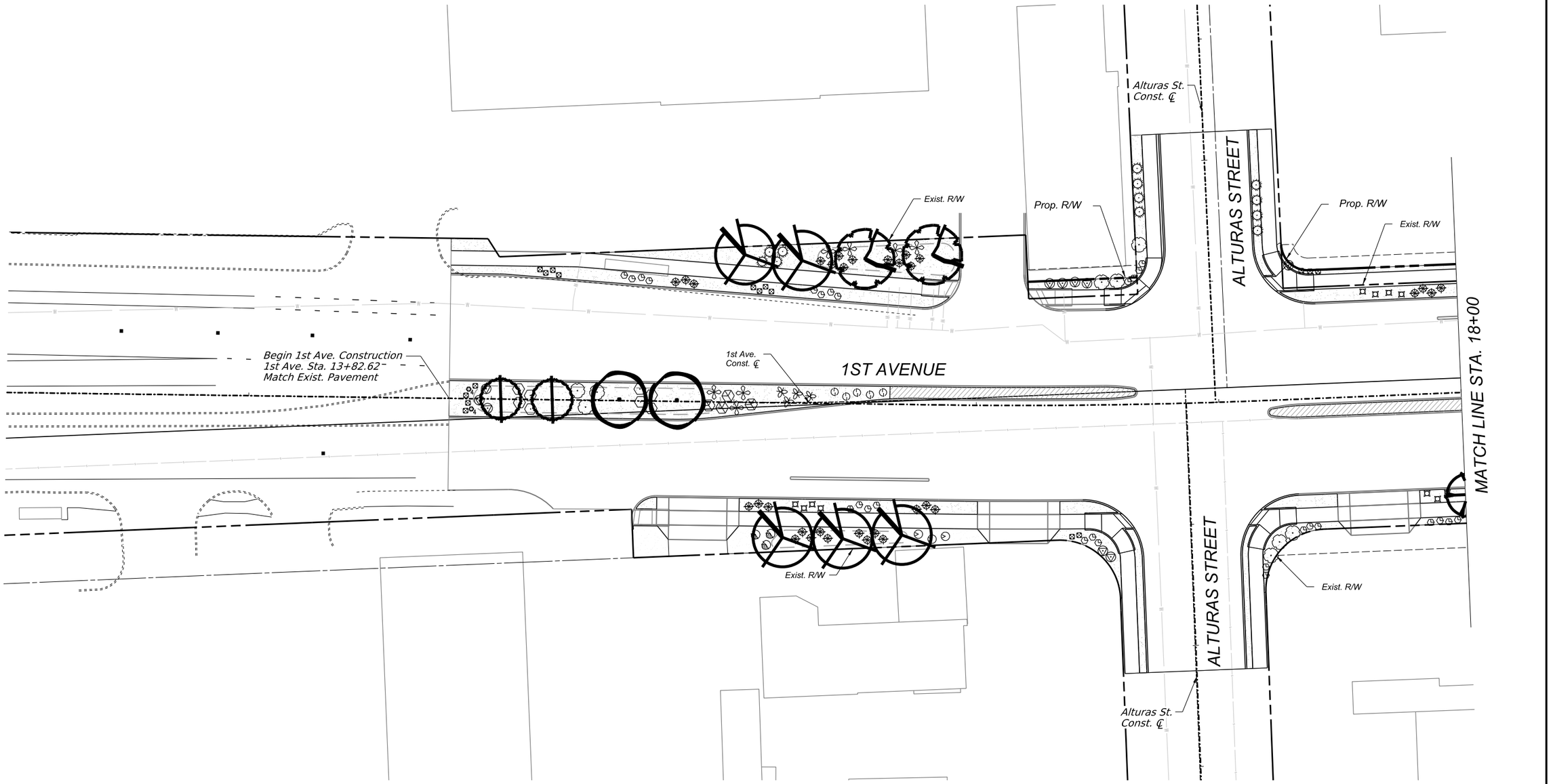
Pentable: 1stAve_Pen-22.tbl
Plotdriver: GN_bwpdf.pltcfg

Printed by: JEills
Print Scale: 1:1

OpenRoads Designer v10.12.02.4
8/14/2026
12:19:26 PM

c:\pwworking\west01\d4614714\01L-02.dgn
8/14/2026 12:19:26 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:19:54 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdrver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



SHEET NOTES

For planting Schedule and Notes refer to Sheet 1 of Landscape Sheets. Sheet 4–6 of Landscape Sheets reflect typical planting design to be implemented through the remainder of the project in future submissions.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

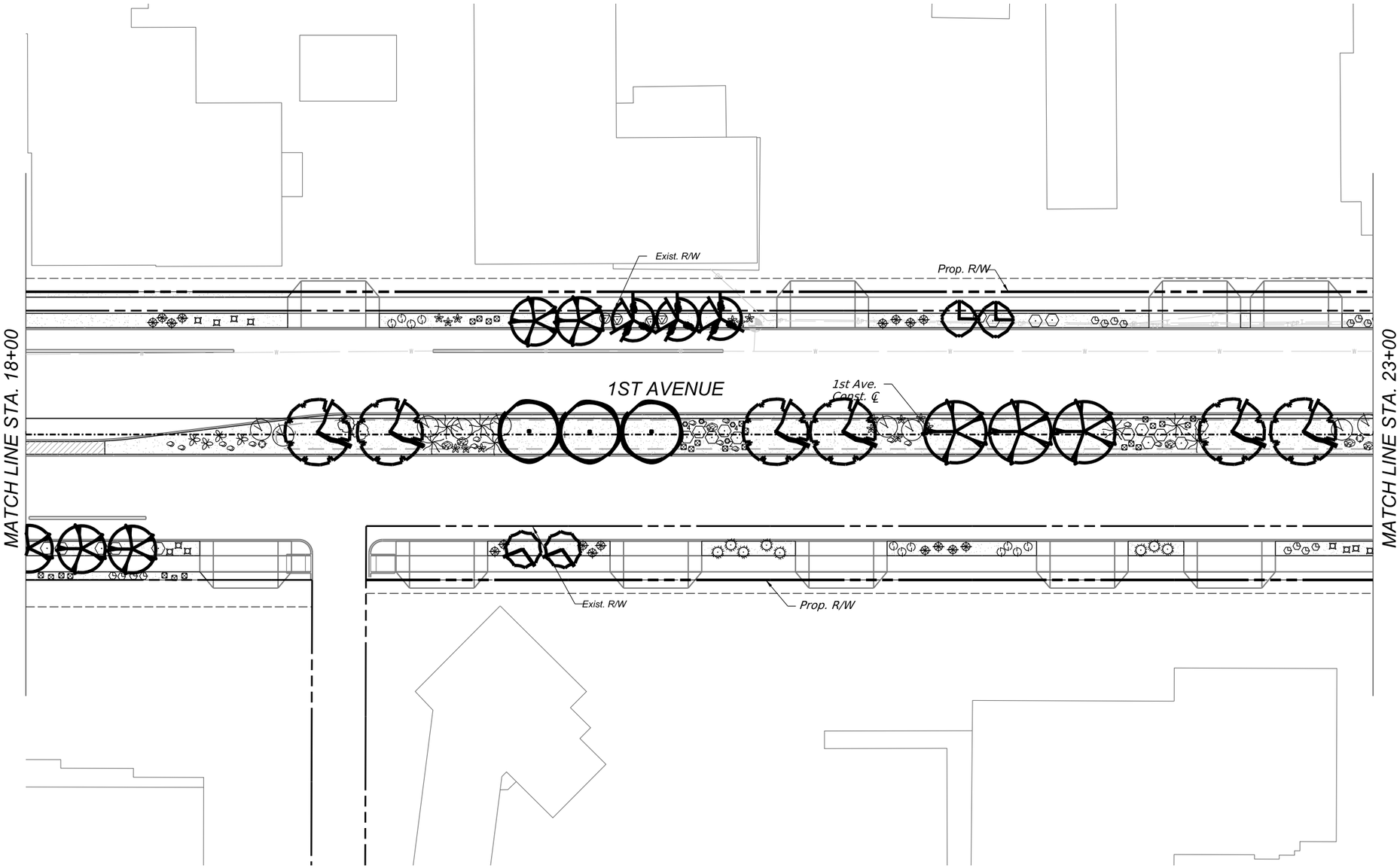
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave Begin to 18+00
LANDSCAPE PLAN

SHEET *4 OF 40*

369 OF 504

12:19:56 PM 8/14/2026 OpenRoads Designer v10.12.02.4



Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotfg
Project ID:
Client Number: 4109

SHEET NOTES

For planting Schedule and Notes refer to Sheet 1 of Landscape Sheets. Sheet 4–6 of Landscape Sheets reflect typical planting design to be implemented through the remainder of the project in future submissions.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

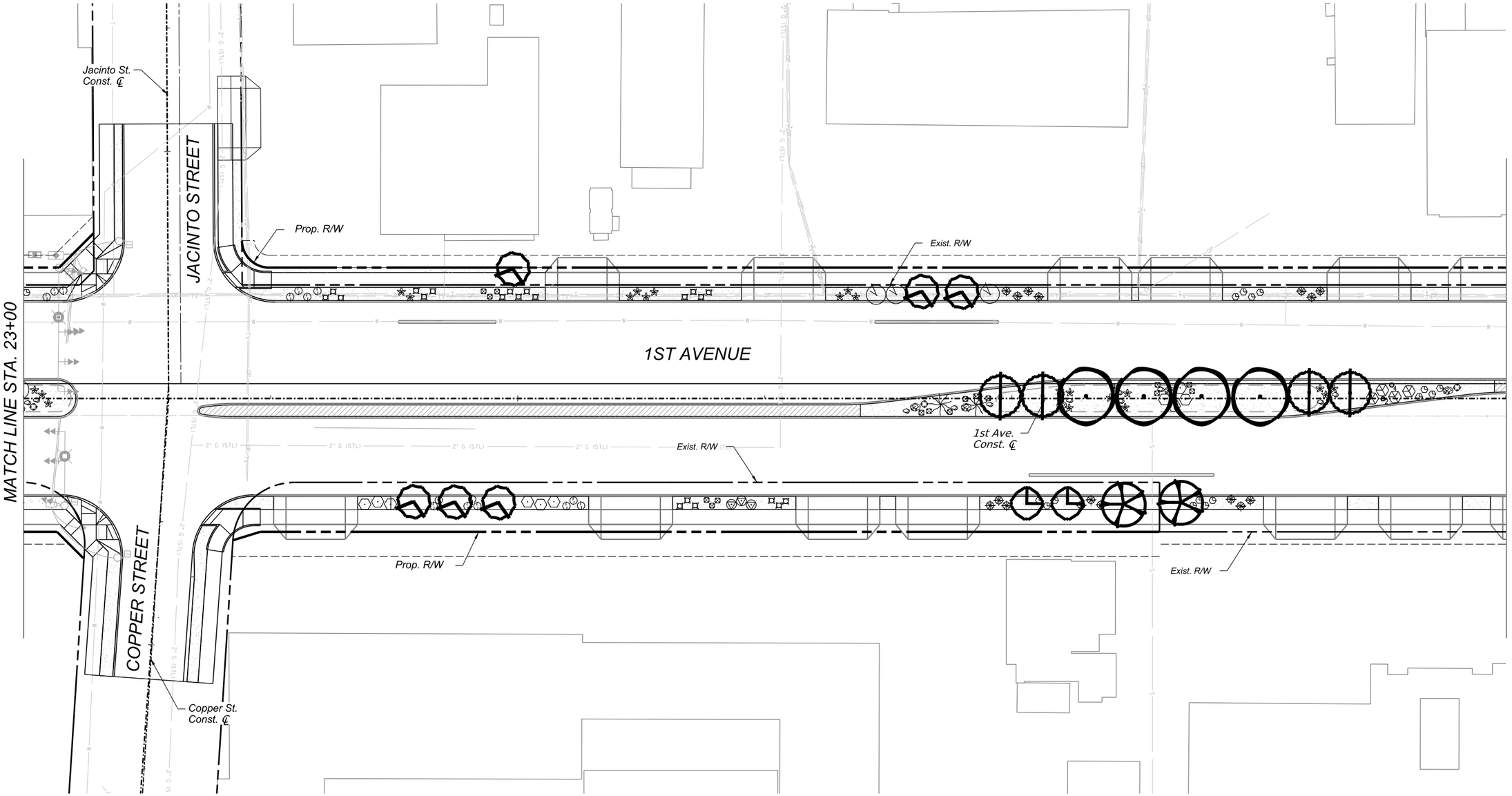
370 OF 504

1st Ave 18+00 to 23+00
LANDSCAPE PLAN

SHEET 5 OF 40

c:\pwworking\west01\d4520428\02L-02.dgn
8/14/2026 12:19:56 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:19:58 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdrivr: GN_Dwpdf.pltcfg
Project ID:
Client Number: 4109



SHEET NOTES

For planting Schedule and Notes refer to Sheet 1 of Landscape Sheets. Sheet 4–6 of Landscape Sheets reflect typical planting design to be implemented through the remainder of the project in future submissions.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

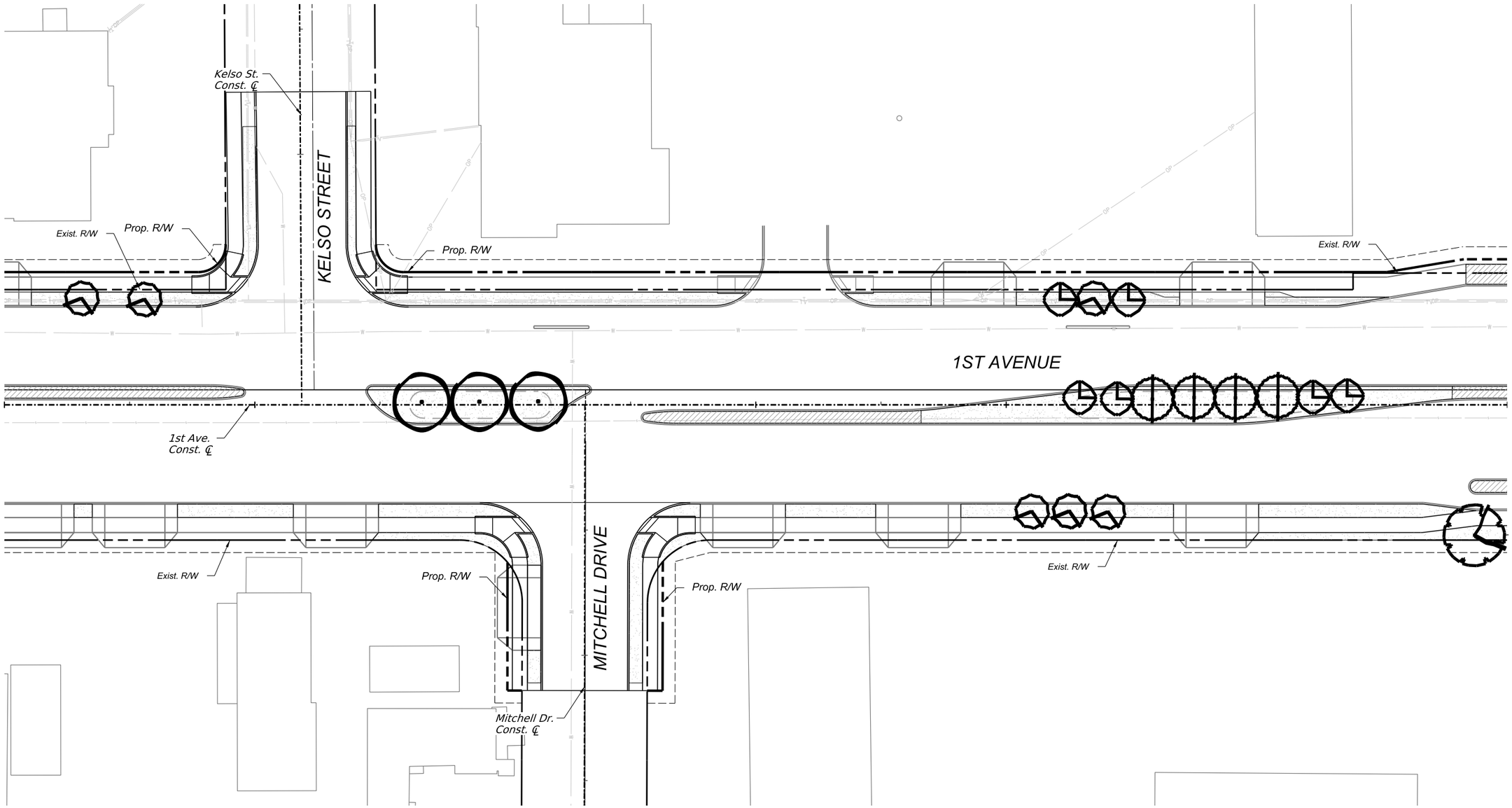
371 OF 504

1st Ave 23+00 to 29+00
LANDSCAPE PLAN

SHEET 6 OF 40

c:\pwworking\west01\d4520428\02L-03.dgn
8/14/2026 12:19:58 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:01 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

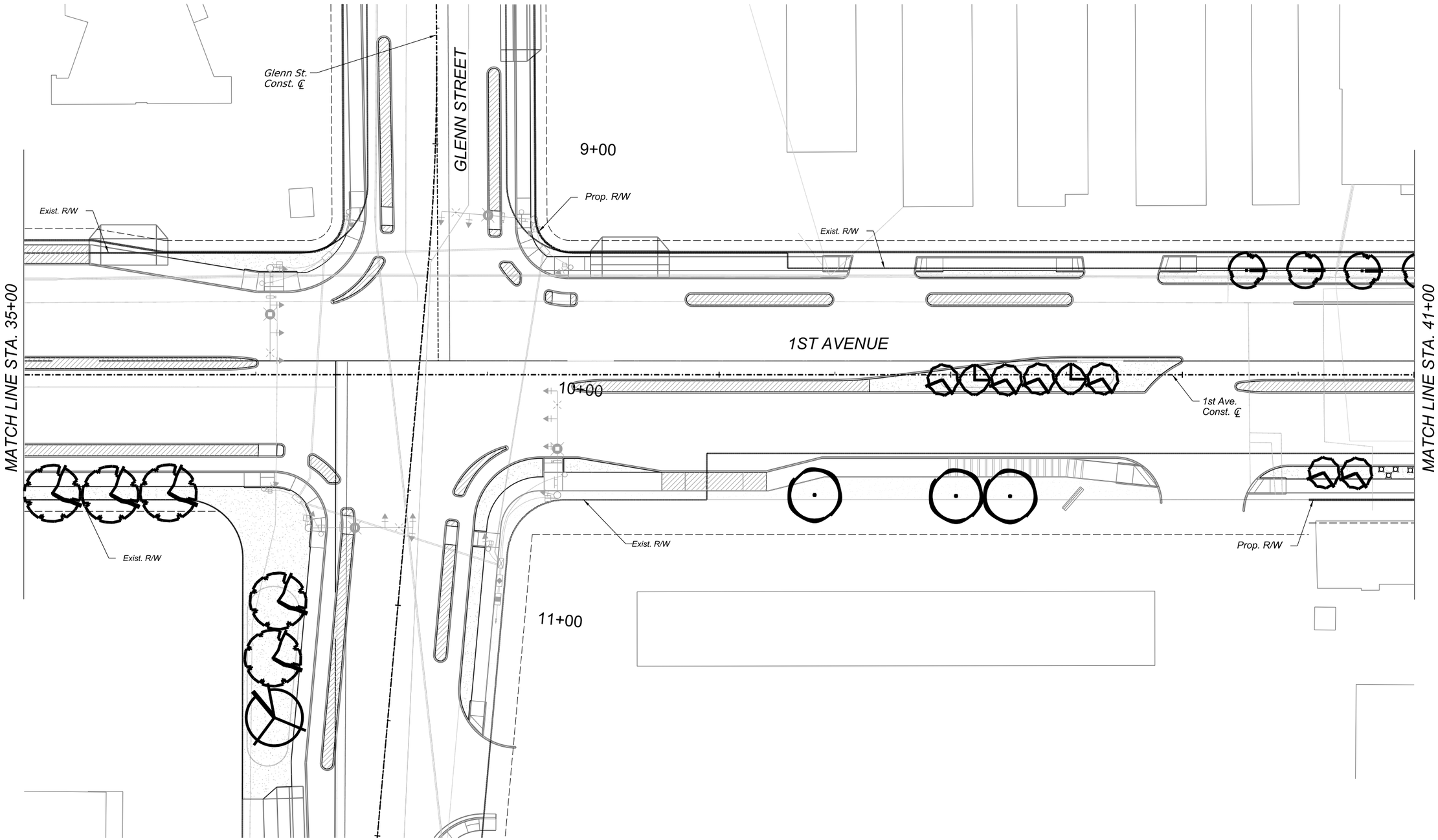
372 OF 504

1st Ave 29+00 to 35+00
LANDSCAPE PLAN

SHEET 7 OF 40

c:\pwworking\west01\d4520428\02L-04.dgn
8/14/2026 12:20:01 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:10 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.altcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

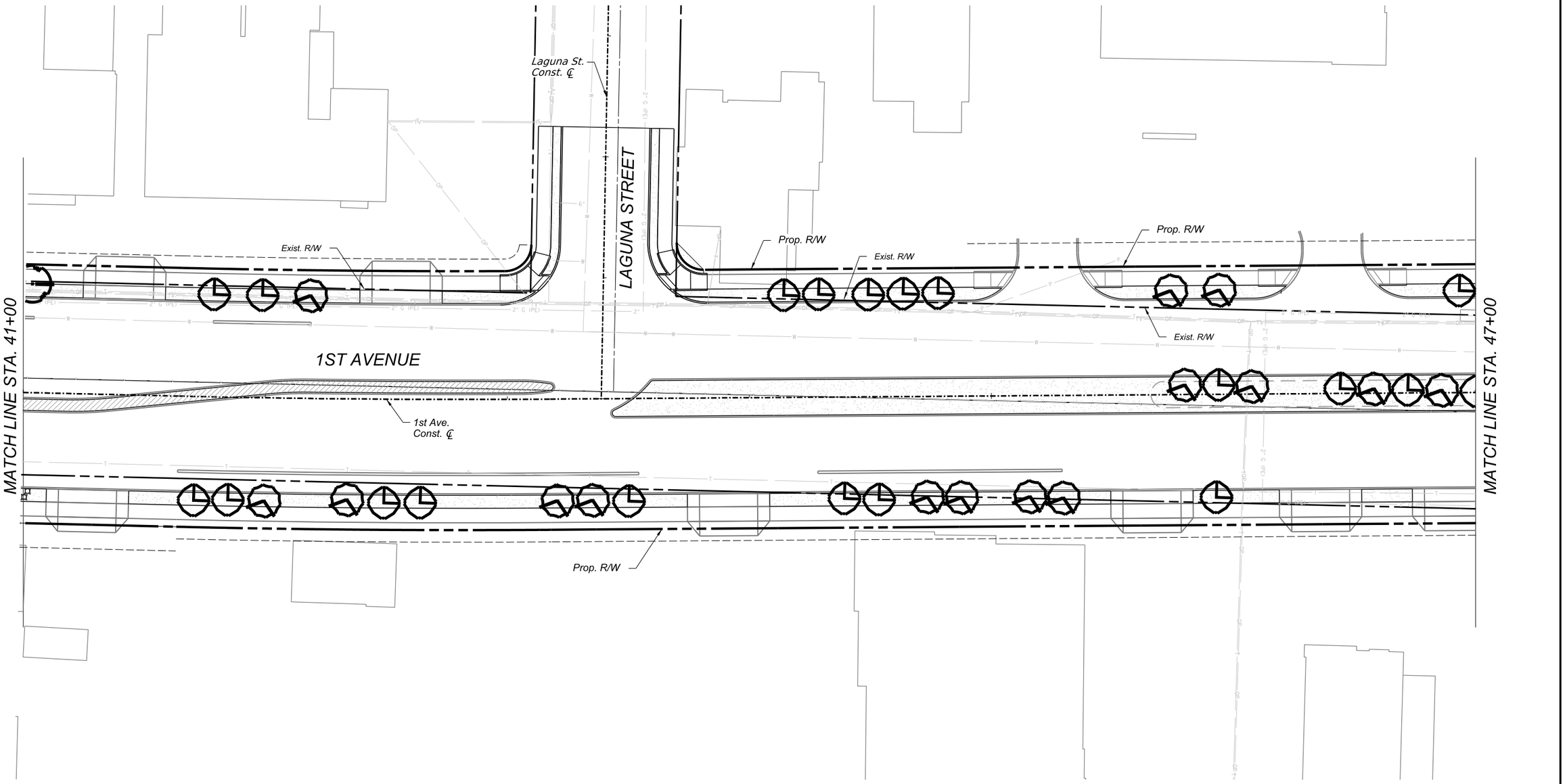
1st Ave 35+00 to 41+00
LANDSCAPE PLAN

SHEET 8 OF 40

373 OF 504

c:\pwworking\west01\d4520428\02L-05.dgn
8/14/2026 12:20:10 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:19 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltdg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

374 OF 504

CITY OF TUCSON

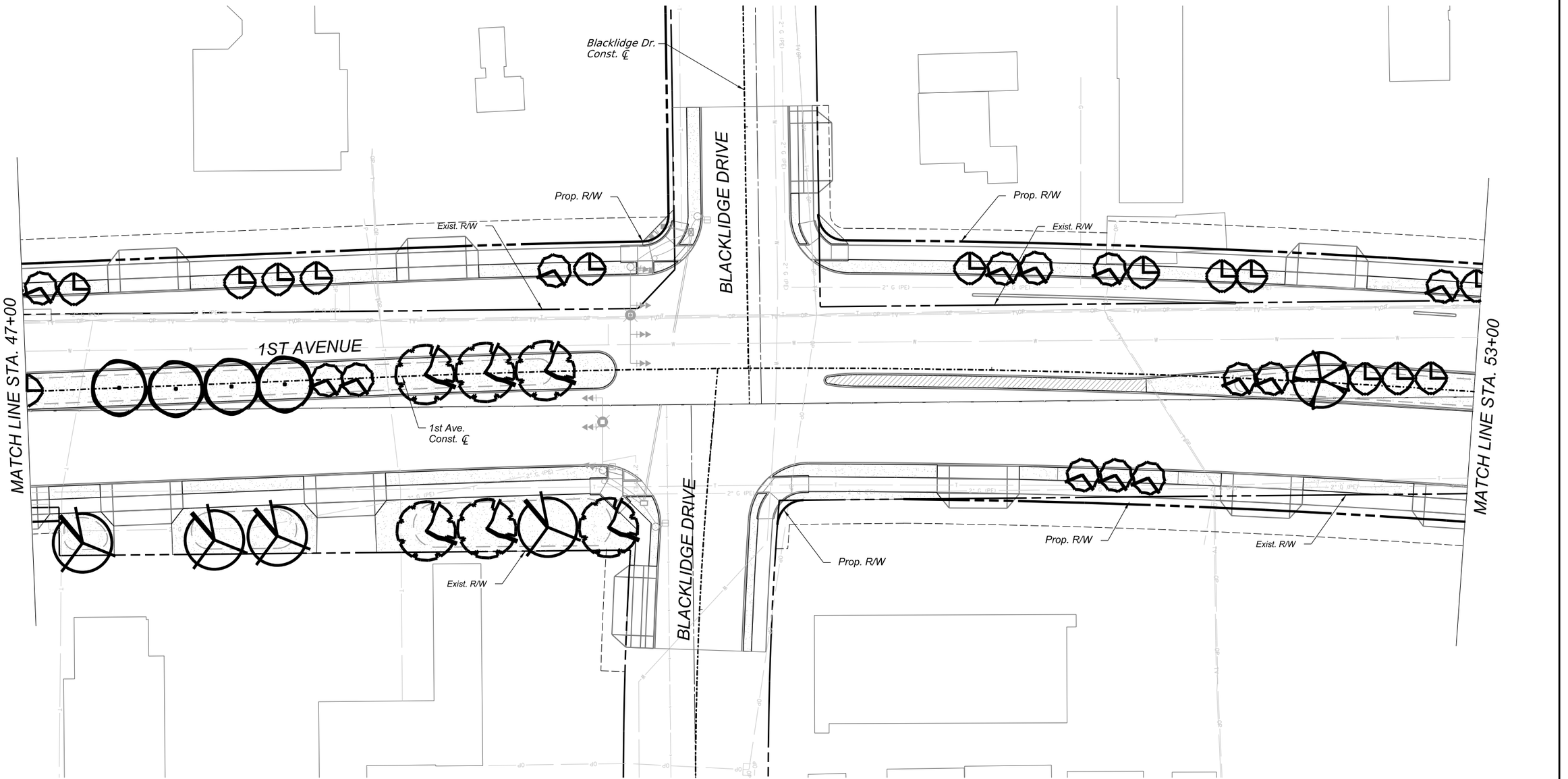
DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 41+00 to 47+00
LANDSCAPE PLAN

SHEET 9 OF 40

c:\pwworking\west01\d4520428\02L-06.dgn
8/14/2026 12:20:19 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:21 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



1st Ave 47+00 to 53+00
LANDSCAPE PLAN

SHEET 10 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

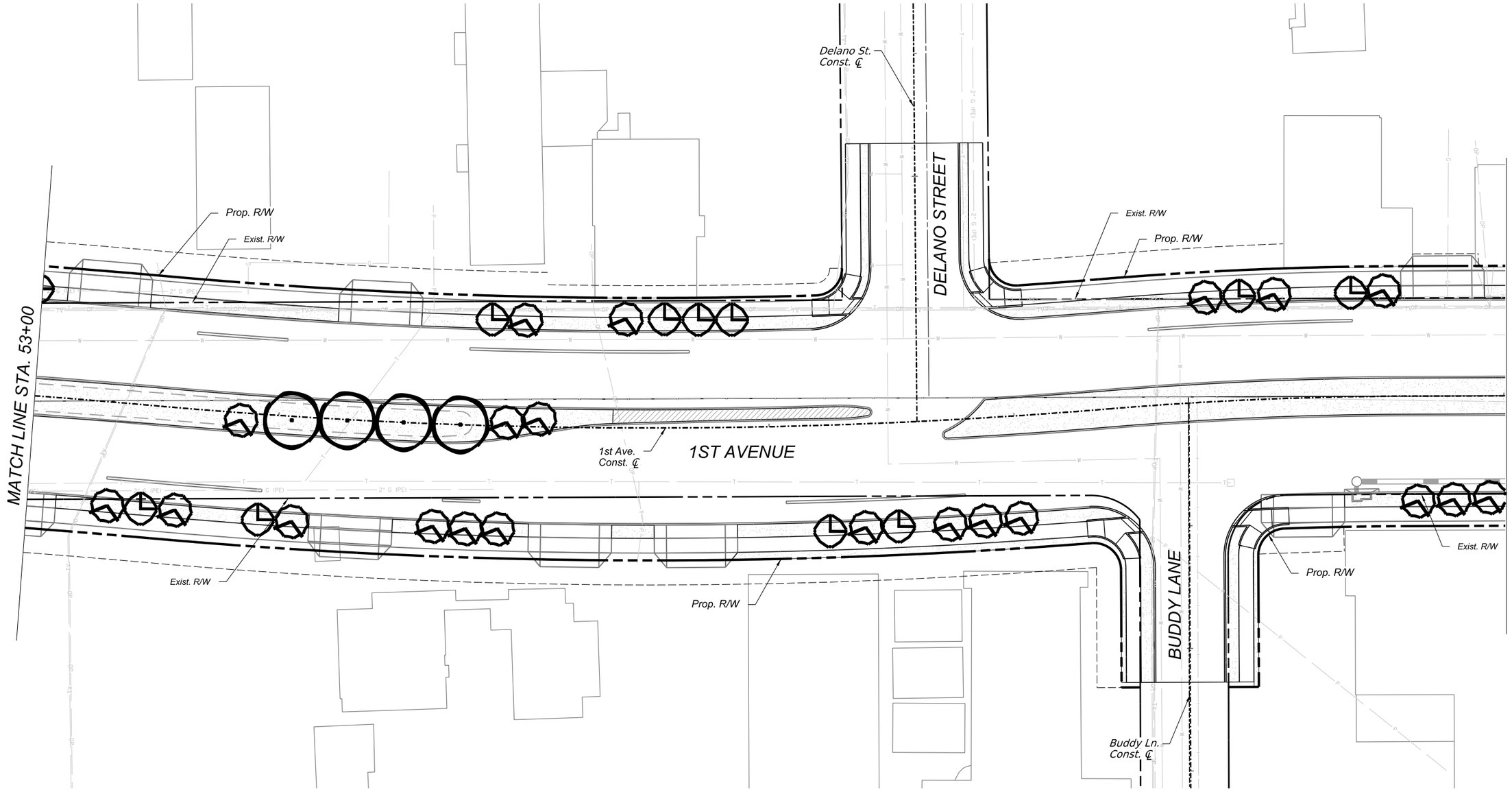
375 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-07.dgn
8/14/2026 12:20:21 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:22 PM
Printed by: JEits
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_fwpdf.altcfg
Project ID:
Client Number: 4109



1st Ave 53+00 to 59+00
LANDSCAPE PLAN

SHEET 11 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

376 OF 504

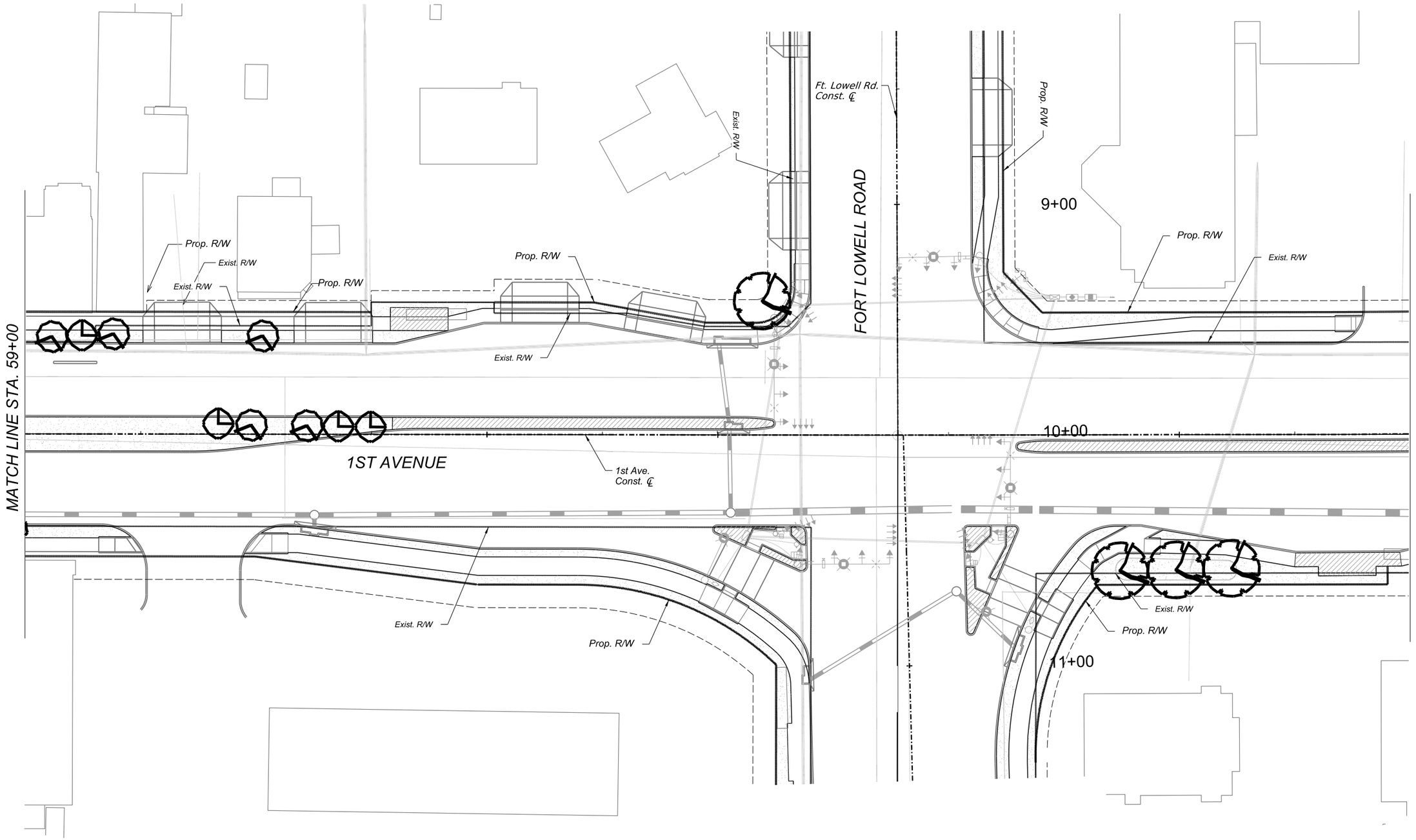
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-08.dgn
8/14/2026 12:20:22 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:35 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

377 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 59+00 to 65+00
LANDSCAPE PLAN

SHEET 12 OF 40

c:\pwworking\west01\d4520428\02L-09.dgn
8/14/2026 12:20:35 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:48 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.altcfg
Project ID:
Client Number: 4109

MATCH LINE STA. 65+00

1ST AVENUE

NAVAJO ROAD

MATCH LINE STA. 71+00

9+00

10+00

11+00

Navajo Rd.
Const. ℄

1st Ave.
Const. ℄

Exist. R/W

Prop. R/W

Navajo Rd.
Const. ℄

Exist. R/W

Prop. R/W

Exist. R/W

Prop. R/W

Exist. R/W

Navajo Rd.
Const. ℄

Exist. R/W

Prop. R/W

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

1st Ave 65+00 to 71+00
LANDSCAPE PLAN

SHEET 13 OF 40

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

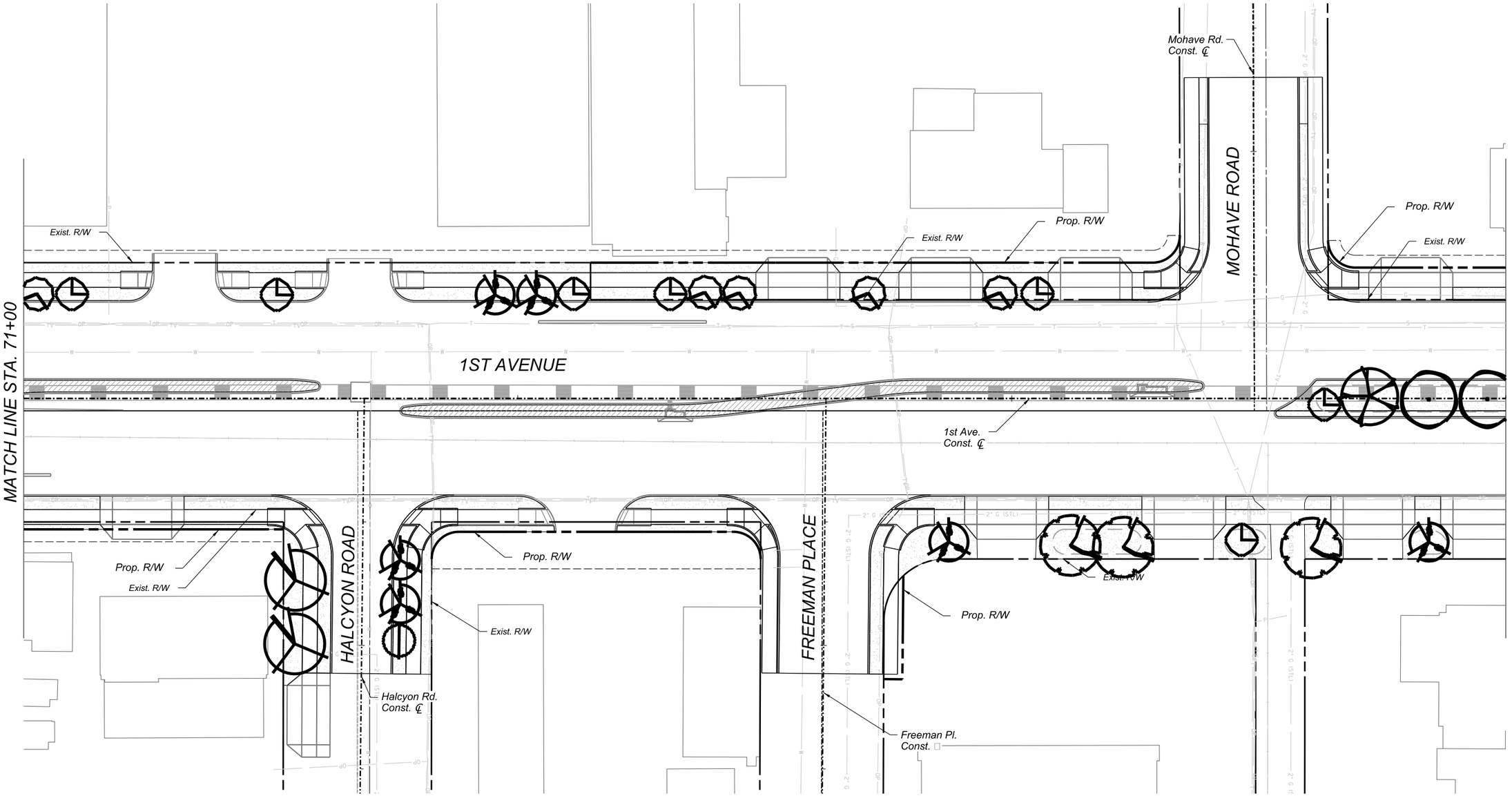
378 OF *504*

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: *H: 1" = 20'*
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-10.dgn
8/14/2026 12:20:48 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:51 PM
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf.ptcfg
Project ID:
Client Number: 4109



1st Ave 71+00 to 77+00
LANDSCAPE PLAN

SHEET 14 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

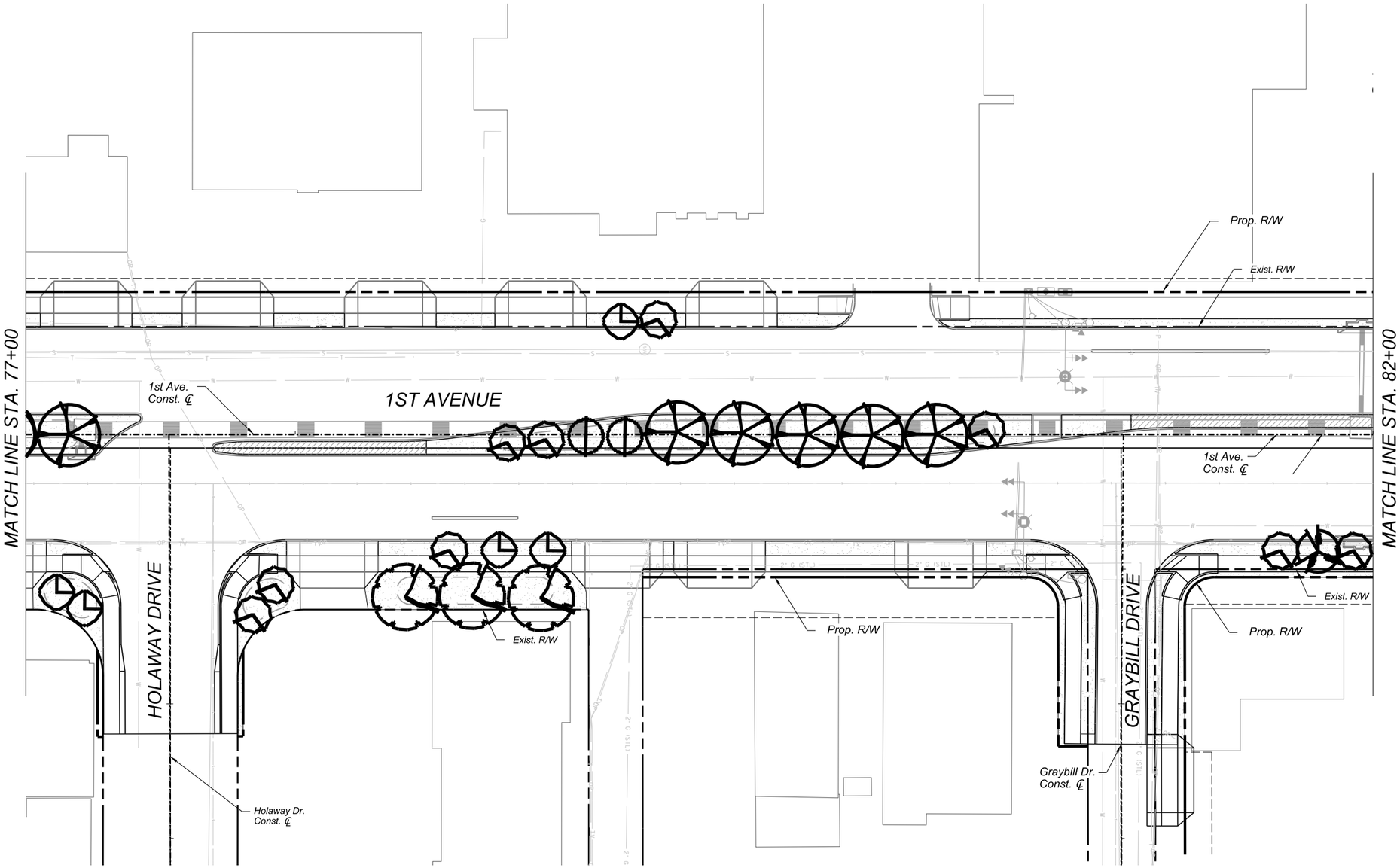
379 OF 504

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-11.dgn
8/14/2026 12:20:51 PM

12:20:53 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf.ptcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

380 OF 504

CITY OF TUCSON

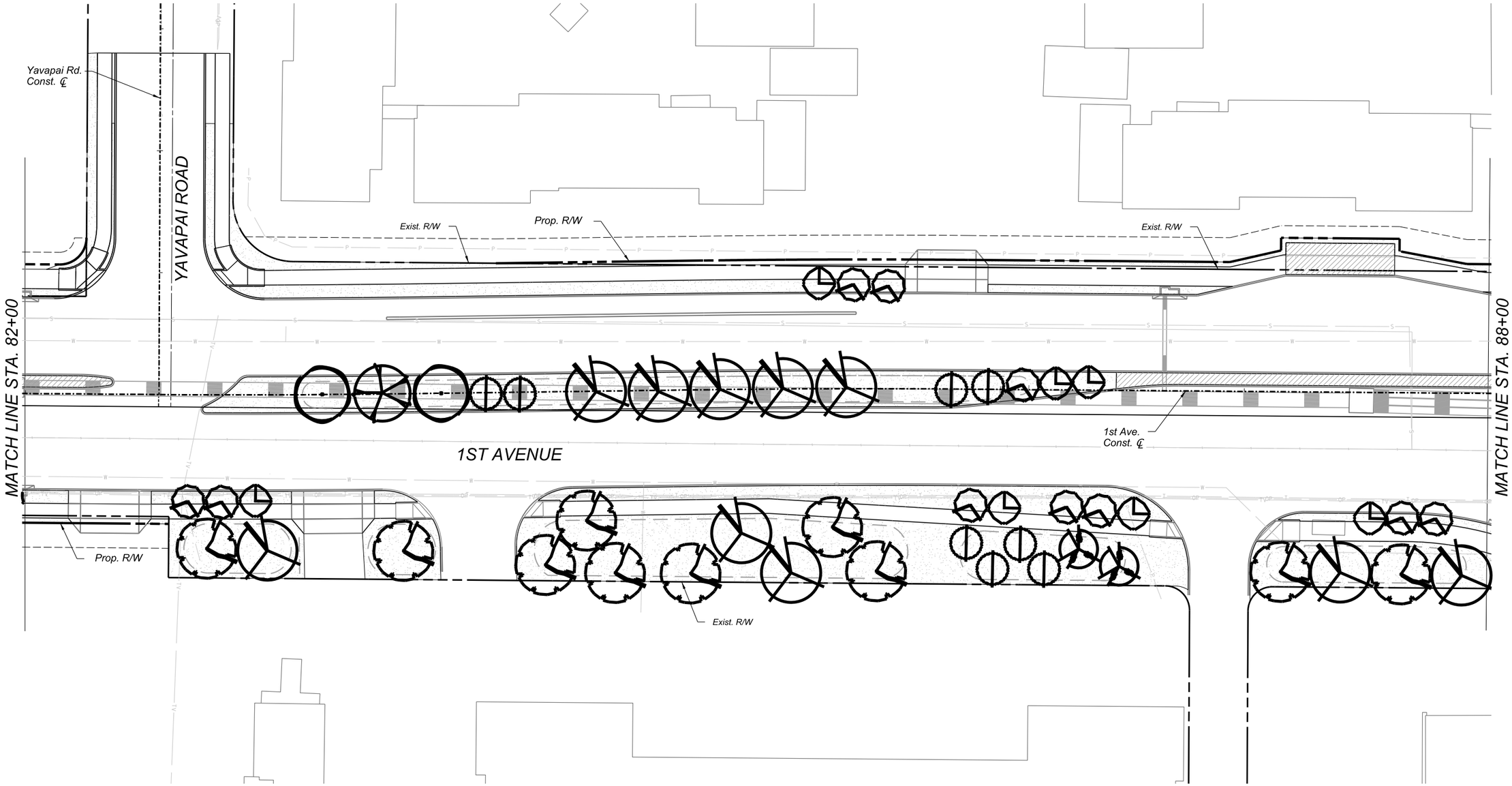
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 77+00 to 82+00
LANDSCAPE PLAN

SHEET 15 OF 40

c:\pwworking\west01\d4520428\02L-12.dgn
8/14/2026 12:20:53 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:20:55 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf.ltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

381 OF 504

CITY OF TUCSON

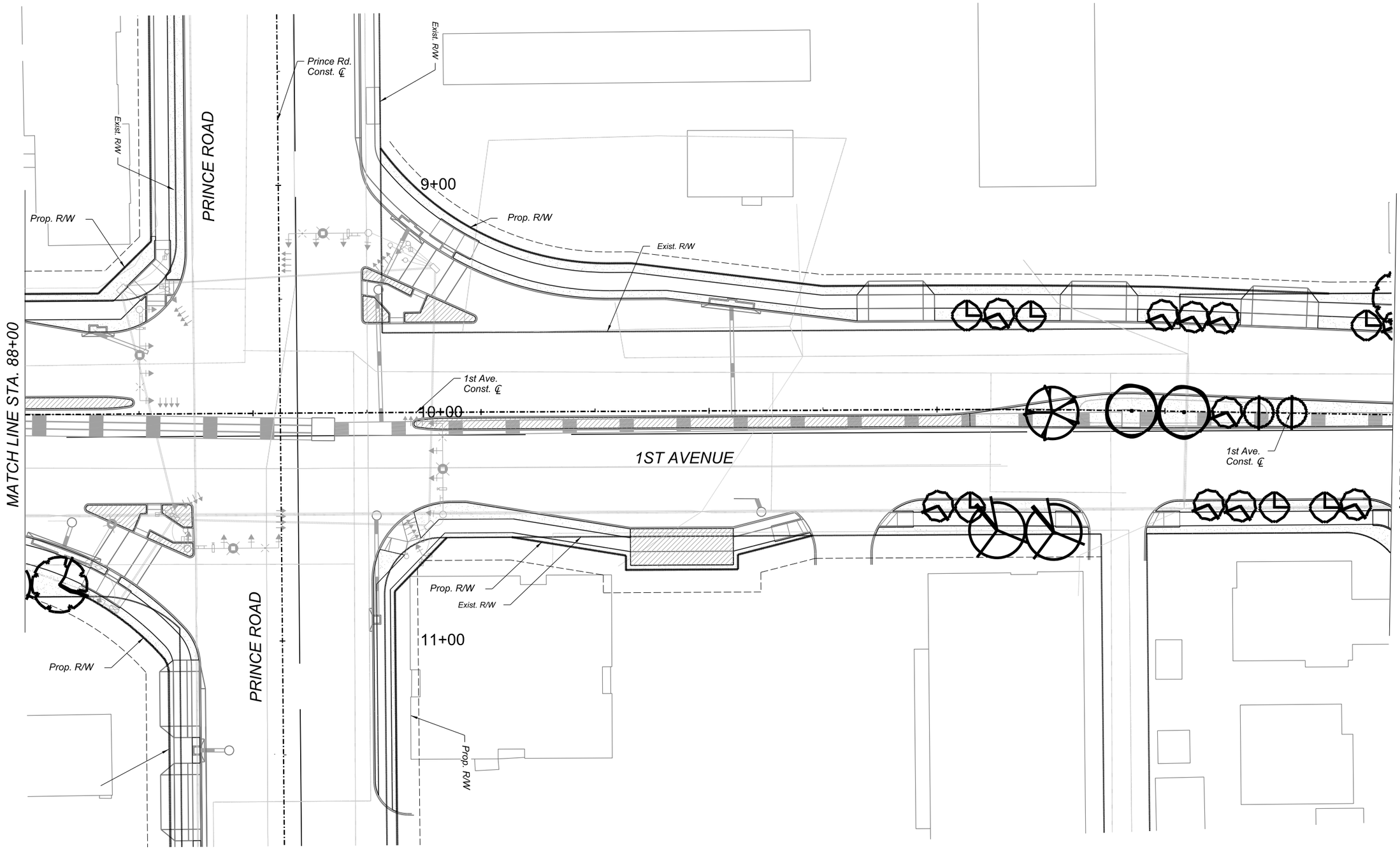
DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 82+00 to 88+00
LANDSCAPE PLAN

SHEET 16 OF 40

c:\pwworking\west01\d4520428\02L-13.dgn
8/14/2026 12:20:55 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:21:04 PM



Printed by: JEits
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_fwpdf.altcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

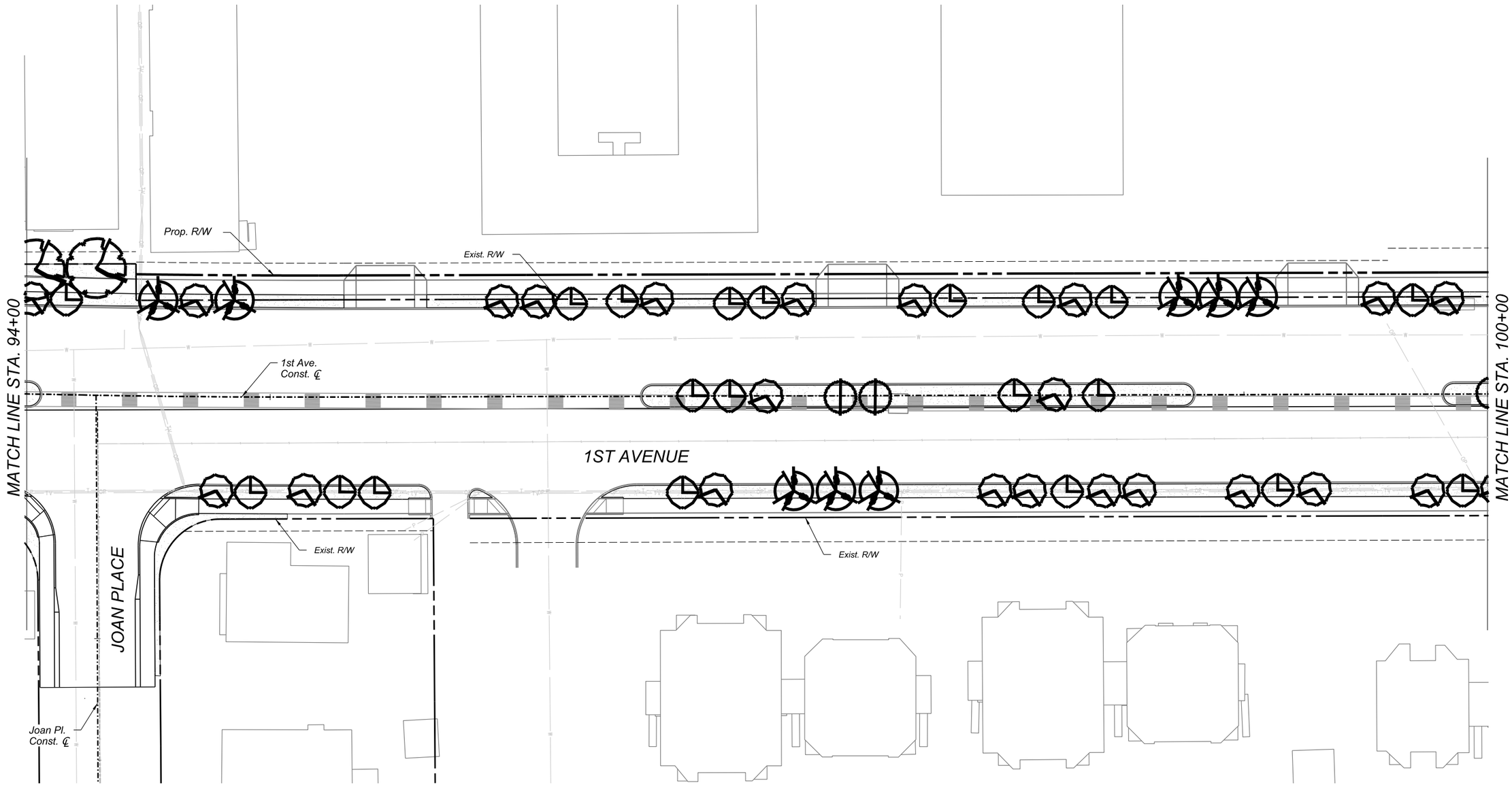
382 OF 504

1st Ave 88+00 to 94+00
LANDSCAPE PLAN

SHEET 17 OF 40

c:\pwworking\west01\d4520428\02L-14.dgn
8/14/2026 12:21:04 PM

12:21:12 PM 8/14/2026 OpenRoads Designer v10.12.02.4



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

1st Ave 94+00 to 100+00
LANDSCAPE PLAN

SHEET 18 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

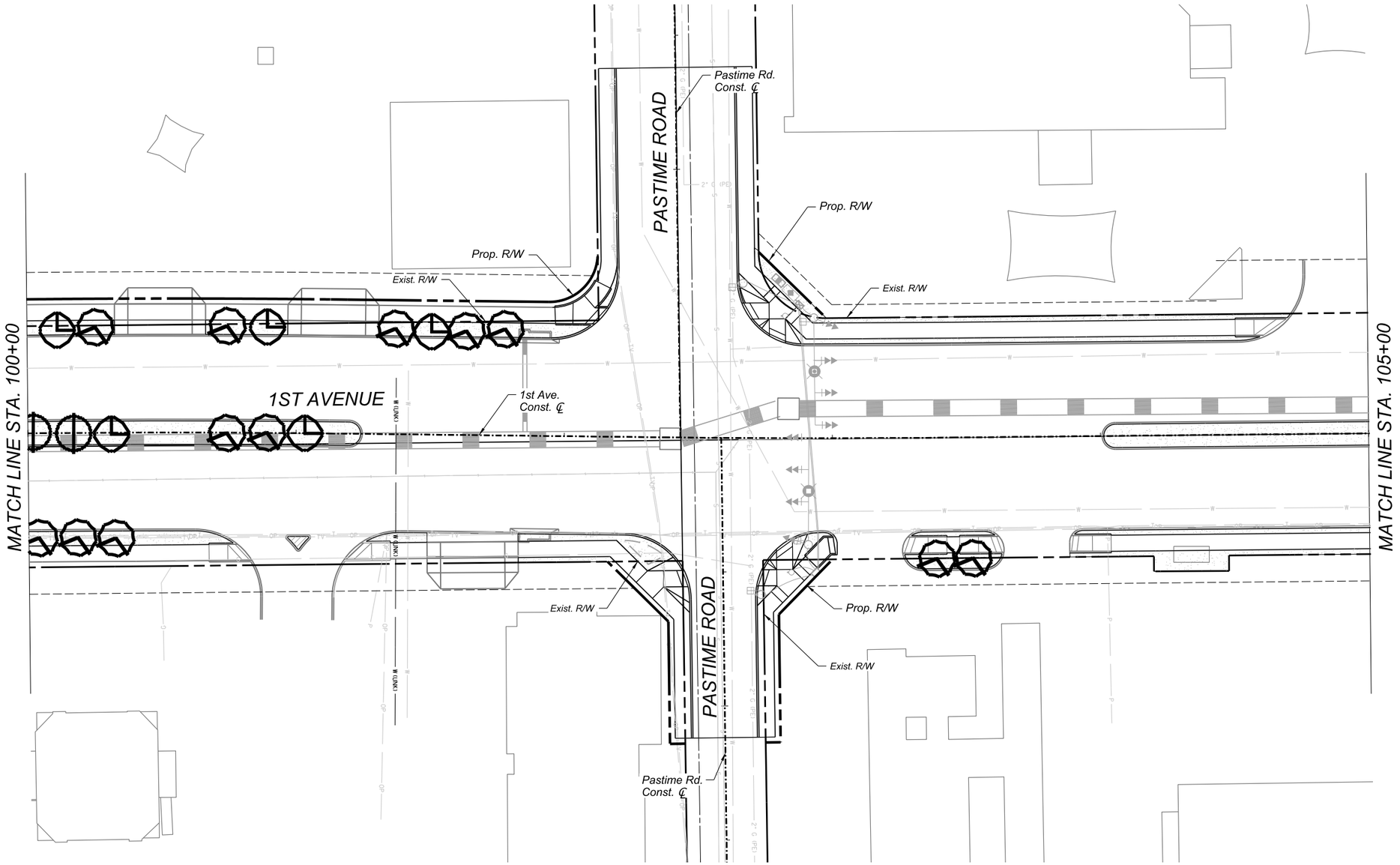
383 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-15.dgn
8/14/2026 12:21:12 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:21:14 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plcfg
Project ID:
Client Number: 4109



1st Ave 100+00 to 105+00
LANDSCAPE PLAN

SHEET 19 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

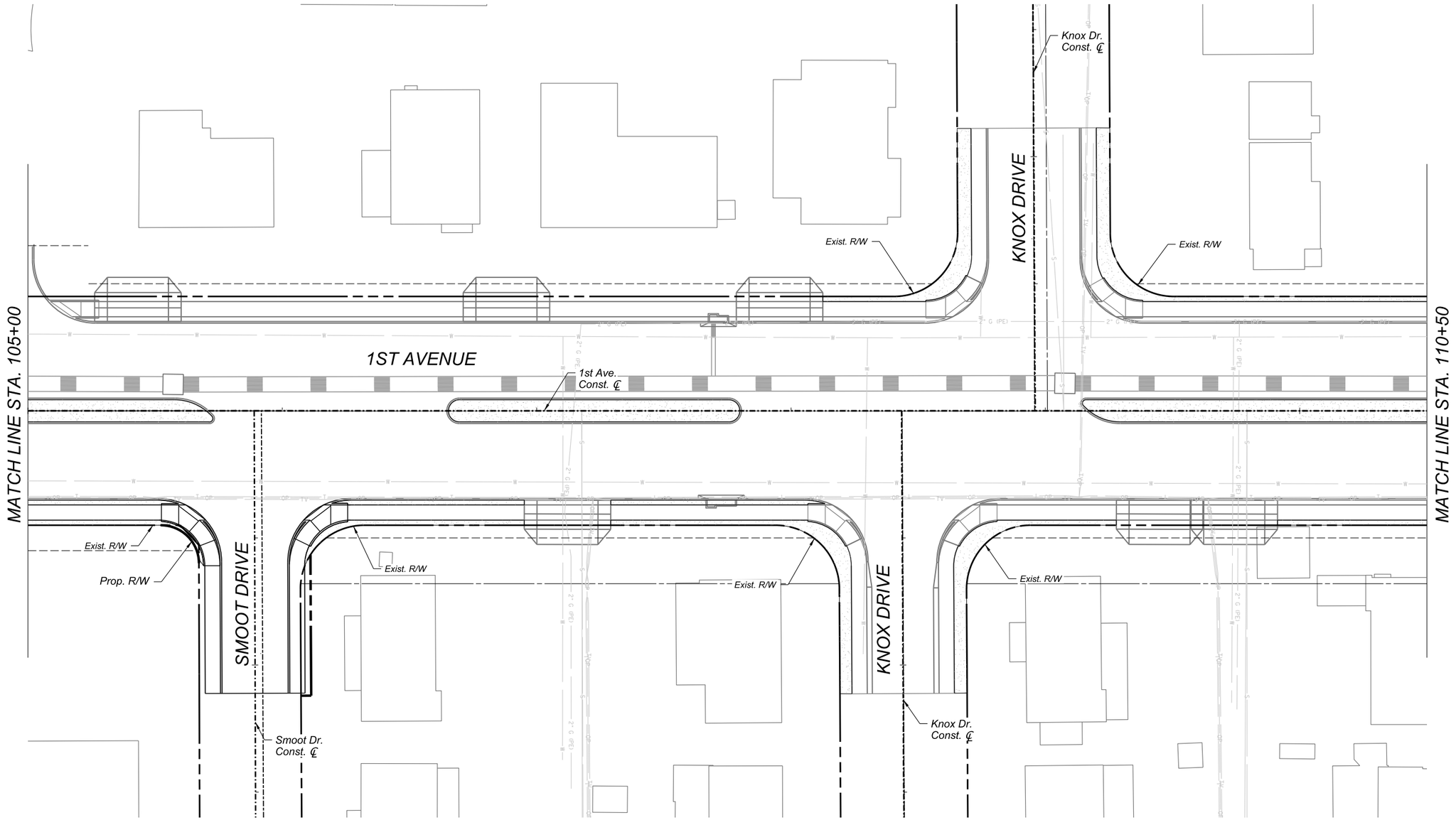
384 OF 504

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-16.dgn
8/14/2026 12:21:14 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:21:16 PM
Printed by: JEtis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

1st Ave 105+00 to 110+50
LANDSCAPE PLAN

SHEET 20 OF 40

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

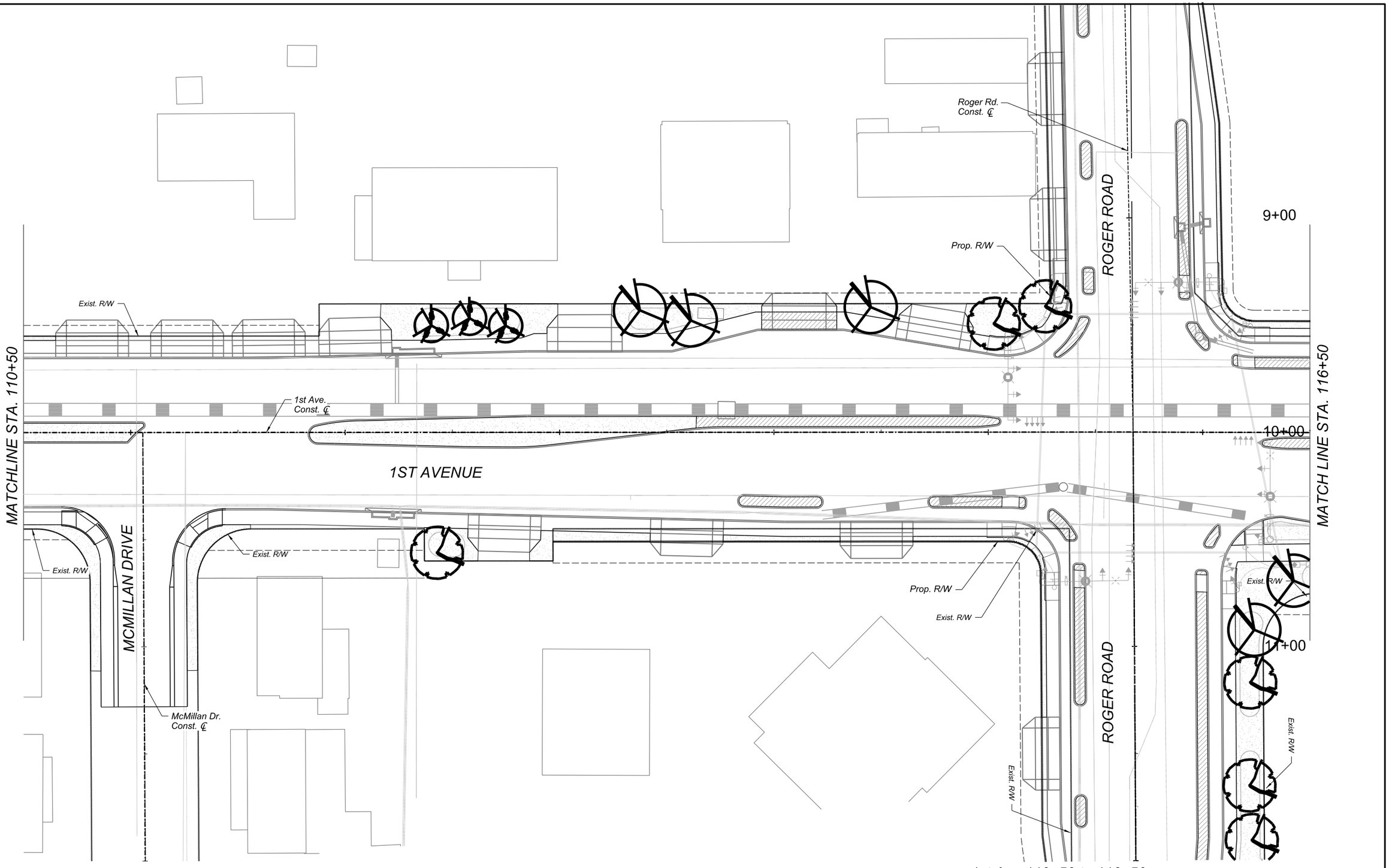
385 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-17.dgn
8/14/2026 12:21:16 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:21:24 PM



1st Ave 110+50 to 116+50
LANDSCAPE PLAN

SHEET 21 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

386 OF 504

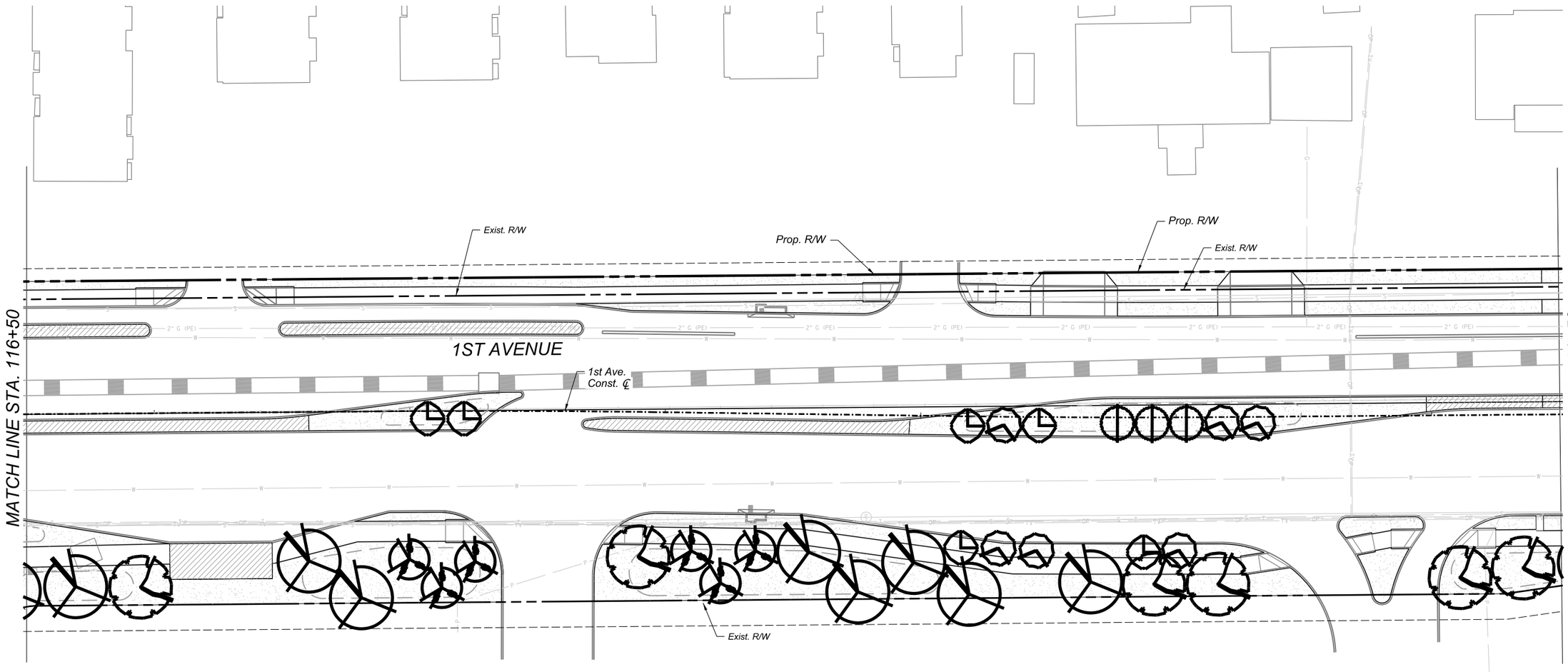
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4520428\02L-18.dgn
8/14/2026 12:21:24 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:21:34 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_twpdf.pltcfg
Project ID:
Client Number: 4109



1st Ave 116+50 to 122+50
LANDSCAPE PLAN

SHEET 22 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

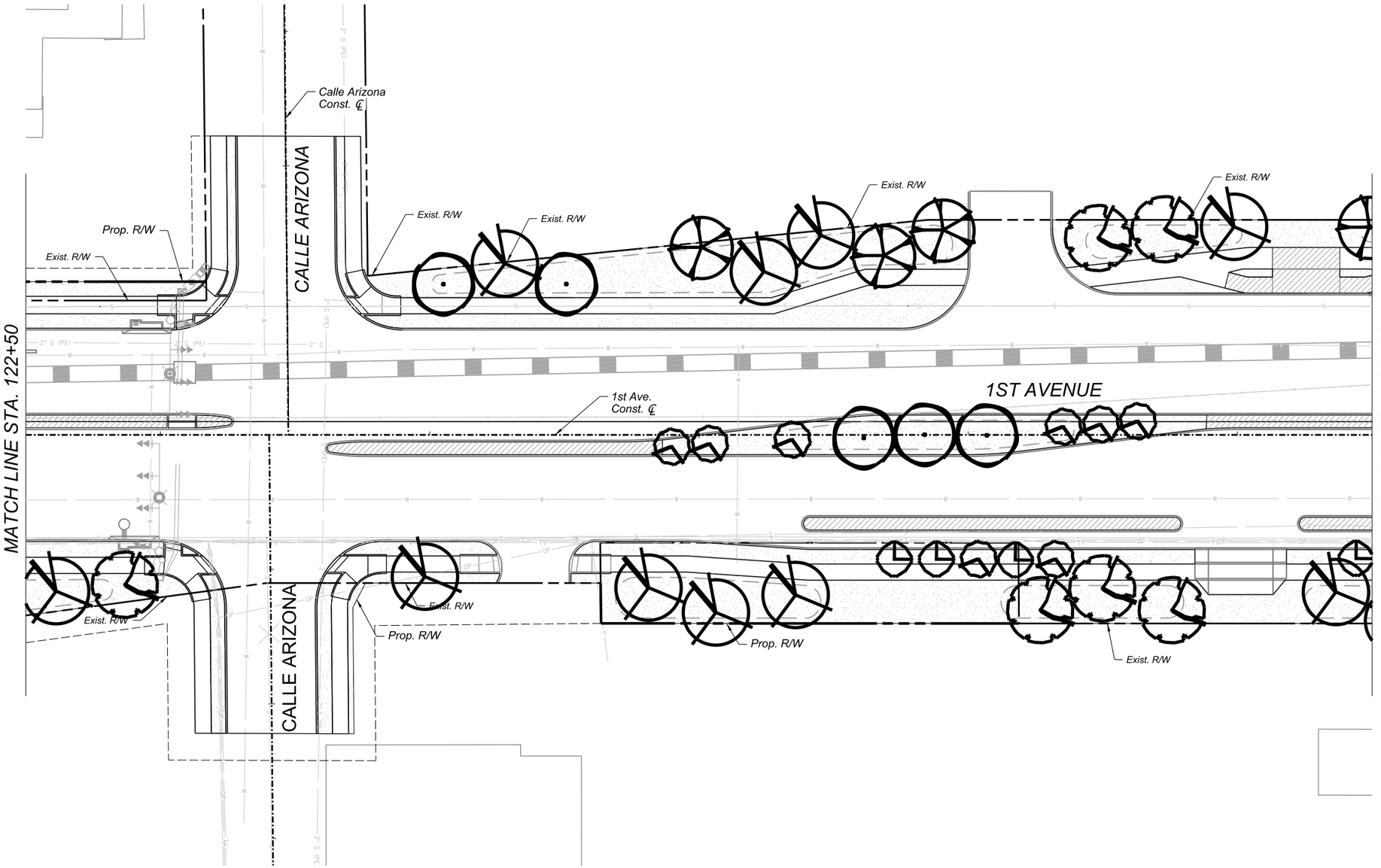
387 OF 504

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-19.dgn
8/14/2026 12:21:34 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:21:36 PM



SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

388 OF 504

CITY OF TUCSON

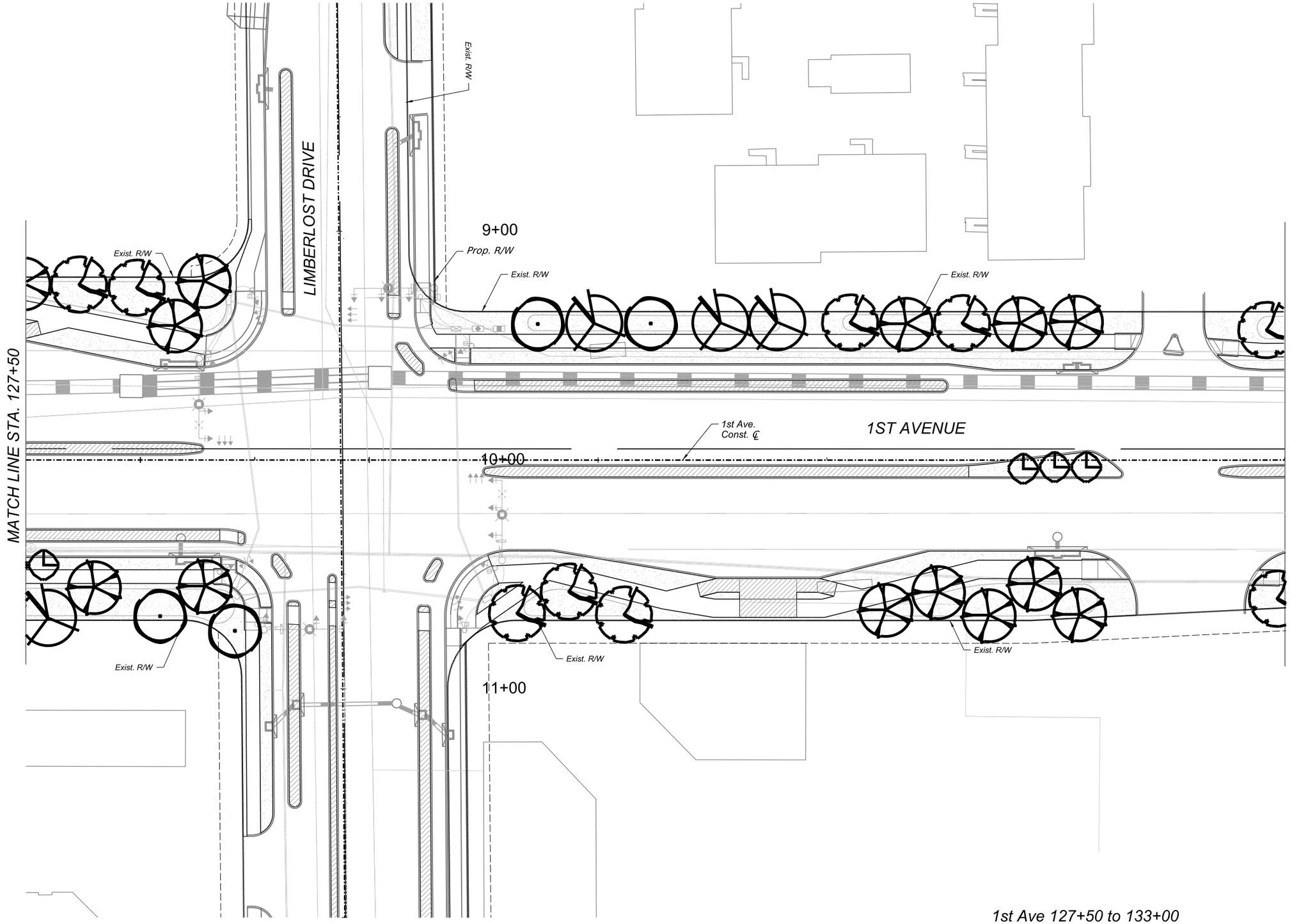
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 122+50 to 127+50
LANDSCAPE PLAN

SHEET 23 OF 40

Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4520428\02L-20.dgn
8/14/2026 12:21:36 PM

12:21:44 PM 8/14/2026 OpenRoads Designer v10.12.02.4



SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE AUG 2026 | CHKD. BY JM AUG 2026 | APPR. BY LM AUG 2026 | SCALE: H: 1" = 20'

PLAN NO. R-2024-XXX

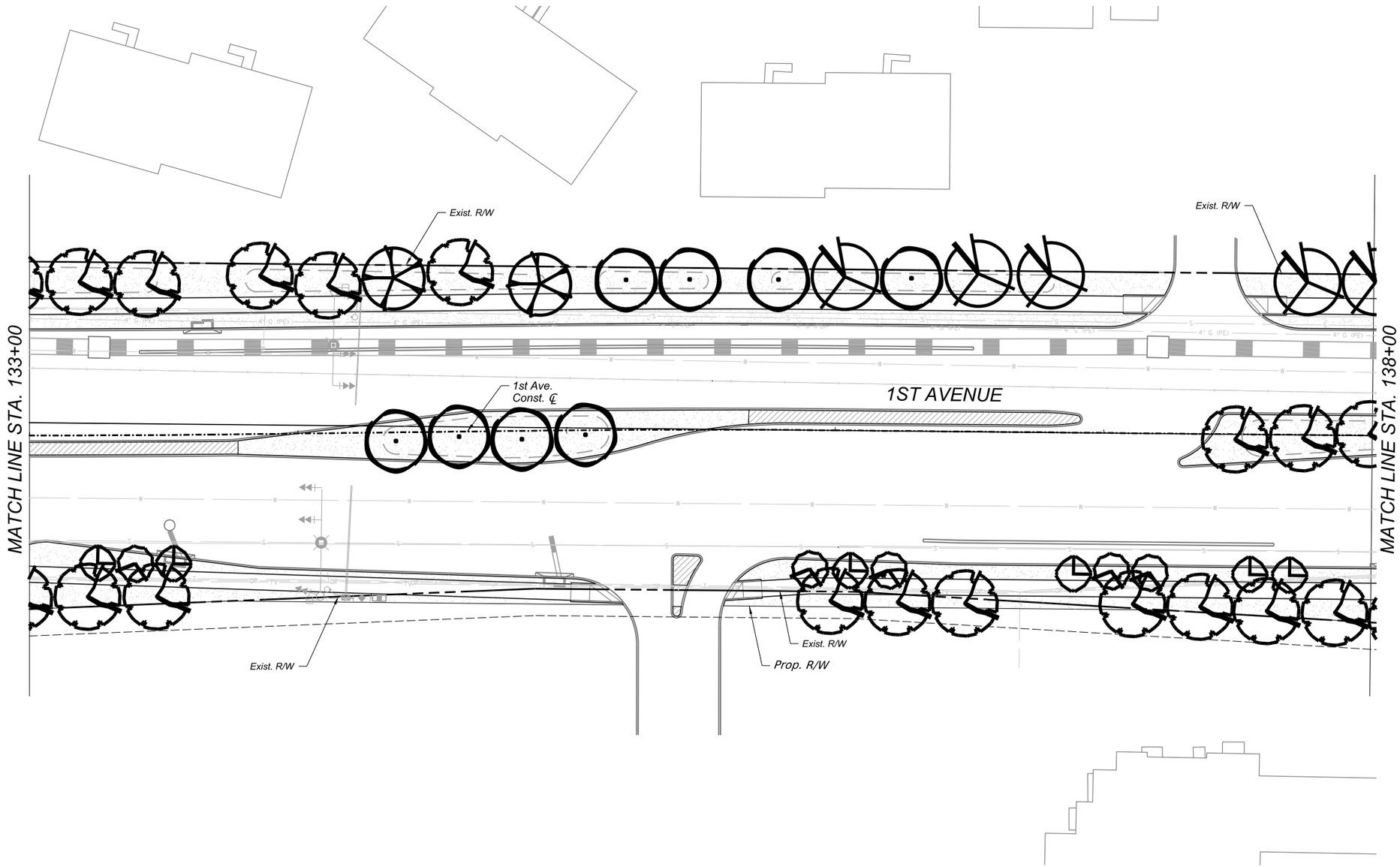
389 OF 504

1st Ave 127+50 to 133+00
LANDSCAPE PLAN

SHEET 24 OF 40

Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4520428\02L-21.dgn
8/14/2026 12:21:44 PM

12:21:53 PM 8/14/2026 OpenRoads Designer v10.12.02.4



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

390 OF 504

CITY OF TUCSON

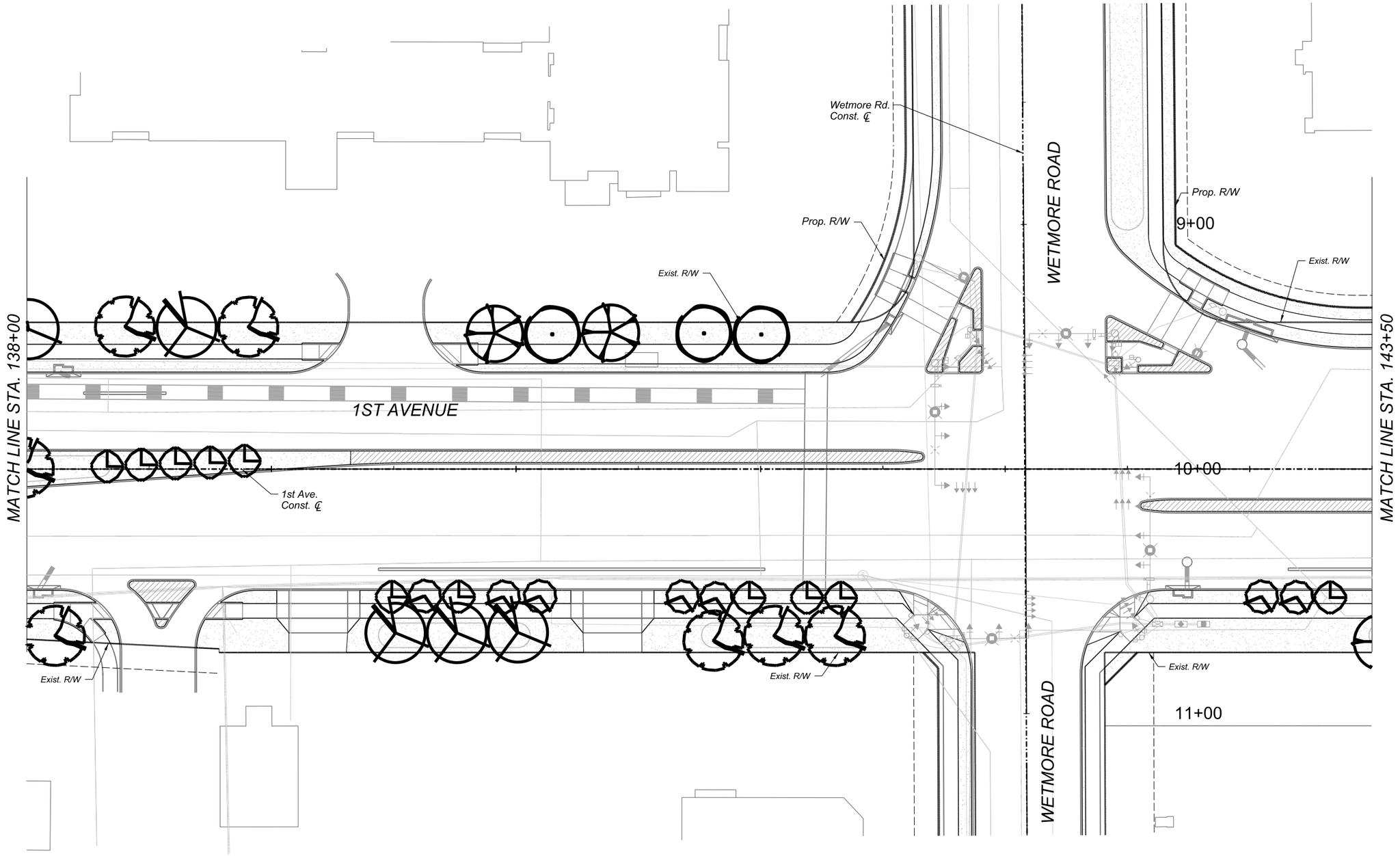
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 133+00 to 138+00
LANDSCAPE PLAN

SHEET 25 OF 40

c:\pwworking\west01\d4520428\02L-22.dgn
8/14/2026 12:21:53 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:22:02 PM
Printed by: JEils
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

1st Ave 138+00 to 143+50
LANDSCAPE PLAN

SHEET 26 OF 40

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

391 OF 504

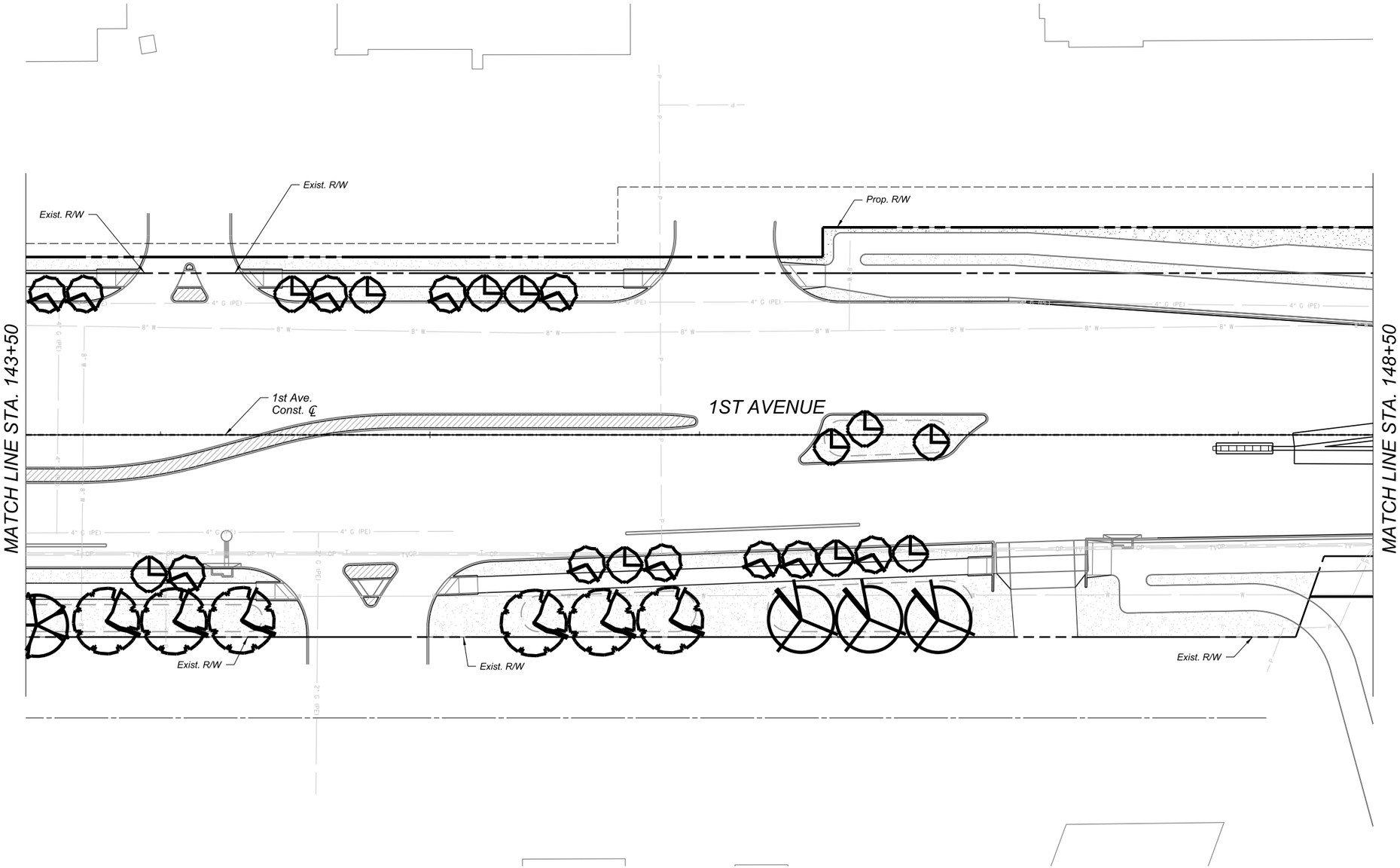
1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-23.dgn
8/14/2026 12:22:02 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:22:10 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotdg
Project ID:
Client Number: 4109



1st Ave 143+50 to 148+50
LANDSCAPE PLAN

SHEET 27 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

392 OF 504

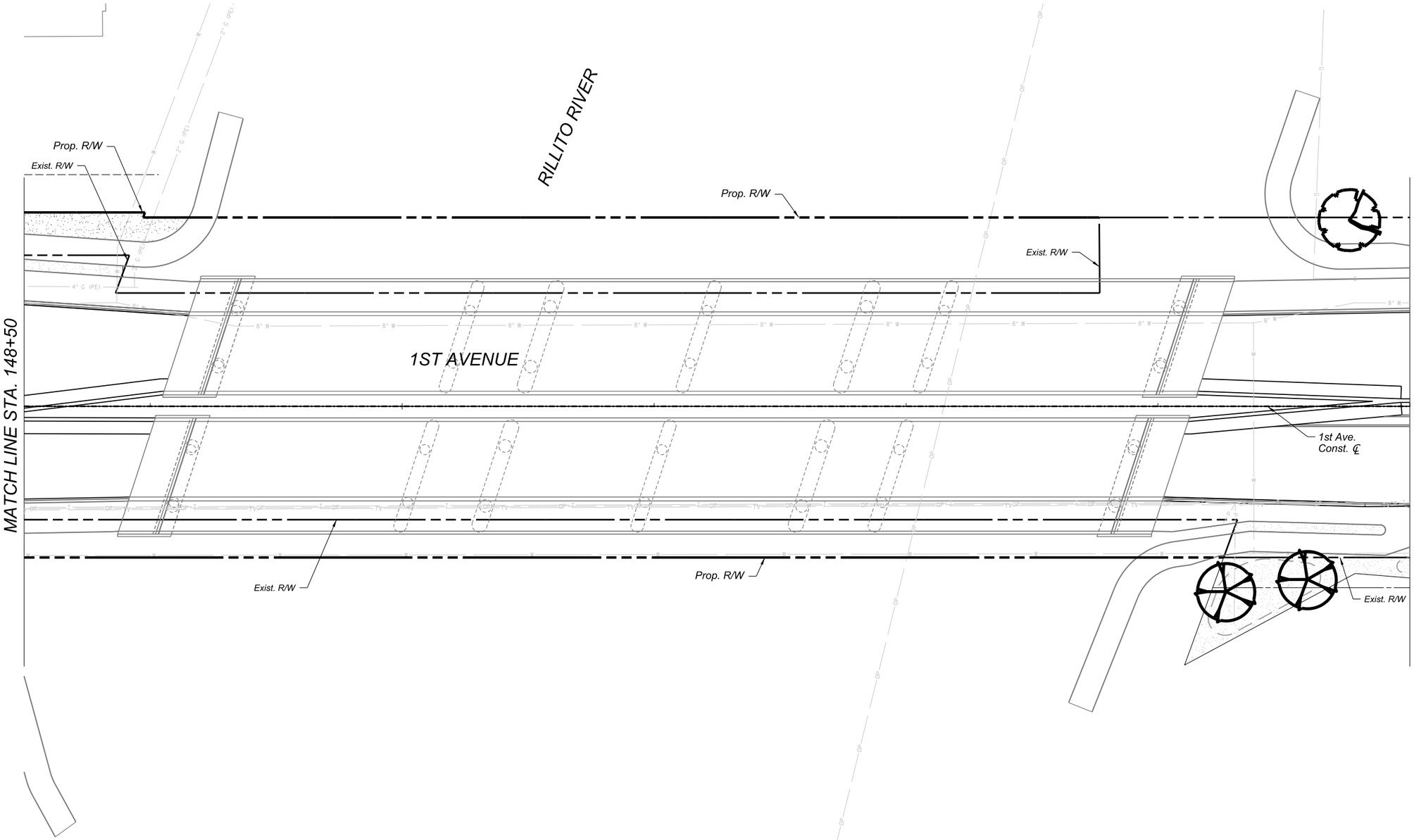
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	

PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-24.dgn
8/14/2026 12:22:10 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:22:12 PM



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

1st Ave 148+50 to 154+00
LANDSCAPE PLAN

SHEET 28 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

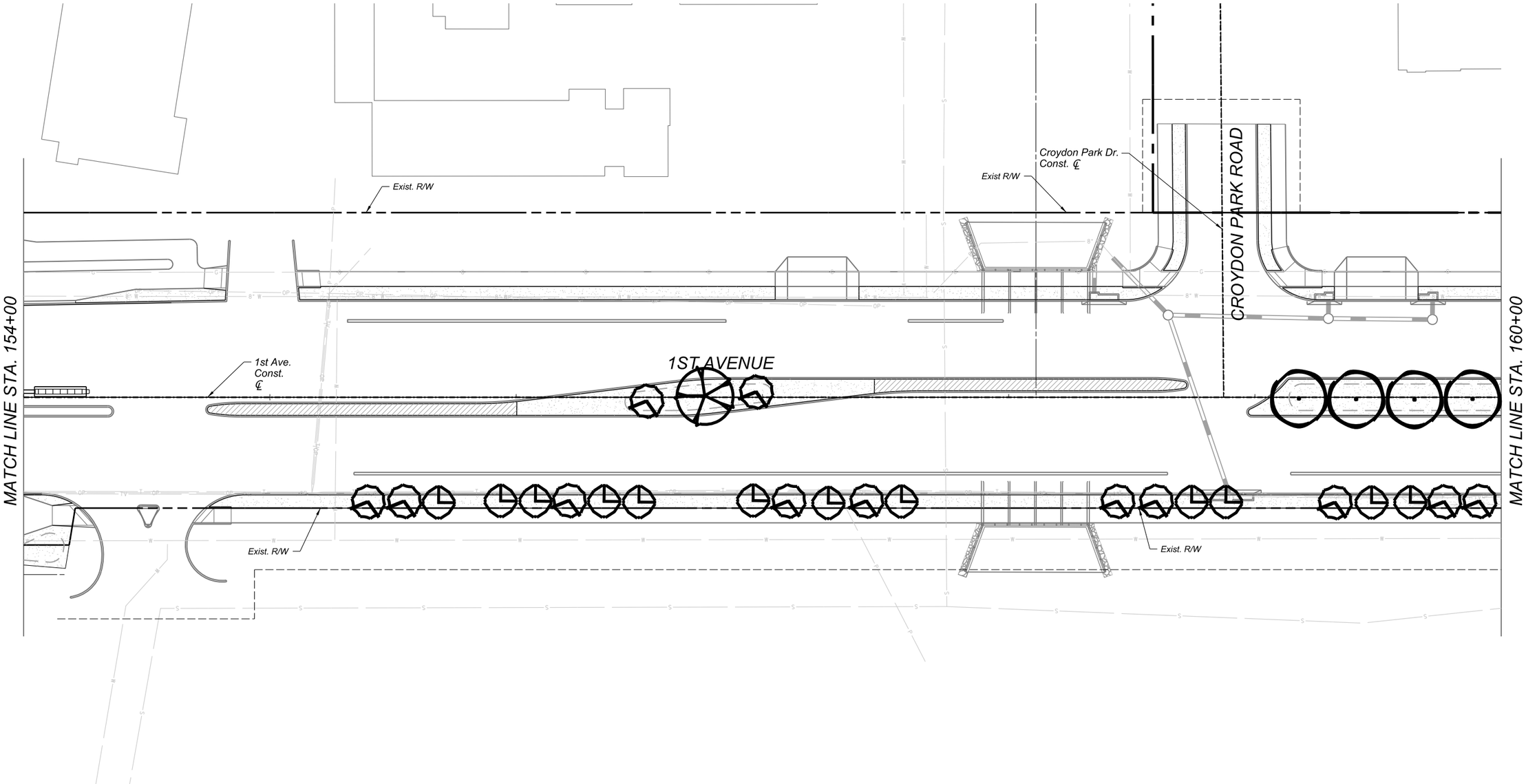
393 OF 504

CITY OF TUCSON

DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-25.dgn
8/14/2026 12:22:12 PM

12:22:14 PM 8/14/2026 OpenRoads Designer v10.12.02.4



Printed by: JEils
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdrver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

1st Ave 154+00 to 160+00
LANDSCAPE PLAN

SHEET 29 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

394 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

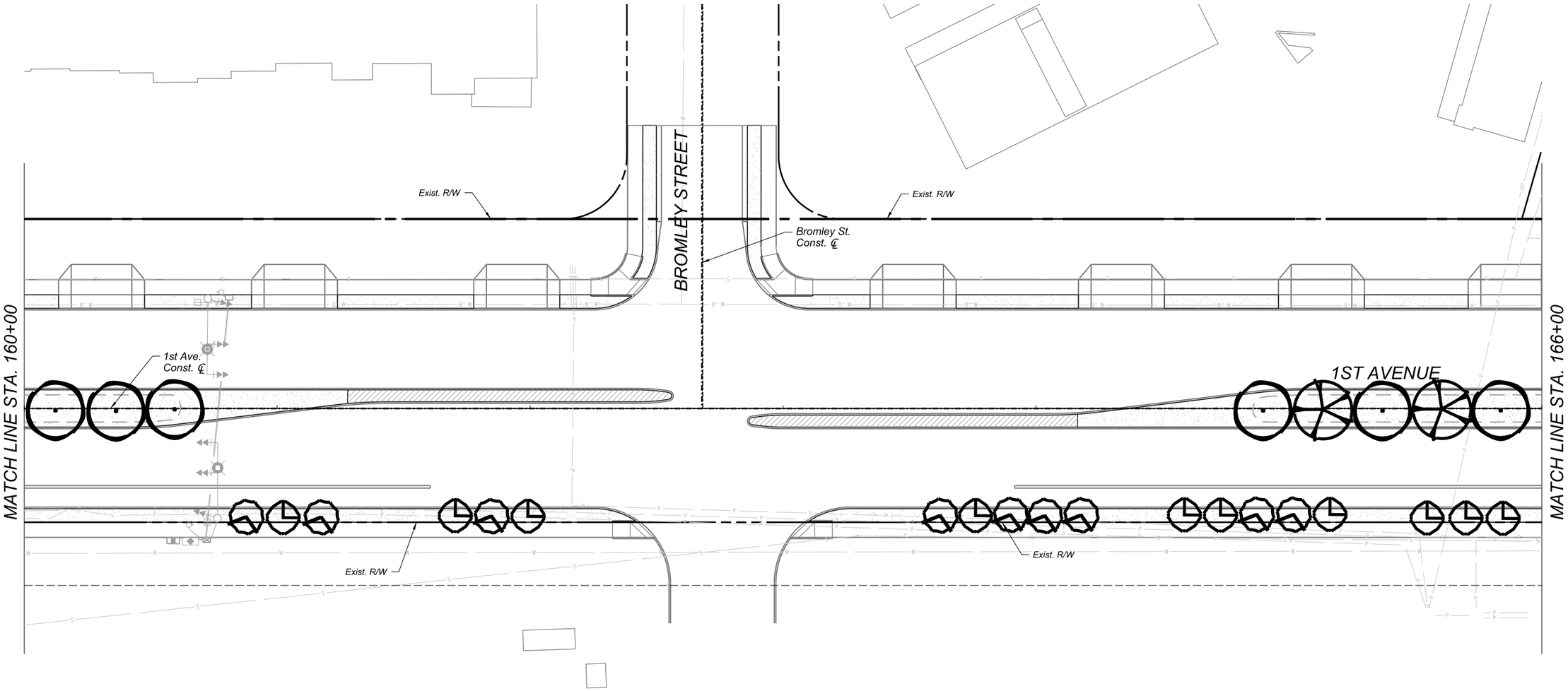
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	

PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-26.dgn
8/14/2026 12:22:14 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:22:16 PM



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

1st Ave 160+00 to 166+00
LANDSCAPE PLAN

SHEET 30 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

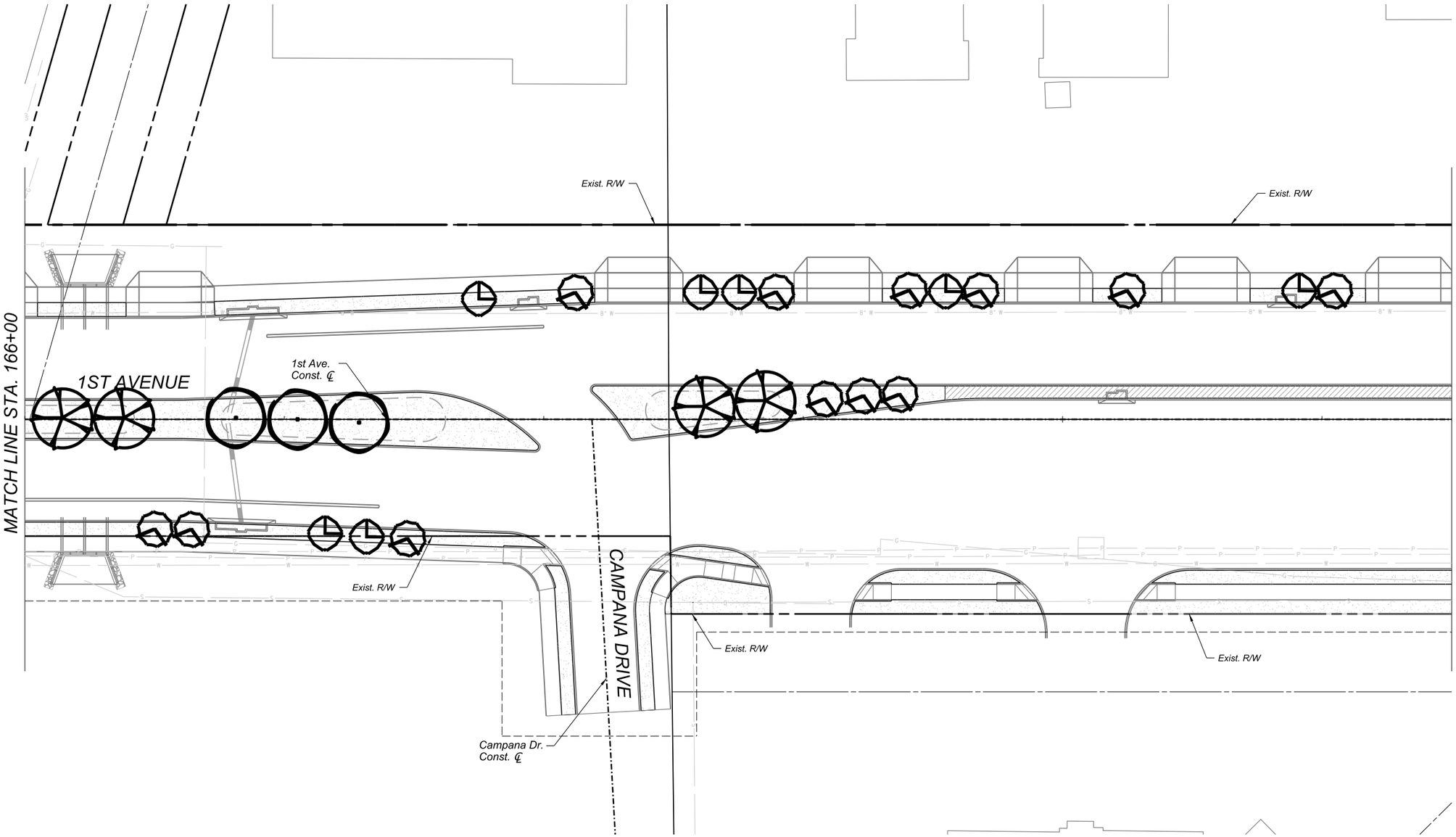
395 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-27.dgn
8/14/2026 12:22:16 PM

12:22:18 PM 8/14/2026 OpenRoads Designer v10.12.02.4



1st Ave 166+00 to 171+50
LANDSCAPE PLAN

SHEET 31 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

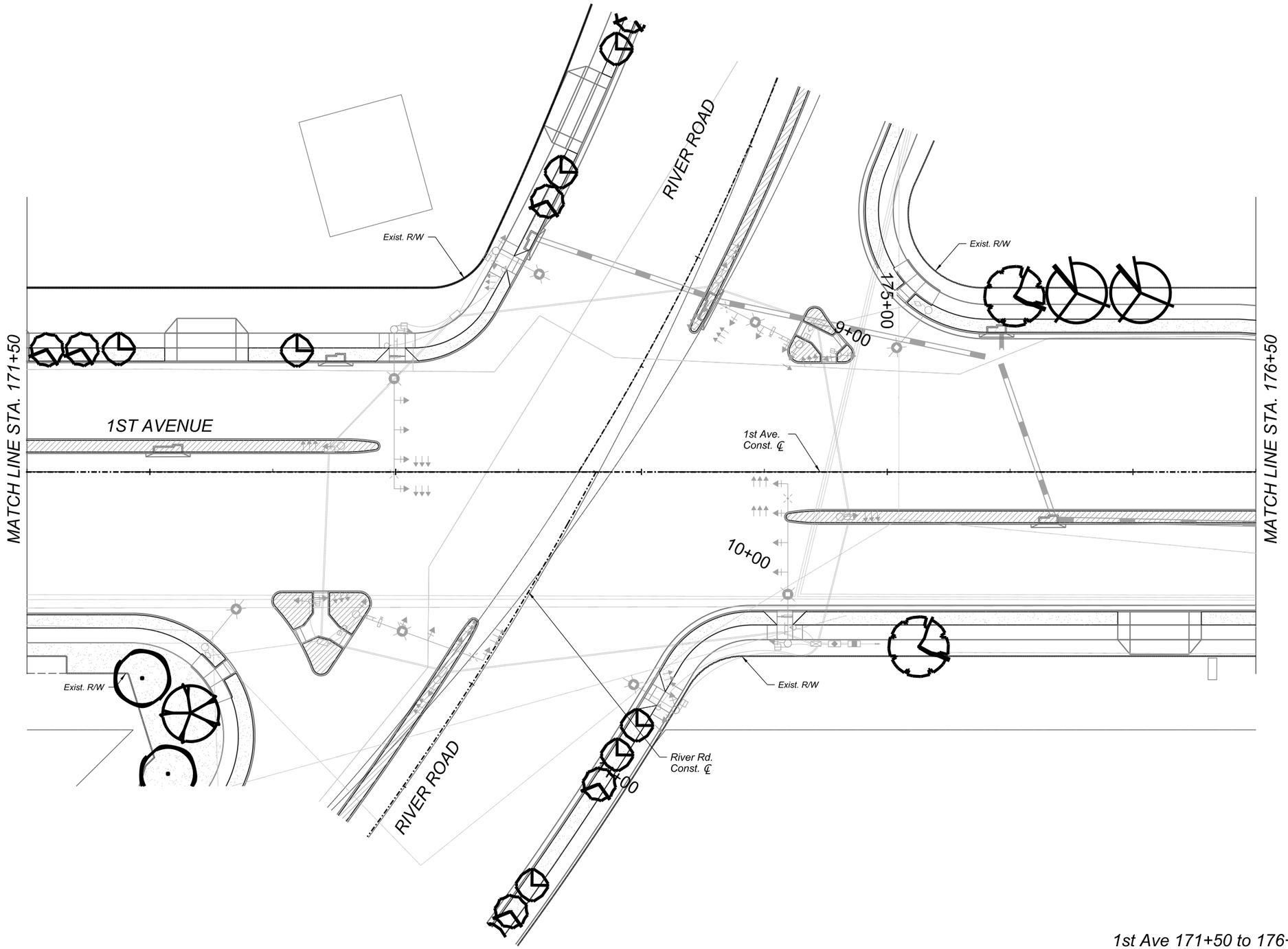
396 OF 504

CITY OF TUCSON

DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4520428\02L-28.dgn
8/14/2026 12:22:18 PM

12:22:26 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

397 OF 504

CITY OF TUCSON

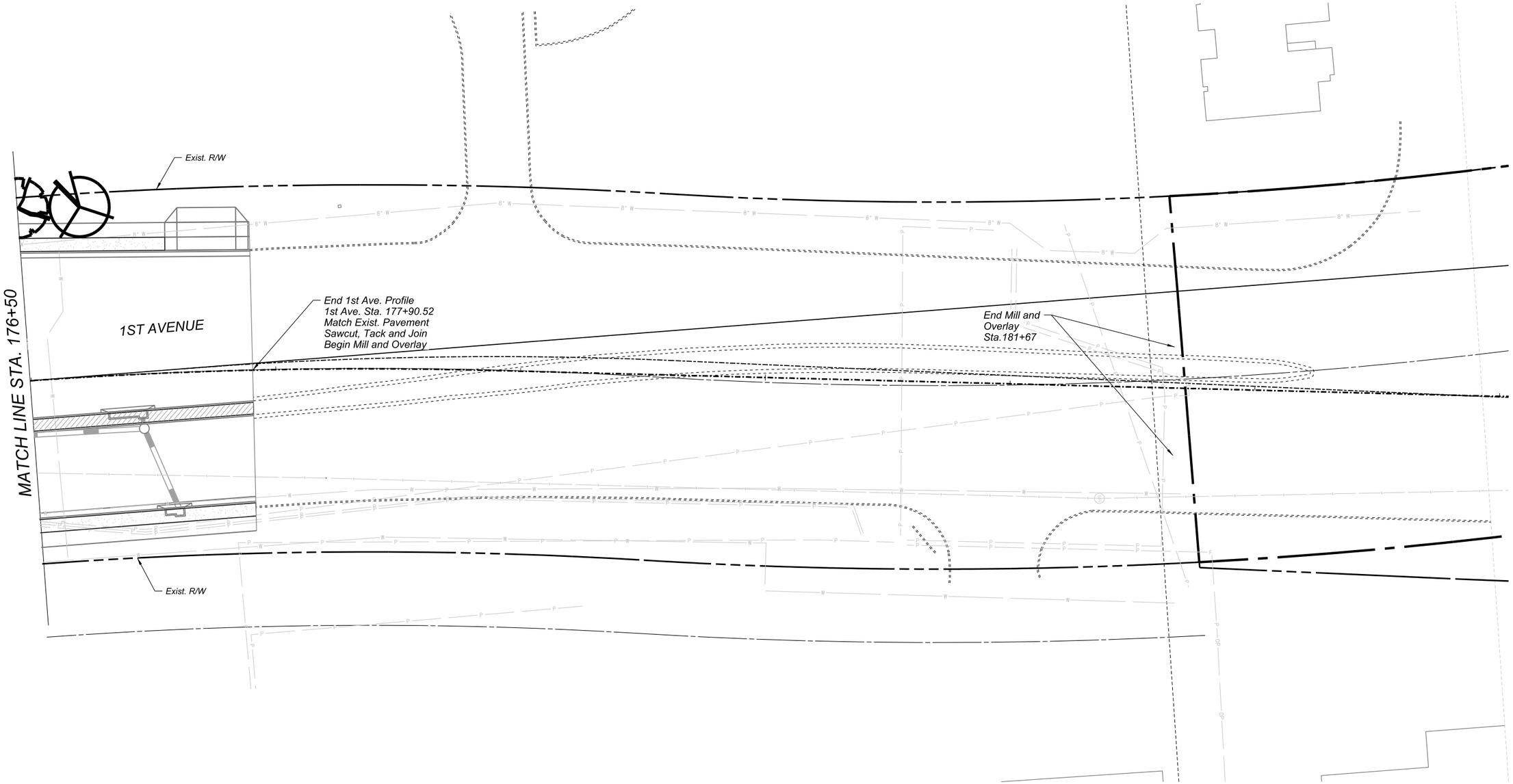
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 171+50 to 176+50
LANDSCAPE PLAN

SHEET 32 OF 40

c:\pwworking\west01\d4520428\02L-29.dgn
8/14/2026 12:22:26 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:22:34 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



1st Ave 176+50 to End
LANDSCAPE PLAN

SHEET 33 OF 40

SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

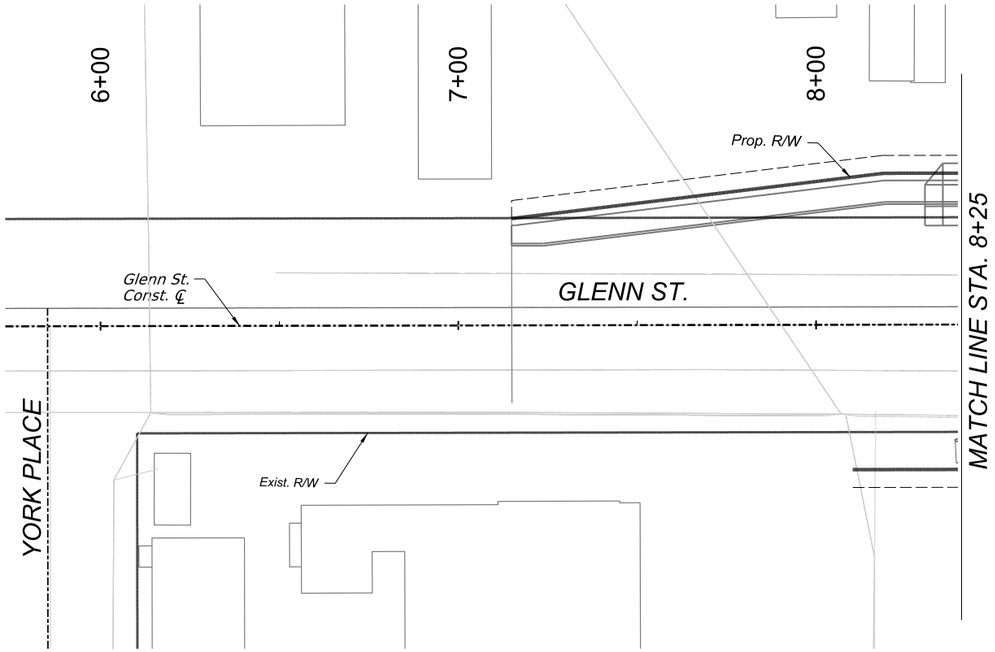
398 OF 504

CITY OF TUCSON

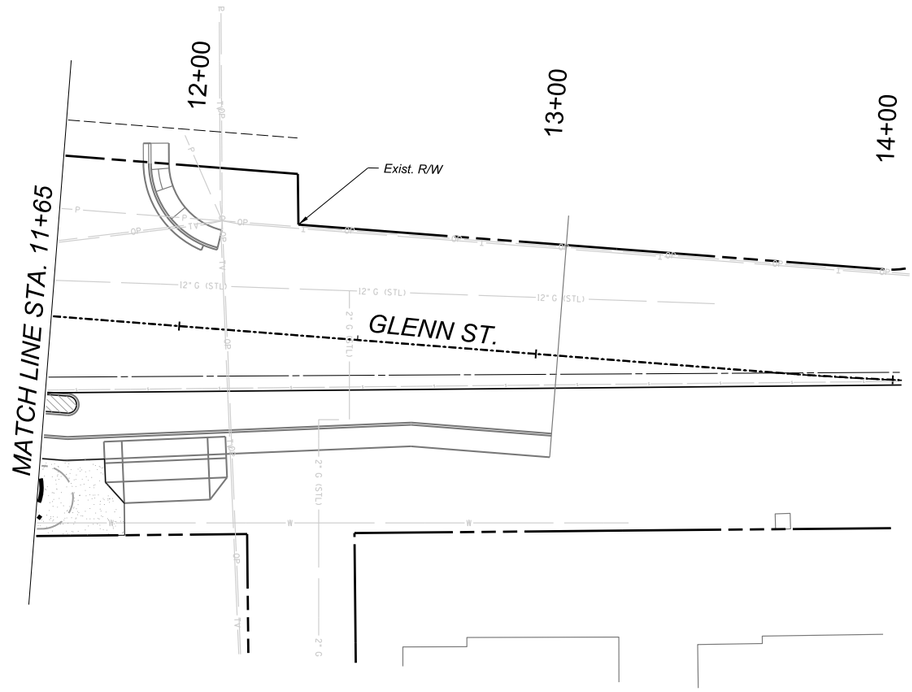
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-30.dgn
8/14/2026 12:22:34 PM

12:22:41 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



1ST AVENUE



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

399 OF 504

CITY OF TUCSON

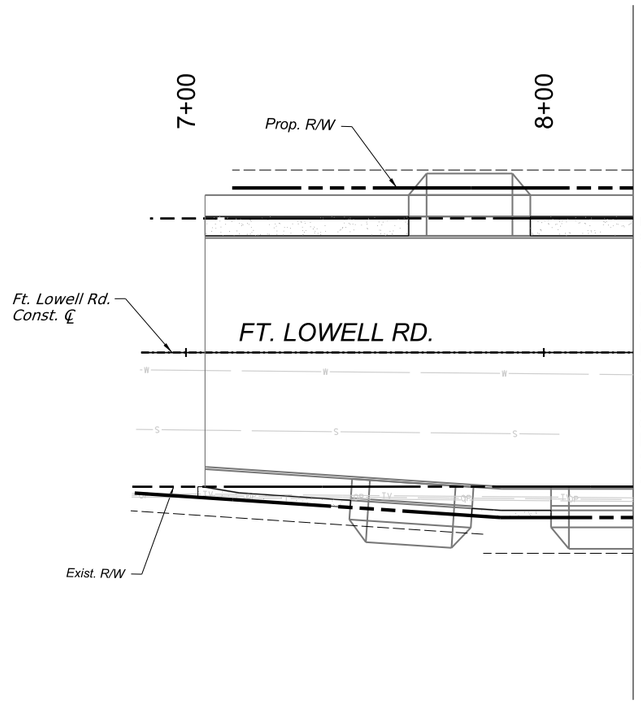
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

GLENN ST
LANDSCAPE PLAN

SHEET 34 OF 40

c:\pwworking\west01\d4520428\02L-31.dgn
8/14/2026 12:22:41 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:22:49 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_hwpdf.plotcfg
Project ID:
Client Number: 4109



1ST AVENUE

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

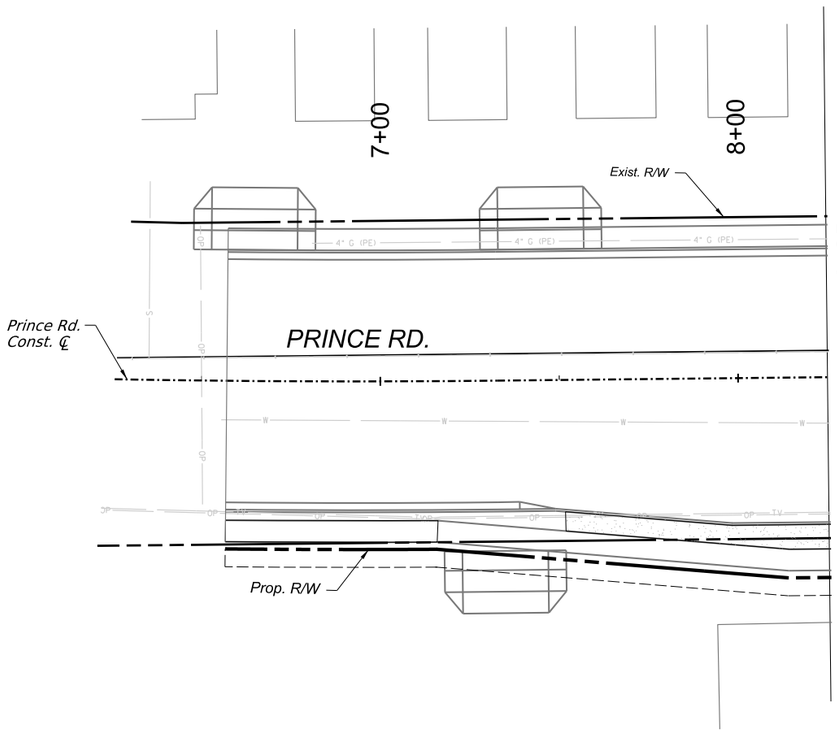
400 OF 504

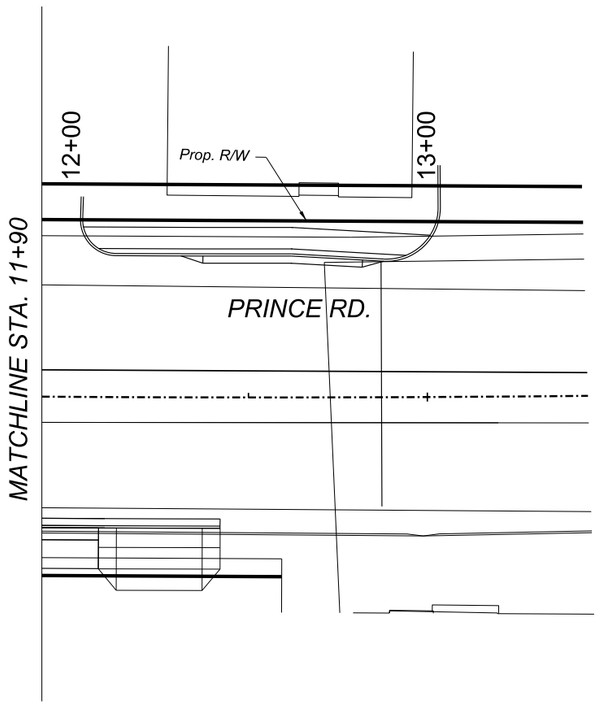
FT LOWELL RD
LANDSCAPE PLAN

SHEET 35 OF 40

c:\pwworking\west01\d4520428\02L-32.dgn
8/14/2026 12:22:49 PM

12:22:57 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109





PRINCE RD
LANDSCAPE PLAN

SHEET 36 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

401 OF 504

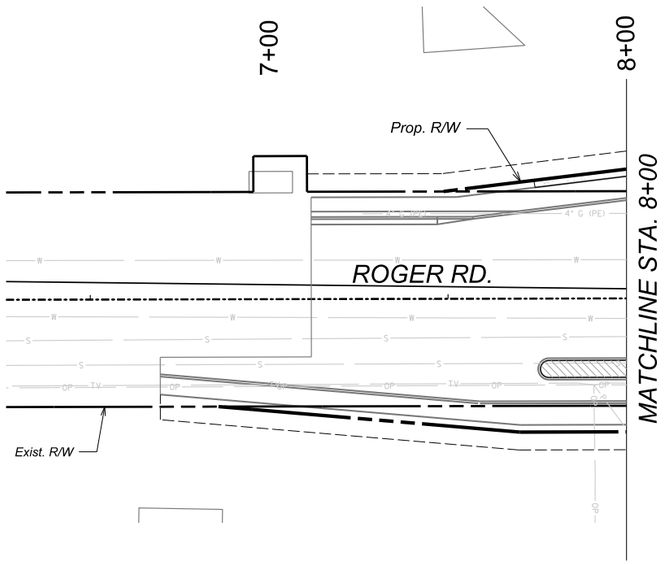
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

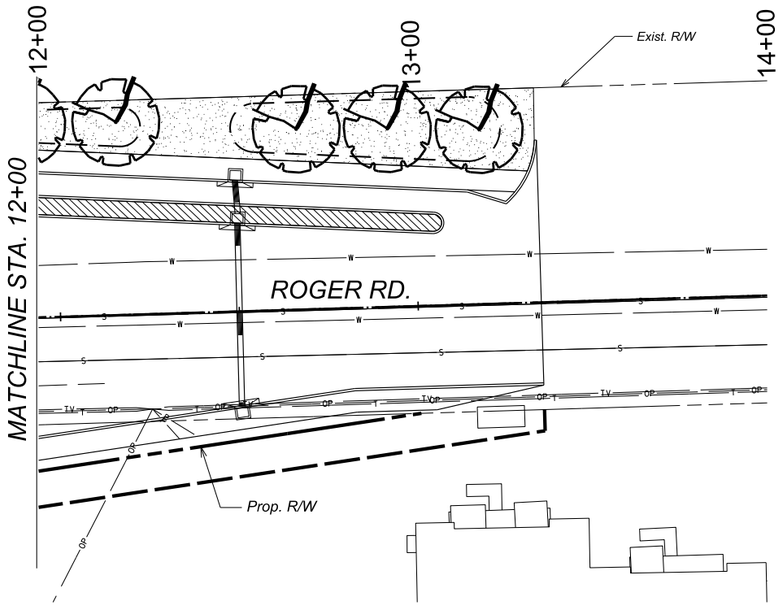
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-33.dgn
8/14/2026 12:22:57 PM

12:23:06 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf.pltcfg
Project ID:
Client Number: 4109





ROGER RD
LANDSCAPE PLAN

SHEET 37 OF 40

SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

402 OF 504

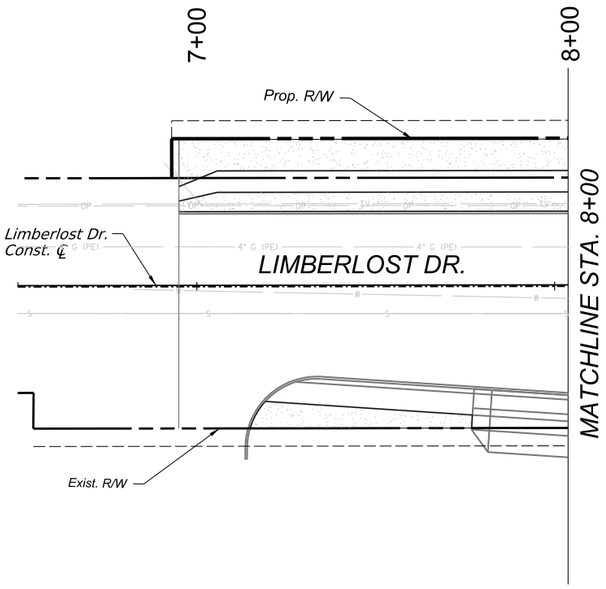
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE AUG 2026	JM AUG 2026	LM AUG 2026	H: 1 = 20'

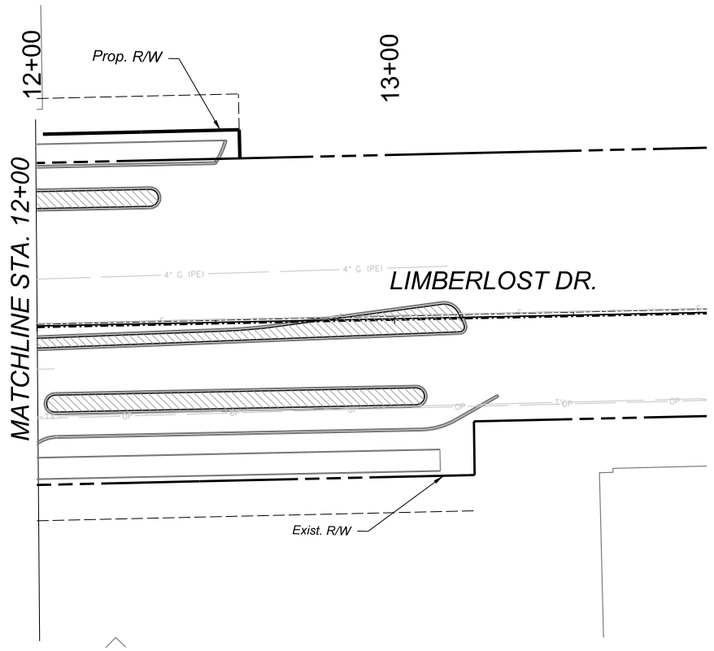
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-34.dgn
8/14/2026 12:23:06 PM

12:23:15 PM 8/14/2026 OpenRoads Designer v10.12.02.4



1ST AVENUE



Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf_altcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

403 OF 504

CITY OF TUCSON

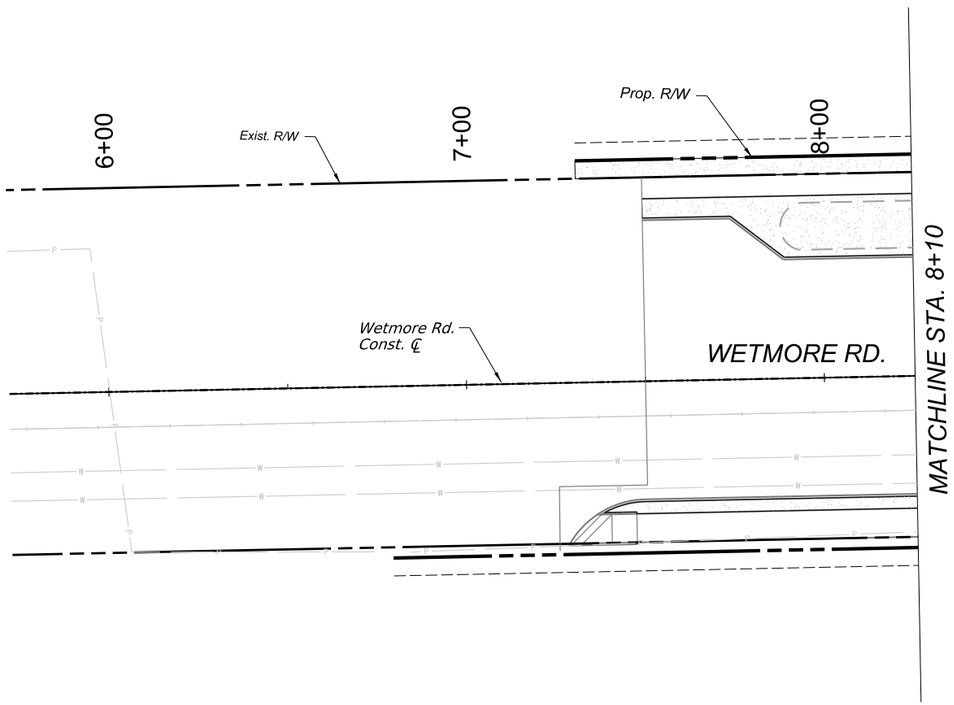
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

LIMBERLOST DR
LANDSCAPE PLAN

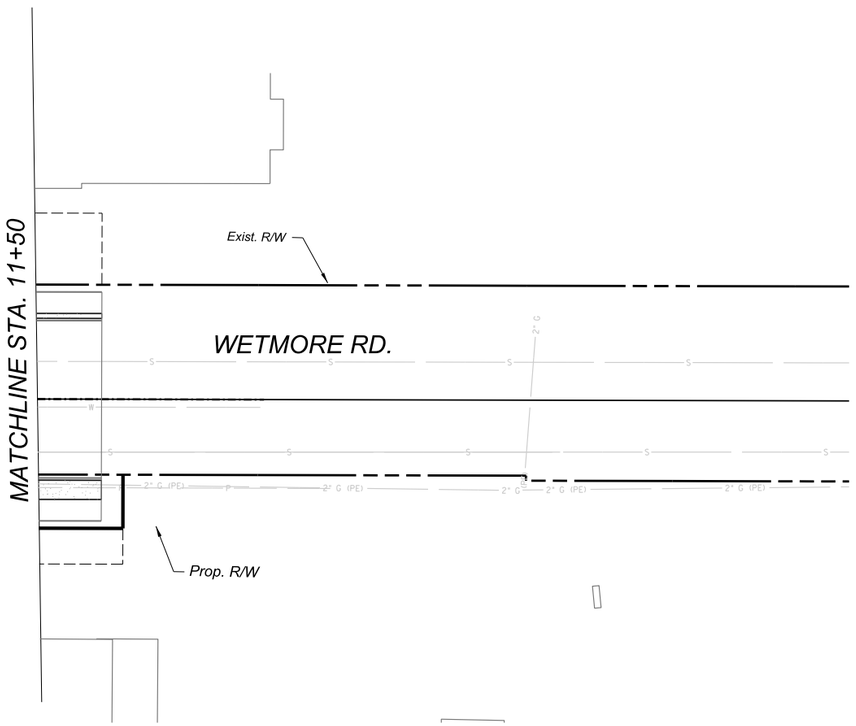
SHEET 38 OF 40

c:\pwworking\west01\d4520428\02L-35.dgn
8/14/2026 12:23:15 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:23:26 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdrvr: GN_Dwpdf.pltcfg
Project ID:
Client Number: 4109



1ST AVENUE



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

404 OF 504

CITY OF TUCSON

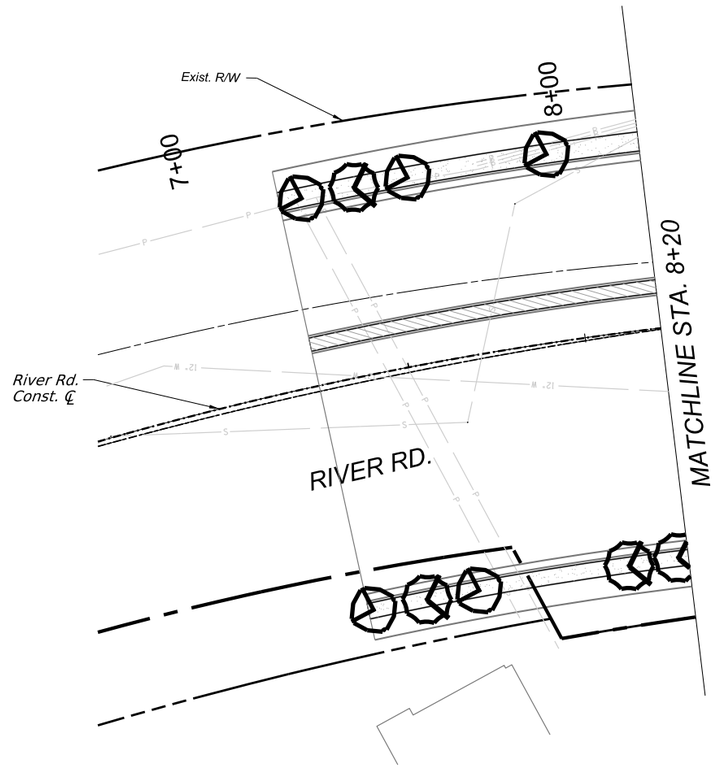
DRWN. BY JE AUG 2026
CHKD. BY JM AUG 2026
APPR. BY LM AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

WETMORE RD
LANDSCAPE PLAN

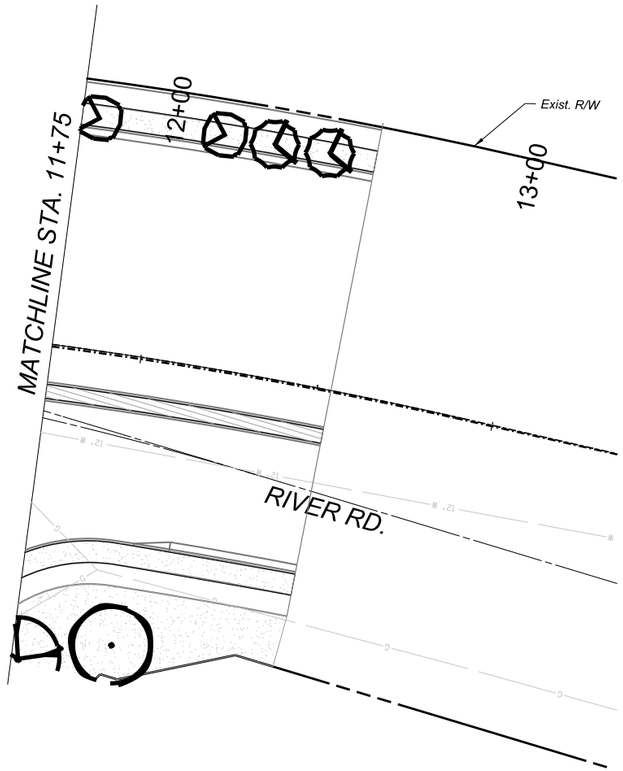
SHEET 39 OF 40

c:\pwworking\west01\d4520428\02L-36.dgn
8/14/2026 12:23:26 PM

12:23:35 PM 8/14/2026 OpenRoads Designer v10.12.02.4
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



1ST AVENUE



RIVER RD
LANDSCAPE PLAN

SHEET 40 OF 40

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

405 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520428\02L-37.dgn
8/14/2026 12:23:35 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:23:51 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_hwpdf.plotg
Project ID:
Client Number: 4109

IRRIGATION CONTRACTOR NOTES:

1. PRIOR TO ANY LANDSCAPE OR IRRIGATION CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL NOTIFY THE CITY OF TUCSON CONSTRUCTION COORDINATOR AT LEAST 48 HOURS IN ADVANCE OF INSTALLATION WORK.

2. PRIOR TO ANY CONSTRUCTION OR UTILITY WORK STARTING WITHIN A CITY RIGHT-OF-WAY, WHICH MAY AFFECT EXISTING CITY OWNED AND MAINTAINED LANDSCAPING OR IRRIGATION SYSTEMS, THERE WILL BE A MEETING ON SITE TO SHOW THAT THE EXISTING SYSTEMS OR LANDSCAPED AREAS ARE IN PROPER REPAIR AND FUNCTIONING. AT THE COMPLETION OF THE CONSTRUCTION WORK THERE WILL BE ANOTHER MEETING AND INSPECTION ON SITE. THE SAME AREAS AND SYSTEMS WILL AGAIN BE REVIEWED. ANY DAMAGE TO THE LANDSCAPING OR TO THE IRRIGATION SYSTEM WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND MUST BE REPAIRED TO THE SATISFACTION OF THE CITY WITHIN FIVE (5) WORKING DAYS. IF THIS WORK IS NOT COMPLETED WITHIN THE ALLOTTED TIME, THE CITY WILL MAKE THE REPAIRS OR CORRECTIONS AND MONEY WILL BE DEDUCTED OR BILLED TO THE GENERAL CONTRACTOR ON THE PROJECT. THE INDIVIDUALS WHICH SHOULD BE REPRESENTED AT THESE ON-SITE MEETINGS SHALL BE: A REPRESENTATIVE FROM THE CONTRACTOR AND A REPRESENTATIVE FROM THE ENGINEERING FIRM AND/OR CITY RESPONSIBLE FOR THE CONSTRUCTION INSPECTION.

3. PRIOR TO ANY WORK, THE CONTRACTOR SHALL PERFORM A SURVEY TO ESTABLISH THE WORK LIMITS.

4. PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL CONTACT BLUE STAKE (1-800-782-5348) TO VERIFY LOCATIONS AND DEPTHS OF UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THIS WORK AND SHALL BE RESPONSIBLE FOR DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF THE WORK.

5. CONTRACTOR SHALL READ THOROUGHLY AND BECOME FAMILIAR WITH THE PLANS, INSTALLATION DETAILS, PROJECT SPECIFICATIONS, AND ANY APPLICABLE CITY STANDARD DETAILS & SPECIFICATIONS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE THE WORK COVERED BY THESE PLANS.

7. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, CODES AND REGULATIONS APPLICABLE TO THE WORK COVERED BY THESE PLANS.

8. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, COORDINATION, AND SEQUENCING DURING CONSTRUCTION UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THESE PLANS AND SPECIFICATIONS.

10. ONCE CONSTRUCTION OPERATIONS HAVE COMMENCED, IT IS THE INTENTION OF THIS PROJECT THAT THE JOB SITE BE FULLY MANNED / STAFFED UNTIL THE COMPLETION OF THE WORK WITHOUT GAPS IN PROGRESS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE OWNER FOR ANY DESIGN CHANGES MADE AS RESULT OF DEVIATION BY THE CONTRACTOR FROM THESE PLANS AND SPECIFICATIONS OR DUE TO ERRORS, FAULTY MATERIAL, OR FAULTY WORKMANSHIP.

12. THE CONTRACTOR SHALL VERIFY AND ACCEPT ALL SITE CONDITIONS AND ROUGH GRADES PRIOR TO STARTING ANY WORK. ALL DRAINAGE FLOWS SHALL BE PROTECTED AND MAINTAINED THROUGHOUT CONSTRUCTION UNLESS PLANS SPECIFICALLY NOTE OTHERWISE.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL DURING CONSTRUCTION AND SHALL ACQUIRE A DUST CONTROL PERMIT FROM PIMA COUNTY. ALL COSTS ASSOCIATED WITH DUST CONTROL AND PERMITS IS CONSIDERED INCIDENTAL TO THE PROJECT.

14. THE CONTRACTOR SHALL BE LIABLE FOR PAYMENT OF STATE, COUNTY, AND CITY SALES TAXES.

15. THE CONTRACTOR AGREES TO INDEMNIFY AND SAVE HARMLESS THE CITY OF TUSCON, ITS OFFICERS, AGENTS AND EMPLOYEES, AND ANY JURISDICTION OR AGENCY ISSUING PERMITS FOR ANY WORK INCLUDED IN THE PROJECT FROM ALL SUITS, INCLUDING ATTORNEY'S FEES AND COST OF LITIGATION, ACTIONS, LOSS DAMAGE, EXPENSE, COST OR CLAIMS OF ANY CHARACTER OR NATURE ARISING OUT OF THE WORK DONE IN FULFILLMENT OF THE TERMS OF THESE PLANS OR SPECIFICATIONS, OR FROM ANY CLAIM OR ACT UNDER THE WORKMAN'S COMPENSATION LAW, OR ARISING OUT OF THE CONTRACTOR TO CONFORM TO ANY SUITS, REGULATION, LAW OR COURT DECREE.

16. CONTRACTOR SHALL VERIFY SITE INSTALLATION CONDITIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY IF ANY CONFLICTS OR DISCREPANCIES ARE FOUND BETWEEN PROPOSED PLANS AND SITE CONDITIONS THAT WILL OBSTRUCT OR DELAY CONSTRUCTION ACTIVITIES THAT ARE NOT ALREADY KNOWN .

GENERAL IRRIGATION NOTES:

1. CONTRACTOR'S MAINTENANCE PERIOD OF IRRIGATION SYSTEM SHALL BE 90 DAYS DURATION BEGINNING ONCE SUBSTANTIAL COMPLETION ACCEPTANCE IS GRANTED BY OWNER. SUBSTANTIAL COMPLETION ACCEPTANCE IS TYPICALLY GRANTED AFTER THE INITIAL PUNCH WALK IS PERFORMED AND AFTER CONTRACTOR ADDRESSES ANY DEFICIENCIES IDENTIFIED BY THE SUBSTANTIAL PUNCH WALK REPORT. THIS ACCEPTANCE IS ONLY GRANTED BY THE OWNER AND SHOULD BE OBTAINED BY CONTRACTOR IN WRITING / EMAIL.

2. CONTRACTOR'S WARRANTY PERIOD OF IRRIGATION SYSTEM PRODUCTS AND INSTALLATION INCLUDING LABOR SHALL BE 1 YEAR (365 DAYS) DURATION BEGINNING ONCE FINAL COMPLETION ACCEPTANCE IS GRANTED BY OWNER. FINAL COMPLETION ACCEPTANCE IS TYPICALLY GRANTED AT THE END OF THE CONTRACTOR'S DEFINED MAINTENANCE PERIOD, HOWEVER A FINAL COMPLETION PUNCH WALK SHALL BE PERFORMED AND CONTRACTOR SHALL ADDRESS ANY DEFICIENCIES IDENTIFIED BY THE FINAL PUNCH WALK REPORT PRIOR TO FINAL ACCEPTANCE BEING GRANTED. THIS ACCEPTANCE IS ONLY GRANTED BY THE OWNER AND SHOULD BE OBTAINED BY CONTRACTOR IN WRITING / EMAIL. UPON FINAL ACCEPTANCE THE MAINTENANCE RESPONSIBILITY SHALL TRANSITION FROM CONTRACTOR TO OWNER.

3. ALL MATERIALS UTILIZED ON THIS PROJECT ARE INTENDED TO BE NEW AND OF THE BEST GRADE AVAILABLE. NO USED, SALVAGED, RECLAIMED, OR SECONDS WILL BE ACCEPTED UNLESS PLANS SPECIFICALLY STATE OTHERWISE.

4. ANY QUANTITIES PROVIDED WITHIN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK.

5. ALL IRRIGATION EQUIPMENT TO BE INSTALLED PER IRRIGATION DETAILS, PROJECT SPECIFICATIONS, AND PER MANUFACTURER'S SPECIFICATIONS.

6. ALL ITEMS SHALL BE BID AS NOTED. AFTER BID IS AWARDED CONTRACTOR MAY PROPOSE PRODUCT SUBSTITUTIONS OF EQUAL OR BETTER PRODUCTS TO THAT SPECIFIED IN PLANS DURING THE PRODUCT SUBMITTAL PROCESS AS OUTLINED PER THE PROJECT SPECIFICATIONS. DURING THIS PROCESS ALL PROPOSED PRODUCTS TO BE INSTALLED SHALL BE SUBMITTED BY CONTRACTOR TO OWNER AND / OR OWNER'S REPRESENTATIVE FOR REVIEW AND THEY SHALL EITHER APPROVE OR DENY USE OF SUBMITTED PRODUCTS. ONCE THIS PROCESS IS COMPLETED NO FURTHER SUBSTITUTIONS WILL BE ALLOWED UNLESS PRIOR APPROVAL IS OBTAINED IN WRITING FROM OWNER OR OWNER'S REPRESENTATIVE.

7. ONLY APPROVED PRODUCTS THROUGH THE PRODUCT SUBMITTAL PROCESS ARE PERMITTED TO BE INSTALLED. ANY UNAPPROVED PRODUCTS FOUND INSTALLED SHALL BE SUBJECT TO REVIEW BY OWNER AND POTENTIALLY TO BE REMOVED AND REPLACED WITH APPROVED ITEM AT NO ADDITIONAL EXPENSE TO OWNER BEYOND THE COST OF APPROVED ITEM AND INSTALLATION OF THAT ITEM ONLY.

8. ALL CONTROL WIRES SHALL BE SLEEVED SEPARATELY IN UL APPROVED SCH 40 PVC ELECTRICAL CONDUIT SIZED AS NOTED PER PLANS IN SAME TRENCH AS MAINLINE PIPE LOCATED HORIZONTAL TO AND BELOW TOP OF MAINLINE PIPE PER TRENCHING DETAIL. IF CONTROL WIRES MUST BE INSTALLED WITHOUT MAINLINE OR OTHER PIPES, THEN WIRES SHALL BE INSTALLED IN CONTINUOUS CONDUIT AT MINIMUM OF 18" DEPTH FOR LENGTH OF TRENCH UNTIL REACHING JOINT TRENCH LOCATION WITH PIPES AND AN APPROVED WARNING TAPE 2" MINIMUM WIDTH SHALL BE INSTALLED AT 6" ABOVE CONDUIT.

9. ALL MAINLINE PIPES SHALL BE INSTALLED AT DEPTHS AS NOTED PER TRENCHING DETAIL (18" MINIMUM DEPTH) AND SHALL HAVE AN APPROVED WARNING TAPE 3" MINIMUM WIDTH INSTALLED AT 6" ABOVE MAINLINE PIPE OR 6" ABOVE HIGHEST PIPE INSTALLED WITHIN SAME TRENCH AS MAINLINE PIPE.

10. THE PLANS INDICATE A DETAILED LAYOUT OF IRRIGATION MAINLINE PIPES, LATERAL PIPES, AND EQUIPMENT LOCATIONS; PIPES INTENDED TO BE IN JOINT TRENCH ARE TYPICALLY SHOWN PARALLEL AND EVENLY SPACED TOGETHER. DUE TO GRAPHICAL CLARITY, SOMETIMES LINES REPRESENTING PIPES OR SLEEVES AND SOMETIMES EQUIPMENT SYMBOLS MAY BE SHOWN DIAGRAMMATICALLY BEYOND THE LIMITS OF PLANTING AREAS. THE CONTRACTOR SHALL FOLLOW THE INTENT OF THE PLAN LAYOUT AND SHALL CONTACT DESIGNER FOR CLARIFICATION IF INTENT IS NOT CLEAR. USE ONLY STANDARD TEES AND ELBOW FITTINGS. USE OF CROSS TYPE FITTINGS ARE NOT PERMITTED REGARDLESS IF PIPES ARE DRAWN IN PLANS AS A CROSS

11. CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM THE OWNER OR OWNER'S REPRESENTATIVE FOR ANY CHANGES TO LAYOUT AS SHOWN PER PLANS AND SHALL CLEARLY DOCUMENT ANY SUCH CHANGES FOR USE WITH RECORD DRAWINGS (AS-BUILTS).

12. CONTRACTOR SHALL VERIFY PRESSURE AT IRRIGATION SYSTEM POINT OF CONNECTION PRIOR TO INITIATING ANY WORK. STATIC PRESSURE (TAKEN WHEN WATER IS AT REST) MUST BE 60 PSI MINIMUM FOR SYSTEM TO OPERATE PROPERLY AS DESIGNED. NOTIFY IRRIGATION DESIGNER PRIOR TO COMMENCING WITH CONSTRUCTION IF PRESSURE IS FOUND TO BE LESS.

13. ADJUST IRRIGATION OPERATING TIMES TO ACCOMMODATE FOR PLANT MATURITY, SOIL TYPE, PLANT EXPOSURE, SLOPE CONDITIONS, AND SEASONAL REQUIREMENTS.

14. ALL CONTROL VALVE & PIPE SIZES SHALL BE INSTALLED AS NOTED PER PLANS. ANY DEVIATIONS TO INSTALLED PIPE SIZES MUST BE APPROVED IN WRITING BY OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION OF SUCH PIPE OR EQUIPMENT. ALL PVC PIPES WERE DESIGNED TO FLOW AT A MAXIMUM VELOCITY OF 5.0 FPS AND ALL COPPER PIPES AT A MAXIMUM VELOCITY OF 7.5 FPS, HOWEVER MANY TIMES PIPES ARE PURPOSELY SIZED TO EXCEED THESE REQUIREMENTS IN EFFORTS TO REDUCE FRICTION LOSS AND PRESSURE LOSS THROUGH IRRIGATION SYSTEM.

15. ALL MASTER & CONTROL VALVES SHALL INCLUDE IDENTIFICATION TAGS INSTALLED ON WIRES PRIOR TO INSTALLATION OF WIRE CONNECTORS WITH CORRESPONDING INFORMATION AS IDENTIFIED PER PLANS CLEARLY PRINTED ON ONE SIDE ON TAG USING BLACK PERMANENT MARKER AT MINIMUM OF 1" SIZE TEXT. WIRE TAGS SHALL BE STANDARD SIZE, BLANK BOTH SIDES, & YELLOW COLOR WHEN USED WITH POTABLE WATER SYSTEMS OR SHALL BE MAXI SIZE, BLANK ONE SIDE WITH BILINGUAL 'WARNING- DO NOT DRINK' PRINTED ON OPPOSITE SIDE BY MANUFACTURER, & PURPLE COLOR WHEN USED WITH ANY NON-POTABLE WATER SYSTEM.

16. PVC MAINLINE PIPES SIZED 3" AND LARGER SHALL USE EITHER BELL END GASKET PIPE CONNECTIONS AND / OR DUCTILE IRON FITTINGS WITH RESTRAINTS AND / OR THRUST BLOCKS AS NOTED PER PLANS INSTALLED AT 24" MINIMUM DEPTH OR AS NOTED PER TRENCHING DETAIL. PVC MAINLINE PIPES SIZED 2 1/2" AND SMALLER SHALL BE SOLVENT WELD USING SCHEDULE 80 PVC FITTINGS INSTALLED AT 18" MINIMUM DEPTH OR AS NOTED PER TRENCHING DETAIL. ALL LATERAL PVC PIPES SHALL BE SOLVENT WELD USING SCHEDULE 40 PVC FITTINGS INSTALLED AT 12" MINIMUM DEPTH OR AS NOTED PER TRENCHING DETAIL. ALL THREADED PVC CONNECTIONS SHALL USE SCHEDULE 80 PVC FITTING WITH TEFLON SEALANT. ALL COPPER PIPE SHALL BE TYPE 'K' COPPER WITH LEAD-FREE SOLDERED WROUGHT FITTINGS. ALL PVC PIPE MATERIAL TYPES SHOULD BE AS IDENTIFIED PER PLANS.

17. PVC PIPE SLEEVES SHALL BE INSTALLED AT DEEPEST PIPE DEPTH OF PIPES INSTALLED WITHIN SLEEVE OR AT 36" MINIMUM COVER WHEN INSTALLED UNDER VEHICULAR DRIVING HARDSCAPE SURFACES.

18. ANY PVC ELECTRICAL CONDUITS CONTAINING LOW VOLTAGE CONTROL WIRES, 2-WIRE PATH CABLES, COMMUNICATION CABLES, OR GROUNDING WIRES SHALL BE INSTALLED WITHIN UL APPROVED PVC CONDUIT SIZED AS NOTED PER PLANS AND INSTALLED AT PIPE SLEEVE DEPTHS OR AT 20" MINIMUM COVER.

19. MEDIUM BODY, FAST SETTING PVC SOLVENT CEMENT SHALL BE USED WITH PURPLE COLOR PRIMER PER MANUFACTURER'S SPECIFICATIONS. SPECIFIC SOLVENT AND PRIMER PRODUCTS TO BE USED MUST BE SUBMITTED WITH PRODUCT SUBMITTAL PROCESS AND CORRESPOND WITH PVC PIPE MATERIALS BEING USED.

20. HAND DIG ANY EXCAVATIONS WITHIN 2'-0" OF ALL ELECTRICAL OR IRRIGATION STRUCTURES.

21. SEE PROJECT SPECIFICATIONS FOR FURTHER PRODUCT DESCRIPTIONS.

22. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS (AS-BUILT PLANS) PER PROJECT SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO, DOCUMENTING ANY DEVIATIONS FROM PLANS AND PROVIDING DIMENSIONS TO LOCATE TRENCHES, SLEEVE ENDS, AND EQUIPMENT FROM FIXED LOCATIONS AS IDENTIFIABLE IN BOTH FIELD AND ON PLANS.

23. ALL MAINLINES TO BE PRESSURE TESTED AT 150 PSI FOR 3 HRS MIN AND MUST STAY WITHIN 2% OF TEST PRESSURE. PRIOR TO TESTING, MAINLINE WITH ISOLATION VALVES (INCLUDING VALVES WITHIN ASSEMBLIES) ARE TO BE INSTALLED.

EMITTER NOTES:

1. INSTALL EMITTERS WITH FLOWS AND QUANTITIES OF EMITTER TUBES TO EACH PLANT PER 'EMITTER SCHEDULE'.

2. INSTALL ALL EMITTER TUBES UP SLOPE FROM PLANT MATERIAL.

3. INSTALL EMITTERS PER PLAN DETAILS.

4. USE RIGID SCHEDULE 40 PVC AS DRIP LATERAL PIPES UNLESS SPECIFICALLY NOTED OTHERWISE IN PLANS. USE SCHEDULE 40 PVC FITTINGS ONLY FOR ALL PVC LATERAL PIPE FITTINGS.

5. CONTRACTOR MAY INSTALL RIGID 1/2" SCHEDULE 40 PVC EMITTER LATERAL PIPE EXTENSIONS (NOT SHOWN IN PLANS) AS REQUIRED AT A MAXIMUM ACCUMULATIVE LENGTH OF 15'-0" FROM THE DRIP LATERAL PIPES (SHOWN IN PLANS) TO DESIRED MULTI-PORT EMITTER LOCATIONS.

6. EMITTER TUBES (DISTRIBUTION TUBING) SHALL BE POLYETHYLENE MATERIAL SIZED AS REQUIRED TO FIT THE APPROVED EMITTER TYPE AND EACH TUBE SHALL NOT EXCEED 15'-0" IN LENGTH. EMITTER TUBES SHALL BE BURIED A MINIMUM OF 2" BELOW FINISH GRADE OF SOIL (NOT FINISH GRADE OF DG) AND SHALL NOT BE INSTALLED WHERE TUBES ARE PINCHED OR KINKED RESULTING IN RESTRICTED FLOW. ALL TUBES SHALL BE INSTALLED WITH ENDS OF TUBES LOCATED PER INSTALLATION DETAILS WITH ALL ENDS OF TUBES EXPOSED AND CUT AT 1" - 2" ABOVE THE FINISH GRADE OF SURFACE MATERIAL (DG, RIP-RAP, OR TURF).

7. INSTALL FLUSHING END CAPS AT ENDS OF DRIP LATERAL PIPES AS SHOWN PER PLANS. INSTALL ALL FLUSHING END CAPS IN A MINIMUM 10" DIA. CIRCULAR PURPLE VALVE BOX WITH T-STYLE BOLT DOWN COVERS. A MAXIMUM OF TWO FLUSHING END CAPS MAY SHARE A SINGLE VALVE BOX IF THEY ARE LOCATED WITHIN CLOSE PROXIMITY IN PLANS.

8. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS AND PROVIDE 100% WATER COVERAGE TO ALL PLANTS.

VALVE BOX NOTES:

1. ALL VALVE BOXES SHALL BE SIZED AS NOTED PER PLANS WITH BOLT DOWN T-STYLE COVERS (EXCEPT EMITTER BOXES). ALL BOLT DOWN HARDWARE SHALL BE STAINLESS STEEL. WHEN IRRIGATION SYSTEM UTILIZES POTABLE WATER ALL VALVE BOX BODIES & COVERS SHALL BE TAN COLOR WHEN LOCATED IN GRANITE OR GREEN COLOR WHEN LOCATED IN TURF. WHEN SYSTEM UTILIZES NON-POTABLE WATER ALL VALVE BOX BODIES & COVERS SHALL BE INTEGRAL PURPLE COLOR. ALL BOX COVERS (EXCEPT EMITTER BOXES) SHALL BE EMBOSSED WITH STENCIL LETTERS / NUMBERS TO DESIGNATE EQUIPMENT TYPE AS NOTED PER PLANS.

2. EMBOSS VALVE BOX COVERS WITH 2" TALL STENCIL LETTERS/ NUMBERS PER THE VALVE BOX INSTALLATION DETAIL IN THIS SET.

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

IRRIGATION NOTES *SHEET 1 OF 42*

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS
406 OF 504

CITY OF TUCSON | DRWN. BY AL AUG 2026 | CHKD. BY SP AUG 2026 | APPR. BY KW AUG 2026 | SCALE: H: 1" = 20' | PLAN NO. R-2024-XXX

c:\pwworking\west01\d4614775\00I-01.dgn
8/14/2026 12:23:51 PM

DETAIL:	SYMBOL:	DESCRIPTION:	REMARKS:	QUANTITIES
	M	NEW WATER METER	NEW 1.5" POTABLE WATER METER PER CIVIL UTILITY PLANS	N/A
2 IR01	B	NEW BACKFLOW PREVENTER WITH NEW ENCLOSURE	NEW 1.5" REDUCED PRESSURE BACKFLOW PREVENTER; INSTALL NEW GUARDSHACK SOLID HINGED ENCLOSURE #GSS-X (X= PROVIDE ENCLOSURE MODEL WITH MINIMAL LENGTH AS REQUIRED TO FIT NEW BACKFLOW DEVICE) POWDER COATED 'WOODLAND TAN' COLOR BY MANUF. & INCLUDE OPTIONAL #R-30 INSULATION POLAR BEARIER COVER; CONTRACTOR SHALL INSTALL NEW 2,500 PSI CONCRETE PAD SIZED TO FIT NEW ENCLOSURE (PAD TO EXTEND 6" BEYOND ALL OUTER EDGES OF ENCLOSURE)	4 EA
1&3 IR01	A B C D	IRRIGATION CONTROLLER 'X'	CALSENSE #CS3000-X-S1-CS3-GR-KIT-GR-STUBBY-COMM-5YR, CONVENTIONAL WIRE CONTROL SYSTEM WITH X NUMBER OF STATIONS CAPACITY (CS3000-X); PEDESTAL MOUNTED IN STAINLESS STEEL ENCLOSURE WITH ONE STUBBY ANTENNA HOLE (S1), CELLULAR MODEM (CS3-GR-KIT) TO COMMUNICATE TO C.O.T. CENTRAL CONTROL WITH CELLULAR STUBBY ANTENNA AND CABLE (GR-STUBBY), WITH 5 YEAR COMMUNICATION SERVICE (COMM-5YR); GROUND CONTROLLER PER MANUFACTURER'S SPECIFICATIONS; SEE ELECTRICAL PLANS FOR POWER ROUTING; SITE SHALL BE SURVEYED BY CALSENSE REPRESENTATIVE FOR CELLULAR ACTIVITY FOR SELECTION OF CELL CARRIER PRIOR TO ORDERING OR INSTALLATION	X = 8 STATION= 2 EA 16 STATION= 1 EA 24 STATION= 1 EA
1 IR03 3 IR03	,,,,,,,,,	CONTROL WIRES (SYMBOL SHOWN WHEN NOT IN JOINT TRENCH WITH MAINLINE PIPE)	ALL CONTROL WIRES (CONVENTIONAL WIRING) SHALL BE DIRECT BURIED PAIGE #P7001D SINGLE SOLID #14 AWG UG FEEDER WIRE RATED AT 600V - USE RED FOR CONTROL (HOT) WIRE TO CONTROL VALVES, WHITE FOR COMMON (NEUTRAL), & GREEN FOR SPARE WIRES; PROVIDE ONE CONTINUOUS SPARE (GREEN) WIRE FROM CONTROLLER TO EACH REMOTE CONTROL VALVE BOX WITH WIRE COILED INSIDE BOXES BUT NOT CUT AND THEN CONTINUING TO NEXT CONTROL VALVE BOX UNTIL TERMINATING AT FURTHEST REMOVE CONTROL VALVE BOX FROM CONTROLLER IN EACH DIRECTION; PROVIDE ONE SPARE WIRE FROM CONTROLLER TO MASTER VALVE; WIRE CONNECTORS SHALL BE 3M #DBRY-6 WATERPROOF CONNECTORS RATED AT 600 VOLTS OR APPROVED EQUAL.	#14 WIRE = X,XXX LF AS REQ'D
4 IR01		MASTER VALVE	1.5" RAINBIRD #150-PESB SCRUBBER MASTER VALVE (NORMALLY CLOSED) WITH GLOBE STYLE BODY RATED TO 200 PSI, EPDM DIAPHRAGM, & 1.5" FPT CONNECTIONS; SCH 80 PVC FITTINGS AND NIPPLES; WITH 1.5" WATTS #LFB6090-SS FULL PORT BRASS BALL VALVE; #CHRISTY'S #ID-STD-Y1 STANDARD YELLOW ID TAG WITH 'MV' CLEARLY PRINTED ON ONE SIDE WITH BLACK PERMANENT MARKER; INSTALL IN CARSON #1220 JUMBO VALVE BOX WITH BOLT DOWN T-COVER EMBOSSED WITH 2" STENCIL LETTERS "MV"; PROVIDE #14 AWG BLUE COLOR CONTROL WIRE, WHITE COMMON WIRE, AND ONE GREEN SPARE FROM CONTROLLER TO MASTER VALVE.	4 EA
5 IR01		FLOW METER	1.5" CALSENSE #FM-1.5B BRASS FLOW METER, PADDLE WHEEL/IMPELLER TYPE, RATED FOR 400 PSI PRESSURE; INSTALL FLOW METER ON MAINLINE PER MANUFACTURER'S SPECS; CHRISTY'S STANDARD YELLOW ID TAG WITH CONTROLLER LETTERS PRINTED AND INSTALLED ON CONTROL WIRE; IN CARSON #910 10" ROUND TAN VALVE BOX WITH BOLT DOWN T-COVER EMBOSSED WITH 2" STENCILED LETTERS "FM"	4 EA
01 IR02		ISOLATION BALL VALVE ASSEMBLY	WATTS #LFB6090-SS FULL PORT BRASS BALL VALVE WITH STAINLESS HANDLE & TRIM (MUST SPECIFY WHEN ORDERING THE HANDLE MUST BE SS- THE SS TRIM OPTION DOES NOT INCLUDE HANDLE), & THREADED CONNECTIONS RATED TO 235 PSI MIN. WORKING PRESSURE; INSTALL IN CARSON #1220 TAN VALVE BOX WITH BOLT DOWN T-COVER EMBOSSED WITH 2" STENCIL LETTERS "BV" (SIZE VALVE PER PIPE SIZE)	1.0" = x EA 1.5" = x EA
2 IR02		DRIP REMOTE CONTROL VALVE ASSEMBLY	RAINBIRD DRIP CONTROL ZONE KIT #XCZ-100-PRB-COM WITH 1" #100PESB SCRUBBER VALVE , WITH RAIN BIRD QUICK-CHECK BASKET FILTER AND INTEGRATED 40 PSI FILTER REGULATOR #PRB-QKCHK100 WITH 150 MESH SS SCREEN IN FILTER .WITH 1" INLET & 3/4" OUTLET (FLOW 0.3- 20.0 GPM); RAIN BIRD 1" PVC BALL VALVE, & THREADED CONNECTIONS RATED TO 235 PSI MIN. WORKING PRESSURE; SCH 80 PVC FITTINGS AND NIPPLES; CHRISTY'S #ID-STD-Y1 YELLOW STANDARD ID TAG WITH CONTROLLER LETTER WITH STATION # PRINTED OR CLEARLY WRITTEN WITH BLACK PERMANENT MARKER; IN CARSON #1324 SUPER JUMBO COLOR VALVE BOX WITH BOLT DOWN T-STYLE COVER EMBOSSED WITH 2" STENCIL LETTERS / NUMBERS OF CONTROLLER LETTER & STATION # TO MATCH WIRE ID TAG PER VALVE BOX INSTALLATION DETAIL IN THIS SET.	xx EA
3 IR02		DRIP END CAP FLUSH VALVE	1/2" PVC BALL VALVE; 3/4" x 1/2" SxFPT SCHEDULE 80 PVC REDUCING ELBOW; 1/2" SCHEDULE 80 PVC PIPE RISER; 1/2" SCHEDULE 40 PVC MHT ADAPTER AT BALL VALVE DISCHARGE; 1/2" FHT SCHEDULE 40 PVC CAP; INSTALL IN CARSON #910 10" ROUND VALVE BOX WITH BOLT DOWN T-COVER EMBOSSED WITH 2" STENCIL LETTERS "FV". (TWO FLUSH VALVES MAXIMUM MAY BE INSTALLED WITHIN SAME VALVE BOX IF LOCATED IN SAME VICINITY)	xx EA
4 IR02	NOT SHOWN	MULTI-OUTLET EMITTER ASSEMBLY	RAIN BIRD #XBT-20-6 (2.0 GPH, RED) XBT-10-6 (1.0 GPH, BLACK) XBT-05-06 (0.5 GPH, BLUE) MULTI-PORT EMITTER WITH 1/2" FPT INLETS; - SEE 'EMITTER LEGEND' FOR REQUIRED FLOWS TO EACH PLANT SPECIES; 1/2" PVC RISER PIPE; 1/2" SCHEDULE 40 PVC SxMPT 90° ELL; INSTALL IN CARSON #809 ROUND TAN COLOR EMITTER BOX WITH T-STYLE COVER; EMITTER (DISTRIBUTION) TUBES SHALL BE VINYL MATERIAL SIZED TO FIT EMITTER AT 10'-0" MAXIMUM LENGTHS	XXX EA
1 IR03	X"	MAINLINE PIPE	SCHEDULE 40 PVC PIPE WITH SCHEDULE 80 PVC SOLVENT WELD FITTINGS; SIZE PER PLANS. ALL MAINLINES SHALL HAVE #14AWG BLUE COLOR TRACER WIRE INSTALLED ALONG SIDE THE MAINLINE & BLUE COLOR 3" WIDE WARNING TAPE INSTALLED AT 6" ABOVE TOP OF PIPE S; INSTALL MAINLINES AT 18" DEPTH	2.0" = xx LF
	----------	SHRUB DRIP LATERAL PIPE	3/4" SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS AT 12" MINIMUM DEPTH	xx LF
	— · —	TREE DRIP LATERAL PIPE	3/4" SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS AT 12" MINIMUM DEPTH	xx LF
2 IR03	X"PS & X"WS	PIPE SLEEVES (PS) & WIRE SLEEVES (WS)	3" OR 4" SCHEDULE 40 PVC PIPE SLEEVE (STANDARD WHITE COLOR); 1.25" OR 2" GRAY COLOR SCHEDULE 40 PVC ELECTRICAL CONDUIT; INSTALL UNDER HARDSCAPE PAVEMENTS AS SHOWN PER PLANS - SIZE SLEEVES AS NOTED PER PLANS; INSTALL SLEEVES AT DEPTH OF DEEPEST PIPE WITHIN SLEEVE OR AT 36" MINIMUM DEPTH WHEN INSTALLED UNDER VEHICULAR DRIVING SURFACES	3.0" = xx LF 4.0" = xx LF 1.25"WS = xx LF 2"WS = xx LF

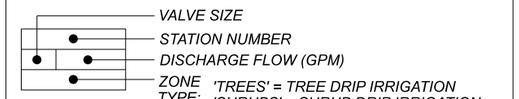
EMITTER LEGEND

SYMBOL:	BOTANICAL NAME/ COMMON NAME:	QUANTITY / TYPE:	# PORTS / VOLUME:	VOLUME PER PLANT:
TREES:				
	ACACIA GREGGII CATCLAW ACACIA	1 / MULTI	6 / 2.0 GPH	12.0 GPH
	ACACIA GREGGII CATCLAW ACACIA	1 / MULTI	6 / 2.0 GPH	12.0 GPH
	PROSOPIS PUBESCENS SCREWBEAN MESQUITE	2 / MULTI	8 / 2.0 GPH	16.0 GPH
	CHILOPSIS LINEARIS DESERT WILLOW	2 / MULTI	8 / 2.0 GPH	16.0 GPH
	EYSENHARDTIA ORTHOCARPA KIDNEYWOOD	1/ MULTI	6 / 2.0 GPH	12.0 GPH
	OLNEYA TESOTA IRONWOOD	1/ MULTI	6 / 2.0 GPH	12.0 GPH
	PARKINSONIA FLORIDA BLUE PALO VERDE	1/ MULTI	6 / 2.0 GPH	12.0 GPH
	PROSOPIS VELUTINA NATIVE VELVET MESQUITE	1/ MULTI	6 / 2.0 GPH	12.0 GPH
SHRUBS:				
	ALOYSIA GRATISSIMA WHITEBRUSH	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	BAILEYA MULTIRADIATA DESERT MARIGOLD	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	CALLIANDRA ERIOPHYLLA SONORAN FAIRY DUSTER	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	DALEA FRUTESCENS BLACK DALEA	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	ENCELIA FARINOSA BRITTLEBUSH	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	JUSTICIA CALIFORNICA CHUPAROSA	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	LARREA TRIDENTATA CREOSOTE	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	MELAMPODIUM LEUCANTHUM BLACKFOOT DAISY	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	SIMMONDSIA CHINENSIS JOJOBA	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	SPHAERALCEA AMBIGUA GLOBE MALLOW	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	GLANDULARIA GOODDINGII GOODDING'S VERBENA	1 / MULTI	1 / 1.0 GPH	1.0 GPH
	VIGUIERA DELTOIDEA GOLDENEYE	1 / MULTI	1 / 1.0 GPH	1.0 GPH
ACCENTS:				
	CARNEGIEA GIGANTEA SAGUARO	1 / MULTI	1 / 0.5 GPH	0.5 GPH
	DASYLIRION WHEELERI DESERT SPOON	1 / MULTI	1 / 0.5 GPH	0.5 GPH
	FEROCACTUS WISLIZENI FISHHOOK BARREL	1 / MULTI	1 / 0.5 GPH	0.5 GPH
	FOUQUIERIA SPLENDENS OCOTILLO	1 / MULTI	1 / 0.5 GPH	0.5 GPH
	NOLINA MICROCARPA BEARGRASS	1 / MULTI	1 / 0.5 GPH	0.5 GPH
	OPUNTIA ENGELMANNII ENGELMANN'S PRICKLY PEAR	1 / MULTI	1 / 0.5 GPH	0.5 GPH
	YUCCA PALLIDA PALE LEAF YUCCA	1 / MULTI	1 / 0.5 GPH	0.5 GPH

EMITTER NOTES:
1. ALL SAGUAROS SHALL BE WATERED BY TREE DRIP STATIONS TO REDUCE WATERING FREQUENCY AND SHALL UTILIZE SINGLE-OUTLET EMITTERS IF NOT OTHER SAGUAROS ARE WITHIN 10' OF EACH OTHER.

2. ALL SHRUBS AND ACCENTS SHALL SHARE MULTI-OUTLET EMITTERS WITH SIMILAR FLOWS AS SHOWN PER EMITTER LEGEND ABOVE.

VALVE KEY LEGEND



IRRIGATION SCHEDULE

SHEET 2 OF 42

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

407 OF 504

CITY OF TUCSON | DRWN. BY AL AUG 2026 | CHKD. BY SP AUG 2026 | APPR. BY KW AUG 2026 | SCALE: H: 1" = 20' | PLAN NO. R-2024-XXX

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

J2 Design

Project ID:
Client Number: 4109

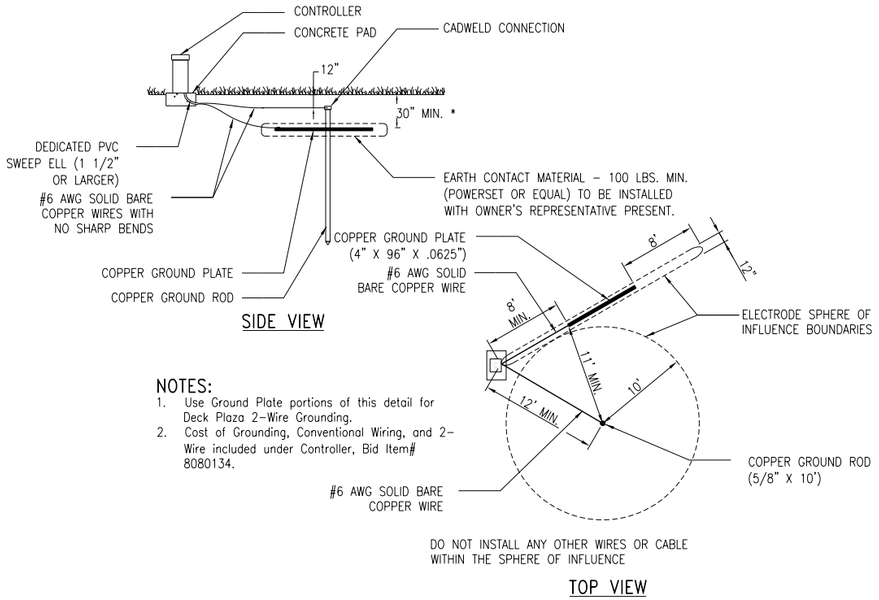
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg

Plotted by: JElls
Print Scale: 1:1

OpenRoads Designer v10.12.02.4
8/14/2026 12:23:52 PM

c:\pwworking\west01\d4614771\00I-02.dgn
8/14/2026 12:23:52 PM

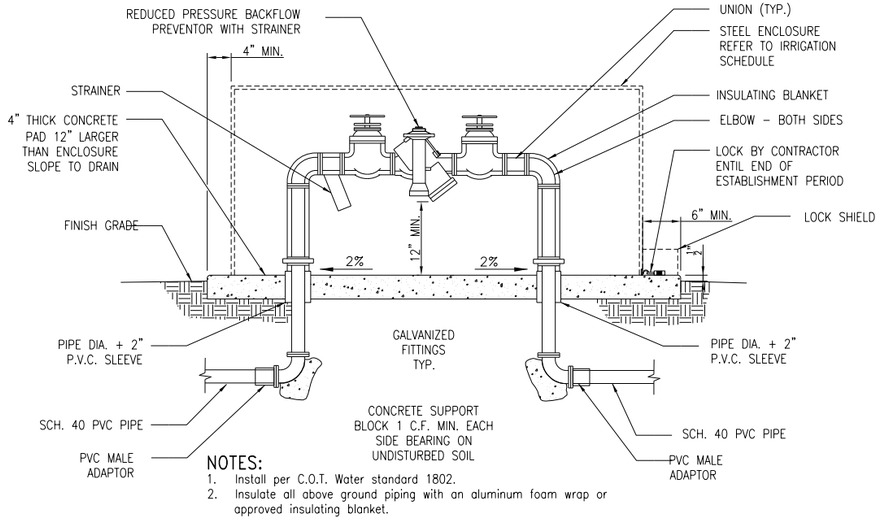
OpenRoads Designer v10.12.02.4
8/14/2026
12:23:55 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



NOTES:
1. Use Ground Plate portions of this detail for Deck Plaza 2-Wire Grounding.
2. Cost of Grounding, Conventional Wiring, and 2-Wire included under Controller, Bid Item# 8080134.

1 CONTROLLER GROUNDING DETAIL

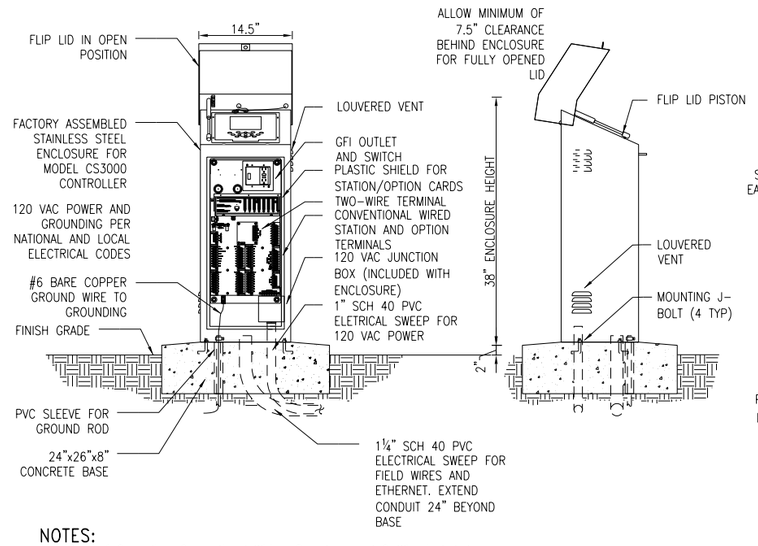
IRDET-COT-Grounding units: eng; scale factor: 12 — N.T.S.



NOTES:
1. Install per C.O.T. Water standard 1802.
2. Insulate all above ground piping with an aluminum foam wrap or approved insulating blanket.

2 REDUCED PRESSURE BACKFLOW PREVENTER

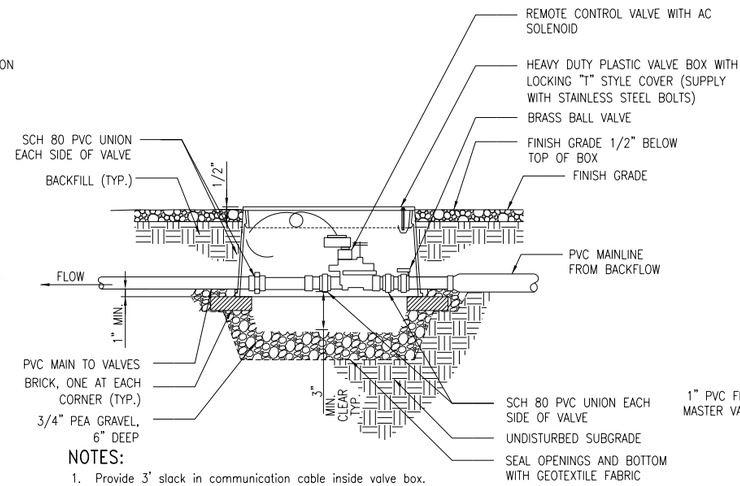
IRDET-COT-R.P.BackPrevent units: eng; scale factor: 12 — N.T.S.



NOTES:
1. Cost of Grounding, Conventional Wiring, Decoders, and 2-Wire included under Controller.

3 CONTROLLER ENCLOSURE

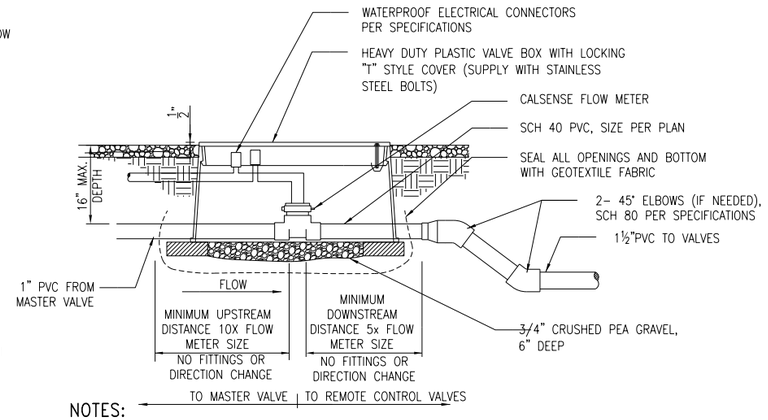
IRDET-COT-ContEnc_Calsense units: eng; scale factor: 12 — N.T.S.



NOTES:
1. Provide 3' slack in communication cable inside valve box.
2. Valve box to be Carson 1324 tan color.

4 MASTER VALVE

COT — N.T.S.



NOTES:
1. Valve box to be Carson 1324 tan color.

5 FLOW METER INSTALLATION

IRDET-COT-FlowSensor units: eng; scale factor: 12 — COT — N.T.S.

SCALE: 1"=20'

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

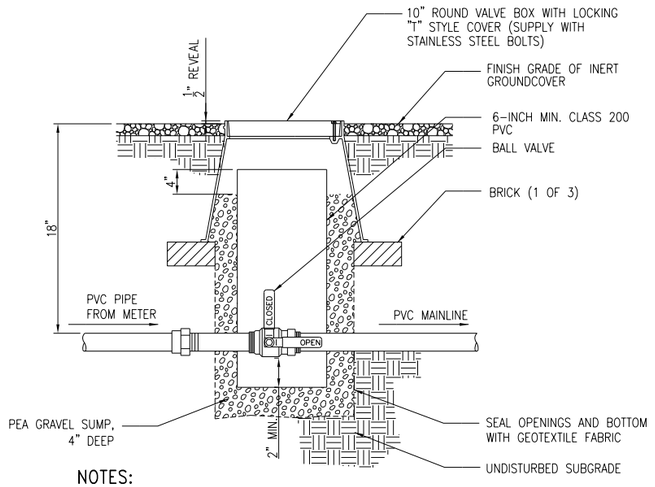
DRWN. BY AL AUG 2026 | CHKD. BY SP AUG 2026 | APPR. BY KW AUG 2026 | SCALE: H: 1" = 20'

PLAN NO. R-2024-XXX

IRRIGATION DETAILS *SHEET 3 OF 42*

c:\pwworking\west01\d4614762\01i-01.dgn
8/14/2026 12:23:55 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:23:59 PM

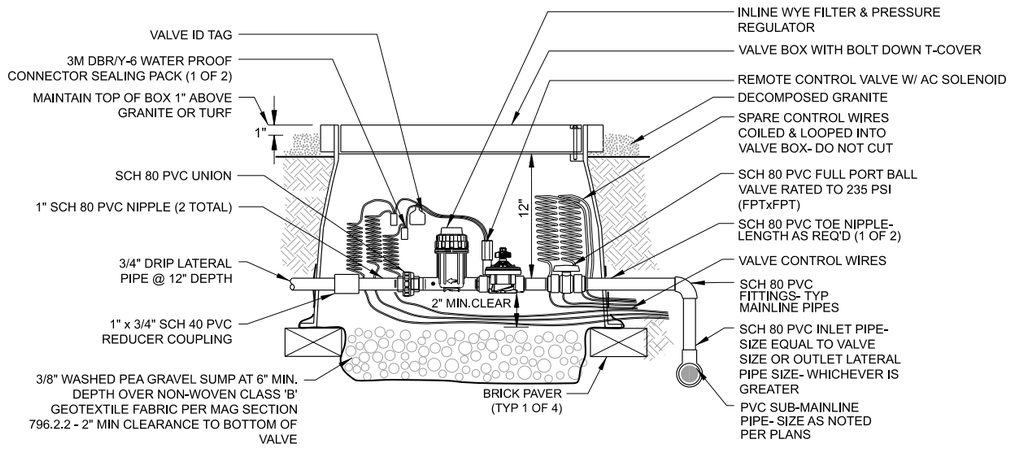


NOTES:
1. Nominal size of gate valve shall match nominal size of mainline pipe.
2. Use teflon tape on all threaded fittings.
3. Compact soil around valve pit assembly to same density as undisturbed adjacent soil.
4. Valve box to be Carson 1220 tan color.

1 ISOLATION BALL VALVE ASSEMBLY

IRDET-COT-IsoGateAssembly-BallValve units: ENG; scale factor: 12 N.T.S.

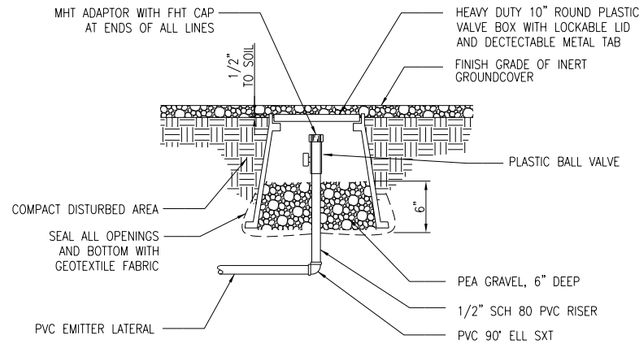
5/13/2014 DL3 mtg Gary Wittwer said new standard is ball valve



NOTES:
1. IN-LINE BASKET FILTER SHALL BE 150 MESH, 100 MICRON STAINLESS STEEL SCREEN.
2. SEE VALVE BOX NOTES ON SHEET IR-101.
3. VALVE BOX TO BE TAN COLOR IN DECOMPOSED GRANITE, GREEN IN TURF WHEN USED WITH POTABLE WATER, OR PURPLE COLOR WHEN USED WITH NON-POTABLE WATER.

2 DRIP REMOTE CONTROL VALVE ASSEMBLY

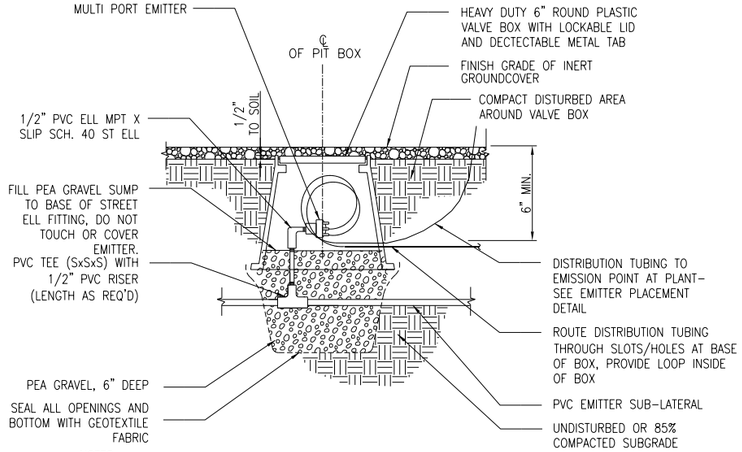
SCALE: NTS



NOTES:
1. Valve box to be Carson #910 tan color.

3 LATERAL END CAP

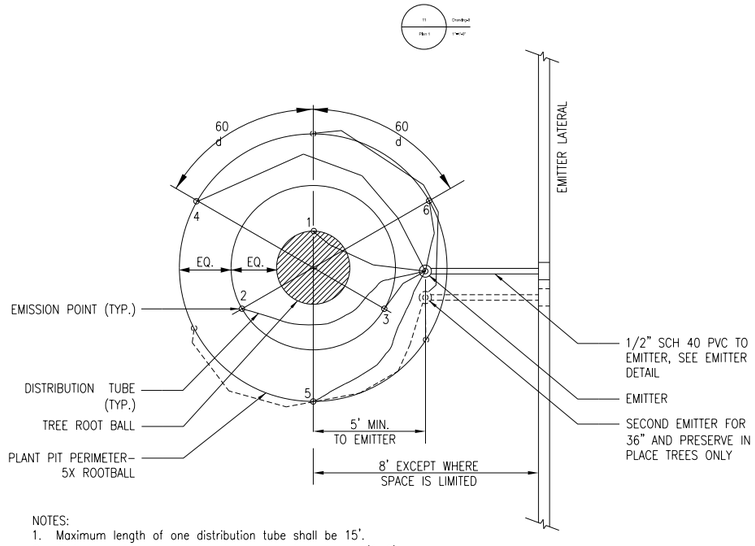
IRDET-COT-EndCap units: eng; scale factor: 12 N.T.S.



NOTES:
1. Coil distribution tubing loosely around riser one time before exiting box.
2. 1/2" PVC piping between emitter and emitter lateral is not shown on plan. Provide as required. Up to (6) emitters may share each 1/2" lateral extension.
3. Refer to plant schedule for number of outlets and GPH per plant.
4. All pipe to be Sch. 40 PVC.
5. All threaded joints to use Teflon tape or Teflon compound.
6. Valve box to be Carson 809 tan color.

4 MULTI-OUTLET EMITTER ON PVC LATERAL

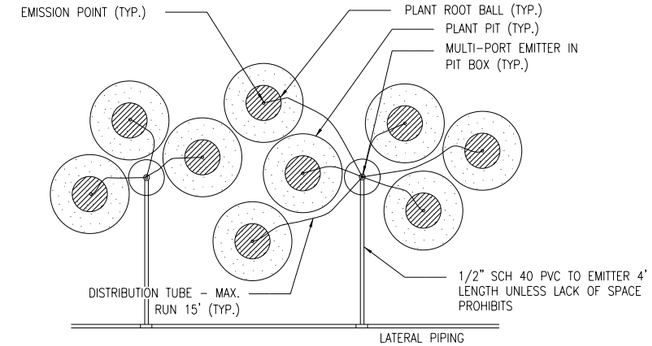
IRDET-COT-MultiOutletAssembly units: eng; scale factor: 12 N.T.S.



NOTES:
1. Maximum length of one distribution tube shall be 15'.
2. Emission points are numbered in order of placement (1-6).
3. If only one emiter is used, place uphill of tree if on slope.
4. Eq. shall be the diameter of the rootball.

5 EMITTER LOCATION - TREES

IRDET-E04 units: eng; scale factor: 12 N.T.S.



NOTES:
1. More than one shrub may be watered from a single multi-port emitter.
2. Maximum length of one distribution tube shall be 15'.
3. If only one distribution tube per plant is required, place emission point on top of root ball or uphill of plant. If more than one distribution tube per shrub is required, space emission points evenly within plant pit.

6 EMITTER LOCATION - SHRUBS

IRDET-E05 units: eng; scale factor: 12 N.T.S.

IRRIGATION DETAILS SHEET 4 OF 42

Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

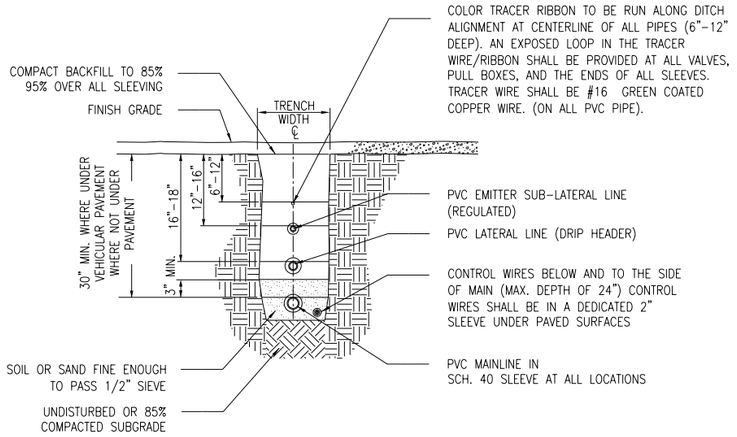
409 OF 504

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON | DRWN. BY AL AUG 2026 | CHKD. BY SP AUG 2026 | APPR. BY KW AUG 2026 | SCALE: H: 1" = 20' | PLAN NO. R-2024-XXX

c:\pwworking\west01\d4614762\01I-02.dgn
8/14/2026 12:23:59 PM

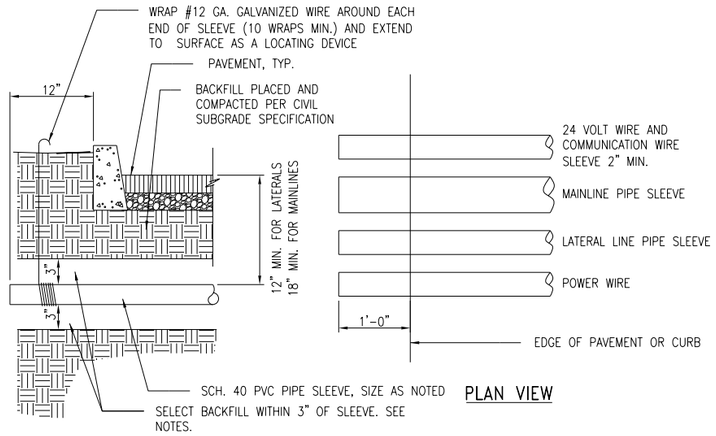
OpenRoads Designer v10.12.02.4
8/14/2026
12:24:21 PM
Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



NOTES:
1. All pipe shall be installed in accordance with manufacturer's specifications.
2. No pipe or wire shall be located under paving unless it is sleeved.
3. Protect copper from concrete with plumbers tape (10 mil. Min.) or plastic sleeving.
4. Control wires are to be located in dedicated sleeve.

1 IRRIGATION TRENCHING

IRDET-103-Carl units: eng; scale factor: 12 N.T.S.

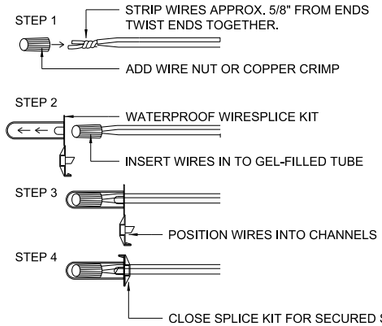


PLAN VIEW

NOTES:
1. All sleeves shall be PVC schedule 40 unless noted otherwise.
2. Do not install lateral pipe with main line pipe in the same sleeve.
3. Do not install wire with lateral or main line pipe in the same sleeve.
4. Do not install power wire and communication wire in the same sleeve.
5. Backfill within 3" of sleeve shall be free of rocks and stones larger than 1/4"ø. If rock cannot be removed from excavated soil, provide clean sand bedding.

2 SLEEVING

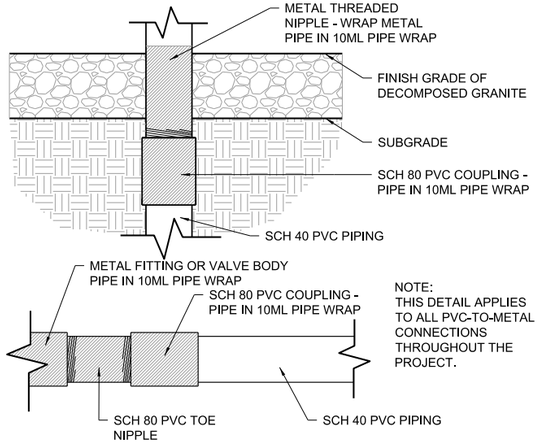
IRDET-A03 units: eng; scale factor: 12 N.T.S.



NOTE:
1. FOR ALL WIRE SIZES NO. 14, 12, & 10.
2. ALL CONNECTIONS IN VALVE BOXES ONLY.
3. FOR 1-10 CONTROL WIRES: CARSON #910 ROUND 10" VALVE BOX WITH BOLT DOWN T-COVER OR APPROVED EQUAL.
4. FOR 11 OR MORE CONTROL WIRE: CARSON #1220 JUMBO VALVE BOX WITH BOLT DOWN T-COVER OR APPROVED EQUAL.
5. INSTALL VALVE BOX AND BRANDING PER VALVE BOX INSTALLATION DETAIL.
6. LABEL ALL WIRES ENDS IN SPLICE BOX WITH 3M WIRE MARKER TAPE TO MATCH VALVE NUMBER.

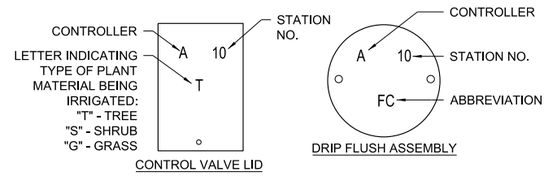
3 TYPICAL IRRIGATION WIRE CONNECTION

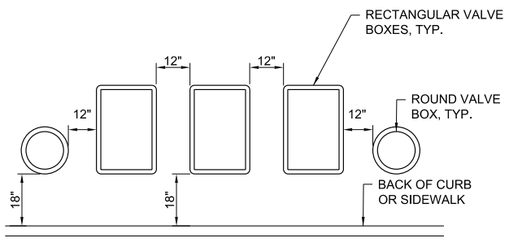
SCALE: NTS



4 PVC TO METAL CONNECTION

SCALE: NTS





ABBREVIATIONS:

DRIP VALVE ASSEMBLY - (SEE ABOVE)
DRIP FLUSH ASSEMBLY - (SEE ABOVE)
CONTROL VALVE - (SEE ABOVE)
"HM" - HYDROMETER
"MV" - MASTER VALVE
"FS" - FLOW SENSOR
"PS" - PRESSURE SENSOR
"WS" - WIRE SPLICE
"BV" - BALL VALVE
"GV" - GATE VALVE
"QC" - QUICK COUPLER
"AR" - AIR RELIEF
"PR" - PRESSURE REGULATOR
"GR" - GROUNDING ROD
"GR" - LIGHTNING ARRESTOR
"DR" - MAINLINE DRAIN
"ST" - STUB/CAP LATERAL

NOTE:
1. DETAIL IS SHOWN FOR INTENT ONLY. ALL BRANDING SHALL BE DONE IN A MANNER THAT IS CLEARLY LEGIBLE. LOCATION OF LETTERING MAY VARY DUE TO VALVE BOX TEXTURE.
2. VALVE BOX TO BE TAN COLOR IN DECOMPOSED GRANITE, GREEN IN TURF WHEN USED WITH POTABLE WATER, OR PURPLE COLOR WHEN USED WITH NON-POTABLE WATER.
3. VALVE BOX LID - BOLT DOWN T-STYLE COVER WITH STAINLESS STEEL WASHER AND BOLT.
4. LETTERING / NUMBERING TO BE 2" TALL STENCIL LETTERING, HAND WRITTEN LETTERING IS NOT ACCEPTABLE AND WILL REQUIRE RE-BRANDING.

5 VALVE BOX INSTALLATION

SCALE: NTS

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION 410 OF 504

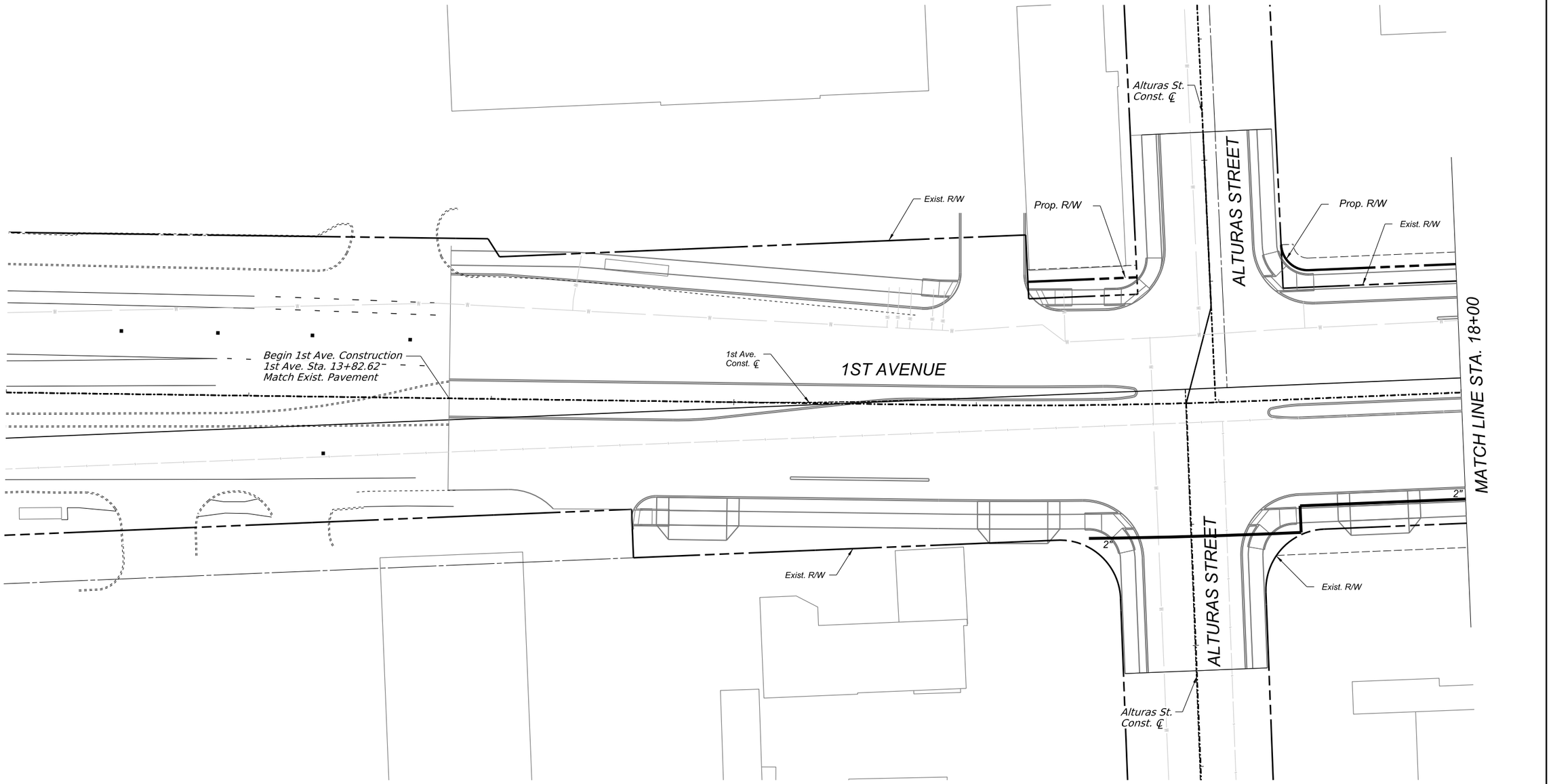
1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON | DRWN. BY AL AUG 2026 | CHKD. BY SP AUG 2026 | APPR. BY KW AUG 2026 | SCALE: H: 1" = 20' | PLAN NO. R-2024-XXX

IRRIGATION DETAILS *SHEET* **5** *OF 42*

c:\pwworking\west01\d4614762\01I-03.dgn
8/14/2026 12:24:21 PM

OpenRoads Designer v10.12.02.4
8/21/2026
12:58:56 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.altcfg
Project ID:
Client Number: 4109



1st Ave Begin to 18+00
IRRIGATION PLAN

SHEET 6 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

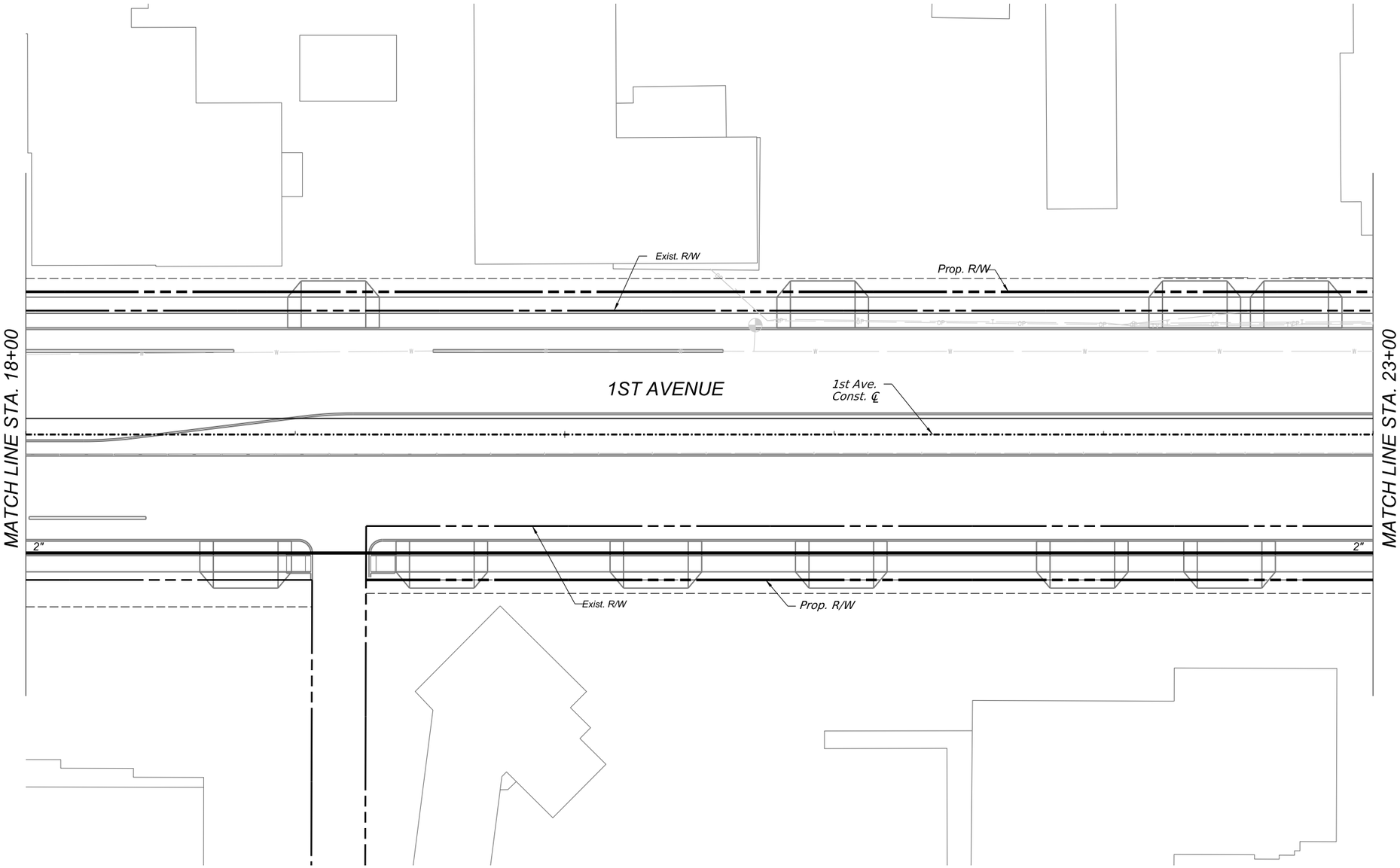
411 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\02\I-01.dgn
8/21/2026 12:58:56 PM

OpenRoads Designer v10.12.02.4
8/21/2026
12:59:04 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.altcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

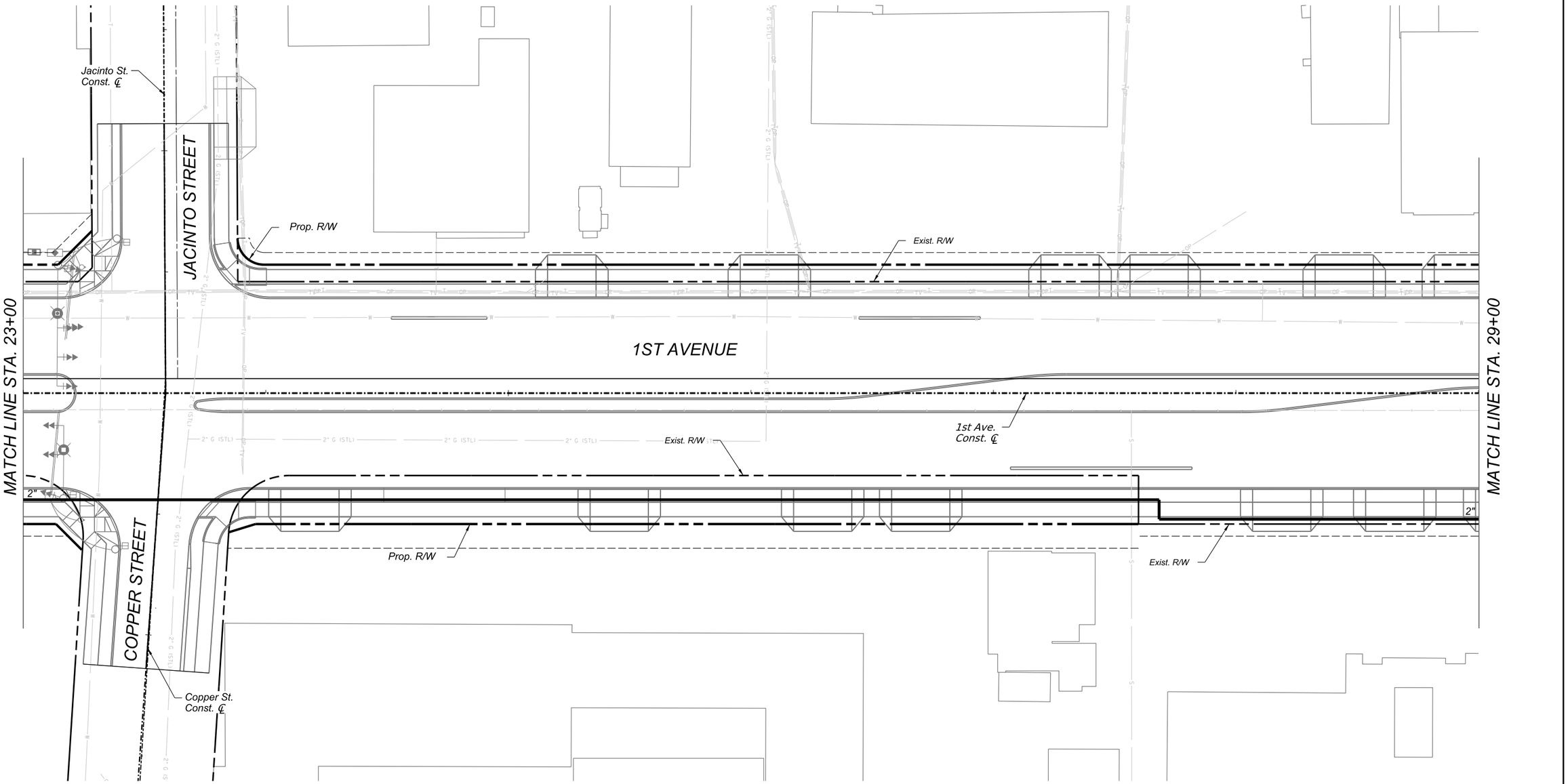
412 OF 504

1st Ave 18+00 to 23+00
IRRIGATION PLAN

SHEET 7 OF 42

c:\pwworking\west01\d4520438\02\I-02.dgn
8/21/2026 12:59:04 PM

OpenRoads Designer v10.12.02.4
8/21/2026
12:59:11 PM
Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



1st Ave 23+00 to 29+00
IRRIGATION PLAN

SHEET 8 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

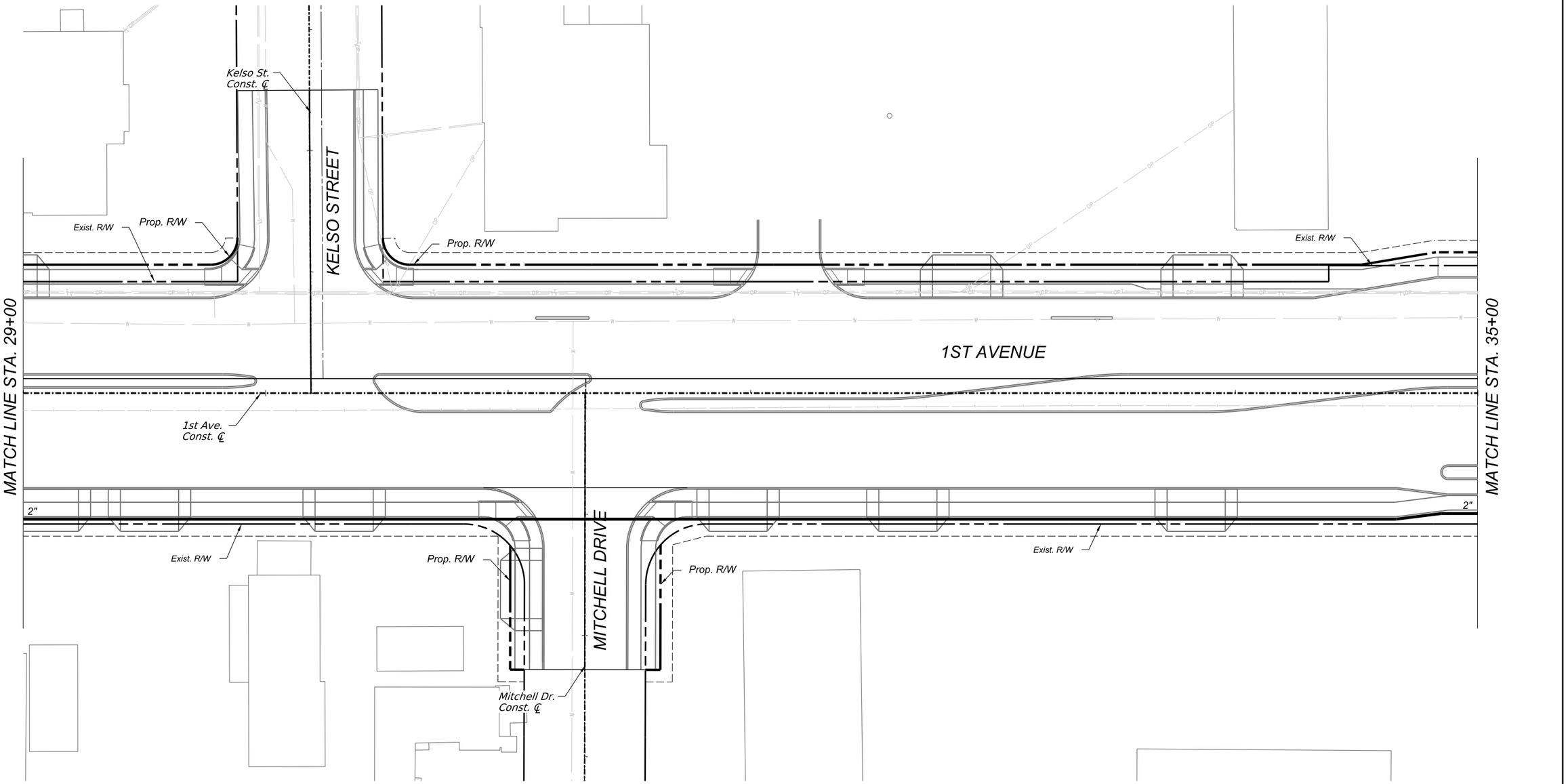
413 OF 504

CITY OF TUCSON

DRWN. BY AL	CHKD. BY SP	APPR. BY KW	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\02\I-03.dgn
8/21/2026 12:59:11 PM

OpenRoads Designer v10.12.02.4
8/21/2026
12:59:19 PM
Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf.pltcfg
Project ID:
Client Number: 4109



1st Ave 29+00 to 35+00
IRRIGATION PLAN

SHEET 9 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

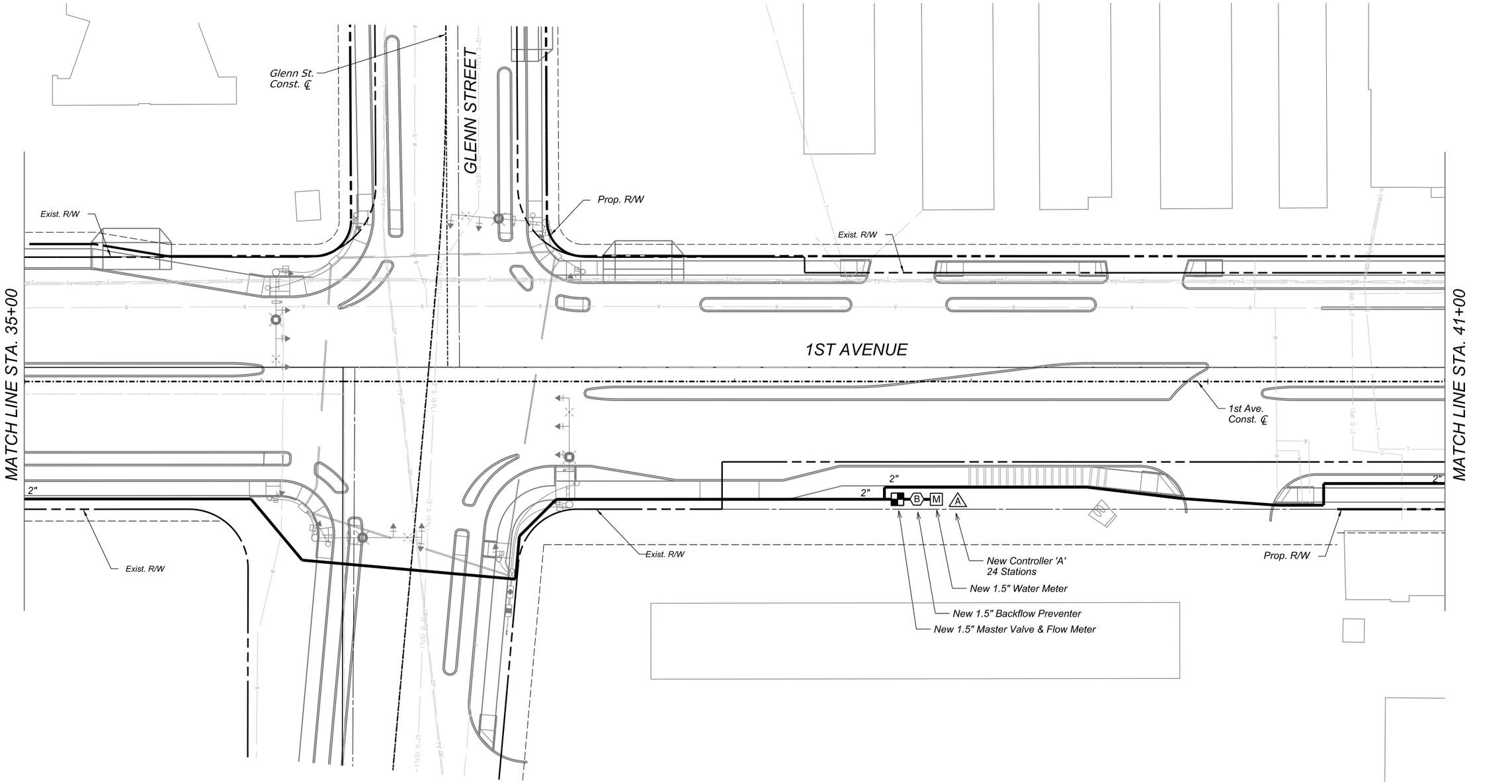
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

414 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\02\I-04.dgn
8/21/2026 12:59:19 PM



1st Ave 35+00 to 41+00
IRRIGATION PLAN

SHEET 10 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

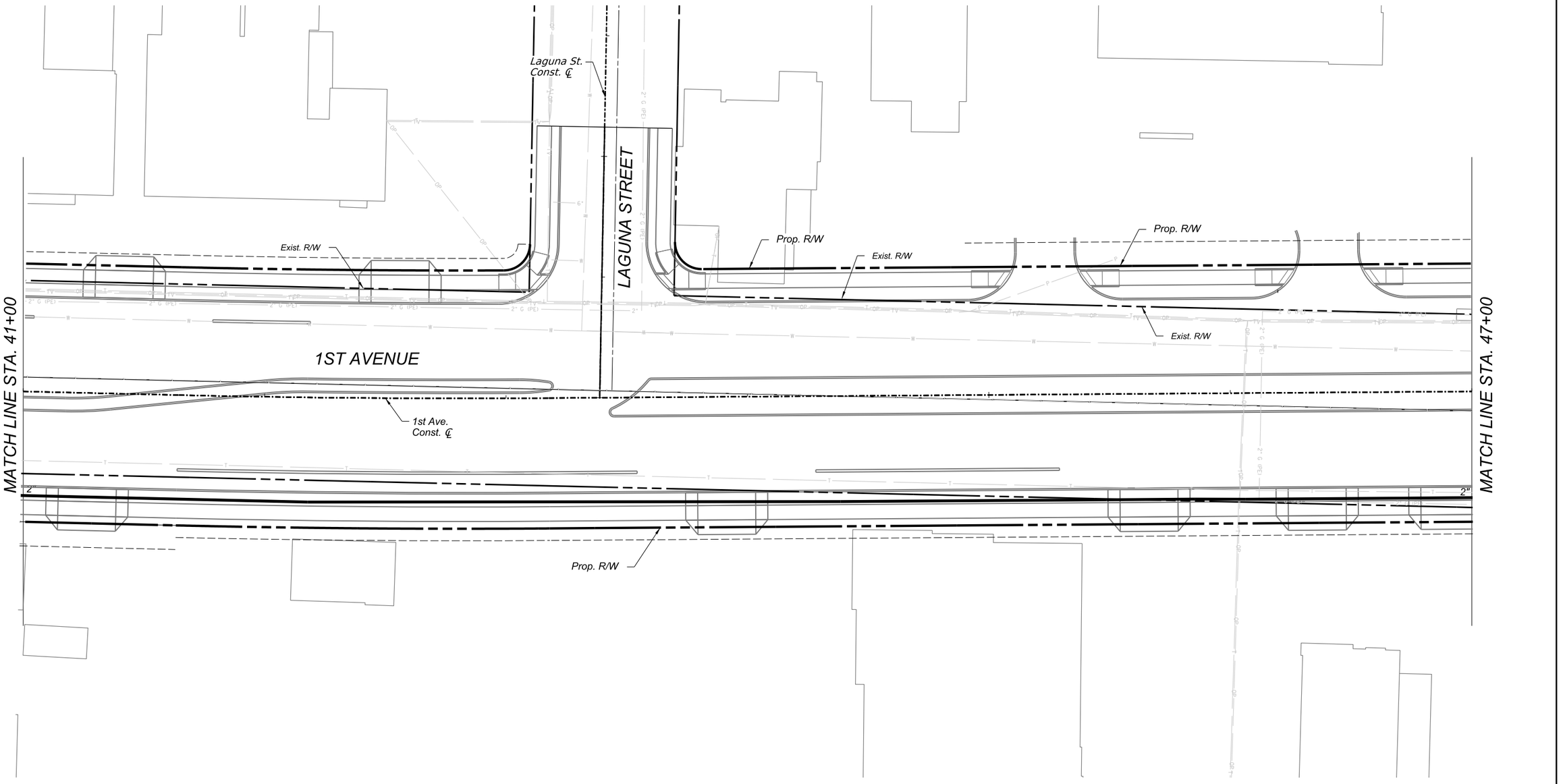
415 OF 504

CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/21/2026
12:59:27 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4520438\02I-05.dgn
8/21/2026 12:59:27 PM



1st Ave 41+00 to 47+00
IRRIGATION PLAN

SHEET 11 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

416 OF 504

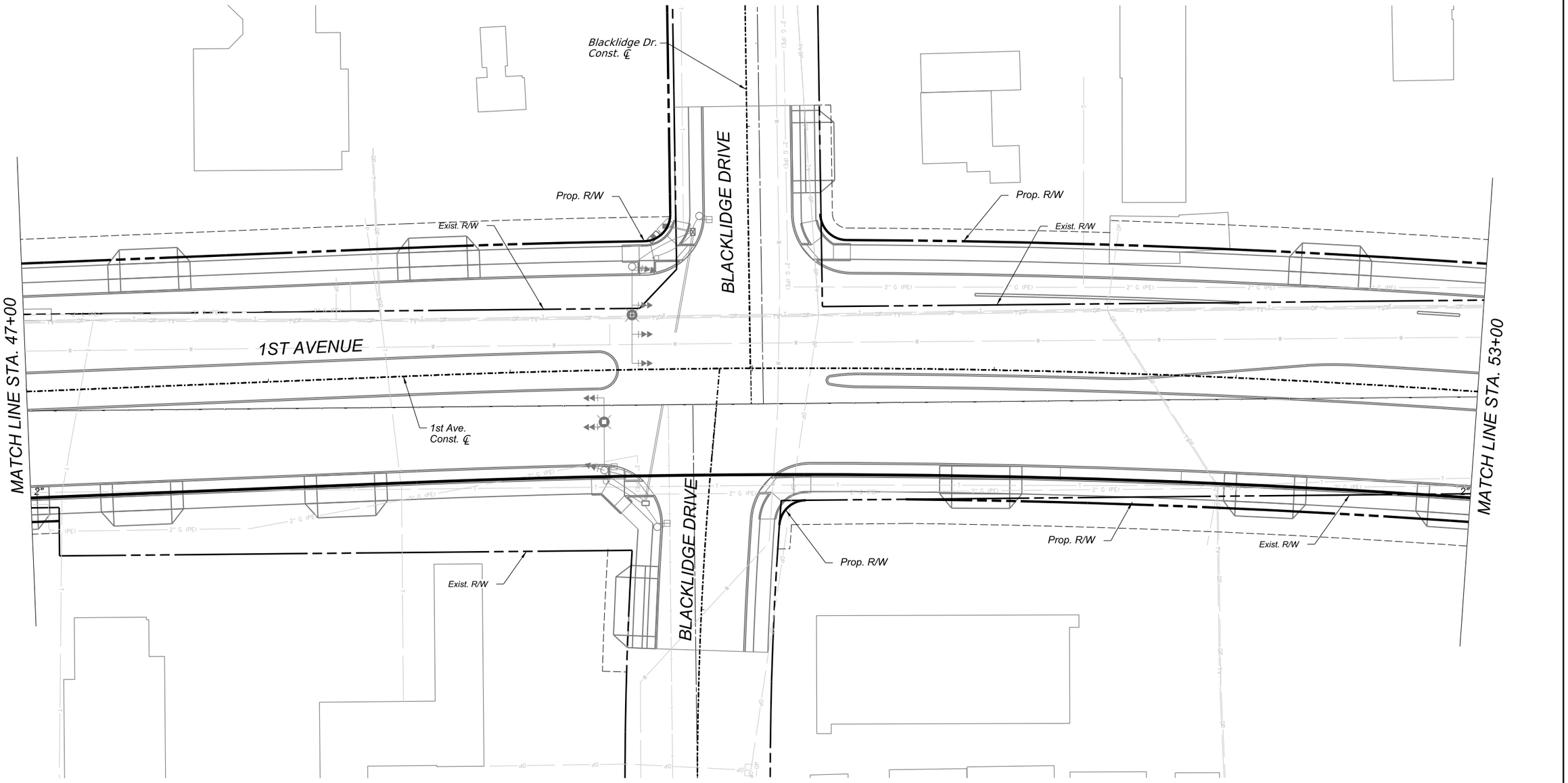
CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/21/2026
12:59:34 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4520438\02I-06.dgn
8/21/2026 12:59:34 PM

OpenRoads Designer v10.12.02.4
8/21/2026
12:59:41 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.ahcfg
Project ID:
Client Number: 4109



1st Ave 47+00 to 53+00
IRRIGATION PLAN

SHEET 12 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

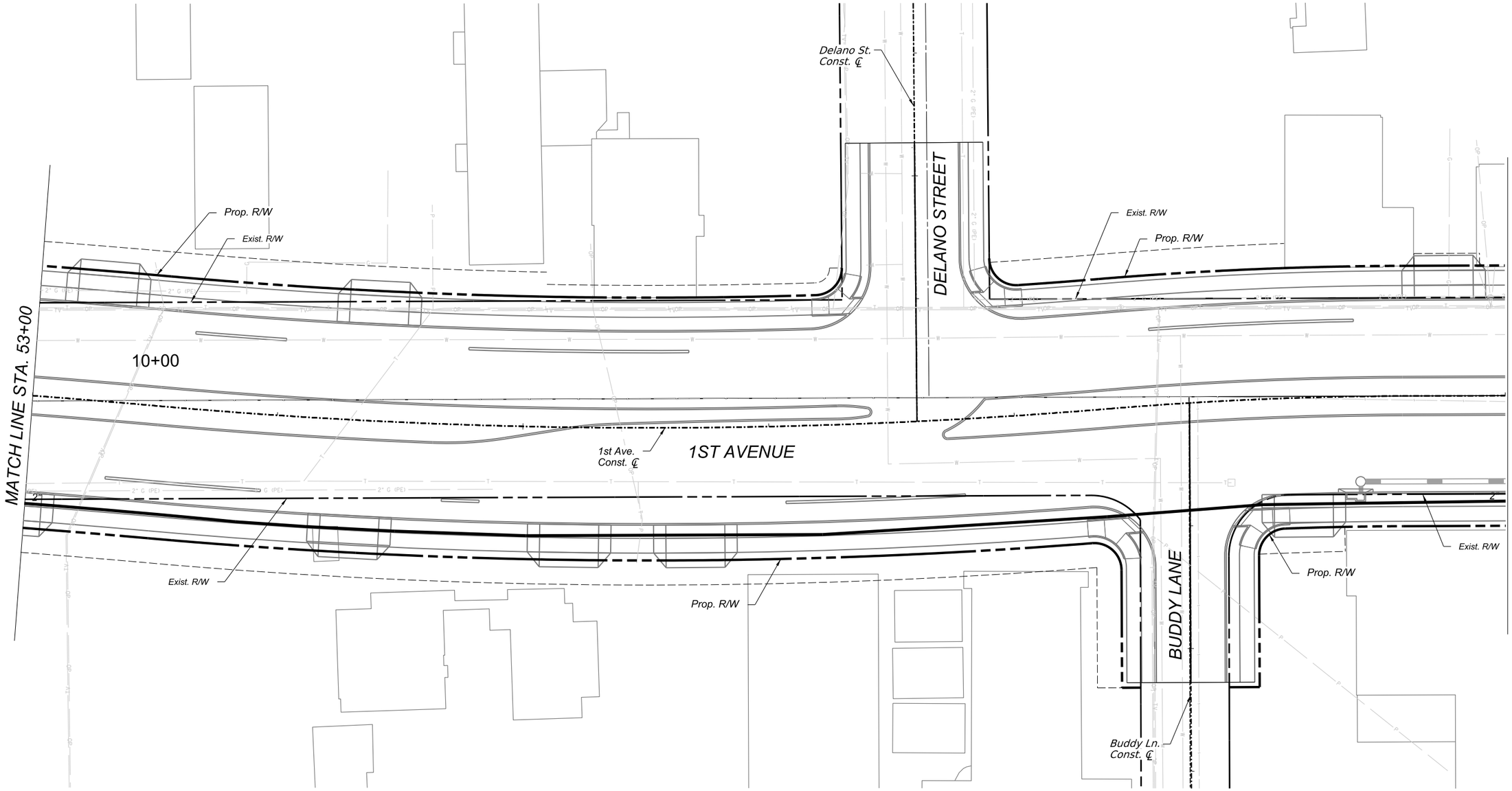
417 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\02I-07.dgn
8/21/2026 12:59:41 PM

12:59:48 PM 8/21/2026 OpenRoads Designer v10.12.02.4



1st Ave 53+00 to 59+00
IRRIGATION PLAN

SHEET 13 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-4T (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

418 OF 504

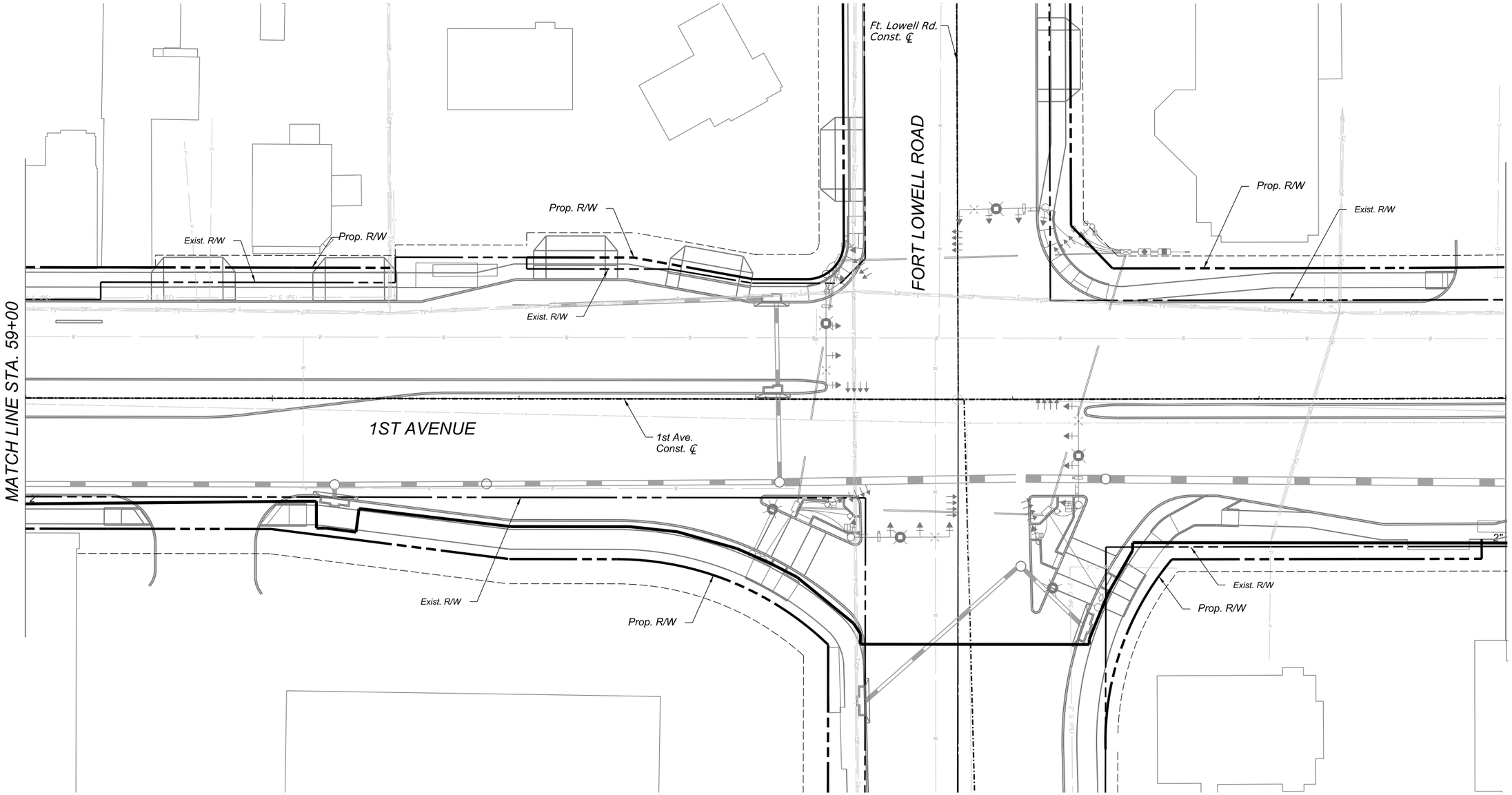
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_fwpdf.altcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4520438\02I-08.dgn
8/21/2026 12:59:48 PM

OpenRoads Designer v10.12.02.4
8/21/2026
12:59:57 PM
Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

419 OF 504

CITY OF TUCSON

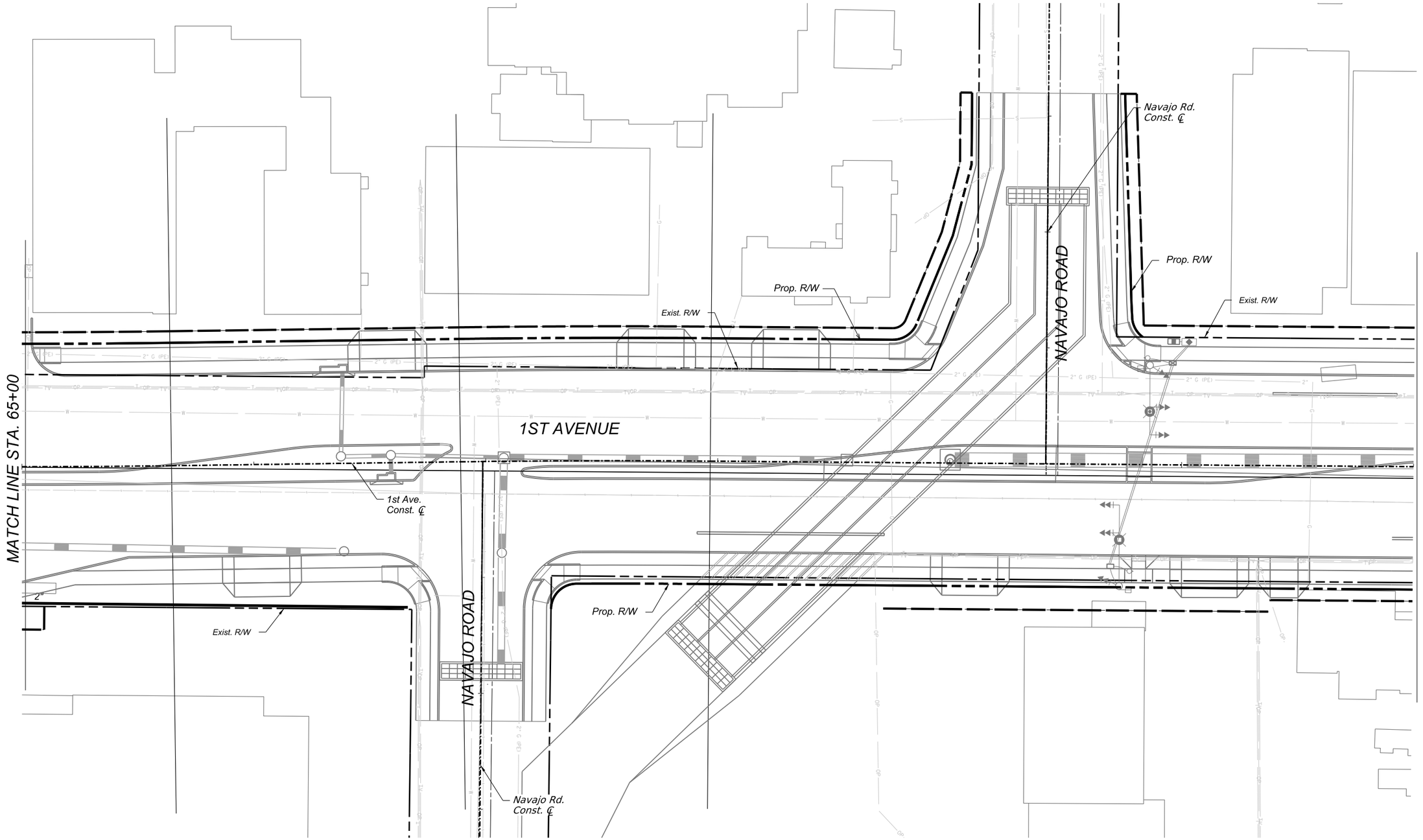
DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 59+00 to 65+00
IRRIGATION PLAN

SHEET 14 OF 42

c:\pwworking\west01\d4520438\02\I-09.dgn
8/21/2026 12:59:57 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:00:06 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_fwpdf.altcfg
Project ID:
Client Number: 4109



SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

1st Ave 65+00 to 71+00
IRRIGATION PLAN

SHEET 15 OF 42

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

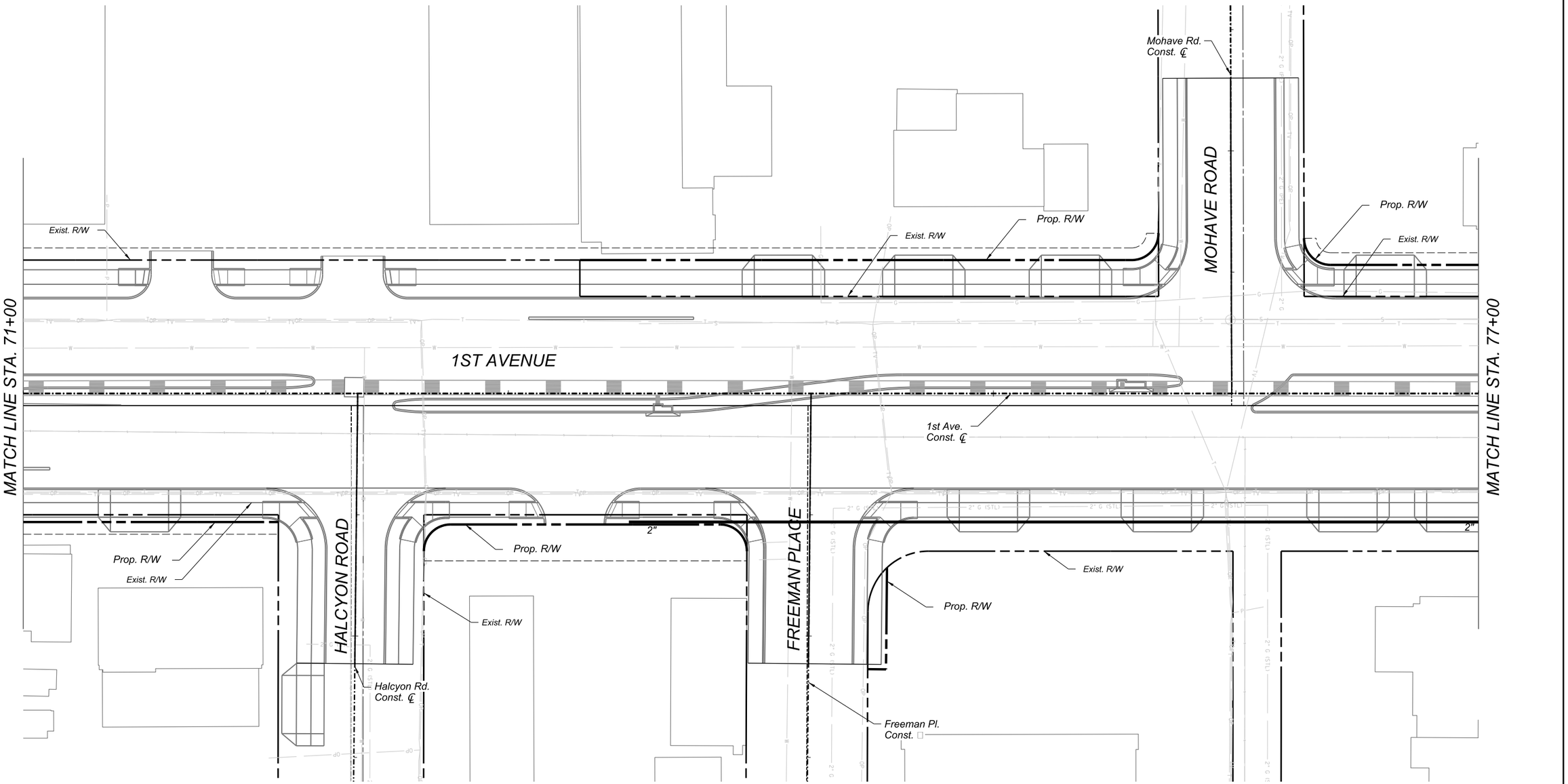
420 OF 504

CITY OF TUCSON

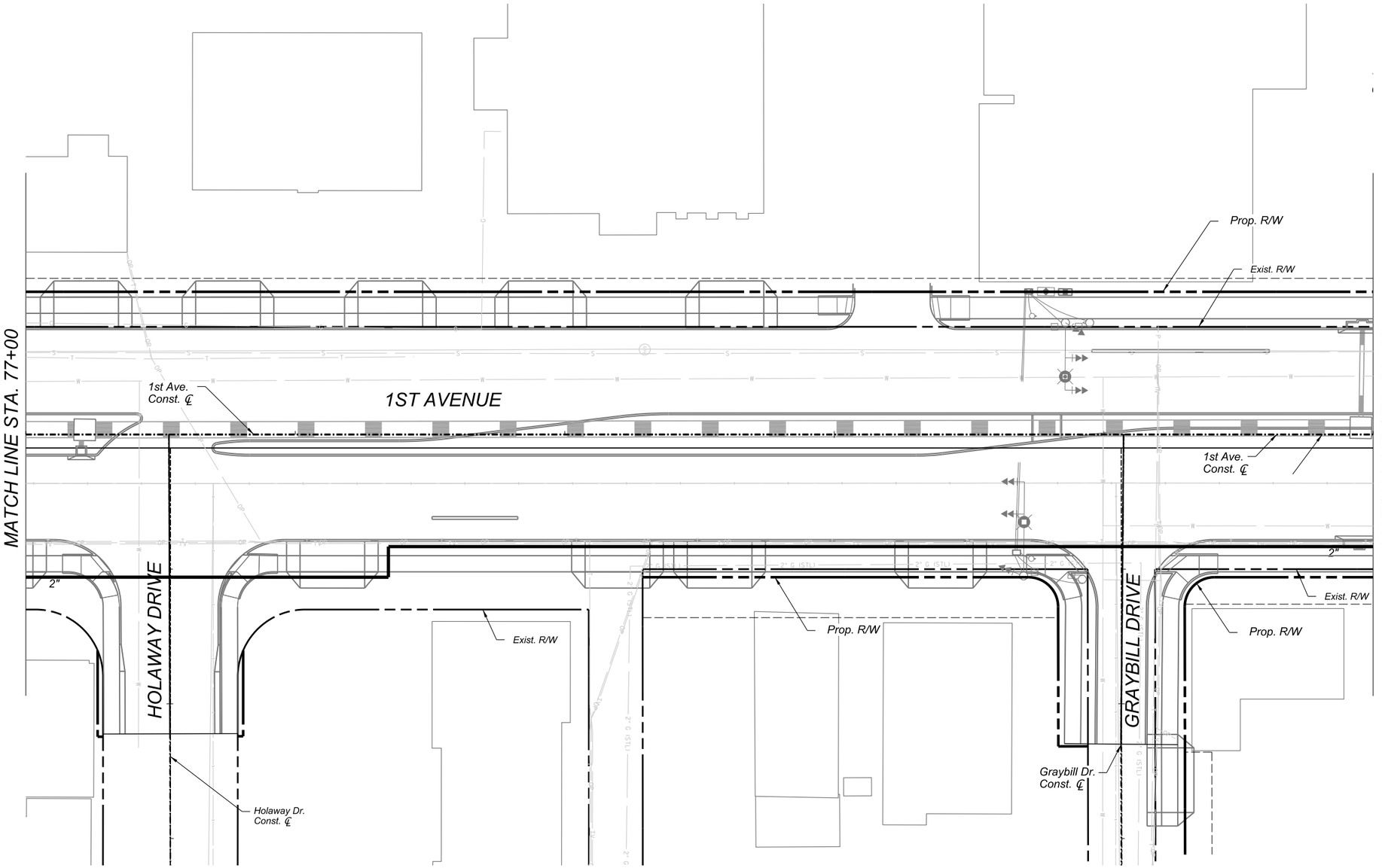
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\02I-10.dgn
8/21/2026 1:00:06 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:00:14 PM


MATCH LINE STA. 71+00
1ST AVENUE
MOHAVE ROAD
MATCH LINE STA. 77+00
Mohave Rd.
Const. ℄
Exist. R/W
Prop. R/W
Exist. R/W
Prop. R/W
Exist. R/W
1st Ave.
Const. ℄
HALCYON ROAD
FREEMAN PLACE
Prop. R/W
Exist. R/W
Prop. R/W
Exist. R/W
Exist. R/W
Prop. R/W
Halcyon Rd.
Const. ℄
Freeman Pl.
Const.
2"
2"
2" G (STL)
2" G (STL)
2" G (STL)

OpenRoads Designer v10.12.02.4
8/21/2026
1:00:22 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

422 OF 504

CITY OF TUCSON

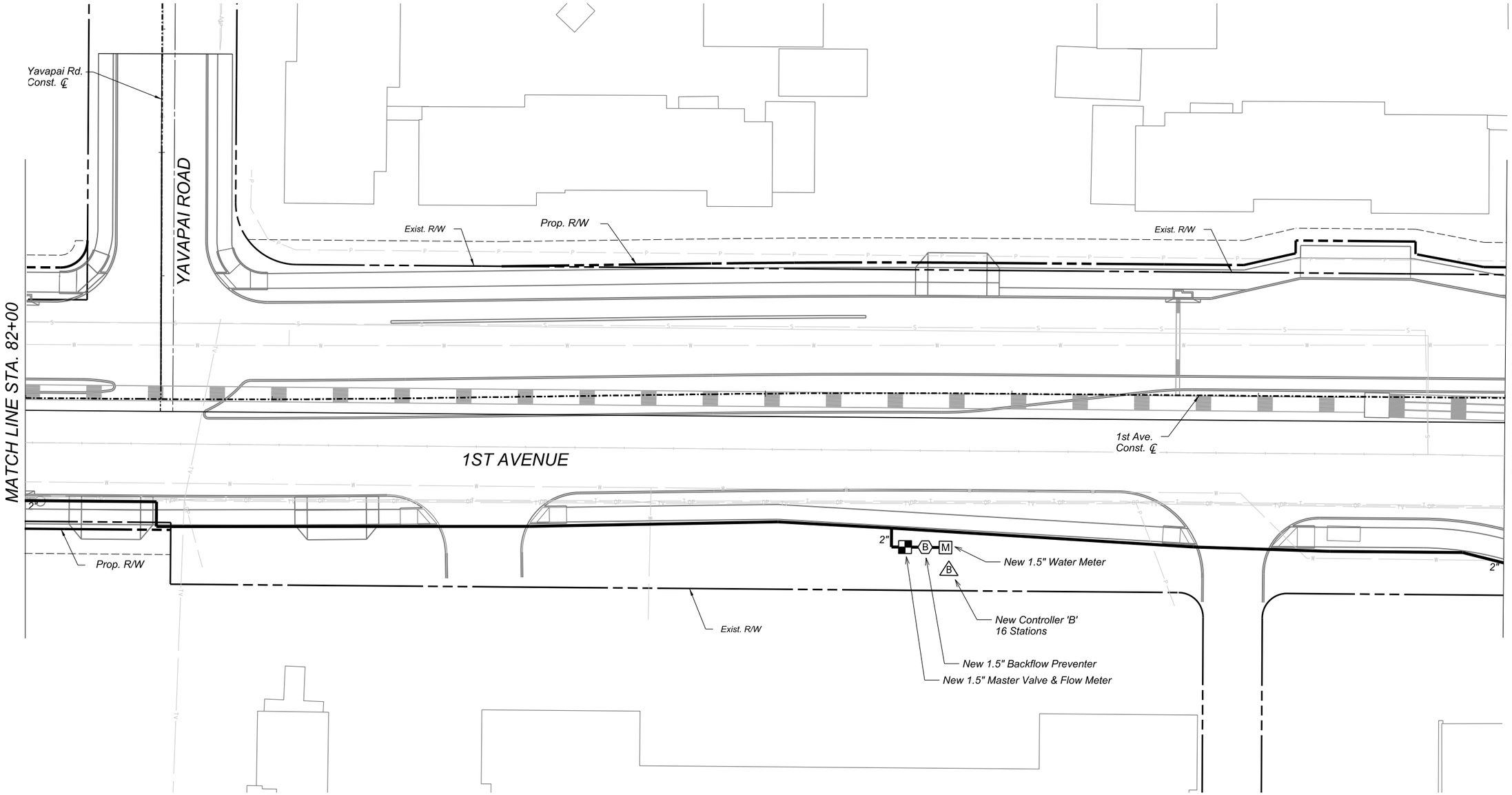
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 77+00 to 82+00
IRRIGATION PLAN

SHEET 17 OF 42

c:\pwworking\west01\d4520438\02\I-12.dgn
8/21/2026 1:00:22 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:00:29 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdrvr: GN_Dwpdf_altcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

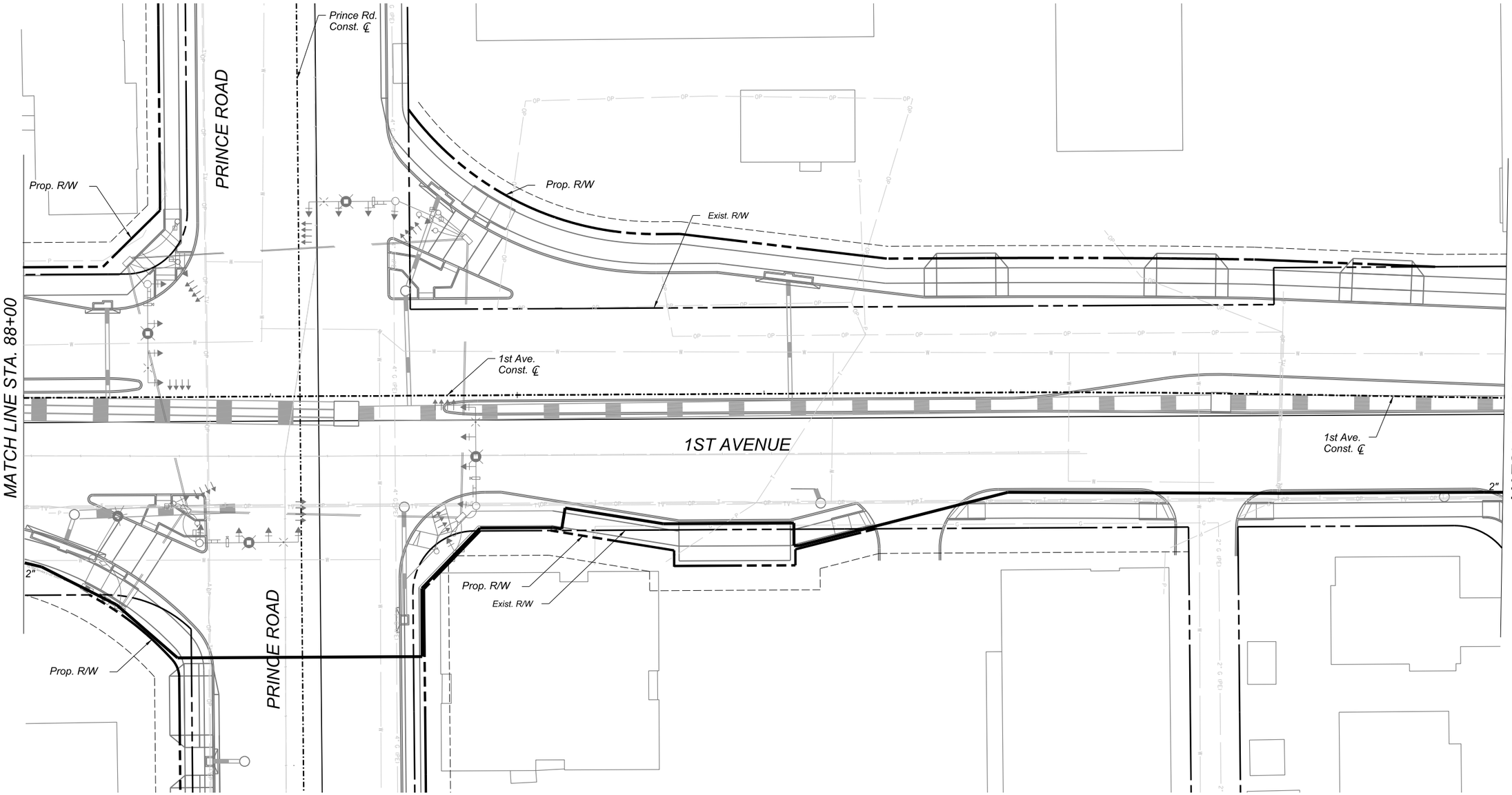
423 OF 504

1st Ave 82+00 to 88+00
IRRIGATION PLAN

SHEET 18 OF 42

c:\pwworking\west01\d4520438\02\I-13.dgn
8/21/2026 1:00:29 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:00:37 PM



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf_plt.cfg
Project ID:
Client Number: 4109

1st Ave 88+00 to 94+00
IRRIGATION PLAN

SHEET 19 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

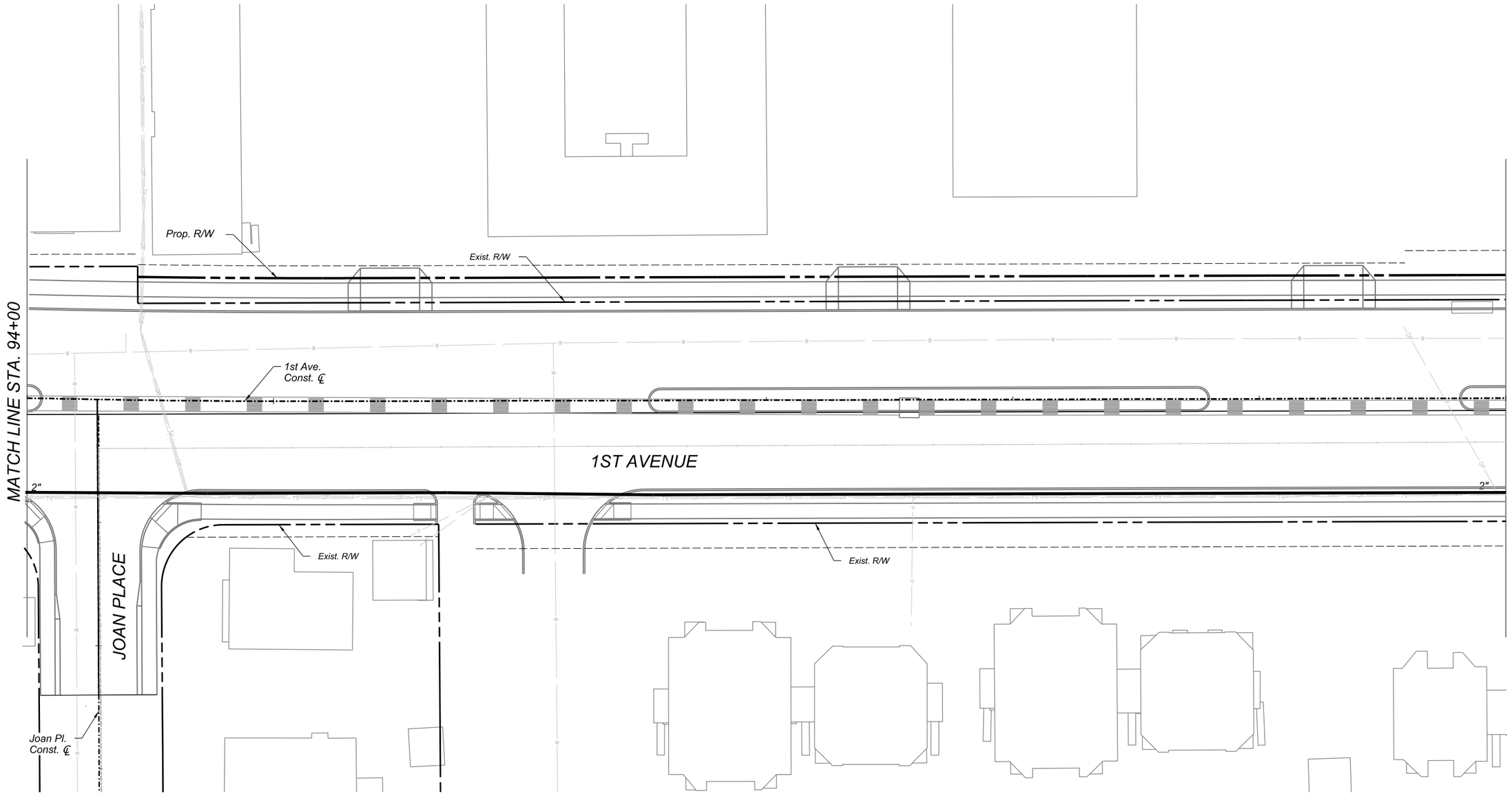
424 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\02\I-14.dgn
8/21/2026 1:00:37 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:00:44 PM



Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_twpdf.pltcfg
Project ID:
Client Number: 4109

1st Ave 94+00 to 100+00
IRRIGATION PLAN

SHEET 20 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

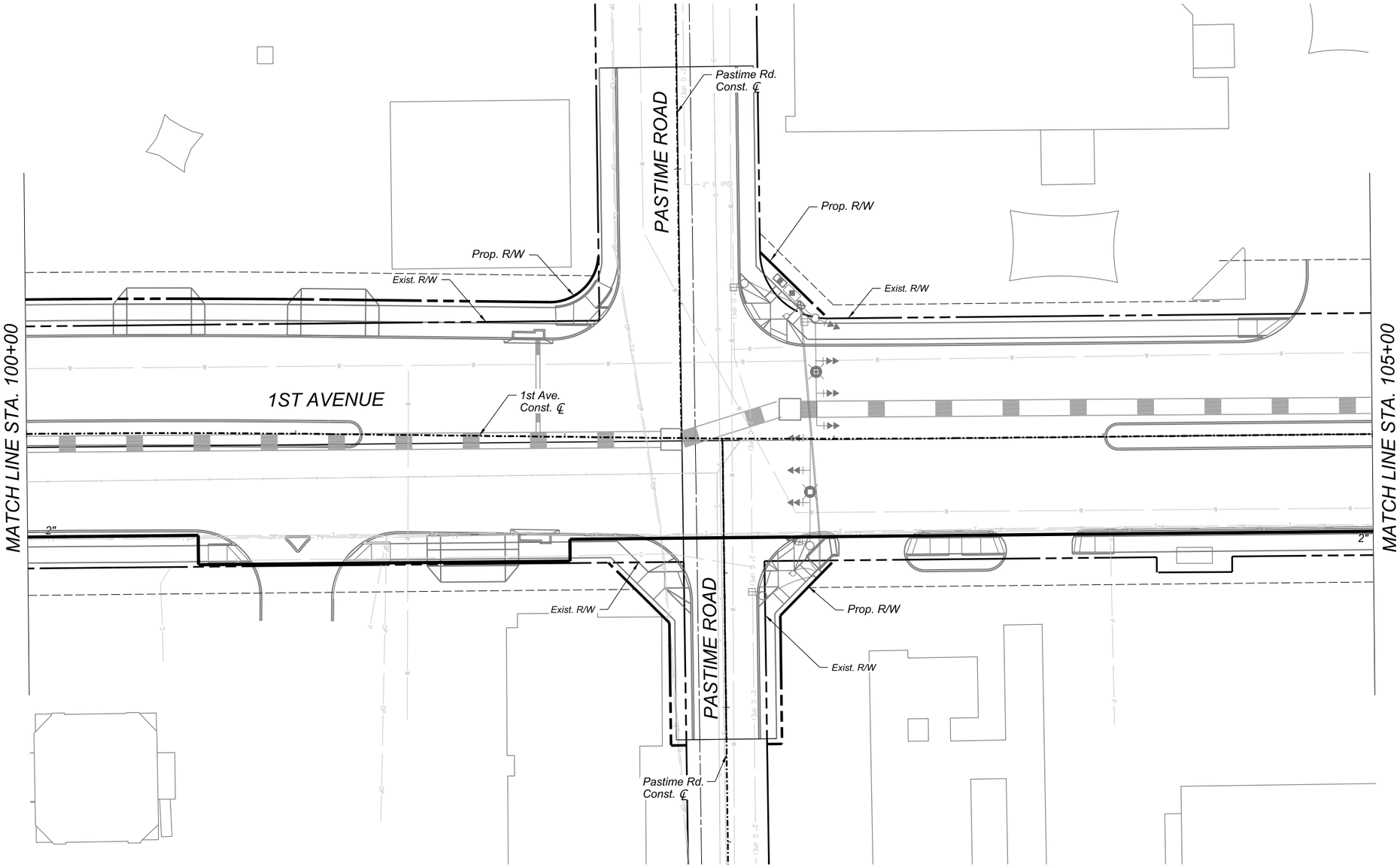
425 OF 504

CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\i02i-15.dgn
8/21/2026 1:00:44 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:00:51 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

426 OF 504

CITY OF TUCSON

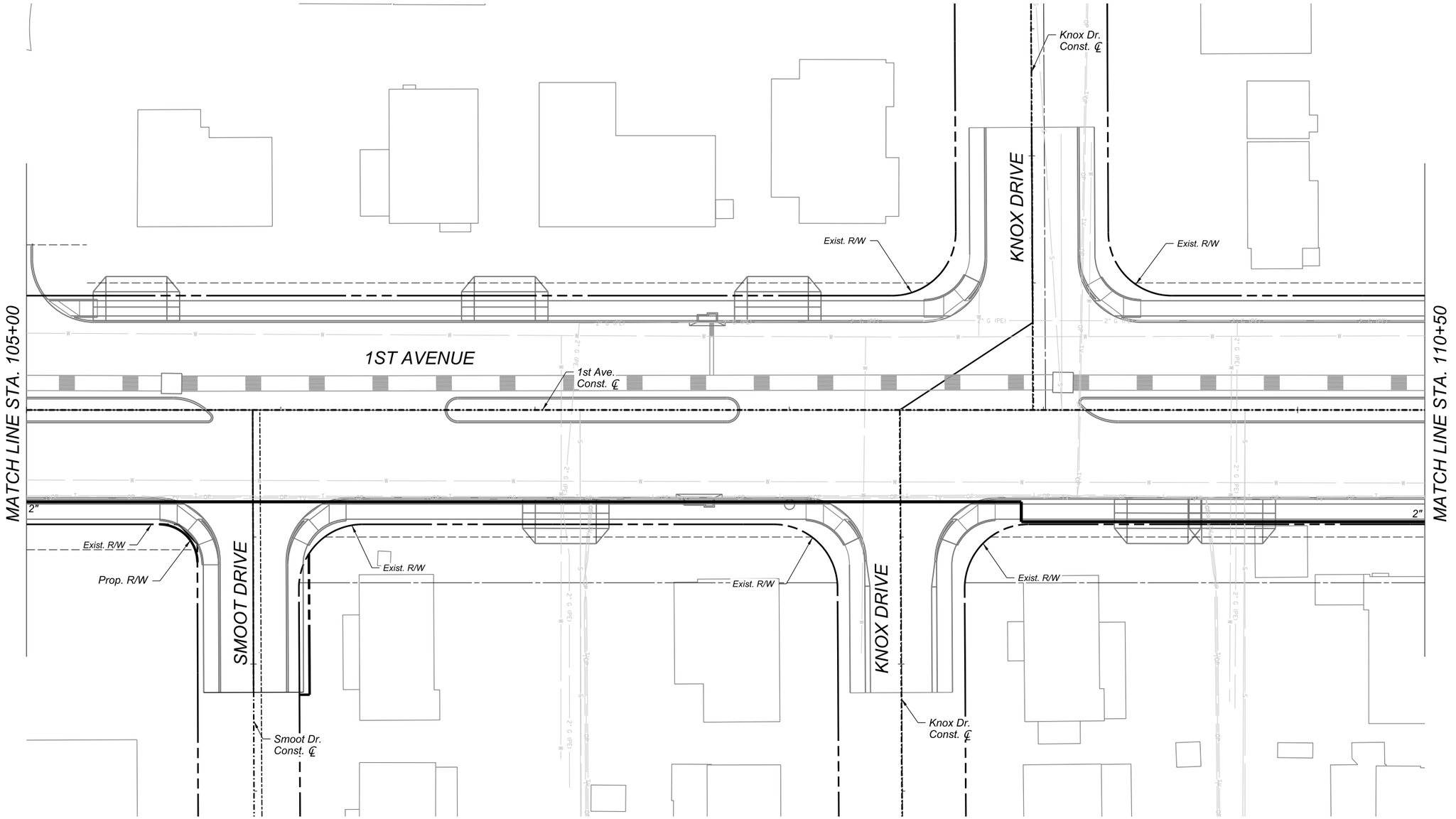
DRWN. BY AL	CHKD. BY SP	APPR. BY KW	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

1st Ave 100+00 to 105+00
IRRIGATION PLAN

SHEET 21 OF 42

c:\pwworking\west01\d4520438\02\I-16.dgn
8/21/2026 1:00:51 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:01:00 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_hwpdf.ptcfg
Project ID:
Client Number: 4109



1st Ave 105+00 to 110+50
IRRIGATION PLAN

SHEET 22 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

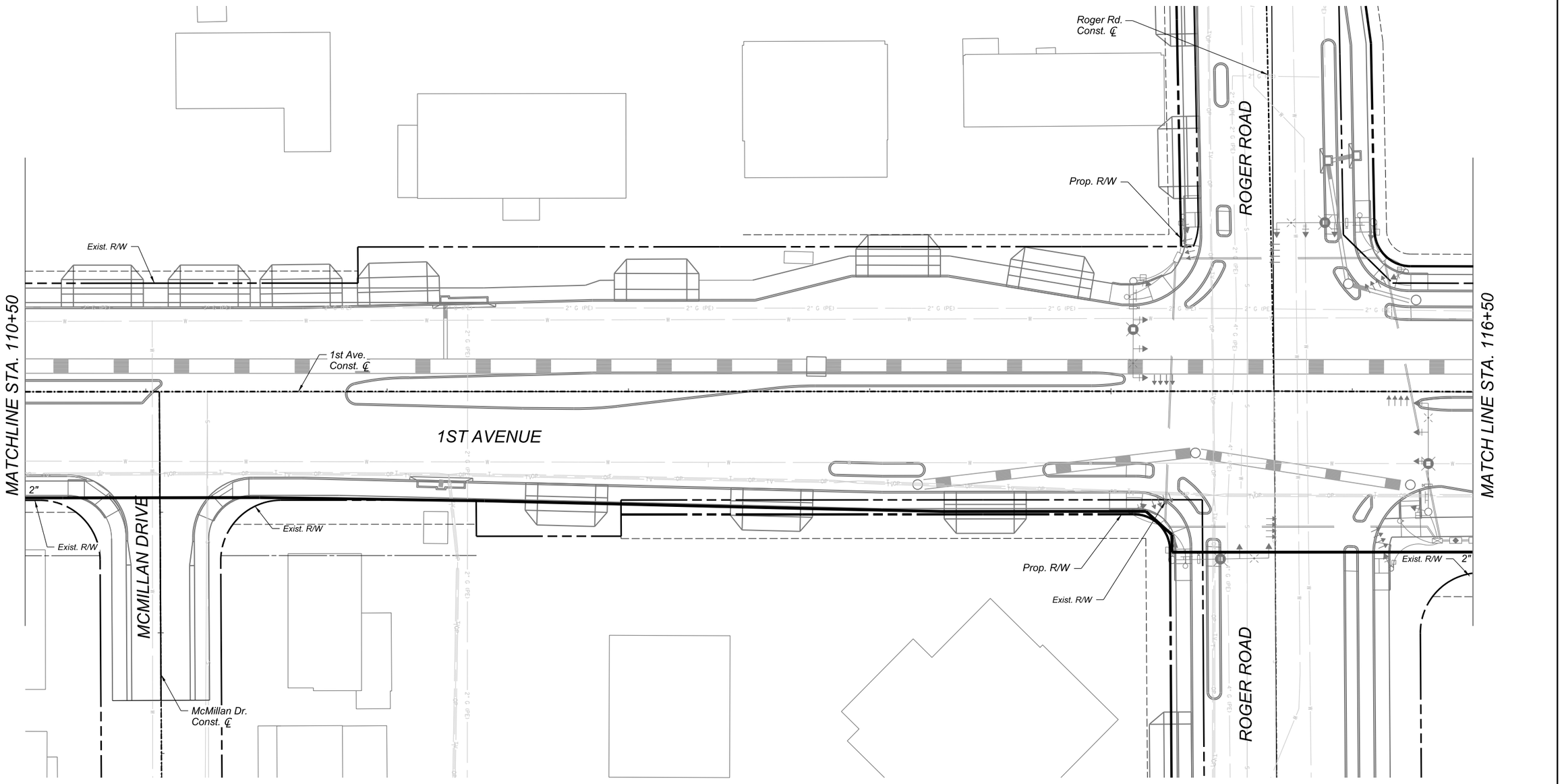
427 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\i02i-17.dgn
8/21/2026 1:01:00 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:01:08 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

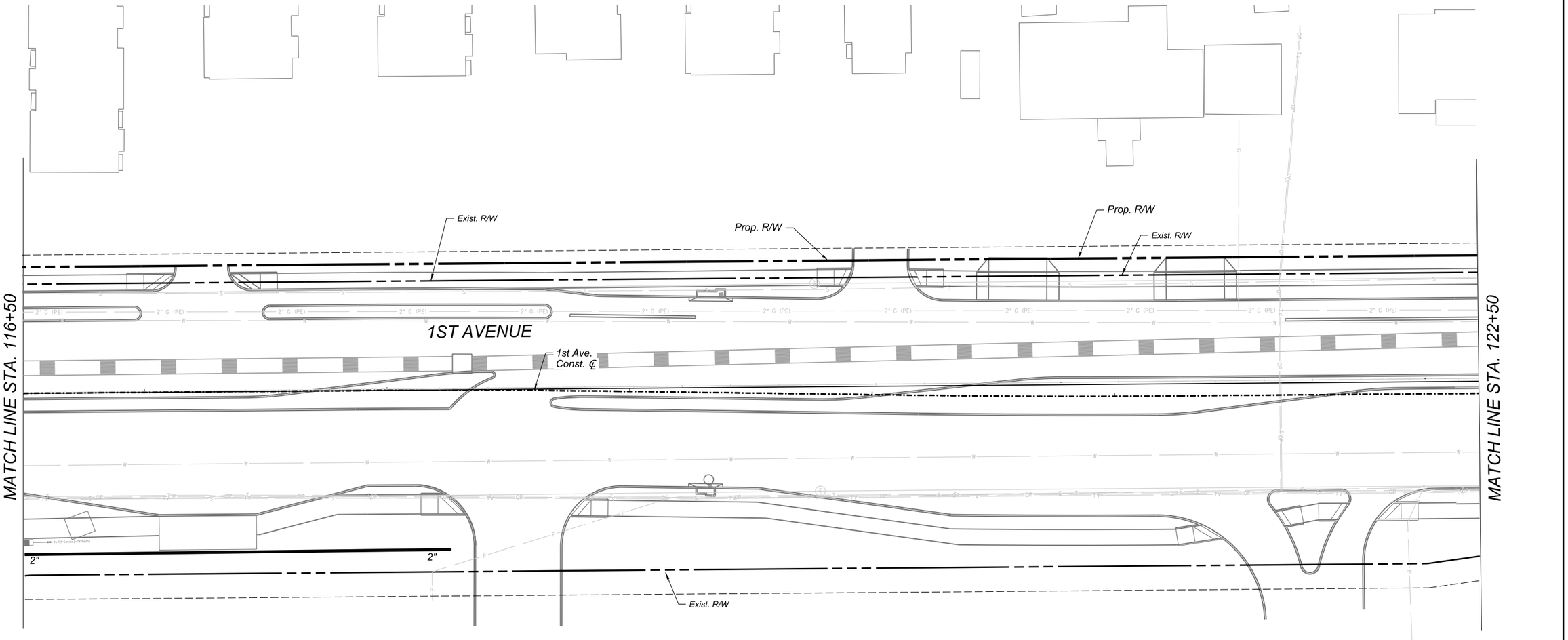
DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

428 OF 504

1st Ave 110+50 to 116+50
IRRIGATION PLAN

SHEET 23 OF 42

c:\pwworking\west01\d4520438\02\I-18.dgn
8/21/2026 1:01:08 PM



1st Ave 116+50 to 122+50
IRRIGATION PLAN

SHEET 24 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

429 OF 504

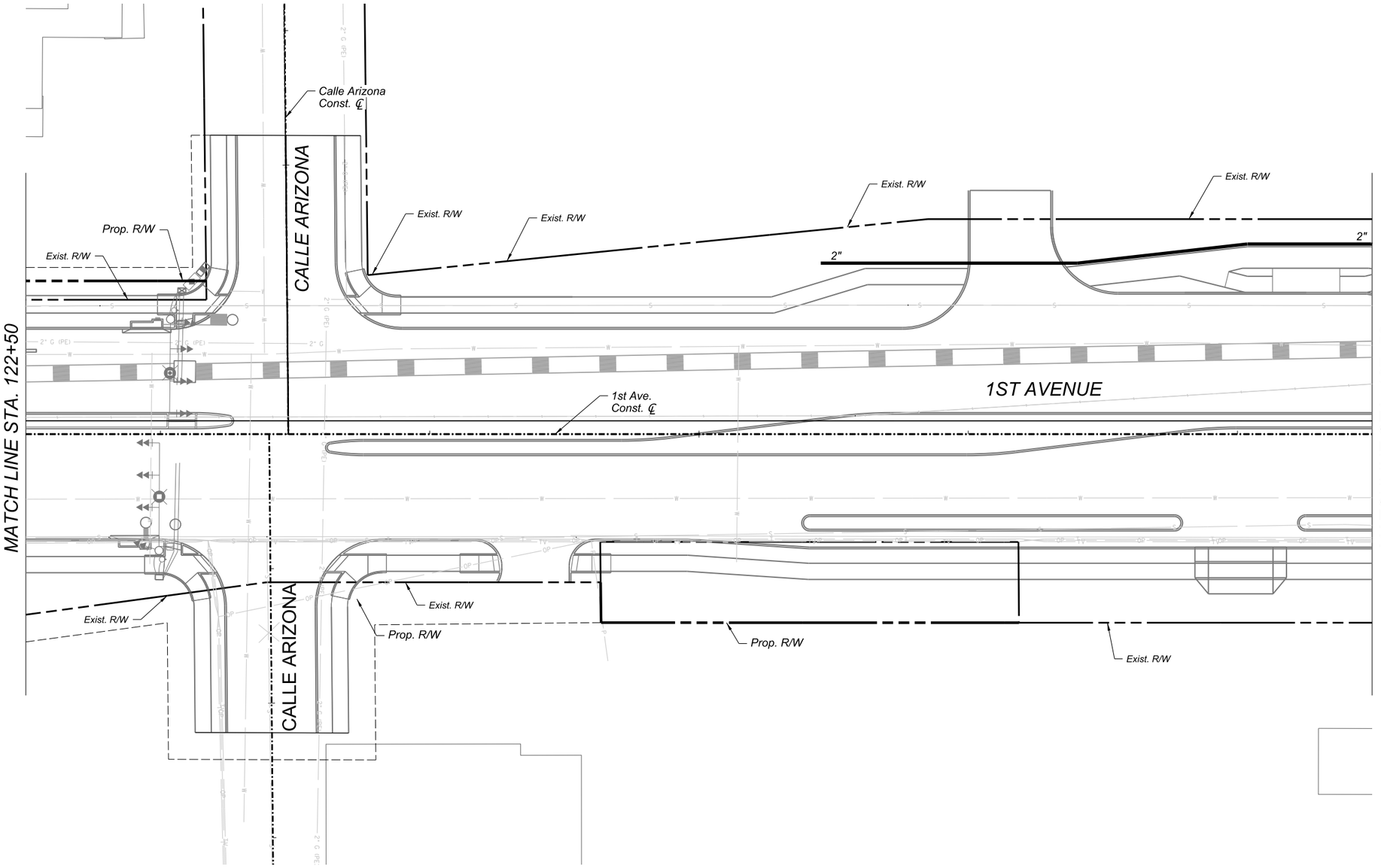
CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

OpenRoads Designer v10.12.02.4
8/21/2026
1:01:17 PM
Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d4520438\02I-19.dgn
8/21/2026 1:01:17 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:01:27 PM



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

1st Ave 122+50 to 127+50
IRRIGATION PLAN

SHEET 25 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

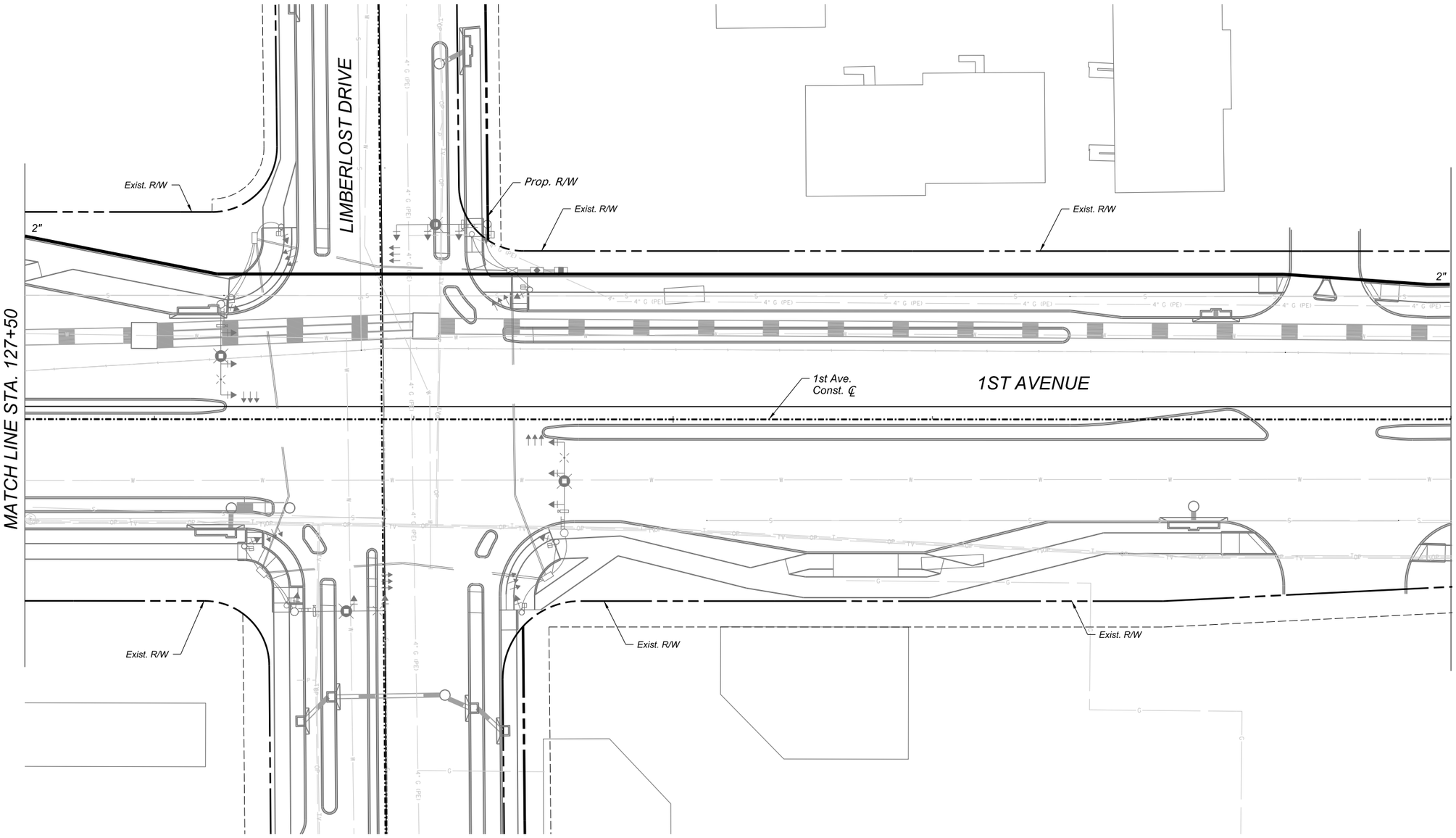
430 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\i02\I-20.dgn
8/21/2026 1:01:27 PM

1:01:35 PM 8/21/2026 OpenRoads Designer v10.12.02.4
Printed by: JEllis
Print Scale: 1:1
Pentables: 1stAve_Pen-j2.tbl
Plotdriver: DN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20'
AL	SP	KW	PLAN NO. R-2024-XXX
AUG 2026	AUG 2026	AUG 2026	

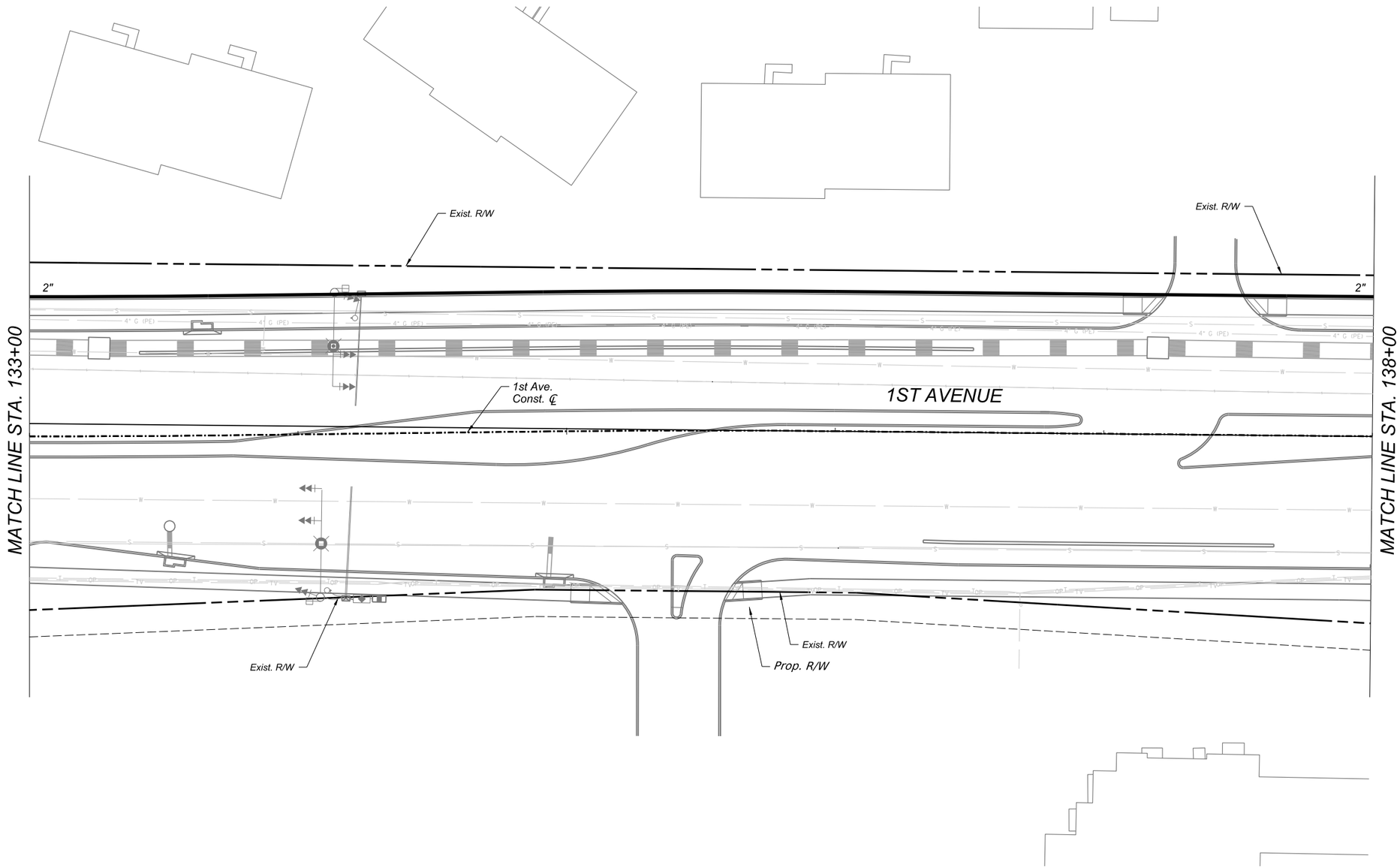
1st Ave 127+50 to 133+00
IRRIGATION PLAN

SHEET 26 OF 42

431 OF 504

c:\pwworking\west01\d4520438\02\I-21.dgn
8/21/2026 1:01:35 PM

1:01:44 PM 8/21/2026 OpenRoads Designer v10.12.02.4



Printed by: JEIls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

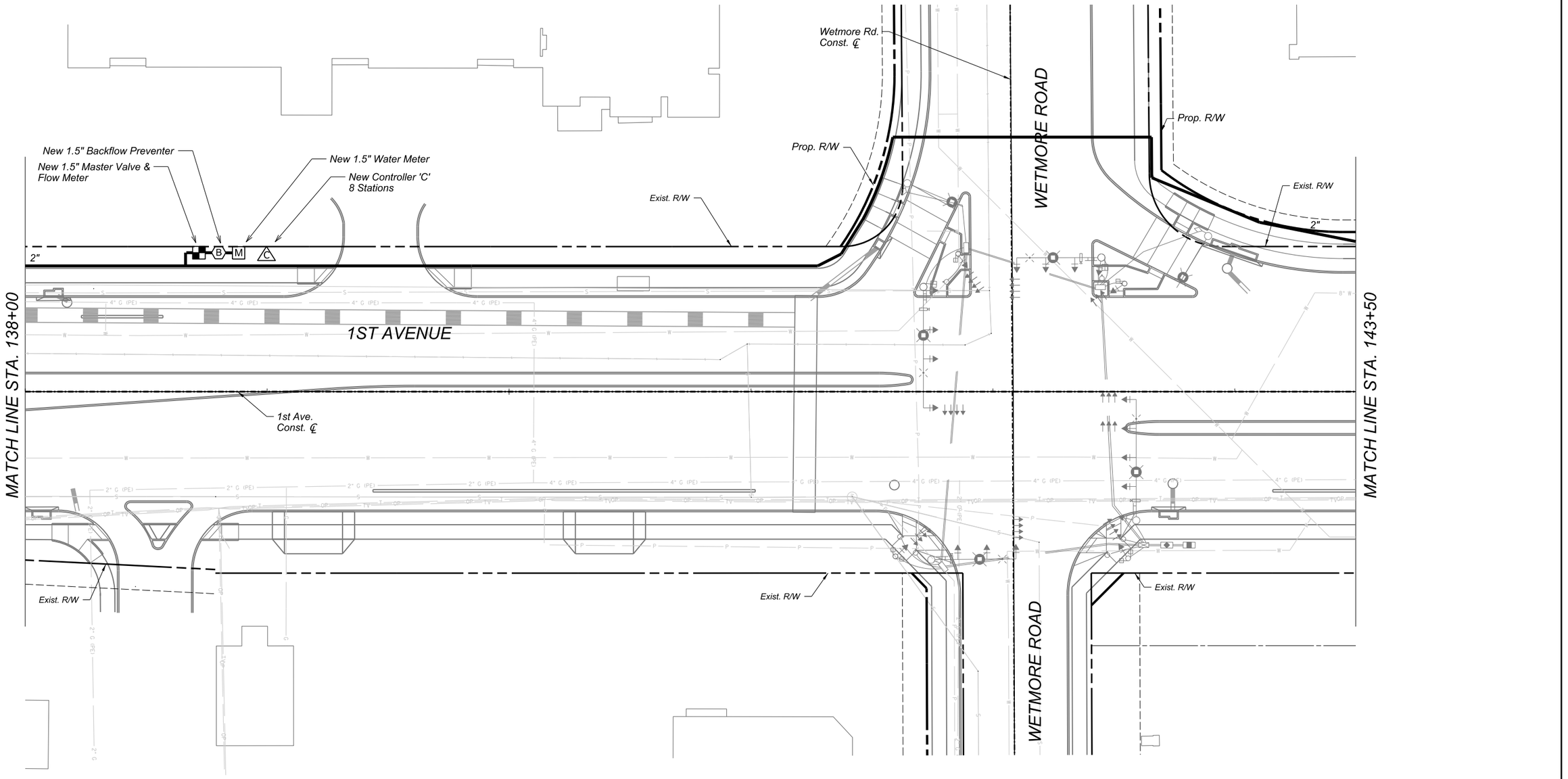
DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 133+00 to 138+00
IRRIGATION PLAN

SHEET 27 OF 42

c:\pwworking\west01\d4520438\02\I-22.dgn
8/21/2026 1:01:44 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:01:53 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdrvr: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 20'
AL	SP	KW	
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

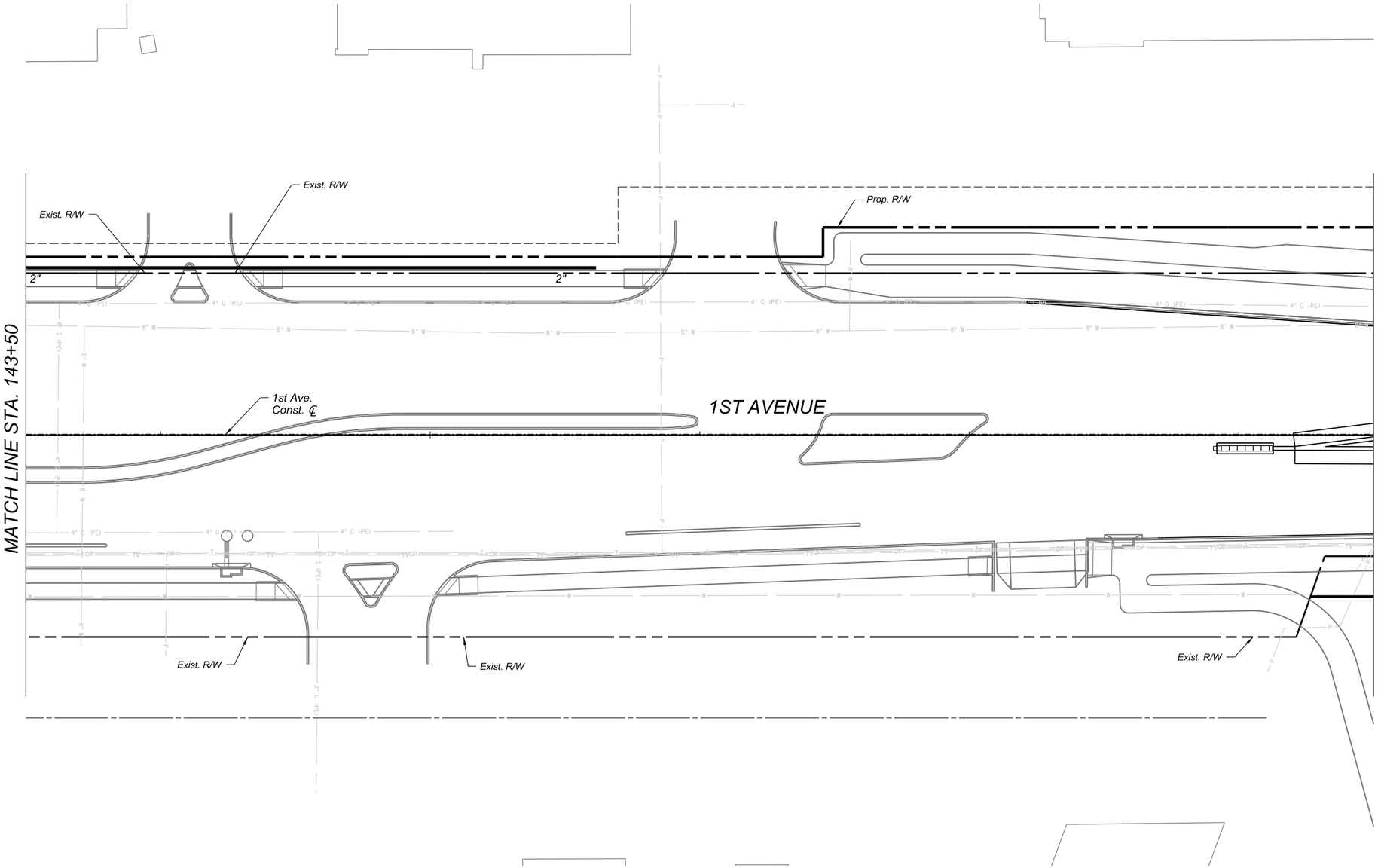
433 OF 504

1st Ave 138+00 to 143+50
IRRIGATION PLAN

SHEET 28 OF 42

c:\pwworking\west01\d4520438\i02i-23.dgn
8/21/2026 1:01:53 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:02:03 PM



Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.altcfg
Project ID:
Client Number: 4109

1st Ave 143+50 to 148+50
IRRIGATION PLAN

SHEET 29 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

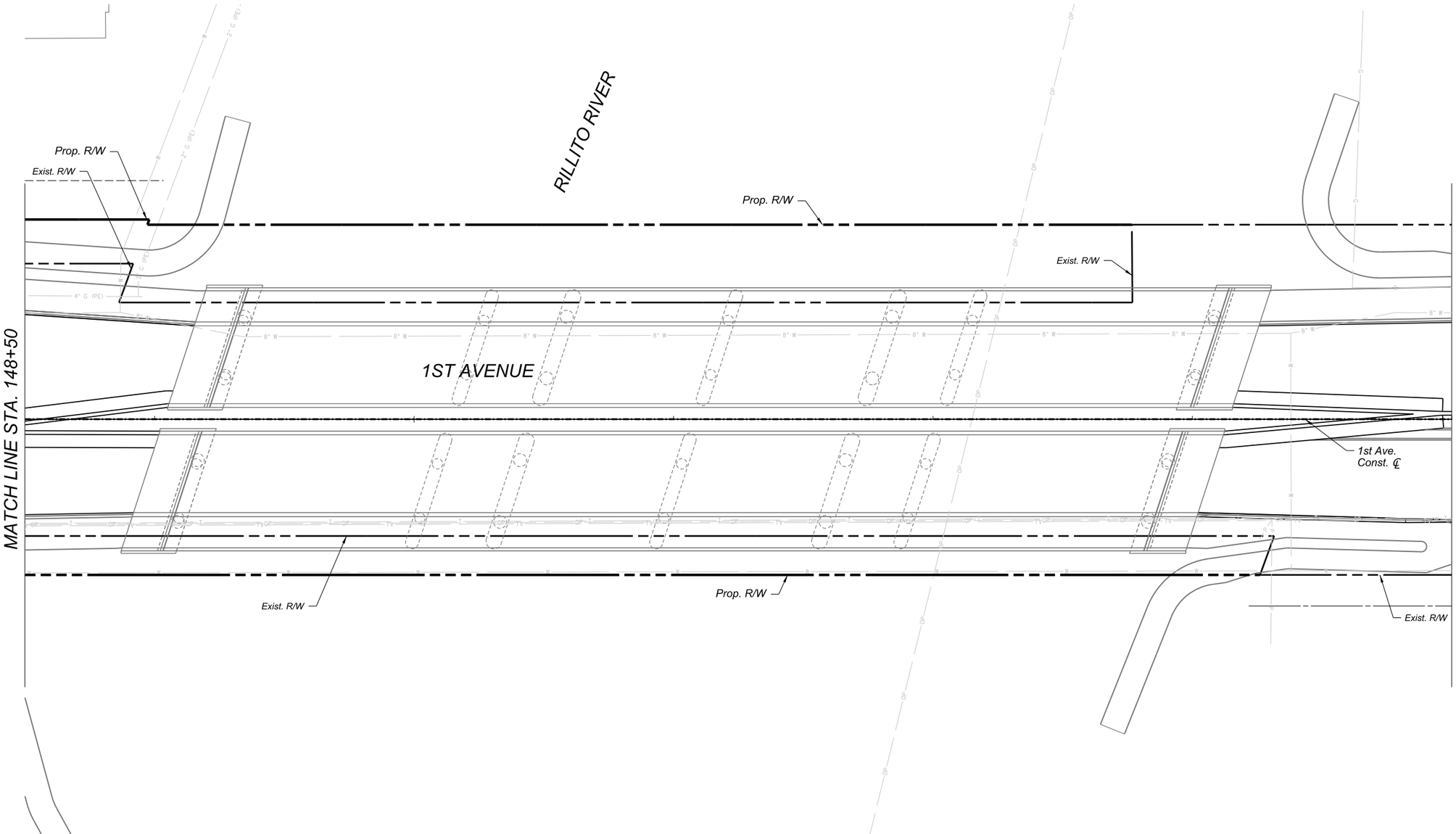
434 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\02\1-24.dgn
8/21/2026 1:02:03 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:02:10 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY AL	CHKD. BY SP	APPR. BY KW	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

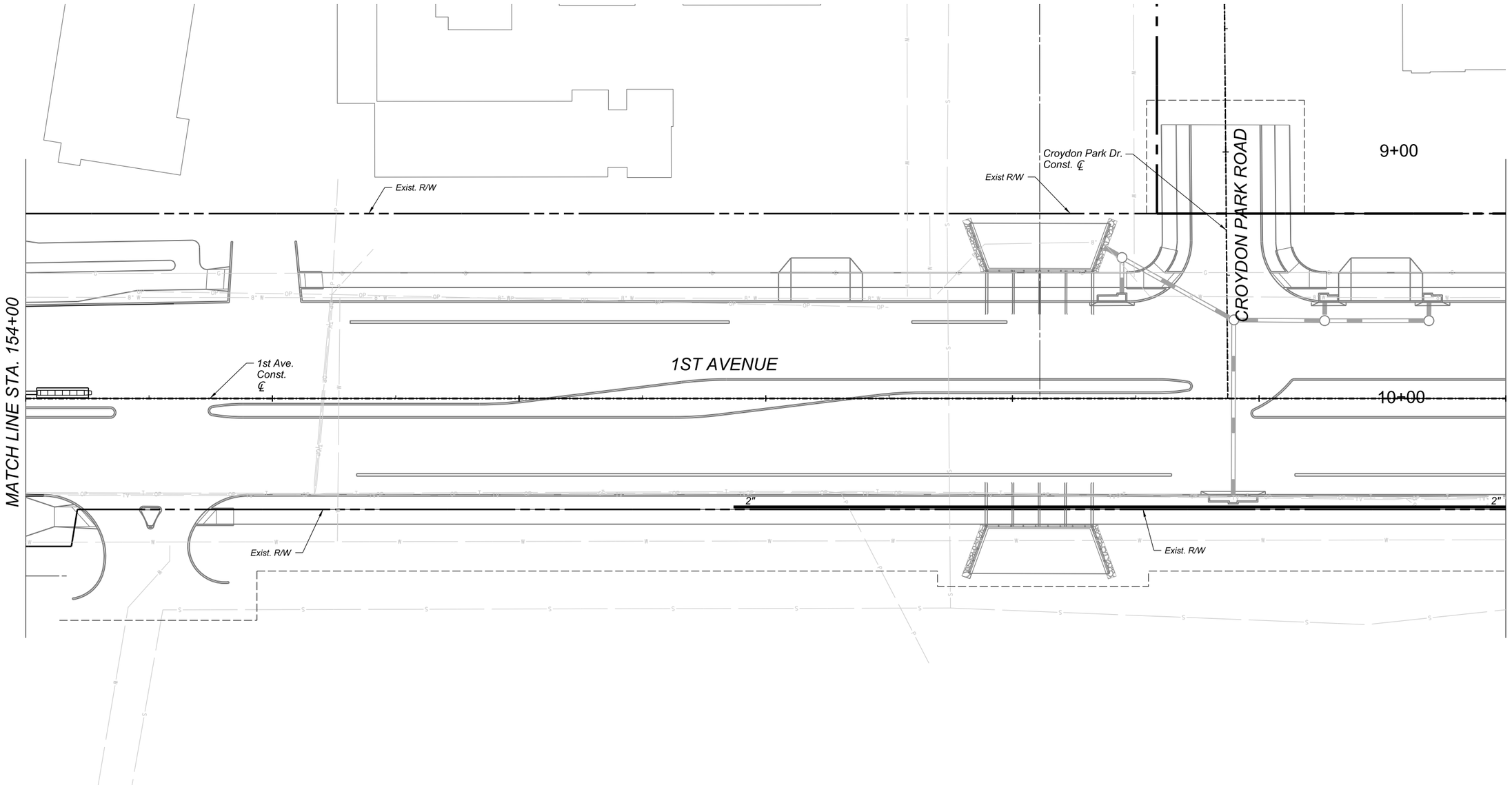
435 OF 504

1st Ave 148+50 to 154+00
IRRIGATION PLAN

SHEET 30 OF 42

c:\pwworking\west01\d4520438\02\I-25.dgn
8/21/2026 1:02:10 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:02:19 PM



Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109

1st Ave 154+00 to 160+00
IRRIGATION PLAN

SHEET 31 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

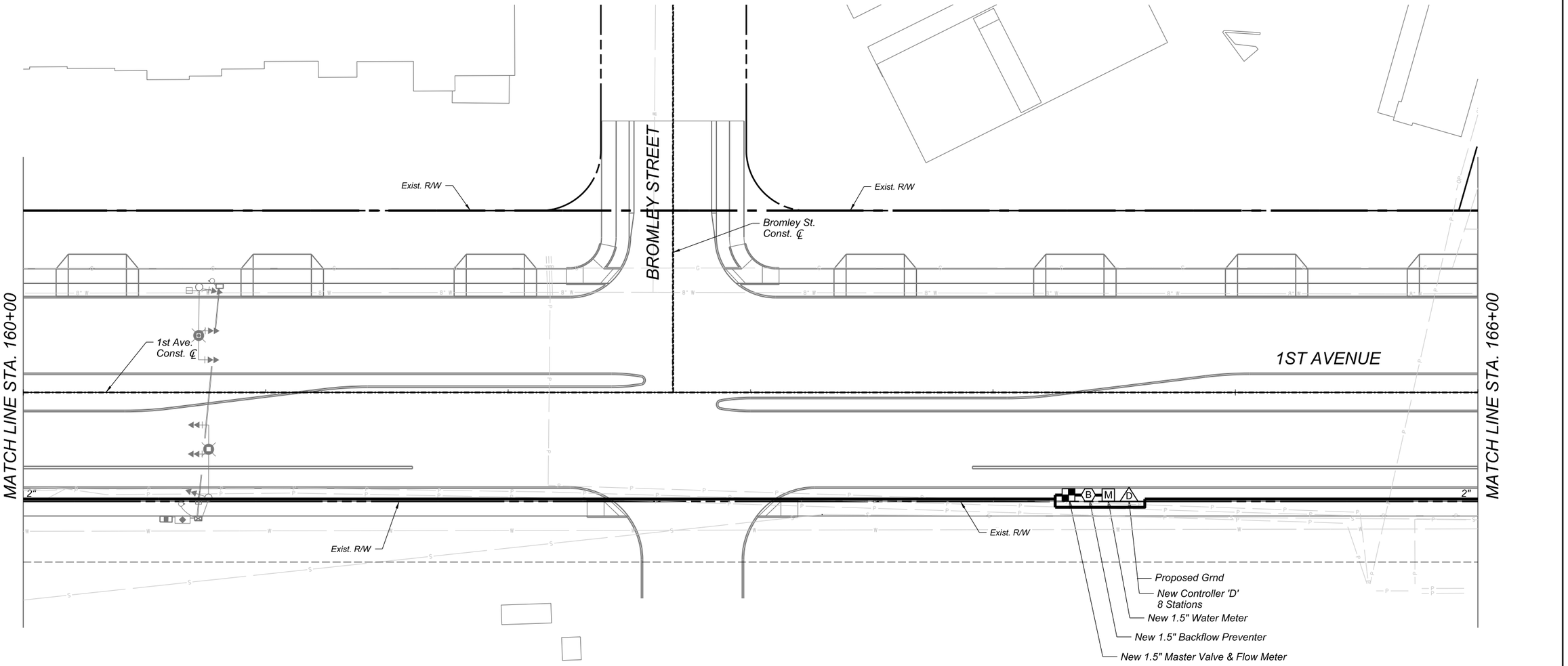
436 OF 504

CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\i02\I-26.dgn
8/21/2026 1:02:19 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:26:14 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

437 OF 504

CITY OF TUCSON

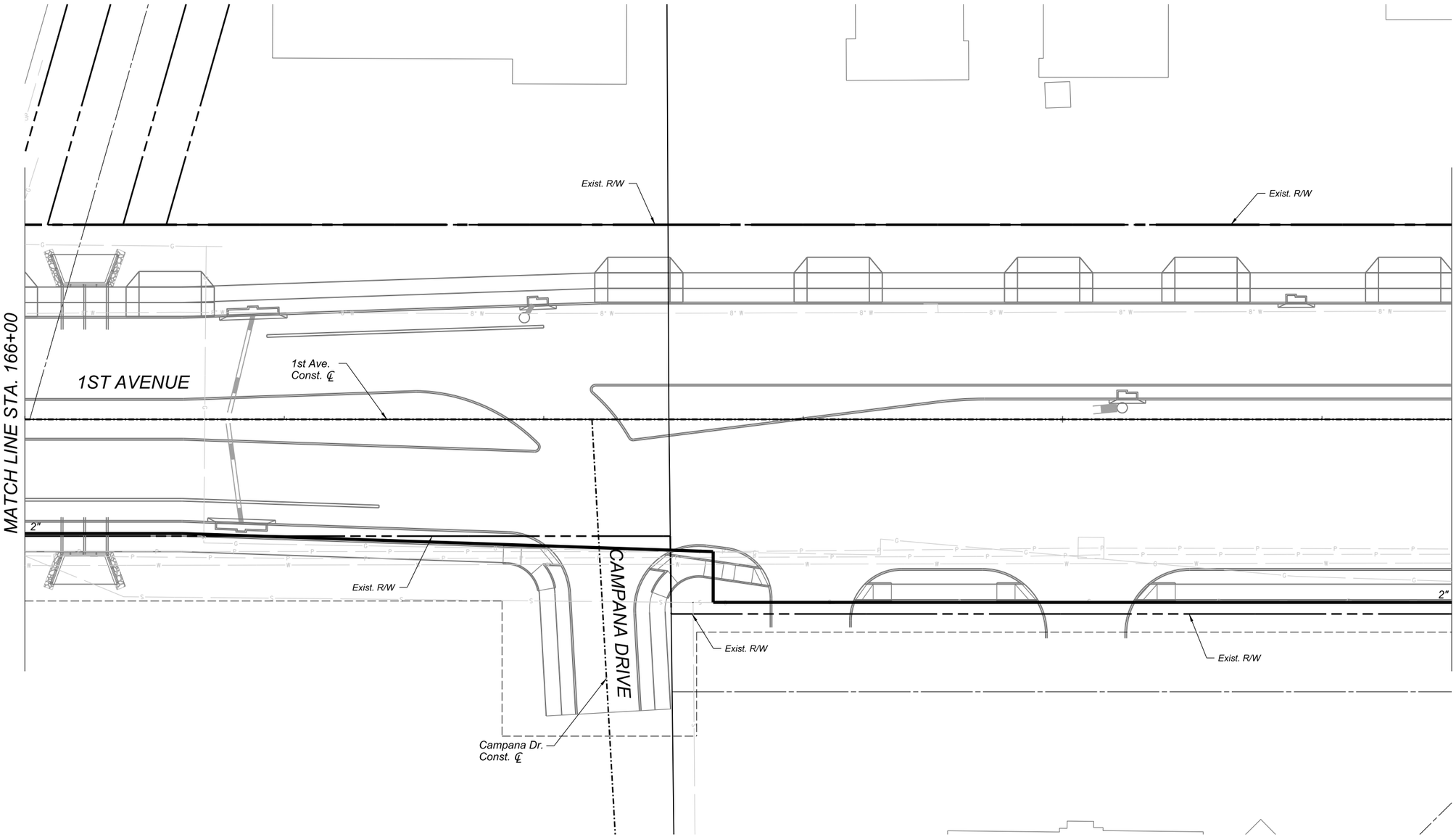
DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 160+00 to 166+00
IRRIGATION PLAN

SHEET 32 OF 42

c:\pwworking\west01\d4520438\i02i-27.dgn
8/21/2026 1:26:14 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:02:34 PM



Printed by: JElls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

1st Ave 166+00 to 171+50
IRRIGATION PLAN

SHEET 33 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

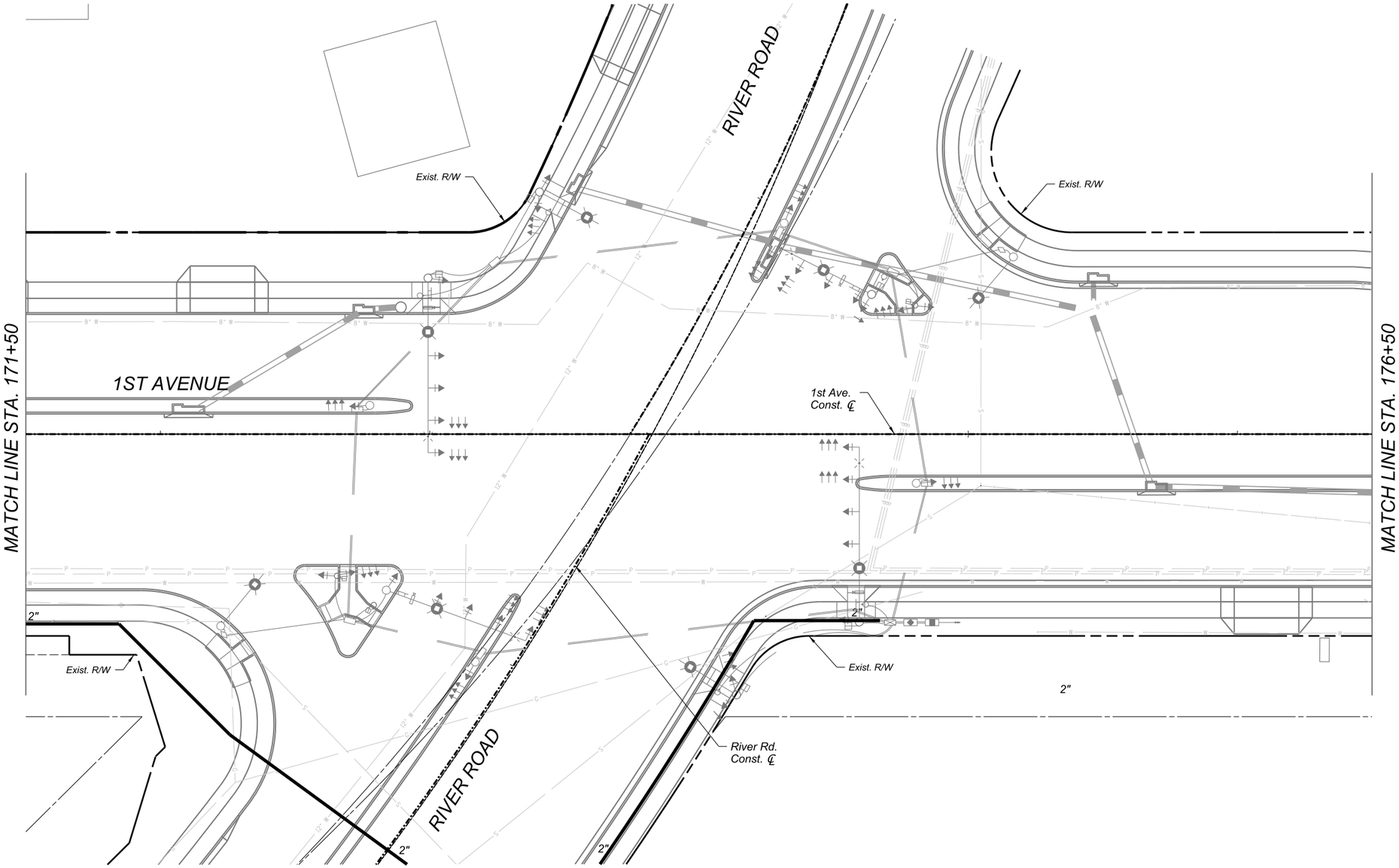
438 OF 504

CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

c:\pwworking\west01\d4520438\i02i-28.dgn
8/21/2026 1:02:34 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:02:43 PM
Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

439 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

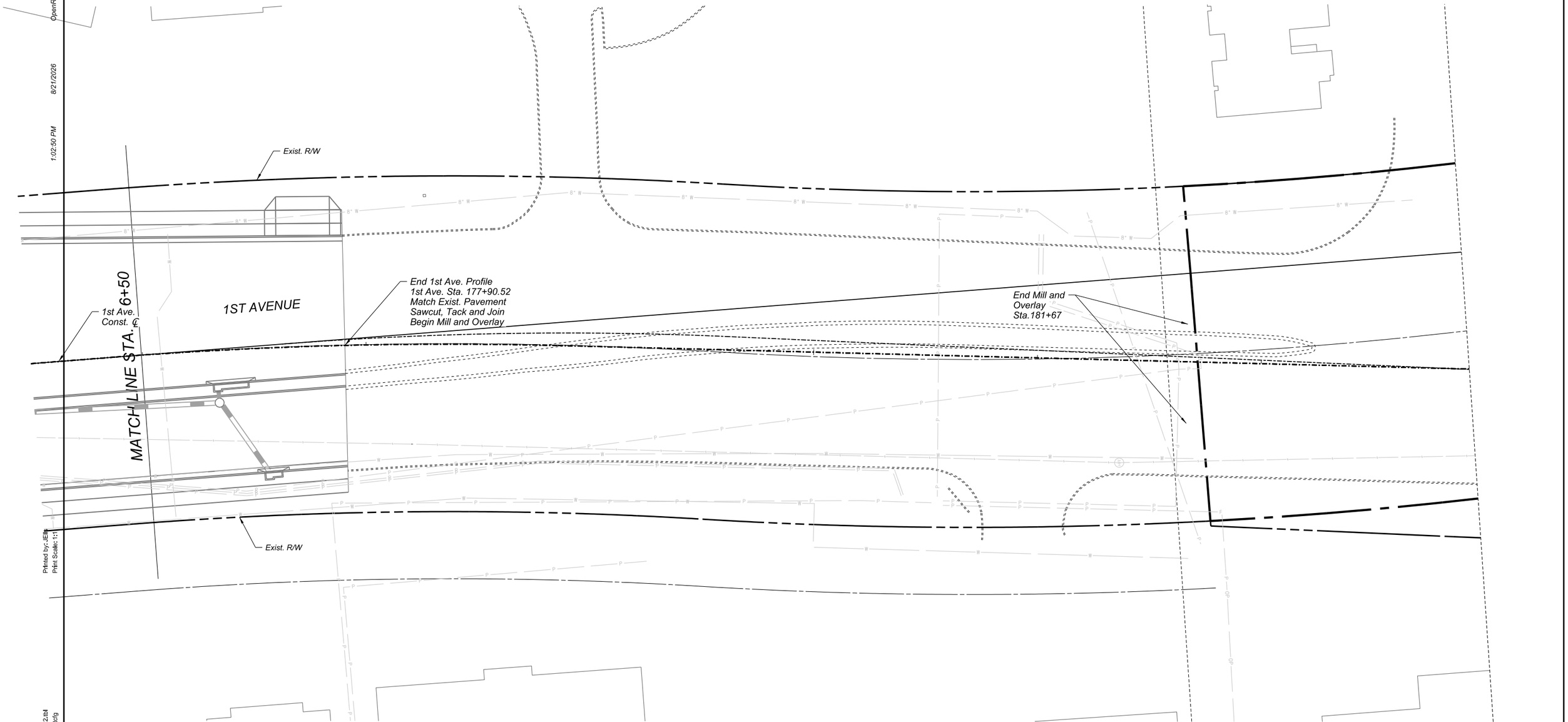
DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

1st Ave 171+50 to 176+50
IRRIGATION PLAN

SHEET 34 OF 42

c:\pwworking\west01\d4520438\02\I-29.dgn
8/21/2026 1:02:43 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:02:50 PM



Printed by: JEllis
Print Scale: 1:1

Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg

Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: *H: 1" = 20'*
PLAN NO. R-2024-XXX

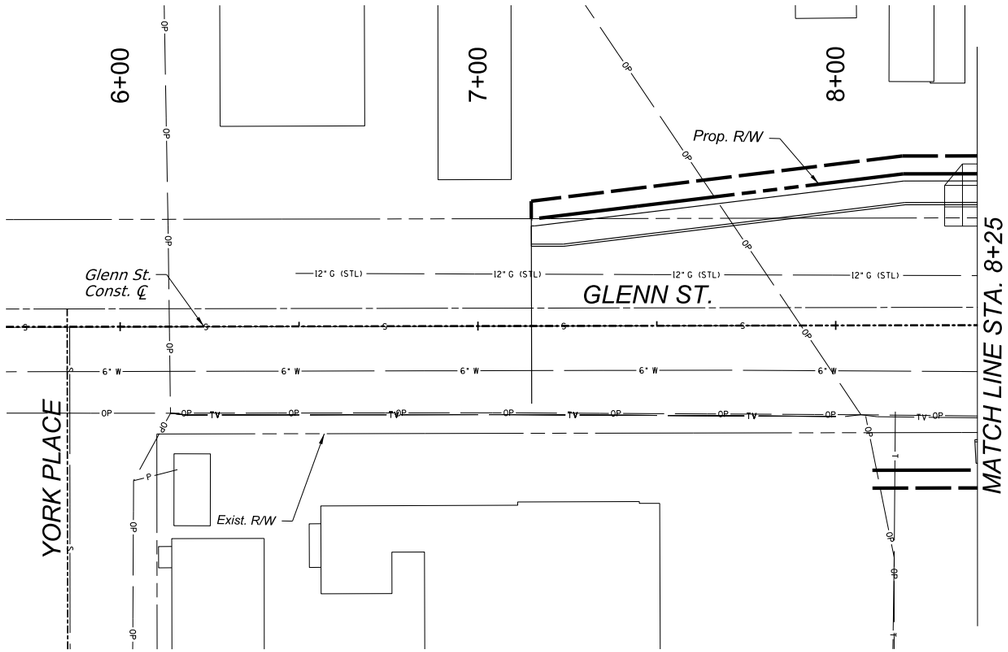
440 OF *504*

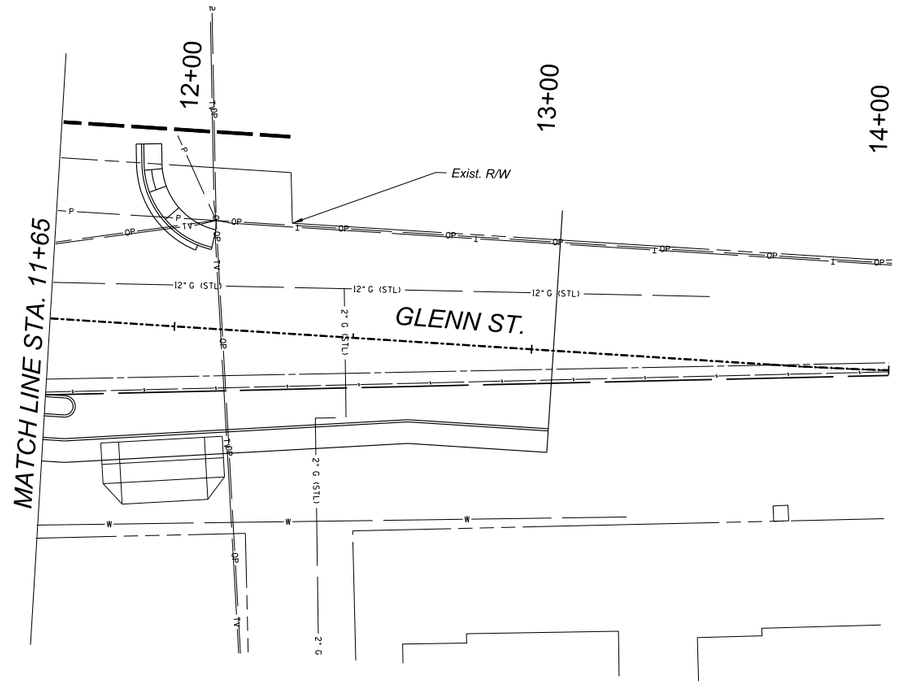
1st Ave 176+50 to End
IRRIGATION PLAN

SHEET 35 OF 42

c:\pwworking\west01\d4520438\02I-30.dgn
8/21/2026 1:02:50 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:02:59 PM
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_Dwpdf.pltcfg
Project ID:
Client Number:4109





0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20' V: 1" = 2'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

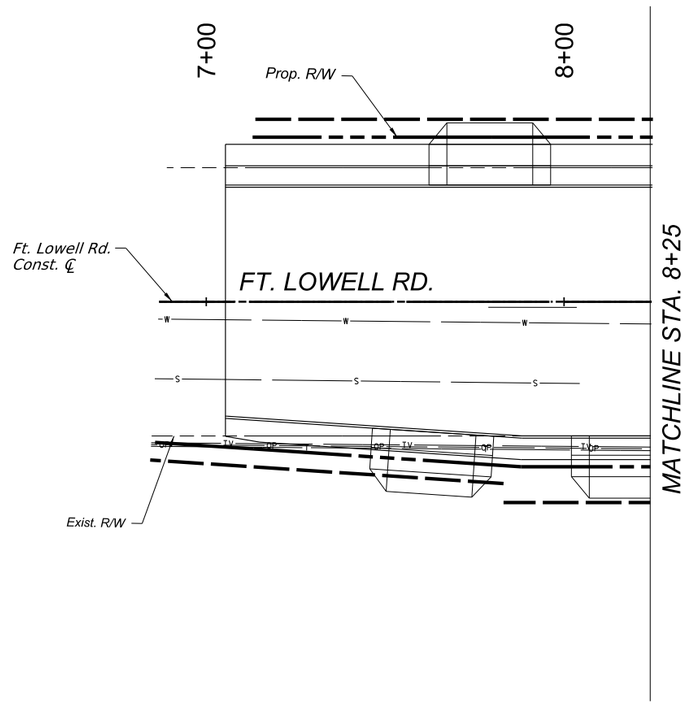
GLENN ST
IRRIGATION PLAN

SHEET 36 OF 42

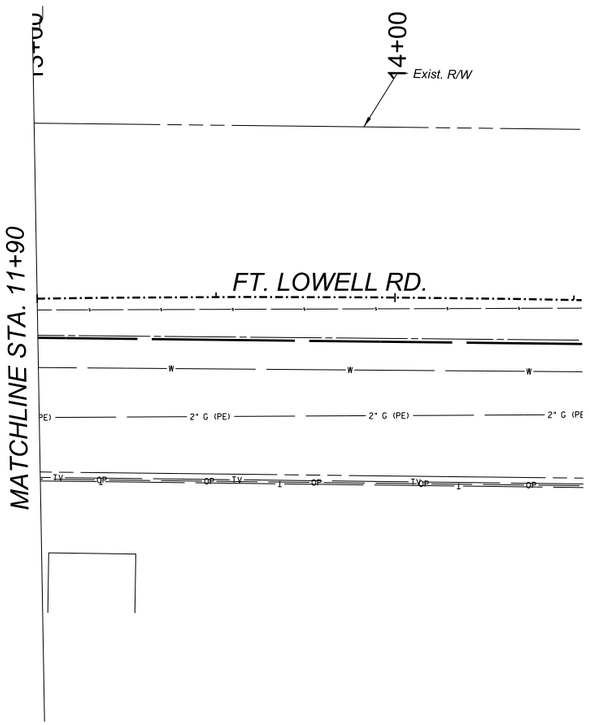
441 OF 504

c:\pwworking\west01\d4520438\i02i-31.dgn
8/21/2026 1:02:59 PM

1:03:09 PM 8/21/2026 OpenRoads Designer v10.12.02.4



1ST AVENUE



Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: DN_bwpdf.plotcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
AL	SP	KW	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

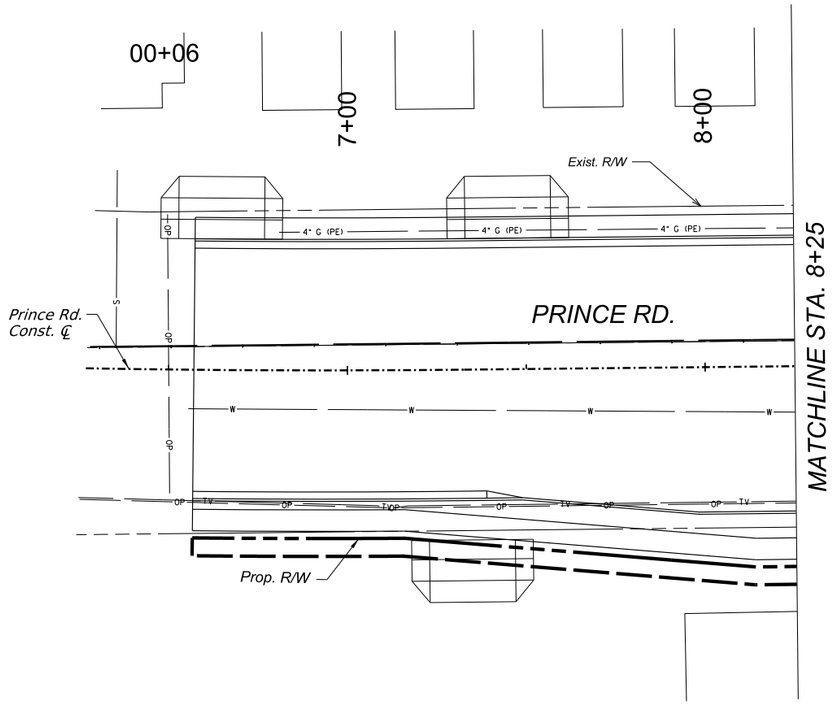
442 OF 504

FT LOWELL RD
IRRIGATION PLAN

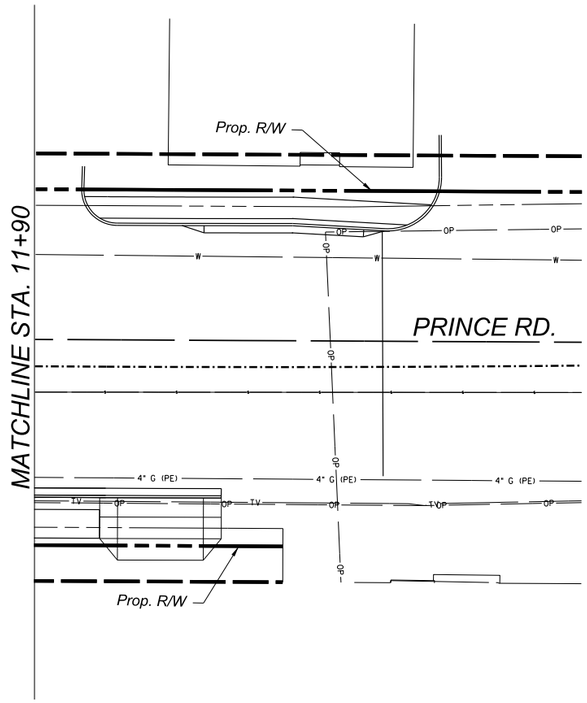
SHEET 37 OF 42

c:\pwworking\west01\d4520438\02\I-32.dgn
8/21/2026 1:03:09 PM

1:03:17 PM 8/21/2026 OpenRoads Designer v10.12.02.4



1ST AVENUE



Printed by: JEllis
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY AL AUG 2026
CHKD. BY SP AUG 2026
APPR. BY KW AUG 2026
SCALE: H: 1" = 20'
PLAN NO. R-2024-XXX

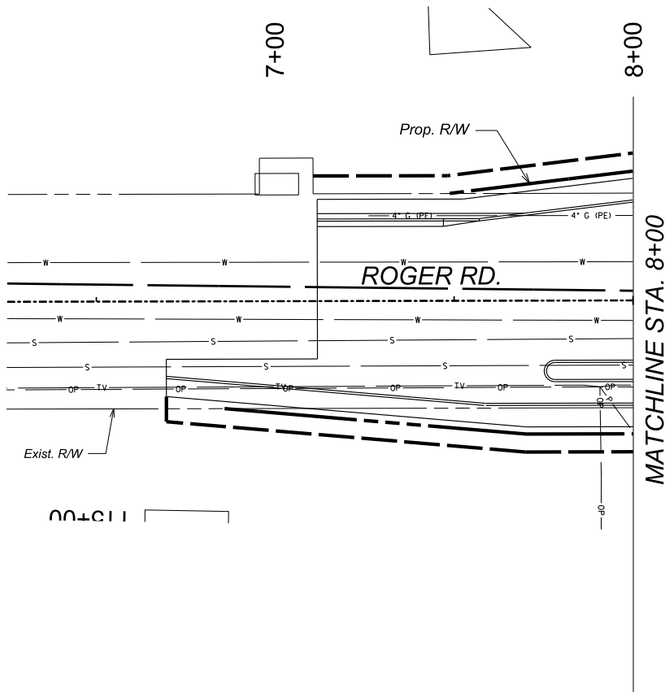
443 OF 504

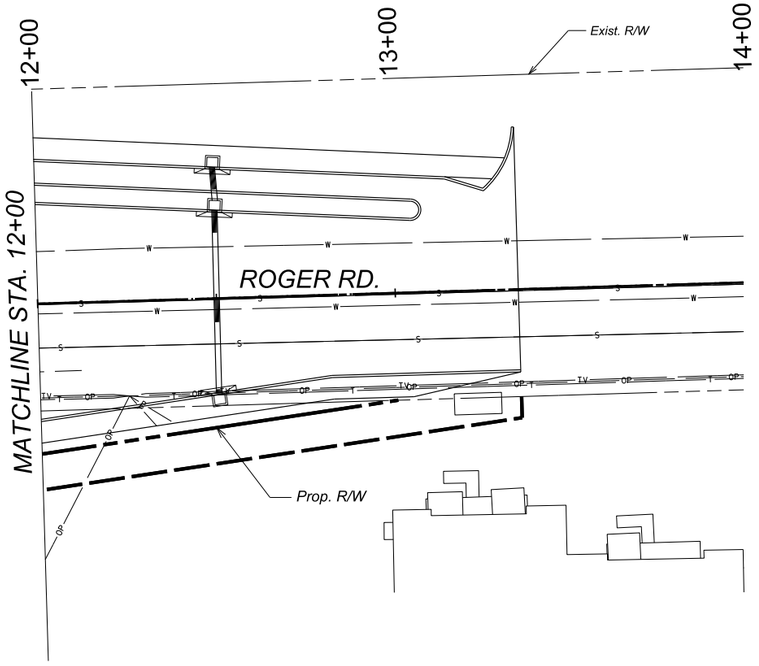
PRINCE RD
IRRIGATION PLAN

SHEET 38 OF 42

c:\pwworking\west01\d4520438\i02\i-33.dgn
8/21/2026 1:03:17 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:03:26 PM





Printed by: JElls
Print Scale: 1:1
Pentables: 1stAve_Pen-J2.tbl
Plotdriver: DN_bwpdf.pltcfg
Project ID:
Client Number: 4109

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

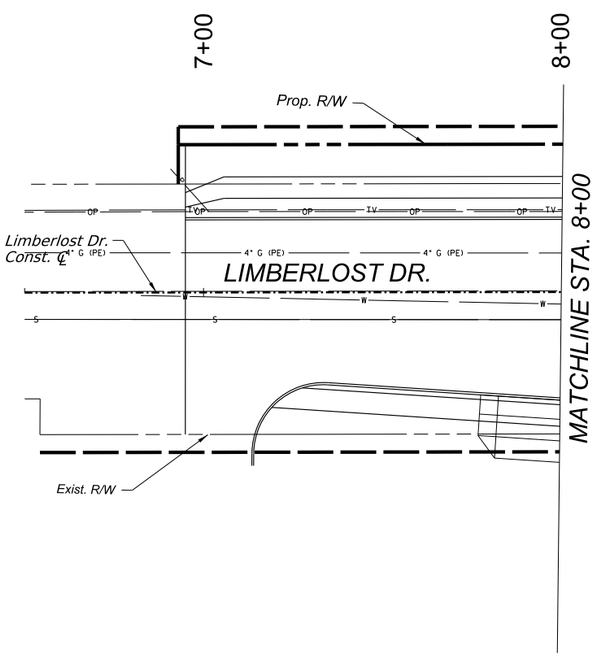
444 OF 504

ROGER RD
IRRIGATION PLAN

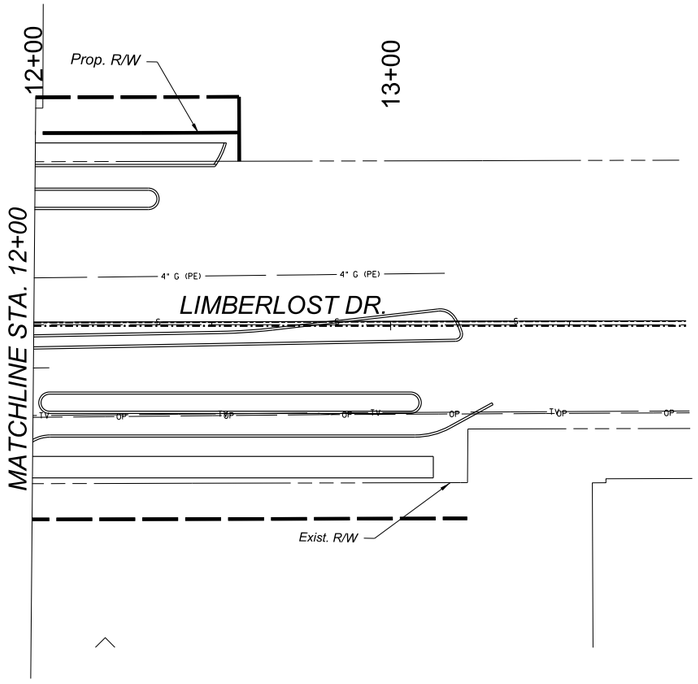
SHEET 39 OF 42

c:\pwworking\west01\d4520438\02\I-34.dgn
8/21/2026 1:03:26 PM

1:03:34 PM 8/21/2026 OpenRoads Designer v10.12.02.4



1ST AVENUE



LIMBERLOST DR
IRRIGATION PLAN

SHEET 40 OF 42

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

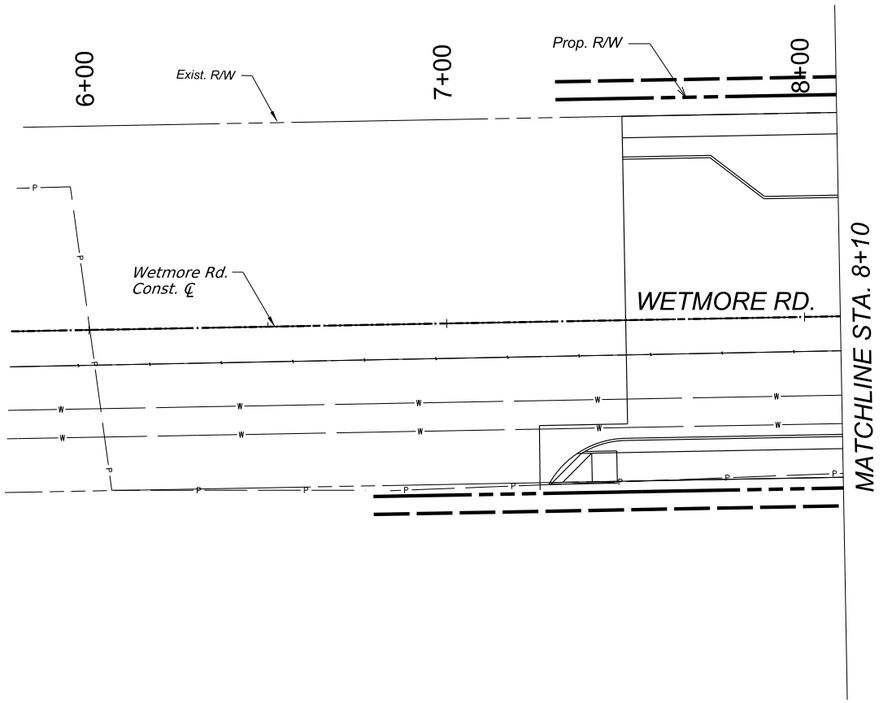
445 OF 504

CITY OF TUCSON

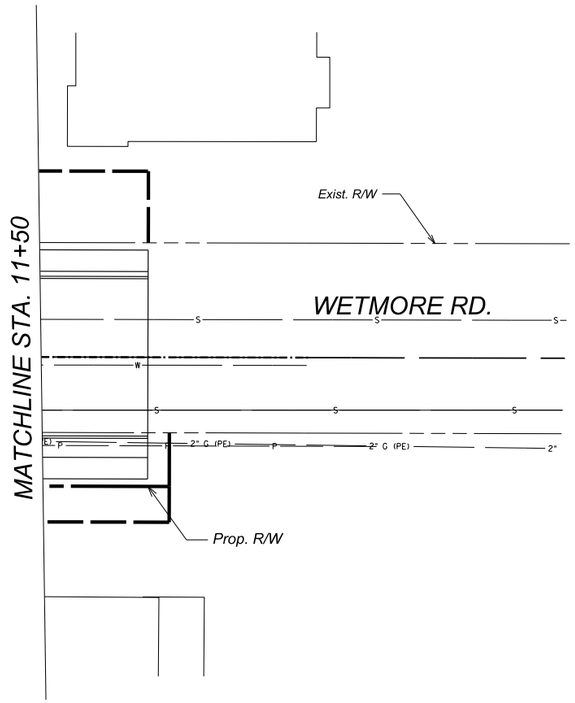
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Project ID:
Client Number: 4109
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Plotted by: JEtls
Print Scale: 1:1
c:\pwworking\west01\d4520438\02\I-35.dgn
8/21/2026 1:03:34 PM

1:03:43 PM 8/21/2026 OpenRoads Designer v10.12.02.4
Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: DN_bwpdf.altcfg
Project ID:
Client Number: 4109



1ST AVENUE



0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

446 OF 504

CITY OF TUCSON

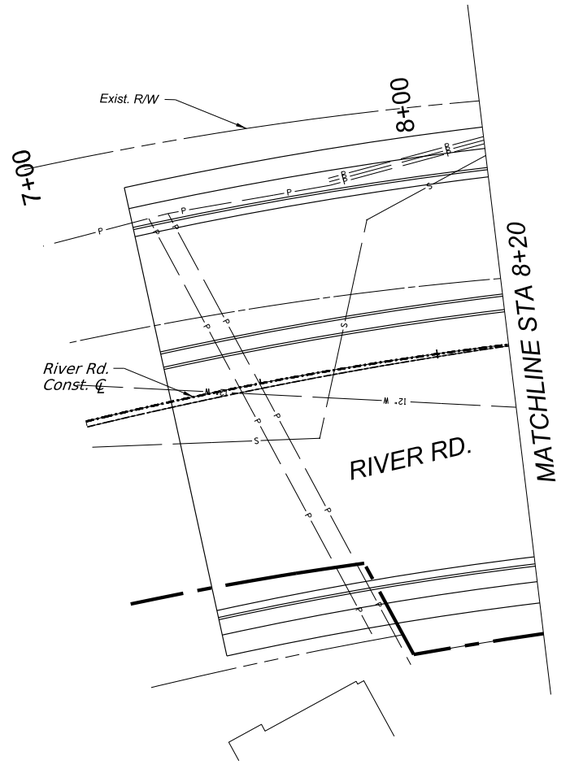
DRWN. BY JE	CHKD. BY JM	APPR. BY LM	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

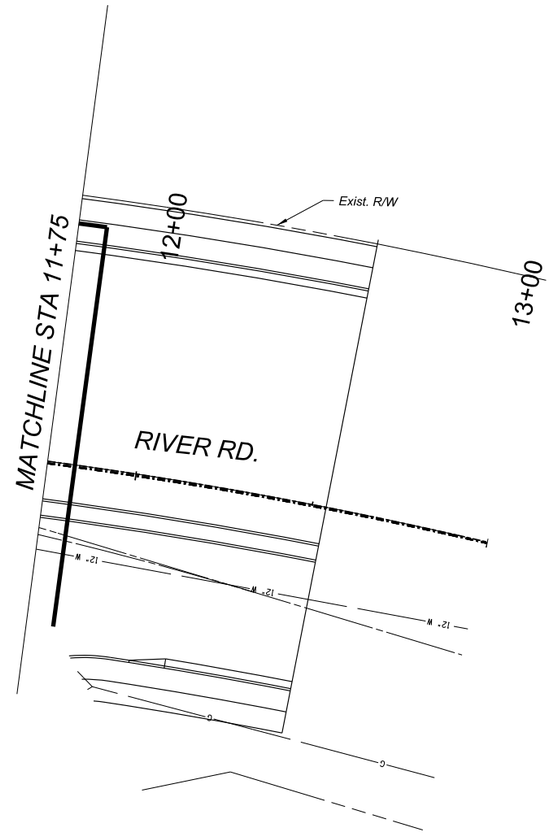
WETMORE RD
IRRIGATION PLAN

SHEET 41 OF 42

c:\pwworking\west01\d4520438\02\I-36.dgn
8/21/2026 1:03:43 PM

OpenRoads Designer v10.12.02.4
8/21/2026
1:03:51 PM
Printed by: JEllis
Print Scale: 1:1
Pentables: 1stAve_Pen-J2.tbl
Plotdriver: GN_twpdf.pltcfg
Project ID:
Client Number: 4109





SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

447 OF 504

CITY OF TUCSON

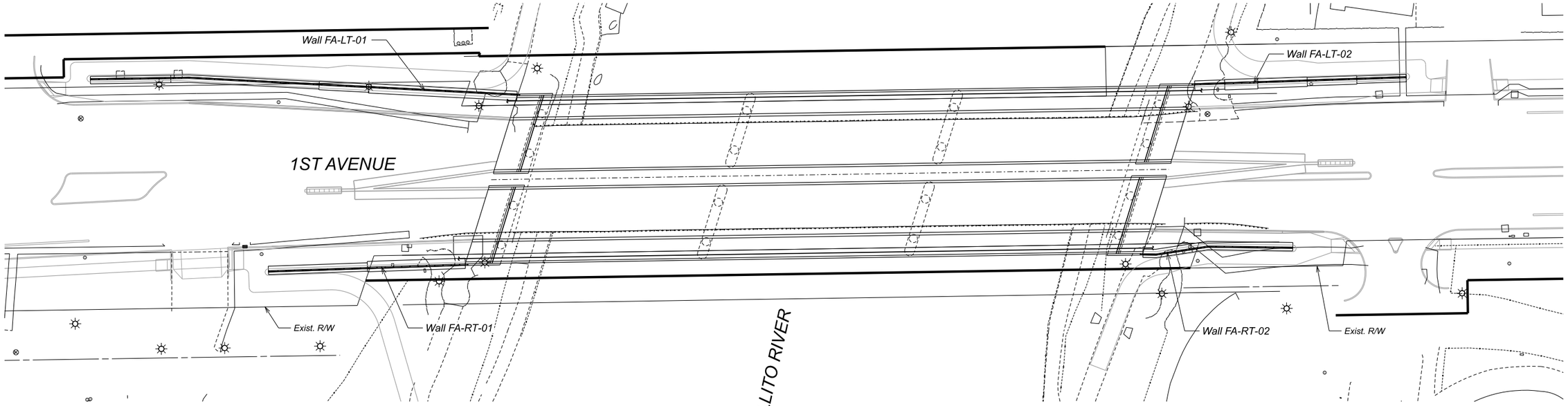
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JE	JM	LM	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

RIVER RD
IRRIGATION PLAN

SHEET 42 OF 42

c:\pwworking\west01\d4520438\02\I-37.dgn
8/21/2026 1:03:51 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:30:29 PM

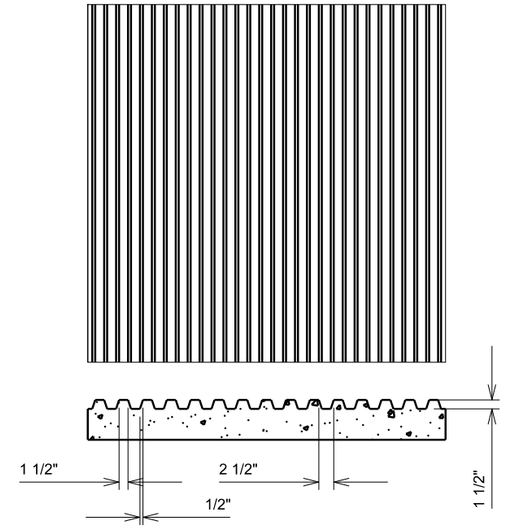


LOCATION MAP
Scale: 1:30

ARCHITECTURAL TREATMENT NOTES

1. Retaining walls and concrete parapets will include a combination of custom and standard formliners, and paint with graffiti coat. Paint colors - TBD.
2. Construction details and dimensions will be included in subsequent submittals.

EVEN VERTICAL RUSTICATION



ARCHITECTURAL TREATMENT PLAN COVER SHEET

SHEET 1 OF 3

Printed by: JEills
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.altcfg
Project ID:
Client Number: 4109

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

448 OF 504

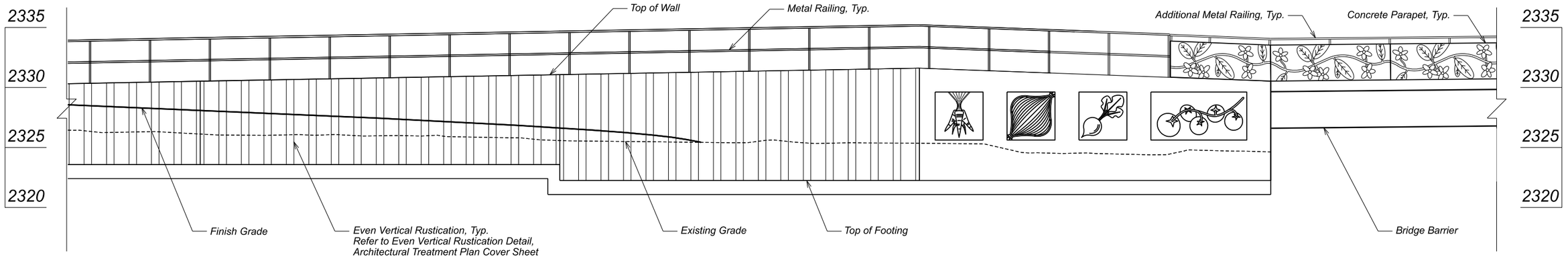
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
PV, LM, DS	PV	LM	
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

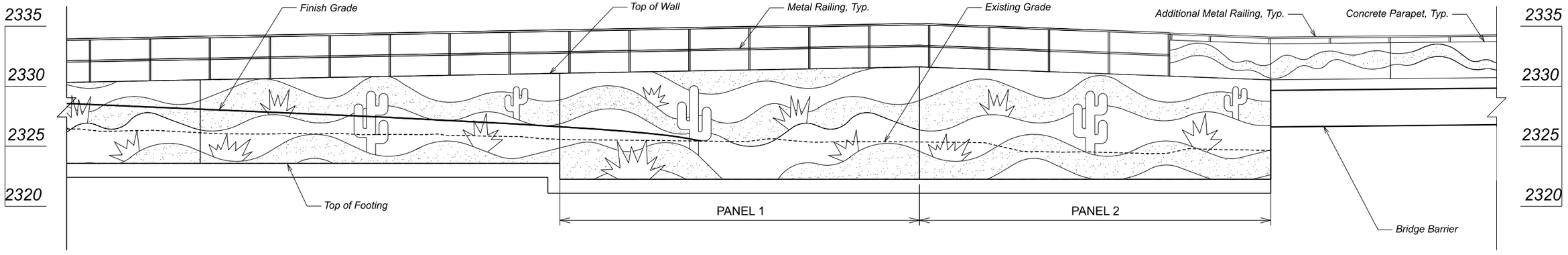
c:\pwworking\west01\d4520442\00A-01.dgn
8/14/2026 12:30:29 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:30:31 PM

FARMER'S MARKET



DESERT FLOW



Printed by: JEtts
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.plotcfg
Project ID:
Client Number: 4109

ARCHITECTURAL TREATMENT PLAN
CONCEPT PLAN

SHEET 2 OF 3

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

449 OF 504

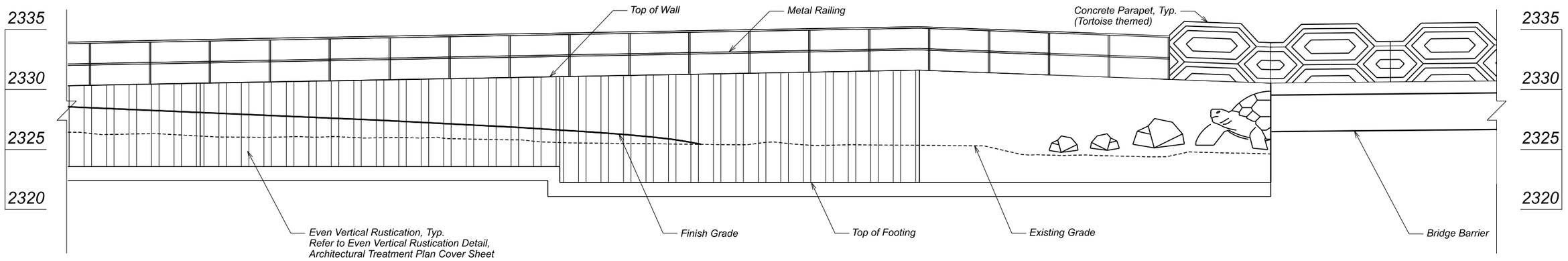
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
PV, LM, DS	PV	LM	
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

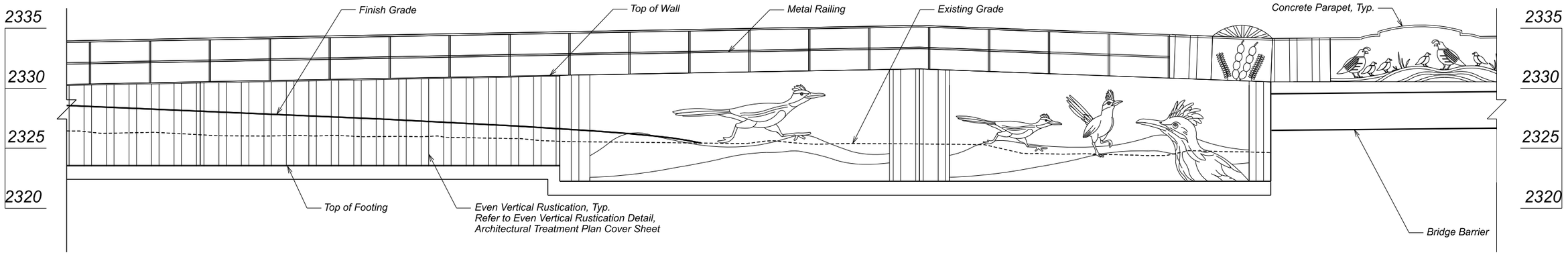
c:\pwworking\west01\d4520442\01A-01.dgn
8/14/2026 12:30:31 PM

OpenRoads Designer v10.12.02.4
8/14/2026
12:30:32 PM

DESERT TORTOISE



RILLITO FEATHERED FRIENDS



Printed by: JEtls
Print Scale: 1:1
Pentable: 1stAve_Pen-J2.tbl
Plotdriver: GN_bwpdf.pltcfg
Project ID:
Client Number: 4109

ARCHITECTURAL TREATMENT PLAN
CONCEPT PLAN

SHEET 3 OF 3

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT
SUBMITTAL
Preliminary
Not For
Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

450 OF 504

CITY OF TUCSON

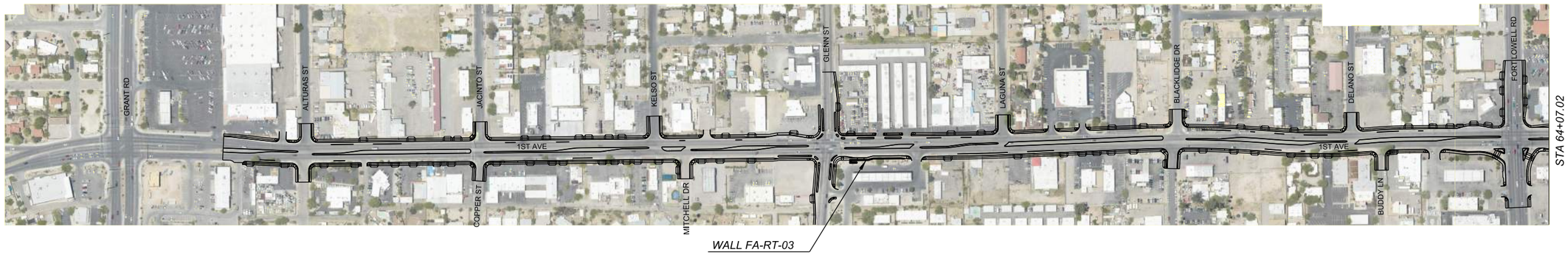
DRWN. BY PV, LM, DS AUG 2026
CHKD. BY PV AUG 2026
APPR. BY LM AUG 2026
SCALE:
PLAN NO. R-2024-XXX

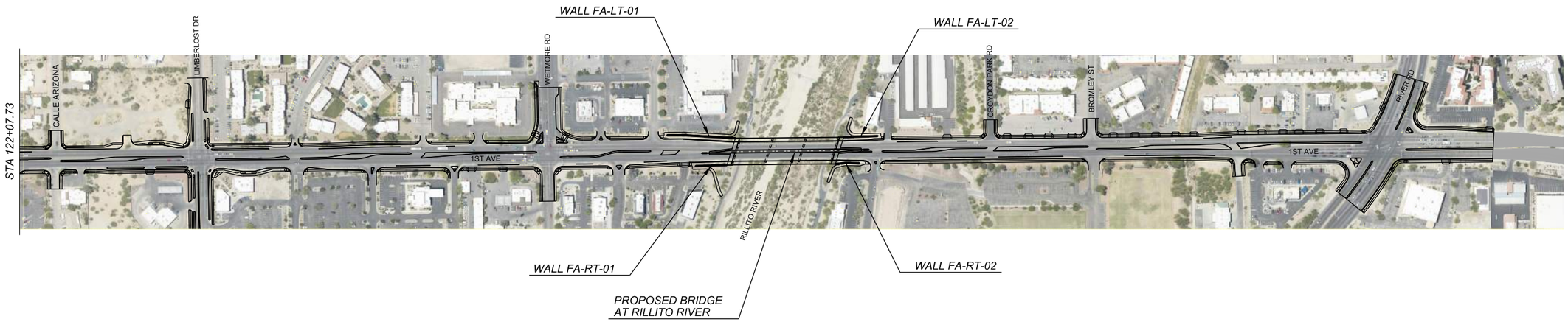
Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

J2 Design

c:\pwworking\west01\d4520442\01A-02.dgn
8/14/2026 12:30:32 PM

OpenRoads Designer v10.12.02.4
8/20/2026
2:21:12 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdrvr: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number: 4109





PLAN
1" = 200'

SHEET INDEX

KEY MAP & SHEET INDEX	RW1.01
GENERAL NOTES & QUANTITIES	RW1.02
WALL FA-RT-01 & FA-RT-02	RW1.03
WALL FA-LT-01 & FA-LT-02	RW1.04
WALL FA-RT-03	RW1.05

0 20 40
SCALE: 1"=200'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JMF	BJK	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

RETAINING WALLS
KEY MAP & SHEET INDEX RW1.01

c:\pwworking\west01\d3987900\17C-01.dgn
8/20/2026 2:21:12 PM

OpenRoads Designer v10.12.02.4
8/19/2026
3:04:53 PM

GENERAL NOTES:

Design Specifications:

American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications, 8th Edition, 2017.

Construction Specifications (Materials & Methods):

Pima Association of Governments (PAG) Standard Specifications for Public Improvements 2015 Edition and the Special Provisions.

Design Loads:

Dead Load:

Concrete	150 lbs. per cubic foot
Steel	490 lbs. per cubic foot
Soil	120 lbs. per cubic foot

Live Load:

HL-93 (2ft Surcharge)

Seismic:

Project Area is categorized as Seismic Zone 1.
Peak Ground Acceleration Coefficient: A_s = 0.12g
Horizontal Response Coefficient: S_{DS} = 0.275g
S_{D1} = 0.118g

Lateral Earth Pressure:

At-Rest:	P_o = 55 psf/ft
Active:	P_a = 35 psf/ft
Passive:	P_p = 360 psf/ft

Concrete:

All concrete shall be Class 'S' (f'c = 3,000 psi), unless noted otherwise,

Concrete material, placing and curing shall be in accordance with the requirements specified in the Standard Specifications and the Special Provisions.

Foundations:

Retaining Walls are to be supported on spread footings. See the Geotechnical Report - 1st Ave. Grant Road to River Road, prepared by HDR Engineering, Inc. dated X,X, 2026.

Reinforcing Steel:

Reinforcing steel shall conform to ASTM Specification A615 furnished as Grade 60, unless noted otherwise.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcement steel shall have 2" clear cover unless noted otherwise.

Coordination:

Contractor shall coordinate all existing conditions during construction of the project. Utility information shown on the drawings may not be complete or accurately depict the location of the facilities shown. The Contractor shall coordinate the location of all existing, new, relocated and abandoned utilities with the project plans and notify respective owners before commencing the work of excavation, including any temporary shoring or drilling. Conflicts shall be brought to the attention of the Engineer and resolved prior to proceeding with the work.

Temporary Works:

The Contractor shall be responsible for providing temporary shoring and bracing as required for protection of workers or as otherwise needed to accomplish the work.

The Contractor shall submit a plan outlining the shoring requirements, the construction procedures, and the design to the Engineer for review and approval prior to proceeding with the work. All drawings and calculations shall be prepared and sealed by a Professional Civil or Structural Engineer registered in the State of Arizona. See the Standard Specifications and the Special Provisions for additional information.

Dimensions:

Dimensions shall not be scaled from drawings.
Vertical dimensions are measured plumb, unless noted otherwise.
Horizontal dimensions are measured level.

The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

Structural Submittals:

The Contractor shall submit all shop drawings (working drawings) and other structural submittals in accordance with the project plans, the Standard Specifications and the Special Provisions.

The following is a partial list of items that will need to be submitted:

Concrete Mix Designs
Reinforcing Steel Shop Drawings
Shoring Plans and Design Calculations

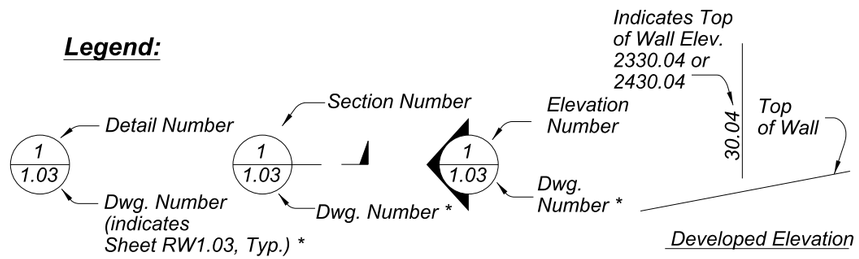
Construction Joints:

Construction joints shall be per ADOT SD 7.01 (2 of 5). Footing shall be continous, with no joints, see footing step details on ADOT SD 7.01 (3 of 5).

Chamfer:

Chamfer all exposed corners ¾" unless noted otherwise.

Legend:



"-" indicates Section or Detail is located on same drawing.

Approximate Quantities

Item	Retaining Walls 6010220 Concrete Retaining Wall S.F.	Structural Excavation C.Y.	Structure Backfill C.Y.	9330009 Handrail (Std. Dtl 105) L. FT.
Wall FA-RT-01	948	-	-	120
Wall FA-RT-02	633	-	-	92
Wall FA-RT-03	1451	-	-	236
Wall FA-LT-01	1764	-	-	260
Wall FA-LT-02	960	-	-	129
Total	5756			837
As Built Total				

Measurement and payment for cast-in-place (CIP) retaining walls is by square foot of wall constructed measured along the layout line from the top of footing to the top of wall.

Structural Excavation and Structure Backfill are provided for informational purposes only.
No separate payment for these items will be made. Overexcavation not included.

RETAINING WALLS
GENERAL NOTES & QUANTITIES RW1.02

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

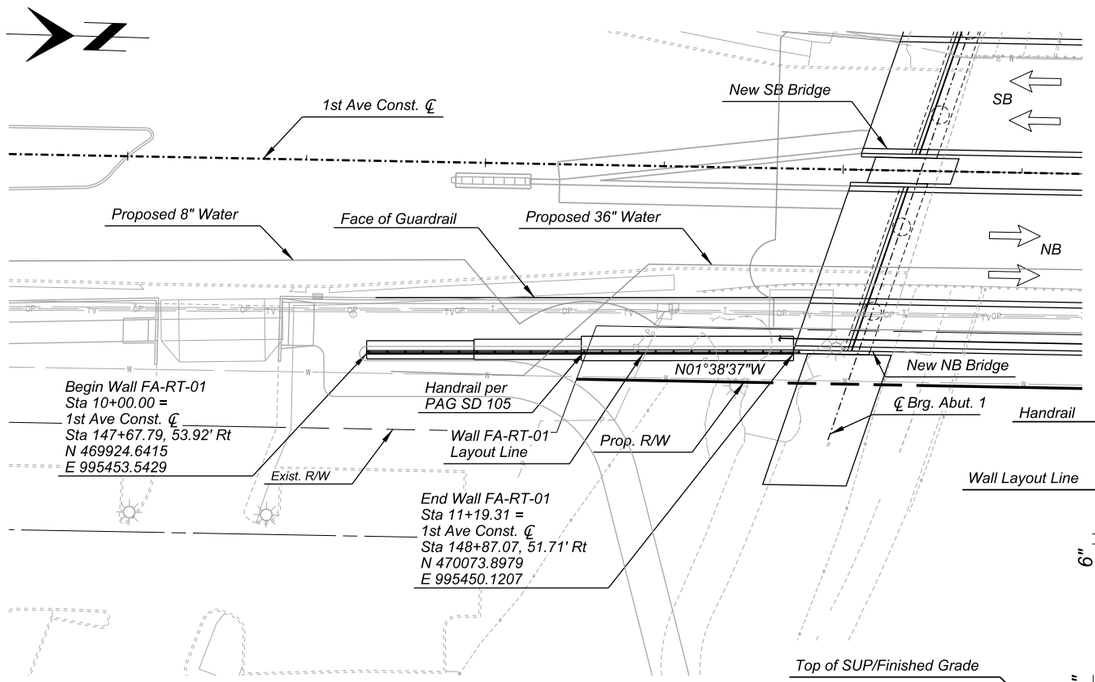
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JMF	BJK	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

452 OF 504

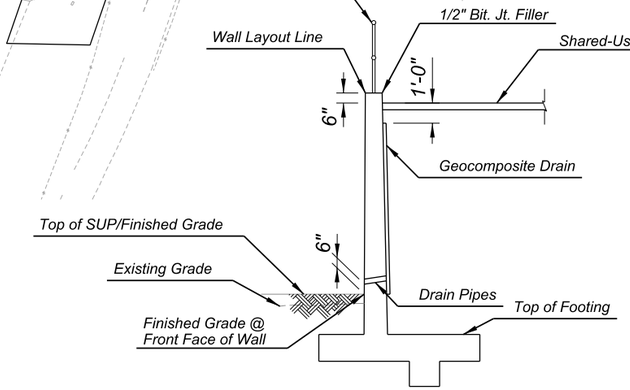
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109

c:\pwworking\west01\d3987900\17C-02.dgn
8/19/2026 3:04:53 PM

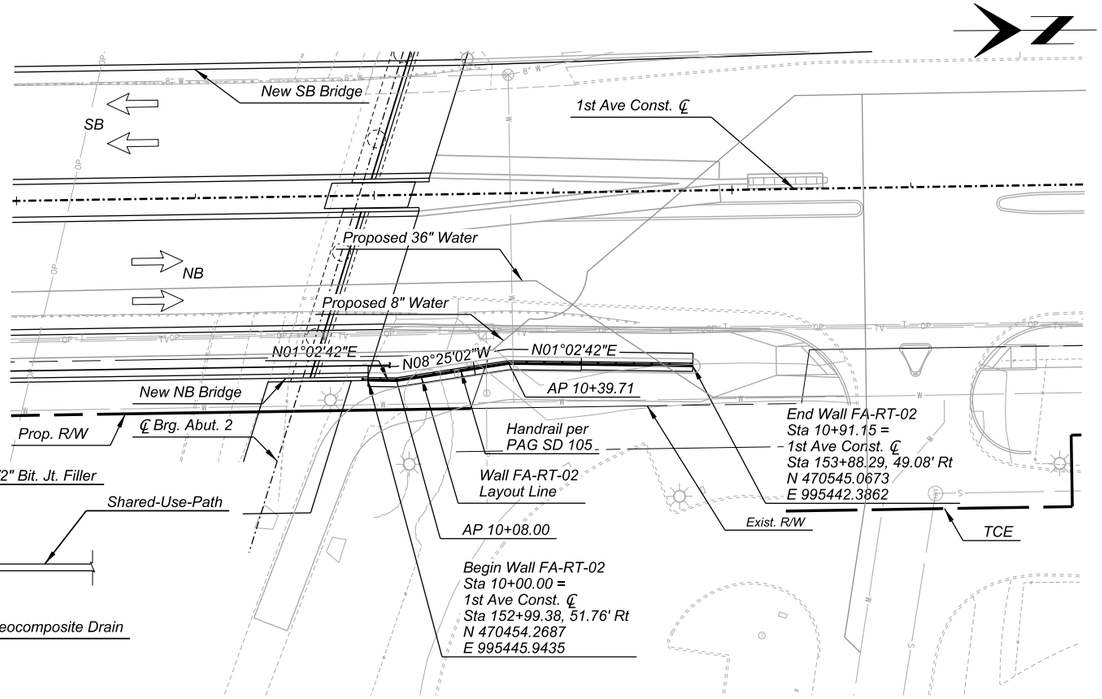
OpenRoads Designer v10.12.02.4
8/19/2026
4:52:46 PM
Printed by: TCOLE
Print Scale: 10.0833333
Printable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_hwpdf_SD.plotcfg
Project ID:
Client Number: 4109



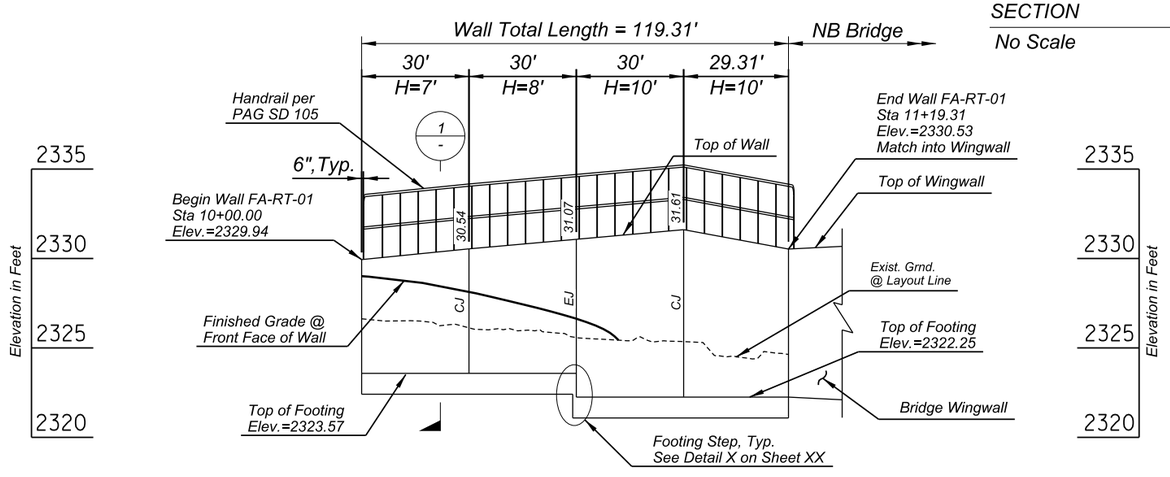
PLAN
1" = 20'- 0"



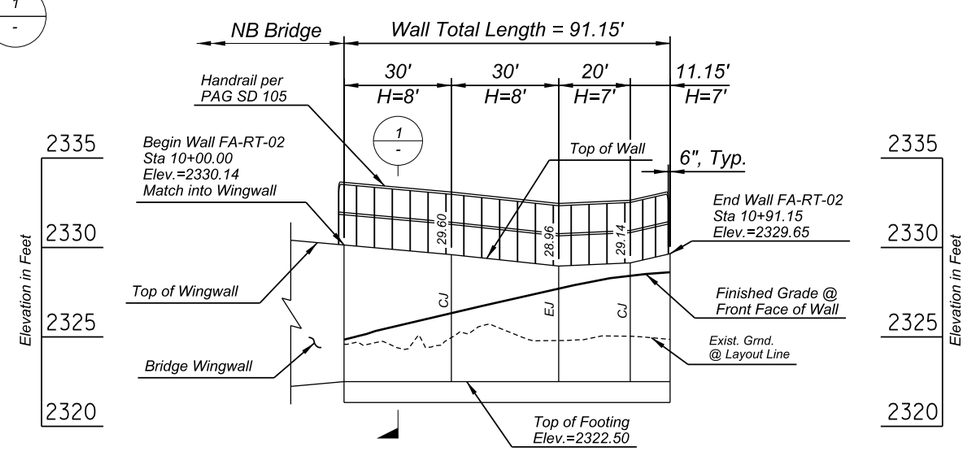
SECTION 1 / -
No Scale



PLAN
1" = 20'- 0"



DEVELOPED ELEVATION
FA-RT-01
1H:4V



DEVELOPED ELEVATION
FA-RT-02
1H:4V

Notes:

1. Retaining walls shall conform to ADOT SD 7.01 (1 to 5) Case II and shall be paid for under Item No. 6010220.
2. The stations and offsets shown are along the retaining wall layout line which is located at the front face of the retaining wall (furthest face from the 1st Ave. Const. CL).
3. Install drain pipes per SD 7.01 and at a maximum spacing of 10'-0" o.c.
4. Handrail and connection to retaining wall shall be per PAG SD 105. Use alternate lower rail location and provide End Treatment 'A'. Handrail shall be paid under Item No. 9330009.

Legend

CJ = Construction Joint
EJ = Expansion Joint
H = Wall Design Height
See ADOT SD7.01 (3 of 5)

0 20 40
SCALE: 1"=20'H

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY TCC	CHKD. BY JC	APPR. BY BJK	SCALE: H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

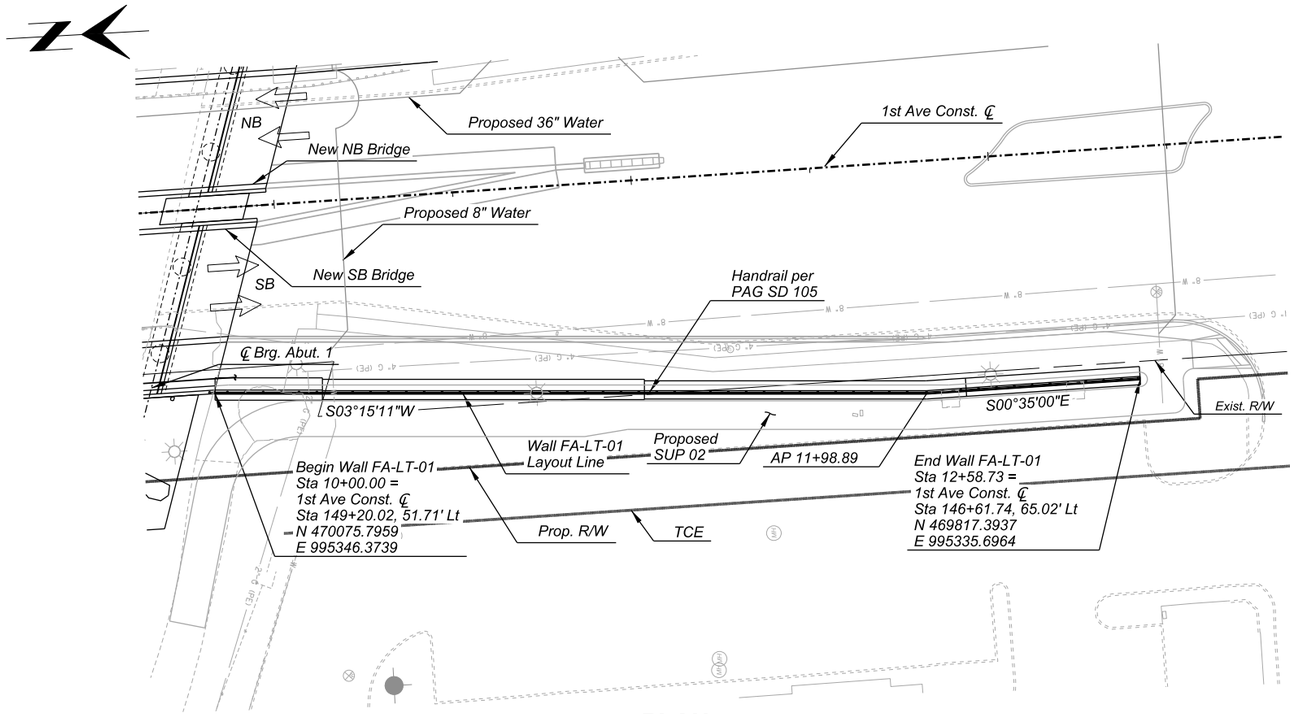
453 OF 504

RETAINING WALLS
WALL FA-RT-01 & FA-RT-02

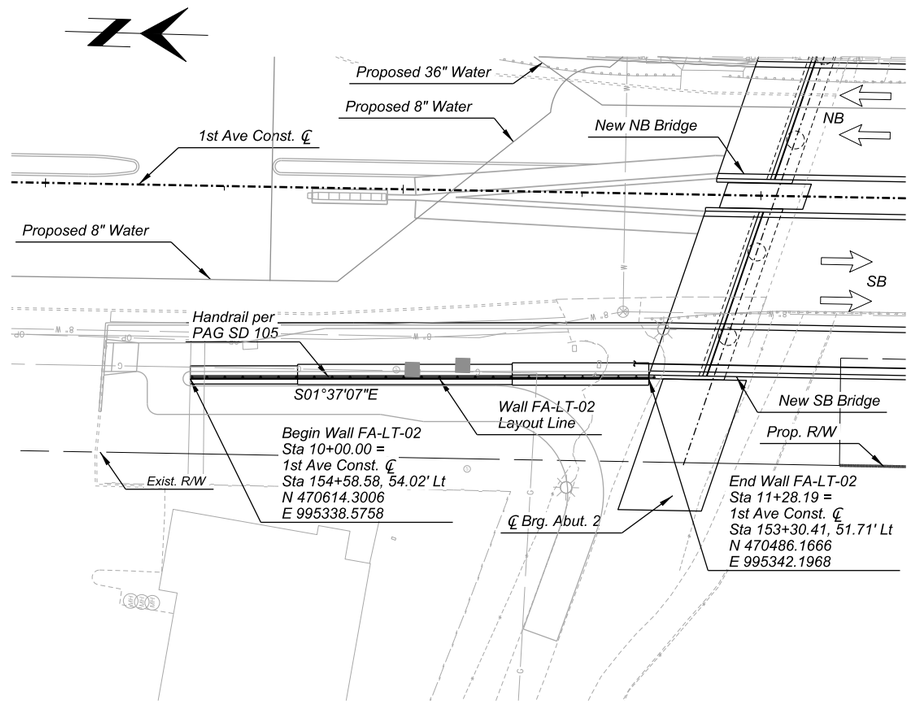
RW1.03

c:\pwworking\west01\d3987900\17C-03.dgn
8/19/2026 4:52:46 PM

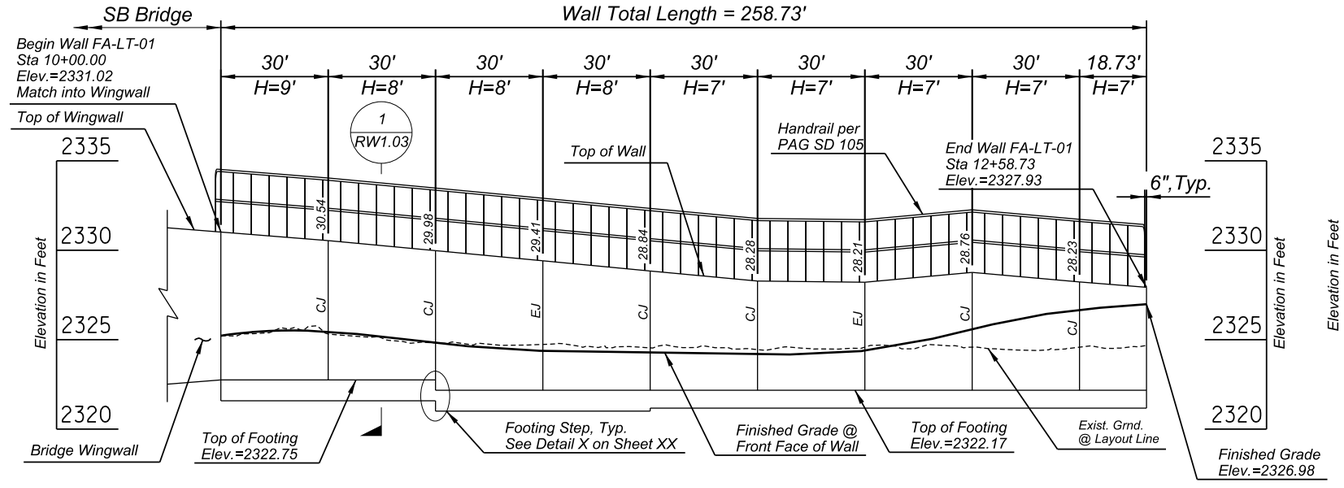
OpenRoads Designer v10.12.02.4
8/19/2026
4:56:25 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109



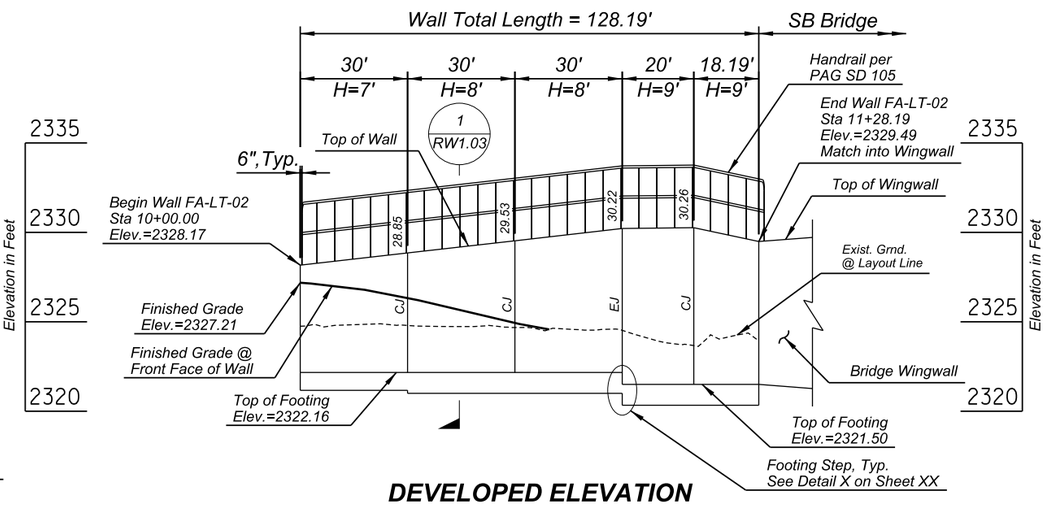
PLAN
1" = 20'- 0"



PLAN
1" = 20'- 0"



DEVELOPED ELEVATION
FA-LT-01
1H:4V



DEVELOPED ELEVATION
FA-LT-02
1H:4V

Notes:

1. Retaining walls shall conform to ADOT SD 7.01 (1 to 5) Case II and shall be paid for under Item No. 6010220.
2. The stations and offsets shown are along the retaining wall layout line which is located at the front face of the retaining wall (furthest face from the 1st Ave. Const. CL).
3. Install drain pipes per SD 7.01 and at a maximum spacing of 10'-0" o.c.
4. Handrail and connection to retaining wall shall be per PAG SD 105. Use alternate lower rail location and provide End Treatment 'A'. Handrail shall be paid under Item No. 9330009.

Legend

CJ = Construction Joint
EJ = Expansion Joint
H = Wall Design Height
See ADOT SD7.01 (3 of 5)

0 20 40
SCALE: 1"=20'H

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

RETAINING WALLS
WALL FA-LT-01 & FA-LT-02

RW1.04

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

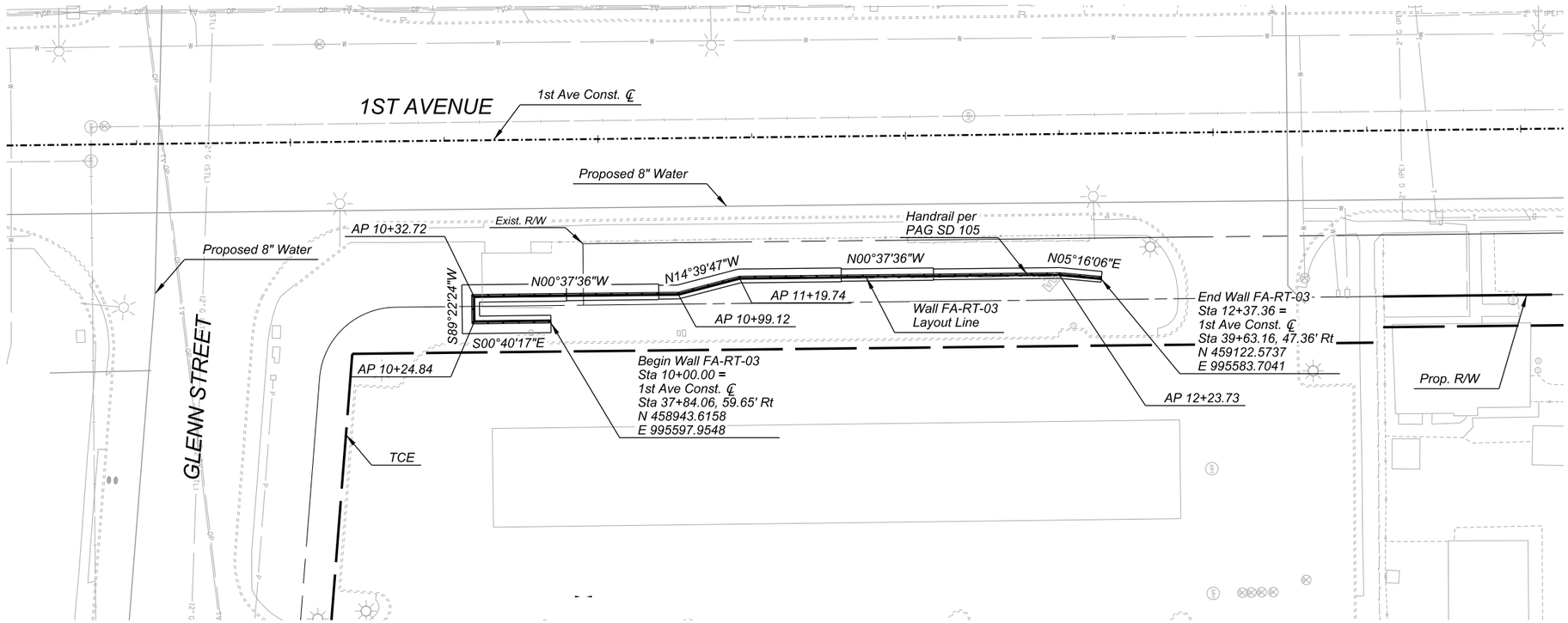
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

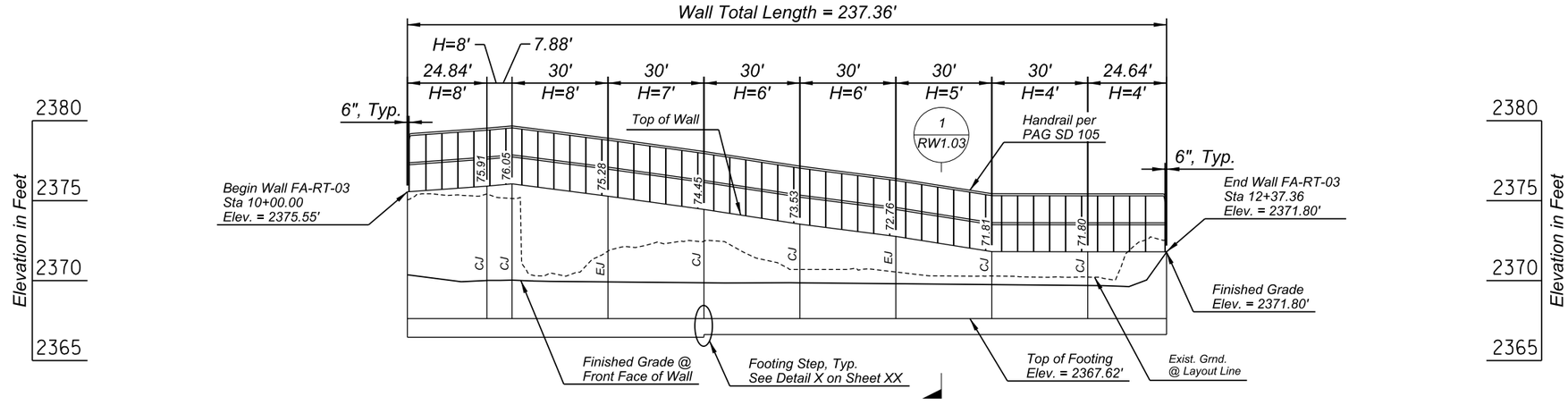
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

c:\pwworking\west01\d3987900\17C-04.dgn
8/19/2026 4:56:25 PM

OpenRoads Designer v10.12.02.4
8/19/2026
5:10:25 PM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 4109





DEVELOPED ELEVATION

FA-RT-03
1H:4V

Notes:

1. Retaining walls shall conform to ADOT SD 7.01 (1 to 5) Case II and shall be paid for under Item No. 6010220.
2. The stations and offsets shown are along the retaining wall layout line which is located at the front face of the retaining wall (furthest face from the 1st Ave. Const. CL).
3. Install drain pipes per SD 7.01 and at a maximum spacing of 10'-0" o.c.
4. Handrail and connection to retaining wall shall be per PAG SD 105. Use alternate lower rail location and provide End Treatment 'A'. Handrail shall be paid under Item No. 9330009.

Legend

CJ = Construction Joint
EJ = Expansion Joint
H = Wall Design Height
See ADOT SD7.01 (3 of 5)

0 20 40
SCALE: 1"=20'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For
Construction

RETAINING WALLS
WALL FA-RT-03

RW1.05

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

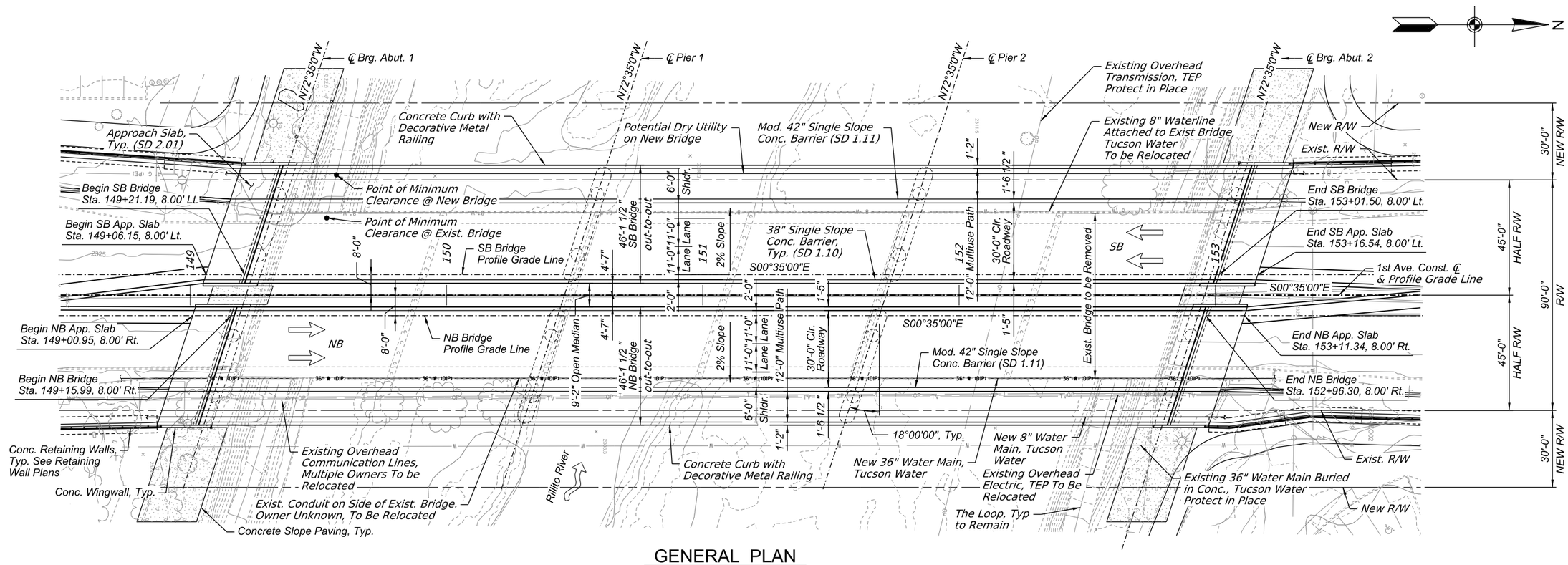
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
TCC	JC	BJK	H: 1" = 20'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

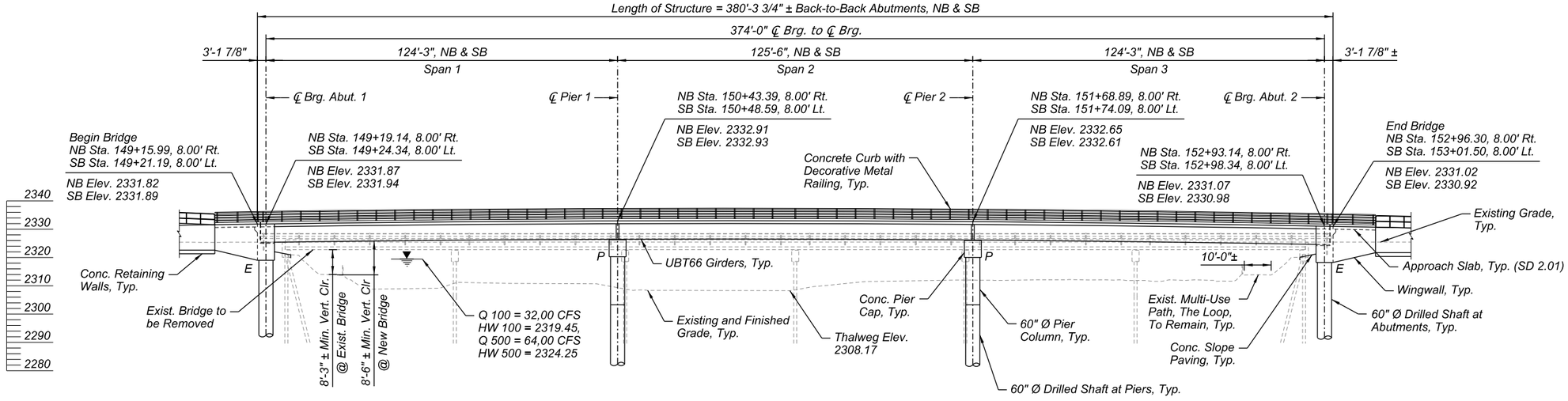
c:\pwworking\west01\d3987900\17C-05.dgn
8/19/2026 5:10:25 PM

OpenRoads Designer v10.12.02.4
8/27/2026
10:07:27 AM
Plotted by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number: 4109



GENERAL PLAN

New 3-Span Precast Prestressed (UBT66) Concrete Bridge
Skew: 18° 00' 00" Rt.
Contour Interval: 1'-0"
Scale: 1" =20'-0"



ELEVATION

NB Bridge Shown, SB Bridge Similar
Scale: 1" =20'-0"

INDEX OF BRIDGE SHEETS

S-1.01	GENERAL PLAN & ELEVATION
S-1.02	TYPICAL SECTION & PROFILE GRADE
S-1.03	GENERAL NOTES AND QUANTITIES
S-1.04	CONSTRUCTION PHASING - 1 of 4
S-1.05	CONSTRUCTION PHASING - 2 of 4
S-1.06	CONSTRUCTION PHASING - 3 of 4
S-1.07	CONSTRUCTION PHASING - 4 of 4
S-1.08	FOUNDATION PLAN
S-1.09	DRILLED SHAFT DETAILS

NOTES:

The Original Bridge, Structure No 9617, was built by Pima County in 1961 under Project No. I-828A.

Note: Stations are along the 1st Avenue Construction Centerline. Dimensions and Elevations are along the NB or SB Bridge Profile Grade Line at Top of Deck unless noted otherwise.

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

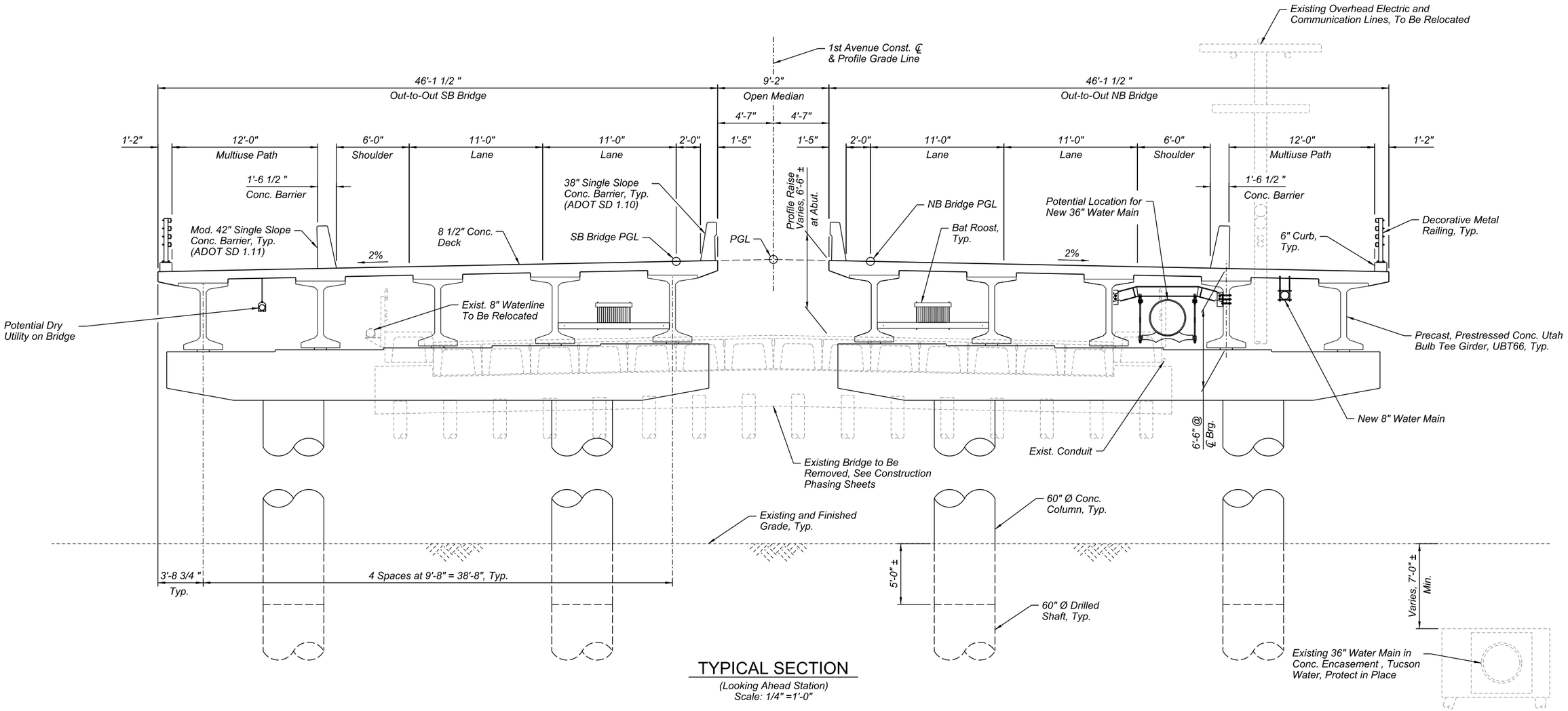
456 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
RID AUG 2026	JXH AUG 2026	DL AUG 2026	PLAN NO. R-2024-XXX

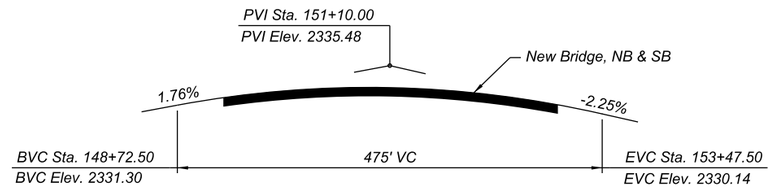
GENERAL PLAN & ELEVATION S-1.01

OpenRoads Designer v10.12.02.4
8/27/2026
10:07:40 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109



TYPICAL SECTION

(Looking Ahead Station)
Scale: 1/4" =1'-0"



PROFILE GRADE

PGL at 1st Avenue Const. ℄ Shown
No Scale

Record Document Dated: ##/##/####

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% *DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction*

TYPICAL SECTION & PROFILE GRADE

S-1.02

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

457 OF 504

CITY OF TUCSON

DRWN. BY RID AUG 2026 | CHKD. BY JXH AUG 2026 | APPR. BY DL AUG 2026 | SCALE: | PLAN NO. R-2024-XXX

c:\pwworking\west01\d4614359\00S-XS01-Typical Section.dgn
8/27/2026 10:07:40 AM

OpenRoads Designer v10.12.02.4
8/27/2026
10:07:52 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg
Project ID:
Client Number: 4109

GENERAL NOTES:

Design Specifications:

American Association of State Highway and Transportation Officials (AASHTO)
LRFD Bridge Design Specifications, 9th Edition as modified by the Arizona
Department of Transportation (ADOT) Bridge Design Guidelines

Construction Specifications (Materials & Methods):

Pima Association of Governments (PAG) 2015 Standard Specifications
and Details for Public Improvements and the Special Provisions

Design Loads:

Dead Load:
- Steel.....490 lbs. per cubic foot
- Concrete.....150 lbs. per cubic foot
- Future Wearing Surface Allowance..... 25 lbs. per square foot
- Stay-in-Place Steel Deck Foms..... 15 lbs. per square foot (between flanges)
- Stay-in-place steel deck foms are not allowed for this project, but their weight is included for future replacement or widenings.

Live Load:
- Loading Class: AASHTO HL-93
- Pedestrain Load: 75 lbs per square foot

Temperature:
- Tmax. = 105 deg
- Tmin. = 35 deg

Seismic:
- The bridge site is Site Class D with peak ground acceleration (PGA) = 0.075g, horizontal response spectral acceleration coefficient at 0.2 sec return period (Ss) of 0.172g, horizontal response spectral acceleration coefficient at 1.0 sec return period (S1) of 0.049g. The bridge site is classified as Seismic Zone 1.

Wind Load:
- Design Wind Speed: 115 mph (Strength III Limit State)

Lateral Earth Pressure:
- At rest: 55 psf/ft
- Active: 35 psf/ft
- Passive: 360 psf/ft

Other:
- All other applicable loads in accordance with the requirements of AASHTO LRFD Bridge Design Specifications.

Girder Design:
- Girder Composite Design - Girders are designed as composite for live load and superimposed dead load only. Girders designed using transformed section properties.

Strengths:

Deck Slab and Pier Diaphragms.....= 4,500 psi
Abutments, Abutment Diaphragms, Piers, Drilled Shafts, and Intermediate Diaphragms.....= 3,500 psi
Bridge Barriers and Approach Slabs .....= 4,000 psi
All Other Class "S" Concrete .....= 3,000 psi
Grade 60 Reinforcing .....fy = 60,000 psi
Grade 60 Transverse Deck Reinforcing Stess Limit.....fs = 24,000 psi
Prestressing Steel .....fpu = 270,000 psi
(0.6" Diam. 7-wire Low Relaxation Strand)

Concrete:

All concrete shall be Class 'S', unless noted otherwise.

Reinforcing Steel:

Reinforcing steel shall conform to ASTM Specification A615, unless noted otherwise. All reinforcing shall be furnished as Grade 60.

All bend dimensions for reinforcing steel shall be out-to-out of bars.

All placement dimensions for reinforcing steel shall be to center of bars, unless noted otherwise.

APPROXIMATE QUANTITIES NB

Item	Structural Excavation	Structure Backfill	Class "S" Concrete		Reinforcing Steel	Precast Prestressed Concrete Beam (UBT66)	Drilled Shaft 60" Dia.
			3500 psi	4500 psi			
	CY	CY	CY	CY	LB	LF	LF
Abutment 1	134	55	128		22,220		150
Pier 1	23	14	78		20,890		160
Pier 2	35	21	78		20,890		160
Abutment 2	131	55	127		22,220		149
Superstructure			17	611	180,545	1,868	
Total	323	145	428	611	266,765	1,868	618
As Built Total							

Deck Joint Assembly (Strip Seal) (SD 3.02)..... 92 LF
Conc Curb with Decorative Metal Railing..... 410 LF
Mod. 42" Single Slope Bridge Concrete Barrier..... 410 LF
38" Single Slope Bridge Concrete Barrier..... 410 LF
Approach Slab (SD 2.01)..... 1,390 SF
Vertical Restrainers, Fixed..... 16 EA
Vertical Restrainers, Expansion..... 16 EA

Note: Quantities for structural excavation and structure backfill are based on ADOT SD 5.01 & SD 5.02 and are provided for information only. These are not direct pay items in this contract and shall be considered incidental to the bridge construction.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Reinforcing Steel (Cont.):

All reinforcing steel shall have 2" clear cover, unless noted otherwise.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10.

All mechanical splices of reinforcing steel shall develop 125% of the yield strength of the reinforcing steel and shall be approved for use (product and location) by the Engineer.

Coordination:

Contractor shall coordinate all existing conditions during construction of project. Any utility information shown on the bridge drawings may not be complete or accurately depict the location of the facilities shown. The Contractor shall coordinate the location of all existing, new, relocated and abandoned utilities with the project plans and notify respective owners before commencing the work of excavation, including any temporary shoring or drilling. Conflicts shall be brought to the attention of the Engineer and resolved prior to proceeding with the work.

Dimensions:

Dimensions shall not be scaled from drawings.
Vertical dimensions are measured plumb, unless noted otherwise.

Horizontal dimensions are measured level.

The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

Concrete Barriers:

Barriers shall be constructed after all spans have taken deck dead load deflection.
Bridge barriers shall not be slip formed.

Load Ratings:

Load Ratings for HL-93 are in accordance with the AASHTO Manual for Bridge Evaluation, 3rd Edition 2018 with Interim Revisions through 2019 in accordance with the Load and Resistance Factor Rating (LRFR) Method.

Inventory Load Rating Factor	1.39
Operating Load Rating Factor	2.06

ADOT Standard Drawings

ADOT Bridge Group SD Drawings SD 1.10, SD 1.11, SD 2.01, SD 3.02, SD 5.01 and SD 5.02

Temporary Works:

The Contractor shall be responsible for providing temporary shoring and bracing as required for protection of workers or as otherwise needed to accomplish the work.

Contractor to submit a plan outlining shoring requirements, construction procedures, and the design to the Engineer for review and approval prior to proceeding with the work. All drawings and calculations shall be prepared and sealed by a Professional Civil or Structural Engineer registered in the State of Arizona. See Standard Specifications and Special Provisions for additional information.

Structural Submittals:

The Contractor shall submit all shop drawings (working drawings) and other structural submittals in accordance with the project plans, the Standard Specifications and the Special Provisions. The contract plans are to be supplemented by the shop drawings (working drawings) and shall be approved by the Engineer before any work involving such drawings is performed. See the Standard Specifications and Special Provisions.

The following is a partial list of items that will need to be submitted:
- Concrete Mix Designs
- Falsework & Formwork Design and Drawings
- Reinforcing Steel Shop Drawings
- Plan for Placement of Bridge Deck Concrete
- Shoring Plans & Design Calculations
- Prestressed Concrete Girder Shop Drawings
- Railing Shop Drawings

Construction Joints:

Construction joints shall be permitted only at indicated locations. Additional construction joints or changes to those shown shall require approval by the Engineer. Sandblast all construction joints prior to placement of adjacent concrete.

All construction joints to be roughened to a 1/4" minimum amplitude unless noted otherwise.

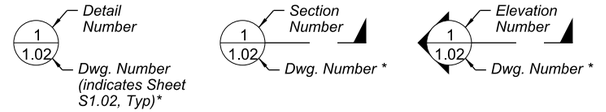
Forms:

Forms for new construction shall be cambered for dead load deflection and falsework settlement.

Chamfer:

All exposed corners shall be chamfered $\frac{3}{4}$", unless noted otherwise. See Chamfer Detail this Sheet

Legend:



* "-" indicates Section or Detail is located on same drawing.

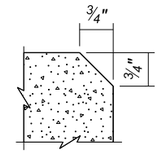
Abbreviations:

Abut.	Abutment	Elev.	Elevation	R/W	Right of Way
@	at	Exist.	Existing	Sht.	Sheet
Brg.	Bearing	Eq.	Equal	Spa.	Space, Spaced
Bott.	Bottom	E	Expansion	Typ.	Typical
℄	Centerline	Fin.	Finish	U.N.O.	Unless Noted Otherwise
Clr.	Clear	lbs.	Pounds		
Conc.	Concrete	Max.	Maximum		
Const.	Construction	Min.	Minimum		
Cont.	Continuous	O.C.	On Center		
Dtl.	Detail	P	Pinned		
Dia. or Ø	Diameter				

APPROXIMATE QUANTITIES SB

Item	Structural Excavation	Structure Backfill	Class "S" Concrete		Reinforcing Steel	Precast Prestressed Concrete Beam (UBT66)	Drilled Shaft 60" Dia.
			3500 psi	4500 psi			
	CY	CY	CY	CY	LB	LF	LF
Abutment 1	130	55	128		22,480		150
Pier 1	24	15	79		21,070		160
Pier 2	33	20	78		21,070		160
Abutment 2	141	55	129		22,480		150
Superstructure			17	611	180,545	1,868	
Total	328	145	431	611	267,645	1,868	620
As Built Total							

Removal of Bridge.....1 LS
Deck Joint Assembly (Strip Seal) (SD 3.02)..... 92 LF
Conc Curb with Decorative Metal Railing..... 410 LF
Mod. 42" Single Slope Bridge Concrete Barrier..... 410 LF
38" Single Slope Bridge Concrete Barrier..... 410 LF
Approach Slab (SD 2.01)..... 1,390 SF
Vertical Restrainers, Fixed..... 16 EA
Vertical Restrainers, Expansion..... 16 EA



Chamfer all exposed corners thus unless otherwise noted. This detail applicable to all new concrete construction.

CHAMFER DETAIL
No Scale

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

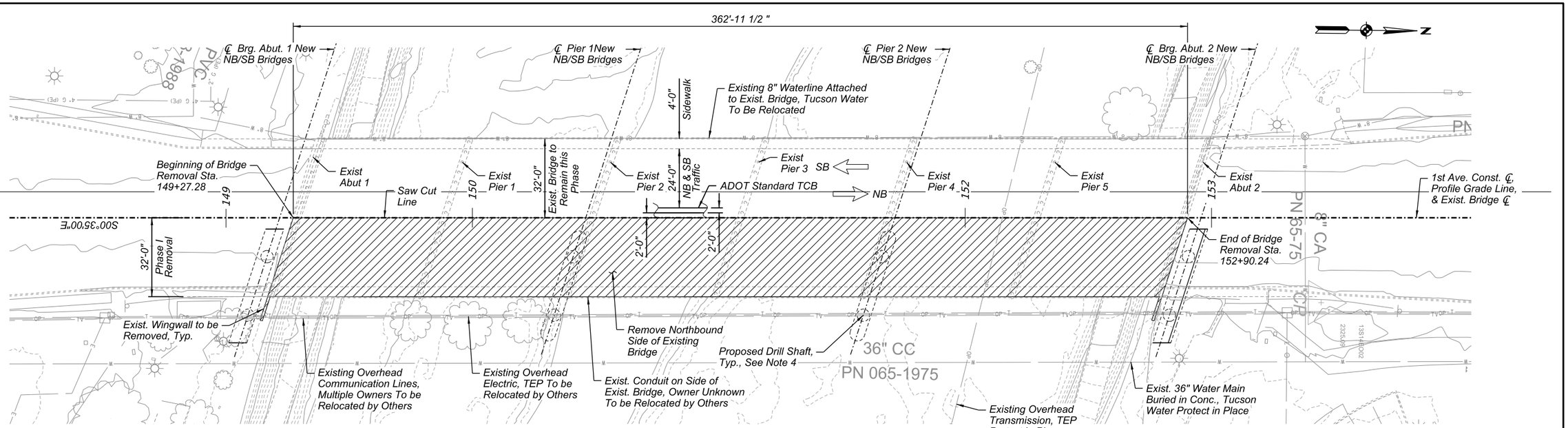
CITY OF TUCSON

DRWN. BY RID AUG 2026
CHKD. BY JXH AUG 2026
APPR. BY DL AUG 2026
SCALE:
PLAN NO. R-2024-XXX

GENERAL NOTES & QUANTITIES S-1.03

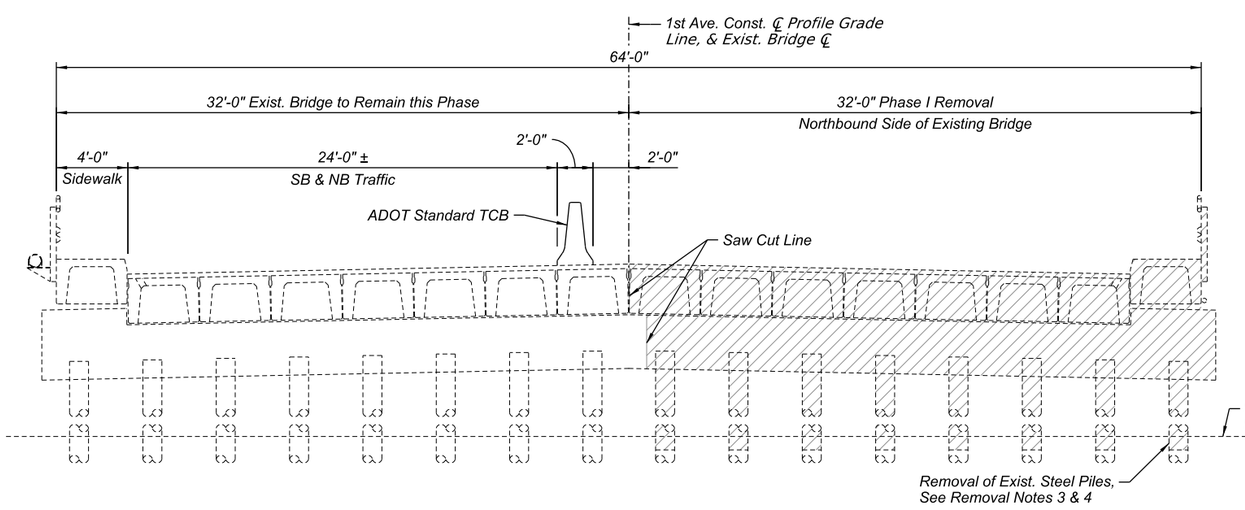
458 OF 504

c:\pwworking\west01\d4614359\00S-XS01-General Notes!.dgn
8/27/2026 10:07:52 AM



PLAN - PHASE I

Exist. 6 Span Prestressed Conc Girder Bridge
Skew: 18°00'00" Rt.
Countour Interval: 1'-0"
Scale: 1" = 20'-0"



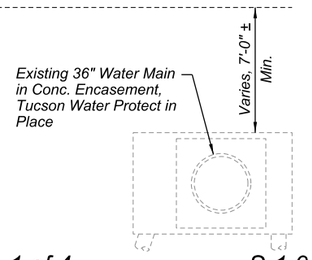
SECTION - PHASE I

(Looking Ahead Station)
Remove Northbound Side of Existing Bridge
Scale: ¼" = 1'-0"

Existing Overhead Communication Lines and Electric, To Be Relocated by Others

LEGEND

Limits of Bridge Removal



REMOVAL & PHASING NOTES:

1. *Two lanes of traffic (1 NB and 1 SB) shall be maintained on First Ave. at all times during construction. See Special Provisions.*
2. *The Contractor shall be responsible for designing and submitting a Removal Plan to the Engineer for review and approval prior to removal of any portion of the existing bridge. The Contractor shall coordinate bridge removal with overall project phasing and shall be responsible for maintaing the stability and structural integrity of the portion of the existing structure that is supporting traffic during staged constructions and removal operations.*
3. *Existing piles supporting existing abutments and piers shall be removed to 5' below the finished grade, unless noted otherwise.*
4. *Existing piles supporting existing Pier 2 and Pier 4, in conflict with the new drilled shafts, shall be fully removed.*
5. *Contractor shall be responsible for providing Temporary Shoring as required.*
6. *Removal of existing bridge is paid for under Item 2020002. The cost of shoring is considered incidental to other contract items.*

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY RID AUG 2026 | CHKD. BY JXH AUG 2026 | APPR. BY DL AUG 2026 | SCALE: | PLAN NO. R-2024-XXX

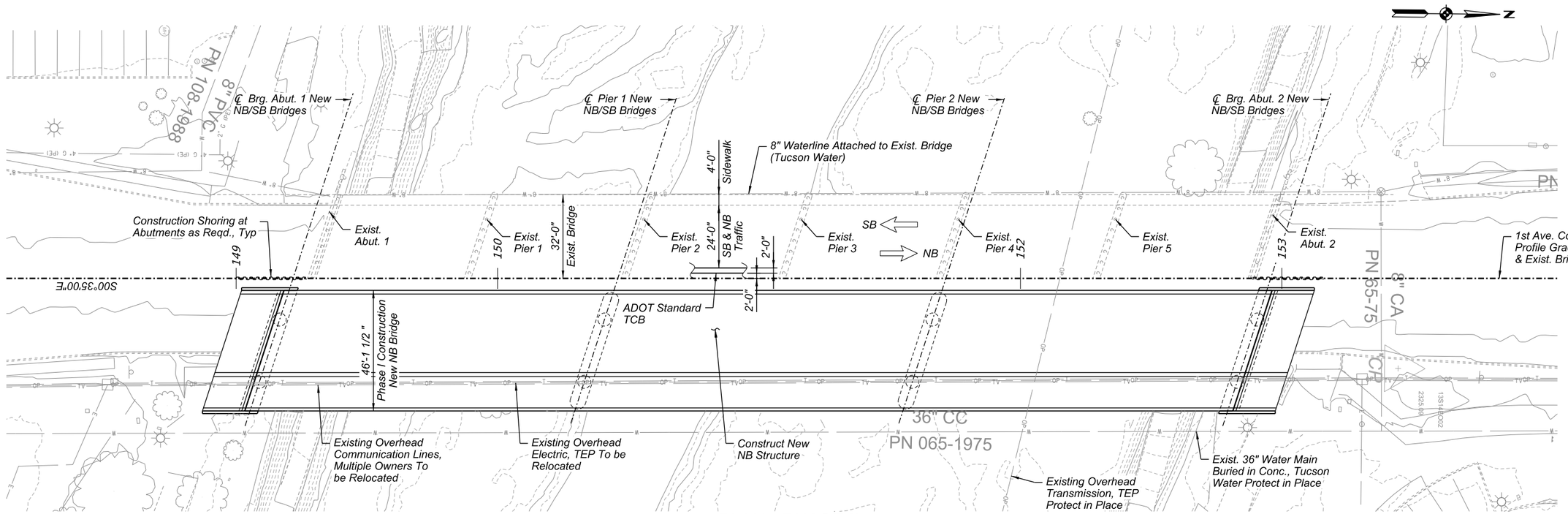
459 OF 504

CONSTRUCTION PHASING - 1 of 4

S-1.04

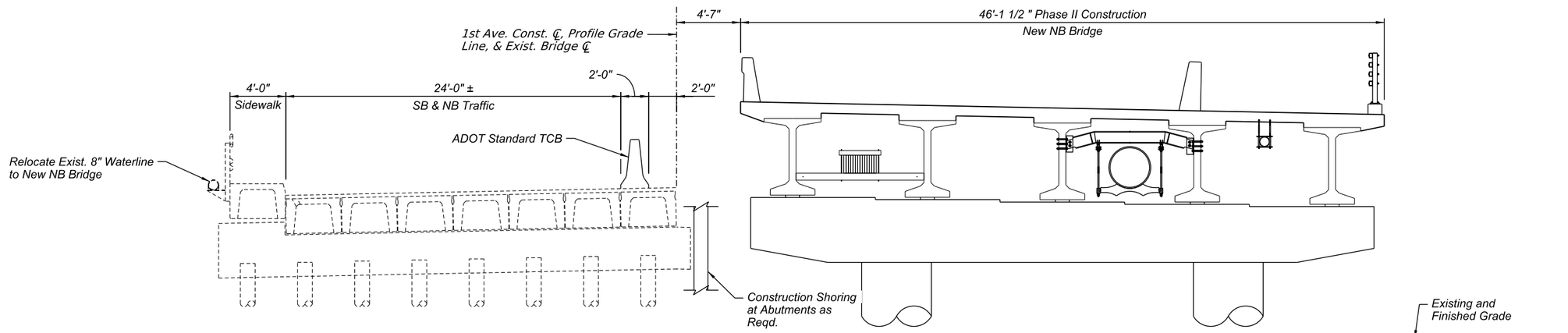
Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

OpenRoads Designer v10.12.02.4
8/27/2026
10:08:02 AM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: pdf.dlld
Project ID:
Client Number: 4109
c:\pwworking\west01\d4614359\00S-XS01-P1.dgn
8/27/2026 10:08:02 AM



PLAN - PHASE II

Exist. 6 Span Prestressed Conc. Girder Bridge & New 3-Span NB Bridge
Skew: 18°00'00" Rt.
Contour Interval: 1'-0"
Scale: 1" = 20'-0"



SECTION - PHASE II

(Looking Ahead Station)
Build New NB Bridge
Scale: ¼" = 1'-0"

REMOVAL & PHASING NOTES:

1. *See Removal & Phasing Notes on S-1.04.*

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

460 OF 504

CITY OF TUCSON | DRWN. BY RID AUG 2026 | CHKD. BY JXH AUG 2026 | APPR. BY DL AUG 2026 | SCALE: | PLAN NO. R-2024-XXX

CONSTRUCTION PHASING - 2 of 4 **S-1.05**

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Project ID:
Client Number: 4109

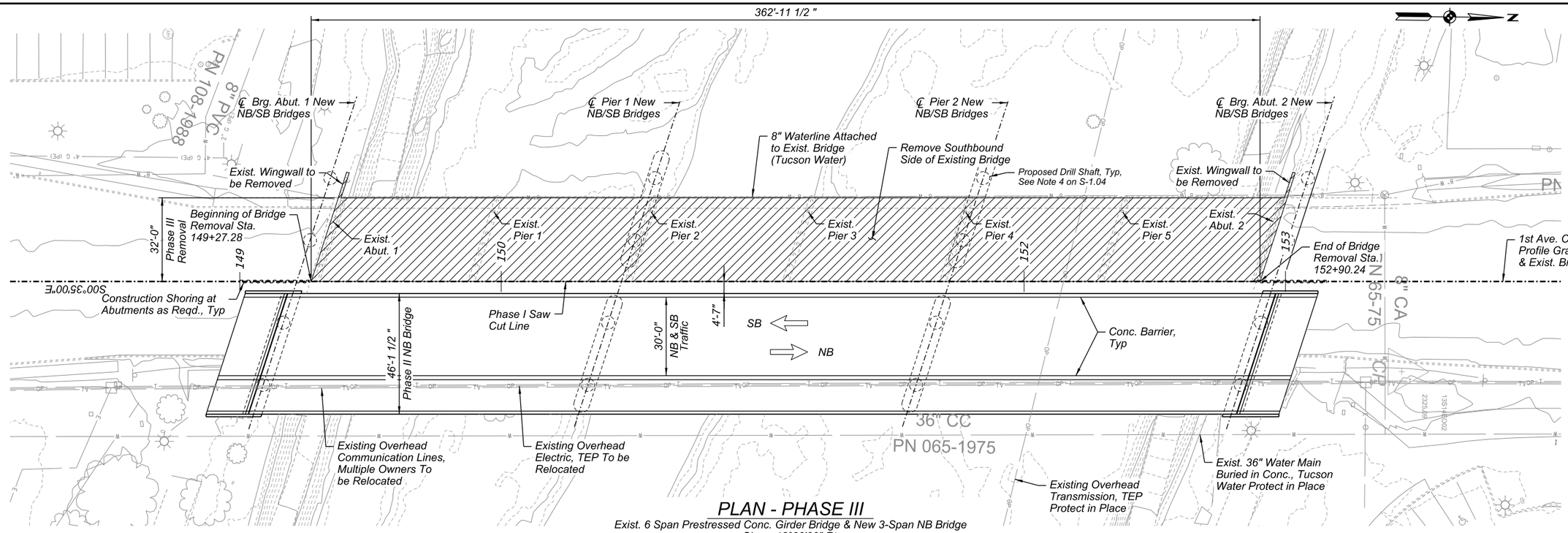
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg

Printed by: TCOLE
Print Scale: 1:0.0833333

8/27/2026 10:08:11 AM OpenRoads Designer v10.12.02.4

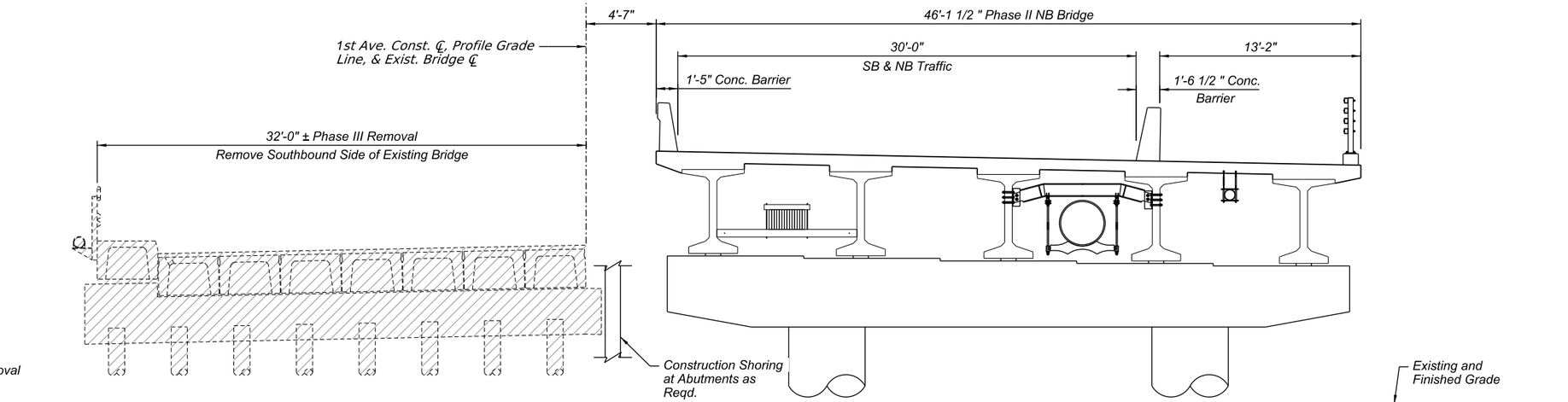
c:\pwworking\west01\d4614359\00S-XS01-P2.dgn
8/27/2026 10:08:11 AM

OpenRoads Designer v10.12.02.4
8/27/2026
10:08:20 AM
Printed by: TCOLE
Print Scale: 10.0833333
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.cfg
Project ID:
Client Number: 4109



PLAN - PHASE III

Exist. 6 Span Prestressed Conc. Girder Bridge & New 3-Span NB Bridge
Skew: 18°00'00" Rt.
Contour Interval: 1'-0"
Scale: 1" = 20'-0"



LEGEND

Limits of Bridge Removal

REMOVAL & PHASING NOTES:

1. See Removal & Phasing Notes on S-1.04.

SECTION - PHASE III

(Looking Ahead Station)
Remove Remaining Southbound Existing Bridge
Scale: ¼" = 1'-0"

Record Document Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

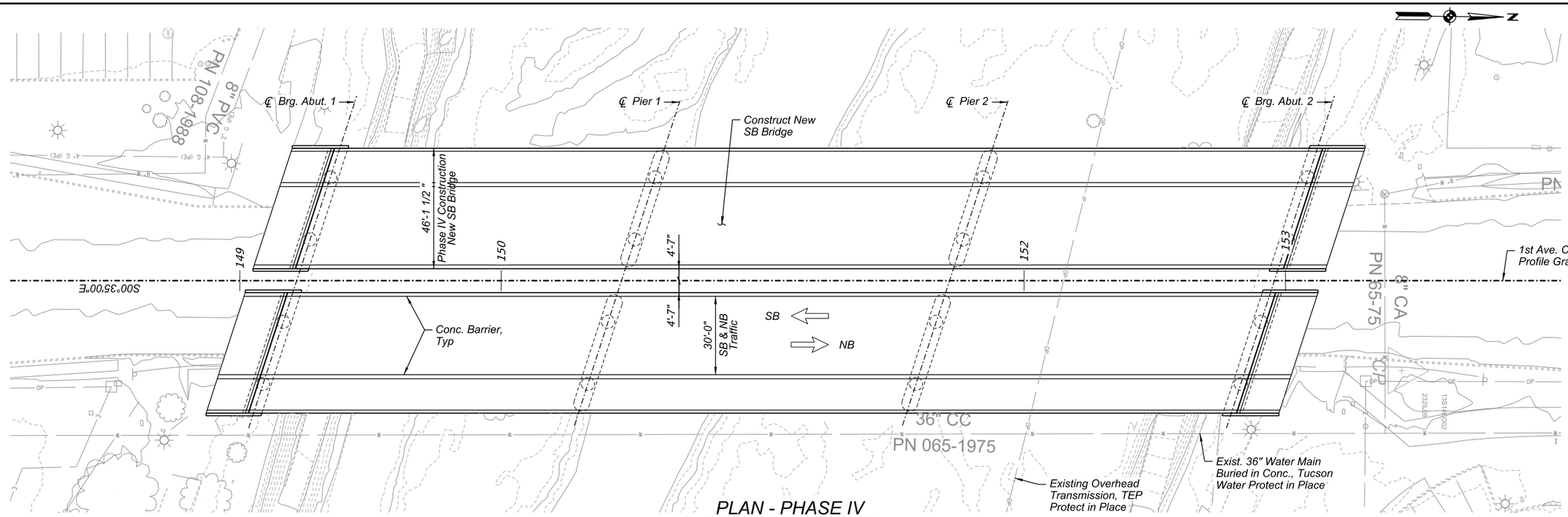
CITY OF TUCSON

DRWN. BY RID AUG 2026 | CHKD. BY JXH AUG 2026 | APPR. BY DL AUG 2026 | SCALE: | PLAN NO. R-2024-XXX

461 OF 504

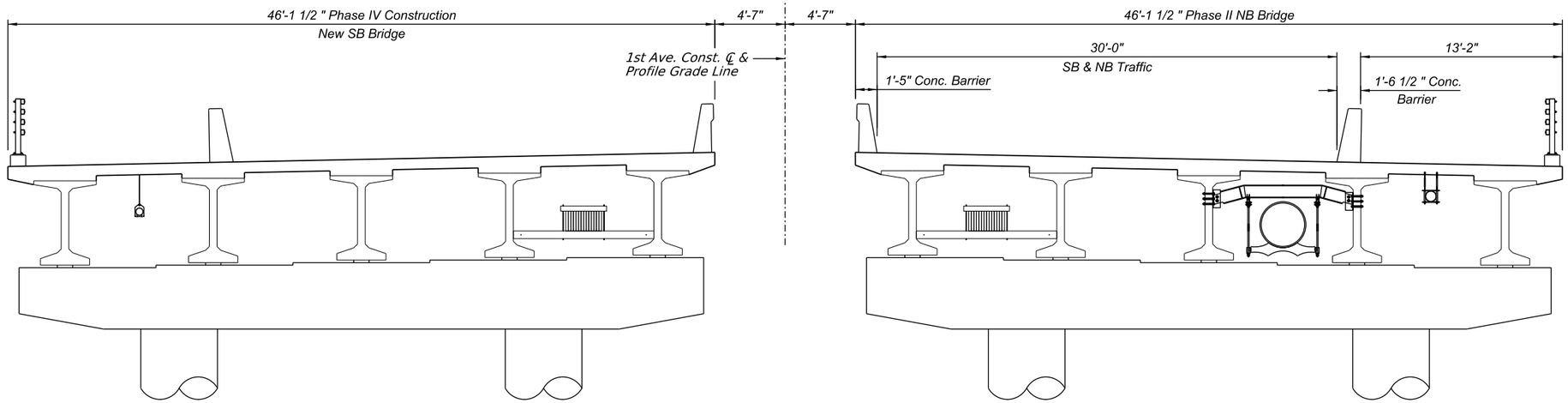
CONSTRUCTION PHASING - 3 of 4 S-1.06

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100



PLAN - PHASE IV

New 3-Span SB & NB Bridges
Skew: 18°00'00" Rt.
Contour Interval: 1'-0"
Scale: 1" = 20'-0"



SECTION - PHASE IV

(Looking Ahead Station)
Build New Southbound Bridge
Scale: ¼" = 1'-0"

REMOVAL & PHASING NOTES:

1. *See Removal & Phasing Notes on S-1.04.*

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

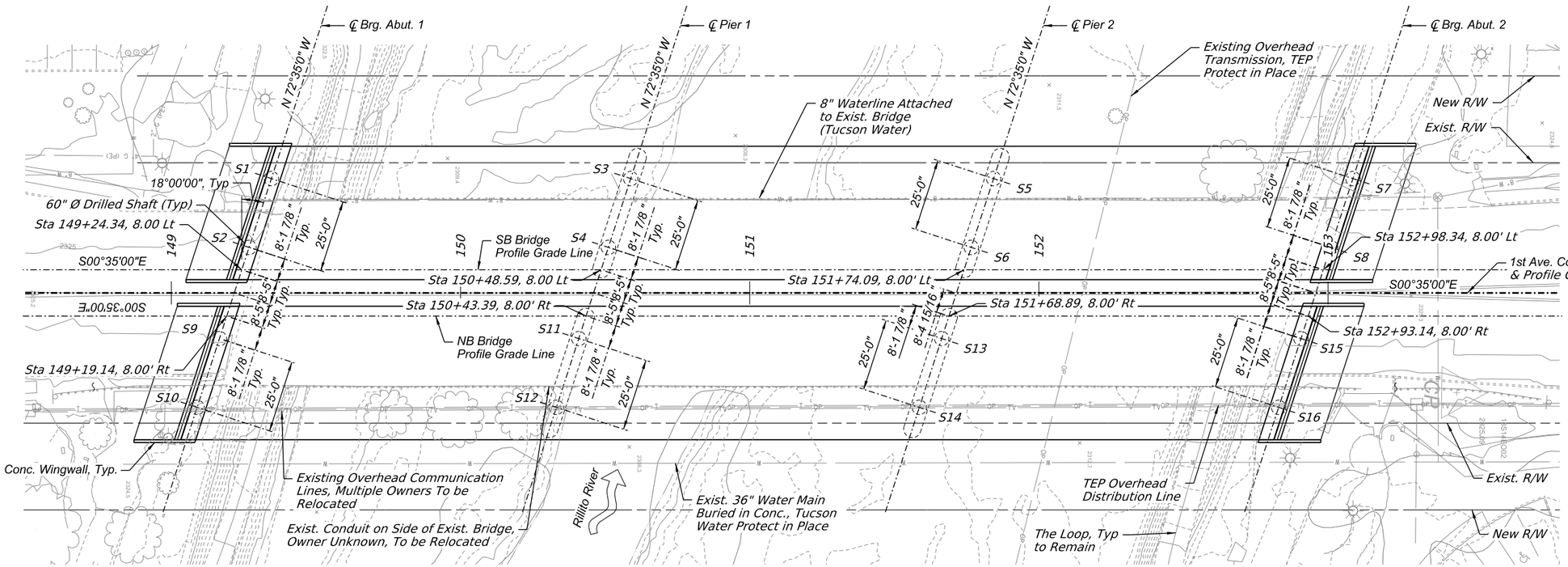
DRWN. BY RID AUG 2026 | CHKD. BY JXH AUG 2026 | APPR. BY DL AUG 2026 | SCALE: | PLAN NO. R-2024-XXX

CONSTRUCTION PHASING - 4 of 4 S-1.07

462 OF 504

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

OpenRoads Designer v10.12.02.4
8/27/2026
10:08:29 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentables: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number: 4109
c:\pwworking\west01\d4614359\00S-XS01-P4.dgn
8/27/2026 10:08:29 AM



FOUNDATION PLAN

Contour Interval: 1'-0"
Scale: 1" =20'-0"

FOUNDATION NOTES:

1. *SX indicates drilled shaft number.*
2. *The contractor shall review the Geotechnical Foundation Report prepared by HDR Engineering, dated X XX,2026.*
3. *The contractor may select any one of the abutment drilled shafts as the required confirmation shaft.*
4. *See Dwg S-1.09 for drilled shaft notes and details.*

FOUNDATION PLAN *S-1.08*

Record Document
Dated: ##/##/####

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

463 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
RID	JXH	DL	
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

Project ID:
Client Number: 4109

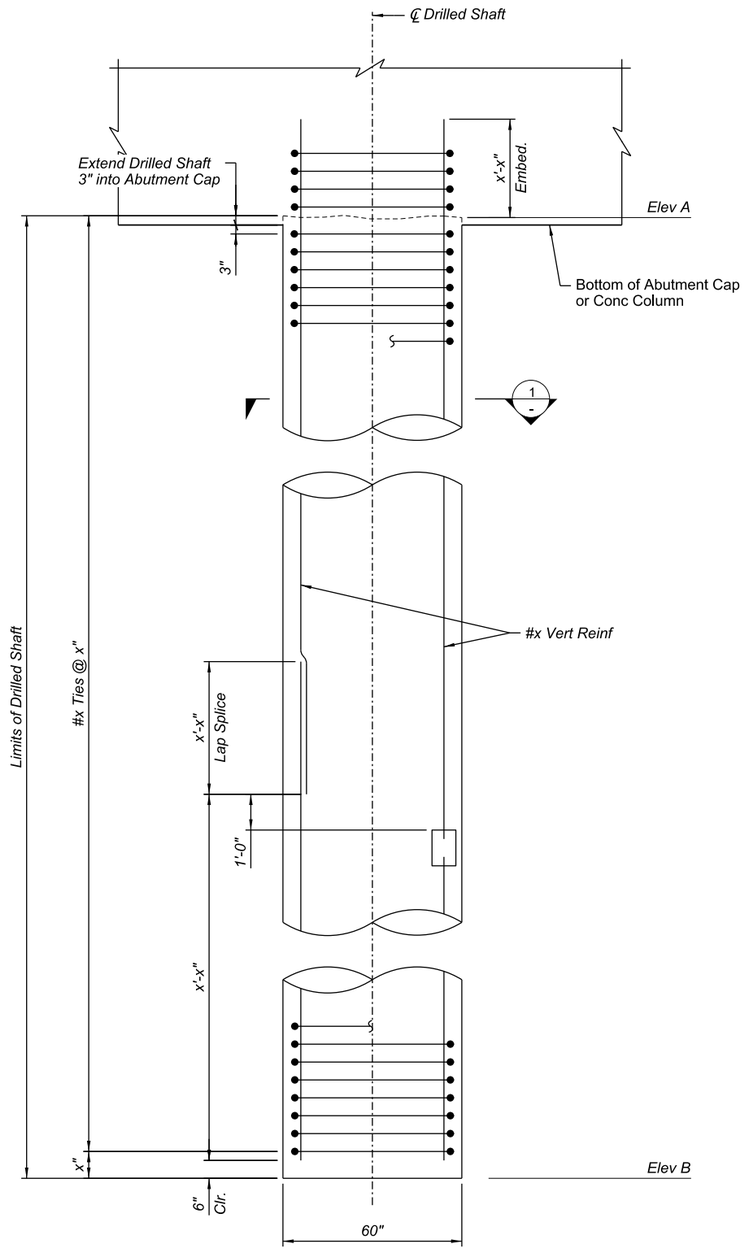
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.pltcfg

Plotted by: TCOLE
Print Scale: 10.0833333

10:08:39 AM 8/27/2026 OpenRoads Designer v10.12.02.4

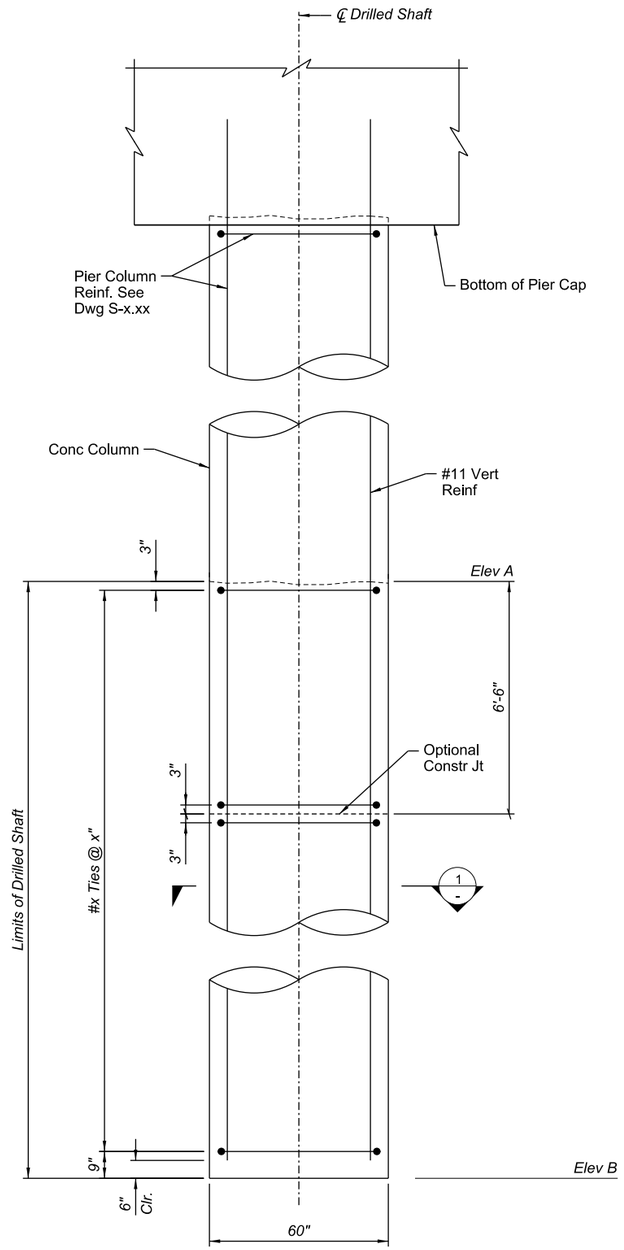
c:\pwworking\west01\d4614359\00S-FP01-foundation plan.dgn
8/27/2026 10:08:39 AM

OpenRoads Designer v10.12.02.4
8/27/2026
10:08:47 AM
Printed by: TCOLE
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: pdf.altcfg
Project ID:
Client Number: 4109



ABUTMENT DRILLED SHAFT DETAIL

Scale: ½" = 1'-0"



PIER DRILLED SHAFT DETAIL

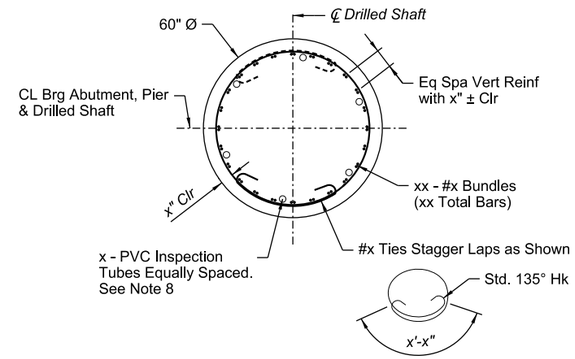
Scale: ½" = 1'-0"

DRILLED SHAFT DATA TABLE					
LOCATION	Top of Drilled Shaft Elev A	Bottom of Drilled Shaft Elev B	Total Unfactored Load (kips) ①	Total Unfactored Load (kips) ②	Estimated Design Settlement (in) ③
Abutment 1	2319.5	2244.5			
Pier 1	2303.17	2223.17			
Pier 2	2303.17	2223.17			
Abutment 2	2318.25	2244.5			

① No increase for redundancy or group efficiency effects.
② Increased for redundancy or group efficiency effects, where applicable.
③ Estimated Design Settlement is the portion of the Total Settlement that occurs after the completion of the superstructure. Settlement of shafts embedded in rock is negligible.

DRILLED SHAFT NOTES:

1. Drilled shaft excavation is not permitted within 48 hours of the completion of concrete placement of an adjacent drilled shaft. An adjacent drilled shaft is any drilled shaft within four diameters, measured center to center.
2. Drilled shafts shall be constructed in accordance with the requirements of Section XXX of the Specifications.
3. Temporary or permanent casing may be used to stabilize excavations for drilled shafts. Drilled shafts have been designed to account for loss of frictional capacity for a permanent cased zone of X feet, measured from the top of the shaft.
4. In the event of a weak soil layer (silt, clay, loose sand, etc.) at the recommended tip elevation, the shaft shall be extended to bear on firm soil as determined by the Engineer.
5. If for any reason a shaft is lengthened by more than 3'-0" from plan, a modification to the reinforcing cage may be required. The engineer shall be notified to determine the extent of the modifications, if any. In all cases, the inspection tubes shall be extended to within 6" of the completed tip elevation.
6. Construction joints not shown on the plans require the approval of the Engineer prior to construction.
7. Inspection tubes shall not be attached to the longitudinal reinforcement and shall be placed between longitudinal reinforcement.
8. The contractor shall orientate the drilled shaft reinforcing cage as required to avoid conflicts with the reinforcing in the drilled shaft caps.
9. The contractor shall be responsible for providing support of the reinforcing cage during fabrication, erection, and placement of concrete. Plans showing reinforcing cage support and methods of erection shall be submitted to the Engineer for review and approval prior to construction.
10. All mechanical splices of reinforcing steel shall develop 125% of the yield strength of reinforcing bar and shall confirm to the requirements for mechanical connections in Section 605-3.2 of the Standard Specifications.
11. All reinforcing steel in the drilled shafts, including reinforcing extending into the abutment/Pier Column and any mechanical couplers, shall be included in the pay item for drilled shafts.



DRILLED SHAFT DETAIL 1

Scale: ½" = 1'-0"

DRILLED SHAFT DETAILS

S-1.09

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Record Document
Dated: ##/##/####

NO.	DATE	REVISION	BY	CHKD.	APPR.

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

464 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
RID	JXH	DL	
AUG 2026	AUG 2026	AUG 2026	PLAN NO. R-2024-XXX

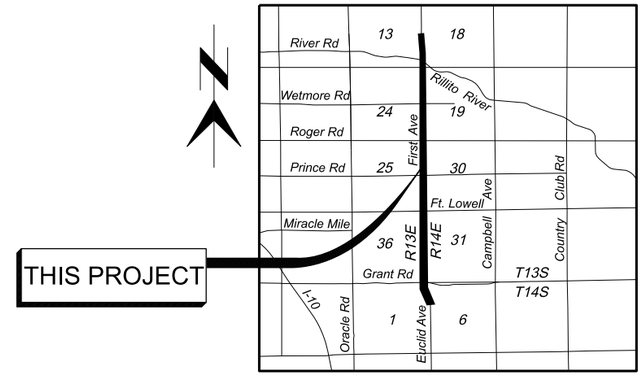
c:\pwworking\west01\d4614359\00S-DS01-Drilled Shaft.dgn
8/27/2026 10:08:47 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:42:41 AM
Printed by: SWESTMORELAND
Print Scale: 1:300
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

CITY OF TUCSON

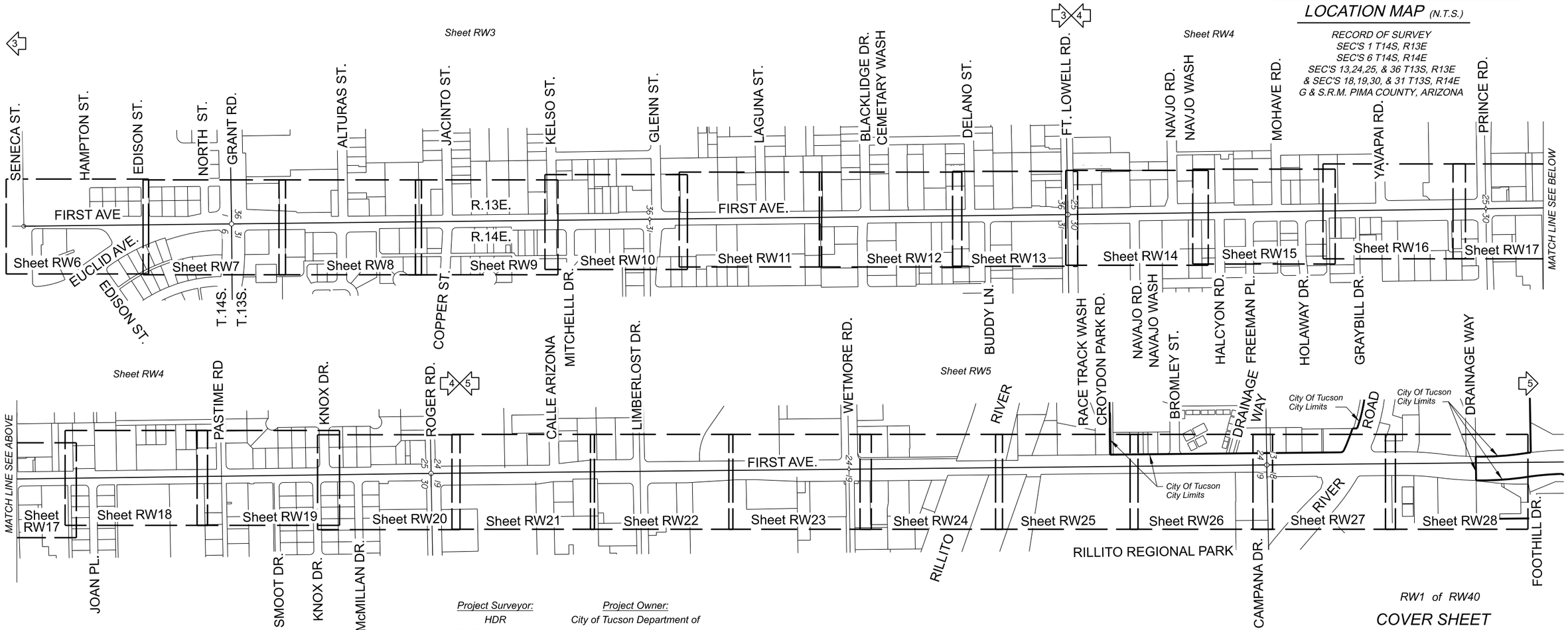
1ST AVENUE

GRANT ROAD TO RIVER ROAD
RECORD OF SURVEY
CITY OF TUCSON JOB NO. PRJ 230193



LOCATION MAP (N.T.S.)

RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25, & 36 T13S, R13E
& SEC'S 18,19,30, & 31 T13S, R14E
G & S.R.M. PIMA COUNTY, ARIZONA



SHEET INDEX:

RW1	Cover Sheet
RW2	Survey Control Sheet
RW3-RW5	Section Control Sheets
RW6-RW28	Record of Survey Plan Sheets
RW29	Standard Abbriviations & Legend Sheet
RW30	Detail Sheet
RW31-RW40	Point Coordinate table Sheets

Project Surveyor:
HDR
1 S. Church Avenue,
Suite 1400
Tucson, AZ 85701
(520) 584-3600

Project Owner:
City of Tucson Department of
Transportation and Mobility
201 N. Stone Avenue,
6th Floor
Tucson, AZ 85701
(520) 791-4371

0 300 600
SCALE: 1"=300'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

RW1 of RW40

COVER SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25, & 36 T13S, R13E
& SEC'S 18,19,30, & 31 T13S, R14E
G & S.R.M. PIMA COUNTY, ARIZONA

Draft Print
08/28/2026 11:08:23 AM

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

465 OF 504

CITY OF TUCSON

DRWN. BY JTS, ATS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: 1" = 300'
PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-01.dgn
8/28/2026 10:42:41 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:43:25 AM
Printed by: SWESTMORELAND
Print Scale: 1:1000
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

CONTROL POINTS AND BENCHMARKS TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	473,460.9620	995,411.8930	2,373.18	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
2	472,712.7990	994,661.9410	2,332.42	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
3	472,052.8530	995,984.1760	2,339.32	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
4	469,369.6010	995,761.4060	2,326.04	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
5	469,354.5260	994,691.0080	2,322.10	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
6	466,740.7360	996,256.3790	2,337.68	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
7	466,705.6590	994,775.2130	2,336.43	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
8	464,087.5930	996,169.7460	2,352.11	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
9	464,072.6410	994,668.7220	2,346.04	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
10	461,442.8150	996,496.3960	2,362.23	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
11	461,427.9380	994,919.0900	2,351.43	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
12	458,831.4790	994,981.3440	2,374.83	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
13	458,801.6850	996,312.2780	2,383.15	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
14	456,154.4190	995,100.9770	2,413.13	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
15	456,151.1280	995,951.5280	2,405.16	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
16	455,272.7670	995,856.6500	2,417.05	Established Aerial Ground Panel Target "V" Chevron measuring 3'x3'x12"
77	474,615.0860	992,701.1380	2,363.88	AL23 Fd. 2-1/4" Capped Pipe Stamped "CENTER SECTION RLS 40622" 1.0' Up And Iron Pin
78	474,646.7790	995,351.6980	2,437.32	BL01 Fd. 2" BCSM Stamped "CDOT 200" Remaining Ilegible Flush
91	472,004.4590	995,378.4530	2,322.99	BN01 Fd. 2" COT BCSM In Hand Hole Stamped "SE COR SEC 13 T13S R13E RLS 23956" 0.40' Down
103	469,316.4120	992,740.8370	2,315.95	AP23 Fd. 2" COT BCSM In Hand Hole Stamped "RLS 20373" 0.40' Down
104	469,364.7220	995,405.3230	2,323.97	BP01 Fd. 2" BCSM In Hand Hole Stamped "SECT RLS 20373" Remaining Illegible 0.50' Down
106	466,776.4220	998,114.9780	2,343.40	BR03 Fd. 2" BCSM In Hand Hole Stamped "T13S R14E 1/4 SEC 19 30 RLS 23956" 0.80' Down
116	466,674.6650	992,784.7530	2,329.12	AR23 Fd. 1-1/2" Lead Cap No Stampings 0.30' Down
129	464,030.6650	992,823.2110	2,341.49	AT23 Fd. 2" BCSM In Hand Hole Stamped "RLS 40622" 0.30' Down
130	464,076.4090	995,467.6940	2,348.93	BT01 Fd. 3" COT BCSM In Hand Hole Stamped "RLS 23956" 0.50' Down
143	461,435.2750	995,505.0430	2,356.02	BV01 Fd. 2" BCSM Stamped "RLS 13019" Flush
145	458,818.0300	998,172.4250	2,383.48	BX03 Fd. 2" BCSM Punch Only Flush
158	456,174.0190	998,167.8270	2,401.23	EA03 Fd. 2" COT BCSM In Hand Hole Stamped "T13S R14E 1/4 S31 S6 T14S R14E RLS 23956" 0.80' Down

CONTROL POINTS AND BENCHMARKS TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
169	456,151.3040	995,563.7880	2,407.75	EA01 Fd. 3-1/4" COT BCSM In Hand Hole Stamped "T13S R13E S36 R14E S31 S1 R13E S6 R14E T14S 2018 RLS 48778" DOWN 0.45'
206	454,438.4150	995,975.3620	2,410.60	Fd. Chiseled "X" On Top Of Curb
208	469,514.3320	995,353.5190	2,324.44	Fd. Chiseled "X"
231	458,094.8590	997,399.1250	2,394.72	WR52 Fd. BCSM TAIL ONLY
235	453,507.6020	992,175.5590	2,373.27	EC22 Fd. USGS 3-5/8" BCSM Stamped "ELEV. FT. ABOVE SEA 59 DOR 1975" Flush In Conc. Headwall
241	461,390.6960	992,758.5180	2,338.26	AV23 Fd. 2" BCSM Stamped "RLS 13019" Flush
242	458,798.0110	992,799.7330	2,364.91	AX23 Fd. 2" BCSM Stamped "RLS 35111" Flush
600	456,041.5720	995,344.3870	2,415.22	Set 1/2" Rebar For Control Point No Tag
602	453,526.6390	995,542.8260	2,413.33	EC01 Fd. 2" BCSM In Pavement Punch Only 0.10' Down
603	458,842.5900	995,533.3900	2,376.27	BX01 Fd. 2" Brass Disc In Hand Hole Stamped "RLS 12294" Down 0.7'
604	462,751.6600	995,668.7520	2,354.20	Set 1/2" Rebar For Control Point No Tag
605	470,501.0830	995,428.1950	2,325.09	EO02 Fd. 3-1/4" PCDOT & FCD Aluminum Disc Stamped "GPS NN-144 1991 SURVEY POINT" Flush
606	471,790.6780	995,332.9240	2,322.01	EN25 Fd. 9/16" Stainless Steel Pin In PVC Sleeve Incased In Conc. No Lid Rim Stamped "NN-143 1991" 0.30' Down
607	471,275.4110	995,435.7280	2,323.79	Set 1/2" Rebar For Control Point No Tag
613	466,729.0800	995,431.9510	2,336.86	BR01 Fd. 2" COT BCSM In Hand Hole Stamped "RLS 23956" 0.60' Down
615	468,093.8570	995,364.2700	2,326.60	Fd. Chiseled "X" On East Side Of Sidewalk
616	468,925.2970	995,352.8030	2,325.16	Fd. Chiseled "X" On West Side Of Sidewalk
617	453,326.1920	997,774.9390	2,438.76	EC03 Fd. 3-1/2" BCSM Stamped "US DEPARTMENT OF INTERIOR GEOLOGICAL SURVEY 1975"
626	474,686.7950	998,001.8740	2,464.84	BL03 Fd. 2" BCSM Stamped "RLS 46278" Flush
627	472,132.4510	998,061.9350	2,417.05	BN03 Fd. 2" BCSM Stamped "PE 7076 " In Pavement 0.10' Down
628	469,464.5610	998,037.7400	2,335.13	BP03 Fd. 1-1/2" COT Aluminum Cap Stamped "GPS BP03 RLS 20373" Flush
631	461,400.1880	998,147.9070	2,371.62	BV04 Fd. Magnetic Nail With 2" COT Aluminum Washer Stamped "GPS BV04 RLS 23956" In Conc. Sidewalk Flush
707	458201.7600	995160.1770	2379.27	Fd. Chisled "X"
1115	464,123.2120	998,160.6900	2,459.84	BT03 Fd. 2-1/2" BCSM Stamped "COT RLS 23956" Flush

SURVEY CONTROL POINTS:

The primary control point is the same Pima County DOT OPUS Control Point "13S13E_N25" as described under Vertical Control, which is an OPUS resolved static solution. The secondary control points were established for this project based upon the primary control point. The control points used for this project have the following coordinate values:

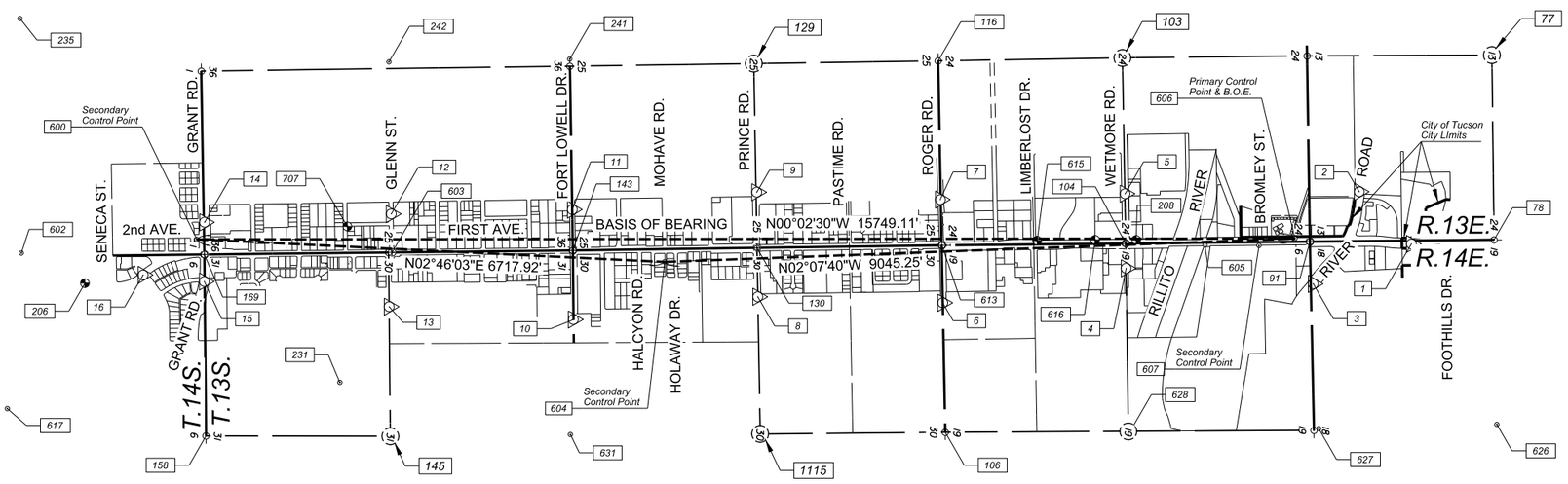
Point & Name		Northing International Feet	Easting International Feet	Orthometric Elevation International Feet
13S13E_N25 #606 Base & Primary	2011 Grid	471,739.3110	995,224.4320	2,322.01 B.O.E.
	Surface	471,790.6780	995,332.9240	
Secondary Control Points				
EPS CP Pt. #600	2011 Grid	455,991.8630	995,235.8940	2,415.22
	Surface	456,041.5720	995,344.3870	
EPS CP Pt. #604	2011 Grid	462,701.2200	995,560.2240	2,354.20
	Surface	462,751.6600	995,668.7520	
EPS CP Pt. #607	2011 Grid	471,224.0410	995,327.2250	2,323.79
	Surface	471,275.4110	995,435.7280	

HORIZONTAL CONTROL:

HORIZONTAL DATUM: Arizona Coordinate System, North American Datum (NAD) 1983 (2011) with 2010 EPOCH, Central Zone 0202, in international feet, using a combined scale factor (CF), 0.9998910 (1/CF=1.00010901188). Surface Northing and Easting coordinates are derived by dividing the state plane grid coordinates by the combined scale factor (surface value=grid value/CF).

BASIS OF BEARING:

The Basis of Bearing for this project is North 00°02'30" West, and was derived using the previously described Horizontal Datum and observed between locations of Point No. 600 an established 1/2" rebar flush with no tag located at the southeast corner of Second (2nd) Avenue and Grant Road laying 19 feet East of Second Avenue's East right-of-way line to Point No. 606 a Pima County's Online Positioning User Service (OPUS) "13S13E_N25" and also known as Pima County Survey Designation "NN-148" which is a found 9/16" stainless steel pin in PVC sleeve incased in concrete with no lid, the rim is stamped "NN-148 1991" laying 0.30' below ground, and located 750 feet south of the intersection of River Road and First (1st) Avenue and 48 feet West of the range line between Section 24 of T.13S., R.13E. and Section 19 of T.13S. R.14E., of Gila And Salt River Meridian. The horizontal surface distance between these two monuments is 15749.11 feet.



VERTICAL CONTROL:

The Basis of Elevation (B.O.E.) and primary horizontal control point for this project is Point No. 606 a Pima County's Online Positioning User Service (OPUS) "13S13E_N25" and also known as Pima County Survey Designation "NN-148" which is a found 9/16" stainless steel pin in PVC sleeve incased in concrete with no lid, the rim is stamped "NN-148 1991" laying 0.30' below ground, and located 750 feet south of the intersection of River Road and 1st Avenue and 48 feet West of the range line between Section 24 of T.13S., R.13E. and Section 19 of T.13S. R.14E., of Gila And Salt River Meridian., as shown on Pima County GPS Occupation Sheet PID - GPS0143, and having an Orthometric Elevation = 2322.01 feet based upon North American Vertical Datum (NAVD) 1988 international fee, and using GEOID18.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

EPS GROUP

HDR

Draft Print
08/28/2026 11:08:24 AM

0 1000 2000
SCALE: 1"=1000'

RW2 of RW40

SURVEY CONTROL SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

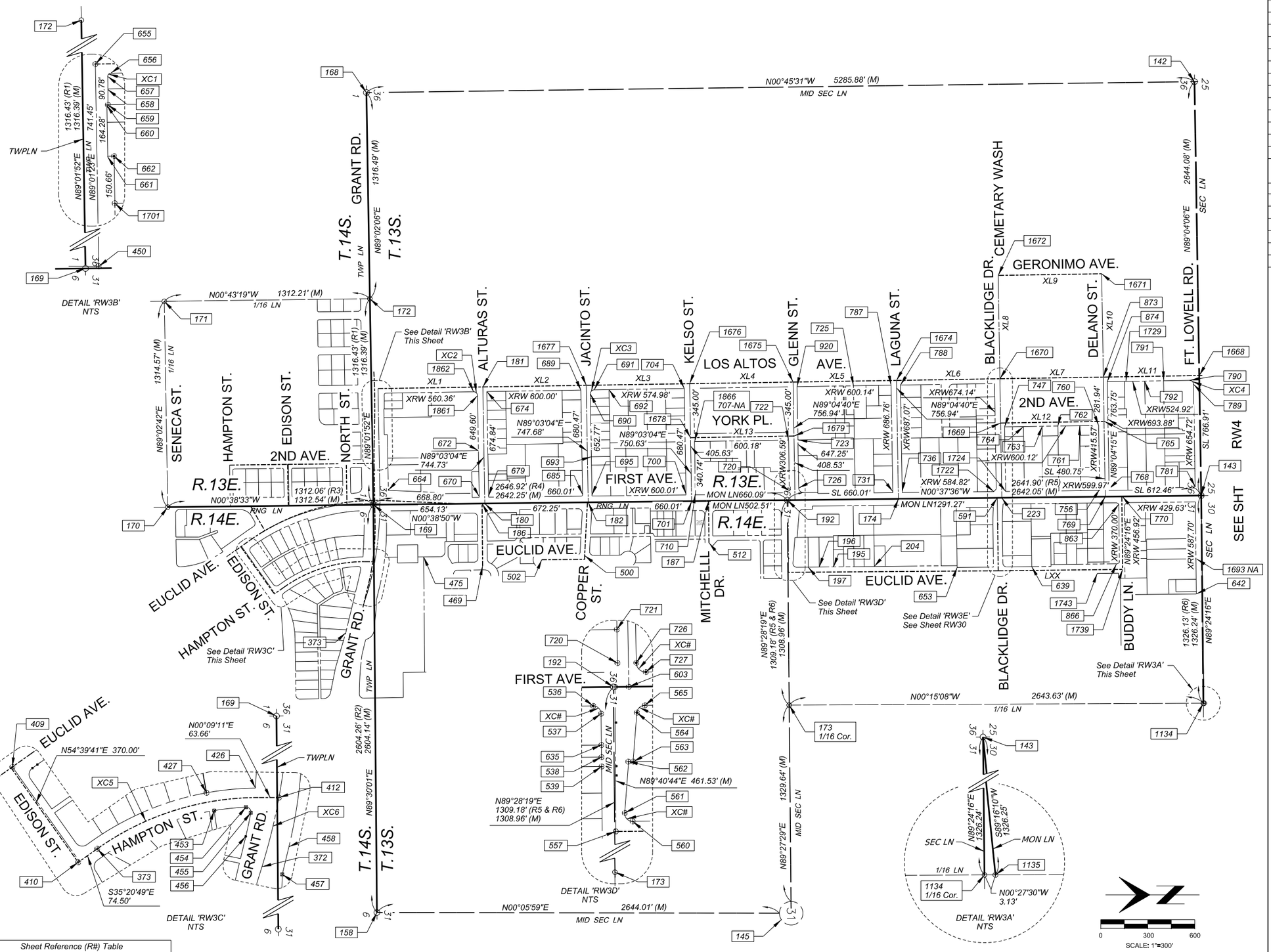
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

466 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
ATS, JTS	LJB	EPS	H: 1"=1000'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-02.dgn
8/28/2026 10:43:25 AM



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°55'20"W	669.15'	-------
XL2	N00°55'20"W	660.00'	-------
XL3	N00°55'20"W	660.00'	-------
XL4	N00°55'20"W	660.28'	-------
XL5	N00°55'20"W	660.15'	-------
XL6	N00°55'20"W	660.03'	-------
XL7	N00°55'20"W	660.24'	-------
XL8	N89°04'20"E	660.13'	-------
XL9	N00°55'04"W	660.22'	-------
XL10	N89°04'15"E	660.08'	-------
XL11	N00°55'20"W	612.42'	-------
XL12	N00°55'20"W	660.13'	-------
XL13	N00°53'52"W	660.19'	-------

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	90°05'38"	10.00"	15.72'
XC2	89°57'15"	25.00'	39.25'
XC3	90°02'45"	25.00'	39.29'
XC4	89°59'26"	25.00'	39.27'
XC5	35°30'00"	886.36'	550.42'
XC6	06°48'55"	1913.19'	227.67'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	Pln. No. I-2013-009 Seq. 20122190396
R2	PLAT Seq. 20122230269
R3	PLAT Bk. 7 Pg. 6 (1938)
R4	H-65-008 (1965)
R5	H-71-004 (1972)
R6	PLAT Bk. 6 Pg. 54 (1935)

Note:

Unless shown otherwise bearing and distances are between Point ID number values shown.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%

DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS, ATS	LJB	LJB	H: 1"=300'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

467 OF 504

Draft Print
08/28/2026 11:07:57 AM

RW3 of RW40

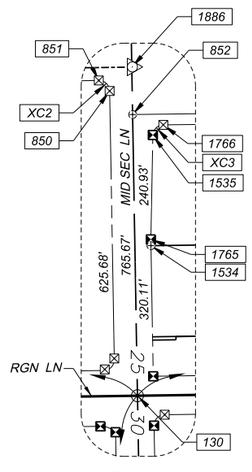
SECTION CONTROL SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 36,25,24 & 13 T13S, R13E
& SEC'S 31,30,19 & 18 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Printed by: SWESTMORELAND
Print Scale: 1:300
10:43:37 AM 8/28/2026 OpenRoads Designer v10.12.02.4
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149
c:\pwworking\west01\d3826137\18V-03.dgn
8/28/2026 10:43:37 AM

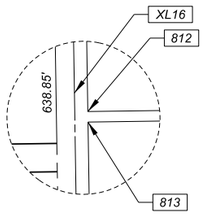
OpenRoads Designer v10.12.02.4
8/28/2026
10:43:42 AM
Printed by: SWESTMORELAND
Print Scale: 1:300
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDrvr: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°42'54"W	669.01'	-------
XL2	N00°48'22"W	656.19'	-------
XL3	N00°48'32"W	656.49'	-------
XL4	N00°48'17"W	658.91'	-------
XL5	N00°46'13"W	1328.75'	-------
XL6	N88°59'52"E	655.08'	-------
XL7	N88°58'46"E	648.06'	-------
XL8	N00°48'29"W	652.03'	-------
XL9	N00°47'17"W	617.46'	-------
XL10	S88°58'05"W	660.08'	-------
XL11	S88°58'44"W	975.15'	-------
XL12	S88°58'44"W	974.98'	-------
XL13	S88°58'44"W	974.98'	-------
XL14	N00°51'16"W	658.85'	-------
XL15	N89°06'11"E	1346.10'	-------
XL16	N89°06'04"E	765.80'	-------
XL17	N89°04'24"E	765.75'	-------
XL18	N00°47'39"W	656.48'	-------
XL19	N89°04'29"E	765.74'	-------

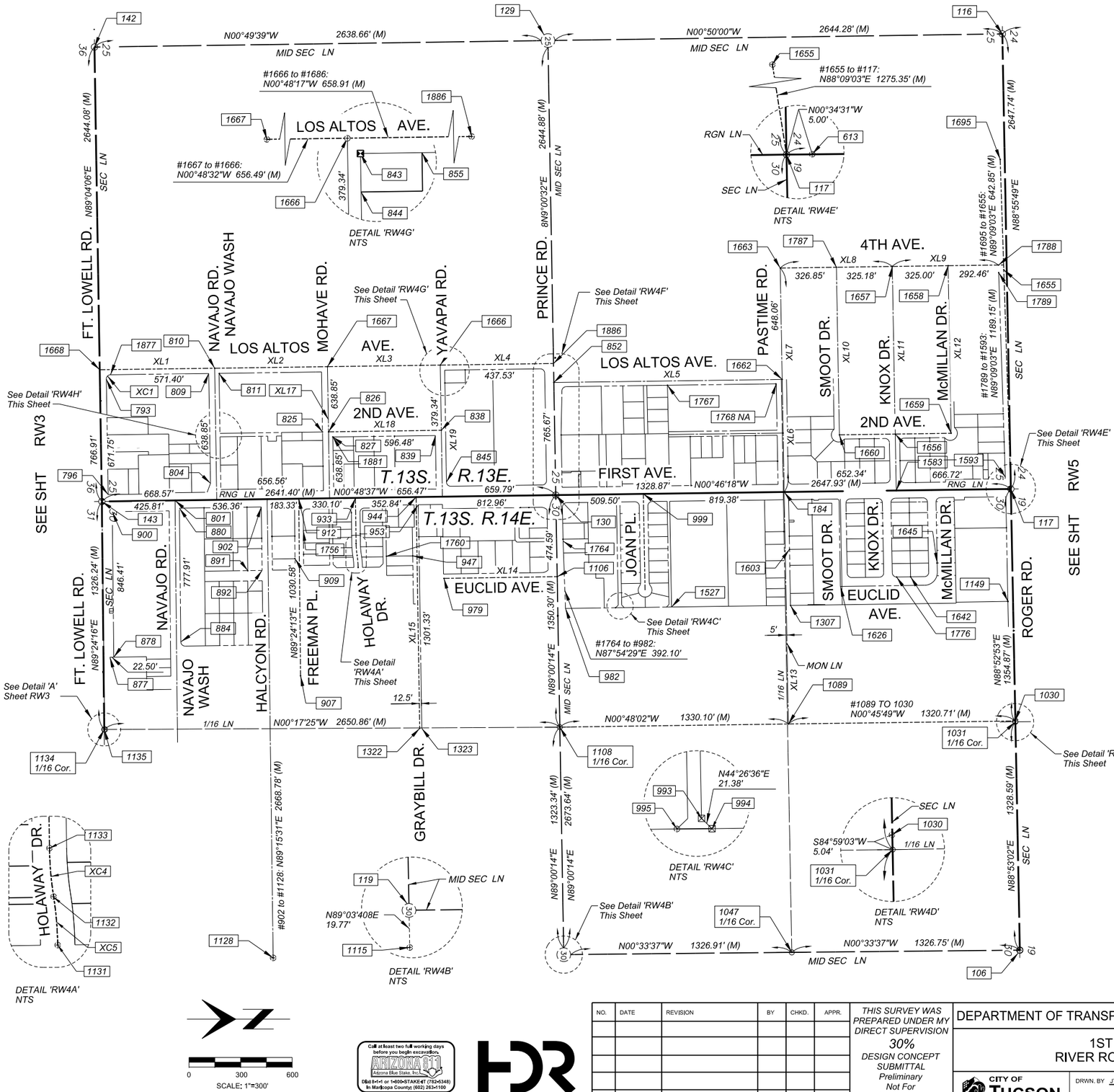
Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	90°13'00"	25.00'	39.36'
XC2	89°48'49"	25.00'	39.19'
XC3	88°08'47"	25.00'	38.46'
XC4	08°06'35"	550.00'	70.77'
XC5	08°06'35"	550.00'	70.77'



DETAIL 'RW4F'
NTS



DETAIL 'RW4H'
NTS



0 300 600
SCALE: 1"=300'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

Note:

Unless shown otherwise bearing and distances are between Point ID number values shown.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

Draft Print
08/28/2026 11:08:24 AM

RW4 of RW40

SECTION CONTROL SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 36,25,24 & 13 T13S, R13E
& SEC'S 31,30,19 & 18 T13S, R14E
G & S.R.M. PIMA CO. AZ.

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

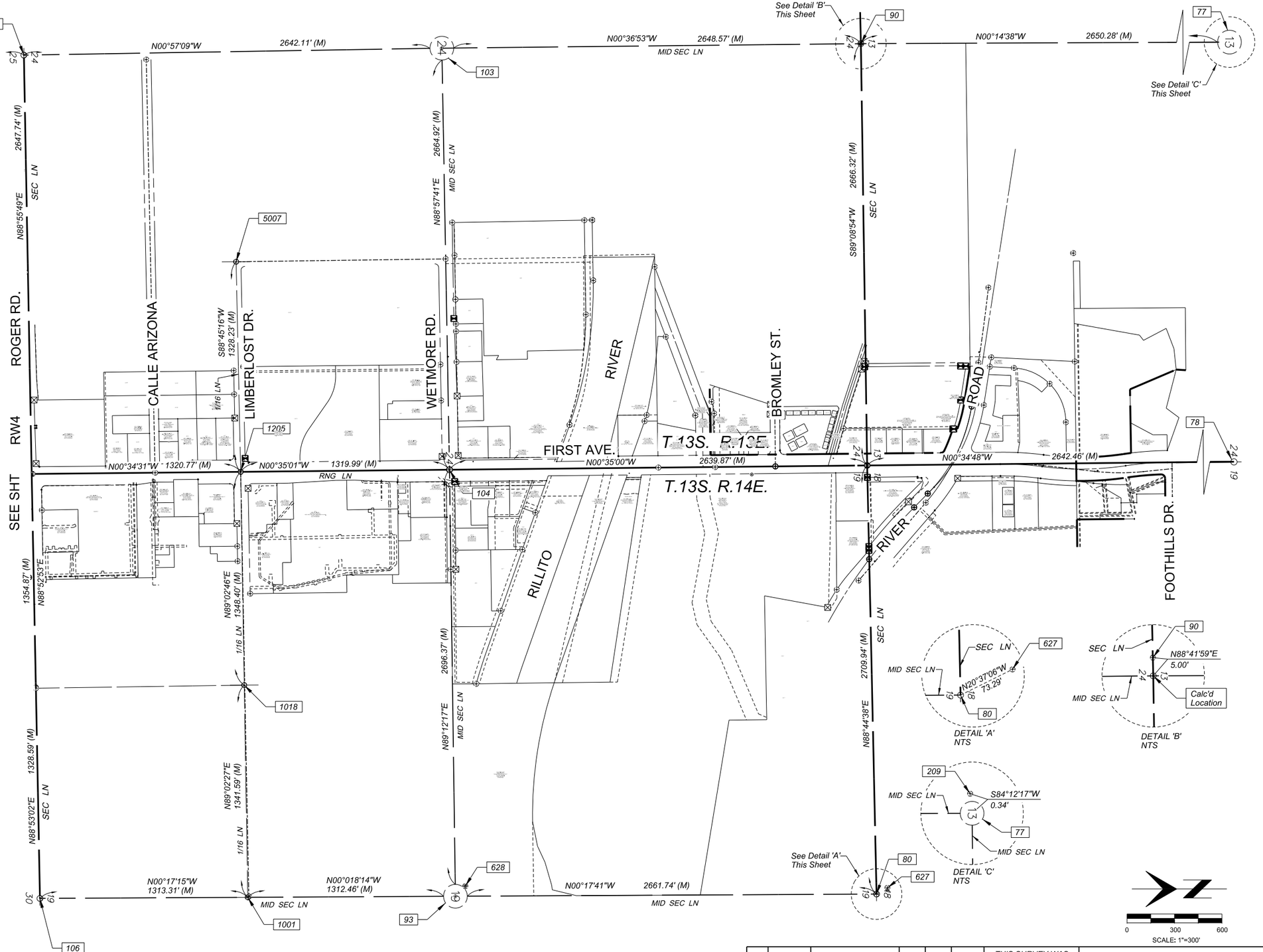
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1"=300'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

468 OF 468

c:\pwworking\west01\d3826137\18V-04.dgn
8/28/2026 10:43:42 AM

Printed by: SWESTMORELAND
Print Scale: 1:300
10:43:47 AM 8/28/2026 OpenRoads Designer v10.12.02.4
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Draft Print

08/28/2026 11:08:24 AM

RW5 of RW40

SECTION CONTROL SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 36,25,24 & 13 T13S, R13E
& SEC'S 31,30,19 & 18 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

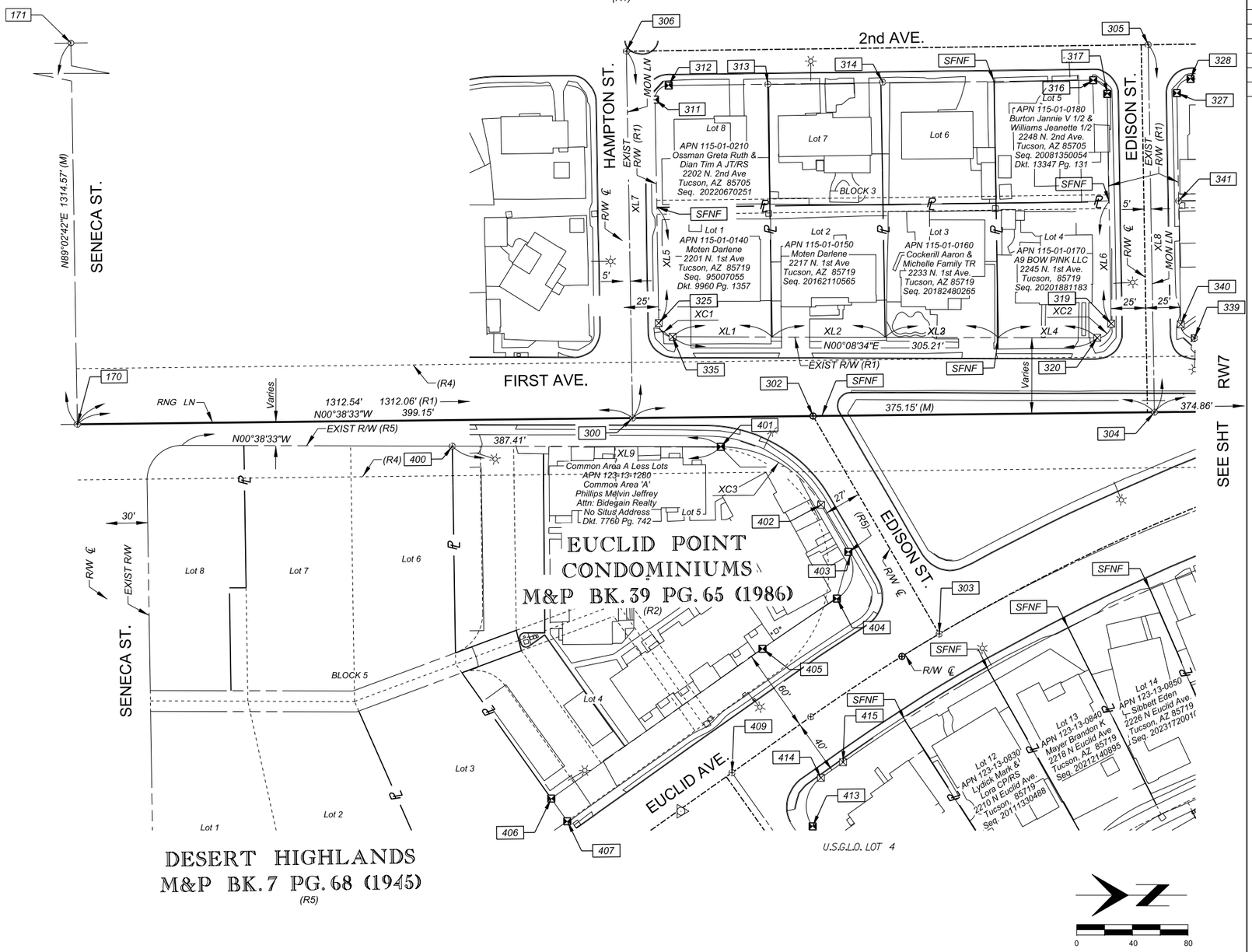
469 OF 504

CITY OF TUCSON

DRWN. BY JTS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: H: 1"=300'
PLAN NO. H-2026-XXX

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

OpenRoads Designer v10.12.02.4
8/28/2026
10:44:02 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvrC: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°08'34"E	71.49'	71.46' (R1)
XL2	N00°08'34"E	81.30'	81.27' (R1)
XL3	N00°08'34"E	81.30'	81.27' (R1)
XL4	N00°08'34"E	71.11'	71.08' (R1)
XL5	S89°01'46"W	83.23'	83.04' (R1)
XL6	S89°01'46"W	87.70'	87.61' (R1)
XL7	S89°01'46"W	263.74'	-------
XL8	S89°01'46"W	264.20'	-------
XL9	N00°09'11"E	193.05'	193.11' (R2)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	88°53'12"	10.00'	15.51'
XC1(R1)	88°52'44"	10.00'	15.51'
XC2	91°06'48"	10.00'	15.90'
XC2(R2)	91°07'16"	10.00'	15.90'
XC3	59°46'53"	83.50'	87.12'
XC3(R2)	59°46'07"	83.50'	87.10'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk.7 Pg.6 (1938)
R2	PLAT Bk.39 Pg.65 (1986)
R4	Add'l PC RW Bk. 21 Pg. 576 (1890)
R5	PLAT Bk. 7 Pg. 68 (1945)

Draft Print
08/28/2026 11:08:24 AM

RW6 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

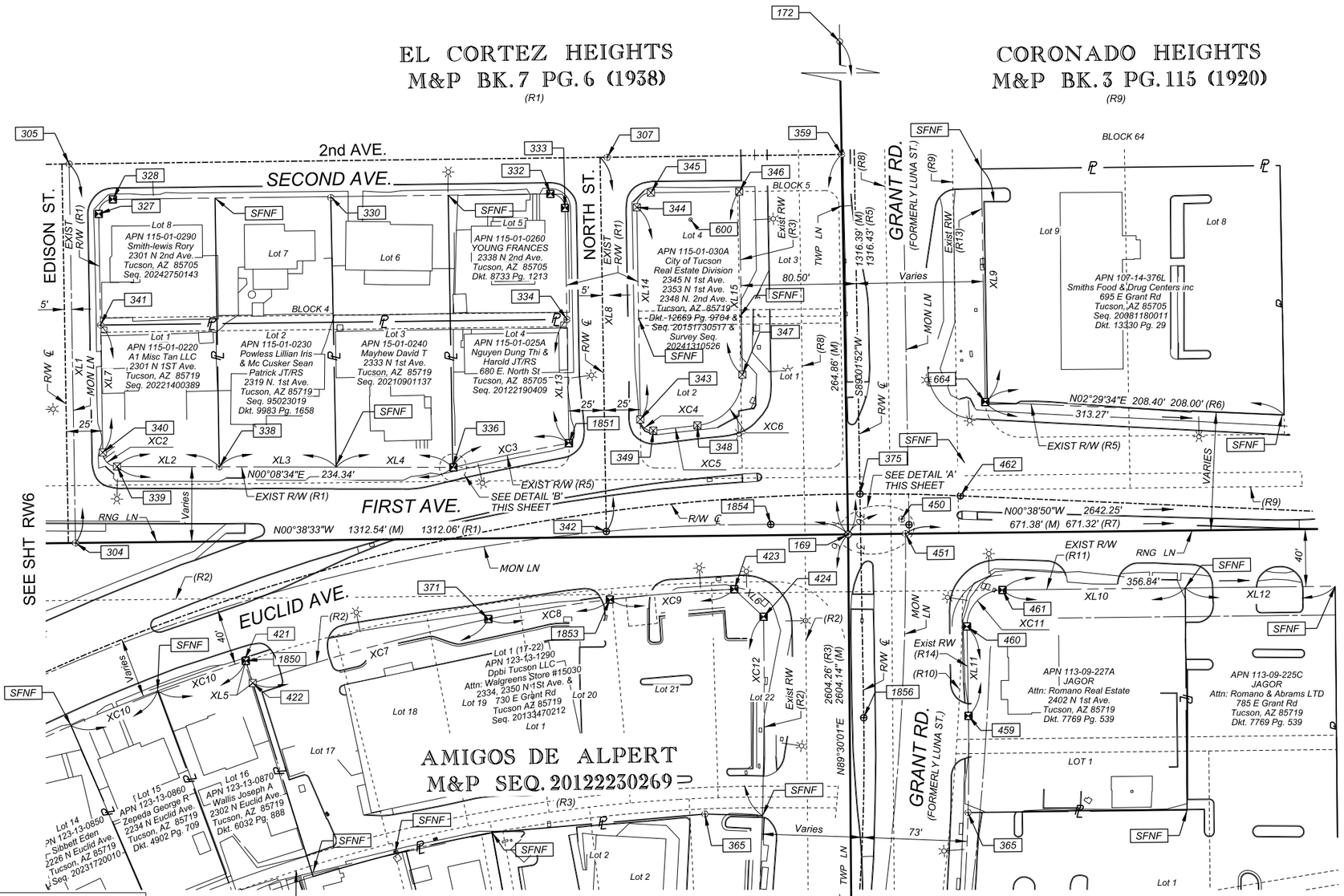
CITY OF TUCSON

DRWN. BY ATS, JTS	CHKD. BY LJB	APPR. BY LJB	SCALE: H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

470 OF 504

c:\pwworking\west01\d3826137\18V-06.dgn
8/28/2026 10:44:02 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:44:06 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	S89°01'46"W	264.20'	- - - - - - -
XL2	N00°08'34"E	71.24'	71.46' (R1)
XL3	N00°08'34"E	81.42'	81.27' (R1)
XL4	N00°08'34"E	81.23'	81.27' (R1)
XL5	S72°41'54"W	16.26'	16.25' (R2)
XL6	S43°12'02"W	28.05'	28.05' (R2)
XL7	S89°01'46"W	88.81'	88.78' (R1)
XL8	S89°02'28"W	260.74'	- - - - - - -
XL9	S89°01'52"W	162.52'	162.49' (R6)
XL10	N00°38'50"W	127.30'	- - - - - -
XL11	N89°02'08"E	62.37'	62.32' (R14)
XL12	N00°38'50"W	104.54'	- - - - - -
XL13	S89°02'28"W	86.25'	- - - - - -
XL14	S89°02'28"W	147.93'	- - - - - -
XL15	S89°02'08"W	127.64'	- - - - - -

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1&(R1)	91°07'16"	10.00'	15.90'
XC2	88°53'12"	10.00'	15.51'
XC2(R1)	88°52'44"	10.00'	15.51'
XC3	3°14'52"	1450.90'	82.25'
XC3(R3)	3°15'25"	1450.90'	82.47'
XC4	96°21'32"	8.00'	13.45'
XC4(R3)	96°27'27"	8.00'	13.47'
XC5	1°13'30"	1450.90'	31.02'
XC5(R3)	1°13'13"	1450.90'	30.90'
XC6&(R3)	84°52'18"	35.00'	51.85'
XC7	7°16'46"	1340.00'	170.25'
XC7(R2)	7°17'00"	1340.00'	170.34'
XC8&(R2)	4°54'48"	1000.00'	85.75'
XC9&(R2)	3°50'45"	1295.24'	86.94'
XC10&(R4)	3°03'24"	1218.36'	65.00'
XC11	90°19'02"	25.00'	39.41'
XC12	02°32'14"	3131.50'	138.67'
XC12(R3)	02°32'12"	3131.50'	138.63'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk.7 Pg.6 (1938)
R2	R/W Dedication Seq. 20122190396
R3	RS 20162710661 & Pln. #H-2016-026
R4	PLAT Bk.7 Pg.68 (1945)
R5	Pln No. I-2013-009 FOC Seq. 20181570170
R6	Seq. 20081180011
R7	R/S Bk. 40 Pg. 24 Seq. 20050050037
R8	Road Proceedings #142 (1927)
R9	PLAT Bk. 3 Pg. 115 (1920)
R10	PLAT Bk. 17 Pg. 33 (1964)
R11	Add'l RW Acq. by PC Bk. 21 Pg. 576 (1890)& Add'l R/W Acq. by RM Bk. 4 Pg. 100 & RP #605 (1950) & Add'l R/W by PC Res. 27461? Dkt. 194 Pg. 108 (1949) PLAT Bk. 17 Pg. 33 (1964)
R12	Addl R/W by FOC Seq. 20190580123 & RS Seq. 20162710661 & Pln. #H-2016-0267 Pg. 33 (1964)
R13	Addl R/W Dkt. 2752 Pg 175 (1966)
R14	RS Pln. H-2016-026

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%

DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

471 OF 504

CITY OF TUCSON

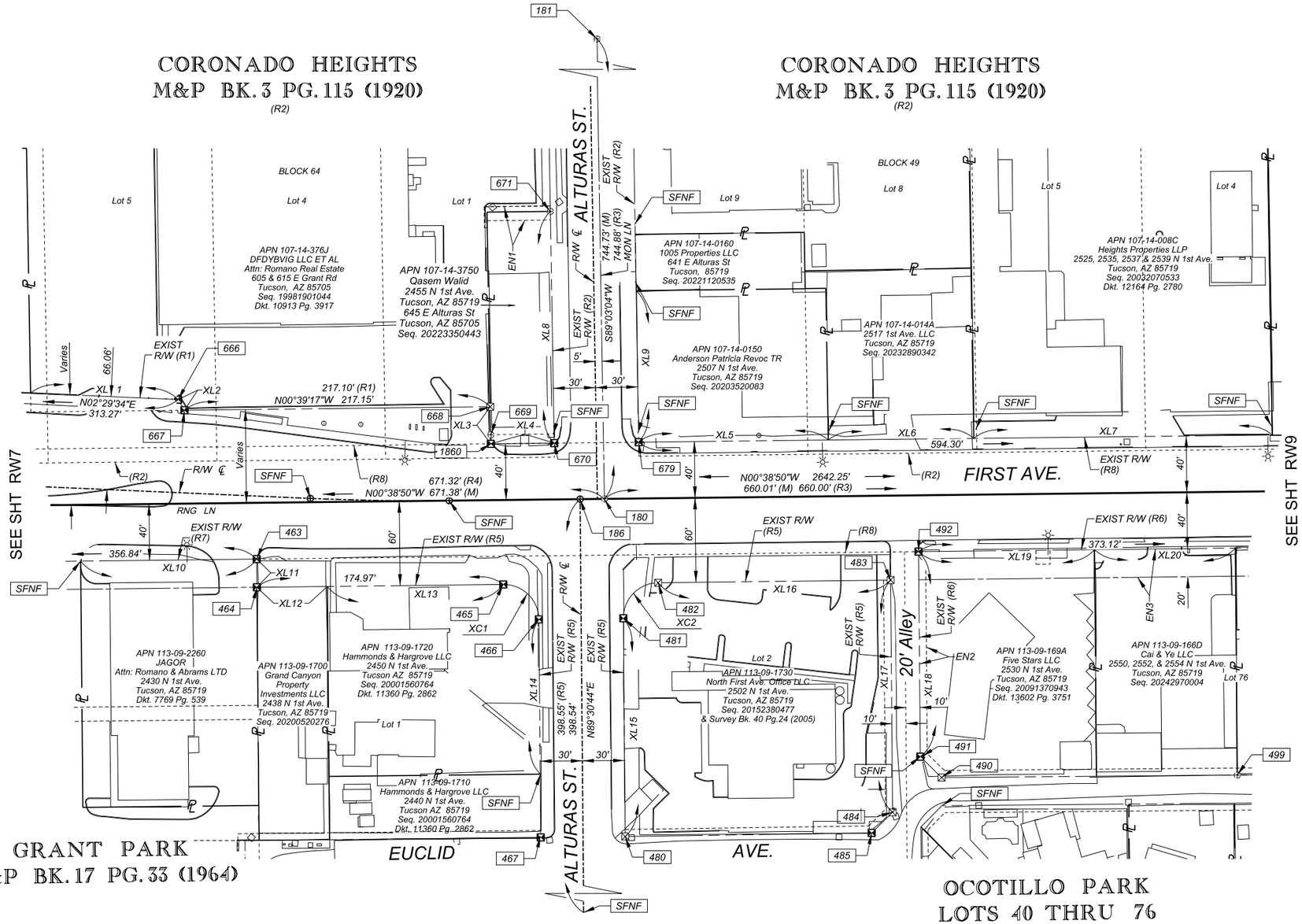
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

Draft Print
08/28/2026 11:08:24 AM

RW7 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

c:\pwworking\west01\d3826137\18V-07.dgn
8/28/2026 10:44:06 AM



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N02°29'34"E	104.87'	104.50' (R1)
XL2	N59°18'44"E	8.83'	8.85' (R1)
XL3	S89°03'04"W	26.33'	- - - - - - -
XL4	N00°38'50"W	45.00'	- - - - - - -
XL5	N00°38'50"W	134.70'	- - - - - - -
XL6	N00°38'50"W	103.30'	- - - - - - -
XL7	N00°38'50"W	212.00'	- - - - - - -
XL8	S89°03'04"W	164.62'	- - - - - - -
XL9	S89°03'04"W	107.67'	- - - - - - -
XL10	N00°38'50"W	125.00'	- - - - - - -
XL11	N89°30'01"E	20.00'	20.00' (R5)
XL12	N00°38'50"W	50.04'	- - - - - - -
XL13	N00°38'50"W	124.93'	- - - - - - -
XL14	N89°30'44"E	109.91'	- - - - - - -
XL15	N89°30'44"E	155.06'	155.07' (R5)
XL16	N00°38'50"W	165.07'	165.07' (R5)
XL17	N89°30'44"E	164.91'	165.00' (R5)
XL18	N89°30'44"E	145.64'	145.68' (R6)
XL19	N00°38'50"W	125.00'	- - - - - - -
XL20	N00°38'50"W	100.00'	- - - - - - -

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	90°09'34"	25.00'	39.34'
XC1(R5)	90°09'00"	25.00'	39.34'
XC2	89°50'26"	25.00'	39.20'
XC2(R5)	89°51'00"	25.00'	39.20'

Sheet Easement Note (EN#) Table	
Note	*Description*
EN1	RW Esmt. to Tucson Gas & Elec Co. for purposes of constructing & maintaining a Electric Transmission or Distribution Line (R9)
EN2	5' Overhead Power Line Esmt. (R6)
EN3	20' Building Setback (R6)

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	Pln No. I-2013-009 Seq. 20181570170
R2	Plat Bk. 3 Pg. 115 (1920)
R3	As-Built H-65-008 (1965)
R4	R/S Bk. 40 Pg. 24 (2005)
R5	Plat Bk. 11 Pg. 75 (1956)
R6	Plat Bk. 10 Pg. 92 (1955)
R7	RW Acquired by PC Per Bk. 21 Pg. 576 (1890) & RM Bk. 4 Pg. 100 & RP #605 (1950) & PC Resolution 27461? Dkt. 194 Pg. 108 (1949) & PLAT Bk. 17 Pg. 33 (1964)
R8	RW Acquired by PC Per Bk. 21 Pg. 576 (1890) & RM Bk. 4 Pg. 100 & RP #605 (1950) & PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R9	Bk. 4858 Pg. 598 (1974)

0 40 80
SCALE: 1"=40'

Draft Print
08/28/2026 11:08:24 AM

RW8 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

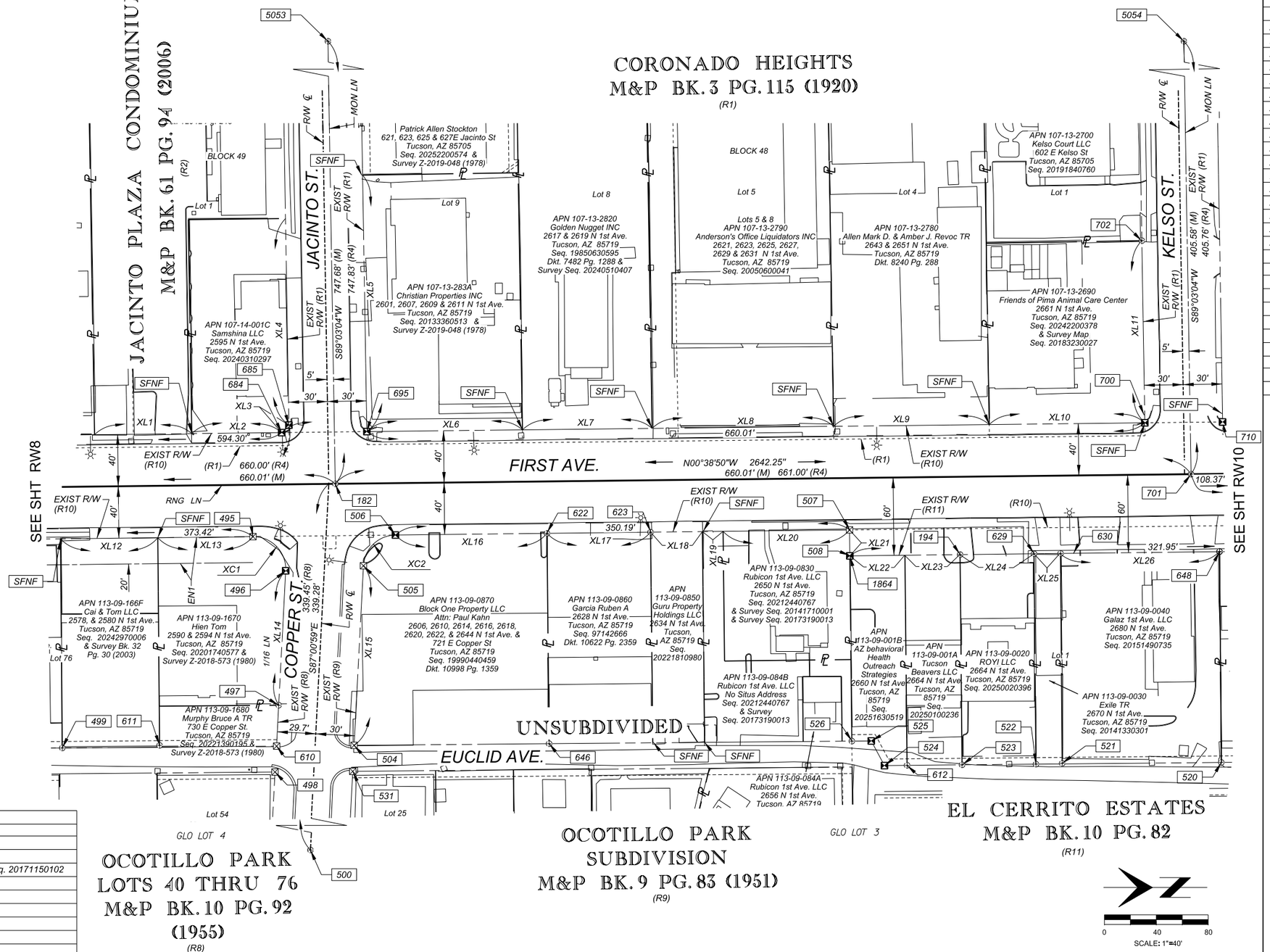
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

472 OF 504

CITY OF TUCSON

DRWN. BY JTS	CHKD. BY LJB	APPR. BY LJB	SCALE: H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149
OpenRoads Designer v10.12.02.4
8/28/2026
10:44:12 AM
c:\pwworking\west01\d3826137\18V-08.dgn
8/28/2026 10:44:12 AM



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°38'50"W	75.00'	75.18' (R2)
XL2	N00°38'50"W	69.29'	- - - - - - -
XL3	N45°47'53"W	8.05'	8.05' (R3)
XL4	S89°03'04"W	159.29'	- - - - - - -
XL5	S89°03'04"W	197.79'	- - - - - - -
XL6	N00°38'50"W	120.00'	- - - - - - -
XL7	N00°38'50"W	100.00'	- - - - - - -
XL8	N00°38'50"W	140.00'	- - - - - - -
XL9	N00°38'50"W	120.00'	- - - - - - -
XL10	N00°38'50"W	120.00'	- - - - - - -
XL11	S89°03'04"W	140.47'	- - - - - - -
XL12	N00°38'50"W	75.05'	75.00' (R5)
XL13	N00°38'50"W	73.37'	73.42' (R6)
XL14	S87°00'59"E	103.80'	103.84' (R6)
XL15	S87°00'59"E	135.41'	- - - - - - -
XL16	N00°38'50"W	116.85'	- - - - - - -
XL17	N00°38'50"W	79.84'	80.00' (R7)
XL18	N00°38'50"W	40.00'	- - - - - - -
XL19	N00°38'50"W	16.00'	- - - - - - -
XL20	N00°38'50"W	97.50'	- - - - - - -
XL21	N89°22'44"E	20.00'	20.00' (R11)
XL22	N00°38'50"W	42.29'	- - - - - - -
XL23	N00°38'50"W	42.50'	- - - - - - -
XL24	N00°38'50"W	57.27'	- - - - - - -
XL25	N00°38'50"W	19.94'	- - - - - - -
XL26	N00°38'50"W	123.12'	- - - - - - -

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	93°37'51"	25.00'	40.85'
XC1(R6)	93°40'00"	25.00'	40.87'
XC2	86°22'09"	25.00'	37.69'

Sheet Easement Note (EN#) Table	
Note	*Description*
EN1	20' Building Setback (R6)

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 3 Pg. 115 (1920)
R2	PLAT Bk. 61 Pg. 94 (2006)
R3	RW Conveyed to COT per Seq. 20171150102
R4	As-Built H-65-008 (1965)
R5	Seq. 20242970006
R6	Seq. 20201740577
R7	Seq. 97142666
R8	PLAT Bk. 10 Pg. 92 (1955)
R9	PLAT Bk. 9 Pg. 83 (1951)
R10	RW Acquired by PC Per Bk. 21 Pg. 576 (1890) & RM Bk. 4 Pg. 100 & RP #605 (1950) & PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R11	PLAT Bk. 10 Pg. 82 (1954)

Draft Print
08/28/2026 11:08:24 AM

RW9 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

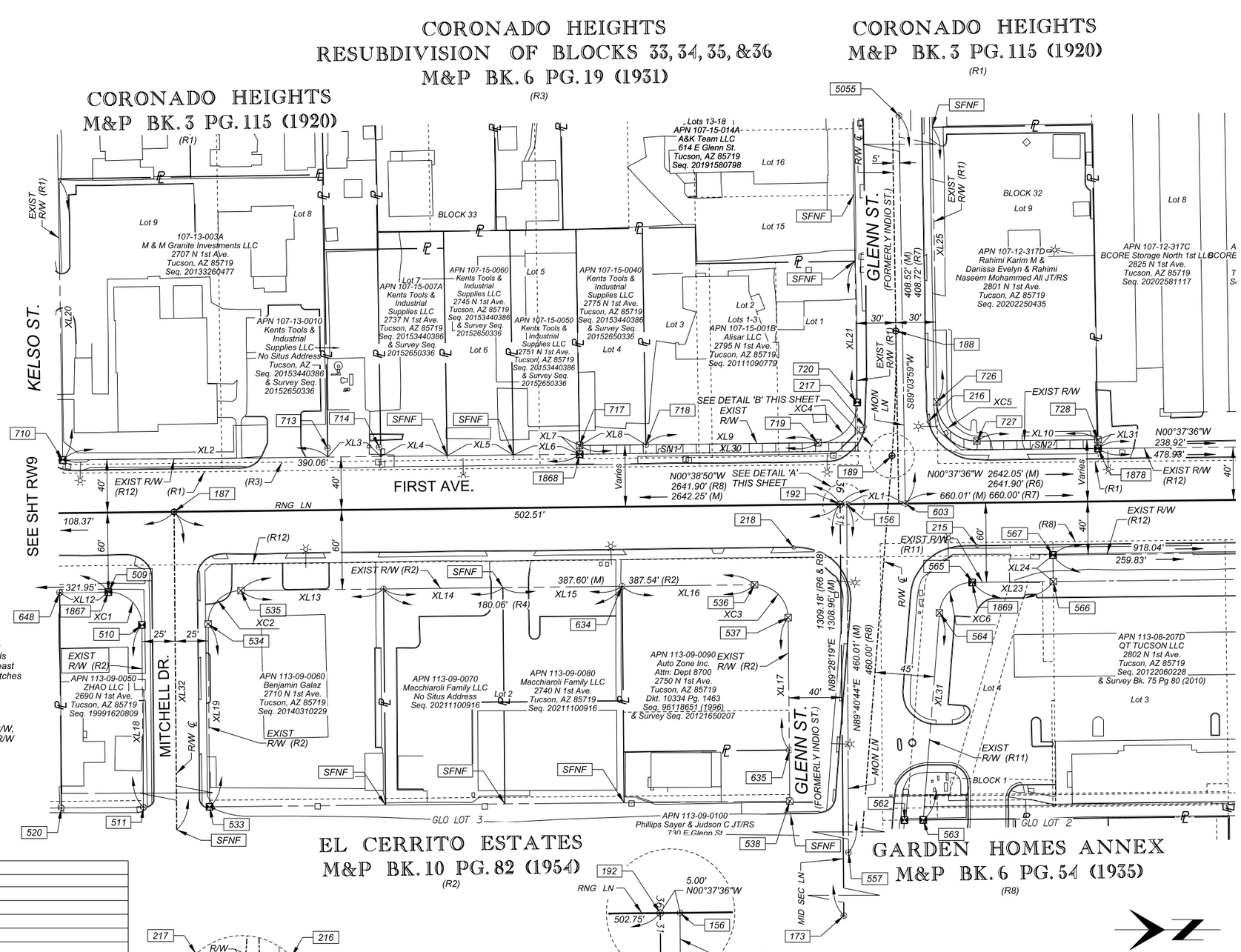
473 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

OpenRoads Designer v10.12.02.4
8/28/2026
10:44:18 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.ptcfg
Project ID:
Client Number: 012149
c:\pwworking\west01\d3826137\18V-09.dgn
8/28/2026 10:44:18 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:44:23 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvrIni: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Survey Note 1: SN1
This area not shown as being acquired for R/W, Assessors shows adjoing parcel coming to R/W but deeds and monumention do not. Shown this way with setting mag nails on RS 20152650336. Parcel deeds except east 10' from resubdivided east lot line which matches monuments.

Survey Note 2: SN2
This area not shown as being acquired for R/W, Assessors shows adjoing parcel coming to R/W but monumention does not. Matching set monuments from RS Bk 24 Pg 62 (2001).

Note:
⊙ = Found concrete nail with brass tag stamped "RLS 31032 RP" flush unless otherwise noted.

Sheet Reference (R#) Table	
Record	Bk.Dkt.Seq. REFERENCE
R1	PLAT Bk. 3 Pg. 115 (1920)
R2	PLAT Bk. 10 Pg. 82 (1954)
R3	PLAT Bk. 6 Pg. 19 (1931)
R4	Seq. 20122060228
R5	Seq. 96118651 (1996)
R6	H-71-004 (1972)
R7	H-65-008 (1965)
R8	PLAT Bk. 6 Pg. 54 (1935)
R9	R/S Bk. 30 Pg. 55 (2003)
R10	C.O.T. Acq. Dkt. 8433 Pg. 1612 (1988) & S-89-016 (1989)
R11	C.O.T. Acq. Dkt. 9719 Pg. 3802 (1994)
R12	RW Acquired by PC Per Bk. 21 Pg. 576 (1890) & RM Bk. 4 Pg. 100 & RP #605 (1950) & PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R13	Addl R/W by OIP Dkt. 8595 Pg. 426 (1989) & FOC Dkt. 9521 Pg. 868 (1993) & Survey S-89-016 (1989)

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Sheet Existing Line (XL#) Bearing And Distance Table			
Line	Bearing	Distance	Record Distance
XL1	N00°37'36"W	44.21'	--------
XL2	N00°38'50"W	200.04'	--------
XL3	N00°38'50"W	40.00'	--------
XL4	N00°38'50"W	50.01'	--------
XL5	N00°38'50"W	50.01'	50.00' (R3)
XL6	N00°38'50"W	50.01'	50.00' (R3)
XL7	S89°03'40"W	6.60'	--------
XL8	N00°39'16"W	50.01'	50.00' (R3)
XL9	N00°39'16"W	129.88'	--------
XL10	N00°39'18"W	91.21'	--------
XL12	N00°38'50"W	36.83'	--------
XL13	N00°38'50"W	107.65'	--------
XL14	N00°38'50"W	90.00'	--------
XL15	N00°38'50"W	90.00'	--------
XL16	N00°38'50"W	99.95'	99.77' (R5)
XL17	N89°28'19"E	99.95'	99.77' (R5)
XL18	N89°31'54"E	137.59'	137.29' (R2)
XL19	N89°31'54"E	138.00'	137.49' (R2)
XL20	S89°03'04"W	212.24'	--------
XL21	N89°03'59"E	106.59'	--------
XL23	N00°37'36"W	60.38'	60.24' (R4)
XL24	S89°29'18"W	20.00'	--------
XL25	S89°03'59" W	207.25'	--------
XL26	S46°39'43" W	93.55'	93.55' (R9)
XL27	S43°02'41" E	37.64'	37.64' (R9)
XL28	N46°39'43" E	30.05'	30.05' (R9)
XL29	N43°02'41" W	101.54'	101.54' (R9)
XL30	N00°39'16" W	179.89'	--------
XL31	S85°30'56" E	156.70'	--------
XL32	N89°31'54" E	267.68'	267.39' (R2)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	Delta (Δ)	Radius	Length
XC1	90°10'43"	25.00'	39.35'
XC1(R2)	90°06'40"	25.00'	39.32'
XC2	89°49'17"	25.00'	39.19'
XC2(R2)	89°53'20"	25.00'	39.22'
XC3	90°07'08"	25.00'	39.32'
XC3(R5)	90°32'38"	25.00'	39.51'
XC4(R13)	90°16'46"	30.00'	47.27'
XC5	89°43'17"	30.00'	46.98'
XC5(R10)	89°41'13"	30.00'	46.96'
XC6	84°53'20"	25.00'	37.04'
XC6(R4)	84°46'10"	25.00'	36.99'

Draft Print
08/28/2026 11:08:24 AM

RW10 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

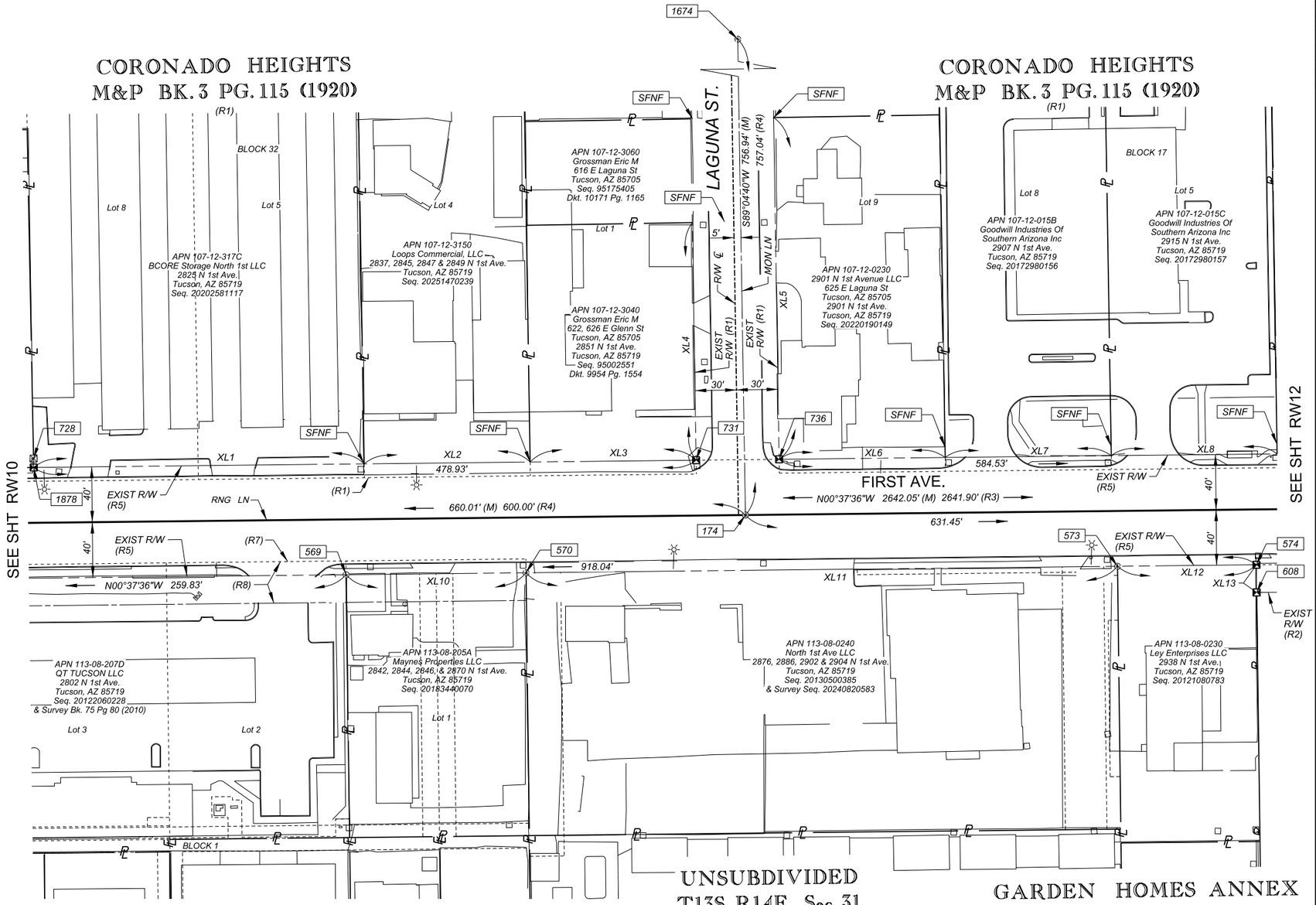
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

474 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149
10:44:29 AM 8/28/2026 OpenRoads Designer v10.12.02.4



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°37'36"W	238.92'	-------
XL2	N00°37'36"W	120.00'	-------
XL3	N00°37'36"W	120.00'	-------
XL4	S89°04'40"W	171.76'	-------
XL5	S89°04'40"W	247.07'	-------
XL6	N00°37'36"W	120.00'	-------
XL7	N00°37'36"W	120.00'	-------
XL8	N00°37'36"W	120.00'	-------
XL10	N00°37'36"W	130.15'	-------
XL11	N00°37'36"W	427.62'	428.00' (R6)
XL12	N00°37'36"W	100.44'	-------
XL13	N89°24'16"E	20.00'	20.00' (R2)

Lot 9 M&P Coronado Heights Bk. 3 Pg. 115
Subject to: Terms & Conditions Stated Within
Water Service Agreement Per Bk. 935 Pg. 600

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 3 Pg. 115 (1920)
R2	Add'l COT RW Per Bk. 1471 Pg. 220 (1959)
R3	H-71-004 (1972)
R4	H-65-008 (1965)
R5	RW Acquired by PC Per Bk. 21 Pg. 576 (1890) & RM Bk. 4 Pg. 100 & RP #605 (1950) & PC Resolution 27461? Dkt. 194 Pg. 108 (1949) & RM Bk. 8 Pg. 34 & RP #989 (1957)
R6	Seq. 20130500385 (2013)
R7	PLAT Bk. 6 Pg. 54 (1935)
R8	30' Bldg. Setback Deeds Per Bk. 192 Pg. 493 (1936) & Shown on RS Bk. 75 Pg. 80

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

475 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

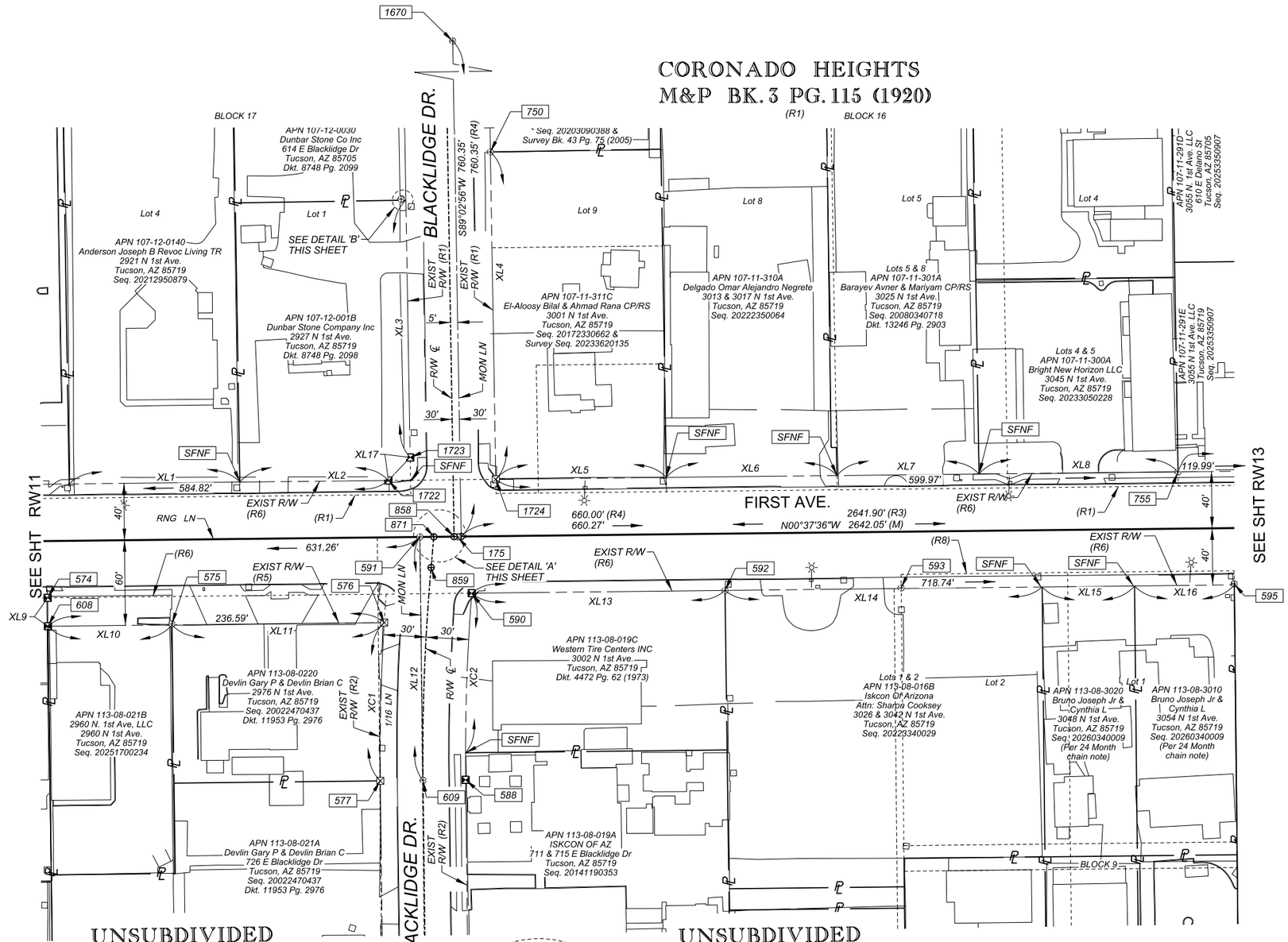
Draft Print
08/28/2026 11:08:24 AM

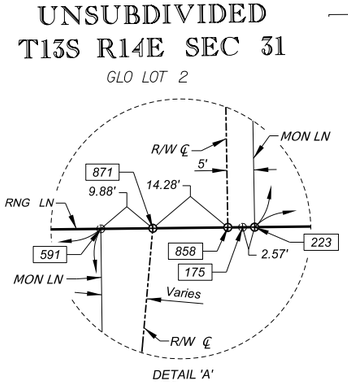
RW11 of RW40

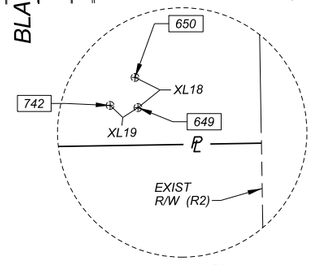
PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

c:\pwworking\west01\d3826137\18V-11.dgn
8/28/2026 10:44:29 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:44:40 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149







Sheet Reference (R#) Table	
Record	Bk.Dkt.Seq. REFERENCE
R1	PLAT Bk. 3 Pg. 115
R2	RW Per RM Bk. 5 Pg. 52 & RP #660 (1950)
R3	H-71-004 (1972)
R4	H-65-008 (1965)
R5	Add'l COT RW Per Bk. 1471 Pg. 220 (1959)
R6	RW Acquired by PC Per Bk. 21 Pg. 576 (1890) & RM Bk. 4 Pg. 100 & RP #605 (1950) & PC Resolution 27461? Dkt. 194 Pg. 108 (1949) & RM Bk. 8 Pg. 34 & RP #989 (1957)
R7	Scrivener's Error Seq. 20250090246
R8	PLAT Bk. 6 Pg. 54 (1935)
R9	Seq. 20251700234

Sheet Existing Line (XL#) Bearing And Distance Table			
Line	Bearing	Distance	Record Distance
XL1	N00°37'36"W	120.08'	--------
XL2	N00°37'36"W	104.50'	--------
XL3	S89°02'56"W	181.14'	--------
XL4	S89°02'56"W	230.47'	--------
XL5	N00°37'36"W	119.99'	--------
XL6	N00°37'36"W	119.99'	--------
XL7	N00°37'36"W	100.00'	--------
XL8	N00°37'36"W	139.99'	--------
XL9	N89°24'16"E	20.00'	20.00' (R5)
XL10	N00°37'36"W	87.21'	86.44' (R9)
XL11	N00°37'36"W	149.39'	--------
XL12	N89°18'12"E	171.35'	--------
XL13	N00°37'36"W	178.21'	--------
XL14	N00°37'36"W	223.11'	--------
XL15	N00°37'36"W	65.00'	--------
XL16	N00°37'36"W	70.19'	--------
XL17	N46°35'28"W	22.28'	22.30' (R7)
XL18	N84°3028"E	0.21'	--------
XL19	N04°28'02"E	0.19'	--------

Sheet Existing & Record Curve (XC#) Data Table			
Curve	Delta (Δ)	Radius	Length
XC1 & (R2)	4°11'22"	1524.67'	111.48'
XC2 & (R2)	4°23'57"	1464.67'	131.48'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%

DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

476 OF 504

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	

PLAN NO. H-2026-XXX

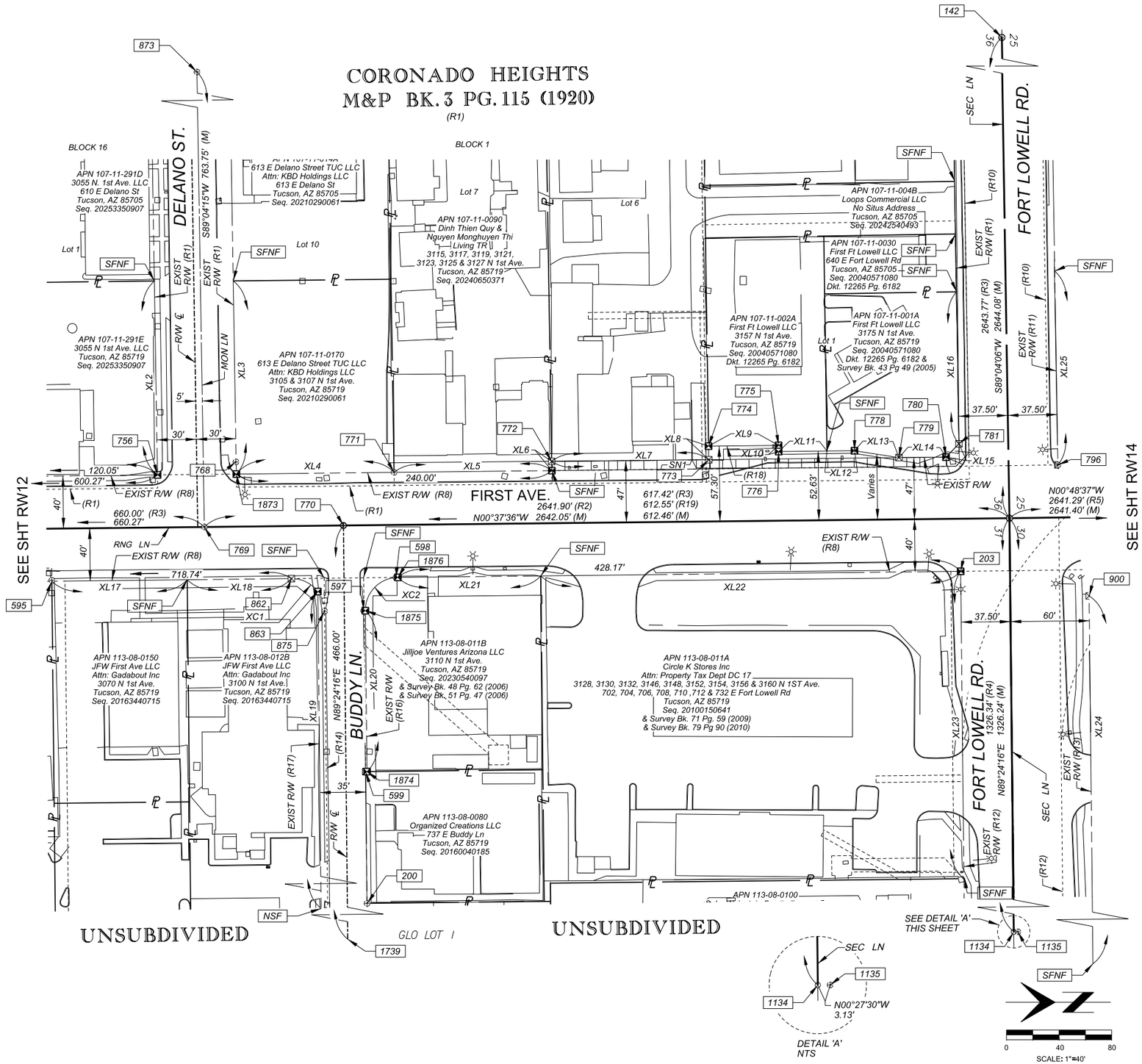
Draft Print
08/28/2026 11:08:24 AM

RW12 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

c:\pwworking\west01\d3826137\18V-12.dgn
8/28/2026 10:44:40 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:44:45 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvrGN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Survey Note 1: SN1
This area not shown as being acquired for R/W. Assessors shows adjoining parcel coming to R/W but deeds with monumention provide gap in R/W. RS 43/49 (20051210359), H-2008-013, I-822B show 47' width but nothing supports acquisition except maybe descrepency in plat dimensions. Held addional 7' offset which agrees with found monumentation and occupation of roadway facilities.

Sheet Reference (R#) Table	
Record	Bk.Dkt.Seq. REFERENCE
R1	PLAT Bk. 3 Pg. 115 (1920)
R2	H-71-004 (1972)
R3	H-65-008 (1965)
R4	R/S Bk. 67 Pg. 85 (2008)
R5	PLAT Bk. 7 Pg. 73 (1944)
R6	R/S Bk. 51 Pg. 47 (2006)
R7	R/S Bk. 71 Pg. 59 (2009)
R8	R/W Acquired by PC Per Bk. 21 Pg. 576 (1890) & RM Bk. 4 Pg. 100 & RP #605 (1950) & PC Resolution 27461? Dkt. 194 Pg. 108 (1949) & RM Bk. 8 Pg. 34 & RP #989 (1957)
R9	Add'l R/W Bk. 2328 Pg. 72 (1964)
R10	RM Bk. 1 Pg. 91 & RP #84 (1925)
R11	PLAT Bk. 6 Pg. 41 (1932)
R12	RM Bk. 1 Pg. 24 & RP #6 (1920)
R13	Add'l R/W Bk. 1096 Pg. 285 (1956)
R14	30' I/E Esmt. Seq. 20160040185
R15	Add'l R/W Seq. 20163440715
R16	Add'l R/W Dkt. 3296 Pg. 436 (1968)
R17	Add'l R/W Dkt. 10478 Pg. 891 (1997)
R18	Add'l RW Seq. 20170100250
R19	R/S Bk. 43 Pg. 49 (2005)

Sheet Existing Line (XL#) Bearing And Distance Table			
Line	Bearing	Distance	Record Distance
XL2	S89°04'15"W	147.57'	--------
XL3	S89°04'15"W	146.97'	--------
XL4	N00°37'36"W	120.00'	120.00' DEED
XL5	N00°37'36"W	120.00'	120.00' DEED
XL6	S89°04'17"W	7.00'	--------
XL7	N00°37'36"W	119.48'	--------
XL8	S89°09'25"W	10.30'	--------
XL9	N00°37'36"W	53.26'	--------
XL10	S89°22'24"W	4.67'	--------
XL11	N00°37'36"W	36.76'	--------
XL12	N00°37'36"W	20.95'	--------
XL13	N08°50'31"E	34.22'	--------
XL14	N00°37'36"W	35.78'	--------
XL15	N45°46'45"W	14.10'	14.14' (R9)
XL16	S89°04'06"W	115.72'	--------
XL17	N00°37'36"W	103.00'	--------
XL18	N00°37'36"W	79.23'	--------
XL19	N89°24'16"E	370.00'	--------
XL20	N89°24'16"E	122.51'	122.44' (R6)
XL21	N00°37'36"W	108.77'	108.99' (R6)
XL22	N00°37'36"W	319.40'	319.40' (R7)
XL23	N89°24'16"E	233.90'	233.90' (R7)
XL24	N89°24'16"E	846.10'	--------
XL25	S89°04'06"W	147.50'	--------

Sheet Existing & Record Curve (XC#) Data Table			
Curve	Delta (Δ)	Radius	Length
XC1	53°09'41"	25.00'	23.20'
XC1 (R15)	53°13'10"	25.00'	23.22'
XC2	89°58'08"	25.00'	39.26'
XC2 (R16)	--------	25.00'	--------

Draft Print
08/28/2026 11:08:24 AM

RW13 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

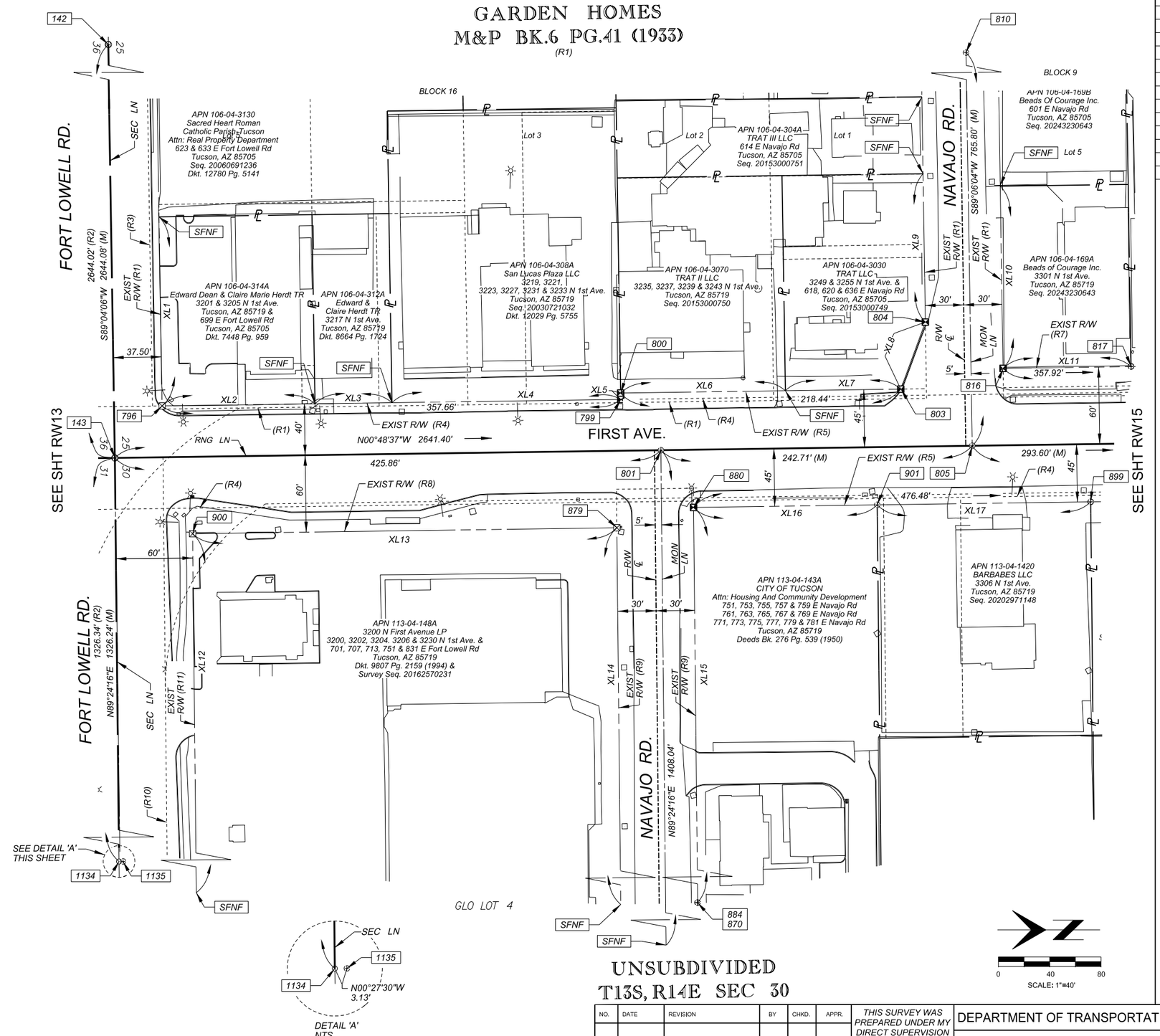
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

477 OF 504

CITY OF TUCSON

DRWN. BY JTS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: H: 1" = 40'
PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-13.dgn
8/28/2026 10:44:45 AM



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N89°04'06"E	147.50'	- - - - - - -
XL2	N00°48'37"W	119.22'	- - - - - - -
XL3	N00°48'37"W	60.00'	- - - - - - -
XL4	N00°48'37"W	178.44'	- - - - - - -
XL5	S89°05'17"W	5.00'	5.00' (R5)
XL6	S00°48'37"W	128.47'	- - - - - - -
XL7	S00°48'37"W	89.97'	- - - - - - -
XL8	N69°51'00"W	55.68'	55.68' (R6)
XL9	S89°06'04"W	115.68'	- - - - - - -
XL10	S89°06'04"W	142.15'	- - - - - - -
XL11	N00°48'37"W	99.79'	- - - - - - -
XL12	N89°12'16"E	846.10'	- - - - - - -
XL13	N00°48'37"W	330.81'	- - - - - - -
XL14	N89°24'16"E	860.89'	- - - - - - -
XL15	N89°24'16"E	777.91'	- - - - - - -
XL16	N00°48'37"W	143.19'	- - - - - - -
XL17	N00°48'37"W	166.50'	- - - - - - -

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 6 Pg. 41 (1933)
R2	RS Bk. 67 Pg. 85 (2008)
R3	RM Bk. 1 Pg. 91 & RP #84 (1925)
R4	RW Acquired by PC Per Bk. 21 Pg. 576 (1890) & RM Bk. 4 Pg. 100 & RP #605 (1950) & PC Resolution 27461? Dkt. 194 Pg. 108 (1949) & RM Bk. 8 Pg. 34 & RP #989 (1957)
R5	RM Bk. 8 Pg. 54 & RP #1030 (1958)
R6	Conveyance Bk. 2051 Pg. 248 (1963)
R7	Add'l R/W By Deed Exceptions
R8	Add'l R/W Dkt. 1096 Pg. 285 (1957) As shown On R-71-012 (1972)
R9	RM Bk. 6 Pg. 54 & RP #757-B (1953)
R10	RM Bk. 1 Pg. 24 & RP #6 (1920)
R11	Add'l R/W Bk. 1096 Pg. 285 (1956)

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30% DESIGN CONCEPT SUBMITTAL Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

478 OF 504

CITY OF TUCSON

DRWN. BY JTS AUG 2026 | CHKD. BY LJB AUG 2026 | APPR. BY LJB AUG 2026 | SCALE: H: 1" = 40'

PLAN NO. H-2026-XXX

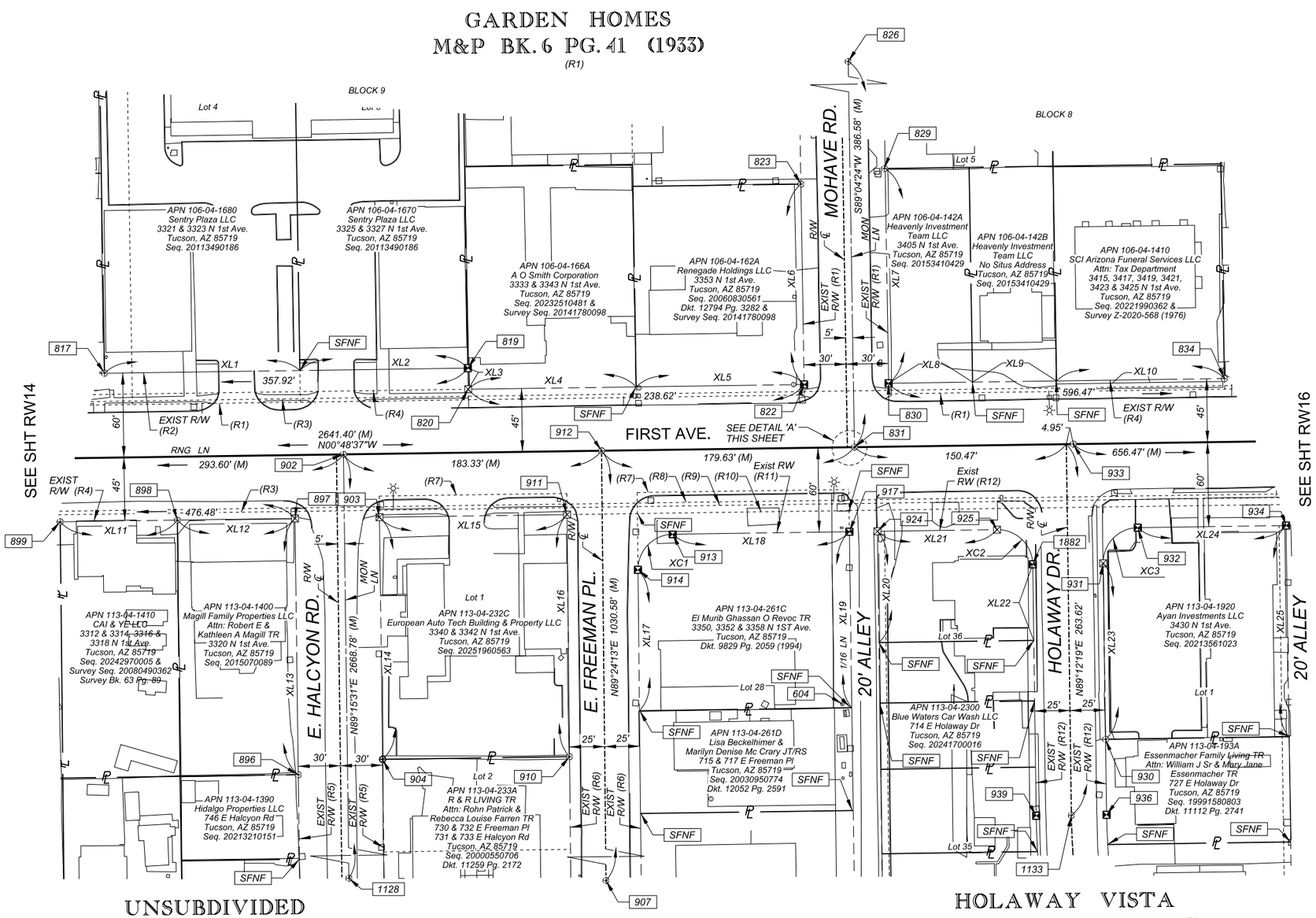
Draft Print
08/28/2026 11:08:24 AM

RW14 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

OpenRoads Designer v10.12.02.4
8/28/2026
10:44:50 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.dtcfg
Project ID:
Client Number: 012149
c:\pwworking\west01\d3826137\18V-14.dgn
8/28/2026 10:44:50 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:44:56 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
PlotDrvr: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°48'37"W	138.82'	--------
XL2	N00°48'37"W	119.31'	--------
XL3	N89°05'04"E	15.00'	15.00' (R2)
XL4	N00°48'37"W	119.31'	--------
XL5	N00°48'37"W	119.31'	--------
XL6	S89°04'24"W	142.31'	--------
XL7	N89°04'24"E	152.57'	--------
XL8	N00°48'37"W	59.65'	--------
XL9	N00°48'37"W	59.65'	--------
XL10	N00°48'37"W	119.23'	--------
XL11	N00°48'37"W	83.25'	--------
XL12	N00°48'37"W	83.53'	--------
XL13	N89°15'31"E	182.00'	--------
XL14	N89°15'31"E	171.93'	--------
XL15	N00°48'37"W	133.21'	--------
XL16	N89°24'13"E	171.93'	--------
XL17	N89°24'13"E	100.09'	--------
XL18	N00°48'37"W	125.50'	--------
XL19	N89°12'19"E	125.00'	--------
XL20	N89°12'19"E	79.00'	--------
XL21	N00°48'37"W	84.99'	--------
XL22	N89°12'19"E	53.99'	--------
XL23	N89°12'19"E	125.01'	--------
XL24	N00°48'37"W	105.25'	--------
XL25	N89°09'03"E	150.00'	--------

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	89°47'10"	25.00'	39.18'
XC2	90°00'56"	25.00'	39.28'
XC3	89°59'04"	25.00'	39.26'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 6 Pg. 41 (1933)
R2	Add'l PC RW Per Dkt. 1209 Pg. 346 (1957)
R3	RM Bk. 4 Pg. 100 & RP #605 (1950)
R4	RM Bk. 8 Pg. 54 & RP #1030 (1958)
R5	PC Acq. Dkt. 150 Pg. 39 (1930)
R6	PLAT Bk. 6 Pg. 30 (1931)
R7	PLAT Bk. 6 Pg. 30 (1931)
R8	Ft Lowell Ext. (Formerly Old Prince Rd) RM Bk. 1 Pg. 24 & RP #6 (1920)
R9	PC Acq. Bk. 21 PG 576 (1890) & PC Res. 27461? Dkt. 194 Pg. 108 (1949) & RM Bk 4 Pg. 100 & RP #605 (1950) & RM Bk 8 Pg. 34 & RP #989 (1957)
R10	Addl RW RM Bk. 8 Pg.54 & RP #1030 (1958) & Dkt. 1329 Pg. 434 (1958)
R11	Addl R/W shown on Assessors Map Need Acquisition document
R12	PLAT Bk. 16 Pg. 40 (1962)

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30% DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

479 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

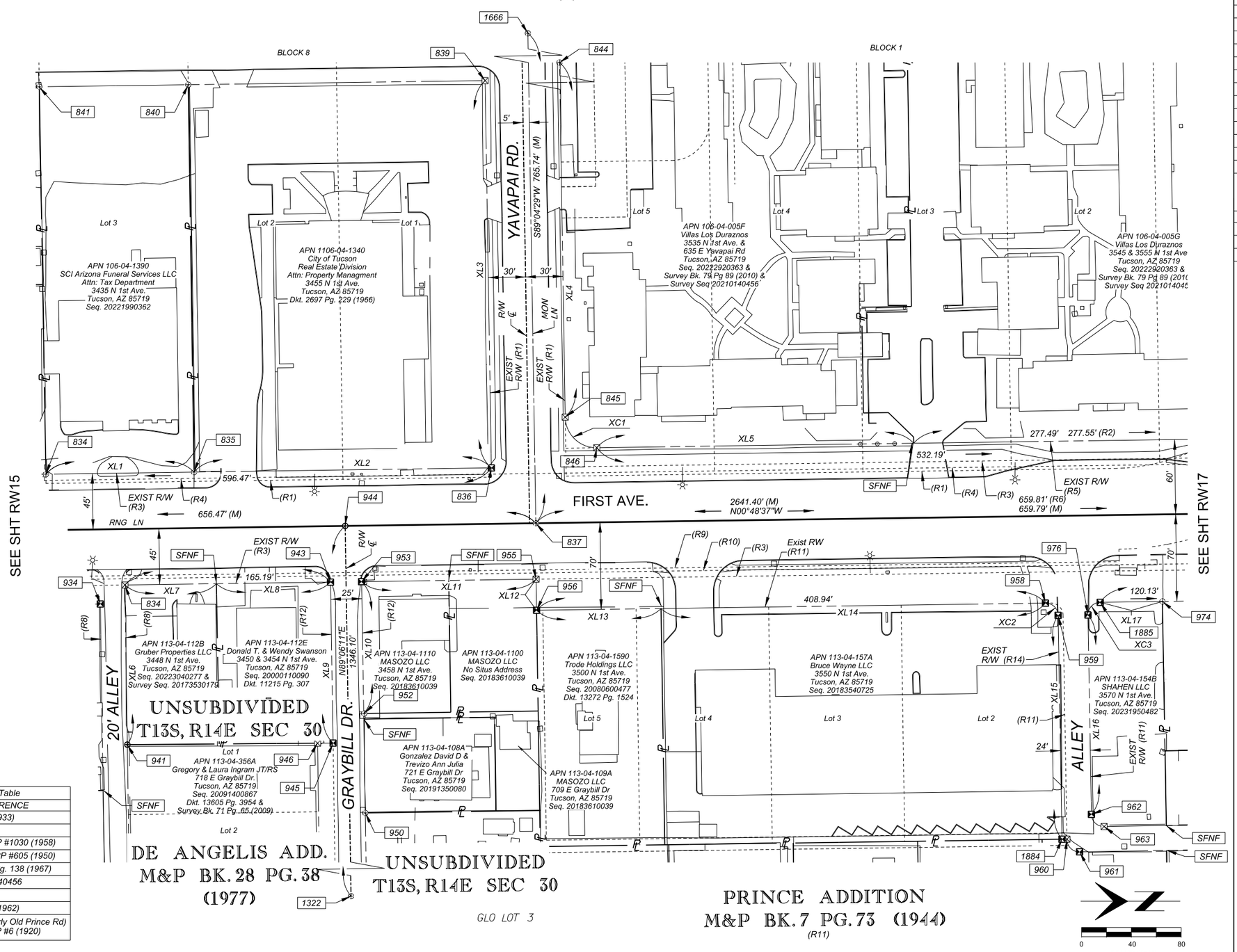
Draft Print
08/28/2026 11:08:24 AM

RW15 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

c:\pwworking\west01\d3826137\18V-15.dgn
8/28/2026 10:44:56 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:01 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PltoldVer: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°48'37"W	119.03'	- - - - - - -
XL2	N00°48'37"W	238.92'	- - - - - - -
XL3	S89°04'29"W	311.40'	- - - - - - -
XL4	N89°04'29"E	576.24'	576.64' (R2)
XL5	N00°48'37"W	254.70'	254.75' (R2)
XL6	N89°09'03"E	128.38'	128.27' (R7)
XL7	N00°48'37"W	73.45'	73.45' (R7)
XL8	N00°48'37"W	91.74'	- - - - - - -
XL9	N89°06'11"E	129.36'	- - - - - - -
XL10	N89°06'11"E	106.00'	- - - - - - -
XL11	N00°48'37"W	140.17'	140.08' (R13)
XL12	N89°06'25"E	25.00'	25.00' (R11)
XL13	N00°48'37"W	100.03'	- - - - - - -
XL14	N00°48'37"W	308.92'	- - - - - - -
XL15	N89°00'14"E	180.03'	- - - - - - -
XL16	N89°00'14"E	160.31'	- - - - - - -
XL17	N00°48'37"W	49.97'	- - - - - - -

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1&(R2)	89°53'06"	25.00'	39.22'
XC2	89°48'51"	10.00'	15.68'
XC3	90°11'09"	10.00'	15.74'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 6 Pg. 41 (1933)
R2	Seq. 20222920363
R3	RM Bk. 8 Pg. 54 & RP #1030 (1958)
R4	RM Bk. 4 Pg. 100 & RP #605 (1950)
R5	Add'l RW Dkt. 3006 Pg. 138 (1967)
R6	R/S Seq. No. 20210140456
R7	Seq. 20223040277
R8	PLAT Bk. 16 Pg. 40 (1962)
R9	Ft Lowell Ext. (Formerly Old Prince Rd) RM Bk. 1 Pg. 24 & RP #6 (1920)

Sheet Reference (R#) Table (Continued)	
Record	*Bk.Dkt.Seq. REFERENCE*
R10	PC Acq. Bk. 21 PG 576 (1890) & PC Res. 27461? Dkt. 194 Pg. 108 (1949) & RM Bk 4 Pg. 100 & RP #605 (1950) & RM Bk 8 Pg. 34 & RP #989 (1957)
R11	PLAT Bk. 7 Pg. 73 (1944)
R12	PC RW DRE Bk 272 Pg 326 (1944)
R13	Seq. 20183610039
R14	COT R/W Per Dkt. 7321 Pg. 1108 (1984) Parcel 1 & Spandrel Parcel II

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

480 OF 504

CITY OF TUCSON

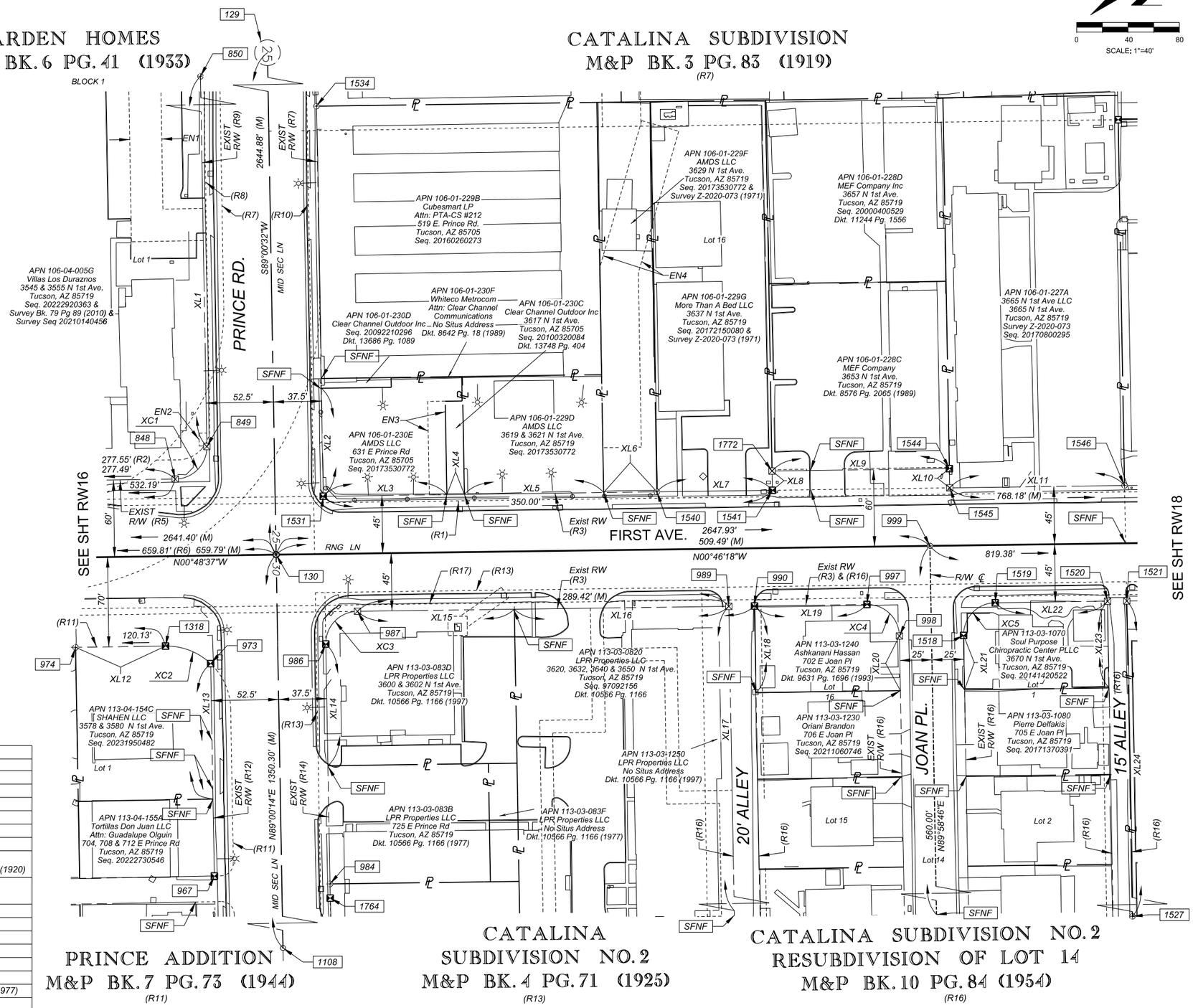
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTA	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

Draft Print
08/28/2026 11:08:24 AM

RW16 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

c:\pwworking\west01\d3826137\18V-16.dgn
8/28/2026 10:45:01 AM



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	S89°00'32"W	625.68'	625.78' (R2)
XL2	S89°00'32"W	84.20'	- - - - - - -
XL3	N00°46'18"W	96.33'	- - - - - - -
XL4	N00°46'18"W	13.67'	- - - - - - -
XL5	N00°46'18"W	108.50'	- - - - - - -
XL6	N00°46'18"W	41.50'	- - - - - - -
XL7	N00°46'18"W	90.00'	- - - - - - -
XL8	N00°46'18"W	15.00'	15.00' (R4)
XL9	N00°46'18"W	138.18'	- - - - - - -
XL10	N89°00'12"E	15.00'	15.00' (R4)
XL11	N00°46'18"W	136.25'	136.25' (R6)
XL12	N00°48'37"W	70.16'	- - - - - - -
XL13	N89°00'14"E	165.51'	- - - - - - -
XL14	N89°00'14"E	94.90'	- - - - - - -
XL15	N00°46'18"W	122.27'	- - - - - - -
XL16	N00°46'18"W	167.15'	- - - - - - -
XL17	N88°58'46"E	600.14'	660.00' (R16)
XL18	N88°58'46"E	67.50'	67.50' (R18)
XL19	N00°46'18"W	87.61'	87.61' (R16)
XL20	N88°58'46"E	42.61'	42.61' (R18)
XL21	N88°58'46"E	42.39'	42.39' (R19)
XL22	N00°46'18"W	87.52'	87.39' (R16)
XL23	N88°59'26"E	67.50'	67.50' (R19)
XL24	N88°59'26"E	615.21'	660.00' (R16)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	90°10'51"	25.00'	39.35'
XC1(R2)	90°11'02"	25.00'	39.38'
XC2	44°14'28"	50.00'	38.61'
XC3(R15)	90°13'27"	25.00'	39.37'
XC4(R16)	89°45'05"	25.00'	39.16'
XC5(R16)	90°14'55"	25.00'	39.38'

Sheet Easement Note (EN#) Table	
Note	*Description*
EN1	25' Refuse Collection Esmt. (R20)
EN2	6' x 10' Bus Stop Waiting Esmt. (R21)
EN3	Air Rights Esmt. (R22)
EN4	30' Wide RW Esmt. to Tucson Gas, Electric Light & Power Co. to operate & maintain a gas transmission or distribution line (R23)

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	RM Bk. 4 Pg. 100 & RP #605 (1950)
R2	Seq. 20222920363
R3	RM Bk. 8 Pg. 54 & RP #1030 (1958)
R4	Add'l RW Dkt. 8553 Pg. 918 (1989)
R5	Add'l RW Dkt. 3006 Pg. 138 (1967)
R6	Seq. 20170800295
R7	RM BK. 1 Pg. 24 & RM Bk. 4 Pg. 35 & RP # 6 (1920) & Deeds Bk. 74 Pg. 290 (1920)
R8	Add'l RW Dkt. 2287 Pg. 98 (1964) & Dkt. 3006 Pg. 138 (1967)
R9	Dkt. 5314 Pg. 74 (1976)
R10	PLAT Bk. 3 Pg. 83 (1919)
R11	PLAT Bk. 7 Pg. 73 (1944)
R12	Add'l RW Dkt. 5529 Pg. 260 (1977)
R13	PLAT Bk. 4 Pg. 71 (1925)
R14	RM Bk. 3 Pg. 85 (1939)
R15	Convey To C.O.T. Dkt. 5497 Pg. 736 (1977)
R16	PLAT Bk. 10 Pg. 84 (1954)
R17	RW Acq. By PC BK. 21 PG 576 (1890) & R/W RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W PC Res. 27461? Dkt. 194 Pg. 108 (1949)
R18	Seq. 93160012 (1993)
R19	Seq. 20141420522
R20	Dkt. 12715 Pg. 344 (2006)
R21	Dkt. 5314 Pg. 744 (1976)
R22	Dkt. 8429 Pg. 1906 (1988)
R23	Bk. 797 Pg. 342 (1955)

PRINCE ADDITION
M&P BK. 7 PG. 73 (1944)
(R11)

CATALINA
SUBDIVISION NO. 2
M&P BK. 4 PG. 71 (1925)
(R13)

CATALINA SUBDIVISION NO. 2
RESUBDIVISION OF LOT 14
M&P BK. 10 PG. 84 (1954)
(R16)

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JTS AUG 2026 | CHKD. BY LJB AUG 2026 | APPR. BY LJB AUG 2026

SCALE: H: 1" = 40'

PLAN NO. H-2026-XXX

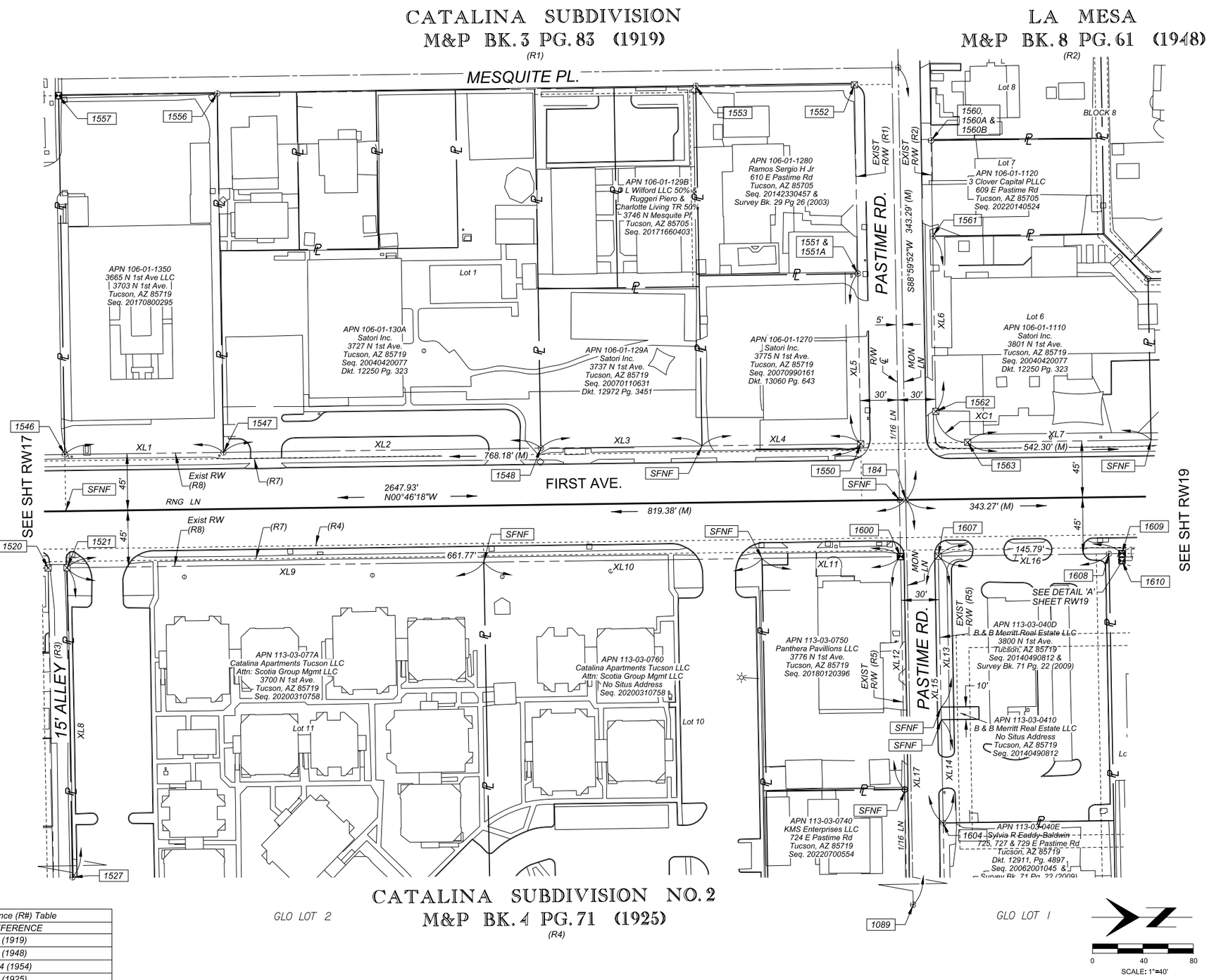
481 OF 504

Draft Print
08/28/2026 11:08:24 AM

RW17 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:07 AM
Printed by:SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149
c:\pwworking\west01\d3826137\18V-17.dgn
8/28/2026 10:45:07 AM



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°46'18"W	126.00'	126.00' (R6)
XL2	N00°46'18"W	252.00'	- - - - - - -
XL3	N00°46'18"W	127.93'	- - - - - - -
XL4	N00°46'18"W	126.00'	- - - - - - -
XL5	S88°59'52"W	135.12'	- - - - - - -
XL6	S88°59'52"W	139.21'	139.08' (R2)
XL7	N00°46'18"W	145.62'	145.11' (R2)
XL8	N88°59'26"E	615.21'	660.00' (R3)
XL9	N00°46'18"W	330.91'	330.00' (R4)
XL10	N00°46'18"W	220.86'	- - - - - - -
XL11	N00°46'18"W	110.00'	- - - - - - -
XL12	N88°57'06"E	185.00'	- - - - - - -
XL13	N88°57'06"E	120.00'	- - - - - - -
XL14	N88°57'06"E	82.00'	- - - - - - -
XL15	N88°57'06"E	212.00'	211.96' (R9)
XL16	N00°46'18"W	135.45'	135.54' (R9)
XL17	N00°46'18"W	1349.63'	1349.67' (R9)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	89°46'10"	25.00'	39.17'
XC1(R2)	89°44'50"	25.00'	39.16'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 3 Pg. 83 (1919)
R2	PLAT Bk. 8 Pg. 61 (1948)
R3	PLAT Bk. 10 Pg. 84 (1954)
R4	PLAT Bk. 4 Pg. 71 (1925)
R5	Add'l RW Dkt. 2081 Pg. 153 (1963)
R6	Seq. 20170800295
R7	RW Acq. By PC BK. 21 PG 576 (1890) & R/W RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W PC Res. 27461? Dkt. 194 Pg. 108 (1949)
R8	RM Bk. 8 Pg. 54 & RP #1030 (1958)
R9	RS Bk. 71 Pg. 22 (2009)

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

482 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

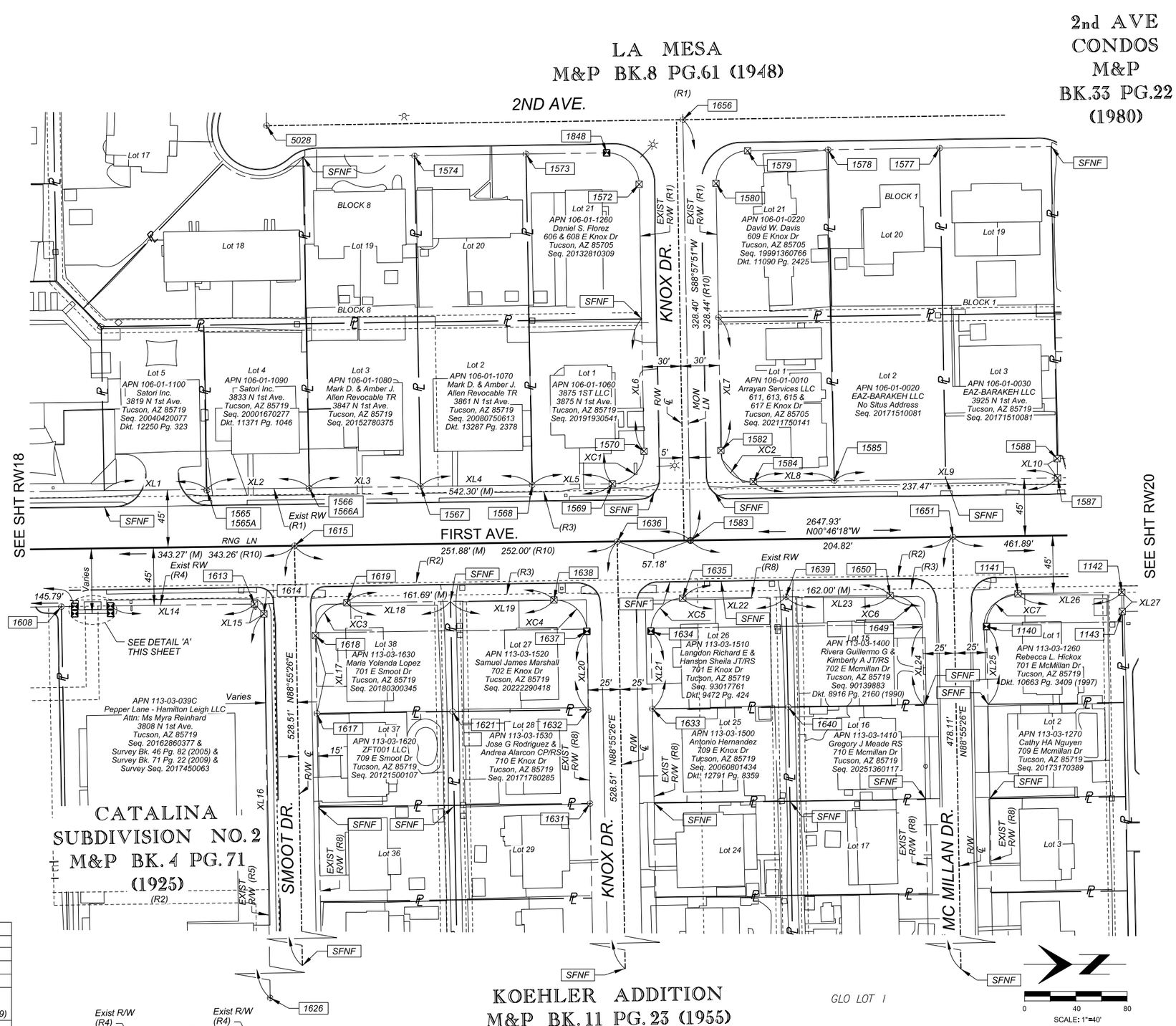
Draft Print
08/28/2026 11:08:25 AM

RW18 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:12 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
PlotdrvArr: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149
c:\pwworking\west01\d3826137\18V-18.dgn
8/28/2026 10:45:12 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:18 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°46'18"W	80.00'	-------
XL2	N00°46'18"W	80.00'	80.00' (R1)
XL3	N00°46'18"W	86.99'	87.00' (R1)
XL4	N00°46'18"W	87.00'	87.00' (R1)
XL5	N00°46'18"W	62.67'	62.89' (R1)
XL6	S88°57'51"W	103.26'	103.12' (R1)
XL7	S88°57'51"W	103.77'	103.36' (R1)
XL8	N00°46'18"W	63.14'	-------
XL9	N00°46'18"W	174.33'	174.00' (R1 & R6)
XL10	S88°53'18"W	15.00'	15.00' (R7)
XL11	N89°29'37"E	5.65'	5.65' (R5)
XL12	N00°30'23"W	28.00'	28.00' (R5)
XL13	S89°29'37"W	5.78'	5.78' (R5)
XL14	N00°46'18"W	112.35'	-------
XL15	N45°53'05"E	10.72'	10.75' (R5)
XL16	N89°04'20"E	500.71'	500.68' (R5)
XL17	N88°55'26"E	60.74'	61.00' (R8)
XL18	N00°46'18"W	80.89'	81.00' (R8)
XL19	N00°46'18"W	80.80'	81.00' (R8)
XL20	N88°55'26"E	61.26'	61.00' (R8)
XL21	N88°55'26"E	60.74'	61.00' (R8)
XL22	N00°46'18"W	80.59'	81.00' (R8)
XL23	N00°46'18"W	81.40'	81.00' (R8)
XL24	N88°55'26"E	61.26'	61.00' (R8)
XL25	N88°55'26"E	60.74'	61.00' (R8)
XL26	N00°46'18"W	81.03'	81.00' (R8)
XL27	N88°55'26"E	15.00'	15.00' (R9)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	90°15'51"	25.00'	39.39'
XC1(R1 & R10)	90°15'00"	25.00'	39.38'
XC2	89°44'09"	25.00'	39.16'
XC3	89°40'43"	25.13'	39.33'
XC3(R8)	89°42'00"	25.00'	39.34'
XC4	89°34'31"	25.13'	39.29'
XC4(R8)	90°18'00"	24.87'	39.20'
XC5	90°18'16"	25.13'	39.61'
XC5(R8)	89°42'00"	25.13'	39.34'
XC6	89°41'44"	24.87'	38.93'
XC6(R8)	90°18'00"	24.87'	39.20'
XC7	89°38'38"	25.13'	39.32'
XC7(R8)	89°42'00"	25.13'	39.34'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 8 Pg. 61 (1948)
R2	PLAT Bk. 4 Pg. 71 (1925)
R3	RM Bk. 8 Pg. 54 & RP #1030 (1958)
R4	RW Acq. By PC BK. 21 PG 576 (1890) & R/W RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W PC Res. 27461? Dkt. 194 Pg. 108 (1949)
R5	Seq. 20130810918 & Seq. 20162860377
R6	Seq. 20171510081
R7	Addl COT RW By Deed of Lots 4&5 Dkt. 7574 Pg. 639 (1985)
R8	PLAT Bk. 11 Pg. 23 (1955)
R9	Addl COT RW Dkt. 10483 Pg. 400 (1997)
R10	RS Bk. 33 Pg. 65 AKA H-2003-079 (2003)

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

Draft Print
08/28/2026 11:08:25 AM

RW19 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

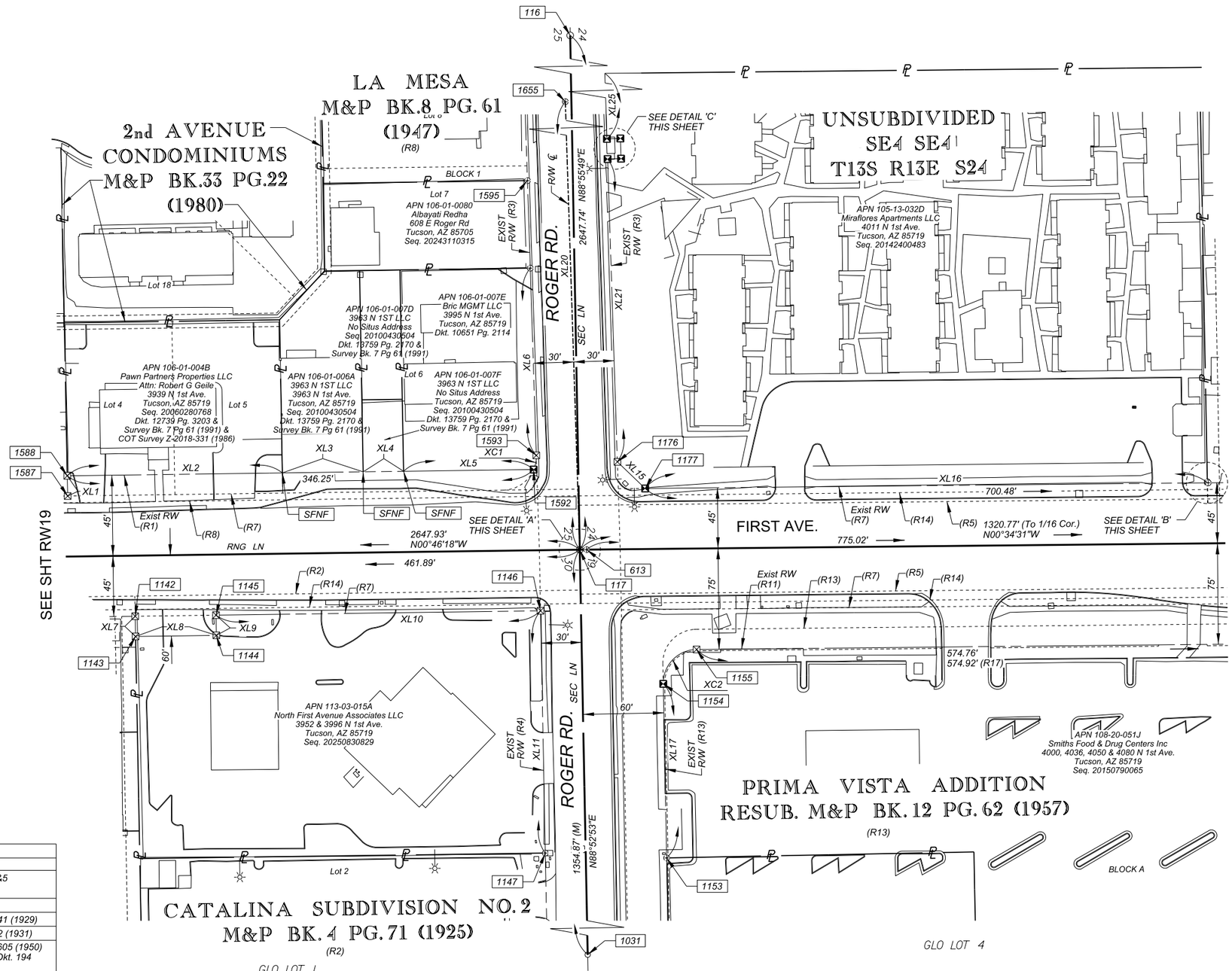
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

483 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:23 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPM&MCDOT_BENTLEY_PRINT.tbl
Plotdrver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Sheet Existing Line (XL#) Bearing And Distance Table

Line	Bearing	Distance	Record Distance
XL1	S88°53'18"W	15.00'	15.00' (R1)
XL2	N00°46'18"W	159.67'	160.00' (R2)
XL3	N00°46'18"W	60.00'	- - - - - - -
XL4	N00°46'18"W	30.00'	- - - - - - -
XL5	N00°46'18"W	96.57'	- - - - - - -
XL6	S88°09'03"W	139.17'	- - - - - - -
XL7	S88°55'26"W	15.00'	15.00' (R6)
XL8	N00°46'18"W	60.00'	60.00' (R6)
XL9	S88°55'26"W	15.00'	15.00' (R6)
XL10	N00°46'18"W	240.92'	- - - - - - -
XL11	N88°52'53"E	180.00'	- - - - - - -
XL12	N47°04'39"E	1.03'	- - - - - - -
XL13	N86°33'07"E	0.76'	- - - - - - -
XL14	N00°08'41"E	0.66'	- - - - - - -
XL15	N43°47'09"E	28.60'	28.60' (R9)
XL16	N00°34'46"W	417.32'	- - - - - - -
XL17	N88°52'53"E	129.63'	- - - - - - -
XL18	N00°34'31"W	5.00'	5.00' (R12)
XL20	S88°09'03"W	1275.34'	1275.44' (R15)
XL21	S88°09'03"W	225.00'	225.00' (R16)
XL22	N01°50'57"W	10.00'	10.00' (R16)
XL23	S88°09'03"W	15.00'	15.00' (R16)
XL24	S01°50'57"E	10.00'	10.00' (R16)
XL25	S88°09'03"W	161.80'	161.80' (R16)

Sheet Existing & Record Curve (XC#) Data Table

Curve	Delta (Δ)	Radius	Length
XC1	24°39'20"	25.00'	10.76'
XC1 (R10)	24°30'52"	25.00'	10.62'
XC2	90°32'36"	25.00'	39.51'
XC2 (R11)	90°32'22"	25.00'	39.51'

Sheet Reference (R#) Table

Record	Bk.Dkt.Seq. REFERENCE
R1	Add'l COT RW By Deed of Lots 4&5 Dkt. 7574 Pg. 639 (1985)
R2	PLAT Bk. 4 Pg. 71 (1925)
R3	RW R.M. Bk. 1 Pg. 117 & R.P. #141 (1929)
R4	RW R.M. Bk. 2 Pg. 91 & R.P. #282 (1931)
R5	R/W by RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W by PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R6	Add'l COT RW Dkt. 10483 Pg. 400 (1997)
R7	Add'l RW RM Bk. 8 Pg. 54 & RP #1030 (1958) Dkt. 1329 Pg. 434 (1958)
R8	PLAT Bk. 8 Pg. 61 (1947)
R9	Add'l COT RW Dkt. 8104 Pg. 2008 (1987)
R10	Add'l RTA RW Seq. 20112140395
R11	Add'l PC RW Dkt. 8069 Pg. 2451 (1987)
R12	COT Survey H-89-002 (1988) & COT Survey H-2005-026
R13	PLAT Bk. 12 Pg. 62 (1957)
R14	RW Acquired by PC per BK. 21 PG. 576 (1890)
R15	R/S Bk. 7 Pg. 61 (1991)
R16	Seq. 20142400483
R17	R/S Bk. 33 Pg. 65 (2003)

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%

DESIGN CONCEPT SUBMITTAL

Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE: H: 1" = 40'
JTS	LJB	LJB	PLAN NO. H-2026-XXX
AUG 2026	AUG 2026	AUG 2026	

484 OF 504

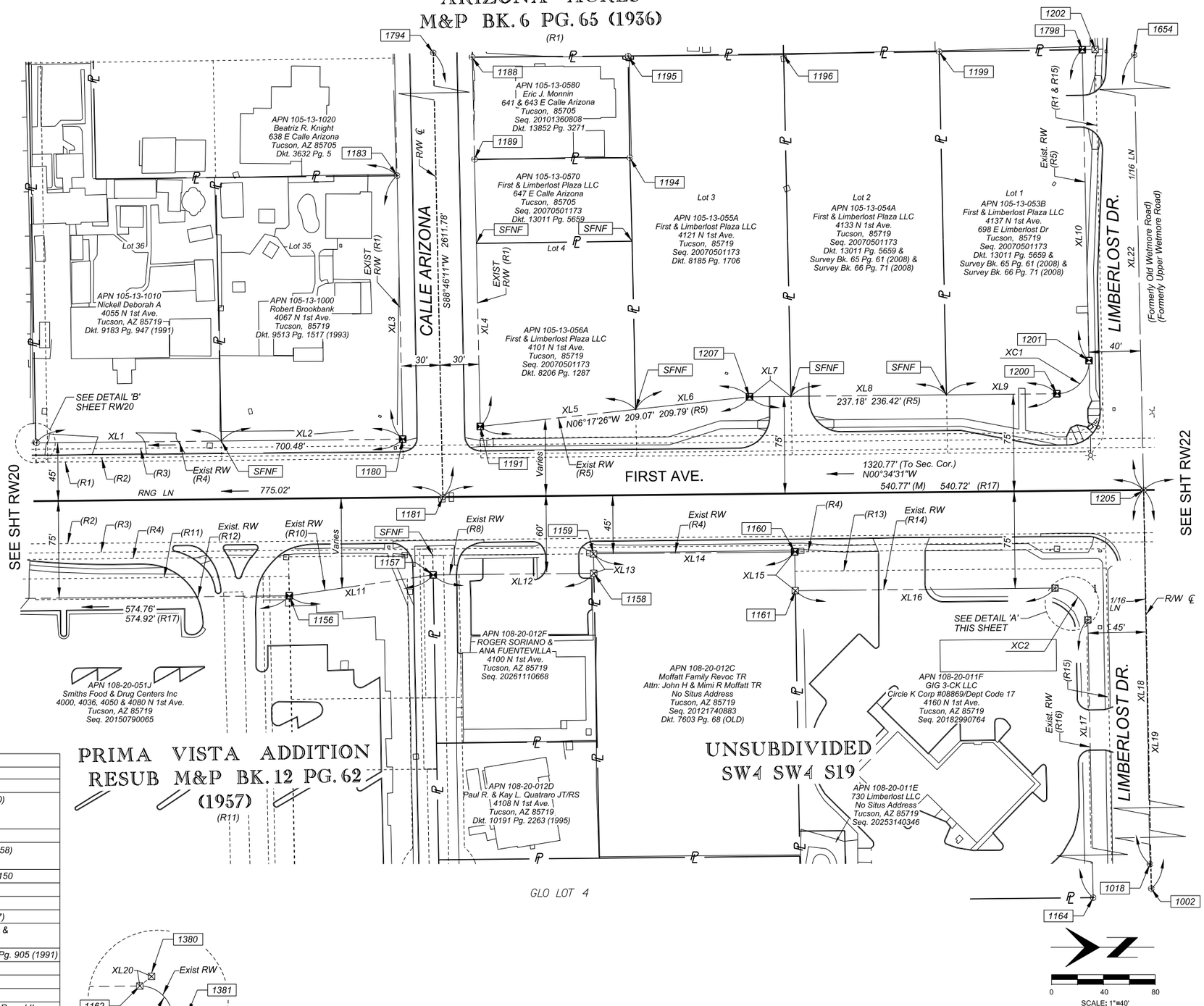
Draft Print
08/28/2026 11:08:25 AM

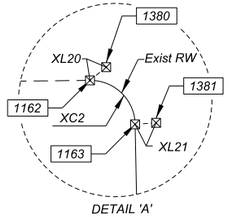
RW20 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

c:\pwworking\west01\d3826137\18V-20.dgn
8/28/2026 10:45:23 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:28 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPWA&MCDOT_BENTLEY_PRINT.tbl
Plotdrvr: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149





Sheet Existing Line (XL#) Bearing And Distance Table			
Line	Bearing	Distance	Record Distance
XL1	N00°34'31"W	143.15'	-------
XL2	N00°34'31"W	140.01'	-------
XL3	S88°46'11"W	203.43'	-------
XL4	S88°46'11"W	141.37'	-------
XL5	N06°17'26"W	120.68'	-------
XL6	N06°17'26"W	88.39'	-------
XL7	N00°34'31"W	31.96'	-------
XL8	N00°34'31"W	120.01'	-------
XL9	N00°34'31"W	85.21'	-------
XL10	S88°45'16"W	240.12'	240.09' (R5)
XL11	N08°15'29"W	112.20'	111.81' (R10)
XL12	N00°34'31"W	124.01'	124.00' (R7)
XL13	S88°52'53"W	15.00'	15.00' (R8)
XL14	N00°34'31"W	155.30'	-------
XL15	N89°02'46"E	30.00'	30.00' (R9)
XL16	N00°34'31"W	200.43'	-------
XL17	N88°53'40"E	226.91'	-------
XL18	N89°02'46"E	1348.40'	-------
XL19	N88°53'40"E	2684.94'	-------
XL20	N39°26'06"W	0.14'	-------
XL21	N03°51'56"W	0.07'	-------
XL22	S88°45'16"W	1328.23'	-------

Sheet Existing & Record Curve (XC#) Data Table			
Curve	Delta (Δ)	Radius	Length
XC1	90°40'14"	25.00'	39.56'
XC1 (R5)	90°40'20"	25.00'	39.56'
XC2	89°28'11"	25.00'	39.04'
XC2 (R6)	89°27'12"	25.00'	39.03'

Sheet Reference (R#) Table	
Record	Bk. Dkt. Seq. REFERENCE
R1	PLAT Bk. 6 Pg. 65 (1936)
R2	R/W by RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W by PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R3	RW Acq. by PC per BK. 21 PG. 576 (1890)
R4	Add'l RW RM Bk. 8 Pg. 54 & RP #1030 (1958) Dkt. 1329 Pg. 434 (1958)
R5	Add'l RW Acq. by COT per Seq. 20240930150
R6	R/S Bk. 33 Pg. 65 (2003)
R7	Bk. 10348 Pg. 1959 (1996)
R8	Add'l PC RW Per Dkt. 5564 Pg. 1057 (1977)
R9	Add'l PC RW Per Dkt. 3502 Pg. 611 (1969) & Dkt. 8231 Pg. 760 (1988)
R10	Add'l RW Conveyed to COT per Dkt. 9097 Pg. 905 (1991)
R11	Addl RW per M&P Bk. 12 Pg. 62 (1957)
R12	Add'l PC RW by Dkt. 8069 Pg. 2451 (1987)
R13	Add'l PC RW per Dkt. 3502 Pg. 611 (1969)
R14	Add'l PC RW per Dkt. 8231 Pg. 760 (1988) Parcel II
R15	RW from ℄ Formerly Upper Wetmore Rd. per RM 1 Pg. 89 RP #18, (1920)
R16	Add'l PC RW per Dkt. 8231 Pg. 760 (1988) Parcel 1
R17	R/S Bk. 66 Pg. 72 (2008)

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

485 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

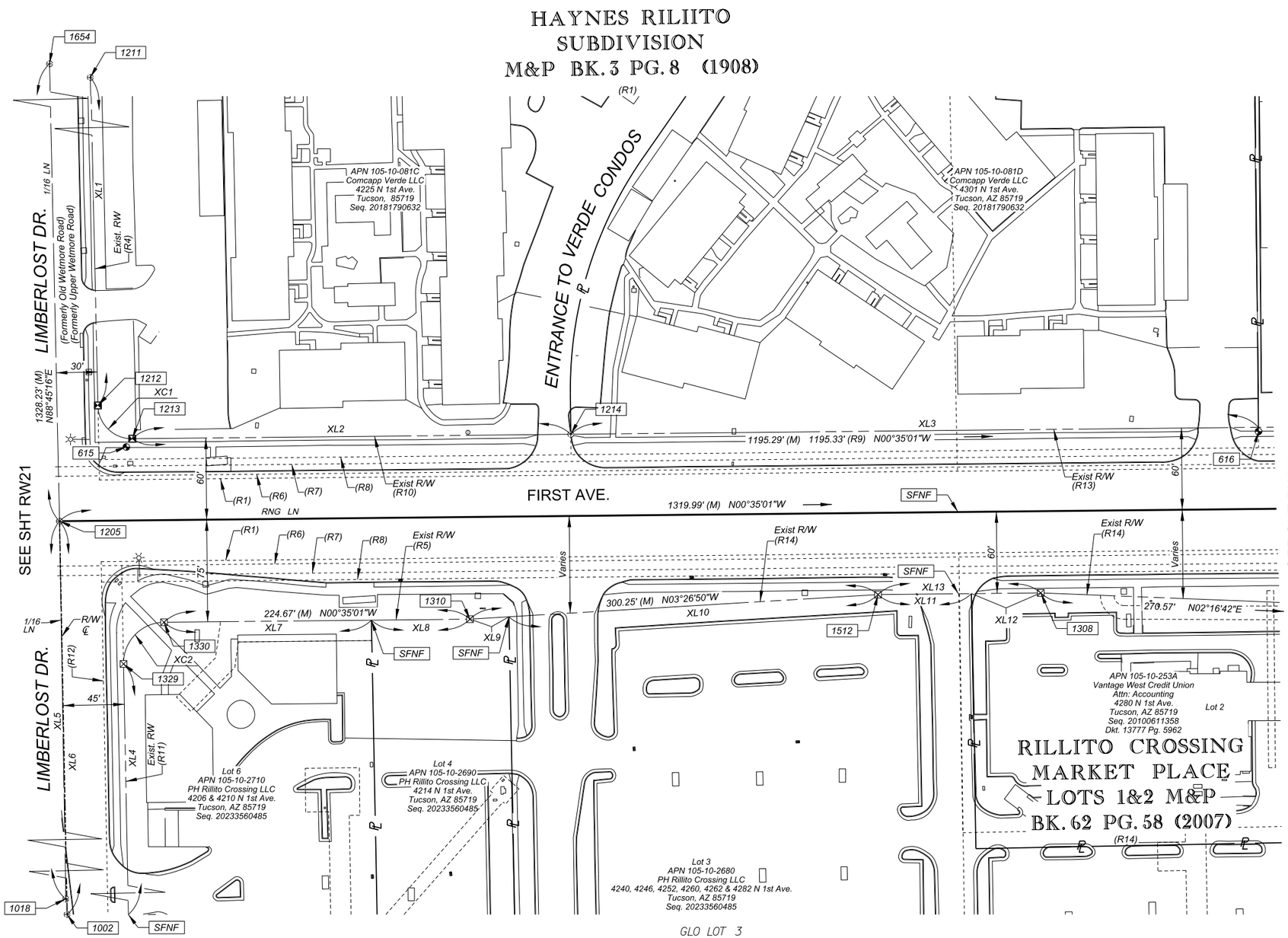
Draft Print
08/28/2026 11:08:25 AM

RW21 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

c:\pwworking\west01\d3826137\18V-21.dgn
8/28/2026 10:45:29 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:36 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvrI: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



GLO LOT 3

RILLITO CROSSING MARKET PLACE
LOTS 3 THRU 6
M&P SEQ. 20142540426
(R5)

0 40 80
SCALE: 1"=40'

Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	S88°46'17"W	579.47'	579.47' (R2)
XL2	N00°35'01"W	322.43'	322.00' (R2)
XL3	N00°35'01"W	505.00'	505.00' (R2)
XL4	N88°53'40"E	301.13'	301.13' (R5)
XL5	N89°02'46"E	1348.40'	------
XL6	N88°53'40"E	2684.94'	2684.96' (R5)
XL7	N00°35'01"W	152.32'	152.38' (R5)
XL8	N00°35'01"W	72.35'	72.35' (R5)
XL9	N03°26'50"W	28.71'	28.71' (R5)
XL10	N03°26'50"W	271.54'	271.54' (R5)
XL11	N00°35'01"W	68.52'	68.52' (R5)
XL12	N00°35'01"W	50.94'	50.94' (R5)
XL13	N00°35'01"W	119.46'	------

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	89°21'18"	25.00'	38.99'
XC1 (R2) & (R3)	89°20'13"	25.00'	38.98'
XC2 (R5)	90°31'18"	30.00'	47.40'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 3 Pg. 8 (1908)
R2	Seq. 20181790632
R3	Add'l COT RW Dkt. 6701 Pg. 604 (1982)
R4	PLAT Bk. 3 Pg. 8 (1908) & RM Bk. 1 Pg. 89 RP #18 (1920)
R5	PLAT Seq. 20142540426
R6	R/W by RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W by PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R7	RW Acq. by PC Per Bk. 21 Pg. 576 (1890)
R8	Add'l RW RM Bk. 8 Pg. 54 & RP #1030 (1958) Dkt. 1329 Pg. 434 (1958)
R9	R/S Bk. 33 Pg. 65 (2003)
R10	Add'l RW & Spandrel by Dkt. 6701 Pg. 604 (1982)
R11	Add'l RW Per Dkt. 6637 Pg. 880 (1981)

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R12	Orig. RW Per R.M. Bk.1 Pg 89 R.P. #18 (1920)
R13	Add'l RW Per Dkt. 6820 Pg. 416 (1982)
R14	PLAT Bk. 62 Pg. 58 (2007)

Draft Print
08/28/2026 11:08:25 AM

RW22 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

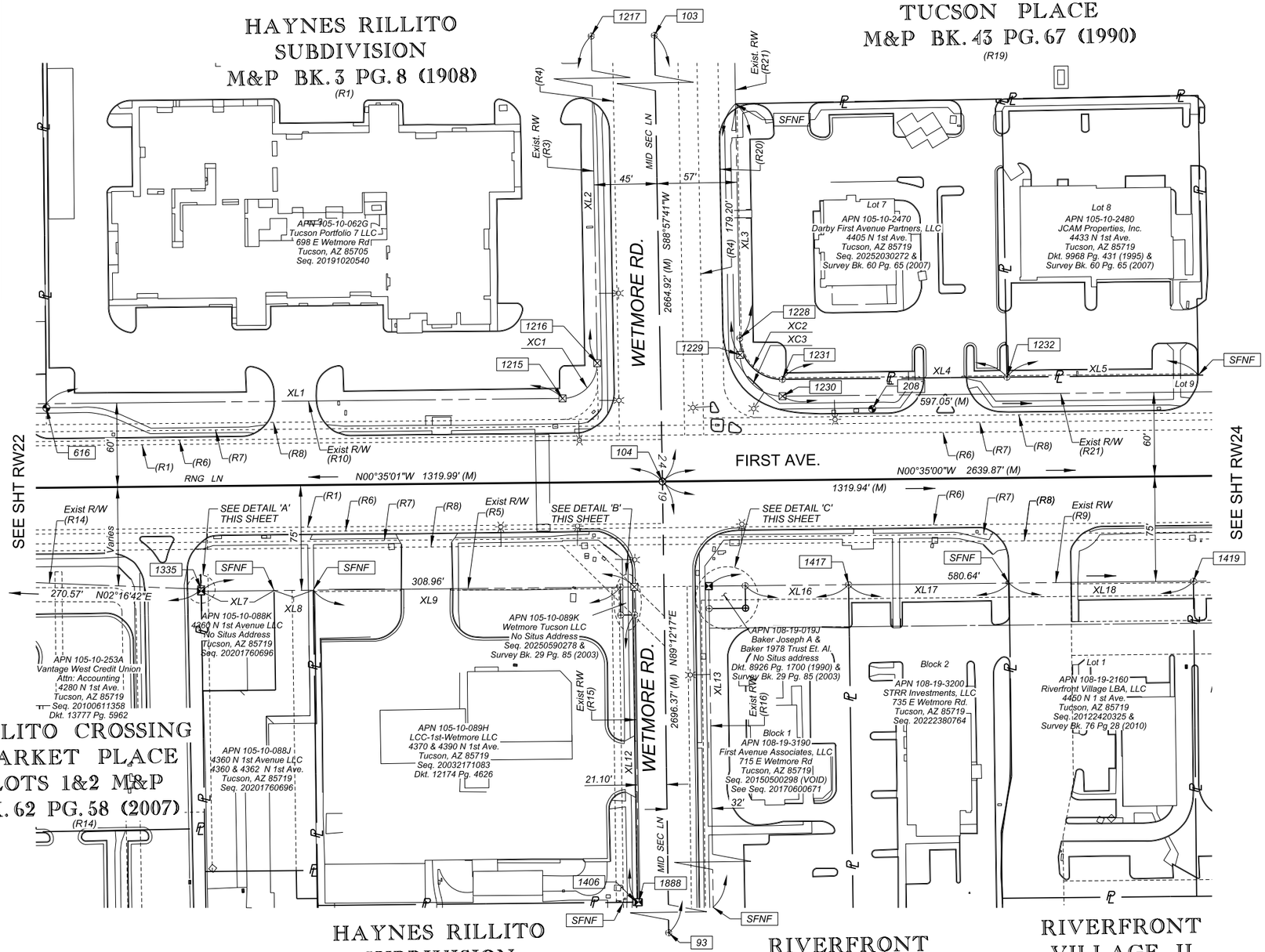
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

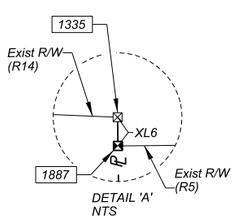
CITY OF TUCSON

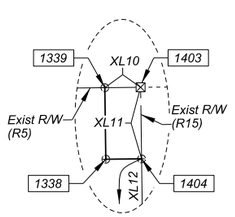
DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	*H: 1" = 40'*
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

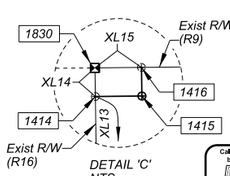
c:\pwworking\west01\d3826137\18V-22.dgn
8/28/2026 10:45:36 AM

Sheet Reference (R#) Table	
Record	Bk.Dkt.Seq. REFERENCE
R1	PLAT Bk. 3 Pg. 8 (1908)
R2	Deed Seq 20191020540
R3	Add'l RW Per Dkt. 7001 Pg. 982 (1983)
R4	PC RW Per Dkt. 910 Pg. 444 (1955) & RM Bk. 7 Pg. 62 & RP #893 (1956)
R5	Add'l RW Per Dkt. 2727 Pg. 326 (1966)
R6	RW by RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W by PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R7	RW Acq. by PC Per Bk. 21 Pg. 576 (1890)
R8	Add'l RW RM Bk. 8 Pg. 54 & RP #1030 (1958) Dkt. 1329 Pg. 434 (1958)
R9	Add'l RW per M & P Bk. 22 Pg. 48 (1971)
R10	Add'l RW & Spandrel per Dkt. 7344 Pg. 1192 (1984)
R11	RS Bk. 29 Pg. 43 (Pln. No. H-2003-041)
R12	Deed Seq. 20032171083
R13	Deed Seq. 20250590278
R14	PLAT Bk. 62 Pg. 58 (2007)
R15	COT RW per Dkt. 8708 Pg. 1481 (1989)
R16	COT RW per Dkt. 8559 Pg. 1480 (1989)
R17	PLAT Seq. 20222270731
R18	PLAT Bk. 42 Pg. 73 (1989)
R19	PLAT Bk. 43 Pg. 67 (1990)
R20	Add'l RW & Spandrel per Dkt. 7615 Pg. 1369 (1985)
R21	Add'l RW & Spandrel per Dkt. 8595 Pg. 430 (1989)









Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Sheet Existing Line (XL#) Bearing And Distance Table			
Line	Bearing	Distance	Record Distance
XL1	N00°35'01"W	368.23'	368.30' (R2)
XL2	S88°57'41"W	236.02'	235.80' (R2)
XL3	S88°57'41"W	167.20'	167.28' (R19)
XL4	N00°35'00"W	160.25'	160.24' (R19)
XL5	N00°35'00"W	136.50'	136.50' (R19)
XL6	N89°09'17"E	1.49'	1.40' (R11)
XL7	N00°35'01"W	52.00'	-------
XL8	N00°35'01"W	27.90'	-------
XL9	N00°35'01"W	219.06'	218.90' (R12)
XL10	N00°35'01"W	10.00'	10.00' (R13)
XL11	N89°12'17"E	20.00'	20.00' (R13)
XL12	N89°12'17"E	205.00'	205.00' (R12)
XL13	N89°12'17"E	279.54'	-------
XL14	N89°12'17"E	16.00'	-------
XL15	N00°35'00"W	26.00'	-------
XL16	N00°35'00"W	73.72'	73.72' (R17)
XL17	N00°35'00"W	114.49'	114.44' (R17)
XL18	N00°35'00"W	131.46'	131.37' (R18)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	Delta (Δ)	Radius	Length
XC1	89°53'16"	25.00'	39.22'
XC1 (R2)	90°27'24"	25.00'	39.47'
XC2	89°32'40"	30.00'	46.89'
XC2 (R19)	89°32'37"	30.00'	46.88'
XC3	89°32'40"	30.00'	46.89'
XC3 (R19)	89°32'37"	30.00'	46.88'

Draft Print
08/28/2026 11:08:25 AM

RW23 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

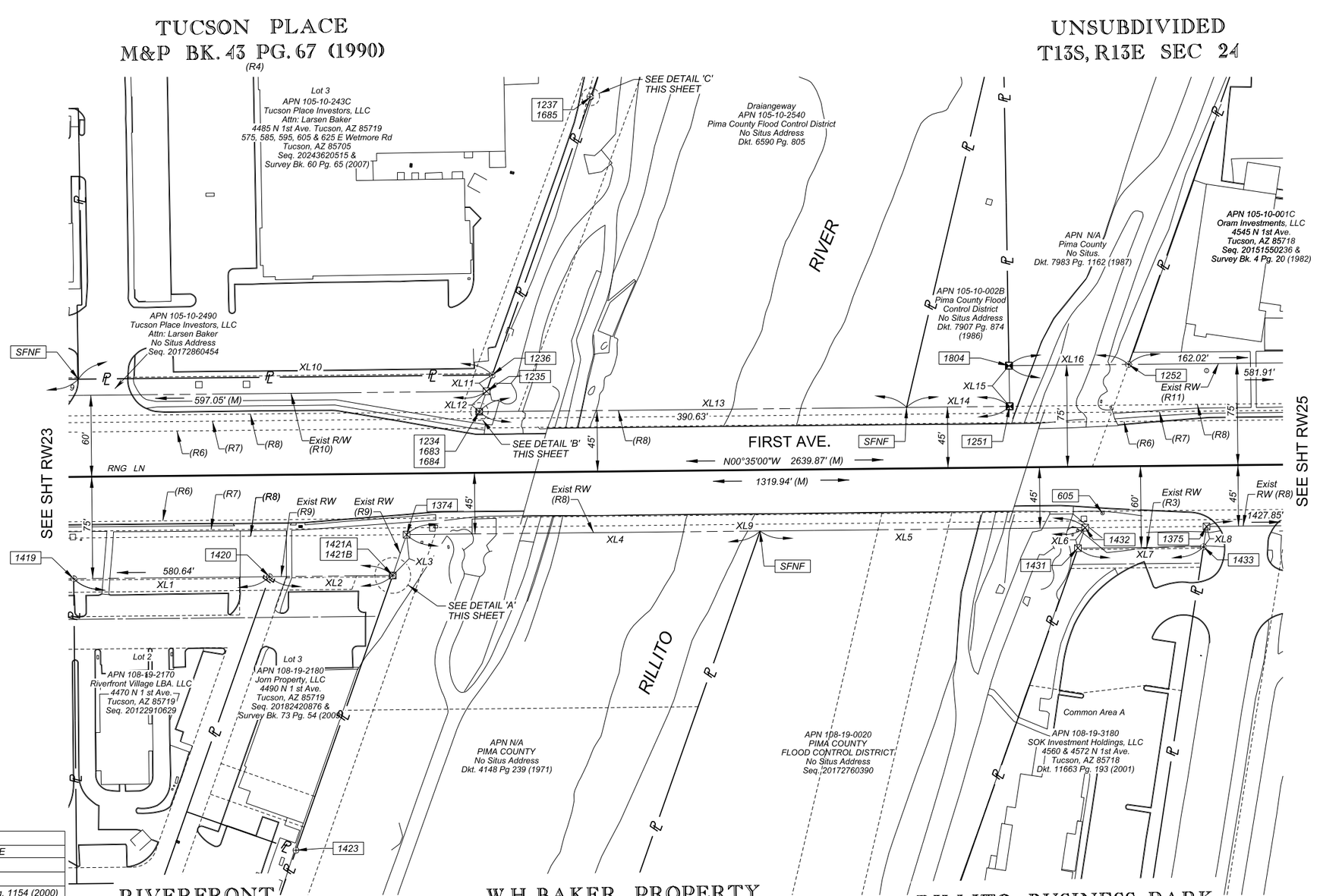
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

487 OF 504

CITY OF TUCSON | DRWN. BY JTS AUG 2026 | CHKD. BY LJB AUG 2026 | APPR. BY LJB AUG 2026 | SCALE: H: 1" = 40' | PLAN NO. H-2026-XXX

Project ID: Client Number: 012149
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDrvr: GN_bwpdf_SD.pltcfg
Printed by: SWESTMORELAND
Print Scale: 1:40
OpenRoads Designer v10.12.02.4
8/28/2026 10:45:41 AM
c:\pwworking\west01\d3826137\18V-23.dgn
8/28/2026 10:45:41 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:47 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.dtcfg
Project ID:
Client Number: 012149



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°35'00"W	144.18'	144.00' (R1)
XL2	N00°35'00"W	90.79'	90.79' (R1)
XL3	N71°14'07"W	31.80'	------
XL4	N00°35'00"W	260.30'	------
XL5	N00°35'00"W	260.30'	260.72' (R2)
XL6	S70°36'37"E	15.96'	15.96' (R3)
XL7	N00°35'00"W	92.43'	92.52' (R3)
XL8	N81°23'36"E	15.20'	15.20' (R3)
XL9	N00°35'00"W	499.70'	------
XL10	N00°35'00"W	304.78'	304.78' (R4)
XL11	S70°31'53"E	12.77'	12.77' (R4)
XL12	S70°31'53"E	15.97'	15.97' (R4)
XL13	N00°35'00"W	314.70'	314.87' (R5)
XL14	N00°35'00"W	75.94'	------
XL15	N89°00'51"E	30.00'	30.00' (R11)
XL16	N00°35'00"W	87.98'	------

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 42 Pg. 73 (1989)
R2	Deed Seq. 20172760390
R3	Add'l COT RW Dkt. 11418 Pg. 1154 (2000) & Shown on PLAT Bk. 56 Pg. 46 (2002)
R4	PLAT Bk. 43 Pg. 67 (1990)
R5	Deed Dkt. 6590 Pg. 805 (1981)
R6	RW by RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W by PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R7	RW Acq. by PC Per Bk. 21 Pg. 576 (1890)
R8	Add'l RW RM Bk. 8 Pg. 54 & RP #1030 Dkt. 1329 Pg. 434 (1958)
R9	Add'l RW per M & P Bk. 22 Pg. 48 (1971)
R10	Add'l RW per Dkt. 8595 Pg. 430 (1989)
R11	Add'l PC RW per Dkt. 5726 Pg. 876 (1978)

Draft Print
08/28/2026 11:08:25 AM

RW24 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30% DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

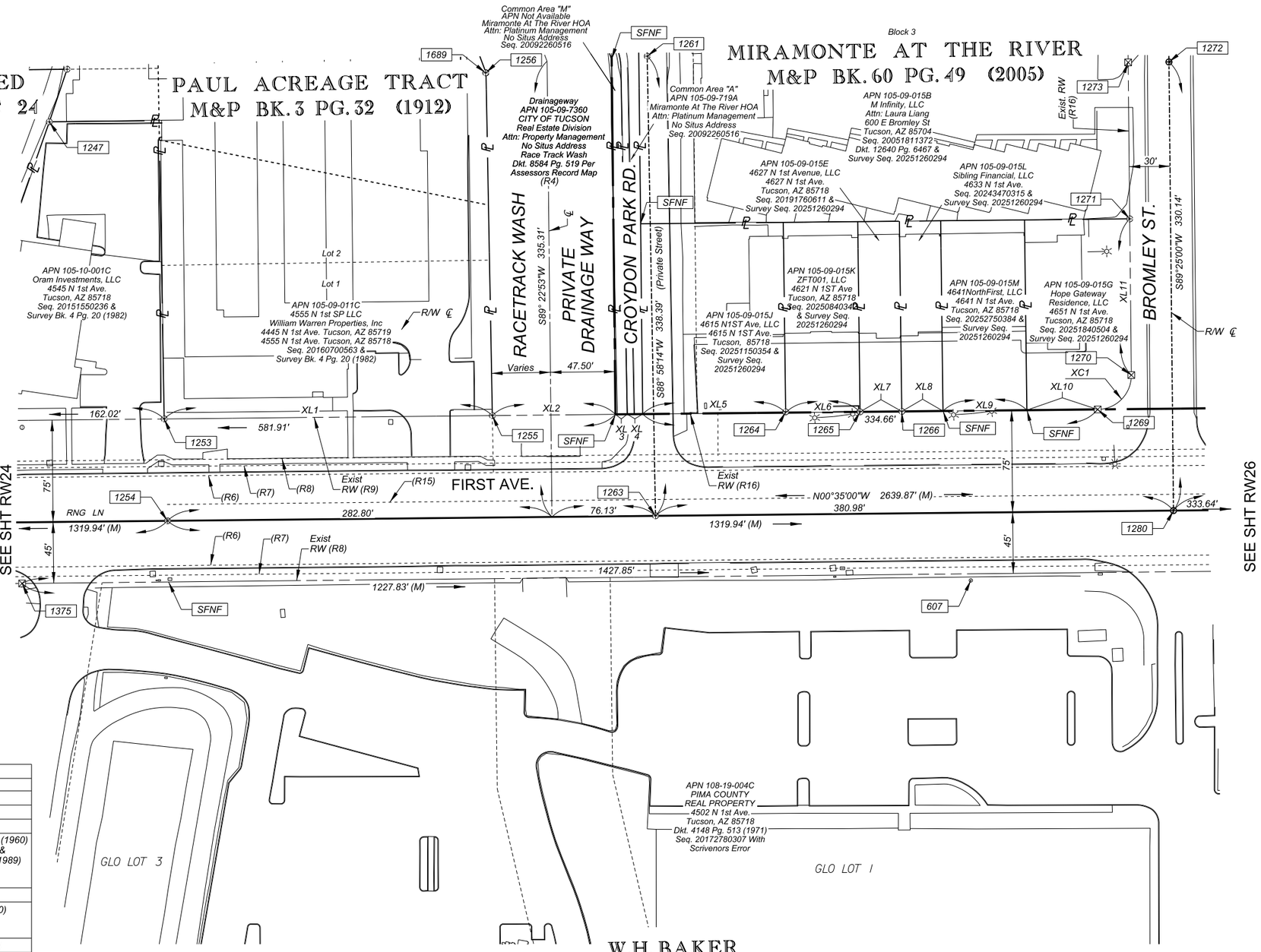
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

488 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-24.dgn
8/28/2026 10:45:47 AM



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°35'00"W	241.33'	241.15' (R2)
XL2	N00°35'00"W	90.57'	90.57' (R3)
XL3	N00°35'00"W	8.59'	- - - - - -
XL4	N00°35'00"W	11.41'	- - - - - -
XL5	N00°35'00"W	105.16'	104.92' (R3)
XL6	N00°35'00"W	54.75'	54.75' (R10)
XL7	N00°35'00"W	30.67'	30.67' (R11)
XL8	N00°35'00"W	30.33'	30.33' (R12)
XL9	N00°35'00"W	61.67'	61.67' (R13)
XL10	N00°35'00"W	52.08'	52.07' (R14)
XL11	S89°25'00"W	115.00'	114.00' (R14)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1 (R14)	90°00'00"	25.00'	39.27'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seg. REFERENCE*
R1	Deed Seq. 20151550236
R2	Deed Seq. 20160700563
R3	Deed Dkt. 8584 Pg. 519 (1989)
R4	Drainage Way R/W by M&P Bk. 15 Pg. 38 (1960) & Sold by PC in Dkt. 8579 Pg. 873 (1989) & PC Drainage Esmt by Dkt. 8584 Pg. 519 (1989) & PC Release of Drainage Esmt by Dkt. 13695 Pg. 315 (2009)
R5	Deed Seq. 20251150354
R6	RW by RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W by PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R7	RW Acq. by PC Per Bk. 21 Pg. 576 (1890)
R8	Add'l RW RM Bk. 8 Pg. 54 & RP #1030 (1958) Dkt. 1329 Pg. 434 (1958)
R9	RW Acq. by PC Per Dkt. 5726 Pg. 876 (1978): Parcel 2
R10	Deed Seq. 20250840342
R11	Deed Seq. 20191760611
R12	Deed Seq. 20243470315
R13	Deed Seq. 20252750384
R14	Deed Seq. 20251840504
R15	RW Per Plat Bk. 3 Pg. 32 (1912)
R16	RW Per Plat Bk. 15 Pg. 38 (1960)

Draft Print
08/28/2026 11:08:25 AM

RW25 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

489 OF 504

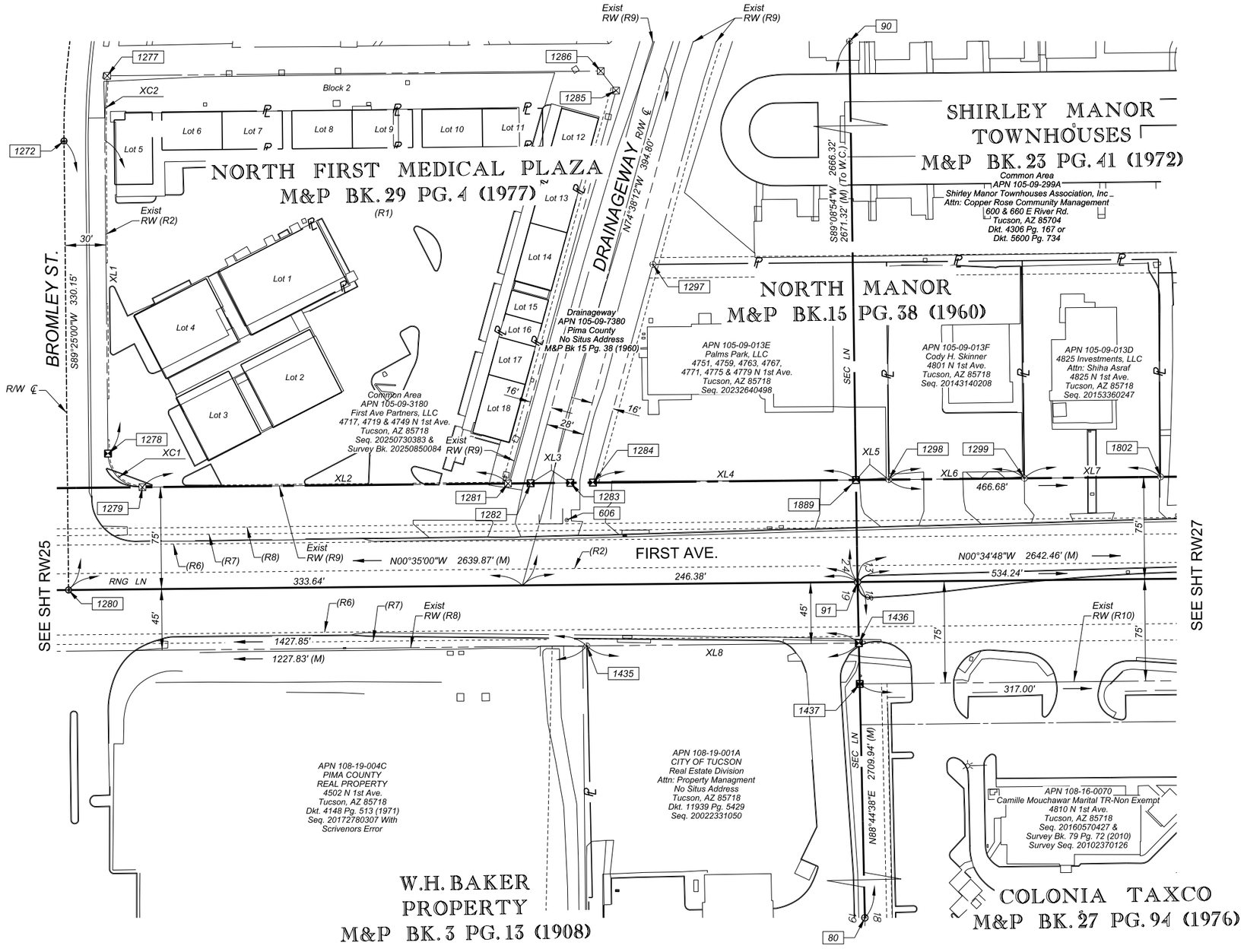
CITY OF TUCSON

DRWN. BY JTS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: H: 1" = 40'
PLAN NO. H-2026-XXX

Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPIMA&MCDOT_BENTLEY_PRINT.tbl
PlotDrver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149
OpenRoads Designer v10.12.02.4
8/28/2026
10:45:51 AM

c:\pwworking\west01\d3826137\18V~25.dgn
8/28/2026 10:45:51 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:45:59 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotdrvrC: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	S89°25'00"W	230.15'	230.18' (R1)
XL2	N00°35'00"W	268.87'	268.80' (R1)
XL3	N00°35'00"W	29.12'	------
XL4	N00°35'00"W	193.40'	193.80' (R9)
XL5	N00°34'48"W	24.08'	------
XL6	N00°34'48"W	99.72'	100.00' (R3)
XL7	N00°34'48"W	100.13'	100.00' (R4)
XL8	N00°35'00"W	200.01'	200.00' (R5)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1 & (R1)	90°00'00"	25.00'	39.27'
XC2	05°25'55"	503.00'	47.69'
XC2(R1)	05°24'36"	503.00'	47.49'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	PLAT Bk. 29 Pg. 4 (1977)
R2	RW Per PLAT BK. 3 PG. 32 (1912)
R3	Deed Seq. 20143140208
R4	Deed Seq. 20153360247
R5	Deed Seq. 20022331050
R6	RW by RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W by PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R7	RW Acq. by PC Per Bk. 21 Pg. 576 (1890)
R8	Add'l RW RM Bk. 8 Pg. 54 & RP #1030 (1958) Dkt. 1329 Pg. 434 (1958)
R9	Add'l RW Per PLAT Bk. 15 PG. 38 (1960)
R10	Add'l RW Per PLAT Bk. 27 PG. 94 (1976)

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30% DESIGN CONCEPT SUBMITTAL
Preliminary Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO RIVER ROAD - ROADWAY IMPROVEMENTS

490 OF 504

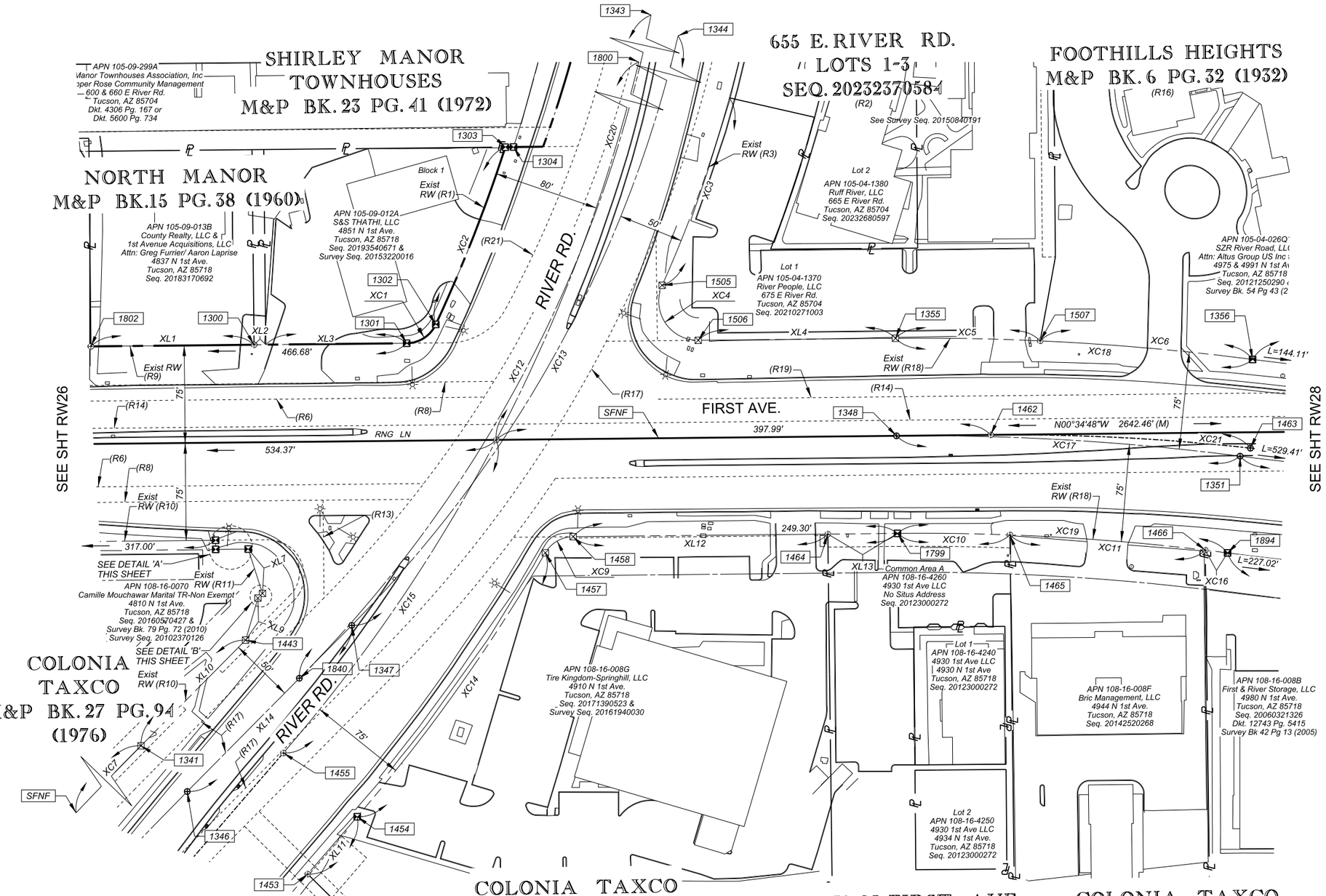
CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

Draft Print
08/28/2026 11:08:25 AM

RW26 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.



Sheet Existing Line (XL#) Bearing And Distance Table			
Line	*Bearing*	*Distance*	*Record Distance*
XL1	N00°34'48"W	125.38'	125.00' (R1)
XL2	N00°34'48"W	9.00'	------
XL3	N00°34'48"W	108.29'	------
XL4	N00°34'48"W	151.66'	152.65' (R2)
XL5	N89°25'12"E	7.00'	7.00' (R4)
XL6	N00°34'48"W	25.00'	25.00' (R4)
XL7	N72°12'12"E	35.86'	35.86' (R4)
XL8	S45°18'11"E	5.00'	5.00' (R4)
XL9	S73°40'58"E	33.64'	33.66' (R4)
XL10	S45°18'11"E	114.29'	114.53' (R4)
XL11	N49°12'38"W	58.27'	58.29' (R5)
XL12	N00°34'48"W	195.80'	195.82' (R5)
XL13	N00°34'48"W	53.57'	53.64' (R12)
XL14	S45°18'11"E	179.71'	179.77' (R16)

Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	64°30'12"	25.00'	28.14'
XC1 (R1)	64°29'55"	25.00'	28.14'
XC2	07°02'08"	1193.00'	146.49'
XC2 (R1)	07°02'09"	1193.00	146.50'
XC3	08°44'21"	1004.93'	153.28'
XC3 (R2)	08°44'22"	1004.91'	153.28'
XC4	114°40'27"	30.00'	60.04'
XC4 (R2)	114°38'49"	30.00'	60.03'
XC5	03°12'37"	1984.86'	111.21'
XC4 (R2)	03°12'07"	1988.69'	111.13'
XC6	04°43'51"	1984.86'	163.89'
XC6 (R2)	04°43'26"	1988.69'	163.96'
XC7	06°30'58"	3324.05'	378.03'
XC7 (R4)	06°30'55"	3324.05'	377.99'
XC8	10°39'05"	1342.00'	249.48
XC9	59°14'33"	25.00'	25.85'
XC9 (R5)	59°15'24"	25.00'	25.86'
XC10	02°41'51"	1834.86'	86.38'
XC10 (R12)	02°41'52"	1834.86'	86.40'
XC11 (R15)	04°42'16"	1834.86'	150.66'
XC12	35°55'08"	1000.00'	626.90'
XC12 (R16)	35°55'00"	1000.00'	626.86'
XC13	35°55'08"	954.93'	598.65'
XC13 (R16)	35°55'00"	954.93'	598.61'
XC14	10°35'44"	1349.00'	249.47'
XC14 (R5)	10°35'35"	1349.00'	249.41'
XC15	13°07'10"	1274.00'	291.72'
XC16	00°32'16"	1834.86'	17.22'
XC16 (R20)	00°32'01"	1834.86'	17.09'
XC17 (R17)	07°56'28"	1909.86'	264.70'
XC18	07°56'28"	1984.86'	275.10'
XC18 (R2)	07°55'33"	1988.69'	275.09'
XC19 (R10)	07°56'28"	1834.86'	254.31'
XC20	18°52'48"	1274.00'	419.80'

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	Add'l PC RW Per Dkt. 9396 Pg. 2448 (1992)
R2	PLAT Seq 20232370584
R3	Add'l PC RW Per Dkt. 1611 Pg. 485 (1960)
R4	Seq. 20160570427
R5	RS Seq. 20161940030
R6	RW by RM Bk. 4 Pg. 100 & RP #605 (1950) & R/W by PC Resolution 27461? Dkt. 194 Pg. 108 (1949)
R7	Seq. 20142520268
R8	Add'l RW RM Bk. 8 Pg. 54 & RP #1030 (1958) Dkt. 1329 Pg. 434 (1958)
R9	Add'l RW Per PLAT Bk. 15 PG. 38 (1960)
R10	Add'l RW Per PLAT Bk. 27 PG. 94 (1976)
R11	Add'l RW Per Dkt. 9382 Pg. 270 (1992)
R12	Seq. 20123000272
R13	Add'l RW Per Dkt. 3552 Pg. 21 (1969)
R14	RW Per PLAT Bk. 3 Pg. 32 (1912)

Sheet Reference (R#) Table Continued	
Record	*Bk.Dkt.Seq. REFERENCE*
R15	Seq. 20142520268
R16	RW Plan R-91-01 (1991)
R17	PC RW Per RM Bk. 6 Pg. 76 & RP #803 (1953)
R18	RW Per RM Bk. 8 Pg. 83 & RP #1014 (1959) Dkt. 1393 Pg. 379ish (1959) & add'l PC RW by Dkt. 6951 Pg. 747 (1983)
R19	Add'l RW Per Plat Bk. 6 Pg. 32 (1932)
R20	RS Bk. 42 Pg. 13 (2004)
R21	RW Per PLAT Bk. 15 Pg. 38 (1960)

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

491 OF 504

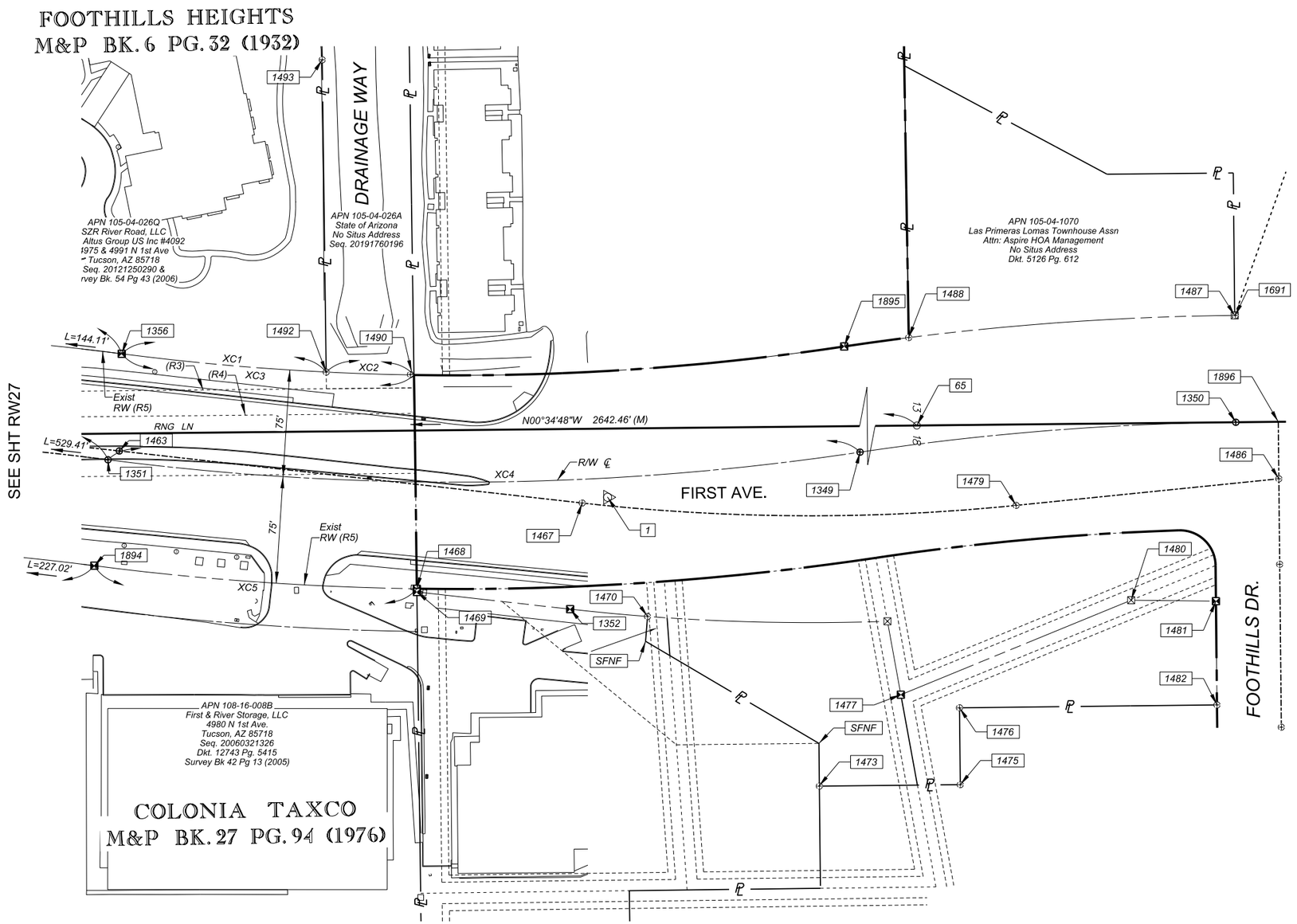
Draft Print
08/28/2026 11:08:25 AM

RW27 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

OpenRoads Designer v10.12.02.4
8/28/2026 10:46:05 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149
c:\pwworking\west01\d3826137\18V-27.dgn
8/28/2026 10:46:05 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:46:10 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_Dwgdf_SD.pltcfg
Project ID:
Client Number: 012149



Sheet Existing & Record Curve (XC#) Data Table			
Curve	*Delta (Δ)*	*Radius*	*Length*
XC1	*04°30'00"*	*1834.86'*	*144.11'*
XC1 (R1)	*04°29'44"*	*1834.86'*	*143.97'*
XC2	*01°55'25"*	*1834.86'*	*61.60'*
XC3	*06°25'24"*	*1834.86'*	*205.70'*
XC4	*15°52'56"*	*1909.86'*	*529.41'*
XC5 (R2)	*06°33'11"*	*1984.86'*	*227.02'*

Sheet Reference (R#) Table	
Record	*Bk.Dkt.Seq. REFERENCE*
R1	*Seq. 20121250290*
R2	*RS Bk. 42 Pg. 13 (2004)*
R3	*Add'l RW Per Plat Bk. 6 Pg. 32 (1932)*
R4	*RW Per PLAT Bk. 3 Pg. 32 (1912)*
R5	*RW Per RM Bk. 8 Pg. 83 & RP #1014 (1959) Dkt. 1393 Pg. 379ish (1959) & add'l PC RW by Dkt. 6951 Pg. 747 (1983)*

0 40 80
SCALE: 1"=40'

Draft Print
08/28/2026 11:08:25 AM

RW28 of RW40

PLAN SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

492 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS AUG 2026	LJB AUG 2026	LJB AUG 2026	*H: 1" = 40'*

PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-28.dgn
8/28/2026 10:46:11 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:46:23 AM
Printed by: SWESTMORELAND
Print Scale: 1:40
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.ptcfg
Project ID:
Client Number: 012149

Acres	Ac.
Ahead	Ahd.
Aluminum Cap	AC
And Husband	et vir
And Others	et al
And Wife	et ux
Approximate	Approx.
Assessor's Parcel Number	APN
Avenue	Ave.
Bench Mark	BM
Brass Cap	BC
Book	Bk.
Boulevard	Blvd.
Brass Cap	B.C.
Bureau of Land Management	B.L.M.
Calculated	(C)
Center	Ctr.
Centerline	℄
City of Tucson	COT
Combined Scale Factor	CF
Concrete	Conc.
Construction	Constr.
Corner	Cor.
County	Co.

Curve Information

Delta	Δ
Length of Curve	L
Radius	R

Degrees	°
Department	Dept.
Docket	Dkt.
Drainage Easement	DE
Drive	Dr.
Easement	Esmt.
East or Easting	E.
Electrical	Elec.
Equation	Equa.
Existing	Exist.
Exist. Line Callout	XL1
Exist. Curve Callout	XC1
Feet	'
Field Measurement	(M)
Found	Fd.
Gila & Salt River Meridian	G & S.R.M.
Global Positioning System	GPS
Hand Hole	H.H.
Inch	In. or "
Irrigation	Irr.
Lane	Ln.
Lead Capped Pipe or Pin	LCP
Left	Lt.
Dimension From Field Measurement	(M)
Magnetic	Mag.
Maps & Plats	M&P
Mid Section Line	MID SEC LN
Minutes	'
Miscellaneous	Misc.
Monument Line	MON LN
North American Datum	NAD
North or Northing	N
Not to Scale	N.T.S.
Number	No.
One Sixtheenth Line	1/16 LN
Online Positioning User Service	OPUS

Page	Pg.
Parcel	Par.
Place	Pl.
Public Utility Easement	PUE
Quit Claim Deed	QCD
Range	R.
Range Line	RNG LN
Record	(R)
Record of Survey	RS
Reference Information	(R1)
Right	Rt.
Right of Way	R/W
Registered Land Surveyor	RLS
Road	Rd.
Search For Not Found	SFNF
Seconds	"
Section	Sec.
Sequence	Seq.
Section line	SEC LN
Sheet	Sht.
South	S
Special Warranty Deed	SWD
Square Feet	S.F.
Street	St.
Subdivision	Subd.
Survey Note	SN1
Telephone	Tele.
Township	T.
Township Line	TWP LN
Temporary	Temp.
Temporary Construction Easement	TCE
United States General Land Office	U.S.G.L.O.
West	W
Warranty Deed	WD

Centerlines
- Survey Centerline
- R/W Centerline

Easement Lines
- Exist. Easement Line
- Building Setback Line
- TCE Line

Property Lines
- Property Line
- Subdivision Property Line

Public Land Survey Lines
- Mid Section Line
- Section Line
- Sixteenth (1/16) Line
- Township-Range Line

R/W Lines
- Exist. R/W Line
- Historical R/W Line
- New R/W Line

Topographic Features
- Exist. Block Wall
- Exist. Wood Fence
- Exist. Chain Link Fence

- Break Line
- Survey Monument Callout (xxx)
- Existing Curve Callout (XC1)
- Dimension Arrow
- Dimension Tie
- Found Survey Monument (See Coordinate Table For Description)
- Survey Control Point (See Coordinate Table For Description)
- Aerial Panel Location (See Survey Control For Description)

(North Arrow)

0 40 80
SCALE: 1"=40'
(Bar Scale)

13 18 24 19 — Found Section Corner (See Cordinate Table For Description)

18 19 — Found Quarter Corner (See Coordinate Table For Description)

19 — Found Center Section Corner (See Coordinate Table For Description)

Found One Sixteenth Corner (See Coordinate Table For Description)

Sheet Outline

1-A — Parcel Bubble

Draft Print
08/28/2026 11:08:25 AM

RW29 of RW40

STANDARD ABBRIVIATIONS & SYMBOLS
RECORD OF SURVEY
SEC'S 1 T14S, R13E
SEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

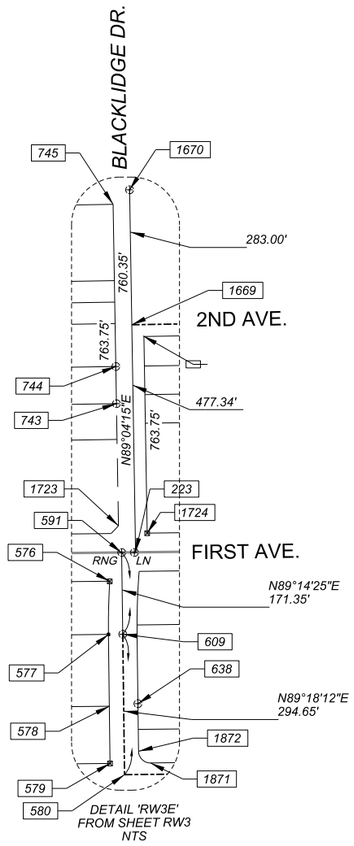
1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS	LJB	LJB	H: 1" = 40'
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

493 OF 504

c:\pwworking\west01\d3826137\18V-29.dgn
8/28/2026 10:46:23 AM



DETAIL 'RW3E'
FROM SHEET RW3
NTS

RW30 of RW40

DETAIL SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

0 40 80
SCALE: 1"=40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

NO.	DATE	REVISION	BY	CHKD.	APPR.
1					

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

494 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS;ATS	LJB	LJB	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

Project ID:
Client Number: 012149
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_bwpdf_SD.pltcfg
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
11:34:31 AM 8/28/2026 OpenRoads Designer v10.12.02.4

c:\pwworking\west01\d3826137\18V-30.dgn
8/28/2026 11:34:31 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:47:59 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
77	474,615.0860	992,701.1380	AL23 Fd. 2-1/4" Capped Pipe Stamped "CENTER SECTION RLS 40622" 1.0' Up And Iron Pin
78	474,646.7790	995,351.6980	BL01 Fd. 2" BCSM Stamped "CDOT 200" Remaining Ilegible Flush
80	472,063.8590	998,087.7420	Fd. 2-1/2" Lead Cap On 2" Pipe Stamped "S18 S19"
89	471,905.0870	990,080.3060	2" BCSM Sec Cor Stamped "SEC COR NO GOOD 14 13 23 24 T13S R13E 5178" Flush
90	471,964.8315	992,712.4227	SFNF-Calculated Location, Nothing Set
91	472,004.4590	995,378.4530	BN01 Fd. 2" COT BCSM In Hand Hole Stamped "SE COR SEC 13 T13S R13E RLS 23956" 0.40' Down
93	469,402.1500	998,101.4310	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
103	469,316.4120	992,740.8370	AP23 Fd. 2" COT BCSM In Hand Hole Stamped "RLS 20373" 0.40' Down
104	469,364.7220	995,405.3230	BP01 Fd. 2" BCSM In Hand Hole Stamped "SECT RLS 20373" Remaining Illegible 0.50' Down
106	466,776.4220	998,114.9780	BR03 Fd. 2" BCSM In Hand Hole Stamped "T13S R14E 1/4 SEC 19 30 RLS 23956" 0.80' Down
116	466,674.6650	992,784.7530	AR23 Fd. 1-1/2" Lead Cap No Stampings 0.30' Down
117	466,724.0975	995,432.0278	SFNF-Calculated Location, Nothing Set
119	464,122.8850	998,140.9250	Fd. 2-1/2" BCSM In Hand Hole Stamped "COT T13S R14E C 1/4 SEC 30 2010 RLS 23956" 0.50' Down
129	464,030.6650	992,823.2110	AT23 Fd. 2" BCSM In Hand Hole Stamped "RLS 40622" 0.30' Down
130	464,076.4090	995,467.6940	BT01 Fd. 3" COT BCSM In Hand Hole Stamped "RLS 23956" 0.50' Down
132	461,462.8579	998,170.9503	SFNF-Calculated Location, Nothing Set
142	461,392.2840	992,861.3140	Fd. 2" BCSM Stamped "RLS 13019" Flush
143	461,435.2750	995,505.0430	BV01 Fd. 2" BCSM Stamped "RLS 13019" Flush
145	458,818.0300	998,172.4250	BX03 Fd. 2" BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
156	458,798.3860	995,533.8898	Fd. 2" BCSM In Hand Hole With Punch Only Down 0.65'
158	456,174.0190	998,167.8270	EA03 Fd. 2" COT BCSM In Hand Hole Stamped "T13S R14E 1/4 S31 S6 T14S R14E RLS 23956" 0.80' Down
168	456,106.8710	992,931.2910	Fd. 2.5" COT BCSM Stamped "RLS 48778" Flush
169	456,151.3040	995,563.7880	EA01 Fd. 3-1/4" COT BCSM In Hand Hole Stamped "T13S R13E S36 R14E S31 S1 R13E S6 R14E T14S 2018 RLS 48778" DOWN 0.45'
170	454,838.8460	995,578.5080	Fd. 2" BCSM Punch Only Flush With Pavement, Added Stampings "HDR RLS 58427"
171	454,816.9380	994,264.1240	Fd. Steel Capped Pipe
172	456,129.0440	994,247.5900	Fd. 1-1/2" COT AC Stamped "1/16 RLS 48778" Flush
173	458,805.4520	996,842.8450	Fd. 2" BCSM Punch Only, Added Stampings "HDR RLS 58427"
174	459,502.5569	995,526.1864	Fd. 2" BCSM Stamped "RLS 19316"
175	460,160.3700	995,519.2320	Fd. Mag Nail, Not Accepted
176	461,463.2627	998,185.6565	SFNF-Calculated Location, Nothing Set
180	456,862.6125	995,555.7534	Fd. 2" BCSM Stamped "RLS 19316" Flush
181	456,850.2794	994,811.1224	Fd. BCSM Stamped "COT RLS 31032" Flush
182	457,522.5796	995,548.2988	Fd. 2" BCSM Stamped "RLS 19316" Flush
183	465,400.1633	995,449.8621	SFNF-Calculated Location, Nothing Set
184	465,405.1628	995,449.7948	Fd. BCSM Stamped "RLS 23956" Flush
186	456,845.3724	995,555.9482	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
187	458,290.9064	995,539.6202	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
188	458,835.4669	995,403.1490	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
189	458,832.5495	995,497.2695	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
190	458,800.6149	995,904.4518	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
191	458,797.6050	995,991.5956	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
192	458,793.3863	995,533.9445	SFNF-Calculated Location, Nothing Set
193	456,234.8882	995,757.6898	Fd. 60D Nail
194	458,004.4023	995,602.8602	Fd. 5/8" Rebar No Tag 0.20' Down
195	459,088.6637	995,960.6186	Fd. 1/2" Rebar No Tag Flush
196	458,997.3365	995,961.5452	Fd. Open Pipe 0.10' Up
197	458,927.3401	995,962.2553	Fd. Open Iron Pipe With Mag Nail Flush
198	459,039.6330	996,021.1192	Fd. 1/2" Rebar No Tag 0.20' Up
200	460,946.6348	995,798.1122	Fd. 5/8" Rebar No Tag (EPS Control Point?)

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
203	461,398.1930	995,545.4511	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
204	459,348.9075	995,957.9784	Fd. 1/2" Rebar No Tag
208	469,514.3320	995,353.5190	Fd. Chiseled "X"
215	458,896.7563	995,565.3137	Fd. Conc. Nail Tagged "RLS 31032 RP" Flush
216	458,860.0576	995,471.5776	Fd. Conc. Nail Tagged "RLS 31032 RP" Flush
217	458,811.9296	995,475.4172	Fd. Conc. Nail Tagged "RLS 31032 RP" Flush
218	458,758.3419	995,566.5776	Fd. Conc. Nail Tagged "RLS 31032 RP" Flush
223	460,162.9373	995,518.9620	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
243	471,964.7180	992,707.4240	Fd. 3" 1/4" AC Stamped "W.C. 5' O/S TO 1/4 13|24 RLS 40622"
300	455,237.9665	995,574.0316	Fd. 3" BC In Pavement Punch Only Down 0.1', Added Stampings "HDR RLS 58427"
302	455,367.7188	995,572.5764	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
303	455,458.3906	995,729.2107	Fd. 2-1/2" BCSM Stamped "RLS 12537" Flush
304	455,613.0976	995,569.8243	Fd. 2-1/2" BCSM Stamped "RLS 18219 LUX" FLUSH
305	455,608.6225	995,305.6634	Fd. SM Stem In Hand Hole
306	455,233.4991	995,310.3313	Fd. SM Stem In Hand Hole
307	455,983.5034	995,300.9985	Fd. SM Stem In Hand Hole
311	455,254.0914	995,345.1227	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
312	455,263.9655	995,334.9541	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
313	455,335.2029	995,334.0676	Fd. 5/8" Rebar No Tag
314	455,417.6950	995,332.5090	Fd. 3/8" Rebar No Tag, Not Accepted
316	455,569.0936	995,331.1572	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
317	455,579.2166	995,340.9870	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
319	455,582.0156	995,506.2085	Fd. 1/2" Rebar Tagged "RLS 12537"
320	455,571.9921	995,516.3779	Fd. 1/2" Rebar Tagged "RLS 12537"
325	455,256.8132	995,505.7867	Fd. Screw Tagged "RLS 12537" Flush
327	455,629.2148	995,340.4548	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
328	455,639.0889	995,330.2862	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
330	455,790.9230	995,329.1460	Fd. 5/8" Rebar No Tag, Held As Closing Corner
332	455,943.9674	995,326.4924	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
333	455,954.0904	995,336.3243	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
334	455,955.3911	995,414.0360	Fd. 1-1/4" Open Iron Pipe
335	455,266.7869	995,515.6173	Fd. Screw Tagged "RLS 12537" Flush
336	455,876.3482	995,517.1363	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
338	455,713.2428	995,516.7298	Fd. 1/2" Rebar No Tag
339	455,642.0051	995,516.5523	Fd. 1/2" Rebar Tagged "RLS 12537"
340	455,632.0315	995,506.7217	Fd. 5/8" Rebar No Tag, Attached Tag "RLS 58427"
341	455,630.5271	995,417.9216	Fd. 1/2" Rebar No Tag
342	455,982.8670	995,561.7608	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
343	456,006.5640	995,483.6983	Fd. 1/2" Rebar Tagged "RLS 58199"
344	456,004.0885	995,335.7880	Fd. 1/2" Rebar Tagged "RLS 58199"
345	456,013.9626	995,325.6214	Fd. 1/2" Rebar Tagged "RLS 58199"
346	456,075.5218	995,324.8554	Fd. 1/2" Rebar Tagged "RLS 58199"
347	456,077.6702	995,452.4859	Fd. 1/2" Rebar Tagged "RLS 58199"
348	456,046.3900	995,487.8772	Fd. 1/2" Rebar Tagged "RLS 58199"
349	456,015.5818	995,491.4993	Fd. 1/2" Rebar Tagged "RLS 58199"
359	456,146.8252	995,298.9662	Fd. 2"BCSM Stamped "RLS 48778"
365	456,051.5653	995,758.7789	Fd. Nail Tagged "WLB LS 12214" Flush
371	455,900.7411	995,622.8182	Calculated Location
373	455,975.0803	996,381.3815	Fd. 1/2" Rebar Tagged "RLS 58199"
374	456,100.2321	996,431.9620	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
375	456,159.5815	995,535.6461	NSF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

RW31 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

Draft Print
08/28/2026 11:08:25 AM

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JTS, ATS	CHKD. BY LJB	APPR. BY LJB	SCALE: NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

495 OF 504

c:\pwworking\west01\d3826137\18V-31.dgn
8/28/2026 10:47:59 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:48:10 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
400	455,108.3757	995,594.2125	Fd. 1/2" Rebar No Tag
401	455,301.4223	995,594.7283	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
402	455,373.4645	995,636.3953	Fd. 1/2" Rebar Tagged "RLS 12537"
403	455,393.0615	995,670.2487	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
404	455,384.8738	995,703.8480	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
405	455,331.3778	995,739.8575	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
406	455,179.5101	995,847.5726	SFNF-Calculated Location, Set Concrete Nail Tagged "RLS 58427"
407	455,191.0886	995,863.8802	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
408	455,214.2296	995,896.5068	Fd. 2-1/2" BCSM Stamped "RLS 12537" Flush
409	455,309.4455	995,828.9731	Fd. 2-1/2" BCSM Stamped "RLS 12537" Flush
410	455,519.3778	996,133.6926	Fd. 2" BCSM Punch Only Down 0.10'
412	456,160.1122	995,927.0097	Fd. 2" BCSM Stamped "COT RLS 48778"
413	455,367.4314	995,867.5306	SFNF-Calculated Location, Set Concrete Nail Tagged "RLS 58427"
414	455,373.3620	995,832.6789	Fd. 1/2" Rebar Tagged "RLS 12537"
415	455,389.2304	995,821.4239	Fd. 1/2" Rebar Tagged "RLS 12537"
421	455,730.9590	995,651.0790	Fd. 1/2" Rebar No Tag, Not Accepted
422	455,736.5745	995,667.4845	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
423	456,072.0095	995,602.0343	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
424	456,092.4568	995,621.2360	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
426	456,084.7067	995,896.8843	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
427	455,928.9281	995,911.8090	Fd. Mag Nail With Washer Stamped "18217" Up 0.25'
450	456,188.6790	995,553.1360	Fd. 2" BCSM Stamped "RLS 48778" FLUSH
451	456,191.2357	995,563.3370	Fd. 2" BCSM Stamped "RLS 48778" FLUSH
453	455,953.1792	995,968.4804	Fd. 1/2" Rebar Tagged "RLS 58199"
454	456,054.9314	995,957.7298	Fd. 1/2" Rebar Tagged "RLS 58199"
455	456,070.3689	995,975.4239	Fd. 1/2" Rebar Tagged "RLS 58199"
456	456,054.3942	996,050.8946	Fd. 1/2" Rebar Tagged "RLS 58199"
457	456,170.7853	996,172.2604	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
458	456,191.9872	996,083.9157	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
459	456,235.1961	995,690.3584	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
460	456,234.1463	995,627.9948	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
461	456,258.8604	995,602.5757	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
462	456,229.5450	995,536.9415	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
463	456,615.6811	995,598.5452	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
464	456,615.8555	995,618.5445	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
465	456,790.8168	995,616.5682	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
466	456,816.0983	995,641.3539	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
467	456,817.4168	995,796.2549	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
468	456,817.5870	995,816.2543	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
469	456,848.7646	995,954.4696	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
475	456,472.4280	995,896.4470	Fd. 1/2" Rebar No Tag Down 0.10'
479	456,877.5836	995,815.5956	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
480	456,877.4134	995,795.5963	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
481	456,876.0935	995,640.5370	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
482	456,900.8102	995,615.3258	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
483	457,065.8739	995,613.4613	Fd. 1/2" Rebar in 1" Pipe Tagged "LS 36715"
484	457,067.2776	995,778.3633	Fd. 5/8" Rebar Tagged "LS 36715"
485	457,052.4025	995,793.0716	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
486	457,052.7080	995,813.7840	Fd. 1/2" Rebar No Tag
490	457,102.0692	995,753.7387	Fd. 5/8" Rebar No Tag, Atached Tag "RLS 58427"
491	457,088.1350	995,738.6570	Fd. 1/2" Rebar No Tag, Not Accepted
492	457,085.7025	995,593.2361	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
495	457,459.1008	995,589.0184	Fd. 1" Rebar No Tag, Attached Tag "RLS 58427"
496	457,484.3493	995,615.3181	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
497	457,478.9463	995,718.9773	Fd. 5/8" Rebar No Tag, Attached Tag "RLS 58427"
498	457,476.1255	995,770.5178	Fd. 5/8" Rebar No Tag, Attached Tag "RLS 58427"
499	457,312.0616	995,751.9513	Fd. 1/2" Rebar Stamped "RLS 14145" Down 0.10'
500	457,499.9197	995,887.1769	Fd. 1/2" rebar No tag Down 0.2', Remove and Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
502	457,226.2106	995,914.6852	Fd. 3/8" Pin Punch Only In COT H.H. Down 0.50'
504	457,537.1122	995,749.9649	Fd. 1/2" Rebar Tagged "LS 13178" Up 0.30'
505	457,544.3307	995,611.4740	Fd. 1/2" Rebar Tagged "LS 13178" Down 0.15'
506	457,569.0144	995,587.7769	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
507	457,919.1783	995,583.8216	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
508	457,919.3800	995,603.5460	Fd. 3/8" Rebar No Tag, Not Accepted
509	458,241.8030	995,599.8850	Fd. 1/2" Rebar No Tag, Not Accepted
510	458,266.6034	995,624.9781	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
511	458,267.7283	995,762.5621	Fd. 5/8" Rebar No Tag, Attached Tag "RLS 58427"
512	458,293.0953	995,807.3562	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
520	458,205.8321	995,763.1323	Fd. 1/2" Rebar No Tag
521	458,083.1350	995,763.8030	Fd. 1/2" Rebar No Tag, Held For Direction
522	458,062.9388	995,764.4486	Fd. 5/8" Rebar No Tag
523	458,005.9412	995,764.9737	Fd. 5/8" Rebar No Tag
524	457,946.0982	995,765.5250	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
525	457,935.9437	995,746.5596	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
526	457,920.9443	995,746.6977	Fd. 1/2" Rebar Tagged "LS 21751
531	457,536.0693	995,769.9745	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
532	458,267.8918	995,782.5614	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
533	458,317.7275	995,762.2578	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
534	458,316.5992	995,624.2574	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
535	458,341.3160	995,599.0546	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
536	458,728.8915	995,594.6768	Fd. 1/2" Rebar Tagged "LS 4253"
537	458,754.1728	995,619.4448	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
538	458,755.4495	995,757.9448	Fd. 1/2" Rebar Tagged "RLS 28745"
539	458,755.7260	995,787.9435	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
557	458,800.9730	995,995.4160	Fd. 2" BCSM Stamped "RLS 35111" Flush, Held For Glenn St Monument Line
562	458,841.9542	995,772.2695	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
563	458,856.1316	995,772.1201	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
564	458,868.3835	995,615.9018	Fd. 1/2" Rebar With Broken Plastic Cap, Attached Tag "RLS 58427"
565	458,893.6810	995,592.7240	Fd. 1/2" Rebar No Tag, Not Accepted
566	458,954.2028	995,592.1888	Fd, 1/2" Rebar With Plastic Cap Stamped "RLS 37174"
567	458,953.9979	995,572.1898	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
569	459,213.8149	995,569.3475	Fd. 1/2" Rebar With Broken Plastic Cap
570	459,343.9596	995,567.9238	Fd. 1/2" Rebar Tagged "RLS 15933"
573	459,771.5491	995,563.2461	Fd. 1/2" Rebar Tagged "RLS 71039"
574	459,871.9843	995,562.1473	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
575	459,959.3860	995,580.5140	Fd. 1/2" Rebar No Tag, Held for Direction
576	460,108.7713	995,579.5581	Fd. 2" COT AC Stamped "SETTLEMEYER -- RLS 26532" Reminaining Illegible 0.2' Down
577	460,106.0521	995,690.9819	Fd. 1/2" Rebar Tagged "RLS 23962"
578	460,107.8844	995,841.6606	Fd. Open Iron Pipe
579	460,109.3425	995,961.5748	Fd. 1/2" Rebar Tagged "RLS 14145"
580	460,139.6326	995,985.2448	Fd. BCSM Stamped "COT RLS 48778" Flush
588	460,166.0477	995,690.2523	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
590	460,170.3483	995,558.8833	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
591	460,133.7782	995,519.2810	Fd. 2" BCSM Stamped "RLS 19316"

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

RW32 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Draft Print
08/28/2026 11:08:25 AM

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

496 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS ATS	LJB	LJB	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-32.dgn
8/28/2026 10:48:10 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:48:35 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
592	460,348.5513	995,556.9338	Fd. 1/2" Rebar Tagged "RLS 11892"
593	460,472.4660	995,555.1490	Fd. 1-1/2" Open Iron Pipe, Held For Direction
595	460,706.8270	995,552.3160	Fd. 5/8" Rebar No Tag, Held For Direction
597	460,944.1050	995,575.4940	Fd. 1/2" Rebar Tagged "RLS 37933", Not Accepted
598	460,968.5900	995,550.1570	Fd. 1/2" Rebar Tagged "RLS 37933" Bent, Not Accepted
599	460,945.5932	995,697.9112	Fd. 1/2" Rebar Tagged "35111"
600	456,041.5720	995,344.3870	Set 1/2" Rebar For Secondary Control Point No Tag
603	458,842.5903	995,533.4062	BX01 Fd. 2" Brass Disc In Hand Hole Stamped "RLS 12294" Down 0.70'
604	462,751.6600	995,668.7520	Set 1/2" Rebar For Control Point No Tag, Secondary Control Point
605	470,501.0830	995,428.1950	EO02 Fd. 3-1/4" PCDOT & FCD Al. Disc Stamped "GPS NN-144 1991 SURVEY POINT" Flush
606	471,790.6780	995,332.9240	EN25 Fd. 9/16" Stainless Steel Pin In PVC Sleeve Incased In Conc. No Lid Rim Stamped "NN-143 1991" 0.30' Down
607	471,275.4110	995,435.7280	Set 1/2" Rebar For Secondary Control Point No Tag
608	459,872.1922	995,582.1462	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
609	460,136.0499	995,690.6171	Fd. BCSM Stamped "RLS 48778"
610	457,477.3010	995,750.5448	Fd. 5/8" Rebar No Tag Down 0.20', Attached Tag "RLS 58427"
611	457,387.1000	995,749.9950	Fd. 1/2" Rebar No Tag Down 0.10', Held For Direction
612	457,963.5461	995,765.3642	Fd. 2" AC Stamped "-ET-- SURVEYS RLS 26832" REMAINING ILLEGIBLE FLUSH
613	466,729.0972	995,431.9777	BR01 Fd. 2" COT BCSM In Hand Hole Stamped "RLS 23956" 0.60' Down
615	468,093.8570	995,364.2700	Fd. Chiseled "X" On East Side Of Sidewalk
616	468,925.2970	995,352.8030	Fd. Chiseled "X" On West Side Of Sidewalk
622	457,685.8532	995,586.4571	Fd. 5/8" Rebar No Tag, Down 0.20' Held As Closing Corner
623	457,765.6881	995,585.5553	Fd. 5/8" Rebar No Tag Down 0.10'
627	472,132.4510	998,061.9350	BN03 Fd. 2" BCSM Stamped "PE 7076 " In Pavement 0.10' Down
629	458,061.3987	995,602.2164	Fd. 5/8" Rebar Tagged "PE 5178" Down 0.10'
630	458,081.9074	995,601.9848	Fd. 1/2" Rebar No Tag
632	458,448.8200	995,597.8630	Fd. 5/8" Rebar Tagged "PE 5178" Down 0.10'
634	458,628.9495	995,595.8057	Fd. 1/2" Rebar No Tag Flush
635	458,755.0941	995,719.3888	Fd. 1/2" Rebar Tagged "RLS 28745" Down 0.20'
638	460,167.8226	995,836.2176	Fd. 5/8" Rebar No Tag In Concrete
639	460,353.7223	995,958.9013	Fd. 1/2" Rebar No Tag
642	461,404.3016	996,133.1194	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
646	457,687.4775	995,748.6850	Fd. 5/8" Rebar No Tag
648	458,204.4936	995,600.6001	Fd. 5/8" Rebar No Tag Down 0.10'
649	460,120.8030	995,281.4750	Fd. 1/2" Rebar No Tag Up 0.10', Not Accepted
650	460,120.7830	995,281.2670	Fd. 1/2" Rebar No Tag Up 0.10', Not Accepted
653	459,877.2755	995,964.1135	Fd. 1/2" Rebar Tagged "RLS 14145" Down 0.10'
655	456,181.2127	994,821.6686	Fd 2" BCSM Stamped "COT RLS 48778" Flush
656	456,230.5107	994,850.8953	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
657	456,220.6698	994,861.0680	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
659	456,221.2348	994,951.7740	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
660	456,218.1153	994,951.8232	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
661	456,220.8932	995,116.0798	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
662	456,240.8908	995,115.7646	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
664	456,246.9084	995,471.5748	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
666	456,559.8788	995,485.1999	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
667	456,564.3794	995,492.7834	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
668	456,781.5175	995,490.3018	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
669	456,782.0460	995,510.1710	Fd. 1" Rebar No Tag, Not Accepted
670	456,826.9519	995,516.1537	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
671	456,824.1400	995,351.5570	Fd. 1/2" Rebar "LS 4399" & Pt # 1238
672	456,821.6260	995,218.0430	Fd. 1/2" Rebar No Tag, Held for Direction
673	456,815.7100	994,841.8460	Fd. 60D Nail
674	456,875.5630	994,841.1920	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
675	456,881.5740	995,194.5410	Fd. 1/2" Rebar Tagged "PE 2368"
676	456,882.4480	995,240.6730	Fd. 1/2" Rebar Tagged "RLS 12537"
679	456,886.9489	995,515.4760	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
684	457,481.2093	995,508.7636	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
685	457,486.8244	995,502.9899	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
689	457,475.6988	994,831.2680	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
690	457,536.1057	994,855.3389	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
691	457,560.7083	994,829.9280	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
692	457,655.6765	994,828.4311	Fd. 1/2" Rebar Tagged "RLS 15933"
693	457,542.7572	995,256.9340	Fd. 1/2" Rebar Tagged " RLS 25405"
695	457,546.9159	995,508.0214	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
700	458,146.3250	995,495.3310	Fd. 1/4" Angle Iron, Not Accepted
701	458,182.5466	995,540.8442	Fd. 2" BCSM Stamped "RLS 19316"
702	458,144.5597	995,360.7922	Fd. Lead Cap No Markings
704	458,135.6170	994,820.8660	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
707	458,201.7600	995,160.1770	Fd. Chisled "X", Not Accepted As Corner
710	458,206.8830	995,500.5667	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
713	458,406.7974	995,491.5970	Fd. 1/2" Rebar Tagged "RLS 35543", Held For Direction
714	458,445.6060	995,490.7240	Fd. Open Pipe, Not Accepted
717	458,596.8119	995,489.5637	Fd. Magnetic Nail
718	458,646.8167	995,488.9926	Fd. Magnetic Nail
719	458,776.6874	995,487.5094	Fd. Magnetic Nail
720	458,806.3408	995,457.0225	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
722	458,801.3452	995,150.4710	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
723	458,861.3377	995,149.5200	Fd. 1/2" Rebar No Tag
725	459,215.8353	994,803.7689	Fd. 1/2" Rebar Tagged "5713"
726	458,866.3440	995,456.7246	Fd. 1/2" Rebar Tagged "35543"
727	458,896.6829	995,486.2339	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
728	458,987.8891	995,485.1913	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
731	459,466.9147	995,486.5739	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
736	459,526.9119	995,485.9175	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
743	460,122.7571	995,207.2226	Fd. 1/2" Rebar Tagged "RLS 5968"
744	460,121.4623	995,129.2334	Fd. 1/2" Rebar Tagged "RLS 5968"
745	460,115.8185	994,789.2802	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
747	460,180.4254	995,066.2761	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
750	460,183.4465	995,248.2511	Fd. 1/2" Rebar Tagged "RLS 26932"
755	460,667.2211	995,473.4429	Fd. 1/2" Rebar No Tag
756	460,787.2084	995,472.1303	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
760	460,780.4689	995,056.6161	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
761	460,660.4602	995,058.5481	Fd. 1/2" Rebar No Tag
762	460,520.4299	995,060.8024	Fd. 1/2" Rebar No Tag
763	460,420.4475	995,062.6970	Fd. 1/2" Rebar No Tag, Held For Direction
764	460,300.4341	995,064.3441	Fd. 1/2" Rebar No Tag
765	460,815.0590	995,031.0560	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
768	460,846.8540	995,462.1970	Fd. 60D Nail, Not Accepted
769	460,822.8555	995,511.7427	Fd. BCSM Stamped "RLS 19316"
770	460,928.6452	995,510.5854	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
771	460,967.1984	995,470.1612	Fd. Mag Nail Tagged "RLS " Remaining Unreadable
772	461,087.0778	995,461.8494	Fd. 1/2" Rebar Tagged " RLS 25086"
773	461,206.5516	995,460.5424	Fd. Concrete Nail Tagged Unreadable
774	461,206.4001	995,450.2434	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

Draft Print
08/28/2026 11:08:25 AM

RW33 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JTS:ATS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: NTS
PLAN NO. H-2026-XXX

497 OF 504

c:\pwworking\west01\d3826137\18V-33.dgn
8/28/2026 10:48:35 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:48:44 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_1wpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
675	456,881.5740	995,194.5410	Fd. 1/2" Rebar Tagged "PE 2368"
676	456,882.4480	995,240.6730	Fd. 1/2" Rebar Tagged "RLS 12537"
679	456,886.9489	995,515.4760	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
684	457,481.2093	995,508.7636	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
685	457,486.8244	995,502.9899	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
689	457,475.6988	994,831.2680	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
690	457,536.1057	994,855.3389	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
691	457,560.7083	994,829.9280	Fd. 60D Nail, Removed & Set 1/2" Rebar Tagged "RLS 58427"
692	457,655.6765	994,828.4311	Fd. 1/2" Rebar Tagged "RLS 15933"
693	457,542.7572	995,256.9340	Fd. 1/2" Rebar Tagged " RLS 25405"
695	457,546.9159	995,508.0214	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
700	458,146.3250	995,495.3310	Fd. 1/4" Angle Iron, Not Accepted
701	458,182.5466	995,540.8442	Fd. 2" BCSM Stamped "RLS 19316"
702	458,144.5597	995,360.7922	Fd. Lead Cap No Markings
704	458,135.6170	994,820.8660	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
707	458,201.7600	995,160.1770	Fd. Chisled "X", Not Accepted As Corner
710	458,206.8830	995,500.5667	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
713	458,406.7974	995,491.5970	Fd. 1/2" Rebar Tagged "RLS 35543", Held For Direction
714	458,445.6060	995,490.7240	Fd. Open Pipe, Not Accepted
717	458,596.8119	995,489.5637	Fd. Magnetic Nail
718	458,646.8167	995,488.9926	Fd. Magnetic Nail
719	458,776.6874	995,487.5094	Fd. Magnetic Nail
720	458,806.3408	995,457.0225	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
722	458,801.3452	995,150.4710	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
723	458,861.3377	995,149.5200	Fd. 1/2" Rebar No Tag
725	459,215.8353	994,803.7689	Fd. 1/2" Rebar Tagged "5713"
726	458,866.3440	995,456.7246	Fd. 1/2" Rebar Tagged "35543"
727	458,896.6829	995,486.2339	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
728	458,987.8891	995,485.1913	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
731	459,466.9147	995,486.5739	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
736	459,526.9119	995,485.9175	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
743	460,122.7571	995,207.2226	Fd. 1/2" Rebar Tagged "RLS 5968"
744	460,121.4623	995,129.2334	Fd. 1/2" Rebar Tagged "RLS 5968"
745	460,115.8185	994,789.2802	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
747	460,180.4254	995,066.2761	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
750	460,183.4465	995,248.2511	Fd. 1/2" Rebar Tagged "RLS 26932"
755	460,667.2211	995,473.4429	Fd. 1/2" Rebar No Tag
756	460,787.2084	995,472.1303	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
760	460,780.4689	995,056.6161	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
761	460,660.4602	995,058.5481	Fd. 1/2" Rebar No Tag
762	460,520.4299	995,060.8024	Fd. 1/2" Rebar No Tag
763	460,420.4475	995,062.6970	Fd. 1/2" Rebar No Tag, Held For Direction
764	460,300.4341	995,064.3441	Fd. 1/2" Rebar No Tag
765	460,815.0590	995,031.0560	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
768	460,846.8540	995,462.1970	Fd. 60D Nail, Not Accepted
769	460,822.8555	995,511.7427	Fd. BCSM Stamped "RLS 19316"
770	460,928.6452	995,510.5854	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
771	460,967.1984	995,470.1612	Fd. Mag Nail Tagged "RLS " Remaining Unreadable
772	461,087.0778	995,461.8494	Fd. 1/2" Rebar Tagged " RLS 25086"
773	461,206.5516	995,460.5424	Fd. Concrete Nail Tagged Unreadable
774	461,206.4001	995,450.2434	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
775	461,259.6562	995,449.6608	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
776	461,259.7073	995,454.3305	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
778	461,317.4139	995,453.6992	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
779	461,351.2305	995,458.9596	Fd. Mag Nail Tag Destroyed
780	461,387.0131	995,458.5682	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
781	461,396.8499	995,448.4601	Fd. Al. Cap Unmarked, Added Stampings "HDR RLS 58427"
787	459,455.8604	994,799.9048	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
788	459,515.8526	994,798.9390	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
789	461,386.2046	994,793.8275	Fd. Screw Tagged " RLS 23956"
790	461,360.8055	994,769.2373	Fd. 1-1/2" Al. Cap Stamped "COT RLS 23956" Down 0.10'
792	461,074.0128	994,773.8543	Fd. Open Iron Pipe
793	461,461.1987	994,792.8549	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
796	461,472.1210	995,464.5180	Fd. Screw With Washer Stamped "RLS 23956" Flush
799	461,829.7411	995,459.4607	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
800	461,829.6615	995,454.4614	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
801	461,861.0416	995,499.0221	Fd. BCSM Stamped " RLS 19316"
803	462,048.0780	995,451.3727	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
804	462,067.2604	995,399.0963	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
805	462,103.7785	995,495.5895	Fd. 2" BCSM Stamped "RLS 19316" Flush
809	462,057.2391	994,760.3202	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
810	462,091.7660	994,729.8870	Fd. 2" BCSM Stamped "COT RLS 58199" Flush
811	462,118.2140	994,760.5030	Fd. 1" Open Iron Pipe Bent Flush
812	462,122.7110	995,108.6361	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
813	462,123.0247	995,128.6337	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
816	462,127.8348	995,435.2433	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
817	462,227.6178	995,433.8323	Fd. 2" Al. Cap Stamped "S/S LS 7599" Down 0.10'
819	462,485.7192	995,430.1824	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
820	462,485.9588	995,445.1805	Fd. 1/2" Rebar Tagged "RLS 12537" Up 0.20'
822	462,724.5513	995,441.8065	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
823	462,722.2499	995,299.5159	Fd. 5/8" Rebar No Tag Bent 0.10' Up
825	462,719.0317	995,100.5413	Fd. 1" Open Iron Pipe 0.10' Down
826	462,754.0239	995,099.7779	Fd. 2" COT BCSM Stamped "RLS 58199" Flush
827	462,779.1980	995,129.4318	Fd. 1" Open Iron Pipe Bent Flush, Held For Direction
829	462,781.5160	995,288.4150	1" Open Iron Pipe 0.40' Down, Held For Direction
830	462,784.5454	995,440.9581	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
831	462,760.2756	995,486.3058	Fd. 2" BCSM Stamped "RLS 19316" Flush
834	463,023.0435	995,437.5854	Fd. 5/8" Rebar Tagged "LS 4680" Down 0.40'
835	463,142.0592	995,435.9024	Fd. 1-1/2" Open Iron Pipe Down 0.40'
836	463,380.9587	995,432.5241	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
837	463,416.6818	995,477.0234	Fd. 2" BCSM Stamped "RLS 19316" Flush
838	463,410.4430	995,090.6787	Fd. 2" BCSM Stamped "COT RLS 58199" Flush
839	463,375.9306	995,121.1600	Fd. 1" Open Iron Pipe 0.30' Down
840	463,137.4252	995,124.4662	Fd. 1" Open Iron Pipe 0.50' Down
841	463,017.7494	995,126.1251	Fd. 1/2" Rebar Tagged "LS 2663" 0.10' Up
843	463,429.8000	994,741.0321	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
844	463,431.0036	994,815.5677	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" 0.10' Up
845	463,440.3078	995,391.7310	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" 0.10' Up
846	463,465.6580	995,416.3248	Fd. 1/2" Rebar No Tag, Attach Tag "HDR RLS 58427"
848	463,997.7997	995,408.7996	Fd. 1/2" Rebar Tagged "RLS 25086" 0.20' Down
849	464,022.4425	995,383.3698	Fd. 1/2" Rebar Tagged "RLS 25086" 0.10' Down
850	464,011.6212	994,757.7820	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" Flush
851	463,986.2738	994,733.2168	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" Flush
852	464,065.0786	994,812.6780	Fd. 2" BCSM Punch Only 0.10' Down, Added Stampings "HDR RLS 58427"
855	463,549.0385	994,739.3575	Fd. PK Nail Tagged "GOETZ RLS 31020" Flush

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

Call at least two full working days before you begin excavation. ARIZONA 811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County (602) 263-1100

Draft Print
08/28/2026 11:08:26 AM

RW34 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

498 OF 504

CITY OF TUCSON

DRWN. BY	CHKD. BY	APPR. BY	SCALE:
JTS ATS	LJB	LJB	NTS
AUG 2026	AUG 2026	AUG 2026	PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-34.dgn
8/28/2026 10:48:44 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:49:13 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
858	460,157.9375	995,519.0167	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
859	460,141.7489	995,540.7883	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
862	460,889.0498	995,551.0209	Fd. 1/2" Rebar Bent Tagged "RLS 52699"
863	460,909.1662	995,560.8124	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
865	460,913.0120	995,930.7925	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
869	460,575.7060	995,944.4722	Fd. 1/2" Rebar No Tag
871	460,143.6603	995,519.1729	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
873	460,810.4694	994,748.0932	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
874	460,835.9527	994,777.6868	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
875	460,914.3219	995,575.7596	Fd. 1/2" Rebar Tagged " RLS 52699"
877	461,482.1901	996,410.6200	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
878	461,504.6887	996,410.3660	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
879	461,826.6685	995,559.5142	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
880	461,886.5070	995,543.6665	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
884	461,894.5927	996,321.5363	Fd. Al. Cap Stamped "City of Tucson"
891	462,284.2920	995,907.4890	Fd. 1" Open Iron Pipe 0.30' Down, Held For Direction
892	462,367.4360	995,905.9024	Fd. 3/4" Open Iron Pipe Inside Fence No Tag Flush, Held For Direction
896	462,365.2937	995,718.9140	Fd. 1/2" Rebar No Tag Flush
897	462,362.9387	995,536.9292	Fd. 1/2" Rebar Tagged "LS 13178" 0.10' Up
898	462,279.4143	995,538.1103	Fd. Magnetic Nail With 3" Washer Stamped "SETTLEMEYER RLS 26932" FLUSH
899	462,196.1720	995,539.2874	Fd. 2-1/2" Al. Cap Stamped "SETTLEMEYER SURVEYING RLS 26932" Flush
900	461,495.8931	995,564.1918	Fd. 1/2" Rebar With Broken Plastic Cap, Attached Tag "RLS 58427"
901	462,029.6875	995,541.6417	Fd. 5/8" Rebar With 1-1/2" Al. Cap Illegible .05' Down
902	462,397.3530	995,491.4380	Fd. 2" BCSM Stamped "RLS 19316" Flush
903	462,422.9328	995,536.0808	Fd. 1" Open Iron Pipe 0.20' Down
904	462,425.1575	995,707.9993	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
907	462,591.3890	996,519.3660	Fd. 2" BCSM No Marks Flush, Added Stampings "HDR RLS 58427"
909	462,558.3430	995,837.6760	Fd. 3/4" Open Iron Pipe 0.30' Up, Held For Direction
910	462,557.9230	995,706.1218	Fd. 1/2" Rebar No Tag 0.10' Up, Attach Tag "RLS 58427"
911	462,556.1335	995,534.1971	Fd. 5/8" Rebar Tagged "PE 2368" 0.40' Down
912	462,580.6628	995,488.8458	Fd. 2" BCSM Stamped "RLS 19316" Flush
913	462,631.1893	995,548.1372	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
914	462,606.5442	995,573.3949	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
917	462,756.6742	995,546.3627	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
920	458,855.7976	994,809.5651	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
924	462,776.5722	995,546.0813	Fd. 1/2" Rebar No Tag Flush, Attached Tag "RLS 58427"
925	462,861.5569	995,544.8796	Fd. 1/2" Rebar No Tag Flush, Attached Tag "RLS 58427"
930	462,938.6366	995,693.8045	Fd. 1/2" Rebar No Tag 0.10' Down, Attached Tag "RLS 58427"
931	462,936.9028	995,568.8098	Fd. 1/2" Rebar No Tag 0.25' Down, Attached Tag "RLS 58427"
932	462,961.5469	995,543.4656	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
933	462,915.7260	995,484.1075	Fd. 2-1/2" BCSM Stamped "RLS 19316" Flush
934	463,066.7833	995,541.9774	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
936	462,939.3804	995,747.4261	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
939	462,889.3852	995,748.1196	Fd. 1/2" Rebar Bent No Tag Flush, Remove and Replace with 1/2" Rebar Tagged "RLS 58427"
940	463,086.5590	995,526.6962	Fd. Magnetic Nail With Al. Disc Stamped "RLS 42137" Flush
941	463,088.4619	995,655.0588	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
943	463,251.7325	995,524.3605	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
944	463,263.5269	995,479.1892	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
945	463,253.7588	995,653.7833	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
946	463,241.2588	995,653.8797	Fd. 2" Al. Cap Stamped "RLS 12122" Flush
947	463,243.8778	995,821.1620	Fd. 1" Al. Cap Stamped "RLS 12122" 0.25' Down
950	463,279.6418	995,709.9842	Fd. 1/2" Rebar Tagged "LS 5713" 0.25' Up
952	463,278.7807	995,629.9884	Fd. 1/2" Rebar No Tag 0.30' Down, Held For Direction
953	463,276.7301	995,524.0070	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
955	463,416.8906	995,522.0249	Fd. 1/2" Rebar Tagged "RLS 35111" Flush
956	463,417.2803	995,547.0219	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
958	463,826.1821	995,541.2395	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
959	463,836.3220	995,551.0647	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
960	463,843.4511	995,731.0143	Fd. 1/2" Rebar Tagged "LS 4080" 0.10' Down
961	463,853.6384	995,741.2645	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
962	463,863.1076	995,711.0802	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
963	463,873.2875	995,720.9047	Fd. 1/2" Rebar No Tag 0.30' Down, Attached Tag "RLS 58427"
967	464,028.2544	995,718.0931	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
972	469,381.4077	993,843.2724	Fd. 5/8" Rebar No Tag Flush, Attached Tag "RLS 58427"
973	464,025.3773	995,552.6036	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
974	463,920.1407	995,539.9108	Fd. 1/2" Rebar No Tag Bent 0.40' Down Located Bend
975	463,870.3490	995,541.0560	Fd. 5/8" Rebar No Tag 0.10' Down, Not Accepted
976	463,860.3208	995,550.7902	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
979	463,425.8860	995,952.0410	Fd. 2" BC With Punch Only Flush, Added Stampings "HDR RLS 58427"
982	464,132.8809	996,127.1521	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
984	464,118.3760	995,724.3059	Fd. 1" Iron Pipe 0.20' Down
986	464,115.1244	995,537.2767	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
987	464,139.7839	995,511.8444	Fd. 1/2" Rebar Taggged "RLS 14345" Flush
989	464,429.1759	995,507.9461	Fd. Magnetic Nail With Tag Illegible Flush
990	464,449.1743	995,507.6767	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
993	464,459.8632	996,107.7592	Fd. 1/2" Rebar No Tag 0.20' Down, Attached Tag "RLS 58427"
994	464,475.1254	996,122.7278	Fd. 5/8" Rebar Bent No Tag Flush, Attached Tag "RLS 58427"
995	464,424.1270	996,123.1000	Fd. 1/2" Rebar Tagged "PLS 16845" Flush
996	464,439.8641	996,107.9862	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
997	464,536.7757	995,506.4966	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
998	464,562.1084	995,531.0491	Fd. 1" Iron Pipe With Badly Corroded Lead Cap Down 0.20'
999	464,585.8617	995,460.8313	Fd. Magnetic Nail With Al. Washer Stamped "COT RLS 23956" Flush
1001	468,089.7110	998,108.3900	Fd. 2-1/2" BCSM Stamped "COT RLS 23956" Flush
1002	468,096.6040	998,103.2150	Fd. 2-1/2" BCSM Stamped "COT RLS 23956" Flush
1018	468,067.2520	996,766.9880	Fd. 2-1/2" BCSM Stamped "RLS 40804" Flush
1030	466,750.4475	996,781.6013	Fd. 2-1/2" BCSM Stamped "REC RLS 17479" Flush
1031	466,750.5460	996,786.6420	Fd. 2-1/2" BCSM Stamped "REC RLS 17479" Flush
1047	465,449.7321	998,127.9507	Fd. 2-1/2" BCSM Stamped "COT RLS 23956" Flush
1089	465,429.8550	996,799.2010	Fd. 2-1/2" BCSM Stamped "RLS 13187" Flush
1106	464,084.6589	995,942.2150	Fd. 2-1/2" BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1108	464,099.8813	996,817.7871	Fd. 2-1/2" BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1115	464,123.2120	998,160.6900	BT03 Fd. 2-1/2" BCSM Stamped "COT RLS 23956" Flush
1128	462,431.8860	998,159.9970	Fd. BCSM Stamped "COT RLS 23956"
1131	462,926.3384	995,888.6880	Fd. BCSM No Markings Located Center, Added Punch And Stampings "HDR RLS 58427"
1132	462,920.3606	995,818.2304	Fd. BCSM No Markings Located Center, Added Punch And Stampings "HDR RLS 58427"
1133	462,914.3828	995,747.7729	Fd. BCSM Punch Only, Added tampings "HDR RLS 58427"
1134	461,449.0600	996,831.2130	Fd. BCSM Stamped "RLS 13019"
1135	461,452.1851	996,831.1972	Fd. BCSM Stamped "RLS 13019"
1140	466,288.5640	995,508.1646	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1141	466,313.0598	995,482.5689	Fd. 1/2" Rebar No Tag Flush, Attached Tag "RLS 58427"
1142	466,394.0814	995,481.4775	Fd. 1/2" Rebar Tagged "RLS 15933" Up 0.10'
1143	466,394.3632	995,496.4750	Fd. 1/2" Rebar No Tag Up 0.20', Attached Tag "RLS 58427"
1144	466,454.3586	995,495.6669	Fd. Magnetic Nail With Tag Illegible Flush
1145	466,454.0769	995,480.6693	Fd. 1/2" Rebar Tagged "RLS 14145" Up 0.10'
1146	466,694.9781	995,477.4242	Fd. Marked "X" With Epoxied Tag in Concrete "RLS 12122" Flush

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Draft Print
08/28/2026 11:08:26 AM

RW35 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JTS:ATS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: NTS
PLAN NO. H-2026-XXX

499 OF 504

c:\pwworking\west01\d3826137\18V-35.dgn
8/28/2026 10:49:13 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:49:23 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1147	466,698.4919	995,657.3932	Fd. 2" Al. Cap Stamped "KLEIN RLS 42137" Down 0.10'
1149	466,706.8628	996,086.1215	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1153	466,788.5791	995,660.9807	Fd. 1/2" Rebar No Tag Flush
1154	466,786.0540	995,531.6481	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1155	466,810.7982	995,506.1613	Fd. 1/2" Rebar Stamped "LS 35832" Down 0.10'
1156	467,385.5280	995,500.3919	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1157	467,496.5646	995,484.2765	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1158	467,620.5639	995,483.0317	Fd. 1/2" Rebar No Tag Up 0.10', Attached Tag "RLS 58427"
1159	467,620.2711	995,468.0339	Fd. 1/2" Rebar Tagged "RLS 14145" Flush
1160	467,775.5609	995,466.4751	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1161	467,776.0603	995,496.4715	Fd. 1/2" Rebar No Tag Flush, Attached Tag "RLS 58427"
1162	467,976.4829	995,494.4596	Fd. 1/2" Rebar Tagged "RLS 14145" Flush
1163	468,001.7292	995,518.9760	Fd. 1/2" Rebar Tagged "RLS 14145" Flush
1164	468,006.1070	995,745.8449	Fd. 1/2" Rebar No Tag Down 0.10', Attached Tag "RLS 58427"
1165	468,021.1069	995,745.6943	Fd. 1/2" Rebar No Tag Down 0.20', Attached Tag "RLS 58427"
1166	468,023.8722	995,889.0038	Fd. 2" Lead Cap Stamped "PE 5178" Flush
1167	468,025.7003	995,983.7402	Fd. 1/2" Rebar Tagged "RLS 26932" Down 0.10'
1172	466,744.2610	995,126.8722	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1173	466,754.2558	995,126.5495	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1174	466,754.7398	995,141.5417	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1175	466,744.7451	995,141.8644	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1176	466,752.0055	995,366.7472	Fd. 1/2" Rebar Tagged "RLS 14145" Flush
1177	466,772.6536	995,386.5382	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1178	467,189.9512	995,382.3491	Fd. 1/2" Rebar Tagged "RLS 14145" Up 0.10'
1180	467,473.0983	995,379.5068	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1181	467,504.0650	995,424.1982	Fd. 2" BCSM Stamped "COT RLS 23956" Flush
1183	467,468.7302	995,176.1204	Fd. 1/2" Rebar Tagged "RLS 26929" Up 0.10'
1184	467,466.2430	995,060.3150	Fd. 1/2" Rebar Tagged "RLS 26929" Up 0.10'
1188	467,526.5040	995,084.5730	Fd. 1/2" Rebar No Tag Inside a 1" Iron Pipe Down 0.10', Held For Direction
1189	467,528.4708	995,163.3983	Fd. 1/2" Rebar No Tag Up 0.20'
1191	467,532.9020	995,369.7264	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1194	467,648.2940	995,162.2800	Fd. 1/2" Rebar Tagged "LS 9434" Up 0.50'
1195	467,647.0008	995,083.7184	Fd. 1/2" Rebar Tagged "LS 9434" Up 0.20'
1199	467,886.9807	995,080.3738	Fd. 1/2" Rebar Tagged "LS 9434" Up 0.20'
1200	467,977.8798	995,344.4380	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1201	468,002.6229	995,318.8958	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1202	468,007.4024	995,078.6955	Fd. 1/2" Rebar Plastic Cap Destroyed 0.10' Up, Attached Tag "RLS 58427"
1203	468,004.1415	994,928.7264	Fd. Marked Ink "X" on Concrete Flush
1204	468,000.8806	994,778.7572	Fd. Magnetic Nail No Tag Flush
1205	468,044.8040	995,418.7700	Fd. 2" BCSM Stamped "RLS 23956" Flush
1207	467,740.7133	995,346.8188	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1211	468,060.3657	994,754.4239	Fd. 1/2" Rebar No Tag Flush
1212	468,072.9628	995,333.7675	Fd. 1/2" Rebar No Tag Bent Down 0.30', Remove and Replace With 1/2" Rebar Tagged "RLS 58427"
1213	468,098.2116	995,358.2228	Fd. 1/2" Rebar No Tag Bent Down 0.20', Remove and Replace With 1/2" Rebar Tagged "RLS 58427"
1214	468,420.2564	995,354.9419	Fd. 1/2" Rebar No Tag
1215	469,293.4384	995,346.0461	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
1216	469,318.1829	995,320.8417	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
1217	469,313.9036	995,084.8241	Fd. 1/2" Rebar No Tag Down 0.35', Attached Tag "RLS 58427"
1218	469,311.7826	994,967.8396	Fd. Magnetic Nail With Tag Illegible Flush
1219	469,307.6499	994,739.9065	Fd. 1/2" Rebar With Plastic Cap Stamped "RLS 13573" Down 0.30'
1220	469,397.1583	994,050.0209	Fd. Magnetic Nail With Tag "RE--LS 1----9" Remaining Illegible Flush
1221	469,402.1760	994,328.9250	Fd. 1/2" Rebar No Tag Down 0.15', Not Accepted

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1222	469,405.0253	994,483.9179	Fd. 1/2" Rebar With Tag "RLS 14122" Down 0.35'
1223	469,405.8683	994,530.4103	Fd. Chiseled "X" On Sidewalk
1224	469,409.3760	994,723.8785	Fd. 5/8" Rebar No Tag Down 0.30'
1225	469,413.2845	994,939.4430	Fd. 2" Al. Cap Stamped "MMLA RLS 18557" Flush
1226	469,416.1561	995,097.8270	Fd. Magnetic Nail With Al. Washer Stamped "KLEIN 42137" FLUSH
1228	469,419.8760	995,302.9948	Fd. 5/8" Rebar Tagged "RLS 12122" Down 0.10'
1229	469,420.0936	995,314.9932	Fd. 2" Al. Cap Stamped "MMLA RLS 18557" Flush
1230	469,450.3940	995,344.4478	Fd. 2" Al. Cap Stamped "MMLA RLS 18557" Flush
1231	469,450.1765	995,332.4494	Fd. 5/8" Rebar No Tag Down 0.20'
1232	469,610.4170	995,330.8183	Fd. 5/8" Rebar No Tag Down 0.20'
1234	470,042.0945	995,353.4257	Fd. 1/2" Rebar Tagged "LS 12537"
1235	470,047.4165	995,338.3707	Fd. 1/2" Rebar Tagged "RLS 12122" Down 0.50'
1236	470,051.6741	995,326.3268	Fd. 1/2" Rebar No Tag Down 0.25'
1237	470,124.1166	995,121.3996	Fd. 1/2" Rebar Tagged "LS 12537" Up 0.55'
1238	470,272.9213	994,208.9539	Fd. 1/2" Rebar No Tag Down 0.40'
1240	470,266.6326	993,827.2223	Fd. 2" Lead Cap Stamped "KLEIN 42137" Down 0.40'
1242	470,661.6277	994,122.4027	Fd. 1/2" Rebar No Tag Down 0.10'
1244	470,732.0688	994,565.4270	Fd. 1/2" Rebar Tagged "RLS 26932" Bent Down 0.10'
1247	470,597.7150	995,098.2660	Fd. 1/2" Rebar No Tag Flush
1251	470,432.7053	995,349.4496	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1252	470,520.1685	995,318.5578	Fd. 1/2" Rebar Tagged "RLS 25086" Down 0.15'
1253	470,682.1824	995,316.9086	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" Down 0.45'
1254	470,684.5905	995,391.8880	Fd. Magnetic Nail With Al. Washer "COT RLS 23956" Flush
1255	470,923.5032	995,314.4522	Fd. 1/2" Rebar No Tag Down 0.60'
1256	470,918.8590	995,062.1590	Fd. 5/8" Rebar Tagged "LS 10174" Bent Located At Bend Flush
1260	471,020.8615	994,975.7302	Fd. 2" BCSM No Punch Located Center Flush
1261	471,037.4310	995,049.9860	Fd. 2" BCSM Punch Only Flush
1263	471,043.5088	995,388.2346	-
1264	471,139.2180	995,311.7260	Fd. Magnetic Nail With Tag Stamped "RES LS 11758" FLUSH, Held For Direction
1265	471,193.9718	995,311.6991	Fd. Magnetic Nail With Tag Stamped "RES LS 11758" FLUSH
1266	471,224.6402	995,311.3869	Fd. Magnetic Nail With Tag Stamped "RES LS 11758" FLUSH
1269	471,368.7115	995,309.9204	Fd. Magnetic Nail With Tag Stamped "RES LS 11758" FLUSH
1270	471,393.4557	995,284.6672	Fd. Magnetic Nail With Tag Stamped "RES LS 11758" FLUSH
1271	471,392.2852	995,169.6732	Fd. Magnetic Nail With Tag Stamped "RES LS 11758" FLUSH
1272	471,421.1116	995,054.2287	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1273	471,391.1132	995,054.5341	Fd. 1/2" Rebar with Hog Ring No Tag Down 0.40', Attached Tag "RLS 58427"
1274	471,393.8621	994,992.9429	Fd. 1/2" Rebar Tagged "RLS 4527" Down 0.10'
1277	471,452.8840	995,006.2880	Fd. 5/8" Rebar Tagged "RLS 12122" Down 0.10'
1278	471,453.4526	995,284.0565	Fd. 5/8" Rebar Bent Tagged "RLS 12122" 0.40' Down Located Bend, Removed & Set 1/2" Rebar Tagged "RLS 58427"
1279	471,478.7058	995,308.8008	Fd. 1.5" Al. Cap Stamped "RLS 12122" Flush
1280	471,424.4720	995,384.3567	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1281	471,747.5590	995,306.0641	Fd. 1.5" Al. Cap Stamped "RLS 12122" Flush
1282	471,764.1985	995,305.8947	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1283	471,793.3176	995,305.5983	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1284	471,809.9571	995,305.4290	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1285	471,826.9467	995,017.1291	Fd. 1/2" Rebar Tagged "RLS 12122" Down 0.35'
1286	471,815.6610	995,002.7550	Fd. 1/2" Rebar Tagged "PE 8424" Down 0.40'
1293	471,985.0355	994,720.5100	Fd. 5/8" Rebar No Tag Up 0.10', Attached Tag "RLS 58427"
1294	471,995.4306	994,734.6435	Fd. 1/2" Rebar No Tag Flush
1295	471,988.8953	994,754.7161	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Draft Print
08/28/2026 11:08:26 AM

RW36 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JTS, ATS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: NTS
PLAN NO. H-2026-XXX

500 OF 504

c:\pwworking\west01\d3826137\18V-36.dgn
8/28/2026 10:49:23 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:49:33 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_1wpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1296	471,969.2715	994,769.1492	Fd. 5/8" Rebar No Tag Down 0.20', Attached Tag "RLS 58427"
1297	471,854.0442	995,144.9719	Fd. 5/8" Rebar No Tag Flush
1298	472,027.4180	995,303.2167	Fd. 5/8" Rebar No Tag Down 0.35'
1299	472,127.1314	995,302.2070	Fd. 1/2" Rebar No Tag Up 0.15'
1300	472,352.6317	995,299.9237	Fd. 1-1/2" AC Stamped "TS&M SURVEY --- 520-882--392 LS 29881" Remaining Illegible Down 0.60'
1301	472,469.9120	995,298.7362	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1302	472,492.3319	995,284.2699	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1303	472,545.7474	995,147.9606	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1304	472,552.0615	995,147.8973	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1307	465,442.2414	996,109.6478	Fd. 1/2" Rebar No Tag Flush
1308	468,765.3473	995,471.4324	Fd. 1/2" Rebar Tagged "RLS 37933" Down 0.10'
1310	468,346.1868	995,490.7035	Fd. 1/2" Rebar Tagged "RLS 19316" Down 0.10'
1318	463,990.2963	995,538.9187	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1322	463,284.5990	996,825.1260	Fd. 1/2" Rebar No Tag Down 0.20', Attached Tag "RLS 58427"
1323	463,297.1013	996,825.1752	Fd. 1/2" Rebar Tagged "CE 1322" Flush
1328	462,887.0250	995,570.1230	Fd. 1/2" Rebar Bent No Tag Down 0.50' Located At Bend, Not Accepted
1329	468,091.8346	995,523.5695	Fd. 1/2" Rebar Tagged "RLS 19316" Down 0.30'
1330	468,121.5234	995,492.9923	Fd. 1/2" Rebar Tagged "RLS 19316" Down 0.10'
1332	468,104.6726	996,188.8757	Fd. 1/2" Rebar Tagged "RLS 19316" Down 0.10'
1335	469,035.6989	995,482.1885	Fd. Concrete Nail Tagged "RLS 37933" Flush
1338	469,334.9421	995,500.6290	Fd. 1/2" Rebar Bent No Tag Located Top Flush
1339	469,334.6645	995,480.6331	Fd. 1/2" Rebar Bent No Tag Located At Bend Down 0.10'
1341	472,265.7596	995,608.2039	Fd. 1/2" Rebar No Tag, Attached Tag "RLS 58427"
1343	472,664.8998	995,005.5566	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1344	472,692.6443	994,989.7014	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1345	472,770.7711	994,254.3986	Fd. 2" BCSM Stamped "PCDOT 594+98.34" Down 0.20'
1346	472,301.3015	995,643.3716	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1347	472,427.7005	995,515.6278	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1348	472,846.3758	995,369.9281	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1349	473,638.0921	995,380.2269	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1350	473,901.7503	995,359.2418	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1351	473,110.4049	995,385.5700	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1352	473,434.7276	995,490.4469	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1355	472,845.6165	995,294.9320	Fd. 1/2" Rebar Tagged "PCDOT REF" Up 0.10'
1356	473,120.0139	995,311.1881	Calculated Location
1360	472,594.8691	994,748.0977	Fd. 5/8" Rebar No Tag Down 0.35', Attached Tag "RLS 58427"
1363	470,216.5143	993,828.1310	Fd. Magnetic Nail Tagged "RE--S ---9 Remaining Illegible Flush
1364	470,226.5649	994,424.5652	Fd. 1/2" Rebar No Tag Down 0.30'
1374	469,988.5968	995,443.9749	Fd. 1/2" Rebar Tagged "RLS 14145" Down 0.20'
1375	470,577.6717	995,437.9787	Fd. 1/2" Rebar Tagged "RLS 14145" Bent Located At Bend Flush
1380	467,976.5810	995,494.4440	Fd. 1/2" Rebar No Tag Flush, Not Accepted
1381	468,001.8080	995,518.9890	Fd. 1/2" Rebar No Tag Flush, Not Accepted
1382	467,189.9050	995,381.5590	Fd. 2" Lead Cap Stamped "TRIMBLE RLS 15343" Up 0.10', Not Accepted
1383	467,190.6090	995,382.3160	Fd. 2" Lead Cap Stamped "PE 6377" Up 0.10', Not Accepted
1384	465,367.0149	995,270.1710	Fd. 1/2" Rebar No Tag Up 0.20', Attached Tag "RLS 58427"
1385	465,425.1734	995,164.3955	Fd. 1/2" Rebar No Tag Up 0.70'
1386	465,425.2240	995,164.5130	Fd. 1/2" Rebar No Tag Up 0.10', Not Accepted
1387	465,679.8863	995,401.7680	Fd. 1/2" Rebar No Tag Down 0.50', Held For Direction
1388	465,759.9010	995,400.3730	Fd. 1/2" Rebar No Tag Flush, Not Accepted
1403	469,344.6640	995,480.5312	Fd. Magnetic Nail With Al. Washer Stamped "MMLA RLS 18557" Flush
1404	469,344.9417	995,500.5326	Fd. Magnetic Nail With Al. Washer Stamped "MMLA RLS 18557" Flush
1406	469,346.3873	995,705.5254	Fd. 2-1/2" Al. Cap Stamped "RLS 18557" Down 0.10'
1409	469,373.1430	996,034.9810	Fd. 1/2" Rebar No Tag Down 0.40', Not Accepted

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1411	469,405.1460	996,034.4840	Fd. Magnetic Nail With Auminum Washer Stamped "RLS 12122" Flush
1412	469,403.7854	995,913.9117	Fd. 1/2" Rebar No Tag Dowwn 0.15'
1414	469,397.9837	995,495.9891	Fd. 1/2" Rebar Tagged "LS 8024" Down 0.25'
1415	469,423.9826	995,495.7245	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1416	469,423.7605	995,479.7259	Fd. 2-1/2" Al. Cap Stamped "RLS 18557" Down 0.30'
1417	469,497.4766	995,478.9756	Fd. 1-1/2" Al. Cap Stamped "RLS 12122" Flush
1419	469,743.4084	995,476.4722	Fd. 1-1/2" Al. Cap Stamped "RLS 12122" Down 0.15'
1420	469,887.5828	995,475.0047	Fd. MAG Nail With Al. Washer Stamped "SETTLEMEYER RLS 26932" Flush
1421	469,978.3687	995,474.0805	Fd. 1/2" Rebar Tagged "LS 12122" Down 0.35'
1423	469,907.0932	995,676.5956	Fd. 1-1/2" Al. Cap Stamped "S/S RLS 26932" Up 0.10'
1424	469,825.0591	995,909.6792	Fd. 1-1/2" Al. Cap Stamped "S/S RLS 26932" Flush
1425	469,688.6278	996,297.3213	Fd. 1/2" Rebar Bent No Tag Located At Bend Flush
1427	469,533.5521	996,758.7190	Fd. 1/2" Rbebar Tagged "LS 8024" Flush
1431	470,482.9675	995,453.9434	Fd. 1/2" Rebar Tagged "RLS 14145" Down 0.20'
1432	470,488.2660	995,438.8887	Fd. Chiseled "X" in Sidewalk, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1433	470,575.3977	995,453.0026	Fd. 1/2" Rebar Tagged "RLS 14145" Flush
1435	471,805.4420	995,425.4811	Fd. 1/2" Rebar Tagged "RLS 33308" Bent Located At Bend Flush
1436	472,005.4454	995,423.4453	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1437	472,006.1031	995,453.4402	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1438	472,323.0885	995,450.2305	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1439	472,323.1594	995,457.2302	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1440	472,348.1559	995,456.9771	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1441	472,359.1154	995,491.1185	Fd. 1/2" Rebar Tagged "RLS 12122" Flush
1442	472,355.5986	995,494.6727	Fd. 1-1/2" Al. Cap Stamped "RLS 12122" Down 0.50'
1443	472,346.1461	995,526.9620	Fd. 1-1/2" Al. Cap Stamped "RLS 12122" Up 0.10'
1444	472,015.7062	995,891.4469	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1445	472,016.2206	995,914.9111	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1446	471,812.4385	996,163.3812	Fd. 2" Al. Cap Stamped "MMLA RLS 18557" Flush
1448	471,754.6217	996,276.0338	Fd. Magnetic Nail With Al. Washer On Top Of Wall Stamped "RLS 19862"
1449	471,950.5035	996,105.8784	Fd. 2" BCSM Stamped "PCDOT 10/02" Flush
1453	472,393.8514	995,706.8691	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" Down 0.10'
1454	472,431.9201	995,662.7497	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1455	472,375.1365	995,613.7536	Fd. 2" BCSM Stamped "PCDOT 10/02" Flush
1457	472,576.4931	995,459.8802	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" Up 0.10'
1458	472,597.8518	995,447.4484	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" Up 0.15'
1459	472,538.7993	995,373.0425	Fd. 2" BCSM Stamped "RLS 58199" Flush
1462	472,918.7460	995,369.1953	Fd. 2" BCSM Stamped "PCDOT 23 80 2000" FLUSH
1463	473,118.3567	995,379.3764	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1464	472,793.5727	995,445.4666	Fd. 1/2" Rebar With Plastic Cap Stamped "GOETZ RLS 31020" Down 0.10'
1465	472,933.5521	995,446.0847	Fd. 1/2" Rebar Tagged "RLS 18547" Down 0.15'
1466	473,083.7096	995,457.8261	Fd. 1/2" Rebar No Tag Flush
1467	473,443.1135	995,415.9172	Fd. 2" BCSM Stamped "PCDOT 29 067 2000" Flush
1468	473,327.1121	995,476.1126	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1469	473,327.1398	995,478.3414	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1470	473,488.9656	995,495.5587	Fd. 1/2" Rebar Tagged "RLS 12537" Down 0.15'
1473	473,609.5414	995,614.6285	Fd. 1/2" Rebar No Tag Flush
1475	473,708.4064	995,613.6329	Fd. 1/2" Rebar Tagged "RLS 12537" Flush
1476	473,707.8631	995,559.6821	Fd. 1/2" Rebar Tagged "RLS 12537" Up 0.10'
1477	473,666.7292	995,550.4753	Fd. 1/2" Rebar Bent No Tag Flush, Removed and Set 1/2" Rebar Tagged "RLS 58427"
1478	473,657.3267	995,498.9254	Fd. 1/2" Rebar Tagged "PCDOT REF 25" Down 0.10'
1479	473,747.6108	995,417.5993	Fd. 2" BCSM Stamped "PCDOT 32 11 83 2000" Flush

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

HDR

Draft Print
08/28/2026 11:08:26 AM

RW37 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

501 OF 504

CITY OF TUCSON

DRWN. BY JTS, ATS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: NTS
PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-37.dgn
8/28/2026 10:49:33 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:49:42 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
PlotDriver: GN_1wpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1480	473,828.3456	995,484.1392	Fd. 1/2" Rebar Tagged "PCDOT REF" Flush
1481	473,887.8054	995,484.8363	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1482	473,888.5427	995,557.6476	Fd. 1/2" Rebar Bent Tagged "RLS 12537" Flush
1484	473,933.7031	995,573.2694	Fd. 2" BCSM Stamped "RLS 46278" Flush
1485	473,932.5454	995,458.9351	Fd. 2" BCSM Stamped "RLS 46278" Flush
1486	473,931.9378	995,398.9192	Fd. 2" BCSM Stamped "PCDOT 33 97 08 2000" FLUSH
1487	473,900.9909	995,284.2457	Fd. 1/2" Rebar Tagged "PCDOT REF" Up 0.15'
1488	473,672.2583	995,299.8028	Fd. 5/8" Rebar No Tag Up 0.15'
1489	473,626.6270	995,305.4610	Fd. 1/2" Rebar with Yellow Plastic Cap Stamped "Arizona ASM PLS 48099" Flush, Not Accepted
1490	473,322.6180	995,325.7320	Fd. 1/2" Rebar with Yellow Plastic Cap Stamped "Arizona ASM PLS 48099" Up 0.50', Not Accepted
1492	473,263.5097	995,324.0227	Fd. 1/2" Rebar Tagged "RLS 37933" Down 0.35'
1493	473,260.7327	995,104.8162	Fd. 1/2" Rebar No Tag Down 0.40'
1494	473,157.8118	994,862.3517	Fd. 1/2" Rebar Tagged "RLS 27739" Up 0.10'
1495	473,316.5780	994,721.4260	Fd. 1/2" Rebar No Tag Up 0.10'
1496	472,931.9060	994,762.2560	Fd. 5/8" Rebar No Tag Down 1.80'
1497	472,779.2870	994,754.0720	Fd. 1/2" Rebar Tagged "LS 17479" Up 0.15', Held For Direction
1498	472,788.7546	994,694.9269	Fd. 1/2" Rebar Bent No Tag Located At Bend Down 0.30'
1499	472,707.6119	994,728.9504	Fd. 2" BCSM Stamped "COT RLS 58199" Flush
1504	472,742.1012	994,997.0560	Fd. 1/2" Rebar Tagged "ROW PC 21 DOT" Down 0.35'
1505	472,666.2761	995,254.2219	Fd. 1/2" Rebar Bent No Tag Down 0.30', Attached Tag "RLS 58427"
1506	472,693.9661	995,296.4675	Fd. 1/2" Rebar Tagged "LS 17479" Down 0.20'
1507	472,956.7980	995,296.9212	Fd. 1/2" Rebar Tagged "LS 17479" Down 0.35'
1512	468,645.8935	995,472.6494	Fd. 1/2" Rebar Tagged "RLS 19316" Down 0.20'
1518	464,612.1082	995,530.5926	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1519	464,636.7675	995,505.1497	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1520	464,724.2781	995,503.9708	Fd. 1/2" Rebar No Tag Up 0.20', Attached Tag "RLS 58427"
1521	464,739.2768	995,503.7688	Fd. 2" Lead Cap No Punch Illegible Flush
1527	464,750.1140	996,118.8860	Fd. 1/2" Rebar No Tag Up 0.10', Attached Tag "RLS 58427"
1531	464,113.1276	995,422.1953	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1534	464,107.8686	995,118.1687	Fd. 2.5" Al. Cap With Punch Badly Damaged and Illegible Down 0.10'
1535	464,112.1468	994,861.2411	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1540	464,373.1059	995,418.6932	Fd. 1/2" Rebar Tagged "RLS 15933" Flush
1541	464,463.0984	995,417.4810	Calculated Location
1544	464,601.0038	995,400.6219	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1545	464,601.2647	995,415.6198	Fd. 1" Iron Pipe With Illegible Disk Flush, Added Stampings "HDR RLS 58427"
1546	464,737.5034	995,413.7845	Fd. 1" Iron Pipe With Illegible Disk Down 0.10'
1547	464,863.4930	995,412.0874	Fd. 1/2" Rebar No Tag Down 0.10'
1548	465,115.4720	995,408.6930	Fd. 1/2" Rebar Tag is Illegible Flush
1550	465,369.3785	995,405.2727	Fd. 1/2" Rebar Tagged "RLS 14145" Up 0.30'
1551	465,367.1560	995,270.0700	Fd. 2" Lead Cap Stamped "LS 1052" Up 0.20', Not Accepted
1552	465,364.3909	995,120.1927	Fd. 1/2" Rebar Tagged "LS 13178" Up 0.10'
1553	465,238.3839	995,120.8952	Fd. Magnetic Nail With Al. Platter Stamped "WC 1.0 W. LS 13178" Flush
1556	464,858.5339	995,127.0277	Fd. 1/2" Rebar No Tag Down 0.60'
1557	464,732.5444	995,128.7300	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1558	464,731.9143	995,098.7358	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1560	465,425.2690	995,164.3800	Fd. 1" Open Iron Pipe Up 0.30', Not Accepted
1561	465,426.5029	995,240.3845	Fd. 1" Open Iron Pipe Down 0.40'
1562	465,428.9380	995,379.5688	Fd. 1/2" Rebar No Tag Flush, Attached Tag "RLS 58427"
1563	465,454.2709	995,404.1292	Fd. 1/2" Rebar No Tag Flush, Attached Tag "RLS 58427"
1565	465,679.9260	995,401.8210	Fd. 1/2" Rebar No Tag Down 0.50', Not Accepted
1566	465,759.8820	995,400.2740	Fd. 5/8" Rebar No Tag Flush, Held For Direction
1567	465,846.8608	995,398.8407	Fd. 1/2" Rebar No Tag Flush

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1568	465,933.8540	995,397.6689	Fd. 1/2" Rebar Tagged "RLS 23379" Flush
1569	465,996.5176	995,396.8248	Fd. 1/2" Rebar No Tag Flush, Attached Tag "RLS 58427"
1570	466,021.1768	995,371.3751	Fd. 1/2" Rebar Tagged "RLS 14145" Flush
1572	466,017.4102	995,163.0539	Fd. 1" Open Iron Pipe Up 0.10'
1573	465,929.0479	995,139.4074	Fd. 5/8" Rebar No Tag Down 0.40'
1574	465,842.0616	995,140.9530	Fd. 1/2" Rebar In Leaning Concrete No Tag Flush, Held For Direction
1577	466,251.9378	995,134.8006	Fd. 3/8" Rebar No Tag Flush
1578	466,164.8354	995,136.0433	Fd. 5/8" Rebar Bent No Tag Flush Located Top Edge
1579	466,102.0472	995,136.9391	Fd. 1" Open Iron Pipe Down 0.30'
1580	466,077.4080	995,162.3885	Fd. 1" Open Iron Pipe Up 0.10'
1581	466,079.3002	995,267.0409	Fd. 5/8" Rebar No Tag Down 0.10'
1582	466,081.1761	995,370.7973	Fd. 1/2" Rebar Tagged "RLS 14145" Down 0.10'
1583	466,057.4415	995,441.0082	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1584	466,106.4980	995,395.0630	Fd. 2" Lead Cap Illegible Flush
1585	466,169.6340	995,394.2270	Fd. 2" Lead Cap Stamped "RLS 7599" Flush, Held For Direction
1587	466,343.9528	995,392.1446	Fd. 1/2" Rebar Tagged "RLS 25086" Down 0.10'
1588	466,343.6618	995,377.1471	Fd. 1/2" Rebar Tagged "RLS 25086" Up 0.10'
1592	466,689.8790	995,372.4833	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1593	466,691.8205	995,361.9862	Fd. Magnetic Nail With Tag Illegible Flush
1594	466,687.3299	995,222.8936	Fd. 1/2" Rebar Tagged "RLS 25086" Up 0.10'
1595	466,685.2306	995,157.8723	Fd. 2" Lead Cap Stamped "RLS 19316" Flush
1597	466,679.5870	994,994.8610	Fd. 1" Open Iron Pipe Corroded Flush, Held For Direction
1600	465,400.9866	995,494.8551	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1601	465,404.3713	995,679.8263	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1603	465,436.2717	995,783.4060	Fd. 1/2" Rebar No Tag Up 0.15'
1604	465,434.8629	995,706.4180	Fd. 1/2" Rebar Tagged "LS 10046" Down 0.25'
1607	465,430.9842	995,494.4510	Fd. 1/2" Rebar No Tag Up 0.60', Attached Tag "RLS 58427"
1608	465,566.4233	995,492.6266	Fd. 1/2" Rebar With Plastic Cap Stamped "EPS GROUP RLS 53160" Down 0.15'
1609	465,576.7624	995,492.4873	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1610	465,576.8123	995,498.1374	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1611	465,604.8109	995,497.8899	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1612	465,604.7598	995,492.1102	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1613	465,717.1019	995,490.5968	Fd. 1/2" Rebar With Plastic Cap Stamped "EPS GROUP RLS 53160" Down 0.25'
1614	465,724.5640	995,498.2930	Fd. 1/2" Rebar With Plastic Cap Stamped "EPS GROUP RLS 53160" Down 0.25'
1615	465,748.4057	995,445.1711	Fd. Magnetic Nail With Al. Platter Stamped "COT RLS 23956" Flush
1617	465,765.8649	995,575.9478	Fd. 1/2" Rebar No Tag Up 0.20'
1618	465,764.7242	995,515.2211	Fd. 1/2" Rebar Tagged "RLS 14145" Down 0.10'
1619	465,789.2353	995,489.6252	Fd. 1/2" Rebar Tagged "RLS 14145" Up 0.30'
1621	465,871.7368	995,574.5216	Fd. 2" Al. Cap Stamped "S/S RLS 7599" Down 0.20'
1626	465,732.6708	995,998.9333	Fd. 1/2" Rebar With Plastic Cap Stamped "EPS GROUP RLS 53160" Down 0.10'
1631	465,979.1030	995,646.2620	Fd. 1/2" Rebar No Tag Down 0.10'
1632	465,977.7286	995,573.0938	Fd. 2" Al. Cap Stamped "S/S RLS 7599" Flush
1633	466,027.7248	995,572.4203	Fd. 1/2" Rebar No Tag Flush
1634	466,026.5841	995,511.6937	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1635	466,051.3712	995,486.0940	Fd. 1/2" Rebar No Tag Up 0.10', Attached Tag "RLS 58427"
1636	466,000.2664	995,441.7783	Fd. Magnetic Nail With Al. Platter Stamped "COT RLS 23956" Flush
1637	465,976.5781	995,511.8417	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1638	465,950.9153	995,487.4472	Fd. 2" Al. Cap Stamped "RLS 7599" Up 0.20'
1639	466,131.9605	995,485.0084	Fd. 1/2" Rebar No Tag Bent Up 0.10'
1640	466,133.7167	995,570.9926	Fd. 1/2" Rebar No Tag Flush
1642	466,140.7089	995,943.2336	Fd. 1/2" Rebar No Tag Bent Located At Bend Down 0.10'

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Draft Print
08/28/2026 11:08:26 AM

RW38 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION
30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

CITY OF TUCSON

DRWN. BY JTS, ATS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: NTS
PLAN NO. H-2026-XXX

502 OF 504

c:\pwworking\west01\d3826137\18V-38.dgn
8/28/2026 10:49:42 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:49:54 AM
Printed by: SWESTMORELAND
Print Scale: 10.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1645	466,294.2090	995,863.1780	Fd. 1" Open Iron Pipe Bent Located At Bend Down 0.20', Held for Direction
1649	466,238.5580	995,508.3126	SFNF-Calculated Location, Nothing Set Behind Fence Located in Driveway
1650	466,213.3574	995,483.9119	Fd. Magnetic Nail With Illegible Tag Flush
1651	466,262.2463	995,438.2493	Fd. Magnetic Nail With Al. Platter Stamped "COT RLS 23956" Flush
1652	471,447.1713	994,884.0963	Fd. BCSM Stamped "RLS 19862" Flush
1653	469,340.5688	994,073.1783	Fd. BCSM Stamped "RLS 12537" Flush
1654	468,015.9300	994,090.8500	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1655	466,682.9439	994,157.3466	Fd. BCSM Punch Only Flush
1656	466,051.5047	995,112.6577	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1657	466,034.1268	994,137.6639	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1658	466,359.0987	994,133.1941	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1659	466,376.4737	995,108.0213	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1660	465,726.5357	995,117.2941	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1661	465,399.1578	995,106.5618	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1662	465,393.7037	994,794.8178	Fd. BCSM Punch Only Down 0.10', Added Stampings "HDR RLS 58427"
1663	465,382.1600	994,146.8580	Fd. BCSM Punch Only Down 0.10', Added Stampings "HDR RLS 58427"
1666	463,404.3180	994,711.3870	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1667	462,747.8920	994,720.6540	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1668	461,422.8056	994,738.2353	Fd. BCSM Stamped"RLS 13019" Flush
1669	460,155.0137	995,041.6820	Fd. BCSM Stamped "RLS 35111" Flush
1670	460,150.3160	994,758.7209	Fd. BCSM Stamped "RLS 35111" Flush
1671	460,799.7647	994,088.1010	Fd. BCSM Stamped "RLS 35111" Flush
1672	460,139.6272	994,098.6775	Fd. BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1674	459,490.3730	994,769.3453	Fd. BCSM Stamped "RLS 35111" Flush
1675	458,830.3121	994,779.9715	Fd. BCSM Stamped "RLS 35111" Flush
1676	458,170.1159	994,790.3185	Fd. BCSM Stamped "RLS 35111" Flush
1677	457,510.1976	994,800.7205	Fd. BCSM Stamped "RLS 35111" Flush
1678	458,175.8292	995,135.2714	Fd. BCSM No Markings Located Center, Added Punch and Stampings "HDR RLS 58427"
1679	458,835.9335	995,124.9258	Fd. BCSM Stamped "RLS 35111" Flush
1680	456,839.3447	994,150.9209	Fd. BCSM Stamped "RLS 35111" Flush
1681	457,499.2638	994,140.5732	Fd. BCSM Stamped "RLS 35111" Flush
1682	469,402.2154	994,328.9434	Fd. 1/2" Rebar No Tag Down 0.10'
1683	470,042.1010	995,353.3790	Fd. 5/8" Rebar No Tag, Not Accepted
1684	470,042.1460	995,353.2180	Fd. 1/2" Rebar No Tag, Not Accepted
1685	470,123.5510	995,121.3030	Fd. 1/2" RB Tagged "LS 12537" Not Accepted
1686	470,272.8720	994,208.8450	Fd. 1/2" Rebar No Tag Down 0.40', Not Accepted
1687	470,266.6610	993,827.1170	Fd. 1/2" Rebar No Tag Down 0.45', Not Accepted
1688	470,266.5500	993,827.0200	Fd. 1/2" Rebar No Tag Down 0.55', Not Accepted
1689	470,918.5850	995,062.2580	Fd. 1/2" Rebar Tagged "RLS 26932" Up 0.20', Not Accepted
1690	469,978.4410	995,474.2980	Fd. 1/2" Rebar "LS 10046" Down 0.30', Not Accepted
1691	473,901.3470	995,284.3200	Fd. 60D Nail No Tag, Not Accepted
1693	461,405.7240	995,909.5700	Fd. 5/8" Rebar No Tag Down 0.30', Not Accepted
1695	466,662.2000	993,514.8280	Fd. BCSM Punch Only Flush
1701	456,243.1320	995,266.4040	Fd. 1/2" Rebar No Tag Down .10', Held For Direction
1721	458,268.0962	995,807.5606	Fd. 5/8" Rebar Bent No Tag Down 0.10', Attached Tag "RLS 58427"
1722	460,111.6958	995,479.5202	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1723	460,127.0090	995,463.3319	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1724	460,187.2722	995,478.6934	Fd. 1" Magnetic Nail No Tag Flush
1731	460,838.7872	994,952.4442	Fd. 1/2" Rebar Tagged "RLS 5713" Flush
1732	460,839.4151	994,991.1570	Fd. 1/2" Rebar No Tag Flush
1737	460,176.6210	995,015.9430	Fd. 1/2" Rebar No Tag Up 0.10', Not Accepted
1739	460,933.4889	995,976.5603	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1743	460,771.5964	996,002.3328	Fd. 2" Closed Iron Pipe No Markings Up 0.10'
1756	462,609.0250	995,811.7370	Fd. 5/8" Rebar No Tag Down 0.30'

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1760	463,090.9592	995,823.5269	Fd. 5/8" Rebar No Tag Up 0.10'
1764	464,118.5675	995,735.3156	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1765	464,107.5911	995,102.1308	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1766	464,136.8063	994,836.7161	Fd. 1/2" Rebar No Tag Flush, Attached Tag "RLS 58427"
1767	464,726.2434	994,828.7925	Fd. 1/2" Rear No Tag Up 0.40'
1768	465,357.1400	994,820.6790	Fd. 1/2" Rebar No Tag Flush, Not Accepted
1769	465,363.8661	995,090.1971	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1772	464,462.8390	995,402.4831	Fd. 1/2" Rebar No Tag Down 0.40', Attached Tag "RLS 58427"
1776	466,059.4068	995,944.1866	Fd. 1\4" Metal Rod No Tag Bent Down 0.20'
1786	466,395.8839	995,074.7534	Fd. 1/2" Rebar No Tag Up 0.10', Attached Tag "RLS 58427"
1787	465,708.9747	994,142.2492	Fd. 2" BCSM Punch Only Flush, Added Stampings "HDR RLS 58427"
1788	466,651.7170	994,129.1693	Fd. 2" BCSM No Markings Flush, Held For Direction
1789	466,653.4484	994,173.4556	Fd. 1/2" Rebar No Tag Bent Up 0.20'
1790	466,739.0399	994,965.1543	Fd. 1/2" Rebar Tagged "RLS 14145" Flush
1793	466,797.1546	996,100.1890	Fd. 1/2" Rebar No Tag 0.20' Down, Attached Tag "RLS 58427"
1794	467,447.9850	992,813.0190	Fd. 2" BCSM Stamped "RLS 12537" Flush
1798	467,997.4031	995,078.8348	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1799	472,847.1352	995,444.9243	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1800	472,669.4433	994,976.1327	SFNF-Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1801	472,628.4784	994,749.9628	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1802	472,227.2565	995,301.1932	Fd. 5/8" Rebar No Tag Down 0.50'
1803	470,610.7413	995,059.5791	Fd. 1/2" Rebar No Tag Up 0.20'
1804	470,432.1892	995,319.4533	SFNF-Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1830	469,397.7616	995,479.9906	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1831	469,392.4023	994,449.6642	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1840	472,387.4513	995,556.3052	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1843	472,595.3379	994,964.5827	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1847	455,366.0894	995,788.7973	Fd. 2" BCSM
1848	465,992.0576	995,138.5084	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1850	455,731.7401	995,651.9645	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1851	455,956.8343	995,500.2704	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1852	455,431.5766	995,745.3576	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1853	455,985.3839	995,609.2240	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1854	456,097.4451	995,556.8410	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1855	456,193.7536	995,557.0983	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1856	456,162.2064	995,691.5870	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1857	456,121.0028	996,066.8801	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1858	456,653.7702	995,555.4100	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1859	456,752.3889	995,556.9985	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1860	456,781.9541	995,516.6620	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1861	456,816.1942	994,866.6465	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1862	456,790.8037	994,842.0636	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1863	457,086.9421	995,738.8669	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1864	457,919.3952	995,603.8204	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1865	458,146.8860	995,501.2444	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1866	458,201.2402	995,159.8762	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1867	458,241.3219	995,600.1841	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1868	458,596.9200	995,496.1611	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1869	458,893.0335	995,592.8580	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1870	460,179.5954	995,016.2830	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1871	460,194.3070	995,960.6453	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County (602) 263-1100

Draft Print
08/28/2026 11:08:26 AM

RW39 of RW40

COORDINATE SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%
DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

503 OF 504

CITY OF TUCSON

DRWN. BY JTS, ATS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: NTS
PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-39.dgn
8/28/2026 10:49:54 AM

OpenRoads Designer v10.12.02.4
8/28/2026
10:50:03 AM
Printed by: SWESTMORELAND
Print Scale: 1:0.0833333
Pentable: COTPMA&MCDOT_BENTLEY_PRINT.tbl
Plotdriver: GN_bwpdf_SD.pltcfg
Project ID:
Client Number: 012149

COORDINATE TABLE			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1872	460,169.0354	995,935.9508	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1873	460,847.2056	995,471.4739	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1874	460,946.5932	995,697.9003	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1875	460,945.3198	995,575.3932	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1876	460,970.0449	995,550.1349	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1877	461,485.8834	994,767.4504	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1878	458,988.0176	995,491.8129	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1879	461,087.1912	995,468.8485	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1881	462,779.5068	995,129.4275	Calculated Location, Nothing Set
1882	462,886.9080	995,569.5303	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1883	463,278.3894	995,629.9940	Calculated Location, Nothing Set
1884	463,839.4515	995,731.0709	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1885	463,870.1779	995,540.6174	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1886	464,063.1664	994,702.1339	Calculated Location, Nothing Set
1887	469,035.7208	995,483.6787	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1888	469,347.7872	995,705.5111	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1889	472,003.3443	995,303.4605	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1890	472,595.1814	994,750.1946	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1891	472,742.0587	994,997.3317	Calculated Location, Nothing Set
1892	472,017.4514	995,971.0490	Calculated Location, Set MAG Spike with 2" Al. Washer Stamped "HDR RLS 58427"
1893	471,758.0922	995,380.9608	Calculated Location, Nothing Set
1894	473,100.7959	995,459.9519	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1895	473,626.9789	995,306.0548	Calculated Location, Set 1/2" Rebar Tagged "RLS 58427"
1896	473,931.5329	995,358.9403	Calculated Location, Nothing Set
1897	458,797.6232	995,993.5729	Calculated Location, Nothing Set

Surveyor's Notes:

In accordance with Arizona Boundary Survey Minimum Standards tolerance policy on found R/W and property corner monuments, the found coordinate values within 0.25' of the calculated best-fit record position have been adjusted to the values of the calculated position. This enables keeping the intent of record documentation while holding observed monumentation.

At the time of printing of this submittal, the monuments shown as being set, added stampings, and attached tags on this sheet are for cursory review and have not yet been established in the field. Final monumentation will occur after coordination has occurred with the City Surveyor.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-4T (782-5348)
In Maricopa County: (602) 263-1100

HDR

NO.	DATE	REVISION	BY	CHKD.	APPR.

THIS SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION

30%

DESIGN CONCEPT SUBMITTAL
Preliminary
Not For Construction

Draft Print
08/28/2026 11:08:26 AM

RW40 of RW40

DETAIL SHEET
RECORD OF SURVEY
SEC'S 1 T14S, R13ESEC'S 6 T14S, R14E
SEC'S 13,24,25 & 36 T13S, R13E
& SEC'S 18,19,30 & 31 T13S, R14E
G & S.R.M. PIMA CO. AZ.

DEPARTMENT OF TRANSPORTATION AND MOBILITY/ENGINEERING DIVISION

1ST AVENUE, GRANT ROAD TO
RIVER ROAD - ROADWAY IMPROVEMENTS

504 OF 504

CITY OF TUCSON

DRWN. BY JTS, ATS AUG 2026
CHKD. BY LJB AUG 2026
APPR. BY LJB AUG 2026
SCALE: NTS
PLAN NO. H-2026-XXX

c:\pwworking\west01\d3826137\18V-40.dgn
8/28/2026 10:50:03 AM

Appendix A:
Public Engagement Summary Materials

1st Avenue - River Road to Grant Road

Community Outreach Phase I Summary Memo

Outreach Period: September 18 – December 8, 2024

Prepared by:
HDR Engineering, Inc.
1 S. Church Ave. Ste 1400
Tucson, AZ 85701

In cooperation with:
City of Tucson

Table of Contents

Introduction **1**

Mainstreet Business Assistance Program 1

Notifications **2**

Posters 2

Direct Mailer 2

Digital Advertisements 2

Direct Emails 3

Email Blasts 3

Social Media 4

Press Releases 6

Community Newsletters 6

Meeting Materials **6**

Handout 6

Display Boards 7

Comment Boards 7

Website **8**

Interactive Map 9

Community Events **10**

Open House Events 10

Pop-Up/Tabling Events 10

Community Meetings **11**

Survey and Results **11**

Survey 11

Survey Results 11

Demographics 15

Additional Comments and Questions **17**

APPENDICES

Appendix A: Notifications

Appendix B: Meeting Materials

Appendix C: Survey

Appendix D: Survey Results

Appendix E: General Comments

Introduction

The City of Tucson, in partnership with Pima Association of Governments and the Regional Transportation Authority (PAG/RTA), is improving 1st Avenue from River Road to Grant Road. The purpose is to modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, improve traffic flow/operations, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists.

In fall 2024, Community Outreach Phase I began and included a survey that sought community input on priorities for the corridor. Community input was collected from September 18, 2024, through December 8, 2024.

The priorities we heard most from the community included safety for all users and improving sidewalks and bike lanes for cyclists and pedestrians. More details can be found in the sections below.

Mainstreet Business Assistance Program

The project collaborated with and utilized the Mainstreet Business Assistance Program to connect with business owners along the corridor. Mainstreet is a free regional construction mitigation program focused on minimizing impacts to businesses caused by transportation improvement projects.

Notifications

Notifications that shared details on the survey, as well as public meeting opportunities, were distributed before and during the survey launch. Details on each notice are below. These notices were distributed in both English and Spanish and can be found in *Appendix A, Notifications.*

Posters

Posters advertising one virtual public meeting and one in-person public meeting were delivered to 435 businesses and other interested stakeholders along the corridor.

Direct Mailer

A direct mailer with information about the public meetings and survey was mailed to 6,212 residents and businesses within a ¼ mile of the project area.

Digital Advertisements

Five digital ads advertising the survey ran on Arizona Daily Star's website from September 20 through November 22, 2024, on both desktop and mobile platforms. The results of the ads are as follows:

Facebook/Instagram ads:

- English
  - 25,924 impressions
  - 447 clicks
- Spanish
  - 24,252 impressions
  - 334 clicks

Tucson.com desktop ads:

- English
  - 19,987 impressions
  - 16 clicks
- Spanish
  - 19,981 impressions
  - 12 clicks

Tucson.com ROS (Run of Site) ads:

- English
  - 17,503 impressions
  - 14 clicks
- Spanish
  - 17,498 impressions
  - 14 clicks

Direct Emails

Direct emails sharing information about the public meetings and survey were sent out to several stakeholders on September 27, October 11, and November 27, 2024. A full list of recipients is included below:

- Ward 3 Council Office
- Living Streets Alliance
- Limberlost Neighborhood Association
- Campus Farm Neighborhood Association
- Amphi Neighborhood Association
- Mountain View Neighborhood Association
- Keeling Neighborhood Association
- Hendrick Acres Neighborhood Association
- Mountain First Avenue Neighborhood Association
- El Cortez Neighborhood Association
- Jefferson Park Neighborhood Association
- Sugar Hill Neighborhood Association
- Samos Neighborhood Association

Email Blasts

Three (3) email blasts were sent to people who signed up for the mailing list, and project team members. The statistics for each email blast are listed below:

September 18, 2024

- 182 emails sent
- 180 (98%) delivered
- 2 bounces
- 82 opened (46%)

October 3, 2024

- 181 emails sent
- 180 (99%) delivered
- 1 bounce
- 75 opened (42%)

November 18, 2024

- 181 emails sent
- 181 (100%) delivered
- 0 bounces
- 97 opened (54%)

Social Media

A social media campaign was developed – with content and graphics in both English and Spanish – and posted between September 19 and December 4, 2024, using the City of Tucson Department of Transportation and Mobility's social media accounts on X, Instagram, and Facebook. The social media posts are listed on the following page in Table 1.

September 19, 2024		
X	**Instagram**	**Facebook**
0 reactions	21 likes	3 reactions
1 comment	0 comments	1 comment
0 retweets		0 shares
260 views		
September 23, 2024		
X	**Instagram**	**Facebook**
0 reactions	11 likes	0 reactions
0 comments	1 comment	0 comments
0 retweets		0 shares
228 views		
October 2, 2024		
X	**Instagram**	**Facebook**
1 reaction	11 likes	3 reactions
0 comments	1 comment	1 comment
1 retweet		6 shares
330 views		
October 9, 2024		
X	**Instagram**	**Facebook**
No post	13 likes	5 reactions
	0 comments	0 comments
		0 shares

November 13, 2024		
X	**Instagram**	**Facebook**
3 reactions	9 likes	3 reactions
1 comment	0 comments	2 comments
1 retweet		1 share
250 views		
November 20, 2024		
X	**Instagram**	**Facebook**
0 reactions	9 likes	1 reaction
0 comments	0 comments	2 comments
0 retweets		1 share
232 views		
November 26, 2024		
X	**Instagram**	**Facebook**
0 reactions	12 likes	1 reaction
0 comments	0 comments	2 comments
0 retweets		0 shares
212 views		
December 4, ,2024		
X	**Instagram**	**Facebook**
1 reaction	5 likes	2 reactions
0 comments	0 comments	0 comments
1 retweet		1 share
753 views		

Press Releases

The City of Tucson distributed two (2) press releases, one announcing the survey's launch, and the other advertising the upcoming public meetings. Analytics for these press releases are included below:

- September 18, 2024
  - 11,389 recipients
  - 10,626 (93%) delivered
  - 2,716 (26%) opened
  - 763 (7%) bounced
- October 2, 2024
  - 11,409 recipients
  - 10,640 (93%) delivered
  - 3,796 (24%) opened
  - 769 (7%) bounced

Community Newsletters

Survey and project information was included in the following community newsletters:

- September 20, 2024: Ward 3 Newsletter
- September 27, 2024: Ward 3 Newsletter
- October 4, 2024: Ward 3 Newsletter
- October 8, 2024: Living Streets Alliance October Newsletter
- October 11, 2024: Ward 3 Newsletter
- October 18, 2024: Ward 3 Newsletter
- November 22, 2024: Ward 3 Newsletter
- November 27, 2024: Ward 3 Newsletter
- December 9, 2024: Living Streets Alliance December Newsletter

Meeting Materials

An in-person open house was held on October 9, 2024, at Donna Liggins Recreational Center and a virtual open house took place on Zoom on October 10, 2024. Several materials for these events were produced in both English and Spanish. Copies are included in *Appendix B, Meeting Materials.*

Handout

A handout was developed by the team and distributed during the in-person open house. It included information about the project, including elements, benefits, a map, a timeline, and contact information.

Display Boards

Display boards were available at the in-person open house and titled as follows:

- Welcome
- Overview
- Project Elements
- Estimated Project Schedule
- Current Conditions: Traffic
- Current Conditions: Active Transportation
- Current Conditions: Public Transit
- Current Conditions: Safety
- Current Conditions: Drainage
- Your Feedback Matters

These display boards were included in a PowerPoint presentation for the virtual open house.

Comment Boards

Comment boards were available allowing attendees to give input on the following:

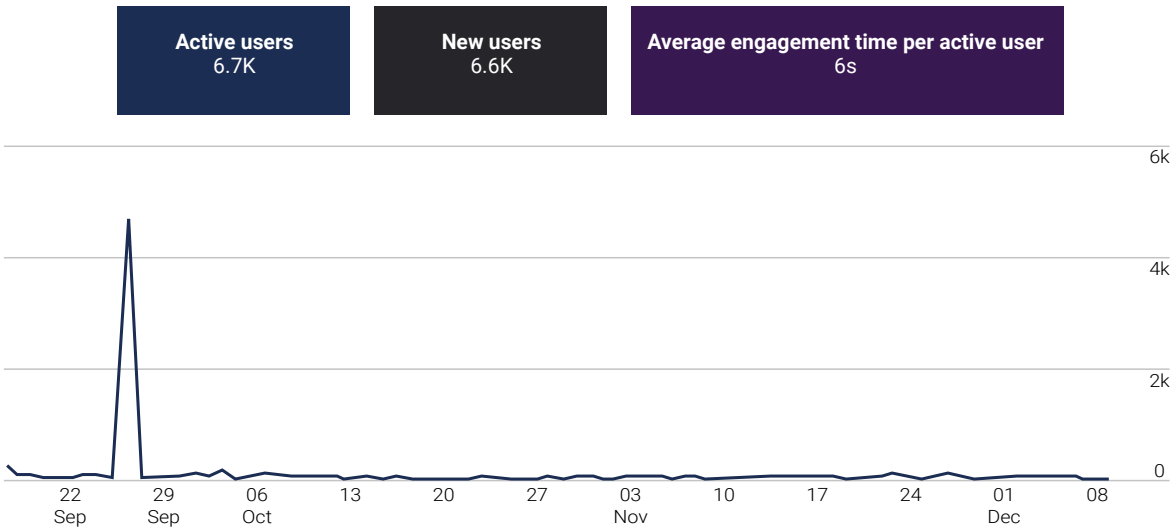
- Current Conditions: Traffic
- Current Conditions: Active Transportation
- Current Conditions: Public Transit
- Current Conditions: Safety
- Current Conditions: Drainage
- General Comments

A total of 31 comments were placed on these boards. All comments can be found in *Appendix B, Meeting Materials.*

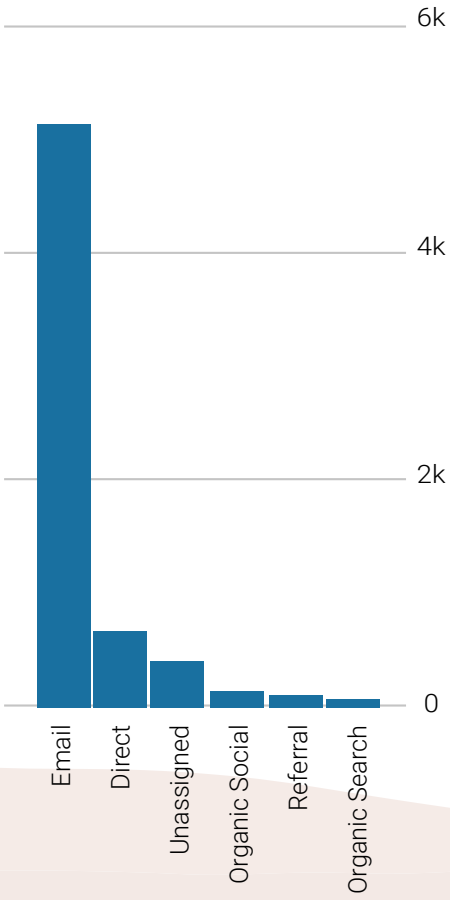
Website

The survey was officially launched on **tucson1stavenueproject.com** on September 18, 2024. Below are the analytics from the website during the outreach period.

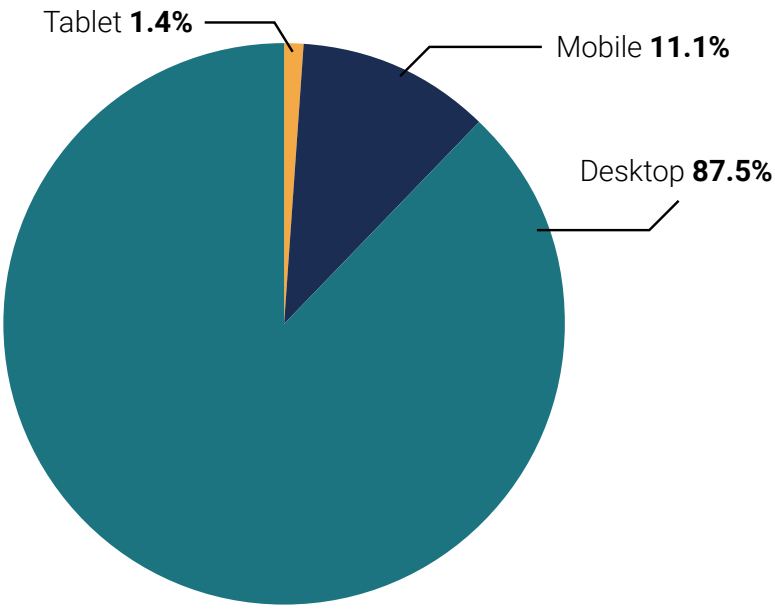
Users



Where Do New Users Come From?



How Do Users Access the Website?

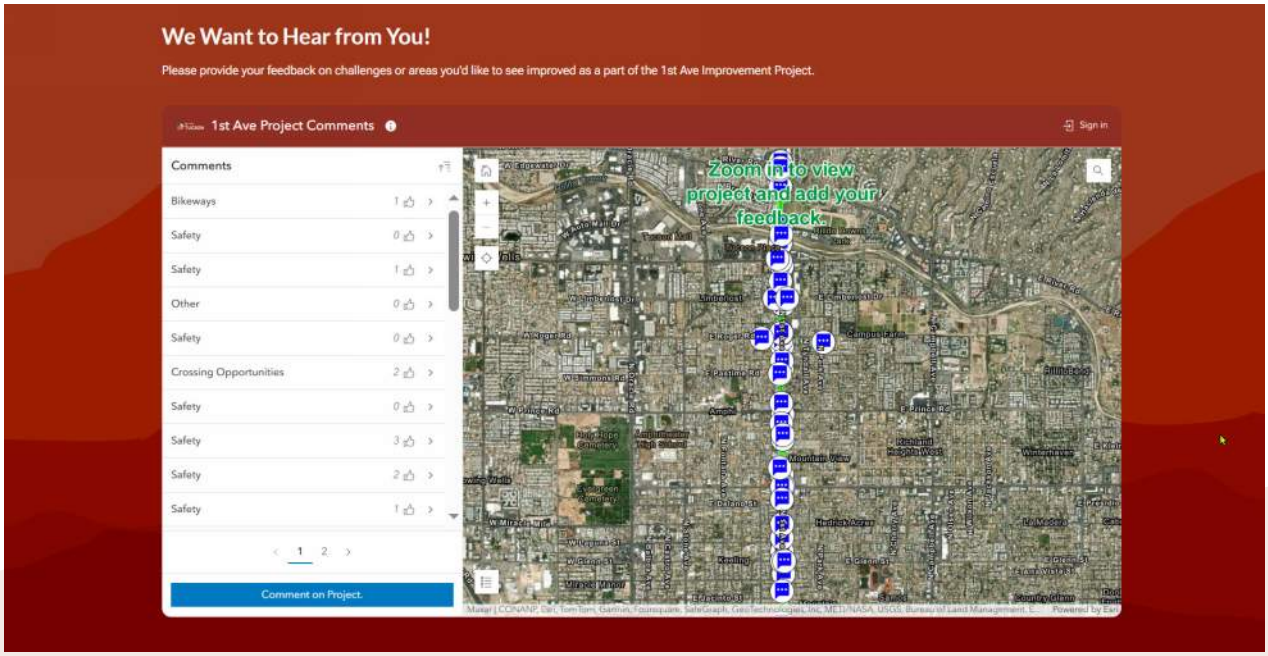


Interactive Map

An interactive map was available on the website during the survey period. Between September 18 and December 8, 2024, a total of thirty-one (31) map comments were received. Below is a summary of key themes and locations with the highest number of comments.

- 39% of comments mentioned safety as a top concern. Other safety comments included:
  - Designing elements that will help reduce speed.
  - Minimizing unsafe left turns at busy intersections such as Glenn Road, Limberlost Road, Wetmore Road, and River Road.
- Other concerns mentioned included:
  - Requests to avoid widening 1st Avenue.
  - Making 1st Avenue safer for cyclists and pedestrians by improving sidewalks and bike lanes.
  - Using sustainable practices when considering landscaping.
- The intersection with the highest number of comments is River Road.
  - A key theme among these comments is making the road safer by using design elements to help minimize unsafe left turns (i.e., Michigan left turns, protected left turns).
  - Respondents also said the road should be made safer for cyclists and pedestrians by improving crosswalks and bike lanes.
  - Respondents want the area around the River Road intersection to be repaved.
- Other intersections with a large number of comments/likes/replies include:
  - Glenn Road: safety, sidewalks
  - Grant Road: safety, sidewalk/pedestrian accessibility
  - Fort Lowell Road: landscaping, intersection
  - Roger Road: bus stop, sidewalk/pedestrian accessibility
  - The Loop: bikeways, sidewalk/pedestrian accessibility

Full responses and a heat map of locations and received comments can be found in *Appendix E, General Comments.*



Community Events

Open House Events

One in-person open house and one virtual open house were held to share information and solicit feedback on the project. The dates, locations, and number of attendees are listed below in Table 2.

Table 2. Open House Dates, Locations, and Number of Attendees

Date	Location	Number of Attendees
Oct. 9, 2024	Donna Liggins Rec. Center	30
Oct. 10, 2024	Zoom	16

Pop-Up/Tabling Events

Pop-up/tabling events were held throughout October, November, and December 2024. Project team members were present at each location to pass out information and surveys and answer questions from community members. A traveling mural was also available at several events, allowing community members to view a map of the project area and write or draw on it. Locations and dates for the events are provided below in Table 3.

Table 3. Pop-Up/Tabeling Event Dates, Event Types, and Locations

Date	Location	Number of Attendees
Oct. 20, 2024	Heirloom Farmers Market	Rillito River Park
Oct. 23, 2024	Library Pop-Up	Woods Memorial Library
Nov. 22, 2024	Credit Union Pop-Up	Vantage West Credit Union
Dec. 7, 2024	Cyclovita	Woods Memorial Library

The traveling mural at the Heirloom Farmers Market on October 20, 2024.

Community Meetings

Information about the project and the survey was presented at the Amphi Neighborhood Association meeting on November 21, 2024. Project Manager Patrick Hartley spoke to a group of 10 and collected surveys.

Survey and Results

Survey

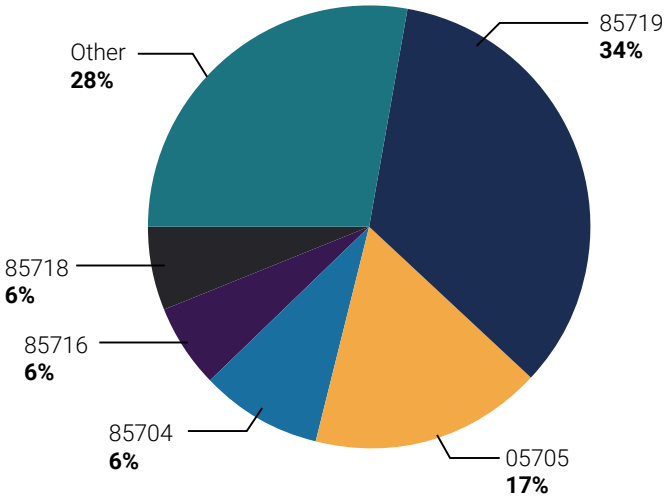
The survey was officially launched on September 18, 2024. It remained live on the project website through December 8, 2024. The survey consisted of 17 questions – nine questions specific to the corridor and eight demographic questions. A copy of this survey can be found in *Appendix C, Survey.*

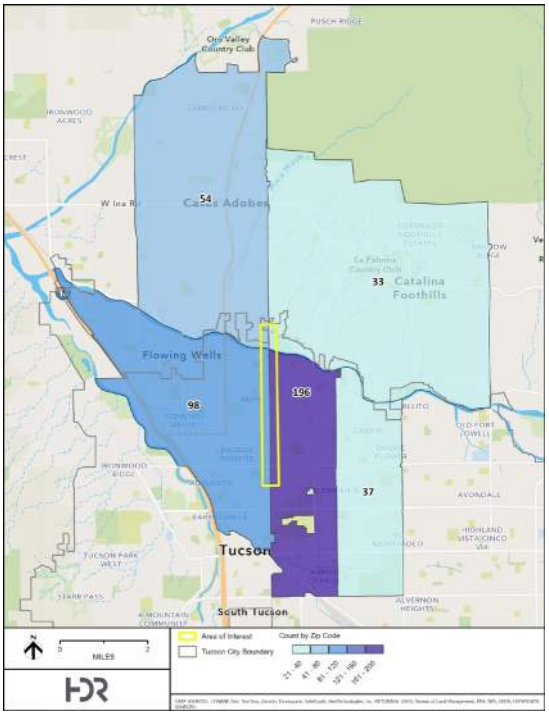
Survey Results

In total, there were 588 survey responses. Responses are summarized below; full results can be found in *Appendix D, Survey Results.*

Question #1

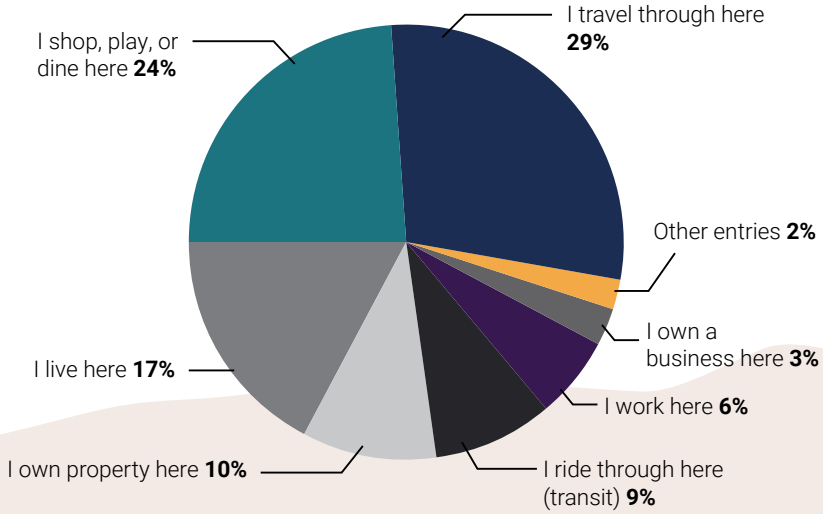
Before you dive in, please share your home zip code:





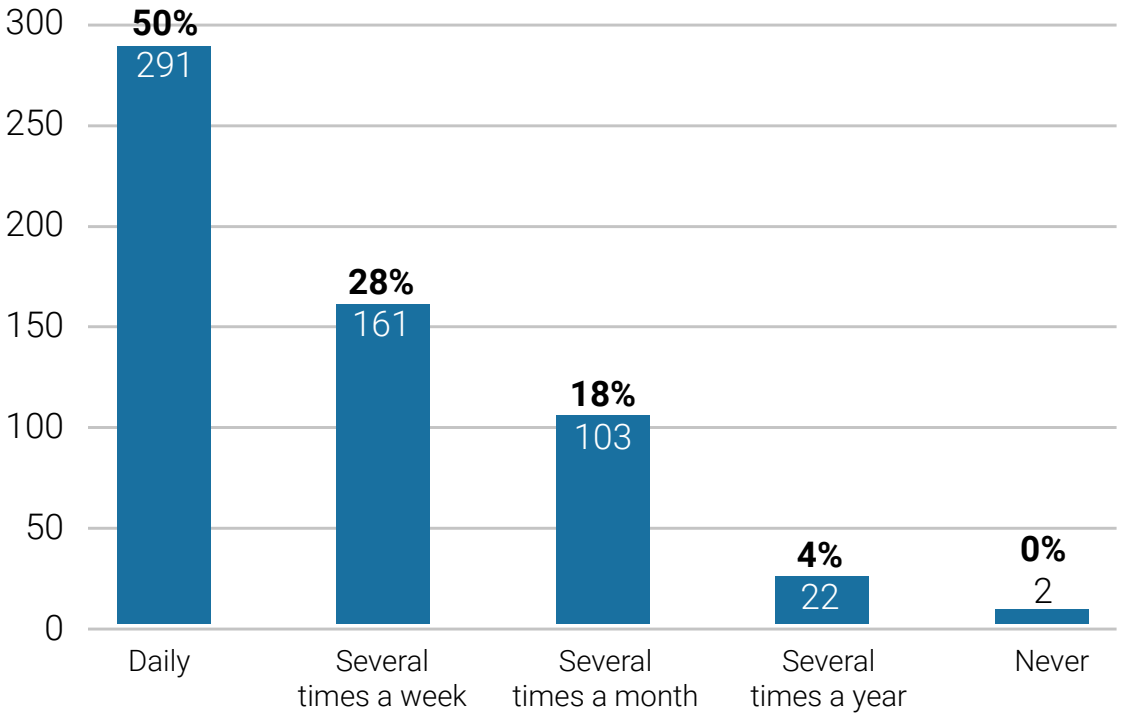
Question #2

What is your connection to the corridor? Select all that apply.



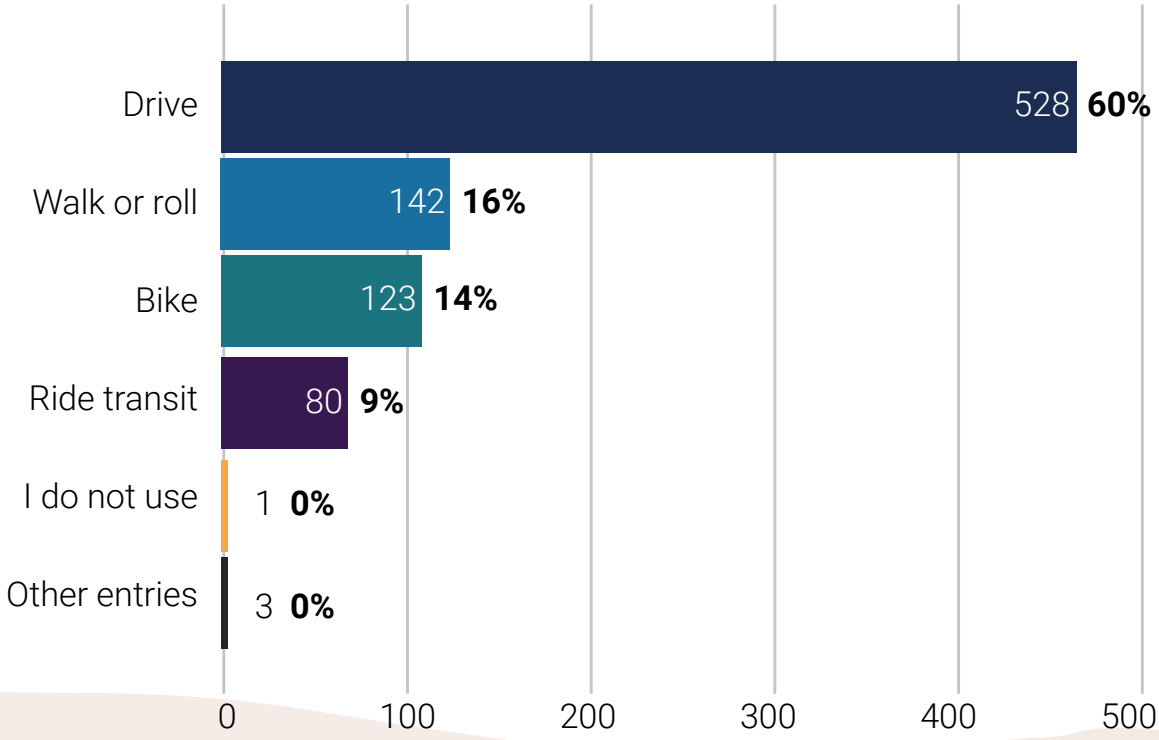
Question #3

How often do you use the corridor? Select one.



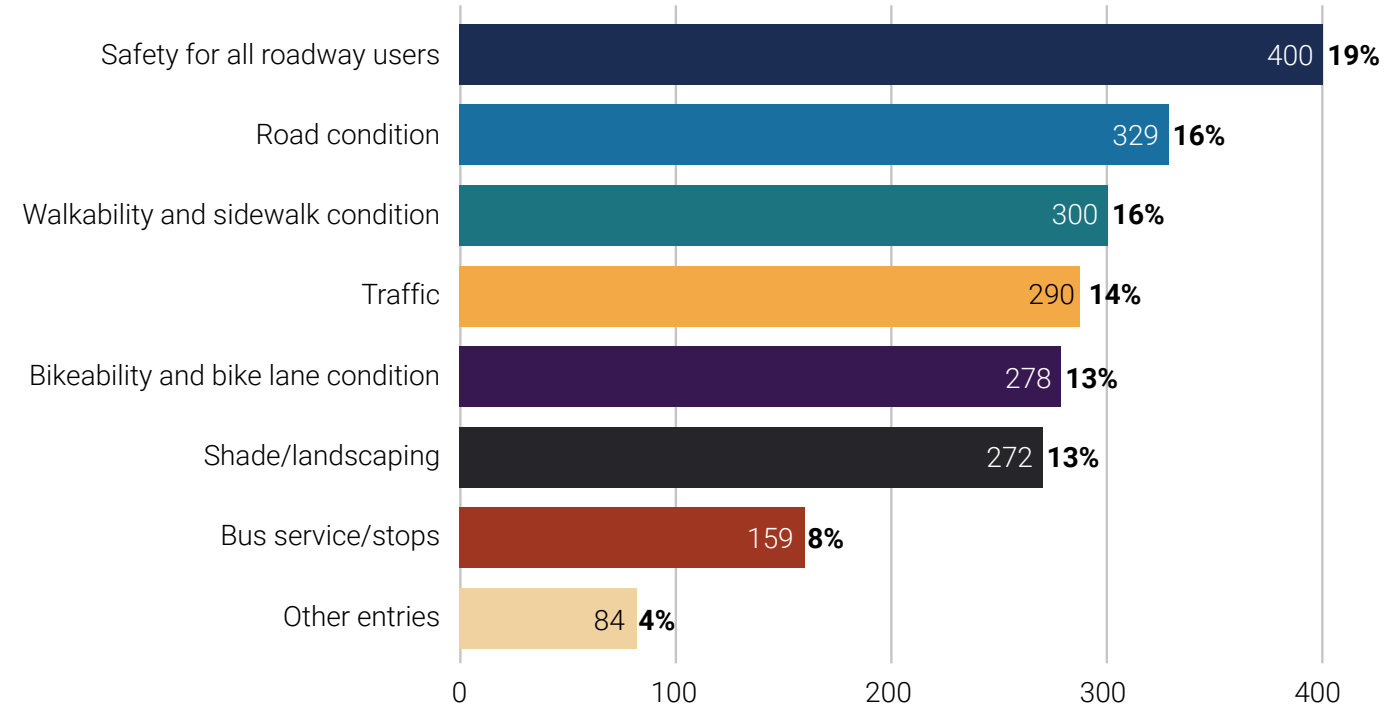
Question #4

How do you travel along the corridor? Select all that apply.



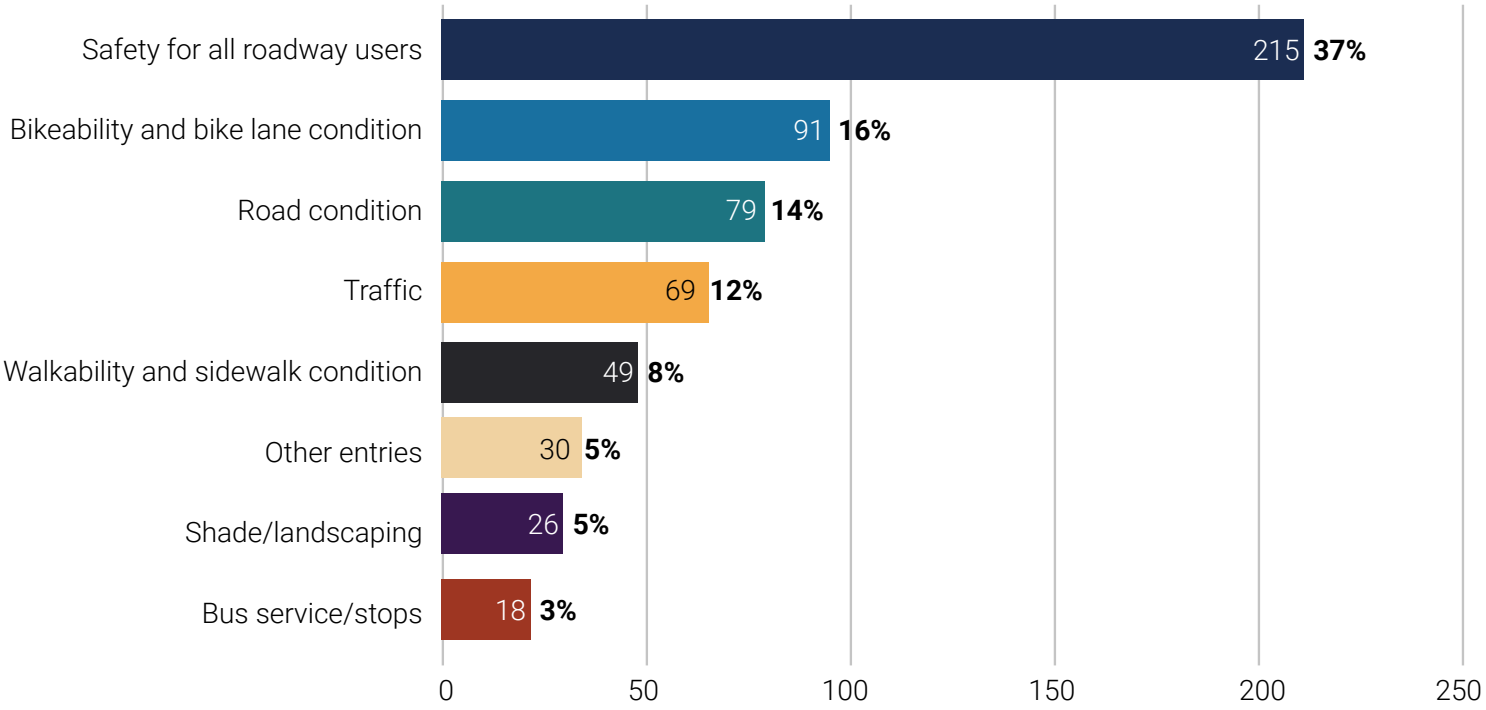
Question #5

What challenges do you have as a corridor user? Select all that apply.



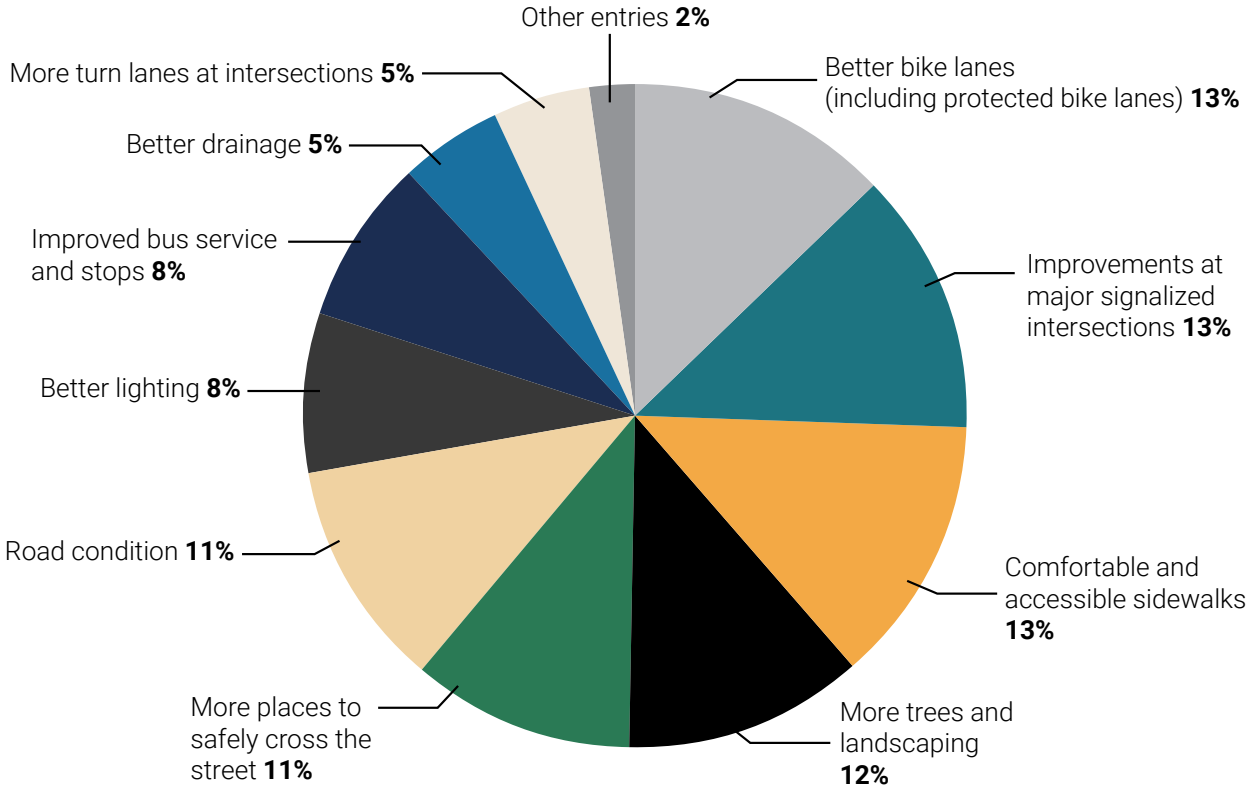
Question #6

Which challenge do you care about solving most? Select one.



Question #7

What are the top five things you want to make better on the corridor?



Question #8

Please rank the following project considerations in order of importance from 1 to 4 (1 = most important and 4 = least important).

Categories	Average Weight	Rank
Bicycle/pedestrian safety and comfort	3.23	1
Minimizing project costs	1.91	4
Minimizing impacts on private property and businesses	2.22	3
Reducing traffic congestion and travel time	2.64	2

Question #9

Do you have any other comments that you would like to share about the project or corridor?*

- Concerns about crossing outside of crosswalks along the corridor
- Safety along the corridor
- More bus pullouts to avoid stopping traffic
- More sidewalks
- More lighting
- Better bicycle lanes

*These are current themes listed by respondents. Full responses can be found in *Appendix D, Survey Results.*

Demographics

A majority of responses to the survey were from residents living in the 85719 zip code, which is right along the 1st Avenue corridor. Thirty-four percent (34%) of respondents (196) live in this zip code. The survey also received a large number of responses from the following zip codes:

- 85705: 17% of respondents (98)
- 85704: 10% of respondents (54)
- 85716: 6% of respondents (37)
- 85718: 6% of respondents (33)

A further breakdown of respondents by zip code can be found in *Appendix D, Survey Results.*

To highlight potential gaps or alignments in survey responses, survey response demographics were compared to corridor demographics and are outlined below in Table 4. Responses to key questions from underrepresented demographic groups are outlined below in Table 5 and included in *Appendix D, Survey Results.*

Table 4. Survey Response Demographics and Corridor Demographics

	Survey Response Demographics	Corridor Demographics
Race/Ethnicity	• 15% of respondents are Hispanic.	• 32% of corridor residents are Hispanic.
Age	• 26% of respondents are 65 years and older. • 18% of respondents are 25-34 years old.	• The median age in the corridor is 27.
Income	• 33% of respondents have an annual income of $100,000 or more. • 23% of respondents have an annual income between $50,000-$74,999. • 4% of respondents have an annual income under $15,000.	• 16% of corridor residents have an annual income of $100,000 or more. • 14% of corridor residents have an annual income between $50,000-$74,999. • 22% of corridor residents have an annual income under $15,000.

Table 5. Survey Responses from Underrepresented Demographic Groups

Question	Top Responses	Underrepresented Groups
What challenges do you have as a corridor user? Select all that apply.	1. Safety for all roadway users 2. Road condition 3. Walkability and sidewalk condition 4. Traffic 5. Bikeability and bike lane condition 6. Shade/landscaping	For **respondents with an annual income under $50,000,** Walkability is more challenging than Road Condition. Traffic is less challenging than Bikeability and Shade. For **Hispanic respondents,** Traffic is less challenging than Bikeability and Shade.
Which challenge do you care about solving most? Select one.	1. Safety for all roadway users 2. Bikeability and bike lane condition 3. Road condition 4. Traffic 5. Walkability and sidewalk condition	**Respondents with an annual income under $50,000** care more about Walkability than Traffic. Hispanic respondents care more about Road condition than Bikeability.
What are the top five things you want to make better on the corridor?	• Better bike lanes: 13% • Improvements at major (signalized) intersections for people walking and biking: 13% • Comfortable and accessible sidewalks: 13% • More trees and landscaping: 12%	Comfortable and accessible sidewalks are the top choice for both **respondents with an annual income under $50,000 and Hispanic respondents.**

All demographic information captured in the survey can be found in *Appendix D, Survey Results*

Additional Comments and Questions

A total of Fifty-three (53) comments were received by December 8, 2024, the last day of the comment period, through the following methods:

- Thirty-one (31) map comments were received.
- Nineteen (19) comments were submitted through the project website comment form.
- Three (3) comments were received on the project hotline.

General themes from these comment options are listed below:

- The need for protected bike lanes and HAWK crossings
- Better sidewalks
- More bus pullouts
- More lighting
- More safety measures to stop speeding
- Several requests to avoid widening 1st Avenue

Full responses can be found in *Appendix E, General Comments.*

Appendix A: Notifications

Posters

1st Avenue Improvement Project

Your vision *matters*.

Help shape the future of 1st Avenue between River Road and Grant Road and join us at an upcoming event or take our survey!

Take our Survey!

Upcoming events:

Open House
Wednesday, Oct. 9 | 6 PM
Donna Liggins Recreational Center

Virtual Open House
Thursday, Oct. 10 | 6 PM
https://bit.ly/1stAve_TUS

Proyecto de Mejora de 1st Avenue

Su visión *importa*.

Ayude a dar forma al futuro de la 1st Avenue entre River Road y Grant Road y únase a nosotros en un próximo evento o responda a nuestra encuesta!

¡Responda a nuestra encuesta!

Próximos eventos:

Casa Abierta
miercoles, 9 de octubre | 6 PM
Donna Liggins Recreational Center

Casa Abierta Virtual
jueves, 10 de octubre | 6 PM
https://bit.ly/1stAve_TUS

Connect with us! | ¡Conecta con nosotros!

- Website/Sitio web: www.tucson1stavenueproject.com
- Email/Correo electrónico: connect@tucson1stavenueproject.com
- Call us/Llámenos: 520.815.0555

Follow us! | ¡Síguenos!

Direct Mailer

Your vision *matters*.

Help shape the future of 1st Avenue between River Road and Grant Road and join us for upcoming events or take our survey!

https://bit.ly/1stAve_Survey

Upcoming Events

Open House | Wednesday, 10/9 | 6 PM
Donna Liggins Rec. Center

Online Open House | Thursday, 10/10 | 6 PM
https://bit.ly/1stAve_TUS

Connect with us!

- **Website:** www.tucson1stavenueproject.com
- **Email:** connect@tucson1stavenueproject.com
- **Call us:** 520.815.0555

1st Avenue Improvement Project
c/o HDR Engineering
1 S. Church Avenue Ste. 1400
Tucson, AZ 85701

Indicia
clearance area

Su visión *importa*.

¡Ayude a dar forma al futuro de la 1st Avenue entre River Road y Grant Road y únase a nosotros en un próximo evento o responda a nuestra encuesta!

https://bit.ly/1stAve_Survey

Próximos eventos

Casa Abierta | miercoles 10/9 | 6 PM
Donna Liggins Rec. Center

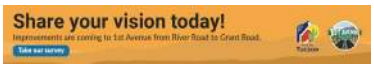
Casa Abierta Virtual | jueves 10/10 | 6 PM
https://bit.ly/1stAve_TUS

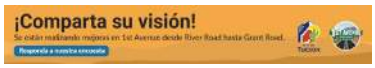
Address and barcode
clearance area

¡Conecta con nosotros!

- **Sitio web:** www.tucson1stavenueproject.com
- **Correo electrónico:** connect@tucson1stavenueproject.com
- **Llámenos:** 520.815.0555

Digital Advertisements





Direct Emails

From: Patrick Hartley
Subject: 1st Avenue Improvement Project: Phase 1 Community Survey Final Opportunity
Date: Wednesday, November 27, 2024 12:26:44 PM
Attachments: Outlook-xobxohhw.png
20240927_1st Ave_Handout_FNL.pdf
20240927_1st Ave_Handout_SPANISH_FNL.pdf

Good Afternoon and Happy Thanksgiving!

I wanted to let you know that the City of Tucson is in the final push to collect feedback from the Tucson community for the initial phase of 1st Avenue Improvement Project design process. The community survey is scheduled to close on December 8th and we want to make sure that residents in your neighborhood, as those who live closest to the project, have an opportunity to share their priorities!

There's two ways to participate in this phase of the 1st Avenue Project (people can do both).

Take the 1st Avenue Survey: https://form.jotform.com/242537677302055
And comment on the interactive map: https://tucson1stavenueproject.com/

Residents' input will help guide what is prioritized on 1st Avenue as we move into designing the corridor . **If you are able, we are asking for some assistance in helping to get the word out. If you have any newsletters or social media blasts scheduled after the holiday, would you be able to encourage residents to share their thoughts?** I've attached project flyers in English and Spanish to provide more information.

Finally - if you have any upcoming of future neighborhood association meetings, I - or someone else from the project team - would be happy to attend and discuss the project directly with you and other community members. We want to make sure that we are available and working together closely over the coming years as the 1st Avenue project progresses and evolves.

Thank you for your support and please don't hesitate to reach out to me if you have any questions. Happy Holidays!

Your vision matters.

The 1st Avenue project will modernize the corridor using a Complete Streets framework

to enhance safety for all users, improve roadway conditions, and provide more comfort and accessibility for pedestrians, transit riders, and bicyclists. We need your help to shape the future of this vital corridor!

Warm Regards,

Patrick Hartley

Patrick Hartley
Interim Planning Administrator
Planning and Programming Division
Department of Transportation and Mobility
520.279.5545

From:	Patrick Hartley
To:	Kevin Dahl; ward3; Marlene Avelino
Cc:	Sam Credio; Andy Bemis; Helen Wheeler
Subject:	1st Avenue Community Survey Extended
Date:	Wednesday, November 27, 2024 11:42:21 AM
Attachments:	Outlook-m2rzlm3o.png 20240927_1st Ave_Handout_SPANISH_FNL.pdf 20240927_1st Ave_Handout_FNL.pdf

Honorable Vice-Mayor Dahl:

I hope you are well and Happy Thanksgiving to you and everyone on the Ward 3 team!

I wanted to let you know that the deadline for the 1st Avenue Survey has been extended to December 8th to align with LSA's Cyclovita event. To date, we've received over 400 responses to the project survey and have had an opportunity to interact with many members of the community this fall at open houses, pop up events, and elsewhere along the corridor. It's been enlightening and affirmed how critical it is that we improve this corridor. Many members of the public shared their stories about near misses, crashes they've observed, other challenges along 1st Avenue, and, most importantly, provided thoughts about what we can do to make it better.

We are now making a final push to get people to share their priorities for 1st Ave, which will help guide our design decisions as we move into the next steps of the project. **If you are able, we are asking for some assistance in helping to get the word out. If you have any newsletters or social media blasts scheduled after the holiday, would you be able to encourage Ward 3 residents to share their thoughts?** I've attached project flyers in English and Spanish to provide more information. There's also options for the community to directly contact the project team.

There's two ways to participate (people can do both).

Take the 1st Avenue Survey: https://form.jotform.com/242537677302055
And comment on the interactive map: https://tucson1stavenueproject.com/

Thank you for your support and please reach out if you have any questions.

Patrick

CITY OF TUCSON

Patrick Hartley
Interim Planning Administrator
Planning and Programming Division
Department of Transportation and Mobility
520.279.5545

Email Blasts

Hello Neighbor,

La Ciudad de Tucson, en colaboración con la Asociación Pima de Gobiernos y la Autoridad Regional de Transporte, está mejorando la 1st Avenue de River Road a Grant Road. Una encuesta está disponible para obtener la opinión de la comunidad sobre las prioridades para esta área.

Your vision matters.

Visit our website to take the survey, leave a comment on our interactive map, or sign up for our email list.

The project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide more comfort and accessibility for pedestrians, transit riders, and bicyclists. We need your help to shape the future of this vital corridor!

The 1st Avenue Improvement Project will modernize 1st Avenue between Grant Road and River Road as a four-lane roadway, following the City of Tucson's Complete Streets policy. Information about the 1st Avenue Improvement Project, including prior studies and outreach, is available on the 1st Avenue Improvement Project website.

Hola vecino,

La Ciudad de Tucson, en colaboración con la Asociación Pima de Gobiernos y la Autoridad Regional de Transporte, está mejorando la 1st Avenue de River Road a Grant Road. Una encuesta está disponible para obtener la opinión de la comunidad sobre las prioridades para esta área.

Su visión importa.

Visite nuestro sitio web para realizar la encuesta, dejar un comentario en nuestro mapa interactivo o inscribirse en nuestra lista de correo electrónico.

El Proyecto de Mejora de la 1st Avenue modernizará el corredor utilizando un marco de Calles Completas para aumentar la seguridad de todos los usuarios, mejorar las condiciones de la carretera y proporcionar una mayor comodidad y accesibilidad para peatones, usuarios de transporte público y ciclistas. ¡Necesitamos su ayuda para dar forma al futuro de este corredor vital!

El proyecto de mejora de la 1st Avenue modernizará la 1st Avenue entre River Road y Grant Road como una carretera de cuatro carriles, siguiendo la política de Calles Completas de la cuidad de Tucson. Información sobre el proyecto, incluidos los estudios previos y las actividades de divulgación, está disponible en el sitio web del proyecto.

JOIN US

The City of Tucson, in partnership with the Pima Association of Governments and the Regional Transportation Authority (RTA), will host two open house events to provide an overview of the 1st Avenue Improvement Project, share current conditions, and seek community feedback. The in-person and virtual open house events invite you to help the project create a vision for all users of the 1st Avenue corridor.

In-Person Open House
Wednesday, October 9, 2024
6:00-7:30 p.m.
Donna Liggins Recreation Center
2160 N 6th Ave.
Tucson, AZ 85705

Virtual Open House
Thursday, October 10, 2024
6:00-7:00 p.m.
To join online: https://bit.ly/1stAve_TUS
To join by phone: +1-669-444-9171
Webinar ID: 969 6284 3250

For more information on the open house events, please visit the events page on the project website at www.tucson1stavenueproject.com/events.

As a reminder, we need your input! Please complete a brief survey to gather community input on priorities for this corridor. Visit the project website to take the survey, leave a comment on the interactive map, or sign up for the email list at www.tucson1stavenueproject.com. We need your help to shape the future of this vital corridor!

About the Project

The 1st Avenue Improvement Project will modernize 1st Avenue between Grant Road and River Road as a four-lane roadway, following the City of Tucson's Complete Streets policy. Information about the 1st Avenue Improvement Project, including prior studies and outreach, is available on the 1st Avenue Improvement Project website.

ÚNASE A NOSOTROS

La Ciudad de Tucson, en colaboración con la Asociación Pima de Gobiernos y la Autoridad Regional de Transporte, organizará dos reuniones para ofrecer una visión general del proyecto de mejora de la 1st Avenue, compartir las condiciones actuales y recabar la opinión de la comunidad. Se invita a la comunidad a ayudar al equipo del proyecto a crear una visión para todos los usuarios del corredor de 1st Avenue.

Reunión en persona
miércoles, 9 de octubre, 2024
6:00-7:30 p.m.
Donna Liggins Recreation Center
2160 N 6th Ave.
Tucson, AZ 85705

Reunión virtual
jueves, 10 de octubre, 2024
6:00-7:00 p.m.
Para participar en línea:
https://bit.ly/1stAve_TUS
Para participar por teléfono: +1-669-444-9171
ID del seminario web: 969 6284 3250

Para más información sobre las reuniones, visite la página de eventos del sitio web del proyecto en www.tucson1stavenueproject.com/events.

Como recordatorio, ¡necesitamos su opinión! Le invitamos a responder a una breve encuesta para recabar la opinión de la comunidad sobre las prioridades de este corredor. Visite el sitio web del proyecto para realizar la encuesta, dejar un comentario en el mapa interactivo o suscribirse a la lista de correo electrónico. ¡Necesitamos su ayuda para dar forma al futuro de este corredor vital!

Sobre el proyecto

El proyecto de mejora de la 1st Avenue modernizará la 1st Avenue entre River Road y Grant Road como una carretera de cuatro carriles, siguiendo la política de Calles Completas de la cuidad de Tucson. Información sobre el proyecto, incluidos los estudios previos y las actividades de divulgación, está disponible en el sitio web del proyecto.

Hello Neighbor,

You may have heard that the 1st Avenue Improvement Project is currently asking for YOUR feedback. Since launching our survey in September 2024, we have received more than 350 responses, but we want to make sure that your voices are HEARD. This is why we are extending the survey deadline to Sunday, December 8, 2024!

Your vision matters.

Visit our website to take the survey, leave a comment on our interactive map, or sign up for our email list. While you're there, be sure to check out the materials and presentations from our October Open House and Virtual Open House.

The project will modernize 1st Avenue between River Road and Grant Road using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide more comfort and accessibility for pedestrians, transit riders, and bicyclists. We need your help to shape the future of this vital corridor!

The 1st Avenue Improvement Project will modernize 1st Avenue between River Road and Grant Road as a four-lane roadway, following the City of Tucson's Complete Streets policy. Information about the 1st Avenue Improvement Project, including prior studies and outreach, is available on the 1st Avenue Improvement Project website.

Hola vecino,

Es posible que haya oído que el Proyecto de Mejora de la 1st Avenue está pidiendo SU opinión. Desde el lanzamiento de nuestra encuesta en septiembre de 2024, hemos recibido más de 350 respuestas, pero queremos asegurarnos de que sus voces son escuchadas. Por este motivo, ampliamos el plazo de la encuesta hasta el domingo 8 de diciembre de 2024.

Su visión importa.

Visite nuestro sitio web para realizar la encuesta, dejar un comentario en nuestro mapa interactivo o inscribirse en nuestra lista de correo electrónico. Mientras esté allí, no olvide consultar los materiales y presentaciones de nuestras reuniones de octubre.

El proyecto modernizará el corredor utilizando un marco de Calles Completas para aumentar la seguridad de todos los usuarios, mejorar las condiciones de la carretera y proporcionar una mayor comodidad y accesibilidad para peatones, usuarios de transporte público y ciclistas. ¡Necesitamos su ayuda para dar forma al futuro de este corredor vital!

El proyecto de Mejora de la 1st Avenue modernizará la 1st Avenue entre River Road y Grant Road como una carretera de cuatro carriles, siguiendo la política de Calles Completas de la cuidad de Tucson. Información sobre el proyecto, incluidos los estudios previos y las actividades de divulgación, está disponible en el sitio web del proyecto.

Social Media

Tucson Department of Transportation & Mobility
November 20, 2024 ·

The 1st Avenue Improvement Project survey launched in September 2024 and more than 350 responses have been collected. To ensure that everyone has the opportunity to voice their opinion, the survey deadline is being extended to Sunday, December 8, 2024!
Take the survey here:https://tinyurl.com/1stavesurvey

1st Avenue Improvement Project: Desde el lanzamiento de nuestra encuesta en septiembre de 2024, hemos recibido más de 350 respuestas, pero queremos asegurarnos de que s... See more

1 2 comments 1 share
Like Comment Share

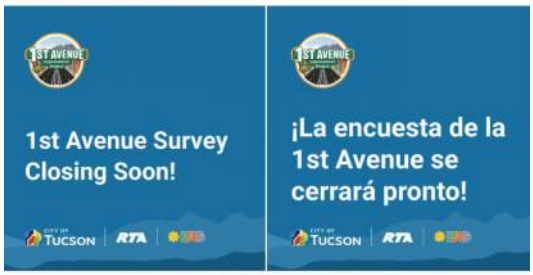
Tucson Department of Transportation & Mobility
November 26, 2024 ·

Your Feedback Matters! Share your input on the 1st Avenue Improvement project by taking the survey before December 8th. Visit the project page to take the survey, leave a comment on the interactive map, and to sign up for the email list.
www.tucson1stavenueproject.com

1 2 comments
Like Comment Share

Tucson Department of Transportation & Mobility
December 4, 2024 ·

The survey for the 1st Avenue Improvement project closes on Sunday, December 8. Visit the project website to take the survey, leave a comment on the interactive map, and sign up for the email list.
www.tucson1stavenueproject.com



2 1 share
Like Comment Share

Tucson Department of Transportation & Mo @Tucson_D · Sep 23, 2024
What kind of improvements do you want to see on 1st Avenue from River Road to Grant Road? Take the survey to share your vision for this corridor!

Take the survey here>> tinyurl.com/1stavesurvey

228

Tucson Department of Transportation & Mo @Tucson_D · Sep 19, 2024
DTM is seeking public input on the 1st Avenue Improvement Project! Take the survey to share your vision for the future of the 1st Avenue corridor from River Road to Grant Road.

Take the survey here>> tinyurl.com/1stavesurvey

1 260

Tucson Department of Transportation & Mob @Tucson_DT · Oct 2, 2024
Join us! DTM is hosting two open house events for the 1st Ave Improvement Project to provide a project overview, discuss current conditions on the corridor, and seek community feedback on the project design.
More info here: tucsonaz.gov/Government/Cit...

1 1 330

Tucson Department of Transportation & Mo @Tucson_D · Nov 13, 2024 ···

DTM is seeking your input on the 1st Avenue Improvement Project! Take the survey to share your vision for the future of the 1st Avenue corridor from River Road to Grant Road.

tinyurl.com/1stavesurvey

1 1 3 250

Tucson Department of Transportation & Mo @Tucson_D · Nov 20, 2024 ···

The 1st Avenue Improvement Project survey launched in September 2024 and more than 350 responses have been collected. To ensure that everyone has the opportunity to voice their opinion, the survey deadline is being extended to Sunday, December 8, 2024!

tinyurl.com/1stavesurvey

232

Tucson Department of Transportation & Mo @Tucson_D · Nov 26, 2024 ···

Your Feedback Matters! Share your input on the 1st Avenue Improvement project by taking the survey before December 8th. Visit the project page to take the survey, leave a comment on the interactive map, and to sign up for the email list.

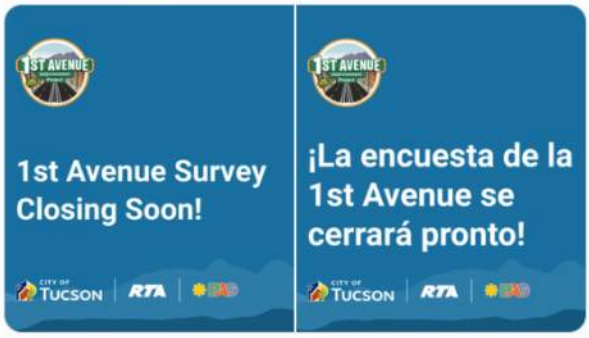
tucson1stavenueproject.com

212

Tucson Department of Transportation & Mob @Tucson_DT · Dec 4, 2024 ···

You still have time to make your voice heard! The survey for the 1st Avenue Improvement project closes on Sunday, December 8. Visit the project website to take the survey, leave a comment on the interactive map, and sign up for the email list.

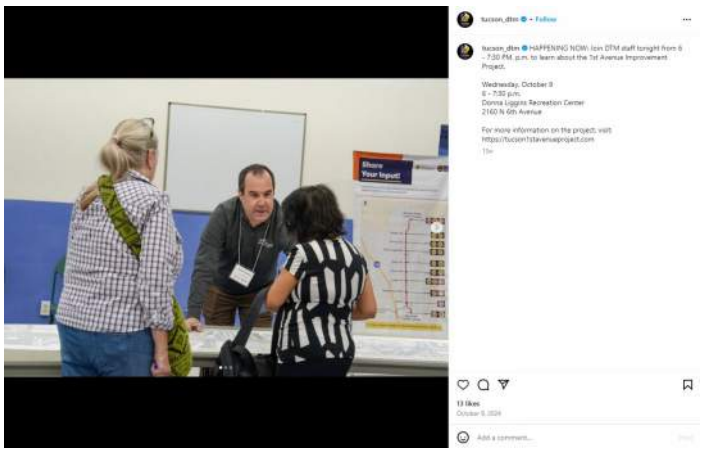
tucson1stavenueproject.com



1 1 753

Your Vision Matters.
CITY OF TUCSON
RTA
PAG
1ST AVENUE

1ST AVENUE
Join us!
In-Person Open House
Wednesday, October 9, 2024
6 - 7:30 p.m.
Donna Liggins Recreation Center
2160 N 6th Avenue
Virtual Open House
Thursday, October 10, 2024
6 - 7 p.m.
https://bit.ly/1stAve_TUS
Webinar ID: 969 6284 3250
CITY OF TUCSON
RTA
PAG



1ST AVENUE
Your feedback matters.
¡Tu opinión es importante!
CITY OF TUCSON
TRANSPORTATION & MOBILITY

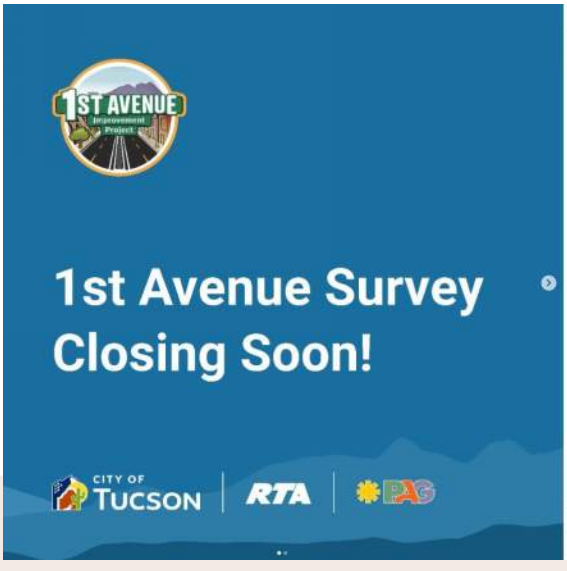
Your vision matters.
1ST AVENUE
Improvement
Project
Su visión importa.
CITY OF
TUCSON
TRANSPORTATION & MOBILITY

tucson_dtm • Follow
tucson_dtm The 1st Avenue Improvement Project survey launched in September 2024 and more than 350 responses have been collected. To ensure that everyone has the opportunity to voice their opinion, the survey deadline is being extended to Sunday, December 8, 2024! Survey link in bio.

1st Avenue Improvement Project: Desde el lanzamiento de nuestra encuesta en septiembre de 2024, hemos recibido más de 350 respuestas, pero queremos asegurarnos de que sus voces son escuchadas. Por este motivo, ampliamos el plazo de la encuesta hasta el domingo 8 de diciembre de 2024. Link de la encuesta en bio.
7w
9 likes
November 20, 2024
Add a comment...

1ST AVENUE
Improvement
Project
Your Feedback Matters.
Share your thoughts at:
www.tucson1stavenueproject.com
CITY OF
TUCSON
RTA
PAG

tucson_dtm • Follow
tucson_dtm Your Feedback Matters! Share your input on the 1st Avenue Improvement project by taking the survey before December 8th. Link in bio.
6w
12 likes
November 26, 2024
Add a comment...


1ST AVENUE
Improvement
Project
1st Avenue Survey
Closing Soon!
CITY OF
TUCSON
RTA
PAG

tucson_dtm • Follow
tucson_dtm The survey for the 1st Avenue Improvement project closes on Sunday, December 8. Visit the project website to take the survey, leave a comment on the interactive map, and sign up for the email list - link is in our bio!
5w
5 likes
December 4, 2024
Add a comment...

Press Releases

CITY OF TUCSON

News Release

TRANSPORTATION & MOBILITY

Contact:
Erica Frazelle
Public Information Officer
Department of Transportation & Mobility
Erica.Frazelle@tucsonaz.gov
(520) 429-9646

Date: September 18, 2024
TDD: 520-791-2639

For internal review

Survey Live for 1st Avenue Improvement Project

The City of Tucson, in partnership with the Pima Association of Governments and the Regional Transportation Authority (RTA), is improving 1st Avenue from River Road to Grant Road. A survey is now available to gather community input on priorities for this area. The public is invited to visit the project website to take the survey, leave a comment on the interactive map, or sign up for the email list.

The 1st Avenue Improvement Project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide more comfort and accessibility for pedestrians, transit riders, and bicyclists. The project includes a new bridge over the Rillito River, pavement reconstruction, continuous and accessible sidewalks, enhanced bicycle facilities, safety and drainage improvements, upgraded traffic signals, lighting, and landscaping.

The 1st Avenue Project is very early in the development process. The project started with a Needs Assessment to better understand the existing conditions in the corridor. Based on community input and the findings of the Needs Assessment, the City of Tucson and the RTA decided to move forward with the four-lane improvement alternative. The Needs Assessment and community survey results are available on the project website.

###

The 1st Avenue Improvement Project will modernize 1st Avenue between Grant Road and River Road as a four-lane roadway, following the City of Tucson's Complete Streets policy. Information about the 1st Avenue Improvement Project, including prior studies and outreach, is available on the 1st Avenue Improvement Project website.

CITY OF TUCSON

News Release

TRANSPORTATION & MOBILITY

Contacto:
Erica Frazelle
Oficial de Información Pública
Transporte y movilidad
Erica.Frazelle@tucsonaz.gov
(520) 429-9646

Fecha: 18 de septiembre, 2024
TDD: 520-791-2639

For internal review

Encuesta en directo para el proyecto de mejora de la 1st Avenue

La Ciudad de Tucson, en colaboración con la Asociación Pima de Gobiernos y la Autoridad Regional de Transporte, está mejorando la 1st Avenue de River Road a Grant Road. Una encuesta está ya disponible para recoger la opinión de la comunidad sobre las prioridades para esta área. El público está invitado a visitar el sitio web del proyecto para realizar la encuesta, dejar un comentario en el mapa interactivo, o inscribirse en la lista de correo electrónico.

El Proyecto de Mejora de la 1st Avenue modernizará el corredor utilizando un marco de Calles Completas para aumentar la seguridad de todos los usuarios, mejorar las condiciones de la carretera y proporcionar una mayor comodidad y accesibilidad para peatones, usuarios de transporte público y ciclistas. El proyecto incluye un nuevo puente sobre el Rillito River, la reconstrucción del pavimento, aceras continuas y accesibles, instalaciones mejoradas para bicicletas, mejoras de seguridad, mejoras de drenaje, señales de tráfico actualizadas, iluminación y paisajismo.

El proyecto de la 1st Avenue se encuentra en una fase muy temprana del proceso de desarrollo. El proyecto comenzó con una Evaluación de Necesidades para comprender mejor las condiciones existentes en el corredor. Basándose en las aportaciones de la comunidad y en los resultados de la Evaluación de Necesidades, la Ciudad de Tucson y la RTA decidieron seguir adelante con la mejora de cuatro carriles. La Evaluación de Necesidades y los resultados de la encuesta a la comunidad están disponibles en el sitio web del proyecto.

###

El proyecto de mejora de la 1st Avenue modernizará la 1st Avenue entre River Road y Grant Road como una carretera de cuatro carriles, siguiendo la política de Calles Completas de la cuidad de Tucson. Información sobre el proyecto, incluidos los estudios previos y las actividades de divulgación, está disponible en el sitio web del proyecto.

CITY OF TUCSON

News Release

TRANSPORTATION & MOBILITY

Contact:
Erica Frazelle
Public Information Officer
Department of Transportation & Mobility
Erica.Frazelle@tucsonaz.gov
(520) 429-9646

Date: October XX, 2024
TDD: 520-791-2639
FOR INTERNAL REVIEW

In-Person and Virtual Open House Events Scheduled for 1st Avenue Improvement Project
Tucson seeks public participation

TUCSON, AZ – The City of Tucson, in partnership with the Pima Association of Governments and the Regional Transportation Authority (RTA), is seeking feedback on the 1st Avenue Improvement Project.

The City of Tucson will host two open house events to provide a project overview, discuss current conditions on the corridor, and seek community feedback. The in-person and virtual open house events invite the community to help the project team create a vision for all users of the 1st Avenue corridor.

In-Person Open House
Wednesday, October 9, 2024
6:00-7:30 p.m.
Donna Liggins Recreation Center
2160 N 6th Ave.
Tucson, AZ 85705

Virtual Open House
Thursday, October 10, 2024
6:00-7:00 p.m.
To join online: https://bit.ly/1stAve_TUS
To join by phone: +1-669-444-9171
Webinar ID: 969 6284 3250

For more information on the open house events, please visit the events page on the project website at www.tucson1stavenueproject.com/events.

The public is also invited to complete a brief survey to gather community input on priorities for this corridor. Visit the project website to take the survey, leave a comment on the interactive map, or sign up for the email list at www.tucson1stavenueproject.com.

###

The 1st Avenue Improvement Project will modernize 1st Avenue between Grant Road and River Road as a four-lane roadway, following the City of Tucson's Complete Streets policy. Information about the 1st Avenue Improvement Project, including prior studies and outreach, is available on the 1st Avenue Improvement Project website.

CITY OF TUCSON

News Release

TRANSPORTATION & MOBILITY

Contacto:
Erica Frazelle
Oficial de Información Pública
Transporte y movilidad
Erica.Frazelle@tucsonaz.gov
(520) 429-9646

Fecha: xx de octubre, 2024
TDD: 520-791-2639
FOR INTERNAL REVIEW

Reuniones. presenciales y virtuales programados para el proyecto de mejora de la 1st Avenue
Tucson busca la participación del público

TUCSON, AZ – La Ciudad de Tucson, en colaboración con la Asociación Pima de Gobiernos y la Autoridad Regional de Transporte (RTA), desea recibir opiniones sobre el proyecto de mejora de la 1st Avenue.

La Ciudad de Tucson organizará dos reuniones para ofrecer una visión general del proyecto, discutir las condiciones actuales en el corredor, y buscar la opinión de la comunidad. Se invita a la comunidad a ayudar al equipo del proyecto a crear una visión para todos los usuarios del corredor de 1st Avenue.

Reunión en persona
miércoles, 9 de octubre, 2024
6:00-7:30 p.m.
Donna Liggins Recreation Center
2160 N 6th Ave.
Tucson, AZ 85705

Reunión virtual
jueves, 10 de octubre, 2024
6:00-7:00 p.m.
Para participar en línea:
https://bit.ly/1stAve_TUS
Para participar por teléfono: +1-669-444-9171
ID del seminario web: 969 6284 3250

Para más información sobre las reuniones, visite la página de eventos del sitio web del proyecto en www.tucson1stavenueproject.com/events.

También se invita al público a completar una breve encuesta para recabar la opinión de la comunidad sobre las prioridades de este corredor. Visite el sitio web del proyecto para realizar la encuesta, dejar un comentario en el mapa interactivo o suscribirse a la lista de correo electrónico en www.tucson1stavenueproject.com.

###

El proyecto de mejora de la 1st Avenue modernizará la 1st Avenue entre River Road y Grant Road como una carretera de cuatro carriles, siguiendo la política de Calles Completas de la cuidad de Tucson. Información sobre el proyecto, incluidos los estudios previos y las actividades de divulgación, está disponible en el sitio web del proyecto.

Community Newsletters

Ward 3 & City-wide Events

SURVEY FOR 1ST AVE IMPROVEMENT PROJECT

The City of Tucson, in partnership with Pima Association of Governments and the Regional Transportation Authority, is improving 1st Avenue from River Road to Grant Road. A survey is now available to gather community input on the priorities for this area. The public is invited to visit the project website to take the survey, leave a comment on the interactive map, or sign up for the email list.

The 1st Avenue Improvement Project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists. The project includes a new bridge over the Rillito River, pavement reconstruction, continuous and accessible sidewalks, enhanced bicycle facilities, safety improvements, drainage improvements, upgraded traffic signals, lighting, and landscaping.

The 1st Avenue Project is very early in the development process. The project started with a Needs Assessment to better understand the existing conditions in the corridor. Based on community input and the findings of the Needs Assessment, the City of Tucson and the RTA decided to move forward with the four-lane improvement. The Needs Assessment and results of the community survey are available on the project website.

Ward 3 & City-wide Events

SURVEY FOR 1ST AVE IMPROVEMENT PROJECT

The City of Tucson, in partnership with Pima Association of Governments and the Regional Transportation Authority, is improving 1st Avenue from River Road to Grant Road. A survey is now available to gather community input on the priorities for this area. The public is invited to visit the project website to take the survey, leave a comment on the interactive map, or sign up for the email list.

The 1st Avenue Improvement Project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists. The project includes a new bridge over the Rillito River, pavement reconstruction, continuous and accessible sidewalks, enhanced bicycle facilities, safety improvements, drainage improvements, upgraded traffic signals, lighting, and landscaping.

The 1st Avenue Project is very early in the development process. The project started with a Needs Assessment to better understand the existing conditions in the corridor. Based on community input and the findings of the Needs Assessment, the City of Tucson and the RTA decided to move forward with the four-lane improvement. The Needs Assessment and results of the community survey are available on the project website.

Help shape the future of 1st Avenue

You may have heard that the 1st Avenue Improvement Project is currently asking for YOUR feedback. Since launching our survey in September 2024, we have received more than 350 responses, but we want to make sure that your voices are HEARD. This is why we are extending the survey deadline to Sunday, December 8, 2024!

Your vision matters.

Visit our website [zcmg-get.maillist-manage.com] to take the survey, leave a comment on our interactive map, or sign up for our email list. While you're there, be sure to check out the materials and presentations [zcmg-get.maillist-manage.com] from our October Open House and Virtual Open House.

Help shape the future of 1st Avenue

You may have heard that the 1st Avenue Improvement Project is currently asking for YOUR feedback. Since launching our survey in September 2024, we have received more than 350 responses, but we want to make sure that your voices are HEARD. This is why we are extending the survey deadline to Sunday, December 8, 2024!

Your vision matters.

Visit our website [zcmg-get.maillist-manage.com] to take the survey, leave a comment on our interactive map, or sign up for our email list. While you're there, be sure to check out the materials and presentations [zcmg-get.maillist-manage.com] from our October Open House and Virtual Open House.

Ward 3 & City-wide Events

SURVEY FOR 1ST AVE IMPROVEMENT PROJECT

The City of Tucson, in partnership with Pima Association of Governments and the Regional Transportation Authority, is improving 1st Avenue from River Road to Grant Road. A survey is now available to gather community input on the priorities for this area. The public is invited to visit the project website to take the survey, leave a comment on the interactive map, or sign up for the email list.

The 1st Avenue Improvement Project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists. The project includes a new bridge over the Rillito River, pavement reconstruction, continuous and accessible sidewalks, enhanced bicycle facilities, safety improvements, drainage improvements, upgraded traffic signals, lighting, and landscaping.

The 1st Avenue Project is very early in the development process. The project started with a Needs Assessment to better understand the existing conditions in the corridor. Based on community input and the findings of the Needs Assessment, the City of Tucson and the RTA decided to move forward with the four-lane improvement. The Needs Assessment and results of the community survey are available on the project website.

Actions + Opportunities

Weight in on the 1st Ave Improvement Project

1st Avenue will see major changes in the near future as the the City of Tucson works to make it more of a complete street that prioritizes safety and ease for people walking, biking, and riding the bus.

They've begun seeking public input and will be hosting an in-person and virtual open house this month where you can hear a project overview, learn about current conditions on the corridor, and share your feedback. There's also a brief online survey, which you can access by clicking below. **Don't sit this one out!** —weigh in with your priorities and vision for a future 1st Ave.

In-Person Open House
Wednesday, October 9, 6 - 7:30 PM ***(tomorrow!)***
Donna Liggins Recreation Center
2160 N 6th Ave, Tucson, AZ 85705

Virtual Open House
Thursday, October 10, 6 - 7 PM
To join online: https://bit.ly/1stAve_TUS
To join by phone: +1-669-444-9171
Webinar ID: 969 6284 3250

Take the survey

Actions + Opportunities

Help shape the future of 1st Avenue

The 1st Avenue Improvement Project is currently asking for *your* feedback. Since launching our survey in September, the City has received more than 350 responses, but they want to make sure that your voice is heard. Accordingly, they've extended the survey deadline. Make sure and take a few minutes to share your vision and priorities for the **1st Avenue Complete Street**. The new survey deadline is this **Sunday, December 8, 2024**!

Share Your Thoughts

SURVEY FOR 1ST AVE IMPROVEMENT PROJECT

The City of Tucson, in partnership with Pima Association of Governments and the Regional Transportation Authority, is improving 1st Avenue from River Road to Grant Road. A survey is now available to gather community input on the priorities for this area. The public is invited to visit the project website to take the survey, leave a comment on the interactive map, or sign up for the email list.

The 1st Avenue Improvement Project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists. The project includes a new bridge over the Rillito River, pavement reconstruction, continuous and accessible sidewalks, enhanced bicycle facilities, safety improvements, drainage improvements, upgraded traffic signals, lighting, and landscaping.

The 1st Avenue Project is very early in the development process. The project started with a Needs Assessment to better understand the existing conditions in the corridor. Based on community input and the findings of the Needs Assessment, the City of Tucson and the RTA decided to move forward with the four-lane improvement. The Needs Assessment and results of the community survey are available on the project website.

SURVEY FOR 1ST AVE IMPROVEMENT PROJECT

The City of Tucson, in partnership with Pima Association of Governments and the Regional Transportation Authority, is improving 1st Avenue from River Road to Grant Road. A survey is now available to gather community input on the priorities for this area. The public is invited to visit the project website to take the survey, leave a comment on the interactive map, or sign up for the email list.

The 1st Avenue Improvement Project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists. The project includes a new bridge over the Rillito River, pavement reconstruction, continuous and accessible sidewalks, enhanced bicycle facilities, safety improvements, drainage improvements, upgraded traffic signals, lighting, and landscaping.

The 1st Avenue Project is very early in the development process. The project started with a Needs Assessment to better understand the existing conditions in the corridor. Based on community input and the findings of the Needs Assessment, the City of Tucson and the RTA decided to move forward with the four-lane improvement. The Needs Assessment and results of the community survey are available on the project website.

Appendix B: Meeting Materials

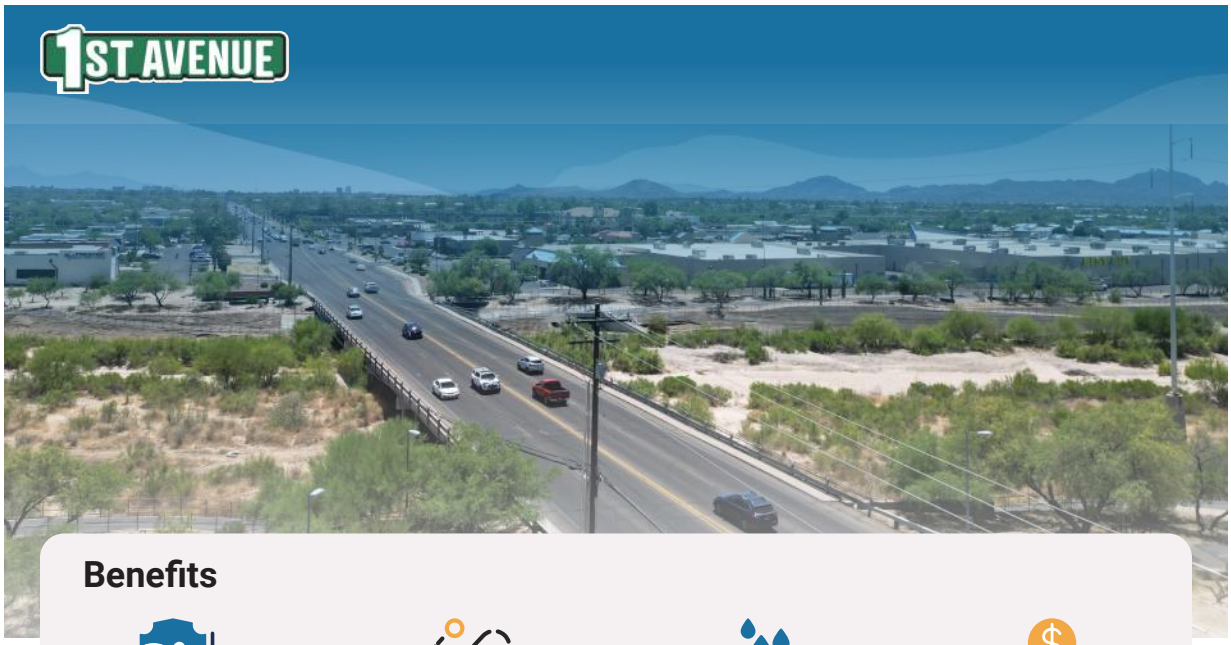
About the Project

The City of Tucson, in partnership with Pima Association of Governments and the Regional Transportation Authority, is improving 1st Avenue from River Road to Grant Road.

This project aims to modernize the corridor to enhance safety for all users, improve roadway conditions, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists.

Project Elements

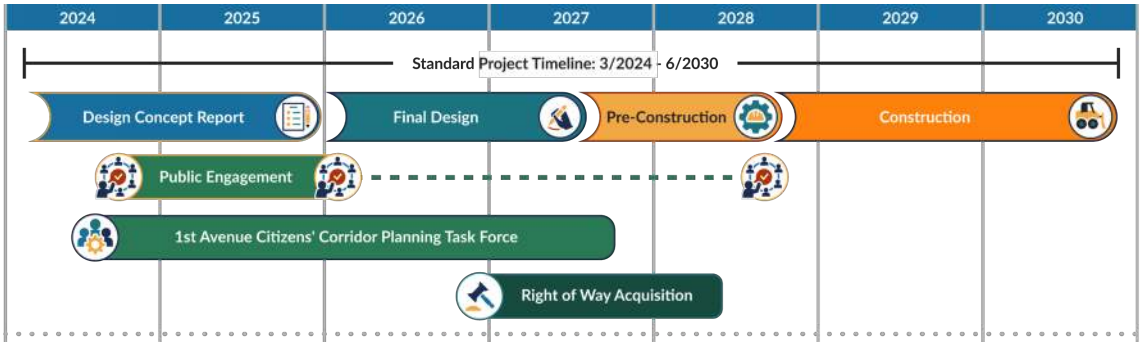
- New bridge over the Rillito River
- Pavement reconstruction
- Continuous and accessible sidewalks
- Enhanced bicycle facilities
- Upgraded traffic signals
- Street lighting
- Drainage improvements
- Landscaping



Benefits

- Improved safety
- Improved transit connectivity
- Improved drainage
- Economic growth potential

Anticipated Project Timeline



Scan Me to Learn More

Connect with us!

Website: www.tucson1stavenueproject.com
Email: connect@tucson1stavenueproject.com
Call us: 520.815.0555

Follow Us!

Display Boards

Welcome! ¡Bienvenido!

Please fill out the sign in sheet and check the box to sign up for future project updates!

Por favor, complete la hoja de registro y marque la casilla para recibir futuras noticias sobre el proyecto.

Por favor, consulte a un miembro del equipo si necesita asistencia de interpretación en Español.

Contact us! / ¡Contáctenos!

Email / Correo electrónico:
connect@tucson1stavenueproject.com

Phone / Teléfono:
520.815.0555

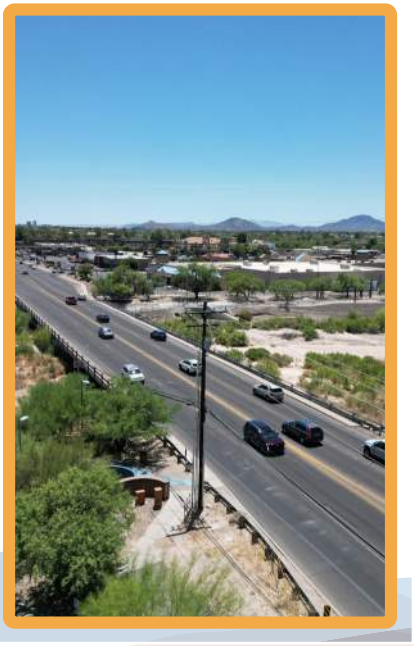
Tucson1stAvenueProject.com

Overview

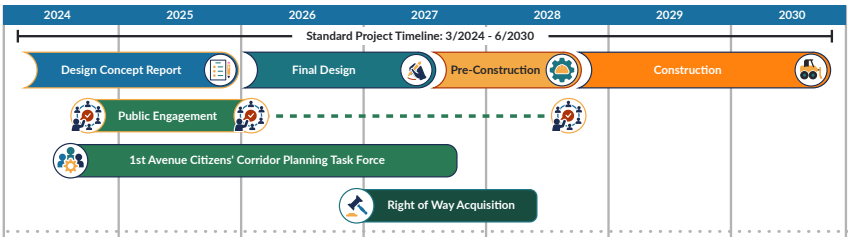
This project will modernize the corridor to enhance safety for all users, improve roadway conditions and intersections, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists.

Visión General

Este proyecto modernizará el corredor para aumentar seguridad para todos los usuarios, mejorar las condiciones de la calle y las intersecciones, y proporcionar mayor comodidad y accesibilidad para peatones, pasajeros de transporte público y ciclistas.



Estimated Project Schedule



Cronograma estimado del proyecto

Current Conditions: Traffic

- The map highlights how long cars wait at an intersection. However, during most of the day vehicles travel through the corridor with very little delay.
- Traffic volumes on the corridor have decreased over 15% since 1998.

A Very low delay and most vehicles do not stop.

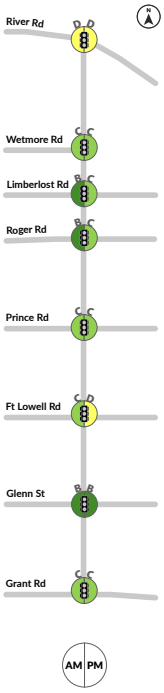
B Low delay and some vehicles stop.

C Moderate delay and a significant number of vehicles stop.

D The limit of acceptable delay in an urban area; many vehicles stop and some in the queue may not make it through in one cycle.

E High delay with poor progression; Most vehicles will not make it through in one cycle.

F Unacceptable delay; Demand exceeds intersection capacity. Many vehicles require two or more cycles to make it through.



Historical Traffic Volumes on the Corridor

Year	Daily Volume	% Change
1998	33, 290	-
2000	34,116	+1.2%
2003	35,500	+1.3%
2006	35,078	-0.4%
2010	35,525	+0.3%
2012	30,616	-7.2%
2015	31,675	+1.1%
2018	31,258	-0.4%
2024	28,178	-1.7%

Condiciones Actuales: Tráfico

- El mapa refleja el tiempo que los carros esperan en una intersección. En general, durante la mayor parte del día los vehículos circulan por el corredor con muy poco retraso.
- Los volúmenes de tráfico en el corredor han bajado más de un 15% desde 1998.

A Retraso muy bajo y la mayoría de los vehículos no paran.

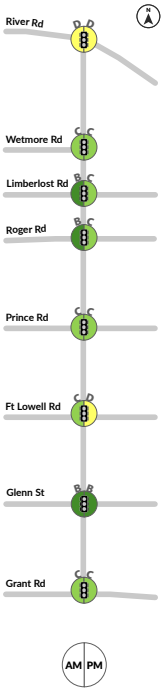
B Poco retraso y algunos vehículos paran.

C Retraso moderado y un número significativo de vehículos paran.

D El límite de retraso aceptable en una zona urbana; muchos vehículos paran y algunos en la cola no pueden pasar en un sólo ciclo.

E Gran retraso con poca progresión; la mayoría de los vehículos no podrán pasar en un sólo ciclo.

F Retraso inaceptable; la demanda supera la capacidad de la intersección. Muchos vehículos necesitan dos o más ciclos.



Volúmenes históricos de tráfico en el corredo

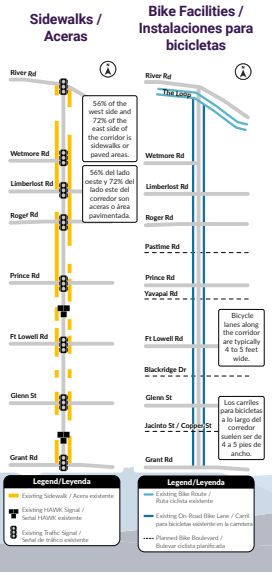
Año	Volumen diario	% de cambio
1998	33, 290	-
2000	34,116	+1.2%
2003	35,500	+1.3%
2006	35,078	-0.4%
2010	35,525	+0.3%
2012	30,616	-7.2%
2015	31,675	+1.1%
2018	31,258	-0.4%
2024	28,178	-1.7%

Current Conditions: Active Transportation

- Fort Lowell Road has the highest pedestrian traffic on the corridor.
- Glenn Street has the highest bike traffic on the corridor.
- Fort Lowell Road has the highest combined pedestrian and bicycle traffic along the corridor.
- Many areas on the corridor have a 1/2-mile or more distance between pedestrian crossings.

Condiciones Actuales: Movilidad Activa

- Fort Lowell Road tiene el mayor tráfico peatonal del corredor.
- Glenn Street tiene el mayor tráfico de bicicletas del corredor.
- Fort Lowell Road tiene el mayor tráfico combinado de peatones y ciclistas a lo largo del corredor.
- Muchas áreas del corredor tienen una distancia de 1/2 milla o más entre los cruces peatonales.



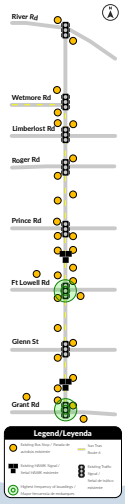
Current Conditions: Public Transit

- Most transit stops along 1st Avenue are close to a traffic signal or pedestrian crossing.
- Sun Tran Route 6 ranks 12th out of 62 routes for highest daily weekday boardings.
- Sun Tran Route 6 has an estimated 1,924 daily, weekday boardings.
- Fort Lowell Road and Grant Road bus stops are the busiest.

Condiciones Actuales: Transporte Público

- La mayoría de las paradas de transporte público a lo largo de 1st Avenue están cerca de un señal de tráfico o de un paso de peatones.
- La ruta 6 de Sun Tran ocupa el 12° puesto de 62 rutas por mayor número de embarques diarios en días laborables.
- Se estima que la ruta 6 de Sun Tran registra 1,924 embarques diarios entre semana.
- Las paradas de Fort Lowell Road y Grant Road son las más ocupadas.

See other connecting routes / Vea otras rutas de conexión:



Current Conditions: Safety

- 1st Avenue is part of the high-injury network, meaning it is in the top 10% of pedestrian crash corridors in Tucson.
- The 1st Avenue corridor includes three of the top 20 intersections in Tucson with the highest number of pedestrian crashes (Ft. Lowell Rd, Prince Rd, and Wetmore Rd).

Every year on average there are...

153 crashes

7 serious injury crashes

4 fatal crashes

15 crashes involving a pedestrian or bicyclist

...and 2024 is trending higher.

Takeaway: there are a high number of road users involved in fatal and injury crashes every year on this corridor.

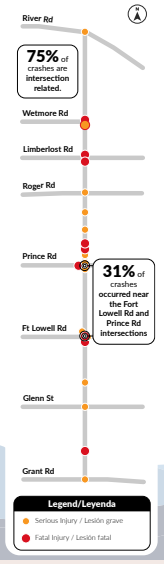
Non-Crosswalk Crossing
32% of FSI pedestrian crashes

Dark or Limited Lighting
56% of pedestrian crashes

Not Yielding
23% of FSI crashes

Speeding
8% of FSI crashes

FSI = Fatal and Serious Injury



Condiciones Actuales: Seguridad

- 1st Avenue es parte de la red de alta lesión, lo que significa que está en el 10% superior de los corredores de accidentes peatonales.
- El corredor de 1st Avenue incluye 3 de las 20 intersecciones de Tucson con mayor número de accidentes de peatones (Ft. Lowell Rd, Prince Rd y Wetmore Rd).

Cada año se producen de media...

153 accidentes

7 accidentes con lesiones graves

4 accidentes mortales

15 accidentes que involucran a un peatón o ciclista

...y 2024 tiene una tendencia al alza.

Conclusión: hay un alto número de usuarios de la carretera involucrados en accidentes mortales y lesiones cada año en este corredor.

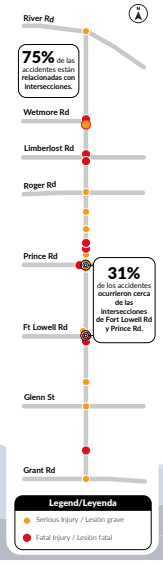
Cruce sin cruce de peatones
32% de los accidentes peatonales de FSI

Iluminación oscura o limitada
56% de los accidentes peatonales

No ceder el paso
23% de los accidentes de FSI

Exceso de velocidad
8% de los accidentes de FSI

FSI=Lesiones fatales y graves



Current Conditions: Drainage

- There are six drainage crossings, including a major floodplain, within the project corridor.
- The limited capacity of the drainage system causes flooding and standing water in the corridor.
- Aged drainage infrastructure and outdated designs of the current drainage system can be updated along the corridor to improve its performance.

Condiciones Actuales: Drenaje Pluvial

- Hay seis cruces de drenaje, incluyendo un importante llanura de inundación, dentro del corredor del proyecto.
- La capacidad limitada del sistema de drenaje provoca inundaciones y agua estancada en el corredor.
- La infraestructura de drenaje envejecida y los diseños anticuados del actual sistema de drenaje pueden actualizarse a lo largo del corredor para mejorar su rendimiento.

1ST AVENUE Improvement Project

CITY OF TUCSON | RTA | PAG

Your Feedback Matters.
Su Opinión es Importante.

Share your thoughts using any of the options below:
Comparta su opinión utilizando cualquiera de las siguientes opciones:

www.tucson1stavenueproject.com

connect@tucson1stavenueproject.com

520.815.0555

Scan me!
¡Escanéame!

Comment Boards

Comments / Comentarios

Current Conditions: Traffic / Condiciones Actuales: Tráfico

- Safety issue, drugs/bring back the traffic cameras
- Add protected bike lanes
- Widening street may cause increased demand which would exacerbate hazardous conditions for residents and daily users.
- Traffic cameras again!

Comments/Comentarios

Current Conditions: Active Transportation/Condiciones Actuales: Movilidad Activa

- These protected areas would visually narrow the road and slow traffic speeds.
- If conditions prevent enough space for bike lane, can potentially move back onto street.
- The protection for the bike lanes would be planters that could act as green storm water drainage basins.
- Protected bike lanes. Paint is not infrastructure! Is it safe enough for children and the disabled?
- Protected bike lanes with planters.
- Add HAWK between Glenn and Fort Lowell.
- Add bicycle boulevards that cross more diagonally through neighborhoods (zig and zag to account for HOA sections).
- Traffic cameras again!

Comments/Comentarios

Current Conditions: Transit/Condiciones Actuales: Transporte Público

- Hawks/protected crossings at busy bus drop offs
- More covered bus stops with benches. No hostile architecture.
- Definitely more shade cover for bus stops, handwashing stations and/or misters would decrease the wandering into streets that happens for many bus users between buses.
- Bus roll outs on east side of 1st Ave (going north)

Comments/Comentarios

Current Conditions: Safety/Condiciones Actuales: Seguridad

- Lots of pedestrian problems at 1st/Wetmore. Mostly homeless and drug users?
- Speed regulated on vehicles, i.e. governors in cars.
- Need to protect bicyclists, increase crosswalk crossings and make all of that infrastructures irresistable.
- Pedestrians crossing anywhere not looking.
- Pedestrians! Congregating people at Fort Lowell & 1st.

Comments / Comentarios

Current Conditions: Drainage / Condiciones Actuales: Drenaje Pluvial

- Instead of wasting money and resources (plastic, tubing, timers) on landscaping, why not provide employment for people to water landscaping plants until they get established?
- Kelso off 1st. El Rio Kelso drains through York into wash.
- Flood area 1st & Blacklidge.

Comments / Comentarios

- 100% DO NOT WIDEN! We don't need induced demand fallout but to make alternate transportation irresistible.
- The visual space of the road determines the speed of travel.
  Fixes:
  - Road narrowing (or visually narrowing).
  - Shorter road lines give appearance of faster travel at lower speeds.
  - Trees and public areas have been proven to lower overall speeds.
- Try to not make the project "frictionless" for motorists. Slow traffic.
- Add pedestrian crossing on Blacklidge intersection since it's a "bike boulevard".
- Lower posted speed limit.
- Please do not widen.
- Thank you for holding this. Visuals are so important.

Appendix C: Survey

Share your thoughts in 8 minutes or less!

We want your vision for the 1st Avenue – River Road to Grant Road corridor! The 1st Avenue Improvement Project will modernize the corridor to enhance safety, improve the roadway, and provide greater comfort and accessibility for all.

General

We want to know how you use 1st Avenue.

1. **Before you dive in, please share your home zip code: _____**

2. **What is your connection to the corridor? Select all that apply.**
   - ☐ I live here
   - ☐ I own property here
   - ☐ I own a business here
   - ☐ I work here
   - ☐ I ride through here (transit)
   - ☐ I travel through here
   - ☐ I shop, play, or dine here
   - ☐ Other

3. **How often do you use the corridor? Select one.**
   - ☐ Daily
   - ☐ Several times a week
   - ☐ Several times a month
   - ☐ Several times a year
   - ☐ Never

4. **How do you travel along the corridor? Select all that apply.**
   - ☐ Drive
   - ☐ Walk or roll
   - ☐ Bike
   - ☐ Ride transit
   - ☐ Other
   - ☐ I do not use 1st Avenue

Let's make 1st Avenue better together

Tell us what works and what does not work on 1st Avenue.

1. **What challenges do you have as a corridor user? Select all that apply.**

   - ☐ Bikeability and bike lane condition
   - ☐ Bus service/stops
   - ☐ Road condition
   - ☐ Safety for all roadway users
   - ☐ Shade/landscaping
   - ☐ Traffic
   - ☐ Walkability and sidewalk condition
   - ☐ None
   - ☐ Other: Please specify_____

2. **Which challenge do you care about solving most? Select one.**

   - ☐ Bikeability and bike lane condition
   - ☐ Bus service/stops
   - ☐ Road condition
   - ☐ Safety for all roadway users
   - ☐ Shade/landscaping
   - ☐ Traffic
   - ☐ Walkability and sidewalk condition
   - ☐ None
   - ☐ Other: Please specify_____

3. **What are the top five things you want to make better on the corridor?**

   - ☐ Better bike lanes (Including protected bike lanes)
   - ☐ Better drainage
   - ☐ Better lighting
   - ☐ Comfortable and accessible sidewalks
   - ☐ Improved bus service and stops
   - ☐ Improvements at major (signalized) intersections for people walking and biking
   - ☐ More places to safely cross the street
   - ☐ More turn lanes at intersections
   - ☐ More trees and landscaping
   - ☐ Road condition
   - ☐ Other: Please specify _____

4. **Please rank the following project considerations in order of importance from 1 to 4 (1 = most important and 4 = least important).**

   - ☐ Bicycle/pedestrian access
   - ☐ Minimizing project costs
   - ☐ Minimizing impacts on private property and businesses
   - ☐ Reducing traffic congestion and travel time

5. **Do you have any other comments that you would like to share about the project or corridor?**

   Comment: _____

   _____

   _____

   _____

   _____

   _____

Demographics

These questions help us understand who took this survey so we can make sure everyone in Tucson is represented. You do not have to answer them if you do not want to, and your answers will be kept private.

1. **What is your age?**

   - ☐ Under 18 years
   - ☐ 18-24 years
   - ☐ 25-34 years
   - ☐ 35-44 years
   - ☐ 45-54 years
   - ☐ 55-64 years
   - ☐ 65+ years

2. **Which of the following categories best describes the ethnic or racial group(s) with which you identify yourself? Select all that apply.**

   - ☐ African American or Black
   - ☐ American Indian/Alaskan Native
   - ☐ Asian
   - ☐ Hispanic or Latino
   - ☐ Middle Eastern or North African
   - ☐ Native Hawaiian/Pacific Islander
   - ☐ White
   - ☐ Other: _____
   - ☐ Prefer not to answer

3. **Would you say your total annual household income is:**

   - ☐ Under $10,000
   - ☐ $10,000-$14,999
   - ☐ $15,000-$24,999
   - ☐ $25,000-$34,999
   - ☐ $35,000-$49,000
   - ☐ $50,000-$74,999
   - ☐ $75,000-$99,999
   - ☐ $100,000 or more

4. **Do you identify with having a disability?**
   - ☐ Yes
   - ☐ No

5. **Do you have regular access to a vehicle?**
   - ☐ Yes
   - ☐ No
   - ☐ Prefer not to say

Stay Connected

1. **Email:** _____

2. **How did you hear about our events? Select all that apply.**
   - ☐ Website
   - ☐ Press release
   - ☐ Email
   - ☐ Digital ads
   - ☐ Posters
   - ☐ Social media
   - ☐ Other:_____

3. **How would you like to receive information? Select all that apply.**
   - ☐ Website
   - ☐ Email
   - ☐ Direct mail
   - ☐ Newspaper (print)
   - ☐ Digital ads
   - ☐ Posters
   - ☐ Social media
   - ☐ Other: _____

¡Comparta su opinion en 8 minutos o menos!

¡Queremos su visión para el corredor de la 1st Avenue – River Road a Grant Road! El Proyecto de Mejora de la 1st Avenue modernizará el corredor para aumentar la seguridad, mejorar la carretera y proporcionar mayor comodidad y accesibilidad para todos.

General

Queremos saber cómo utiliza la 1st Avenue.

1. **Antes de empezar, por favor comparta su código postal: _____**

2. **¿Cuál es su conexión con el corredor? Seleccione todas las que correspondan.**
   - ☐ Vivo aquí
   - ☐ Tengo una propiedad aquí
   - ☐ Tengo un negocio aquí
   - ☐ Trabajo aquí
   - ☐ Paso por aquí (tránsito)
   - ☐ Viajo por aquí
   - ☐ Compro, juego o ceno aquí
   - ☐ Otro

3. **¿Con qué frecuencia utiliza el corredor? Seleccione uno.**
   - ☐ A diario
   - ☐ Varias veces por semana
   - ☐ Varias veces al mes
   - ☐ Varias veces al año
   - ☐ Nunca

4. **¿Cómo viaja por el corredor? Seleccione todas las que correspondan.**
   - ☐ Conduciendo
   - ☐ A pie o rodando
   - ☐ Bicicleta
   - ☐ En transporte público
   - ☐ Otro medio de transporte
   - ☐ No utilizo la 1st Avenue

Mejoremos juntos la 1st Avenue

Díganos qué funciona y qué no funciona en la 1st Avenue.

1. **¿Qué desafíos tiene como usuario del corredor? Seleccione todas las que correspondan.**
   - ☐ Ciclabilidad y estado del carril de bicicletas
   - ☐ Servicio/paradas de autobús
   - ☐ Estado del pavimento de la calle
   - ☐ Seguridad para todos los usuarios
   - ☐ Sombra/paisajismo
   - ☐ Tráfico
   - ☐ Caminabilidad y estado de las aceras
   - ☐ Ninguna
   - ☐ Otros: Especifique_____

2. **¿Qué desafío le interesa más resolver? Seleccione uno.**
   - ☐ Ciclabilidad y estado del carril de bicicletas
   - ☐ Servicio/paradas de autobús
   - ☐ Estado del pavimento de la calle
   - ☐ Seguridad para todos los usuarios
   - ☐ Sombra/paisajismo
   - ☐ Tráfico
   - ☐ Caminabilidad y estado de las aceras
   - ☐ Ninguna
   - ☐ Otros: Especifique_____

3. **¿Cuáles son las cinco cosas que más le gustaría que mejoraran en el corredor? Seleccione uno.**
   - ☐ Mejores carriles de bicicletas (incluidos los carriles de bicicletas protegidos)
   - ☐ Mejor drenaje
   - ☐ Mejor iluminación
   - ☐ Aceras cómodas y accesibles
   - ☐ Mejor servicio y paradas de autobús
   - ☐ Mejoras en las intersecciones principales (señalizados) para peatones y ciclistas
   - ☐ Más lugares para cruzar la calle con seguridad
   - ☐ Más carriles de giro en las intersecciones
   - ☐ Más árboles y jardines
   - ☐ Estado del pavimento de la calle
   - ☐ Otros: Especifique _____

4. **Por favor, clasifique las siguientes consideraciones del proyecto por orden de importancia de 1 a 4 (1 = más importante y 4 = menos importante).**
   - ☐ Acceso ciclista/peatonal
   - ☐ Minimizar los costes del proyecto
   - ☐ Minimizar el impacto sobre la propiedad privada y las empresas
   - ☐ Reducir la congestión del tráfico y el tiempo de viaje

5. **¿Desea hacer algún otro comentario sobre el proyecto o el corredor?**

   Comentario: _____

   _____

   _____

   _____

   _____

   _____

Datos demográficos

Estas preguntas nos ayudan a saber quién ha participado en la encuesta para asegurarnos de que todos los habitantes de Tucson están representados. No tiene que contestarlas si no quiere, y sus respuestas se mantendrán en privado.

1. **¿Cuántos años tiene?**

   - ☐ Menor de 18 años
   - ☐ 18-24 años
   - ☐ 25-34 años
   - ☐ 35-44 años
   - ☐ 45-54 años
   - ☐ 55-64 años
   - ☐ 65+ años

2. **¿Cuál de las siguientes categorías describe mejor los grupos étnicos o raciales con los que se identifica? Seleccione todas las que correspondan.**

   - ☐ Afroamericano o negro
   - ☐ Indio Americano/Nativo de Alaska
   - ☐ Asiático
   - ☐ Hispano o latino
   - ☐ Medio oriental o Norteafricano
   - ☐ Nativo de Hawái/Isleño del Pacífico
   - ☐ Blanco
   - ☐ Otro: _____
   - ☐ Prefiero no contestar

3. **Dirías que el ingreso total anual de su hogar es:**

   - ☐ Menos de $10,000
   - ☐ $10,000-$14,999
   - ☐ $15,000-$24,999
   - ☐ $25,000-$34,999
   - ☐ $35,000-$49,000
   - ☐ $50,000-$74,999
   - ☐ $75,000-$99,999
   - ☐ $100,000 or más

4. **¿Se identifica con tener una discapacidad?**
   - ☐ Sí
   - ☐ No

5. **¿Tiene acceso regular a un vehículo?**
   - ☐ Sí
   - ☐ No
   - ☐ Prefiero no decir

Quedese conectado

1. **Correo electrónico:** _____

2. **¿Cómo se entero de nuestros eventos? Seleccione todas las que correspondan.**
   - ☐ Sitio web
   - ☐ Comunicado de prensa
   - ☐ Correo electrónico
   - ☐ Anuncios digitales
   - ☐ Carteles
   - ☐ Redes sociales
   - ☐ Otro: _____

3. **¿Cómo le gustaría recibir información? Seleccione todas las que correspondan.**
   - ☐ Sitio web
   - ☐ Correo electrónico
   - ☐ Correo directo
   - ☐ Periódico (letra de imprenta)
   - ☐ Anuncios digitales
   - ☐ Carteles
   - ☐ Redes sociales
   - ☐ Otro: _____

Appendix D: Survey Results

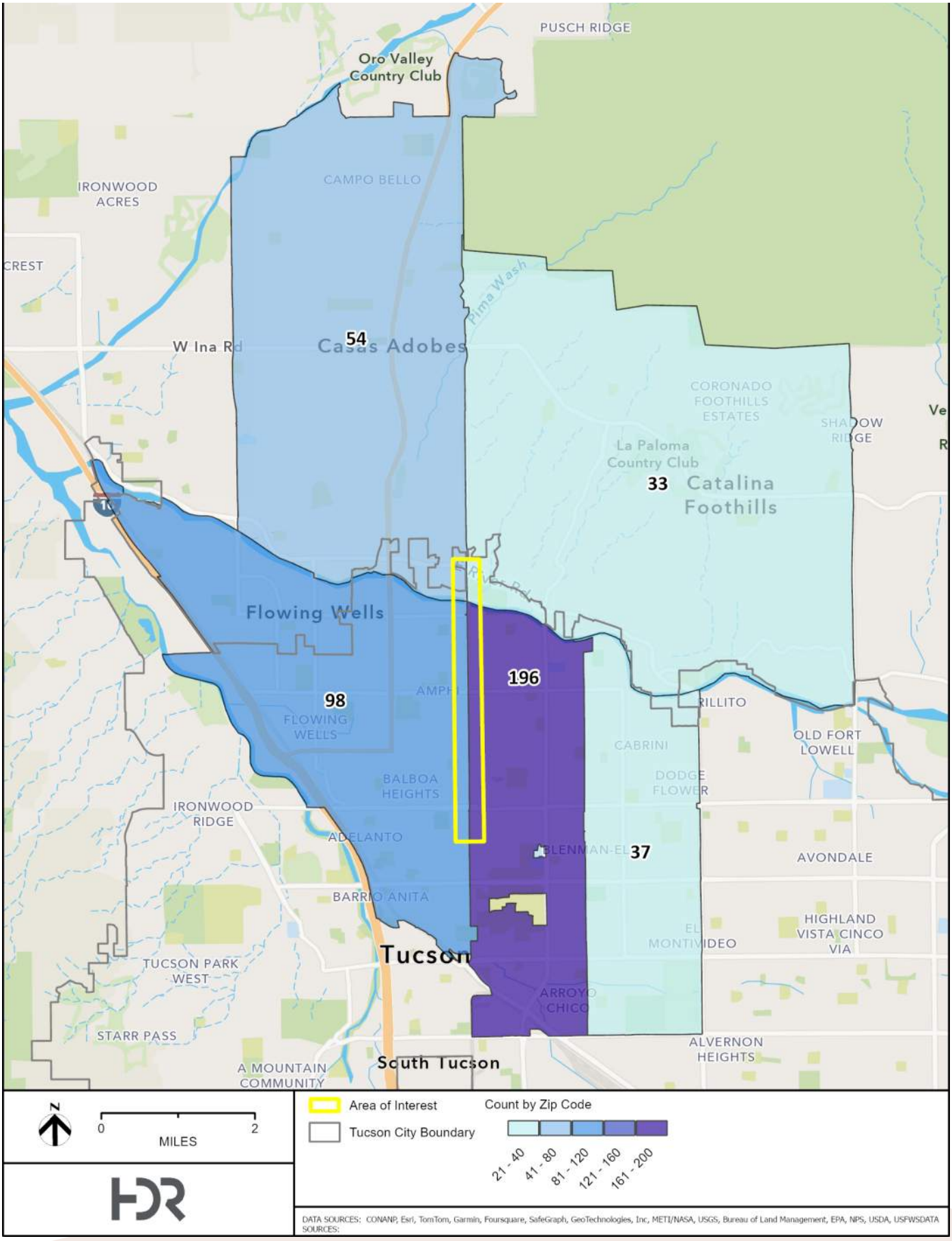
1st Avenue Phase 1 Survey

1st Avenue Phase 1 Survey

Before you dive in, please share your home zip code:

580 Responses

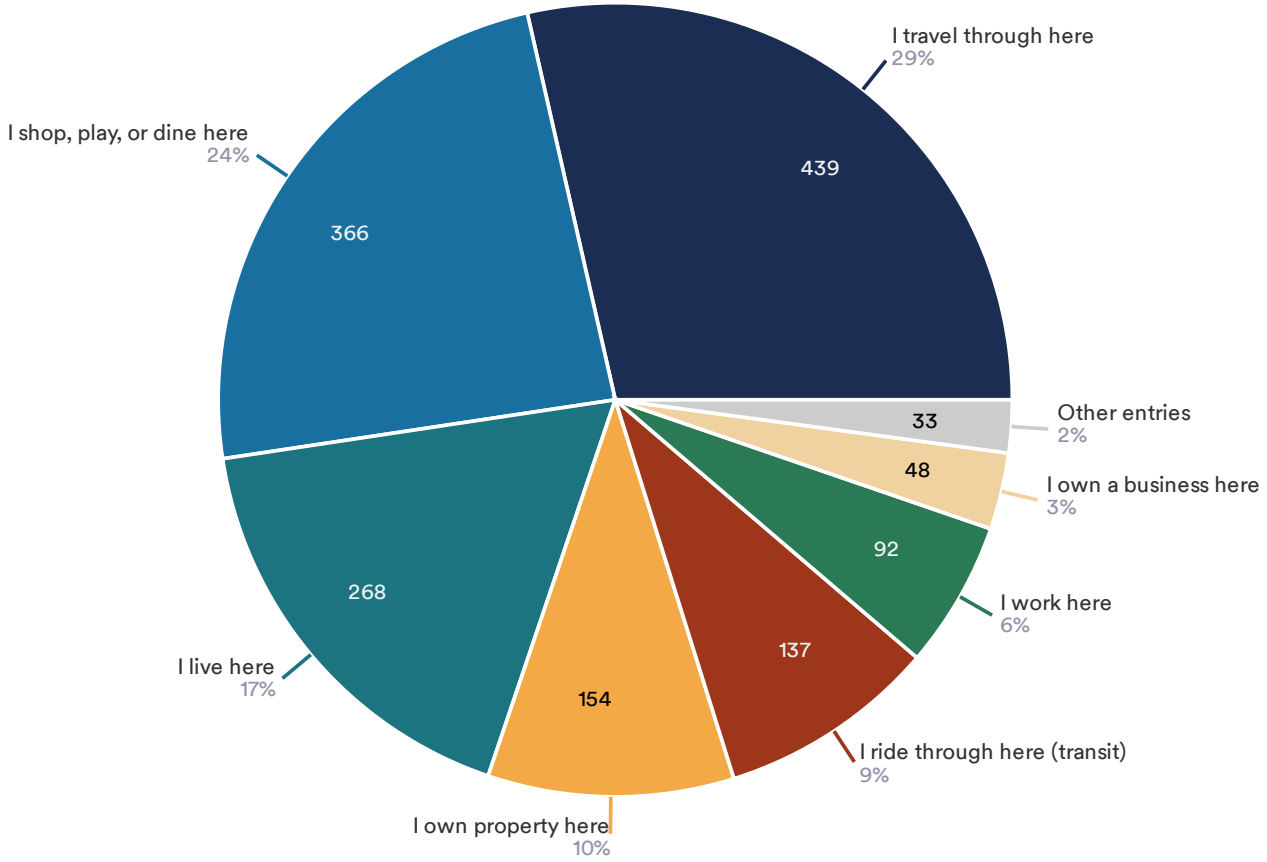
Data	Responses
85719	196
85705	98
85704	54
85716	37
85718	33
85745	27
85712	23
85701	19
85711	13
85713	12
85741	7
85737	6


PUSCH RIDGE
Oro Valley Country Club
IRONWOOD ACRES
CAMPO BELLO
CREST
Pima Wash
W Ina Rd
54
Casas Adobes
CORONADO FOOTHILLS ESTATES
La Paloma Country Club
33
Catalina Foothills
Flowing Wells
196
98
FLOWING WELLS
BALBOA HEIGHTS
CABRINI
OLD FORT LOWELL
DODGE FLOWER
IRONWOOD RIDGE
ADELANTO
37
AVONDALE
BARRIO ANITA
HIGHLAND VISTA CINCO VIA
Tucson
TUCSON PARK WEST
ARROYO CHICO
STARR PASS
ALVERNON HEIGHTS
A MOUNTAIN COMMUNITY
South Tucson
N
0
2
MILES
Area of Interest
Tucson City Boundary
Count by Zip Code
21 - 40
41 - 80
81 - 120
121 - 160
161 - 200
DATA SOURCES: CONANP, Esri, TomTom, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWSDATA SOURCES:

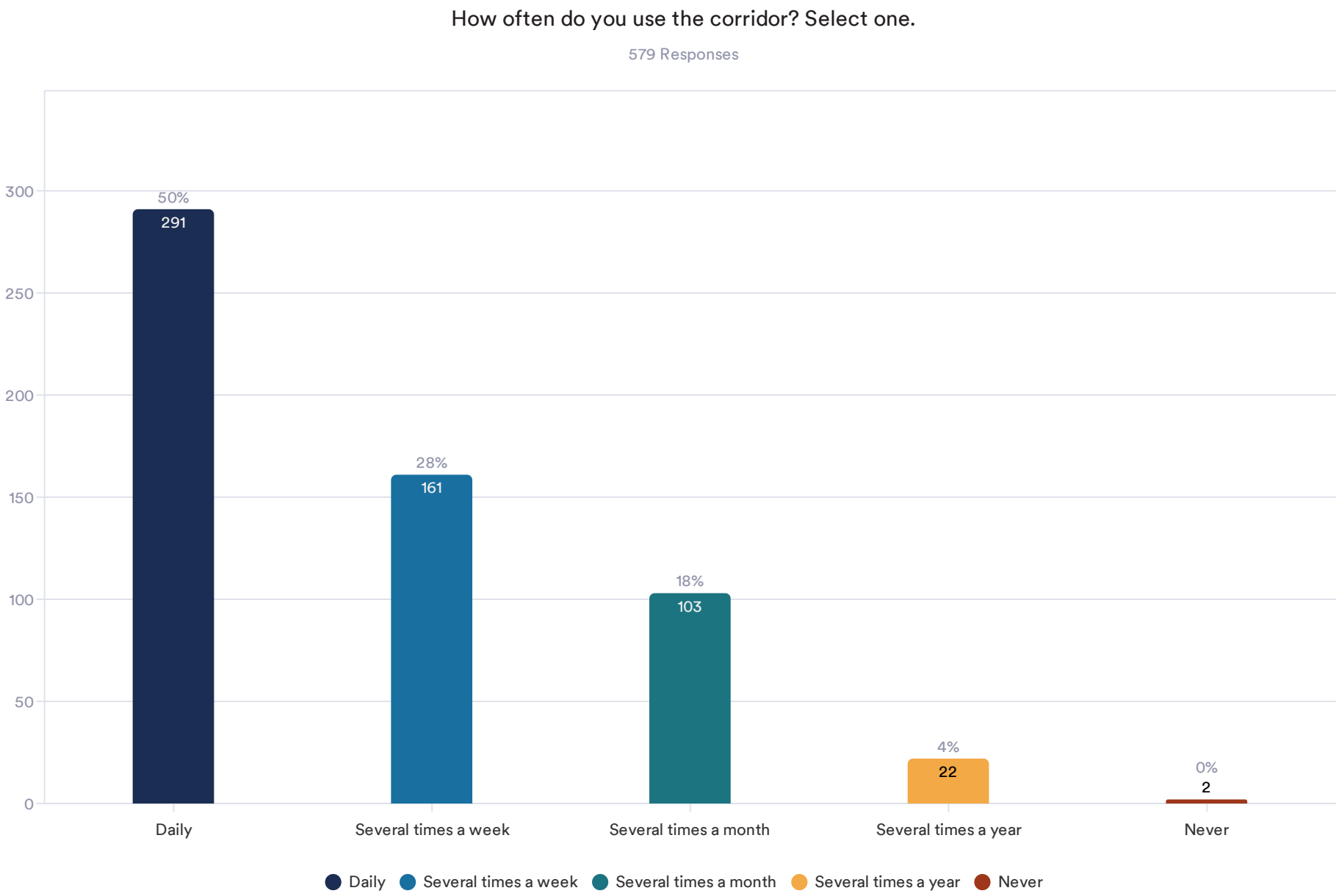
1st Avenue Phase 1 Survey

What is your connection to the corridor? Select all that apply.

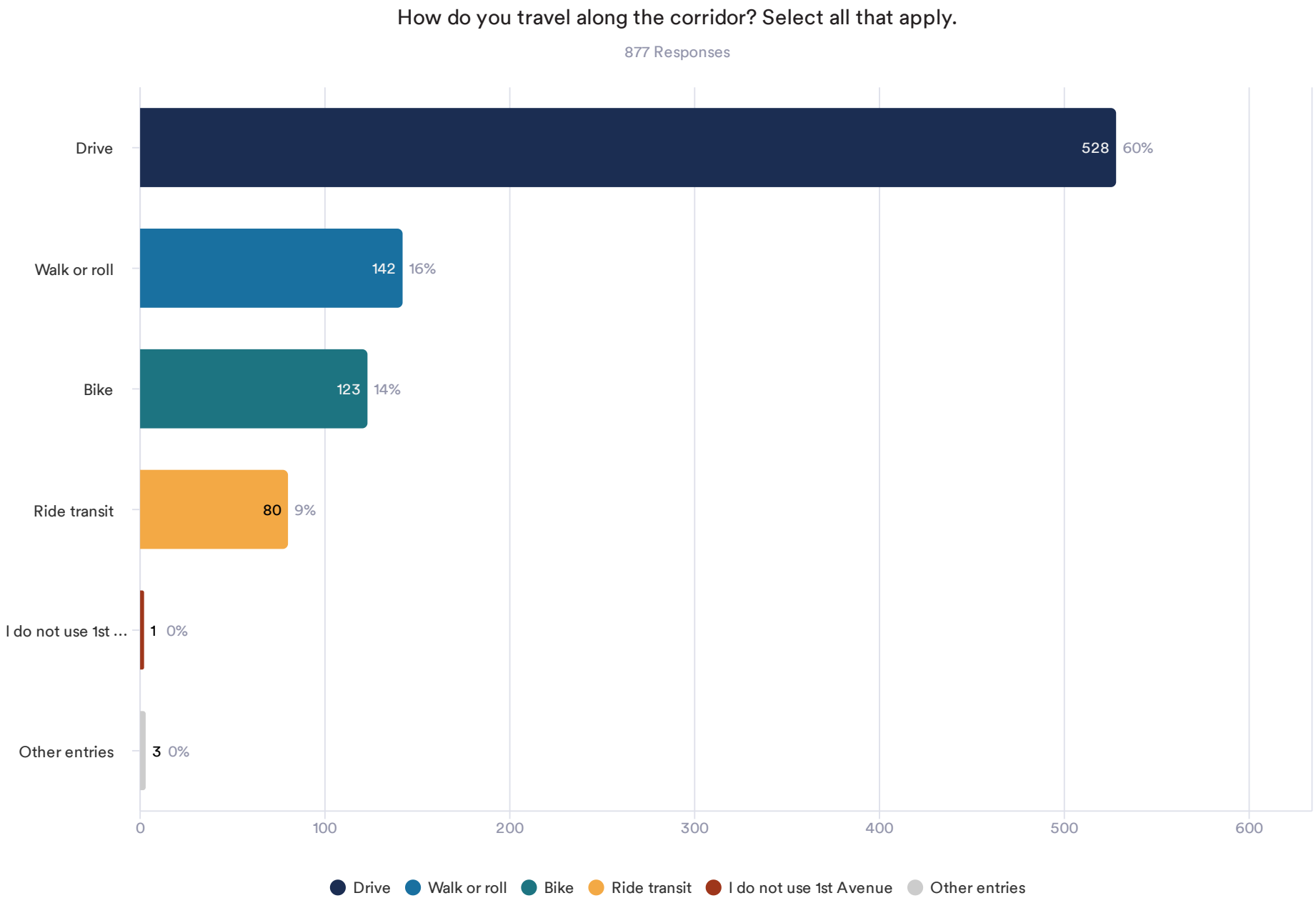
1537 Responses



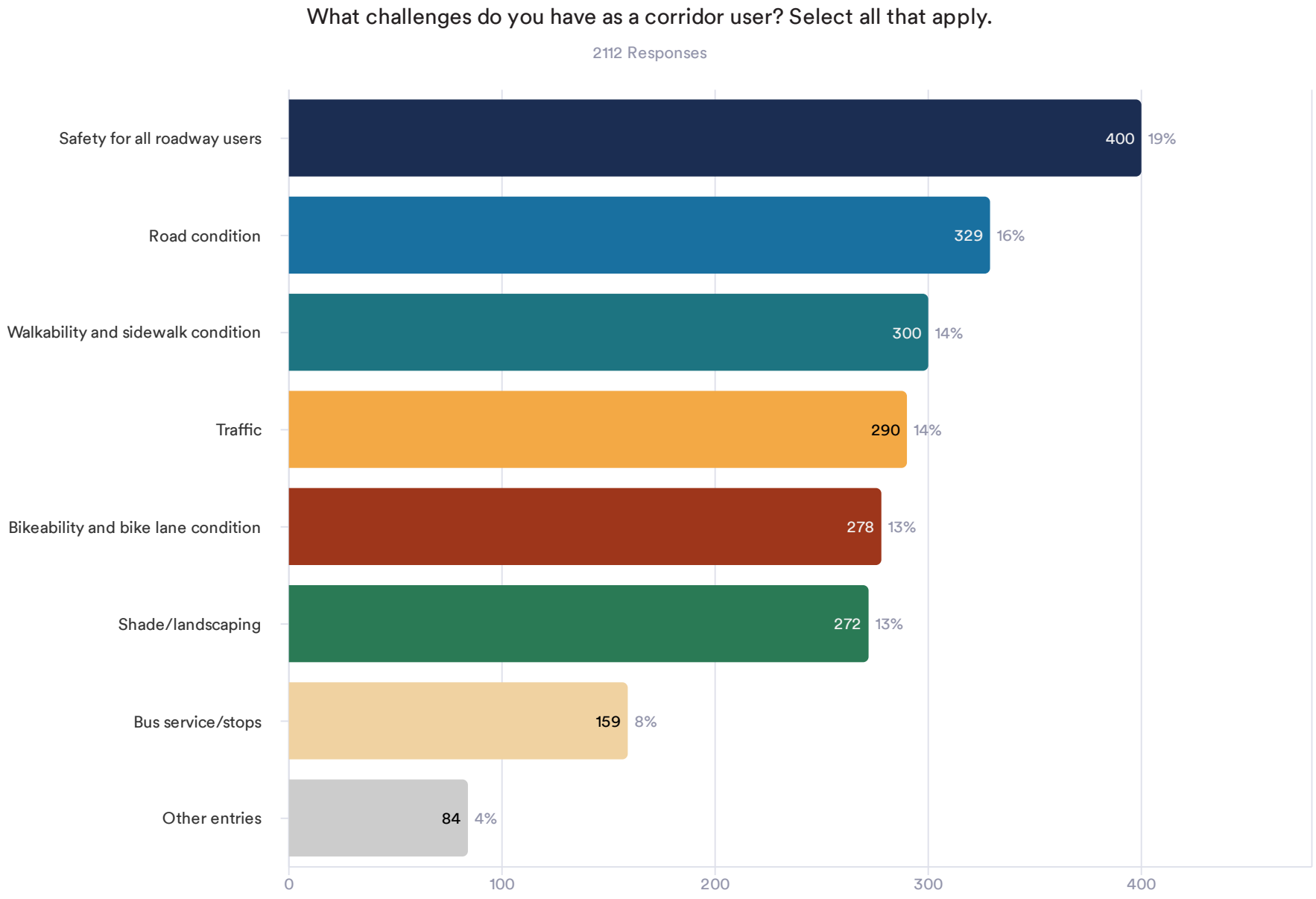
1st Avenue Phase 1 Survey



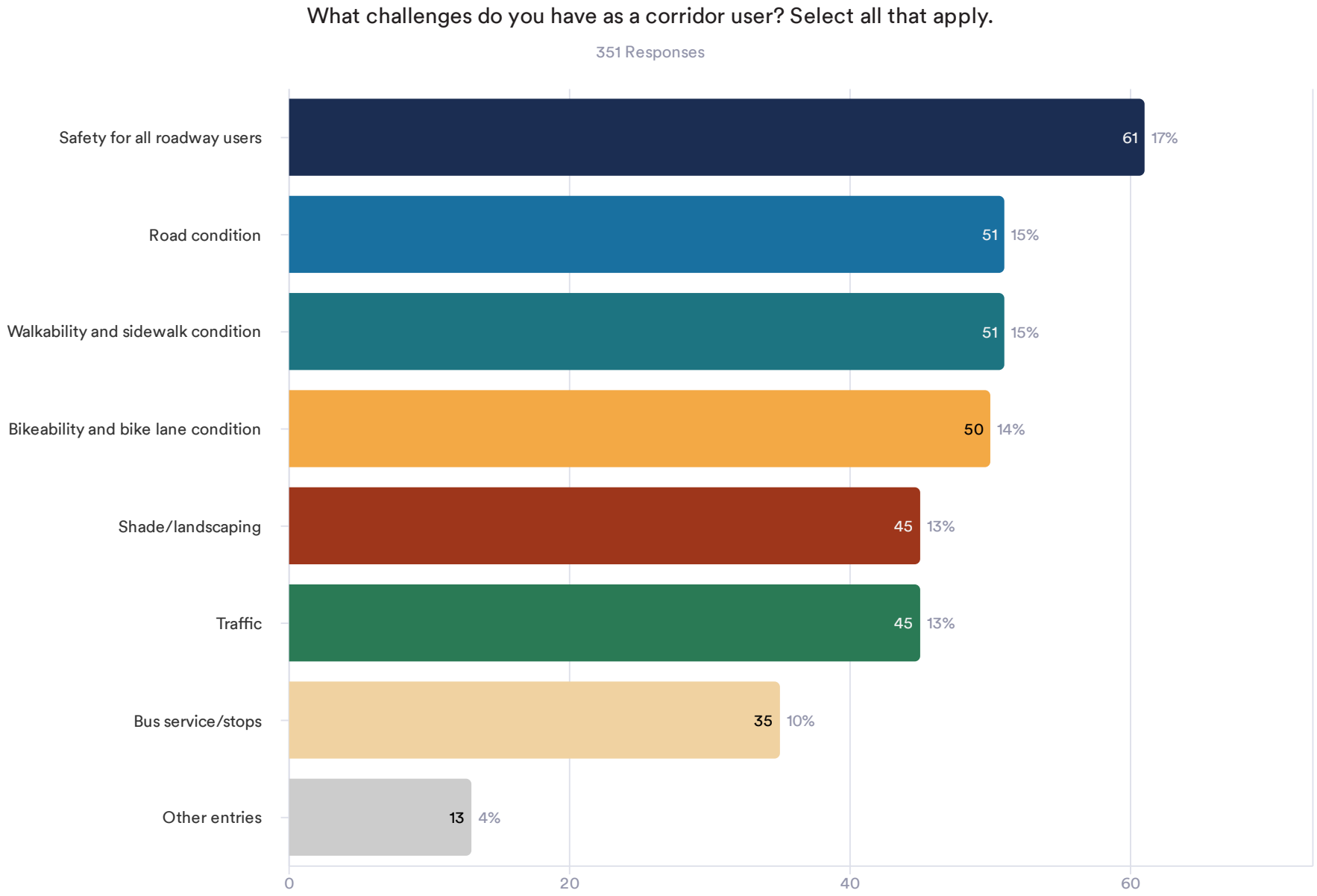
1st Avenue Phase 1 Survey



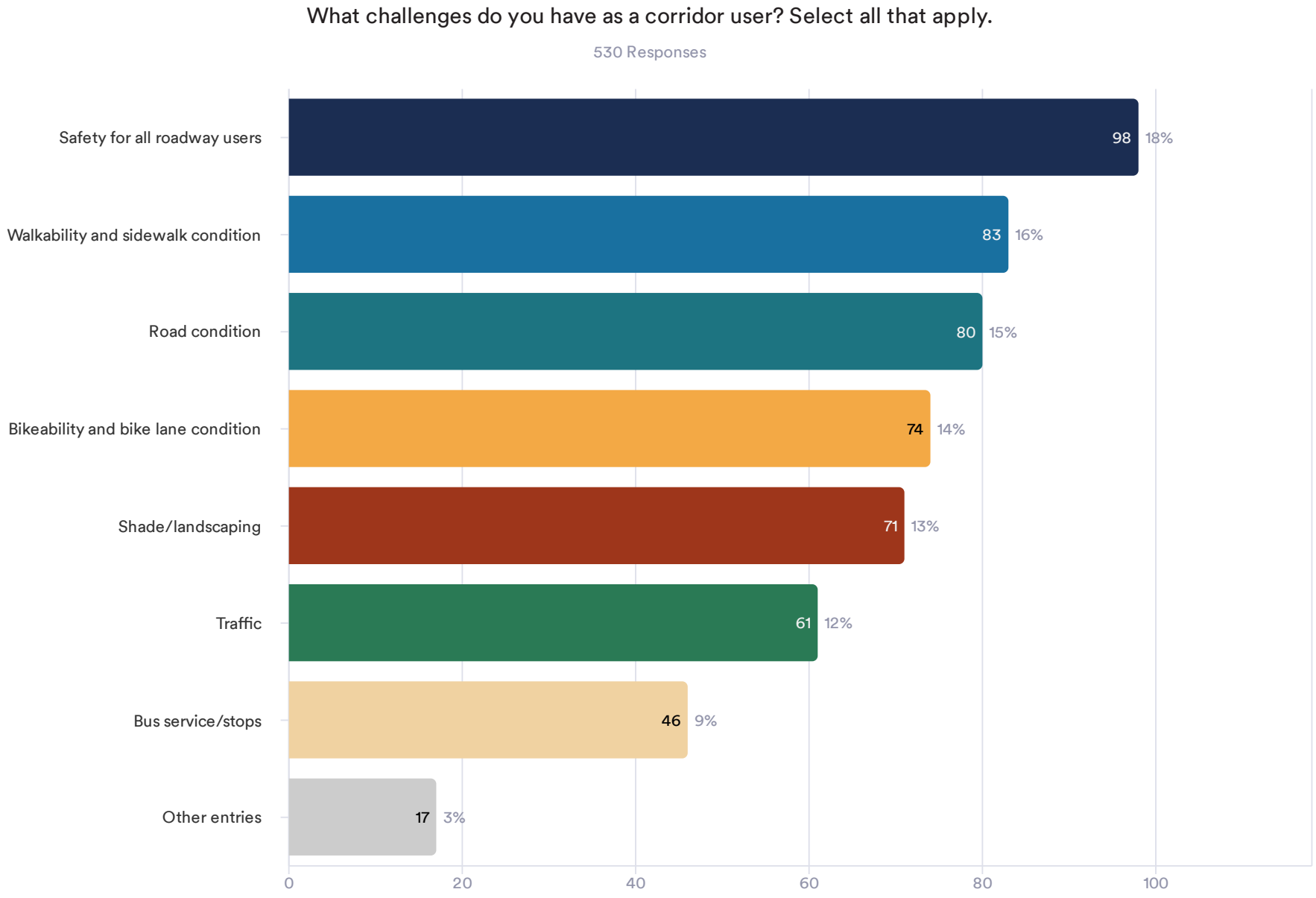
1st Avenue Phase 1 Survey



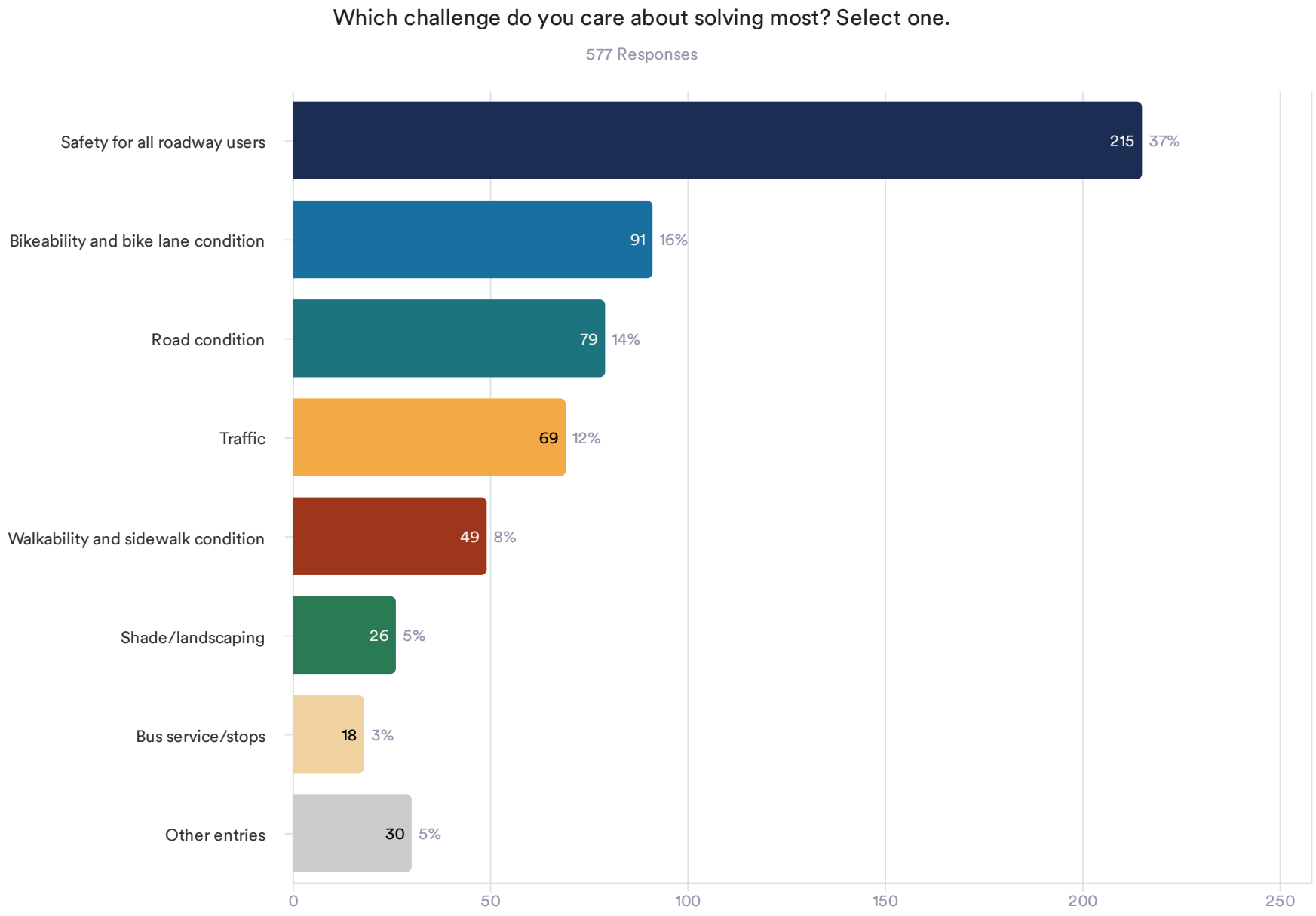
1st Avenue Phase 1 Survey - Hispanic Respondents



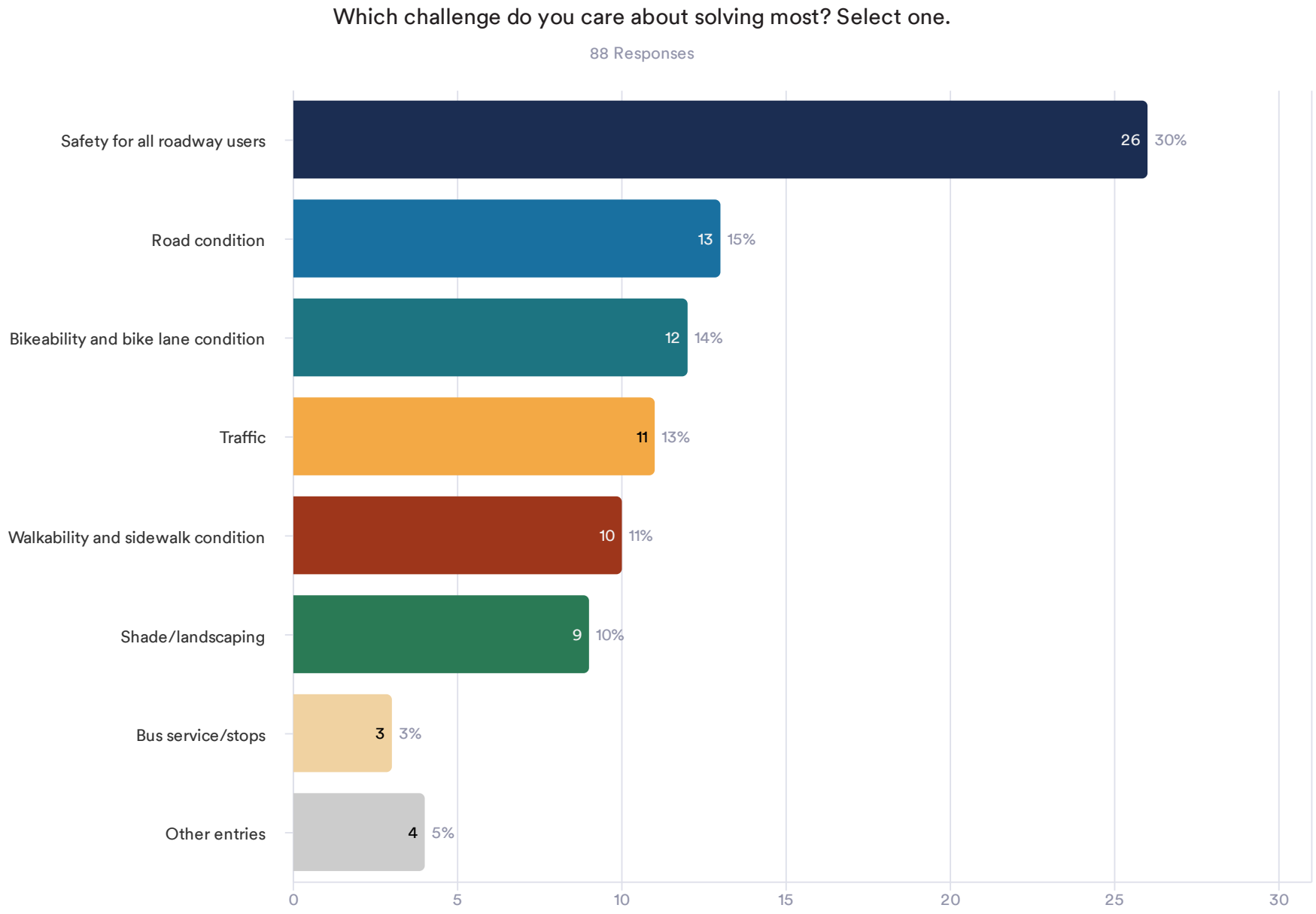
1st Avenue Phase 1 Survey - Respondents making less than $50k/year



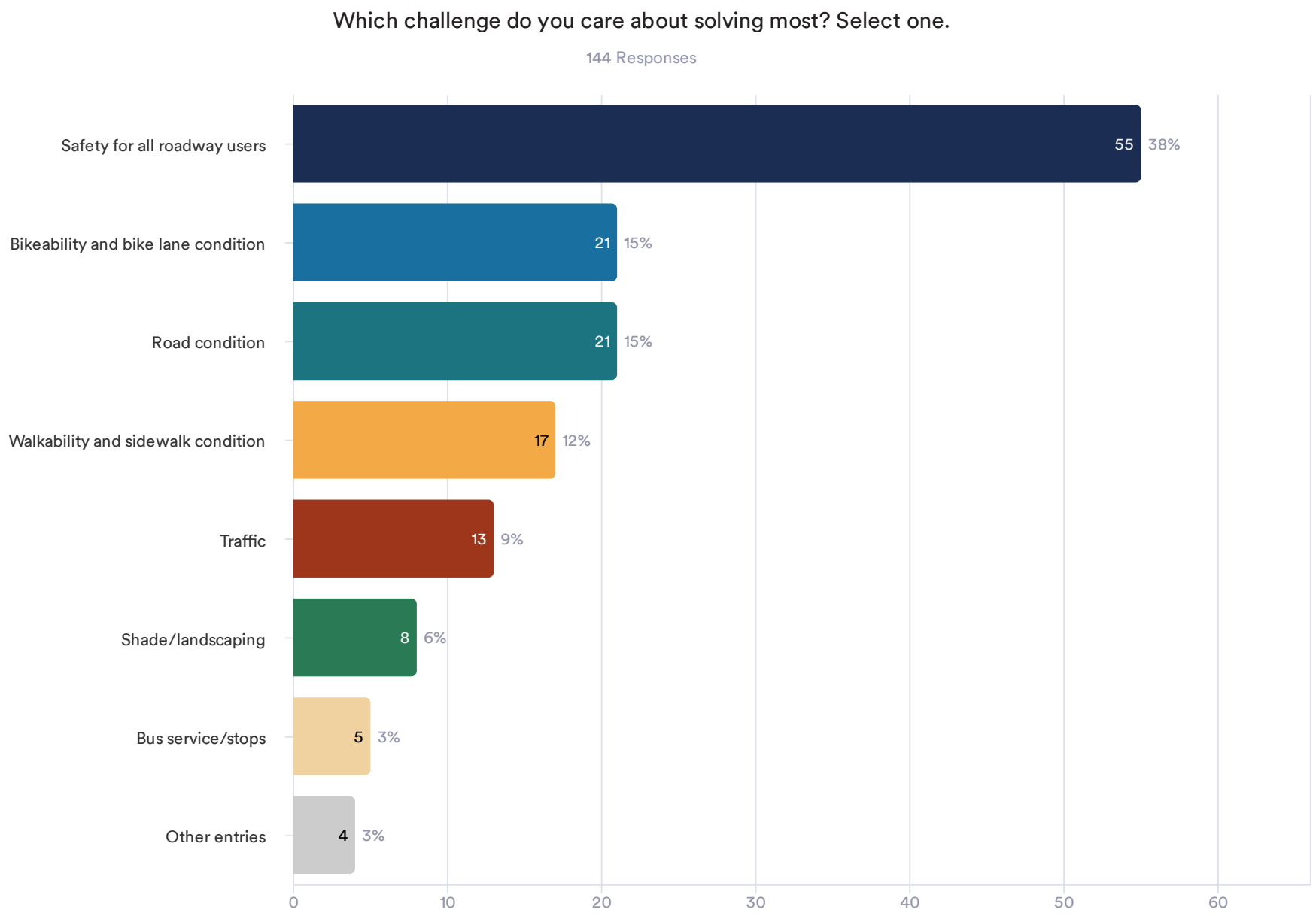
1st Avenue Phase 1 Survey



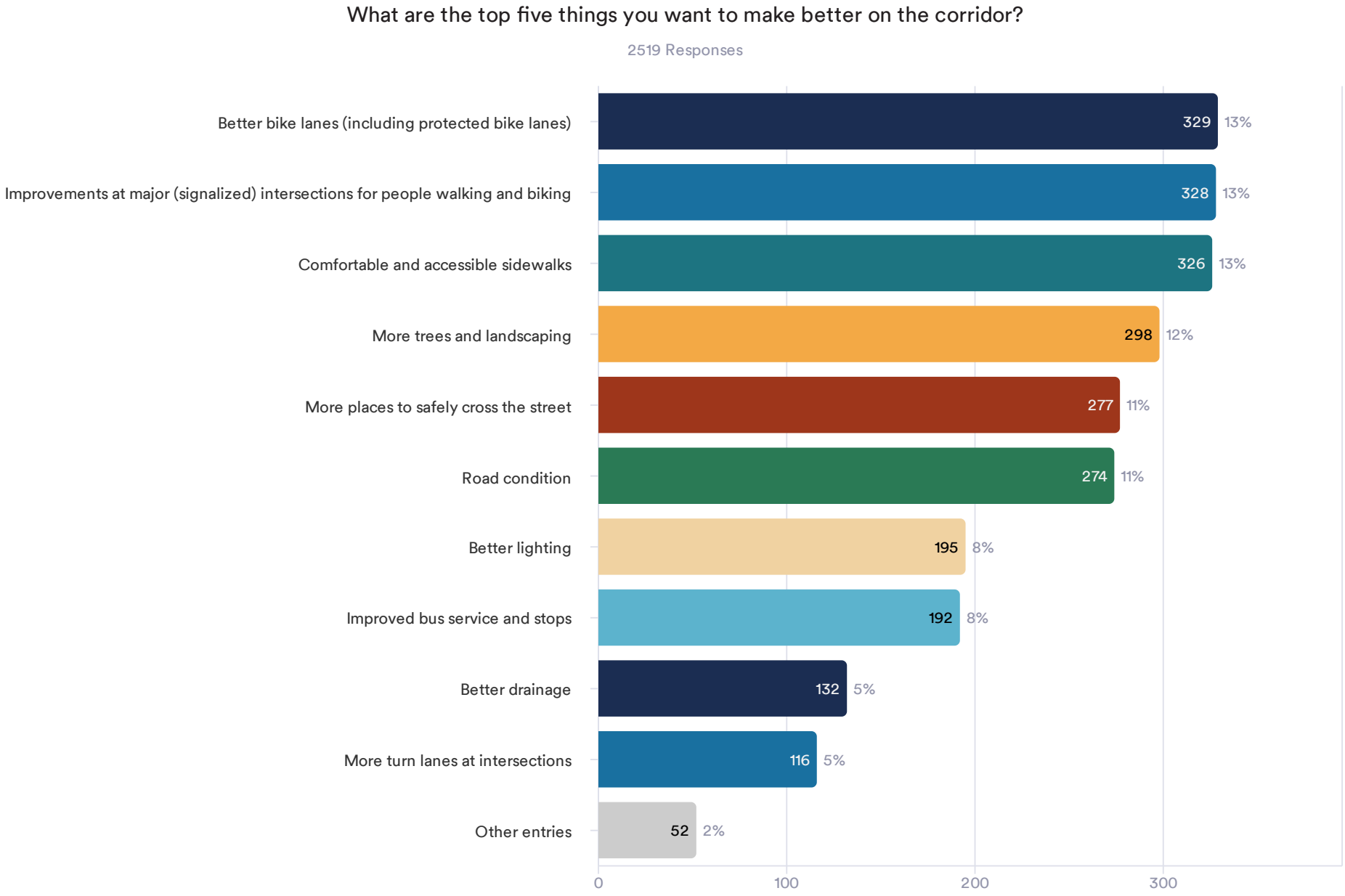
1st Avenue Phase 1 Survey - Hispanic Respondents



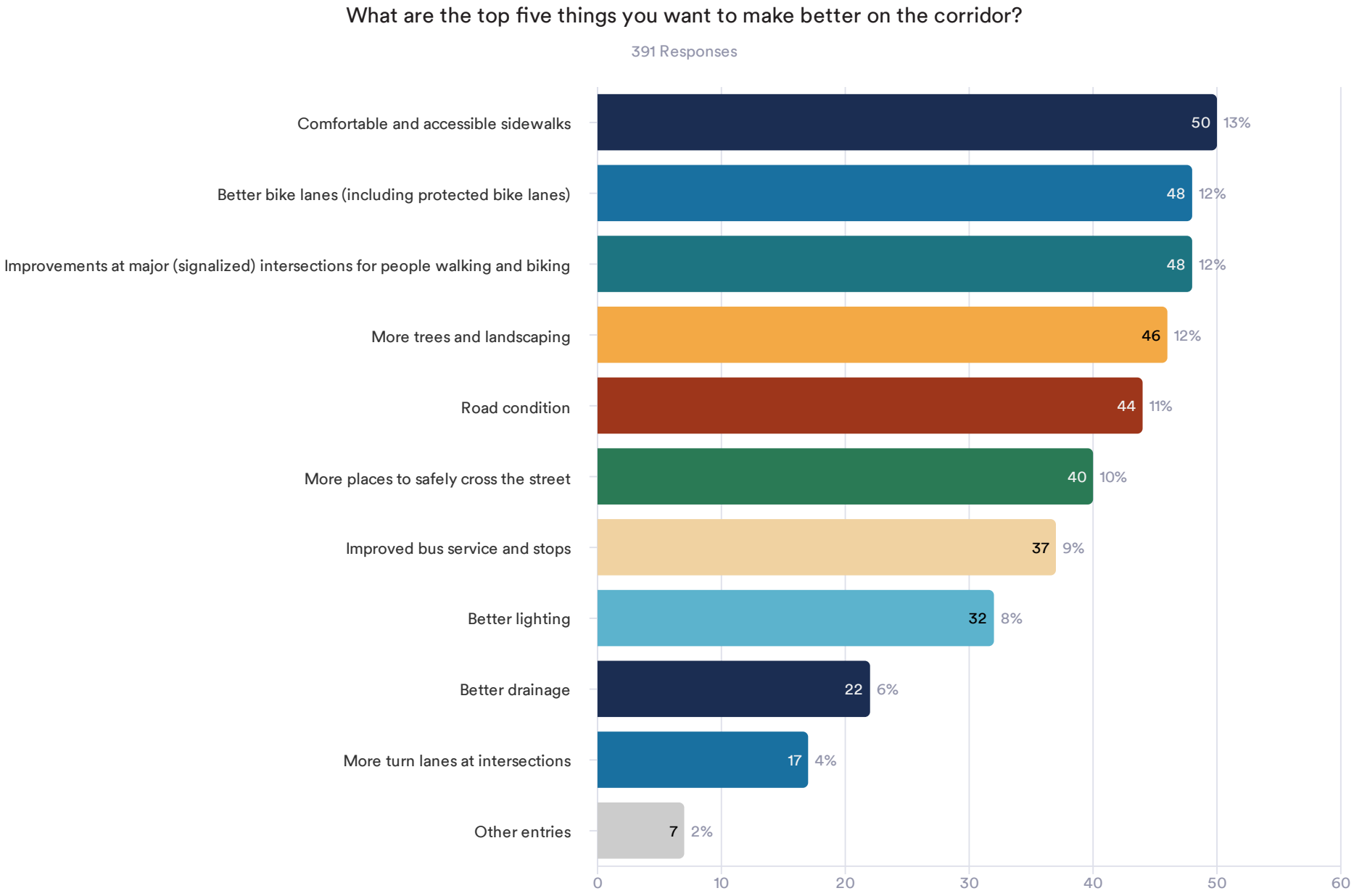
1st Avenue Phase 1 Survey - Respondents making less than $50k/year



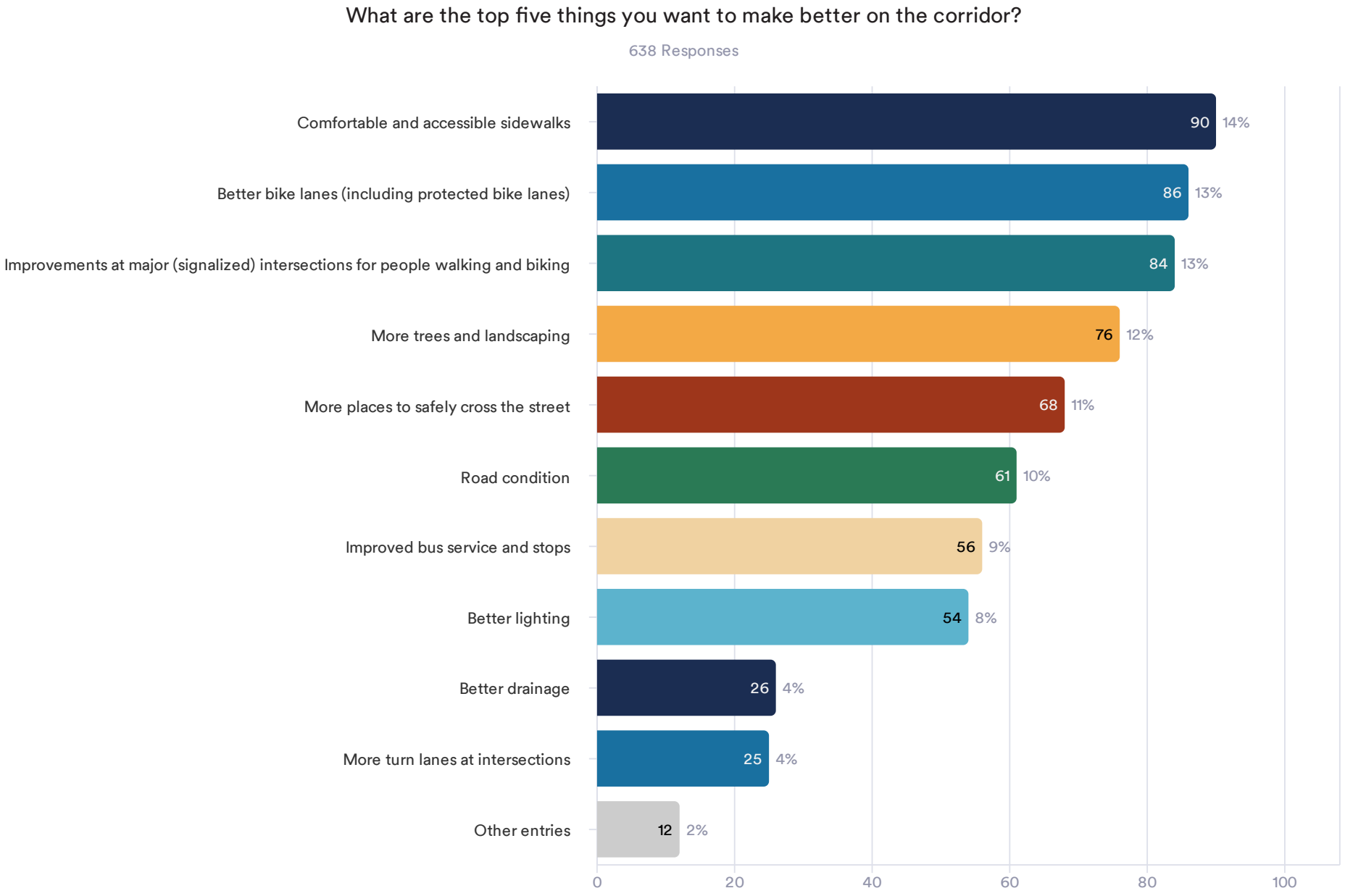
1st Avenue Phase 1 Survey



1st Avenue Phase 1 Survey - Hispanic Respondents



1st Avenue Phase 1 Survey - Respondents making less than $50k/year



1st Avenue Phase 1 Survey

Please rank the following project considerations in order of importance from 1 to 4 (1 = most important and 4 = least important).

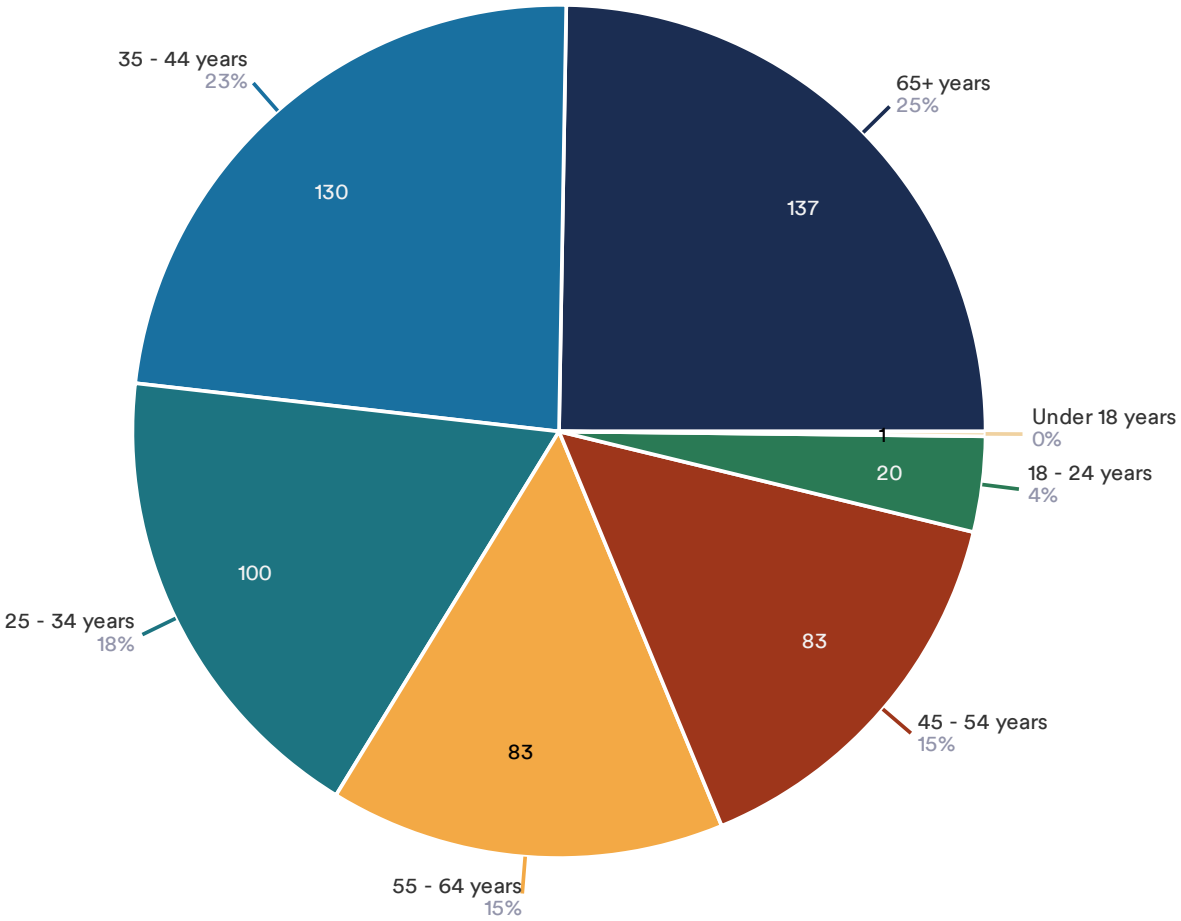
2336 Responses

Data	Responses
1 Bicycle/pedestrian safety and comfort / Seguridad y comodidad para ciclistas y peatones	325
1 Minimizing impacts on private property and businesses / Minimizar el impacto sobre la propiedad privada y las empresas	63
1 Minimizing project costs / Minimizar los costes del proyecto	17
1 Reducing traffic congestion and travel time / Reducir la congestión del tráfico y el tiempo de viaje	179
2 Bicycle/pedestrian safety and comfort / Seguridad y comodidad para ciclistas y peatones	133
2 Minimizing impacts on private property and businesses / Minimizar el impacto sobre la propiedad privada y las empresas	138
2 Minimizing project costs / Minimizar los costes del proyecto	146
2 Reducing traffic congestion and travel time / Reducir la congestión del tráfico y el tiempo de viaje	167
3 Bicycle/pedestrian safety and comfort / Seguridad y comodidad para ciclistas y peatones	63
3 Minimizing impacts on private property and businesses / Minimizar el impacto sobre la propiedad privada y las empresas	246
3 Minimizing project costs / Minimizar los costes del proyecto	188
3 Reducing traffic congestion and travel time / Reducir la congestión del tráfico y el tiempo de viaje	87
4 Bicycle/pedestrian safety and comfort / Seguridad y comodidad para ciclistas y peatones	63
4 Minimizing impacts on private property and businesses / Minimizar el impacto sobre la propiedad privada y las empresas	137

1st Avenue Phase 1 Survey

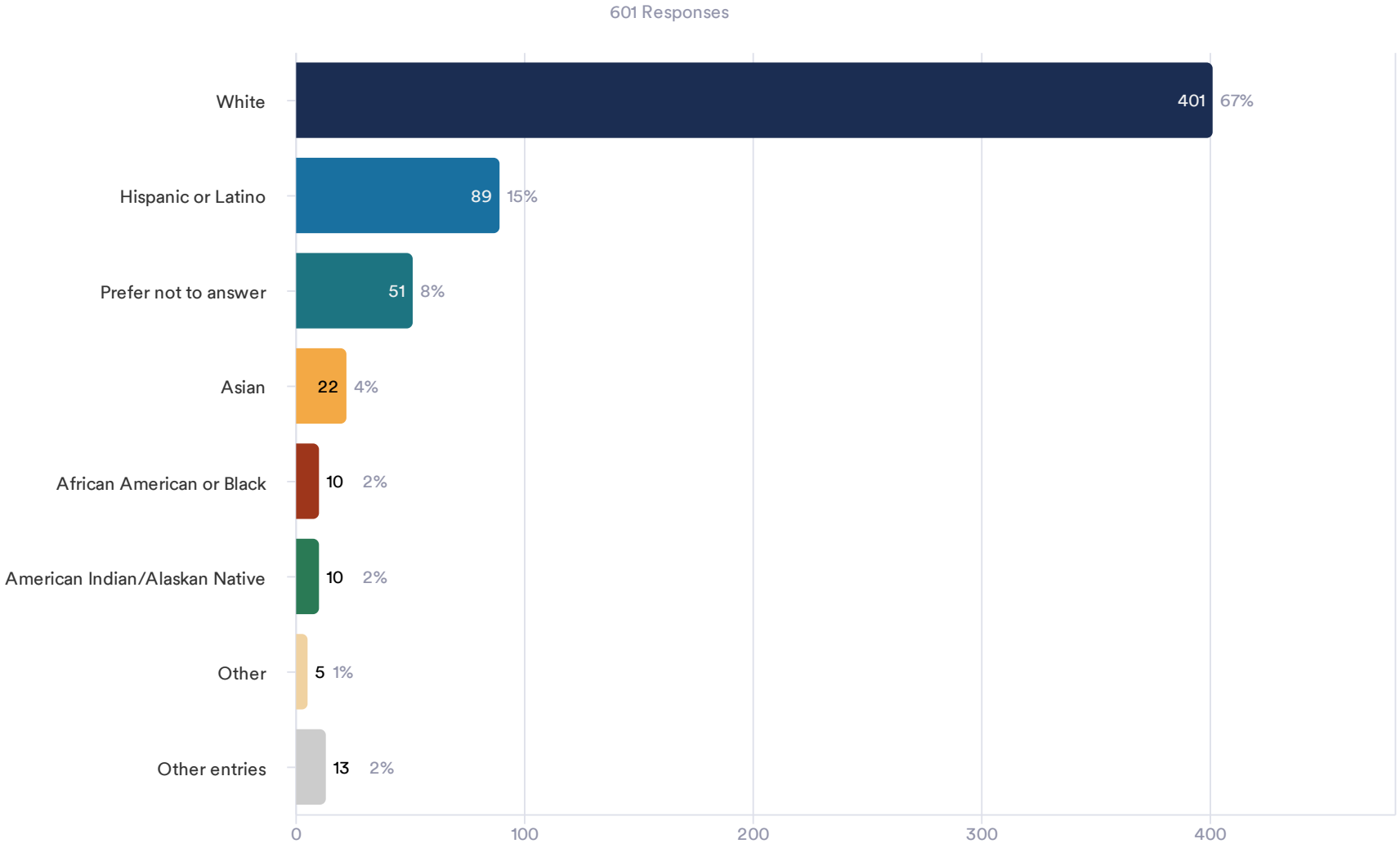
What is your age?

554 Responses

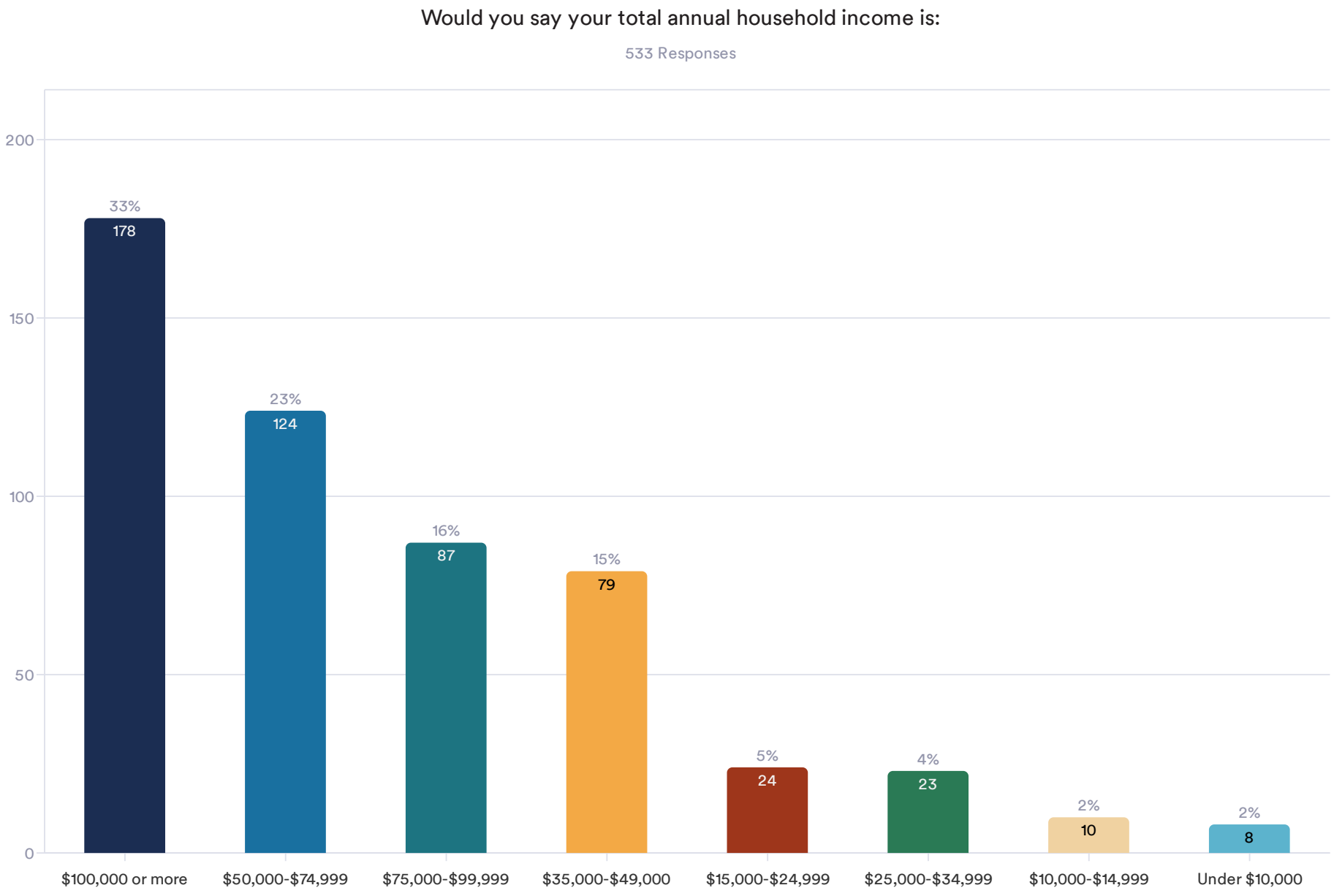


1st Avenue Phase 1 Survey

Which of the following categories best describes the ethnic or racial group(s) with which you identify yourself? Select all that apply.



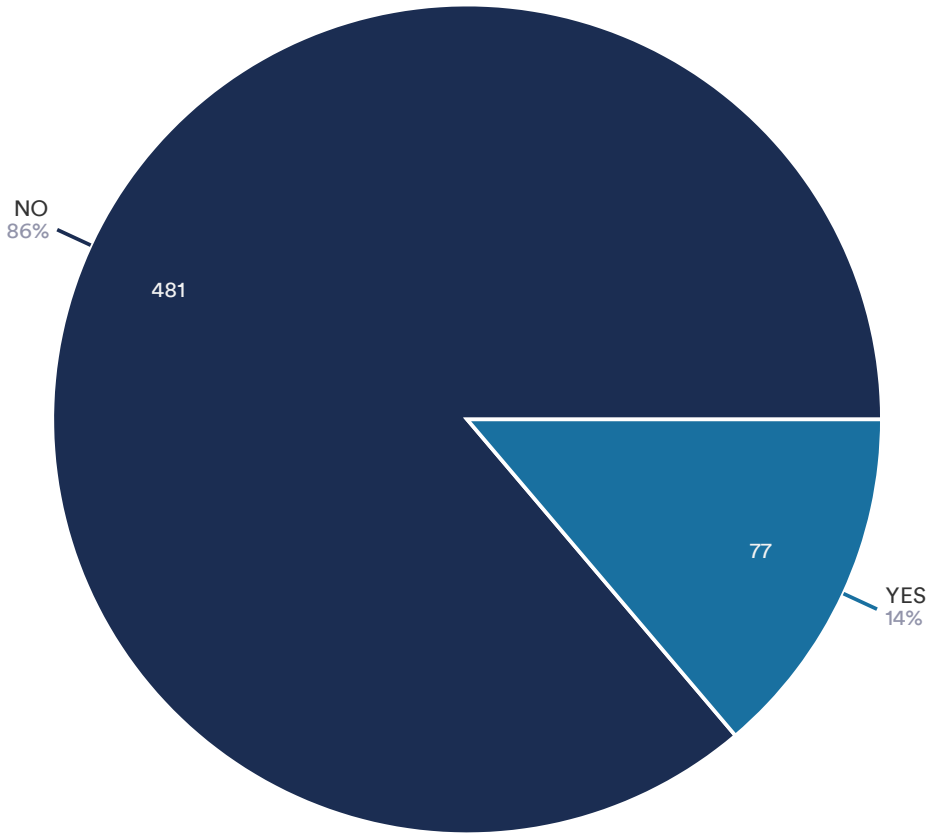
1st Avenue Phase 1 Survey



1st Avenue Phase 1 Survey

Do you identify with having a disability?

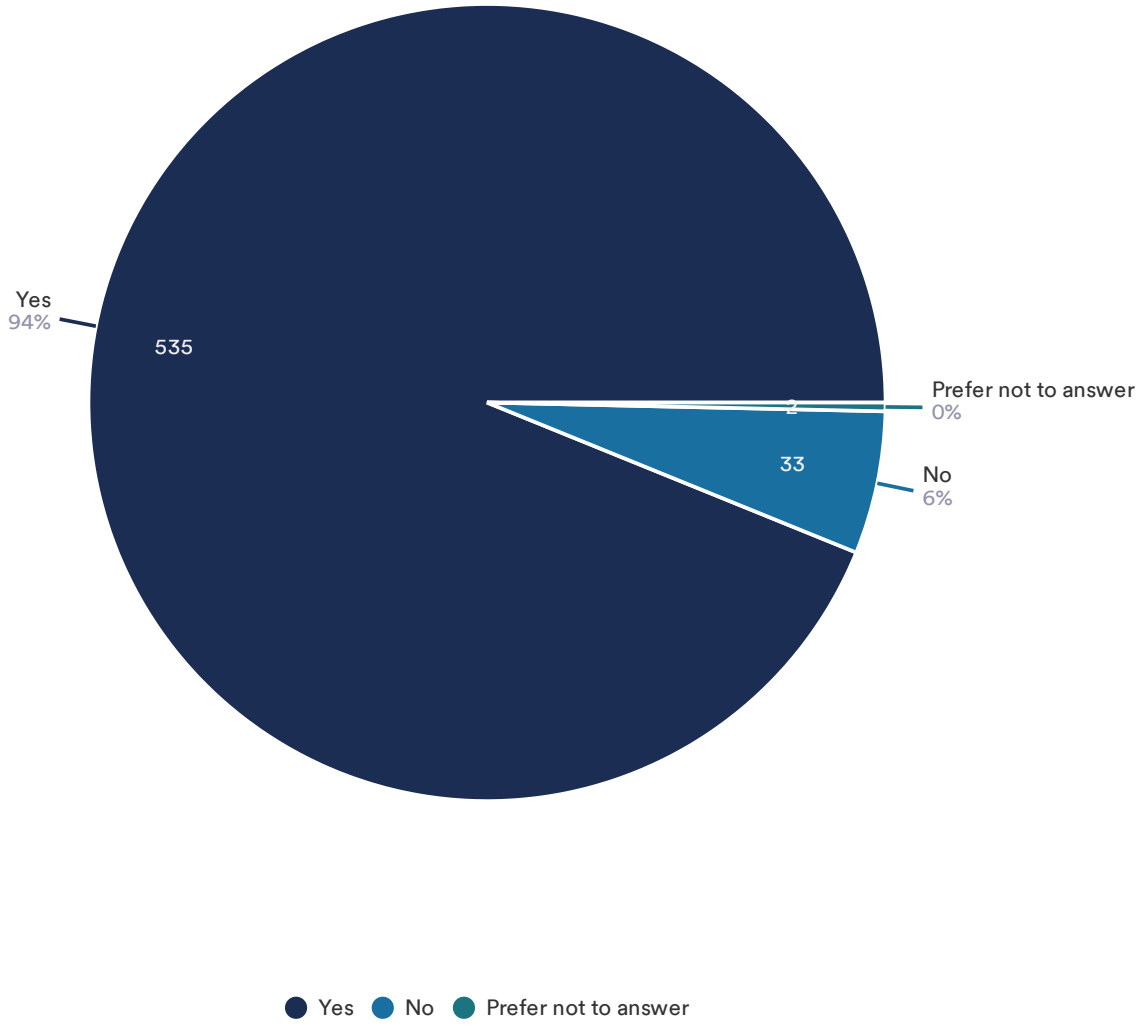
558 Responses



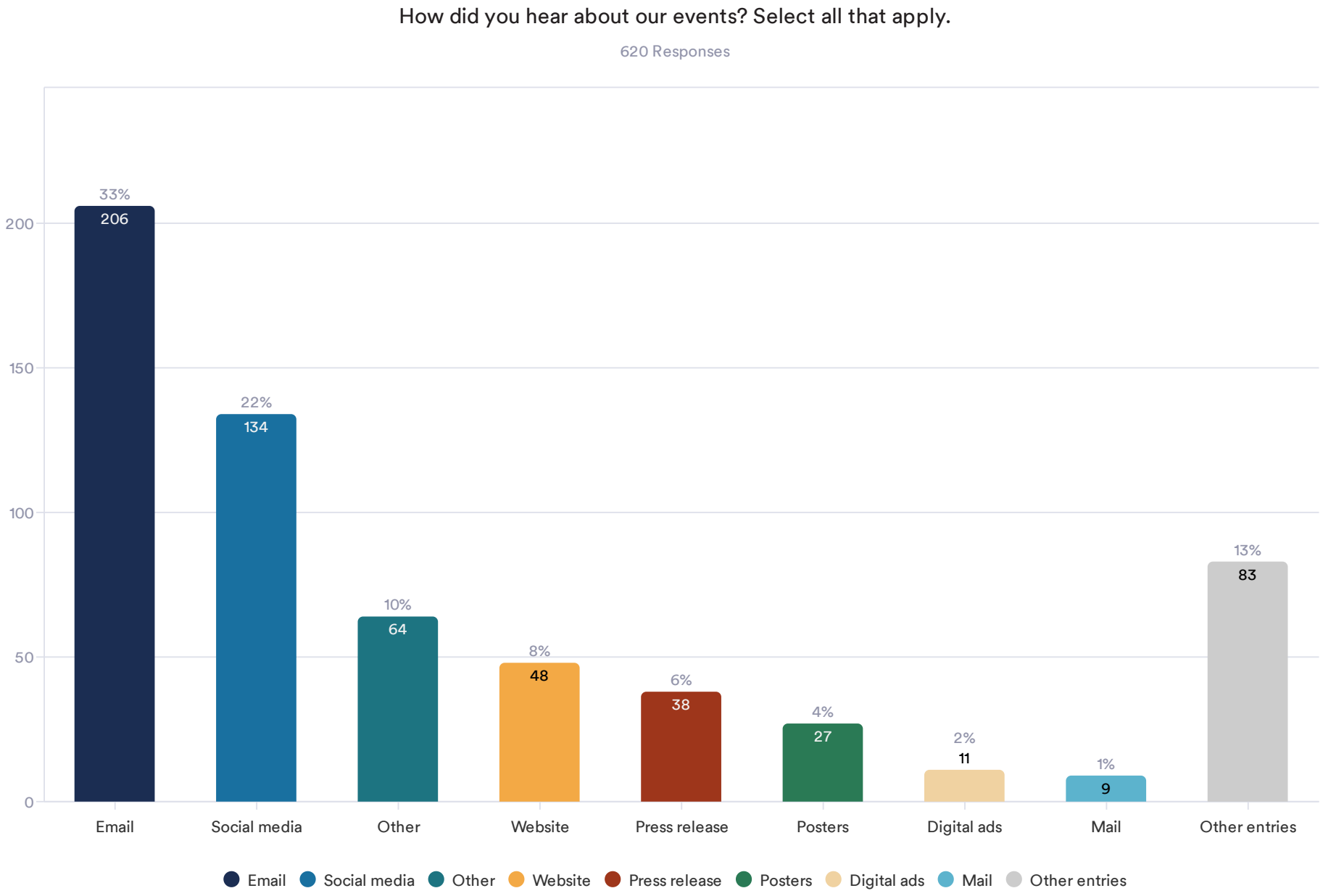
1st Avenue Phase 1 Survey

Do you have regular access to a vehicle?

570 Responses



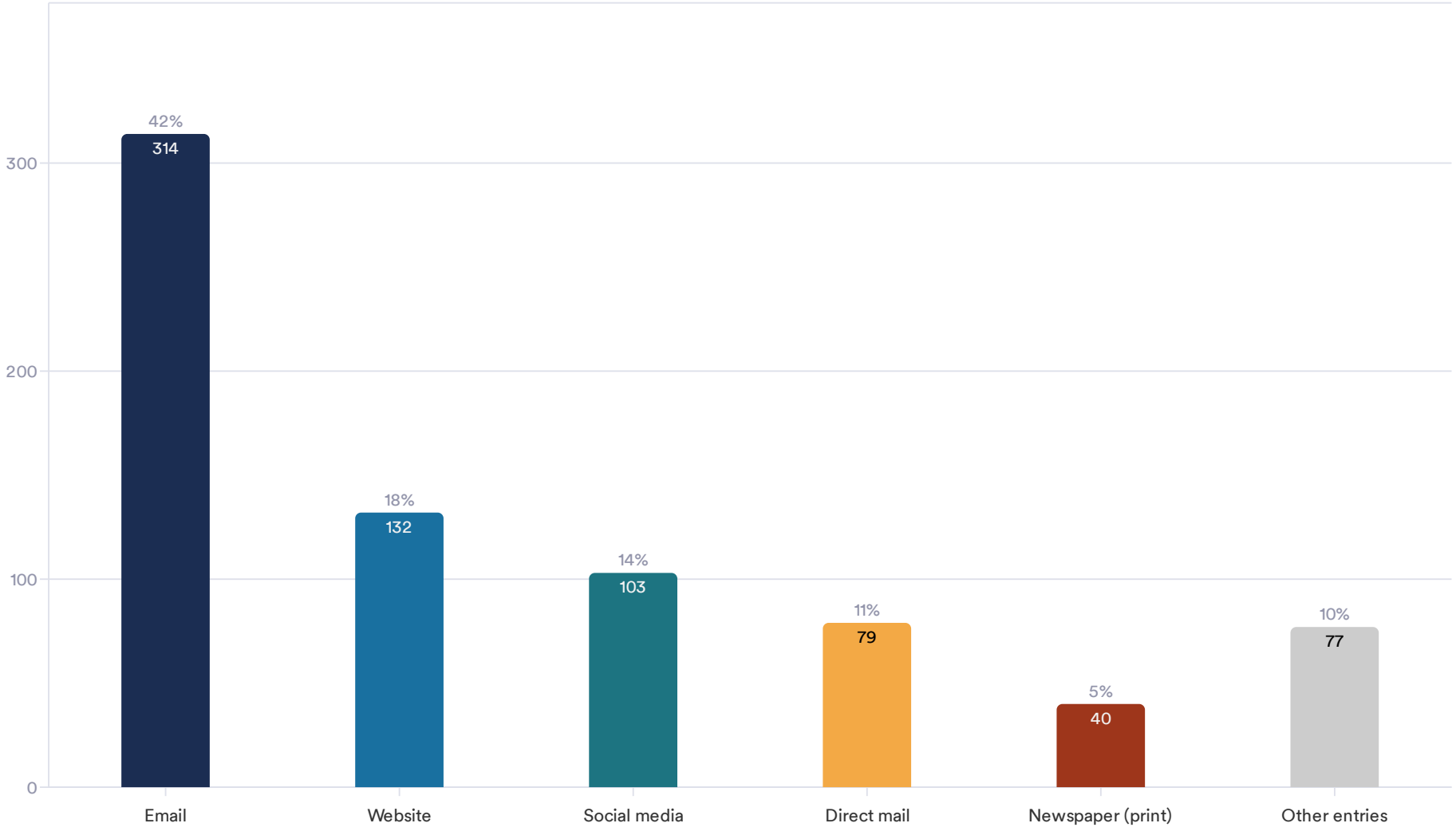
1st Avenue Phase 1 Survey



1st Avenue Phase 1 Survey

How would you like to receive information? Select all that apply.

745 Responses



Do you have any other comments that you would like to share about the project or corridor?	
1.	Do you have any other comments that you would like to share about the project or corridor?
2.	There are too few protected crosswalks for pedestrians - a long safety issue is the amount of jaywalking. Better police or enforcement/safety presence to help those houseless/vulnerable people along Ft. Lowell/1st Avenue.
3.	If you build it, they will come.
4.	I have been concerned about the lighting. Most are not even on and I cannot see random crossing/jaywalking and or when people slam on their breakes to avoid them! Yikes so much can be avoided.
5.	A HAWK crossing is desperately needed at the Satori School.
6.	The trash can be a problem, especially in front of a school.
7.	As a person that travels this corridor @ least twice a day and at all times of the day/night, I see pedestrian & bike safety as key. This will be solved only by additional, but Dark Sky responsible, lighting & crosswalk improvements/ additions of safe crossing between lights. I have come so close to not seeing people and it is scary! Part of that safety piece is also shade for the many walkers & bus pullouts for the many riders especially@ Prince /Roger Rd. northbound & 1st Ave. southbound @ Ft. Lowell. It is a problem that can be solved - even with step-by-step small changes with goal completion dates. I look forward to your solution.
8.	Cross walk for students at Satori school (between the 2 campuses at Past time Rd), pedestrian crossing for people trying to get to bus stop in front of school - pedestrians are crossing 4 lanes of traffic and it's not safe
9.	People use the road as an expressway - speeding very dangerous
10.	More law enforcement. Make the area as pleasant and safe for poor people as rich people.
11.	The bridge over the Rillito needs to have better bike and pedestrian access.
12.	Speeding and late night road games.
13.	Thanks for caring.
14.	More turned signals an arrow for each way.
15.	It really has no character, just a high traffic road with businesses - multi-modal upgrades, and landscaping/shade would be improvement
16.	I would like the car lanes to be four not six. More lanes doesn't mean less traffic. See Induced Demand.
17.	I'd like to see corridor improvements that do not add lanes for cars, that open lanes for bikes and public transportation by taking a traffic lane from cars. Slowing cars down will automatically improve safety for all road users and help to create a city where everyone is forced to watch out for each other.

Do you have any other comments that you would like to share about the project or corridor?	
18.	People need to understand that all drivers want to see fewer other drivers on the roads. To make that happen, we need to make it easier and safer for people to bike, walk, and use transit. Communicating this so the funding follows is important. Not everyone will choose an alternative transportation option to private vehicles, but many will choose those options if we make it easier and safer. I don't like driving a private vehicle, but many times a week I choose a private car simply because the infrastructure is not there for me to bike or walk.
19.	1st & river road conditions are a safety hazard
20.	Fix current roads before you spend money on this type of project
21.	We would like to see: Lots of safe bike designated lanes with improved accessibility,, lots of shade, developing and supporting walkable and bikeable live/school/shop/work space.
22.	the intersection at First Avenue and River Road is dangerous when traveling on River (some people traveling west don't see the divided highway on First when turning south)
23.	This corridor always seems crowded with traffic, and dangerous to walkers/bikers. Hoping improvements will ease the traffic, give drivers a bit more room in lanes, establish safe biking lanes, straighten the road between Wetmore and the bridge, provide right turn lane into frequently used area (the racetrack), clarify right turn lane going south into Walmart vs at corner of Wetmore, put in a median in front of Fry's to separate those turning into Fry's from those turning left on Roger, improve lane markings/ include reflectors.
24.	Starting project in 2027 is way to late. RTA needs to pay NOW.
25.	Removing transients and drug users from camping along recessed parts of the road and bus stops. I will never use the bus on First St corridor as the bus stops are frequented by non bus riders who are doing illegal things.
26.	Only through a focused commercial, mixed use development effort along with city wide resources to provide homeless individuals with housing, food and job training will significant progress rescue this overlooked corridor.
27.	"Sidewalks and shade needed. I just saw a tree cut down next to a bus stop. Another blew over in July bus stops need shade So.many pedestrians with mobility issues don't have a sidewalk the whole stretch. Pedestrians walking into traffic and issue. Right turn lanes need to be separate so they don't take a whole lane waiting for people to cross."
28.	Drainage is horrible during rain; water pools up in the rightmost lanes and often into the leftmost lanes.
29.	More traffic lanes are not necessary on 1st Avenue. What is needed is better and safer lanes of travel for cyclists and walkers. Safer methods for cyclists and walkers to cross large intersections.

Do you have any other comments that you would like to share about the project or corridor?
30. This area is so important for students and pedestrians and chair users to access public transportation. Shade trees and buffer from car traffic is needed. There is no traffic problem here.
31. We have too many accident from people running red lights. When the light turn red, you have six cars still going through a red light. You know what you need to bring back?
32. At the intersection of Fort Lowell and 1st the Circle K gas station seems like a big hangout for homeless folks and addicts. The amount of folks hanging out and creating trash and jumping into traffic caused our friends restaurant to be moved away from this area. Their business was burglarized a few times and it felt unsafe.
33. I can't wait to see the finished product. I hope this completely revitalizes the area.
34. "Narrower auto lanes will help to slow traffic and allow for safer bike lanes. There are too many access points for small business shoppers to enter and exit 1st Avenue. Sidewalks on both sides of the street should be a top priority. The sidewalks should be as level and wide as possible. They should not provide a base for utility and light poles. The mall on Limberlost and 1st Avenue has dangerous left turn exits onto 1st. There is no left turn lane for cars exiting onto Limberlost. "
35. I have driven on 1st Ave regularly for many years. The number of speeding and weaving cars is so unsafe for drivers, walkers or people on bikes. That is my biggest concern.
36. Between Grant and Prince in particular there is a constant flow of pedestrians crossing 1st Ave unsafely at all times of the day or night. Playing chicken with cars could be another way to phrase it. I would like to say we just need more crosswalks, but people refuse to walk the extra half block to use them as it is. I don't have a solution unfortunately, but surely there are engineers available who may have some ideas. Pedestrian safety in Tucson is abysmal in general, and this is not always the fault of the motorist. The severe lack of continuous and useable sidewalks doesn't help matters either. Thank you for listening!
37. Make it easier and safer to turn into 1st Avenue during peak traffic hours.
38. 1st Avenue is congested and needs more lanes. It is a safety hazard. It is very poorly lit at night.
39. Tucson should be embarrassed. Families live and work here. There are schools and kids in the neighborhood, and the entire street has been taken over by drug addicts and petty criminals. For shame Tucson.
40. The 1st Avenue corridor looks terrible. Roadway improvements and pedestrian improvements should be made to improve economic development and beautify the area.

Do you have any other comments that you would like to share about the project or corridor?	
41.	I appreciate the improvement on 1st Ave and hope that i will be accesible to bikes, buses, cars and pedestrians while the work is being done.
42.	Need bus pullouts and better bus shelters. Get homeless encampments away from bus shelters
43.	Give greater attention to pedestrian and bicycle safety
44.	A safety issue: The lighting on 1st Avenue is quite limited, especially between Prince Rd and Limberlost. There are many pedestrians in that area and in the evening, it can be very difficult to see them. Lights that don't severely impact the homes, but shine light on the street would make a lot of sense. Also, turning left from big shopping centers seems chaotic. It would be nice to be able to turn left onto Limberlost from the shopping center as well.
45.	Help make Tucson more beautiful and take the emphasis away from cars! Bikes and pedestrians should feel safe, public transit should be easier / more convenient
46.	River and Firstbis dangerous m. The road conditions are horrendous
47.	Improve the intersections first and foremost. Make it possible to walk along 1st Ave with continuous sidewalks, landscaping and shade. Install bus pullouts - it is dangerous for drivers and bicyclists to have busses park in a travel lane to unload passengers. Make sure the new bridge does nothing to discourage Mexican free-tailed bats from using it in the future.
48.	Help make Tucson more beautiful and take the emphasis away from cars! Bikes and pedestrians should feel safe, public transit should be easier / more convenient
49.	Something needs to be done about the bus lane
50.	"1st Avenue has the potential to be one of the best North-South Corridors in Tucson. Currently, due to its structure, it allows drivers to travel at unsafe speeds and the conditions of the road and sidewalk make it unsafe for ALL users. I rarely travel on First due to the danger as a cyclist and motorist, but if addressed properly, it would become my primary method for traveling north and south. Connecting to the loop means it is a perfect way for cyclists and pedestrians to connect existing infrastructure into the city core. The safety metric should be if you would feel comfortable with a child under the age of 10 being safe riding along the corridor. With many neighborhoods and schools being adjacent to 1st, having the area be safe for and accessible to families would significantly improve the quality. "
51.	1st Avenue doesn’t work as a road or street. It fails to be considerate to anyone. Overall there should be a dedicated bus only lane, improved bicycle lane quality, improved traffic signal timing, more shade, reduction in number of driveways since they’re dangerous, and needs general basic quality of life improvements.

Do you have any other comments that you would like to share about the project or corridor?	
52.	I would take public transit more if the bus stops had sade and we're more comfortable. Also, there must be continuous/safe sidewalks with natural sade and desert landscaping. Please make 1st beautiful and a pleasure to utilize by car, bus, bike or walk. Thank you (:
53.	I don’t know that we need more lanes. But maybe a little wider bike lane
54.	It's important not to reduce capacity for car traffic. Otherwise, traffic will be shifted to other streets that are already congested.
55.	Businesses keep properties cleaned up to the curb. Take graffiti down more quickly.
56.	Traffic calming measures to make vehicles slower and drive safer
57.	bike and pedestrian first!
58.	This does not, by any stretch of the imagination, need to be a six-lane thoroughfare.
59.	Hurry hurry hurry. Please have Limberlost also.
60.	Discourage panhandling at intersections
61.	Keep it as traffic free as it is now.
62.	Please plan for bus pullouts at each bus stop and put in a left turn light at Glenn and 1st Avenue.
63.	Please don't do those horrible no left turn intersections. The road and traffic seems fine, it's the sides of the road that makes it an unpleasant neighborhood. Tucson has a responsibility to reduce paving, manage rainwater and increase walkability
64.	It’s extremely dangerous at the Rillito Park turning south from the south driveway.!!!! Why have you taken so long to address that???
65.	"There is only ""congestion"" related to work times. If large employed firms would stagger their work hours, that relatively small about of time during work days would be much less problematic. # Additionally, I believe the problem of speeding monster vehicles are a threat to everyone. Narrow all lanes to dampen speeds. Public transit should be given priority - with a bus only lane. Making traffic control police officers a priority. The idiots who ply our streets with their monster SUVs and trucks driving in race mode without reason, need to be brought to heel. I mean it!"
66.	As a business owner traffic flow and accessibility are the most important issues. I know that bike lanes and pedestrian safety are important but the successfulness' of the business is what pays for the street.

Do you have any other comments that you would like to share about the project or corridor?	
67.	On July 18-2024 I had a hit and run rear end collision while driving on First Ave which was so severe that it totaled my Honda CR-V. I momentarily must have blacked out for I did not realize I was hit but thought I drove in a big pot hole because Tucson has so many in my area. I hit my head on the seatbelt holder and got a big gash requiring 12 stitches in the Banner E R. I was fortunate that I was not pushed out of my lane. I was close to home and heavily bleeding I made it home. My son took me to Banner Hospital. I am a retired person and walk with the aid of a walker. I live on E Paseo Alegre and this street apperently has not been repaired in forty years. There are no side walks and the road is so bad I cannot roll my walker. Please help us!!!
68.	How about fixing the other streets like Roger and Limberlost. They're in horrible condition as well as many others in Tucson
69.	Putting in more crossing areas is NOT going to stop those who are irresponsible, inebriated or otherwise impaired from stepping out in front of traffic. The city needs to resolve the homeless issue first instead of sticking bandaids on problems. I do not have a solution but reacting is not the way to solve it.
70.	My children attend a school on 1st Ave and Pastime, In the last 4 years, we have witnessed car accidents and pedestrian fatality accidents on 1st Ave.
71.	"PRIORITIES Protected bike lanes More signaled ped crossings Landscaping and shade no additional auto lanes Bus pullouts to aid car traffic flow"
72.	"People walking and using transit first Bicycles and mobility devices second Cars last "
73.	It is right now completely unsafe to bike, and mostly unable to be walked/rollrd unless able bodied. It is a space that only cares about cars and it could be so much more. It has great potential as a commercial street with people traveling outside of cars that would actually stop and visit those businesses.

Do you have any other comments that you would like to share about the project or corridor?	
74.	"It's ugly, ugly, ugly. If you're going to add landscaping, make sure the city is going to care for it properly. Too often they landscape a project then as plants die, they don't replace them. Or they cut off a blown down tree and leave the stumps. If the taxpayers are going to pay for landscaping, it should be maintained properly! And use native plant material that can survive in our climate! Someone should be in charge of making sure businesses that go out of business keep their property well maintained. Too many ugly vacant buildings on the Avenue. Also, colors of buildings. There should be a palate of colors to choose from! Code enforcement on signs, flags, banners, etc."
75.	CLEAN UP THE PEOPLE, THE CAMPSITES, THE TRASH AND GARBABGE EVERYWHERE, THE FECES AND URINATION EVERYWHERE, THE PEOPLE WITH HOMEMADE WEAPONS AND EXTREMELY OPEN DRUG USE, GET RID OF THEM AND THEN ASK ABOUT SIDEWALKS AND SAFE SPOTS. NO BUSINESS WANTS A TREE BY THEIR ESTABLISHMNET BECAUSE THEY FLOCK TOTHEM. NOTICE EVERYONE CUTTING THEM DOWN? CLEAN UP THE GARBAGE AND PEOPLE INSTEAD OF MAKING BUSINESSES LOSE MONEY AND REVENUE BECAUSE YOU WANT TO TAKE AWAY A PARKING LOT IN FRONT...ABSOLUTELY RIDICULOUS.
76.	Bikability would be huge. I frequent this area, so if I could do it with less car time that would reduce car congestion concerns anyway
77.	Protected bike lanes please
78.	Protected bike lanes with greatly increase how often I travel on 1st and help me feel safe using that major coordidor to travel throughout Tucson. More safe crossings on streets and sidewalks with landscaping are vital to help make the area safer to walk.
79.	Currently 1st Ave is a barren wasteland with no trees or natural elements. I hope the investment in this area is intentional and thoughtful of all road users, not only cars. If a welcoming and safe environment is created for people to walk and roll, people will come to use it.
80.	I take my daughter to and from Satori school and the turn onto the school's road (Pastime) can be very dangerous during rush hour
81.	It should be done in a timely manner as to not stop/start or drag on to inconvenience business and travel
82.	Other than the potholes the traffic moves freely and needs no additions. There are plenty of lanes existing no need to add more confusion for drivers. Tucson drivers get overwhelmed with to many lanes. Keep it simple. Maybe finish Grant Avenue before starting another on going project. Finish one at a time. Then see if those changes reach the expectations you wanted and if not leave well enough alone.

Do you have any other comments that you would like to share about the project or corridor?	
83.	Public transit that isn't kept safe is public transit that nobody except those without options will use. Please try to recruit resources for police to clean up the corridor.
84.	Sidewalks and road repaved on E Halcyon Rd
85.	This corridor needs help in supporting the inhoused community. There are people laying on the streets, smoking fentanyl, creating unsafe traffic and pedestrian situations.
86.	I work at Satori, and I see pedestrians crossing the street to reach the bus stop by just dodging traffic. People get killed trying to catch the bus. There should be more pedestrian crossings in these types of areas.
87.	This has become an unsafe area with many unhoused individuals. What plans are in this to help with this
88.	"It is very difficult at times to exit satori school due to traffic. Its unsafe to ride on 1st avenue... however i am not sure how feasible it is to expand 1st avenue to accomodate cyclists. "
89.	I would love to see bus pullout at each stop as it is concerning to see pedestrian and cars potentially being hit. The frequent bus stop not only causes delays by holding vehicles behind it but also causes vehicles to pass vehicles dangerous in order to avoid being stuck behind the bus. I think building bus pull out will prevent traffic impediment along 1st Ave.
90.	Provide underground water conveyance for Cemetery wash from Tyndall Ave. to past south bound lane or west side of 1st Ave on Blacklidge Dr.
91.	Please use native plants and water harvesting basins for landscaping. Thank you!
92.	Intersection improvements (left and right turn lanes, protected pedestrian signals) and bus pullouts will give us the biggest improvements for the cost. Bus pullouts make it far safer for bicycle users and drivers alike. Install bicycle travel lanes in between right turn lanes and travel lanes. Provide shade (landscaping) and sidewalks for those biking and walking. Do not increase the number of travel lanes.
93.	My fear is that it will be very detrimental to the local businesses. The congestion will create more traffic jams and make it very difficult for the patrons entering and leaving the business. Plus there are spots on the sidewalk that are raised and hazardous, but then I am guessing you already know that. Thank you.
94.	Please don't add any lanes. In another city I lived in, that just caused more traffic
95.	It would be nice to have a traffic light at the intersection of 1st Ave and Bromley. There is a lot of traffic there due to the Rillito Park use and access.

Do you have any other comments that you would like to share about the project or corridor?
96. "Increased traffic, increased events at Rillito Park make getting out of Northmanor (Bromley) hazardous at times. Also, until we the people start obeying traffic laws, especially the " jaywalkers, bikers and median strip beggars, none of this plan will be successful "
97. Make cycling as intuitive and comfortable as driving and people will do it more
98. turn lights on limberlost at 1st ave, stone and oracle need to be placed.
99. Need to find a way to significant reduce the number of accidents along 1st Avenue near Wetmore Road.
100. This area feels dangerous at night since people cross or ride their bikes throughout the traffic road. I don't like the different day and night speed limits. The road should be save enough that we can travel fast day and night.
101. Please prioritize bike and pedestrian over vehicles.
102. I want the homeless cleaned out of here.
103. I just want to be sure the construction traffic won't inhibit drivers from turning left out of the rillito business park
104. I got very excited at the mention on this survey of the possibility of additional landscaping on this corridor. I think this area really has potential and the idea of seeing it beautified a little more is great.
105. Citywide need to paint street traffic markings lines for lack of better words.
106. Get some of the other improvement projects finished before starting another project.
107. Intersection at 1st and Wetmore is bad
108. Please prioritize pedestrians, bicyclists and public transit over just adding more lanes! And consider adding trees and landscaping to provide shade, it is getting hotter every year. As a resident that frequently has to travel on or through 1st, I would prefer the city make it more inconvenient for cars, slow them down! I would rather see only one lane for cars and have dedicated bus and bike lanes and continuous, ADA compliant, shaded sidewalks.
109. Having a walkable city is so important. Hopefully, construction isn't too awful! Happy some things are getting done.
110. A lot of problems with people walking/biking in road. No lights and lack of safety for walkers and bikers and drivers.
111. Lots of people crossing at Blacklidge - would be a good spot for a HAWK crossing like there is at Campbell and Blacklidge

Do you have any other comments that you would like to share about the project or corridor?
112. Absolutely NOTHING is wrong at present with this corridor (North First Street)---except some city-paid IDIOTS who wish to meddle with a fine street by making unwanted, unnecessary, and detrimental changes which will negatively impact the lives of those who live alongside this corridor, and cause untold accidents, human and vehicular damage/injury, and yes, deaths. Bicycles should be PROHIBITED from major arteries, and restricted to proper bicycle-intended alternate streets, such as N. Mountain Avenue and N. Fairview Avenue.
113. Please do not use this corridor for more heavy duty wires to carry electricity.
114. Definitely need to add lighting to make it safer for everyone to be seen. Dark at night and easy to miss someone, especially if they have dark clothing. Would like to see bike lanes with curbs (to increase the protection to both cyclist and others using the bike lane).
115. Safety first. It's time to stop prioritizing highway speed traffic through town.
116. "I am looking forward to seeing a better road! Thank you for taking on this project everyone, it is much needed. My biggest concern is the pedestrians - watching my wheelchair-bound neighbors rolling down the side of the road because the sidewalk abruptly ends for a single block is incredibly stressful! I live a block from the grocery store and if there was a proper sidewalk that felt safe I would be walking all the time instead of driving. As it is, the sidewalk isn't complete, it's very close to a fast-moving road with no safety barriers (a bit of paint on the road isn't enough), and not a bit of shade. Beyond that, designated bus pullouts, where they don't have to stop halfway in the lane, would be a godsend. It's a reoccurring problem all up and down this section of 1st Ave that backs up traffic and makes a lot of folks drive recklessly trying to swerve around the bus. It didn't occur to me until this survey, but better drainage would also be amazing. Right where I'm at (between Prince and Roger) the road floods terribly during the monsoons, leaving half the road unusable until it subsides. Not my biggest priority, but it would be a nice addition if the road is getting reworked anyways. Thank you so much for your time!"
117. I often try to walk from my house in El Cortez Heights to Fry’s or Presta with my kids, and it’s scary crossing the street. The traffic is also loud when walking up First. Sometimes I fantasize about a long walk up to the library but it would be way too loud and the car exhaust is too much.

Do you have any other comments that you would like to share about the project or corridor?
118. This corridor is very unsafe and with all the activities going on, I think city should take action before more people are harmed by current conditions
119. Please keep 1st Ave four lanes
120. Please pursue all alternatives to widening - increased demand would cause more problems for our community - instead focus on making improvements that facilitate alternative forms of transportation as our neighborhoods are diverse roadway users.
121. "amenities" along the Grant Rd. widening seemed not well thought out (benches, shad structures). A lot of irrigation infrastructure (tubing, control boxes) seem superfluous and unnecessary.
122. Lots of pedestrians that look very hot. Frankly, it's a representation of how the city views the needs of the pedestrians. More shade and safe pedestrian zones are needed.
123. Lots of pedestrians that look very hot. Frankly, it's a representation how the city views the needs for pedestrians. More shade and safe pedestrian zones are needed.
124. Drive this route at night. Note visibility
125. "busses need to stop only where traffic not impeded. #6 bus worse at blocking rush hour traffic. pedestrians jaywalking AND not following safe crossing rules lighting"
126. More protected bike infrastructure!
127. People in wheelchairs need safe sidewalks- I see them have to use the bike lanes, and then the bikes have to go into the road with traffic and it's very dangerous for everyone (except the cars I guess)
128. If travel time is a concern, cars should use Oracle. First ave is a connector rode used by bicycles and runners and carries north into a very low traffic access to Pima Canyon trail head, Magee access to Canada Del Oro path, and going south it is the connector to The Loop. As such, its purpose should not be to maximize automotive speed and ease, but instead, work to encourage bicycles, walkers, runners, & public transport. As a child, we rode our bikes down from ina to the library. Thats not possible now - but it could be.
129. If I had been asked in the (pre) planning stage..I would say why not spend this money on more of Southern Tucson... the roads are unacceptable very neglected and it begins at about Speedway...going south. All the northern roads are a picture of smooth sailing .... the turn lanes with the flashing yellow lights here are very dangerous.. causing many serious accidents ..there's no way to see what cars are comming... I see there and none/few in the north... help save our lives in the south too !!! I'm sure this project is necessary too but don't see it as THE most important way to spend grants or taxes..

Do you have any other comments that you would like to share about the project or corridor?
130. "1st just north of River is in terrible condition for cars, but all but unrideable on a bike. You have to ride in the concrete gutter to maintain control. So dangerous!! Also, road noise on first is terrible for adjacent residents. Walls and landscaping would help immensely. Can't open windows in houses within 50 yards of 1st due to terrible road noise."
131. I think it is great! I have confidence that this project will be an improvement to the area (even though you all will probably get an earfull from a lot of unhappy folks). Keep up the excellent work (and the comment I saw about a bus pullout in front of the Social Security Office was probably the best suggestion I saw).
132. Improving accessibility in first Ave for bikers, pedestrians, and public transit users. Right now first Ave is not safe or pleasant to use on bike or foot. Please prioritize increasing the number of safe crossing. Please finish the blacklidge bike blvd
133. I work at a business in the area and there's entirely way too many homeless folk in the area wreaking havoc, stealing from numerous business, and causing all kinds of property damage/litter/vandalism. I don't know how to solve that issue but I don't think adding in a bunch of pedestrian crosswalks is going to improve things at all. Also, the bus lanes need to be expanded upon. It really sucks that traffic gets so held up because the bus is still in a lane while picking up passengers. It just seems dangerous for everyone involved.
134. Reducing congestion will make the street even less safe for bikes and pedestrians. Safety needs to be the priority
135. Pedestrian safety is most important. That road is also in major need of beautification!
136. I would appreciate it if reduced speed limits and shaded bus stops were considered.
137. I don't feel safe riding my bicycle on 1st Ave, Stone or Oracle. That leaves me with Mountain or Park or other points East for any bike commuting, which is not convenient at all and I have to go out of my way for even the simplest trips by bike. I have been a bicycle commuter for over 30 years, so my comfort around traffic and obstacles is quite high, yet I refuse to use these corridors that have an abysmal bike lane. I WOULD LOVE TO SEE LIGHT RAIL HERE FROM RIVER (or Ina?) all the way to the airport.
138. This will put everyone with a small local business out of business, please do not do this to us.
139. A tree is growing on the Stone bike lane between the bike lane and sidewalk biking north just past Flores. I have called it in 4 weeks ago, tree just keeps growing. It's very dangerous biking at night if you don't remember about the tree. Something on 6th Ave before getting to the Donna Liggins Center.
140. The four lane option with center divider that street crossers can use is much better than a 6 lane solution. Many street crossers on that section of road have little respect for the cross walks, and allowing them to have a safe halfway point vs. the turn lanes to stand in while waiting to cross the second direction of traffic (northbound or southbound) would improve safety quite a bit.

Do you have any other comments that you would like to share about the project or corridor?
141. 1st avenue is unsafe, poorly lit, and poorly designed. As a homeowner in the area and future parent, I am concerned about the safety of my children and others who cycle, walk, or run and are unable to use 1st because of how unsafe it is. Please add more lightning, improve the roads, and provide places to safely cross the street between major intersections.
142. My top concern is for the walkers and rollers who use this corridor, the accessibility is horrendous. It pains me to see older folks rolling their wheelchair along the edge of the road, or even in the turn lane, because the sidewalk is so bumpy and lacking that they have no other choice. Although I did not rank it as high in my concerns, the bus route is also very important, and with that, having places for people to stay out of the sun while waiting for the bus. These renovations should help theentire community that exists in this corridor, including the homeless population. Improving the bus system allows for homeless folks to be able to transport themselves to where they need to go to access housing, medical help, and other resources. I hope that you will go out and survey the homeless to see what would be helpful to them in these improvements as well, only having a digital survey is not accessible to many people, more than just the homeless.
143. Change left turn lanes to Protected left. This street is frightening on the left turns with flashing yellow. I presently will make 3 right turns to avoid a left
144. First Ave has a people problem, I'd rather see these resources being used to provide treatment and housing for folks experiencing drug addiction and homelessness
145. Bus pullouts and dedicated (better yet, protected) bike lane are the biggest priorities. Sidewalks also need improvement to reduce number of wheelchair users on the road.
146. If you do not get rid of the sketchy people, drug addicts, homeless, it makes no sense to do anything along roadway like art or landscape. The entire city needs updated roads before art. Fix the roads or fix our cars!
147. Over funding of bike lanes when no bicycles use these lanes. You could cut cost with a simple bike stripe. There's more motorist the bicyclists. Bicyclists should be required to pay fees like motorist do, such as plates emissions tags etc. Bicycles should be held responsible when it comes to laws also. No one is enforcing laws on bicyclists.
148. I drive now because it is not safe or comfortable to use any other modes.
149. "Too many drivers recently do not know and follow basic traffic laws. Improving the corridor cannot fix that! So it is important to also require better ADOT driver's license testing for new from-out-of-the-area drivers, including an in-the-car driver's test."
150. We need better public transportation. Only that can serve our whole community, especially those that don't or cannot drive. More and safer bike lines would be appreciated too.

Do you have any other comments that you would like to share about the project or corridor?
151. Desperately need more bus stops with benches AND more benches located under a shaded structure. The summer heat is dangerous for seniors like me and those with disabilities who are also like me. These are especially needed at the stops on both sides of 1st Avenue by the Woods Memorial Library, which gets heavy use.
152. turning movements for vehicles with respect to businesses need to be maintained
153. Can’t wait for protected bike lanes and improved shade
154. Ensuring frequent and safe opportunities for people to cross First Ave from East/west is a top priority because as it exists today far too many people have been killed on this road.
155. It's super hostile to non-vehicle users and fixing that should be the top priority for this project.
156. "There has to be funding, emergency improvement, or parks department funding for example, to support the current project as a model for using previously unknown practices to utilize the opportunity of having a humble bus stop as a critical safety net, allowing for extra precious time in an emergency for professional first responders to arrive, by having a water supply resource that is outside of the city grid. Please consider the mountain range lands around the city and the metrics from the aviation community to locate the best regions. Additionally, https://inhabitat.com/worlds-largest-fog-harvester-produces-water-from-thin-air-in-the-moroccan-desert/ World's largest fog harvester produces water from thin air in the Moroccan desert. 10.000 liters of water a day from the fog for #waterresources * https://azstateparks.com/workshops #Arizona State Parks and Trails Grant Workshop held on Tuesday, March 26th · online would also be a great partner, with the indigenous community, especially since trail heat related injury is an outdoor issue. **Something like #ArizonaSpaces should be included at each bust stop with a QR code so each visitor, or those returning home can acclimate quickly. While traveling by bus, Spanish and other non English speakers struggle to keep up with the bus schedule on their cellphones. "
157. My comment is from a car driver's standpoint. 1st Avenue does not need to be widened or changed in any major way. The only things that are needed are bus cutouts so they can load/unload without stopping traffic.

Do you have any other comments that you would like to share about the project or corridor?
158. Turning into apts @ 4225 N 1st Ave, Verde Apts while heading North has a few accidents every 7-10 days. The Police Dept forced the Apts to close both LImberlost entries years ago claiming it was more dangerous with the LImberlost entrances open.
159. Can I see the proposal of the project ?
160. It's the most convenient way to get north of River, but it's also a heinous drive, full of homeless or drug addicts, people crossing mid-block, ugly buildings, no sidewalks, no shade or landscaping.
161. The whole city of Tucson has a problem with red light runners and is causing way too many accidents per day. It is a disappointment that Pima county does not recognize this as a problem, as well as doing anything about it. It's a shame
162. Please address the homeless and open drug use along this corridor prior to moving forward. We don't need more trees we need more police
163. There is so much foot traffic in our community and I fear for the safety of my neighbors when driving at night because it is so hard to see pedestrians who cross the road. As a bike commuter, I avoid 1st Avenue entirely, even when it is the most direct route, because the bike lanes are so tight and the bike lane road conditions are so dangerous. I know others can't always make the same choice and have to pedal through regardless. I'd love to see more protect bike lines, shade trees, and pedestrian crossways with lights to ensure my family and my neighbors can stay safe in our community. Thanks for investing in our neighborhood!
164. I would be open to reducing the amount of traffic lanes to introduce protected bike lanes and accessible pedestrian walkways.
165. Whenever I drive through 1st and Roger (which I do a few times a day) I am nervous to get in a car accident or hit a pedestrian.
166. Street Lighting
167. The homeless population makes me feel like I can't walk safely and freely
168. Lighting is especially an issue from Fort Lowell to Roger. More shade for the bus riders.
169. thanks for asking our opinion
170. Major ponding when it rains on 1st. Also improve sidewalks
171. I think it's essential for First Avenue to have a street car running down the center. I hope you don't add any new lanes for automobiles. We need to switch from automobiles to public transportation to slow down climate change.
172. When there are events at Rillito Park, traffic should be able to more easily enter and exit the park/race track.

Do you have any other comments that you would like to share about the project or corridor?
173. I would like to see speeds reduced here, by design. I would also like to see fewer car travel lanes so that people crossing the streets on foot and on bike have a shorter window of risk. I would love to see protected bike lanes, frequent and safe crossing locations for people on foot and using the bus, an overall reduction of asphalt and an increase in shade and green (trees, plants, etc.).
174. Street lighting needs to be improved. There are many pedestrians that like crossing 1st Ave at night wearing all dark clothing and they don't cross at a crosswalk. We don't need to widen 1st Ave, just grind down and relay new asphalt or some other material that will hold up longer than 5 years. It is a waste of taxpayer dollars to keep repaving streets because the city takes short cuts and rebuilds interior streets with inferior road materials resulting in a shorter road life.
175. Create a safe use area for drug users on the corridor. I continued to suggest the former heart hospital on north stone Avenue, but a smaller site on north 1st Ave , say on the ne corner of 1st Ave and Ft. Lowell.
176. There is a homeless problem on 1st.
177. Keep the existing 4 lanes (2 lanes each direction), install medians between the directions, and expand bike lanes. I see no need to widen the road to 6 or more lanes.
178. Current sidewalks are not all safe for those using power chairs
179. I feel very strongly that we should NOT increase the number of lanes of traffic on 1st Avenue. This will merely increase the amount of traffic, as has been proven time and again. The widening of Grant Road was a disaster and has increased the amount of traffic so much on that road that we almost can't get out of our Jefferson Park neighborhood. All that widening streets does is increase the number of cars using the street. Please focus on improving bike lanes, bike safety, sidewalks, pedestrian safety, and providing native trees and plants for shade.
180. I hope no one is talking about replicating what they did to Campbell. Those medians are an unmitigated city planning disaster, the traffic is ten times worse now.
181. A focus away from cars towards public transportation, pedestrians and bicyclists will make the corridor better for everyone. We don't need more cars going through this area.
182. It’s such a hazardous corridor to travel. I ride my bike to and from downtown and won’t go anywhere near 1st ave for safety reasons. Accidents at Roger and other cross streets are getting out of control
183. Please modernize and revitalize old buildings so it doesn’t seem like a homeless and drug corridor with crime and prostitution in “massage shops”

Do you have any other comments that you would like to share about the project or corridor?
184. Bus stops in the middle of blocks are just invitations for people to try to cross without a light. Something needs to change. Landscaping and bump outs would help. Bus can remain free but people should still have to jumó through the hoop of getting a free bus pass and May e limit how many trips because it's not fair to hard workers to have to share the space with homeless drug users just snagging free AC and transportation to nowhere 24/7
185. When we voted on the RTA in 2006 1st Ave was to be widen to 6 lanes with medians. The people voted for that improvement so I feel you should listen to the Will of the people.
186. Please widen! Make 3 lanes each way!!
187. There are so many people on foot and unhoused along this stretch. Traffic is much too fast. This absolutely should NOT become a speedway street. Its unsafe as it is. Adding more lanes would be horrible. If anything a road diet should be considered. Biking is absolutely unsafe. Mountain is more favorable for biking but we need ways to be safe for all. Sidewalks are nonexistent and many with wheelchairs are in the road. We need to be proactive. Expand our street car up main corridors to help businesses thrive and students get to and from. If we really care about our people, advancing rail service should be a priority. Our mega streets are dangerously too fast with horrific accidents everyday. Please do not make 1st more dangerous than it is.
188. Too many of our streets are vehicle-centric, and there are far too few major corridors that are safe for biking or walking. I favor any new projects be safe for all citizens of our city, not just the vehicles. We especially need more safe routes for bicyclists.
189. widening 1st Avenue to four lanes would be a mistake, would make an already difficult street even less friendly to nonmotorized users. what is needed is more, better bike/ped access and active discouragement of abusive uses by motorists
190. Please focus on making this street a place where people want to be, not some awful thoroughfare that drivers want to get through as fast as possible.
191. The traffic lights should be sincronízed to the 40 mph
192. Set deadlines for contractors that are going to do the work we see too much laziness going on because it's all taxpayer paid, construction needs to be done in a timely manner every project in Tucson drags and drags we need to stop this waste of money get things done do them right and move on to next project c because there is plenty to be done.

Do you have any other comments that you would like to share about the project or corridor?
193. I would like for all bus stops to have seating and shade with anti-hostile architecture. Please allow unhoused people to exist freely and safely. For an increase in sidewalks (often dirt paths closer to roger) and fixing buckled sidewalks. Increase in shade would make walking commutes to the library and grocery stories more enjoyable. I think there will always be traffic and catering to cars does a disservice to the community who relies on bikes, walking, and busses. We get the chance to showcase how beneficial a walking community is and we should be excited to do that! I would also appreciate deterrents from last night speedracers/late night noise pollution. I would like to see variety in the desert adapted trees used to be strong varieties compared to fast growing (often bad in long run as they are weak wooded and fall easily in monsoon storms). As well as many different types outside of the mesquite, Palo verde, and dessert willow. We have so many cool trees we should highlight!!
194. Glad to see it's being done! Thanks for the surveys.
195. Extending North-South bike boulevards north of Prince Road would help bike travel
196. Please implement sequenced/programmable light along the whole corridor that change red/green light times based on traffic patterns. Including sensors on corridor AND cross streets that can adjust more efficiently in high AND low traffic times along corridor. Should be able to drive South from River Rd at the speed limit and hit MINIMAL red lights Mon-Fri mornings for traffic towards Grant.
197. "Separating regular bicycles from 2 cycle engine bicycles, ebikes, and escooters. Get wheel chair users out of the bike lane by improving sidewalks. Have more places where pedestrians can safely get across the street that are near bus stops. Some of those individuals do not have the physical mobility to walk to major crossroads to cross then have to walk the same distance back."
198. No, everything was covered. Thanks for thinking of us and our road the 1st. Ave.
199. 1st Avenue is unsafe for anyone not in car - but even if you are in a car, people drive fast and recklessly, using it as a highway corridor. It is unsafe to turn out onto 1st from any non-major road, as cars move fast and there can be limited visibility due to business structures and signs. I would like to walk or bike on 1st instead of using a car, but do not feel safe doing so as the lanes/sidewalks are small and in poor condition.
200. I do not want First Avenue widened. I would prefer that the bulk of north-south traffic be diverted to Stone and Campbell, which are already much more built up. I want to keep First Avenue oriented to the people who live and shop and work here (like me and my family). The emphasis should be on the neighborhood feeling, so trees and accessible sidewalks would be great. I do not want the focus to be on people commuting and trying to get them where they're going faster. We do not need more lanes for traffic, but better bike lanes would be good.
201. Thank you for your work on this project. I’m hopeful this street safety will be greatly improved for all users, the bus stop locations will improve, and overall attractiveness of First Avenue will improve.

Do you have any other comments that you would like to share about the project or corridor?
202. It would be nice to have pull outs for the buses to minimize disruption to traffic.
203. The intention at bromley and first needs a light to handle all traffic at the park and neighborhood
204. Clean up the drug addicts and homeless. Nobody's gunna wanna go for a walk or ride their bike when a bunch of bumms mope around the area. Clean it up tucson. Start making them accountable. I always see people smoking meth at the bus stops.
205. A successful road project is a fast road project
206. It would be nice to see renderings of proposed intersections. For instance at Limberlost
207. "Additional considerations: Public Restrooms Protected bike lanes Fewer turn lanes/left turns down center lane Carbon offset (trees etc)"
208. We love living in the center of Tucson. I used to take my kids on walks to Rilito Park almost daily. We also loved using the bike paths along the river. We have not been able to do that any more because the safety of the area has declined. Used drug paraphernalia, trash, and unhoused people passed out on the streets have changed our ability to feel safe using Tucson's great amenities. I hope you will consider public safety going forward with this project and I have a lot of hope that Tucson can be a wonderful, safe, and family friendly town again.
209. "I avoid 1st at all costs. I used to use it a lot, now I have to use Campbell which is becoming more and more dangerous all the time (River and Campbell, River & Limberlost, increased traffic at Campbell and Allen and Campbell and Prince - the horrendous Campbell and Ft. Lowell and Campbell and Glenn and Campbell and Grant - all bad). The long stretch of 1st Ave road up to Wetmore is in poor condition, the turning lanes inadequate, dangerous for pedestrians(a friend was hit by a car walking in the crosswalk) and the bus stop at Ft. Lowell & 1st is plagued by drug users and litter. Plus, there is no traffic law enforcement. If you cite the lousy drivers, you might boost the coffers of the Police Department and for street maintenance. ### 1st is a blight on our city - if you add landscaping, you need to budget in proper plant/tree care. "
210. It is super dangerous to try and get on 1st when leaving the the offices to the south of the Rillito Racetrack/Park. It is hard to tell that there is no middle lane there. Visibility is slim and the middle lane disappears making it hard to pull out then merge with traffic heading south on 1st. It can be difficult to see pedetrians who cross in the middle of the road between the Fry's near Roger and the apartments across the street. Same when leaving the Sprouts shopping strip. Better lighting would help.

Do you have any other comments that you would like to share about the project or corridor?
211. Thinner car travel lanes to slow traffic.
212. I know this survey is about the road itself, but the homelessness and open drug use along the 1st Avenue corridor are worse than they have ever been. It's difficult for businesses, distressing for road users, dangerous for children, and a real blight on the community.
213. Please install bus benches at the 1st Ave and ft Lowell bus stops!
214. "I mainly use 1st to take transit to my job downtown. Route 6 goes down 1st avenue and it can get really packed due to Tucson High and UA students taking this route from and to their homes. I'd definitely prioritize speeding up the buses on 1st avenue by getting rid of the bus pull outs so that they don't have to spend time waiting to merge back into traffic. There are times where the bus has been at the pull out by 1st and university with over 30 people and we are spending minutes trying to merge with traffic. I've also had issues accessing bus stops on 1st ave. I used to live by Blacklidge and 1st so to take the bus going south, I would need to cross 1st. there is no pedestrian crossing around blacklidge and the closest lights was either fort lowell or Glenn. It was much easier to just walk across whenever I could find a gap in the traffic. I've also seen people miss the bus because they weren't able to cross 1st on Blacklidge. I don't dare to bike down 1st as the cars can go pretty fast and there is no protection so I tend to take Mountain Ave to go south or north from my house on my bike."
215. I use this road a lot but wish it was easier to bike. I really enjoy being able to bike around this city, and this particular road needs improvements for that to feel like an option. I also see that there are many people walking and biking here in very dangerous conditions and they deserve to be safer
216. Bus routes run daily and at decent enough times. A bus that goes all the way up to 1st Ave would benefit a lot from all directions. The major road issues are mostly between Wetmore and Fort Lowell.
217. You can minimize traffic congestion by expanding transit options and headways rather than Road widening. I look forward this being a lovely, complete street for all road users.
218. I think a lack of prosperous local business as well as practical/aesthetic street design is a major factor affecting growth and safety of residents of the corridor.
219. Making a left from many driveways onto 1st Ave is nearly impossible.

Do you have any other comments that you would like to share about the project or corridor?
220. A strip of paint does not count as a protected bike lane. Breakaway bollards do not count as protected bike lanes. I want to make sure this is clear. Shade in any form is incredibly important for the walk-ability and bike-ability of this road as a North-South strip of dark asphalt. This road has plenty of capacity for lane narrowing to produce space for actual protect bike lanes, shade, and reduce the speed of vehicles.
221. "There are waaaay too many accidents at 1st Ave. N and Wetmore. Also too many accidents at 1st Ave. N and Prince. Can't we figure out why?"
222. I think Tucson needs to be spending more money on implementing measures that will increase the safety for all individuals using the corridor regardless of how they are transporting themselves. Tucson would benefit from being a more walkable, safe town and those are the changes I want to see.
223. Broadway updates took way too long, and it really became an embarrassment for the city. Whatever improvements happen along 1st need to be completed quickly.
224. I use 1st Ave to get from my workplace/apartment in Central Tuscon to visit friends who live on the north side of Tucson and in Oro Valley. I prefer driving down 1st Ave (as opposed to Oracle Road, for example) because there are fewer lanes. As a driver, I would prefer if no additional lanes for drivers are added to 1st Ave. In fact, I would support efforts to shorten the length of the lanes on 1st Ave in order to promote safer driving. We drivers "rule the road" and the more of us there are, the more hectic and dangerous the road is for bikers, bus riders, and pedestrians! I would be comfortable with additional lanes added to 1st Ave if they were exclusively for the bus. There are many pedestrians that walk along and across 1st Ave (and there are a lot of great businesses/destinations for them to go to, such as the Woods Memorial Library); I would like to see corridor improvements that prioritize their safety and comfort. I would be so happy to see improved/expanded sidewalks (that are larger in width so that people using strollers, carts, or wheelchairs can have all the room they need), more shade, improved bus stops/bus shelters, as well as places for pedestrians to sit and rest that are not bus stops/shelters. Near where I used to live, at the 1st Ave/Fort Lowell intersection, there are many homeless Tucsonans who use the bus stops/shelters and surrounding areas to get some rest/find respite from the heat. I think that if there were places along 1st Ave where they could comfortably sit and get some shade, that would free up the bus stops to be used by the bus riders, who I know sometimes are a bit wary of using the stops in that area. I would also love to see improved bike lanes. I would like it if we had the bike lane barriers such as the ones on N Main Ave, on the south side of the Main Ave/Speedway intersection. Thank you for taking our feedback! I am so excited to see the improvements that y'all bring to 1st Ave!
225. The future city we need depends on the decisions made today. Let’s not make the mistakes of the past where we’ve created a car dependent city that’s unsafe for children, the elderly, the differently abled, and frankly everyone. Our roads are overrun with irresponsible and reckless drivers and we need to design roads that make it difficult to speed and endanger others.

Do you have any other comments that you would like to share about the project or corridor?
226. Any and all steps we can take to create genuinely safe bikeways (fully separated bike lanes) and improve public transportation will reduce traffic. Car traffic is dangerous and terrifying, and we can do better to keep people safe!
227. "Educate pedestrians on how to safely cross the streets: Stop, Look, and Listen - learn to rate the speed of traffic before stepping into the streets. Particularly the folks who are not fully there, ie drug/alcohol abusers, mental problems, and perhaps those whose first language is not English."
228. Tucson needs high speed transit! My family has to drive because the buses are too slow. We are blessed to be able to afford our vehicles - there are many who are not and must depend on Tucson's slow public transit. Stop spending money widening streets that encourage more climate destroying vehicles - invest in public transit like Europe and Japan have done.
229. I hope the planning can be less car centered and through a lens of accessibility, safety, and people - shopping, walking, biking, public transit, and community connection.
230. more bus pullouts, drinking fountains and public restrooms
231. "1. A REAL NEED TO INCREASE CONSCIOUSNESS AND AWARENESS OF THE PEDESTRIANS WHEN NEEDING TO CROSS THE STREET BETWEEN CROSSWALKS. OFFER THEM SAFE CROSSINGS THAT MAKE THE GREATEST IMPACT ON THEM. 2. ELIMINATE THE CONGREGATIONS OF PURPOSELESS INDIVIDUALS AT 1ST AVE AND FT LOWELL RD, BOTH SE AND SW CORNERS. CLEAN I UP.. ### 3. TEAR DOWN REMAINING BUILDING IN AMPHI PLAZA, PLACE WHERE TRANSIENTS AND PURPOSELESS INDIVIDUALS HANGOUT. CLEAN IT UP."
232. I would love to see 1st ave transition to a more balanced, multi modal corridor with greater emphasis on walk ability/ accessibility, bike access and safety, and improved public transit, including more shade and landscaping.
233. "We need LESS car-centric infrastructure and MORE services/improvements/accessibility for pedestrians, cyclists, and public transit users. Trees, trees, trees. It is a fact that widening a road only brings MORE traffic, it does not reduce it. Please, for the love of whichever god/energy/value you serve, can we make Tucson better for PEOPLE - not cars. Especially with the Norte Sur project developing - we need to focus on improving quality of life for PEOPLE in this area, mass transit is coming in the future to the Norte Sur corridor - the future is on non-automobile tires and feet. PLEASE! Signed a 32 year old who grew up in Tucson and dreams of a more walkable/rollable/bikeable future near my home."
234. Not safe to the drivers with people randomly crossing the roads. Mostly homeless at the intersections

Do you have any other comments that you would like to share about the project or corridor?
235. "Significant increase in homeless along the 1st avenue makes it more difficult to use the sidewalks. Drainage has been a huge concern during monsoon with our property frequent flooding. Cannot afford to loose our property for corridor extensions."
236. Beautification with landscaping, including tree planting would be greatly desired.
237. "1st Ave is averyunsafe place, and some of its problems arise because of the lack of planning along the corridor. It could be much safer with things like protected/raised bike lanes, better lighting at night, and shade trees for pedestrians. I wish the City would just invest in better sidewalks and protected or raised bike lanes level with the sidewalk instead of using paint on asphalt or gimmicky traffic safety devices. Cars usually don't hit people walking on the sidewalk. They hit people jaywalking in high-traffic areas, in crosswalks at night, and when they veer into bike lanes adjacent to car lanes. There are numerous shrines dedicated to pedestrians and cyclists killed by cars along 1st Ave that it's starting to become disturbing to see everyday. The zebra traffic separators don't work - the ones on Oracle/Main south of Speedway were just installed and have been run-over and have cracked into pieces. There is heavy bike use up and down 1st Ave (it's a poorer area and biking is the most affordable means of transportation for a lot of people here). I would love to see what is being done on Stone Ave downtown between Toole and Broadway along 1st Ave. "
238. "Provide safe crossings for the many, many pedestrians. I'm sure your demographic studies would show a relatively high number of pedestrian and alternative mode users in this project area. I witness many pedestrians cross between the designated intersections -- provide more crossings or guide people to safe crossing locations. Provide safety for both day and night users. "
239. We have already lived through 1 RTA Project. As a result, they forced us to sell a piece of property and move. The preparation for the project took far longer than expected and our corner was dug up for close to a year. The project, itself went on for years. Many days, nothing was happening and intersections were still blocked off, as well as people standing around not doing anything. We advocated that the project be worked on 24/7, but that didn't happen. Crews working weekends, days, and nights may have cost a little more, but that would be offset by savings on project overruns and cost of materials and labor increases. Now we are facing a similar situation on 1st Avenue. We advocate for project efficiency and 24/7 project construction. This would save money and minimize the effect the project would have on businesses that will stay in the corridor and the loss of value and desirability of property for sale.

Do you have any other comments that you would like to share about the project or corridor?
240. "Have the largest employers considered staggering their employees' BTOD and ETOD schedules to reduce or ending the times of ""overcrowding"" the vehicle lanes. Have the RTA, the City and County called for an examination of this alternative to the high use of these existing lanes twice a day, as some describe is the problem. The lack of significant numbers (if any) larger enterprises (UofA?) using staggered schedules should be addressed before any design decisions are made. Taxpayers both in the city and beyond would appreciate this, I'm certain! [The world desperately needs imaginative infill development that maximizes spaces for living, working and playing - each together in the same walkable and rideable space. The City and the County need to join the 21st Century in this regard, I believe. Sadly, it appears the RTA has no commitment to this concept, preferring to service the Levittowns that surround Tucson.]"
241. Glad to hear that widening 1st is off the table, though protected bike lanes would be a good thing and would seem to require a little more elbow-room.
242. Planting lots of native trees for shade for pedestrians & cyclists, cooling the area.
243. Before any money is invested the homeless and drug problems in the area should be resolved. Cannot keep polishing crap.
244. Trees would improve
245. "I don't think the traffic light timing is well configured along the corridor (and in the entire city too). The intersection of 1st Avenue and Fort Lowell is dangerous, especially to pedestrians."
246. This street does not need more lanes. Traffic can be congested during rush hours, but in general traffic flows very well. This street is used heavily by pedestrians so Medians and Crosswalks at key areas seem important for safety.
247. Since I live along 1st Ave I would walk or bike along it for some of my errands, but when I've tried it feels very unsafe. So I drive instead.
248. The road should not be widened. Widening would have a terrible impact on the businesses and nearby residents who already suffered greatly during the widening of grant road. If people choose to live in Catalina or Marana and work, etc in Tucson they can just allow enough time for the commute or stagger their commute times. There is no reason for a 40 mile an hour speed limit on this road and limited places to safely cross and lack of continuous maintained sidewalks and bike paths.
249. IT really isn't all that bad right now. There have been too many mature trees removed which not only provided shade but offset the CO2 emissions. What exactly is the plan to "improve" this avenue? If it is the same as what you're doing to Grant Road, DON'T. It does not need to be wider, but the speed limit does need to be enforced.

Do you have any other comments that you would like to share about the project or corridor?
250. Homeless population and drug sales/use on 1st should be a major concern that needs to be addressed. I take the number 4 and 5 buses, but I would not take a bus along 1st avenue because I have repeatedly seen drugs being sold along 1st. However, overly bright, unshielded security lighting is not a good solution--if lighting is changed, please consult DarkSky International standards for effective lighting, which means lights are shielded, only as bright as needed (which reduces glare and improves safety for all), and energy efficient. Thank you!
251. I have never found First Avenue to be overly crowded. Perhaps we don't need upgrades
252. More crime prevention needed. More police activity needed. First Ave drug addicts and crime spill over into neighboring areas negatively impacting quality of life. Amphi Plaza is a disaster and has been for years. the city needs to act more decisively there.
253. This is a frequently used corridor by pedestrians and cyclists, despite the poor bike infrastructure. Adding protected bike lines here would be a huge improvement for the safety of everyone who uses this road!
254. "You really need a double left turn lane on Northbound First at Wetmore. Improving the bridge over the Rillito River - Widen it, make bike lanes, make wider/safer sidewalks You mention trees along the route, nice idea, but against it. Hard enough to see those on drugs or drunk without them stumbling from behind a tree into a street. (yes, it is a problem, at least three times a week I have to take evasive action to miss those people as they stager around)"
255. All new roads should have a protected bike lane. All bus stops should have a shelter.
256. Make it a street rather than a stroad!
257. Road diet. Road quality. Safer for pedestrians. Bring the street car up here. By all means do NOT add more traffic lanes.
258. Raised medians would be beneficial, and the loss of direct left turn access would be acceptable. Consider roundabouts where traffic volumes allow.
259. We need to keep the corridor safer. There have been so many break-ins, vandalism, homeless and illegal activities that occur on a regular basis. I don't feel safe during the day or night to be in the area and definitely don't feel safe to have my kids with me.
260. "Turn lanes onto 1st Ave at Glenn, Roger, limberlost are all challenging. I think 1st & Prince , & 1st & Fort Lowell are difficult intersections. Pedestrian traffic slows the right lanes in either direction. "

Do you have any other comments that you would like to share about the project or corridor?
261. "The most horrific part of dealing with 1st Avenue was nothing listed on your survey. The transients and drug user/abusers sitting at businesses and bus stops or just on the curb. The trash and the drug paraphernalia left for dogs or children or even adults to step in (needles, foil with deadly fentanyl still present) Before any money is spent to fix the neighborhood, clean the people and their filth out. We (my place of work and home personally have spent thousands of dollars and hundreds of hours over the last few years cleaning up after them, putting out fires started and dealing with machetes being weld at us. Don't get me wrong the streets are bad, but no where near as bad as the transient drug user/abusers. DO NOT PLANT more trees that just gives them somewhere to hang out. I had to cut all mine down next to my house as COT inspector said ""if there is shade they will keep coming back, best thing to do is cut them down""! DO NOT worry about sidewalks because they just lay down with all their belongings because it is a smooth level surface to reside.The sidewalk would be great IF we were all just using it to walk on. However, even the city sidewalk on Glenn and 1st is so neglected that there are 6 and 7+ inch steps in it. Fix that. DO NOT take property away from businesses for landscaping. Landscape where it is free and clear. As far as taking the front of the current businesses property...I have seen more people eradicating the overgrown trees and bushes from ""city maintained"" spaces than I have ever seen the city do. THINK before you plant trees and not maintain them. How many roundabouts aren't managed? How many motorcycle accidents do you need on Grant and 1st because of the overgrowth and inability to see a cycle in the fast lane coming down the street? MAINTAIN WHAT YOU HAVE THEN PUT BACK OUT FOR DISCUSSION."
262. It would be great if it could be completely lined with trees for shade! Or even weather proof canopies that can hang over our heads and provide shade.
263. I think adding turning lanes and bus pullouts would be idea. Drainage is an issue. Sidewalks would help keep pedestrians out of the bike lanes.
264. vehicular throughput is the most important thing. Not free shit for foreigners on foot
265. Please address the drug and homeless issues plaguing this stretch of proposed improvement before moving forward. It will be a burden on everyone if it's not.
266. Fewer cars should always be the goal - this improves safety and livability for all! Make it safe, pleasant, and easy to choose a non-car mode of transport in this area. We should not shy away from cost since cost is a temporary risk. Let's get it right the first time with protected bike lanes, dedicated bus lanes, and wide well-shaded sidewalks!
267. Please, please, please do NOT place any trees or other obstructions in the center turn lane like was done on Campbell!!!

Do you have any other comments that you would like to share about the project or corridor?
268. 1st Ave has some of Tucson's best restaurants, some great businesses, and is an important connector between downtown and the Rillito River. I use this corridor often, but would use it all the time if it were safer and more comfortable to access by bike, and safer for pedestrian crossing. It needs a road diet and/or a protected bike lane, it needs improved shade, it needs accessible and complete sidewalks, and it needs better signalized crossings for pedestrians. Thank you!
269. Have the professionalism to go BACK to 6-lane RTA voter approved plan. Now ESPECIALLY w BRT on Stone that takes 2 lanes out of service. Have the guts to do the right thing.
270. Travel speeds are way too fast along first Ave. It is dangerous
271. I don't currently bike on 1st Ave (but I did when I was a student with less care for my safety and fewer alternatives). However I would gladly bike instead of drive if a curb/jersey barrier/tree protected bike lane were installed! This would make the road surface last longer as my bike and I aren't heavy enough to damage pavement but my electric car definitely is.
272. I am on the 1st Ave Citizens Task Force. My primary concern as a daily driver on 1st Ave. is addressing the safety of the drivers, pedestrians, and cyclists. The problems with the unhoused folks with substance use and mental health issues impact not only them, but anyone using 1st Ave. I understand that's a larger, more complex problem to solve. But in addition to the road condition (low lighting, not very accessible sidewalks or secure bike lanes), I see it as the number one problem. 1st Ave. needs some upgrading and welcoming places for alternative and vehicular travel. And we have to do something about the gathering folks who just walk out in traffic. But I am glad that even though we're in the 09 (not 05 or sunshine mile), we're getting some much needed love and I'm honored to help with that
273. The city is great about doing improvements, but then they neglect maintenance, not replacing dead or dying landscape, not cleaning up trash or supplying enough trash receptacles, not enforcing code violations and allowing empty buildings to become hot spots for unhoused. Will the city ensure these issues are addressed long after the money is spent to improve this corridor?
274. First avenue is one of the most dangerous roads to use in tucson especially if youre not in a car. The bike lanes are a joke, the sidewalks dont exist, and the speeding is outrageous.
275. I think there are bigger fish to fry. Rampant drug use and homelessness are top of the list. This will hurt an already compromised work environment. It will take away the tiny curbside property buffer of our businesses. The roadwork will be an endless mess of barriers and bottlenecks not to mention the inconvenience to all that travel and work in that corridor. Please reconsider.

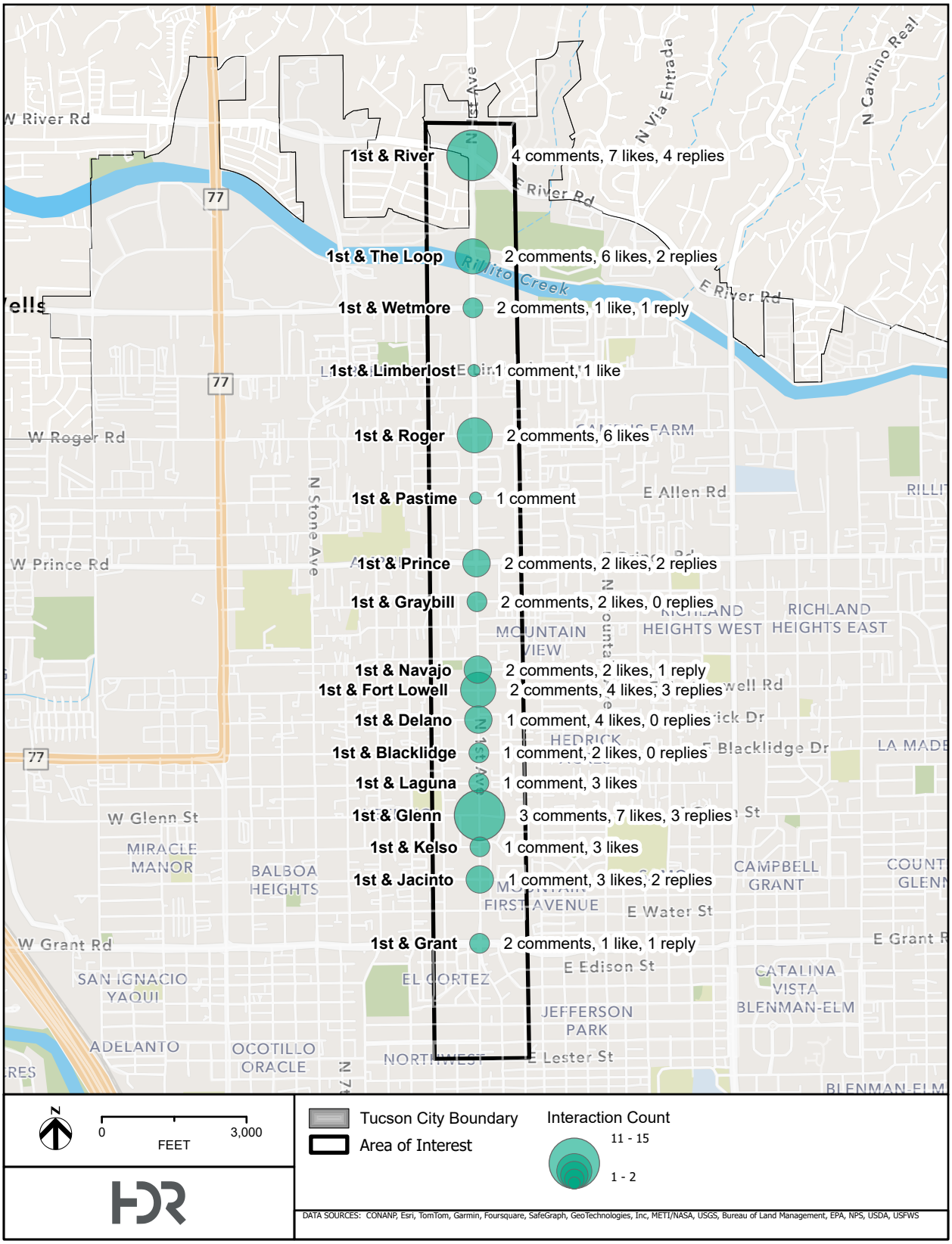
Do you have any other comments that you would like to share about the project or corridor?
276. I live off of Bromley on the west side of 1st Ave just south of River Rd. I like to access The Loop by bike with my young child. The stretch of 1st Ave I must ride along on my bike with my child from Bromley to the Loop is extremely treacherous. I must ride through the parking lot of Allegro School of Music, and then must ride in the ROAD where there is NO BIKE LANE and NO SIDEWALK for half. This seems criminally dangerous. When the sidewalk does resume, it has a sharp curve in it just before the loop, which is difficult to navigate on a large heavy commuting bike. Also, I observe that cyclists visiting area also like to access the Loop from 1st Ave, so the area would also benefit them. Additionally, there is a lot of transient/homeless activity around the bridge at 1st and the Rillito.
277. I would like to see a smooth roadway, better lighting at every corner to see pedestrians when they are crossing the roads, sometimes it's hard to see them when making the left or right turns. A median to help make left turns safer at designated locations. Planting native vegetation and trees for shade and better visuals at sidewalks and medians.
278. I love shade and trees and landscaping, but in hot Tucson the unhoused and addicted tend to gather under trees to party and who knows what else. This creates a safety and health nuisance for those of us who want to go about our business without being panhandled or forced to witness someone so strung out on crack or fentanyl they stagger into traffic. Any improvements to the corridor must address this problem or we'll be throwing good money away.
279. Safer crossings and more bus stops would be helpful. Also protected bike lanes would be great.
280. What about the homeless all up and down 1st especially 1st and Ft lowell? It's crazy there and dangerous. What can be done to help that population AND improve the area for the people who live and work in this community? Beautification and landscape are a top priority as well as usable bike /walk paths but also to not close the few thriving business along 1st Glenn 1st Grant area
281. Better visibility for cars-pedestrians-bikes around the 2nd St crossings, please!
282. They're are too many used dealerships and tire shops along the corridor
283. 2 lanes in each direction with a protected bike lane and shade!
284. Space for buses to pull into to drop off/pick up passengers, so to keep the traffic flowing.
285. I wish I knew what the game plan was.
286. Intersection improvements (left and right turn lanes; protected left turn) and bus pullouts are the most cost effective improvements that can be made to an arterial roadway. Bicycle safety is important, but so is moving traffic with minimal congestion. Medians on busy streets often cause more congestion by blocking through traffic if too many turning vehicles are in line. Sidewalks the entire length of 1st Ave is paramount for pedestrian use and safety. Businesses are always harmed during roadway construction and there should be a way for business owners to contact the City about issues regarding access to their shops and to get immediate response from the City. Start citing jaywalkers who create dangerous situations for all users.

Do you have any other comments that you would like to share about the project or corridor?
287. I want a better way to exit the Sprouts Center at 1st and Limberlost. You cannot go east without turning left onto 1st and it's a death trap. People heading north turn into the turn lane too early; the traffic going south on 1st piles up turning into the center. There is literally no way to get out if you live east because there is no way to turn onto Limberlost and go east out of the center. You can only go west.
288. In the desert, shade trees are essential infrastructure. Please.
289. Drivers are inside their cars, protected from the elements, with the A/C on, they will survive the traffic congestion they are causing just fine. Focus on the pedestrians, transit users, bicyclists!
290. The corridor suffers from neglected and insufficient maintenance. Business entrances and exits cause pavement break-up, a hazard that can force cyclists into the travel lane. Poor striped shoulder sweeping (when it's done) leaves a strip of gravel right down the center of the striped shoulder. Gavel wash-out and large areas of standing water are hazards. Construction barricades left overnight can be missed in heavy traffic and poorly lit areas. Gutter pans should not be used. The uneven transition from asphalt to concrete often presents cyclists balance problems. And when it comes to the bridge, no wheel-catching gap between the street pavement and the sidewalk wall.

Thank You!

1st Avenue Phase 1 Survey

Appendix E: General Comments


1st & River
4 comments, 7 likes, 4 replies
1st & The Loop
2 comments, 6 likes, 2 replies
1st & Wetmore
2 comments, 1 like, 1 reply
1st & Limberlost
1 comment, 1 like
1st & Roger
2 comments, 6 likes
1st & Pastime
1 comment
1st & Prince
2 comments, 2 likes, 2 replies
1st & Graybill
2 comments, 2 likes, 0 replies
1st & Navajo
2 comments, 2 likes, 1 reply
1st & Fort Lowell
2 comments, 4 likes, 3 replies
1st & Delano
1 comment, 4 likes, 0 replies
1st & Blacklidge
1 comment, 2 likes, 0 replies
1st & Laguna
1 comment, 3 likes
1st & Glenn
3 comments, 7 likes, 3 replies
1st & Kelso
1 comment, 3 likes
1st & Jacinto
1 comment, 3 likes, 2 replies
1st & Grant
2 comments, 1 like, 1 reply
W River Rd
E River Rd
Rillito Creek
W Roger Rd
E Allen Rd
W Prince Rd
N Stone Ave
N 1st Ave
N Via Entrada
N Camino Real
E Blacklidge Dr
W Glenn St
E Water St
W Grant Rd
E Edison St
E Lester St
E Grant Rd
77
MOUNTAIN VIEW
RICHLAND HEIGHTS WEST
RICHLAND HEIGHTS EAST
MIRACLE MANOR
BALBOA HEIGHTS
FIRST AVENUE
CAMPBELL GRANT
SAN IGNACIO YAQUI
EL CORTEZ
JEFFERSON PARK
CATALINA VISTA
BLENMAN-ELM
ADELANTO
OCOTILLO ORACLE
NORTHWEST
HEDRICK
N
0
3,000
FEET
Tucson City Boundary
Area of Interest
Interaction Count
11 - 15
1 - 2
DATA SOURCES: CONANP, Esri, TomTom, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
9/19/2024	Comment map	Other	1st/Fort Lowell	The key to this entire project is beautification. I think it's fine to have two lanes going in each direction. But you have to include a landscaped median WITH TREES. The sidewalks need to be large, safe and shaded with TREES. This used to be an ok neighborhood but over the past 40 years its turned dangerous, ugly and unkempt. The key to any project (and Tucson in general) is to add beauty, trees and I would go even further to require building architecture design guidelines. Bury the electrical lines. Put in beautiful street lights. And dont cheap out like you did on Sunshine Mile. Beautify and developers will want to be there.	"0 likes, 1 reply: Please do not add those no left turn at the light issues. It is hard to understand for us old timers. Driving past the turn is very confusing. Less stuff in the roadway and more room for cars."	
9/19/2024	Comment map	Sidewalk/ Pedestrian Accessibility	1st/Kelso	Sidewalks along the corridor often are abutting directly against the road, making it VERY unsafe in the feeling of walking. If it is possible to add as much buffer space as possible between sidewalks and vehicles, without widening the road, that would be ideal.	3 likes, 0 replies	
9/19/2024	Comment map	Sidewalk/ Pedestrian Accessibility	1st/Navajo	i dont understand why sidewalks are right up against the road there should be much more space between people and cars	2 likes, 0 replies	
9/19/2024	Comment map	Other	1st/North of Glenn	I would like to see center island medians put in areas where possible so that shade trees can be planted. I understand it would be in the middle of the road, but this corridor can feel so industrial and grey sometimes, some beautiful native plants would be great here.	1 like, 0 replies	
9/19/2024	Comment map	Other	1st/North of Grant	I could imagine some sort of loop extension where the horizontal space being used for bikes and peds is consolidated as a multi-use trail on the west side, that continues onto 1st avenue south of Grant road as vehicles diverge to Euclid.	"1 like, 1 reply:Not on your list is the intersection just south of Grant at Euclid and Edison where there is a crash once a week, and the homeowners have had to install giant boulders and concrete block walls to try to keep their homes safe. That should be fixed before the trying to fix the cesspool that is north of Grant to Prince gets underway."	

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
9/19/2024	Comment map	Safety	1st/North of Jacinto	I think that we should do what we can to make sure cars arent speeding, and lower the speeds. We can do things like traffic calming to make cars actually drive the speed limit. THis would make it safer for pedestrians.	3 likes, 2 replies: No more “road diet” plans. We drive cars. We like cars. Make it easy to use my car. 2 lanes north and south with right turn lane cut outs and bus pull outs. Make a nice straight smooth road with no strange obstacles or obstructions. I agree that there should be more safety oriented features to calm traffic. We should prioritize the safety of ALL road users (including other drivers) over the “”ease and enjoyment”” for a single road user. This does not mean 1st needs to be capped at 20mph with roundabouts at every intersection, but instead redesigned in a way to prevent reckless road users from having the capacity to drive dangerously with minimal effort.	

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
9/19/2024	Comment map	Bikeways	1st/North of Prince	Please try to create any sort of physical barrier seperating bikes from vehicles, and not just plastic or paint. If the bike lanes could be consolidated on one side as a combination bike/ped trail with some buffer space between them and the vehicles, that would be great as it could connect to the loop and bring active transportation deeper into the urban core.	"2 likes, 2 replies: Yes please. I am a bicycle commuter who follows the rules of the road, except when I am on 1st Avenue. Drivers on their cellphones weave in and out of the very narrow shoulder all the time. I ‘ve had drivers get so close to me that I am surprised I wasn’t hit. I now use only sidewalks when biking next to 1st Ave. I’d much rather be in a protected bicycle lane. I’d also like to see sidewalks that pedestrians actually want to use so they don’t take over the bike lane, like they do elsewhere. Finally, the bike lane on Mountain Avenue is wide enough to accommodate cars in some places, meaning folks use it as a parking lot. Please don’t repeat that design here. Move the bicycle lane away from traffic so cars can’t take it over and force us into traffic. Very much this. If drivers are attached to their fast and obstruction free First Ave, please consider the option for a separate path for alternative road users to be able to use the corridor without fear of unsafe motorists. More paint will not stop a distracted driver.	
9/19/2024	Comment map	Intersection	1st/River	The intersection of 1st and river needs to get rid of its permitted left turns and make them protected left turns. It is so dangerous in the current set up for all drivers going north or south. Genuinely amazed it is what is is considering the feeling of lack of safety today.	"3 likes, 1 reply: I will no longer use the southern crosswalk at this intersection. Drivers making a right from west river onto 1st cannot see the crosswalk as they turn, so it is easy to not realize pedestrians are in it. That said, this intersection backs up so badly that I am hesitant to get rid of right on red. There must be some kind of infrastructure improvement that could help the flow of traffic while not also endangering pedestrian lives"	

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
9/19/2024	Comment map	Bus Stop	1st/Roger (near Fry's)	Oftentimes buses will be half in the lane as they pickup or dropoff people, making it awkward for the cars behind as it is unclear if I should drive around or just completely stop. Please consider making the bus stops to be "in-lane" bus stops so that the bus can stop quicker, and it makes it clear to people behind the bus that they should just wait until the bus moves again, and not try to dangerously swerve around it .	3 likes, 0 replies	
9/19/2024	Comment map	Safety	General comment	This comment is meant to apply corridor-wide, but please do not widen the road. Other road modernization projects in Tucson have done far too much damage to our city for the sake of complete automotive supremacy of our public spaces. Unless current volumes absolutely show that it is completely necessary, I would strongly oppose any change to the road to make it MORE convenient for drivers. The only way we will have a healthier and happier city with greater capacity on our roads is if we decide to invest in other methods of transit. So please look at making walking and Biking and taking transit more convenient along the corridor. Thank you	"2 likes, 1 reply: Agreed, the road itself is plenty big. We need more safety features for the pedestrians and bikers, and better bus pullouts so folks aren't swerving around them. The sidewalks are a mess."	
9/19/2024	Comment map	Bikeways	The Loop	if the loop were able to connect to the road in some way (with WAY better bike lanes and more protection). that would be good	"3 likes, 1 reply: With the proper safety precautions, 1st could be one of the best ways to travel N/S for non vehicular traffic as it provides multiple neighborhood's and even some schools direct assess to the loop, giving children and families the ability to safely use alternate transportation to many destinations. "	
9/19/2024	Comment map	Sidewalk/ Pedestrian Accessibility	West of 1st/Roger	I want to see overall more public accessibility. I can't walk my children down First. I want to see more pleasant walking paths and access to public transportation in Tucson. I'd love to ride the bus to work along first or with my kids to get to parks or the Mercado. But overall it's not pleasant. We live near so many business (our house between limberlost and roger near campus farms) but I don't really feel safe from traffic (narrow walkways, etc., and the traffic is crazy. We should have a pleasant walking neighborhood but don't. I don't walk without my husband. Maybe prettier pathways would encourage more walkers making it feel safer and more public?	3 likes, 0 replies	
9/20/2024	Comment map	Congestion or Traffic	1st/Delano	Make the right lane on both sides of the road bus lanes. This would effectively allow the road to be two lanes total for car traffic, two lanes for bus traffic. Since all this requires is a different paint scheme it should not conflict with the adopted 4 lane plan. This configuration would minimize traffic maximizing travel volumes via increased transit ridership.	4 likes, 0 replies	
9/20/2024	Comment map	Intersection	1st/Fort Lowell	Use roundabouts!	"4 likes, 2 replies: no roundabouts no drive thru left turns"	

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
9/20/2024	Comment map	Safety	1st/Glenn	Consider a roundabout at Campbell/Glenn and/or protected intersection elements.	"3 likes, 1 reply: Consider an over/under intersection at this point. 1st Ave would go over the top with no exits while Glenn would be on the bottom with exits to the south and north. Let's get away from erecting a traffic light at every mid major intersection."	
9/20/2024	Comment map	Other	1st/Graybill (across from Woods Library)	Use Dutch design practices	1 like, 0 replies	
9/20/2024	Comment map	Safety	1st/Wetmore	Consider a roundabout at the Wetmore Rd intersection	"1 like, 1 reply: The Northbound left hand turn lane is dangerous at this intersection, a michigan u turn or additional lanes should be added"	
9/20/2024	Web form			The city missed an opportunity to consider other planning concepts when Strong Towns visited Tucson some months ago. Our race track "stroads" do not need more expanding in width and length. The traditional growth model, favored by banks and developers and suburbanists, presents insurmountable problems in this world of global warming. Who will step forward now?		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
9/23/2024	Comment map	Sidewalk/ Pedestrian Accessibility	The Loop	Please create a protected a large protected sidewalk for pedestrians and bicyclists crossing the Rillito	"3 likes, 1 reply: Protected bikelanes with concrate barriers is a must. Maybe even a fence on top so that drivers can't throw trash at bicyclists."	
9/25/2024	Web form			What is the estimated start date of this project?		"Thank you for your interest in the 1st Avenue Improvement Project. We are currently in the early stages of this project. You can view the anticipated timeline here: tucson1stavenueproject.com/docs/1st_Ave_CTF_2024-08-22_FINAL.pdf Tucson Rapid Transit Project Team"
9/25/2024	Project line			"This next day, you better go ahead and fix up the doggone sidewalks. Some of them haven't even been paved yet for a long time. And some of them's got humps in the middle where the concrete is, and you can't get your scooter over them. You better do something about them sidewalks."		

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
9/26/2024	Web form			Thank you for finally paying attention to this road. So many people are injured or killed here and traffic keeps increasing with the growth of Marana and Oro Valley. It is unfathomable why so many roads route that traffic to 1st Avenue and yet this corridor has been low on the priority list.		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
9/27/2024	Web form			Do not widen these streets in our neighborhood. It diminishes the quality of our neighborhood and will not benefit US only the people wHo choose to live in the suburbs.		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
9/28/2024	Comment map	Bikeways	1st/River	Present condition of the surface notwithstanding, the intersection is unsage for cyclists commuting on First. A cuclist was hit just a few weeks ago by a truck that missed the designated right turn (traveling north). I myself am a commuter, and feel this is among the most dangerous intersections in town. Having clearly designated lane markings, and ways for turning traffic to avoid cyclists will help. Thank you.	"1 like, 1 reply: Currently the 'bike lane' is a less than 3 feet dirt collection protected by a faded white line. With cars being allowed to travel fast as they do, cycling here is a death wish. With where I live, 1st Ave would be a great connector to get to the north side of town, but I am forced to either travel up Fontana which dead ends into dangerous riding on 1st or Stone, or i have to travel out east to Mountain for a connecting safe corridor. At a minimum to make this more assessable, the bike lane needs to be at least 4-5 feet wide and vehicle traffic needs to be slowed down. If traffic cannot be slowed, it is imperative that the bike lane is separated by more than a white line to provide a physical barrier for vehicles that are going well above the speed limit. If a separate bike lane is included that works well with redeveloping a sidewalk as those are in desperate need of repair so pedestrians do not get forced into the shoulder when the sidewalk is too difficult to cross/non-existant."	

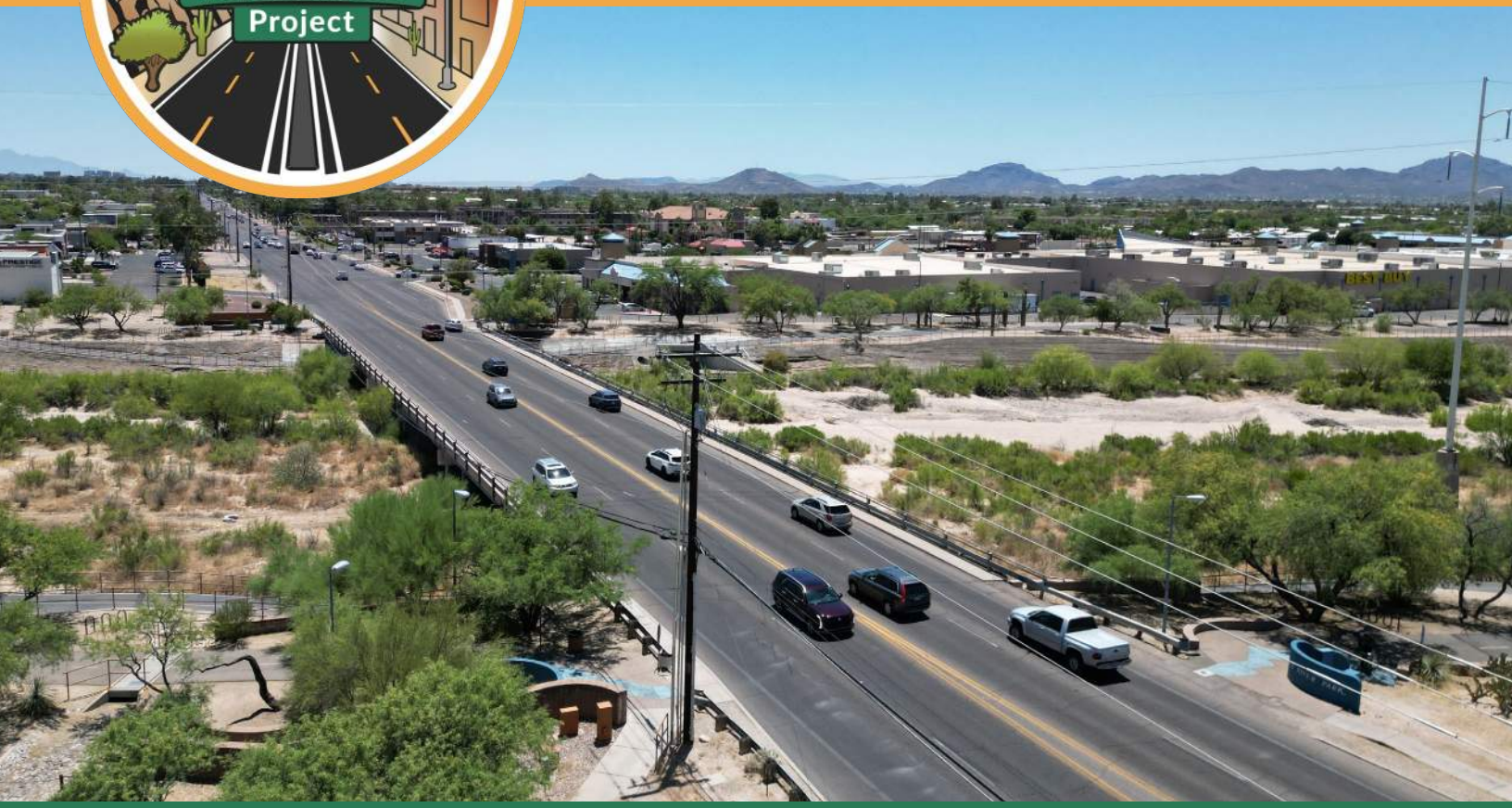
Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
9/28/2024	Web form			Look forward to seeing the project completed... Including safer passage for cyclists.		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
9/28/2024	Web form			"Previous was APR P2, 2002 River ROad Thi sis needed and looks good."		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
9/30/2024	Web form			As street is widened and buildings & businesses along the corridor replaced will there be a size limit to the new buildings? Will there be a limit to the type of businesses that replace the older ones?		"Thank you for your interest in the 1st Avenue - River Road to Grant Road Improvement Project. Any development/redevelopment of parcels along 1st Avenue will be subject to existing zoning regulations and other development provisions described in Tucson's Unified Development Code. 1st Avenue is not within an existing urban overlay district and, at this time, there is no land use planning specific to the 1st Avenue corridor being pursued as part of the 1st Avenue transportation improvements. Property owners along the corridor may choose to seek a rezoning of their own property, which will be required to follow a public process with ultimate approval by Tucson's Mayor and Council. An overview of the rezoning process is available here. Thank you, 1st Avenue Improvement Project Team"
9/30/2024	Web form			Separate cycling paths from the road and connect them to the Loop. Reduce the speed limit in 1st and Grant, is crazy to see accidents every day in these main roads. People should drive consciously, not in automatic.		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
10/6/2024	Web form			Road construction projects, for example the current project on country club between grant and ft lowell seem to take months and months. This blocks lanes with no active work, changing cones confuses drivers, causing dangerous driving conditions. Can we not work in the evenings and early mornings for the sake of the workers in extreme heat and work faster. The work plan has to be extremely inefficient to need months to accomplish road improvements. inefficient work means more tax dollars spent. What are the efforts in this project to make it efficient? Will this project take a year or more? What happens when deadlines are not met? Are their consequences?		"Thank you for your interest in the 1st Avenue Improvement Project. At this time, the design team is just beginning to evaluate the best ways to construct the new bridge. The goal is to build the bridge one half at a time to allow for north-south travel across the Rillito River during construction. More information will be provided after the design is complete. Thank you, 1st Avenue Improvement Project Team"
10/7/2024	Comment map	Sidewalk/ Pedestrian Accessibility	1st/Glenn	The sidewalks are atrocious, it is so disheartening to see elders and mobility aid users rolling their wheelchair in the road because the sidewalks are so inaccessible. Improving shade options along the road would also be helpful for children, the elderly, and anyone who has to stay out in the heat when it's 110.	"3 likes, 2 replies: Pedestrian Traffic on 4th Avenue is dangerous because there are no continuous sidewalks and lighting The sidewalks desperately need consistency down this road. The grocery store is one block from me and I'm forced either onto the road or into the dirt if I want to walk there. The folks in wheelchairs are forced onto the street, it's terrifying."	
10/7/2024	Comment map	Other	1st/River	The city annexed some 300 yards north of River Road years ago and has failed to consider that portion in the plans to redo 1st ave. To include all improvements for that portion would be costly and hold up the plans. However just repaving the portion of 1st ave north of River would be a great help	"2 likes, 2 replies: This portion of River Road is in terrible condition and needs to be repaved. I agree that this portion of 1st Avenue needs to be repaved. This intersection is at the bottom of a hill and it can be very dangerous on a bicycle coming to the bottom of the hill with speed where it is very rugged and bumpy."	
10/9/2024	Web form			I'm excited to hear about the plans that are coming together for this corridor which is in need of a "hug"!		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
10/10/2024	Web form			Please consider overall night time lighting for our neighborhood in consideration of the sky resource. While spending all this money to improve the road I fail to see why the light rail would not be extended incrementally to River Rd. As someone who lives here I appreciate the centrality of our neighborhood, it's proximity to the University and River Rd. It's too bad our transportation bond dollars aren't directed towards expanding that system of transport.		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
10/10/2024	Web form			"Fyl there is a problem with the traffic cutting FREQUENtTLY through Tyndall Ave to avoid the light at Glenn and 1st, and speeding up or down on our residential neighborhood. They used to cut on Euclid and because of streetbumps, they now cut though Tyndall. The residential space has to be protected for our safety. Thanks for thinking about it without putting the burden on the home owners.(ie. No turning right on redlight, adding stop signs on Adelaide and Tyndall, posting 20m.per hour speed limit signs on Tyndall, etc... Thanks 4 your consideration, Elisabetb Blin, PH.D."		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
10/11/2024	Comment map	Safety	1st/Limberlost	The parking lot on the north side needs an exit to head east on limberlost, there are too many people trying to turn out into this lane in too many directions. Add a way to minimize the people trying to make unsafe uturns at the light etc.	1 like, 0 replies	
10/11/2024	Comment map	Safety	1st/North of Laguna	The lighting through this corridor is terrible, it's hard to see and there are so many pedestrians crossing in unmarked areas with busy businesses nearby. Need lighting and HAWK signals	3 likes, 0 replies	
10/11/2024	Comment map	Safety	1st/River	There needs to be a Michigan left turn here, super unsafe for making lefts and even right hand turns with folks travelling at a high rate of speed southbound	1 like, 0 replies	
10/11/2024	Comment map	Safety	1st/Wetmore	A michigan U turn or additional lanes need to be added, this northbound left turn is dangerous	0 likes, 0 replies	
10/11/2024	Web form			"I attended the online event last night. I'm very encouraged by what I heard and saw. Thank you all. I strongly support NOT widening 1st Avenue beyond the current four lanes of traffic. I'm glad to see bike lanes, medians, and trees! My biggest concern was the discussion about ""drainage."" I suggest that the engineers start thinking about water harvesting. Instead of trying to get rid of water as quickly as possible, please look into basins and curb cuts to direct the water to landscaping and into the underground water table. Also, I have read about using light-colored paving instead of dark paving for the streets to reduce heat gain. Has anyone investigated that possibility? Thank you for listening! Your neighbor, Merryl Sloane"		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
10/17/2024	Project line			Bus pullouts would be helpful, help speed stuff up and if you guys could contact business owners along that corridor there to at least keep their property areas, clean them free of weeds and stuff, all the way out to the curb to help beautify the place. That had helped a ton too.		

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
10/24/2024	Project line			I am opposed to this and I thank you for listening to this because I live right off of First Avenue, and I really don't want it enlarged, but thank you.		
11/2/2024	Web form			Excited to see improvements. Especially multimodal. Please consider a two way trail on one side or atleast protected bike lanes to connect to river and grant. If bike lanes unprotected, just don't have them at all.		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/9/2024	Comment map	Safety	1st/Navajo	I don't know how that can be addressed, but one big problem is being free to slow down enough to make safe right hand turns onto side streets without risking getting read-ended or without impatient drivers swerving left to pass, which creates a hazard for drivers in the outer lane. It's a fast road, and you need to practically come to a complete stop to take those 90-degree turns. 1st and Navajo is particularly tricky because of the weird sloped corner, too.	"0 likes, 1 reply: Do NOT WIDEN THE STREET FOR CARS. People drive faster with more or wider lanes. ONLY add PROTECTED bike lanes. White painted lines on the street do NOT protect bicyclists."	
11/10/2024	Web form			"E HALCYON HAS TO BE REPAVED AND SIDEWALKS ADDED! Many residents walk their pets! The road is crumbling and the street itself has many cracks from repeated repairs of potholes ."		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/19/2024	Web form			How are people living on cul de sacs exiting off 1st Ave north of River supposed to go south during bridge construction? And, how will they get back to their homes coming from south of River during that time frame?		"Thank you for your interest in the 1st Avenue Improvement Project. At this time, the design team is just beginning to evaluate the best ways to construct the new bridge. The goal is to build the bridge one half at a time to allow for north-south travel across the Rillito River during construction. More information will be provided after the design is complete. Thank you, 1st Avenue Improvement Project Team"
11/21/2024	Web form			Something needs to be done about the lighting on 1st ave, there's street lights on 1st ave now that's NEVER on, also there's HUGE problems with drainage especially at Navajo and 1st Ave, but the BIGGEST problem is the homeless and how they ruin everything from bus stops to corners, to business		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Type	Theme (comment map only)	Location (comment map only)	Comment	Likes and replies (comment map only)	Response (if applicable)
11/22/2024	Web form			Install and monitor speed limit signs.		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/22/2024	Web form			Run down businesses need to be cleared out. Homeless and meth addicts all over the place do more to trash our area and ruin a positive environment than the existing poor streets and sidewalk access, however, those would be appreciated improvements.		"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/27/2024	Comment map	Crossing Opportunities	1st/Blacklidge	With Blacklidge Dr being a frequented bike route, and with there being a bus stop on the East side of the street, I have seen people cross here opposed to traveling to Fort Lowell or Glenn. Having a HAWK or other crossing measure would give people a safe place to cross in addition to better bike-ability and transit access.	2 likes, 0 replies	
11/29/2024	Comment map	Safety	1st/South of Grant	I know this is outside the boundary of this proposed project, but this stretch of 1st south of Grant is a major safety hazard and great opportunity for pedestrian infrastructure. There are many apartment complexes on the east side of this stretch of 1st Ave., and there are people walking up and down to the 1st and Grant Fry's shopping center constantly. Meanwhile, cars are exiting Euclid onto 1st going 40+ mph, and the width of 1st Ave here does nothing to encourage them to slow down. It is a major safety hazard, and would be great to add some features both to slow traffic and to provide a protected walking area for pedestrians.	0 likes, 0 replies	
12/6/2024	Comment map	Other	1st/South of Prince	If Induced Demand has taught us anything is that more lanes doesn't mean less traffic.	0 likes, 0 replies	
12/10/2024	Comment map	Safety	1st/Graybill (across from Woods Library)	I witnessed the driver of a semi followed by the driver of a sedan run the red light while waiting at this HAWK just this past weekend. We need to slow down speeds to a safer number on 1st Ave.	1 like, 0 replies	
12/10/2024	Comment map	Safety	1st/Pastime	Fast turning traffic poses a danger to the children who cross the street between the two buildings of Satori School on Pastime. Can we tighten the curb radii and encourage slower turns on to residential streets?	0 likes, 0 replies	



1st Avenue - River Road to Grant Road

Fall 2025 | Phase II Community Outreach Summary

Prepared by:
HDR Engineering, Inc.
1 S. Church Ave. Ste 1400
Tucson, AZ 85701

In coordination with:
City of Tucson

Table of Contents

Introduction **1**

Mainstreet Business Assistance Program 1

Notifications **2**

Postcards 2

Posters 2

Digital Advertisements 2

Press Release 3

Direct Emails 3

Meeting Materials **4**

Handout 4

Display Boards and Banners 4

Online Meeting 5

Website 6

Community Events 8

Community Meetings 8

Results 8

Introduction

The City of Tucson, in partnership with the Pima Association of Governments and the Regional Transportation Authority (PAG/RTA), is improving 1st Avenue from River Road to Grant Road. The purpose is to modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, improve traffic flow/operations, and provide greater comfort and accessibility for pedestrians, transit riders, and cyclists.

In fall 2025, the City initiated the second phase of community outreach. Phase II was designed to solicit feedback on the options that had been suggested by the community and the Citizens Task Force members in Phase I, focusing on safety improvements for the entire corridor. Phase II included an online meeting portal on the project website that contained all the materials that were presented at the open house. This portal allowed the community to review all the proposed improvements, and vote on items and leave comments.

The feedback collected during the fall of 2025 was positive and supportive of the proposed improvement options presented.

assisting small business
MainStreet
A program of the Regional Transportation Authority

MainStreet Business Assistance Program

The project continues to use the MainStreet Business Assistance Program to connect with the business and property owners along the corridor. MainStreet is a free regional construction mitigation program focused on minimizing impacts on businesses caused by transportation improvement projects.

Notifications

Notifications that shared details on the survey, as well as public meeting opportunities, were distributed before and during the survey launch. These notices were distributed in both English and Spanish and can be found in **Appendix A, Notifications.**

Postcards

Postcards were sent to all businesses and residents within a quarter mile radius of the 1st Avenue corridor, totaling 6,452 addresses. These postcards included information on the open house and the online meeting portal. In addition, MainStreet representatives hand-delivered similar postcards to businesses and property owners directly along the corridor.

Posters

Posters advertising the open house and the online meeting portal were delivered to high-traffic businesses along the corridor. MainStreet representatives also handed out informational posters to businesses that they visited along the corridor.

Digital Ads

Paid digital ads and social media ads—in both English and Spanish—were published on the Arizona Daily Star/Tucson.com website, Facebook, Instagram and on the Arizona Daily Star desktop platform from October 15 through November 15, 2025. The ads were targeted at the zip codes surrounding the 1st Avenue corridor. The results of the ads are as follows:

Facebook/Instagram Ads:

English

- **70,901** impressions
- **2,314** clicks

Spanish

- **70,794** impressions
- **1,071** clicks

Tucson.com - Desktop Ads

English

- **20,008** impressions
- **14** clicks

Spanish

- **10,010** impressions
- **3** clicks

Tucson.com – ROS ads

English

- **16,676** impressions
- **8** clicks

Spanish

- **13,157** impressions
- **8** clicks

Press Release

The City of Tucson distributed one press release, announcing the open house and the online meeting portal. Analytics for these press releases are included below:

- **Release date: October 9, 2025**
  - **10,248** recipients
  - **9,852** (96%) delivered
  - **2,410** (24%) opened
  - **396** (4%) bounced
- **Local Media Coverage**
  - » KGUN 9, ABC Affiliate: City hosting open house for First Avenue Improvement Project Oct. 15

Direct Emails

The City of Tucson sent out multiple direct emails to key stakeholders and organizations to share details on the open house and the online meeting portal and ask that they share this information with their communities. This included the following:

- Ward 3 Council Office
- Mountain First Avenue Neighborhood Association
- Samos Neighborhood Association
- Hedrick Acres Neighborhood Association
- Keeling Neighborhood Association
- Balboa Heights Neighborhood Association
- Coronado Heights Neighborhood Association
- Amphi Neighborhood Association
- Mountain View Neighborhood Association
- Richland Heights East Neighborhood Association
- Campus Farm Neighborhood Association
- Limberlost Neighborhood Association

Meeting Materials

An in-person open house was held on October 15, 2025, at Donna Liggins Recreational Center. In addition, an online meeting portal was launched on October 15, 2025, on the 1st Avenue Improvement Project website. This portal featured the same materials presented at the open house, allowing the community to comment on the proposed improvements and vote on the landscaping options. All materials for these events were produced in both English and Spanish and can be found in **Appendix B, Meeting Materials.**

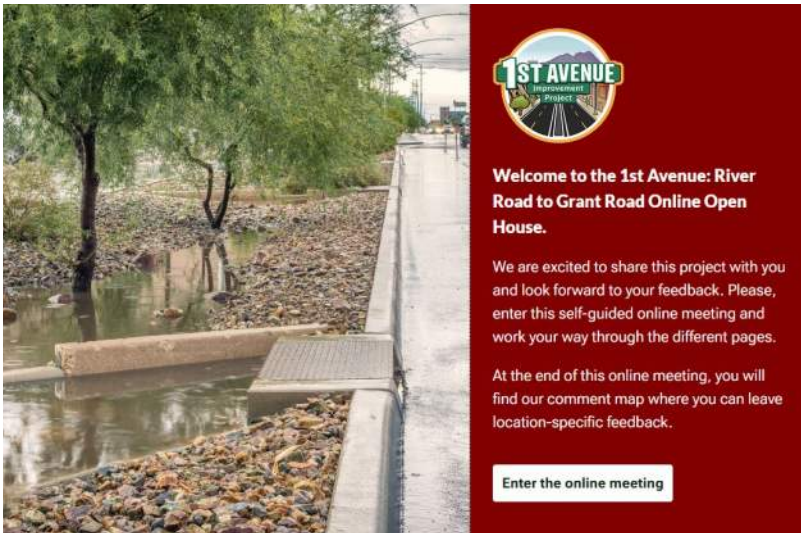
Handout

A handout was developed, including proposed improvement options for 1st Avenue, along with benefits, a map, and contact information. There was also information about the in-person open house and the online meeting portal.

Display Boards and Banners

Display boards and banners were available for viewing at the in-person open house and were shared through the online meeting portal. These included the following:

- Welcome Board
- Overview Board
- Our Process Board
- Project Goals Board
- Design Strategy – Safety Improvements, Board
- Design Strategy – Transportation Options, Board
- Design Strategy – Improve Infrastructure – Bridge, Board
- Design Strategy – Improve Infrastructure – Drainage, Board
- Design Strategy – Support Mobility, Board
- Design Strategy – Minimize the Impact #1, Board
- Design Strategy – Minimize the Impact #2 Board
- Enhance Visual Character – Areas of Opportunity Concept, Banner
- Enhance Visual Character – Streetscape Features, Banner
- Enhance Visual Character – Plant Palette, Banner
- Pedestrian Opportunity Areas, Banner
- Your Feedback Matters Board



Online Meeting Portal

The online meeting portal launched on October 15, 2025, at **tucson1stavenueproject.com** and included the following topics:

- Overview
- Our Process
- Project Goals
- Safety Improvements
- Transportation Options
- Improve Infrastructure
- Support Mobility
- Minimize the Impact
- Enhance Visual Character
- Elements Enhance Visual Character
  - » Plant Palette
  - » Pedestrian Opportunity Areas
  - » Interactive Comment Map
- Stay Connected

Online Meeting Portal Results

Total Users: **625**

New Users: **6**

Views: **29**

Average Session Duration: **2** minutes

Device Category:
Desktop: **75%**
Mobile: **25%**

Website

Below are the analytics from the website during the outreach period.

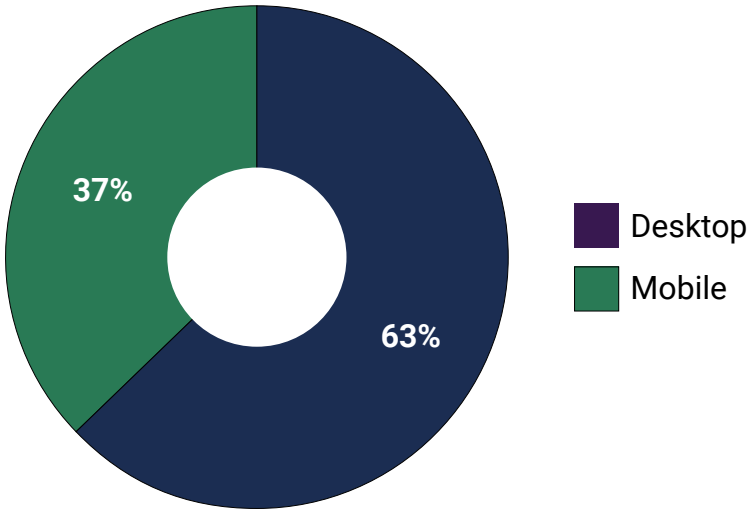
Users

- Active users: 1.5K
- New users: 1.5K
- Engaged sessions: 625

How Do New Users Access the Website?

Many referrals to the website came from the paid display ads that ran in the Arizona Daily Star during the online meeting Campaign.

Here is the rest of the acquisition type:



Interactive Maps on Website and Online Meeting

An interactive map was available on the website and the online meeting portal between October 15 and November 26, 2025. A total of 144 map comments were received. Below is a summary of key themes and locations with the highest number of comments.

- The overall public sentiment is supportive of the design direction presented for the 1st Avenue Improvement Project Corridor.
- **Other key comment themes included:**
  - Would like to see Protected bike lanes added
  - Medians as refuge islands for pedestrians
  - Support/request for bike boxes on Glenn Street
  - Crosswalk addition at Halcyon to connect to Mountain Bike Avenue
  - Bus Stop Locations discussed for what is best for riders
  - Prioritizing shade along the corridor
  - Addressing traffic flow issues when you exit the Rillito Farmers Market on Sundays
  - General dislike of bus pullouts
  - Requests for more transit options like streetcar or bus rapid transit
- **The intersection with the highest number of comments was 1st Avenue and Fort Lowell Road. This included the following comment themes:**
  - The majority of comments about the 1st Avenue and Fort Lowell Road intersection is about bike rider safety and the dislike of the proposed use of a protected right turn or "slip lane".
  - People are generally concerned with the safety of bike riders along 1st Avenue.
  - Requests for changing the location of the proposed bus pullouts near this intersection.
  - Questions regarding locations of bus stops at this intersection.
- **Other intersections with many comments/likes/replies included:**
  - Roger Road: River Road Intersection and area: comments about connecting sidewalks and paths to The Loop and requests for pedestrian and bicyclist safety here.
  - Prince Road: more bike safety issues with proposed slip lanes. Positive feedback on protected bike lanes.
  - Wetmore Road: more issues with slip lanes. Request to make it easier for bikes to reach the Loop and positives on protected bike lanes.
  - Grant Road: comments about pedestrian safety in this area.

Full responses and received comments can be found in **Appendix C, Survey.**

Community Events

Open House Event

One in-person open house was held to share information and solicit feedback on the proposed improvement options. The dates, locations, and number of attendees are listed below in Table 2.

Table 2. Open House Dates, Locations, and Number of Attendees

Date	Location	Number of Attendees
Oct. 15, 2025	Donna Liggins Rec. Center	50
Oct. 15 - Nov. 26, 2025	Online Meeting Portal	625

Pop-Up/Tabling Events

Pop-up/tabling events were held throughout October and November 2025. Project team members were present at each location to distribute information, invite people to visit the online meeting portal, and facilitate in-person question and comment sessions.

Locations and dates for the events are provided below in Table 3.

Table 3. Pop-Up/Tabling Event Dates, Event Types, and Locations

Date	Event	Location
October 26, 2025	Cyclovia Bicycle Event	Dunbar Springs, Barrio Blue Moon, Old Pascua, and Bronx Park Neighborhoods
November 16, 2025	Rillito Farmers Market	Rillito River Park on 1st Ave.
November 18, 2025	Amy's Donut Store	Fort Lowell near 1st Ave.

Community Meetings

Information about the project and options proposed were presented to the Mountain View Neighborhood Association meeting on November 13, 2025. Approximately six community members attended. A presentation was also given to the Limberlost Neighborhood Association at their annual meeting on December 6, 2025, with approximately 15 people in attendance. At both meetings, there was positive feedback about the project and excitement for the proposed safety improvements.

Results

A total of 175 comments were placed on boards, banners, and roll plot maps during the in-person open house and on the online meeting portal. All comments can be found in **Appendix C, Survey.**

A total of 211 votes were tallied on the banners at the open house and on the online meeting portal. All vote tallies can be found in **Appendix C, Survey.**

Appendix A: Notifications

Postcard

Your feedback *matters.*

Help shape the future of 1st Avenue between River Road and Grant Road. Join us for upcoming in-person or online events and give us your opinion on the proposed design elements.

Upcoming Events

Open House | Wednesday, 10/15 | 5:30 to 7 p.m.
Donna Liggins Rec. Center

Or experience our online meeting on our website anytime before November 15, 2025

Scan to Visit the Project Website!

Connect with us!
- **Website:** www.tucson1stavenueproject.com
- **Email:** connect@tucson1stavenueproject.com
- **Call us:** 520.815.0555

CITY OF TUCSON | RTA | PAG

1st Avenue Improvement Project
c/o HDR Engineering
1 S. Church Avenue Ste. 1400
Tucson, AZ 85701

Indicia clearance area

Su opinión es *importante.*

Ayude a dar forma al futuro de la 1st Avenue entre River Road y Grant Road. Únase a nosotros en los próximos eventos presenciales o en línea para darnos su opinión sobre los elementos de diseño propuestos.

Próximos eventos

Casa Abierta | miercoles 10/15 | 5:30 to 7p.m.
Donna Liggins Rec. Center

O disfrute de nuestra reunión en línea en nuestro sitio web en cualquier momento antes del 15 de noviembre de 2025.

¡Escanee para visitar el sitio web del proyecto!

¡Conecta con nosotros!
- **Sitio web:** www.tucson1stavenueproject.com
- **Correo electrónico:** connect@tucson1stavenueproject.com
- **Llámenos:** 520.815.0555

Address and barcode clearance area

Poster

Your feedback *matters.*

Help shape the future of 1st Avenue between River Road and Grant Road, and join us at an upcoming Open House or connect at your convenience at our online meeting.

Upcoming Events

Open House | Wednesday, 10/15 | 5:30 to 7 p.m.
Donna Liggins Rec. Center

Or experience our online meeting on our website anytime before November 15, 2025

Scan to Visit the Project Website!

Su opinión es *importante.*

Ayude a dar forma al futuro de 1st Avenue entre River Road y Grant Road, y únase a nosotros en una próxima Casa Abierta o conéctese cuando le resulte conveniente en nuestra reunión en línea.

Próximos eventos

Casa Abierta | miercoles 10/15 | 5:30 to 7 p.m.
Donna Liggins Rec. Center

O disfrute de nuestra reunión en línea en nuestro sitio web en cualquier momento antes del 15 de noviembre de 2025.

¡Escanee para visitar el sitio web del proyecto!

Email/Correo electrónico:
connect@tucson1stavenueproject.com

Digital Ads

1ST AVENUE
Improvement Project
CITY OF TUCSON
Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor. Review the Conceptual Plan below.
Provide your feedback now!

1ST AVENUE
Improvement Project
CITY OF TUCSON
¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible. Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!

1ST AVENUE
CITY OF TUCSON
Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor. Review the Conceptual Plan below.
Provide your feedback now!

1ST AVENUE
CITY OF TUCSON
¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible. Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!

Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor. Review the Conceptual Plan below.
Provide your feedback now!
1ST AVENUE
CITY OF TUCSON

¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible. Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!
1ST AVENUE
CITY OF TUCSON

Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor.
Review the Conceptual Plan below.
Provide your feedback now!
CITY OF TUCSON
1ST AVENUE

¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible.
Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!
CITY OF TUCSON
1ST AVENUE

Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor.
Review the Conceptual Plan below.
Provide your feedback now!
TUCSON
1ST AVENUE

¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible.
Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!
TUCSON
1ST AVENUE

CITY OF TUCSON
1ST AVENUE
Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor. Review the Conceptual Plan below.
Provide your feedback now!

CITY OF TUCSON
1ST AVENUE
¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible. Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!

CITY OF TUCSON
1ST AVENUE
Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor. Review the Conceptual Plan below.
Provide your feedback now!

CITY OF TUCSON
1ST AVENUE
¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible. Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!

CITY OF TUCSON
1ST AVENUE
Improvement Project
Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor. Review the Conceptual Plan below.
Provide your feedback now!

CITY OF TUCSON
1ST AVENUE
Improvement Project
¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible. Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!

CITY OF TUCSON
1ST AVENUE
Improvement Project
Share your feedback today!
Help us make 1st Avenue between Grant Road and River Road a safer, more accessible corridor. Review the Conceptual Plan below.
Provide your feedback now!

CITY OF TUCSON
1ST AVENUE
Improvement Project
¡Comparte tu opinión hoy mismo!
Ayúdanos a hacer que la 1st Avenue entre Grant Road y River Road sea un corredor más seguro y accesible. Revisa el plan conceptual a continuación.
¡Envíenos sus comentarios ahora mismo!

CITY OF TUCSON

News Release

TRANSPORTATION & MOBILITY

Contact:
Erica Frazelle
Public Information Officer
Department of Transportation & Mobility
Erica.Frazelle@tucsonaz.gov
(520) 429-9646

Date: TBD
TDD: (520) 791-2639

For internal review

1st Avenue Improvement Project - Phase II
Open House and Online Meeting

The City of Tucson Department of Transportation and Mobility is currently designing a roadway improvement project on First Avenue from River Road to Grant Road as part of the Regional Transportation Authority Plan. The community is invited to attend an Open House to provide input on proposed roadway options, meet with the project team, and learn more about the project improvements and schedule.

Open House
Wednesday, October 15, 2025
5:30 p.m. to 7 p.m.
Donna Liggins Recreation Center
2160 N. 6th Avenue.

If unable to attend in person, beginning on October 15, 2025, the community can visit the project website to experience the online meeting, where you can view proposed roadway options, leave your comments on the map, share your feedback, or sign up for our project update email list.
Project website: https://tucson1stavenueproject.com

The First Avenue Improvement Project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide more comfort and accessibility for pedestrians, transit riders, and bicyclists. The project includes a new bridge over the Rillito River, pavement reconstruction, continuous and accessible sidewalks, enhanced bicycle facilities, safety and drainage improvements, upgraded traffic signals, lighting, and landscaping.

Phase 1 of community outreach began in Fall 2024. It included a survey seeking community input on priorities for the First Avenue corridor. You can view the final results of this outreach and key points of what we heard at the project website.

The Regional Transportation Authority, a political subdivision of the state and independently governed, has invested more than $1.4 billion in transportation projects and services to improve mobility, safety, economic vitality and quality of life in the region. The RTA collects a half-cent excise (sales) tax from its special taxing district within Pima County to fund its 20-year regional transportation plan. The plan and tax were approved by voters in May 2006. The First Avenue Improvement Project is part of the RTA plan and is managed by the City of Tucson. For more information, visit www.RTAmobility.com

###

The 1st Avenue Improvement Project will modernize 1st Avenue between Grant Road and River Road as a four-lane roadway, following the City of Tucson's Complete Streets policy. Information about the 1st Avenue Improvement Project, including prior studies and outreach, is available on the 1st Avenue Improvement Project website.

CITY OF TUCSON

News Release

TRANSPORTATION & MOBILITY

Contacto:
Erica Frazelle
Oficial de Información Pública
Transporte y movilidad
Erica.Frazelle@tucsonaz.gov
(520) 429-9646

Date: TBD
TDD: (520)791-2639

For internal review

Proyecto de Mejora de 1st Avenue, Fase II
Casa Abierta y Reunión en Línea

El Departamento de Transporte y Movilidad de la ciudad de Tucson está diseñando actualmente un proyecto de mejora de la carretera en First Avenue, desde River Road hasta Grant Road, como parte del Plan de la Autoridad Regional de Transporte. Se invita a la comunidad a asistir a una Casa Abierta para aportar sus opiniones sobre las opciones propuestas para la carretera, reunirse con el equipo del proyecto y obtener más información sobre las mejoras y el calendario del proyecto.

Casa Abierta
Miércoles, 15 de octubre de 2025
5:30 p.m. – 7:00 p.m.
Donna Liggins Recreation Center
2160 N. 6th Avenue

Si no puede asistir en persona, a partir del 15 de octubre de 2025, la comunidad puede visitar el sitio web del proyecto para participar en la reunión en línea, donde podrá ver las opciones de carreteras propuestas, dejar sus comentarios en el mapa, compartir sus opiniones o inscribirse en nuestra lista de correo electrónico para recibir actualizaciones sobre el proyecto. Sitio web del proyecto: https://tucson1stavenueproject.com

El Proyecto de Mejora de First Avenue modernizará el corredor utilizando un marco de Calles Completas para aumentar la seguridad de todos los usuarios, mejorar las condiciones de la carretera y proporcionar una mayor comodidad y accesibilidad para peatones, usuarios de transporte público y ciclistas. El proyecto incluye un nuevo puente sobre el río Rillito, reconstrucción de pavimento, aceras continuas y accesibles, instalaciones mejoradas para bicicletas, mejoras en seguridad y drenaje, modernización de señales de tráfico, iluminación y paisajismo.

La Fase 1 de alcance comunitario comenzó en el otoño de 2024. Incluyó una encuesta para recopilar las opiniones de la comunidad sobre las prioridades del corredor de First Avenue. Puede ver los resultados finales de este alcance y los puntos clave de lo que escuchamos en el sitio web del proyecto.

La Autoridad de Transporte Regional, una subdivisión política del estado y gobernada de manera independiente, ha invertido más de 1.4 billones de dólares en proyectos y servicios de transporte para mejorar la movilidad, la seguridad, la vitalidad económica y la calidad de vida en la región. La RTA recauda un impuesto especial sobre las ventas de medio centavo de su distrito fiscal especial dentro del Condado de Pima para financiar su plan de transporte regional de 20 años. El plan y el impuesto fueron aprobados por los votantes en mayo de 2006. El Proyecto de Mejora de First Avenue es parte del plan de la RTA y es gestionado por la ciudad de Tucson. Para más información, visite www.RTAmobility.com

###

El proyecto de mejora de la 1st Avenue modernizará la 1st Avenue entre River Road y Grant Road como una carretera de cuatro carriles, siguiendo la política de Calles Completas de la ciudad de Tucson. Información sobre el proyecto, incluidos los estudios previos y las actividades de divulgación, está disponible en el sitio web del proyecto.

Direct Emails

From: Patrick Hartley

Subject: 1st Avenue Improvement Project: Fall 2025 Open House and Online Meeting Coming Soon!

Date: TBD

Attachments:

Good Afternoon!

I wanted to let you know that the City of Tucson is working to collect feedback from the community for Phase II of the 1st Avenue Improvement Project design process. We want to make sure residents in your neighborhood have an opportunity to share their thoughts. We will have two opportunities for people to provide feedback in October.

Community input is essential as we begin developing the initial design for 1st Avenue. If you're able, we'd appreciate your help in spreading the word. If you have any newsletters or social media blasts scheduled, would you be able to encourage residents to share their thoughts? I've attached project flyers in English and Spanish to provide more information. (Need to decide what to attach)

There are two ways to participate (people can do both):

- **Open House:** Wednesday, October 15, 6–7:30 p.m. at the Donna Riggins Rec Center, 2160 N. 6th Avenue
- **Online Meeting:** (Add the website link here)

Lastly, if you have any upcoming neighborhood association meetings, I— or someone else from the project team— would be happy to attend and share more about the project directly with you and your community. We're committed to being available and working closely with the community in the years ahead as the 1st Avenue Improvement Project moves forward and evolves.

Thank you for your support and please don't hesitate to reach out to me if you have any questions.

Warm Regards,

Patrick Hartley

Patrick Hartley
Interim Planning Administrator
Planning and Programming Division
Department of Transportation and Mobility
520.279.5545

From: Patrick Hartley

To: Kevin Dahl; ward3; Marlene Avelino

Cc: Sam Credio; Andy Bemis; Helen Wheeler

Subject: 1st Avenue Improvement Project: Fall 2025 Outreach Online Meeting Tool Now Available

Attachmnts:(TBD)

Honorable Vice-Mayor Dahl:

I hope you and everyone on the Ward 3 team are doing well.

I wanted to let you know that the City of Tucson is collecting feedback from the Tucson community for Phase II of the 1st Avenue Improvement Project design process. An Open House in-person event will take place on Wednesday, October 15th, starting at 6 p.m. On the same day an online meeting will go live on the project website, allowing community members to share feedback and provide map-based comments on the proposed roadway options. This option will allow people to comment at their own convenience.

If you are able, we are asking for some assistance in helping to get the word out. If you have any newsletters or social media blasts scheduled, would you be able to encourage Ward 3 residents to share their thoughts? I've attached project flyers in English and Spanish to provide more information. There are also options for the community to directly contact the project team.

There are two ways to participate —and the community is welcome to take part in both).

Open House: Wednesday, October 15, 6 – 7:30 p.m. at the Donna Riggins Rec Center, 2160 N. 6th Avenue
Online Meeting: (Add the website link here)

Thank you for your support and please reach out if you have any questions.

Patrick

CITY OF TUCSON

Patrick Hartley
Interim Planning Administrator
Planning and Programming Division
Department of Transportation and Mobility
520.279.5545

From: Patrick Hartley
Subject: 1st Avenue Improvement Project Online Meeting
Date: TBD
Attachments: (TBD)

Good Afternoon!

I wanted to reach out again to ask you for assistance in collecting as much feedback from the community for the next phase of the 1st Avenue Improvement Project design process. We want to make sure that residents in your neighborhood, like those who live closest to the project, have an opportunity to share their thoughts.

Now that the Open House is over. People can participate by visiting our website to experience our online meeting, where you can view the proposed roadway options, leave your comments on the map, share your thoughts, or sign up for our email list.

Online Meeting: (Add the website link here)

Residents' input will help us as we move forward to creating the initial design on 1st Avenue. We

are again asking for assistance in helping to get the word out. If you have any newsletters or social

media blasts scheduled, would you be able to encourage residents to share their thoughts?

Lastly, if you have any upcoming neighborhood association meetings, I— or someone else from the project team— would be happy to attend and share more about the project directly with you and your community. We're committed to being available and working closely with the community in the years ahead as the 1st Avenue Improvement Project moves forward and evolves.

Thank you for your support and please don't hesitate to reach out to me if you have any questions.

Warm Regards,

Patrick Hartley

CITY OF TUCSON

Patrick Hartley
Interim Planning Administrator
Planning and Programming Division
Department of Transportation and Mobility
520.279.5545

From: Patrick Hartley

To: Kevin Dahl; ward3; Marlene Avelino

Cc: Sam Credio; Andy Bemis; Helen Wheeler

Subject: 1st Avenue Improvement Project: Fall 2025 Outreach Online Meeting Tool Now Available

Attachmnts:(TBD)

Honorable Vice-Mayor Dahl:

I am again requesting assistance from your ward office with collecting feedback from the the Ward 3 community for the next phase of the 1st Avenue Improvement Project design process. Now that the open house has concluded, I hope you can spread the word about participating in the online meeting available on the project website. This feature on the project website allows people to give their online map comments and other feedback at their convenience.

The feedback we collect will help us to complete the initial designs for the project. If you could please include information about the online meeting in any of your **social media blasts scheduled, would you be able to encourage Ward 3 residents to share their thoughts?** There are also options for the community to directly contact the project team.

People can participate when it is convenient for them, they just visit the project website at (link here)

Thank you for your support and please reach out if you have any questions.

Warm Regards,

Patrick Hartley

Patrick Hartley
Interim Planning Administrator
Planning and Programming Division
Department of Transportation and Mobility
520.279.5545

From: Patrick Hartley

Subject: 1st Avenue Improvement Project Online Meeting Final Chance to Participate!
Date: TBD
Attachments: (TBD)

Good Afternoon!

The City of Tucson is making a final push to collect feedback from the Tucson community for the next phase of the 1st Avenue Improvement Project design process. Because residents in your neighborhood will be affected by the improvements, we want them to have an opportunity to share their thoughts.

You can participate at your convenience by visiting our website to explore the online meeting. There, you can view the proposed roadway options, leave comments directly on the map, share your thoughts, and sign up for our email list.

Online Meeting: (Add the website link here)

Residents' input will help us as we move forward to creating the initial design of the 1st Avenue Improvement Project. Can you please provide help to get the word out. It would be helpful if you could please include information about the online meeting in any upcoming newsletters or social media posts to help encourage residents to share their thoughts.

Lastly, if you have any upcoming neighborhood association meetings, I— or someone else from the project team— would be happy to attend and share more about the project directly with you and your community. We're committed to being available and working closely with the community in the years ahead as the 1st Avenue Improvement Project moves forward and evolves.

Thank you for your support and please don't hesitate to reach out to me if you have any questions.

Warm Regards,

Patrick Hartley

CITY OF TUCSON

Patrick Hartley
Interim Planning Administrator Planning and Programming Division
Department of Transportation & Mobility
520.279.5545

From: Patrick Hartley

To: Kevin Dahl; ward3; Marlene Avelino

Cc: Sam Credio; Andy Bemis; Helen Wheeler

Subject: 1st Avenue Improvement Project: Fall 2025 Outreach Online Meeting Closing Soon!

Attachmnts:(TBD)

Honorable Vice-Mayor Dahl:

The City of Tucson is asking you one more time to please assist us with the final push to collect feedback from the community for the next phase of the 1st Avenue Improvement Project design process. The online meeting on the project website will be closing on TBD and we want to make sure that residents along the project corridor know this is their final chance to share their comments on the 1st Avenue Improvement Project options.

If you have any newsletters or social media blasts scheduled, would you be able to encourage Ward 3 residents to share their thoughts?

People can participate when it is convenient for them, they just visit the project website at (link here)

Thank you for your support and please reach out if you have any questions.

Warm Regards,

Patrick Hartley

Patrick Hartley
Interim Planning Administrator Planning and Programming Division
Department of Transportation & Mobility
520.279.5545

Public Open House

Wednesday, October 15, 2025

5:30 - 7:00 p.m.

Donna Liggins Recreation Center

2160 N. 6th Avenue

HELLO NEIGHBOR,

The City of Tucson, in partnership with the Pima Association of Governments and the Regional Transportation Authority, is improving 1st Avenue from River Road to Grant Road. **Your feedback matters.**

Beginning October 15, visit our website to experience our Online Meeting, where you can view the proposed roadway options, leave your comments on the map, share your thoughts, or sign up for our email list.

The project will modernize the corridor using a Complete Streets framework to enhance safety for all users, improve roadway conditions, and provide more comfort and accessibility for pedestrians, transit riders, and bicyclists. We need your help to shape the future of this vital corridor!

The 1st Avenue Improvement Project will modernize 1st Avenue between Grant Road and River Road as a four-lane roadway, following the City of Tucson's Complete Streets policy. Information about the 1st Avenue Improvement Project, including prior studies and outreach, is available on the 1st Avenue Improvement Project website.

Casa Abierta

Miércoles, 15 de octubre de 2025

5:30 - 7:00 p.m.

Donna Liggins Recreation Center

2160 N. 6th Avenue

HOLA VECINO,

La Ciudad de Tucson, en colaboración con la Asociación Pima de Gobiernos y la Autoridad Regional de Transporte, está mejorando la 1st Avenue de River Road a Grant Road

Su opinión es importante.

A partir del 15 de octubre, visite nuestro sitio web para participar en nuestra reunión en línea, donde podrá ver las opciones de carreteras propuestas, dejar sus comentarios en el mapa, compartir sus opiniones o suscribirse a nuestra lista de correo electrónico.

El proyecto modernizará el corredor utilizando un maco de Calles Completas para aumentar la seguridad de todos los usuarios, mejorar las condiciones de la carretera y proporcionar una mayor comodidad y accesibilidad para peatones, usuarios de transporte público y ciclistas. ¡Necesitamos su ayuda para dar forma al futuro de este corredor vital!

El proyecto de mejora de la 1st Avenue modernizará la 1st Avenue entre River Road y Grant Road como una carretera de cuatro carriles, siguiendo la política de Calles Completas de la ciudad de Tucson. Información sobre el proyecto, incluidos los estudios previos y las actividades de divulgación, está disponible en el sitio web del proyecto.

Handout Card

Your feedback *matters.*

Help shape the future of 1st Avenue between River Road and Grant Road. Join us for upcoming in-person or online events and give us your opinion on the proposed design elements.

Upcoming Events

Open House | Wednesday, 10/15 | 5:30 to 7 p.m.
Donna Liggins Rec. Center

Or Experience our Online Meeting on our website anytime before November 15, 2025

Scan to Visit the Project Website!

Connect with us!
- Website: www.tucson1stavenueproject.com
- Email: connect@tucson1stavenueproject.com
- Call us: 520.815.0555

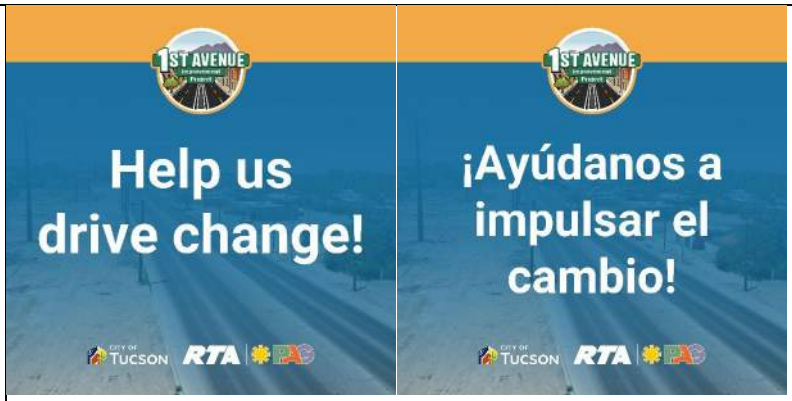
CITY OF TUCSON | RTA | PAG

Social Media

#	Theme	Date	Content Copy	Graphics
1	Comment Map	TBD	Help Us Make 1st Avenue Safer & More Accessible! The 1st Avenue Corridor, between Grant Road and River Road, is entering the next phase of design, and we need your input. Leave comments on our interactive map today! www.tucson1stavenueproject.com	
2	In-Person Event	TBD	Come share your thoughts on the latest design updates for 1st Avenue from River Road to Grant Road! Join us at our in-person open house event! **In-Person Open House** Wednesday, October 15, 2025 5:30 - 7:00 p.m. Donna Liggins Recreation Center 2160 N 6th Ave Tucson, AZ 85705	
3	In-Person Event	TBD	Do you live, work, or travel along 1st Avenue from River Road to Grant Road? We want to discuss corridor improvements with you. If you can't join us in person, you can visit our website and give us feedback from the comfort of your home! **In-Person Open House** Wednesday, October 15, 2025 5:30 - 7:00 p.m. Donna Liggins Recreation Center 2160 N 6th Ave Tucson, AZ 85705	

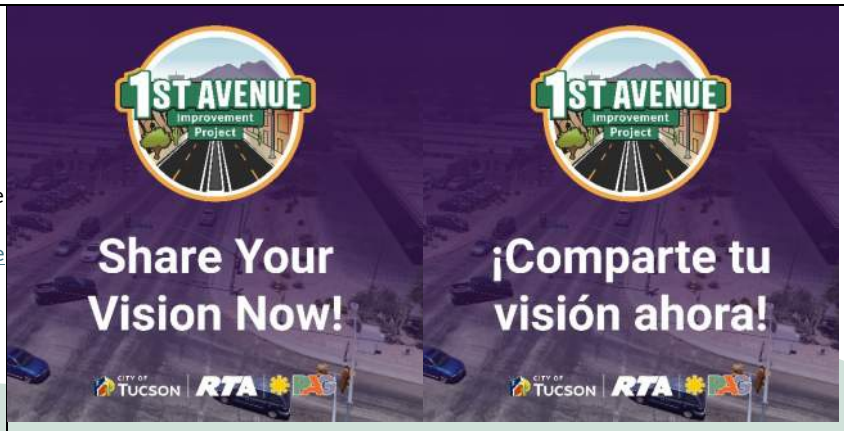
4	Online Meeting	TBD	Have ideas for 1st Avenue between River and Grant Roads? Share your thoughts on the new design options and join the online meeting at www.tucson1stavenueproject.com! Drop your comments or sign up for updates.	

5	Online Meeting	TBD	Help us drive the improvements for the 1st Avenue corridor! Visit the project website, leave a comment on the interactive map, or sign up for the email list at www.tucson1stavenueproject.com	

6	Online Meeting	TBD	We hope you'll share your vision! Help us drive change by: ➡️ Visiting our website ➡️ Viewing our online meeting ➡️ Providing YOUR thoughts on the updated roadway options. www.tucson1stavenueproject.com	

7	Online Meeting Closing Soon!	TBD	Make sure your voice is heard on the future of the 1st Avenue corridor! Visit the project website, visit the Online Meeting, and comment on the roadway opt ons presented before it closes on November 26. Sign up for the email list and stay up to date at www.tucson1stavenueproject.com	

8	Make sure your opinion is heard!	TBD	Make sure your opinion is heard on the new roadway opti ons on 1st Avenue before November 26! Leave your comments on our Onlne Meeting, or sign up for the email list at www.tucson1stavenueproject.com	

9	Share Your Vision Now!	TBD	Share your thoughts before the Online Meeting closes! Help us by sharing your vision on the updates proposed for 1st Avenue before November 15! Your feedback is essential for us to understand your priorities for the 1st Avenue corridor! www.tucson1stavenueproject.com	

Appendix B: Meeting Materials

Handout

About the Project

The City of Tucson, in partnership with Pima Association of Governments and the Regional Transportation Authority, is improving 1st Avenue from River Road to Grant Road. This project aims to modernize the corridor to enhance safety for all users, improve roadway conditions, and provide greater comfort and accessibility for pedestrians, transit riders, and bicyclists.

As we move into the next phase of the project we will be asking for your feedback on the possible options for the 1st Avenue Corridor Improvements. We will have several ways for you to provide your opinions on the possible options.

Public Meeting

Wednesday, October 15, 2025
5:30 - 7:30 p.m.
Donna Liggins Recreation Center

Online Public Meeting

October 16 - November 26, 2025
tucson1stavenueproject.com

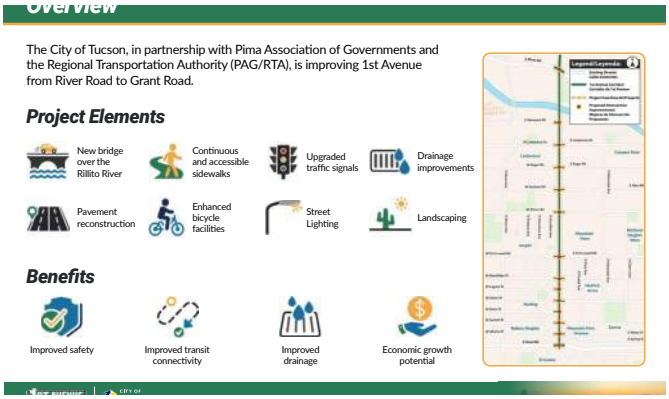
Possible Project Elements

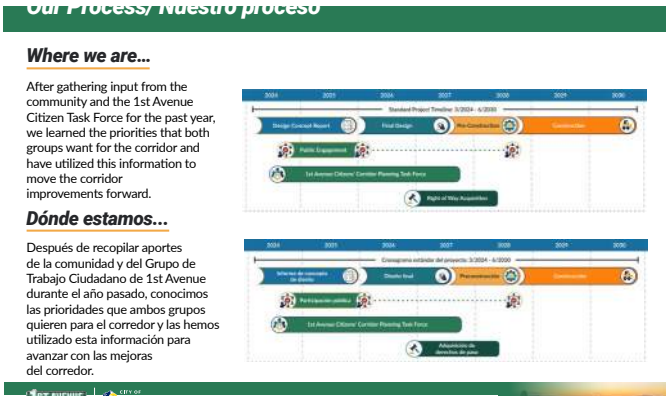
- Continuous and accessible sidewalks
- Separated or protected bike lanes
- Upgraded drainage infrastructure
- Upgraded intersections and traffic signals
- Upgraded bridge over the Rillito River
- Raised medians and improved driveway access
- Bus pullouts at high demand locations
- Improved native and drought-tolerant landscaping
- Signalized Protected HAWK pedestrian crossings
- Dual double left-turn lanes at Wetmore Rd
- Channelized protected right-turn lanes at select intersections

Connect with us!
Website: tucson1stavenueproject.com
Email: connect@tucson1stavenueproject.com
Call us: 520.815.0555

Follow Us!

Display Boards





1. 1st Avenue, particularly for the most vulnerable road users, such as pedestrians, bicyclists, people with disabilities, motorcyclists, and others.
2. and reduce barriers on 1st Avenue by improving comfort, convenience, and accessibility for people walking, biking and using public transportation.
3. Improve the condition of **existing infrastructure** to ensure that 1st Avenue meets community needs now and into the future.
4. **Support mobility** along the corridor through the efficient movement of traffic, including transit, personal, and commercial vehicles.

1. los usuarios de 1st Avenue, especialmente de los usuarios más vulnerables, como peatones, ciclistas, personas con discapacidad, motociclistas y otros.
2. transporte y reducir las barreras en 1st Avenue mejorando la comodidad, la conveniencia y la accesibilidad para las personas que caminan, usan bicicleta y utilizan el transporte público.
3. Mejorar el estado de la infraestructura existente para garantizar que 1st Avenue satisfaga las necesidades de la comunidad ahora y en el futuro.
4. Apoyar la movilidad a lo largo del corredor mediante la circulación eficiente del tráfico, incluidos los vehículos de tránsito, personales y comerciales.

Design Strategy

1 Safety Improvements

Improve safety for all users of 1st Ave, particularly for the most vulnerable road users, such as pedestrians, bicyclists, people with disabilities, motorcyclists, and others.

Proposed Solutions

Leading pedestrian interval

Protected only left-turn phasing

Protected bike lanes

Speed feedback signs

HAWK signals

High visibility crosswalks at traffic signals

Protected intersection

Channelized right-turn lanes with raised crosswalks

OTHER PLANNED IMPROVEMENTS

- Enhanced street lighting
- Raised medians
- Narrower lanes
- Pedestrian-friendly driveway design (ADA)

Design Strategy

2 Transportation Options

Reduce barriers on 1st Avenue by improving comfort, convenience, and accessibility for people walking, biking and using public transportation.

Proposed Solutions

Access to safe, reliable, and affordable transportation affects people's ability to work, attend school, access services and participate in the community. Below are proposed solutions to help us reduce barriers based on community feedback:

- Better bike lanes (including protected bike lanes)
- Comfortable and accessible sidewalks
- More trees and landscaping
- Improved road conditions
- Better lighting
- Better drainage

Design Strategy

3 Improve Infrastructure

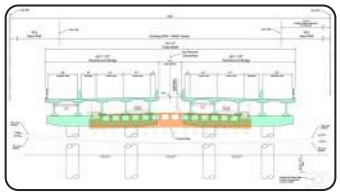
Improve the condition of existing infrastructure to ensure that 1st Avenue meets community needs now and into the future.

Proposed Solutions

While structurally sound, the existing 1st Avenue Bridge over the Rillito River is near the end of its service life. Replacing it provides the opportunity to achieve multiple project goals:

- Improved safety and mobility through multi-use path
- Enhanced connections to The Loop
- Extended structure life of 75 years

La Cholla Blvd. Bridges at the Rillito River(example style)



Estrategia de diseño

1 Mejoras en la seguridad

Mejorar la seguridad de todos los usuarios de 1st Avenue, especialmente de los usuarios más vulnerables, como peatones, ciclistas, personas con discapacidad, motociclistas y otros.

Soluciones propuestas

Intervalo peatonal adelantado

Fase protegida solo para giros a la izquierda

Carriles bici protegidos

Señales de indicación de velocidad

Señales HAWK

Cruces peatonales de alta visibilidad en los semáforos

Intersección protegida

Carriles de giro a la derecha canalizados con pasos peatonales elevados

Otras mejoras previstas

- Mejora del alumbrado público
- Medianas elevadas
- Carriles más estrechos
- Diseño de entradas para vehículos adaptadas a los peatones (ADA)

Estrategia de diseño

2 Opciones de transporte

Reducir las barreras en 1st Avenue mejorando la comodidad, la conveniencia y la accesibilidad para las personas que caminan, usan la bicicleta y utilizan el transporte público.

Soluciones propuestas

El acceso a un transporte seguro, fiable y asequible influye en la capacidad de las personas para trabajar, asistir a la escuela, acceder a los servicios y participar en la comunidad. A continuación se presentan las soluciones propuestas para ayudarnos a reducir las barreras, basadas en los comentarios de la comunidad:

- Mejores carriles para bicicletas (incluidos carriles protegidos)
- Aceras cómodas y accesibles
- Más árboles y zonas ajardinadas
- Mejoras en las condiciones de la carretera
- Mejor iluminación
- Mejor drenaje

Estrategia de diseño

3 Mejorar la infraestructura

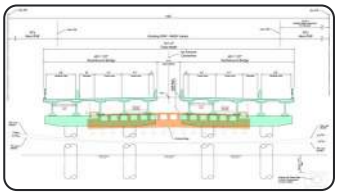
Mejorar el estado de la infraestructura existente para garantizar que 1st Avenue satisfaga las necesidades de la comunidad ahora y en el futuro.

Soluciones propuestas

Aunque estructuralmente sólido, el actual puente de 1st Avenue sobre el río Rillito está cerca del final de su vida útil. Su sustitución brinda la oportunidad de alcanzar múltiples objetivos del proyecto:

- Mayor seguridad y movilidad a través de un camino multiuso
- Mejoras en las conexiones con el Loop
- Vida útil de la estructura extendida de 75 años

Puentes de La Cholla Blvd. sobre el Río Rillito (ejemplo de estilo)



Design Strategy

3 Improve Infrastructure

Improve the condition of existing infrastructure to ensure that 1st Avenue meets community needs now and into the future.

Proposed Solutions

1st Avenue includes six wash crossings, the Navajo Wash floodplain, and limited existing storm drain. Potential improvements to this area include:

- New siphon at Navajo Wash to convey water beneath 1st Avenue
- New storm drain north of Ft Lowell Road
- Continuous curb to keep stormwater in the roadway and away from pedestrians
- Implement Green Stormwater Infrastructure to support native plant growth

Design Strategy

4 Support Mobility

Support mobility along the corridor through the efficient movement of traffic, including personal, transit, and commercial vehicles.

Growth Fast Facts:

8% Expected Traffic Volume Growth*

Intersections are expected to maintain operations at Level of Service D or better during the morning and afternoon peak hours.

Proposed Solutions

1st Avenue is expected to maintain the current quality of operations, even with increased volumes and new safety measures. Improvements are proposed to accommodate the increase in traffic and maintain efficient movement of vehicles along the corridor. This includes:

- Signal timing at all intersections
- Right turn lanes at multiple locations
- Adaptive traffic signal technology
- Dual left turn lanes at Wetmore Road
- Bus pull-outs at key locations

*Volumes calculated based on PAG travel demand model growth (AM/PM)

Design Strategy

5 Minimize the Impact

Minimize the impacts of 1st Avenue improvements on adjacent residents and businesses.

Proposed Solutions

The existing right-of-way width along the corridor is inconsistent. Adjusting the width of specific roadway elements allows us to minimize the impact of the improvements and continue to achieve the safety, transportation, and mobility goals. Our two proposed solutions include:

Primary Roadway Section

- Complete Street that accommodates all users
- Prioritizes safety by increasing space between vehicles and non-motorized users
- Applied throughout the majority of the project corridor

Estrategia de diseño

3 Mejorar la infraestructura

Mejorar el estado de la infraestructura existente para garantizar que 1st Avenue satisfaga las necesidades de la comunidad ahora y en el futuro.

Soluciones propuestas

1st Avenue incluye seis cruces de arroyos, la llanura aluvial del Navajo Wash y un sistema de drenaje pluvial limitado. Las posibles mejoras en esta zona incluyen:

- Nuevo sifón en Navajo Wash para transportar agua por debajo de 1st Avenue
- Nuevo desagüe pluvial al norte de Ft Lowell Road
- Borde continuo para mantener el agua pluvial en la calzada y alejada de los peatones
- Implementar una infraestructura ecológica para aguas pluviales que favorezca el crecimiento de plantas autóctonas

Estrategia de diseño

4 Apoyar la movilidad

Apoyar la movilidad a lo largo del corredor mediante la circulación eficiente del tráfico, incluidos los vehículos de tránsito, personales y comerciales.

Datos clave sobre el crecimiento:

8% Crecimiento previsto del volumen de tráfico*

Se espera que las intersecciones mantengan sus operaciones en el nivel de servicio D o superior durante las horas punta de la mañana y la tarde.

Soluciones propuestas

Se espera que 1st Avenue mantenga la calidad actual de las operaciones, inclusocon el aumento del volumen de tráfico y las nuevas medidas de seguridad. Se proponen mejoras para acomodar el aumento del tráfico y mantener la eficiencia del movimiento de vehículos a lo largo del corredor. Esto incluye:

- Sincronización de las señales en todos los cruces
- Carriles de giro a la derecha en varios lugares
- Tecnología de semáforos adaptativos
- Carril doble para girar a la izquierda en Wetmore Road
- Carriles de detención de autobuses en ubicaciones clave.

*Volúmenes calculados en función del crecimiento del modelo de demanda de transporte de PAG (mañana/tarde)

Estrategia de diseño

5 Minimizar el impacto

Minimizar el impacto de las mejoras en 1st Avenue en los residentes y negocios adyacentes.

Soluciones propuestas

El ancho actual del derecho de paso a lo largo del corredor es inconsistente. Ajustar el ancho de elementos específicos de la carretera nos permite minimizar el impacto de las mejoras y seguir alcanzando los objetivos de seguridad, transporte y movilidad. Nuestras dos soluciones propuestas incluyen:

Sección de carretera principal

- Calle completa que acomoda a todos los usuarios
- Prioriza la seguridad aumentando el espacio entre los vehículos y los usuarios no motorizados
- Aplicado a lo largo de la mayor parte del corredor del proyecto

Design Strategy

5 Minimize the Impact

Minimize the impacts of 1st Avenue improvements on adjacent residents and businesses.

Proposed Solutions

The existing right-of-way width along the corridor is inconsistent. Adjusting the width of specific roadway elements allows us to minimize the impact of the improvements and continue to achieve the safety, transportation, and mobility goals. Our two proposed solutions include:

Narrow Roadway Section

- Complete Street that accommodates all users
- Prioritizes safety by increasing space between vehicles and non-motorized users
- Implemented between Prince Road and Roger Road to minimize impacts on adjacent properties

Estrategia de diseño

5 Minimizar el impacto

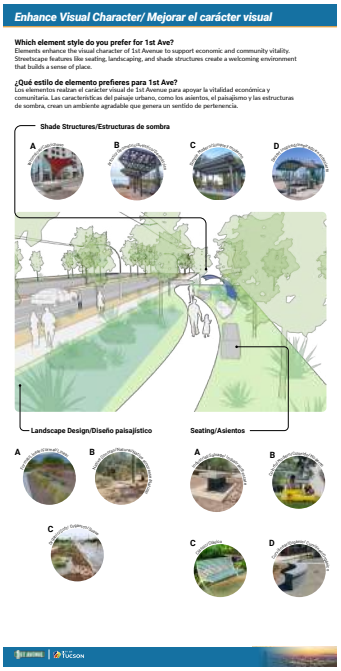
Minimizar el impacto de las mejoras en 1st Avenue en los residentes y negocios adyacentes.

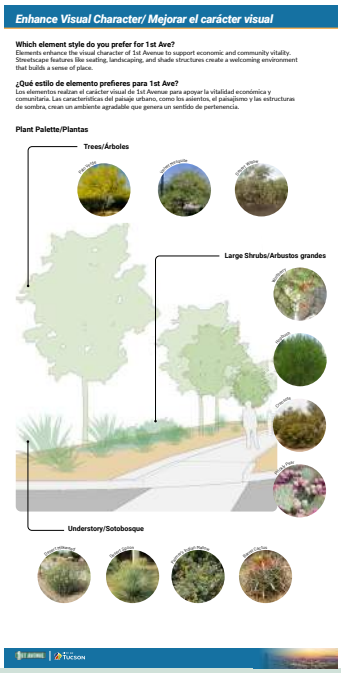
Soluciones propuestas

El ancho actual del derecho de paso a lo largo del corredor es inconsistente. Ajustar el ancho de elementos específicos de la carretera nos permite minimizar el impacto de las mejoras y seguir alcanzando los objetivos de seguridad, transporte y movilidad. Nuestras dos soluciones propuestas incluyen:

Sección de carretera estrecha

- Calle completa que acomoda a todos los usuarios
- Prioriza la seguridad aumentando el espacio entre los vehículos y los usuarios no motorizados
- Implementado entre Prince Road y Roger Road para minimizar los impactos en las propiedades adyacentes





1ST AVENUE Improvement Project

Your Feedback Matters.
Su Opinión es Importante.

Share your thoughts using any of the options below:
Comparta su opinión utilizando cualquiera de las siguientes opciones:

www.tucson1stavenueproject.com
connect@tucson1stavenueproject.com
520.815.0555

Scan me!
¡Escanéame!

CITY OF TUCSON | RTA | FAC

Appendix C: Survey

Comments

Date	Source	Comment	Response
10/15/2025	Online Comment Form	I use a walker & no longer feel safe crossing First Avenue at Roger Rd! Also, a sidewalk on the west side of First is long-awaited!	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
10/15/2025	Online Comment Form	Consider shared utility trenches.Consider combined/shared accesses for businesses. Provide deceleration lanes where possible for high traffic access points	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
10/15/2025	Web Comment	Obviously I'd like to see a shade structure at the Loop. But given the current state of that area I'm afraid it would only encourage more loitering and drug use.	
10/15/2025	Comment Form	Prefer low lighting on sidewalks, I want to see where my feet are and not be blinded - car lights are problematic, 6th Ave Grant Rd to Speedway is problematic in that the cars are close and there is no screening. I am low vision lights in my eyes blind. I know 6th Ave is not 1st Ave but they have some similar conditions	
10/15/2025	Comment Form	1. Smaller median to have safer car lanes and keep protected bike lane. 2. Mixed use building no greater than 4 stories. Retail and possibly light manufacturing/industrail with residental above would help address housing issues.	

Date	Source	Comment	Response
10/15/2025	Comment Form	1st Ave needs a lot of help so thank you for undertaking this project. My biggest hope is that the street becomes safer, and that by improving infrastructure and appearance, more businesses may want to move into the corridor. Adding significant landscaping, including trees on both sides of the pedestrian walkways, would be a massive improvement. Lots of trees would make thestreet more comfortable for the many pedestrians who use 1st Ave, and would make it more attractive to drivers who use it as a main route betwen midtown and the northwest, improving everyone's quality of life.	
10/15/2025 19:49	Web Map Comment - Glen to Ft. Lowell	Not a lot of sidewalk, also need non-sidewalk options for those who don't use sidewalks.	
10/15/2025 19:50	Web Map Comment - Glen to Ft. Lowell	Need pedestrian islands. Lots of crossing foot traffic.	
10/15/2025 19:50	Web Map Comment - Grant to Glen	Need pedestrian island. Lots of crossing foot traffic doesn't happen at intersection.	
10/15/2025 19:51	Web Map Comment - Grant to Glen	This area begins to feel really fast and needs more visual narrowing of the street with pedestrian islands.	
10/15/2025	Comment Form	I love the idea of swiveling bus stop shelters that pivot to cover the waiting passengers from AM & PM. Full sun depending on which way the bus is traveling.	
10/17/2025	Online Comment Form	Don’t waste the money if the speed limit is 35 mph. Also NO HAWK lights. Put in a regular sign and light . There are too many druggies along this stretch of road. All this would do is is provide them more areas to dash into traffic from.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Source	Comment	Response
10/19/2025 1:13	Web Map Comment - Roger to Limberlost	I am interested in anything that discourages jaywalking by pedestrians. Many times, I have had to dodge people jumping into the road or racing across regardless of lights and crosswalks.	
10/20/2025 15:51	Web Map Comment - Wetmore Intersection	Slip lanes are dangerous for people crossing. While the raised crosswalk for slip lanes is safer, I would prefer to see slip lanes removed entirely. Speaking of raised crosswalks, I would like to see this device implemented as much as possible.	
10/21/2025	Online Comment Form	I am a local resident and frequently ride my bike around town. Based on the YouTube video of the road design, I have to say I still would never use 1st ave on my bicycle. For much of the road, the protection for the bike lane looked like paint or a curb. On a fast traffic road with many cars turning into and out of businesses, I would still feel unsafe. Put some teeth in the bike protection (bollards!!) or just invest more in bike boulevards that exist on LOW-TRAFFIC roads. The design now feels like a waste of money from the biking perspective, but I do like the pedestrian and bus improvements.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
10/21/2025 13:22	Web Map Comment - River Road Intersection	Slip lanes are inherently unsafe for cyclists and pedestrians. Their primary function is to facilitate higher speeds for single-occupant vehicles, which directly conflicts with the goals of a Complete Street. Thank you for the protection provided along most of the corridor, but removing all protection at the most dangerous intersections undermines the overall safety of the project. These are the points of highest conflict, and without proper infrastructure, we can expect continued road deaths and discourage vulnerable users (especially pedestrians and cyclists) from using this corridor. I recommend removing slip lanes entirely or, at a minimum, relocating cyclists off the roadway at these intersections and co-locating bike and pedestrian facilities together at these intersections with higher levels of protection. Cars at slip lanes will do not regularly yield to pedestrians and cyclists. No slip lanes. All intersections should be Dutch style protected intersections.	

Date	Source	Comment	Response
10/21/2025 13:22	Web Map Comment - Prince Road	Slip lanes are inherently unsafe for cyclists and pedestrians. Their primary function is to facilitate higher speeds for single-occupant vehicles, which directly conflicts with the goals of a Complete Street. Thank you for the protection provided along most of the corridor, but removing all protection at the most dangerous intersections undermines the overall safety of the project. These are the points of highest conflict, and without proper infrastructure, we can expect continued road deaths and discourage vulnerable users (especially pedestrians and cyclists) from using this corridor. I recommend removing slip lanes entirely or, at a minimum, relocating cyclists off the roadway at these intersections and co-locating bike and pedestrian facilities together at these intersections with higher levels of protection. Cars at slip lanes will do not regularly yield to pedestrians and cyclists. No slip lanes. All major intersections should be Dutch style protected intersections. Agree on no slip lanes. Make cars turn slower if you actually care about safety.	
10/21/2025 13:28	Web Map Comment - Glen Street	Congratulations. This is very exciting to see this kind of roadway design in Tucson. I am surprised to see an actual safe intersection.	

Date	Source	Comment	Response
10/21/2025 13:37	Web Map Comment - Wetmore Intersection	Slip lanes are inherently unsafe for cyclists and pedestrians. Their primary function is to facilitate higher speeds for single-occupant vehicles, which directly conflicts with the goals of a Complete Street. Thank you for the protection provided along most of the corridor, but removing all protection at the most dangerous intersections undermines the overall safety of the project. These are the points of highest conflict, and without proper infrastructure, we can expect continued road deaths and discourage vulnerable users (especially pedestrians and cyclists) from using this corridor. I recommend removing slip lanes entirely or, at a minimum, relocating cyclists off the roadway at these intersections and co-locating bike and pedestrian facilities together at these intersections with higher levels of protection. Cars at slip lanes will do not regularly yield to pedestrians and cyclists. If possible install lights with dedicated left turn signals. The delivery trucks that frequent this intersection often block the sight lines and I have witnessed many near misses with pedestrians and vehicles.	
10/21/2025 14:36	Web Map Comment - Glen to Ft. Lowell	This long section of bicycle lane between Buddy Ln and Ft. Lowell is the least safe style of bicycle lane. This entire section will ultimately be used as a turning lane for cars and an incredibly exposed area for cyclists. Alternatively, at blocks and intersections like this, I would co-locate bicycle and pedestrian infrastructure on the sidewalk. For blocks like this, expand the sidewalk into a multi-use path, and remove the bicycle infrastructure from the street. Bicycles and pedestrians use the same signalized crossings and push buttons anyway, so co-locating the two most vulnerable groups out of the roadway would lead to the safest results.	

Date	Source	Comment	Response
10/21/2025 14:39	Web Map Comment - Ft. Lowell to Prince	I think the biggest challenge for me with calling this a complete street is that a complete street should be safe enough for all users to feel safe over the entire length of the project. When you add wildly unsafe sections to this "complete street", you sacrifice the safety of the most vulnerable users to increase the flow of traffic. With areas of the roadway created to be this dangerous, this no longer qualifies as a complete street.	
10/21/2025 14:40	Web Map Comment - Ft. Lowell	Tell me the designer has never walked on Grant without telling me the designer has never walked on Grant.	
10/22/2025 4:36	Web Map Comment - Glen Street	Please make pedestrian islands like these and medians storm water drainage areas with native landscaping. This not only recharges the aquifer, but also provides trees and shade that make walking in the area pleasant. Further, studies show that creating more greenery along a roadway calms traffic without dramatically increasing traffic times.	
10/22/2025 4:40	Web Map Comment - Glen to Ft. Lowell	Bus pullouts delay transit. Forcing a bus to leave its lane to pick up passengers requires busses to re-enter the traffic lane and merge with oncoming traffic, which often does not allow the bus to merge.	

Date	Source	Comment	Response
10/22/2025 4:53	Web Map Comment - Glen to Ft. Lowell	This type of bicycle lane is terrifying to ride in, as motorists often speed to cut off cyclists when making a right turn; even if a motorist passes on the right, cyclists are surrounded with fast moving traffic on both sides. I recommend either (1) make this a protected bicycle lane until the corner, requiring motorists to turn at the corner, and give separate signals to cyclists and motorists or (2) divert the bicycle lane adjacent to the sidewalk, and make the turn for the motorists at a sharper 90 degree angle which makes them naturally slow down, allowing pedestrians and cyclists to more safely cross to the corner. The first recommendation is more preferred because faster road cyclists will likely not divert to the sidewalk and stay in the traffic lane, causing more slow downs for motorists despite the existence of a bicycle lane. Dutch style protected intersection. All major intersections. No slip lanes!	
10/25/2025	Online Comment Form	The road conditions are horrible. I can't even drive customers carsbin front of My shop because of the huge pot holes. The curb into my shop is crumbling and I can't pull in without scraping. Do something. What do my taxes go for. Makes me want to take my business,and move out of town.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
10/25/2025 6:44	Web Map Comment - Ft. Lowell	The ridiculously unsafe bike lanes at these intersections completely undermines any protection added to the rest of this corridor. If even 10% of the route is a death trap, I don't really care if the other 90% is well designed! The design for the entire corridor should completely eliminate slip lanes and move the bike lane to the right of any right turn lanes, which should have much tighter turn radii. It is deeply insulting to me that everyone involved in drafting this plan either (a) didn't bother to look into how slip lanes affect pedestrian/cyclist safety, or (b) outright didn't care about our safety.	

Date	Source	Comment	Response
10/25/2025 6:47	Web Map Comment - Glen Street	Glenn/1st is a wonderfully designed intersection from a safety standpoint. All of the intersections on this corridor should look like this. My only gripe is that some of the paths for bikes traveling straight involve some pretty sharp turns, which will be mildly obnoxious/awkward to travel through. Great example of how a busy intersection should be designed. Dutch style protected intersection.	
10/25/2025 6:50	Web Map Comment - Ft. Lowell to Prince	Other bus stops along this corridor have been designed to have the bike lane go around behind the stop, so that the buses and bikes don't have a conflict point with each other. These bus stops should be redesigned to match those, as the current design at 1st/Fort Lowell is inherently less safe.	
10/25/2025 6:54	Web Map Comment - Wetmore to Rillito	Legitimate question, is the city trying to get cyclists killed? Because this intersection design really makes it seem like the city is thirsty for some cyclist blood. Instead of a bike lane sign they should have a sign that says "go ahead, die"	
10/25/2025 6:57	Web Map Comment - Rillito Creek Bridge	If the sidewalks are wide enough to allow bike traffic, and the sidewalks are what's connected to the loop, and the bike lanes on the bridge aren't protected... it seems like the intention (and the much safer option) is to have bikes ride on the sidewalk. If that's the case, why not remove the bike lanes entirely, widen the sidewalk, and paint dedicated paths on it? The current design is just offering cyclists a more dangerous option for no reason. Plus, the added road width from the useless bike lanes will encourage speeding if left as is.	
10/26/2025 19:53	Web Map Comment - Prince to Roger	Priority for cars. It isn't even on the list. No wonder you think we all want more bike paths and walking areas. We drive cars and want big beautiful roads that flow across town. Ask better questions.	
10/26/2025 19:56	Web Map Comment - Prince to Roger	We do not like no left turn plans. Ask any driver going past where you need to turn is terrible. Make roads for cars a priority. There are lots of us.	

Date	Source	Comment	Response
10/26/2025 20:01	Web Map Comment - Prince to Roger	This survey is very hard to navigate and I almost gave up. I want nice wide smooth roads without traffic calming affects. I drive a car, my kids drive cars and their kids will drive cars. Stop making it hard on us. We live here and pay taxes so we should have some say. The push button response should also have a thumbs down so you would have some idea of how sick we are of spending all the money on bike priorities. Fix our roads and quit making them unfriendly to cars.	
10/28/2025 0:41	Web Map Comment - Roger to Limberlost	Those huge medians do not make commuting easier. Now I have to go past the place a wanted and spend even more time in traffic. Stop making it hard to drive and to access business fronts. Straight smooth roads with left turn capabilities and right turn lanes.	
10/28/2025 18:58	Web Map Comment - South of Grant Rd.	This curve in the road is notoriously dangerous. My friend lives next to the frat house and posts on Facebook every time someone crashes there, often into the residential properties. Something needs to be done. I don't imagine the curve can be lessened... maybe rumble strips or flashing lights or ...?? People think they're on a straight road and realize too late, driving too fast, that there's a big curve in the road.	
10/28/2025	Online Comment Form	The “ curvatures“ as shown in the animation will create dangerous driving conditions, similar to the conditions that have been created on Broadway.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Source	Comment	Response
10/29/2025	Online Comment Form	I drive down 1st Ave in these areas almost daily and seldom see people on bikes. I do see many people walking. Mountain Ave is a bike area. I fear that physical barriers will cause rather than hinder accidents. Please provide research on this. My other fear is that this will take an extremely long time.	"We appreciate your input. Improving safety is a priority on this corridor. In the last five years, there were 22 bicycle crashes, two of which resulted in a fatality (there were four motorist fatalities during the same period for comparison). According to data from the Federal Highway Administration, converting traditional bike lanes to protected bike lanes results in a 36% to 50% reduction in bike-vehicle crashes. The enhanced bike lanes will also provide additional benefits for pedestrians by creating greater protection and separation from the sidewalk area. Thank you, 1st Avenue Improvement Project Team"
10/29/2025 17:35	Web Map Comment - North of River Rd.	All crosswalk alignments are angled, creating indirect line of sight and unsafe crossings and too far apart. River Road west right turn lane has a huge gap from stop line to cross traffic and should be realigned. Central medians should be raised with pedestrian safe havens, unpaved and planted to provide more shade and a road diet to improve the pedestrian safety, driver safety, visual enhancement and water intrusion infracturate during monsoon season and storms.	
10/30/2025	Web Comment	I live off 1 st Ave. I vote for no more enhancing or architectural bus stops! Stop busing bums into our neighborhoods. No to a bridge on wetmore. Those of us who live here do not want more traffic. In the time I've lived here 1st Ave went from seeing more like Campbell to busy commercial Oracle rd. Leave our neighborhood alone. No more car washes. Do something useful!	

Date	Source	Comment	Response
10/30/2025	Web Comment	For the love of God, and all Tucsonans... please, please, please plant as many trees as possible. The city of Tucson has continued to underestimate the power of plants to promote transpiration, shade, and environmental cooling. Prioritize your tree planting, then adapt your hard-scaping plans accordingly. Invest in more 'green' space! Capture carbon. Bring much needed moisture, trapped deep in the ground, up to the surface. Future generations will thank you.	
10/31/2025 1:30	Web Map Comment - Grant to Glen	Why is there no mid block crossings anywhere? We need at least 8 more on this project. This is a complete misnomer and misrepresentation of the term "complete street". No bulb outs, no mid block crossings, no shade trees anywhere. I see a road widening project with the bare minimum bike infrastructure added in. This design reduced walkability and urban porosity across the avenue.	
11/2/2025	Web Comment	Please don’t do the median for drainage and vegetation. Drive down Grant when it rains, it doesn’t work and the water doesn’t drain into them. Then they are full of trash and a catch all and never get serviced. Make it a turn lane and be done with it.	
11/6/2025	Online Comment Form	Appreciate all the work and thought going into these efforts as we consider the safety of all who use these streets. I, too, worry about folks who cross the street at any & every possible spot. I would like to suggest that we green these streets as much as possible, providing shade for pedestrians, planting additional native plants, mitigating some of our heat island effect as we continue to warm. Maybe solar at the bus stops. Art for visual interest and aesthetic.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Source	Comment	Response
11/6/2025	Online Comment Form	What is the existing Level of Service? What is the future Level of Service? What is the no-build future Level of Service?	"Thank you for your interest in the 1st Avenue Improvement Project. You can find the answers to your questions in the slides below. Please note, we are working through some design items, and the build LOS is likely to change as we better refine things like establishing appropriate turn-lane lengths. Thank you, 1st Avenue Improvement Project Team"
11/6/2025	Online Comment Form	This is a dramatic improvement from previous roadway conversations. I sincerely appreciate the protection along sections, but at the intersections, this will leave bicyclists and pedestrians as unsafe and vulnerable as at any intersection in our city. Slip lanes and striped bicycle lanes at busy intersections will only lead to more deaths. We are reeling from the deaths of three students currently, and we face a crisis of roadway deaths in our city. We need to commit to actually safe infrastructure over the convenience of the automobile.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/9/2025 14:43	Web Map Comment - Roger to Limberlost	There needs to be median for the entire stretch of road. Do not leave and 5 lane areas.	
11/9/2025	Online Comment Form	Thank you for making improvements, but I don’t see anything addressing the crime, violence, open drug use, trash, human waste all over 1st ave. Also the “pedestrians” don’t use cross walks very often in tucson.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Source	Comment	Response
11/10/2025	Online Comment Form	I appreciate being able to make comments on these types of improvement. I would like to know more about the decision making process for choosing asphalt for the various streets in the city. Heavily trafficked areas seem to use the same product as residential streets and the heavily trafficked areas are always torn up. Why not use concrete at entrances to warehouse, big box stores, bus terminals, etc.? Has anyone done a cost benefit analysis of this?	"Thank you for your interest in the 1st Avenue Improvement Project. Some of the reasons the City uses asphalt instead of concrete are listed below: Lower Initial Cost Asphalt is generally 30–50% cheaper to install than concrete, making it a practical choice for cities managing tight budgets. Faster Installation and Repairs Asphalt roads can be paved and reopened to traffic within 24–48 hours, while concrete often requires a week to cure. This minimizes traffic disruptions and project delays. Flexibility in Extreme Weather Asphalt expands and contracts with temperature changes, reducing the risk of cracking in areas with hot summers or freeze-thaw cycles. Environmentally Friendly Asphalt is 100% recyclable, and most new asphalt includes reclaimed material, reducing waste and conserving resources. Quick Maintenance Repairs to asphalt are simpler and faster than concrete, meaning less downtime and fewer long-term closures for the public. The City of Tucson uses concrete on bridges, business entrances and exit aprons, sidewalks, and in other areas, as necessary. If you have any other questions, you can contact the Department of Transportation and Mobility directly through Tucson 311."
11/12/2025 0:24	Web Map Comment - Grant Rd.	This needs to be a protected intersection. No slip lanes. Dutch style protected intersection.	

Date	Source	Comment	Response
11/12/2025 15:57	Web Map Comment - Limberlost Intersection	Need left-turn lane for westbound Limberlost, as southbound exit from the large LA Fitness/Sprouts/Vantage West shopping center is limited by traffic flow on 1st Ave. And there is no eastbound alternative for drivers residing to the southeast of this shopping center. The only turn option here is a very tight right turn, eastbound, back into the neighborhood on Limberlost.	
11/12/2025 15:58	Web Map Comment - Ft. Lowell to Prince	Where are the details for drainage from Navajo Wash?	
11/12/2025 16:02	Web Comment - Ft. Lowell to Prince.	ALL HAWK CROSSINGS need to be coordinated with traffic signals. Currently, the HAWK simply stops traffic whenever the ped/bike user pushes the button. There should be some coordination with the timing of intersection traffic signals, as the HAWK sometimes stops accelerating traffic that has just taken off from a red light. And at commute times, the sudden stopping is unexpected for the cars trailing further behind (they see only the green light of the intersection that's right in front of them, and they want to go-go-go).	
11/12/2025	Web Comment	Where are the details for Navajo Wash drainage?	

Date	Source	Comment	Response
11/13/2025	Project Email	You need to put a reasonable speed limit on 1st Ave bet. Grant and Westmore. 30 mph is ABSURD. If you think the former 40 mph was too high, then 35 mph on a major thoroughfare street makes sense. 30 mph does not. Speaking of which, you need to restore 30 mph to the minor thoroughfare street Mountain Ave. north of Grant. 25 mph is for residential areas not for thoroughfare streets. The Tucson patchwork of uncoordinated street mileage limits makes the streets more unsafe because there's no rhyme or reason to the arbitrary mileage limits that change every two-three blocks. Please be aware of the difference between major thoroughfare streets, minor thoroughfare streets, and residential areas. Institute a rational, reasonable pattern of street limits that we drivers can rely on, not the ridiculous hodgepodge you have now that makes everyone more unsafe.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/14/2025 1:34	Web Map Comment - Wetmore to Limberlost	Not really getting anything out of the millions to be spent. There are still two lanes of traffic. Bikes can use Stone or Mountain to travel. Seems like a waste of money when there isn't even an additional lane to actually help with traffic. The city is already facing budget shortfalls. Maybe just pave the roads and save these projects for when there is a surplus. This road doesn't even really need paved.	
11/14/2025 2:13	Web Map Comment -River Road Intersection	I'm really worried about the use of slip lanes in this project. They're just not safe for people walking or biking. Slip lanes are designed to let cars take turns faster, and that goes against the whole idea of creating a safer, more complete street. I recommend removing the slip lanes altogether.	
11/14/2025 2:19	Web Map Comment - Wetmore Intersection	Please remove the slip lanes. Drivers using slip lanes often don't yield, and that puts pedestrians and cyclists at serious risk. It also is super annoying to try to cross the lane and demonstrates a lack of regard for people who aren't in a vehicle. Slip lane would be 'ok' if it incorporated a bus lane - this is a major stop for the #6 SB - if adding a slip lane at least in corporate with bus stop.	

Date	Source	Comment	Response
11/14/2025 2:52	Web Map Comment - Wetmore Intersection	The protected bike lanes are SUPER and would get me out on my bike on a street where I would otherwise not ride.	
11/14/2025 3:13	Web Map Comment -Limberlost Intersection	Protected intersections are the best, I can finally feel safer when taking a turn. , way better than those terrible bike boxes on Grant	
11/14/2025 3:23	Web Map Comment - Roger to Limberlost	I appreciate the wide medians, pedestrian refuge islands, and reduction in curb cuts, although it may add a minute to driving time, it reduces conflict and I don't have to worry about someone plowing into me while not paying attention turning into a driveway or running me over on the sidewalk as they are looking the other way while pulling out into traffic. This makes m the street survivable for everyone, not just the people behind the wheel.	
11/14/2025 3:55	Web Map Comment - Glen to Ft. Lowell	I see your problem here. You got a slip lane so you can't protect the bike lane to the corner. I would not call slip lanes a feature of a complete street. Solution: remove slip lane, protect bike lane. Protect safety and peace of mind of cyclist.	
11/14/2025 4:04	Web Map Comment - Glen to Ft. Lowell	Is this the 1980s? Bus pull-outs should stay back in the era of false metal hair bands. In-lane bus stops are safer, faster for transit, and calmer for everyone. Bus pull-outs serve fast car travel and make the street less predictable for people walking, biking, and riding the bus. No bus pullouts on this project please! Don't slow down transit users down, I beg you.	
11/14/2025 4:09	Web Map Comment -Glen Street	More intersections like this please	
11/14/2025 22:09	Web Map Comment - Grant to Glen	there could pretty easily be an island in the middle of the crossing, making it less stressful for pedestrians, especially people who are slower (elderly mobility otherwise impaired)	
11/14/2025 22:12	Web Map Comment - Prince Rd.	please just get rid of the right turn lane, and make this protected.	

Date	Source	Comment	Response
11/14/2025 22:15	Web Map Comment - Prince Rd.	it seems like there is property aquisition issues here, but in general, i would like to see the crosswalks be more set back, with more space for waiting and getting around others. cars shoud be approching pedestrians at close to a 90 degree angle. the other pedestrian areas here DO have multiple ramps which is good, but they also seem unnecessarily restrictive, the path i am most likely to want to take sems to have dirt or rocks there.	
11/14/2025 22:17	Web Map Comment - Prince to Roger	it is a better idea to separate ped/bike crossings from left turning cars. it makes crossing more dangerous, uncomfortable, and encorages more cars on bike boulevards which are supposed to have less of them.	
11/14/2025 22:21	Web Map Comment -River Road Intersection	again, get rid of the slip lanes. also the walgreens is going to be a common destination for people, so there should be protection up to its driveway, and see if you can work with the property owner to get a more direct pedestrian connection from the intersection to the building.	
11/14/2025 22:33	Web Map Comment - Ft. Lowell	i already said this but it was a comment on another comment, so in case you dont read those, here is the cliff notes. No slip lanes, instead implement no right on red + striped crossings with refuge islands, and narrow the lanes slightly to make shorter crossing distances and reduce speeding.	
11/15/2025 21:06	Web Map Comment - South of Grant	Please, for the love of all that is holy, finish some of the other projects that are grinding this city to a crawl before you start this dumb project.	
11/16/2025 4:26	Web Map Comment - Grant to Glen	Copper is identified as an in-progress bike boulevard by the city, so this intersection especially needs to prioritize safety. This could easily be a toucan crossing. Are there really so many cars crossing 1st along Copper/Jacinto here to prohibit this?	
11/16/2025 4:32	Web Map Comment - Grant to Glen	This median island would be a perfect place to put a crossing.	

Date	Source	Comment	Response
11/16/2025 4:41	Web Map Comment - Glen Street	How are bikes supposed to approach this intersection from Westbound Glenn? Based on the diagram, it looks like the bike lane disappears, forcing bikes to quickly merge with westbound cars before ducking into the driveway and into the protected intersection. This is an unsafe design. The protected bike lane should continue beyond the driveway. Also, why is the driveway even present if there's a connected one not 200 ft to the right?	
11/16/2025 4:44	Web Map Comment - Glen to Ft. Lowell	There should be more mid-block pedestrian crossings. It's absurd to have to walk a quarter mile to cross a road.	
11/16/2025 4:47	Web Map Comment - Glen to Ft. Lowell	The center median here should be extended to provide a separated crossing for bikes and pedestrians and to slow down left turns from northbound 1st onto Blacklidge. This recessed median encourages drivers to take fast and wide left turns, endangering bikes waiting to cross 1st on Blacklidge eastbound.	
11/16/2025 4:49	Web Map Comment - Glen to Ft. Lowell	This would be an excellent location for a pedestrian/bike crossing from Delano to Buddy	
11/16/2025 4:55	Web Map Comment - Glen to Ft. Lowell	The way the curb starts slowly curving away from the roadway before the opening for Circle K will encourage drivers to move into the bike lane early without slowing and spend more time in conflict with bikes. The radius of curvature for the entryway should be smaller and there should be hard bike lane protection until the latest moment.	
11/16/2025 5:01	Web Map Comment - Glen to Ft. Lowell	Bus pullouts create conflict with bikes and slower busses to save the drivers the horrors of having to wait a few seconds. How about instead we have the bus stop at an island and use this space to divert the bike lane around it?	

Date	Source	Comment	Response
11/16/2025 5:08	Web Map Comment - Ft. Lowell	As a pedestrian, these concrete islands are absolutely terrible places to be. You're surrounded by asphalt and cars on all sides, breathing in all kinds of pollutants with your ears ringing from the noise. There's no shade and no shelter, making these things especially hell in the summers. Worst of all, you're almost guaranteed to have to wait here because of how long the signal period is. Pull your head out of your tailpipe, stop treating pedestrians as second class citizens, and ditch the slip lanes.	
11/16/2025 5:09	Web Map Comment - Ft. Lowell to Prince	This right turn will accumulate a body count	
11/16/2025 5:11	Web Map Comment - Ft. Lowell to Prince	Why does Navajo Rd become so wide here? This will encourage drivers to turn right onto 1st at higher speeds. Surely this space can be put to more productive use, such as stormwater drainage.	
11/16/2025 5:14	Web Map Comment - Ft. Lowell to Prince	Instead of being enormous strips of unshaded concrete, these large medians should be used for trees/foliage and stormwater drainage.	
11/16/2025 5:20	Web Map Comment - Prince Road	This should be a Dutch style intersection, like you did for Glenn. Remove the slip lane as they are inherently unsafe and unpleasant for everyone outside of a car.	
11/16/2025 5:23	Web Map Comment - Prince Road	Wide right turns encourage faster and less safe turns. Make this sharper or, better yet, make this a dutch intersection.	
11/16/2025 5:39	Web Map Comment - Roger	These protected bike intersections are phenomenal and should be the standard for all major intersections on this project. My only notes are that the waiting areas for bikes are a little small and the medians on 1st should extend into the intersection to shorten left turns, but these are minor.	
11/16/2025 5:43	Web Map Comment - Prince to Roger	I am a huge fan of the bike lane routing around the bus stop instead of disappearing into a vague bus/bike shared space and reappearing later.	

Date	Source	Comment	Response
11/16/2025 6:01	Web Map Comment - Limberlost Intersection	Does the Eastbound bike lane just end here? Are bikes expected to merge with traffic in the space of this driveway, while cars might be wanting to turn right? This is an unsafe design. The bike lane should be extended along Limberlost.	
11/16/2025 6:03	Web Map Comment - Limberlost Intersection	Bikes quickly merging onto Limberlost here will be at risk. The bike lane should continue along Limberlost.	
11/16/2025 6:39	Web Map Comment - Rillito Creek Bridge	I don't understand what's happening here. The Loop is a shared use path, and this seems to indicate the sidewalk becoming an extension of the Loop. Is the sidewalk in this section now a shared use path? If so, why is there still a bike lane? How are bikes coming off the Loop supposed to safely merge onto the bike lane? How are pedestrians supposed to deal with there suddenly not being a sidewalk? If not, how are bikes supposed to access the Loop? This whole thing reeks of a carbrained planner tossing something together with no thought behind how it would actually function for non-drivers. This needs to be redesigned with some effort to consider the best way to allow bikes and pedestrians to transfer to and from the loop and their respective spaces on the road. This should include a bike/ pedestrian crossing on 1st that won't get covered in debris next time the rains come.	
11/16/2025 6:43	Web Map Comment - Rillito to River	Just like the bridge to the south, a sidewalk that suddenly turns into a shared use path with a bike lane right next to it makes no sense. The sidewalk should continue to be a sidewalk, the bike lane should be fully protected, and the connection to the Loop needs to accomodate both of these.	
11/16/2025 6:44	Web Map Comment -Wetmore to Limberlost	There is an icon for a signalized crossing here but no other indication in pavement markings. Is there actually going to be a crossing here?	
11/16/2025 6:45	Web Map Comment - Rillito to River	There is an icon for a signalized crossing here but no other indication in pavement markings. Is there actually going to be a crossing here? There should be.	

Date	Source	Comment	Response
11/16/2025 6:47	Web Map Comment - Rillito to River	Especially with the large median at this section of road, does this Culvers seriously need two entrances right next to each other? Remove one and cut the conflict points in half.	
11/16/2025 6:52	Web Map Comment - Rillito to River	Additional markings to improve the connection between the project, the Loop, and Rillito Downs Park would be valuable	
11/18/2025 23:44	Web Map Comment - River Road Intersection	Slip lanes prioritize vehicle speed and efficiency over pedestrian/cyclist safety. As one of the top three most dangerous cities for pedestrian fatality our "complete streets" should be focusing on safety and NOT on vehicular ease.	
11/18/2025 23:45	Web Map Comment - River Road Intersection	Another slip lane, really? another pedestrian fatality opportunity. Remove slip lanes, focus of safety.	
11/18/2025 23:46	Web Map Comment -Wetmore Intersection	No more slip lanes please. We have to focus on safety and slip lanes are another area of opportunity for pedestrian fatalities.	
11/18/2025 23:47	Web Map Comment -Wetmore Intersection	Why? Seriously, why? Slip lanes are dangerous and only prioritize car ease, our complete streets should be focusing on safety for all. No more slip lanes.	
11/18/2025 23:49	Web Map Comment - Limberlost Intersection	YES! All intersections should be fully protected!	
11/18/2025 23:49	Web Map Comment - Roger	Intersections should be fully protected, we should be seeing this model on all intersections.	
11/18/2025 23:50	Web Map Comment - Prince Road	NO SLIP LANES! ENOUGH!!!	
11/18/2025 23:51	Web Map Comment - Prince Road	This right turn makes pedestrian and cyclist unsafe, please get rid of this right turn and just prioritize the safety for all.	
11/18/2025 23:52	Web Map Comment - Ft. Lowell	No more slip lanes, let's prioritize safety and not car efficiency. As one of the three deadliest cities in the country we have to start prioritizing safety.	

Date	Source	Comment	Response
11/18/2025 23:52	Web Map Comment - Ft. Lowell	No more slip lanes, let's prioritize safety and not car efficiency. As one of the three deadliest cities in the country we have to start prioritizing safety.	
11/18/2025 23:53	Web Map Comment - Ft. Lowell	No more slip lanes, let's prioritize safety and not car efficiency. As one of the three deadliest cities in the country we have to start prioritizing safety.	
11/18/2025	Online Comment Form	Excited to see a 1st avenue that is safer and friendlier for pedestrians and bikers. Traffic calming will be a boon.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/19/2025 0:16	Web Map Comment - Ft. Lowell	This is a major bust stop for the #15 - where are the stops for the NB and SB #15 Bus? Please review and add stops - these should be coordinated with the #6 bus stops.	
11/19/2025 0:20	Web Map Comment - Ft. Lowell	Please reconsider keeping a bus stop at this location for the #6.	
11/19/2025 0:25	Web Map Comment - Ft. Lowell	Bus pullout lane here seems like a bad idea - please consider a normal bus stop regular lanes here. The pullout will just fill with cars or cars waiting for the bus - it's a high activity site.	
11/19/2025 0:30	Web Map Comment - Ft. Lowell	This future bus pullout seems problematic - with the high volume of traffic to Fry's the bus will never get out.	
11/19/2025 0:32	Web Map Comment - Ft. Lowell	Why is this the only non-Michigan turn and why is it so close to 1st ave. Is this taken into account for traffic flow to first avenue neighborhoods?	

Date	Source	Comment	Response
11/19/2025 0:35	Web Map Comment - Ft. Lowell	The used car dealership on the SE corner frequently parks up and blocks visibility on 1st avenue. The city needs to address this, and other used car dealers that have residential adjacent side streets. It is dangerous for pedestrians, motorists, and bicyclists to allow these dealers to park up the corners and obstruct views. Particularly when you can see the depth of their lots behind their storefronts!	
11/19/2025 0:35	Web Map Comment - Ft. Lowell	These medians seem to be here and there - understand that these are for bike protection - but could the city consider these for Bus Lane Only or transit only. It would be neat to see some transit only lanes on the project that would move the bus ahead of the traffic. For instance this could be a transit only lane that pulls into the Fry's bus stop that is also within a transit only lane. One of the car lanes in each direction should and could be dedicated to transit only.	
11/19/2025 0:41	Web Map Comment - Ft. Lowell	Where does the bus stop at this location - is this stop going away?	
11/19/2025 0:55	Web Map Comment - Ft. Lowell	When moving forward on this project - please consider future high capacity modes that could be added at a later date. This could be a possible streetcar extension from University/Euclid to Euclid/First Ave terminating at Tohono Transit Center or a light rail line or BRT. While the bike protection is needed - the project seems to be constricting itself for car/bike modes only for perpetuity.	
11/19/2025 4:14	Web Map Comment - Ft. Lowell	I’m really excited to see the updates Tucson is making to promote the safety of pedestrians, cyclists, and motorists, and I just wanted to send support for the 1st Ave updates. I think this is a great example of how straightforward yet effective safety measures can be. My only suggestion? Let’s add trees to the medians separating the bike lanes; a physical separation is great, but let’s add in some additional traffic calming, physical protection, and SHADE by popping trees in that space!	

Date	Source	Comment	Response
11/19/2025 15:42	Web Map Comment - Ft. Lowell	This proposal doesn't offer enough separation of pedestrians and cyclists. We need better and more protected crossings, physical barriers between drivers, cyclists and pedestrians. In 2024 96 people died due to traffic accidents within the boundaries of Tucson alone. I'd encourage those proposing for the prioritization of cars to think that what they're asking for is more deaths. There are plenty of people who do not want to drive and instead would rather use transit or bike. You can get less traffic by supporting more transit and bike friendly roads. This proposal offers an upgrade but it will be obsolete on arrival.	
11/19/2025 18:05	Web Map Comment - Ft. Lowell		
11/19/2025 18:10	Web Map Comment - Ft. Lowell	As a driver, I notice many apartments along 1st Ave. This project must make it safer for bicyclists and pedestrians. Planners need to listen to the concerns raised by cyclists regarding slip lanes. I want to minimize the risks. Drivers often are uneducated about new road design features. Listen to cyclists. Reduce risks.	
11/19/2025	Online Comment Form	I think a lot of the planned design features look good. I really appreciate the focus on pedestrian and bicyclist safety because so many people have been hurt or killed by cars along this corridor (and across the city). I really wish the design did not include any bus pullouts because those are hard/dangerous for bicyclists and slow the buses down. I also hate the slip lane -- so dangerous. Please replace with the raised median. If drivers are mad, they can take Campbell or Oracle or Stone or I10.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Source	Comment	Response
11/19/2025	Online Comment Form	Please get rid of the slip lanes. I almost died from a driver flying through one of these on main. Not sure why increasing the speed of people turning should ever be a priority. Also the claim of shorter cross walks is laughable when you are increasing the speed of cars and decreasing the likelihood of a pedestrian being seen. The bike lane look good. If only poles are being used for separation please use the thick ones, with visual weight, like on Silverbell	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/19/2025	Online Comment Form	As both a car driver and a bicyclist, I know what it's like to travel Tucson streets via both modes of transportation. It is Paramount that we prioritize bicycle safety with bike lanes that are protected from car lanes with impassable physical barriers — not those dinky little plastic bollards that people just run over with impunity. Make riding a bike a safer, more convenient alternative to driving. Prioritize people who choose to ride their bike, not people who choose to drive.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
11/20/2025 3:02	Web Map Comment - Wetmore to Limberlost	The protected bike lanes are great! Maybe we can consider creating turns that are closer to 90 degrees, instead of turns with angles like this that promote speed during the turn and can endanger cyclists.	
11/24/2025 16:06	Web Map Comment - Ft. Lowell	This exposure will kill people. We should not be sacrificing people's lives for the flow of traffic.	
11/24/2025 16:08	Web Map Comment - Ft. Lowell	Cars do not wait for pedestrians on corridors like this. On an urban intersection like this, with as high of traffic volume as this, all studies do not recommend slip lanes. Slip lanes are generally only for suburban arterial roads with fewer than 1000 users per day, where automobile speed it the top priority.	
11/24/2025 16:11	Web Map Comment - Ft. Lowell to Prince	With lanes like this, I will not be riding on this route. I can't afford to die right now. This will only push the most vulnerable onto this road to be sacrificed to flow of traffic.	

Date	Source	Comment	Response
11/24/2025 16:13	Web Map Comment - Prince Road	Right-turn lanes are seen to have between 70% and 80% higher traffic incidents. This will kill pedestrians and cyclists, but will ultimately kill automobile drivers too. Unsafe roads are unsafe for all members of our society.	
11/24/2025 16:15	Web Map Comment - Ft. Lowell to Prince	I can't tell if it is negligence or intentionally trying to kill us. We know unprotected bike lanes are unsafe at this high of traffic volume and at this speed. Multi-modal roads should never have slip lanes and right-turn lanes that cross a bike lane.	
11/24/2025 16:16	Web Map Comment - Prince Road	I would invite you to go watch a slip lane in this city for a day and then, with a straight face, tell me this is okay.	
11/24/2025 16:16	Web Map Comment - Prince Road	Right-turn lanes are the least safe intersection type. All studies say this will end up killing a lot of people. Shared right with protection all the way to the intersection. Don't give up at the intersection; let's actually keep this safe. I am tired of people dying.	
11/24/2025 16:18	Web Comment - Wetmore Intersection	You would think that being ranked one of the least safe cities in the country would cause people to rethink what we have been doing. I guess an average of two deaths a week due to our roadways is okay for engineers?	
11/24/2025 16:19	Web Comment - Wetmore Intersection	Any serious city would not be trying to pull this garbage. I think we are just comfortable with death and roadway violence?	

Date	Source	Comment	Response
11/24/2025 16:23	Web Map Comment - Wetmore to Rillito	This needs to have reinforced protection here. It's funny, we make it the least safe to get on and off the loop. With between 700,000 and 1 million visitors per year, you think we would try and design a safe and connected access to the loop. Can we please just think about how someone will exit the loop and get into a protected roadway? This is just going to be people riding south and using that bike lane the whole way to Wetmore. You design an extra lane, then slapped down some paint to pretend it's a bike lane....Fun, but I'm tired of people dying. Can we please consider the user experience of a mode besides cars? The most dissapointing thing is that once this is designed to be obsolete and kill people, we redo a road once in a lifetime, so we will never see this become an actual safe and usable road.	
11/24/2025 16:26	Web Map Comment - River Road Intersection	oof! This one is being designed to kill everyone. Alternatively, imagine being able to cross the street without it feeling like crossing the i-10. It would be cute if we could finally build an actual safe roadway here.	
11/24/2025 16:27	Web Map Comment - River Road Intersection	Currently, I ride on the sidewalk here (which is illegal, but there is no safe alternative). But I do not see this as an improvement. More design work is planned to kill a bunch more people. I guess we are in a competition to get to the #1 least safe city in the country?	
11/24/2025 16:28	Web Map Comment - North of River	I guess this is safe if you watched Mad Max and thought that was a family fun adventure...	
11/24/2025 16:30	Web Web Comment - North of River	I guess we heard the news and thought going for #1 least safe city was the thing to do?! I hope with those three students dying in a crosswalk, and the woman dying in an activated HAWK crossing - I hope they don't give in to public pressure to design for safety... I would really like to see us get to that #1 position.	

Date	Source	Comment	Response
11/24/2025 16:37	Web Map Comment - Rillito Creek Bridge	The loop is maybe our number 1 visited space in the city. It feels strange to have the opportunity to design a safe roadway that could connect our loop (seeing around a million visits a year), with our city. Imagine being able to easily move from the loop to a protected bikeway that would safely get you to all of our bicycle boulevards or our city center. I personally would be excited and would have put a little more effort into how this could all be more elegant and safe.	
11/24/2025 16:39	Web Map Comment -Wetmore Intersection	With safety as the number one priority on this roadway, and then reading all the comments on this project map, it will be interesting to see if the city actually listens to its population, or keeps moving at the status quo that got us to become one of the least safe cities in the country.	
11/28/2025	Online Comment Form	Yes! Glad the 1st Ave area is getting improvements.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"
12/1/2025	Online Comment Form	I really like the design and greatly appreciate how much safety, particularly that of pedestrians and cyclists, is prioritized. With that being said I think the amount of slip lanes is concerning and contradicts the other attempts to keep vulnerable people safe.	"Thank you for your interest in the 1st Avenue Improvement Project. Your comment has been received and shared with the project team. If you are requesting more information, a project team member will get back to you shortly. Thank you, 1st Avenue Improvement Project Team"

Date	Source	Comment	Response
12/9/2025 16:19	Web Map Comment -Ft. Lowell	Please revisit the use of slip lanes. This design is not appropriate for our city streets as they only encourage higher speeds drivers and put the pedestrian more at risk. I've been crossing the slip lane at Grant and Campbell for a few years now and without a crossing signal or any indication for cars to stop, more often than not they do not stop for pedestrians until you walk in front of them which never feels good. The design at Glenn is well done and prioritizes safety over speed.	
12/9/2025 16:22	Web Map Comment -Glen to Ft. Lowell	I appreciate the bends in the road that have been introduced to help with speed reduction. Let's design roads for the posted speed limit and not for higher speeds.	

Map Comments

Location	Comment
Location	Comment
South of Wetmore, east side of the street	The protected bike lanes are great! Maybe we can consider creating turns that are closer to 90 degrees, instead of turns with angles like this that promote speed during the turn and can endanger cyclists. Comment on map on at the entrance behind the Vantage West Credit Union into the plaza where Sprouts is located.
Smoot Dr, southeast corner	As a driver, I notice many apartments along 1st Ave. This project must make it safer for bicyclists and pedestrians. Planners need to listen to the concerns raised by cyclists regarding slip lanes. I want to minimize the risks. Drivers often are uneducated about new road design features. . Listen to cyclists. Reduce risks.
South of Pastime, east side of the street	"This proposal doesn't offer enough separation of pedestrians and cyclists. We need better and more protected crossings, physical barriers between drivers, cyclists and pedestrians. In 2024 96 people died due to traffic accidents within the boundaries of Tucson alone. I'd encourage those proposing for the prioritization of cars to think that what they're asking for is more deaths. There are plenty of people who do not want to drive and instead would rather use transit or bike. You can get less traffic by supporting more transit and bike friendly roads. This proposal offers an upgrade but it will be obsolete on arrival. "
Pastime, northwest corner	I'm really excited to see the updates Tucson is making to promote the safety of pedestrians, cyclists, and motorists, and I just wanted to send support for the 1st Ave updates. I think this is a great example of how straightforward yet effective safety measures can be. My only suggestion? Let's add trees to the medians separating the bike lanes; a physical separation is great, but let's add in some additional traffic calming, physical protection, and SHADE by popping trees in that space!
North of Grant, east side of the street	When moving forward on this project - please consider future high capacity modes that could be added at a later date. This could be a possible streetcar extension from University/Euclid to Euclid/First Ave terminating at Tohono Transit Center or a light rail line or BRT. While the bike protection is needed - the project seems to be constricting itself for car/bike modes only for perpetuity.
South of Glenn, west side of the street	Where does the bus stop at this location - is this stop going away?
South of Roger, east side of the street	These medians seem to be here and there - understand that these are for bike protection - but could the city consider these for Bus Lane Only or transit only. It would be neat to see some transit only lanes on the project that would move the bus ahead of the traffic. For instance this could be a transit only lane that pulls into the Fry's bus stop that is also within a transit only lane.

Location	Comment
Halcyon, southeast corner	The used car dealership on the SE corner frequently parks up and blocks visibility on 1st avenue. The city needs to address this, and other used car dealers that have residential adjacent side streets. It is dangerous for pedestrians, motorists, and bicyclists to allow these dealers to park up the corners and obstruct views. Particularly when you can see the depth of their lots behind their storefronts!
North of Roger, east side of street	This future bus pullout seems problematic - with the high volume of traffic to Fry's the bus will never get out.
North of Limberlost, east side of the street	Bus pullout lane here seems like a bad idea - please consider a normal bus stop regular lanes here. The pullout will just fill with cars or cars waiting for the bus - it's a high activity site.
Wetmore, northwest corner	Please reconsider keeping a bus stop at this location for the #6
Roger, northeast corner	This is a major bust stop for the #15 - where are the stops for the NB and SB #15 Bus? Please review and add stops - these should be coordinated with the #6 bus stops.
Blacklidge	Brent spoke to the owner of the business on the corner of Blacklidge and 1st Ave. The owner has been here for 10+ years. Fence surveyed. Comment written by property owner for the same business - "Losing front car display area - already invested into developing rear of lot."
Roger, southwest corner	Parking Impact @ 1st Avenue Laundromat. Comments written by team "Need to increase left turn storage length northbound 1st Ave. to westbound Roger Rd. Possibly remove portion of median."
Roger, northeast corner	Add pedestrian path from corner of intersection directly into parking lot.
River, northeast corner	Need a right turn signal here from westbound River Rd. to northbound 1st Ave.
Roger, southeast corner	Proposed median impeding access.
Between Campana Dr and Bromley St, east side of street	Consider providing a u-turn opportunity for people who are forced to turn right from Rillito Park to go south on 1st Avenue (not a signal - FYI U-turns are currently prohibited.)
Bromley St, west side of street	Need access to 1st Ave
Between Croydon Park Rd and Bromley St	Please pedestrian crossing
North of Rillito River	"Make this right turn only exiting north on 1st." Comment located on 1st Ave. just north of the Rillito River, the exit from the Rillito Raceway entrance/exit. This really backs up with people on Sundays during the Farmer's Market.
South of Wetmore, east side of the street	"Will cars be allowed to leave the driveway and enter the left turn lane to make a U-turn? It looks tight." Comment located on 1st Ave. south of Wetmore Rd. on east side of street, entrance in front of Hughes Federal Credit Union into Sprouts center.
Between Yavapai Rd and Mohave Rd	Prioritize shade & crossings between Prince & Grant. A lot of walking happens between Grant & Prince.

Location	Comment
North of Navajo Rd., east side of street	Halcyon is the only road that connects to Mountain. Crosswalk should be here instead.
Grant, northwest corner	Jay-walking a real problem just north of Grant Rd. Traffic accelerates from light.
Grant, northeast corner	Relocate this bus stop for right turn from Grant Rd. to north 1st Ave.
Between Grant and Alturas	People don't cross at intersections. Ped islands are good. Extra visual slow down within 1/4 mile of intersections
Alturas, east side on street	Popular entrances @ businesses - Presta and Buenida Café - activate near space for increase in economy and spread energy
Kelso, northwest corner	Difficulty turning north onto 1st Ave. from Kelso
Kelso, east side of street	Partner with BK's and Smokey Mo's to create more activation near businesses. Win, win. Economy: Comfortable walking areas.
Glenn	Bike boxes on Glenn

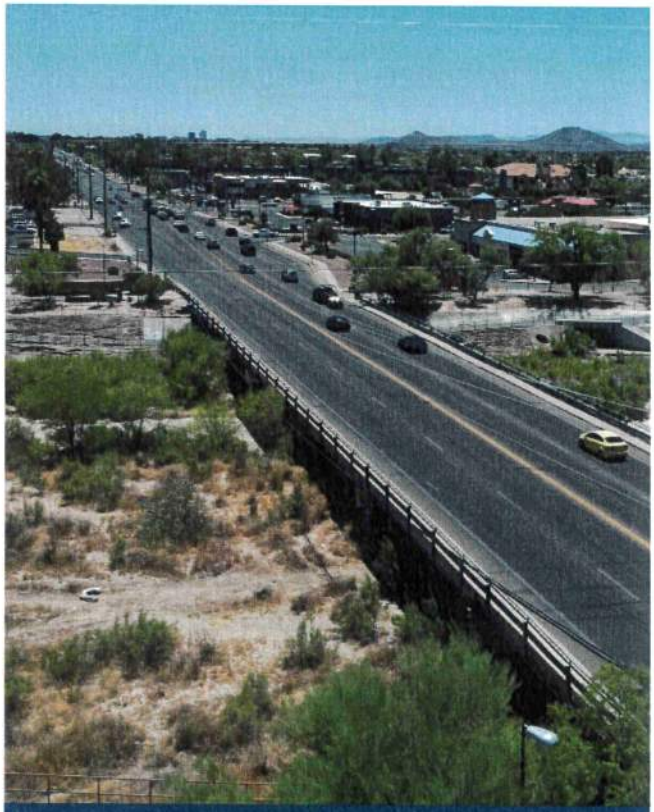
Voting

Category	Element	Votes
Plant Palette: Understory	Desert Milkweed	8
	Palmer's Indian Mallow	7
	Desert Spoon	2
Plant Palette: Large Shrubs	Creosote	7
	Hopbush	4
	Wolfberry	4
	Prickly Pear	2
Plant Palette: Trees	Velvet Mesquite	8
	Palo Verde	6
	Desert Willow	3
Visual Character: Shade Structures	Desert Inspired	7
	Simple Modern	3
	Artistic/Geometric	2
	Dynamic/Playful	1
Visual Character: Seating	Classic	7
	Curvilinear/Organic	3
	Colorful Modern	2
	Industrial/Salvage	1
Visual Character: Landscape Design	Native Sonoran/Natural	9
	Organic/Soft	3
	Formal/Linear	1

Category	Element	Votes
Where would you like to see enhancements the most?	Option B	6
	Option C	2
	Option D	2
	Option A	1
Which enhancement style do you prefer?	Option 1	13
	Option 4	2
	Option 2	1
Enhance Visual Character: Areas of Opportunity	Shaded Walking Path	7
	Green Stormwater Infrastructure	5
	Pocket Park	1
	Fiesta District (Mesa)	1
Enhance Visual Character: Pedestrian Opportunity Areas	Tree Shaded Walking Path	8
	Shade Sail Structure over walking path	3
	Artificial Tree Canopies over table and chairs	3
	Bridge-like Shade Structure over sidewalk	2
Enhance Visual Character: Shade Structures	Simple Modern	5
	Desert Inspired	5
	Artistic/Geometric	3
	Whimsical	2
Enhance Visual Character: Seating	Industrial/Salvage	2
	Colorful Modern	2
	Curvilinear/Organic	1
Enhance Visual Character: Landscape Design	Native Sonoran	2
	Formal/Linear	1

Category	Element	Votes
	Organic/Soft	1
Enhance Visual Character: Plant Palette - Trees	Desert Willow	9
	Velvet Mesquite	4
	Palo Verde	4
Enhance Visual Character: Plant Palette - Large Shrubs	Creosote	4
	Wolfberry	2
	Prickly Pear	2
	Hopbush	1
Enhance Visual Character: Plant Palette - Understory	Palmer's Indian Mallow	5
	Desert Milkweed	5
	Desert Spoon	2
	Barrel Cactus	2

Appendix B:
Bridge Scour: Design Criteria Technical Assessment



Bridge Scour: Design Criteria Technical Assessment

1st Avenue Corridor, Grant to River

Prepared For:

City of Tucson Department of Transportation
Engineering Division

Prepared By:

HDR Engineering, Inc.
1 South Church Avenue, Suite 1400
Tucson, AZ 85701-1612

March 27, 2026

Registered Professional Engineer (Civil)
CERTIFICATE
54445
DANIEL A.
PFEIFER
Date Signed 3-27-26
ARIZONA, U.S.A.
EXPIRES
3/31/2027

Recommended By:

Engineer in Responsible Charge (Consultant) — Date: 3/27/2026

Project Manager — Date: 3/27/2026

Approved By:

City of Tucson, City Engineer and Floodplain Administrator — Date: 4/6/2026

Approval (comments):

Introduction / Background

The City of Tucson Drainage Manual Section 6.6 contains instructions for determining the scour depth for structures. Equation 6.3, the total scour equation shown below, is the sum of general scour, anti-dune trough depth, local scour, bend scour, and low-flow thalweg depth. The equation also includes a coefficient of 1.3 to increase the total scour depth. Per the COT, the coefficient of ½ for the anti-dune trough depth is an error in the manual and should be removed.

$$Z_t = 1.3\ (Z_{gs} + 1/2Z_a + Z_{ls} + Z_{bs} + Z_{lft}) \qquad (6.3)$$

Where:

Z_t	=	Design scour depth, *excluding* long-term aggradation/degradation, in feet;
Z_{gs}	=	General scour depth, in feet;
Z_a	=	Anti-dune trough depth, in feet;
Z_{ls}	=	Local scour depth, in feet;
Z_{bs}	=	Bend scour depth, in feet;
Z_{lft}	=	Low-flow thalweg depth, in feet; and,
1.3	=	Factor of safety to account for nonuniform flow distribution.

Total Scour Elements

General Scour

The COT Drainage Manual, revised in July 1998, defines general scour as a "discontinuity in the sediment-transport capacity of the flow during a runoff event." The manual recommends that general scour be calculated using a detailed sediment transport model or by using Equation 6.4 from the manual.

The current federal guidance for calculating bridge scour, Highway Administration (FHWA) HEC-18 5th Ed., released in 2012, includes several components which can affect the stability of foundations including pier, abutment, bendway, and long term. However, current guidelines for determining scour do not include the term "general scour," rather, the document defines the specific components of scour that make up general scour, such as contraction and bend scour. It defines this scour as a lowering of the stream bed caused by channel contraction or other scour conditions such as bend scour. This edition of HEC-18 recommends calculating total scour at the bridge as a combination of long-term degradation, general scour, and local scour (piers or abutments).

To be consistent with current guidelines, general scour can be considered as contraction scour and other types of "general scour," like bend scour. The Rillito River at First Avenue is a straight and non-meandering channel with soil cement walls that channelize flow. This causes both bend scour and contraction scour to be not applicable. The existing bridge abutments are set behind soil cement walls lining the channel which greatly reduces the potential for disruption in the existing sediment transport capacity during a runoff event. Most of the soil cement walls along the Rillito were built in response to the devastation of the 1983 floods in Tucson. According to a Pima County Memorandum (*2006 Monsoon Season and the July 27, 2006 to July 31, 2006, Flood Event*), the 2006 floods had significantly less damage and bank erosion than the 1983 floods due to the soil cement bank protection.

Additionally, there is a grade control structure approximately 200ft downstream which will prevent changes in bed elevation due to the "hard point" introduced in the bed floor. The structure spans the length of the riverbed and contains a toe down that extends several feet into the riverbed. Therefore, it is recommended that general scour not be applied to the First Avenue bridge structure since it appears to not be applicable in this particular site.

Anti-dune bed height

The COT Drainage Manual defines anti-dunes as "bed forms, in the shape of dunes, which move in an upstream rather than a downstream direction within the channel". Equation 6.5 from the manual, shown below, calculates the depth of the anti-dunes, where V_m is the average approach velocity.

$$Z_a = \frac{1}{2}\,(0.14)\,\frac{2\pi V_m^2}{g} = 0.0137 V_m^2 \qquad (6.5)$$

The grade control structure, located directly downstream of First Avenue, would prevent potential anti-dune bed forms from migrating upstream. Furthermore, it could be argued that bedform is accounted for within the COT equation for pier scour. The calculations for pier scour in the current HEC-18 document and the COT Drainage Manual are identical, except for the coefficients included. The HEC-18 method includes a general amplification factor and three coefficients which account for pier shape, pier alignment, and bed condition of the river. The COT equation for pier scour also includes a general amplification factor and a coefficient for pier shape.

The HEC-18 Equation 7.1 as shown below includes the three coefficients for pier shape, pier alignment, and bed condition as K_1 K_2, and K_3, respectively. The equation also includes a coefficient of 2.0 for amplification of the calculated scour.

HEC-18

$$\frac{y_s}{y_1} = 2.0\, K_1\, K_2\, K_3 \left(\frac{a}{y_1}\right)^{0.65} Fr_1^{0.43} \qquad (7.1)$$

Assuming small dunes, the final combined HEC-18 coefficient for the pier scour value is 2.2.

- Values of coefficients: K1=1.0 (Round), K2=1.0 (No skew), K3=1.1 (Small dunes)
- Derivation of final coefficient: (2.0)(K1)(K2)(K3) = (1.0)(1.0)(1.1)(2.0)=2.2 – HEC18

COT Manual

Equation 6.9 below shows the COT manual pier scour equation with an amplification factor of 2.2. Table 6.1 in the COT manual, shown below, assigns reduction factors based on pier shape. For a cylindrical pier, the shape factor is 0.9.

$$Z_{lsp} = 2.2\, Y \left(\frac{b_p}{Y}\right)^{0.65} F_u^{0.43} \qquad (6.9)$$

Where:

Z_{lsp} = Local scour depth due to pier, in feet;
Y = Flow depth, in feet;
b_p = Pier width normal to the flow direction, in feet; and,
F_u = Upstream Froude number.

TABLE 6.1: REDUCTION FACTORS TO BE USED WHEN APPLYING SCOUR FORMULAS FOR SQUARE-NOSED PIERS TO OTHER SHAPES

(assuming equally projected widths of piers)

Type of Pier	Reduction Factor
Square Nose	1.0
Cylinder	0.9
Round Nose	0.9
Sharp Nose	0.8
Group of Cylinders	0.9

The final combined COT coefficient for the pier scour value is 1.98.

- Derivation of final coefficient: 2.2*(shape factor) =2.2*0.9=1.98

The COT Drainage Manual adds a coefficient of 1.3 to the total scour equation as part of the pier scour calculation. If this coefficient is considered, the final combined COT coefficient for the pier scour value is

- Derivation of final coefficient: 2.2 * 0.9 * 1.3 = 2.57 – COT manual

It could be argued that the COT Drainage Manual method takes anti-dunes into account because the COT manual pier scour coefficient of 2.57 is greater than the HEC-18 pier scour coefficient of 2.2, which considers bed forms of small dunes. Because the grade control structure protects against anti-dunes moving upstream and because bed form is essentially considered through the pier scour equation, it is recommended that the COT Equation 6.5 for anti-dune bed height not be applied to the First Avenue bridge structure.

Low Flow Thalweg

The COT manual recommends that the low flow thalweg depth be two feet in regional watercourses like the Rillito River. Based on the conclusion that there would be no changes in sediment transport capacity within this reach of the river, it could be concluded that there are no long term changes in the bed elevation due to aggradation or degradation of soils due to no changes in wash or bed load. The grade control structure downstream will also prevent changes in bed elevation. The coefficient of 1.3 applied in the total scour equation would further increase scour depth. Including both a 2-foot increase and a 30-percent increase to the final scour depth is overly conservative due to the site-specific conditions with the grade-control structure downstream and the soil cement bank protection. It is recommended that the low flow thalweg term be excluded from the design scour depth.

Conclusion

This design criteria technical assessment reviewed the COT criteria for estimated scour depths while considering site-specific conditions and the most up to date research and procedures. In this specific case, it does not appear that there are significant changes in the cross sections within this river reach. Nor does the structure introduce changes which would limit or alter sediment capacity within the reach. It appears that long term scour or bed changes would be a result of channelizing the river and altering the bed slope, resulting in the river adjusting itself back to equilibrium. This may be why there is the downstream grade control structure which would stabilize conditions in the immediate vicinity.

It appears that the COT manual has not been updated in quite some time. Since its publication, the HEC-18 manual has been updated five times and/or whenever there are results from studies which improve methods for estimating scour depths. The latest updates have made changes in abutment scour methods. When comparing results from HEC-18 to COT methodologies it appears that the local COT methods may be overly conservative due to overestimating several mechanisms associated with bridge scour. HEC-18 is an industry standard that continues to be refined as the complexities of scour are further studied. Many times, it has been determined that earlier versions of scour calculations were overly conservative when compared to real world physical results.

It is recommended that the final scour depth for the First Avenue bridge be calculated by including the COT standard pier scour depth with the COT total scour equation coefficient of 1.3 applied as a factor to the pier scour depth. See Table 1 for a summary of City, County, Federal, and recommended scour depth estimates.

Table 1. Scour Depth Method Comparisons

	City of Tucson Method Scour Depth Values (ft)		FHWA HEC-18 Scour Depth Values		Pima County Scour Depth Values		Recommended Scour Depth Values (ft)	
	100-year	500-year	100-year	500-year	100-year	500-year	100-year	500-year
General Scour	1.8	2.9	0	0	1.8	2.9	0	0
Anti-Dune Trough Depth	1.9	2.4	0	0	0	0	0	0
Low-Flow Thalweg	2.0	2.0	0	0	0	0	0	0
Local Scour (Pier)	11.3	12.6	13.6	15.1	13.6	15.1	14.7*	16.4*
TOTAL	22.1	25.8	13.6	15.1	15.3	18.0	14.7	16.4

*COT Local (Pier) Scour with the factor of 1.3 applied from COT Total Scour equation.

The following summarizes each type of scour and justifies its inclusion (or exclusion) from the final scour depth for the First Avenue bridge:

1) General Scour – It is recommended the COT term for general scour be removed from the overall scour depth estimate. It does not appear to apply to this specific location where there is a well-formed and channelized system, with no apparent contraction or general scour prevalent.

2) Bed Form – It is recommended the COT term for bed form scour be removed from the overall scour depth estimate. The HEC-18 methodologies account for bed form as part of the equation development, and the grade control structure downstream of the bridge would block upstream movement of anti-dune bed forms.

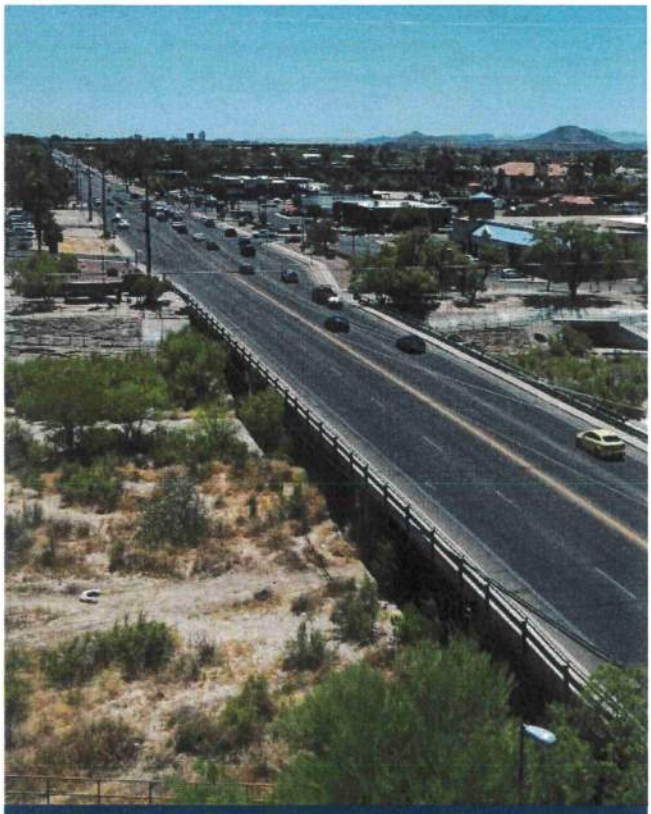
3) Thalweg - It is recommended the COT term for low flow thalweg scour be removed from the overall scour depth estimate. Per review it does not appear that a long-term scour depth is apparent in this location. Additionally, there is a downstream grade control structure that would prevent a headcut from propagating upstream. All scour depth elevations are estimated from the lowest point (thalweg) in the riverbed. Therefore, it appears that the depths would account for the thalweg within the crossing. Review of bridge inspection reports has indicated no change in the thalweg elevation, further supporting the removal of the term.

4) Local (Pier) Scour – It is recommended the COT term for local scour be kept as-is. The COT total scour equation coefficient of 1.3 will be applied to the local scour.

Section 6.2 of the COT Drainage Manual affirms that deviations from the standard guidelines may occur, provided that the user is qualified and the proposed design is justified. The design team is well informed and experienced in sediment transport analysis including the Level II approach which specifically reviews sediment capacity and the potential for changes in the system that may result in aggradation or degradation. If approved, the design scour will meet federal requirements and the intent of the COT standards by accounting for bed form, consideration of impacts to sediment transport capacity, and long-term conditions of the river reach.

In the case of the 1st Avenue Bridge, it is apparent that the bridge is in a stable, well confined river reach, with both hard banks and a grade control structure at the river crossing. Utilizing the COT pier scour depth will meet the intent of engineering due diligence without being overly conservative, optimizing both cost and public safety.

Appendix C:
Bridge Freeboard: Design Criteria
Technical Assessment



Bridge Freeboard: Design Criteria Technical Assessment

1st Avenue Corridor, Grant to River

Prepared For:

City of Tucson Department of Transportation
Engineering Division

Prepared By:

HDR Engineering, Inc.
1 South Church Avenue, Suite 1400
Tucson, AZ 85701-1612

March 27, 2026

Registered Professional Engineer (Civil)
CERTIFICATE NO.
54445
DANIEL A.
PFEIFER
Date Signed 3-27-26
ARIZONA, U.S.A.

EXPIRES
3/31/2027

Recommended By:

Engineer in Responsible Charge (Consultant) — Date: 3/27/26

Project Manager — Date: 3/27/2026

Approved By:

City of Tucson, City Engineer and Floodplain Administrator — Date: 4/2/2026

Approval (comments):

provides the minimum vertical clearance above the Loop multi-use path. Additionally, the proposed design exceeds both the minimum Pima County and Arizona State freeboard requirements.

It is recommended that the COT accept the proposed design for the First Avenue Bridge with a freeboard of 4.2 feet from the 100-year WSE. The proposed bridge is 1.9 feet higher than the existing bridge and provides double the amount of freeboard compared to existing conditions. The risk of debris loading is mitigated by upstream structures and maintenance. Furthermore, the proposed bridge achieves compliance with COT criteria for over 150 feet along the center of the bridge and will have up to 6.2 feet of freeboard to pass debris and standing waves above the 100-year WSE. Accepting the proposed design as-is meets the purpose of including freeboard to convey debris and standing waves safely, while balancing all other project needs.

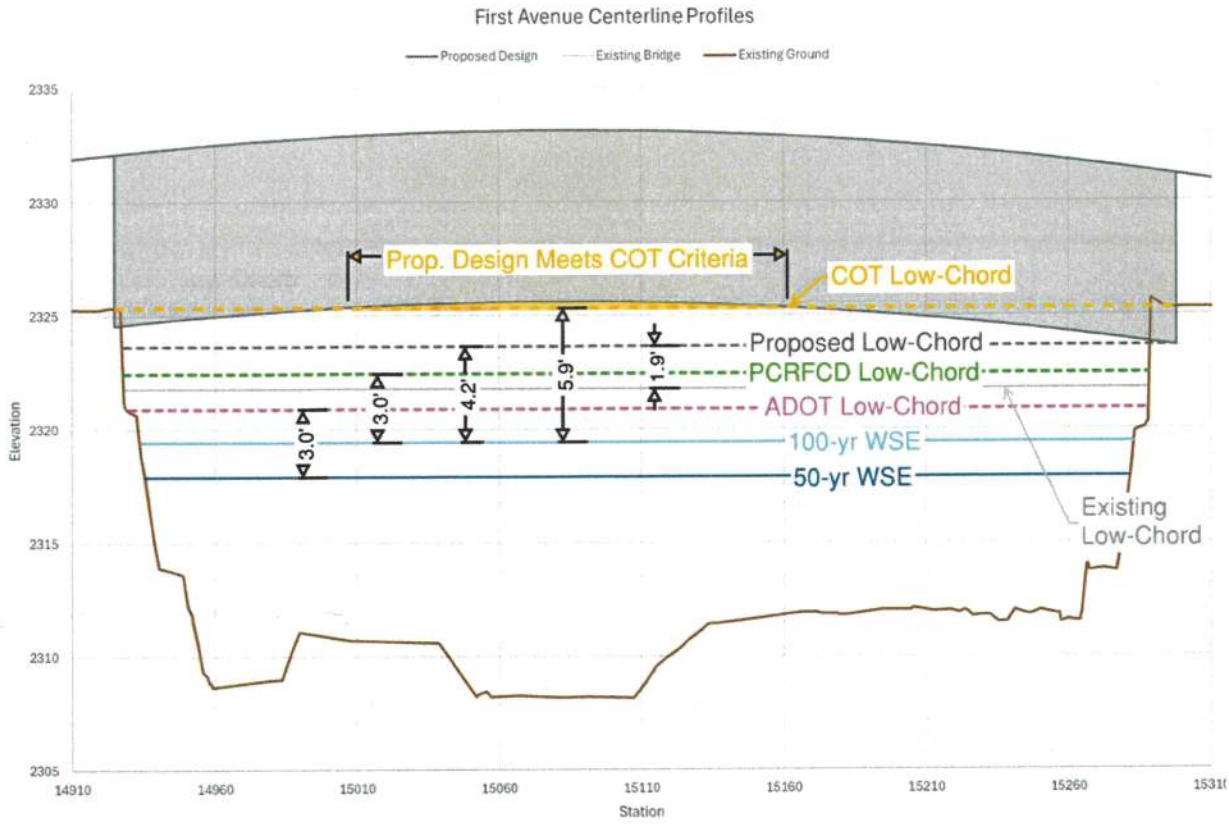


Figure 2. Low-chord Bridge Elevation and WSE Comparison

Another purpose of freeboard is to provide a factor of safety in the case of standing waves. The potential height of standing waves is determined by the magnitude of the velocity. Again, preliminary modeling indicates that the highest velocities are located at the channel center, which would experience the highest potential standing waves. The 150 feet along the center of the bridge where the proposed design meets COT criteria would line up with the section of channel where the highest standing waves are expected.

Conclusion and Design Criteria Request

The HDR team, which is well versed in river and bridge hydraulics, has conducted a thorough review of the freeboard at the First Avenue bridge crossing the Rillito River. The staff has consulted with both local and national experts when developing this technical assessment to provide the COT with a technically sound review of the bridge design. Based on the review of the COT freeboard requirement it is not practical to provide 5.9' of freeboard for entire length of the proposed bridge and also maintain access to adjacent parcels. Whereas the current proposed bridge provides a design that balances the safe and increased conveyance of stormwater, maintains connectivity to adjacent parcels and

Preliminary modeling of the velocity distribution for the channel upstream of the proposed bridge indicates a maximum velocity of 14 feet per second near the center of the channel. Figure 1 shows a plot of the velocity distribution from the model. Higher velocities in the center of the channel can cause eddies to form on the slow-moving outer edges of the flow which pull debris into the faster-moving center of the channel. For this reason, it is expected that most of the debris will be pulled into the center of the channel.

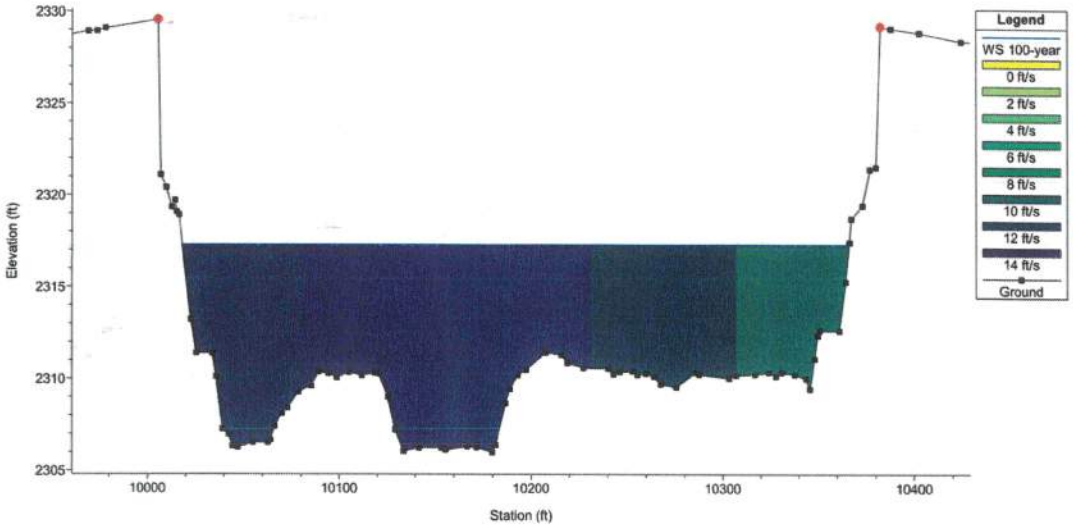


Figure 1. Cross-Sectional Velocity Distribution Directly Upstream of Proposed Bridge (XS 6.277)

The low-chord elevation at the center of the proposed bridge is compliant with COT freeboard standards for over 150 feet out of the 380-foot bridge length, as the proposed roadway was designed with a crest vertical curve over the bridge to elevate the bridge and roadway. See Figure 2 for an illustration of the proposed design bridge profile compared to other freeboard criterion. The maximum freeboard at the center of the bridge is 6.2 feet from the 100-year WSE. This additional space would allow the bridge to pass more debris in the center of the channel, where most of the debris loading is expected.

proposed bridge and resulting lower WSE, as well as the raised low-chord elevation, the proposed freeboard of 4.2 feet is more than double the existing freeboard of 1.9 feet. The proposed freeboard does not meet the City of Tucson freeboard requirement for the full length of the bridge, but it does meet PCRFCD criteria.

If 3 feet of freeboard (Pima County RFCD method) were subtracted from the COT minimum low-chord elevation in Table 1, the resulting WSE would be 2322.33. This water surface elevation would be associated with a flow of approximately 50,000 cfs. Comparatively, the effective regulatory 500-year flood flow is estimated at 64,000 cfs and the effective regulatory 100-year flow is 32,000 cfs.

Table 2 compares the proposed design to ADOT guidelines for a Class 1 route. All low-chord elevations are based on a 50-year WSE of 2317.89 as calculated in the modified effective hydraulic model.

Table 2. 50-year Freeboard Method Comparisons

	Freeboard (ft)	Minimum Bridge Low-Chord Elevation (ft)
Proposed Design	5.8	2323.64
ADOT Method, Drainage Class 1	3.0	2320.89

The proposed design for the First Avenue bridge with 5.8 feet of freeboard from the 50-year WSE meets almost *double* the most stringent ADOT requirement for freeboard, which is three feet from the 50-year WSE. The Class 1 route designation is typically reserved for interstates and highways which have a high traffic count and are critical corridors for travel across Arizona. Though it is not an interstate alignment, the proposed First Avenue bridge meets freeboard criteria for a high operational importance corridor.

If the proposed bridge were raised 1.6 feet to meet COT criteria, the First Avenue bridge would have 7.4 feet of freeboard during the 50-year storm. Multiple parcels could lose connectivity to First Avenue if the bridge and roadway alignment were raised several feet higher, blocking driveway access. The proposed bridge and associated freeboard are designed to balance the need to maintain connectivity along First Avenue for parcels near the bridge with the need to safely convey stormwater through the bridge.

One of the purposes of freeboard is to allow floating debris to pass through the bridge and provide additional conveyance if debris partially blocks the bridge opening. Urban debris loading has been observed along the Rillito River, but there are multiple bridges upstream of First Avenue which have less freeboard that debris may be caught on. Additionally, this stretch of the Rillito River is a channelized, maintained reach which reduces debris loading.

Proposed First Avenue Bridge

Table 1 below compares freeboard requirements from multiple jurisdictions to the proposed design for the First Avenue bridge. The existing bridge low-chord elevation was determined from as-built plans and project survey, and the existing bridge freeboard is based on a 100-year WSE of 2319.87. All other bridge low-chord elevations are based on a 100-year WSE of 2319.43. The existing and proposed 100-yr WSE values differ due to differences in modeled bridge geometry. WSE values were determined within the modified effective hydraulic model for the Rillito River, which has cross sections updated to reflect topographic information collected as part of the First Avenue project. The duplicate effective model was provided by PCRFCD. During the 500-year storm, it is expected that both the existing and proposed bridges would pressurize.

Table 1. 100-year Freeboard Method Comparisons

	Freeboard (ft)	Minimum Bridge Low-Chord Elevation (ft)
Existing Bridge	1.9	2321.77
Proposed Bridge	4.2	2323.64
City of Tucson Method	5.9	2325.33
Pima County RFCD Method	3.0	2322.43

The existing First Avenue bridge was built in 1961 with 1.9 feet of freeboard above the 100-year WSE. The bridge has experienced several major flooding events along the Rillito, including the 1983, 1993, and 2006 floods. Review of ADOT bridge inspection reports do not indicate any significant damage from flowing debris over the existing bridge's 60+ year life. Most of the bank protection along the Rillito River was built in response to the devastation of the 1983 floods. Specifically at First Avenue, a portion of the bank protection was constructed prior to the 1983 floods, with the remainder constructed in 1986. A 2006 Pima County Memorandum (*2006 Monsoon Season and the July 27, 2006 to July 31, 2006, Flood Event*) emphasized the importance of the Rillito River soil cement bank protection in drastically reducing flood damages and erosion during the 2006 floods compared to the 1983 floods.

The design of the proposed First Avenue bridge is expected to further reduce risk of damage during flooding. With a design life of 75 years, and a foundation designed to withstand a 500-yr flood event, the proposed bridge is both wider and significantly higher than the existing bridge. The proposed low-chord, at 1.9 feet higher than the existing bridge low-chord, is designed to meet the minimum clearance from the Loop multi-use path and allow for the safe conveyance of floodwater. Due to the increased conveyance through the

City of Tucson Freeboard Criteria

The City of Tucson (COT) Drainage Manual, Section 9.5.3, sets freeboard requirements for bridges in the City of Tucson. Equation 1 below shows the minimum freeboard for bridges over regional watercourses, including the Rillito River. The manual does not specify a frequency for the design storm which should be used to find velocities and water surface elevation (WSE). For the First Avenue Bridge over the Rillito River, the 100-year event will be used for the design storm, as this matches the regulatory flood.

Equation 1. City of Tucson Freeboard (Bridges over Regional Watercourses)

$$F = 0.88\left(\frac{v^2}{2g}\right) + 4$$

F = freeboard (ft)
v = average velocity approaching bridge (ft/s)
g = gravitational acceleration constant (ft/s^2)

The purpose of freeboard as defined by the COT drainage manual is to (1) allow passage of debris, (2) provide additional conveyance under the bridge if debris reduces bridge capacity, and (3) provide a factor of safety in the case of standing waves.

Other Freeboard Criteria

The Pima County Regional Flood Control District (PCRFCD) and Federal Highway Administration (FHWA) also set their own freeboard criteria. The PCRFCD Guidelines for Establishing Scour and Freeboard for Bridges in Pima County require watercourses with a flow greater than 10,000 cubic feet per second (cfs) during the 100-year storm to have a freeboard of three feet from the 100-year WSE. The FHWA Hydraulic Engineering Circular 18 (HEC-18) also recommends adding three feet of additional freeboard to the normal design event freeboard for debris-heavy rivers. The FHWA Design Standards, Section 650.115(3) say "freeboard shall be **provided where practicable** to protect bridges from debris and scour related failure."

The Arizona Department of Transportation (ADOT) bases freeboard requirements on the operational importance of the road, described by four groupings: Class 1 through Class 4. Class 1 routes must be designed with three feet of freeboard from the 50-year WSE, while Class 4 routes must be designed with one foot of freeboard from the 10-year WSE. Routes designated as Class 1 typically have high operational importance, such as Interstate 10 or Oracle Road/SR77, where the repercussions of reduced capacity are greater.