Pre-Design Sidewalk Study for 7th Avenue: Southern Avenue to Broadway Road

Final Project Assessment

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Prepared for:

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Abbreviations

ADEQ	Arizona Department of Environmental Quality's
ADOT ACIS	Arizona Department of Transportation Crash Information System
ANPL	Arizona Native Plant Law
ARHP	Arizona Register of Historic Places
ARS	Arizona Revised Statutes
ASM	Arizona State Museum
AWLA	Arizona Wildlife Linkages Assessment
AZDA	Arizona Department of Agriculture
AZGFD ERT	Arizona Game and Fish Department
AZPDES	Arizona Pollutant Discharge Elimination System
AZSITE	Arizona GIS System
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CAO	City Archaeology Office
CGP	Construction General Permit
CH	Critical Habitat
COP	City of Phoenix
EDR	Environmental Data Resources
EO	Environmental Overview
ESA	Endangered Species Act
ESA	Environmental Site Assessment
FIRM	Flood Insurance Rate Map
GIS	Geographic Information System
GLO	General Land Office
LOMR	Letter of Map Revisions
LUST	Leaking Underground Storage Tanks
MAG	Maricopa Association of Governments
MBTA	Migratory Bird Treaty Act
MCWCA	Maricopa County Wildlife Connectivity Assessment
NOI	Notice of Intent
NRHP	National Register of Historic Places
NWP	Nationwide Permit
PA	Project Assessment
PJD	Preliminary Jurisdictional Determination
SF	Square Feet
SPDG	City of Phoenix Street Planning and Design Guidelines
STEAM	Sunland Academy and Rincon Learning Center
SWMP	Stormwater Management Plan
TCEs	Temporary Construction Easements
USACE	Army Corps of Engineers
USFWS IPaC	U.S. Fish and Wildlife Service Information Planning and Consultation
USGS	U.S. Geological Survey
UST	Underground Storage Tanks

1 Introduction

1.1 PURPOSE OF STUDY

The City of Phoenix Street Transportation Department (City) has initiated the 7th Avenue: Southern Avenue to Broadway Road Pre-Design Study (Project No. ST85100459-1) to evaluate the feasibility of constructing new sidewalk improvements and provide pedestrian accessibility along the west side of 7th Avenue. The project corridor extends approximately 5,280 feet, beginning roughly 350 feet north of Southern Avenue and ending approximately 280 feet south of Broadway Road along the west side of 7th Avenue, where existing sidewalk segments currently terminate.

Currently, there are significant gaps in the pedestrian infrastructure on the west side of 7th Avenue within the project limits, resulting in pedestrian inaccessibility and safety concerns. The proposed improvements will address these gaps by evaluating and developing design alternatives that meet current City of Phoenix design standards while minimizing right-of-way acquisition, utility conflicts, and construction costs.

This Pre-Design study aims to assess existing corridor conditions and develop feasible alternatives to complete a continuous sidewalk or pedestrian path along the west side of 7th Avenue. The results of this study will guide City staff and project stakeholders in selecting a recommended alternative for the sidewalk improvements, as well as inform future design development phases.

1.2 STUDY PROCESS

The purpose of this study is to develop a Project Assessment (PA) that evaluates design alternatives for constructing a sidewalk or pedestrian facility along the west side of 7th Avenue, filling a critical infrastructure gap within the community. The study will:

- Analyze existing corridor conditions, including traffic, drainage, utilities, environmental factors, and right-of-way.
- Identify and evaluate three design alternatives to meet City of Phoenix standards and community needs.
- Select a recommended alternative based on technical criteria, constructability, cost, and public input.
- Provide 15% design plans and a planning-level cost estimate for the recommended alternative to inform future design and construction phases.

This Pre-Design phase will also serve to support coordination with stakeholders, guide funding decisions, and address any constraints that may impact the development and implementation of the project.

1.3 STUDY AREA

The study area encompasses a segment of 7th Avenue in south Phoenix, extending from approximately 350 feet north of Southern Avenue to approximately 280 feet south of Broadway Road—a total length of approximately one mile. The focus is specifically on the west side of 7th Avenue, where sidewalk infrastructure is currently incomplete or missing. The corridor lies within a largely residential and community-serving context, and improvements are intended to enhance pedestrian safety, connectivity, and access to surrounding neighborhoods and amenities.

The Study Area is shown in Figure 1.

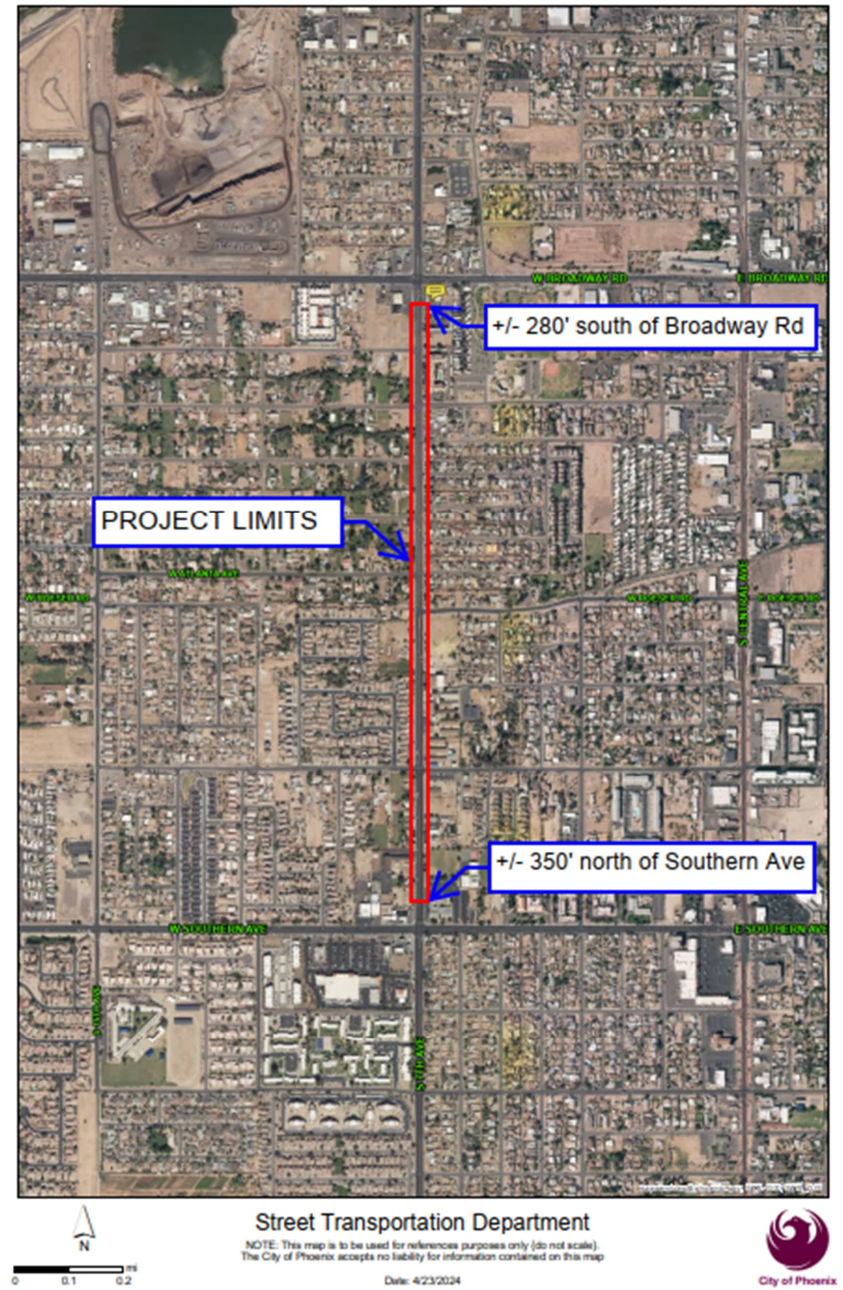


Figure 1. Project Study Area

2 Background Data

2.1 SUMMARY OF NEED AND JUSTIFICATION

The City of Phoenix Street Transportation Department has identified a critical need for improved pedestrian infrastructure along 7th Avenue between Southern Avenue and Broadway Road. The existing corridor contains significant gaps in sidewalk facilities on the west side of 7th Avenue, forcing pedestrians to traverse either unimproved shoulders or private driveways where no formal pedestrian access exists.

The absence of continuous sidewalks along the west side of the roadway creates safety concerns for pedestrians, particularly for school children, transit users, and other vulnerable populations who rely on safe and accessible pedestrian routes. The proposed sidewalk improvements will directly enhance pedestrian safety, ADA accessibility, and multimodal connectivity in an urbanized and heavily traveled corridor. In addition to addressing immediate pedestrian needs, the project is consistent with City of Phoenix long-term goals for complete streets, walkability, and transportation system enhancements.

This Project also seeks to proactively reduce future costs by evaluating alternatives that minimize right-of-way acquisition and utility relocations, which are often the most expensive components of urban sidewalk improvements. By preparing this Pre-Design Study and PA, the City will be equipped to make fiscally responsible decisions that prioritize safety while balancing available resources.

2.2 PROJECT BACKGROUND

Infrastructure improvements along the east side of 7th Avenue from Southern Avenue to Broadway Road were completed in 2019. Improvements included upgrades to ADA facilities including curb ramps and sidewalk. Improvements along the west side of 7th Avenue were not included at that time due to constraints with existing right-of-way and utilities. Since that time the City and local community groups have expressed the desire to investigate the implementation of pedestrian improvements along the west side of the road.

This study includes development and evaluation of design alternatives which includes considerations for the ultimate half street improvement (City of Phoenix Cross-Section “D”; Arterial) along with alternate solutions for construction of a sidewalk or asphalt path along the west side of 7th Avenue that would reduce potential right-of-way acquisition or utility relocation needs and minimize disruption to surrounding properties and infrastructure.

2.3 DATA COLLECTION

A field review of the project corridor was completed on September 25, 2024 by AECOM and the City. The key data collected from the field review included:

- Inventory and condition assessment of existing curb ramps, driveways, and ADA features.
- Documentation of existing bus stop locations.
- Visual documentation of drainage features and surface utilities.

The following field observations were recorded along the west and east sides of 7th Avenue:

West Side of 7th Avenue:

- 12 new or reconstructed curb ramps required.
- 18 existing driveways or access points identified for reconstruction or accommodation.
- 3 bus stop locations requiring reconstruction.

East Side of 7th Avenue:

- 2 existing curb ramps requiring reconstruction.
- 12 driveways or access points.
- 4 bus stop locations to remain.

Appendix A includes photos taken during the field review, as well as field review notes by the team.

2.3.1 Survey Data

Topographic survey services were provided by Wood Patel & Associates (AECOM subconsultant) to develop an accurate existing conditions base map for design purposes. The survey included location of surface utilities, existing curb lines and edges of pavement, driveways, and drainage infrastructure within the project limits.

No existing right-of-way survey was conducted for the project. Existing right-of-way was determined through use of existing City and County parcel and GIS information.

2.3.2 Environmental Records Review

A desktop environmental review was conducted as part of the Environmental Overview (EO). This included regulatory research, GIS-based cultural resource inventory searches, and historic aerial photo reviews. Results of this analysis are discussed in greater detail in Section 4 of this report.

2.3.3 Traffic and Safety Data

Three years of historic crash data was collected from the Arizona Department of Transportation Crash Information System (ADOT ACIS) along the Study Area and within 500 feet of the limits. AECOM prepared a crash analysis summary to identify potential safety concerns and inform design decisions. The collected crash data detailed evaluation is presented in Section 3.1.6.

3 Existing Conditions

This section summarizes the existing conditions relating to traffic elements, physical roadway conditions, drainage, utilities, right-of-way and landscape architecture.

3.1 EXISTING TRAFFIC CONDITIONS

3.1.1 Street Classifications

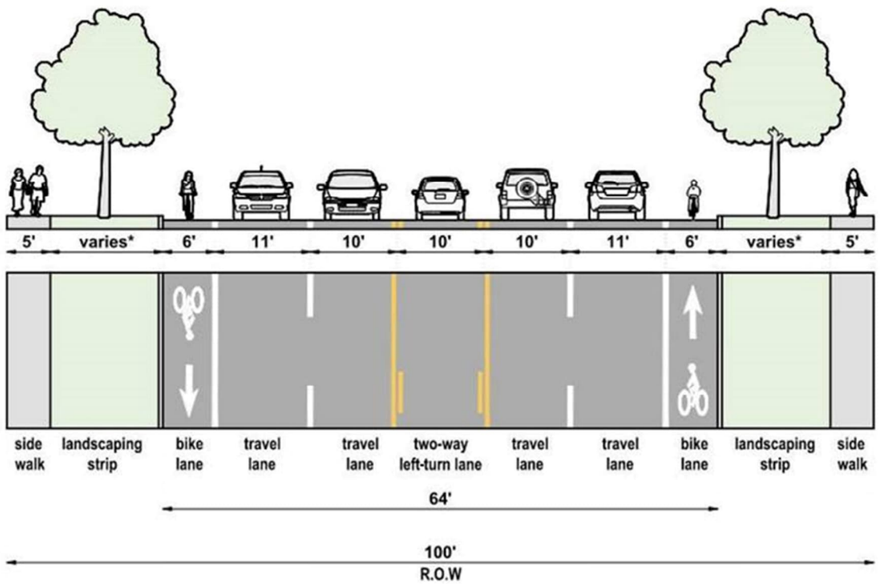
7th Avenue is classified as an Arterial Street in accordance with the City of Phoenix Street Classification Map, 2018. Per the City of Phoenix Street Planning and Design Guidelines (SPDG), arterial streets serve higher traffic volumes and are designed to accommodate two to three travel lanes per direction, with turn lanes, bicycle lanes, sidewalks, and bus stops integrated into the cross-section.

The applicable standard cross section for this segment of 7th Avenue is City of Phoenix Cross-Section “D” (Arterial), which includes:

- Two travel lanes in each direction (Existing travel lane widths vary from 10-11 feet)

- Continuous two-way center left-turn lane (Existing 10 feet)
- Bicycle lanes (Existing bike lane widths vary from 5-6 feet)
- Landscaping/Sidewalk buffer
- Curb, gutter, and sidewalk improvements.

Figure 2 displays the City of Phoenix Cross Section "D".



Source: City of Phoenix Street Planning and Design Guidelines Manual

Figure 2. City of Phoenix Cross-Section "D"

3.1.2 Existing Traffic Volumes

Per City of Phoenix SPDG arterial standards, arterial streets such as 7th Avenue typically accommodate Average Daily Traffic (ADT) volumes ranging between 15,000 to 50,000 vehicles per day (vpd). The City Street Traffic Volumes maps indicate a 2022 ADT on 7th Avenue just north of Sunland Avenue of approximately 26,600 vpd.

3.1.3 Traffic Signals

Within the study area, existing signalized intersections are located at 7th Avenue and Southern Avenue, 7th Avenue and Roeser Road, and 7th Avenue and Broadway Road. In addition, the City has plans to signalize the intersection of 7th Avenue and Sunland Avenue (File #: 12012), serving school-related pedestrian movements. This future project improvements include signalizing the intersection, curb ramps, sidewalk, curb & gutter, drainage, and a bus shelter improvement near the intersection. The City also identified that improvements are needed at the 7th Avenue and Roeser Road intersection but will also be completed with a future unidentified project.

3.1.4 Transit

The project corridor is served by existing Valley Metro transit operations along 7th Avenue. As part of the field review, the following existing transit conditions were documented:

- 4 existing bus stop locations on the west side (southbound) of 7th Avenue within the project limits.
- 4 existing bus stop locations on the east side (northbound) of 7th Avenue within the project limits.

Existing bus stop locations along the west side of 7th Avenue will be reconstructed as needed to meet ADA accessibility standards while maintaining bus service functionality during and after construction. A summary of the existing bus stop locations and their associated routes is provided in Table 1.

Table 1. Study Area Transit Routes

Type	Route No.	Direction	Stop Number and Name
Local Bus	8	Southbound	Stop #10751: 7th Ave and Broadway Road
Local Bus	8	Southbound	Stop #10752: 7th Ave and Tamarisk St
Local Bus	8	Southbound	Stop #10753: 7th Ave and Roeser Rd
Local Bus	8	Southbound	Stop #10754: 7th Ave and Sunland Ave
Local Bus	8	Northbound	Stop #10643: 7th Ave and Southern Ave
Local Bus	8	Northbound	Stop #10644: 7th Ave and Sunland Ave
Local Bus	8	Northbound	Stop #10645: 7th Ave and Roeser Rd
Local Bus	8	Northbound	Stop #10646: 7th Ave and Tamarisk St

Source: Valley Metro Maps and Schedules, June 2025

3.1.5 Pedestrian and Bicycle Facilities and Connectivity

Pedestrian Facilities:
Pedestrian facilities within the project corridor are incomplete and inconsistent. On the west side of 7th Avenue, long segments of sidewalk are missing, resulting in pedestrians walking along unpaved shoulders or within driveway aprons.

Field reviews identified the need for the following to enhance existing and proposed pedestrian facilities:

- 12 new or reconstructed curb ramps required on the west side of 7th Avenue.
- 18 driveways or access points requiring reconstruction or modification to accommodate ADA-compliant pedestrian access.
- New sidewalk or pedestrian path to complete missing segments.

Pedestrian Connectivity:
The lack of continuous sidewalk along the west side of 7th Avenue creates significant connectivity gaps between neighborhoods, schools, commercial properties, and existing transit stops. Pedestrian travel along this corridor is currently fragmented and inconsistent, presenting challenges for vulnerable users, including school children, elderly pedestrians, and people with disabilities.

The objective of the project is to provide a fully continuous, ADA-compliant pedestrian facility along the west side, thereby connecting existing facilities north and south of the project limits and improving access to local destinations and transit stops.

Bicycle Facilities and Connectivity:
Existing on-street bicycle lanes are present on both sides of 7th Avenue throughout the project limits. Existing bike lane widths vary from 5-6 feet (City of Phoenix arterial standards for bike lane width 6 feet). Bicycle connectivity within

the corridor is currently functional but will benefit from improved pedestrian crossings and ADA enhancements that also serve bicycle users at intersections, driveways, and bus stop locations.

3.1.6 Crash History

AECOM reviewed and analyzed the past three years (2022-2024) of historic crash data available on the Arizona Department of Transportation Crash Information System (ADOT ACIS). The corridor experienced a total of 113 crashes during the three-year period. Table 2 shows the distribution of crashes by year. Crash frequency has shown a consistent decline, with 48 crashes in 2022, 35 crashes in 2023, and 30 crashes in 2024. This downward trend may reflect improvements in roadway behavior, traffic patterns, or environmental conditions and warrants continued observation.

Figure 3 displays a heat map with a distribution of crashes by location. The heatmap shows five crossroads with a high number of crashes: Southern Avenue (31 crashes), Broadway Road (22 crashes), Roeser Road (20 crashes), Sunland Avenue (16 crashes) and Atlanta Avenue (9 crashes), totaling 87% of the crashes in the study area. The remaining crashes are located at more scattered locations throughout the corridor and comprise only 13% of the total crashes.

Table 2. Crashes by Year

Year	Count
2022	48
2023	35
2024	30

Within the three-year period, there were 2 serious injury crashes. There were 2 crashes involving pedestrians and/or bicyclists. The details of the serious injury crashes and pedestrian and bicycle crashes are below. Table 3 outlines the crashes by severity type and each closest crossing feature (major collector and minor collector roadways) within the study area. The majority of crashes (70%) resulted in no injury.

- Sunday, May 1, 2022 – 5:45 AM: A serious injury vehicle-to-vehicle crash occurred near the intersection of 7th Avenue and Romley Avenue.
- Tuesday, November 14, 2023 – AM: A serious injury crash occurred near the intersection of 7th Avenue and Roeser Road. A vehicle made a left-turn while failing to yield to the right of way.
- Thursday, August 25, 2022 – 5:42 PM: A pedestrian crash occurred near intersection of 7th Avenue and Roeser Road. A vehicle made a left-turn maneuver and struck a pedestrian crossing the intersection. The lighting condition was daylight, and the collision involved two vehicles.
- Saturday, April 15, 2023 – 8:17 PM: A bicyclist was struck during a right-turn movement at 7th Avenue and Southern Avenue. The lighting condition was dark but lighted. The crash involved one vehicle and resulted in a suspected minor injury.

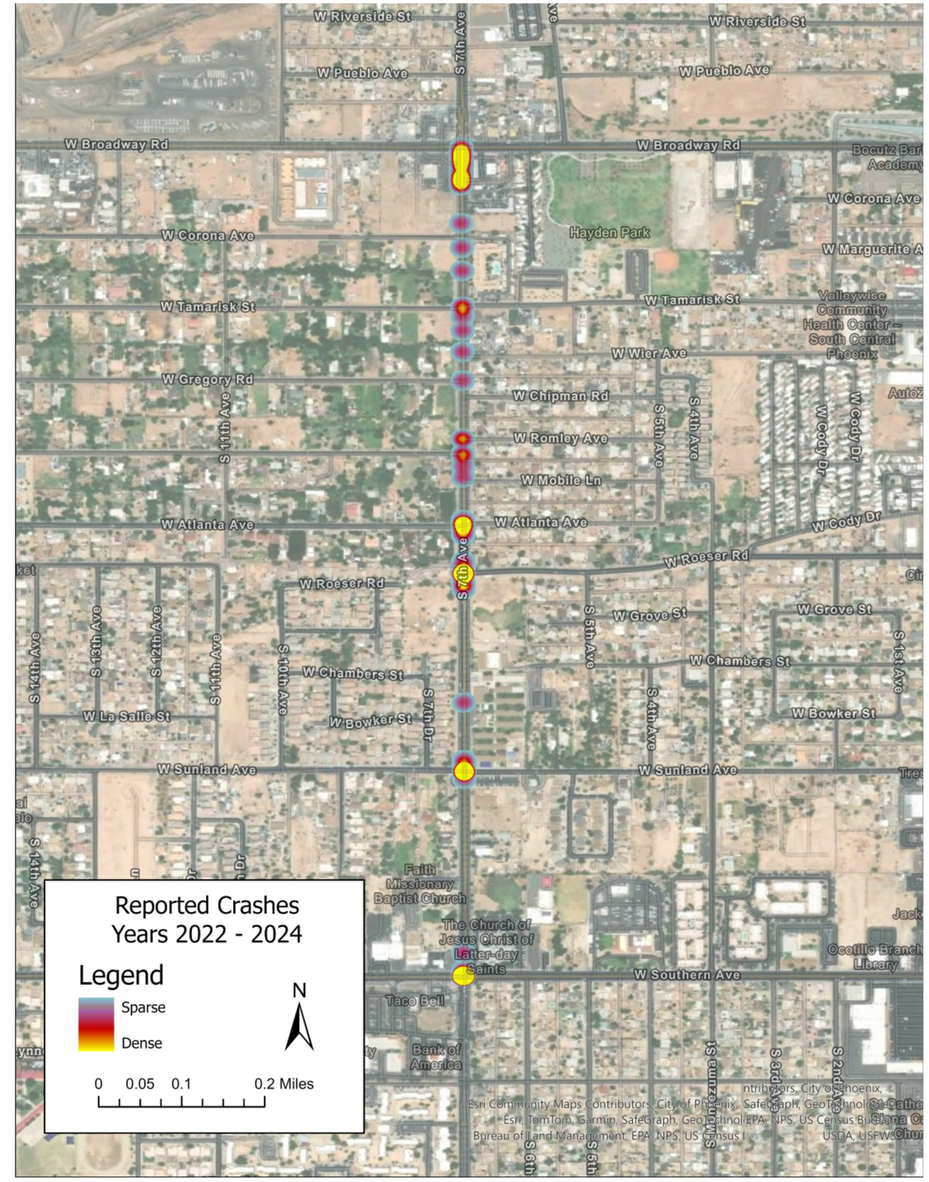


Figure 3. Crash Heat Map

Table 3. Crashes by Severity

Cross Road	No Injury	Possible Injury	Suspected Minor Injury	Suspected Serious Injury	Unknown	Total
Atlanta Ave	8	1				9
Broadway Rd	17	2	3			22
Corona Ave	2					2
Gregory Rd	1					1
Mobile Ln	1				1	2
Roeser Rd	15	4		1		20
Romley Ave	1	1		1	1	4
Southern Ave	19	3	8		1	31
Sunland Ave	11	2	2		1	16
Tamarisk St	3		2			5
Wier Ave	1					1
TOTAL	79	13	15	2	4	113

Furthermore, crashes were reviewed based on lighting conditions. Of the 113 crashes reported, 62 occurred in daylight, 44 occurred under dark but light conditions, and the remaining 7 occurred during dusk, dawn, or under poor/unlit conditions. This indicates a considerable portion of crashes (nearly 40%) happened under nighttime conditions, highlighting the importance of visibility and lighting along the corridor. Improvements to lighting design and visibility enhancements in proposed alternatives may help mitigate future night-time crashes. Table 4 outlines the lighting conditions reported for the three-year period by crossing feature.

Table 4. Crashes by Lighting Condition

Cross Road	Dark Lighted	Dark Not Lighted	Dark Unknown Lighting	Dawn	Daylight	Dusk	Total
Atlanta Ave	2				7		**9**
Broadway Rd	8				14		**22**
Corona Ave	1				1		**2**
Gregory Rd	1						**1**
Mobile Ln	1				1		**2**
Roeser Rd	11	1			8		**20**
Romley Ave					3	1	**4**
Southern Ave	11			1	17	2	**31**
Sunland Ave	5		1	1	9		**16**
Tamarisk St	3				2		**5**
Wier Ave	1						**1**
TOTAL	**44**	**1**	**1**	**2**	**62**	**3**	**113**

The manner of collision was evaluated to understand the types of conflicts most common along the 7th Avenue corridor. The top three collision types were:

- Left-Turn: 36 crashes (32%)
- Rear End: 30 crashes (27%)
- Angle: 15 crashes (13%)

Table 5 outlines the distribution of crashes by collision manner at each crossing feature. Most crashes involved left-turns, rear-end, and angle collisions, indicating intersection-related movements like turning and queuing are key contributors. Rear-end crashes may reflect sudden stops or signal timing issues, while angle and sideswipe crashes suggest visibility or lane discipline concerns. The “Other” category includes crashes with unclear or unique circumstances.

Table 5. Crashes by Collision Manner

Cross Road	Angle (Front To Side)(Other Than Left Turn)	Head On	Left Turn	Other	Rear End	Sideswipe Opposite Direction	Sideswipe Same Direction	Single Vehicle	Unknown	Total
Atlanta Ave	2		2		1	2	1	1		**9**
Broadway Rd	3	2	3		7	2	2	2	1	**22**
Corona Ave					2					**2**
Gregory Rd					1					**1**
Mobile Ln		1					1			**2**
Roeser Rd	1	2	11		1	1	3	1		**20**
Romley Ave	1		1				1	1		**4**
Southern Ave	3	1	18		5	2		1	1	**31**
Sunland Ave	8		1		2	2	3			**16**
Tamarisk St			1	1	2		1			**5**
Wier Ave					1					**1**
TOTAL	**18**	**6**	**37**	**1**	**22**	**9**	**12**	**6**	**2**	**113**

Crash data along 7th Avenue shows that the majority of incidents involved motor vehicles in transport as the first harmful event as outlined in Table 6. The next most common categories were crashes involving fixed objects and those involving pedestrians or other vulnerable users. Together, the top three categories—motor vehicles in transport, fixed objects (such as trees, benches), and pedestrian or pedal cycle-related incidents—account for approximately 95% of all reported crashes. This distribution suggests that while vehicle-to-vehicle collisions dominate the crash profile, there remains a smaller but notable portion involving infrastructure and vulnerable roadway users.

Table 6. Crashes by Incident Manner

Cross Road	Animal	Curb	Motor Vehicle In Transport	Other Fixed Object	Pedalcycle	Pedestrian	Traffic Sign Support	Utility Pole Light Support	Total
Atlanta Ave			8	1					**9**
Broadway Rd			19	1		1	1		**22**
Corona Ave			2						**2**
Gregory Rd			1						**1**
Mobile Ln			2						**2**
Roeser Rd	1		17	1		1			**20**
Romley Ave		1	3						**4**
Southern Ave			30					1	**31**
Sunland Ave			16						**16**
Tamarisk St			3		1	1			**5**
Wier Ave			1						**1**
TOTAL	**1**	**1**	**102**	**3**	**1**	**3**	**1**	**1**	**113**

The crash analysis for the 7th Avenue corridor (2022–2024) highlights a steady decline in crash frequency and a concentration of incidents at key intersections—primarily Southern Avenue, Broadway Road, and Roeser Road. Most crashes involved no injuries and occurred during daylight, but nearly 40% took place in low-light conditions, indicating a need for improved lighting.

The most common collision types—left-turn, rear-end, and angle—suggest intersection-related issues such as visibility or signal timing. Most crashes involved motor vehicles in transport, with fewer incidents involving fixed objects or vulnerable users. These findings point to opportunities for targeted safety improvements at high-crash locations, particularly at intersections and during nighttime conditions.

As alternatives are developed for the study area, these factors will be considered in the design of typical sections and roadway lighting to enhance safety and improve visibility for both pedestrians and vehicles.

3.2 PHYSICAL ROADWAY CONDITIONS

The project corridor extends along 7th Avenue from Southern Avenue to Broadway Road, a total length of approximately 1 mile. The project corridor is an arterial roadway situated within an urban setting. Existing improvements on the west side of the corridor are incomplete or non-existent for long segments, particularly regarding pedestrian facilities. The following physical features were observed and documented within the project limits and are as follows:

Sidewalk:

- Attached 5-foot sidewalk is located on the west side of the roadway from Southern Avenue to approximately 350 feet north of the intersection, from Broadway Road to approximately 280 feet south of the intersection, and a segment of detached sidewalk is located from Sunland Avenue to approximately 720 feet north of the intersection. The remaining portions along the west side are missing continuous sidewalk.
- Continuous 5-foot sidewalk is located on the east side of the roadway (attached and detached; typical attached).

Curb and Gutter:

- Curb and gutter is located on the west side of the roadway from Southern Avenue to approximately 350 feet north of the intersection, from Broadway Road to approximately 280 feet south of the intersection, and from Sunland Avenue to approximately 720 feet north of the intersection. The remaining portions along the west side are uncurbed.
- Varying segments of curb and gutter exist along the east side of the roadway. Locations with no curb and gutter and attached sidewalk include sidewalk placed at and above the existing edge of pavement. Locations with detached sidewalk include buffer and sidewalk flush with the edge of pavement.

Curb Ramps:

- 12 locations requiring new curb ramps or reconstruction on the west side.
- 2 existing curb ramps requiring reconstruction on the east side.

Driveways and Access Points:

- 18 driveways or access locations on the west side require reconstruction or accommodation.
- 12 driveways or access points on the east side.

Bus Stops:

- 3 existing bus stops located on the west side require reconstruction.
- 4 existing bus stops located on the east side to remain.

Street Lighting:

- Street lighting is located on the west side of the roadway from Southern Avenue to approximately 350 feet north of the intersection, from Broadway Road to approximately 280 feet south of the intersection, and from Sunland Avenue to approximately 720 feet north of the intersection. The remaining portions along the west side do not have street lighting.
- Continuous street lighting is located on the east side of the roadway.

Roadway Surface Condition:

- The current roadway pavement surface along 7th Avenue within the project limits per January 2025 data from the Pavement Condition Index (PCI) is as follows:
  - 7th Ave North of Roeser Rd: 50.7 NB; 53.5 SB (PCI Criteria Chart Range = Fair (45-69)).
  - 7th Ave South of Roeser Rd: 66.4 NB; 74.5 SB (PCI Criteria Chart Range = Fair (45-69); Good (70-89)).
- This segment of 7th Avenue is currently scheduled for pavement preservation/mill and overlay in FY26.

School Construction:

- Sunland Elementary School located on 7th Avenue between Roeser Road and Sunland Avenue was observed under construction adjacent to the project corridor. The Elementary School reconstruction as of 2026 will require supplemental topographic survey and current aerial photography for use in future phase of design.

The corridor is predominantly level with minimal vertical grade variation, and existing utilities are located both above and below ground throughout the alignment. The typical existing roadway cross section includes two travel lanes in each direction, a continuous two-way left-turn lane, on-street bike lanes, intermittent curb-and-gutter, and intermittent sidewalk facilities.

3.3 EXISTING DRAINAGE

The watershed contributing to the subject portion of 7th Avenue between Southern Avenue and Broadway Road is generally limited to the roadway corridor. The roadway drains to the north at approximately 0.7%. The existing drainage system within the project corridor primarily consists of surface collection via roadway cross slopes, curb opening and grated inlet catch basins at intersections, mid-block points, and low points. No existing storm drain trunkline or laterals within 7th Avenue were investigated for hydraulic performance. Review of the existing storm drain inlets however indicates that sufficient spacing is available to maintain COP drainage standards for street capacity.

During field reviews, drainage elements identified include:

- Existing curb opening and grated inlet catch basins at select locations along 7th Avenue
- Adequacy of storm drain inlet spacing
- Driveway locations in comparison to storm drain inlets.

No significant offsite drainage features or natural washes are located within the project area. Drainage conveyance is accommodated entirely by the roadway storm drain system and curb-and-gutter collection.

As part of the proposed sidewalk improvements, some existing drainage features may require removal, reconstruction, or adjustment to accommodate new curb ramps, driveways, and sidewalk alignments. For example, catch basins may need to be relocated or modified to avoid conflicts with new pedestrian facilities. Drainage design will be performed in accordance with City of Phoenix drainage design standards and applicable MAG specifications.

3.4 EXISTING STRUCTURES AND UTILITIES

A field inventory of existing structures and utilities was conducted as part of the project's data acquisition task. Utilities within the project corridor include a combination of buried and overhead facilities as outlined in Table 7.

Table 7. Project Study Area Existing Utilities

Utility Type	Owner
Water	City of Phoenix
Sewer	City of Phoenix
Electric (Overhead)	Salt River Project (SRP)
Electric (Underground)	SRP
Irrigation	SRP
Telecommunications	AT&T, Cox, MCI, Lumen
Gas	Southwest Gas

- City of Phoenix Water and Sewer: Existing City of Phoenix water and sewer mains are located within or near the project right-of-way.
- Overhead and Underground Electric: Salt River Project electrical facilities are present, including both overhead distribution lines and underground conduits crossing and paralleling 7th Avenue.
- Irrigation: SRP irrigation facilities are located along portions of both the west and east side of 7th Avenue, representing potential utility conflicts to be considered during design development.
- Telecommunications and Gas: Existing telecommunications, gas, and fiber optic facilities are present within the corridor.

No subsurface utility exploration was included in this study; exact depths and locations of buried utilities, potholing, and continued utility coordination will be required during future phases of design. Utility coordination will require coordination with utility owners on relocations, relocation design needs, and requirements for construction.

3.5 EXISTING RIGHT-OF-WAY

The project corridor includes existing City right-of-way that varies between 30 to 50 feet on the west side of 7th Avenue and 41 to 51 feet on the east side. No existing right-of-way survey was conducted for the project. Existing right-of-way was determined through use of existing City and County parcel and GIS information.

3.6 EXISTING LANDSCAPE ARCHITECTURE

The project corridor includes minimal formal landscape architecture features. Key landscape conditions observed include:

- Isolated mature trees are located primarily within adjacent private properties.
- Limited xeriscape plantings along certain properties adjacent to the roadway.
- No formal median landscaping within the project limits.
- Bus stops with small hardscape pads, but no landscape enhancements.

While the proposed sidewalk construction is not anticipated to include extensive landscape improvements, existing trees and landscaping will be evaluated for preservation where feasible. Tree removal may be necessary in some locations to accommodate ADA-compliant sidewalk alignments, clear zones, or utility adjustments.

Improvements to landscape architecture will be generally limited to areas directly disturbed by construction, consistent with City of Phoenix standards for sidewalk retrofit projects.

4 Environmental Overview

The objective of the environmental overview is to assess existing environmental conditions within a half-mile radius of the current 7th Avenue alignment. This assessment aims to identify any fatal flaws or potential issues that could affect the development of alternative alignments. Recommendations will be provided based on applicable environmental regulations and best practices. Figure 4 illustrates the Environmental Study Area and surrounding vicinity.

4.1 CULTURAL RESOURCE ASSESSMENT

A preliminary cultural resource assessment was conducted to evaluate regulatory requirements for considering potential impacts on cultural resources (including archaeological sites; historic sites, structures, and buildings; and traditional cultural resources) and compiled initial information about prior cultural resource studies and cultural resources recorded in the Study Area. Recommendations are offered for considering cultural resources as project planning and development progresses.

4.1.1 Regulatory Requirements

Requirements to comply with cultural resource/historic preservation regulations typically stem from land ownership, sources of funding, or the need for federal, state, or local government permits. Federal, state, and local government cultural resource/historic preservation regulations the project may need to comply with are reviewed in the following sections.

4.1.1.1 State Regulations

State Historic Preservation Act of 1982 (Arizona Revised Statutes 41-861 through 4-864): The State Historic Preservation Act requires state agencies to consult with the SHPO about their activities that may affect cultural resources listed in or eligible for the Arizona Register of Historic Places (ARHP). The eligibility criteria for listing in the ARHP are identical to the NRHP listing criteria, and the SHPO has the authority to determine eligibility and list properties in the ARHP.

Arizona Antiquities Act (Arizona Revised Statutes 41-841 through 4-847): The Arizona Antiquities Act requires persons in charge of activities on state, county, and municipal lands (including public road rights-of-way) to notify the Arizona State Museum (ASM) of the discovery of archaeological, paleontological, or historical sites or objects that are at least 50 years old and take all reasonable steps to secure and maintain their preservation.

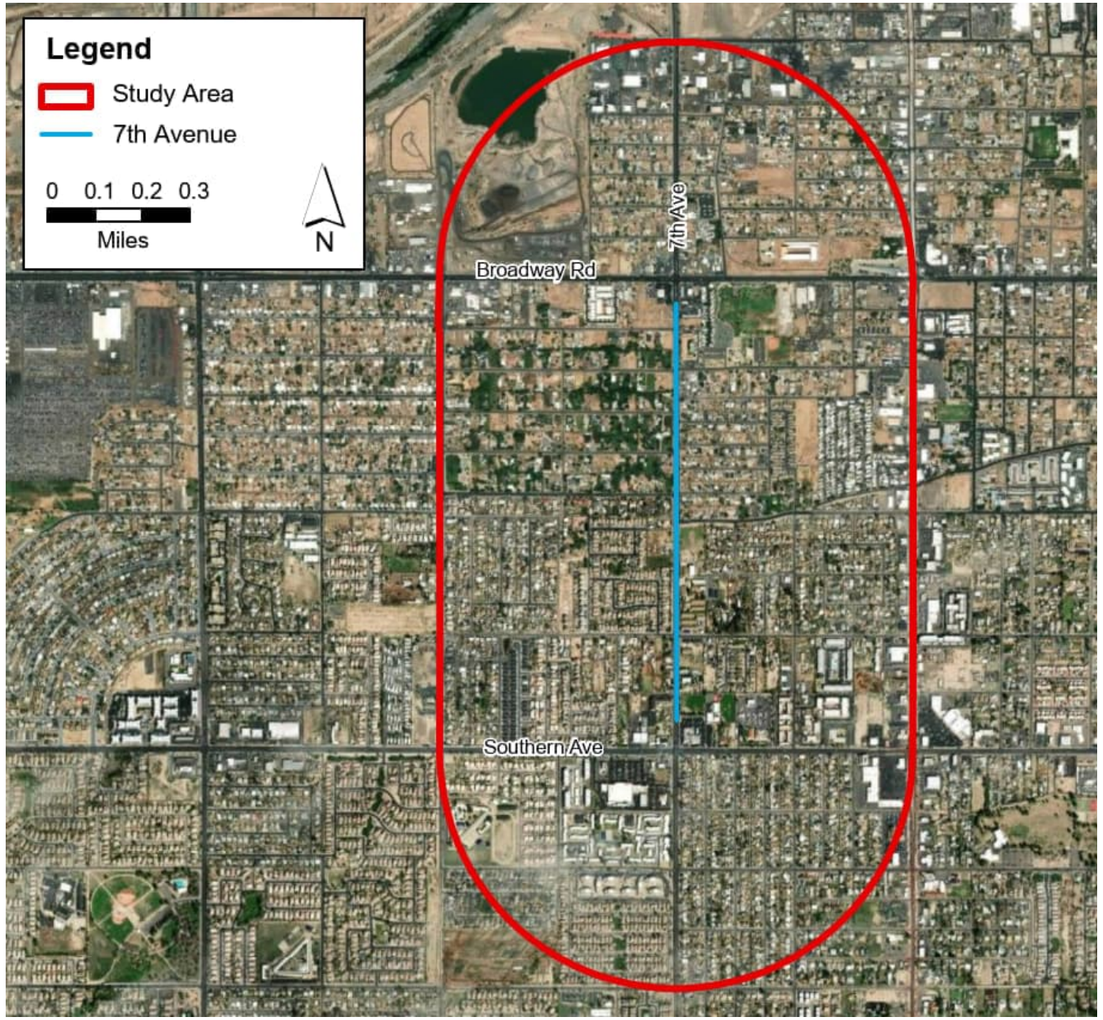


Figure 4. Environmental Study Area

Arizona Revised Statutes 41-865: Often referred to as the Arizona Burial law, ARS 41-865 requires anyone who discovers prehistoric and historic human remains and funerary objects on privately owned lands to protect the discovery and report it to ASM. ASM is responsible for consulting with the landowner and descendants or potentially affiliated cultural groups to determine appropriate treatment, which often involves recovery and repatriation of the remains and any associated funerary items to a culturally affiliated tribe. Ensuring appropriate treatment of burials in archaeological sites is a highly sensitive issue for local tribes, and ASM prepares burial discovery agreements stipulating procedures for treating human remains and any associated funerary items.

4.1.1.2 Local Government Regulations

Phoenix Historic Preservation Ordinance (City Code, Chapter 8, §§801 through 816): The City of Phoenix is a certified local government under the State Historic Preservation Program and has enacted a historic preservation ordinance. The ordinance defines a policy to protect, enhance and preserve properties and areas of historical, cultural, archaeological and aesthetic significance. City-sponsored Infrastructure projects occurring on City land, or undergoing planning review, are assessed by the City Archaeology Office (CAO) for potential impacts to archaeological sites or canals. If impacts are anticipated, the CAO will determine the appropriate level of archaeological investigation—monitoring, testing, or data recovery. The City Historic Preservation Office serves a similar role in the assessment of elements of historic buildings, sites, structures, objects, and districts.

4.1.2 Cultural Resource Records Review

The area for the cultural resource records research was delineated as the Study Area. The cultural resource records review was based on a desktop review of these sources of information:

- NRHP
- ARHP
- AZSITE Cultural Resource Inventory and associated project records and archaeological site forms
- ASM Archaeological Records Office files
- Historic maps (General Land Office [GLO] plats and historic topographic maps)
- Selected reports of prior cultural resource surveys and excavations

A primary source of information was the AZSITE Cultural Resource Inventory, which is a geospatial database that includes records of the AZSITE Consortium (2020) members (ASM, Arizona State University, Museum of Northern Arizona, SHPO). The AZSITE database includes records of prior studies conducted over many decades by many researchers for a variety of reasons and has information about tens of thousands of recorded cultural resources. The quality of the data is variable and sometimes incomplete. Currently, entry of information into the database can lag the completion of studies by several years. Because of a current lag in entering information into the AZSITE database, the team checked records on file at the ASM Archaeological Records Office for information not entered into the database.

The review identified 34 modern prior cultural resource studies in the Study Area ranging from the 1980s to present day (see Table 8). The only study that may have encompassed a portion of the Study Area was 2015-573.ASM. No prior cultural resource surveys were identified for the Study Area. The Study Area is urbanized and has been heavily disturbed over time and therefore the native ground surface has been mostly obliterated.

Table 8. Previous Investigations Within the Study Area

Project ID	Title	Author	Agency	Date
1982-205.ASM	*230 kV Lincoln to Ocotillo Transmission Line*	Green, Margerie, and Richard W. Effland Jr.	Archaeological Consulting Services	1982
1986-19.PGM	*An Archaeological Assessment of Two City of Phoenix Housing Projects: The Ambassador and Jardin del Cerro Apartments*	Cable, J.	City of Phoenix Archaeology Office	1986
1997-180.ASM	*Survey at 15th Avenue*	Hackbarth, Mark. R.	Northland Research	1997
1999-424.ASM	*United Metro Materials Plant No. 101 - Central Ave Pit (Commercial Source CM00077)*	Shepard, Kristopher S.	Archaeological Research Services	1999

Project ID	Title	Author	Agency	Date
2000-30.PGM	*Archaeological Monitoring for the City of Phoenix Neighborhood Services Department at 5226 S. 3rd Avenue*	Hart, D. R.	Northland Research	2000a
	Archaeological Investigation at Pueblo Viejo: The Paradise Palms Component	Hart, D. R.	Northland Research	2000b
2000-256.ASM	*Survey of a 10-Acre Parcel at the Corner of 7th Avenue and Alta Vista Road*	Garraty, Christopher P.	Northland Research	2000
2001-19.PGM	*Archaeological Monitoring at 217 W Grove Street*	Lindly, J.	SWCA Environmental Consultant	2001
2001-27.PGM	*Monitoring for the Neighborhood Services Department at 204 W. Chambers Street*	Shaw, C. W.	Northland Research	2001
2001-207.ASM	*Vineyard Monitoring*	Marshall, John T.	Northland Research	2001
	Archaeological Testing at 7th Avenue and Sunland Road: AZ T:12:22(ASU)	Hart, David R.	Northland Research	2002
2002-26.PGM	*Cultural Resources Monitoring of a Utility Excavation at a Private Residence Located at 5242 South 3rd Avenue*	Stubing, M.	Entranco	2002a
2002-30.PGM	*Cultural Resources Monitoring of a Utility Excavation at a Private Residence Located at 205 W Chambers Street*	Stubing, M.	Entranco	2002b
2002-38.PGM	*Cultural Resources Monitoring of a Utility Excavation at a Private Residence Located at 122 W Grove Street*	Stubing, M.	Entranco	2002c
2003-206.ASM	*Southern Avenue 7th to 19th Avenues*	Punzmann, Walter R.	Archaeological Consulting Services	2002
2003-1053.ASM	*West Broadway Road, West of Central Ave.*	Davis, P., J.B. Hathaway, and J.W. Hohmann	The Louis Berger Group	2000
2003-1121.ASM	*7th Ave: Baseline to Southern - Testing*	Rapp, John M.	Logan Simpson Design	2003
2004-398.ASM	*Monitoring at 7th Avenue and Vineyard Road*	Marmaduke, William S.	Northland Research	2002
2005-77.PGM	*A Cultural Resources Survey of 0.826 Acres at 5800 and 5812 South Central Avenue*	Stahman, A.	Northland Research	2005
2005-89.ASM	*7th Ave-Fremont to Southern Monitoring*	Breen, Judith	Logan Simpson Design	2005
2005-411.ASM	*7th Avenue and Vineyard Road Survey*	Marshall, John T.	Northland Research	2005
2005-1029.ASM	*Archaeological Monitoring within AZ T:12:22(ASM) for the Hayden Park Project Located along Tamarisk Street between 3rd Avenue and 7th Avenue*	Orcholl, Jackie L.	Logan Simpson Design	2006
2006-467.ASM	*5800 and 5812 S. Central Avenue Survey*	Stahman, Andrea	Northland Research	2005
2008-1.ASM	*Monitoring and Testing for the Broadway Road Gravity Sewer Project between 51st Avenue and 32nd Street*	Rego, Justin P.	Logan Simpson Design	2015
2008-270.ASM	*Avenida Rio Salado/ Broadway Road Widening*	Langan, John S., and Courtney C. Rehar	AZTEC Engineering	2009
2008-316.ASM	*Espiritu Monitoring*	Vaughn, C.	Logan Simpson Design	2008
2009-44.ASM	*Archaeological Monitoring within the Area Bounded by 7th Avenue, 7th Street, Broadway Road, and Lower Buckeye Road for a Water Main Replacement and Fire Hydrant Installation*	Turner, Korri Dee, and Laurene G. Montero	Jacobs Engineering Group	2009
2010-36.PGM	*Archaeological Monitoring and Limited Excavation at the Ocotillo Brand Library Literacy Center Project, 102 West Southern Avenue*	Stubing, Michael, and Korri Dee Turner	Jacobs	2013
2013-13.ASM	*Archaeological Investigations in a Portion of Punta de Ambar (AZ T:12:387[ASM]) for the Hayden Park Improvements Project*	Fontes, Lisa M., Marybeth T. Harte, Mitchell A. Keur, Andrew D. Lack, Brian R. McKee, Manuel R. PalaciosFest, Bruce G. Phillips, J. Simon Bruder, and Daniel H. Sorrel	EcoPlan Associates	2018
2013-338.ASM	*Central Main Archaeological Monitoring*	Walsh, Mary-Ellen	Logan Simpson Design	2012
2014-120.ASM	*Archaeological Monitoring within the Boundaries of Pueblo Viejo, AZ T:12:73(ASM), during Ground-Disturbing Activities Located at 23 West Roeser Road*	Hill, Rebecca, and Davidson, Leigh	Logan Simpson Design	2014
2015-573.ASM	*The Amber Pointe Monitoring Project at the Northeast Comer of 7th Avenue and Tamarisk Avenue*	Schroder, K.J.	Roadrunner Archaeology	2010
2019-1.ASM	*South Central Light Rail Extension: Archaeological Site Monitoring, Testing, and Excavation*	Rogge, A.E., Chad V. Kirvan, and Mark Brodbeck	AECOM and HDR	2019
2022-405.ASM	*Cultural Resources Monitoring for the Ocotillo Library Project*	Kent, Jenna R.	Jacobs	2023

4.1.2.1 Recorded Archaeological Sites and Hohokam Canals

The review identified nine previously recorded archaeological sites in the Study Area. Three branches of Hohokam canals have also been mapped as crossing the Study Area with several canal alignments diverging from the main channels. Two of the archaeological sites and one canal branch may potentially be impacted by the project. One site was recorded in the 1960's as a scatter of prehistoric artifacts but has not been evaluated for NRHP or ARHP eligibility. The other site is a Hohokam habitation site that was recommended eligible for listing in the NRHP under Criterion D. Other archeological sites in the Study Area include a Hohokam village site, a recorded segment of a Hohokam canal, a scatter of Hohokam ceramics, a mixed scatter of Hohokam and historic artifacts, a cluster of historic bricks, and three historic-age buildings.

4.1.2.2 Historic Buildings and Structures

The study team reviewed records to identify and compile information about previously recorded historic buildings and structures within the study boundaries. The NHRP and City websites were reviewed. The records review did not identify any previously recorded historic buildings or structures listed in or eligible for listing in the NRHP within the study boundaries.

Maricopa County Assessor's data and historic aerial photographs were reviewed to identify undocumented historic-period buildings and structures adjacent to 7th Avenue between Broadway Road and Southern Avenue. The historic period was defined to include properties 45 years old or older in 2024, and includes properties constructed prior to 1980.

The Study Area is a fully developed urban streetscape with commercial properties concentrated at the major intersections of Broadway Road and Southern Avenue and residential properties along 7th Avenue between these intersections. Of the 69 county assessor's parcels, 29 were constructed during the historic period (see Table 9).

Twenty-five of the 29 historic-period properties in the Study Area are residential. Three residences were built in 1916, 1922, and 1936, but a majority were built in the 1940s and 1950s and are representative of urban growth during and after World War II. Ten residences are within platted subdivisions, and the other are larger, rural, residential lots. The other four properties include a church built circa 1952, a school constructed circa 1955, and two commercial businesses built in the 1960s.

Table 9. Historic-Period Parcels in the Study Area

Parcel Number	Address	Construction Year
Residential		
105-57-029F	710 W TAMARISK AVE	1941
105-57-010A	711 W TAMARISK AVE	1946
105-58-031	710 W GREGORY RD	1947
105-58-012A	703 W GREGORY RD	1947
105-58-005	701 W ROMLEY RD	1951
105-58-028E	701 W ATLANTA AVE	1922
105-80-003	5206 S 7TH AVE	1941
105-82-016S	701 W SUNLAND AVE	1916
105-82-008	5814 S 7TH AVE	1943
105-82-001A	5820 S 7TH AVE	1963
105-82-006D	5850 S 7TH AVE	1946
114-04-142	6005 S 7TH AVE	1948
114-04-141A	6001 S 7TH AVE	1948
113-32-152A	644 W ROESER RD	circa 1955-1957
113-32-072	643 W ATLANTA AVE	circa 1955-1957
113-32-057A	644 W ATLANTA AVE	circa 1955-1957
113-32-056A	643 W MOBILE LN	circa 1955-1957
113-32-041A	664 W MOBILE LN	circa 1955-1957
113-32-040A	643 W ROMLEY AVE	circa 1955-1957
113-32-025A	644 W ROMLEY AVE	circa 1955-1957
113-32-024A	643 W CHIPMAN RD	circa 1955-1957
113-32-009A	644 W CHIPMAN RD	circa 1955-1957
113-32-008A	643 W WIER RD	circa 1955-1957
113-28-006H	4647 S 7TH AVE	1936
113-28-005	4643 S 7TH AVE	1940
Commercial		
105-57-041A	4402 S 7TH AVE	1963
105-82-019B	702 W SOUTHERN AVE	1960
Institutional		
113-39-001	650 W SOUTHERN AVE	circa 1952
113-38-046A	5401 S 7TH AVE	circa 1955

4.1.2.3 Historical Map Review

Historic GLO township plats and topographic maps were reviewed to gauge the potential for unrecorded historic-period resources. The timing of GLO cadastral surveys typically reflects the onset of interest in homesteading. The GLO conducted the first cadastral survey of Township 1 North, Range 3 East in 1867. The only cultural feature mapped within the Study Area is a road crossing to the south of the Project in a southwest to northeast direction.

A review of historic USGS topographic maps began with the 1914 Phoenix 15-minute quadrangle that depicts a sparce network of roads within the Study Area along with some canal features, around 25 houses, a school, and a possible utility line. A road and the possible utility were depicted as aligned with the current 7th Avenue alignment in the Project. A house was also depicted in or adjacent to the Project and a canal was mapped as crossing the Project. The next identified map, the 1952 Phoenix 7.5-minute quadrangle depicts expansion of residential neighborhoods in the Study Area, and included the addition of a water tank, a well, and the Marmonier Ditch in or adjacent to the Project. Subsequent revisions of the 1952 Phoenix 7.5-minute quadrangle show the continued expansion of the City within the Study Area.

4.1.3 Cultural Conclusions and Recommendations

Agricultural and residential development has largely obliterated the native ground surface within of the Study Area. Due to the development, it is unlikely that a cultural resource survey would be required for the Project, but map review identified that a road and a utility has followed the alignment of 7th Avenue for over a century indicating that the current roadway and an adjacent overhead utility line may be of historical-age and warrant designation as historical in-use structures. There is also potential for historical canal features, both in-use and abandoned, to be present that warrant recording. The Study Area has been active, both prehistorically and historically, as the City of Phoenix has developed, and there is the potential for prehistoric and historic archaeological remnants to be present below the ground surface that could be encountered during construction activities. The City of Phoenix CAO will likely require archaeological monitoring of construction activities within 250 feet of Hohokam habitation site and potentially the scatter of scatter of prehistoric artifacts recorded in the 1960s. Archeological monitoring may also be required within 50 feet of the mapped alignments of Hohokam irrigation canals

4.2 BIOLOGY AND WILDLIFE

4.2.1 Vegetation

The Study Area falls within the Lower Colorado River Subdivision of the Sonoran Desertscrub biotic community[1]. A site visit was conducted to identify the existing conditions including vegetation and wildlife. The Study Area is urbanized and heavily disturbed with few native plants remaining. Vegetation was limited to residential and roadside landscaping.

[1]Brown, D.E. (ed.). 1994. *Biotic communities: southwestern United States and northwestern Mexico*. University of Utah Press, Salt Lake City. 342p.

The dominant plant species observed included Velvet mesquite (*Prosopis velutina*), blue palo verde (*Parkinsonia florida*), palms (*Arecaceae*), bougainvillea (*Bougainvilla* spp.), ponderosa pine (*Pinus ponderosa*), willow acacia (*Acacia salicina*), and Arizona ash (*Fraxinus velutina*).

4.2.2 Native Plants

Arizona Native Plant Law (ANPL) (ARS § 3-901 to 3-916) is administered by the Arizona Department of Agriculture (AZDA), which manages native plant resources and impacts to protected native plant species. ANPL-listed plants include four protection categories: Highly Safeguarded, Salvage Restricted, Salvage Assessed, and Harvest Restricted. Landowners have the right to destroy or remove native plants growing on their land, but at least 60 days prior to the destruction of any protected native plants, landowners are required to notify the AZDA. At the time of the notification, the landowner can state if they would allow salvage companies an opportunity to salvage the plants or if they intend to destroy the plants. Removal of protected native plants from the site would require tags/permits from the AZDA. The landowner is allowed to transplant healthy native trees within the site without a permit or notification.

During the field visit the following protected Arizona plants were identified:

- Velvet mesquite (*Prosopis velutina*) – Salvage Assessed
- Blue palo verde (*Parkinsonia florida*) – Salvage Assessed

4.2.3 Special Status Species

Special status species includes those listed in the Endangered Species Act (ESA), Bald and Golden Eagle Protection Act (BGEPA), or Migratory Bird Treaty Act (MBTA). There were seven endangered species ranges, bald and golden eagle ranges, and eight migratory bird ranges identified in the Study Area.

The USFWS IPaC tool identified the following endangered species as having a known or expected range within the Study Area:

- Sonoran Pronghorn (*Antilocapra americana sonoriensis*) – Experimental Population
- Cactus ferruginous pygmy-owl (CFPO) (*Glaucidium brasilianum cactorum*) – Threatened
- California least tern (*Sternula antillarum browni*) – Endangered
- Yellow-billed cuckoo (*Coccyzus americanus*) – Threatened
- Yuma Ridgeway's rail (*Rallys obsoletus yamanesis*) – Endangered
- Gila topminnow (*Poeciliopsis occidentalis*) – Endangered
- Monarch butterfly (*Danaus plexippus*) – Candidate

Although these species have range within the Study Area there is no designated or proposed Critical Habitat (CH). The nearest CH for yellow-billed cuckoo is approximately 50 miles to the northwest near Wickenburg. There is no other final CH listed for the other species identified.

The USFWS IPaC tool identified the following migratory birds as potentially appearing in the Study Area:

- Bald eagle (*Haliaeetus leucocephalus*) – breeds October 15 to August 31
- Bendire's thrasher (*Toxostoma bendirei*) – breeds March 15 to July 31
- Costa's hummingbird (*Calypte costae*) - breeds January 15 to June 10
- Gila woodpecker (*Melanerpes uropygialis*) – breeds April 1 to August 31
- Golden eagle (*Aquila chrysaetos*) – breeds December 1 to August 31
- Lawrence's Goldfinch (*Spinus lawrencei*) – breeds March 20 to September 20
- Long-eared owl (*Asio Otus*) – breeds March 1 to July 15
- Western grebe (*Aechmophorus occidentalis*) – breeds June 1 to August 31

If vegetation clearing would occur during the breeding season a migratory bird nest survey should be conducted, and active nests should be avoided. Vegetation clearing conducted outside the breeding season is typically not subject to this restriction.

The AZGFD ERT identified an additional special status species Sonoran Desert tortoise (Gopherus morafkai). A Candidate Conservation Agreement for the Sonoran Desert tortoise in Arizona between USFWS and cooperating agencies was published on May 27, 2015. AZGFD released revised Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects on September 22, 2014. If a tortoise is encountered in the open it should be moved into adjacent appropriate habitat. Tortoises should be moved less than 48 hours prior to disturbance to reduce the likelihood they will return to the area. A tortoise may be moved up to one-half mile but no further than necessary.

4.3 WILDLIFE HABITAT AND CONNECTIVITY

The Study Area was reviewed for the presence of wildlife connectivity corridors using the Arizona Wildlife Linkages Assessment[2] (AWLA 2006) and the Maricopa County Wildlife Connectivity Assessment (MCWCA)[3] (AZGFD 2012).

The AWLA identified the Salt River corridor as Potential Linkage Zone 151. The Study Area overlaps the linkage area in the northern portion near Broadway Road. Identified species include Arizona chuckwalla (*Sauromalus ater*), bald eagle (*Haliaeetus leucocephalus*), black-bellied whistling-duck (*Dendrocygna autumnalis*), cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), California leaf-nosed bat (*Macrotus californicus*), desert pupfish (*Cyprinodon macularius*), desert sucker (*Catostomus clarki*), least bittern (*Ixobrychus exilis*), lowland leopard frog (*Rana yavapaiensis*), roundtail chub (*Gila robusta*), Sonora sucker (*Catostomus insignis*), Sonoran Desert tortoise (*Gopherus agassizii*), southwestern willow flycatcher (*Empidonax traillii extimus*), western burrowing owl (*Athene cunicularia hypugaea*), western yellow bat (*Lasiurus xanthinus*), western yellow-billed cuckoo (Coccyzus americanus occidentalis), and Yuma clapper rail (*Rallus longirostris yumanensis*). Although the Study Area is within the linkage zone the vicinity is highly developed with residential neighborhoods and existing roadways. Due to the limited effects from constructing pedestrian improvements no impacts to the linkage are anticipated.

The MCWCA identified the Salt River corridor as Riparian Movement Area 16. Identified species were similar to the AWLA but also included American beaver (*Castor canadensis*), common muskrat (*Ondatra zibethicus*), leopard frogs (*Rana* spp.), bobcat (*Lynx rufus*), coyote (*Canis latrans*), and javelina (*Pecari tajacu*). Due to the limited effects from constructing pedestrian improvements no impacts to the riparian movement area are anticipated.

4.4 LAND USE, SOCIOECONOMIC RESOURCCES, AND COMMUNITY PROFILE

4.4.1 Land Use

The City of Phoenix General Plan 2025 was adopted on April 17, 2024. According to the General Plan, existing and future land use within the Study Area is predominately residential. Along Broadway Road, Southern Avenue, and

[2] Arizona Wildlife Linkages Workgroup (AWLW). 2006. *Arizona's Wildlife Linkages Assessment*. December 2006. https://azdot.gov/business/environmental-planning/programs/wildlife-linkages

[3] AZGFD. 2012. *The Maricopa County Wildlife Connectivity Assessment: Report on Stakeholder Input.* https://conservationcorridor.org/cpb/Arizona_Game_and_Fish_Department_2012-Maricopa.pdf

Central Avenue there are heavy commercial cores and high-density multi-family residential. Other land uses include two City parks and a public-school complex on 7th Avenue between Roeser Road and Sunland Avenue.

The intersection of Central Avenue and Broadway Road is listed as a primary core of development. The Valley Metro South Central Light Rail Extension has recently opened operations and extends from Downtown Phoenix to Baseline Road. Three stations are located at Broadway Road, Roeser Road, and Southern Avenue: directly east of the proposed project.

4.4.2 Socioeconomic Considerations

The Maricopa Association of Governments (MAG) Demographic Report was used to collect population demographics for the 8 Census Block Groups intersecting the Study Area[4]. The Demographic Report uses data from the U.S. Census Bureau's 2018-2022 American Community Survey 5-year estimates. The Block Groups have a population of 11,885 with 3,648 households. The population is primarily minority populations with approximately 82% identifying as Hispanic and approximately 9% identifying as Black. The population is younger than the Phoenix average with approximately 9.5% over the age of 65 compared to 11.5% for Phoenix. Approximately 21% of the population has an income below the poverty level.

4.4.3 Community Profile

A field survey was conducted to characterize the existing conditions of residential properties, businesses, and community resources such as schools, places of worship, transit stations, government offices, hospitals, and parks. The community within the Study Area can be described as mixed-use with a large residential presence, multiple places of worship, two schools (Sunland STEAM Academy and Rincon Learning Center), a Boys and Girls Club, Hayden Park, Roesley Park, and numerous businesses primarily located at Broadway Road and Southern Avenue. The community is within the South Mountain Village Planning Area[5]. The village character plan describes South Mountain as rich in diversity with a variety of ethnicities, languages, cultures, and income levels. The village has a rich agricultural heritage and an agrarian character seen in farms, nurseries, canals, opens spaces, and flood-irrigated properties.

Homes throughout the Study Area vary in age and development style with older homes having larger lots with flood irrigation and newer homes being more densely constructed with minimal landscaping. There is a mobile home park located west of Central Avenue and multiple apartment complexes. Approximately 65% of housing units in the Study Area are detached single-family homes, approximately 25% are multi-family or attached units, and approximately 10% are mobile homes or other type of mobile housing. Of these housing units approximately 55% are owner-occupied, approximately 39% are renter-occupied, and 6% are vacant[6]. Multiple individuals experiencing houselessness were observed near Hayden Park although no encampments were identified.

There are numerous businesses on and adjacent to 7th Avenue. At the intersection with Broadway Road these include a liquor store, two gas stations, multiple automotive shops, and two Mexican food restaurants. At the Southern Avenue intersection these include a liquor store, an automotive shop, and a shopping plaza with a grocery store, restaurants, a gas station, and multiple commercial businesses. These businesses receive a mixture of vehicle and pedestrian traffic throughout the day. Based on the field survey these are small businesses that primarily service the local community. Residential, business, and community destinations are dispersed throughout the Study Area. Sidewalks and bicycle paths for pedestrian use are limited to the east side of 7th Avenue, Tamarisk Street, Roeser Road, and Sunland Avenue. Multiple bus stops are located on both sides of 7th Avenue, Atlanta Avenue, and Roeser Road. There is a signalized crosswalk at 7th Avenue and Roeser Road north of Sunland STEAM Academy. These pedestrian and transit facilities incentivize walking along 7th Avenue with no existing sidewalk.

During the field survey informal input from the principal of the school indicated a concern for student pedestrian traffic during school start and dismissal. Many of the students are from the surrounding community and walk to school. Students that live west of 7th Avenue use the crosswalk at Roeser Road and then must walk on 7th Avenue where there is no existing sidewalk. Students that live east of 7th Avenue often walk on Chambers Street where there is no existing sidewalk as well.

4.5 FLOODPLAINS AND WATER RESOURCES

4.5.1 Floodplains

The Study Area is located within the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) Panel 04013C2215L, effective October 16, 2013. The intersection of 7th Avenue and Broadway Road is within the area covered in two Letter of Map Revisions (LOMR) dated February 10, 2017, and September 21, 2020[7]. The study area is located within Flood Zone 'X' (Shaded) which is defined by FEMA and the FIRM Panel as follows:

Other Flood Areas; Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

The Study Area is outside of the 1% annual chance (100-year) Salt River floodplain.

4.5.2 Section 402

Section 402 of the Clean Water Act regulates the discharges of pollutants into Waters of the US. Section 402 allows the EPA to delegate responsibilities to individual states to administer its own permit program. The Arizona Department of Environmental Quality's (ADEQ) Arizona Pollutant Discharge Elimination System (AZPDES) program requires construction projects that disturbed 1 acre or more acres of land to submit a Notice of Intent (NOI) for coverage under the Construction General Permit (CGP). The project may disturb up to 10 acres of land and therefore would be required to submit an NOI to ADEQ.

As part of the construction plan review process, the City of Phoenix Planning and Development Department requires a Stormwater Management Plan (SWMP) as part of the Grading and Drainage plans. The SWMP identifies Best Management Practices (BMPs) which would be implemented by the project to control pollutants from entering the City of Phoenix storm drain system.

4.5.3 Section 404

Section 404 of the Clean Water Act regulates Waters of the US which are under the jurisdiction of the Army Corps of Engineers (USACE). The USACE requires projects prepare a Preliminary Jurisdictional Determination (PJD) and a Nationwide Permit (NWP) to authorize work within a Waters of the US. There are no water resources within the Study Area. The Salt River is the closest water resource to the Study Area and is approximately one mile north.

[4] MAG. 2024. *Arizona Demographics: Generate a report.* https://geo.azmag.gov/maps/azdemographics/. Demographic data retrieved from 2018 – 2022 American Community Survey (ACS)
[5] City of Phoenix. 2024. *South Mountain Village Planning Committee.* https://www.phoenix.gov/villages/south-mountain
[6] MAG. 2024. *Arizona Demographics: Generate a report.* https://geo.azmag.gov/maps/azdemographics/. Demographic data retrieved from 2018 – 2022 American Community Survey (ACS)
[7] FEMA. 2024. *FEMA Flood Map Service Center*. https://msc.fema.gov/portal/home

4.6 HAZARDOUS MATERIALS

An environmental database report was obtained through Environmental Data Resources, Inc (EDR) and reviewed for the presence of hazardous materials or facilities within the project Study Area[8]. EDR compiles data provided by Federal, State, and Local Government agencies and it is not possible to verify the accuracy or completeness of the information provided by these agencies. However, the use and reliance on this information is a generally accepted practice in the conduct of environmental due diligence. The information below is reported as it was received. In addition to the environmental database report, the ADEQ eMap was also reviewed for the presence of potential hazardous materials sites[9].

A risk ranking system was used to categorize potential hazardous materials sites based on their likelihood to cause detrimental environmental impacts to the project. The risk ranking system is as follows:

High Risk

- Facility located within the planned area of disturbance with reported Underground Storage Tanks (UST) that have not been removed.
- Property adjacent to the planned area of disturbance that is identified as having a known release of hazardous materials, including Leaking Underground Storage Tanks (LUST) that has not been remediated to the satisfaction of the regulatory agency.

Moderate Risk

- Facility located adjacent to the alignment with registered USTs, with or without LUST incidents.
- Facility located adjacent to the alignment listed as generators of hazardous wastes (with recorded open violations).
- Facility located within the immediate area of the alignment with open hazardous materials incidents (including LUSTs) with reported impacts to groundwater.

Low Risk or No Risk

- Low-risk or no-risk sites are those that have little or no potential for releasing hazardous materials to the soil or groundwater.

4.6.1 Risk Assessment

The Study Area can generally be described as mixed-use with primarily residential properties and community related properties such as churches and schools. There are a number of commercial and industrial type businesses at the intersections of Broadway Road and Southern Avenue. There are overhead powerlines on the east side of 7th Avenue from Broadway Road to Southern Avenue. There are also east-west overhead powerlines on Sunland Avenue. Evidence of underground utilities included fire hydrants, above-ground water valves, irrigation boxes, and stand-alone street lighting.

4.6.1.1 High Risk Properties

The project is not anticipated to require the acquisition of properties or directly impact any properties listed on the EDR search. Therefore, no properties were determined to be high risk. If during final design of the project it is anticipated that acquisition of properties listed as moderate risk would be required, these properties would be considered high risk and a Phase I Environmental Site Assessment (ESA) in accordance with ASTM standard 1527-21 is recommended.

4.6.1.2 Moderate Risk Properties

There are five (5) properties in the Study Area that are considered moderate risk. These properties are not anticipated to be acquired for the project or be directly impacted. The properties are primarily active gas stations with underground fuel tanks. One property is a City of Phoenix police station with active underground fuel tanks. Table 10 gives a detailed description of the current and historical use of the properties.

Table 10. Moderate Risk Properties

Address	Name	Description
4401 S 7th Avenue	Circle K #2701570 Go Lo (Historical) Thrifty Oil (Historical) TOSCO (Historical)	This property is an active gas station and convenience store with 3 underground fuel tanks. Historical records indicate this property has been an active gas station since 1977. The underground fuel tanks were replaced in 1993. Each tank had a separate LUST case with all being closed in 2008. Soils and groundwater contaminate levels met RBCA tier 2 or 3 standards.
702 W Broadway Road	ARCO #5502 American Service (Historical) Rays ARCO Service (Historical)	This property is an active gas station and convenience store with 2 underground fuel tanks. Historical records indicate this property has been an active gas station since 1968. The underground fuel tanks were replaced in 2019 and there is an open LUST case with undefined groundwater contamination. The property is currently undergoing remediation.
709 W Southern Avenue	Sahara Shell	This property is an active gas station and convenience store with 2 underground fuel tanks. Historical records indicate this property has been an active gas station since 1988. The underground fuel tanks were replaced in 2021. The property has a historical LUST case which was opened in 1992 and closed in 1995. Soils contaminant levels met RBCA Tier 1 standards.
702 W Southern Avenue	Llantera Mil Amores 66 Service Center (Historical) Woodys (Historical)	This property is an active tire shop. Historical records indicate this property was a gas station starting in 1968. The underground fuel tanks were removed in 1988 and 1993. There are no recorded LUST cases for this property.
400 W Southern Avenue	City of Phoenix – South Mountain Briefing Station	This property is an active police station with a fueling station for law enforcement vehicles. There are 2 active USTs. Historical records indicate that the property has been in use since at least 1979 when the first underground fuel tanks were installed. The original tanks were removed in 1990, and the 2 existing tanks were installed. A LUST case was opened in 1990 when the tanks were removed, and the case was closed in 1999. When closed, the soils and groundwater contaminate levels met RBCA Tier 1 standards.

[8] EDR. 2024. *EDR Radius Map Report with GeoCheck, Inquiry Number: 7764667.2s*. September 16, 2024.

[9] ADEQ. 2024. *What are GIS eMaps? Waste Programs GIS data.* https://www.azdeq.gov/emaps

Address	Name	Description
722 W Southern Avenue	Paradise Liquor Circle K #944 (Historical)	This property is a free-standing commercial building which is currently used as a liquor store. The property was previously a gas station with 3 underground fuel tanks. These tanks were removed in 1989. There are no recorded LUST cases for this property.

4.6.1.3 Low Risk Properties

Unless otherwise stated all properties within the Study Area are considered low-risk or no-risk. This includes multiple historical and existing automotive businesses with no records of hazardous material releases. All residential properties, schools, churches, and any other non-industrial type businesses are considered low risk

4.6.2 Recommendations

A Phase I ESA conducted in accordance with ASTM Standard 1527-21 are recommended prior to any property acquisitions. The Phase I ESA for properties listed as high or moderate risk are considered high priority. Additional assessment, including local and state agency file review and/or Phase II ESAs, may be required based on the findings of Phase I ESAs.

The following is recommended to minimize the potential for encountering hazardous materials during construction:

- Stormwater features, such as ephemeral washes and culverts, should be protected during construction activities in accordance with City of Phoenix requirements.
- A lead-based paint and asbestos-containing materials survey should be conducted, and results should be reviewed by City of Phoenix Environmental staff thirty (30) days prior to the start of construction activities.
- No pavement marking obliteration will occur until the Lead-Based Paint Removal and Abatement Plan, if required, is approved by the ADOT Environmental Planning hazardous materials coordinator.
- No demolition of load-bearing concrete will be allowed to occur until the Asbestos Removal and Disposal Plan, if required, is approved by the ADOT Environmental Planning hazardous materials coordinator.
- If suspected hazardous materials are encountered, an odor is identified, or significantly stained soil is visible during construction, work shall cease at that location and City of Phoenix Project Manager should be notified immediately. Subsequently arrangements for assessment, treatment and disposal of those materials should be made.

4.7 NOISE IMPACTS

The project is within a residential neighborhood and there are numerous sensitive noise receptors within the Study Area. The proposed project would not increase traffic capacity or change the existing roadway alignment. A quantitative noise analysis is not anticipated to be required. Impacts from noise during construction would be temporary and controlled by appropriate means and methods. The City of Phoenix Noise Ordinance prohibits roadway construction outside the hours of 6 AM to 7 PM Monday-Friday unless otherwise permitted by the Director of Planning and Development[10].

4.8 AIR QUALTIY

The Study Area is within the Maricopa and Pinal Counties PM-10 (1987) Serious Nonattainment area, the Phoenix-Mesa 8-Hour Ozone (2015) Moderate Nonattainment area, and the Phoenix Carbon Monoxide (1971) Serious Maintenance area[11]. The proposed project would not add capacity or alter the existing alignment. The project is not anticipated to require federal funding and would not be considered regionally significant and therefore would not require project-level air quality conformity.

4.9 ENVIROMENTAL CONCLUSIONS

The existing environmental conditions of the Study Area were evaluated for the presence of fatal flaws or issues which could impact alternative development. The Study Area is urbanized and developed with little to no native quality remaining. The primary land use is residential with community properties such as schools and places of worship found throughout. There are multiple commercial and industrial properties at the intersections of Southern Avenue and Broadway Road. The area began development at least a century ago with evidence of a road alignment where 7th Avenue is today, along with overhead utility lines. There are approximately twenty-nine (29) properties which could be of historic age and may warrant designation as historical in-use properties. A review of previous archeological surveys determined there are two archeological sites and a Hohokam Canal which may be impacted by the project. The City Archeologist Office may require construction monitoring at these locations.

Although the Study Area is urbanized, six (6) species listed in the Endangered Species Act (ESA) were identified as having ranges that overlap. These include Sonoran pronghorn, cactus ferruginous pygmy-owl, California least tern, yellow-billed cuckoo, Yuma ridgeway's rail, Gila topminnow, and monarch butterfly. There is no proposed or existing critical habitat for these species in the Study Area. There were eight (8) species of migratory bird which may occur in the Study Area: bald eagle, Bendire's thrasher, Costa's hummingbird, Gila woodpecker, golden eagle, Lawrence's Goldfinch, long-eared owl, and western grebe. If vegetation clearing is required during the migratory bird breed season, a migratory bird nest survey should be conducted prior to the activities. The project is not anticipated to impact any wildlife movement areas or linkages.

An environmental database review was conducted to identify potential hazardous materials sites in the Study Area. There are six properties which have active underground storage tanks. These properties are existing gas stations or other fueling facilities. The project is not anticipated to require acquisitions from these properties and therefore the properties are considered moderate risk. All other properties in the Study Area were considered low risk. Prior to any property acquisitions a Phase I ESA in accordance with ASTM Standard 1527-21 is recommended with properties identified as high or moderate risk being priority.

The Study Area is within the Maricopa and Pinal Counties PM-10 (1987) Serious Nonattainment area, the Phoenix-Mesa 8-Hour Ozone (2015) Moderate Nonattainment area, and the Phoenix Carbon Monoxide (1971) Serious Maintenance area. No project-level air quality analysis would be required.

The project is not anticipated to increase capacity or alter the alignment of 7th Avenue and therefore no quantitative noise analysis would be required. The City of Phoenix Noise Ordinance prohibits roadway construction outside the hours of 6 AM to 7 PM Monday-Friday unless otherwise permitted.

[10] City of Phoenix. 2024. *Nuisances and Noise, Section 23-14: Enumeration of loud, disturbing, and unnecessary noises*. https://phoenix.municipal.codes/CC/23-14

[11] EPA. 2024. *Nonattainment Areas for Criteria Pollutants (Green Book)*. https://www.epa.gov/green-book

5 Alternative Criteria, Development and Evaluation

5.1 PUBLIC OUTREACH AND SCOPING

Public outreach will be conducted during final design. Anticipated public outreach efforts will include one public information outreach meeting within the community to present the purpose and need for the project along with the developed alternatives. Development of a project webpage and survey will also be considered as part of the public outreach activities.

Community groups and property owners who have currently expressed the need for sidewalk additions along 7th Avenue included the following:

- Faith Missionary Baptist Church (5802 S 7th Ave, Phoenix, AZ 85041)
- South Phoenix Concerned Citizens
- South Central Collaborative

5.2 ALTERNATIVE DEVELOPMENT

The primary objective of this project is to develop and evaluate alternatives for constructing continuous ADA-compliant pedestrian facilities along the west side of 7th Avenue between Southern Avenue and Broadway Road. Design criteria was established for 7th Avenue based on the City of Phoenix Street Planning and Design Guidelines Manual (SPDG) (City of Phoenix Cross-Section "D"; Arterial) for the development of each of the alternatives and is included in Appendix B. Table 11 list some of the key design criteria.

Table 11. Key Design Criteria

Design Criteria	Value	Source
Design Speed	50 mph (Posted: = 40 mph)	Section 2.3.1 Design Speed SPDG Manual
Design vehicle / Control vehicle	SU-30 truck/49-FootFire Truck	Section 2.3.2 Design Vehicle SPDG Manual
Existing ADT	26,600 vpd	COP Traffic Volume Map on Website – 2022 count
Classification	Arterial	Section 2.3.3 Street Cross-Sections SPDG Manual /City of Phoenix Street Classification Map (2018)
Standard Typical Section	Arterial and Major Collector (Cross-Section D)	Section 2.3.3 (Figure 2.3-6) Street Cross-Sections SPDG Manual
Number of Lanes	2 Travel Lanes in each direction, Two-way left-turn lane, bike lanes, sidewalk	Figure 2.3-6 Cross-Section SPDG Manual
Roadway width	64 feet	Figure 2.3-6 Cross-Section SPDG Manual / Table 2.2-1
Lane widths	10-11 ft; 6 ft bike lane	Figure 2.3-6 Cross-Section SPDG Manual / Table 2.2-1
Median width	10 ft Two-way left-turn lane	Figure 2.3-6 Cross-Section PDG Manual / Table 2.2-1
Curb Type	6 in Vertical Curb	Figure 2.3-6 Cross-Section SPDG Manual / Table 2.2-1 / Section 2.3.8 Curb Type
Sidewalk width	5 ft min	Section 2.5.1 Sidewalks SPDG Manual / Table 2.2-1
Bus Bays	City of Phoenix Standard Details for bus bay, pad, and shelter design.	Section 2.4.3 Bus Bays SPDG Manual
Clear zone	No Curb = 16 ft from traveled way / With Curb = 1.5 ft min behind face of curb	Section 3.3.2 Horizontal Clearance SPDG Manual (Table 3.3-1) / ADOT Roadway Design Guidelines
Cross slope	2% Desirable (1% min, 3% max)	Section 2.3.10 Cross Slopes SPDG Manual
Driveway width	16 Ft min; 30-40 Ft maximum	Table 6.7-6 Driveway Width SPDG Manual
Hydrology - Street Storm Drain	2-year, 6-hour local storm as defined in the Maricopa County Flood Control District Drainage Design Manual (Hydrology)	City of Phoenix Storm Water Policies and Standards
Catch Basins	Maximum spacing of 660 feet with exception in instances of minimal flow and slope > 2% Curb opening shall not exceed 5 inches in height Catch basin reduction factors shall be based on Table 6.3.1 Curb opening inlets shall be in accordance with COP Standard Detail P1569-1, M-1, L=3' or greater	City of Phoenix Storm Water Policies and Standards
Lighting	Spacing=200 ft standard spacing (double-sided staggered)	SPDG Manual, and Street Light Layout Guidelines (July 2023)

In developing alternatives, multiple factors were considered, including available right-of-way, existing physical constraints, drainage, utilities, ADA compliance, design criteria, and construction costs. Based on field investigations, topographic survey data, and agency coordination, AECOM prepared and analyzed three conceptual alternatives for evaluation. Roll plots for each of three proposed alternatives are included in Appendix C.

Alternative 1: City of Phoenix Arterial (Cross-Section D) with Detached Sidewalk
This alternative proposes the construction of new curb and gutter with a detached sidewalk along the west side of 7th Avenue. This alternative generally provides a five-foot sidewalk separated from the curb by a typical 5 foot landscape buffer area, maximizing pedestrian comfort and safety while improving ADA accessibility through the corridor.

Key elements include:

- Construction of 5-foot-wide detached sidewalks along the west side of 7th Avenue (5-foot landscape buffer)
- Installation of new curb and gutter along the west side of 7th Avenue
- Roadway typical section would utilize existing lane widths (10-11 foot travel lanes, 10-foot two-way left turn lane, 5-6 foot bike lanes)
- Construction of the new curb and gutter on the west side of the roadway would include placement of the new face of curb to be offset 6 feet from the existing outside travel lane striping to provide an overall 6-foot bike lane along southbound 7th Avenue
- New driveway construction along the west side of 7th Avenue to accommodate new curb and gutter

- New driveway/sidewalk retrofits along the west and east side of 7th Avenue to reconstruct existing driveways/sidewalk that do not meet current ADA standards (4-foot sidewalk wrap arounds at existing driveways where required)
- New curb ramps along the west side of 7th Avenue
- Reconstruction of existing bus stops along the west side of 7th Avenue to provide bus shelter/accessory pad
- Drainage improvements along the west side of 7th Avenue, including catch basin relocations and storm drain connections
- New street lighting installation along the west side of 7th Avenue
- Utility adjustments as needed to avoid conflicts
- Right-of-way and TCE acquisition (approximately 3,570 SF total). Affected parcels include the following (16 total parcels):
    - Faith Missionary Baptist Church (105-85-001A)
    - Faith Missionary Baptist Church (105-82-008)
    - Church of Jesus Christ LDS (113-39-001)
    - Rito Rincon (113-39-003H)
    - Rito Rincon (113-39-003K)
    - Maria Bejar (113-32-152A)
    - Reyna Galvan (113-32-072A)
    - Romona Tapia (113-32-057A)
    - Ruth Ortegon (113-32-056A)
    - Octavio Hernandez (113-32-041A)
    - David Larios (113-32-040A)
    - Garrett Trevino (113-32-025A)
    - Nabor Avila (113-32-024A)
    - Netzach Investments (113-32-009A)
    - Walter Armendariz (113-32-008A)
    - Magico Azul Trust (113-28-005)

Alternative 1 provides the highest level of pedestrian safety with detached sidewalks. Alternative 1 meets the project goals for ADA, lighting, drainage and overall closest compliance to align with City of Phoenix Cross Section D arterial design standards. Alternative 1 includes the highest amount of right-of-way and utility impacts and is the highest cost to construct.

Alternative 2: City of Phoenix Arterial (Cross-Section D) with Attached Sidewalk (Recommended Alternative)
This alternative proposes construction of new curb and gutter with attached sidewalk to the back of curb in locations where right-of- way or physical constraints limit space for a detached sidewalk along the west side of 7th Avenue.

Key elements include:

- Construction of attached 5-foot-wide sidewalks adjacent to curb along the west side of 7th Avenue
- Installation of new curb and gutter along the west side of 7th Avenue
- Roadway typical section would utilize existing lane widths (10-11 foot travel lanes, 10 foot two-way left turn lane, 5-6 foot bike lanes)
- Construction of the new curb and gutter on the west side of the roadway would include placement of the new face of curb to be offset 6 feet from the existing outside travel lane striping to provide an overall 6 foot bike lane along southbound 7th Avenue
- New driveway construction along the west side of 7th Avenue to accommodate new curb and gutter
- New driveway/sidewalk retrofits along the west and east side of 7th Avenue to reconstruct existing driveways/sidewalk that do not meet current ADA standards (4 foot sidewalk wrap arounds at existing driveways where required)
- New curb ramps along the west side of 7th Avenue
- Reconstruction of existing bus stops along the west side of 7th Avenue to provide bus shelter/accessory pad
- Drainage improvements along the west side of 7th Avenue, including catch basin relocations and storm drain connections
- New street lighting installation along the west side of 7th Avenue
- Utility adjustments as needed to avoid conflicts
    - Fewer utility adjustments compared to Alternative 1 due to reduced horizontal footprint
- Reduction or elimination of landscape buffer to minimize right of way impacts. Right-of-way and TCE acquisition (approximately 905 SF total). Affected parcels include the following (3 total parcels):
    - Rito Rincon (113-39-003H)
    - Rito Rincon (113-39-003K)
    - Magico Azul Trust (113-28-005)
    - Note driveway/sidewalk retrofits on the east side of 7th Avenue may require additional TCE for new wrap arounds adjacent/close to existing right-of-way

Alternative 2 meets the project goals for ADA, lighting, and drainage. Alternative 2 offers reduced right-of-way impacts, utility conflicts and cost to construct; however, the attached sidewalk design does result in less pedestrian separation from vehicular traffic when compared to Alternative 1.

Alternative 3: Asphalt Path and ADA Improvements Along West Side of 7th Ave
Alternative 3 proposes construction of an asphalt pathway as a lower-cost alternative to concrete sidewalk and curb and gutter along the west side of 7th Avenue. This option provides pedestrian access along the west side of 7th Avenue while minimizing both construction costs and right-of-way acquisition.

Key elements include:

- Construction of an asphalt pedestrian path along the west side of 7th Avenue
- No curb and gutter or new driveways
- Roadway typical section would utilize existing lane widths (10-11 foot travel lanes, 10 foot two-way left turn lane, 5-6 foot bike lanes)
- New driveway/sidewalk retrofits along the west side of 7th Avenue to reconstruct existing driveways/sidewalk that do not meet current ADA standards (4 foot sidewalk wrap arounds at existing driveways where required)
- New curb ramps along the west side of 7th Avenue
- Reconstruction of existing bus stops along the west side of 7th Avenue to provide bus shelter/accessory pad
- Drainage improvements along the west side of 7th Avenue if in conflict with the new asphalt path, including catch basin relocations and storm drain connections
- New street lighting installation along the west side of 7th Avenue
- Utility adjustments as needed to avoid conflicts
    - Fewer utility adjustments compared to Alternatives 1 and 2 due to reduced horizontal footprint
- No required new right-of-way

Alternative 3 meets the project goals for ADA and lighting. Alternative 3 offers reduced right-of-way impacts, utility conflicts and cost to construct when compared to Alternatives 1 and 2. However, although Alternative 3 represents a

potential cost-saving option, it offers less long-term value due to lower durability, maintenance concerns, reduced safety, and least compliance with City of Phoenix Cross Section D arterial. This alternative could be considered an interim option but could require future ultimate replacement with permanent concrete sidewalk and curb and gutter improvements as funding becomes available.

5.3 EVALUTATION CRITERIA

Evaluation criteria were developed to assess design alternatives for the study area and are described below.

Safety Improvements

- Protection of Pedestrians and Bike – Evaluation of the pedestrians and bicycles versus vehicular location and separation.
- Lighting Improvements – Evaluation of the lighting improvements included.

Drainage Improvements – Evaluation of the drainage needs that will be addressed.
Cross-Section Requirements – Evaluation of the ability to meet the ideal cross-section requirements.
Right-of-Way Impacts – The quantity of additional right-of-way that would be needed to be acquired.
Utility Impacts – Impacts to existing utilities along the corridor.
Costs – Estimate of construction and right-of-way costs based upon scoping design and similar assumptions between each alternative.

5.4 ALTERNATIVE EVALUTATION

Each of the alternatives were evaluated for the evaluation criteria as described in Section 5.3. The following summarizes the evaluation highlights.

Alternative 1 - City of Phoenix Arterial (Cross-Section D) with Detached Sidewalk

- Largest right-of-way and utility conflicts
- Detached sidewalk provides greatest level of safety and separation from vehicular traffic
- Addresses drainage needs – Connection to existing storm drain system
- Addresses lighting needs
- Best meets the City cross-section for the corridor
- Highest cost alternative

Alternative 2 - City of Phoenix Arterial (Cross-Section D) with Attached Sidewalk

- Reduction of right-of-way and utility conflicts (compared to Alternative 1)
- Attached sidewalk areas - Decreased safety and separation from vehicular traffic (attached sidewalk is typically present along the east side of 7th Avenue thus would match the existing roadway corridor characteristics)
- Addresses drainage needs – Connection to existing storm drain system
- Addresses lighting needs
- Builds to City cross-section roadway width via meandering sidewalk to reduce right-of-way and utility conflicts
- Lower Cost (compared to Alternative 1)

Alternative 3 - Asphalt Path Along West side of 7th Ave and ADA Improvements Only

- Reduction of right-of-way and utility conflicts (compared to Alternative 1 and 2)
- Meandering path provides separation from vehicular traffic but no curb and gutter
- Existing drainage patterns to remain
- Addresses lighting needs
- Does not meet the City cross-section with curb and gutter and sidewalk
- Lowest cost

6 Recommended Improvements

6.1 PROPOSED ALTERNATIVE

The primary objective of this project is to develop and evaluate alternatives for constructing continuous ADA-compliant pedestrian facilities along the west side of 7th Avenue between Southern Avenue and Broadway Road. Alternative 2 has been identified as the Recommended Alternative.

Recommended Alternative (Alternative 2): City of Phoenix Arterial (Cross-Section D) with Attached Sidewalk
The recommended improvements include the construction of new curb and gutter with attached sidewalk to the back of curb in locations where right-of-way or physical constraints limit space for a detached sidewalk along the west side of 7th Avenue.

Key elements include:

- Construction of attached 5-foot-wide sidewalks adjacent to curb along the west side of 7th Avenue
- Installation of new curb and gutter along the west side of 7th Avenue
- Roadway typical section would utilize existing lane widths (10-11 foot travel lanes, 10-foot two-way left turn lane, 5-6 foot bike lanes)
- Construction of the new curb and gutter on the west side of the roadway would include placement of the new face of curb to be offset 6 feet from the existing outside travel lane striping to provide an overall 6-foot bike lane along southbound 7th Avenue
- New driveway construction along the west side of 7th Avenue to accommodate new curb and gutter
- New driveway/sidewalk retrofits along the west and east side of 7th Avenue to reconstruct existing driveways/sidewalk that do not meet current ADA standards (4-foot sidewalk wrap arounds at existing driveways where required)
- New curb ramps along the west side of 7th Avenue
- Reconstruction of existing bus stops along the west side of 7th Avenue to provide bus shelter/accessory pad
- Drainage improvements along the west side of 7th Avenue
- New street lighting installation along the west side of 7th Avenue

6.2 SIGNING AND PAVEMENT MARKING

The existing corridor includes standard signage for arterial traffic operations, including speed limit signs, turn lane guidance, and school zone warnings. Pavement markings include centerline striping, bike lanes, and turn lane markings consistent with City standards.

The proposed sidewalk improvements will require minor adjustments to existing signage and pavement markings. New signs may be installed at reconstructed pedestrian crossings, driveways, and bus stops to ensure ADA compliance and pedestrian safety. Striping adjustments may be needed at driveways, curb ramp locations, and bus pullouts to reflect modified curb lines and access points.

All signing and striping work will comply with City of Phoenix and MUTCD requirements.

6.3 DRAINAGE FACILITIES

The existing drainage system relies on curb inlets, catch basins, and roadway cross-slopes to collect and convey stormwater runoff. Eleven (11) existing storm drain inlets including curb-opening catch basins and grated inlets were identified along the west side of the corridor, generally located at intersections, mid-block points, and low points.

Key drainage design elements include:

- Maintaining of existing roadway drainage patterns and cross slopes
- Preservation or relocation of existing curb inlets and catch basins as needed to accommodate new sidewalk alignments
- Replacement or retrofit of existing catch basins and storm drain connections where conflicts arise with reconstructed driveways, bus stops, or new ADA ramps
- Provision of positive drainage away from pedestrian facilities to prevent ponding or ADA non-compliance

All drainage improvements will maintain consistency with existing downstream conveyance systems.

The proposed improvements will modify or replace drainage structures where conflicts arise with new sidewalk improvements, curb ramps, or driveways. A portion of the existing inlets will be reconstructed or adjusted to maintain existing drainage patterns while meeting ADA requirements at pedestrian crossings.

Specific drainage improvements include modified Type M-1 and M-2 catch basins (L=6-ft and L=10-ft) in several locations. Drainage work will adhere to City of Phoenix and MAG standards, maintaining positive flow away from pedestrian facilities. Catch basin spacing follows the City of Phoenix Storm Water Policies and Standards of 660 feet maximum spacing or waivers for streets with minimal flows of less than 2 cfs in the 2-yr design event. The 2-year hydrology estimates for 7th Avenue are less than 2 cfs (range from 0.2 to 1.7 cfs).

6.4 LIGHTING

New street lighting will be installed along the west side of 7th Avenue to meet City of Phoenix Street Light Layout Guidelines. Spacing will follow 200 feet standard spacing requirements (double-sided staggered) and City crossroads requirements. Existing street lighting located on the east side of the roadway will remain along with existing segments of lighting on the west side of the roadway. New street lighting will be installed on the west side of the roadway within segments with gaps in street lighting.

6.5 GEOTECHNICAL REQUIREMENTS

The study does not include any formal geotechnical investigation or pavement design. Subsurface conditions were not independently evaluated as part of this project phase.

Geotechnical considerations for future phases of design will require:

- Verification of subgrade conditions for sidewalk and driveway construction
- Evaluation of pavement structural sections and pavement design for roadway widening
- Note that this segment of 7th Avenue is currently scheduled for pavement preservation/mill and overlay in FY26.

For cost estimating purposes, a pavement structural section of 8” AC was assumed for pavement widening required for curb and gutter installation. Geotechnical exploration and materials testing will be required during future design phases.

6.6 LANDSCAPE FEATURES AND AMENITIES

Proposed improvements will introduce an additional attached sidewalk on the west side of 7th Avenue. Mature trees will be evaluated for preservation during final design, though removals may be required where ADA compliance or sidewalk grading conflicts exist.

Bus stops will be reconstructed to meet ADA standards, providing improved foundations for potential future amenities such as shelters or benches if added by the City.

Overall, landscape improvements will remain minimal, focused on functionality, ADA compliance, and long-term maintenance efficiency.

6.7 RIGHT-OF-WAY REQUIREMENTS

The sidewalk improvement project along 7th Avenue is primarily confined to existing City of Phoenix right-of-way; however, additional right-of-way (ROW) or TCE acquisitions are required to fully implement the proposed improvements while meeting current City of Phoenix design standards. Additional TCE has been included in the recommended alternative when compared to the Alternative 2 developed in Section 5 to account for potential TCE required at proposed driveways, sidewalk, and light poles/conduit (5 foot TCE’s behind existing right-of-way).

Right-of-way and TCE acquisition is estimated at approximately 5,375 SF total. The twenty-five affected parcels include the following:

- Chacon Rodolfo (105-82-019B) = 168 SF
- Nava Gustavo (105-82-006D) = 225 SF
- Faith Missionary Baptist Church (105-82-001A) = 467 SF
- Faith Missionary Baptist Church (105-82-008) = 516 SF
- Faith Missionary Baptist Church (105-82-005K) = 287 SF
- Uriaz Jose L Juarez/ Beltran Nancy Y (105-82-016R) = 149 SF
- Vega Jose Filiberto/Mario J (105-82-016Q) = 272 SF
- Madero Gilberto L (105-82-016U) = 413 SF
- Lopez Marlin (Life Estate) (105-82-016M) = 414 SF
- 701 W Sunland LLC (105-82-016S) = 181 SF
- D & L Housing LLC (105-80-006C) = 697 SF
- Yac Lorenzo/Silvia (105-80-003) = 170 SF
- Rincon Rito/Luz (113-39-003H) = 222 SF
- Rincon Rito/Luz (113-39-003K) = 304 SF
- Bejar Maria De Lourdes (113-32-152A) = 64 SF
- Galvan Reyna I Varela (113-32-072A) = 42 SF
- Tapia Ramona Thelma Peralta (113-32-057A) = 56 SF
- Ortegon Ruth V/Luz Ortegon-Salgado (113-32-056A) = 59 SF
- Hernandez Octavio (113-32-041A) = 49 SF
- Larios David Ortiz/Rabago Jesus Albert (113-32-040A) = 49 SF
- Trevino Garrett A (113-32-025A) = 44 SF

- Avila-Rodriguez Nabor/De Avila Celia Frausto (113-32-024A) = 45 SF
- Netzach Investments LLC (113-32-009A) = 46 SF
- Armendariz-Molina Walter Alexzander (113-32-008A) = 55 SF
- Magico Azul Trust (113-28-005) = 380 SF

Additional TCE for construction in areas that are close and or adjacent to existing right-of-way may be required and should be evaluated during final design.

ROW Acquisition Process
All ROW acquisition activities will be coordinated in compliance with applicable City, state, and federal procedures, including:

- Property appraisals.
- Property owner notifications.
- Negotiation and acquisition.
- Temporary construction easements (TCEs), if needed, for contractor access during construction.

The City will coordinate directly with property owners to complete ROW acquisition during subsequent design phases.

6.8 UTILITY RELOCATION REQUIREMENTS

Utility relocation or adjustment will be required where conflicts exist between existing facilities and proposed sidewalk alignments, curb ramps, drainage improvements and/or reconstructed driveways. Major anticipated utility work includes:

- Adjustments to underground vaults, pull boxes, or conduit access points located within the new sidewalk footprint.
- SRP irrigation conflicts in certain segments of the project where irrigation facilities parallel the sidewalk alignment. Replacement of existing SRP irrigation pipe with Class V RCP at proposed driveway locations has been assumed as part of the recommended alternative.
- Coordination with dry utility owners for potential adjustments to shallow buried fiber, telecom, or gas lines.

The City of Phoenix Utility Coordinator will lead coordination efforts with utility owners throughout the scoping and design phase. No utility potholing was included in this study; subsurface utility exploration is recommended in future phases of design to confirm exact utility locations, depths, and potential conflicts.

6.9 MAINTENANCE OF TRAFFIC REQUIREMENTS

During construction of the sidewalk improvements, maintenance of traffic (MOT) will be a key component to ensure safe, continuous operation of vehicular, pedestrian, bicycle, and transit traffic along 7th Avenue while minimizing disruptions to adjacent properties, schools, businesses, and residents.

General Traffic Control Approach

- Construction activities will occur entirely within or adjacent to the existing west-side shoulder and right-of-way.
- At least one travel lane in each direction will remain open at all times along 7th Avenue during construction.
- Temporary traffic control devices will be installed and maintained throughout construction in accordance with City of Phoenix and MUTCD standards.
- The contractor will be required to submit a detailed Traffic Control Plan (TCP) for City review and approval prior to starting construction.

Pedestrian and Bicycle Accommodations

- Temporary pedestrian detours will be established to safely route pedestrians around active construction zones.
- ADA-compliant temporary pedestrian routes will be provided where feasible.
- Existing on-street bicycle lanes may experience temporary closures or narrowing; appropriate signing and barricades will be provided to guide bicyclists safely through or around work zones.

Access to Driveways, Transit Stops, and Adjacent Properties

- The contractor will coordinate closely with affected property owners to maintain reasonable access to driveways throughout construction.
- Access to transit stops will be maintained or temporarily relocated as necessary, with full ADA accessibility preserved.
- Construction sequencing will be staged to minimize prolonged impacts to any one property or driveway.

6.10 ADDITIONAL CONSIDERATIONS

No traffic signal improvements have been included as part of the recommended alternative. The City has plans to signalize the intersection of 7th Avenue and Sunland Avenue (File #: 12012). This future project improvements include signalizing the intersection, curb ramps, sidewalk, curb & gutter, drainage, and a bus shelter improvement near the intersection. This signalization project is not yet programmed for construction. For the purpose of this study it is assumed that the intersection signalization project will be constructed prior to the construction of the recommended alternative. If the project is not constructed prior to, it is recommended that the 7th Avenue and Sunland Avenue intersection signalization project be combined with ST85100459 if funding is available. It is recommended that this is determined during final design.

The City also identified that signal improvements are needed at the existing 7th Avenue and Roeser Road signalized intersection. For the purpose of this study it is assumed that the signal improvement will be completed with a future unidentified project. It is recommended that a 7th Avenue and Roeser Road intersection signalization project be combined with ST85100459 if funding is available. It is recommended that this is determined during final design.

In addition, this segment of 7th Avenue is currently scheduled for pavement preservation/mill and overlay in FY26.

6.11 SEASONAL CONSIDERATIONS

Seasonal considerations for construction of the 7th Avenue sidewalk improvements primarily relate to:

Weather Impacts

- The project is in the Phoenix metropolitan area where extreme summer heat, monsoon storms, and occasional heavy rainfall may impact construction activities.
- Summer daytime temperatures routinely exceed 110°F, creating heat exposure concerns for construction personnel and potentially limiting certain work activities to nighttime or early morning hours.
- The Arizona monsoon season (generally July through September) may produce heavy localized rainfall, requiring proper stormwater management to prevent work zone flooding or erosion.
- Winter months (November through March) provide optimal conditions for concrete and sidewalk construction due to cooler temperatures and limited rainfall.

Construction Sequencing and Scheduling

- Construction should ideally be scheduled during cooler months to maximize productivity and worker safety.
- School year schedules may require additional coordination when working near the school site located adjacent to the project corridor.
- Traffic impacts and lane closures may be restricted during peak commute hours and school drop-off/pick-up periods to maintain safe circulation.

Environmental Compliance

- No seasonal biological resource restrictions were identified for this urban project area.
- Stormwater Pollution Prevention Plan (SWPPP) measures will be required throughout construction, particularly during monsoon season.

6.12 CRITICAL OUTSIDE AGENCY INVOLVEMENT

The project requires coordination with several external agencies to address utilities, environmental resources, and regulatory compliance throughout design and construction. The following agencies are identified as having critical involvement:

Salt River Project (SRP) – Power and Irrigation

- SRP has multiple existing electric and irrigation facilities located within the project corridor:
  - Overhead electric distribution lines.
  - Underground electrical vaults and conduit crossings.
  - SRP irrigation ditches running along portions of the west side of 7th Avenue.
- SRP coordination is required to:
  - Identify conflicts with sidewalk and curb ramp construction.
  - Develop relocation or protection strategies.
  - Obtain necessary approvals for work near or impacting SRP irrigation facilities.
- The City Utility Coordinator will lead ongoing coordination efforts with SRP throughout design and construction.

City of Phoenix Utility Coordination

- Existing City water and sewer mains run along the project corridor.
- Coordination with City utility departments will be necessary for:
  - Identifying conflicts.
  - Developing relocation plans as needed.
  - Reviewing final utility adjustments and connections.

Dry Utility Providers

- Coordination will be required with multiple private utility providers that own and operate buried fiber optic, telecommunications, natural gas, and cable television infrastructure along 7th Avenue.
- Utility providers may need to adjust or relocate facilities where conflicts with sidewalk construction occur.
- The City Utility Coordinator will serve as liaison with all private utility companies.

City of Phoenix Historic Preservation and Archaeology Office

- The Environmental Overview identified several nearby cultural resources, including recorded archaeological sites and Hohokam canals within the general study area.
- Although no direct cultural resource impacts are currently anticipated within the project limits, consultation with the City Archaeology Office will continue to ensure compliance with:
  - The Phoenix Historic Preservation Ordinance.
  - Arizona State Historic Preservation Act.
  - Arizona Antiquities Act.
- Monitoring or testing may be required during construction if previously unidentified cultural materials are encountered.

Maricopa County Assessor's Office and Right-of-Way Coordination

- Coordination with property owners and use of assessor data will be necessary to finalize ROW acquisitions and temporary construction easements for properties adjacent to proposed improvements.

Other City Departments

- Internal coordination with additional City departments includes:
  - Street Transportation Department for design oversight.
  - Design and Construction Procurement for project contracting.
  - Traffic Services for signal modifications, signing, striping, and traffic control plan reviews.

7 15% Design Plans

The Recommended Alternative (Alternative 2) typical section includes:

- Two travel lanes in each direction (10-11 feet).
- A center two-way left-turn lane (10 feet).
- 5-6 feet bike lanes on both sides of the roadway.
- New 5-foot wide attached sidewalk along the west side of 7th Avenue.
- New 6-inch vertical curb and gutter along the west side of 7th Avenue.
- New driveway construction along the west side of 7th Avenue to accommodate new curb and gutter.
- New driveway/sidewalk retrofits along the west and east side of 7th Avenue to reconstruct existing driveways/sidewalk that do not meet current ADA standards (4 foot sidewalk wrap arounds at existing driveways where required).
- New curb ramps along the west side of 7th Avenue.
- Reconstruction of existing bus stops along the west side of 7th Avenue to provide bus shelter/accessory pad.
- Drainage improvements along the west side of 7th Avenue, including catch basin relocations and storm drain connections.
- New street lighting installation along the west side of 7th Avenue.

The roadway improvements maintain existing lane widths. Construction of the new curb and gutter on the west side of the roadway would include placement of the new face of curb to be offset 6 feet from the existing outside travel lane striping to provide an overall 6 foot bike lane along southbound 7th Avenue. Improvements are primarily within existing right-of-way with three parcels requiring new right-of-way acquisition as described in Section 6. Design criteria conform to City of Phoenix Street Planning and Design Guidelines, MAG Specifications, and AASHTO standards for urban arterials.

15% design plans have been prepared for the recommended alternative The 15% design plans are included in Appendix D.

8 Estimated Cost and Schedule

8.1 FUNDING SOURCE

The design and construction for this project is anticipated to be funded through the City of Phoenix Street Transportation Capital Improvement Program (CIP) and the MAG Arterial Life Cycle Program. Specific funding allocations will be coordinated by the City based on the recommended alternative and the estimated final design and construction cost. Design and construction is programmed for fiscal years 2027 and 2029, respectively.

Considerations for inclusion of intersection signalization at the 7th Avenue and Sunland Avenue intersection and the 7th Avenue and Roeser Road intersection should be determined during final design and based on funding availability.

8.2 SCHEDULE

Preliminary design and Final design is anticipated to take approximately 12 to 18 months to complete. Construction duration is estimated at 6 to 8 months.

8.3 ESTIMATED COST

The estimated total project cost for the Recommended Alternative (Alternative 2) is summarized in Table 12. A detailed estimate is included in Appendix E. This estimate includes a total project cost including construction, design, utility, and right-of-way costs.

Table 12. Recommended Alternative 15% Cost Estimate Summary

Project Item	Cost
Construction	$3,257,813
Construction Contingency (10%)	$326,000
Construction Management (20%)	$652,000
Design	$814,000
Right-Of-Way	$215,000
Utility Relocations	$163,000
TOTAL	$5,427,813

Appendix A
Existing Site Conditions Photos and Field Review Notes

ST85100459-1 - Pre-Design Study Sidewalk: 7th Avenue-Southern Avenue to Broadway Road
Field Review - 9/25/2024

WEST SIDE OF 7TH AVE:
* New/Reconstruct Curb Ramps = 12 EA
* Exst Driveways or Access Locations to Maintain = 18 EA
* Exst Bus Stop Locations Reconstruct = 3 EA

EAST SIDE OF 7TH AVE:
* Reconstruct Curb Ramps = 2 EA
* Exst Driveways or Access Locations Reconstruct = 12 EA
* Exst Bus Stop Locations To Remain = 3 EA

Driveways
Pedestrian Ramps
Bus Stops
Obstructions
Add New Curb Ramp (1)
Reconstruct New Curb Ramp (1)
Ramp No Domes
Ramp No Domes
Match Exst
9' Edge Line to Face of Curb, 8' Buffer Back of Curb to Sidewalk
7th Avenue
D/W Slope No Wraparound
Cracked Sidewalk
D/W Slope No Wraparound
No C&G 3" high sidewalk at edge of asphalt
Ramp No Domes
Ramp No Domes
Flat No Domes
Flat No Domes
Parking Lot
Reconstruct Exst Driveway (2)
Reconstruct New Curb Ramps (2)
Sunland STEAM Academy
New School Location Currently Under Construction
Israel of God Bible Study
Sunland Avenue
N
© 2024 Microsoft Corporation © 2024 Maxar ©CNES (2024) Distribution Airbus DS

Driveways
Pedestrian Ramps
Bus Stops
Obstructions
Exst Signalized/ Ped Crossing for School
Add New Curb Ramp (1)
Add New Curb Ramp (1) and reconstruct exst driveway to fit curb ramp
Atlanta Avenue
Add New Curb Ramps (2)
Romley Avenue
Add New Curb Ramps (2)
Gregory Road
Add New Curb Ramps (2)
7th Avenue
5' Edge Line to Edge AC, 10' Buffer Edge of AC to Sidewalk
New School Location Currently Under Construction
Roeser Road
Alley
Reconstruct sidewalk/ driveway for ADA (1)
Alley Slope No Wraparound
Atlanta Avenue
Reconstruct sidewalk/ driveway for ADA (1)
Alley Slope No Wraparound
Alley
Mobile Lane
Reconstruct sidewalk/ driveway for ADA (1)
Alley Slope No Wraparound
Alley
Romley Avenue
Reconstruct sidewalk/ driveway for ADA (1)
Alley Slope No Wraparound
Alley
Chipman Road
Reconstruct sidewalk/ driveway for ADA (3)
D/W Slope No Wraparound
Alley Slope No Wraparound
D/W Slope No Wraparound
Alley
Wier Avenue
3 of 4
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Driveways
Pedestrian Ramps
Bus Stops
Obstructions
Tamarisk Street
Corona Avenue
Broadway Road
7th Avenue
Add New Curb Ramps (2)
Match Exst
Arellano Tire Shop
Da-Lite Market
D/W Slope No Wraparound
D/W Slope No Wraparound
Reconstruct sidewalk/ driveway for ADA (2)
Amber Pointe Apartments
J&C Accessories
C&S Tires
Circle K
4 of 4
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Field Review Photos – Begin 7th Ave/Broadway Rd (Heading South)

HOV
ARIZONA
PZ1
KARI LAKE
US SENATE

Corona

Tamarisk

Tamarisk

BUS
STOP#
10752

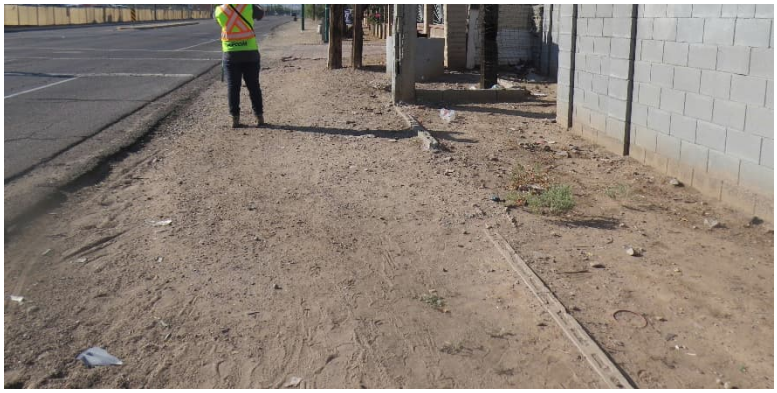
4800
Av
Gregory

SANITARY SEWER

Atlanta

AHEAD
SCHOOL

WATER



BEWARE
of DOG

D
B
A

RUIZ

SPEED
HUMPS
20
NEXT
800 FT

TEMPCO
CONCRETE
CONSTRUCTION CO
2009

N SUNLAND AV
40

AECOM

AECOM

AECOM

7·12·6

5B02
5B02

ONLY
COMBINED LANE
$12
Exam
5850

TALIS
CONSTRUCTION
CORP
2024

Field Review Photos – Begin 7th Ave/Southern Ave (Heading North)

ADOPT
A
STREET
C.J. JORGENSEN
ELEMENTARY
BIKE LANE

AECOM

5643

BIKE LANE
BUS

AECOM

Wier

Tamarisk

Tamarisk

AECOM

Appendix B
Design Criteria

Pre-Design Study Sidewalk 7th Avenue
Southern Avenue to Broadway Road

Project No.: ST85100459-1

Scoping Design Criteria

Prepared for:
City of Phoenix Street Transportation Department

City of Phoenix

Prepared by:

AECOM

November 2024

List of Abbreviations

AASHTO – American Association of State Highway and Transportation Officials
AASHTO Green Book – AASHTO A Policy on Geometric Design of Highways and Streets (2018)
AASHTO RDG – AASHTO Roadside Design Guide (2011)
City of Phoenix (SPDG) – City of Phoenix Street Planning and Design Guidelines Manual (2023)

City of Phoenix Design Criteria

Project No.: ST85100459-1
Pre-Design Study Sidewalk 7th Avenue
Southern Avenue to Broadway Road
Scoping and Design Report

The design criteria prepared below is for an Arterial (7th Avenue). Figure 2.3-6, City of Phoenix Street Planning and Design Guidelines Manual which will be referred to as the City of Phoenix (SPDG) Manual within this document.

General Design Criteria		
	Value	Source
• Design speed	50 mph (Posted: = 40 mph)	Section 2.3.1 Design Speed City of Phoenix (SPDG) Manual
• Design vehicle / Control vehicle	SU-30 truck / 49-Foot Fire Truck	Section 2.3.2 Design Vehicle City of Phoenix (SPDG) Manual
• Existing ADT	26,600 vpd	Section 7.1.3 Arterial Streets / Arterial street volumes may range between 15,000 to 50,000 ADT with two (2) to three (3) through lanes in each direction
• Type of terrain	Level	
• Classification	Arterial	Section 2.3.3 Street Cross-Sections City of Phoenix (SPDG) Manual / City of Phoenix Street Classification Map (2018)
• Average Project Elevation	1,090 ft	
• Standard Typical Section	Arterial and Major Collector (Cross-Section D)	Section 2.3.3 (Figure 2.3-6) Street Cross-Sections City of Phoenix (SPDG) Manual
• Number of Lanes	2 Travel Lanes in each direction, Two-way left-turn lane, bike lanes, sidewalk	Figure 2.3-6 Cross-Section City of Phoenix (SPDG) Manual
Roadway Design Criteria		
• Roadway width	64 feet	Figure 2.3-6 Cross-Section City of Phoenix (SPDG) Manual / Table 2.2-1
• Lane widths	10-11 ft; 6 ft bike lane	Figure 2.3-6 Cross-Section City of Phoenix (SPDG) Manual / Table 2.2-1
• Shoulder width	None (5-6 ft existing bike lane with no curb)	Figure 2.3-6 Cross-Section City of Phoenix (SPDG) Manual
• Median width	10 ft Two-way left-turn lane	Figure 2.3-6 Cross-Section City of Phoenix (SPDG) Manual / Table 2.2-1
• Curb Type	6 in Vertical Curb	Figure 2.3-6 Cross-Section City of Phoenix (SPDG) Manual / Table 2.2-1 / Section 2.3.8 Curb Type

The design criteria prepared below is for an Arterial (7th Avenue). Figure 2.3-6, City of Phoenix Street Planning and Design Guidelines Manual which will be referred to as the City of Phoenix (SPDG) Manual within this document.

Roadway Design Criteria – *Continued*		
	Value	Source
• Sidewalk width	5 ft min	Section 2.5.1 Sidewalks City of Phoenix (SPDG) Manual / Table 2.2-1
• Bus Bays	City of Phoenix Standard Details for bus bay, pad, and shelter design.	Section 2.4.3 Bus Bays City of Phoenix (SPDG) Manual
• Clear zone	No Curb = 16 ft from traveled way / With Curb = 1.5 ft min behind face of curb	Section 3.3.2 Horizontal Clearance City of Phoenix (SPDG) Manual (Table 3.3-1) / ADOT Roadway Design Guidelines
• Cross slope	2% Desirable (1% min, 3% max)	Section 2.3.10 Cross Slopes City of Phoenix (SPDG) Manual
• Maximum superelevation	0.02 FT/FT	Section 2.3.11 Superelevation City of Phoenix (SPDG) Manual
• Superelevation transition (runoff and runout)	Varies	3.3.8 Transition Design Controls – AASHTO Green Book
• Minimum return radius at intersections	20 ft R	Table 2.6-1 Intersections City of Phoenix (SPDG) Manual
• Maximum Vertical Grade	7.0%	Section 2.3.10 Vertical Alignment City of Phoenix (SPDG) Manual
• Minimum Vertical Grade	0.40%	Section 2.3.10 Vertical Alignment City of Phoenix (SPDG) Manual
• Minimum length of vertical curve	150 ft	Practical Min L = 3 x design speed
• Sight Distance - Crest	425 ft min	Table 2.3-3 Stopping Sight Distance City of Phoenix (SPDG) Manual
• Sight Distance - Sag	425 ft min	Table 2.3-3 Stopping Sight Distance City of Phoenix (SPDG) Manual
• Maximum grade break without vertical curve	0.5%	Section 2.3.10 Vertical Alignment City of Phoenix (SPDG) Manual
• Vertical Clearance	16.5 ft	Section 3.3.2 Vertical Clearance City of Phoenix (SPDG) Manual
• Minimum Stopping Sight Distance	425 ft	Table 2.3-3 Structural Clearances City of Phoenix (SPDG) Manual

The design criteria prepared below is for an Arterial (7th Avenue). Figure 2.3-6, City of Phoenix Street Planning and Design Guidelines Manual which will be referred to as the City of Phoenix (SPDG) Manual within this document.

Roadway Design Criteria – *Continued*		
	Value	Source
• Intersection Sight Distance (ISD) Traffic Signal Control	First vehicle stopped on all approaches should be visible; Left turning vehicles with sufficient sight distance to select gaps in oncoming traffic; 3.5 ft min of positive offset for opposing left turn lanes	AASHTO Green Book 9.5.3.4 Intersection with Traffic Signal Control; 2.6.2 Intersection Sight Distance – City of Phoenix (SPDG) Manual
• Intersection Sight Distance (ISD) Left Turn from Stop	643 ft	AASHTO Green Book 9.5.3.2 Intersection with Stop Control on the Minor Road; 6.1.13 Intersection Sight Distance - 2.6.2 Intersection Sight Distance – City of Phoenix (SPDG) Manual
• Intersection Sight Distance (ISD) Right Turn	480 ft	AASHTO Green Book 9.5.3.2 Intersection with Stop Control on the Minor Road; 6.1.13 Intersection Sight Distance - 2.6.2 Intersection Sight Distance – City of Phoenix (SPDG) Manual
• Driveway width	16 Ft min; 30-40 Ft maximum	Table 6.7-6 Driveway Width City of Phoenix (SPDG) Manual
• Driveway Grade Break	City of Phoenix Standard Details	City of Phoenix Standard Details

The design criteria prepared below is for an Arterial (7th Avenue). Figure 2.3-6, City of Phoenix Street Planning and Design Guidelines Manual which will be referred to as the City of Phoenix (SPDG) Manual within this document.

Roadway Design Criteria – *Continued*		
	Value	Source
• ADA Criteria	Slopes of pedestrian facilities shall not exceed the maximum grades indicated in ADA: sidewalk cross-slope of 2 percent, ramp slope of 8.33 percent, ramp and landing cross slope of 2 percent and flared side (wing) slope of 10 percent. Expansion joints and contraction joints are required to be constructed per the MAG Uniform Standard Specifications for Public Works Construction and Standard Details and the City of Phoenix Supplements to these.	Section 2.5.1 Sidewalks City of Phoenix (SPDG) Manual
Roadway Design Criteria not shown will be in accordance with City of Phoenix (SPDG) Manual.		
Right-of -Way Design Criteria		
• Minimum R/W Width	100 feet	Figure 2.3-6 Cross-Section City of Phoenix (SPDG) Manual

The design criteria prepared below is for an Arterial (7th Avenue). Figure 2.3-6, City of Phoenix Street Planning and Design Guidelines Manual which will be referred to as the City of Phoenix (SPDG) Manual within this document.

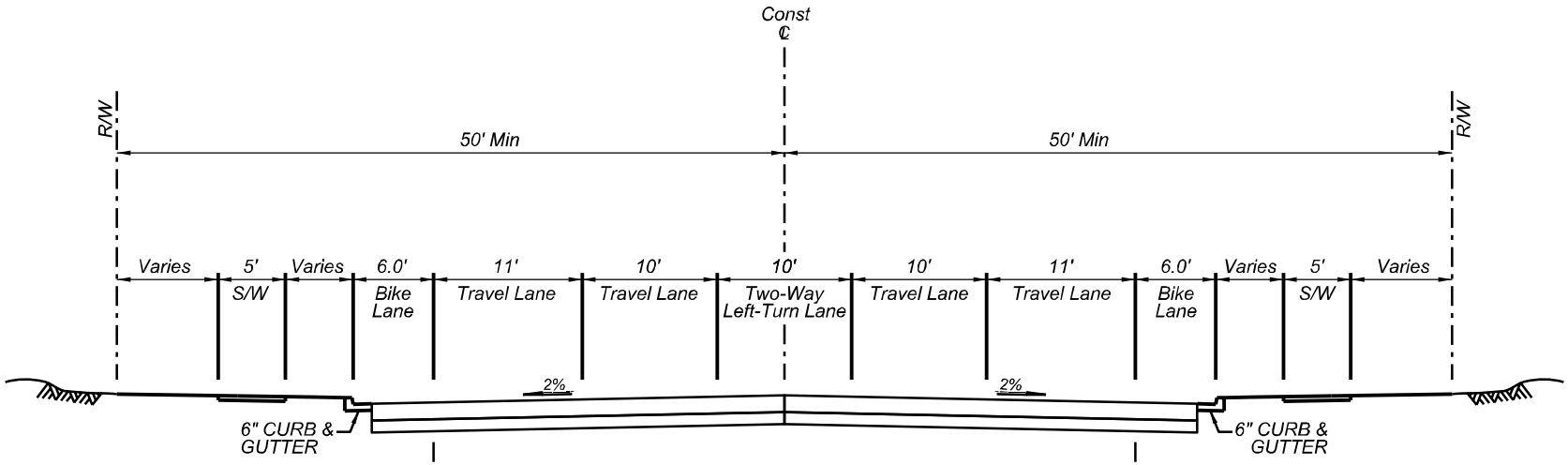
Drainage Design Criteria		
	Value	Source
• Hydrology – Drainage Area: up to 160 acres	The Rational Method shall be used for estimation of storm water peak flow and runoff volume estimates for design of storm drains Runoff coefficients shall be based on Table 6.2.2 The minimum time of concentration allowed shall be 10 minutes for storm drain design Offsite hydrology analysis shall be based on existing conditions at time of design analysis	City of Phoenix Storm Water Policies and Standards
• Hydrology - Street Storm Drain	2-year, 6-hour local storm as defined in the Maricopa County Flood Control District Drainage Design Manual (Hydrology)	City of Phoenix Storm Water Policies and Standards
• Catch Basins	Maximum spacing of 660 feet with exception in instances of minimal flow and slope > 2% Curb opening shall not exceed 5 inches in height Catch basin reduction factors shall be based on Table 6.3.1 Curb opening inlets shall be in accordance with COP Standard Detail P1569-1, M-1, L=3' or greater	City of Phoenix Storm Water Policies and Standards
• Storm Drain	Minimum Velocity = 5 fps (2-year Q_{DESIGN}) 3 fps (0.5 X Q_{DESIGN}) Main Line Size (min) = 18 inches Connector Pipe Size (min) = 15 inches	City of Phoenix Storm Water Policies and Standards

The design criteria prepared below is for an Arterial (7th Avenue). Figure 2.3-6, City of Phoenix Street Planning and Design Guidelines Manual which will be referred to as the City of Phoenix (SPDG) Manual within this document.

Drainage Design Criteria – *Continued*		
	Value	Source
• Street with Curb and Gutter (longitudinal flow)	2-Year: Runoff contained within street curbs One 12-foot dry driving lane in each direction Sump depths shall not exceed 0.4-foot measured upgradient, adjacent to catch basin Historic drainage divides shall be retained 100-Year: Runoff to be contained below finished floor of building Q_{MAX}=100 cfs V_{MAX}=10 fps D_{MAX}=8 inches	City of Phoenix Storm Water Policies and Standards, Table 6.2.3

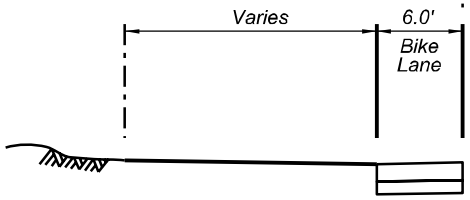
The design criteria prepared below is for an Arterial (7th Avenue). Figure 2.3-6, City of Phoenix Street Planning and Design Guidelines Manual which will be referred to as the City of Phoenix (SPDG) Manual within this document.

Traffic Design Criteria		
	Value	Source
• Lighting	Reference City of Phoenix Lighting Guidelines. Spacing = 200 ft standard spacing (double-sided staggered)	City of Phoenix (SPDG) Manual, and Street Light Layout Guidelines (July 2023)
• Pavement Markings	Reference City of Phoenix Pavement Marking Guidelines	City of Phoenix (SPDG) Manual
• Traffic Signals	Reference City of Phoenix Traffic Signal Guidelines	City of Phoenix Traffic Signal Standard Details (2017), (2020), and (2022)

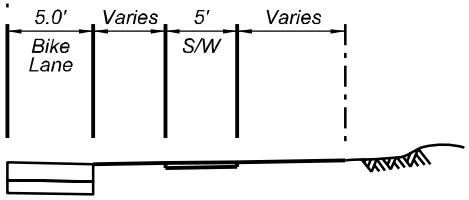


ARTERIAL AND MAJOR COLLECTOR
Cross Section "D"

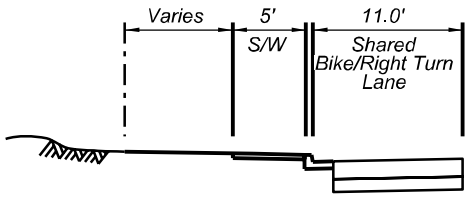
7th Avenue (Looking North)
Existing Typical Section



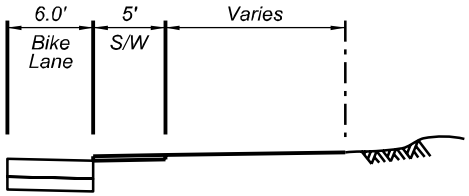
No C&G



Sidewalk, No C&G



Shared Bike/Right Turn Lane
at Southern



Sidewalk, Adjacent to Pavement

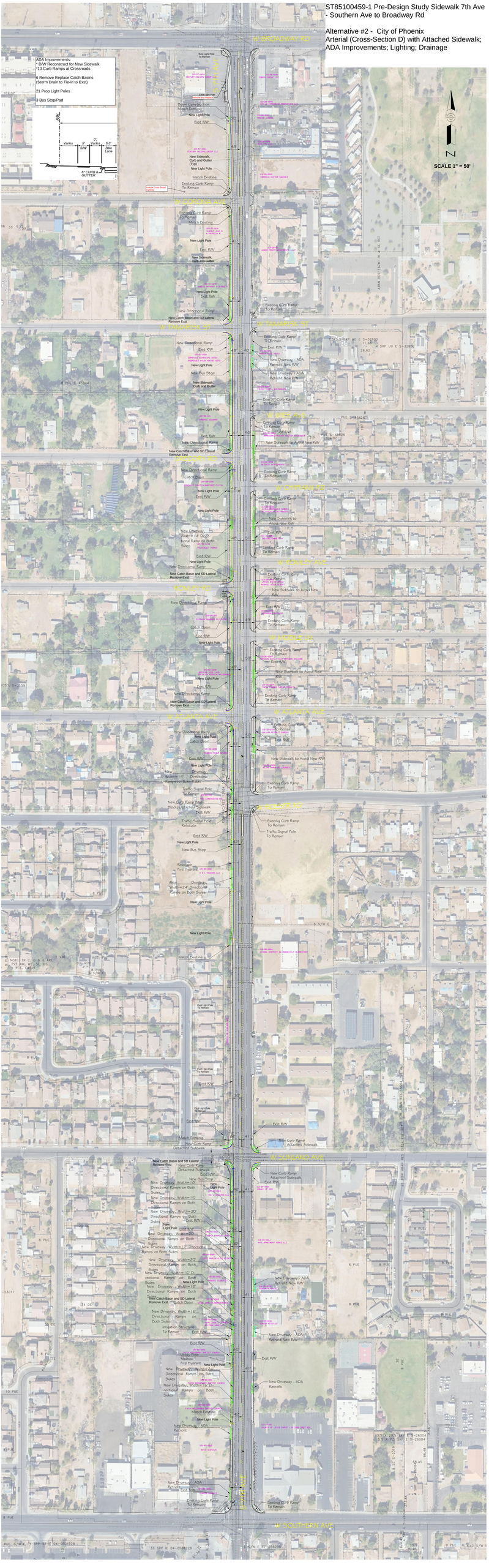
Appendix C
Alternative Roll Plots

ST85100459-1 Pre-Design Study Sidewalk 7th Ave - Southern Ave to Broadway Rd

Alternative #1 - City of Phoenix
Arterial (Cross-Section D) with Detached Sidewalk; ADA Improvements; Lighting; Drainage

ST85100459-1 Pre-Design Study Sidewalk 7th Ave - Southern Ave to Broadway Rd

Alternative #2 - City of Phoenix
Arterial (Cross-Section D) with Attached Sidewalk; ADA Improvements; Lighting; Drainage



ST85100459-1 Pre-Design Study Sidewalk 7th Ave - Southern Ave to Broadway Rd

Alternative #3 - Asphalt Path Along West side of 7th Ave; ADA Improvements; Lighting

ADA Improvements:
* No D/W Reconstruct
*13 Curb Ramps at Crossroads

2 Remove Replace Catch Basins (Storm Drain to Tie-in to Exst)

21 Prop Light Poles

3 Bus Stop/Pad

SCALE 1" = 50'

N

W BROADWAY RD

W DESERT VIEW AVE

W COLLEGE AVE

W TAMPA AVE

W MAYO AVE

W CHICAGO AVE

W ROWLEY AVE

W TUCSON AVE

W ELLIOTT AVE

W ALLEGRO AVE

W SOUTHERN AVE

ADOR RES 1678T1 W & SE RET

Exst Light Pole To Remain

Remove and Replace

Relocate Existing Signal Mast Arm

New Light Pole

Exst RW

New AC Path (Typ)

Match Existing

Existing Curb Ramp To Remain

Remove Cross Street Lighting

Existing Curb Ramp To Remain

New Directional Curb Ramp

Exst CB To Remain

New Bus Stop

New AC Path

New Curb Ramp (Max Block)

Match Existing

Exst Light Pole To Remain

Flat Lens Fixture

New Curb Ramp Attached Sidewalk

New Catch Basin and SD Lateral Remove Exst

Detached Sidewalk

Catch Basin

New Curb Ramp

New Driveway - ADA Retrofit

Exst Curb Ramp To Remain

ALLEGRO AVE

ALLEGRO AVE

ALLEGRO AVE

Appendix D
Final 15% Plans – Recommended Alternative

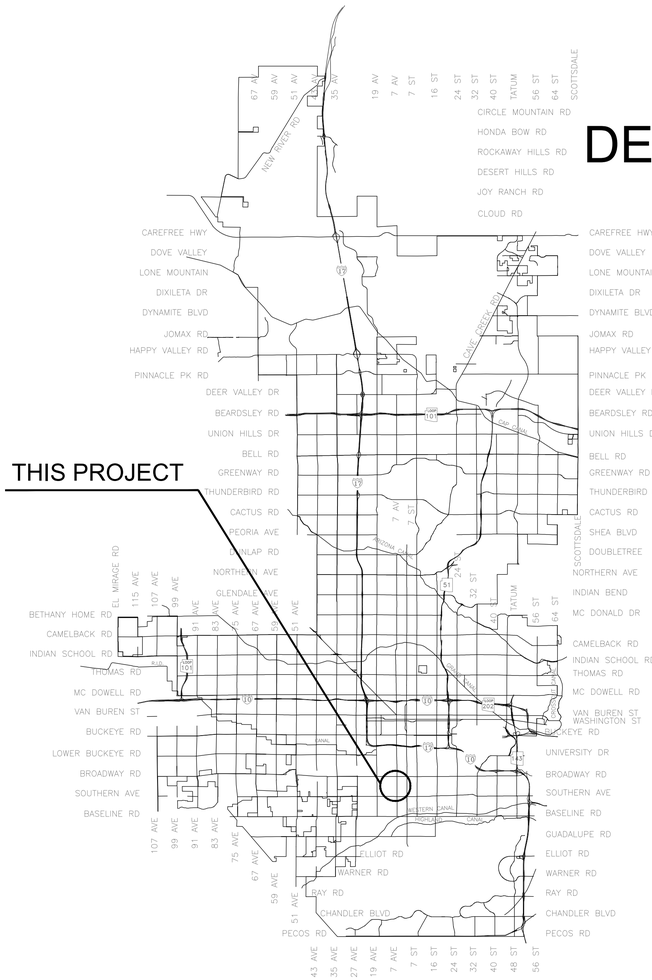
CITY OF PHOENIX
STREET TRANSPORTATION DEPARTMENT
DESIGN & CONSTRUCTION MANAGEMENT DIVISION
PRE-DESIGN STUDY SIDEWALK 7TH AVENUE
ST85100459-1

15%
FINAL SUBMITTAL
NOT FOR CONSTRUCTION

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100459-1	1	15	

AECOM TECHNICAL SERVICES, Inc.
7720 North 16th Street, Suite 100
Phoenix, Arizona 85020
T 602.371.1100 F 602-371-1516
AECOM
www.aecom.com

DES	DR:	CK:	DATE:



VICINITY MAP
NTS

MAYOR
KATE GALLEGO

CITY MANAGER
ED ZUERCHER

CITY COUNCIL

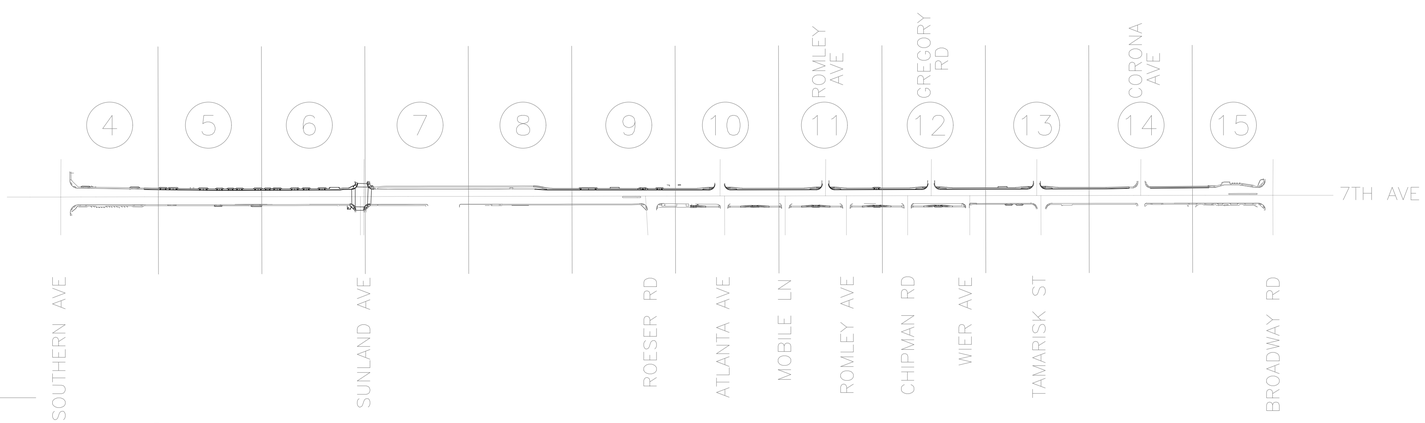
DISTRICT NO 1.	ANN O'BRIEN
DISTRICT NO 2.	JIM WARING
DISTRICT NO 3.	DEBRA STARK
DISTRICT NO 4.	LAURA PASTOR
DISTRICT NO 5.	BETTY GUARDADO
DISTRICT NO 6.	KEVIN ROBINSON
DISTRICT NO 7.	ANNA HERNANDEZ
DISTRICT NO 8.	KESHA HODGE

Q.S. ___, ___, ___, ___

FINAL 15% SUBMITTAL - 4/2026

INDEX OF SHEETS

1	COVER SHEET
2	LEGEND AND NOTE SHEET
3	TYPICAL SECTIONS
4-15	ROADWAY PLAN SHEETS



PLAN SHEETS

LENGTH OF PROJECT = 5280 LF = 1.0 MILES

AREA OF DISTURBANCE = 0.121 ACRES

KEY MAP
NTS

City Benchmark:

List a minimum of (2) City of Phoenix Bench marks here.

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX

APPROVED	ASSISTANT STREET TRANSPORTATION DIRECTOR	DATE
APPROVED	DEPUTY STREET TRANSPORTATION DIRECTOR	DATE
APPROVED	WATER SERVICES DEPARTMENT	DATE
APPROVED	MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPT.	DATE

FINAL 15% SUBMITTAL

ST85100459-1

COVER SHEET & VICINITY MAP, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	2	15	

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AECOM
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DESIGN: DRAWN: CHECKED:

LEGEND AND NOTES

LEGEND

- BENCHMARK
- NEW SURVEY MONUMENT – M.A.G. DETAIL 120-1 TYPE "B"
- NEW SURVEY MONUMENT – M.A.G. DETAIL 120-1 TYPE "A"
- EXISTING SURVEY MONUMENT – M.A.G. DETAIL 120-1 TYPE "B"
- COMBINED CURB & GUTTER – M.A.G. DETAIL 220 TYPE "A"
- B 10 — BACKFILL TYPE & SQ. YD. PVMT. REPLACEMENT – C.O.P. DETAIL P1200
- EXISTING CONCRETE PAVEMENT OR SIDEWALK
- NEW CONCRETE SIDEWALK – STD. DETAIL P-1230
- NEW CONCRETE DRIVEWAY OR ALLEY ENT. PER DETAIL NO. ON PLANS
- NEW CONCRETE SIDEWALK RAMP PER DETAIL ON PLANS
- AVERAGE GROUND ELEVATION AT R/W LINE
- EXISTING DITCH
- 24" IRR (SRP) — EXISTING IRRIGATION LINE W/SIZE (NOTE PRIVATE, SALT RIVER OR R.I.D.)
- EXISTING IRRIGATION STRUCTURE
- EXISTING IRRIGATION STANDPIPE
- NEW IRRIGATION STANDPIPE – M.A.G. DETAIL 503
- NEW IRRIGATION VALVE – M.A.G. DETAIL 506 W/ CONC. SCOURING BASIN
- IRRIGATION BERM
- NEW IRRIGATION STRUCTURE PER DETAIL ON PLANS
- 12" DIP W — EXISTING WATER LINE W/SIZE & TYPE (12" AND SMALLER)
- 36" DIP W — EXISTING WATER LINE W/SIZE & TYPE (GREATER THAN 12")
- ADJUST EXIST. WATER VALVE BOX – C.O.P. DETAIL P1391
- 3/4" W — WATER SERVICE W/SIZE AND WATER METER BOX
- EXISTING FIRE HYDRANT
- NEW OR RELOCATED FIRE HYDRANT BY CONTRACTOR
- T.N.=___ — EXISTING WATER VALVE W/TOP OF OPERATING NUT ELEVATION
- 8" VCP S — EXISTING SANITARY SEWER LINE W/SIZE & TYPE (12" AND SMALLER)
- 30" VCP S — EXISTING SANITARY SEWER LINE W/SIZE & TYPE (GREATER THAN 12")
- EXISTING MANHOLE
- M — NEW MANHOLE
- CATCH BASIN, GUTTER INLET (LENGTH TO SCALE)
- CATCH BASIN, CURB INLET (LENGTH TO SCALE)
- CATCH BASIN, CURB & GUTTER INLET (LENGTH TO SCALE)
- 30" SD (RCP) — EXISTING STORM DRAIN LINE W/SIZE & TYPE (GREATER THAN 12")
- NEW PIPE FOR STORM DRAIN OR IRRIGATION LINE
- 4"G — EXISTING GAS LINE W/SIZE
- E — EXISTING UNDERGROUND ELECTRIC CABLE OR SINGLE CONDUIT
- E-4D — EXISTING UNDERGROUND ELECTRIC DUCT (SPECIFY NUMBER)
- T — EXISTING TELEPHONE BURIED CABLE OR SINGLE CONDUIT
- T-4D — EXISTING UNDERGROUND TELEPHONE DUCT (SPECIFY NUMBER)
- CATV — EXISTING UNDERGROUND CABLE TV
- FO — EXISTING UNDERGROUND FIBER OPTIC LINE
- EXISTING TRAFFIC SIGNAL POLE W/MAST ARM & SIGNAL INDICATIONS
- EXISTING STREET OR TRAFFIC SIGN
- EXISTING UTILITY POLE W/LINE INDICATING WIRE DIRECTION
- EXISTING WIRE FENCE
- EXISTING BLOCK FENCE
- EXISTING WOOD FENCE
- MAIL BOX
- EXISTING POWER POLE DOWN GUY ANCHOR
- EXISTING STREET LIGHT & POLE
- EXISTING TREE OR STUMP TO BE REMOVED – MORE THAN 12" DIA.
- EXISTING TREE TO BE TRANSPLANTED BY CONTRACTOR
- EASEMENT LINE
- EXISTING OR NEW R/W LINE
- PAVEMENT CENTER LINE OR MONUMENT LINE
- EXISTING TREE TO BE REMOVED (NON PAY ITEM)
- EXISTING TREE TO REMAIN

NOTES

ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CONTRACT SPECIAL PROVISIONS AND DETAILS, CITY OF PHOENIX SUPPLEMENTS TO MAG STANDARD SPECIFICATIONS AND DETAILS, AND MAG STANDARD SPECIFICATIONS AND DETAILS, IN THAT ORDER OF PRECEDENCE, AT THE TIME OF CONSTUCTION BID.

ALL STORM SEWER MANHOLES ARE TO BE CONSTRUCTED WITHOUT STEPS.

PIPE CONNECTIONS TO EXISTING CONCRETE PIPE MAINS SHALL BE MADE IN ACCORDANCE WITH DETAILS CALLED OUT ON THE PLANS. CONNECTION TO MAINS SHALL NOT BE CLOSER THAN 5', CENTER TO CENTER.

PIPE CONNECTIONS TO NEW PRECAST CONCRETE PIPE MAINS, SHALL BE MADE WITH FACTORY MADE WYES OR TEES. THE DETAIL OF THE FITTINGS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. PIPE CONNECTIONS TO NEW CAST IN PLACE CONCRETE PIPE MAINS SHALL BE MADE PER C.O.P. DETAIL P-1576.

CATCH BASIN CONNECTOR PIPES SHALL BE LAID ON A STRAIGHT ALIGNMENT AND SLOPE UNLESS OTHERWISE SPECIFIED. IF BREAKS IN ALIGNMENT OR SLOPE ARE NECESSARY TO MEET FIELD CONDITIONS. THE MAXIMUM DEFLECTION SHALL BE 22-1/2°. THE BEND SHALL BE COLLARED ACCORDING TO M.A.G. DETAIL 505. ANY ANGLE BENDS GREATER THAN 22-1/2° SHALL BE PREFABRICATED.
CONNECTOR PIPES SHALL CONNECT TO CATCH BASIN WALLS AT AN ANGLE NOT TO EXCEED 22-1/2° FROM PERPENDICULAR.

THE CONTRACTOR SHALL CONFIRM EXISTING PIPE MATERIAL AT DESIGNATED CONNECTION POINTS PRIOR TO ORDERING ANY FITTINGS.

FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL VERTICAL AND HORIZONTAL CONTROLS, ARE LOCATED ONLY APPROXIMATELY AND TO THE BEST AVAILABLE INFORMATION PROVIDED BY VARIOUS OWNERS OF THE FACILITIES, AND SUPPLEMENTED BY VISUAL SURFACE INFORMATION WHERE APPROPRIATE. ACCURACY, LOCATION AND COMPLETENESS OF THIS INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO INITIATION OF CONSTRUCTION.

TWO WORKING DAYS BEFORE CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ARIZONA 811 TO FIND AND FLAG UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONTACT OTHER APPROPRIATE UTILITIES DIRECTLY IF THEY ARE NOT ON ARIZONA 811 SYSTEM.

VERTICAL CONTROL IS BASED ON PHOENIX DATUM NGVD-29

UNLESS OTHERWISE NOTED, STATIONS SHOWN ON PIPE PROFILES ARE ALONG CENTERLINE OF PIPE.

UNLESS OTHERWISE NOTED, PIPE SHALL BE BEDDED IN ACCORDANCE WITH CITY OF PHOENIX DETAIL P1200.

CATCH BASINS ARE STATIONED PERPENDICULAR TO THE CENTERLINE OF THE STREET AT THE CENTERLINE OF THE MAINTENANCE BASIN.

SANITARY SEWER MAINS AND TAPS CROSSING OVER STORM DRAIN MAINS SHALL BE SUPPORTED PER M.A.G. DETAIL 403-1, 403-2, OR 403-3.

ALL EXISTING PRECAST CONCRETE SAFETY CURBS AND ALL EXISTING WOODEN PARKING CURBS, WHICH ARE INSIDE THE RIGHT OF WAY AND APPROXIMATELY PARALLEL TO THE NEW CURB LINE, SHALL BE RESET ON THE RIGHT OF WAY DIRECTLY OPPOSITE THEIR EXISTING LOCATION, WITH THE BACK EDGE ON THE RIGHT OF WAY LINE. ALL OTHER PRECAST CONCRETE SAFETY CURBS INSIDE THE STREET RIGHT OF WAY SHALL BE SALVAGED AND STOCK PILED FOR THE OWNER AT THE RIGHT OF WAY LINE.

EXISTING PRECAST CONCRETE SAFETY CURBS OUTSIDE THE RIGHT OF WAY, WHICH ARE DISTURBED BY NEW CONSTRUCTION SHALL BE RESET IN THEIR ORIGINAL POSITION BY THE CONTRACTOR.

ALL EXISTING DRIVEWAYS AND ALL EXISTING ALLEYS SHALL BE GRADED TO MATCH THE NEW WORK IN ACCORDANCE WITH STD. DETAIL P-1164, UNLESS OTHERWISE SPECIFIED. EXISTING SURFACING SHALL BE REMOVED AND REPLACED AS NECESSARY.

UNLESS OTHERWISE PROVIDED ON THE PLANS, EXISTING A.C. OR P.C.C. DRIVEWAYS AND SIDEWALKS WHICH FALL WITHIN OR ABUT THE RIGHT OF WAY SHALL BE CONNECTED TO THE NEW WORK AS FOLLOWS:

NOTES (cont.)

THE SPACE BETWEEN THE BACK OF NEW DRIVEWAY ENTRANCES AND EXISTING A.C. DRIVEWAYS SHALL BE FILLED WITH A MINIMUM OF 3" A.C.S.C. ON 100% COMPACTED NATIVE SOIL. WHERE EXISTING PAVEMENT AND BASE THICKNESS EXCEED THE MINIMUMS, MATCH THE EXISTING.

THE SPACE BETWEEN THE BACK OF NEW SIDEWALKS AND EXISTING PRIVATE SIDEWALKS, AND THE SPACE BETWEEN THE BACK OF NEW DRIVEWAY ENTRANCES AND EXISTING P.C.C. DRIVEWAYS SHALL BE FILLED WITH P.C.C.. THE THICKNESS AND CLASS SHALL MATCH THAT OF THE NEW SIDEWALK OR DRIVEWAY ENTRANCE.

UNLESS OTHERWISE PROVIDED ON THE PLANS, THE SPACE BETWEEN THE BACK OF THE NEW SIDEWALKS, AND EXISTING A.C. PARKING LOTS, WHICH FALL WITHIN OR ABUT THE R/W SHALL BE FILLED WITH 3" A.C.S.C. ON 100% COMPACTED NATIVE SOIL.

EXISTING IRRIGATION BERMS DISTURBED BY NEW CONSTRUCTION SHALL BE RECONSTRUCTED AS SHOWN ON PLANS.

M.A.G. ALLEY ENTRANCE DETAILS 260, 261, 262 AND 263, WHICH ARE INDICATED TO BE MODIFIED ON THESE PLANS SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL NUMBER EXCEPT THAT THE SLAB SHALL BE 9" THICK. DRIVEWAYS DESIGNATED ON THE PLANS AS M.A.G. DETAILS 250 AND 251 SHALL BE RESIDENTIAL DRIVEWAYS 5" THICK. ALL OTHER DRIVEWAYS SHALL BE CITY OF PHOENIX DETAILS P1255.

CATCH BASIN ACCESS FRAME AND COVERS SHALL BE CONSTRUCTED PER C.O.P. DETAIL P1561.

STRUCTURAL NOTES

"CLEAR" DIMENSIONS FOR DEPTH OF REINFORCING STEEL ARE FROM FACE OF CONCRETE TO FACE OF BARS.

ALL EXPOSED EDGES OF CONCRETE SHALL BE BEVELED OR ROUNDED.

ALL EXPOSED CONCRETE SURFACES SHALL BE FINISHED IN ACCORDANCE WITH ARIZONA DEPT. OF TRANSPORTATION STANDARD SPECIFICATION 601-3.05 – FINISHING FORMED CONCRETE, UNLESS OTHERWISE SPECIFIED.

PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX.

LEGEND AND NOTES

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
10+25.47 TO 63+00
ST85100459

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE:04/26	DATE: 04/26	DATE: 04/26	2	15	
SCALE:1"=20'					

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

NOTES LEGENDS ABBREVIATIONS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO BROADWAY ROAD

TYPICAL SECTIONS

15%
FINAL SUBMITTAL
NOT FOR CONSTRUCTION

F.A.H.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	3	15	

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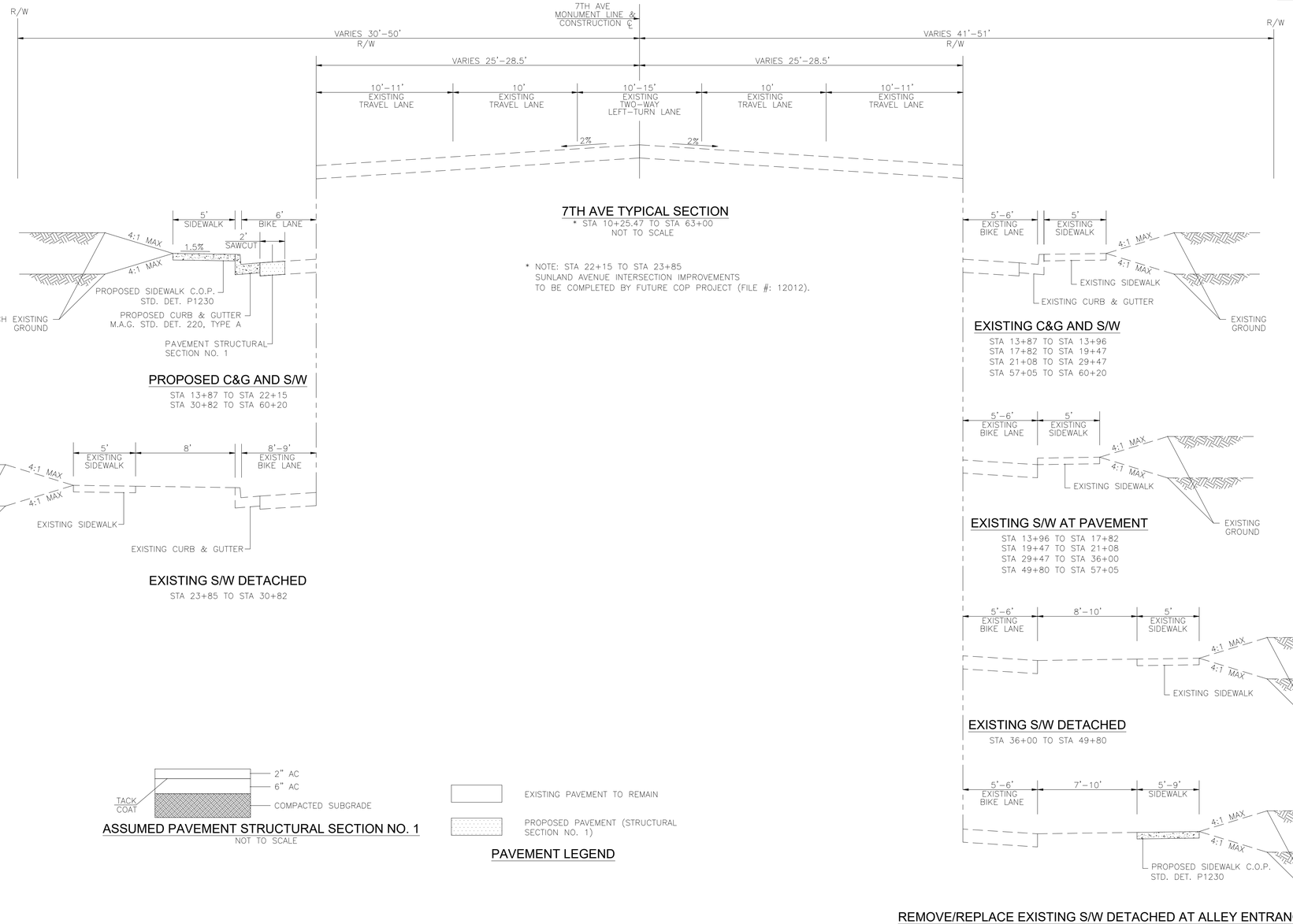
DESIGN: DRAWN: CHECKED:



7TH AVE TYPICAL SECTION

* STA 10+25.47 TO STA 63+00
NOT TO SCALE

* NOTE: STA 22+15 TO STA 23+85
SUNLAND AVENUE INTERSECTION IMPROVEMENTS
TO BE COMPLETED BY FUTURE COP PROJECT (FILE #: 12012).

PROPOSED C&G AND S/W

STA 13+87 TO STA 22+15
STA 30+82 TO STA 60+20

EXISTING S/W DETACHED

STA 23+85 TO STA 30+82

EXISTING C&G AND S/W

STA 13+87 TO STA 13+96
STA 17+82 TO STA 19+47
STA 21+08 TO STA 29+47
STA 57+05 TO STA 60+20

EXISTING S/W AT PAVEMENT

STA 13+96 TO STA 17+82
STA 19+47 TO STA 21+08
STA 29+47 TO STA 36+00
STA 49+80 TO STA 57+05

EXISTING S/W DETACHED

STA 36+00 TO STA 49+80

REMOVE/REPLACE EXISTING S/W DETACHED AT ALLEY ENTRANCES

STA 37+66 TO STA 38+32
STA 39+84 TO STA 41+08
STA 42+49 TO STA 43+73
STA 45+13 TO STA 46+38
STA 47+81 TO STA 49+03

ASSUMED PAVEMENT STRUCTURAL SECTION NO. 1

NOT TO SCALE

PAVEMENT LEGEND

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

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TYPICAL SECTIONS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 10+25.47 TO STA 63+00
ST85100459

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 04/26	DATE: 04/26	DATE: 04/26			
SCALE: 1"=20'			3	15	

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

TYPICAL SECTIONS/DETAILS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	4	15	

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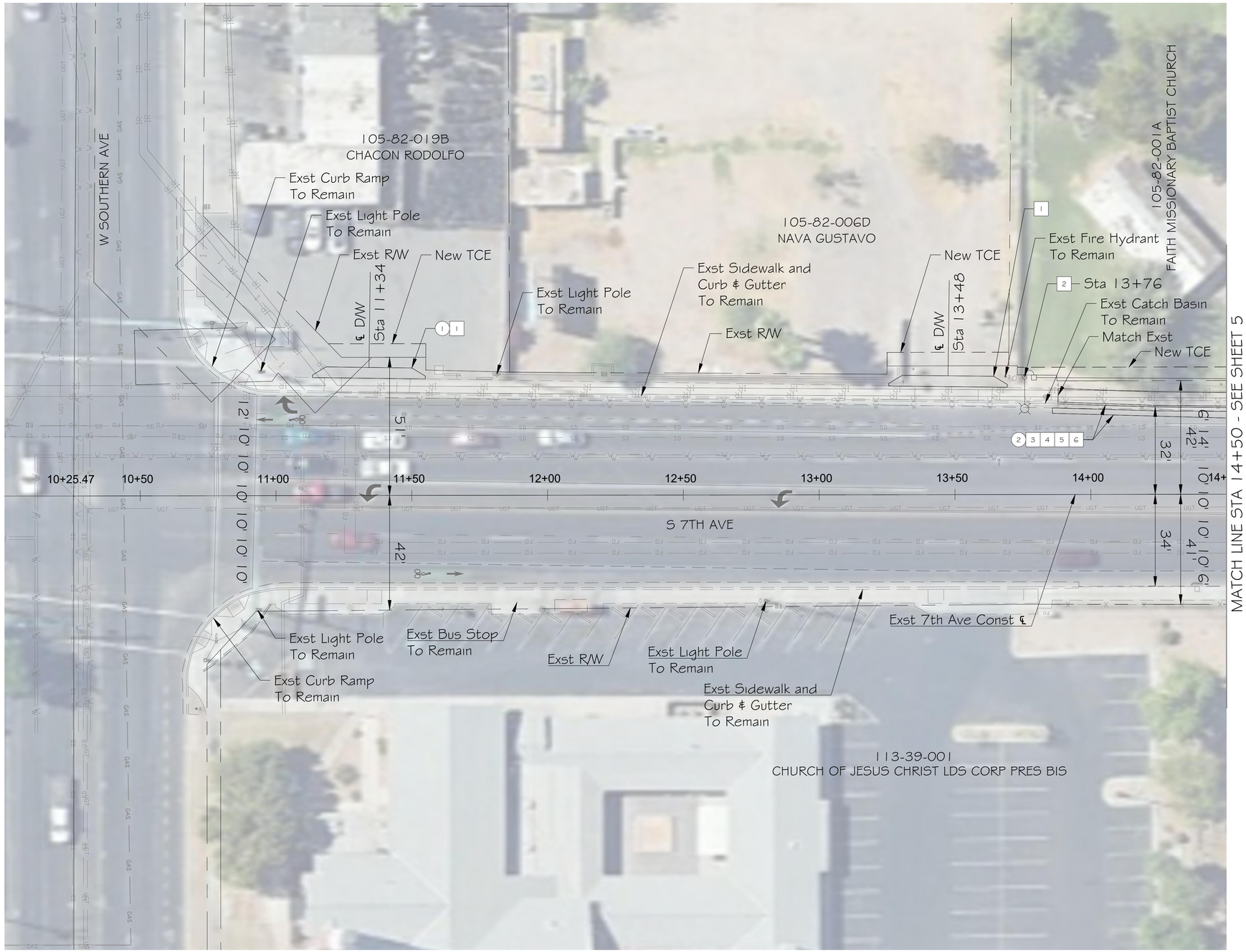

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
1	SAWCUT & REMOVE AC	
2	SAWCUT & REMOVE AC PAVEMENT	17 SY

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
1	NEW 4' DRIVEWAY ADA RETROFIT STD. DET P1255-3	331 SF
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	1 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	63 LF
4	NEW 5' S/W STD. DET P1230	311 SF
5	SUBGRADE PREP	15 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	15 SY

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ARIZONA811
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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 10+25.47 TO 14+50
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE:04/26	DATE: 04/26	DATE: 04/26	4	15	
SCALE: 1"=20'					

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

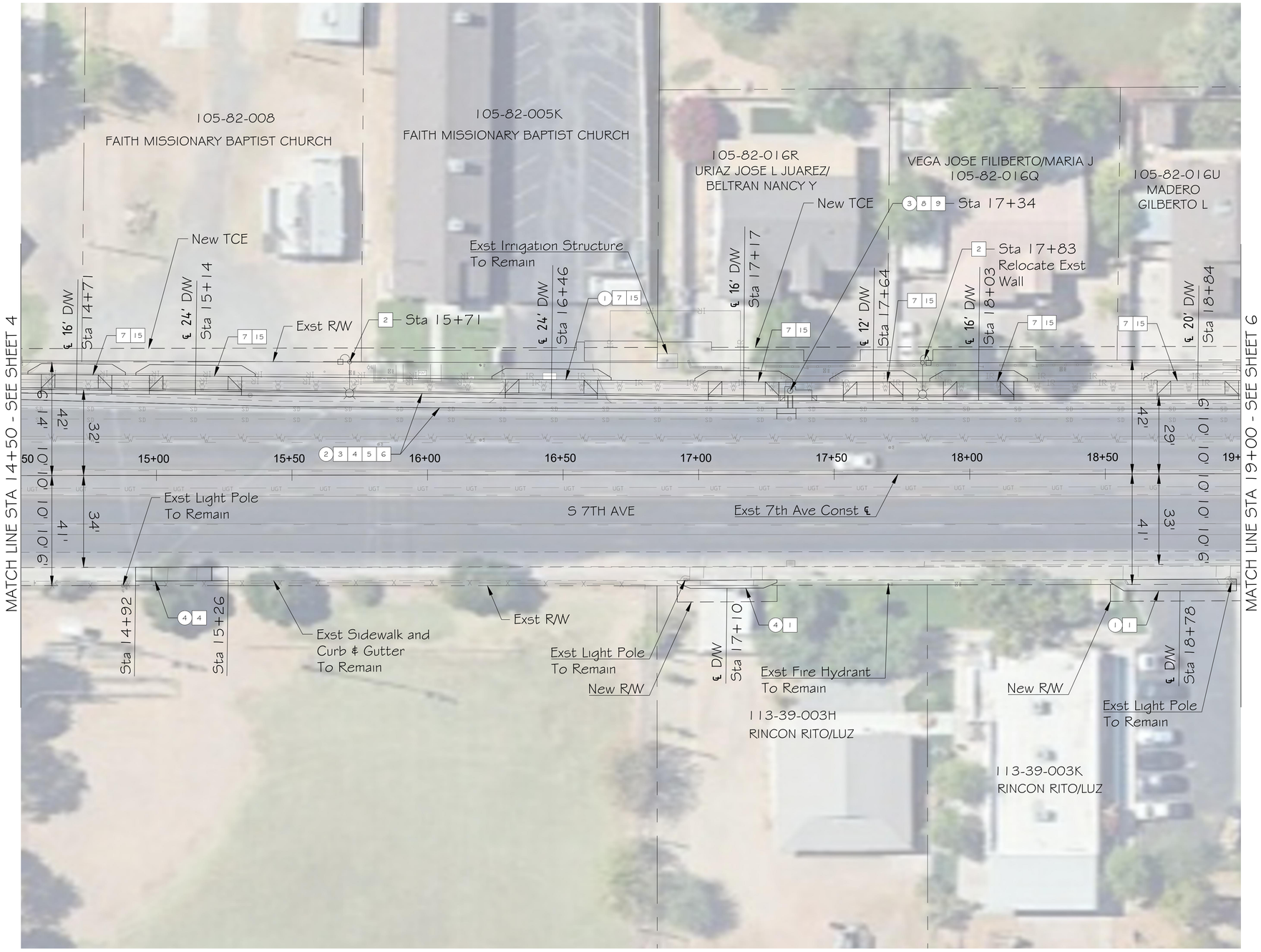
NO.	DESCRIPTION	REV BY	CKD BY	DATE

ROADWAY PLAN SHEETS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	5	15	

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DESIGN: DRAWN: CHECKED:

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
1	SAWCUT & REMOVE AC	
2	SAWCUT & REMOVE AC PAVEMENT	104 SY
3	REMOVE CATCH BASIN	1 EA
4	SAWCUT & REMOVE PCC S/W OR D/W	179 SF

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
1	NEW 4' DRIVEWAY ADA RETROFIT STD. DET P1255-3	291 SF
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	2 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	455 LF
4	NEW 5' S/W STD. DET P1230	2392 SF
5	SUBGRADE PREP	165 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	165 SY
7	NEW DRIVEWAY STD. DET P1255-1 (4' S/W)	990 SF
8	NEW CATCH BASIN STD. DET P1569-1, L=6'	1 EA
9	NEW 18" RGRCP, CLASS III (SD LATERAL CONNECTION)	8 LF
15	NEW 30" RCP, CLASS V (REPLACE EXST IRRIGATION PIPE)	450 LF

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 14+50 TO STA 19+00
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 04/26	DATE: 04/26	DATE: 04/26	5	15	
SCALE: 1"=20'					

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

ROADWAY PLAN SHEETS, 04/2026

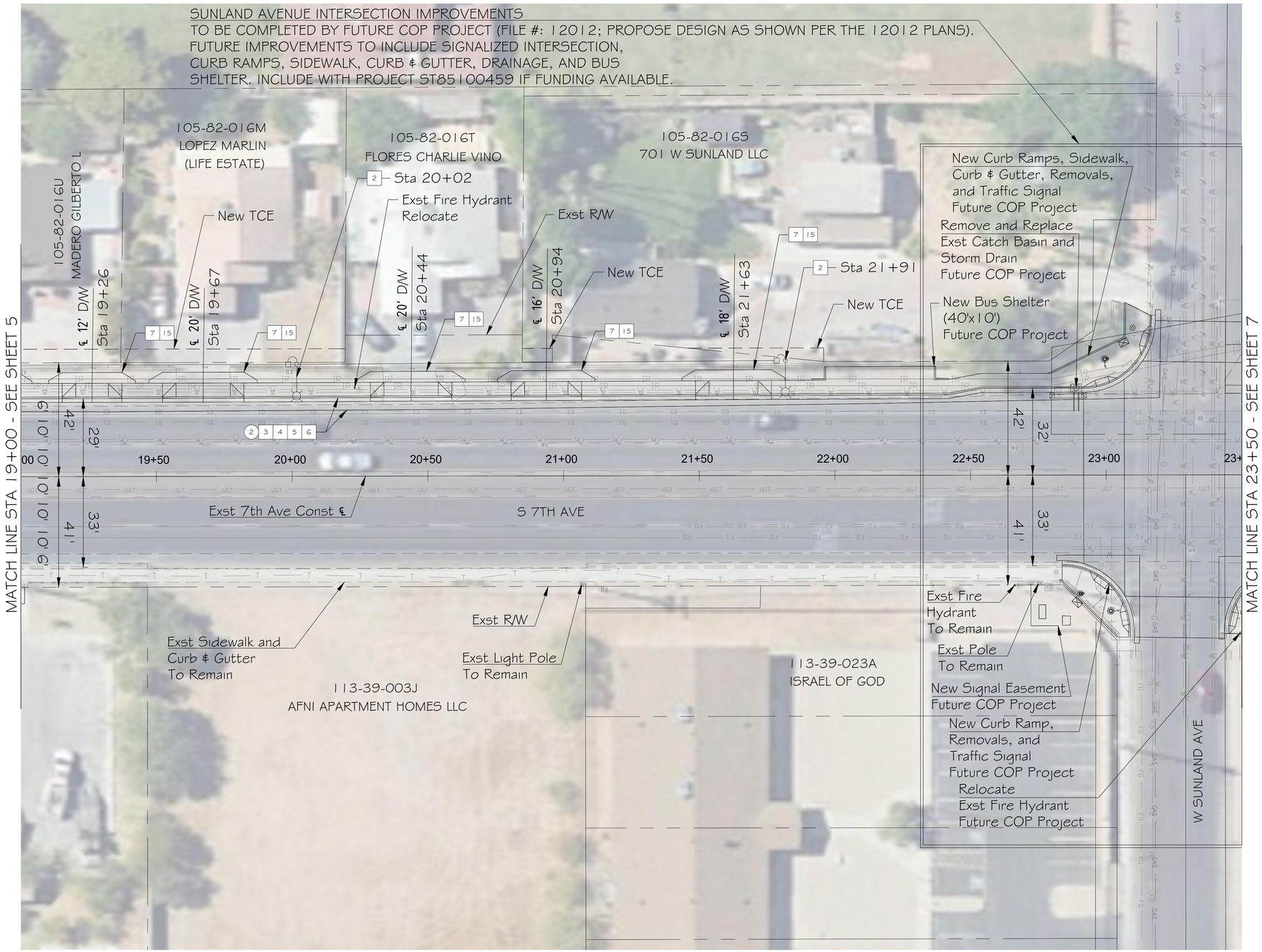
7TH AVENUE

SOUTHERN AVENUE TO BROADWAY ROAD

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



City of Phoenix
N

15%
FINAL SUBMITTAL
NOT FOR CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	6	15	

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DESIGN: DRAWN: CHECKED:

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	227 SY

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	2 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	360 LF
4	NEW 5' S/W STD. DET P1230	1896 SF
5	SUBGRADE PREP	240 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	240 SY
7	NEW DRIVEWAY STD. DET P1255-1 (4' S/W)	679 SF
15	NEW 30" RCP, CLASS V (REPLACE EXST IRRIGATION PIPE)	282 LF

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

PER THE CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX.

ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 19+00 TO STA 23+50
PLAN SHEET

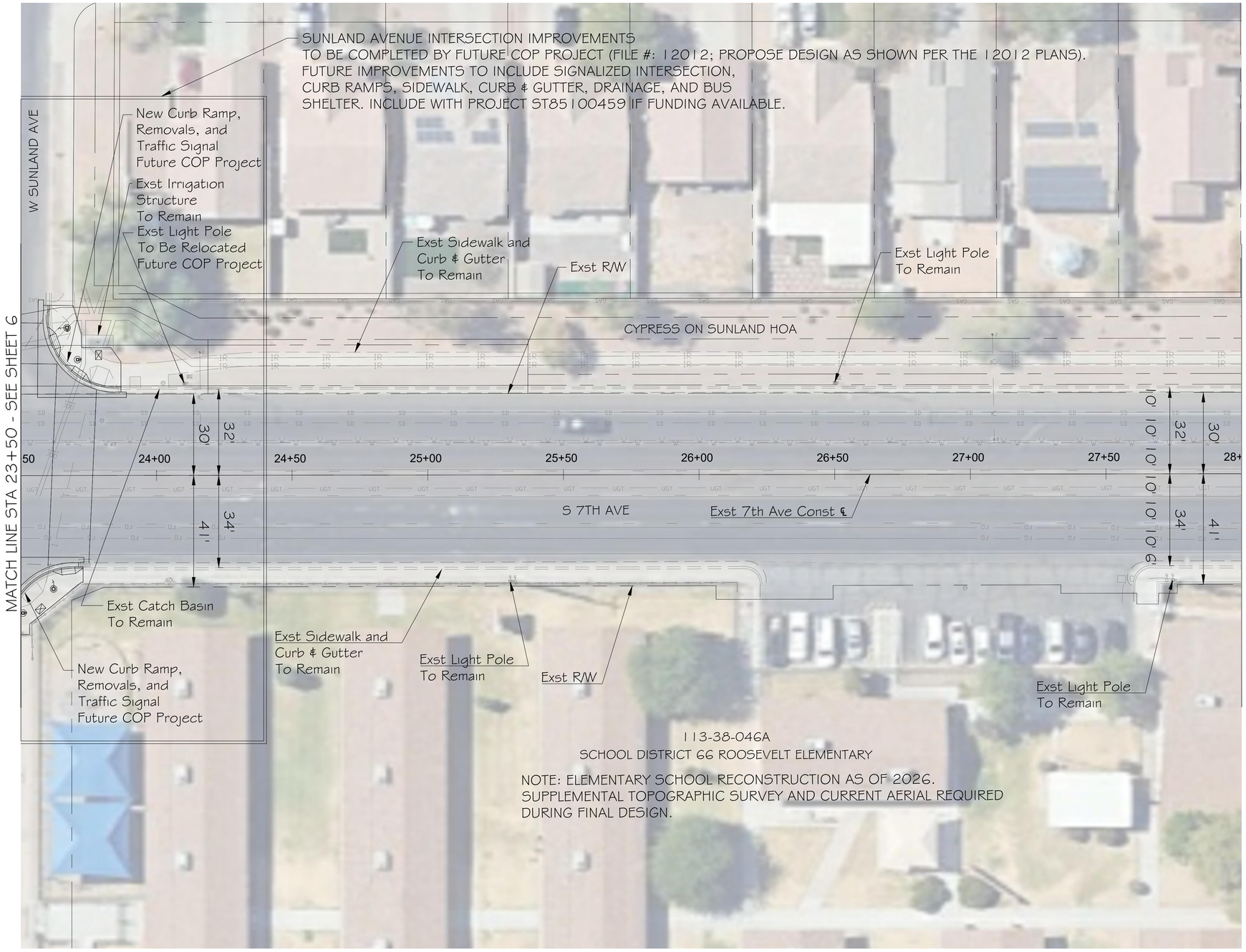
DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE:04/26	DATE: 04/26	DATE: 04/26			
SCALE: 1"=20'			6	15	

ROADWAY PLAN SHEETS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION



City of Phoenix
N

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	7	15	

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Phoenix, Arizona 85020
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AECOM
www.aecom.com

DESIGN: DRAWN: CHECKED:

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY

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ARIZONA811
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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 23+50 TO STA 28+00
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 04/26	DATE: 04/26	DATE: 04/26			
SCALE: 1"=20'			7	15	

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

ROADWAY PLAN SHEETS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	8	15	

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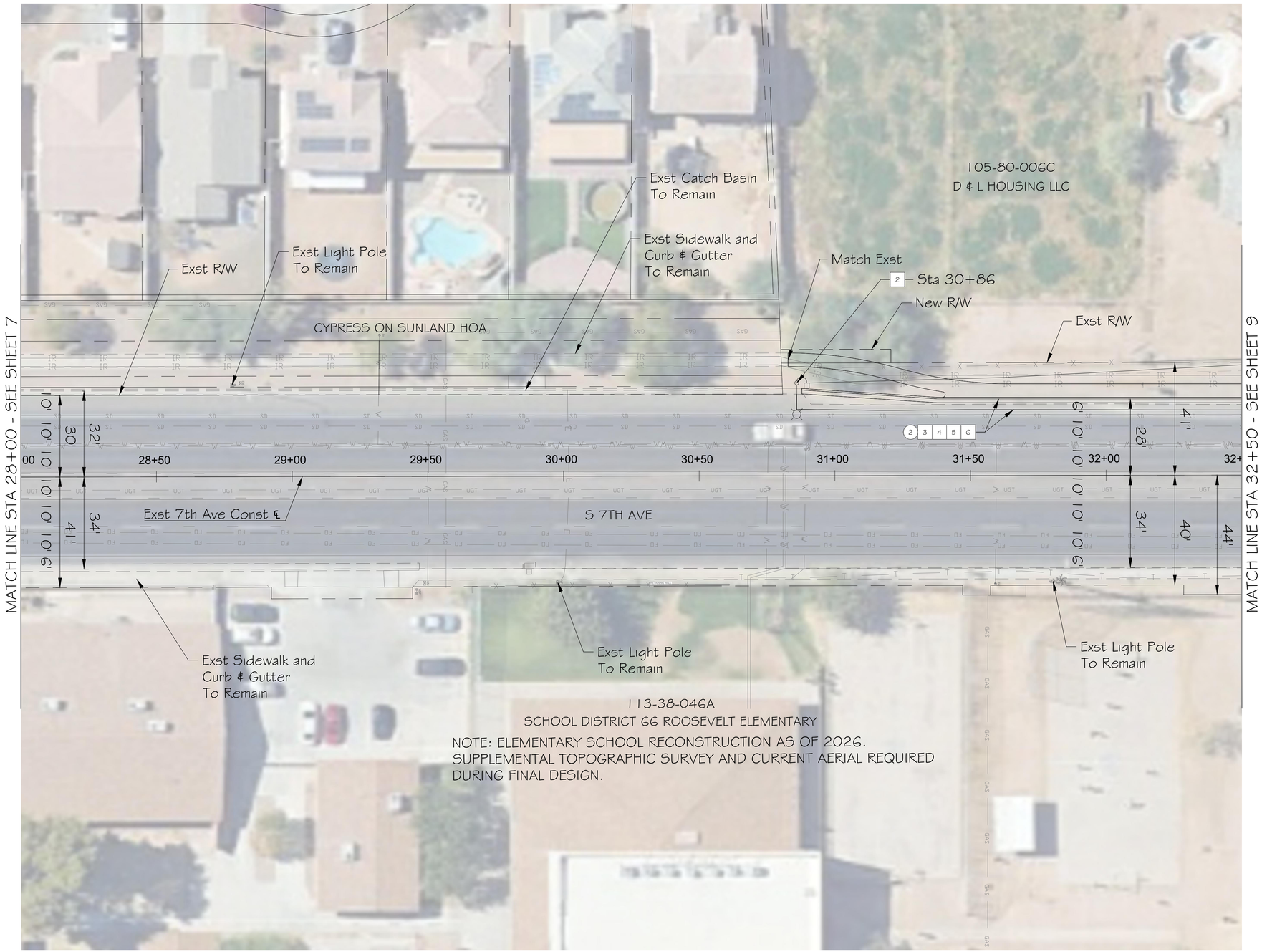

NOTE: ELEMENTARY SCHOOL RECONSTRUCTION AS OF 2026.
SUPPLEMENTAL TOPOGRAPHIC SURVEY AND CURRENT AERIAL REQUIRED
DURING FINAL DESIGN.

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	40 SY

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	1 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	163 LF
4	NEW 5' S/W STD. DET P1230	857 SF
5	SUBGRADE PREP	58 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	58 SY

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 28+00 TO STA 32+50
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 04/26	DATE: 04/26	DATE: 04/26			
SCALE: 1"=20'			8	15	

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

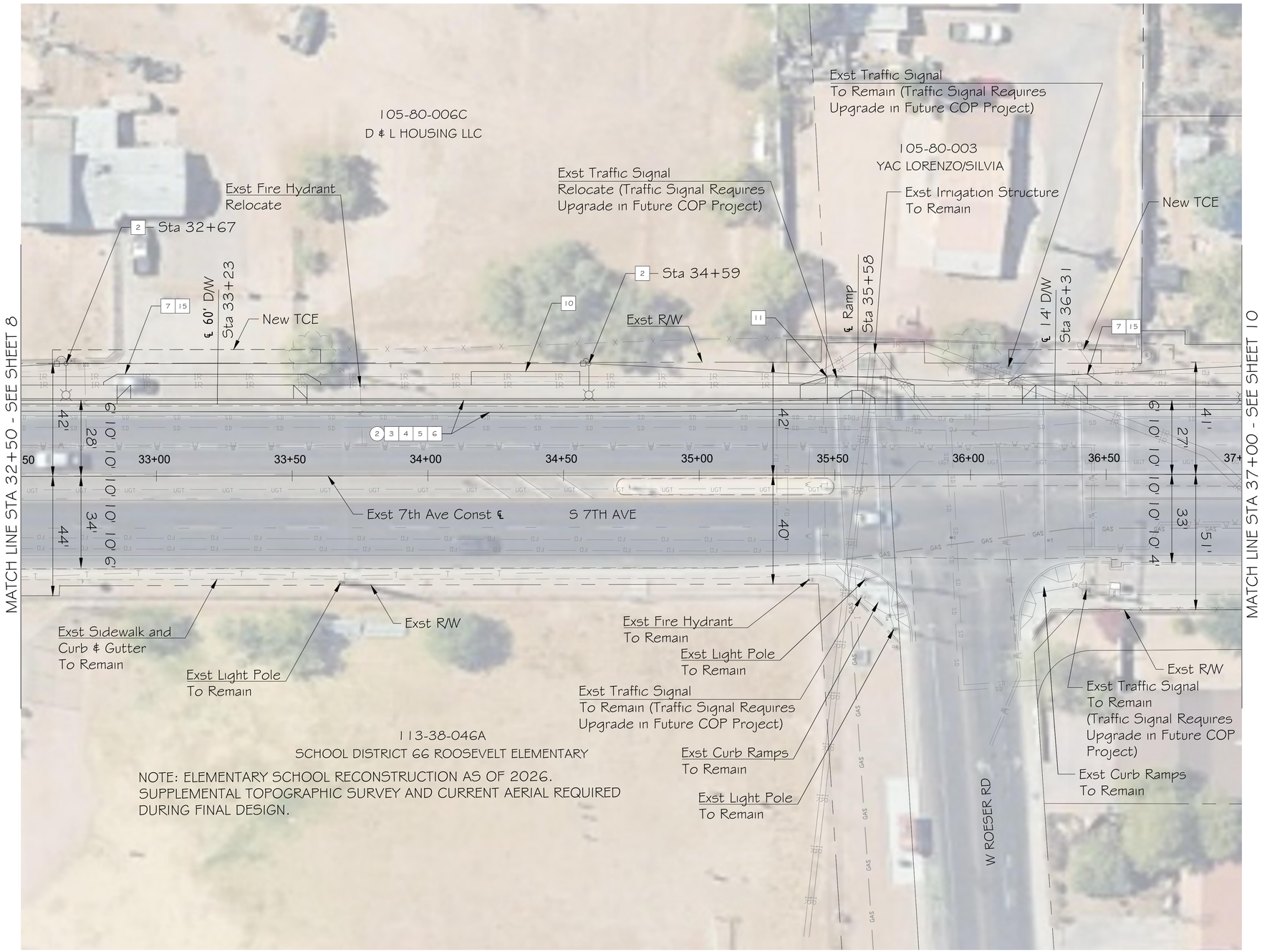
ROADWAY PLAN SHEETS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION

City of Phoenix
N



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	9	15	

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DESIGN: DRAWN: CHECKED:

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	156 SY

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	2 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	450 LF
4	NEW 5' S/W STD. DET P1230	2126 SF
5	SUBGRADE PREP	126 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	126 SY
7	NEW DRIVEWAY STD. DET P1255-1 (4' S/W)	470 SF
10	NEW BUS SHELTER/ACCESSORY PAD BUS STOP STD. DET P1260	200 SF
11	NEW CURB RAMP (MID BLOCK) STD. DET P1241-1	1 EA
15	NEW 30" RCP, CLASS V (REPLACE EXST IRRIGATION PIPE)	157 LF

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 32+50 TO STA 37+00
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 04/26	DATE: 04/26	DATE: 04/26			
SCALE: 1"=20'			9	15	

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

ROADWAY PLAN SHEETS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	10	15	

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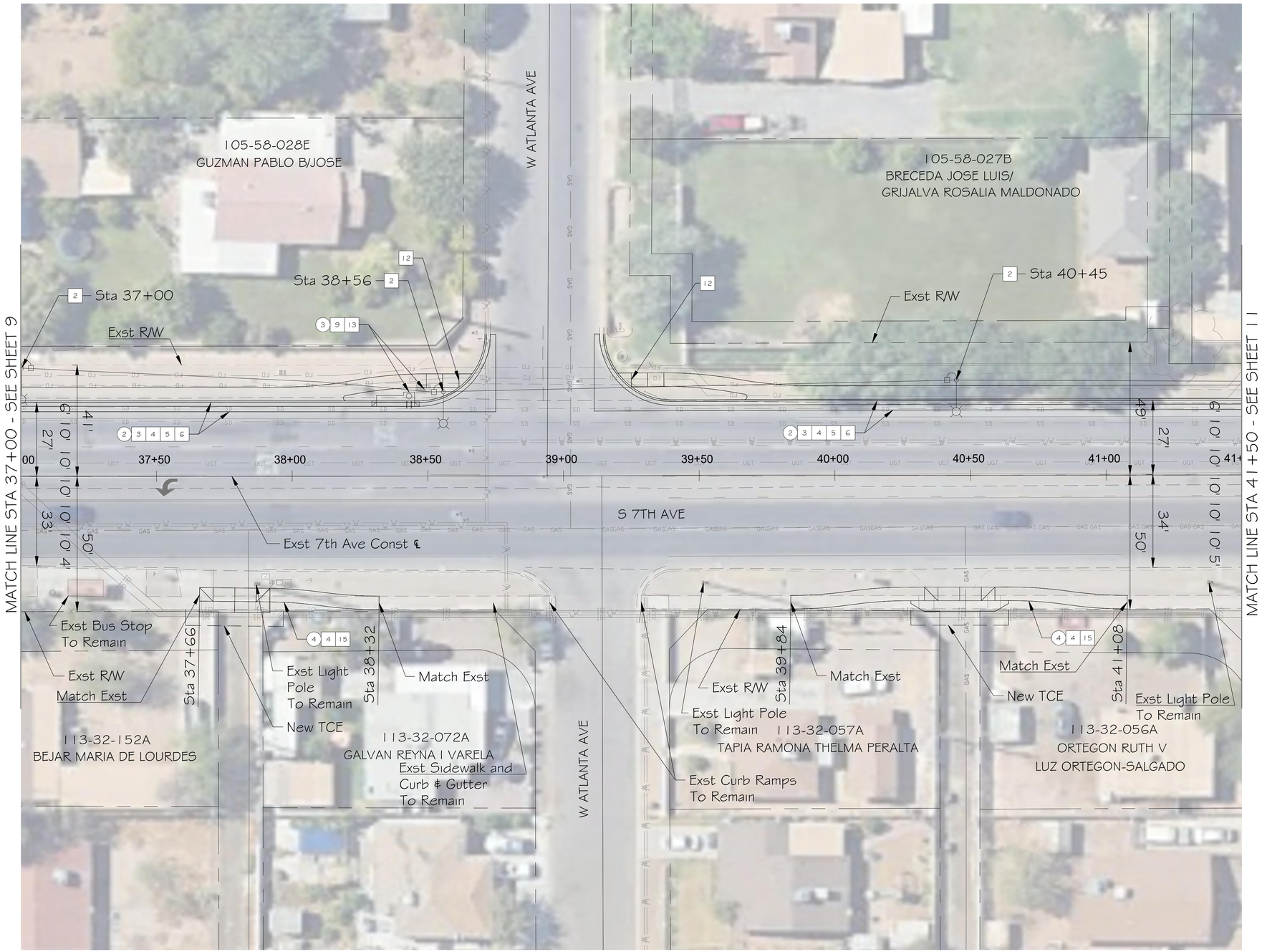

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	217 SY
3	REMOVE CATCH BASIN	1 EA
4	SAWCUT & REMOVE PCC S/W OR D/W	934 SF

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	3 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	436 LF
4	NEW 5' S/W STD. DET P1230	3031 SF
5	SUBGRADE PREP	138 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	138 SY
9	NEW 18" RGRCP, CLASS III (SD LATERAL CONNECTION)	5 LF
12	NEW DIRECTIONAL CURB RAMP	2 EA
13	NEW CATCH BASIN STD. DET P1569-2, L=10'	1 EA
15	NEW 30" RCP, CLASS V (REPLACE EXST IRRIGATION PIPE)	65 LF

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 37+00 TO STA 41+50
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE:04/26	DATE: 04/26	DATE: 04/26	10	15	
SCALE: 1"=20'					

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

ROADWAY PLAN SHEETS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	11	15	

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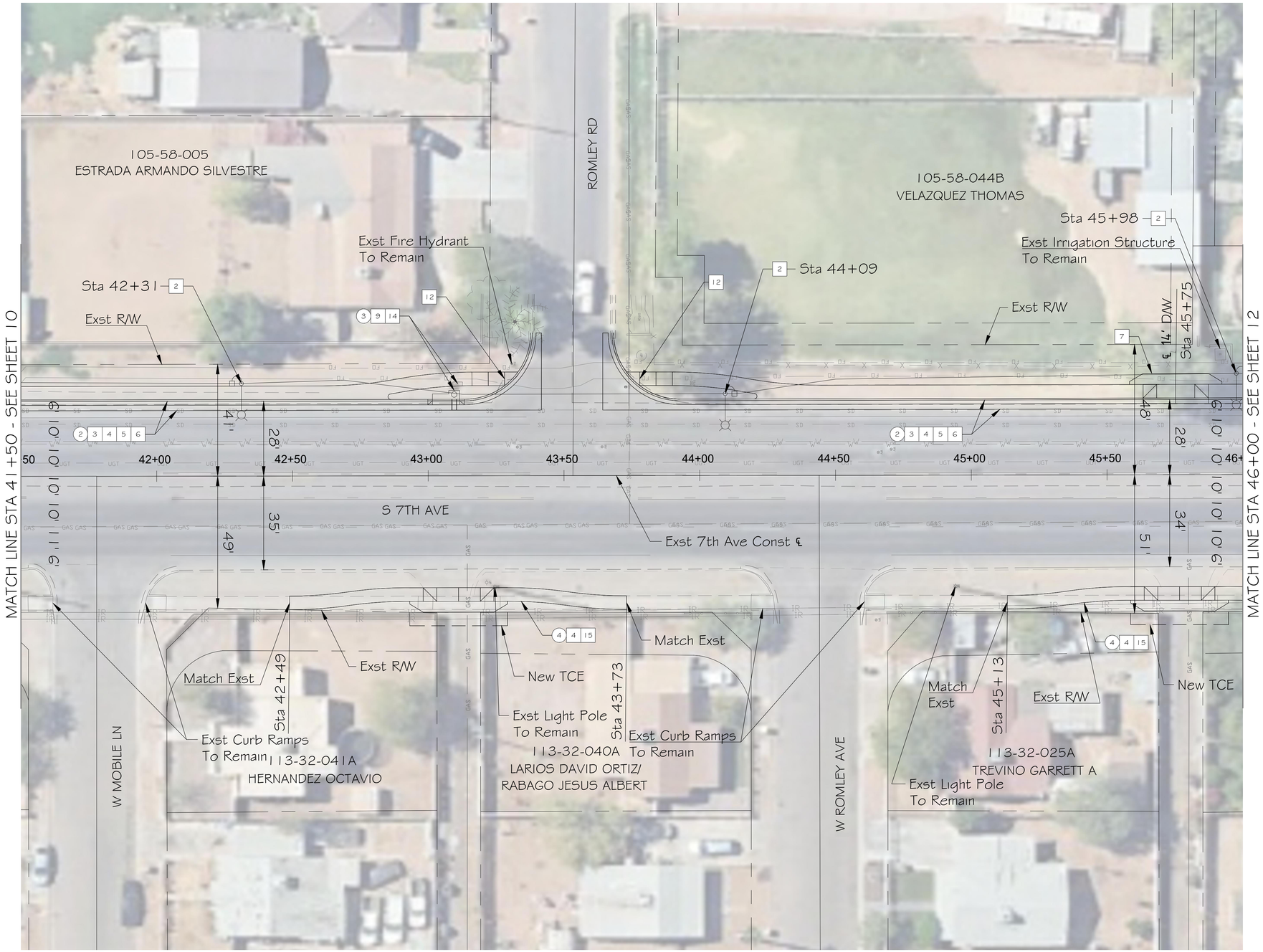

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	158 SY
3	REMOVE CATCH BASIN	1 EA
4	SAWCUT & REMOVE PCC S/W OR D/W	1027 SF

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	3 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	449 LF
4	NEW 5' S/W STD. DET P1230	3260 SF
5	SUBGRADE PREP	140 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	140 SY
7	NEW DRIVEWAY STD. DET P1255-1 (4' S/W)	120 SF
9	NEW 18" RGRCP, CLASS III (SD LATERAL CONNECTION)	7 LF
12	NEW DIRECTIONAL CURB RAMP	2 EA
14	NEW CATCH BASIN STD. DET P1569-2, L=6'	1 EA
15	NEW 30" RCP, CLASS V (REPLACE EXST IRRIGATION PIPE)	79 LF

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 41+50 TO STA 46+00
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 04/26	DATE: 04/26	DATE: 04/26	11	15	
SCALE: 1"=20'					

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

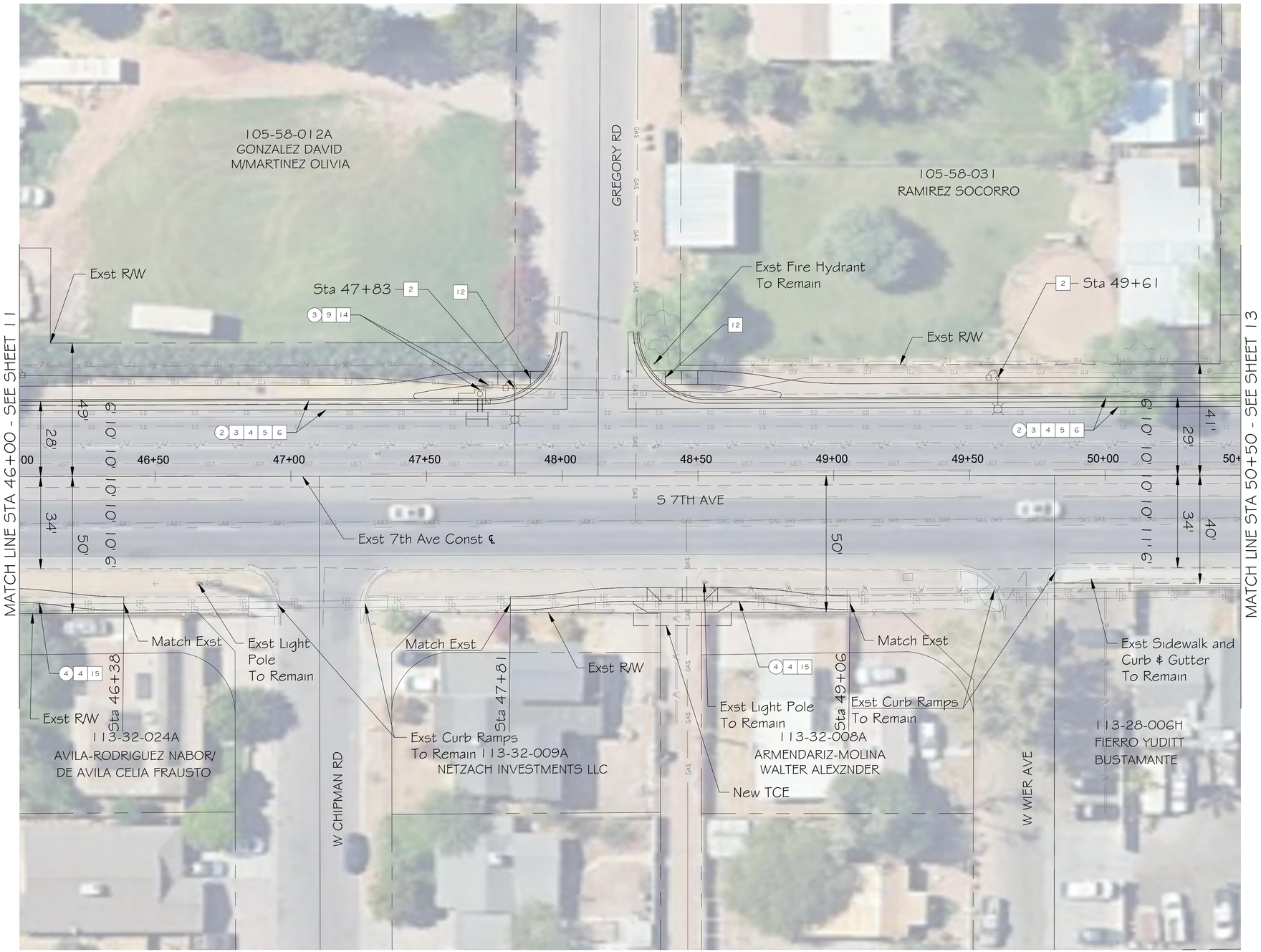
NO.	DESCRIPTION	REV BY	CKD BY	DATE

ROADWAY PLAN SHEETS, 04/2026

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	12	15	

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DESIGN: DRAWN: CHECKED:

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	217 SY
3	REMOVE CATCH BASIN	1 EA
4	SAWCUT & REMOVE PCC S/W OR D/W	773 SF

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	2 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	449 LF
4	NEW 5' S/W STD. DET P1230	2865 SF
5	SUBGRADE PREP	140 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	140 SY
9	NEW 18" RGRCP, CLASS III (SD LATERAL CONNECTION)	8 LF
12	NEW DIRECTIONAL CURB RAMP	2 EA
14	NEW CATCH BASIN STD. DET P1569-2, L=6'	1 EA
15	NEW 30" RCP, CLASS V (REPLACE EXST IRRIGATION PIPE)	42 LF

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 46+00 TO STA 50+50
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE:04/26	DATE: 04/26	DATE: 04/26	12	15	
SCALE: 1"=20'					

ROADWAY PLAN SHEETS, 04/2026

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	13	15	

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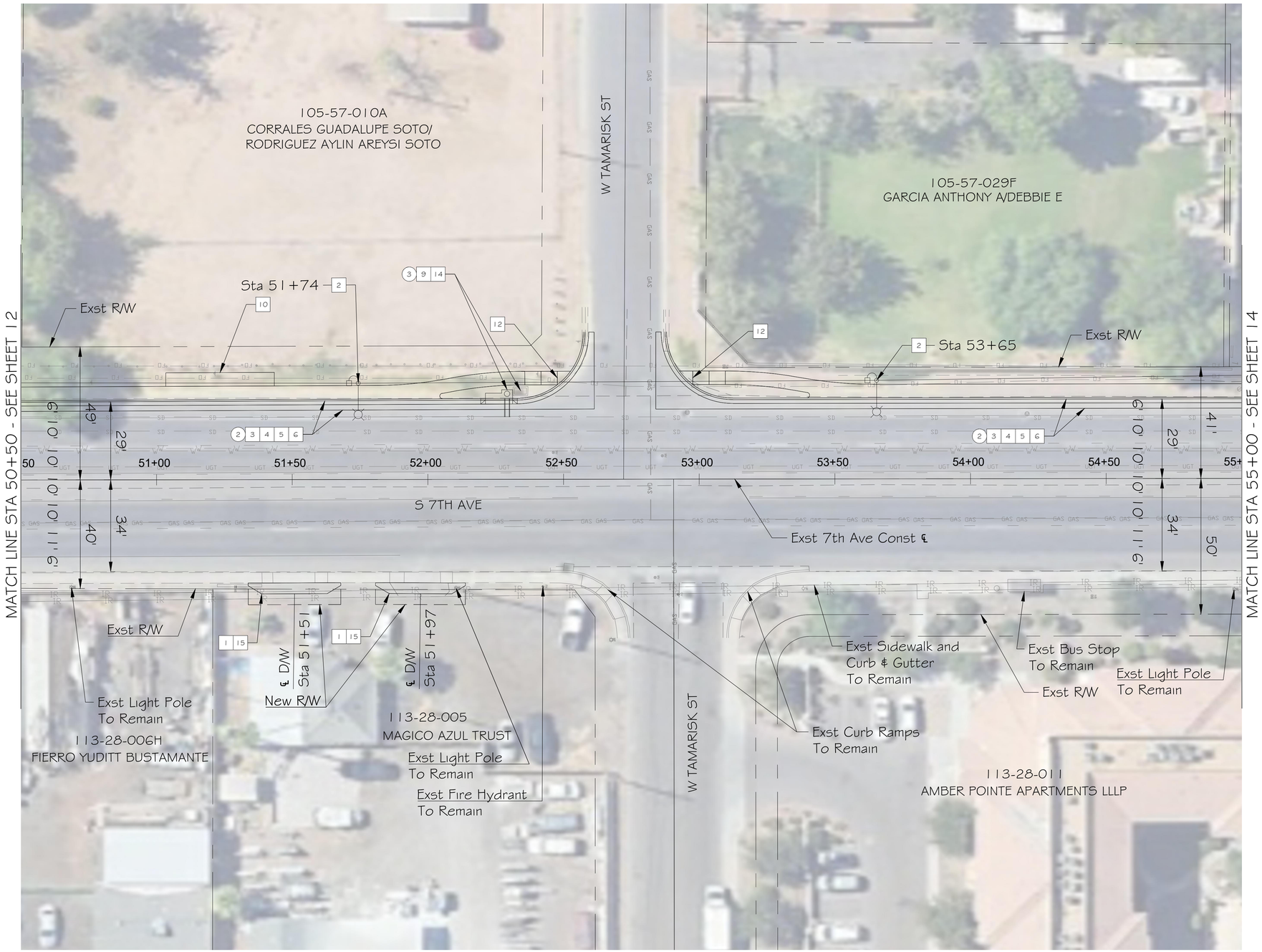

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	252 SY
3	REMOVE CATCH BASIN	1 EA

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
1	NEW 4' DRIVEWAY ADA RETROFIT STD. DET P1255-3	239 SF
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	2 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	449 LF
4	NEW 5' S/W STD. DET P1230	1914 SF
5	SUBGRADE PREP	140 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	140 SY
9	NEW 18" RGRCP, CLASS III (SD LATERAL CONNECTION)	11 SF
10	NEW BUS SHELTER/ACCESSORY PAD BUS STOP STD. DET P1260	200 LF
12	NEW DIRECTIONAL CURB RAMP	2 EA
14	NEW CATCH BASIN STD. DET P1569-2, L=6'	1 EA
15	NEW 30" RCP, CLASS V (REPLACE EXST IRRIGATION PIPE)	68 LF

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 50+50 TO STA 55+00
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE:04/26	DATE: 04/26	DATE: 04/26	13	15	
SCALE: 1"=20'					

ROADWAY PLAN SHEETS, 04/2026

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

7TH AVENUE

SOUTHERN AVENUE TO BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	14	15	

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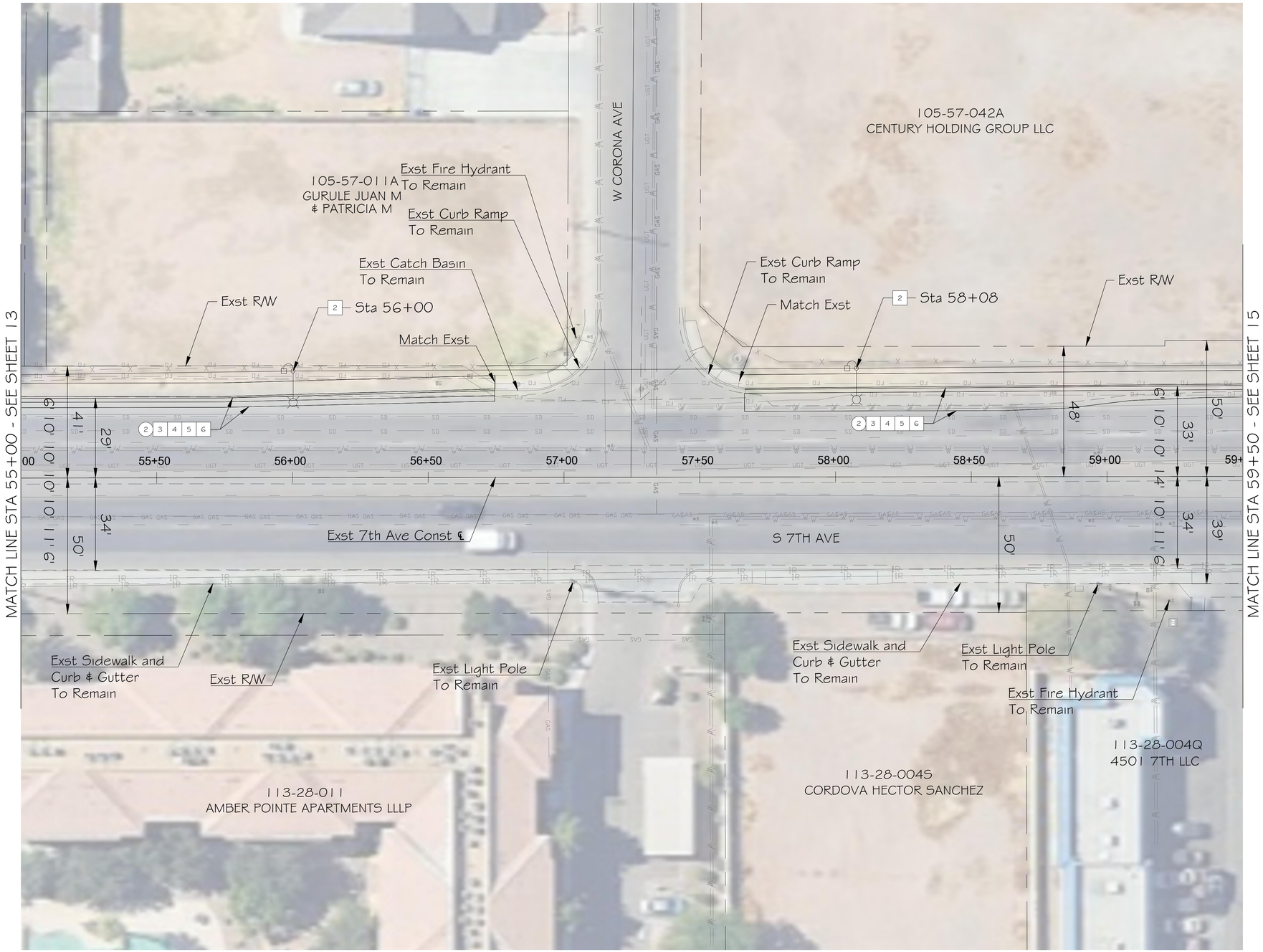

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	109 SY

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	2 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	358 LF
4	NEW 5' S/W STD. DET P1230	1794 SF
5	SUBGRADE PREP	157 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	157 SY

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 55+00 TO STA 59+50
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE:04/26	DATE: 04/26	DATE: 04/26			
SCALE: 1"=20'			14	15	

ROADWAY PLAN SHEETS, 04/2026

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

7TH AVENUE

SOUTHERN AVENUE TO
BROADWAY ROAD

15%
FINAL SUBMITTAL
NOT FOR
CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	ST85100459-1	15	15	

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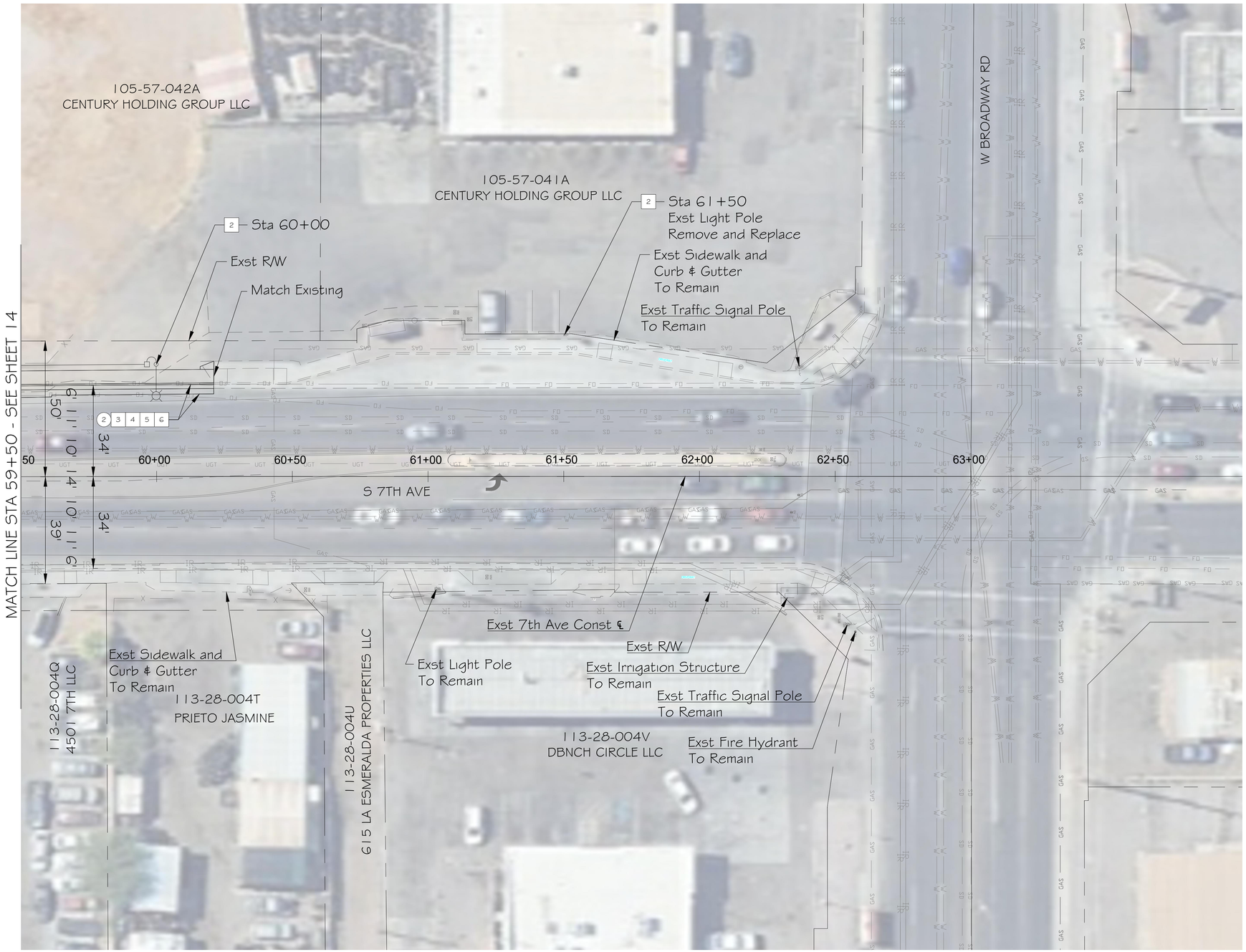

REMOVALS & ADJUSTMENTS

NO.	DESCRIPTION	QUANTITY
2	SAWCUT & REMOVE AC PAVEMENT	33 SY

CONSTRUCTION NOTES

NO.	DESCRIPTION	QUANTITY
2	NEW LIGHT POLE, FOUNDATION, PULL BOX & CONDUIT	2 EA
3	NEW 6" V, C, & G STD. DET 220, TYPE A	71 LF
4	NEW 5' S/W STD. DET P1230	366 SF
5	SUBGRADE PREP	17 SY
6	NEW AC PAVEMENT (2" SURFACE, 6" BASE)	17 SY

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ROADWAY PLAN SHEETS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

7TH AVE
STA 59+50 TO STA 63+00
PLAN SHEET

DR: GJ	DES: MC	CK: MB	SHEET NO:	TOTAL SHEETS	AS BUILT
DATE: 04/26	DATE: 04/26	DATE: 04/26			
SCALE: 1"=20'			15	15	

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

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ROADWAY PLAN SHEETS, 04/2026

Appendix E
Final 15% Cost Estimate – Recommended Alternative

Project No : ST85100459-1
Proj Manager : John Dickson
Prepared By : AECOM

Recommended ALT #2 - Curb and Gutter; Attached Sidewalk; Lighting; Drainage

Project Location : Pre-Design Study Sidewalk 7th Avenue
Project Termini : Southern Avenue to Broadway Road
Proj Description : Sidewalk Improvements
Bid Advertisement Date : TBD

ITEM NO.	ITEM	UNIT	Final PA Submittal - Recommended ALT #2 DATE: 4/29/2026		
			QUANTITY	UNIT PRICE	AMOUNT
M3010001	Subgrade Preparation	Sq. Yd.	1336	$40.00	$53,440.00
M301XXXX	Asphalt Concrete (Assumed 2" AC Surface, 6" AC Base)	Sq. Yd.	1336	$140.00	$187,040.00
M3400400	Concrete Sidewalk, Std. Detail P1230	Sq. Ft.	20812	$15.00	$312,180.00
M3400556-A	Concrete Driveway Entrance, Std. Detail P1255-1	Sq. Ft.	2259	$30.00	$67,770.00
MXXXXXXX	Concrete Sidewalk, Driveway Retrofit	Sq. Ft.	841	$30.00	$25,230.00
M3400XXX	Concrete Curb Ramp (Directional Ramp)	Each	8	$5,000.00	$40,000.00
M3400XXX	Concrete Curb Ramp (Mid-Block Ramp), Std. Detail P1241-1	Each	1	$5,000.00	$5,000.00
M340XXXX	Concrete Bus Shelter/Accessory Pad Bus Stop	Sq. Ft.	400	$20.00	$8,000.00
M3402200	Concrete Curb and Gutter, Standard Detail 220, Type "A"	Lin. Ft.	3703	$35.00	$129,605.00
M3500020	Remove Portland Cement Concrete Sidewalk, Driveway, Valley Gutter & Slab	Sq. Ft.	2913	$6.00	$17,478.00
M3500060	Remove Asphaltic Concrete Pavement	Sq. Yd.	1530	$13.00	$19,890.00
MXXXXXXX	30 in RCP, Class V (Irrigation Pipe Replacement)	Lin. Ft.	1143	$500.00	$571,500.00
	CITY - CIVIL/ROADWAY IMPROVEMENTS SUBTOTAL				**$1,437,133.00**
M5051XXXX	Remove Catch Basin	Each	5	$1,850.00	$9,250.00
M5051XXXX	Concrete Catch Basin, Type "M-1, L=6-Ft" Phx. Supp. Detail P-1569-1	Each	1	$7,500.00	$7,500.00
M5051XXXX	Concrete Catch Basin, Modified, Type "M-1, L=6-Ft", Phx. Supp. Detail P-1569-2	Each	3	$16,500.00	$49,500.00
M5051XXXX	Concrete Catch Basin, Modified, Type "M-1, L=10-Ft", Phx. Supp. Detail P-1569-2	Each	1	$16,500.00	$16,500.00
M5051XXXX	18 in RGRCP, Class III (SD Lateral Connections)	Lin. Ft.	39	$670.00	$26,130.00
	CITY - DRAINAGE SUBTOTAL				**$108,880.00**
M35XXXXX	SRP 130W LED Luminaire On A 31'-6" Pole With A 6' Radius Mast Arm With All Wiring	Each	22	$4,500.00	$99,000.00
M35XXXXX	Pull Box With All Fusing, Grounding, Wiring And Flex Conduit To Pole	Each	22	$650.00	$14,300.00
M35XXXXX	Trench And Conduit Per Utility Specifications	Lin. Ft.	3,900	$40.00	$156,000.00
M3513525	Connect to Existing Power Source	Lump Sum	1	$13,500.00	$13,500.00
	CITY - LIGHTING SUBTOTAL				**$282,800.00**
				SUBTOTAL	**$1,828,813.00**
	Unidentified Item Allowance		30%		$549,000.00
				ITEMS COST SUBTOTAL	**$2,377,813.00**
	Mobilization/Demobilization	Lump Sum	1	12%	$285,000.00
	Construction Survey and Staking	Lump Sum	1	3%	$71,000.00
	Allowance for Stormwater Pollution Prevention Best Management Practice (BMP's)	Lump Sum	1	3%	$71,000.00
	Allowance for Extra Work	Lump Sum	1	10%	$238,000.00
	Clearing and Grubbing	Lump Sum	1	2%	$48,000.00
	Signing and Marking	Lump Sum	1	2%	$48,000.00
	Traffic Control	Lump Sum	1	5%	$119,000.00
				TOTAL CONSTRUCTION COST	**$3,257,813.00**

ITEM NO.	ITEM	UNIT	Final PA Submittal - Recommended ALT #2 DATE: 4/29/2026		
			QUANTITY	UNIT PRICE	AMOUNT
	Construction Contingency	Lump Sum	1	10%	$326,000.00
	Construction Management	Lump Sum	1	20%	$652,000.00
	Design	Lump Sum	1	25%	$814,000.00
	Right-of-Way (Approx. 5,375 SF TCE @ $40/SF = $215,000)	Lump Sum	1	$215,000.00	$215,000.00
	Utility Relocations	Lump Sum	1	5%	$163,000.00
				SUBTOTAL OTHER PROJECT COSTS	**$2,170,000.00**
				ALTERNATIVE #2 TOTAL PROJECT COST	**$5,427,813.00**

Appendix F
Initial Project Assessment Submittal Summary of Comments

Summary of Comments Form

Submittal	Initial PA Submittal	Project Name	Pre-Design Study Sidewalk 7th Ave - Southern Ave to Broadway Rd
Return Date	7/25/2025	Project Number	ST85100459-1
Reviewed By	Skitch Kitchen, Andrea Love, Chuck Christiansen		
Agency	City of Phoenix	Consultant /	AECOM
Discipline/Office	COP Public Transit Department, COP Environmental, COP Streets Trans/Horizonal	City of Phoenix Project Manager	John Dickson

A = WILL COMPLY, B = CONSULTANT / DESIGNER TO EVALUATE, C = CITY OF PHOENIX TEAM TO EVALUATE, D = DESIGN TEAM RECOMMENDS NO FURTHER ACTION

No	Discipline	Original No.	Item* / Dgn / Sht / Pg. #	Comment By	Comment	Disposition		Comment Addressed By	Response / Comment
						Initial	Final		
1	Transit	1	6	Skitch Kitchen	The bus pad on southbound 7th Ave south of Sunland Ave does not look wide enough. City of Phoenix Standard Detail P1260 shows bus pads being 10 feet deep and 40 feet wide. I know there are ROW constraints, but if the bus pad could be as large as possible to try to fit the detail, that would be appreciated to that the sidewalk remains accessible and is not blocked by a transit shelter.	B/C	A	MB	Bus pad per future COP PROJECT (FILE #: 12012) design plans. Will add to note that proposed dim to provide 40'x10' with signal project (adjusted location to provide 95' from intersection return per detail). Also updated note replacing by others to future COP project
2	Transit	2	9	Skitch Kitchen	Bus pad on southbound 7th Ave south of Roeser Rd (construction note 10) looks good!	A	A	MB	Noted.
3	Transit	3	13	Skitch Kitchen	Bus pad on southbound 7th Ave south of Tamarisk St (construction note 10) also looks good	A	A	MB	Noted.
4	Horizontal	1	4	Chuck Christiansen	Streetlights will need to be 4'-6' from SRP irrigation	B	A	CR	Adjusted to provide 4' offset from SRP Irr
5	Horizontal	2	4	Chuck Christiansen	Dimension roadway, including lanes	A	A	MB	Will update.
6	Horizontal	3	5	Chuck Christiansen	Streetlights will not work at stations 15+91 and 17+84, too close to irrigation	B	A	CR	Adjusted to provide 4' offset from SRP Irr
7	Horizontal	4	5	Chuck Christiansen	Cannot construct CB without a variance from water services at station 17+34	B/C	A	SC	Noted. Added to PA that proposed CB's will required coordination and variances with City Water for allowance of SD construction within 6' of existing water.
8	Horizontal	5	5	Chuck Christiansen	Verify streetlighting on the east side meets current spacing guidelines. If it needs to change SRP will no longer allow lights on poles	A	A	CR	Verified east side spacing.
9	Horizontal	6	5	Chuck Christiansen	Driveway needs sawcut and tie-in (typ) (Stations: 15+14, 16+46, 17+10, 18+78)	A	A	MB	Added saw cut to driveway replacements on the west side of the roadway. East side of roadway is sidewalk work only (no saw cut into the exst 7th Ave pavement)
10	Horizontal	7	6	Chuck Christiansen	The comment refers to a text that says: "New bus shelter by others". What does this mean by others? Is this not COP?	B/C	A	MB	Per future COP PROJECT (FILE #: 12012) design plans. Updated note to Future COP Project. Also added to overall note to include with ST85100459 if funding is available. So future COP project if funding not available; combine and add to ST85100459 if funding is available.

Summary of Comments Form

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						Initial	Final		
11	Horizontal	8	6	Chuck Christiansen	There is a curb on the driveway on the west side after station 23+00 that will need to be removed.	B/C	A	MB	Per future COP PROJECT (FILE #: 12012) design plans. Updated note to Future COP Project. Also added to overall note to include with ST85100459 if funding is available. So future COP project if funding not available; combine and add to ST85100459 if funding is available. Final design will require verifying ramp types and signal pole placements to fit location and meet ADA requirements.
12	Horizontal	9	6	Chuck Christiansen	Ensure new CB can be constructed due to conflict with irrigation at the west side after station 22+50	B/C	A	SC	Per future COP PROJECT (FILE #: 12012) design plans. Updated note to Future COP Project. Also added to overall note to include with ST85100459 if funding is available. So future COP project if funding not available; combine and add to ST85100459 if funding is available. CB design will be coordinate with SRP during final design (current design is to remove exst CB and replace in same location).
13	Horizontal	10	6	Chuck Christiansen	Will a vertical WL relocation be required at CB at the west side after station 22+50?	B/C	A	SC	Per future COP PROJECT (FILE #: 12012) design plans. Updated note to Future COP Project. Also added to overall note to include with ST85100459 if funding is available. So future COP project if funding not available; combine and add to ST85100459 if funding is available. Proposed CB's will required coordination and variances with City Water for allowance of SD construction within 6' of existing water.
14	Horizontal	11	6	Chuck Christiansen	Is this a MAG 236-4 ramp? Where is the slope on the sidewalk? Accurately draw the ramp at the east and west side of station 23+00.	B/C	A	MB	Per future COP PROJECT (FILE #: 12012) design plans. Updated note to Future COP Project. Also added to overall note to include with ST85100459 if funding is available. So future COP project if funding not available; combine and add to ST85100459 if funding is available. Proposed ramps copied in as per the COP plans. Final design will require verifying ramp types and signal pole placements to fit location and meet ADA requirements.
15	Horizontal	12	7	Chuck Christiansen	When will signal work be completed?	B/C	A	MB	Per future COP PROJECT (FILE #: 12012) design plans. Added to note to include with ST85100459 if funding is available. So future COP project if funding not available; combine and add to ST85100459 if funding is available.

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16	Horizontal	13	8	Chuck Christiansen	New ROW? (on the west side near station 31+00)	A	A	MB	Will add TCE for sidewalk. Also added TCE other locations for work at driveways (5' TCE at driveways for planning level (and locations where required with new light poles and conduit close to exst r/w.
17	Horizontal	14	9	Chuck Christiansen	Light does not work here (at stations 32+24 and 34+59)	B	A	CR	Adjusted to provide 4' offset from SRP Irr
18	Horizontal	15	9	Chuck Christiansen	Need additional CB somewhere to meet CB spacing standards	B	D	SC	Per design guidelines arterials max spacing 660' or may be waived for streets with minimal flows of less than 2 cfs in the 2-yr design event. 2-year hydrology estimates for 7th Ave are less than 2 cfs (range from 0.2 to 1.7). Verified spacing of CB's on west side of road (all meet 660' except for proposed at Sta 38+43 [857' spacing]). Recommend no new CB's per current design and 2-year hydrology estimates.
19	Horizontal	16	9	Chuck Christiansen	May require Class V pipe replacement at DWY at station 36+31	B	A	MB	Added to plans/estimate
20	Horizontal	17	10	Chuck Christiansen	What is this? It is in conflict with other things? (This refers to a rectangular thing right before station 38+54)	A	A	MB	Existing inlet. To be removed and replace with CB.
21	Horizontal	18	10	Chuck Christiansen	Where does this DWY connect? (The DWY is at the east side of the road at station 40+50).	B	A	MB	Existing alley access (unpaved). Exst sidewalk through access exceeds 2% cross slope. Design intent is retrofit and to realign sidewalk and provided 2% cross slope sidewalk wrap around. Concrete will not extend to the exst 7th Ave pavement (will remain an unpaved alley access). Detail would be provided at final design
22	Horizontal	19	11	Chuck Christiansen	Need additional CB's to meet design standards	B	D	SC	Prop CB provided at Sta 43+09
23	Horizontal	20	11	Chuck Christiansen	Where does these DWY connect? (The DWY are at the east side of the road at stations 43+00 and 45+60).	B	A	MB	Existing alley access (unpaved). Exst sidewalk through access exceeds 2% cross slope. Design intent is retrofit and to realign sidewalk and provided 2% cross slope sidewalk wrap around. Concrete will not extend to the exst 7th Ave pavement (will remain an unpaved alley access). Detail would be provided at final design
24	Horizontal	21	11	Chuck Christiansen	May require Class V pipe replacement (include for planning purposes) at DWY at station 45+60	B	A	MB	Added to plans/estimate

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						Initial	Final		
25	Horizontal	22	12	Chuck Christiansen	Is this a DWY? (station 48+50)	B	A	MB	Existing alley access (unpaved). Exst sidewalk through access exceeds 2% cross slope. Design intent is retrofit and to realign sidewalk and provided 2% cross slope sidewalk wrap around. Concrete will not extend to the exst 7th Ave pavement (will remain an unpaved alley access). Detail would be provided at final design
26	Horizontal	23	12	Chuck Christiansen	Where does this DWY connect? (station 48+50)	B	A	MB	Existing alley access (unpaved). Exst sidewalk through access exceeds 2% cross slope. Design intent is retrofit and to realign sidewalk and provided 2% cross slope sidewalk wrap around. Concrete will not extend to the exst 7th Ave pavement (will remain an unpaved alley access). Detail would be provided at final design
27	Horizontal	24	12	Chuck Christiansen	May require Class V pipe replacement (include for planning purposes) at DWY at station 48+50	B	A	MB	Added to plans/estimate
28	Horizontal	25	13	Chuck Christiansen	Many street lights are in conflict with utilities, ensure there is room for the pole and 1' of clearance min, 4' from irrigation, 6' from water (Station 51+74)	B	A	CR	Adjusted to provide 4' offset from Irr, 6' from water, 1' other utilities
29	Horizontal	26	13	Chuck Christiansen	Anywhere dwy work is over irrigation may require Class V pipe replacement (station 51+51)	B	A	MB	Added to plans/estimate
30	Horizontal	27	14	Chuck Christiansen	fence in conflict? (west side near station 59+25)	A	A	MB	Sidewalk is proposed to miss fence (to remain).
31	Horizontal	28	14	Chuck Christiansen	Need additional CB to meet design standards	B	D	SC	Exst CB located at Sta 56+80 to remain. Exst CB's to remain on west side of road note added to plans. Per design guidelines arterials max spacing 660' or may be waived for streets with minimal flows of less than 2 cfs in the 2-yr design event. 2-year hydrology estimates for 7th Ave are less than 2 cfs (range from 0.2 to 1.7). Verified spacing of CB's on west side of road (all meet 660' except for proposed at Sta 38+43 [857' spacing]). Recommend no new CB's per current design and 2-year hydrology estimates.
32	Environmental	1	8	Andrea Love	4.1.2 Cultural Resource Records Review - "Because of a current lag in entering information into the AZSITE database, the team checked records on file at the ASM Archaeological Records Office for information did not enter the database". I think something is missing. Also, the City Archaeologist Office did review this project, and John has the INCRA results. Archaeological monitoring is required (AECOM also recommended this in the initial PA).	A	A	WT	Will update. Sentence revised.
33	Environmental	2	11	Andrea Love	4.2.2 Native Plans - Should this be “Plants”?	A	A	WT	Will update.

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34	Environmental	3	11	Andrea Love	4.2.2 Native Plans - "During the field visit the following protected Arizona plants were identified:" What I have highlighted are not plants.	A	A	WT	Will update. Copy error. Section ends where special status species begins.
35	Environmental	4	11	Andrea Love	4.2.2 Native Plans - "Although these species have range within the Study Area there is no designated or proposed Critical Habitat (CH). The nearest CH for yellow-billed cuckoo is approximately 50 miles to the northwest near Wickenburg. There is no other final CH listed for the other species identified" . The yellow-billed cuckoo is not on the list. Should it be? Was this only to show the nearest critical habitat? I think this is a cut and paste error from Section 4.2.3. This whole section should be Native Plants and everything else belongs in Section 4.2.3 Please review these two sections, they are incorrect and are confusing.	A	D	WT	Copy error was corrected. Yellow-billed cuckoo is in ESA list of species and therefore no change is required.
36	Environmental	5	9	Andrea Love	4.1.2.2 Historic Buildings and Structures – The Office of Historic Preservation requested to be included in all updates/plans of this project. I have forwarded to them the files that were sent out because I did not see them on the distribution list.	A	A	WT	Noted.