



**CITY OF PHOENIX
STREET TRANSPORTATION DEPARTMENT**

**T2050 MOBILITY ASSESSMENT
CAPITOL NORTH NEIGHBORHOODS
STUDY AREA #7**

**PROPOSED CONDITIONS REPORT
COP PROJECT No.: ST87210020-1**

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Proposed Conditions Report

Executive Summary

The T2050 Mobility Improvements Program was established to improve mobility safety and connectivity for all roadway users. It is funded by the Phoenix Transportation 2050 (T2050) voter-approved sales tax for transportation improvements. The Mobility Improvement Program was allocated 15% of the T2050 funds to install new sidewalks, bikeways and other multimodal improvements to the city streets.

With direction from the Citizen's Transportation Commission, the Street Transportation Department analyzed geographic data to identify those areas that are most deficient in sidewalk, bicycle and transit infrastructure. Their analysis identified eleven areas of focus to improve pedestrian and bicycle safety. This study, Capitol North Neighborhoods (Study Area 7), is one of those eleven areas.

An analysis of the current conditions within the Study Area was conducted in 2018 which was documented in a report entitled *T2050 Mobility Assessment, Capitol North Neighborhoods, Study Area #7, Current Conditions Report*. The report included an assessment of the existing infrastructure as well as data on pedestrian and bicycle safety, key corridors, traffic volumes, and key destinations. The study identified significant gaps and deficiencies in the existing infrastructure including 2.4 miles of missing sidewalks, sixteen deficient bus stops, insufficient street light coverage on local neighborhood streets and the need for three new bikeways.

To address the deficiencies in the Study Area and improve the comfort and safety for pedestrians and bicyclists, sixteen mobility improvement projects were identified. These projects include new sidewalks and bikeways as well as the installation of new street lights, shade trees, traffic signal and crosswalk upgrades, bus stops and ADA accessibility improvements.

The arterial streets, which include 19th Ave, Van Buren St, Jefferson St and Adams St, all have needs including ADA accessibility improvements, shade, street light and traffic signal upgrades, but 19th Avenue is the most deficient. It has no sidewalk along the west side of the street as well as a long gap in the sidewalk along the east side. It also lacks shade, is missing bus stops, has gaps in the street light coverage and is in need of ADA accessibility improvements. Due to the close proximity of the BNSF Railroad, a portion of 19th Ave will need to be realigned in order to create enough space to construct a sidewalk along the west side of the street.

The proposed improvements also include projects on the collector and local streets. The collector street projects for Roosevelt St and 15th Ave address needs to improve ADA accessibility and add shade. The proposed projects on the local streets fill gaps in

the sidewalks, correct ADA accessibility issues and improve street light coverage. There are also three new bikeways proposed along Madison St, Roosevelt St and 17th Ave to improve safety and comfort for bicyclists.

Using criteria provided by the Street Transportation Department, each project was scored based bicycle and pedestrian safety, roadway user stress level, connectivity to bus stops and key destinations, public input, constructability and cost. The following table (Table 1) lists the proposed projects by project rank. The project with the highest score was ranked number 1. The table also includes a brief description of each project including the budgetary cost estimate.

Project Rank	Project I.D.	Street	Location	Description	Budget
1	M	Fillmore Street	19th Ave - Grand Ave	ADA Improvements, Street Lights & Shade Trees	\$424,000
2	K	Madison Street	15th Ave - 7th Ave	Sidewalks, ADA Improvements, Street Lights & Shade Trees	\$957,000
3	I	Polk Street	19th Ave - 15th Ave	Sidewalks, ADA Improvements & Street Lights	\$470,000
4	L	16th Avenue	Polk St - Roosevelt St	Sidewalks, ADA Improvements, Half Street Improvements & Street Lights	\$530,500
5	G	15th Avenue	Van Buren St - Roosevelt St	ADA Improvements, Traffic Signal Upgrades & Shade Trees	\$647,000
6	A	19th Avenue	Madison St - Van Buren St	Sidewalks, ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	\$853,000
7*	C	Van Buren Street	20th Ave - 15th Ave	Sidewalks, ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	\$810,000
7*	H	Roosevelt Street	19th Ave - 11th Ave	ADA Improvements, Traffic Signal Upgrades & Shade Trees	\$702,000
8	B	19th Avenue	Van Buren St - Roosevelt St	Sidewalks, ADA Improvements, Roadway Realignment, Street Lights & Shade Trees	\$1,903,000
9	P	17th Avenue	Madison St - Roosevelt St	Bike Lanes & Shared-Use Lanes	\$91,000
10	D	Van Buren Street	15th Ave - 7th Ave	ADA Improvements & Shade Trees	\$422,000
11	F	Adams Street	20th Ave - 19th Ave	ADA Improvements, Traffic Signal Upgrades & Shade Trees	\$427,000
12	J	Madison Street	20th Ave - 15th Ave	ADA Improvements & Street Lights	\$285,000
13	O	Roosevelt Street	19th Ave - 15th Ave	Bike Lanes & Shared-Use Lanes	\$80,000
14*	E	Jefferson Street	20th Ave - 7th Ave	ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	\$1,033,000
14*	N	Madison Street	19th Ave - 3rd Ave	Bike Lanes, Shared-Use Lanes & Reconfigure 16th Avenue Intersection	\$296,000

*projects with duplicate scores

Table 1 – Proposed Improvements by Project Rank

Mobility Area

The Capitol North Neighborhoods (Mobility Study Area 7) is approximately 0.7 square miles in size; situated between Madison Street and Roosevelt Street from 20th Avenue to 12th Avenue (see **Figure 1**).

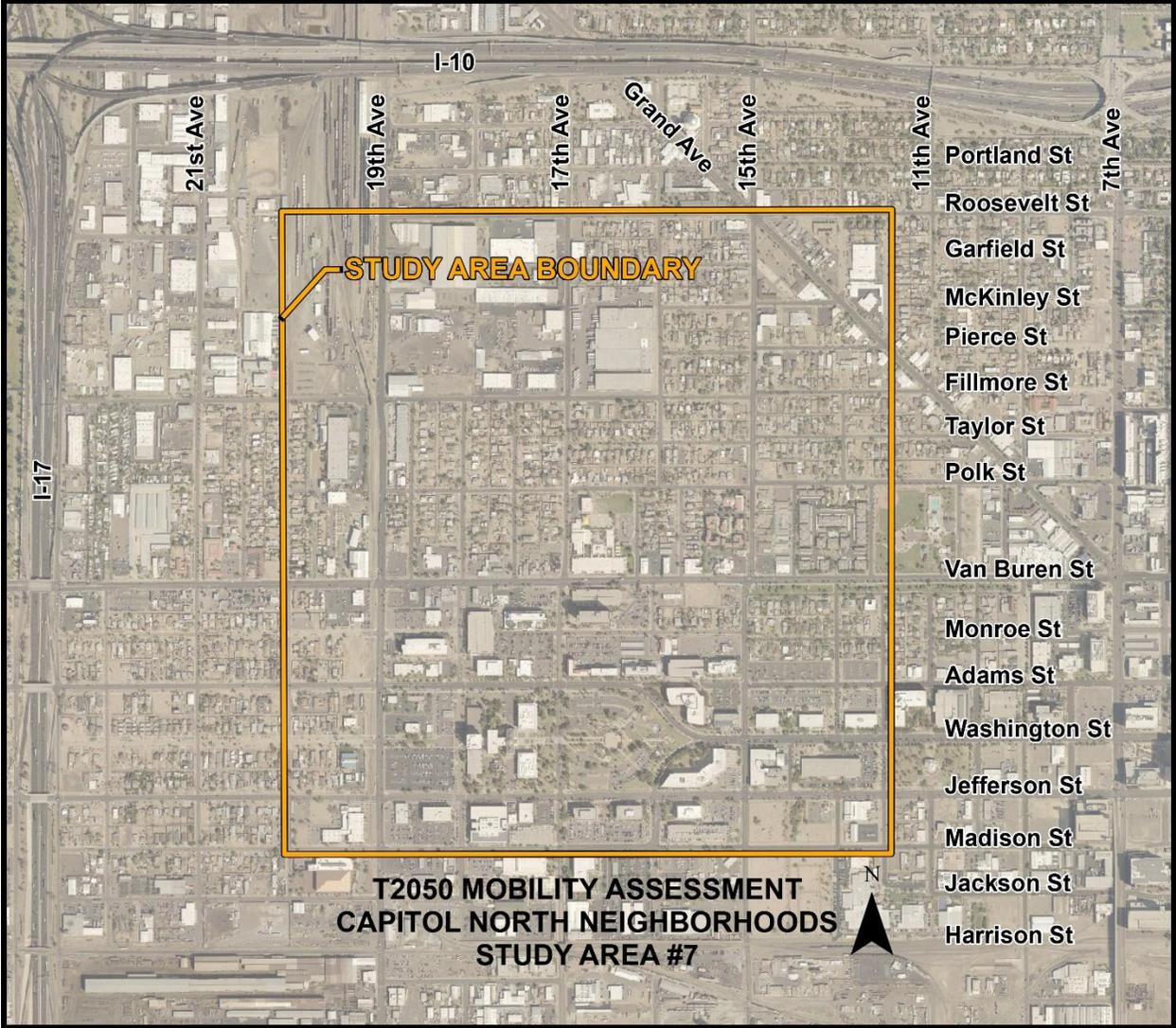


Figure 1 – Study Area Map

Current Conditions

The existing conditions within the study area are documented in a report entitled *T2050 Mobility Assessment, Capitol North Neighborhoods, Study Area #7, Current Conditions Report, City of Phoenix Project No. ST87210020-1*, dated August 2018. The following is a summary of the data contained in the report.

Key Destinations – The Current Conditions Report identified twenty-five key destinations within the study area which include the State Capitol and the surrounding government offices. They also include Capitol Elementary School on Van Buren Street, Central Arizona Shelter Services on Madison Street and several restaurants and retail businesses located along Van Buren Street, Grand Avenue and 15th Avenue.

Sidewalks – There are about 2.4 miles of missing sidewalks in the study area including the west side of 19th Avenue as well as portions of Jackson Street, Madison Street, Polk Street, Garfield Street, 16th Avenue and 15th Avenue. There are also about 30 missing sidewalk ramps and over 500 non-standard ramps and driveways that don't meet current ADA design guidelines.



Non-standard driveway sidewalk leading to the bus stop on 15th Ave, north of Van Buren St

Bikeways – There are existing bike lanes on Roosevelt Street, Washington/Adams Street, Jefferson Street, 15th Avenue and Grand Avenue. The City had previously identified gaps in the bikeway system that include Roosevelt Street between 19th and 15th Avenues and 16th Avenue between Washington and Madison Streets. Joe Perez (City Bicycle Coordinator) also identified a need for new bikeways along Madison Street and along 17th Avenue.

Transit Facilities – There are several bus routes in the study area which utilize bus stops on Van Buren Street, Adams/Washington Street, Jefferson Street, 19th Avenue and 15th Avenue. The Current Conditions Report identified sixteen non-standard bus stops that do not have shelters and/or don't have a pad that meets ADA design guidelines. Many of these non-standard bus stops are simply a bus stop sign placed at the back of sidewalk, particularly along 19th and 15th Avenue.

Future transit facilities include the proposed Capitol/I-10 West light rail extension and a possible bus rapid transit route on 19th Avenue. Concept plans for the light rail extension indicate an alignment along Jefferson Street, north on 18th Avenue (or alternatively 19th Avenue) and west on Van Buren Street.

Key Corridors – The key corridors are the arterial and collector streets including 19th Avenue, 17th Avenue, 15th Avenue, Grand Avenue, Roosevelt Street, Van Buren Street, Adams/Washington Street, and Jefferson Street.



Non-standard bus stop on 19th Ave.

Street Lights – The arterial streets and collector streets within the study have an adequate number of street lights to meet standard street light spacing requirements, but several of the local streets do not. Therefore, projects planned for local streets include enough new street lights to meet City standards.

Land Development Plans – There are no planned land development projects in the study area that would have a significant impact on mobility.

Drainage – There were no drainage problems identified in the study area that would impact mobility.

Environmental Constraints – There are several archaeological sites within the study area, therefore it should be anticipated that environmental reviews will be required for many of the proposed mobility improvement projects; possibly requiring archaeological monitoring during construction. In addition, there are two historic districts within the study area. Mobility improvement projects within these districts will require review by the Historic Preservation Office.

Crash History – Pedestrian and bicycle crash reports for the 5-year period from 2012-2016 indicate that there were 41 incidents within the study area including 2 fatal pedestrian crashes. Most of these accidents occurred along 19th Avenue, Van Buren Street and 15th Avenue.

Traffic Volumes - The traffic volumes correlate well with the crash history data. Most of the traffic in the study area is carried on the arterial streets which is also where most of the pedestrian/bicycle accidents occur. 19th Avenue is busiest roadway with about 23,000 vehicles per day followed by Van Buren Street which has about 16,000 vehicles per day. Jefferson Street and Washington Street each have about 8000 vehicles per day and 15th Avenue is also busy with approximately 7000 vehicles per day.

Summary of Proposed Improvements

The proposed mobility projects are listed in **Table 2** (Summary of Proposed Projects). They include pedestrian improvements on the arterial streets, collector streets as well as several of the local streets. They also include an extension of the bike lanes on Roosevelt Street and new bikeways on 17th Avenue and Madison Street. The projects will be ranked after review by the Technical Advisory Committee and after they are presented to the public.

Project ID	Project Rank	Street	Location	Description	Budget
Arterial Street Pedestrian Improvements					
A	6	19th Avenue	Madison St - Van Buren St	Sidewalks, ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	\$853,000
B	8	19th Avenue	Van Buren St - Roosevelt St	Sidewalks, ADA Improvements, Roadway Realignment, Street Lights & Shade Trees	\$1,903,000
C	7*	Van Buren Street	20th Ave - 15th Ave	Sidewalks, ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	\$810,000
D	10	Van Buren Street	15th Ave - 7th Ave	ADA Improvements & Shade Trees	\$422,000
E	14*	Jefferson Street	20th Ave - 7th Ave	ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	\$1,033,000
F	11	Adams Street	20th Ave - 19th Ave	ADA Improvements, Traffic Signal Upgrades & Shade Trees	\$427,000
Collector Street Pedestrian Improvements					
G	5	15th Avenue	Van Buren St - Roosevelt St	ADA Improvements, Traffic Signal Upgrades & Shade Trees	\$647,000
H	7*	Roosevelt Street	19th Ave - 11th Ave	ADA Improvements, Traffic Signal Upgrades & Shade Trees	\$702,000
Local Street Pedestrian Improvements					
I	3	Polk Street	19th Ave - 15th Ave	Sidewalks, ADA Improvements & Street Lights	\$470,000
J	12	Madison Street	20th Ave - 15th Ave	ADA Improvements & Street Lights	\$285,000
K	2	Madison Street	15th Ave - 7th Ave	Sidewalks, ADA Improvements, Street Lights & Shade Trees	\$957,000
L	4	16th Avenue	Polk St - Roosevelt St	Sidewalks, ADA Improvements, Half Street Improvements & Street Lights	\$530,500
M	1	Fillmore Street	19th Ave - Grand Ave	ADA Improvements, Street Lights & Shade Trees	\$424,000
Bikeways					
N	14*	Madison Street	19th Ave - 3rd Ave	Bike Lanes, Shared-Use Lanes & Reconfigure 16th Avenue Intersection	\$296,000
O	13	Roosevelt Street	19th Ave - 15th Ave	Bike Lanes & Shared-Use Lanes	\$80,000
P	9	17th Avenue	Madison St - Roosevelt St	Bike Lanes & Shared-Use Lanes	\$91,000

*projects with duplicate scores

Table 2 – Summary of Proposed Projects

Proposed Improvement Projects

Each of the sixteen proposed mobility improvement projects are described below with a written description, an exhibit depicting the improvements and an itemized budgetary cost estimate.

A) 19TH AVE PED. IMPROVEMENTS (MADISON ST – VAN BUREN ST)

SIDEWALKS, ADA IMPROVEMENTS, TRAFFIC SIGNAL UPGRADES, STREET LIGHTS & SHADE TREES

Project Location: 19th Avenue, Madison Street to Van Buren Street

Project Description:

- Construct 1300 L.F. of new sidewalk on the west side of 19th Avenue which will require obtaining a license from the BNSF Railroad to use their right-of-way.
- Install 1500 L.F. of security fencing between the new sidewalk and the Railroad tracks on the west side of 19th Avenue to prevent pedestrian cut-through traffic over the tracks.
- Install 7 new street lights on the west side of the street. The existing street lights on the east side of 19th Avenue provide enough coverage to meet City standards, but it is recommended to provide better lighting on the west side of the street; adjacent to the railroad track
- Retrofit 3 existing, non-compliant driveways along the east side of 19th Avenue with a level sidewalk area behind the driveway.
- Remove 4 existing driveways that are not being used along the east side of 19th Avenue and replace them with vertical curb, gutter and sidewalk.
- Install 6 new sidewalk ramps to replace existing, non-compliant ramps.
- Install a new bus shelter pad on east side of 19th Avenue to replace an existing non-standard bus stop between Jefferson Street and Washington Street.
- Install pedestrian push buttons at the Jefferson Street intersection; including 3 new pedestrian push button poles.
- Install pedestrian push buttons at the Adams Street intersection; including 3 new pedestrian push button poles.
- Install pedestrian push buttons at the Van Buren Street intersection; including 2 new pedestrian push button poles.
- Install high-visibility crosswalks at the intersections with Jefferson, Adams and Van Buren Streets.
- Plant 24 new shade trees on the west side of 19th Avenue. Also include new irrigation, shrubs and decomposed granite ground cover.

Project Benefits: The proposed improvements will provide a shaded walkway along the west side of 19th Avenue and provide a fenced, pedestrian safety barrier between the roadway and the Railroad tracks. It will also eliminate non-compliant driveways and sidewalk ramps and upgrade the signals to provide pedestrian push buttons.

Key Destinations: Access to the Van Buren Street and 19th Avenue bus stops.

Project Constraints:

- *Railroad* - The new sidewalks on the west side of 19th Avenue encroach into the Railroad Right-of-way and will require permission from the BNSF Railroad. No attempt has been made to coordinate this project with the Railroad and is not known whether permission can be obtained. But if this project is moved forward, the first item addressed should be coordination with the Railroad to determine if it is feasible to encroach into the Railroad right-of-way with the new sidewalks. The only section of 19th Avenue that has adequate right-of-way for the new sidewalk and shade trees is the one-block segment between Adams Street and Monroe Street where the 19th Avenue right-of-way appears to extend all the way to the tracks.
- *Sewer Line* – There is a 33-inch sanitary sewer line on the west side of 19th Avenue that will restrict the number of shade trees that can be planted and several of them will probably require root barriers to be within 6 feet of the sewer line. In areas where trees cannot be planted, it is recommended to use larger shrubs that can be trimmed into the shape of a small tree.

Budgetary Cost Estimate:

Construction Cost	\$518,000
Design, Construction Administration & Other Fees	\$335,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$853,000

LEGEND

 New Streetlight	 New Sidewalk Ramp
 New Sidewalk	 New Driveway
 New Ped Push Button Pole	 Remove Driveway
 New Shade Tree and Landscaping	 New ADA Retrofit Driveway
 New Railroad Security Fence	 New Truncated Domes
 Exist. Sewer Line	 New High Visibility Crosswalk
 Exist. Water Line	

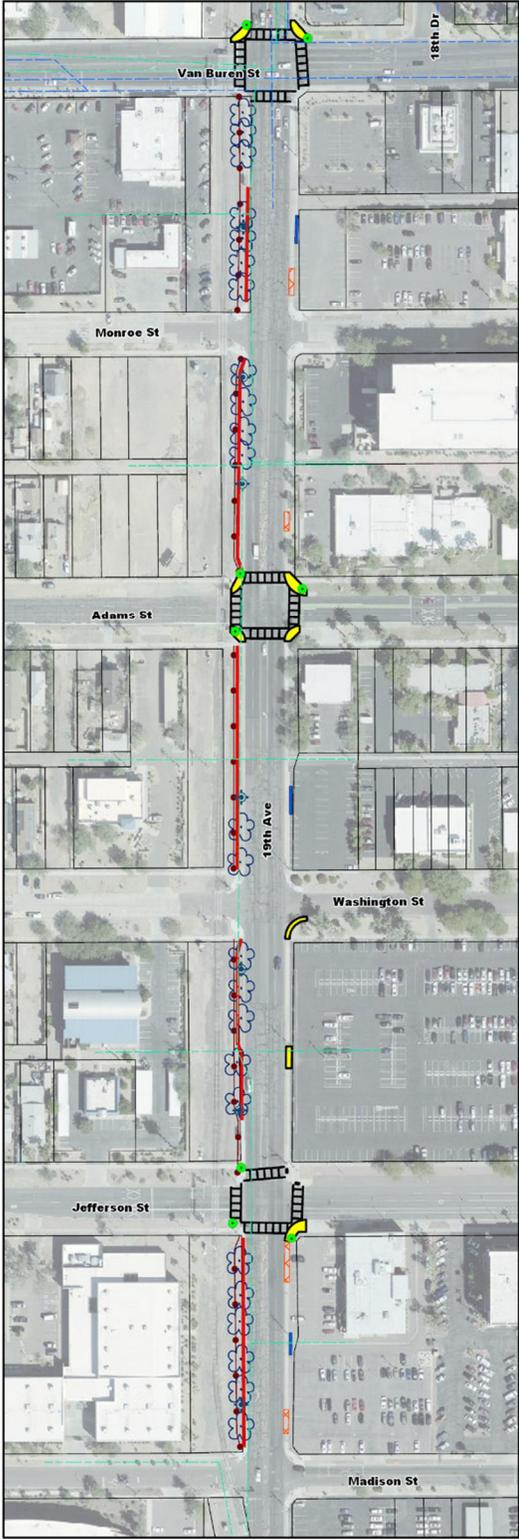


Exhibit 1: 19th Ave Ped. Improvements (Madison St – Van Buren St)

Budgetary Cost Estimate: 19th Ave (Madison St – Van Buren St)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	7860	\$6.50	\$51,090.00
2	SIDEWALK RAMPS	EACH	8	\$3,000.00	\$24,000.00
3	BUS SHELTER PAD	EACH	1	\$6,000.00	\$6,000.00
4	TRUNCATED DOMES	EACH	2	\$600.00	\$1,200.00
5	ADA RETROFIT DRIVEWAYS	EACH	3	\$2,500.00	\$7,500.00
6	REPLACE DRIVEWAY W/CURB, GUTTER & SIDEWALK	EACH	4	\$2,500.00	\$10,000.00
7	SHADE TREES	EACH	24	\$400.00	\$9,600.00
8	STREET LIGHT	EACH	7	\$5,000.00	\$35,000.00
9	PEDESTRIAN PUSH BUTTON POLE	EACH	8	\$5,000.00	\$40,000.00
10	PEDESTRIAN PUSH BUTTONS	EACH	24	\$400.00	\$9,600.00
11	RAILROAD SECURITY FENCE	LF	1535	\$40.00	\$61,400.00
12	HIGH VISIBILITY CROSSWALKS (LADDER)	EACH	12	\$2,000.00	\$24,000.00
13	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$50,000.00	\$50,000.00
14	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	12000	\$6.00	\$72,000.00

Subtotal Construction \$401,390.00

Traffic Control/Police Officer (4%) \$16,055.60

Allowance for Extra Work (5%) \$20,069.50

Contingency (20%) \$80,278.00

Total Construction \$517,793.10

Design Phase (27%) \$139,804.14

Streetlighting Fee (2%) \$10,355.86

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Construction Administration (30%) \$155,337.93

GRAND TOTAL \$853,291.03

B) 19TH AVE PED. IMPROVEMENTS (VAN BUREN ST – ROOSEVELT ST)
SIDEWALKS, ADA IMPROVEMENTS, ROADWAY REALIGNMENT, STREET LIGHTS & SHADE TREES

Project Location: 19th Avenue, Van Buren Street to Roosevelt Street

Project Description:

- Construct 3000 L.F. of new sidewalk and provide a landscape strip between the roadway edge and the sidewalk for new shade trees. On the west side of 19th Avenue, a license will be required from the BNSF Railroad to use their right-of-way for the new sidewalk.
- Realign approximately 500 LF of 19th Avenue at Fillmore Street to create enough space between the roadway and the railroad tracks to install sidewalks and landscaping.
- Install 1500 L.F. of security fencing between the new sidewalk and the Railroad tracks on the west side of 19th Avenue to prevent pedestrian cut-through traffic over the tracks.
- Install 13 new street lights. Since 19th Avenue is less than 62 feet wide, the existing street lights provide enough coverage to meet City standards, but it is recommended to provide street lights both sides of the street which is standard for a major arterial. This is particularly important with the close proximity of the Railroad tracks.
- Retrofit 6 existing, non-compliant driveways along the east side of 19th Avenue with a level sidewalk area behind the driveway.
- Remove 7 existing driveways that are not being used along the east side of 19th Avenue and replace them with vertical curb, gutter and sidewalk.
- Install 6 new sidewalk ramps to replace existing, non-compliant ramps.
- Install 2 new bus shelter pads; one on each side of 19th Avenue to replace the existing non-standard bus stops at Fillmore Street.
- Plant 54 new shade trees between the roadway curb and the new sidewalk; both sides of 19th Avenue. Also include new irrigation, shrubs and decomposed granite ground cover.

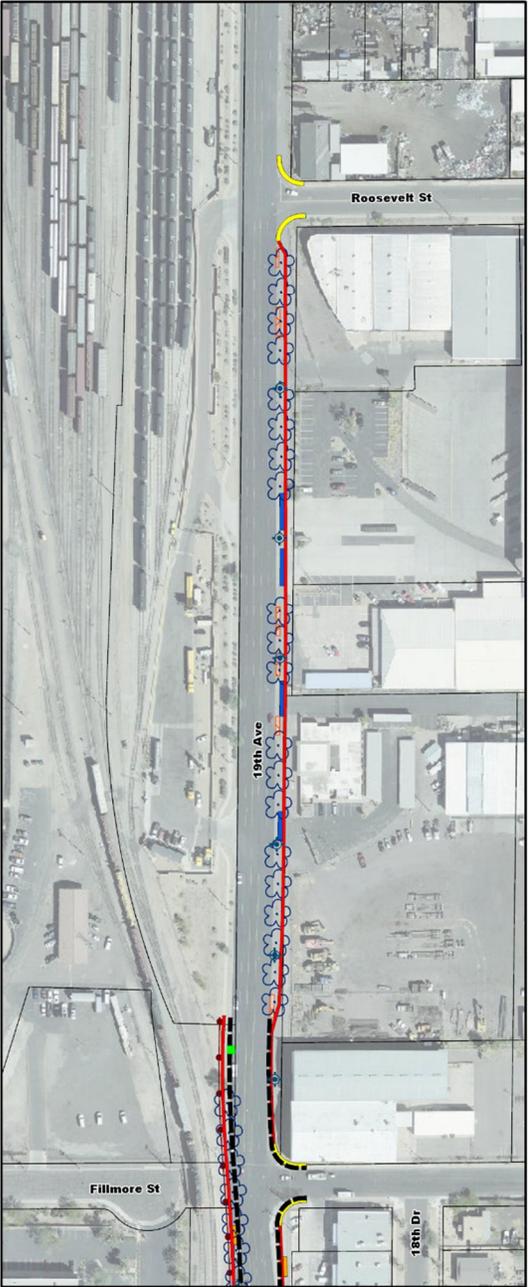
Project Benefits: The proposed improvements will provide shaded walkways along the west side of 19th Avenue and a portion of the east side. It will also eliminate non-compliant driveways and sidewalk ramps, upgrade the signals to provide pedestrian push buttons and provide a fenced, pedestrian safety barrier between the roadway and the Railroad tracks.

Key Destinations: Access to the Van Buren Street and 19th Avenue bus stops.

Project Constraints: The new sidewalks on the west side of 19th Avenue encroach into the Railroad Right-of-way and will require permission from the BNSF Railroad. No attempt has been made to coordinate this project with the Railroad and is not known whether permission can be obtained. But if this project is moved forward, the first item addressed should be coordination with the Railroad to determine if it is feasible to encroach into the Railroad right-of-way with the new sidewalks. The only section of 19th Avenue that has adequate right-of-way for the new sidewalk and shade trees is the one-block segment between Adams Street and Monroe Street where the 19th Avenue right-of-way appears to extend all the way to the tracks.

Budgetary Cost Estimate:

Construction Cost	\$1,178,000
Design, Construction Administration & Other Fees	\$725,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$1,903,000



LEGEND

-  New Streetlight
-  New Sidewalk
-  New Shade Tree and Landscaping
-  New Railroad Security Fence
-  New Curb
-  Relocate Catch Basin
-  New Sidewalk Ramp
-  New Driveway
-  Remove Driveway
-  New ADA Retrofit Driveway

Exhibit 2: 19th Ave Ped. Improvements (Van Buren St – Roosevelt St)

Budgetary Cost Estimate: 19th Ave (Van Buren St – Roosevelt St)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	18100	\$6.50	\$117,650.00
2	SIDEWALK RAMPS	EACH	4	\$3,000.00	\$12,000.00
3	BUS SHELTER PAD	EACH	2	\$6,000.00	\$12,000.00
4	NEW DRIVEWAYS	EACH	5	\$5,000.00	\$25,000.00
5	ADA RETROFIT DRIVEWAYS	EACH	6	\$2,500.00	\$15,000.00
6	REPLACE DRIVEWAY W/CURB, GUTTER & SIDEWALK	EACH	7	\$2,500.00	\$17,500.00
7	CURB AND GUTTER	LF	1130	\$40.00	\$45,200.00
8	SHADE TREES	EACH	54	\$400.00	\$21,600.00
9	STREET LIGHT	EACH	13	\$5,000.00	\$65,000.00
10	RAILROAD SECURITY FENCE	LF	1520	\$40.00	\$60,800.00
11	RELOCATE CATCH BASIN	EACH	1	\$4,000.00	\$4,000.00
12	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$100,000.00	\$100,000.00
13	NEW AC PAVEMENT	SY	3600	\$80.00	\$288,000.00
14	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	21600	\$6.00	\$129,600.00

Subtotal Construction \$913,350.00

Traffic Control/Police Officer (4%) \$36,534.00

Allowance for Extra Work (5%) \$45,667.50

Contingency (20%) \$182,670.00

Total Construction \$1,178,221.50

Design Phase (27%) \$318,119.81

Streetlighting Fee (2%) \$23,564.43

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Construction Administration (30%) \$353,466.45

GRAND TOTAL \$1,903,372.19

C) VAN BUREN ST PED. IMPROVEMENTS (20TH AVE – 15TH AVE)
SIDEWALKS, ADA IMPROVEMENTS, TRAFFIC SIGNAL UPGRADES & SHADE TREES

Project Location: Van Buren Street, 20th Avenue to 15th Avenue

Project Description:

- Construct 600 L.F. of new sidewalk to replace existing sidewalks that are in disrepair and widen the confined sidewalk on the north side of Van Buren, just west of 19th Avenue.
- Install 1 new street light.
- Retrofit 2 existing, non-standard driveways.
- Remove 8 existing driveways that are not being used and replace them with vertical curb, gutter and sidewalk.
- Install 15 new sidewalk ramps to replace existing, non-compliant ramps.
- Rebuild 3 existing, non-standard driveways.
- Install pedestrian push buttons at the 19th and 17th Avenue intersections; including 2 new pedestrian push button poles at 19th Avenue and one at 17th Avenue.
- Install high-visibility crosswalks at the 19th Avenue and 17th Avenue intersections. Also install a high-visibility crosswalk at 16th Avenue.
- Plant 94 new shade trees in the existing landscape strip between the roadway curb and the sidewalk. Also include new irrigation, shrubs and decomposed granite ground cover.

Project Benefits: The proposed improvements will enhance the pedestrian experience by providing a shaded walkway along the majority of Van Buren Street between 19th Avenue and 15th Avenue. It will also eliminate non-compliant driveways and sidewalk ramps and upgrade traffic signals to provide pedestrian push buttons.

Key Destinations: Access to the Van Buren Street businesses and the Van Buren Street, 19th Avenue and 15th Avenue bus stops.

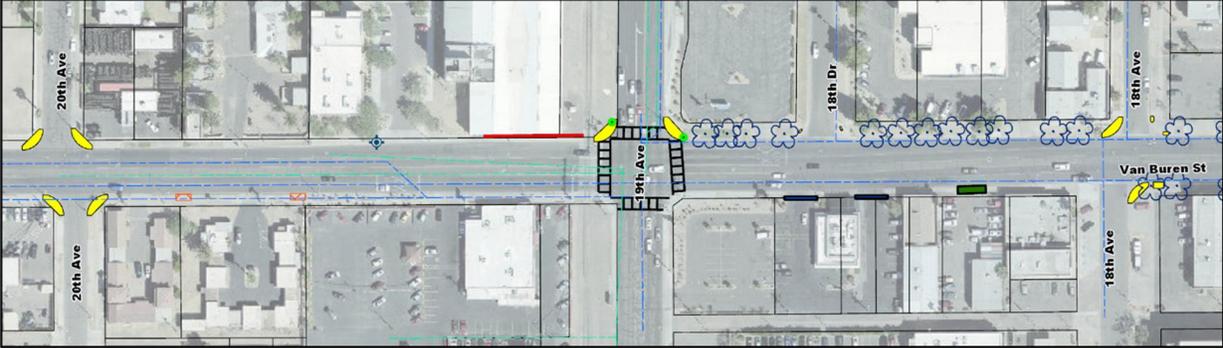
Project Constraints: There are overhead power lines and water lines that will restrict the planting of shade trees. Shade trees cannot be planted any closer than 10 feet from existing waterlines; unless they include a root barrier which will allow them to be planted as close as 6 feet. Large shade trees are not allowed under overhead power lines.

- *12-inch Waterline west of 19th Avenue* – There is a 12-inch waterline located under the south sidewalk on Van Buren Street between 20th Avenue and 19th Avenue that precludes the planting of shade trees in the existing landscape strip, but it is recommended to plant shrubs instead.

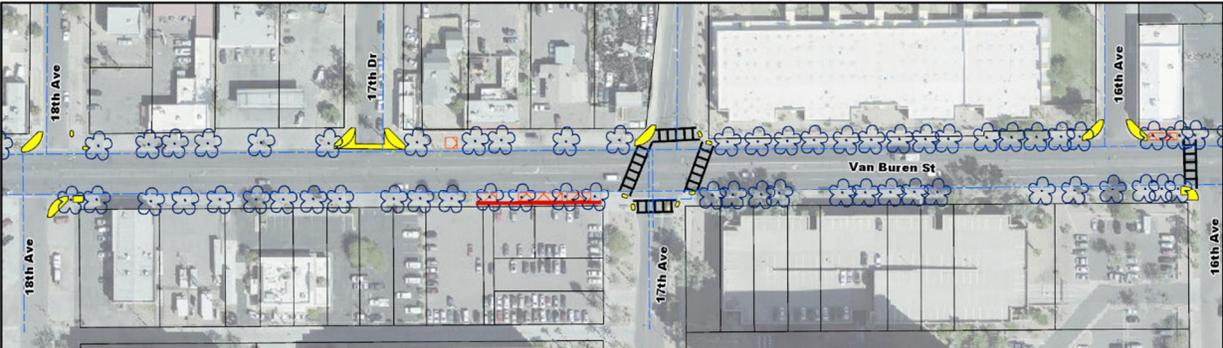
- *Power Lines west of 19th Avenue* – There are existing overhead power lines on the north side of Van Buren Street, west of 19th Avenue, that preclude the planting of shade trees in the existing landscape strip, but it is recommended to plant shrubs instead.
- *20-inch Waterline east of 19th Avenue* – There is an existing 20-inch waterline on the south side of Van Buren Street that may preclude the planting of shade trees. There are very few water valves to determine its exact position, but east of 17th Avenue it appears that it may get too close to the existing landscape strip to plant trees. The cost estimate is based on the assumption that all of the trees on the south side of the street will require root barriers; but some of them may not be able to be planted if they cannot be planted at least 6 feet away from the waterline.
- *Overhead Street Light Power Lines east of 19th Avenue* – The street lights on both sides of Van Buren Street are fed overhead. Therefore, the new trees will have to be a smaller variety that won't interfere with the power lines.

Budgetary Cost Estimate:

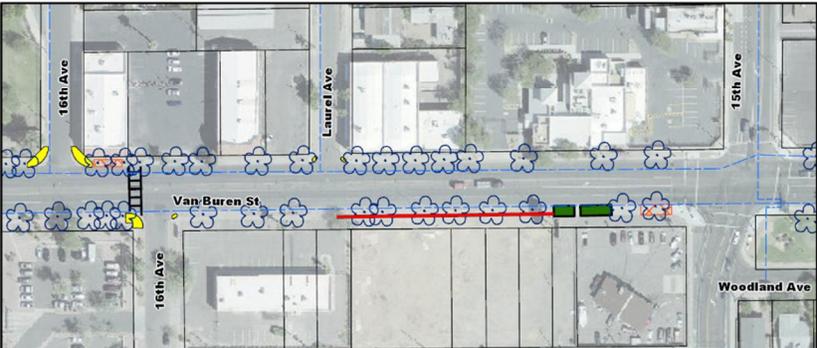
Construction Cost	\$491,000
Design, Construction Administration & Other Fees	\$319,000
Right-of-Way Acquisition	\$0
TOTAL	\$810,000



Van Buren St - 20th Ave to 18th Ave



Van Buren St - 18th Ave to 16th Ave



Van Buren St - 16th Ave to 15th Ave

LEGEND

-  New Streetlight
-  New Sidewalk
-  New Shade Tree and Landscaping
-  New Valley Gutter
-  New Sidewalk Ramp
-  Exist. Sewer Line
-  Exist. Water Line
-  Rebuild Driveway
-  Remove Driveway
-  New Truncated Domes
-  New ADA Retrofit Driveway
-  New High Visibility Crosswalk
-  New Ped Push Button Pole

Exhibit 3: Van Buren St Ped. Improvements (20th Ave – 15th Ave)

Budgetary Cost Estimate: Van Buren St (20th Ave – 15th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	3270	\$6.50	\$21,255.00
2	SIDEWALK RAMPS	EACH	15	\$3,000.00	\$45,000.00
3	TRUNCATED DOMES	EACH	13	\$600.00	\$7,800.00
4	VALLEY GUTTER	EACH	1	\$5,000.00	\$5,000.00
5	REBUILT DRIVEWAYS	EACH	3	\$4,500.00	\$13,500.00
6	ADA RETROFIT DRIVEWAYS	EACH	2	\$2,500.00	\$5,000.00
7	REPLACE DRIVEWAY W/CURB, GUTTER & SIDEWALK	EACH	8	\$2,500.00	\$20,000.00
8	SHADE TREES	EACH	94	\$400.00	\$37,600.00
9	STREET LIGHT	EACH	1	\$5,000.00	\$5,000.00
10	PEDESTRIAN PUSH BUTTON POLE	EACH	2	\$5,000.00	\$10,000.00
11	HIGH VISIBILITY CROSSWALKS (LADDER)	EACH	9	\$2,000.00	\$18,000.00
12	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$60,000.00	\$60,000.00
13	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	22000	\$6.00	\$132,000.00

Subtotal Construction \$380,155.00

Traffic Control/Police Officer (4%) \$15,206.20

Allowance for Extra Work (5%) \$19,007.75

Contingency (20%) \$76,031.00

Total Construction \$490,399.95

Design Phase (27%) \$132,407.99

Streetlighting Fee (2%) \$9,808.00

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Construction Administration (30%) \$147,119.99

GRAND TOTAL \$809,735.92

D) VAN BUREN ST PED. IMPROVEMENTS (15TH AVE – 7TH AVE) ADA IMPROVEMENTS & SHADE TREES

Project Location: Van Buren Street, 15th Avenue to 7th Avenue

Project Description:

- Remove 1 existing driveway that is not being used and replace with curb, gutter and sidewalk.
- Install 9 new sidewalk ramps to replace existing, non-compliant ramps.
- Rebuild 1 existing, non-standard driveway.
- Plant 74 new shade trees in the existing landscape strip between the roadway curb and the sidewalk. Also include new irrigation, shrubs and decomposed granite ground cover.

Project Benefits: The proposed improvements will provide shaded walkways on both sides of Van Buren Street between 15th Avenue and 7th Avenue; enhancing the pedestrian experience. It will also eliminate non-compliant driveways and sidewalk ramps.

Key Destinations: Access to the Van Buren Street and Grand Avenue businesses and the Van Buren Street and 15th Avenue bus stops.

Project Constraints: There are overhead power lines and sewer lines that will restrict the planting of shade trees. Shade trees cannot be planted any closer than 10 feet from existing sewer lines; unless they include a root barrier which will allow them to be planted as close as 6 feet. Large shade trees are not allowed under overhead power lines.

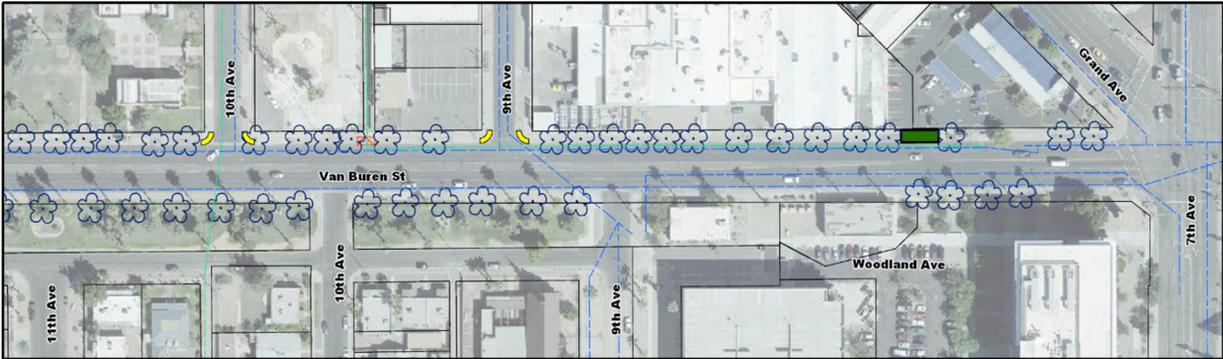
- *8-inch Sewer Line between 10th Avenue and 7th Avenue* – There is an 8-inch sewer line located near the north curb on Van Buren Street between 10th Avenue and 7th Avenue that will restrict shade trees in the existing landscape strip, but it is recommended to plant shrubs instead.
- *Power Lines between 10th Avenue and 9th Avenue* – There are existing overhead power lines on the north side Van Buren Street between 10th and 9th Avenue that will require the planting of a smaller variety shade tree in the existing landscape strip.
- *Overhead Street Light Power Lines between 15th and 7th Avenues* – The street lights on both sides of Van Buren Street are fed overhead. Therefore, the new trees will have to be a smaller variety that won't interfere with the power lines.

Budgetary Cost Estimate:

Construction Cost	\$256,000
Design, Construction Administration & Other Fees	\$166,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$422,000



Van Buren St - 15th Ave to 11th Ave



Van Buren St - 11th Ave to Grand Ave

LEGEND

- New Curb
- ☼ New Shade Tree and Landscaping
- ☐ New Sidewalk Ramp
- ☐ Rebuild Driveway
- ☒ Remove Driveway
- Exist. Sewer Line
- Exist. Water Line

Exhibit 4: Van Buren St Ped. Improvements (15th Ave – 7th Ave)

Budgetary Cost Estimate: Van Buren St (15th Ave – 7th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK RAMPS	EACH	9	\$3,000.00	\$27,000.00
2	REBUILT DRIVEWAYS	EACH	1	\$4,500.00	\$4,500.00
3	REPLACE DRIVEWAY W/CURB, GUTTER & SIDEWALK	EACH	1	\$2,500.00	\$2,500.00
4	CURB AND GUTTER	LF	110	\$40.00	\$4,400.00
5	SHADE TREES	EACH	75	\$400.00	\$30,000.00
6	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$30,000.00	\$30,000.00
7	NEW AC PAVEMENT	SY	50	\$80.00	\$4,000.00
8	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	16000	\$6.00	\$96,000.00

Subtotal Construction \$198,400.00

Traffic Control/Police Officer (4%) \$7,936.00

Allowance for Extra Work (5%) \$9,920.00

Contingency (20%) \$39,680.00

Total Construction \$255,936.00

Design Phase (27%) \$69,102.72

Procurement and PIO \$20,000.00

Construction Administration (30%) \$76,780.80

GRAND TOTAL \$421,819.52

E) JEFFERSON ST PED. IMPROVEMENTS (20TH AVE – 7TH AVE)
ADA IMPROVEMENTS, TRAFFIC SIGNAL UPGRADES, STREET LIGHTS & SHADE TREES

Project Location: Jefferson Street, 20th Avenue to 7th Avenue

Project Description:

- Install 5 new sidewalk ramps to replace existing, non-compliant ramps.
- Retrofit 20 existing sidewalk ramps with a detectable warning surface.
- Rebuild 3 existing, non-standard driveways.
- Remove one driveway that is not being used and replace it with curb, gutter and sidewalk.
- Construct 4 new driveways west of 19th Avenue for homes that are missing driveways.
- Install pedestrian push buttons at the 19th, 17th, 16th, and 15th Avenue intersections; including 3 new pedestrian push 13 button poles.
- Install high visibility crosswalks at 19th Avenue.
- Plant 120 new shade trees in the existing landscape strip between the roadway curb and the sidewalk. Also include new irrigation, shrubs and decomposed granite ground cover.

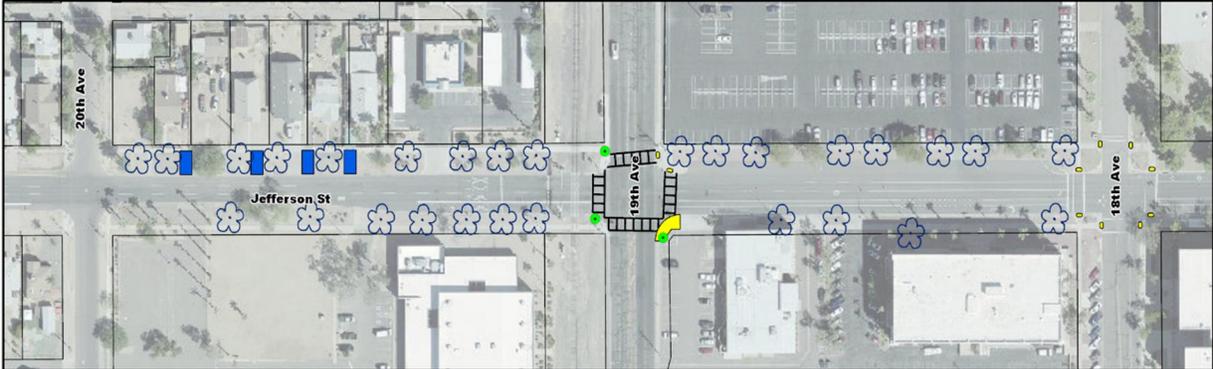
Project Benefits: The proposed improvements will provide shaded walkways along Jefferson Street between 20th Avenue and 7th Avenue; enhancing the pedestrian experience. It will also eliminate non-compliant driveways and sidewalk ramps and upgrade traffic signals to provide pedestrian push buttons.

Key Destinations: Access to the 19th Avenue and 15th Avenue bus stops and the State government office buildings.

Project Constraints: There are overhead power lines for the existing street lights on both sides of Jefferson Street that will restrict the planting of shade trees. Therefore, the new trees will have to be a smaller variety that won't interfere with the power lines.

Budgetary Cost Estimate:

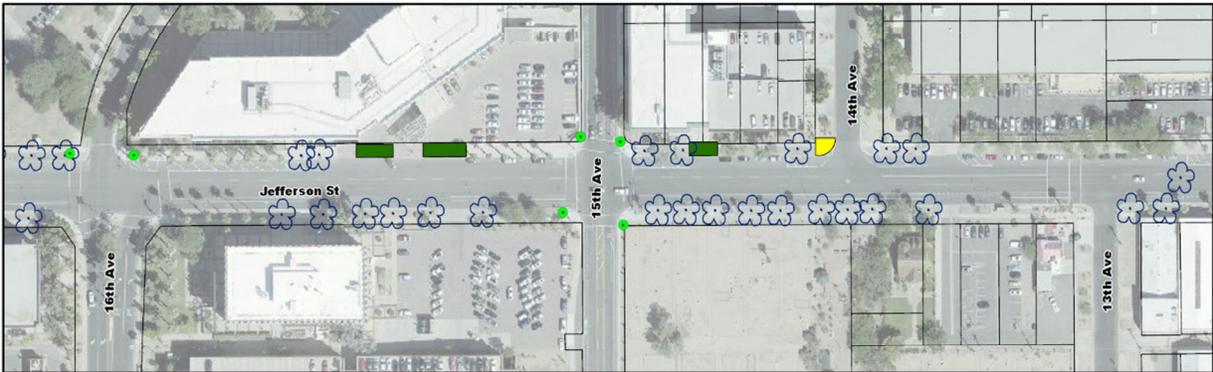
Construction Cost	\$631,000
Design, Construction Administration & Other Fees	\$402,000
Right-of-Way Acquisition	\$0
TOTAL	\$1,033,000



Jefferson St - 20th Ave to 18th Ave



Jefferson St - 18th Ave to 16th Ave

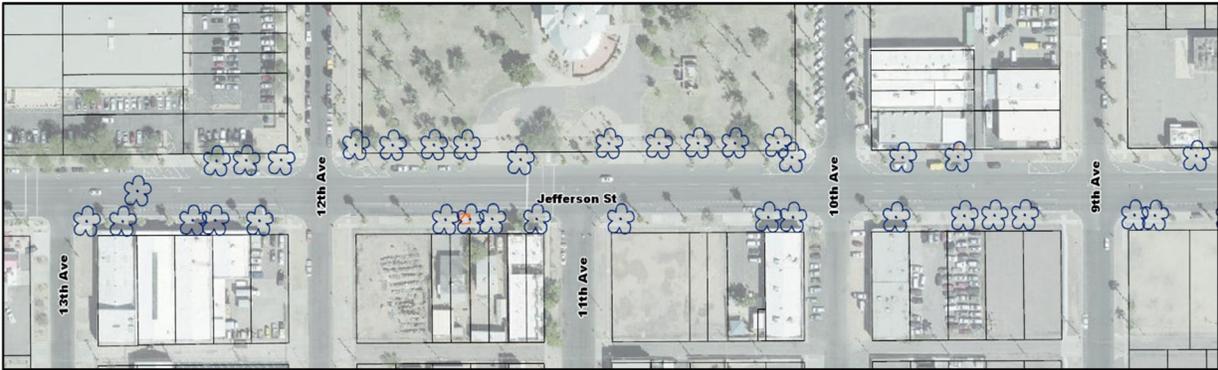


Jefferson St - 16th Ave to 13th Ave

LEGEND

-  New Streetlight
-  New Ped Push Button Pole
-  New Shade Tree and Landscaping
-  New Sidewalk Ramp
-  Rebuild Driveway
-  New Driveway
-  New Truncated Domes
-  New High Visibility Crosswalk

Exhibit 5A: Jefferson St Ped. Improvements (20th Ave – 7th Ave)



Jefferson St - 13th Ave to 9th Ave



Jefferson St - 9th Ave to 7th Ave

LEGEND

-  New Shade Tree and Landscaping
-  Remove Driveway
-  New Truncated Domes

Exhibit 5B: Jefferson St Ped. Improvements (20th Ave – 7th Ave)

Budgetary Cost Estimate: Jefferson St (20th Ave – 7th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK RAMPS	EACH	5	\$3,000.00	\$15,000.00
2	TRUNCATED DOMES	EACH	20	\$600.00	\$12,000.00
3	NEW DRIVEWAYS	EACH	4	\$5,000.00	\$20,000.00
4	REBUILT DRIVEWAYS	EACH	3	\$4,500.00	\$13,500.00
5	REPLACE DRIVEWAY W/CURB, GUTTER & SIDEWALK	EACH	1	\$2,500.00	\$2,500.00
6	SHADE TREES	EACH	120	\$400.00	\$48,000.00
7	STREET LIGHT	EACH	1	\$5,000.00	\$5,000.00
8	PEDESTRIAN PUSH BUTTON POLE	EACH	11	\$5,000.00	\$55,000.00
9	HIGH VISIBILITY CROSSWALKS (LADDER)	EACH	4	\$2,000.00	\$8,000.00
10	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$70,000.00	\$70,000.00
11	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	40000	\$6.00	\$240,000.00

Subtotal Construction \$489,000.00

Traffic Control/Police Officer (4%) \$19,560.00

Allowance for Extra Work (5%) \$24,450.00

Contingency (20%) \$97,800.00

Total Construction \$630,810.00

Design Phase (27%) \$170,318.70

Streetlighting Fee (2%) \$12,616.20

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Construction Administration (30%) \$189,243.00

GRAND TOTAL \$1,032,987.90

F) ADAMS ST PED. IMPROVEMENTS (20TH AVE – 19TH AVE)
ADA IMPROVEMENTS, TRAFFIC SIGNAL UPGRADES & SHADE TREES

Project Location: Adams Street, 20th Avenue to 19th Avenue

Project Description:

- Install 12 new sidewalk ramps to replace existing, non-compliant ramps.
- Rebuild 1 existing, non-standard driveway and construct 2 new driveways.
- Install pedestrian push buttons at the 19th Avenue intersection; including 3 new pedestrian push button poles.
- Install high-visibility crosswalks at the intersection with 19th Avenue.
- Plant 18 new shade trees in the existing landscape strip between the roadway curb and the sidewalk. Also include new irrigation, shrubs and decomposed granite ground cover.

Project Benefits: The proposed improvements will provide a shaded walkway along Adams Street between 20th Avenue and 19th Avenue; enhancing the pedestrian experience. It will also eliminate non-compliant driveways and sidewalk ramps and upgrade traffic signals to provide pedestrian push buttons.

Key Destinations: Access to the 19th Avenue bus stops and the State government office buildings.

Project Constraints: There are overhead power lines for the existing street lights on both sides of Adams Street that will restrict the planting of shade trees. Therefore, the new trees will have to be a smaller variety that won't interfere with the power lines.

Budgetary Cost Estimate:

Construction Cost	\$259,000
Design, Construction Administration & Other Fees	\$168,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$427,000



LEGEND

- New Sidewalk
- New Sidewalk Ramp
- New Curb
- Rebuild Driveway
- New Ped Push Button Pole
- New Driveway
- ☼ New Shade Tree and Landscaping
- ▤ New High Visibility Crosswalk

Exhibit 6: Adams St Ped. Improvements (20th Ave – 19th Ave)

Budgetary Cost Estimate: Adams St (20th Ave – 19th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	60	\$6.50	\$390.00
2	SIDEWALK RAMPS	EACH	12	\$3,000.00	\$36,000.00
3	NEW DRIVEWAYS	EACH	2	\$5,000.00	\$10,000.00
4	REBUILT DRIVEWAYS	EACH	1	\$4,500.00	\$4,500.00
5	CURB AND GUTTER	LF	255	\$40.00	\$10,200.00
6	SHADE TREES	EACH	18	\$400.00	\$7,200.00
7	PEDESTRIAN PUSH BUTTON POLE	EACH	3	\$5,000.00	\$15,000.00
8	HIGH VISIBILITY CROSSWALKS (LADDER)	EACH	4	\$2,000.00	\$8,000.00
9	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$28,000.00	\$28,000.00
10	NEW AC PAVEMENT	SY	120	\$80.00	\$9,600.00
11	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	12000	\$6.00	\$72,000.00

Subtotal Construction \$200,890.00

Traffic Control/Police Officer (4%) \$8,035.60

Allowance for Extra Work (5%) \$10,044.50

Contingency (20%) \$40,178.00

Total Construction \$259,148.10

Design Phase (27%) \$69,969.99

Procurement and PIO \$20,000.00

Construction Administration (30%) \$77,744.43

GRAND TOTAL \$426,862.52

G) 15TH AVE PED. IMPROVEMENTS (VAN BUREN ST – ROOSEVELT ST)
ADA IMPROVEMENTS, TRAFFIC SIGNAL UPGRADES & SHADE TREES

Project Location: 15th Avenue, Van Buren St. to Roosevelt St.

Project Description:

- Retrofit 8 existing, non-standard driveways.
- Remove 2 existing driveways that are not being used and replace with curb, gutter and sidewalk.
- Install 17 new sidewalk ramps to replace existing, non-ADA compliant ramps.
- Rebuild 12 existing, non-standard driveways.
- Relocate the entry door for Busters Market to Fillmore Street and reconstruct the sidewalks sidewalk ramps at the northeast corner of 15th Avenue and Fillmore Street to make the area accessible and provide more space for the Market's customers to enter and exit the building.
- Install pedestrian push buttons at the Grand Avenue intersection; including 6 new pedestrian push button poles.
- Install high-visibility crosswalks at the intersection with Van Buren Street.
- Plant 37 new shade trees in the existing landscape strip between the roadway curb and the sidewalk. Also include new irrigation, shrubs and decomposed granite ground cover.

Project Benefits: The proposed improvements will provide a shaded walkway along the west side of 15th Avenue; enhancing the pedestrian experience. It will also eliminate non-compliant driveways and sidewalk ramps and upgrade traffic signals to provide pedestrian push buttons.

Key Destinations: Access to the Van Buren Street businesses and the Van Buren Street and 15th Avenue bus stops.

Project Constraints: There are overhead power lines that will restrict the planting of shade trees in the existing landscape strip on the west side of 15th Avenue and the entry door for Busters Market at Fillmore Street is too close to the sidewalk. In addition, there may not be adequate right-of-way on the east side of the road to construct new accessible driveways.

- *Power Lines west side of 15th Avenue* – There are existing overhead power lines on the west side of 19th Avenue, that preclude the planting of large shade trees in the existing landscape strip, but small shade trees may be able to be planted that won't get taller than the lowest hanging power lines.

- Busters Market* – The entry door to Busters Market is located immediately behind the sidewalk and is above the street curb, creating an accessibility issue on the 15th Avenue sidewalk. It is recommended to obtain permission from the marker owner to relocate their entry door to the south side of their building along Fillmore Street where there is more room to have the sidewalk ramp up to the entry door and keep the public sidewalk accessible. The budgetary cost estimate for this project includes the cost to relocate the entry door to the market.



- Right-of-Way* – There may not be enough right-of-way to construct new, accessible driveways on the east side of the road, therefore the budgetary cost estimate includes the cost to acquire new R/W at each new or retrofitted driveway entrance.

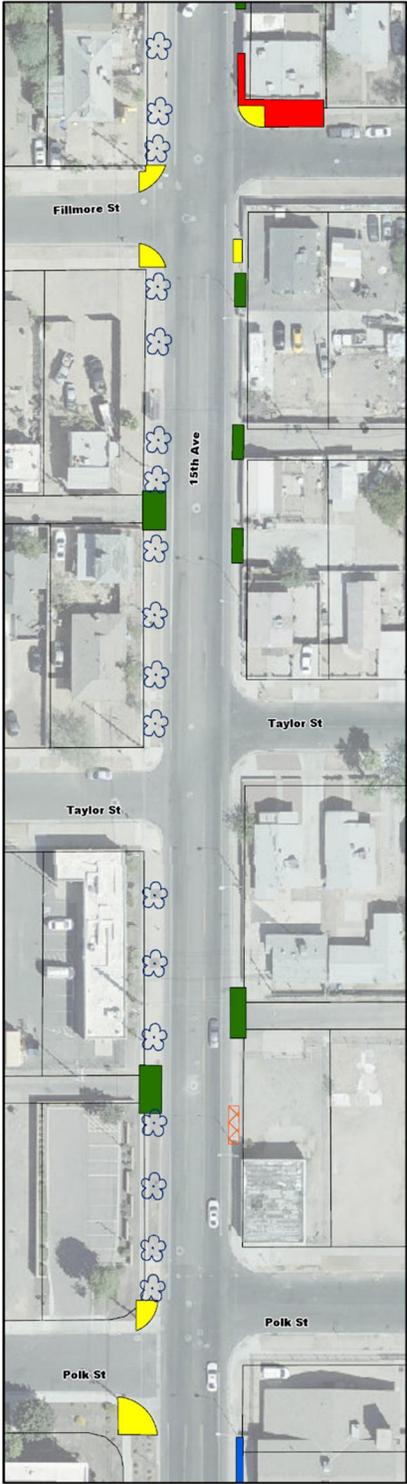
Budgetary Cost Estimate:

Construction Cost	\$376,000
Design, Construction Administration & Other Fees	\$234,000
Cost to Relocate Entry Door @ Busters Market	\$25,000
Right-of-Way Acquisition	<u>\$12,000</u>
TOTAL	\$647,000

- LEGEND**
- New Sidewalk
 -  New Shade Tree and Landscaping
 - New Sidewalk Ramp
 - Rebuild Driveway
 - New ADA Retrofit Driveway
 - Remove Driveway



15th Ave
Van Buren St to Polk St



15th Ave
Polk St to Fillmore St

Exhibit 7A: 15th Ave Ped. Improvements (Van Buren St – Roosevelt St)



Exhibit 7B: 15th Ave Ped. Improvements (Van Buren St – Roosevelt St)

Budgetary Cost Estimate: 15th Ave (Van Buren St – Roosevelt St)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	710	\$6.50	\$4,615.00
2	SIDEWALK RAMPS	EACH	17	\$3,000.00	\$51,000.00
3	BUS SHELTER PAD	EACH	1	\$6,000.00	\$6,000.00
4	REBUILT DRIVEWAYS	EACH	12	\$4,500.00	\$54,000.00
5	ADA RETROFIT DRIVEWAYS	EACH	8	\$2,500.00	\$20,000.00
6	REPLACE DRIVEWAY W/CURB, GUTTER & SIDEWALK	EACH	2	\$2,500.00	\$5,000.00
7	SHADE TREES	EACH	37	\$400.00	\$14,800.00
8	PEDESTRIAN PUSH BUTTON POLE	EACH	6	\$5,000.00	\$30,000.00
9	PEDESTRIAN PUSH BUTTONS	EACH	12	\$400.00	\$4,800.00
10	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$50,000.00	\$50,000.00
11	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	8500	\$6.00	\$51,000.00

Subtotal Construction \$291,215.00

Traffic Control/Police Officer (4%) \$11,648.60

Allowance for Extra Work (5%) \$14,560.75

Contingency (20%) \$58,243.00

Total Construction \$375,667.35

Design Phase (27%) \$101,430.18

Procurement and PIO \$20,000.00

Cost To Relocate Entry Door @ Busters Market= \$25,000.00

Right-of-Way For East Side Driveways 1200S.F. @ \$10.00= \$12,000.00

Construction Administration (30%) \$112,700.21

GRAND TOTAL \$646,797.74

H) ROOSEVELT ST PED. IMPROVEMENTS (19TH AVE – 11TH AVE)
ADA IMPROVEMENTS, TRAFFIC SIGNAL UPGRADES & SHADE TREES

Project Location: Roosevelt Street, 19th Avenue to 11th Avenue

Project Description:

- Install 31 new sidewalk ramps to replace existing, non-compliant ramps.
- Rebuild 12 existing, non-standard driveways.
- Remove 5 driveways that are not being used and replace with curb, gutter and sidewalk.
- Plant 45 new shade trees in the existing landscape strip on both sides of the roadway between 17th Avenue and 11th Avenue. Also include new irrigation, shrubs and decomposed granite ground cover.
- Install pedestrian push buttons at the Grand Avenue intersection; including 6 new pedestrian push button poles.

Project Benefits: The proposed improvements will eliminate non-compliant driveways and sidewalk ramps, add shade trees and landscaping, and upgrade traffic signals to provide pedestrian push buttons.

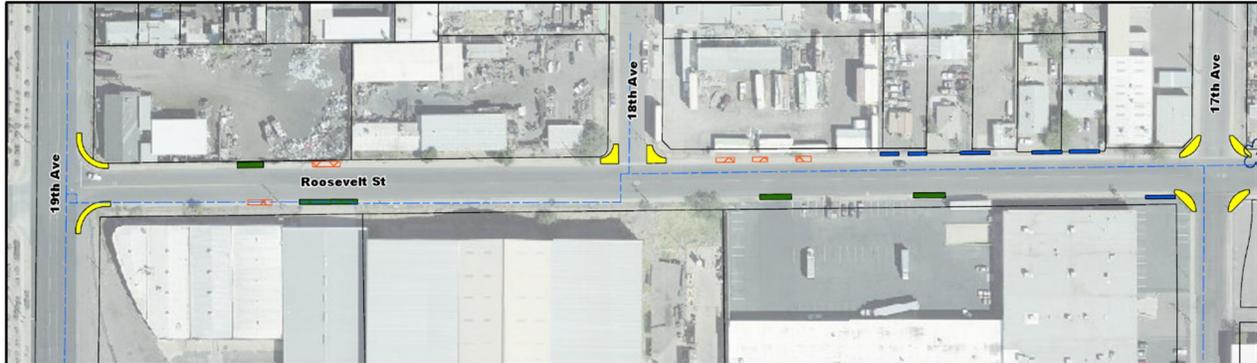
Key Destinations: Grand Avenue businesses and access to the 19th Avenue and 15th Avenue bus stops.

Project Constraints:

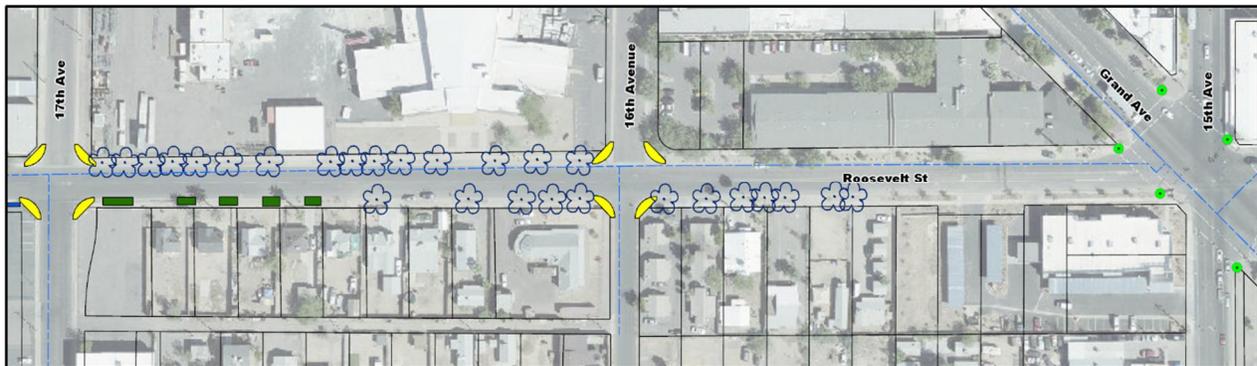
1. There are existing overhead power lines that will restrict the size of the shade trees. The power lines are on the north side of the road west of 15th Avenue and move to the south side east of 15th Avenue.
2. There is an existing waterline on the north side of the road between 12th Avenue and 11th Avenue that will preclude the planting of shade trees, but the landscape strip can be landscaped with shrubs.

Budgetary Cost Estimate:

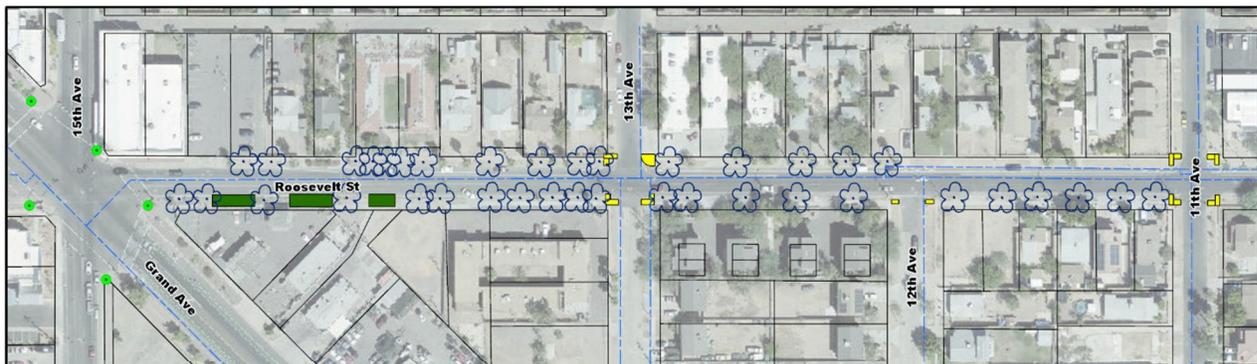
Construction Cost	\$434,000
Design, Construction Administration & Other Fees	\$268,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$702,000



Roosevelt St - 19th Ave to 17th Ave



Roosevelt St - 17th Ave to 15th Ave



Roosevelt St - 15th Ave to 11th Ave

LEGEND

- | | |
|--|---|
|  Remove Driveway |  New Sidewalk Ramp |
|  New ADA Retrofit Driveway |  Rebuild Driveway |
|  New Ped Push Button Pole |  Exist. Sewer Line |
|  New Shade Tree and Landscaping |  Exist. Water Line |

Exhibit 8: Roosevelt St Ped. Improvements (19th Ave – 11th Ave)

Budgetary Cost Estimate: Roosevelt St (19th Ave – 11th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK RAMPS	EACH	31	\$3,000.00	\$93,000.00
2	REBUILT DRIVEWAYS	EACH	12	\$4,500.00	\$54,000.00
3	ADA RETROFIT DRIVEWAYS	EACH	6	\$2,500.00	\$15,000.00
4	REPLACE DRIVEWAY W/CURB, GUTTER & SIDEWALK	EACH	5	\$2,500.00	\$12,500.00
5	SHADE TREES	EACH	65	\$400.00	\$26,000.00
6	PEDESTRIAN PUSH BUTTON POLE	EACH	6	\$5,000.00	\$30,000.00
7	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$40,000.00	\$40,000.00
8	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	11000	\$6.00	\$66,000.00

Subtotal Construction \$336,500.00

Traffic Control/Police Officer (4%) \$13,460.00

Allowance for Extra Work (5%) \$16,825.00

Contingency (20%) \$67,300.00

Total Construction \$434,085.00

Design Phase (27%) \$117,202.95

Procurement and PIO \$20,000.00

Construction Administration (30%) \$130,225.50

GRAND TOTAL \$701,513.45

I) POLK ST PED. IMPROVEMENTS (19TH AVE – 15TH AVE) SIDEWALKS, ADA IMPROVEMENTS & STREET LIGHTS

Project Location: Polk Street from 19th Avenue to 15th Avenue

Project Description:

- Construct 1,700 L.F. of new sidewalks to fill gaps on both sides of the street between 19th Avenue and 17th Avenue.
- Replace 22 existing, non-compliant driveway entrances on the north side of the street between 17th Avenue and 15th Avenue. The existing driveways have a very narrow level sidewalk area at the back of the driveway entrance that is less than 3 feet wide which doesn't meet current ADA design guidance.
- Construct 2 new mid-block sidewalk ramps, one on each side of the street, approximately 300 feet west of 15th Avenue. The new sidewalk ramps will enable pedestrians on the south side of the street to safely cross to the north side; enabling them to avoid the area between 16th Avenue and Laurel Avenue where there is no sidewalk on the south side of the street. The existing right-of-way is too narrow to add sidewalks in this location and acquiring the necessary right-of-way would encroach too much on the side yards of the existing homes.
- Install 5 new street lights between 19th Avenue and 15th Avenue to fill gaps in the existing street light coverage.

Project Benefits: The proposed improvements will eliminate gaps in the sidewalks, fix existing non-accessible driveways and fill gaps in the current street light coverage. The ADA improvements to the existing driveways is particularly important because they are in the roadway segment between 16th Avenue and Laurel Avenue where there is no sidewalk on the south side of the street. Therefore, the north side of the street provides the only accessible route.

Key Destinations: 19th Avenue bus route, Capitol Elementary School, University Park, 15th Avenue bus route and Grand Avenue commercial district.

Project Constraints: As described above, the existing Polk Street right-of-way between 16th Avenue and Laurel Lane is too narrow to construct sidewalks on the south side of the street. Three homes would have to be acquired to create the necessary right-of-way to construct the sidewalks and therefore, it is recommended to allow this 450-foot long segment of street to remain without sidewalks on its south side.

Budgetary Cost Estimate:

Construction Cost	\$277,000
Design, Construction Administration & Other Fees	\$193,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$470,000



Polk St - 19th Ave to 17th Ave



Polk St - 17th Ave to 15th Ave

LEGEND

- ◆ New Streetlight
- New Sidewalk
- New Sidewalk Ramp
- Rebuild Driveway

Exhibit 9: Polk St Ped. Improvements (19th Ave – 15th Ave)

Budgetary Cost Estimate: Polk St (19th Ave – 15th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	6860	\$6.50	\$44,590.00
2	SIDEWALK RAMPS	EACH	2	\$3,000.00	\$6,000.00
3	REBUILT DRIVEWAYS	EACH	22	\$4,500.00	\$99,000.00
4	STREET LIGHT	EACH	5	\$5,000.00	\$25,000.00
5	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$40,000.00	\$40,000.00

Subtotal Construction \$214,590.00

Traffic Control/Police Officer (4%) \$8,583.60

Allowance for Extra Work (5%) \$10,729.50

Contingency (20%) \$42,918.00

Total Construction \$276,821.10

Design Phase (27%) \$74,741.70

Streetlighting Fee (2%) \$5,536.42

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Construction Administration (30%) \$83,046.33

GRAND TOTAL \$470,145.55

J) MADISON ST PED. IMPROVEMENTS (20TH AVE – 15TH AVE)
ADA IMPROVEMENTS & STREET LIGHTS

Project Location: Madison Street from 20th Avenue to 15th Avenue

Project Description:

- Retrofit 8 existing, non-compliant driveways with a level sidewalk area behind the driveway.
- Construct 12 new sidewalk ramps.
- Replace 3 existing, non-compliant driveway entrances on the north side of the street.
- Retrofit 12 sidewalk ramps with detectable warning surfaces.
- Install 5 new street lights to fill gaps in the existing street light coverage.

Project Benefits: The proposed improvements will fix existing non-accessible driveways, replace non-standard sidewalk ramps, provide new ramps where they are missing and fill gaps in the street light coverage.

Key Destinations: 19th Avenue bus route and State government offices.

Project Constraints: None.

Budgetary Cost Estimate:

Construction Cost	\$160,000
Design, Construction Administration & Other Fees	\$125,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$285,000



Madison St - 20th Ave to 18th Ave



Madison St - 18th Ave to 16th Ave



Madison St - 16th Ave to 15th Ave

LEGEND

-  New Streetlight
-  New Sidewalk Ramp
-  New Sidewalk
-  Rebuild Driveway
-  New ADA Retrofit Driveway
-  New Truncated Domes

Exhibit 10: Madison St Ped. Improvements (20th Ave – 15th Ave)

Budgetary Cost Estimate: Madison St (20th Ave – 15th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	60	\$6.50	\$390.00
2	SIDEWALK RAMPS	EACH	12	\$3,000.00	\$36,000.00
3	TRUNCATED DOMES	EACH	12	\$600.00	\$7,200.00
4	REBUILT DRIVEWAYS	EACH	3	\$4,500.00	\$13,500.00
5	ADA RETROFIT DRIVEWAYS	EACH	8	\$2,500.00	\$20,000.00
6	STREET LIGHT	EACH	5	\$5,000.00	\$25,000.00
7	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$22,000.00	\$22,000.00

Subtotal Construction \$124,090.00

Traffic Control/Police Officer (4%) \$4,963.60

Allowance for Extra Work (5%) \$6,204.50

Contingency (20%) \$24,818.00

Total Construction \$160,076.10

Design Phase (27%) \$43,220.55

Streetlighting Fee (2%) \$3,201.52

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Construction Administration (30%) \$48,022.83

GRAND TOTAL \$284,521.00

K) MADISON ST PED. IMPROVEMENTS (15TH AVE – 7TH AVE)
SIDEWALKS, ADA IMPROVEMENTS, STREET LIGHTS & SHADE TREES

Project Location: Madison Street from 15th Avenue to 7th Avenue

Project Description:

- Install 1700 LF of new sidewalks to fill gaps in the existing sidewalk system and to realign sidewalks to allow planting of shade trees.
- Install 72 new shade trees on both sides of Madison Street between 15th Avenue and 9th Avenue which will provide a shaded walkway through the Pioneer and Military Memorial Park and will provide shade for people waiting for services at Central Arizona Shelter Services.
- Construct 27 new sidewalk ramps to where ramps are missing and where the existing ramps do not meet ADA standards.
- Retrofit 3 sidewalk ramps with detectable warning surfaces.
- Install 1 new street light to fill a gap in the existing street light coverage; just east of 15th Avenue.

Project Benefits: The proposed improvements will fill gaps in the sidewalk system, provide shaded sidewalks, replace non-standard sidewalk ramps, provide new ramps where they are either missing or are non-compliant with ADA standards, and fill a gap in the street light coverage.

Key Destinations: Pioneer and Military Memorial Park and Central Arizona Shelter Services.

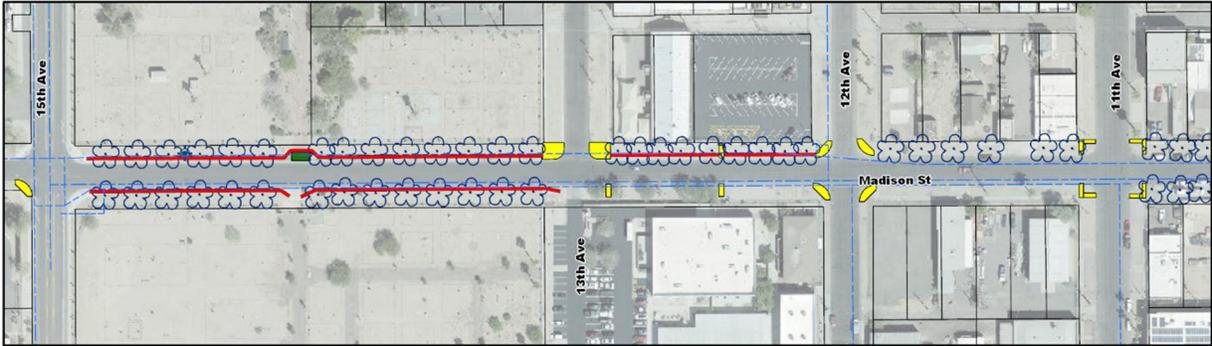
Project Constraints:

- Waterlines between 15th Avenue and 13th Avenue (through the Pioneer and Military memorial Park) – There are existing waterlines on both sides of the street located near the back of curb which restrict the planting of shade trees (trees have to be planted at least 10 away from existing waterlines). But since there is approximately 15 feet of ROW behind the curb, there is an opportunity to construct the new sidewalks at the back of curb and plant the trees behind the sidewalk nearer the ROW line. These trees may require root barriers so they can be planted as close as 6 feet from the waterlines.
- Waterlines between 13th Avenue and 11th Avenue – There are existing waterlines on both sides of the street located near the back of curb that will preclude the planting of shade trees on the south side of the street. But on the north there appears to be an opportunity to construct new sidewalks at the back of curb and

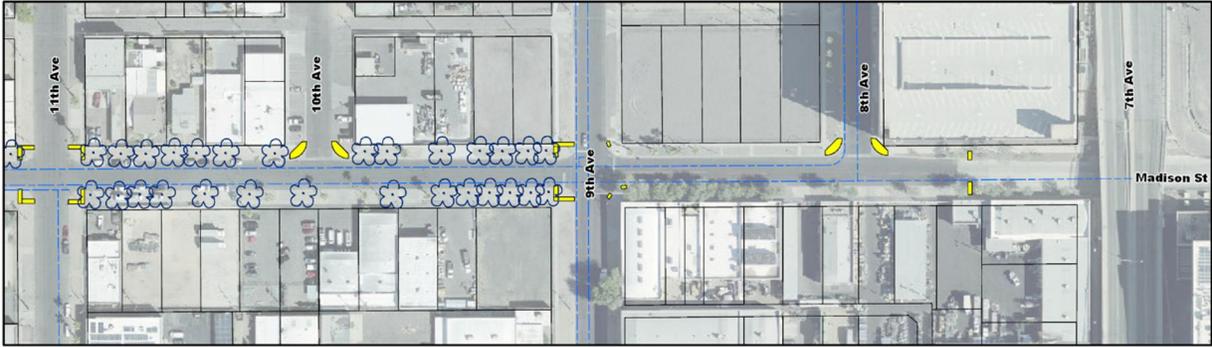
plant the trees behind the sidewalk nearer the ROW line. These trees may require root barriers so the they can be planted as close as 6 feet from the waterlines.

Budgetary Cost Estimate:

Construction Cost	\$583,000
Design, Construction Administration & Other Fees	\$374,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$957,000



Madison St - 15th Ave to 11th Ave



Madison St - 11th Ave to 7th Ave

LEGEND

-  New Streetlight
-  New Sidewalk
-  New Shade Tree and Landscaping
-  New Sidewalk Ramp
-  Rebuild Driveway
-  New Truncated Domes
-  Exist. Sewer Line
-  Exist. Water Line

Exhibit 11: Madison St Ped. Improvements (15th Ave – 7th Ave)

Budgetary Cost Estimate: Madison St (15th Ave – 7th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	8670	\$6.50	\$56,355.00
2	SIDEWALK RAMPS	EACH	27	\$3,000.00	\$81,000.00
3	TRUNCATED DOMES	EACH	3	\$600.00	\$1,800.00
4	REBUILT DRIVEWAYS	EACH	1	\$4,500.00	\$4,500.00
5	SHADE TREES	EACH	71	\$400.00	\$28,400.00
6	STREET LIGHT	EACH	1	\$5,000.00	\$5,000.00
7	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$65,000.00	\$65,000.00
8	LANDSCAPING (D.G., SHRUBS & IRRIGATION)	SF	35000	\$6.00	\$210,000.00

Subtotal Construction \$452,055.00

Traffic Control/Police Officer (4%) \$18,082.20

Allowance for Extra Work (5%) \$22,602.75

Contingency (20%) \$90,411.00

Total Construction \$583,150.95

Design Phase (27%) \$157,450.76

Streetlighting Fee (2%) \$11,663.02

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Construction Administration (30%) \$174,945.29

GRAND TOTAL \$957,210.01

L) 16TH AVE PED. IMPROVEMENTS (POLK ST – ROOSEVELT ST)

SIDEWALKS, ADA IMPROVEMENTS, HALF STREET IMPROVEMENTS & STREET LIGHTS

Project Location: 16th Avenue, Polk Street to Roosevelt Street and Garfield Street, 17th Avenue to 16th Avenue

Project Description:

- Construct 1,800 L.F. of new sidewalks to fill gaps on both sides of 16th Avenue and on both sides of Garfield Street.
- Construct 600 L.F. of new curb and gutter to fill a gap in the existing safety curb along the east side of 16th Avenue between McKinley Street and Roosevelt Street. There is not enough space on the east side of the street to construct the sidewalk; only the new curb and gutter. In order to provide a street width of 24 feet, the new curb and gutter will require about 3 feet of right-of-way from the 4 existing lots along the east side of the street. Ramps will be provided to allow pedestrians on the east side of the street to move to the west side in this segment between McKinley and Roosevelt Streets.
- Replace 3 existing, non-compliant driveway entrances along Garfield Street with roll curb and thickened sidewalk to match the rest of the driveways along Garfield Street.
- Install 3 new driveway entrances along 16th Avenue to replace existing, non-compliant driveways and to add a driveway
- Retrofit 9 existing, non-compliant driveways along 16th Avenue with a level sidewalk area behind the driveway. At the alley entrance south of Garfield Street the new sidewalk will have to avoid conflict with a large steel power pole which will require the acquisition of the new right-of-way on both sides of the alley to create enough space to construct the sidewalk.
- Construct 10 new sidewalk ramps.
- Install 5 new street lights, 4 on 16th Avenue and 1 on Garfield Street, to fill gaps in the existing street light coverage.

Project Benefits: The proposed improvements will eliminate the sidewalk gaps, except for the west side of the street between McKinley and Roosevelt, and will complete the roadway curb and gutter, fix existing non-accessible driveways, add sidewalk ramps, and fill gaps in the current street light coverage.

Key Destinations: Van Buren Street bus route, Capitol Elementary School, and Van Buren Street businesses.

Project Constraints:

- Adequate right-of-way does not exist to construct the proposed curb and gutter on the east side of 16th Avenue between McKinley Street and Roosevelt Street. Approximately 3 feet of right-of-way will be required from four separate lots in order for the street to be at least 24 feet wide, curb to curb.
- To avoid conflict with an existing, large steel power pole, new right-of-way will be required to construct the proposed sidewalk at the alley driveway entrance south of Garfield Street.

Budgetary Cost Estimate:

Construction Cost	\$304,000
Design, Construction Administration & Other Fees	\$210,000
Right-of-Way Acquisition	<u>\$16,500</u>
TOTAL	\$530,500



Exhibit 12: 16th Ave Ped. Improvements (Polk St – Roosevelt St)

Budgetary Cost Estimate: 16th Ave (Polk St – Roosevelt St)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	7588	\$6.50	\$49,322.00
2	SIDEWALK RAMPS	EACH	10	\$3,000.00	\$30,000.00
3	REBUILT DRIVEWAYS	EACH	3	\$4,500.00	\$13,500.00
4	ADA RETROFIT DRIVEWAYS	EACH	9	\$2,500.00	\$22,500.00
5	CURB AND GUTTER	LF	670	\$40.00	\$26,800.00
6	ROLL CURB	LF	80	\$30.00	\$2,400.00
7	STREET LIGHT	EACH	5	\$5,000.00	\$25,000.00
8	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$40,000.00	\$40,000.00
9	NEW AC PAVEMENT	SY	330	\$80.00	\$26,400.00

Subtotal Construction \$235,922.00

Traffic Control/Police Officer (4%) \$9,436.88

Allowance for Extra Work (5%) \$11,796.10

Contingency (20%) \$47,184.40

Total Construction \$304,339.38

Design Phase (27%) \$82,171.63

Streetlighting Fee (2%) \$6,086.79

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Right-of-Way Acquisition 1650 S.F. @ \$10.00= \$16,500.00

Construction Administration (30%) \$91,301.81

GRAND TOTAL \$530,399.61

M) FILLMORE ST PED. IMPROVEMENTS (19TH AVE – GRAND AVE)
ADA IMPROVEMENTS, STREET LIGHTS & SHADE TREES

Project Location: Fillmore Street, 19th Avenue to Grand Avenue

Project Description:

- Retrofit 19 existing driveways between 19th Avenue and 16th Avenue with new, level walking surface behind the existing driveway entrance.
- Replace 7 existing, non-compliant driveway entrances between 19th Avenue and 16th Avenue. Most of these replacements are in locations where property owners have built front yard walls immediately behind the existing sidewalk which prevents construction of a walking surface behind the driveway entrance without removing the existing wall. The recommendation is to remove the existing driveway entrance and replace it with roll curb and a 6" thick sidewalk which will allow the existing walls to remain.
- Remove 3 existing driveways that are not being used and replace them with vertical curb, gutter and sidewalk.
- Install 6 new street lights between 19th Avenue and Grand Avenue to fill gaps in the existing street light coverage.
- Plant 58 shade trees in the existing landscape strip between 16th Avenue and Grand Avenue. Since the City does not maintain landscaping on local streets, cooperation will be required with the homeowners for them to maintain the trees that are planted in front of their homes.

Project Benefits: The proposed improvements will eliminate the non-compliant driveways and provide continuous, accessible lighted sidewalks between 19th Avenue and Grand Avenue. The proposed trees between 16th Avenue and Grand Avenue will provide a shaded street for neighborhood residents to walk to the Grand Avenue commercial District and beyond.

Key Destinations: 19th Avenue bus route, 15th Avenue bus route and Grand Avenue commercial district.

Project Constraints:

- As described above, there are several locations where property owners have built front yard walls at the back of the existing sidewalk that encroach into the right-of-way. Even though there is adequate right-of-way to construct a 4-foot wide sidewalk at the back of the existing driveways, it would require removal of the existing walls. Therefore, it is recommended to remove the existing driveways and replace them with roll curb and level, 6" thick sidewalk.

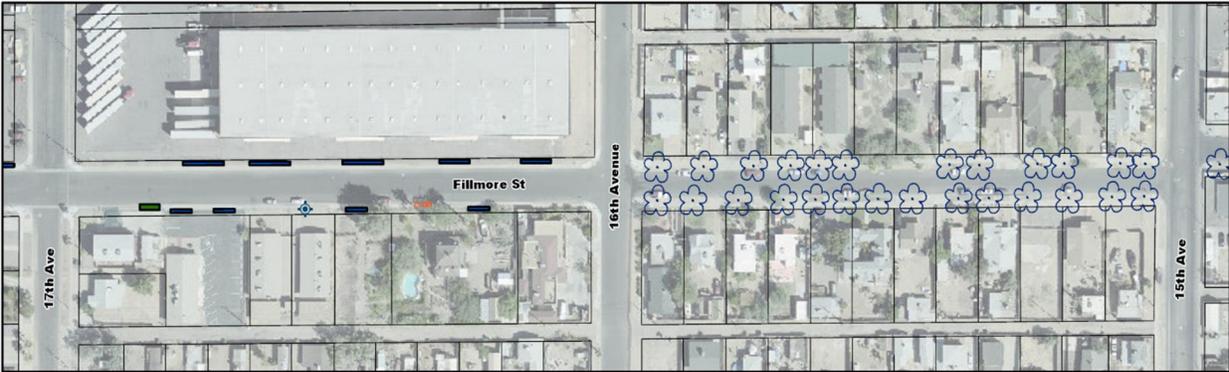
- Coordination with the homeowners who live between 16th Avenue and Grand Avenue will be required to secure their cooperation in maintenance of the new shade trees planted in front of their properties along both sides of Fillmore Street.

Budgetary Cost Estimate:

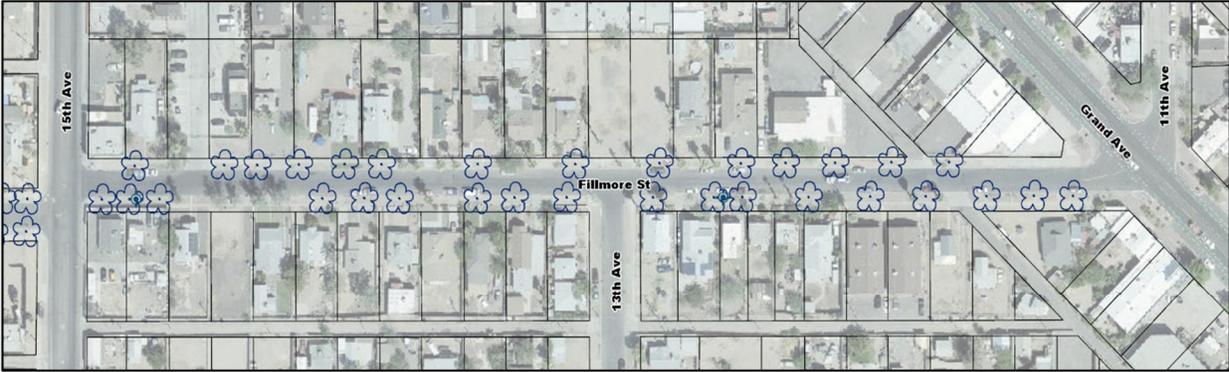
Construction Cost	\$248,000
Design, Construction Administration & Other Fees	\$176,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$424,000



Fillmore St - 19th Ave to 17th Ave



Fillmore St - 17th Ave to 15th Ave



Fillmore St - 15th Ave to Grand Ave

LEGEND

-  New Streetlight
-  Rebuild Driveway
-  New ADA Retrofit Driveway
-  Remove Driveway

Exhibit 13: Fillmore St Ped. Improvements (19th Ave – Grand Ave)

Budgetary Cost Estimate: Fillmore St (19th Ave – Grand Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	SIDEWALK	SF	710	\$6.50	\$4,615.00
2	SIDEWALK RAMPS	EACH	4	\$3,000.00	\$12,000.00
3	REBUILT DRIVEWAYS	EACH	7	\$4,500.00	\$31,500.00
4	ADA RETROFIT DRIVEWAYS	EACH	19	\$2,500.00	\$47,500.00
5	REPLACE DRIVEWAY W/CURB, GUTTER & SIDEWALK	EACH	3	\$2,500.00	\$7,500.00
6	SHADE TREES	EACH	58	\$400.00	\$23,200.00
7	STREET LIGHT	EACH	6	\$5,000.00	\$30,000.00
8	REMOVAL OF EXISTING IMPROVEMENTS, ADJUSTMENTS & RELOCATIONS	LS	1	\$36,000.00	\$36,000.00

Subtotal Construction \$192,315.00

Traffic Control/Police Officer (4%) \$7,692.60

Allowance for Extra Work (5%) \$9,615.75

Contingency (20%) \$38,463.00

Total Construction \$248,086.35

Design Phase (27%) \$66,983.31

Streetlighting Fee (2%) \$4,961.73

APS/SRP Design Fee \$10,000.00

Procurement and PIO \$20,000.00

Construction Administration (30%) \$74,425.91

GRAND TOTAL \$424,457.30

N) MADISON ST BIKEWAY (19TH AVE – 3RD AVE)
BIKE LANES, SHARED-USE LANES & RECONFIGURE 16TH AVENUE INTERSECTION

Project Location: Madison Street, 19th Avenue to 3rd Avenue

Project Description:

- Create a bikeway along Madison Street with a combination of bike lanes and shared-use lanes from 19th Avenue to 3rd Avenue; connecting to the existing bike lanes on 3rd Avenue.
- Install shared lane pavement markings and signage where the street is too narrow to provide bike lanes. These narrow sections of roadway are located from 19th Avenue to 18th Avenue, 16th Avenue to 15th Avenue and 15th Avenue to 8th Avenue.
- Install bike lanes in the rest of the alignment including the sections from 18th Avenue to 16th Avenue, 15th Avenue to 8th Avenue and 5th Avenue to 3th Avenue.
- Remove on-street parking along the south side of Madison Street between 18th Avenue and 17th Avenue.
- Provide buffered bike lanes between 17th Avenue and 16th Avenue where there is a wide roadway section.
- Reconfigure the intersection at 16th Avenue to create a safer, more normal 4-way intersection including reconstruction of the northwest curb return, new sidewalk ramps and new pavement markings.
- Install bike lanes with adjacent on-street parking between 5th Avenue and 4th Avenue.

Project Benefits: The proposed improvements will provide an east-west bikeway in the downtown area along a low speed street that has limited vehicular traffic; providing connectivity with the 15th Avenue and 3rd Avenue bike lanes.

Key Destinations: 15th Avenue bus route and the State government offices.

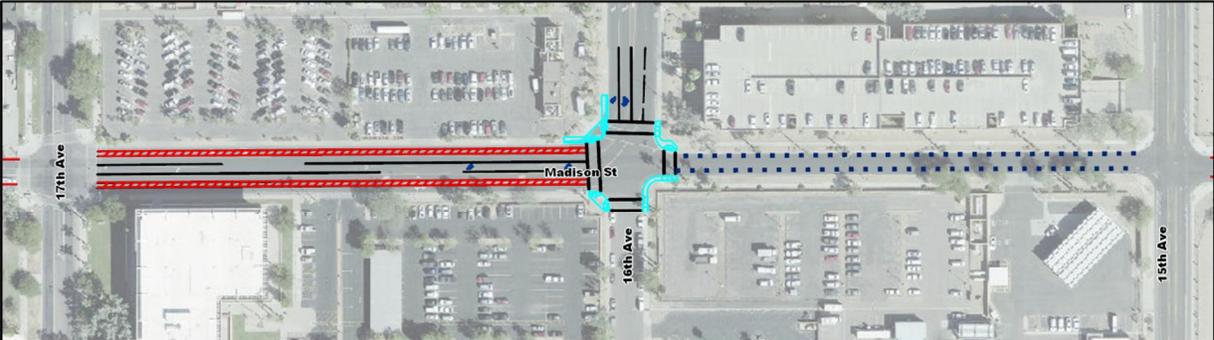
Project Constraints: None.

Budgetary Cost Estimate:

Construction Cost	\$176,000
Design, Construction Administration & Other Fees	\$120,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$296,000



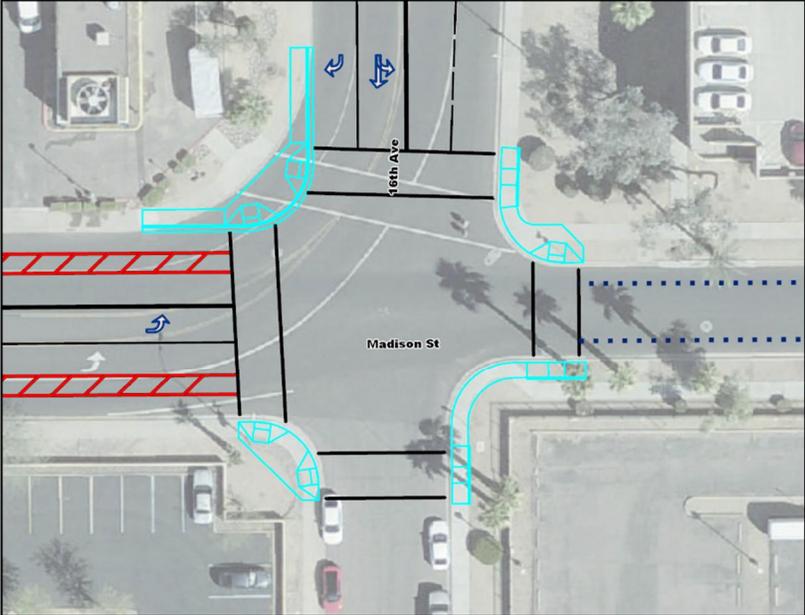
Madison St - 19th Ave - 17th Ave



Madison St - 17th Ave - 15th Ave

LEGEND

-  Buffered Bike Lane
-  Bike Lane
-  Shared Lane



Madison St and 16th Ave Intersection

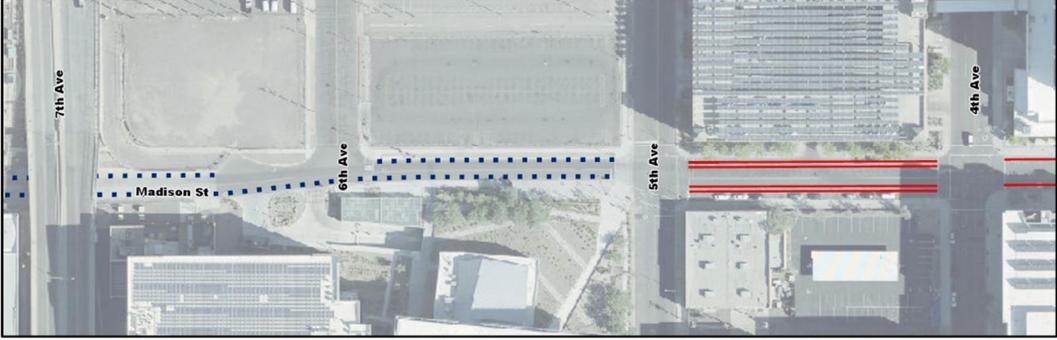
Exhibit 14A: Madison St Bikeway (19th Ave – 3rd Ave)



Madison St - 15th Ave - 11th Ave



Madison St - 11th Ave - 7th Ave



Madison St - 7th Ave - 4th Ave



Madison St - 4th Ave - 3rd Ave

LEGEND

-  Bike Lane W/Adjacent Parking
-  Bike Lane
-  Shared Lane

Exhibit 14B: Madison St Bikeway (19th Ave – 3rd Ave)

Budgetary Cost Estimate: Madison St (19th Ave – 3rd Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	BIKE LANE (INCLUDES STRIPES, SIGNAGE & SYMBOLS)	LF	7100	\$6.00	\$42,600.00
2	BUFFERED BIKE LANE (INCLUDES STRIPES, SIGNAGE & SYMBOLS)	LF	1200	\$12.00	\$14,400.00
3	SHARED LANE (INCLUDES STRIPES, SIGNAGE & SYMBOLS)	LF	3900	\$2.50	\$9,750.00
4	RE-STRIPING (17TH AVENUE TO 16TH AVENUE)	LS	1	\$15,000.00	\$15,000.00
5	SIDEWALK	SF	1700	\$6.00	\$10,200.00
6	SIDEWALK RAMP	EACH	8	\$3,000.00	\$24,000.00
7	CURB AND GUTTER	LF	110	\$40.00	\$4,400.00
8	AC PAVEMENT	SY	200	\$80.00	\$16,000.00

Subtotal Construction \$136,350.00

Traffic Control/Police Officer (4%) \$5,454.00

Allowance for Extra Work (5%) \$6,817.50

Contingency (20%) \$27,270.00

Total Construction \$175,891.50

Design Phase (27%) \$47,490.71

Procurement and PIO \$20,000.00

Construction Administration (30%) \$52,767.45

GRAND TOTAL \$296,149.66

O) ROOSEVELT ST BIKEWAY (19TH AVE – 15TH AVE)
BIKE LANES & SHARED-USE LANES

Project Location: Roosevelt Street, 19th Avenue to 15th Avenue

Project Description:

- Add bike lanes along Roosevelt Street; extending the existing bike lanes on Roosevelt Street east of 15th Avenue and providing connectivity to the 15th Avenue and Grand Avenue bike lanes.
- Install shared lane pavement markings and signage on the approach to the 15th Avenue intersection where, due to the left turn lane, the road is too narrow to provide bike lanes.
- Install bike lanes with adjacent on-street parking between 17th Avenue and 16th Avenue where homeowners park in the street.

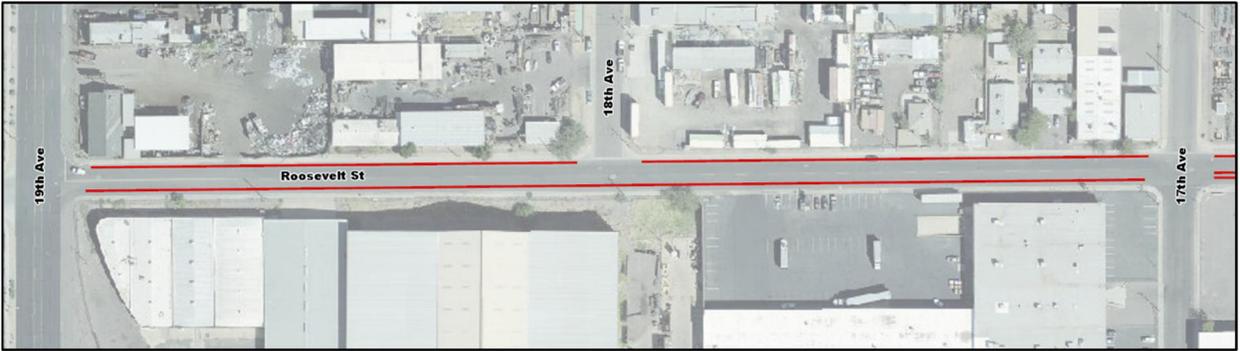
Project Benefits: The proposed improvements will extend the existing Roosevelt Street bike lanes to 19th Avenue; providing connectivity with the existing 15th Avenue and Grand Avenue bike lanes, as well as the proposed 17th Avenue bike lanes.

Key Destinations: Bus routes on 19th Avenue and 15th Avenue bus route and the Grand Avenue commercial district.

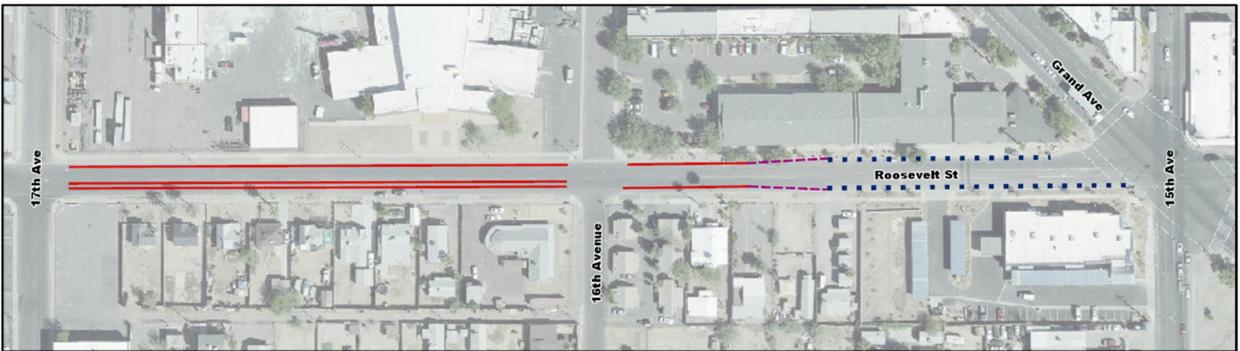
Project Constraints: None.

Budgetary Cost Estimate:

Construction Cost	\$38,000
Design, Construction Administration & Other Fees	\$42,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$80,000



Roosevelt St - 19th Ave to 17th Ave



Roosevelt St - 17th Ave to 15th Ave

LEGEND

-  Bike Lane W/Adjacent Parking
-  Bike Lane
-  Shared Lane

Exhibit 15: Roosevelt St Bikeway (19th Ave – 15th Ave)

Budgetary Cost Estimate: Roosevelt St (19th Ave – 15th Ave)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	BIKE LANE (INCLUDES STRIPES, SIGNAGE & SYMBOLS)	LF	4700	\$6.00	\$28,200.00
2	SHARED LANE (INCLUDES STRIPES, SIGNAGE & SYMBOLS)	LF	625	\$2.50	\$1,562.50

Subtotal Construction \$29,762.50

Traffic Control/Police Officer (4%) \$1,190.50

Allowance for Extra Work (5%) \$1,488.13

Contingency (20%) \$5,952.50

Total Construction \$38,393.63

Design Phase (27%) \$10,366.28

Procurement and PIO \$20,000.00

Construction Administration (30%) \$11,518.09

GRAND TOTAL \$80,277.99

P) 17TH AVE BIKEWAY (MADISON ST – ROOSEVELT ST)
BIKE LANES & SHARED-USE LANES

Project Location: 17th Avenue, Madison Street to Roosevelt Street

Project Description:

- Create a 0.9-mile long bikeway along 17th Avenue with a combination of bike lanes and shared-use lanes from Madison Street to Roosevelt Street; connecting to the existing bike lanes on Roosevelt Street, Adams Street and Jefferson Street.
- Install shared lane pavement markings and signage for the 0.4-mile segment from Madison Street to just north of Van Buren Street where the roadway is too narrow to provide bike lanes.
- Install 0.5 miles of bike lanes along the rest of the alignment from just north of Van Buren Street to Roosevelt Street.

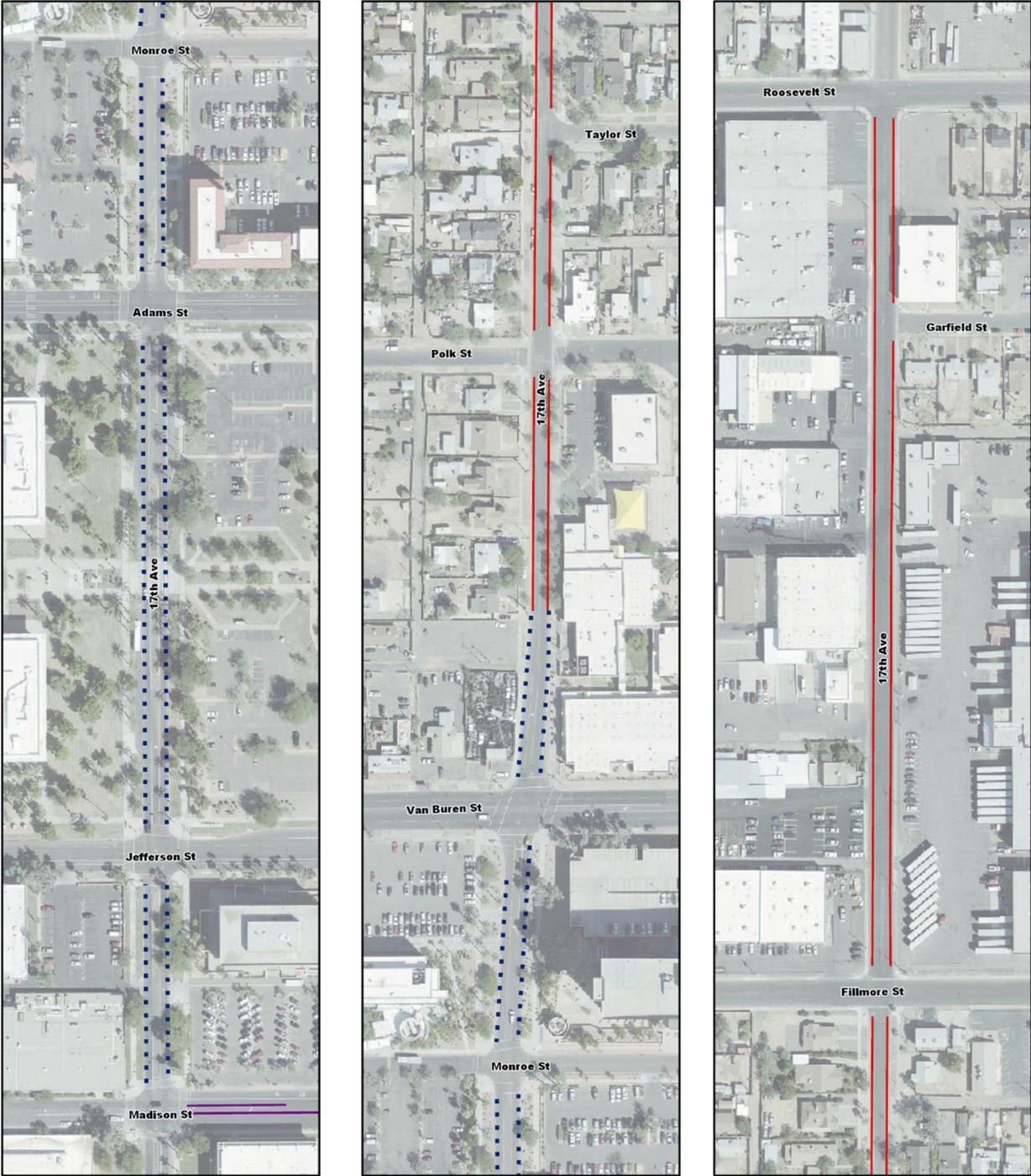
Project Benefits: The proposed improvements will provide a north-south bikeway in the State Capitol area along a low speed street that has limited vehicular traffic; providing connectivity with the existing bike lanes on Roosevelt Street, Adams Street and Jefferson Street as well as the proposed bike lanes on Madison Street.

Key Destinations: Van Buren Street bus route and the State government offices.

Project Constraints: None.

Budgetary Cost Estimate:

Construction Cost	\$45,000
Design, Construction Administration & Other Fees	\$46,000
Right-of-Way Acquisition	<u>\$0</u>
TOTAL	\$91,000



LEGEND

- Bike Lane
- - - - Shared Lane

Exhibit 16: 17th Ave Bikeway (Madison St – Roosevelt St)

Budgetary Cost Estimate: 17th Ave (Madison St – Roosevelt St)

Item #	Description	Unit	Quantity	Unit Cost	Total Cost
1	BIKE LANE (INCLUDES STRIPES, SIGNAGE & SYMBOLS)	LF	4300	\$6.00	\$25,800.00
2	SHARED LANE (INCLUDES SIGNAGE & SYMBOLS)	LF	3605	\$2.50	\$9,012.50

Subtotal Construction \$34,812.50

Traffic Control/Police Officer (4%) \$1,392.50

Allowance for Extra Work (5%) \$1,740.63

Contingency (20%) \$6,962.50

Total Construction \$44,908.13

Design Phase (27%) \$12,125.19

Procurement and PIO \$20,000.00

Construction Administration (30%) \$13,472.44

GRAND TOTAL \$90,505.76

PROJECT PRIORITIZATION

Each project was scored based on criteria provided by the City’s Street Transportation Department. The resulting scores are shown below in Table 3. These scores were used to determine the project ranking previously identified in Tables 1 and 2. The project with the highest score was ranked number 1.

The scoring criteria included bicycle and pedestrian safety, roadway user stress level, connectivity to bus stops and key destinations, public input, constructability and cost. The Appendix includes the scoring summary for each project along with the worksheet that was used to develop the scores.

Project ID	Project Name	Route(s)	Project Limits	Project Length	Description/Scope	Type of Project (Bicycle, Curb-Ramp, Shade, Pedestrian, Traffic Calming, and/or Crossings)	Evaluation Criteria Score
A	19th Avenue Ped. Improvements	19th Avenue	Madison St - Van Buren St	0.37 mile	Sidewalks, ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	Pedestrian	93
B	19th Avenue Ped. Improvements	19th Avenue	Van Buren St - Roosevelt St	0.5 mile	Sidewalks, ADA Improvements, Roadway Realignment, Street Lights & Shade Trees	Pedestrian	91
C	Van Buren Street Ped. Improvements	Van Buren Street	20th Ave - 15th Ave	0.6 mile	Sidewalks, ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	Pedestrian	92
D	Van Buren Street Ped. Improvements	Van Buren Street	15th Ave - 7th Ave	0.5 mile	ADA Improvements & Shade Trees	Pedestrian	88
E	Jefferson Street Ped. Improvements	Jefferson Street	20th Ave - 7th Ave	1.1 mile	ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	Pedestrian	80
F	Adams Street Ped. Improvements	Adams Street	20th Ave - 19th Ave	770 feet	ADA Improvements, Traffic Signal Upgrades & Shade Trees	Pedestrian	87
G	15th Avenue Ped. Improvements	15th Avenue	Van Buren St - Roosevelt St	0.5 mile	ADA Improvements, Traffic Signal Upgrades & Shade Trees	Pedestrian	94
H	Roosevelt Street Ped. Improvements	Roosevelt Street	19th Ave - 11th Ave	0.75 mile	ADA Improvements, Traffic Signal Upgrades & Shade Trees	Pedestrian	92
I	Polk Street Ped. Improvements	Polk Street	19th Ave - 15th Ave	0.5 mile	Sidewalks, ADA Improvements & Street Lights	Pedestrian	97
J	Madison Street Ped. Improvements	Madison Street	20th Ave - 15th Ave	0.6 mile	ADA Improvements & Street Lights	Pedestrian	86
K	Madison Street Ped. Improvements	Madison Street	15th Ave - 7th Ave	0.48 mile	Sidewalks, ADA Improvements, Street Lights & Shade Trees	Pedestrian	100
L	16th Avenue Ped. Improvements	16th Avenue	Polk St - Roosevelt St	0.38 mile	Sidewalks, ADA Improvements, Half Street Improvements & Street Lights	Pedestrian	96
M	Fillmore Street Ped. Improvements	Fillmore Street	19th Ave - Grand Ave	0.75 mile	ADA Improvements, Street Lights & Shade Trees	Pedestrian	104
N	Madison Street Bikeway	Madison Street	19th Ave - 3rd Ave	1.27 mile	Bike Lanes, Shared-Use Lanes & Reconfigure 16th Avenue Intersection	Bikeway	80
O	Roosevelt Street Bikeway	Roosevelt Street	19th Ave - 15th Ave	0.5 mile	Bike Lanes & Shared-Use Lanes	Bikeway	85
P	17th Avenue Bikeway	17th Avenue	Madison St - Roosevelt St	0.85 mile	Bike Lanes & Shared-Use Lanes	Bikeway	90

Table 3 – Summary of Project Scores

APPENDIX – Project Scoring Summary and Criteria

Scoring Summary - Study Area 7 - Capitol North Neighborhoods

City of Phoenix Criteria

Project ID	Project Name	Route(s)	Project Limits	Project Length	Description/Scope	Type of Project (Bicycle, Curb-Ramp, Shade, Pedestrian, Traffic Calming, and/or Crossings)	Individual Project Components										Evaluation Criteria Score
							Bicycle Facilities (Y/N/#)	Type	Curb Ramp (Y/N/#)	Trees/shade (Y/N/#)	Type	Pedestrian/Sidewalk (Y/N/L.f.)	Traffic Calming (Y/N/#)	Type	Pedestrian Crossing (Y/N/#)	Type	
A	19th Avenue Ped. Improvements	19th Avenue	Madison St - Van Buren St	0.37 mile	Sidewalks, ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	Pedestrian	N		Y/6	Y/24	Trees	Y/1300 lf	N		Y/12	High Visibility	93
B	19th Avenue Ped. Improvements	19th Avenue	Van Buren St - Roosevelt St	0.5 mile	Sidewalks, ADA Improvements, Roadway Realignment, Street Lights & Shade Trees	Pedestrian	N		Y/6	Y/54	Trees	Y/3000 lf	N		N		91
C	Van Buren Street Ped. Improvements	Van Buren Street	20th Ave - 15th Ave	0.6 mile	Sidewalks, ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	Pedestrian	N		Y/15	Y/94	Trees	Y/600 lf	N		Y/9	High Visibility	92
D	Van Buren Street Ped. Improvements	Van Buren Street	15th Ave - 7th Ave	0.5 mile	ADA Improvements & Shade Trees	Pedestrian	N		Y/9	Y/74	Trees	N	N		N		88
E	Jefferson Street Ped. Improvements	Jefferson Street	20th Ave - 7th Ave	1.1 mile	ADA Improvements, Traffic Signal Upgrades, Street Lights & Shade Trees	Pedestrian	N		Y/5	Y/120	Trees	N	N		Y/4	High Visibility	80
F	Adams Street Ped. Improvements	Adams Street	20th Ave - 19th Ave	770 feet	ADA Improvements, Traffic Signal Upgrades & Shade Trees	Pedestrian	N		Y/12	Y/18	Trees	Y/10 lf	N		Y/4	High Visibility	87
G	15th Avenue Ped. Improvements	15th Avenue	Van Buren St - Roosevelt St	0.5 mile	ADA Improvements, Traffic Signal Upgrades & Shade Trees	Pedestrian	N		Y/17	Y/37	Trees	N	N		N		94
H	Roosevelt Street Ped. Improvements	Roosevelt Street	19th Ave - 11th Ave	0.75 mile	ADA Improvements, Traffic Signal Upgrades & Shade Trees	Pedestrian	N		Y/31	Y/45	Trees	N	N		N		92
I	Polk Street Ped. Improvements	Polk Street	19th Ave - 15th Ave	0.5 mile	Sidewalks, ADA Improvements & Street Lights	Pedestrian	N		Y/2	N		Y/1700 lf	N		N		97
J	Madison Street Ped. Improvements	Madison Street	20th Ave - 15th Ave	0.6 mile	ADA Improvements & Street Lights	Pedestrian	N		Y/12	N		N	N		N		86
K	Madison Street Ped. Improvements	Madison Street	15th Ave - 7th Ave	0.48 mile	Sidewalks, ADA Improvements, Street Lights & Shade Trees	Pedestrian	N		Y/27	Y/71	Trees	Y/1700 lf	N		N		100
L	16th Avenue Ped. Improvements	16th Avenue	Polk St - Roosevelt St	0.38 mile	Sidewalks, ADA Improvements, Half Street Improvements & Street Lights	Pedestrian	N		Y/10	N		Y/1800 lf	N		N		96
M	Fillmore Street Ped. Improvements	Fillmore Street	19th Ave - Grand Ave	0.75 mile	ADA Improvements, Street Lights & Shade Trees	Pedestrian	N		N	Y/58	Trees	N	N		N		104
N	Madison Street Bikeway	Madison Street	19th Ave - 3rd Ave	1.27 mile	Bike Lanes, Shared-Use Lanes & Reconfigure 16th Avenue Intersection	Bikeway	Y/1080 lf / 4220 lf / 880 lf	Shared-Use /Bike Lane /Buffered	Y/8	N		N	Y	Rdwy Lane Narrowing between 17th and 16th Ave	Y	Standard Crosswalk	80
O	Roosevelt Street Bikeway	Roosevelt Street	19th Ave - 15th Ave	0.5 mile	Bike Lanes & Shared-Use Lanes	Bikeway	Y/290 lf / 2260 lf	Shared-Use /Bike Lane	N	N		N	N		N		85
P	17th Avenue Bikeway	17th Avenue	Madison St - Roosevelt St	0.85 mile	Bike Lanes & Shared-Use Lanes	Bikeway	Y/2180 lf / 2340 lf	Shared-Use /Bike Lane	N	N		N	N		N		90

T2050 Mobility Project Prioritization Criteria (100-point scale)

Safety* (23 points max.)

Proximity of proposed project to ≥ 1 documented pedestrian/ bicycle <u>injury</u> within past 5 years			
>1.0 mi.	0.5 mi.-1.0 mi.	0.25 mi.-0.5 mi.	<0.25 mi.
0	1	5	7

Proximity of proposed project to ≥ 1 documented pedestrian/ bicycle <u>fatality</u> within past 5 years			
>1.0 mi.	0.5 mi.-1.0 mi.	0.25 mi.-0.5 mi.	<0.25 mi.
0	2	7	10

Is the project location within 0.5 miles of ≥ 5 pedestrian/ bicycle <u>injuries</u> or <u>fatalities</u> ?			
	No	Yes	
Points	0	3	

Does the proposed project have a positive Crash Reduction Factor (CRF) assigned by FHWA's Crash Modification Factors Clearinghouse? (* = derived from FHWA CMF Clearinghouse)					
No	Yes	CRF value*	Current Condition*	Proposed Condition*	Crash Type*
0	3				

Roadway User Stress Level (15 points max.)

Stress Level based on the functional classification of the roadway on which project is recommended				
Functional classification	<u>Highway</u>	<u>Arterial</u> 5-6 lanes and/or >40 mph and/or >10,000 ADT	<u>Collector</u> 3-4 lanes and/or >=35 mph and/or >=5,000 ADT	<u>Local</u> 1-2 lanes and/or >=25 mph and/or <5,000 ADT
Points	0	5	10	15

Connectivity Between Project and Destinations* (22 points max.)

Total number of connections the project creates/improves to destinations, within 1/4 mile of the project (1/2 mi. for bike projects). This includes eliminating sidewalk and bikeway system gaps.								
# of cnxns	<3	3-5	6-8	9-11	12-14	15-17	18-19	20+
Points	0	1	2	3	4	5	6	7

Select all destination types that the project creates/improves connections to, within 1/4 mile of the project (1/2 mi. for bike projects). (Sum all points selected in this block, up to 21 points)						
Destinations	<u>Job/transit</u> (Employment, transit)	<u>Food/ Dining</u> (Restaurants, coffee shops)	<u>Errands</u> (Food shopping, other shopping)	<u>Health/ Community</u> (Doctor/clinic, places of worship, community centers)	<u>Schools</u> (Any school)	<u>Parks</u> (Any park)
Points	(1-6) TBD by public	(1-6) TBD by public	(1-6) TBD by public	(1-6) TBD by public	(1-6) TBD by public	(1-6) TBD by public

Proximity to existing or planned bus, BRT, or light rail line		
Proximity	>1/2 mi.	1/2-1/4 mi.
Points	0	1

Public Input (20 points max.)

Public Input rank					
Rank	1 (low)	2	3	4	5 (high)
Points	4	8	12	16	20

Deliverability/Constructability (10 points max.)

Is the project included in -- or does it abut -- an existing or programmed project/DCR		
	No	Yes
Points	0	2

Does the project incorporate shade?					
Trees added	<5	5-10	11-15	16-20	>20
Points	0	1	2	3	4

Does the project have utility constraints (water, sewer, gas, electric, fiber, etc.)				
# of constraints	>7	7-9	4-6	0-3
Points	0	1	2	3

Ease/cost of maintenance		
	Low ease/high cost	High ease/low cost
Points	0	1

Cost (10 points max.)

Estimated total project cost (including ROW)						
Cost	>\$2.5M	\$2.5M-\$2.0M	\$2.0M-\$1.5M	\$1.5M-\$1M	\$1M-\$500k	<\$500k
Points	0	1	2	3	4	5

Estimated cost of required ROW takes						
ROW takes	>\$1.0M	\$750k-\$1.0M	\$500k-\$750k	\$250k-\$500k	>\$0-\$250k	\$0
Points	0	1	2	3	4	5

Bonus/Equity (10 points max.)

Score based on staff's initial needs-based analysis and resulting Mobility Area # rank						
Mobility Area #	11	9-10	7-8	5-6	3-4	1-2
Points	5	6	7	8	9	10

Summary

Criteria	Score
Safety*	(23)
Roadway User Stress Level	(15)
Connectivity*	(22)
Public Input	(20)
Deliverability/Constructability	(10)
Cost	(10)
Sub Total	(100)
Bonus/Equity	(10)
TOTAL	

* This is a key component of Complete Streets