

Recommended Improvements Report

43RD AVENUE SAFETY PROJECT ASSESSMENT FROM McDOWELL ROAD TO BELL ROAD

Project No. ST85100389

September 2016



Prepared for:

City of Phoenix

Prepared by:

BURGESS & NIPLE

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Working Paper 2 Recommended Improvements Report

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Appendix A Recommended Improvements Map Book
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1.0 Project Understanding

In August 2015, City of Phoenix (City) voters approved T2050, a 35-year citywide transportation plan aimed at substantially expanding bus service, light rail construction, and street improvements.

T2050 also developed a 15-member Citizens Transportation Committee (CTC) representing the community to oversee T2050. The CTC will address street and transit needs, provide oversight on the expenditures of funds, and make recommendation on plan elements.

At the April 2016 CTC meeting, 12 major street corridors and 7 corridors with identified safety concerns were approved for further analysis in the form of project assessments. The primary output of these project assessments will be to develop planning-level project scope, schedule, and cost estimates for City Council-adopted T2050 Major Streets segments in addition to identifying improvements along Safety focus corridors identified by City staff, and approved for additional analysis by the CTC. Upon completion of all 19 project assessments in early Fall 2016, City staff will present project scopes, schedule and costs to the CTC for approval to proceed into the Design phase of project development and ultimately potential programming of project construction.

1.1. Purpose and Need

43rd Avenue, from McDowell Road to Bell Road, is an arterial with congestion and safety issues throughout the corridor. In addition, there are connectivity gaps in the pedestrian and bicycle network. The goals of this project assessment are to develop and recommend corridor-specific solutions that will complete the roadway to its ultimate classification, improve safety and best accommodate multimodal travel. This study will:

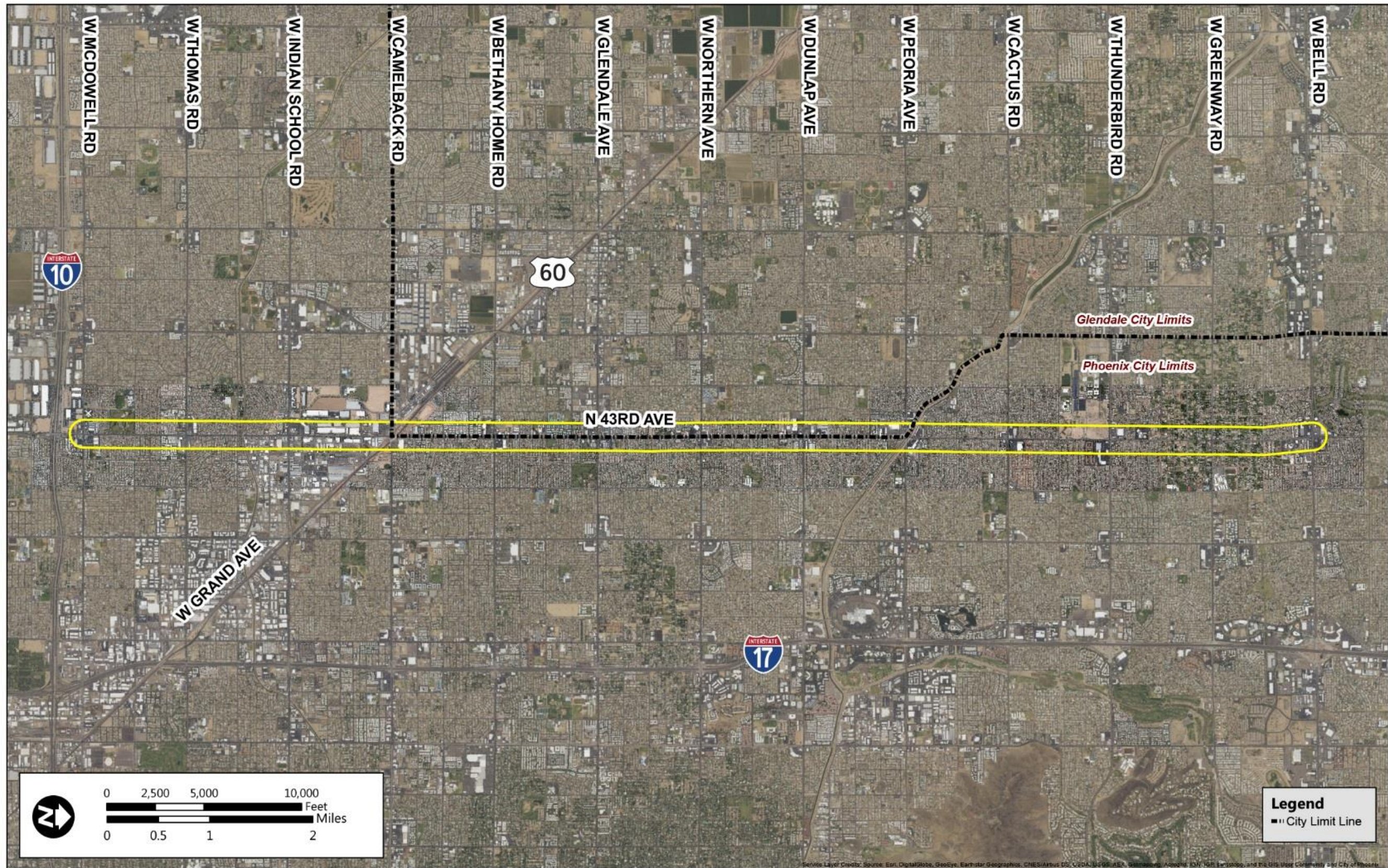
- Develop an inventory of corridor needs and a phased approach to address them;
- Consider new sidewalks or modification to existing sidewalks (e.g. ADA curb ramps) to improve pedestrian movements and safety;
- Address lighting and possible shade and/or landscape improvements that could aide pedestrians along the transit corridor;
- Reduce vehicular congestion and improve safety through identification of high priority intersection and turning movement needs, including alleviation of high crash areas through innovative and traditional methods;
- Consider integration of bicycle lanes and other improvements that will increase bicycling; and
- Accommodate increased transit service by identifying existing and future transit needs and incorporating transit needs into design recommendations including bus pullouts, transit stop pads, shelters, and others.

This Safety Project Assessment identifies and addresses the issues and needs within the corridor in a two-step process. This document is the second and final in the series and provides project recommendations, estimated costs, reviews the return on investment, and provides next steps in the implementation process.

1.2. Study Area

The Study Area is approximately 12 miles long and consists of 43rd Avenue from McDowell Road to Bell Road. The Study Area is generally within the City limits, except for a segment that is within the City of Glendale (Glendale) from Camelback Road to Peoria Avenue. 43rd Avenue is generally comprised of three northbound lanes and two southbound lanes separated by a two-way left-turn lane that transitions to dedicated turn lanes at major intersections. There are intermittent frontage roads along 43rd Avenue. The posted speed limit varies between 40 mph and 45 mph. A map of the Study Area is included as **Figure 1**.

Figure 1 – Study Area



2.0 Proposed Improvements

Corridor needs were identified within the **43rd Avenue Safety Project Assessment form McDowell Road to Bell Road Working Paper 1: Proposed Improvements Report**. Proposed improvements to address those needs were developed and divided into projects based on work type, geographic limits, logical termini, and independent utility. The projects were then categorized as either Roadway, Traffic, Drainage, Transit, Bicycle, Pedestrian, Landscaping, or Utilities based on the addressed need. The Roadway and Traffic categories are divided into two and three subcategories, respectively.

Each category was assigned an alpha-numeric code to be placed within the plan view portion of the Recommended Improvements Map Book (Map Book) included in **Appendix A**. The categories and corresponding alpha-numeric code are listed in **Table 1**. Within each category, the numeric portion of the code increments for projects in the order they appear in the Map Book.

Table 1 – Project Categories and Codes

Category	Code
Roadway (Capacity)	R-#
Roadway (Safety)	
Traffic (Signals)	T-#
Traffic (Lighting)	
Traffic (Signing and Striping)	
Drainage	D-#
Transit	TR-#
Bicycle	B-#
Pedestrian	P-#
Landscaping	L-#
Utilities	U-#

2.1. Project Data Sheets

Project Data Sheets have been generated for each recommended improvement. In some instances, there are multiple solutions proposed to remedy the same issue. These projects are identified as being mutually exclusive. They each have a unique code and each has been estimated separately. For the sake of clarity, while both codes are placed on the Map Book, only one of the improvements is shown graphically.

In other instances, it may be advantageous to address multiple needs in one project due to either project type or geographic proximity. In these instances, elements of smaller projects are included as part of the comprehensive project. The smaller projects are listed within the Project Data Sheet of the comprehensive project.

Complementary projects have also been identified. These are projects which could be combined to realize potential savings in regards to economies of scale or to reduce mobilization costs. Complementary projects are listed within the Project Data Sheet.

A sample Project Data Sheet is included on the next page followed by Project Data Sheets for the recommended improvements. The projects are listed in the order in which they appear in the Map Book.

Project Title (Map Book ID Code)

ADA Curb Ramp Compliance (P-1)

City Council District:	The City Council District where the improvements lie.
Project Type:	Categorizes the project as one of the following: Roadway (Capacity), Roadway (Safety), Traffic (Signals), Traffic (Lighting), Traffic (Signing and Striping), Drainage, Transit, Bicycle, Pedestrian, Landscaping, Utilities
Project Description:	A brief description of the project. Projects which overlap or are mutually exclusive are identified.
Project Constraints:	A brief description of potential coordination or clearance needs.
Cost:	Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in Appendix B .
Construction	Estimated Construction Cost
Design	Estimated Design Cost
DCM (Design PM)	Design Construction Management for Design Project Management
DCM (Constr. Admin.)	Design Construction Management for Construction Administration
Right-Of-Way	Estimated Right-of-Way Cost
Miscellaneous	Miscellaneous
<hr/>	
Total	Estimated Total Project Cost
Project Predecessors:	A list of projects that should occur prior to this project.
Complementary Projects:	A list of projects that could be combined with this project due to either project type or geographic proximity.

City Council District:	Districts 1, 4 & 5																
Project Type:	Pedestrian																
Project Description:	Upgrade 308 curb ramps to meet current ADA standards. Install two new ADA-compliant curb ramps. These are improvements that are not included as part of other projects.																
Project Constraints:	Basic utility coordination. Two ramps are in the floodplain. Several ramps are in archaeological quarter sections.																
Cost:	Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in Appendix B .																
	<table border="0"> <tr> <td>Construction</td> <td>\$2,164,780</td> </tr> <tr> <td>Design</td> <td>\$324,720</td> </tr> <tr> <td>DCM (Design PM)</td> <td>\$259,780</td> </tr> <tr> <td>DCM (Constr. Admin.)</td> <td>\$432,960</td> </tr> <tr> <td>Right-Of-Way</td> <td>\$0</td> </tr> <tr> <td>Miscellaneous</td> <td>\$0</td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td>Total</td> <td>\$3,182,240</td> </tr> </table>	Construction	\$2,164,780	Design	\$324,720	DCM (Design PM)	\$259,780	DCM (Constr. Admin.)	\$432,960	Right-Of-Way	\$0	Miscellaneous	\$0	<hr/>		Total	\$3,182,240
Construction	\$2,164,780																
Design	\$324,720																
DCM (Design PM)	\$259,780																
DCM (Constr. Admin.)	\$432,960																
Right-Of-Way	\$0																
Miscellaneous	\$0																
<hr/>																	
Total	\$3,182,240																
Project Predecessors:	None																
Complementary Projects:	P-3, P-8																

Signal Timing - Motorized Clearance Timing (T-1)



City Council District: Districts 1, 4 & 5
Project Type: Traffic (Signals)
Project Description: Use a yellow change interval duration of 4.5 seconds for through movements and 3.6 seconds for left-turn movements at all signalized intersections (except Camelback). Use a minimum of 1 second for all-red interval for the entire corridor.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$0
Design	\$0
DCM (Design PM)	\$0
DCM (Constr. Admin.)	\$0
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$0

Project Predecessors: None

Complementary Projects: None

Signal Timing - Pedestrian Crossing Timing (T-2)



City Council District: Districts 1, 4 & 5
Project Type: Traffic (Signals)
Project Description: Use a walk interval of 7 seconds minimum during a walking person display. Use 3.5 ft/sec pedestrian walking speed to determine the duration of flashing "DON'T WALK" indication.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$0
Design	\$0
DCM (Design PM)	\$0
DCM (Constr. Admin.)	\$0
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$0

Project Predecessors: None

Complementary Projects: T-7

Signing/Striping Project #1 (T-3)

City Council District: Districts 1, 4 & 5
Project Type: Traffic (Signing and Striping)
Project Description: Increase the number and improve the placement of lane merge or lane drop signs throughout the corridor.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$14,120
Design	\$2,120
DCM (Design PM)	\$1,700
DCM (Constr. Admin.)	\$2,830
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$20,770

Project Predecessors: None

Complementary Projects: None

Signing/Striping Project #2 (T-4)

City Council District: Districts 1, 4 & 5
Project Type: Traffic (Signing and Striping)
Project Description: Improve pavement markings at all signalized intersections. Add stop bars (12 feet wide minimum). Clearly delineate pedestrian crossing zones at intersections.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$298,540
Design	\$44,790
DCM (Design PM)	\$35,830
DCM (Constr. Admin.)	\$59,710
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$438,870

Project Predecessors: None

Complementary Projects: None



Signal Timing - Protected Left-Turn Phase (T-5)



City Council District: Districts 1, 4 & 5
Project Type: Traffic (Signals)
Project Description: Increase green times for protected only left-turn phases during peak hours. The cross street intersections along 43rd Avenue with the highest return on investment are McDowell Road, Thomas Road, Bethany Home Road, and Northern Avenue.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$0
Design	\$0
DCM (Design PM)	\$0
DCM (Constr. Admin.)	\$0
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$0

Project Predecessors: None

Complementary Projects: None

Speed Limit Adjustment (T-6)



City Council District: Districts 1 & 5
Project Type: Traffic (Signing and Striping)
Project Description: Reduce posted speed limit on 43rd Avenue between Glendale Avenue and Thunderbird Road from 45 mph to 40 mph. The rest of the corridor is currently signed at 40 mph.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$10,860
Design	\$1,630
DCM (Design PM)	\$1,310
DCM (Constr. Admin.)	\$2,180
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$15,980

Project Predecessors: None

Complementary Projects: None

Install Pedestrian Countdown Timers (T-7)



City Council District: Districts 1, 4 & 5
Project Type: Traffic (Signals)
Project Description: Retrofit pedestrian countdown timers at all signalized intersections (eight per intersection).

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$2,388,320
Design	\$358,250
DCM (Design PM)	\$286,600
DCM (Constr. Admin.)	\$477,670
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$3,510,840

Project Predecessors: None

Complementary Projects: T-2

Improve Signal Visibility (T-8)



City Council District: Districts 1, 4 & 5
Project Type: Traffic (Signals)
Project Description: Add 3-inch yellow retroreflective sheeting to signal backplates.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$52,550
Design	\$7,890
DCM (Design PM)	\$6,310
DCM (Constr. Admin.)	\$10,510
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$77,260

Project Predecessors: None

Complementary Projects: None

Upgrade Transit Stops (TR-1)

City Council District: Districts 1, 4 & 5
Project Type: Transit
Project Description: Upgrade 37 transit stops. Install 37 shelters, 31 benches and 28 trashcans. These are improvements that are not included as part of other projects.

Project Constraints: Potential right-of-way acquisition. Coordination with Valley Metro, City of Glendale. Some improvements are within archaeological quarter section.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$1,245,960
Design	\$186,900
DCM (Design PM)	\$149,520
DCM (Constr. Admin.)	\$249,200
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$1,831,580

Project Predecessors: None

Complementary Projects: None

Complete Sidewalk - Project #1 (P-2)

City Council District: Districts 1, 4 & 5
Project Type: Pedestrian
Project Description: Construct sidewalk to close sidewalk gaps along 43rd Avenue between McDowell Road and Camelback Road and between Glendale Avenue and Bell Road.

Project Constraints: Right-of-way acquisition and utility relocation.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$393,000
Design	\$58,950
DCM (Design PM)	\$47,160
DCM (Constr. Admin.)	\$78,600
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$577,710

Project Predecessors: None

Complementary Projects: None

Access Management at McDowell - Option #1 (R-1)

City Council District: District 4
Project Type: Roadway (Safety)
Project Description: Install concrete median (500 feet) at the intersection of 43rd Avenue with McDowell on the all legs of intersection. This project is mutually exclusive with R-2.

Project Constraints: Right-of-way take on the eastern leg.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$256,220
Design	\$38,440
DCM (Design PM)	\$30,750
DCM (Constr. Admin.)	\$51,250
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$376,660

Project Predecessors: None

Complementary Projects: R-3

Access Management at McDowell - Option #2 (R-2)

City Council District: District 4
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with McDowell on all legs of intersection. This option is not depicted within the map book. This project is mutually exclusive with R-1.



Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$129,280
Design	\$19,400
DCM (Design PM)	\$15,520
DCM (Constr. Admin.)	\$25,860
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$190,060

Project Predecessors: None

Complementary Projects: R-3

Intersection Capacity Improvement - McDowell Road (R-3)



City Council District: District 4
Project Type: Roadway (Capacity)
Project Description: Add a SB through lane beginning 500 feet north of the intersection. Drop the lane as the SB right-turn lane at the I-10 TI.

Project Constraints: Right-of-way acquisition and utility relocation. Coordination with ADOT.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$507,750
Design	\$76,170
DCM (Design PM)	\$60,930
DCM (Constr. Admin.)	\$101,550
Right-Of-Way	\$329,350
Miscellaneous	\$0

Total \$1,075,750

Project Predecessors: None

Complementary Projects: R-1 or R-2

Lighting Project #1 (T-9)

City Council District: Districts 4 & 5
Project Type: Traffic (Lighting)
Project Description: Close lighting gaps on west side of road between McDowell Road and Camelback Road. Upgrade existing lighting to LED on both sides of street.

Project Constraints: Potential temporary impacts to Sueno Park. Basic utility coordination. Potential environmental impacts to the archaeological quarter section.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$1,406,180
Design	\$210,930
DCM (Design PM)	\$168,750
DCM (Constr. Admin.)	\$281,240
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$2,067,100

Project Predecessors: P-2, R-3, R-4, R-7, TR-2, U-1, U-2, U-3, B-1, P-3, R-8, TR-3, TR-4

Complementary Projects: U-2

Roadway Capacity - Thomas Road (R-4)

City Council District: District 4
Project Type: Roadway (Capacity)
Project Description: Add NB right-turn pocket lane (300 feet) at the intersection of 43rd Avenue with Thomas Road. Reconfigure driveway on the NB approach.

Project Constraints: Right-of-way take on the NB approach.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$112,620
Design	\$16,900
DCM (Design PM)	\$13,520
DCM (Constr. Admin.)	\$22,530
Right-Of-Way	\$47,860
Miscellaneous	\$0

Total	\$213,430
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Project Predecessors: None

Complementary Projects: R-5 or R-6, R-7, TR-2

Access Management at Thomas - Option #1 (R-5)

City Council District: District 4
Project Type: Roadway (Safety)
Project Description: Install concrete median (400 to 500 feet) at the intersection of 43rd Avenue with Thomas Road on legs of the intersection. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-6.

Project Constraints: Some improvements are within the archaeological quarter section.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$263,410
Design	\$39,520
DCM (Design PM)	\$31,610
DCM (Constr. Admin.)	\$52,690
Right-Of-Way	\$0
Miscellaneous	\$0

Total	\$387,230
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Project Predecessors: None

Complementary Projects: R-4, R-7, TR-2

Access Management at Thomas - Option #2 (R-6)



City Council District: District 4
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with Thomas Road on legs of the intersection. This option is not depicted within the map book. This project is mutually exclusive with R-5.

Project Constraints: Some improvements are within the archaeological quarter section.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$54,280
Design	\$8,150
DCM (Design PM)	\$6,520
DCM (Constr. Admin.)	\$10,860
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$79,810

Project Predecessors: None

Complementary Projects: R-4, R-7, TR-2

Intersection Capacity Improvement - Thomas Road (R-7)



City Council District: District 4
Project Type: Roadway (Capacity)
Project Description: Provide an additional SB through lane and a NB right-turn lane. This project includes improvements that would otherwise be constructed as part of R-4.

Project Constraints: Right-of-way acquisition and utility relocation. Environmental considerations due to proximity of gas station.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$385,110
Design	\$57,770
DCM (Design PM)	\$46,220
DCM (Constr. Admin.)	\$77,030
Right-Of-Way	\$23,190
Miscellaneous	\$0

Total \$589,320

Project Predecessors: None

Complementary Projects: R-4, R-5 or R-6, TR-2

Bus Bay Installation at Thomas - NB (TR-2)



City Council District: District 4
Project Type: Transit
Project Description: Construct bus bay for NB stop immediately north of Thomas Road. Reconstruct sidewalk as necessary.

Project Constraints: Right-of-way acquisition. Potential utility impacts.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$59,630
Design	\$8,950
DCM (Design PM)	\$7,160
DCM (Constr. Admin.)	\$11,930
Right-Of-Way	\$160
Miscellaneous	\$0

Total \$87,830

Project Predecessors: None

Complementary Projects: R-4, R-5 or R-6, R-7

Frontage Road Improvements #1 (U-1)

City Council District: District 4
Project Type: Utilities
Project Description: Relocate utilities in median separating 43rd Street and frontage road on the east side of the road from Encanto Boulevard to Virginia Avenue.

Project Constraints: Coordination with utility company. Potential right-of-way impacts.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$76,000
Design	\$11,400
DCM (Design PM)	\$9,120
DCM (Constr. Admin.)	\$15,200
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$111,720

Project Predecessors: None

Complementary Projects: None

Frontage Road Improvements #2 (U-2)

City Council District: District 4
Project Type: Utilities
Project Description: Relocate light poles in median separating 43rd Street and frontage road on the east side of the road from Pinchot Avenue to Earll Drive.

Project Constraints: Coordination with utility company.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$32,570
Design	\$4,890
DCM (Design PM)	\$3,910
DCM (Constr. Admin.)	\$6,520
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$47,890

Project Predecessors: None

Complementary Projects: T-9

Frontage Road Improvements #3 (U-3)

City Council District: District 4
Project Type: Utilities
Project Description: Relocate utilities in median separating 43rd Street and frontage road on the east side of the road from Flower Street to Osborn Road.

Project Constraints: Coordination with utility company.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$21,720
Design	\$3,260
DCM (Design PM)	\$2,610
DCM (Constr. Admin.)	\$4,350
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$31,940

Project Predecessors: None

Complementary Projects: None

Construct HAWK at Grand Canal Trail Crossing (B-1)

City Council District: District 4
Project Type: Bicycle
Project Description: Construct High Intensity Activated Crosswalk (HAWK) where Grand Canal Trail crosses 43rd Avenue as recommended in the 2014 Comprehensive Bicycle Masterplan.

Project Constraints: Utility coordination.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$171,130
Design	\$25,670
DCM (Design PM)	\$20,540
DCM (Constr. Admin.)	\$34,230
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$251,570

Project Predecessors: None

Complementary Projects: None

Construct HAWK at Clarendon Avenue (P-3)

City Council District: District 4
Project Type: Pedestrian
Project Description: Install High Intensity Activated Crosswalk (HAWK) signal at the intersection 43rd Avenue and Clarendon Avenue.

Project Constraints: Utility coordination. Potential right-of-way acquisition.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$169,630
Design	\$25,450
DCM (Design PM)	\$20,360
DCM (Constr. Admin.)	\$33,930
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$249,370

Project Predecessors: None

Complementary Projects: P-1

Auxiliary Lane Lengthening – Indian School (R-8)

City Council District: Districts 4 & 5
Project Type: Roadway (Capacity)
Project Description: Increase length of auxiliary through lane on SB 43rd Avenue at the intersection of Indian School Road. Increase length to 400 feet minimum.

Project Constraints: Right-of-way acquisition and/or utility relocation.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$56,350
Design	\$8,460
DCM (Design PM)	\$6,770
DCM (Constr. Admin.)	\$11,270
Right-Of-Way	\$19,660
Miscellaneous	\$0

Total \$102,510

Project Predecessors: None

Complementary Projects: R-9 or R-10, TR-3

Access Management at Indian School - Option #1 (R-9)

City Council District: Districts 4 & 5
Project Type: Roadway (Safety)
Project Description: Install concrete median (500 feet) at the intersection of 43rd Avenue with Indian School on all legs of intersection. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-10.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$212,490
Design	\$31,880
DCM (Design PM)	\$25,500
DCM (Constr. Admin.)	\$42,500
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$312,370

Project Predecessors: None

Complementary Projects: R-8, TR-3

Access Management at Indian School - Option #2 (R-10)



City Council District: Districts 4 & 5
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with Indian School on all legs of intersection. This option is not depicted within the map book. This project is mutually exclusive with R-9.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$54,280
Design	\$8,150
DCM (Design PM)	\$6,520
DCM (Constr. Admin.)	\$10,860
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$79,810

Project Predecessors: None

Complementary Projects: R-8, TR-3

Bus Bay Installation at Indian School - NB (TR-3)

City Council District: District 5
Project Type: Transit
Project Description: Construct bus bay for NB stop immediately north of Indian School Road. Reconstruct sidewalk as necessary.

Project Constraints: Right-of-way acquisition and/or utility relocation.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$27,240
Design	\$4,090
DCM (Design PM)	\$3,270
DCM (Constr. Admin.)	\$5,450
Right-Of-Way	\$580
Miscellaneous	\$0

Total \$40,630

Project Predecessors: None

Complementary Projects: R-8, R-9 or R-10

Railway Crossing Gate Installation #1 (P-4)

City Council District: District 5
Project Type: Pedestrian
Project Description: Install gates across travel lanes and sidewalks. Install pedestrian crossing panels along tracks within 43rd Avenue. Install ADA compliant truncated dome curb ramps along sidewalks adjacent to tracks. These improvements may need to be removed or modified when the light rail is constructed.

Project Constraints: Coordination with BNSF Railway.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$534,120
Design	\$80,120
DCM (Design PM)	\$64,100
DCM (Constr. Admin.)	\$106,830
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$785,170

Project Predecessors: None

Complementary Projects: T-10, T-11, T-12, TR-4

Railway Crossing Gate Installation #2 (P-5)

City Council District: District 5
Project Type: Pedestrian
Project Description: Install gates across travel lanes and sidewalks. Install pedestrian crossing panels along tracks within 43rd Avenue and Camelback Road. Install fences along island adjacent to the tracks, east of 43rd Avenue. Install ADA compliant truncated dome curb ramps along sidewalks adjacent to tracks. These improvements may need to be removed or modified when the light rail is constructed.

Project Constraints: Coordination with BNSF Railway.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$842,630
Design	\$126,400
DCM (Design PM)	\$101,120
DCM (Constr. Admin.)	\$168,530
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$1,238,680

Project Predecessors: None

Complementary Projects: T-10, T-11, T-12, TR-4

Complete Sidewalk - Project #2 (P-6)

City Council District: District 5
Project Type: Pedestrian
Project Description: Construct sidewalk to close sidewalk gaps along 43rd Avenue between Camelback Road and Glendale Avenue. These improvements may need to be removed or modified when the light rail is constructed.

Project Constraints: Right-of-way acquisition and utility relocation. Coordination with City of Glendale.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$56,900
Design	\$8,540
DCM (Design PM)	\$6,830
DCM (Constr. Admin.)	\$11,380
Right-Of-Way	\$0
Miscellaneous	\$0

Total	\$83,650
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Project Predecessors: R-15

Complementary Projects: R-15

Guidesign Installation – Camelback (T-10)



City Council District: District 5
Project Type: Traffic (Signing and Striping)
Project Description: Install guide signs at the intersection of 43rd Avenue with Camelback Road on the southern leg. These improvements may need to be removed or modified when the light rail is constructed.

Project Constraints: Coordination with ADOT.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$40,710
Design	\$6,110
DCM (Design PM)	\$4,890
DCM (Constr. Admin.)	\$8,150
Right-Of-Way	\$0
Miscellaneous	\$0

Total	\$59,860
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Project Predecessors: None

Complementary Projects: P-4 , P-5, T-11, T-12, TR-4

Lighting Project #2 (T-11)

City Council District: District 5
Project Type: Traffic (Lighting)
Project Description: Install lighting at the underpass at Grand Avenue. These improvements may need to be removed or modified when the light rail is constructed.

Project Constraints: Coordination with ADOT.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$22,260
Design	\$3,340
DCM (Design PM)	\$2,680
DCM (Constr. Admin.)	\$4,460
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$32,740

Project Predecessors: None

Complementary Projects: P-4, P-5, T-10, T-12, TR-4

Signing Installation - Camelback (T-12)

City Council District: District 5
Project Type: Traffic (Signing and Striping)
Project Description: Install movement prohibition signs (MUTCD type: R3-2) on the eastern and western legs of the 43rd Avenue intersection with Camelback Road. Update pavement lane usage markings and install lane control signs on the eastern and western legs of the 43rd Avenue intersection with Camelback Road. These improvements may need to be removed or modified when the light rail is constructed.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$1,090
Design	\$170
DCM (Design PM)	\$140
DCM (Constr. Admin.)	\$220
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$1,620

Project Predecessors: None

Complementary Projects: P-4, P-5, T-10, T-11, TR-4

Lighting Project #3 (T-13)

City Council District: District 5
Project Type: Traffic (Lighting)
Project Description: Close lighting gaps on west side of road between Camelback Road and Glendale Avenue. Upgrade existing lighting to LED on both sides of street. These improvements may need to be removed or modified when the light rail is constructed.

Project Constraints: Potential right-of-way acquisition and utility coordination. Coordination with City of Glendale.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$844,810
Design	\$126,730
DCM (Design PM)	\$101,380
DCM (Constr. Admin.)	\$168,970
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$1,241,890

Project Predecessors: P-6, R-15

Complementary Projects: T-11

Bus Bay Installation at Camelback - SB (TR-4)

City Council District: District 5
Project Type: Transit
Project Description: Construct bus bay for SB stop immediately south of Camelback Road. Reconstruct sidewalk as necessary. These improvements may need to be removed or modified when the light rail is constructed.

Project Constraints: Right-of-way acquisition.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$37,100
Design	\$5,570
DCM (Design PM)	\$4,460
DCM (Constr. Admin.)	\$7,420
Right-Of-Way	\$30,540
Miscellaneous	\$0

Total \$85,090

Project Predecessors: None

Complementary Projects: P-4, P-5, T-10, T-11, T-12

Access Management at Bethany Home - Project #1 - Option #1 (R-11)

City Council District: District 5
Project Type: Roadway (Safety)
Project Description: Install concrete median on eastern leg of the intersection of 43rd Avenue with Bethany Home Road. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-12.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$24,300
Design	\$3,650
DCM (Design PM)	\$2,920
DCM (Constr. Admin.)	\$4,860
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$35,730

Project Predecessors: None

Complementary Projects: R-13 or R-14

Access Management at Bethany Home - Project #1 - Option #2 (R-12)



City Council District: District 5
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) on east leg of the intersection of 43rd Avenue with Bethany Home Road. This option is not depicted within the map book. This project is mutually exclusive with R-11.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$13,570
Design	\$2,040
DCM (Design PM)	\$1,630
DCM (Constr. Admin.)	\$2,720
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$19,960

Project Predecessors: None

Complementary Projects: R-13 or R-14

Access Management at Bethany Home - Project #2 - Option #1 (R-13)

City Council District: District 5
Project Type: Roadway (Safety)
Project Description: Construct islands in drive aprons to convert all accesses within 500 feet of intersection to right-in/right-out on the northern and southern legs of the intersection. These improvements may need to be removed or modified when the light rail is constructed. This project is mutually exclusive with R-14.

Project Constraints: Potential right-of-way acquisition and utility relocation. Drive way impacts. Coordination with Valley Metro. Coordination with City of Glendale. Potential environmental impact considering proximity of gas station.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$739,080
Design	\$110,870
DCM (Design PM)	\$88,690
DCM (Constr. Admin.)	\$147,820
Right-Of-Way	\$0
Miscellaneous	\$0

Total	\$1,086,460
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Project Predecessors: None

Complementary Projects: R-11 or R-12

Access Management at Bethany Home - Project #2 - Option #2 (R-14)

City Council District: District 5
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) within 500 feet on the northern and southern legs of the intersection of Bethany Home Road. These improvements may need to be removed or modified when the light rail is constructed. This option is not depicted within the map book. This project is mutually exclusive with R-13.

Project Constraints: Coordination with Valley Metro and the City of Glendale.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$27,140
Design	\$4,080
DCM (Design PM)	\$3,260
DCM (Constr. Admin.)	\$5,430
Right-Of-Way	\$0
Miscellaneous	\$0

Total	\$39,910
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Project Predecessors: None

Complementary Projects: R-11 or R-12

Frontage Road Removal (R-15)



City Council District: District 5
Project Type: Roadway (Capacity)
Project Description: Remove frontage road east of 43rd Avenue between Maryland Avenue and McLellan Boulevard. Relocate utility poles. Construct NB bus bay immediately north of Maryland Avenue. Construct sidewalk between Maryland Avenue and McLellan Boulevard. These improvements may need to be removed or modified when the light rail is constructed. This project includes improvements that would otherwise be constructed as part of P-6.

Project Constraints: Utility coordination. Coordination with Valley Metro.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$172,000
Design	\$25,800
DCM (Design PM)	\$20,640
DCM (Constr. Admin.)	\$34,400
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$252,840

Project Predecessors: None

Complementary Projects: P-6

Access Management at Glendale – Project #1 - Option #1 (R-16)

City Council District: District 5
Project Type: Roadway (Safety)
Project Description: Install concrete median on eastern and northern legs of the intersection of 43rd Avenue with Glendale Avenue. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-17.

Project Constraints: Potential right-of-way take on eastern leg.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$62,410
Design	\$9,370
DCM (Design PM)	\$7,490
DCM (Constr. Admin.)	\$12,490
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$91,760

Project Predecessors: None

Complementary Projects: R-18 or R-19, TR-5

Access Management at Glendale – Project #1 - Option #2 (R-17)



City Council District: District 5
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) on eastern and northern legs of the intersection of 43rd Avenue with Glendale Avenue. This option is not depicted within the map book. This project is mutually exclusive with R-16.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$27,140
Design	\$4,080
DCM (Design PM)	\$3,260
DCM (Constr. Admin.)	\$5,430
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$39,910

Project Predecessors: None

Complementary Projects: R-18 or R-19, TR-5

Access Management at Glendale – Project #2 - Option #1 (R-18)

City Council District: District 5
Project Type: Roadway (Safety)
Project Description: Construct islands in drive aprons to convert all accesses within 500 feet of intersection to right-in/right-out on the southern leg of the intersection of 43rd Avenue with Glendale Avenue. These improvements may need to be removed or modified when the light rail is constructed. This project is mutually exclusive with R-19.

Project Constraints: Potential right-of-way acquisition and utility relocation. Drive way impacts.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$328,650
Design	\$49,300
DCM (Design PM)	\$39,440
DCM (Constr. Admin.)	\$65,730
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$483,120

Project Predecessors: None

Complementary Projects: R-16 or R-17, TR-5

Access Management at Glendale – Project #2 - Option #2 (R-19)

City Council District: Districts 1 & 5
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) on the southern leg within 500 feet of the intersection of 43rd Avenue with Glendale Avenue. These improvements may need to be removed or modified when the light rail is constructed. This project is mutually exclusive with R-18.

Project Constraints: Drive way impacts. Coordination with West Phoenix/Central Glendale Transit Corridor Study. Coordination with City of Glendale.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$13,570
Design	\$2,040
DCM (Design PM)	\$1,630
DCM (Constr. Admin.)	\$2,720
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$19,960

Project Predecessors: None

Complementary Projects: R-16 or R-17, TR-5

Lighting Project #4 (T-14)

City Council District: Districts 1 & 5
Project Type: Traffic (Lighting)
Project Description: Close lighting gaps on west side of road between Glendale Avenue and Peoria Avenue. Upgrade existing lighting to LED on both sides of street.

Project Constraints: Potential right-of-way acquisition and utility relocation. Coordination with City of Glendale.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$1,250,930
Design	\$187,640
DCM (Design PM)	\$150,120
DCM (Constr. Admin.)	\$250,190
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$1,838,880

Project Predecessors: P-2, TR-5, R-22, TR-6, TR-7, P-7, P-8

Complementary Projects: None

Bus Bay Installation at Glendale - NB (TR-5)

City Council District: District 5
Project Type: Transit
Project Description: Construct bus bay for NB stop immediately north of Glendale Avenue. Reconstruct sidewalk as necessary.

Project Constraints: Right-of-way acquisition and utility relocation.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$68,130
Design	\$10,220
DCM (Design PM)	\$8,180
DCM (Constr. Admin.)	\$13,630
Right-Of-Way	\$10,030
Miscellaneous	\$0

Total \$110,190

Project Predecessors: None

Complementary Projects: R-16 or R-17, R-18 or R-19

Access Management at Northern - Option #1 (R-20)

City Council District: Districts 1 & 5
Project Type: Roadway (Safety)
Project Description: Install concrete median on northern, southern and eastern legs of the intersection of 43rd Avenue with Northern Avenue. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-21.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$101,050
Design	\$15,160
DCM (Design PM)	\$12,130
DCM (Constr. Admin.)	\$20,210
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$148,550

Project Predecessors: None

Complementary Projects: R-22, TR-6

Access Management at Northern - Option #2 (R-21)



City Council District: Districts 1 & 5
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) on northern, southern and eastern legs of the intersection of 43rd Avenue with Northern Avenue. This option is not depicted within the map book. This project is mutually exclusive with R-20.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$40,710
Design	\$6,110
DCM (Design PM)	\$4,890
DCM (Constr. Admin.)	\$8,150
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$59,860

Project Predecessors: None

Complementary Projects: R-22, TR-6

Intersection Capacity Improvement - Northern Avenue (R-22)



City Council District: District 5
Project Type: Roadway (Capacity)
Project Description: Add 250-foot NB right turn pocket lane.

Project Constraints: Right-of-way acquisition and utility relocation. Potential environmental impacts due to proximity of gas station.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$140,030
Design	\$21,010
DCM (Design PM)	\$16,810
DCM (Constr. Admin.)	\$28,010
Right-Of-Way	\$42,520
Miscellaneous	\$0

Total \$248,380

Project Predecessors: None

Complementary Projects: R-20 or R-21, TR-6

Bus Bay Installation at Northern - SB (TR-6)



City Council District: District 5
Project Type: Transit
Project Description: Construct bus bay for SB stop immediately south of Northern Avenue. Reconstruct sidewalk as necessary.

Project Constraints: Right-of-way acquisition.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$82,510
Design	\$12,380
DCM (Design PM)	\$9,910
DCM (Constr. Admin.)	\$16,510
Right-Of-Way	\$20,060
Miscellaneous	\$0

Total \$141,370

Project Predecessors: None

Complementary Projects: R-20 or R-21, R-22

Frontage Road Improvements #4 (P-7)

City Council District: District 1
Project Type: Pedestrian
Project Description: Relocate utilities in median separating 43rd Avenue and frontage road on the east side of the road from Eva Street to Peoria Avenue. Construct curb ramps adjacent to transit stops in frontage road median to facilitate access to stops.

Project Constraints: Coordination with utility company.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$172,340
Design	\$25,860
DCM (Design PM)	\$20,690
DCM (Constr. Admin.)	\$34,470
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$253,360

Project Predecessors: None

Complementary Projects: P-8

Access Management at Dunlap - Option #1 (R-23)

City Council District: District 1
Project Type: Roadway (Safety)
Project Description: Install concrete median on northern, southern and eastern legs of the intersection of 43rd Avenue with Dunlap Avenue. Re-stripe lanes to minimum 10-foot lane widths. This project is mutually exclusive with R-24.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$115,130
Design	\$17,270
DCM (Design PM)	\$13,820
DCM (Constr. Admin.)	\$23,030
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$169,250

Project Predecessors: None

Complementary Projects: TR-7

Access Management at Dunlap - Option #2 (R-24)

City Council District: District 1
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) on northern, southern and eastern legs of the intersection of 43rd Avenue with Dunlap Avenue. This option is not depicted within the map book. This project is mutually exclusive with R-23.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$40,710
Design	\$6,110
DCM (Design PM)	\$4,890
DCM (Constr. Admin.)	\$8,150
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$59,860

Project Predecessors: None

Complementary Projects: TR-7

Bus Bay Installation at Dunlap - NB (TR-7)

City Council District: District 1
Project Type: Transit
Project Description: Construct bus bay for NB stop immediately north of Dunlap Avenue. Reconstruct sidewalk as necessary. Add shelter to bus stop.

Project Constraints: Right-of-way acquisition and utility relocation.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$40,680
Design	\$6,110
DCM (Design PM)	\$4,890
DCM (Constr. Admin.)	\$8,140
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$59,820

Project Predecessors: None

Complementary Projects: R-23 or R-24

Construct HAWK at Vogel Avenue (P-8)

City Council District: District 1
Project Type: Pedestrian
Project Description: Install High Intensity Activated Crosswalk (HAWK) signal at the intersection 43rd Avenue and Vogel Avenue.

Project Constraints: Utility coordination. Potential right-of-way acquisition.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$169,630
Design	\$25,450
DCM (Design PM)	\$20,360
DCM (Constr. Admin.)	\$33,930
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$249,370

Project Predecessors: P-2, P-7

Complementary Projects: P-1, P-7

Arizona Canal Trail Signs (B-2)

City Council District: District 1
Project Type: Bicycle
Project Description: Install way-finding signs on the approaches of the Arizona Canal Trail to the 43rd Avenue underpass as recommended in the 2014 Comprehensive Bicycle Masterplan.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$1,360
Design	\$210
DCM (Design PM)	\$170
DCM (Constr. Admin.)	\$280
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$2,020

Project Predecessors: None

Complementary Projects: None

Lighting Project #5 (T-15)

City Council District: District 1
Project Type: Traffic (Lighting)
Project Description: Close lighting gaps on east side of road between Peoria Avenue and Cactus Road. Upgrade existing lighting to LED on both sides of street.

Project Constraints: Potential right-of-way acquisition and utility relocation.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$418,370
Design	\$62,760
DCM (Design PM)	\$50,210
DCM (Constr. Admin.)	\$83,680
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$615,020

Project Predecessors: None

Complementary Projects: None

Lighting Project #6 (T-16)

City Council District: District 1
Project Type: Traffic (Lighting)
Project Description: Close lighting gaps on east side of road between Cactus Road and Bell Road. Upgrade existing lighting to LED on both sides of street.

Project Constraints: Potential right-of-way acquisition and utility relocation.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$1,031,620
Design	\$154,750
DCM (Design PM)	\$123,800
DCM (Constr. Admin.)	\$206,330
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$1,516,500

Project Predecessors: R-25

Complementary Projects: None

ASU-West Loop (B-3)

City Council District: District 1
Project Type: Bicycle
Project Description: Coordinate with ASU-West Campus to complete the multiuse trail around the perimeter of the campus and connect with Sweetwater Avenue to provide the connection identified within the MAG 2015 Bike Pathways Map.

Project Constraints: Coordination with ASU-West.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$113,800
Design	\$17,070
DCM (Design PM)	\$13,660
DCM (Constr. Admin.)	\$22,760
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$167,290

Project Predecessors: None

Complementary Projects: None

Auxiliary Lane Lengthening – Greenway (R-25)

City Council District: District 1
Project Type: Roadway (Capacity)
Project Description: Increase length of auxiliary through lane on SB 43rd Avenue at the intersection of Greenway Road. Increase length to 400 feet minimum.

Project Constraints: Right-of-way acquisition and utility relocation.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$19,770
Design	\$2,970
DCM (Design PM)	\$2,380
DCM (Constr. Admin.)	\$3,960
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$29,080

Project Predecessors: None

Complementary Projects: T-17

Striping Upgrades - Greenway (T-17)



City Council District: District 1
Project Type: Traffic (Signing and Striping)
Project Description: Restripe eastern and western legs of the intersection of 43rd Avenue with Greenway Road to a left-turn, two through lanes, and a right-turn configuration.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$8,150
Design	\$1,230
DCM (Design PM)	\$980
DCM (Constr. Admin.)	\$1,630
Right-Of-Way	\$0
Miscellaneous	\$0

Total \$11,990

Project Predecessors: None

Complementary Projects: R-25

Access Management at Bell – Option #1 (R-26)

City Council District: District 1
Project Type: Roadway (Safety)
Project Description: Install concrete medians along the northern and southern legs of the 43rd Avenue intersection with Bell Road. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-27.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$76,760
Design	\$11,520
DCM (Design PM)	\$9,220
DCM (Constr. Admin.)	\$15,360
Right-Of-Way	\$0
Miscellaneous	\$0

Total	\$112,860
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Project Predecessors: None

Complementary Projects: None

Access Management at Bell - Option #2 (R-27)

City Council District: District 1
Project Type: Roadway (Safety)
Project Description: Install raised pavement markers (dagmars) along the northern and southern legs of the 43rd Avenue intersection with Bell Road. This option is not depicted within the map book. This project is mutually exclusive with R-26.

Project Constraints: Internal City of Phoenix coordination only.

Cost: Costs were developed using unit prices provided by the City. Costs are in 2016 dollar. Listed below is the summary information for the cost estimate. Line item estimates are included in **Appendix B**.

Construction	\$27,140
Design	\$4,080
DCM (Design PM)	\$3,260
DCM (Constr. Admin.)	\$5,430
Right-Of-Way	\$0
Miscellaneous	\$0

Total	\$39,910
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Project Predecessors: None

Complementary Projects: None

3.0 Cost Estimates

Planning level cost estimates were derived using unit costs provided by the City. Unit costs are listed in 2016 dollars. Project Costs are the sum of the construction costs, design costs, soft costs, and right-of-way costs. Line item cost estimates are included in **Appendix B**. As projects advance in the project development process, more detailed information will become available that may affect the ultimate project cost.

3.1. Construction Costs

Estimated construction costs were derived using unit costs or percentages provided by the City of Phoenix. These are listed in **Table 2**. In cases where the cost of the item is listed as a percentage in **Table 2**, the line item cost is calculated as a product of the listed percentage and a subtotal of construction costs.

Table 2 – Construction Cost Estimate Unit Costs

Item	Unit	Unit Price
Subgrade Preparation	Sq. Yd.	\$15
AC Pavement (surface course)	Tons	\$120
AC Pavement (base course)	Tons	\$120
Tack Coat	Tons	\$500
Vert. Curb & Gutter	Lin. Ft.	\$18
Single Curb	Lin. Ft.	\$20
Ribbon Curb	Lin. Ft.	\$18
Sidewalk	Sq. Ft.	\$7
ADA Ramp	Each	\$5,000
Concrete Median w/ Nose	Sq. Ft.	\$12
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	\$5
Tree Removal (12" Dia. & Larger)	Each	\$1,200
Decorative Pavement	Sq. Ft.	\$10
Storm Drain Pipe	Lin. Ft.	\$160
Storm Drain Manholes-Est @ 500' Spacing	Each	\$6,000
Catch Basins	Each	\$4,500
MH & Water Valve Box Adjustments	Each	\$350
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	\$10
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	\$5
Remove Structures, Backfill & Compact	L.S.	N/A
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	N/A
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	\$200
Misc. Removal and Other Work	L.S.	N/A
Water-related Relocations (FH, Realign)	Each	\$5,000
Traffic Signals (Per Intersection)	Each	\$150,000
Streetlights	Each	\$4,100
Streetlight Trenching	Lin. Ft.	\$37
SWPP Allowance	L.S.	0.7%

Item	Unit	Unit Price
Traffic Control/Police Officer	L.S.	5%
Allowance for Extra Work	L.S.	10%
Contingency	L.S.	20%
Certified Burrowing Owl Surveyor	Each	\$1,500
Archaeological Activities	Each	\$75,000

For items that were not included within the initial unit costs, cost information was gathered from current contracts and purchase orders. These costs may not match the unit prices utilized for other corridors. These unit costs are listed in **Table 3**.

Table 3 – Construction Cost Estimate Additional Unit Costs

Item	Unit	Unit Price
Automatic Gates-Roadway	Each	\$50,000
Automatic Gates-Pedestrian	Each	\$30,000
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	\$550
Wrought Iron Fence	Lin. Ft.	\$60
Reflective Pavement Markings	Lin. Ft.	\$1
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	\$20
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	\$7
Reflective Pavement Marking (Bike & Arrow)	Each	\$500
Construct HAWK	Each	\$125,000
Wayfinding Signs	L.S.	N/A
Warning, Marker, or Regulatory Signs	Each	\$200
Guide Signs	Each	\$30,000
Multi-use Trail	Sq. Ft.	\$5
Pedestrian Countdown Timers	Each	\$10,000
Retroreflective Backplates	Each	\$110
Chain Link Fence	Lin. Ft.	\$30
Concrete Driveways	Sq. Yd.	\$80
Remove Asphalt Pavement	Sq. Yd.	\$8
12.5 kV Utility Pole Relocation	Each	\$8,000
LED Replacement	Each	\$1,000
Transit Stop Shelter	Each	\$9,000
Transit Stop Bench	Each	\$1,300
Transit Stop Trashcan	Each	\$700
Concrete Flume with Covers	Each	\$10,000
Headwall Extension	Each	\$10,000

3.2. Design Costs

Estimated design costs were calculated as a percentage of the construction costs. Design costs do not include costs attributed to City staff. Design costs were estimated to be 15 percent of the construction cost.

3.3. Soft Costs

Estimated soft costs were calculated as a percentage of the construction costs. The soft costs capture the anticipated effort internal to the City. Two soft costs were identified for the corridor projects: Design Construction Management for Design Project Management (DCM Design PM) and Design Construction Management for Construction Administration (DCM Construction Admin.).

The DCM Design PM costs were estimated to be 12 percent of the construction cost. The DCM Construction Admin. costs were estimated to be 20 percent of the construction cost.

There are projects where the anticipated effort may solely be internal to the City. Since these projects do not have any construction costs, no soft costs were estimated.

3.4. Right-of-Way Costs

Estimated right-of-way costs were derived by utilizing a cost per acre for impacted parcels. No total takes were identified. Right-of-way costs are due to anticipated permanent acquisition for projects in the form of strip takes. Damages to properties due to modified access or impairment during construction were not calculated.

3.5. Project Costs

Project Costs are the sum of the construction costs, design costs, soft costs, and right-of-way costs. Project costs for the recommended improvements are listed in

Table 4.

There are projects where the anticipated effort may solely be internal to the City. These projects will show have an estimated project cost of \$0.

Table 4 – Estimated Project Costs

Plan Designation	Project Title	Estimated Project Cost
B-1	Construct HAWK at Grand Canal Trail Crossing	\$251,570
B-2	Arizona Canal Trail Signs	\$2,020
B-3	ASU-West Loop	\$167,290
P-1	ADA Curb Ramp Compliance	\$3,182,240
P-2	Complete Sidewalk - Project #1	\$577,710
P-3	Construct HAWK at Clarendon Avenue	\$249,370
P-4	Railway Crossing Gate Installation #1	\$785,170
P-5	Railway Crossing Gate Installation #2	\$1,238,680
P-6	Complete Sidewalk - Project #2	\$83,650
P-7	Frontage Road Improvements #4	\$253,360
P-8	Construct HAWK at Vogel Avenue	\$249,370
R-1	Access Management at McDowell - Option #1	\$376,660
R-2	Access Management at McDowell - Option #2	\$190,060
R-3	Intersection Capacity Improvement - McDowell Road	\$1,075,750
R-4	Roadway Capacity - Thomas Road	\$213,430
R-5	Access Management at Thomas - Option #1	\$387,230
R-6	Access Management at Thomas - Option #2	\$79,810
R-7	Intersection Capacity Improvement - Thomas Road	\$589,320
R-8	Auxiliary Lane Lengthening - Indian School	\$102,510
R-9	Access Management at Indian School - Option #1	\$312,370
R-10	Access Management at Indian School - Option #2	\$79,810
R-11	Access Management at Bethany Home - Project #1 - Option #1	\$35,730
R-12	Access Management at Bethany Home - Project #1 - Option #2	\$19,960
R-13	Access Management at Bethany Home - Project #2 - Option #1	\$1,086,460
R-14	Access Management at Bethany Home - Project #2 - Option #2	\$39,910
R-15	Frontage Road Removal	\$252,840
R-16	Access Management at Glendale - Project #1 - Option #1	\$91,760
R-17	Access Management at Glendale - Project #1 - Option #2	\$39,910
R-18	Access Management at Glendale - Project #2 - Option #1	\$483,120
R-19	Access Management at Glendale - Project #2 - Option #2	\$19,960
R-20	Access Management at Northern - Option #1	\$148,550
R-21	Access Management at Northern - Option #2	\$59,860
R-22	Intersection Capacity Improvement - Northern Avenue	\$248,380
R-23	Access Management at Dunlap - Option #1	\$169,250
R-24	Access Management at Dunlap - Option #2	\$59,860
R-25	Auxiliary Lane Lengthening - Greenway	\$29,080
R-26	Access Management at Bell - Option #1	\$112,860
R-27	Access Management at Bell - Option #2	\$39,910
T-1	Signal Timing - Motorized Clearance Timing	\$0
T-2	Signal Timing - Pedestrian Crossing Timing	\$0

Plan Designation	Project Title	Estimated Project Cost
T-3	Signing/Striping Project #1	\$20,770
T-4	Signing/Striping Project #2	\$438,870
T-5	Signal Timing - Protected Left-Turn Phase	\$0
T-6	Speed Limit Adjustment	\$15,980
T-7	Install Pedestrian Countdown Timers	\$3,510,840
T-8	Improve Signal Visibility	\$77,260
T-9	Lighting Project #1	\$2,067,100
T-10	Guidesign Installation - Camelback	\$59,860
T-11	Lighting Project #2	\$32,740
T-12	Signing Installation - Camelback	\$1,620
T-13	Lighting Project #3	\$1,241,890
T-14	Lighting Project #4	\$1,838,880
T-15	Lighting Project #5	\$615,020
T-16	Lighting Project #6	\$1,516,500
T-17	Striping Upgrades - Greenway	\$11,990
TR-1	Upgrade Transit Stops	\$1,831,580
TR-2	Bus Bay Installation at Thomas - NB	\$87,830
TR-3	Bus Bay Installation at Indian School - NB	\$40,630
TR-4	Bus Bay Installation at Camelback - SB	\$85,090
TR-5	Bus Bay Installation at Glendale - NB	\$110,190
TR-6	Bus Bay Installation at Northern - SB	\$141,370
TR-7	Bus Bay Installation at Dunlap - NB	\$59,820
U-1	Frontage Road Improvements #1	\$111,720
U-2	Frontage Road Improvements #2	\$47,890
U-3	Frontage Road Improvements #3	\$31,940

4.0 Implementation Plan

4.1. Evaluation Criteria

Each project has been evaluated to determine the benefits realized from its implementation in regards to five categories: Safety, Mobility – Non-Motorized, Mobility – Transit, Mobility – Vehicular, and Future Plan Compatibility. **Table 5** lists the projects and the categories they benefit and is sorted by the total number of categories benefited.

4.1.1. Safety

Does the project have the potential to improve public safety? Example projects include construction of lighting or median barriers. Safety does not need to be the main purpose of the project for the project to improve safety.

4.1.2. Mobility – Non-Motorized

Does the project benefit pedestrians, cyclists, or other non-motorized users? Example projects include construction of sidewalks and multi-use trails or increasing pedestrian clearance signal timing. Pedestrian or cyclists do not need to be the main beneficiary of the project for the project to benefit them.

4.1.3. Mobility – Transit

Does the project benefit transit users? Example projects include installing bus shelters or constructing bus bays. Transit users do not need to be the main beneficiary of the project for the project to benefit them.

4.1.4. Mobility – Vehicular

Does the project benefit the vehicular travel? Example projects include construction of turn lanes or improved signing. Vehicles do not need to be the main beneficiary of the project for the project to benefit them.

4.1.5. Future Plan Compatibility

Does the project fulfill a master plan or need identified by another study? Example projects include implementing recommendations from a master plan.

4.2. Return on Investment

Each project within the corridor was evaluated using engineering judgement to identify projects having the greatest Return on Investment (ROI). **Table 6** lists the project identified through this subjective process. A blue ribbon icon (**Figure 2**) has been placed on the Project Data Sheet of any project identified within **Table 6**.

Conversely, there are projects which may have a lower ROI because the improvements may be replaced by a different project within its normal expected life. **Table 7** lists these projects.

Figure 2 – ROI Indicator



Table 5 – Evaluation Table

Plan Designation	Project Title	Safety	Mobility – Non-Motorized	Mobility - Transit	Mobility - Vehicles	Future Plan Compatibility	Total Checked
P-4	Railway Crossing Gate Installation #1	X	X	X	X		4
P-5	Railway Crossing Gate Installation #2	X	X	X	X		4
R-15	Frontage Road Removal	X	X	X	X		4
B-1	Construct HAWK at Grand Canal Trail Crossing	X	X			X	3
P-7	Frontage Road Improvements #4	X	X	X			3
T-11	Lighting Project #2	X	X		X		3
T-13	Lighting Project #3	X	X		X		3
T-14	Lighting Project #4	X	X		X		3
T-15	Lighting Project #5	X	X		X		3
T-16	Lighting Project #6	X	X		X		3
T-9	Lighting Project #1	X	X		X		3
B-2	Arizona Canal Trail Signs		X			X	2
B-3	ASU-West Loop		X			X	2
P-1	ADA Curb Ramp Compliance	X	X				2
P-3	Construct HAWK at Clarendon Avenue	X	X				2
P-6	Complete Sidewalk - Project #2	X	X				2
P-8	Construct HAWK at Vogel Avenue	X	X				2
R-1	Access Management at McDowell - Option #1	X			X		2
R-2	Access Management at McDowell - Option #2	X			X		2
R-5	Access Management at Thomas - Option #1	X			X		2
R-6	Access Management at Thomas - Option #2	X			X		2
R-8	Auxiliary Lane Lengthening - Indian School	X			X		2
R-9	Access Management at Indian School - Option #1	X			X		2
R-10	Access Management at Indian School - Option #2	X			X		2
R-11	Access Management at Bethany Home - Project #1 - Option #1	X			X		2

Plan Designation	Project Title	Safety	Mobility – Non-Motorized	Mobility - Transit	Mobility - Vehicles	Future Plan Compatibility	Total Checked
R-12	Access Management at Bethany Home - Project #1 - Option #2	X			X		2
R-13	Access Management at Bethany Home - Project #2 - Option #1	X			X		2
R-14	Access Management at Bethany Home - Project #2 - Option #2	X			X		2
R-16	Access Management at Glendale - Project #1 - Option #1	X			X		2
R-17	Access Management at Glendale - Project #1 - Option #2	X			X		2
R-18	Access Management at Glendale - Project #2 - Option #1	X			X		2
R-19	Access Management at Glendale - Project #2 - Option #2	X			X		2
R-20	Access Management at Northern - Option #1	X			X		2
R-21	Access Management at Northern - Option #2	X			X		2
R-23	Access Management at Dunlap - Option #1	X			X		2
R-24	Access Management at Dunlap - Option #2	X			X		2
R-25	Auxiliary Lane Lengthening - Greenway	X			X		2
R-26	Access Management at Bell - Option #1	X			X		2
R-27	Access Management at Bell - Option #2	X			X		2
T-1	Signal Timing - Motorized Clearance Timing	X			X		2
T-2	Signal Timing - Pedestrian Crossing Timing	X	X				2
T-3	Signing/Striping Project #1	X			X		2
T-4	Signing/Striping Project #2	X	X				2
T-5	Signal Timing - Protected Left-Turn Phase	X			X		2
T-6	Speed Limit Adjustment	X			X		2
T-7	Install Pedestrian Countdown Timers	X	X				2
T-8	Improve Signal Visibility	X			X		2
TR-2	Bus Bay Installation at Thomas - NB			X	X		2
TR-3	Bus Bay Installation at Indian School - NB			X	X		2
TR-4	Bus Bay Installation at Camelback - SB			X	X		2
TR-5	Bus Bay Installation at Glendale - NB			X	X		2
TR-6	Bus Bay Installation at Northern - SB			X	X		2
TR-7	Bus Bay Installation at Dunlap - NB			X	X		2
P-2	Complete Sidewalk - Project #1		X				1

Plan Designation	Project Title	Safety	Mobility – Non-Motorized	Mobility - Transit	Mobility - Vehicles	Future Plan Compatibility	Total Checked
R-3	Intersection Capacity Improvement - McDowell Road				X		1
R-4	Roadway Capacity - Thomas Road				X		1
R-7	Intersection Capacity Improvement - Thomas Road				X		1
R-22	Intersection Capacity Improvement - Northern Avenue				X		1
T-10	Guidesign Installation - Camelback				X		1
T-12	Signing Installation - Camelback				X		1
TR-1	Upgrade Transit Stops			X			1
U-1	Frontage Road Improvements #1	X					1
U-2	Frontage Road Improvements #2	X					1
U-3	Frontage Road Improvements #3	X					1

Table 6 – Greatest Potential Return on Investment

Plan Designation	Project Title	Description
R-2	Access Management at McDowell - Option #2	Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with McDowell on all legs of intersection. This option is not depicted within the map book. This project is mutually exclusive with R-1.
R-3	Intersection Capacity Improvement - McDowell Road	Add a SB through lane beginning 500 feet north of the intersection. Drop the lane as the SB right-turn lane at the I-10 TI.
R-6	Access Management at Thomas - Option #2	Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with Thomas Road on legs of the intersection. This option is not depicted within the map book. This project is mutually exclusive with R-5.
R-7	Intersection Capacity Improvement - Thomas Road	Provide an additional SB through lane and a NB right-turn lane. This project includes improvements that would otherwise be constructed as part of R-4.
R-10	Access Management at Indian School - Option #2	Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with Indian School on all legs of intersection. This option is not depicted within the map book. This project is mutually exclusive with R-9.
R-12	Access Management at Bethany Home - Project #1 - Option #2	Install raised pavement markers (dagmars) on east leg of the intersection of 43rd Avenue with Bethany Home Road. This option is not depicted within the map book. This project is mutually exclusive with R-11.
R-15	Frontage Road Removal	Remove frontage road east of 43rd Avenue between Maryland Avenue and McLellan Boulevard. Relocate utility poles. Construct NB bus bay immediately north of Maryland Avenue. Construct sidewalk between Maryland Avenue and McLellan Boulevard. These improvements may need to be removed or modified when the light rail is constructed. This project includes improvements that would otherwise be constructed as part of P-6.
R-17	Access Management at Glendale - Project #1 - Option #2	Install raised pavement markers (dagmars) on eastern and northern legs of the intersection of 43rd Avenue with Glendale Avenue. This option is not depicted within the map book. This project is mutually exclusive with R-16.
R-21	Access Management at Northern - Option #2	Install raised pavement markers (dagmars) on northern, southern and eastern legs of the intersection of 43rd Avenue with Northern Avenue. This option is not depicted within the map book. This project is mutually exclusive with R-20.

Plan Designation	Project Title	Description
R-22	Intersection Capacity Improvement - Northern Avenue	Add 250-foot NB right turn pocket lane.
T-1	Signal Timing - Motorized Clearance Timing	Use a yellow change interval duration of 4.5 seconds for through movements and 3.6 seconds for left-turn movements at all signalized intersections (except Camelback). Use a minimum of 1 second for all-red interval for the entire corridor.
T-2	Signal Timing - Pedestrian Crossing Timing	Use a walk interval of 7 seconds minimum during a walking person display. Use 3.5 ft/sec pedestrian walking speed to determine the duration of flashing "DON'T WALK" indication.
T-4	Signing/Striping Project #2	Improve pavement markings at all signalized intersections. Add stop bars (12 feet wide minimum). Clearly delineate pedestrian crossing zones at intersections.
T-5	Signal Timing - Protected Left-Turn Phase	Increase green times for protected only left-turn phases during peak hours. The cross street intersections along 43rd Avenue with the highest return on investment are McDowell Road, Thomas Road, Bethany Home Road, and Northern Avenue.
T-6	Speed Limit Adjustment	Reduce posted speed limit on 43rd Avenue between Glendale Avenue and Thunderbird Road from 45 mph to 40 mph. The rest of the corridor is currently signed at 40 mph.
T-7	Install Pedestrian Countdown Timers	Retrofit pedestrian countdown timers at all signalized intersections (eight per intersection).
T-8	Improve Signal Visibility	Add 3-inch yellow retroreflective sheeting to signal backplates.
T-10	Guidesign Installation - Camelback	Install guide signs at the intersection of 43rd Avenue with Camelback Road on the southern leg. These improvements may need to be removed or modified when the light rail is constructed.
T-17	Striping Upgrades - Greenway	Restripe eastern and western legs of the intersection of 43rd Avenue with Greenway Road to a left-turn, two through lanes, and a right-turn configuration.
TR-2	Bus Bay Installation at Thomas - NB	Construct bus bay for NB stop immediately north of Thomas Road. Reconstruct sidewalk as necessary.
TR-6	Bus Bay Installation at Northern - SB	Construct bus bay for SB stop immediately south of Northern Avenue. Reconstruct sidewalk as necessary.

Table 7 – Potentially Impacted Projects

Plan Designation	Project Title	Impacting Project (Owner)
P-4	Railway Crossing Gate Installation #1	Light Rail Extension (Valley Metro)
P-5	Railway Crossing Gate Installation #2	Light Rail Extension (Valley Metro)
P-6	Complete Sidewalk - Project #2	Light Rail Extension (Valley Metro)
R-13	Access Management at Bethany Home - Project #2 - Option #1	Light Rail Extension (Valley Metro)
R-14	Access Management at Bethany Home - Project #2 - Option #2	Light Rail Extension (Valley Metro)
R-15	Frontage Road Removal	Light Rail Extension (Valley Metro)
R-18	Access Management at Glendale - Project #2 - Option #1	Light Rail Extension (Valley Metro)
R-19	Access Management at Glendale - Project #2 - Option #2	Light Rail Extension (Valley Metro)
T-10	Guidesign Installation - Camelback	Light Rail Extension (Valley Metro)
T-11	Lighting Project #2	Light Rail Extension (Valley Metro)
T-12	Signing Installation - Camelback	Light Rail Extension (Valley Metro)
T-13	Lighting Project #3	Light Rail Extension (Valley Metro)
TR-4	Bus Bay Installation at Camelback - SB	Light Rail Extension (Valley Metro)

4.3. Project Schedules

Final design activities for all projects can generally be completed within 12 months or less of issuing the Notice to Proceed, with a few exceptions. Projects involving right-of-way acquisition, railroad coordination, major utility relocations, coordination with SRP, or coordination with the City of Glendale may take up to 24 months to complete. Several projects, such as those limited to signing, pavement marking, and traffic signal timing adjustments, can be completed relatively quickly (less than 12 months).

Construction activities for all projects can generally be completed within 12 months or less of issuing the Notice to Proceed.

4.4. Future Steps

Each project was qualitatively evaluated to determine the potential benefits within five categories: Safety, Mobility – Non-Motorized, Mobility – Transit, Mobility – Vehicular, and Future Plan Compatibility. **Table 5** lists the projects and the categories they benefit. Projects are listed in order of those that are projected to achieve benefits in the most categories to those that are projected to achieve the benefits in the least number of categories.

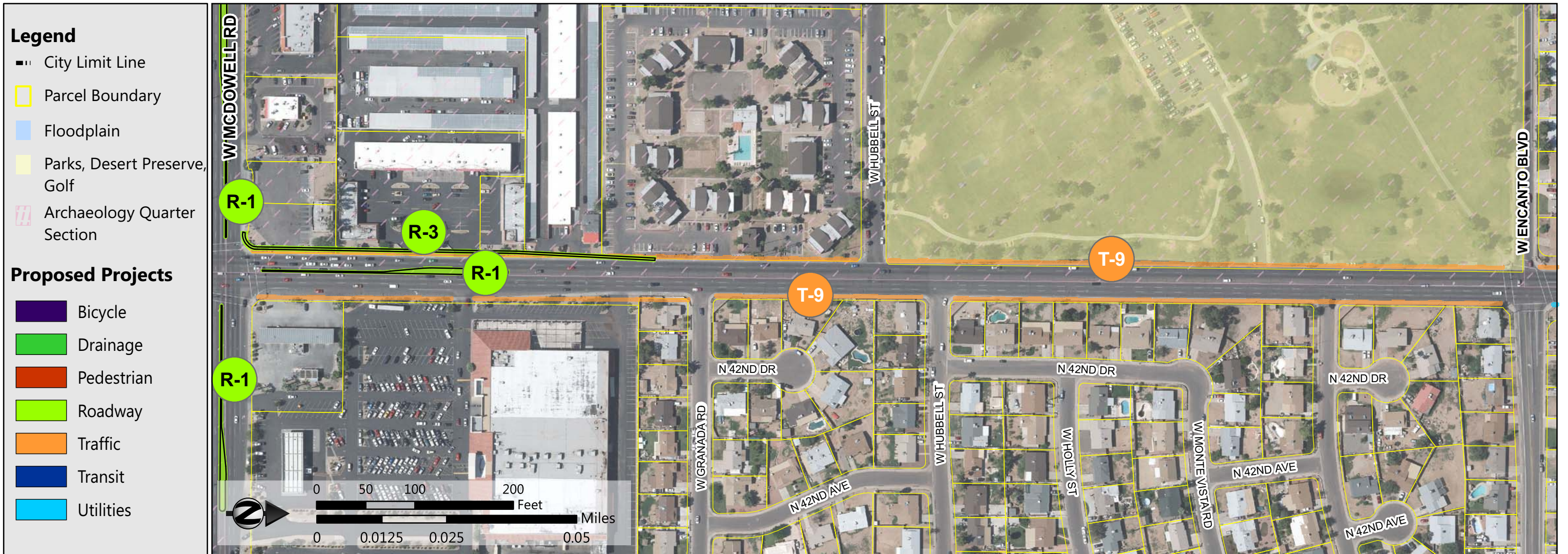
The project listing by category does not necessarily indicate the effectiveness of a particular project in addressing the identified needs. Therefore, a qualitative review, based on engineering judgment, was completed to identify projects that may have the greatest return on investment for addressing needs within the Study Area. Those projects were identified in **Table 6**.

Upon completion of this study, City staff will review the identified projects and present them to the CTC for approval to proceed into the Design phase of project development and ultimately potential programming of project construction. Once projects move into the Design phase, coordination activities with applicable project partners should begin. Additionally, since this project assessment is considered a planning document, certain in-depth technical evaluations will need to be completed such as a detailed traffic analysis to confirm the recommendations included herein, environmental studies, and others.



APPENDIX A

RECOMMENDED IMPROVEMENTS MAP BOOK



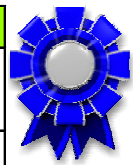
Layer Credits: City of Phoenix

Project:	R-1 (Access Management at McDowell - Option #1)
Description:	Install concrete median (500 feet) at the intersection of 43rd Avenue with McDowell on the all legs of intersection. This project is mutually exclusive with R-2.
Cost:	\$376,660

Project:	R-2 (Access Management at McDowell - Option #2)
Description:	Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with McDowell on all legs of intersection. This option is not depicted within the map book. This project is mutually exclusive with R-1.
Cost:	\$190,060



Project:	R-3 (Intersection Capacity Improvement - McDowell Road)
Description:	Add a SB through lane beginning 500 feet north of the intersection. Drop the lane as the SB right-turn lane at the I-10 TI.
Cost:	\$1,075,750



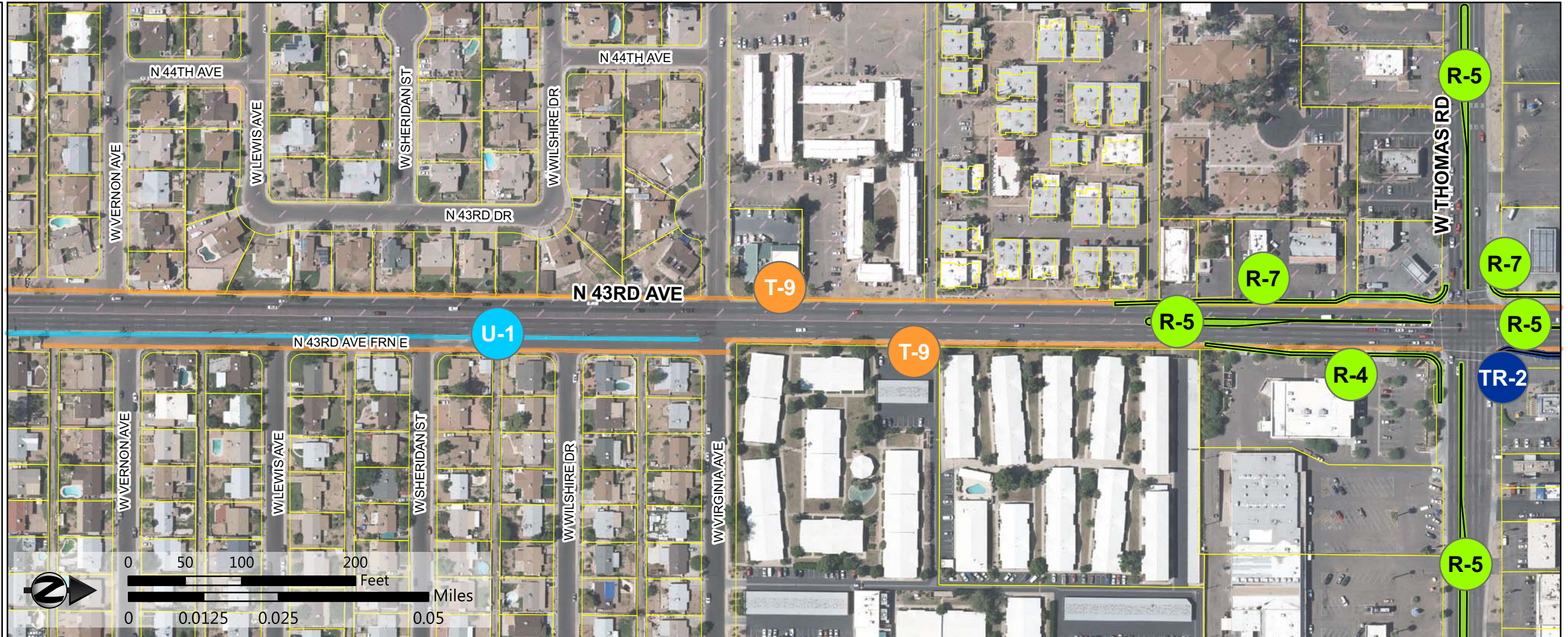
Project:	T-9 (Lighting Project #1)
Description:	Close lighting gaps on west side of road between McDowell Road and Camelback Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$2,067,100

Legend

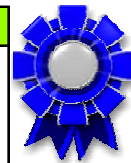
- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- Archaeology Quarter Section

Proposed Projects

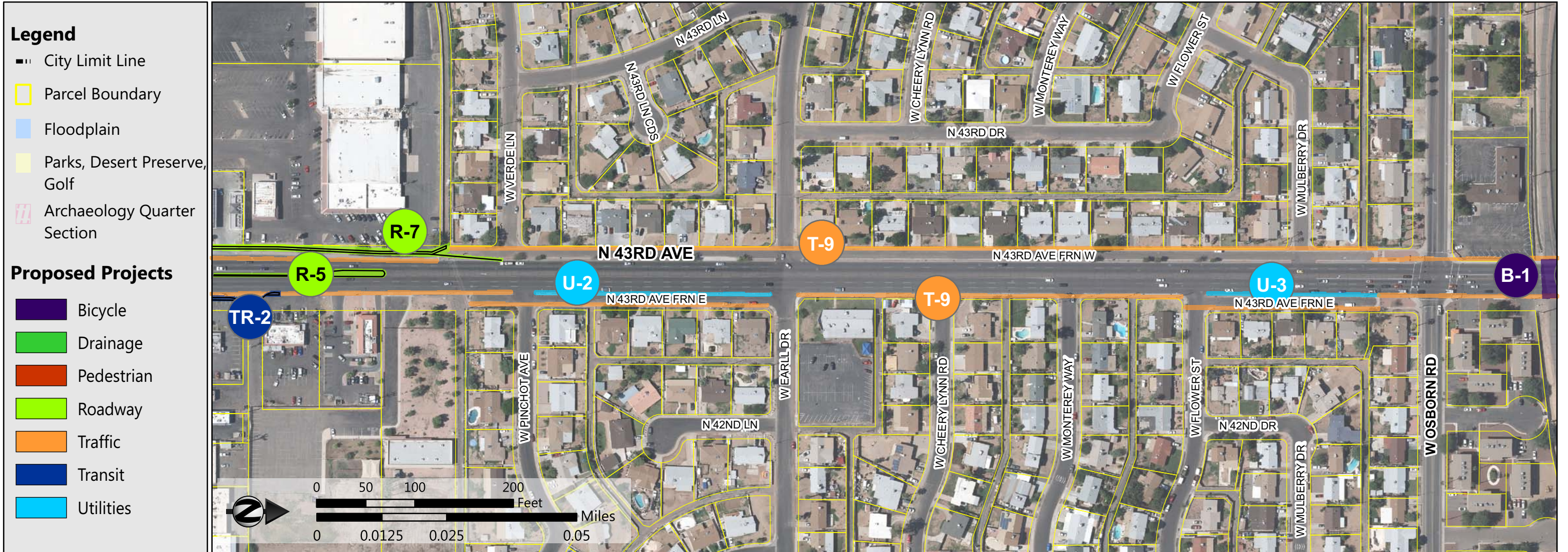
- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities



Project:	R-4 (Roadway Capacity - Thomas Road)
Description:	Add NB right-turn pocket lane (300 feet) at the intersection of 43rd Avenue with Thomas Road. Reconfigure driveway on the NB approach.
Cost:	\$213,430
Project:	R-5 (Access Management at Thomas - Option #1)
Description:	Install concrete median (400 to 500 feet) at the intersection of 43rd Avenue with Thomas Road on legs of the intersection. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-6.
Cost:	\$387,230
Project:	R-6 (Access Management at Thomas - Option #2)
Description:	Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with Thomas Road on legs of the intersection. This option is not depicted within the map book. This project is mutually exclusive with R-5.
Cost:	\$79,810
Project:	R-7 (Intersection Capacity Improvement - Thomas Road)
Description:	Provide an additional SB through lane and a NB right-turn lane. This project includes improvements that would otherwise be constructed as part of R-4.
Cost:	\$589,320



Project:	T-9 (Lighting Project #1)
Description:	Close lighting gaps on west side of road between McDowell Road and Camelback Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$2,067,100
Project:	TR-2 (Bus Bay Installation at Thomas - NB)
Description:	Construct bus bay for NB stop immediately north of Thomas Road. Reconstruct sidewalk as necessary.
Cost:	\$87,830
Project:	U-1 (Frontage Road Improvements #1)
Description:	Relocate utilities in median separating 43rd Street and frontage road on the east side of the road from Encanto Boulevard to Virginia Avenue.
Cost:	\$111,720



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Project: R-5 (Access Management at Thomas - Option #1)
Description: Install concrete median (400 to 500 feet) at the intersection of 43rd Avenue with Thomas Road on legs of the intersection. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-6.
Cost: \$387,230
Project: R-6 (Access Management at Thomas - Option #2)
Description: Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with Thomas Road on legs of the intersection. This option is not depicted within the map book. This project is mutually exclusive with R-5.
Cost: \$79,810
Project: R-7 (Intersection Capacity Improvement - Thomas Road)
Description: Provide an additional SB through lane and a NB right-turn lane. This project includes improvements that would otherwise be constructed as part of R-4.
Cost: \$589,320
Project: B-1 (Construct HAWK at Grand Canal Trail Crossing)
Description: Construct High Intensity Activated Crosswalk (HAWK) where Grand Canal Trail crosses 43rd Avenue as recommended in the 2014 Comprehensive Bicycle Masterplan.
Cost: \$251,570



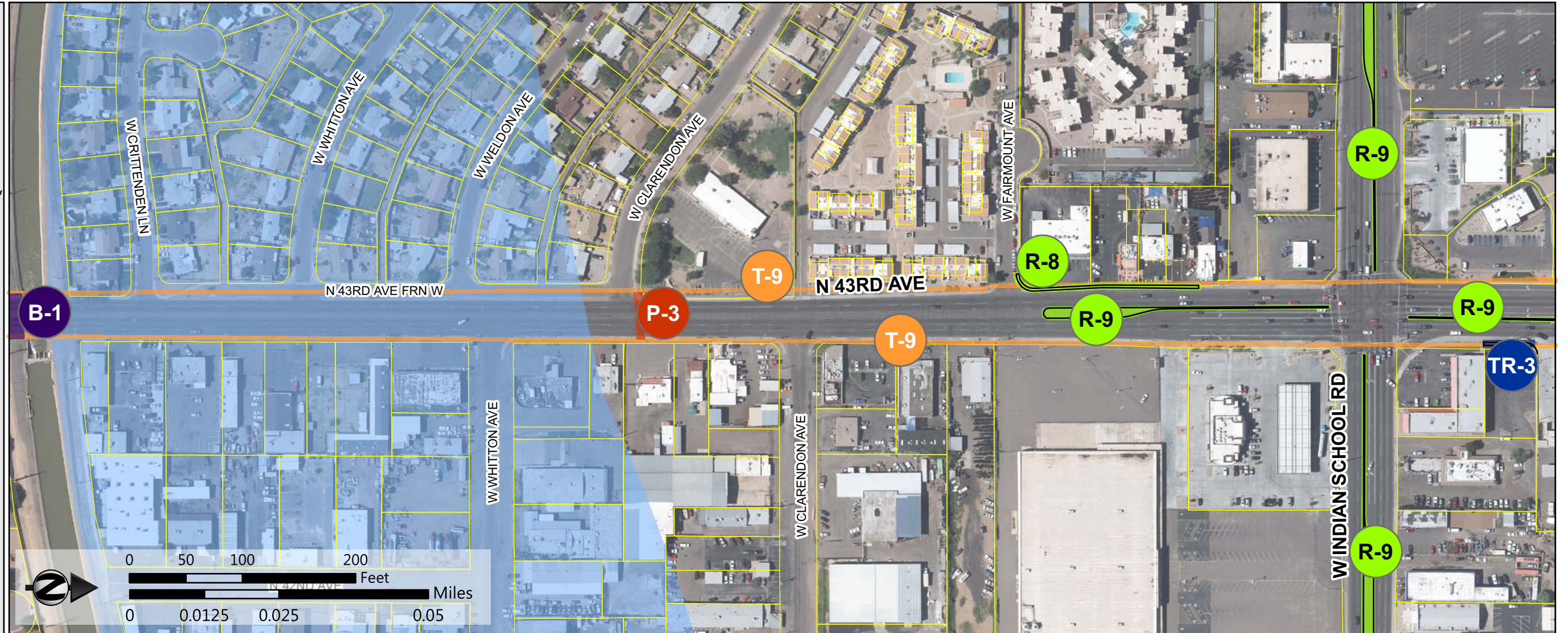
Project: T-9 (Lighting Project #1)
Description: Close lighting gaps on west side of road between McDowell Road and Camelback Road. Upgrade existing lighting to LED on both sides of street.
Cost: \$2,067,100
Project: TR-2 (Bus Bay Installation at Thomas - NB)
Description: Construct bus bay for NB stop immediately north of Thomas Road. Reconstruct sidewalk as necessary.
Cost: \$87,830
Project: U-2 (Frontage Road Improvements #2)
Description: Relocate light poles in median separating 43rd Street and frontage road on the east side of the road from Pinchot Avenue to Earll Drive.
Cost: \$47,890
Project: U-3 (Frontage Road Improvements #3)
Description: Relocate utilities in median separating 43rd Street and frontage road on the east side of the road from Flower Street to Osborn Road.
Cost: \$31,940

Legend

- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- Archaeology Quarter Section

Proposed Projects

- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities

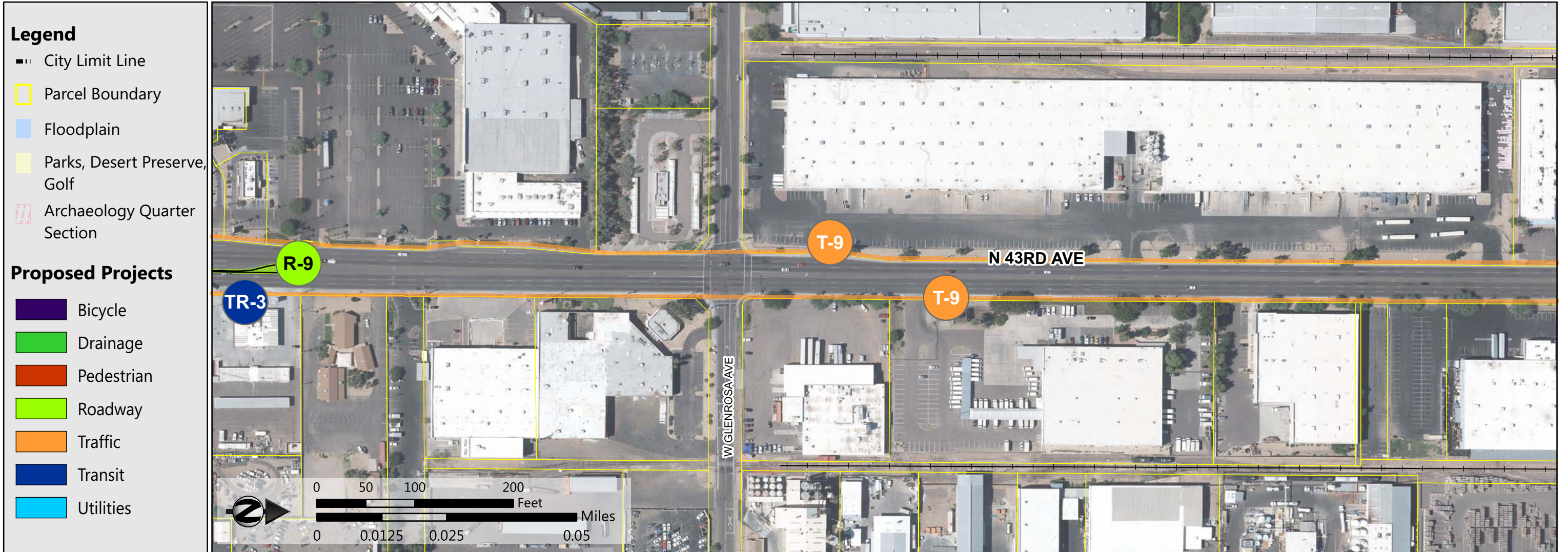


Layer Credits: City of Phoenix



Project: R-8 (Auxiliary Lane Lengthening - Indian School)
Description: Increase length of auxiliary through lane on SB 43rd Avenue at the intersection of Indian School Road. Increase length to 400 feet minimum.
Cost: \$102,510
Project: R-9 (Access Management at Indian School - Option #1)
Description: Install concrete median (500 feet) at the intersection of 43rd Avenue with Indian School on all legs of intersection. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-10.
Cost: \$312,370
Project: R-10 (Access Management at Indian School - Option #2)
Description: Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with Indian School on all legs of intersection. This option is not depicted within the map book. This project is mutually exclusive with R-9.
Cost: \$79,810
Project: B-1 (Construct HAWK at Grand Canal Trail Crossing)
Description: Construct High Intensity Activated Crosswalk (HAWK) where Grand Canal Trail crosses 43rd Avenue as recommended in the 2014 Comprehensive Bicycle Masterplan.
Cost: \$251,570

Project: T-9 (Lighting Project #1)
Description: Close lighting gaps on west side of road between McDowell Road and Camelback Road. Upgrade existing lighting to LED on both sides of street.
Cost: \$2,067,100
Project: TR-3 (Bus Bay Installation at Indian School - NB)
Description: Construct bus bay for NB stop immediately north of Indian School Road. Reconstruct sidewalk as necessary.
Cost: \$40,630
Project: P-3 (Construct HAWK at Clarendon Avenue)
Description: Install High Intensity Activated Crosswalk (HAWK) signal at the intersection 43rd Avenue and Clarendon Avenue.
Cost: \$249,370



Layer Credits: City of Phoenix

Project: R-9 (Access Management at Indian School - Option #1)

Description: Install concrete median (500 feet) at the intersection of 43rd Avenue with Indian School on all legs of intersection. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-10.

Cost: \$312,370

Project: R-10 (Access Management at Indian School - Option #2)

Description: Install raised pavement markers (dagmars) for 500 feet at the intersection of 43rd Avenue with Indian School on all legs of intersection. This option is not depicted within the map book. This project is mutually exclusive with R-9.

Cost: \$79,810

Project: T-9 (Lighting Project #1)

Description: Close lighting gaps on west side of road between McDowell Road and Camelback Road. Upgrade existing lighting to LED on both sides of street.

Cost: \$2,067,100

Project: TR-3 (Bus Bay Installation at Indian School - NB)

Description: Construct bus bay for NB stop immediately north of Indian School Road. Reconstruct sidewalk as necessary.

Cost: \$40,630





Recommended corridor identified in the West Phoenix/Central Glendale Transit Corridor Study shaded purple

Project: P-4 (Railway Crossing Gate Installation #1)
Description: Install gates across travel lanes and sidewalks. Install pedestrian crossing panels along tracks within 43rd Avenue. Install ADA compliant truncated dome curb ramps along sidewalks adjacent to tracks. These improvements may need to be removed or modified when the light rail is constructed.
Cost: \$785,170
Project: P-5 (Railway Crossing Gate Installation #2)
Description: Install gates across travel lanes and sidewalks. Install pedestrian crossing panels along tracks within 43rd Avenue and Camelback Road. Install fences along island adjacent to the tracks, east of 43rd Avenue. Install ADA compliant truncated dome curb ramps along sidewalks adjacent to tracks. These improvements may need to be removed or modified when the light rail is constructed.
Cost: \$1,238,680
Project: T-9 (Lighting Project #1)
Description: Close lighting gaps on west side of road between McDowell Road and Camelback Road. Upgrade existing lighting to LED on both sides of street.
Cost: \$2,067,100
Project: T-10 (Guidesign Installation - Camelback)
Description: Install guide signs at the intersection of 43rd Avenue with Camelback Road on the southern leg. These improvements may need to be removed or modified when the light rail is constructed.
Cost: \$59,860



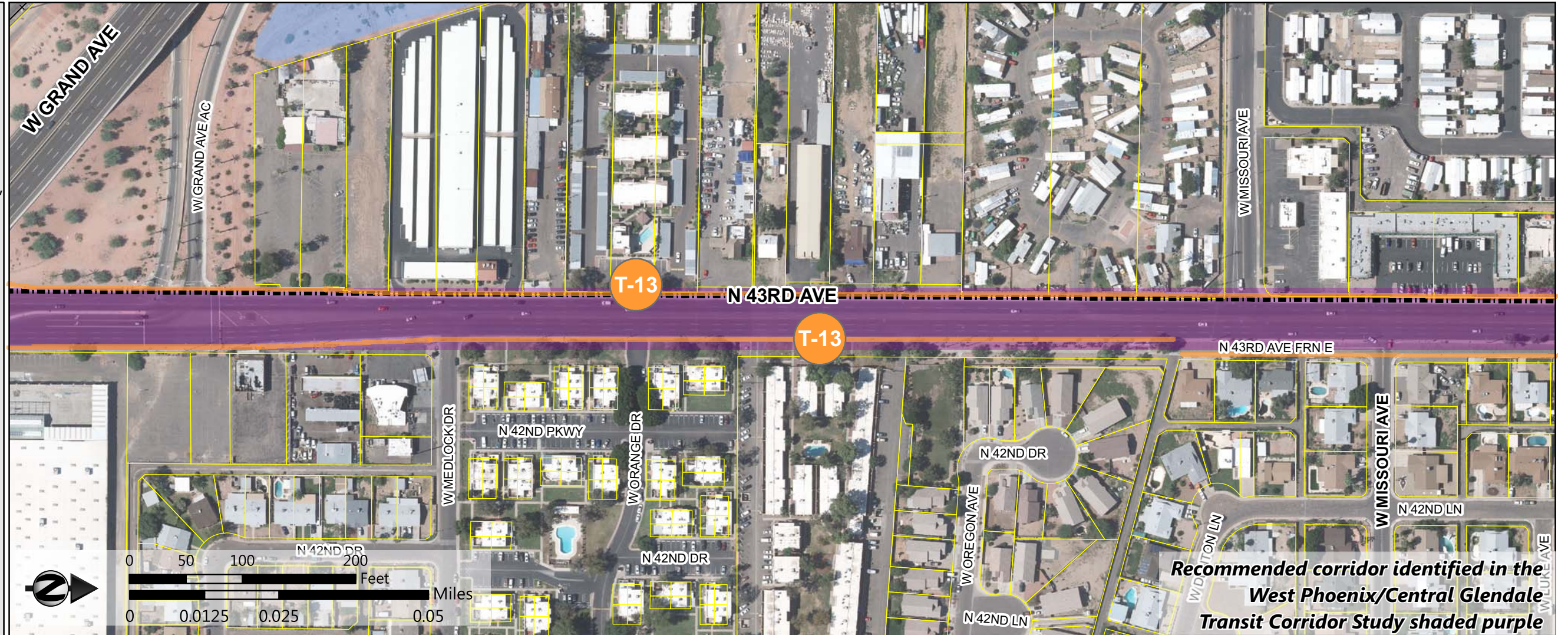
Project: T-11 (Lighting Project #2)
Description: Install lighting at the underpass at Grand Avenue. These improvements may need to be removed or modified when the light rail is constructed.
Cost: \$32,740
Project: T-12 (Signing Installation - Camelback)
Description: Install movement prohibition signs (MUTCD type: R3-2) on the eastern and western legs of the 43rd Avenue intersection with Camelback Road. Update pavement lane usage markings and install lane control signs on the eastern and western legs of the 43rd Avenue intersection with Camelback Road. These improvements may need to be removed or modified when the light rail is constructed.
Cost: \$1,620
Project: T-13 (Lighting Project #3)
Description: Close lighting gaps on west side of road between Camelback Road and Glendale Avenue. Upgrade existing lighting to LED on both sides of street. These improvements may need to be removed or modified when the light rail is constructed.
Cost: \$1,241,890
Project: TR-4 (Bus Bay Installation at Camelback - SB)
Description: Construct bus bay for SB stop immediately south of Camelback Road. Reconstruct sidewalk as necessary. These improvements may need to be removed or modified when the light rail is constructed.
Cost: \$85,090

Legend

- City Limit Line
- ▭ Parcel Boundary
- ▭ Floodplain
- ▭ Parks, Desert Preserve, Golf
- ▭ Archaeology Quarter Section

Proposed Projects

- ▭ Bicycle
- ▭ Drainage
- ▭ Pedestrian
- ▭ Roadway
- ▭ Traffic
- ▭ Transit
- ▭ Utilities



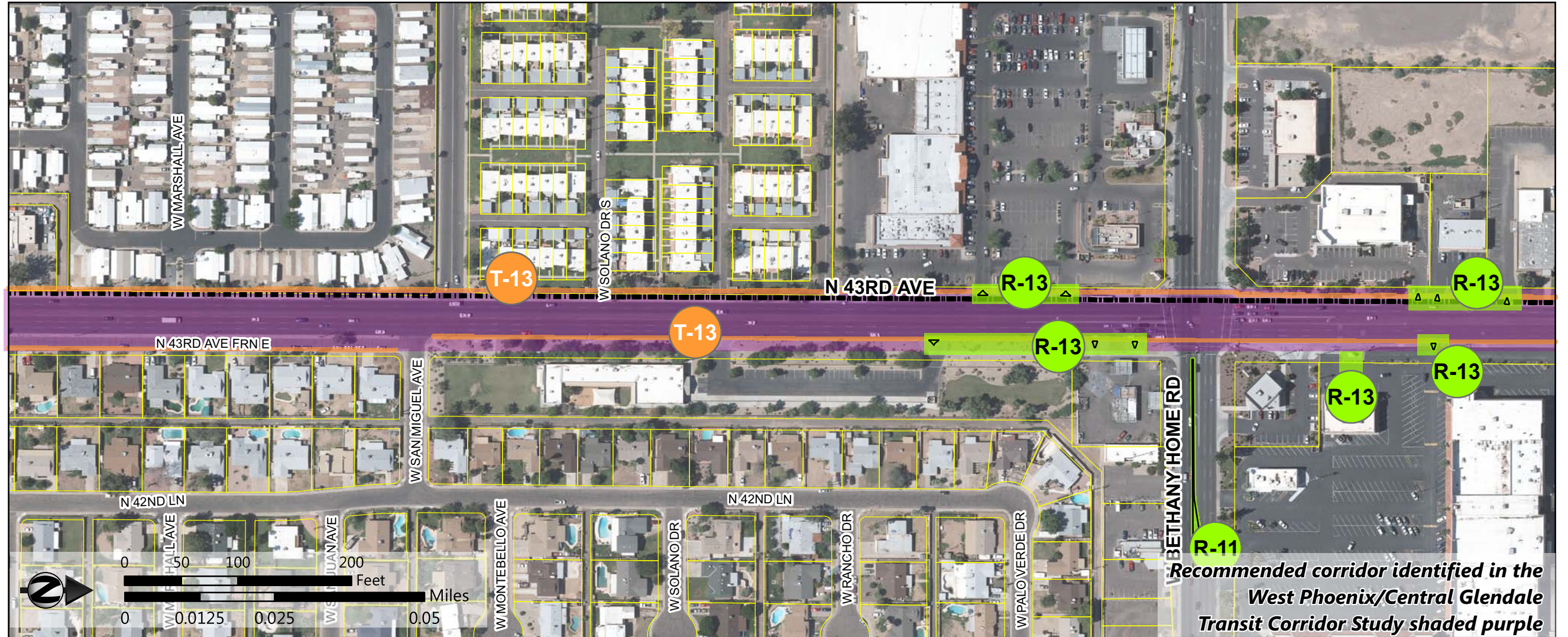
Project:	T-13 (Lighting Project #3)
Description:	Close lighting gaps on west side of road between Camelback Road and Glendale Avenue. Upgrade existing lighting to LED on both sides of street. These improvements may need to be removed or modified when the light rail is constructed.
Cost:	\$1,241,890

Legend

- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- ▨ Archaeology Quarter Section

Proposed Projects

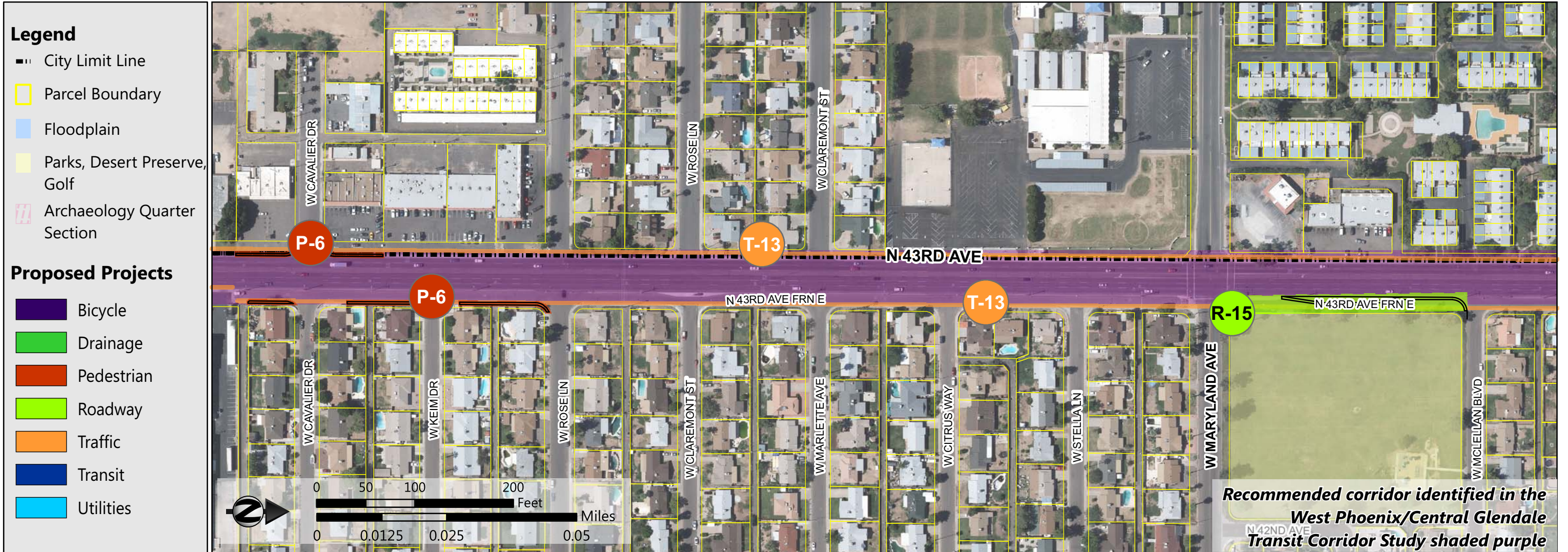
- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities



Project:	R-11 (Access Management at Bethany Home - Project #1 - Option #1)
Description:	Install concrete median on eastern leg of the intersection of 43rd Avenue with Bethany Home Road. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-12.
Cost:	\$35,730
Project:	R-12 (Access Management at Bethany Home - Project #1 - Option #2)
Description:	Install raised pavement markers (dagmars) on east leg of the intersection of 43rd Avenue with Bethany Home Road. This option is not depicted within the map book. This project is mutually exclusive with R-11.
Cost:	\$19,960
Project:	R-13 (Access Management at Bethany Home - Project #2 - Option #1)
Description:	Construct islands in drive aprons to convert all accesses within 500 feet of intersection to right-in/right-out on the northern and southern legs of the intersection. These improvements may need to be removed or modified when the light rail is constructed. This project is mutually exclusive with R-14.
Cost:	\$1,086,460

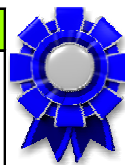


Project:	T-13 (Lighting Project #3)
Description:	Close lighting gaps on west side of road between Camelback Road and Glendale Avenue. Upgrade existing lighting to LED on both sides of street. These improvements may need to be removed or modified when the light rail is constructed.
Cost:	\$1,241,890
Project:	R-14 (Access Management at Bethany Home - Project #2 - Option #2)
Description:	Install raised pavement markers (dagmars) within 500 feet on the northern and southern legs of the intersection of Bethany Home Road. These improvements may need to be removed or modified when the light rail is constructed. This option is not depicted within the map book. This project is mutually exclusive with R-13.
Cost:	\$39,910
Project:	R-18 (Access Management at Glendale - Project #2 - Option #1)
Description:	Construct islands in drive aprons to convert all accesses within 500 feet of intersection to right-in/right-out on the southern leg of the intersection of 43rd Avenue with Glendale Avenue. These improvements may need to be removed or modified when the light rail is constructed. This project is mutually exclusive with R-19.
Cost:	\$483,120



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Project:	R-15 (Frontage Road Removal)
Description:	Remove frontage road east of 43rd Avenue between Maryland Avenue and McLellan Boulevard. Relocate utility poles. Construct NB bus bay immediately north of Maryland Avenue. Construct sidewalk between Maryland Avenue and McLellan Boulevard. These improvements may need to be removed or modified when the light rail is constructed. This project includes improvements that would otherwise be constructed as part of P-6.
Cost:	\$252,840
Project:	P-6 (Complete Sidewalk - Project #2)
Description:	Construct sidewalk to close sidewalk gaps along 43rd Avenue between Camelback Road and Glendale Avenue. These improvements may need to be removed or modified when the light rail is constructed.
Cost:	\$83,650
Project:	T-13 (Lighting Project #3)
Description:	Close lighting gaps on west side of road between Camelback Road and Glendale Avenue. Upgrade existing lighting to LED on both sides of street. These improvements may need to be removed or modified when the light rail is constructed.
Cost:	\$1,241,890

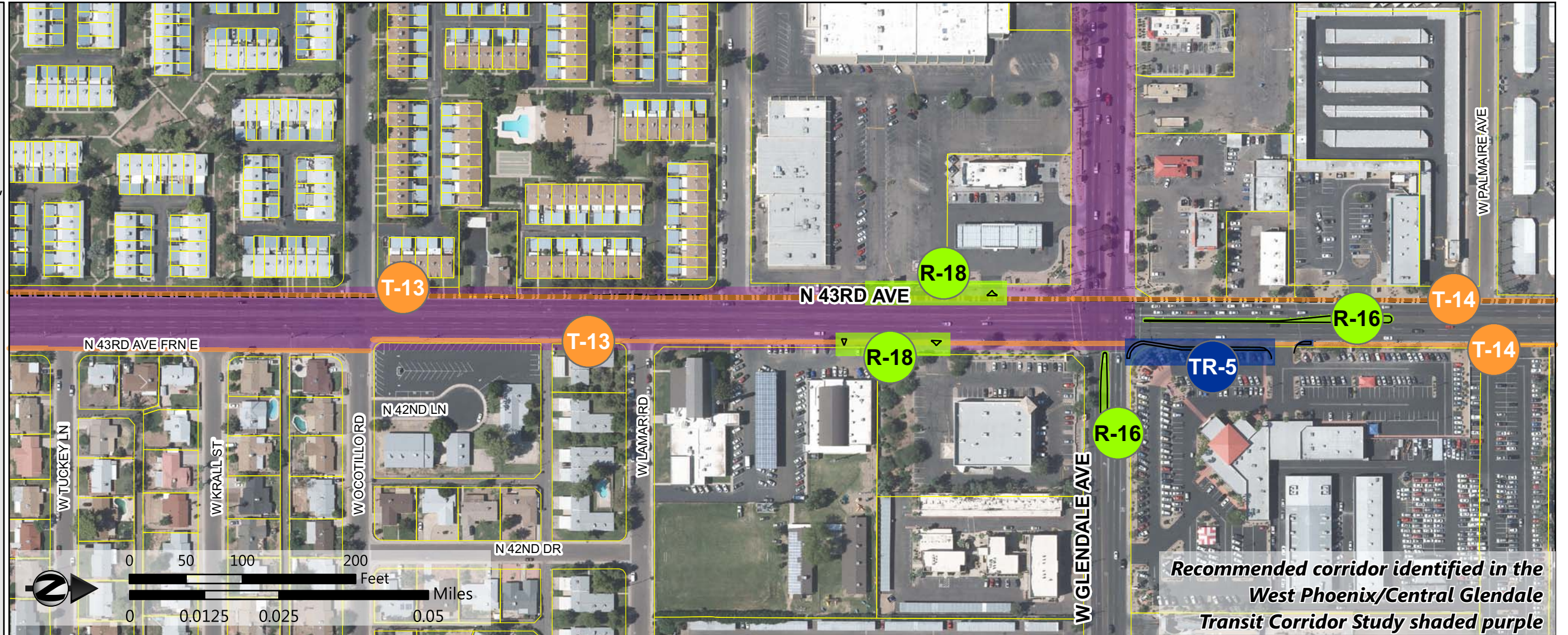


Legend

- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- Archaeology Quarter Section

Proposed Projects

- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities



Layer Credits: City of Phoenix



Project:	R-16 (Access Management at Glendale - Project #1 - Option #1)
Description:	Install concrete median on eastern and northern legs of the intersection of 43rd Avenue with Glendale Avenue. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-17.
Cost:	\$91,760

Project:	R-17 (Access Management at Glendale - Project #1 - Option #2)
Description:	Install raised pavement markers (dagmars) on eastern and northern legs of the intersection of 43rd Avenue with Glendale Avenue. This option is not depicted within the map book. This project is mutually exclusive with R-16.
Cost:	\$39,910

Project:	R-18 (Access Management at Glendale - Project #2 - Option #1)
Description:	Construct islands in drive aprons to convert all accesses within 500 feet of intersection to right-in/right-out on the southern leg of the intersection of 43rd Avenue with Glendale Avenue. These improvements may need to be removed or modified when the light rail is constructed. This project is mutually exclusive with R-19.
Cost:	\$483,120

Project:	R-19 (Access Management at Glendale - Project #2 - Option #2)
Description:	Install raised pavement markers (dagmars) on the southern leg within 500 feet of the intersection of 43rd Avenue with Glendale Avenue. These improvements may need to be removed or modified when the light rail is constructed. This project is mutually exclusive with R-18.
Cost:	\$19,960

Project:	TR-5 (Bus Bay Installation at Glendale - NB)
Description:	Construct bus bay for NB stop immediately north of Glendale Avenue. Reconstruct sidewalk as necessary.
Cost:	\$110,190

Project:	T-13 (Lighting Project #3)
Description:	Close lighting gaps on west side of road between Camelback Road and Glendale Avenue. Upgrade existing lighting to LED on both sides of street. These improvements may need to be removed or modified when the light rail is constructed.
Cost:	\$1,241,890

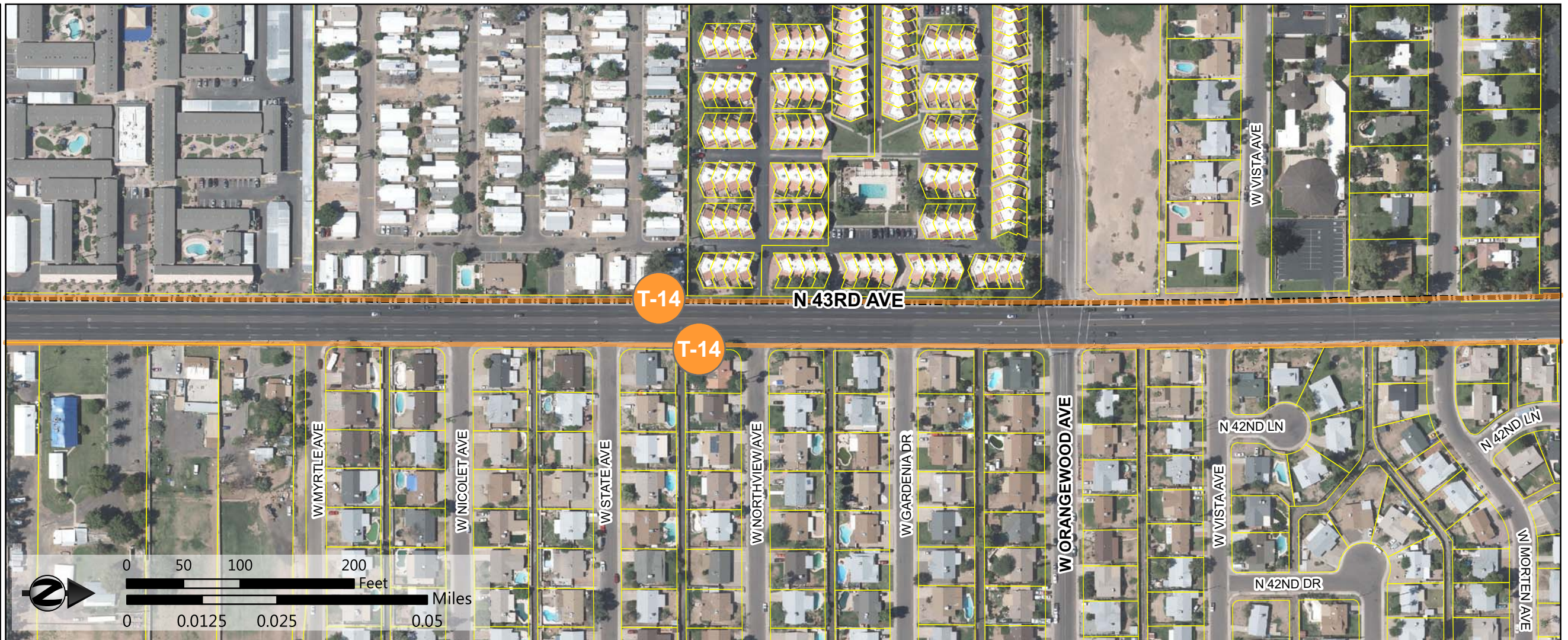
Project:	T-14 (Lighting Project #4)
Description:	Close lighting gaps on west side of road between Glendale Avenue and Peoria Avenue. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,838,880

Legend

- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- Archaeology Quarter Section

Proposed Projects

- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities



Layer Credits: City of Phoenix

Project:	T-14 (Lighting Project #4)
Description:	Close lighting gaps on west side of road between Glendale Avenue and Peoria Avenue. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,838,880

Legend

- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- Archaeology Quarter Section

Proposed Projects

- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities



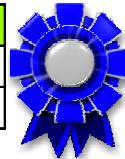
Project:	R-20 (Access Management at Northern - Option #1)
Description:	Install concrete median on northern, southern and eastern legs of the intersection of 43rd Avenue with Northern Avenue. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-21.
Cost:	\$148,550

Project:	T-14 (Lighting Project #4)
Description:	Close lighting gaps on west side of road between Glendale Avenue and Peoria Avenue. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,838,880

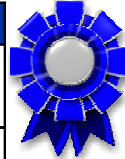
Project:	R-21 (Access Management at Northern - Option #2)
Description:	Install raised pavement markers (dagmars) on northern, southern and eastern legs of the intersection of 43rd Avenue with Northern Avenue. This option is not depicted within the map book. This project is mutually exclusive with R-20.
Cost:	\$59,860








Project:	R-22 (Intersection Capacity improvement - Northern Avenue)
Description:	Add 250-foot NB right turn pocket lane.
Cost:	\$248,380










Project:	TR-6 (Bus Bay Installation at Northern - SB)
Description:	Construct bus bay for SB stop immediately south of Northern Avenue. Reconstruct sidewalk as necessary.
Cost:	\$141,370

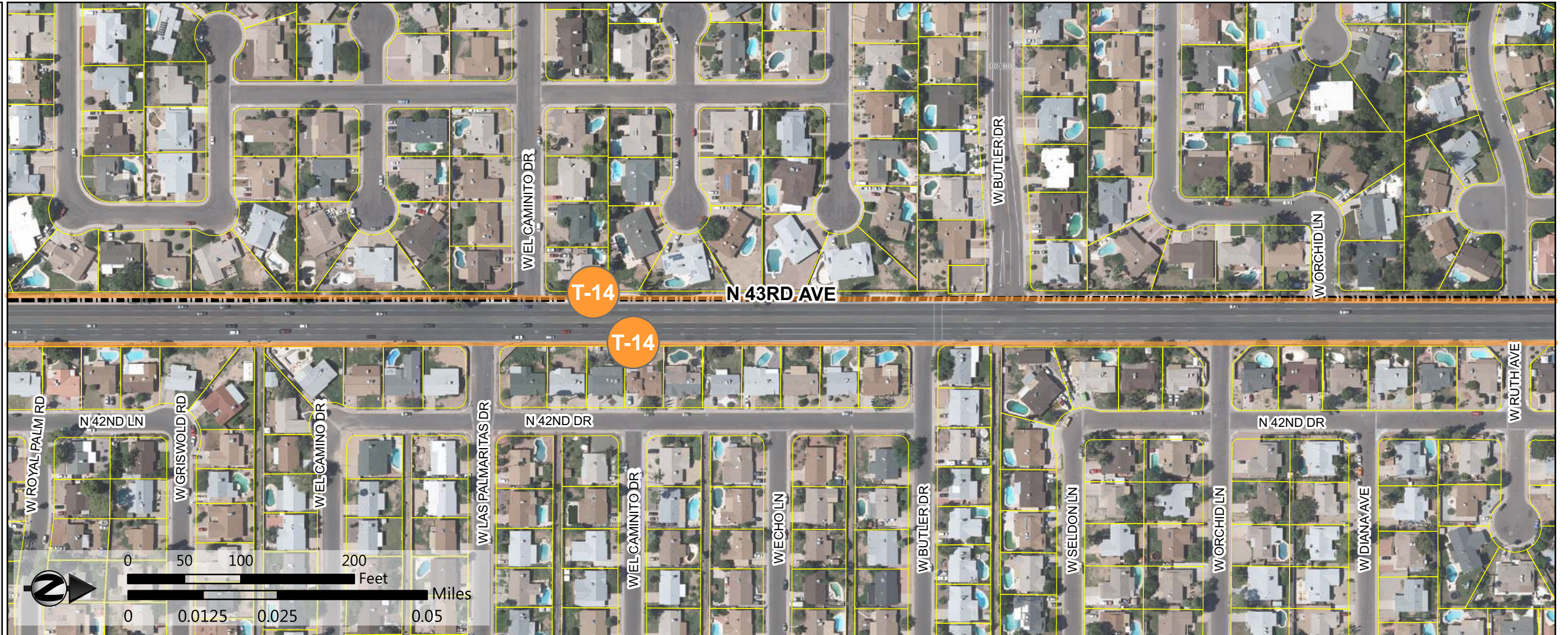


Legend

-  City Limit Line
-  Parcel Boundary
-  Floodplain
-  Parks, Desert Preserve, Golf
-  Archaeology Quarter Section

Proposed Projects

-  Bicycle
-  Drainage
-  Pedestrian
-  Roadway
-  Traffic
-  Transit
-  Utilities



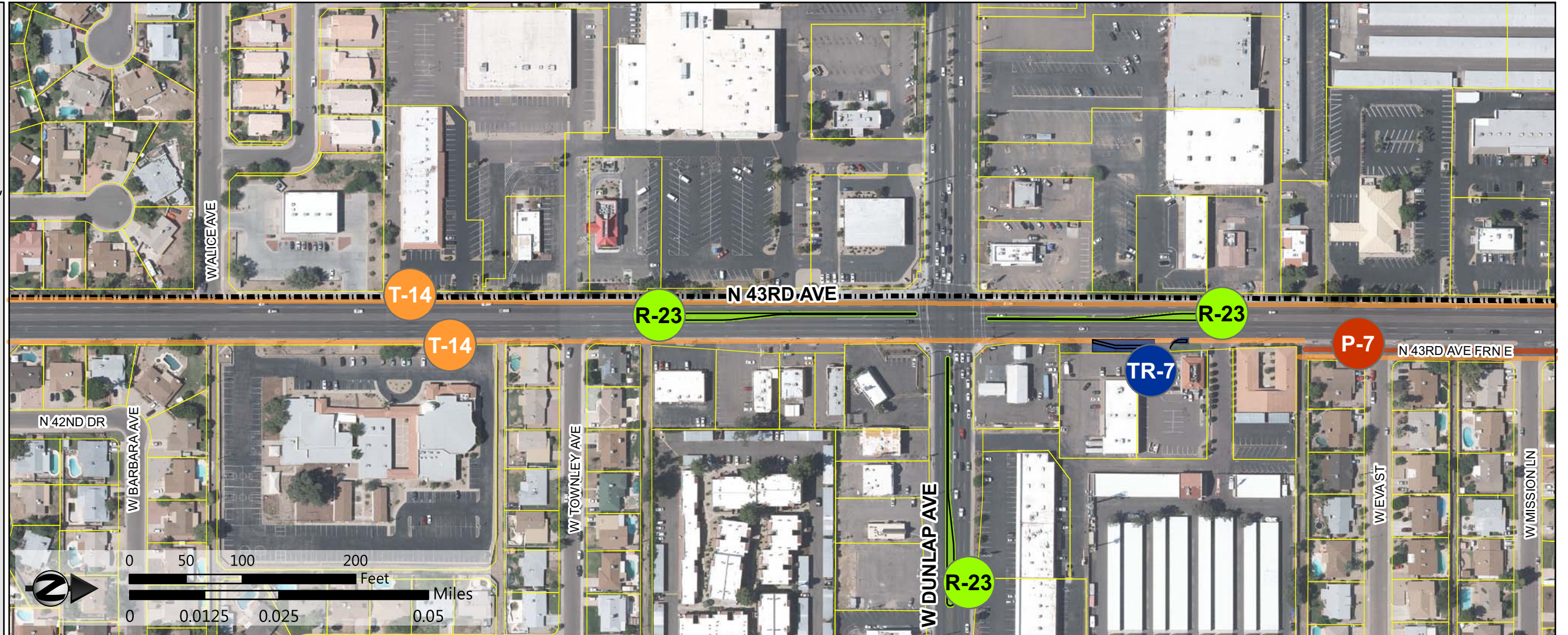
Project:	T-14 (Lighting Project #4)
Description:	Close lighting gaps on west side of road between Glendale Avenue and Peoria Avenue. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,838,880

Legend

- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- Archaeology Quarter Section

Proposed Projects

- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities



Project:	R-23 (Access Management at Dunlap - Option #1)
Description:	Install concrete median on northern, southern and eastern legs of the intersection of 43rd Avenue with Dunlap Avenue. Re-stripe lanes to minimum 10-foot lane widths. This project is mutually exclusive with R-24.
Cost:	\$169,250






Project:	R-24 (Access Management at Dunlap - Option #2)
Description:	Install raised pavement markers (dagmars) on northern, southern and eastern legs of the intersection of 43rd Avenue with Dunlap Avenue. This option is not depicted within the map book. This project is mutually exclusive with R-23.
Cost:	\$59,860

Project:	TR-7 (Bus Bay Installation at Dunlap - NB)
Description:	Construct bus bay for NB stop immediately north of Dunlap Avenue. Reconstruct sidewalk as necessary. Add shelter to bus stop.
Cost:	\$59,820






Project:	T-14 (Lighting Project #4)
Description:	Close lighting gaps on west side of road between Glendale Avenue and Peoria Avenue. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,838,880

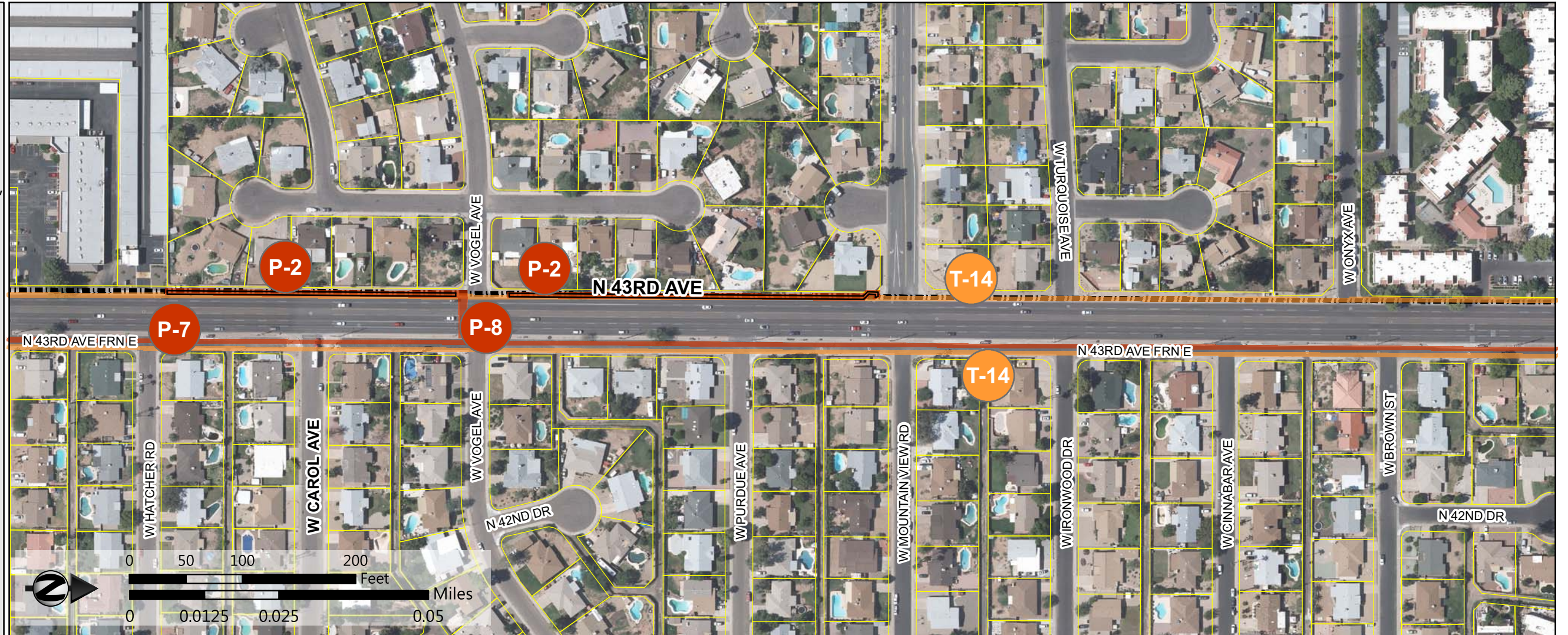
Project:	P-7 (Frontage Road Improvements #4)
Description:	Relocate utilities in median separating 43rd Avenue and frontage road on the east side of the road from Eva Street to Peoria Avenue. Construct curb ramps adjacent to transit stops in frontage road median to facilitate access to stops.
Cost:	\$253,360

Legend

-  City Limit Line
-  Parcel Boundary
-  Floodplain
-  Parks, Desert Preserve, Golf
-  Archaeology Quarter Section

Proposed Projects

-  Bicycle
-  Drainage
-  Pedestrian
-  Roadway
-  Traffic
-  Transit
-  Utilities



Project:	P-2 (Complete Sidewalk - Project #1)
Description:	Construct sidewalk to close sidewalk gaps along 43rd Avenue between McDowell Road and Camelback Road and between Glendale Avenue and Bell Road.
Cost:	\$577,710

Project:	T-14 (Lighting Project #4)
Description:	Close lighting gaps on west side of road between Glendale Avenue and Peoria Avenue. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,838,880

Project:	P-7 (Frontage Road Improvements #4)
Description:	Relocate utilities in median separating 43rd Avenue and frontage road on the east side of the road from Eva Street to Peoria Avenue. Construct curb ramps adjacent to transit stops in frontage road median to facilitate access to stops.
Cost:	\$253,360

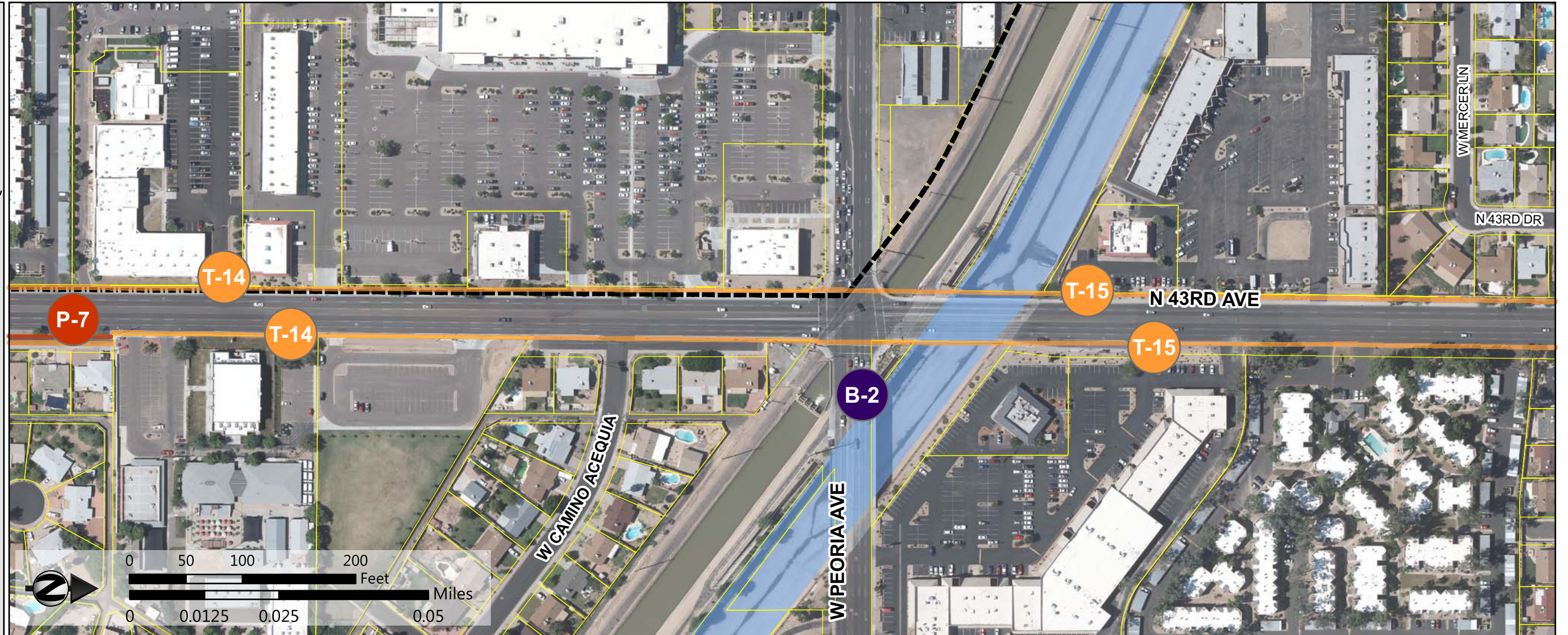
Project:	P-8 (Construct HAWK at Vogel Avenue)
Description:	Install High Intensity Activated Crosswalk (HAWK) signal at the intersection 43rd Avenue and Vogel Avenue.
Cost:	\$249,370

Legend

- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- Archaeology Quarter Section

Proposed Projects

- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities



Project:	P-7 (Frontage Road Improvements #4)
Description:	Relocate utilities in median separating 43rd Avenue and frontage road on the east side of the road from Eva Street to Peoria Avenue. Construct curb ramps adjacent to transit stops in frontage road median to facilitate access to stops.
Cost:	\$253,360

Project:	T-14 (Lighting Project #4)
Description:	Close lighting gaps on west side of road between Glendale Avenue and Peoria Avenue. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,838,880

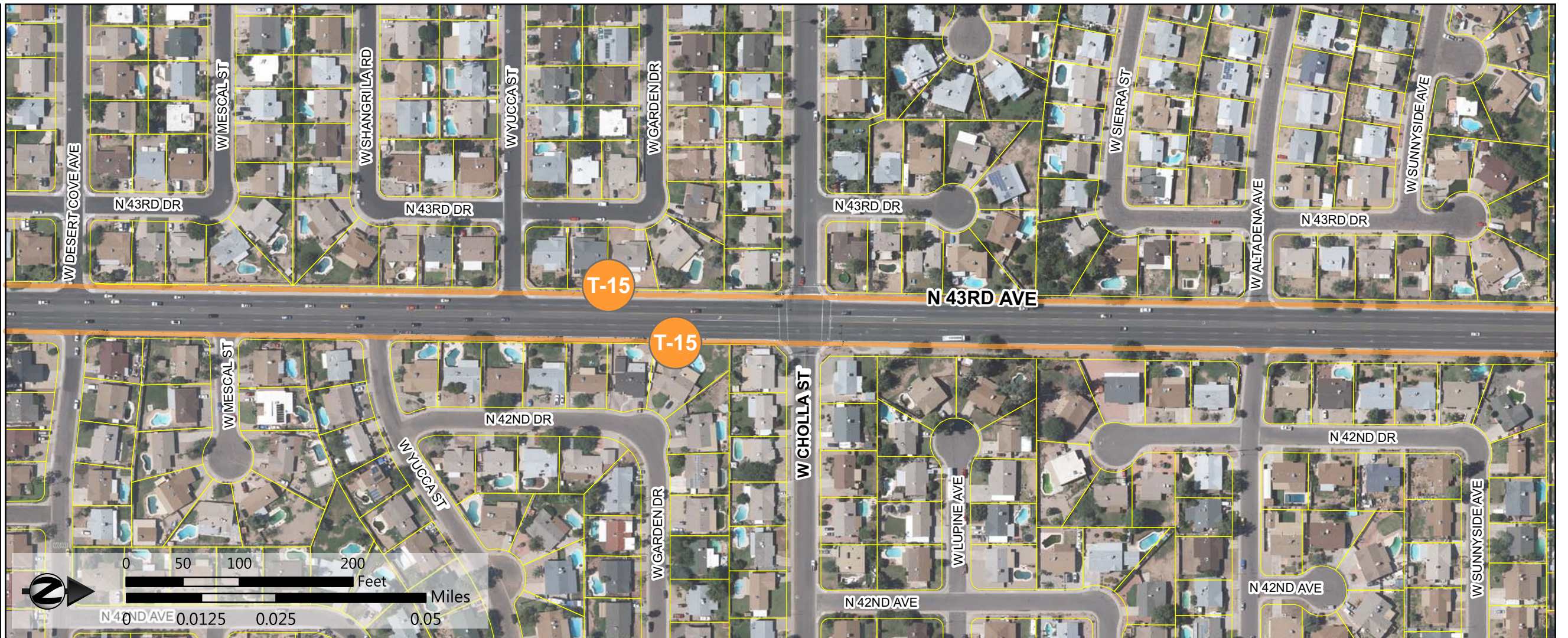
Project:	T-15 (Lighting Project #5)
Description:	Close lighting gaps on east side of road between Peoria Avenue and Cactus Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$615,020

Project:	B-2 (Arizona Canal Trail Signs)
Description:	Install way-finding signs on the approaches of the Arizona Canal Trail to the 43rd Avenue underpass as recommended in the 2014 Comprehensive Bicycle Masterplan.
Cost:	\$2,020

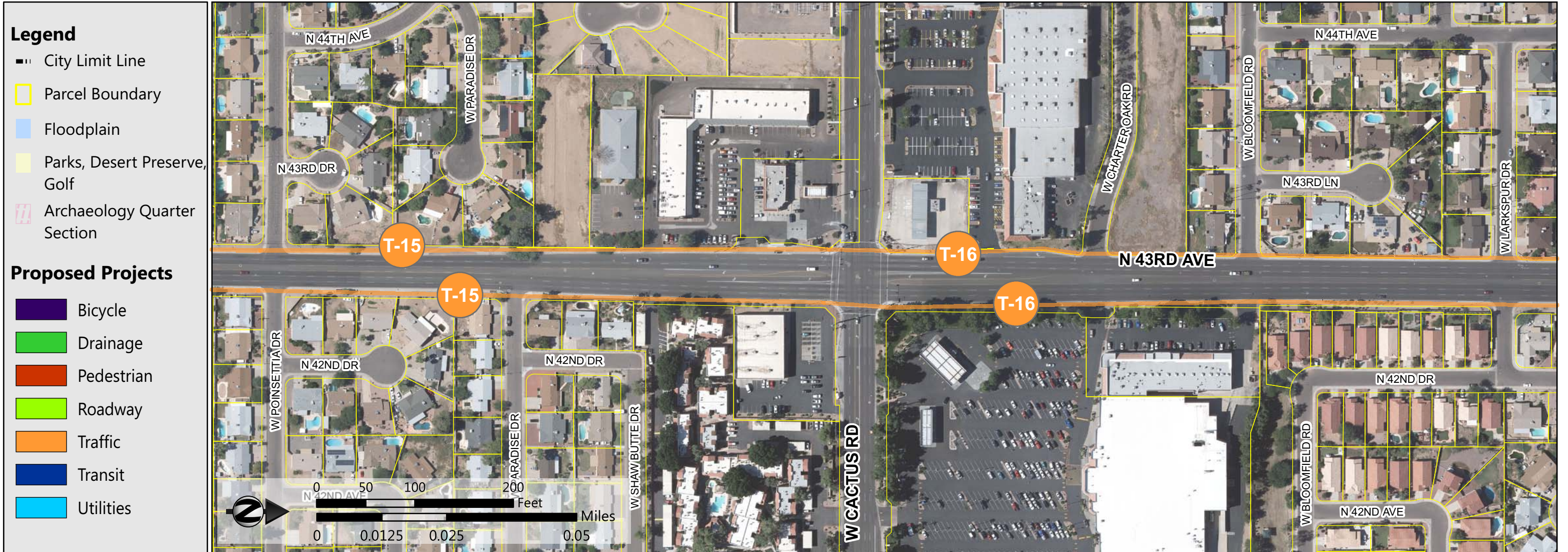
- Legend**
- ▬ City Limit Line
 - ▭ Parcel Boundary
 - ▭ Floodplain
 - ▭ Parks, Desert Preserve, Golf
 - ▭ Archaeology Quarter Section

Proposed Projects

- ▭ Bicycle
- ▭ Drainage
- ▭ Pedestrian
- ▭ Roadway
- ▭ Traffic
- ▭ Transit
- ▭ Utilities



Project:	T-15 (Lighting Project #5)
Description:	Close lighting gaps on east side of road between Peoria Avenue and Cactus Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$615,020



Project:	T-15 (Lighting Project #5)
Description:	Close lighting gaps on east side of road between Peoria Avenue and Cactus Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$615,020

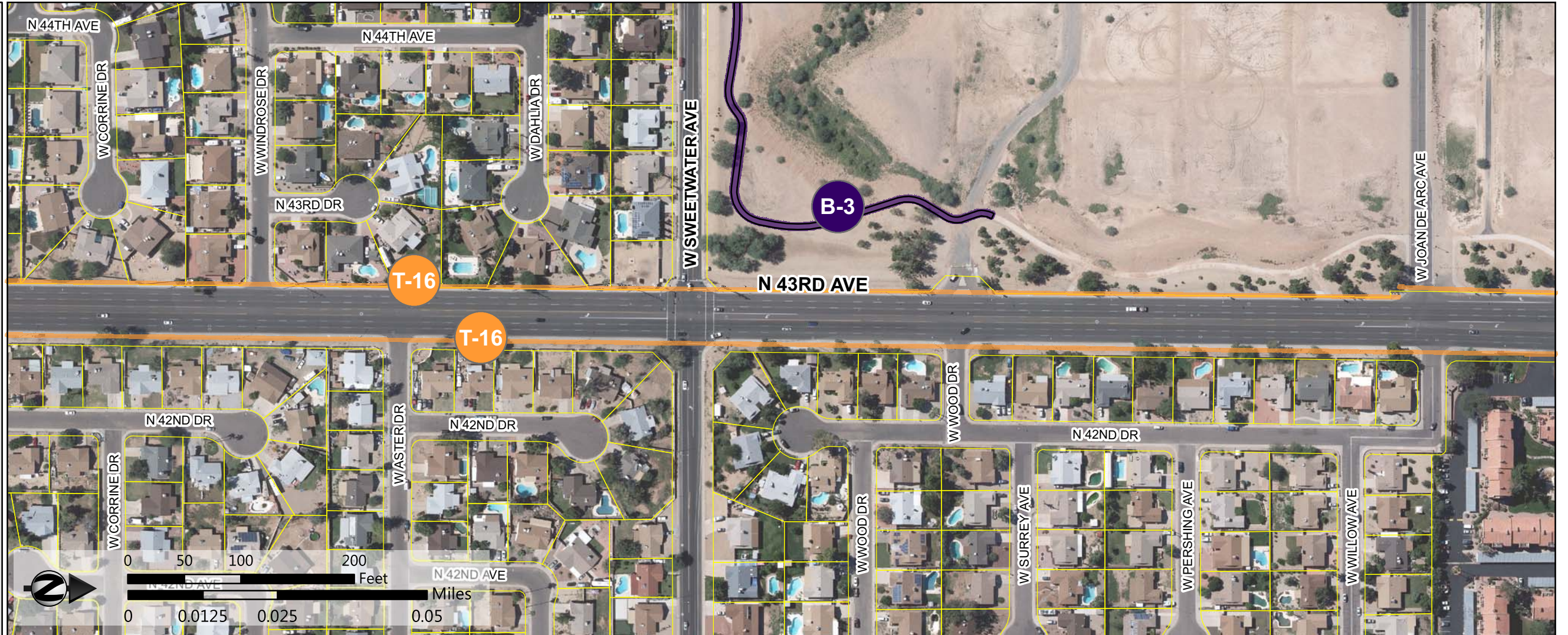
Project:	T-16 (Lighting Project #6)
Description:	Close lighting gaps on east side of road between Cactus Road and Bell Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,516,500

Legend

- City Limit Line
- ▭ Parcel Boundary
- ▭ Floodplain
- ▭ Parks, Desert Preserve, Golf
- ▭ Archaeology Quarter Section

Proposed Projects






- ▭ Bicycle
- ▭ Drainage
- ▭ Pedestrian
- ▭ Roadway
- ▭ Traffic
- ▭ Transit
- ▭ Utilities










Project:	T-16 (Lighting Project #6)
Description:	Close lighting gaps on east side of road between Cactus Road and Bell Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,516,500

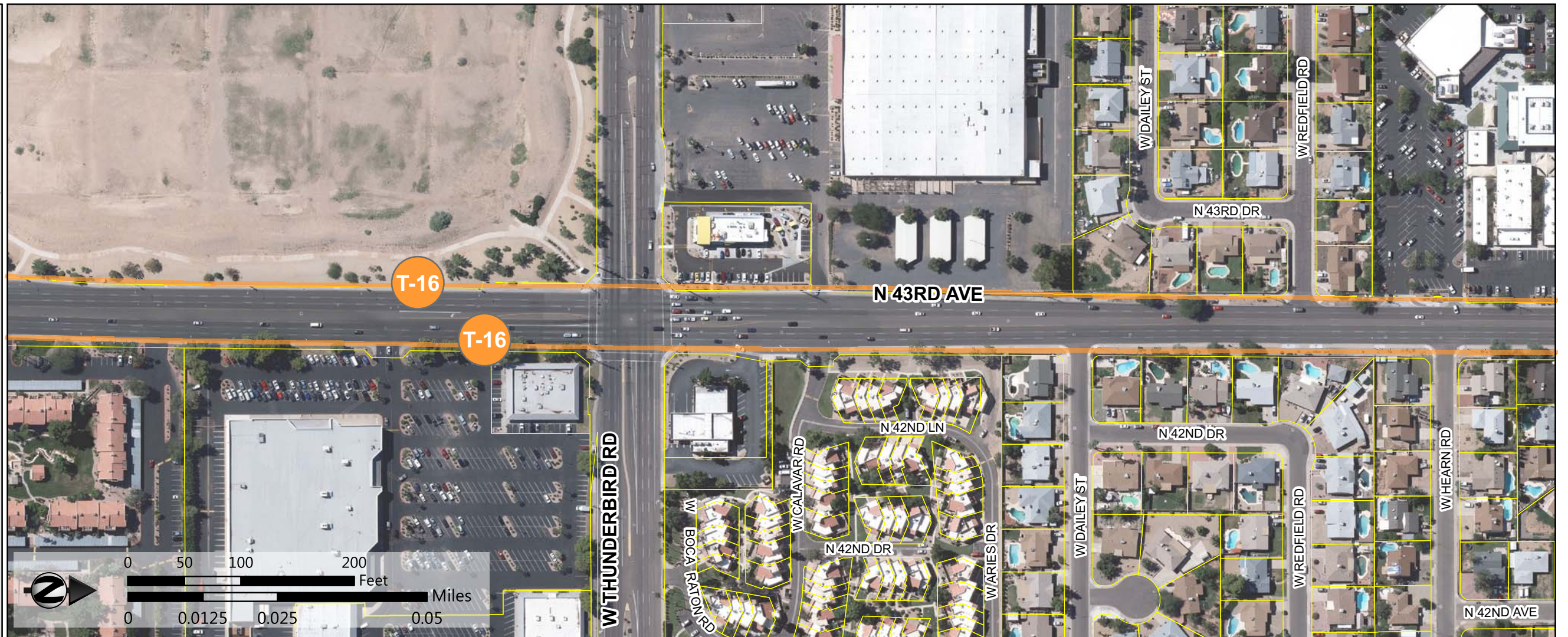
Project:	B-3 (ASU-West Loop)
Description:	Coordinate with ASU-West Campus to complete the multiuse trail around the perimeter of the campus and connect with Sweetwater Avenue to provide the connection identified within the MAG 2015 Bike Pathways Map.
Cost:	\$167,290

Legend

-  City Limit Line
-  Parcel Boundary
-  Floodplain
-  Parks, Desert Preserve, Golf
-  Archaeology Quarter Section

Proposed Projects

-  Bicycle
-  Drainage
-  Pedestrian
-  Roadway
-  Traffic
-  Transit
-  Utilities



Layer Credits: City of Phoenix

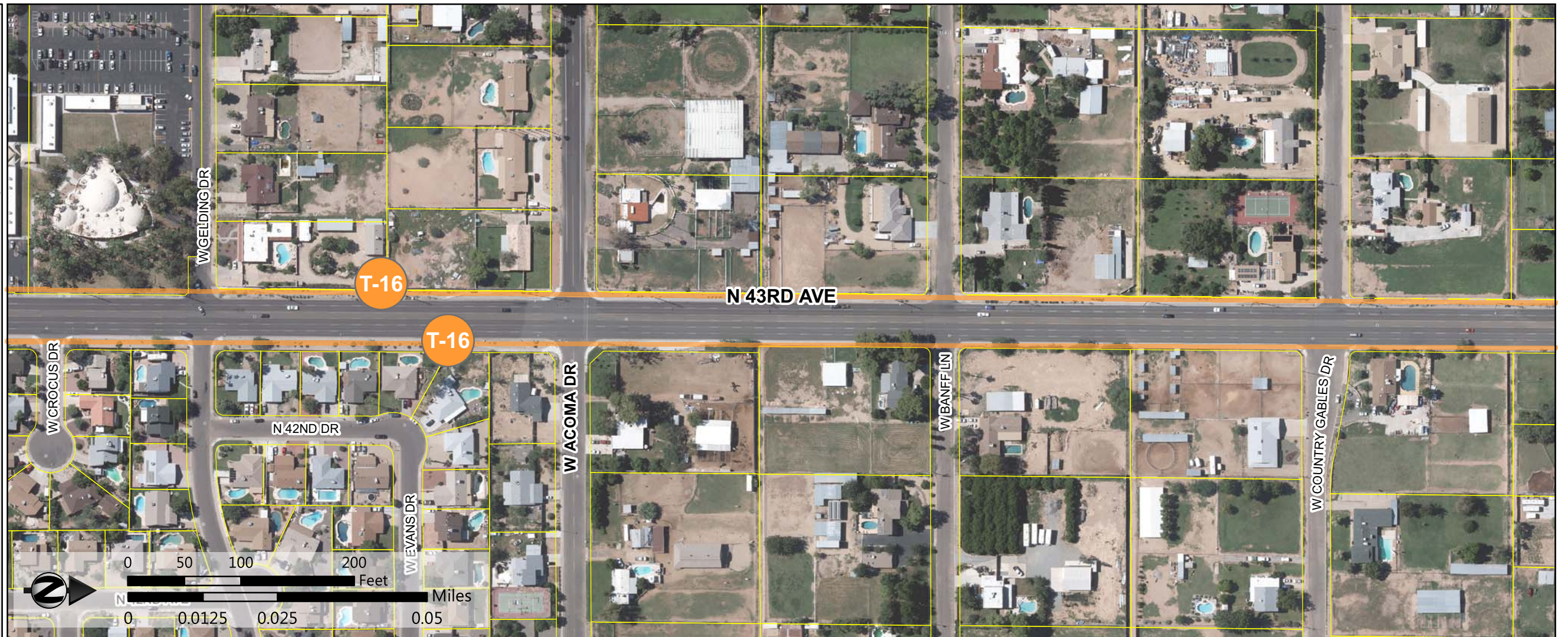
Project:	T-16 (Lighting Project #6)
Description:	Close lighting gaps on east side of road between Cactus Road and Bell Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,516,500

Legend

- City Limit Line
- ▭ Parcel Boundary
- ▭ Floodplain
- ▭ Parks, Desert Preserve, Golf
- ▭ Archaeology Quarter Section

Proposed Projects

- ▭ Bicycle
- ▭ Drainage
- ▭ Pedestrian
- ▭ Roadway
- ▭ Traffic
- ▭ Transit
- ▭ Utilities



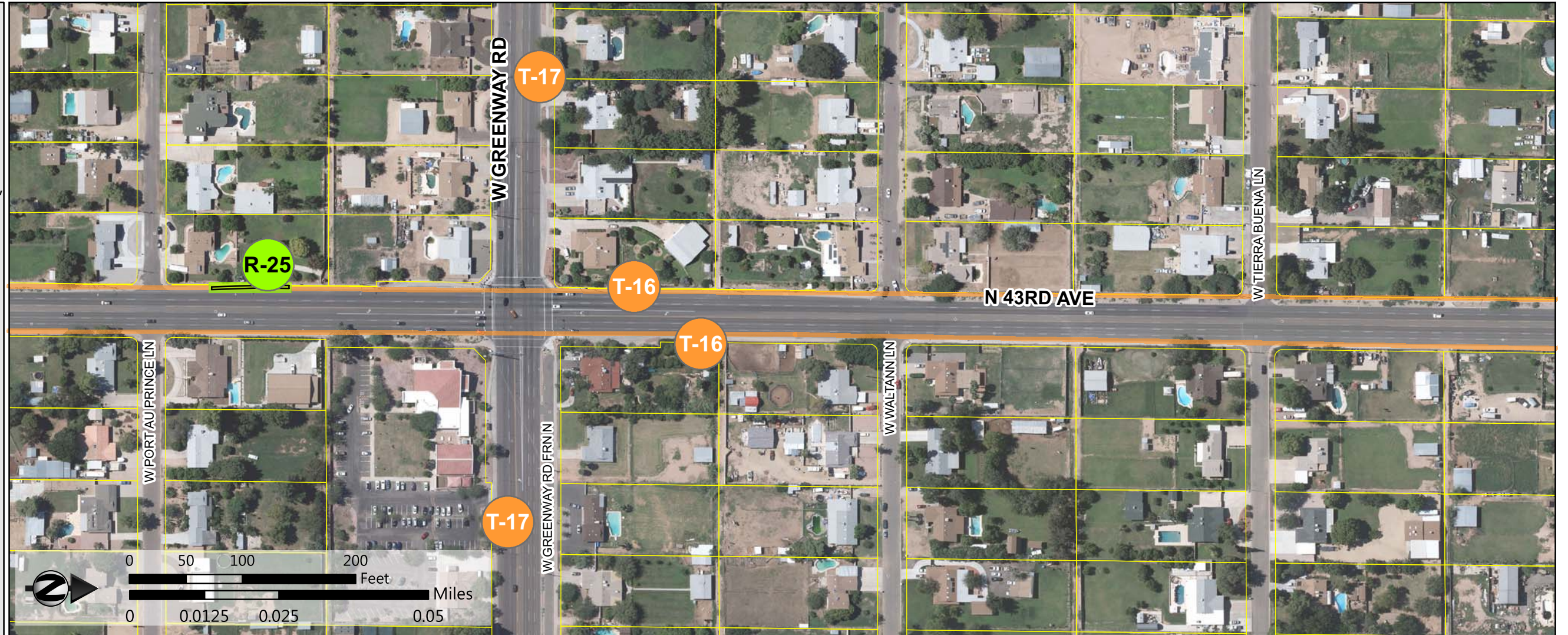
Project:	T-16 (Lighting Project #6)
Description:	Close lighting gaps on east side of road between Cactus Road and Bell Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,516,500

Legend

- City Limit Line
- Parcel Boundary
- Floodplain
- Parks, Desert Preserve, Golf
- ▨ Archaeology Quarter Section

Proposed Projects

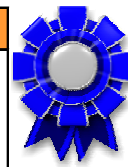
- Bicycle
- Drainage
- Pedestrian
- Roadway
- Traffic
- Transit
- Utilities








Project:	R-25 (Auxiliary Lane Lengthening - Greenway)
Description:	Increase length of auxiliary through lane on SB 43rd Avenue at the intersection of Greenway Road. Increase length to 400 feet minimum.
Cost:	\$29,080

Project:	T-16 (Lighting Project #6)
Description:	Close lighting gaps on east side of road between Cactus Road and Bell Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,516,500

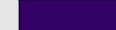






Project:	T-17 (Striping Upgrades - Greenway)
Description:	Restripe eastern and western legs of the intersection of 43rd Avenue with Greenway Road to a left-turn, two through lanes, and a right-turn configuration.
Cost:	\$11,990

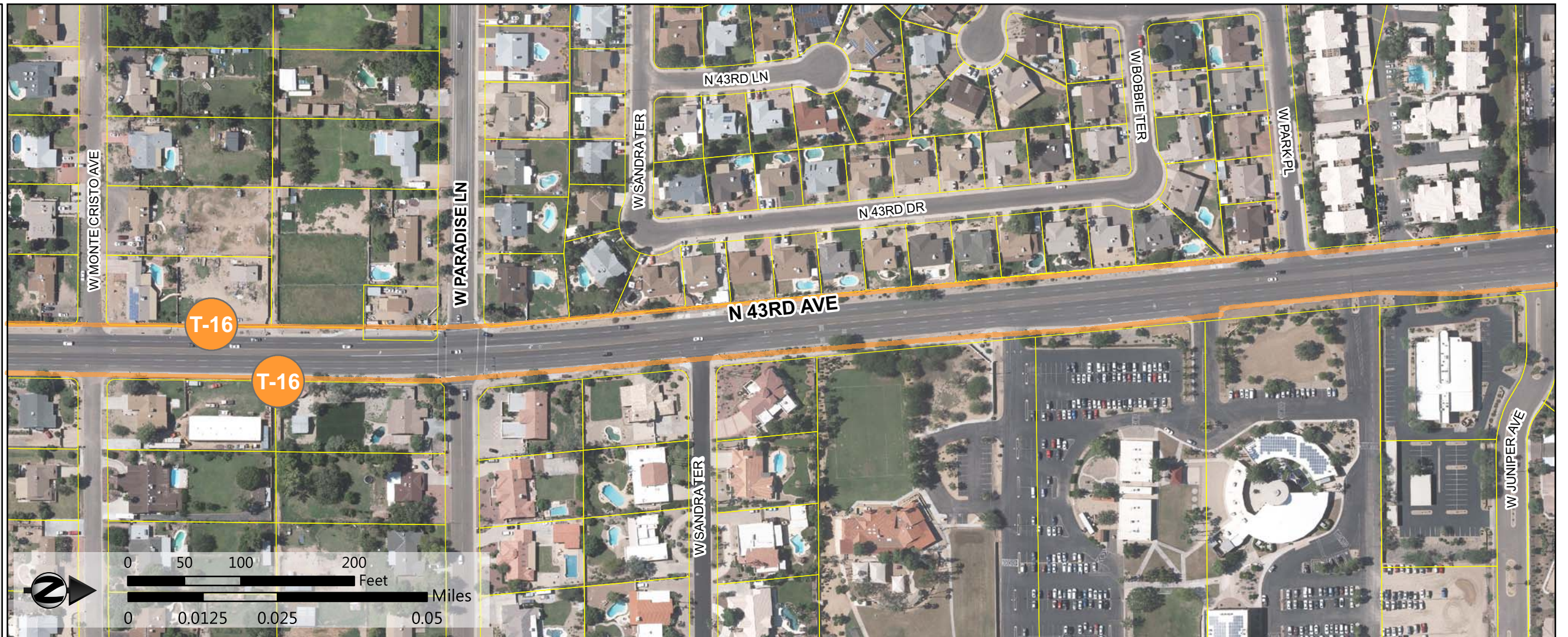


Legend

-  City Limit Line
-  Parcel Boundary
-  Floodplain
-  Parks, Desert Preserve, Golf
-  Archaeology Quarter Section

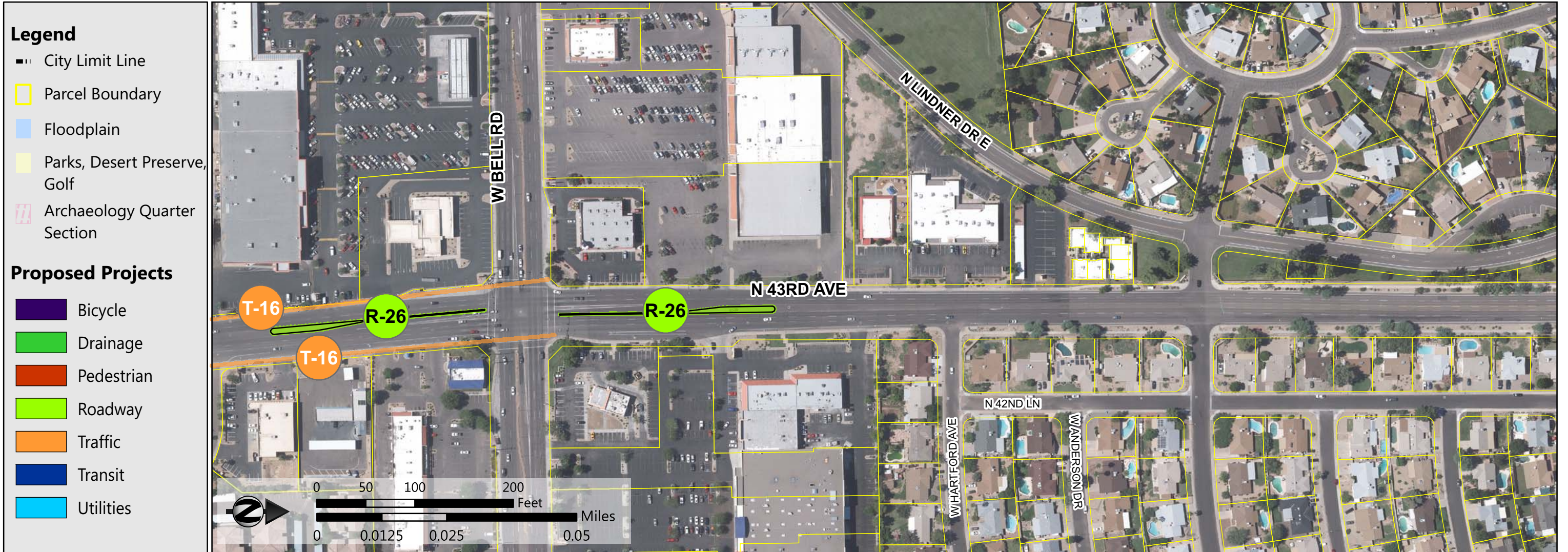
Proposed Projects

-  Bicycle
-  Drainage
-  Pedestrian
-  Roadway
-  Traffic
-  Transit
-  Utilities



Layer Credits: City of Phoenix

Project:	T-16 (Lighting Project #6)
Description:	Close lighting gaps on east side of road between Cactus Road and Bell Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,516,500



Project:	R-26 (Access Management at Bell - Option #1)
Description:	Install concrete medians along the northern and southern legs of the 43rd Avenue intersection with Bell Road. Re-stripe lanes to 10-foot minimum lane widths. This project is mutually exclusive with R-27.
Cost:	\$112,860

Project:	R-27 (Access Management at Bell - Option #2)
Description:	Install raised pavement markers (dagmars) along the northern and southern legs of the 43rd Avenue intersection with Bell Road. This option is not depicted within the map book. This project is mutually exclusive with R-26.
Cost:	\$39,910

Project:	T-16 (Lighting Project #6)
Description:	Close lighting gaps on east side of road between Cactus Road and Bell Road. Upgrade existing lighting to LED on both sides of street.
Cost:	\$1,516,500



APPENDIX B

RECOMMENDED IMPROVEMENTS COST ESTIMATE

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (Corridor Quantities)**

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	7930	\$15	\$118,946
AC Pavement (surface course)	Tons	656	\$120	\$78,683
AC Pavement (base course)	Tons	2623	\$120	\$314,731
Tack Coat	Tons	2	\$500	\$1,175
Vert. Curb & Gutter	Lin. Ft.	6411	\$18	\$115,396
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	69085	\$7	\$483,592
ADA Ramp	Each	337	\$5,000	\$1,685,000
Concrete Median w/ Nose	Sq. Ft.	60674	\$12	\$728,085
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	42309	\$5	\$211,547
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	576	\$4,100	\$2,361,600
Streetlight Trenching	LF	33748	\$37	\$1,248,676
Additional Items				
Automatic Gates-Roadway	Each	8	\$50,000	\$400,000
Automatic Gates-Pedestrian	Each	11	\$30,000	\$330,000
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	415	\$550	\$228,250
Wrought Iron Fence	Lin. Ft.	105	\$60	\$6,300
Reflective Pavement Markings	Lin. Ft.	226400	\$1	\$226,400
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	13000	\$20	\$260,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	3	\$125,000	\$375,000
Wayfinding Signs	L.S.	1	\$1,000	\$1,000
Warning, Marker, or Regulatory Signs	Each	96	\$200	\$19,200

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (Corridor Quantities)**

Item	Unit	Quantity	Unit Cost	Total
Guide Signs	Each	1	\$30,000	\$30,000
Multi-use Trail	Sq. Ft.	16550	\$5	\$82,750
Pedestrian Countdown Timers	Each	176	\$10,000	\$1,760,000
Retroreflective Backplates	Each	352	\$110	\$38,720
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	9713	\$80	\$777,055
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	29	\$8,000	\$232,000
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	39	\$9,000	\$351,000
Transit Stop Bench	Each	32	\$1,300	\$41,600
Transit Stop Trashcan	Each	29	\$700	\$20,300
Concrete Flume with Covers	Each	26	\$10,000	\$260,000
Headwall Extension	Each	23	\$10,000	\$230,000
Sub Total Construction Cost				\$13,017,006
SWPP Allowance (0.7%)	L.S.	1		\$91,119
Traffic Control/Police Officer (5%)	L.S.	1		\$650,850
Allowance for Extra Work (10%)	L.S.	1		\$1,301,701
Contingency (20%)	L.S.	1		\$2,603,401
Certified Burrowing Owl Surveyor	Each	1	\$1,500	\$1,500
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$17,740,577
DESIGN CONSULTANT COST (15% of Construction Cost)				\$2,661,087
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$2,128,869
DCM Construction Admin. (20% of Construction Cost)				\$3,548,115
RIGHT OF WAY COST				\$523,950

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (B-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	1	\$125,000	\$125,000
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (B-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$125,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$875
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$6,250
Allowance for Extra Work (10%)	L.S.	1	\$0	\$12,500
Contingency (20%)	L.S.	1	\$0	\$25,000
Certified Burrowing Owl Surveyor	Each	1	\$1,500	\$1,500
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$171,130
DESIGN CONSULTANT COST (15% of Construction Cost)				\$25,670
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$20,540
DCM Construction Admin. (20% of Construction Cost)				\$34,230
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$251,570

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (B-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	1	\$1,000	\$1,000
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (B-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$1,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$7
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$50
Allowance for Extra Work (10%)	L.S.	1	\$0	\$100
Contingency (20%)	L.S.	1	\$0	\$200
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$1,360
DESIGN CONSULTANT COST (15% of Construction Cost)				\$210
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$170
DCM Construction Admin. (20% of Construction Cost)				\$280
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$2,020

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (B-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (B-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	16550	\$5	\$82,750
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$82,750
SWPP Allowance (0.7%)	L.S.	1	\$0	\$579
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$4,138
Allowance for Extra Work (10%)	L.S.	1	\$0	\$8,275
Contingency (20%)	L.S.	1	\$0	\$16,550
Certified Burrowing Owl Surveyor	Each	1	\$1,500	\$1,500
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$113,800
DESIGN CONSULTANT COST (15% of Construction Cost)				\$17,070
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$13,660
DCM Construction Admin. (20% of Construction Cost)				\$22,760
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$167,290

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	308	\$5,000	\$1,540,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$1,540,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$10,780
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$77,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$154,000
Contingency (20%)	L.S.	1	\$0	\$308,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$2,164,780
DESIGN CONSULTANT COST (15% of Construction Cost)				\$324,720
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$259,780
DCM Construction Admin. (20% of Construction Cost)				\$432,960
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$3,182,240

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	34570	\$7	\$241,990
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	9523	\$5	\$47,617
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$289,607
SWPP Allowance (0.7%)	L.S.	1	\$0	\$2,027
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$14,480
Allowance for Extra Work (10%)	L.S.	1	\$0	\$28,961
Contingency (20%)	L.S.	1	\$0	\$57,921
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$393,000
DESIGN CONSULTANT COST (15% of Construction Cost)				\$58,950
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$47,160
DCM Construction Admin. (20% of Construction Cost)				\$78,600
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$577,710

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	1	\$125,000	\$125,000
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$125,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$875
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$6,250
Allowance for Extra Work (10%)	L.S.	1	\$0	\$12,500
Contingency (20%)	L.S.	1	\$0	\$25,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$169,630
DESIGN CONSULTANT COST (15% of Construction Cost)				\$25,450
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$20,360
DCM Construction Admin. (20% of Construction Cost)				\$33,930
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$249,370

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-4)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	4	\$5,000	\$20,000
Concrete Median w/ Nose	Sq. Ft.	800	\$12	\$9,600
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	4	\$50,000	\$200,000
Automatic Gates-Pedestrian	Each	4	\$30,000	\$120,000
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	80	\$550	\$44,000
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-4)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$393,600
SWPP Allowance (0.7%)	L.S.	1	\$0	\$2,755
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$19,680
Allowance for Extra Work (10%)	L.S.	1	\$0	\$39,360
Contingency (20%)	L.S.	1	\$0	\$78,720
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$534,120
DESIGN CONSULTANT COST (15% of Construction Cost)				\$80,120
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$64,100
DCM Construction Admin. (20% of Construction Cost)				\$106,830
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$785,170

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-5)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	4	\$5,000	\$20,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	4	\$50,000	\$200,000
Automatic Gates-Pedestrian	Each	7	\$30,000	\$210,000
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	335	\$550	\$184,250
Wrought Iron Fence	Lin. Ft.	105	\$60	\$6,300
Reflective Pavement Markings	Lin. Ft.	400	\$1	\$400
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-5)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$620,950
SWPP Allowance (0.7%)	L.S.	1	\$0	\$4,347
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$31,048
Allowance for Extra Work (10%)	L.S.	1	\$0	\$62,095
Contingency (20%)	L.S.	1	\$0	\$124,190
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$842,630
DESIGN CONSULTANT COST (15% of Construction Cost)				\$126,400
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$101,120
DCM Construction Admin. (20% of Construction Cost)				\$168,530
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$1,238,680

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-6)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	5050	\$7	\$35,350
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	1094	\$5	\$5,471
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-6)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$40,821
SWPP Allowance (0.7%)	L.S.	1	\$0	\$286
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,041
Allowance for Extra Work (10%)	L.S.	1	\$0	\$4,082
Contingency (20%)	L.S.	1	\$0	\$8,164
Certified Burrowing Owl Surveyor	Each	1	\$1,500	\$1,500
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$56,900
DESIGN CONSULTANT COST (15% of Construction Cost)				\$8,540
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$6,830
DCM Construction Admin. (20% of Construction Cost)				\$11,380
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$83,650

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-7)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	3	\$5,000	\$15,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-7)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	14	\$8,000	\$112,000
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$127,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$889
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$6,350
Allowance for Extra Work (10%)	L.S.	1	\$0	\$12,700
Contingency (20%)	L.S.	1	\$0	\$25,400
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$172,340
DESIGN CONSULTANT COST (15% of Construction Cost)				\$25,860
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$20,690
DCM Construction Admin. (20% of Construction Cost)				\$34,470
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$253,360

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-8)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF		\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	1	\$125,000	\$125,000
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (P-8)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$125,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$875
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$6,250
Allowance for Extra Work (10%)	L.S.	1	\$0	\$12,500
Contingency (20%)	L.S.	1	\$0	\$25,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$169,630
DESIGN CONSULTANT COST (15% of Construction Cost)				\$25,450
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$20,360
DCM Construction Admin. (20% of Construction Cost)				\$33,930
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$249,370

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	11128	\$12	\$133,541
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$133,541
SWPP Allowance (0.7%)	L.S.	1	\$0	\$935
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$6,677
Allowance for Extra Work (10%)	L.S.	1	\$0	\$13,354
Contingency (20%)	L.S.	1	\$0	\$26,708
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$256,220
DESIGN CONSULTANT COST (15% of Construction Cost)				\$38,440
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$30,750
DCM Construction Admin. (20% of Construction Cost)				\$51,250
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$376,660

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	2000	\$20	\$40,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$40,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$280
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$4,000
Contingency (20%)	L.S.	1	\$0	\$8,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$129,280
DESIGN CONSULTANT COST (15% of Construction Cost)				\$19,400
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$15,520
DCM Construction Admin. (20% of Construction Cost)				\$25,860
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$190,060

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	2390	\$15	\$35,854
AC Pavement (surface course)	Tons	198	\$120	\$23,717
AC Pavement (base course)	Tons	791	\$120	\$94,869
Tack Coat	Tons	0.7	\$500	\$362
Vert. Curb & Gutter	Lin. Ft.	1795	\$18	\$32,309
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	8507	\$7	\$59,547
ADA Ramp	Each	6	\$5,000	\$30,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	8448	\$5	\$42,241
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$318,899
SWPP Allowance (0.7%)	L.S.	1	\$0	\$2,232
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$15,945
Allowance for Extra Work (10%)	L.S.	1	\$0	\$31,890
Contingency (20%)	L.S.	1	\$0	\$63,780
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$507,750
DESIGN CONSULTANT COST (15% of Construction Cost)				\$76,170
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$60,930
DCM Construction Admin. (20% of Construction Cost)				\$101,550
RIGHT OF WAY COST				\$329,350
GRAND TOTAL				\$1,075,750

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-4)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	622	\$15	\$9,332
AC Pavement (surface course)	Tons	51	\$120	\$6,173
AC Pavement (base course)	Tons	206	\$120	\$24,693
Tack Coat	Tons	0.2	\$500	\$94
Vert. Curb & Gutter	Lin. Ft.	489	\$18	\$8,794
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	2425	\$7	\$16,972
ADA Ramp	Each	1	\$5,000	\$5,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	2386	\$5	\$11,931
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-4)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$82,990
SWPP Allowance (0.7%)	L.S.	1	\$0	\$581
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$4,149
Allowance for Extra Work (10%)	L.S.	1	\$0	\$8,299
Contingency (20%)	L.S.	1	\$0	\$16,598
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$112,620
DESIGN CONSULTANT COST (15% of Construction Cost)				\$16,900
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$13,520
DCM Construction Admin. (20% of Construction Cost)				\$22,530
RIGHT OF WAY COST				\$47,860
GRAND TOTAL				\$213,430

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-5)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	11570	\$12	\$138,837
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-5)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$138,837
SWPP Allowance (0.7%)	L.S.	1	\$0	\$972
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$6,942
Allowance for Extra Work (10%)	L.S.	1	\$0	\$13,884
Contingency (20%)	L.S.	1	\$0	\$27,767
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$263,410
DESIGN CONSULTANT COST (15% of Construction Cost)				\$39,520
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$31,610
DCM Construction Admin. (20% of Construction Cost)				\$52,690
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$387,230

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-6)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	2000	\$20	\$40,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-6)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$40,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$280
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$4,000
Contingency (20%)	L.S.	1	\$0	\$8,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$54,280
DESIGN CONSULTANT COST (15% of Construction Cost)				\$8,150
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$6,520
DCM Construction Admin. (20% of Construction Cost)				\$10,860
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$79,810

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-7)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	1896	\$15	\$28,446
AC Pavement (surface course)	Tons	157	\$120	\$18,817
AC Pavement (base course)	Tons	627	\$120	\$75,269
Tack Coat	Tons	0.6	\$500	\$287
Vert. Curb & Gutter	Lin. Ft.	1324	\$18	\$23,832
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	6030	\$7	\$42,207
ADA Ramp	Each	2	\$5,000	\$10,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	5933	\$5	\$29,665
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-7)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$228,524
SWPP Allowance (0.7%)	L.S.	1	\$0	\$1,600
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$11,426
Allowance for Extra Work (10%)	L.S.	1	\$0	\$22,852
Contingency (20%)	L.S.	1	\$0	\$45,705
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$385,110
DESIGN CONSULTANT COST (15% of Construction Cost)				\$57,770
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$46,220
DCM Construction Admin. (20% of Construction Cost)				\$77,030
RIGHT OF WAY COST				\$23,190
GRAND TOTAL				\$589,320

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-8)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	162	\$15	\$2,426
AC Pavement (surface course)	Tons	13	\$120	\$1,605
AC Pavement (base course)	Tons	54	\$120	\$6,420
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	340	\$18	\$6,116
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	1679	\$7	\$11,754
ADA Ramp	Each	1	\$5,000	\$5,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	1640	\$5	\$8,198
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-8)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$41,520
SWPP Allowance (0.7%)	L.S.	1	\$0	\$291
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,076
Allowance for Extra Work (10%)	L.S.	1	\$0	\$4,152
Contingency (20%)	L.S.	1	\$0	\$8,304
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$56,350
DESIGN CONSULTANT COST (15% of Construction Cost)				\$8,460
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$6,770
DCM Construction Admin. (20% of Construction Cost)				\$11,270
RIGHT OF WAY COST				\$19,660
GRAND TOTAL				\$102,510

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-9)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	13049	\$12	\$156,585
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-9)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$156,585
SWPP Allowance (0.7%)	L.S.	1	\$0	\$1,096
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$7,829
Allowance for Extra Work (10%)	L.S.	1	\$0	\$15,659
Contingency (20%)	L.S.	1	\$0	\$31,317
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$212,490
DESIGN CONSULTANT COST (15% of Construction Cost)				\$31,880
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$25,500
DCM Construction Admin. (20% of Construction Cost)				\$42,500
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$312,370

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-10)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	2000	\$20	\$40,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-10)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$40,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$280
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$4,000
Contingency (20%)	L.S.	1	\$0	\$8,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$54,280
DESIGN CONSULTANT COST (15% of Construction Cost)				\$8,150
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$6,520
DCM Construction Admin. (20% of Construction Cost)				\$10,860
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$79,810

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-11)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	1492	\$12	\$17,903
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-11)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$17,903
SWPP Allowance (0.7%)	L.S.	1	\$0	\$125
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$895
Allowance for Extra Work (10%)	L.S.	1	\$0	\$1,790
Contingency (20%)	L.S.	1	\$0	\$3,581
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$24,300
DESIGN CONSULTANT COST (15% of Construction Cost)				\$3,650
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$2,920
DCM Construction Admin. (20% of Construction Cost)				\$4,860
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$35,730

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-12)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	500	\$20	\$10,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-12)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$10,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$70
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$500
Allowance for Extra Work (10%)	L.S.	1	\$0	\$1,000
Contingency (20%)	L.S.	1	\$0	\$2,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$13,570
DESIGN CONSULTANT COST (15% of Construction Cost)				\$2,040
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$1,630
DCM Construction Admin. (20% of Construction Cost)				\$2,720
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$19,960

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-13)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	556	\$12	\$6,677
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-13)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	6725	\$80	\$537,962
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$544,639
SWPP Allowance (0.7%)	L.S.	1	\$0	\$3,812
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$27,232
Allowance for Extra Work (10%)	L.S.	1	\$0	\$54,464
Contingency (20%)	L.S.	1	\$0	\$108,928
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$739,080
DESIGN CONSULTANT COST (15% of Construction Cost)				\$110,870
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$88,690
DCM Construction Admin. (20% of Construction Cost)				\$147,820
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$1,086,460

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-14)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	1000	\$20	\$20,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-14)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$20,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$140
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$2,000
Contingency (20%)	L.S.	1	\$0	\$4,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$27,140
DESIGN CONSULTANT COST (15% of Construction Cost)				\$4,080
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$3,260
DCM Construction Admin. (20% of Construction Cost)				\$5,430
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$39,910

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-15)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	363	\$15	\$5,447
AC Pavement (surface course)	Tons	30	\$120	\$3,603
AC Pavement (base course)	Tons	120	\$120	\$14,412
Tack Coat	Tons	0.1	\$500	\$55
Vert. Curb & Gutter	Lin. Ft.	409	\$18	\$7,367
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	1943	\$7	\$13,601
ADA Ramp	Each	1	\$5,000	\$5,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	4231	\$5	\$21,153
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-15)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	3	\$8,000	\$24,000
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	1	\$9,000	\$9,000
Transit Stop Bench	Each	1	\$1,300	\$1,300
Transit Stop Trashcan	Each	1	\$700	\$700
Concrete Flume with Covers	Each	1	\$10,000	\$10,000
Headwall Extension	Each	1	\$10,000	\$10,000
Sub Total Construction Cost				\$125,639
SWPP Allowance (0.7%)	L.S.	1	\$0	\$879
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$6,282
Allowance for Extra Work (10%)	L.S.	1	\$0	\$12,564
Contingency (20%)	L.S.	1	\$0	\$25,128
Certified Burrowing Owl Surveyor	Each	1	\$1,500	\$1,500
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$172,000
DESIGN CONSULTANT COST (15% of Construction Cost)				\$25,800
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$20,640
DCM Construction Admin. (20% of Construction Cost)				\$34,400
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$252,840

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-16)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	3833	\$12	\$45,990
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-16)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$45,990
SWPP Allowance (0.7%)	L.S.	1	\$0	\$322
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,300
Allowance for Extra Work (10%)	L.S.	1	\$0	\$4,599
Contingency (20%)	L.S.	1	\$0	\$9,198
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$62,410
DESIGN CONSULTANT COST (15% of Construction Cost)				\$9,370
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$7,490
DCM Construction Admin. (20% of Construction Cost)				\$12,490
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$91,760

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-17)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	1000	\$20	\$20,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-17)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$20,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$140
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$2,000
Contingency (20%)	L.S.	1	\$0	\$4,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$27,140
DESIGN CONSULTANT COST (15% of Construction Cost)				\$4,080
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$3,260
DCM Construction Admin. (20% of Construction Cost)				\$5,430
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$39,910

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-18)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	258	\$12	\$3,090
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-18)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	2989	\$80	\$239,094
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$242,184
SWPP Allowance (0.7%)	L.S.	1	\$0	\$1,695
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$12,109
Allowance for Extra Work (10%)	L.S.	1	\$0	\$24,218
Contingency (20%)	L.S.	1	\$0	\$48,437
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$328,650
DESIGN CONSULTANT COST (15% of Construction Cost)				\$49,300
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$39,440
DCM Construction Admin. (20% of Construction Cost)				\$65,730
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$483,120

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-19)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	500	\$20	\$10,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-19)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$10,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$70
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$500
Allowance for Extra Work (10%)	L.S.	1	\$0	\$1,000
Contingency (20%)	L.S.	1	\$0	\$2,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$13,570
DESIGN CONSULTANT COST (15% of Construction Cost)				\$2,040
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$1,630
DCM Construction Admin. (20% of Construction Cost)				\$2,720
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$19,960

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-20)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	6205	\$12	\$74,463
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-20)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$74,463
SWPP Allowance (0.7%)	L.S.	1	\$0	\$521
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$3,723
Allowance for Extra Work (10%)	L.S.	1	\$0	\$7,446
Contingency (20%)	L.S.	1	\$0	\$14,893
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$101,050
DESIGN CONSULTANT COST (15% of Construction Cost)				\$15,160
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$12,130
DCM Construction Admin. (20% of Construction Cost)				\$20,210
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$148,550

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-21)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	1500	\$20	\$30,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-21)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$30,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$210
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,500
Allowance for Extra Work (10%)	L.S.	1	\$0	\$3,000
Contingency (20%)	L.S.	1	\$0	\$6,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$40,710
DESIGN CONSULTANT COST (15% of Construction Cost)				\$6,110
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$4,890
DCM Construction Admin. (20% of Construction Cost)				\$8,150
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$59,860

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-22)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	757	\$15	\$11,361
AC Pavement (surface course)	Tons	63	\$120	\$7,515
AC Pavement (base course)	Tons	251	\$120	\$30,062
Tack Coat	Tons	0.2	\$500	\$115
Vert. Curb & Gutter	Lin. Ft.	635	\$18	\$11,437
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	3158	\$7	\$22,103
ADA Ramp	Each	1	\$5,000	\$5,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	3119	\$5	\$15,593
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-22)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$103,186
SWPP Allowance (0.7%)	L.S.	1	\$0	\$722
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$5,159
Allowance for Extra Work (10%)	L.S.	1	\$0	\$10,319
Contingency (20%)	L.S.	1	\$0	\$20,637
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$140,030
DESIGN CONSULTANT COST (15% of Construction Cost)				\$21,010
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$16,810
DCM Construction Admin. (20% of Construction Cost)				\$28,010
RIGHT OF WAY COST				\$42,520
GRAND TOTAL				\$248,380

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-23)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	7070	\$12	\$84,839
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-23)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$84,839
SWPP Allowance (0.7%)	L.S.	1	\$0	\$594
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$4,242
Allowance for Extra Work (10%)	L.S.	1	\$0	\$8,484
Contingency (20%)	L.S.	1	\$0	\$16,968
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$115,130
DESIGN CONSULTANT COST (15% of Construction Cost)				\$17,270
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$13,820
DCM Construction Admin. (20% of Construction Cost)				\$23,030
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$169,250

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-24)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	1500	\$20	\$30,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-24)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$30,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$210
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,500
Allowance for Extra Work (10%)	L.S.	1	\$0	\$3,000
Contingency (20%)	L.S.	1	\$0	\$6,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$40,710
DESIGN CONSULTANT COST (15% of Construction Cost)				\$6,110
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$4,890
DCM Construction Admin. (20% of Construction Cost)				\$8,150
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$59,860

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-25)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	61	\$15	\$908
AC Pavement (surface course)	Tons	5	\$120	\$601
AC Pavement (base course)	Tons	20	\$120	\$2,402
Tack Coat	Tons	0	\$500	\$9
Vert. Curb & Gutter	Lin. Ft.	136	\$18	\$2,455
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	682	\$7	\$4,777
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	683	\$5	\$3,417
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-25)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$14,569
SWPP Allowance (0.7%)	L.S.	1	\$0	\$102
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$728
Allowance for Extra Work (10%)	L.S.	1	\$0	\$1,457
Contingency (20%)	L.S.	1	\$0	\$2,914
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$19,770
DESIGN CONSULTANT COST (15% of Construction Cost)				\$2,970
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$2,380
DCM Construction Admin. (20% of Construction Cost)				\$3,960
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$29,080

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-26)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	4713	\$12	\$56,560
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-26)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$56,560
SWPP Allowance (0.7%)	L.S.	1	\$0	\$396
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,828
Allowance for Extra Work (10%)	L.S.	1	\$0	\$5,656
Contingency (20%)	L.S.	1	\$0	\$11,312
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$76,760
DESIGN CONSULTANT COST (15% of Construction Cost)				\$11,520
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$9,220
DCM Construction Admin. (20% of Construction Cost)				\$15,360
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$112,860

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-27)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	1000	\$20	\$20,000
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (R-27)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$20,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$140
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$2,000
Contingency (20%)	L.S.	1	\$0	\$4,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$27,140
DESIGN CONSULTANT COST (15% of Construction Cost)				\$4,080
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$3,260
DCM Construction Admin. (20% of Construction Cost)				\$5,430
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$39,910

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$0
SWPP Allowance (0.7%)	L.S.	1	\$0	\$0
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$0
Allowance for Extra Work (10%)	L.S.	1	\$0	\$0
Contingency (20%)	L.S.	1	\$0	\$0
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$0
DESIGN CONSULTANT COST (15% of Construction Cost)				\$0
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$0
DCM Construction Admin. (20% of Construction Cost)				\$0
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$0
SWPP Allowance (0.7%)	L.S.	1	\$0	\$0
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$0
Allowance for Extra Work (10%)	L.S.	1	\$0	\$0
Contingency (20%)	L.S.	1	\$0	\$0
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$0
DESIGN CONSULTANT COST (15% of Construction Cost)				\$0
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$0
DCM Construction Admin. (20% of Construction Cost)				\$0
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	52	\$200	\$10,400
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$10,400
SWPP Allowance (0.7%)	L.S.	1	\$0	\$73
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$520
Allowance for Extra Work (10%)	L.S.	1	\$0	\$1,040
Contingency (20%)	L.S.	1	\$0	\$2,080
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$14,120
DESIGN CONSULTANT COST (15% of Construction Cost)				\$2,120
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$1,700
DCM Construction Admin. (20% of Construction Cost)				\$2,830
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$20,770

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-4)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	Lin. Ft.	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	220000	\$1	\$220,000
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-4)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$220,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$1,540
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$11,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$22,000
Contingency (20%)	L.S.	1	\$0	\$44,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$298,540
DESIGN CONSULTANT COST (15% of Construction Cost)				\$44,790
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$35,830
DCM Construction Admin. (20% of Construction Cost)				\$59,710
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$438,870

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-5)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-5)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$0
SWPP Allowance (0.7%)	L.S.	1	\$0	\$0
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$0
Allowance for Extra Work (10%)	L.S.	1	\$0	\$0
Contingency (20%)	L.S.	1	\$0	\$0
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$0
DESIGN CONSULTANT COST (15% of Construction Cost)				\$0
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$0
DCM Construction Admin. (20% of Construction Cost)				\$0
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-6)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	40	\$200	\$8,000
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-6)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$8,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$56
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$400
Allowance for Extra Work (10%)	L.S.	1	\$0	\$800
Contingency (20%)	L.S.	1	\$0	\$1,600
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$10,860
DESIGN CONSULTANT COST (15% of Construction Cost)				\$1,630
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$1,310
DCM Construction Admin. (20% of Construction Cost)				\$2,180
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$15,980

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-7)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-7)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	176	\$10,000	\$1,760,000
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$1,760,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$12,320
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$88,000
Allowance for Extra Work (10%)	L.S.	1	\$0	\$176,000
Contingency (20%)	L.S.	1	\$0	\$352,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$2,388,320
DESIGN CONSULTANT COST (15% of Construction Cost)				\$358,250
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$286,600
DCM Construction Admin. (20% of Construction Cost)				\$477,670
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$3,510,840

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-8)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-8)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	352	\$110	\$38,720
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$38,720
SWPP Allowance (0.7%)	L.S.	1	\$0	\$271
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,936
Allowance for Extra Work (10%)	L.S.	1	\$0	\$3,872
Contingency (20%)	L.S.	1	\$0	\$7,744
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$52,550
DESIGN CONSULTANT COST (15% of Construction Cost)				\$7,890
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$6,310
DCM Construction Admin. (20% of Construction Cost)				\$10,510
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$77,260

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-9)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	144	\$4,100	\$590,400
Streetlight Trenching	LF	10556	\$37	\$390,572
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-9)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$980,972
SWPP Allowance (0.7%)	L.S.	1	\$0	\$6,867
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$49,049
Allowance for Extra Work (10%)	L.S.	1	\$0	\$98,097
Contingency (20%)	L.S.	1	\$0	\$196,194
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$1,406,180
DESIGN CONSULTANT COST (15% of Construction Cost)				\$210,930
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$168,750
DCM Construction Admin. (20% of Construction Cost)				\$281,240
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$2,067,100

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-10)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	1	\$30,000	\$30,000

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-10)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$30,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$210
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,500
Allowance for Extra Work (10%)	L.S.	1	\$0	\$3,000
Contingency (20%)	L.S.	1	\$0	\$6,000
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$40,710
DESIGN CONSULTANT COST (15% of Construction Cost)				\$6,110
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$4,890
DCM Construction Admin. (20% of Construction Cost)				\$8,150
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$59,860

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-11)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	4	\$4,100	\$16,400
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-11)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$16,400
SWPP Allowance (0.7%)	L.S.	1	\$0	\$115
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$820
Allowance for Extra Work (10%)	L.S.	1	\$0	\$1,640
Contingency (20%)	L.S.	1	\$0	\$3,280
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$22,260
DESIGN CONSULTANT COST (15% of Construction Cost)				\$3,340
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$2,680
DCM Construction Admin. (20% of Construction Cost)				\$4,460
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$32,740

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-12)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	4	\$200	\$800
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-12)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$800
SWPP Allowance (0.7%)	L.S.	1	\$0	\$6
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$40
Allowance for Extra Work (10%)	L.S.	1	\$0	\$80
Contingency (20%)	L.S.	1	\$0	\$160
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$1,090
DESIGN CONSULTANT COST (15% of Construction Cost)				\$170
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$140
DCM Construction Admin. (20% of Construction Cost)				\$220
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$1,620

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-13)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	96	\$4,100	\$393,600
Streetlight Trenching	LF	6188	\$37	\$228,956
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-13)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$622,556
SWPP Allowance (0.7%)	L.S.	1	\$0	\$4,358
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$31,128
Allowance for Extra Work (10%)	L.S.	1	\$0	\$62,256
Contingency (20%)	L.S.	1	\$0	\$124,511
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$844,810
DESIGN CONSULTANT COST (15% of Construction Cost)				\$126,730
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$101,380
DCM Construction Admin. (20% of Construction Cost)				\$168,970
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$1,241,890

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-14)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	146	\$4,100	\$598,600
Streetlight Trenching	LF	8736	\$37	\$323,232
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-14)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$921,832
SWPP Allowance (0.7%)	L.S.	1	\$0	\$6,453
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$46,092
Allowance for Extra Work (10%)	L.S.	1	\$0	\$92,183
Contingency (20%)	L.S.	1	\$0	\$184,366
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$1,250,930
DESIGN CONSULTANT COST (15% of Construction Cost)				\$187,640
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$150,120
DCM Construction Admin. (20% of Construction Cost)				\$250,190
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$1,838,880

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-15)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	40	\$4,100	\$164,000
Streetlight Trenching	LF	3900	\$37	\$144,300
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-15)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$308,300
SWPP Allowance (0.7%)	L.S.	1	\$0	\$2,158
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$15,415
Allowance for Extra Work (10%)	L.S.	1	\$0	\$30,830
Contingency (20%)	L.S.	1	\$0	\$61,660
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$418,370
DESIGN CONSULTANT COST (15% of Construction Cost)				\$62,760
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$50,210
DCM Construction Admin. (20% of Construction Cost)				\$83,680
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$615,020

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-16)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	146	\$4,100	\$598,600
Streetlight Trenching	LF	4368	\$37	\$161,616
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-16)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$760,216
SWPP Allowance (0.7%)	L.S.	1	\$0	\$5,322
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$38,011
Allowance for Extra Work (10%)	L.S.	1	\$0	\$76,022
Contingency (20%)	L.S.	1	\$0	\$152,043
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$1,031,620
DESIGN CONSULTANT COST (15% of Construction Cost)				\$154,750
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$123,800
DCM Construction Admin. (20% of Construction Cost)				\$206,330
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$1,516,500

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-17)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	6000	\$1	\$6,000
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (T-17)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$6,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$42
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$300
Allowance for Extra Work (10%)	L.S.	1	\$0	\$600
Contingency (20%)	L.S.	1	\$0	\$1,200
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$8,150
DESIGN CONSULTANT COST (15% of Construction Cost)				\$1,230
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$980
DCM Construction Admin. (20% of Construction Cost)				\$1,630
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$11,990

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	37	\$9,000	\$333,000
Transit Stop Bench	Each	31	\$1,300	\$40,300
Transit Stop Trashcan	Each	28	\$700	\$19,600
Concrete Flume with Covers	Each	25	\$10,000	\$250,000
Headwall Extension	Each	22	\$10,000	\$220,000
Sub Total Construction Cost				\$862,900
SWPP Allowance (0.7%)	L.S.	1	\$0	\$6,040
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$43,145
Allowance for Extra Work (10%)	L.S.	1	\$0	\$86,290
Contingency (20%)	L.S.	1	\$0	\$172,580
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	1	\$75,000	\$75,000
TOTAL CONSTRUCTION COST				\$1,245,960
DESIGN CONSULTANT COST (15% of Construction Cost)				\$186,900
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$149,520
DCM Construction Admin. (20% of Construction Cost)				\$249,200
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$1,831,580

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	355	\$15	\$5,325
AC Pavement (surface course)	Tons	29	\$120	\$3,523
AC Pavement (base course)	Tons	117	\$120	\$14,091
Tack Coat	Tons	0.1	\$500	\$54
Vert. Curb & Gutter	Lin. Ft.	260	\$18	\$4,677
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	921	\$7	\$6,446
ADA Ramp	Each	1	\$5,000	\$5,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	964	\$5	\$4,820
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$43,935
SWPP Allowance (0.7%)	L.S.	1	\$0	\$308
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,197
Allowance for Extra Work (10%)	L.S.	1	\$0	\$4,394
Contingency (20%)	L.S.	1	\$0	\$8,787
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$59,630
DESIGN CONSULTANT COST (15% of Construction Cost)				\$8,950
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$7,160
DCM Construction Admin. (20% of Construction Cost)				\$11,930
RIGHT OF WAY COST				\$160
GRAND TOTAL				\$87,830

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	169	\$15	\$2,531
AC Pavement (surface course)	Tons	14	\$120	\$1,674
AC Pavement (base course)	Tons	56	\$120	\$6,696
Tack Coat	Tons	0.1	\$500	\$26
Vert. Curb & Gutter	Lin. Ft.	148	\$18	\$2,661
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	514	\$7	\$3,595
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	578	\$5	\$2,889
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$20,071
SWPP Allowance (0.7%)	L.S.	1	\$0	\$140
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,004
Allowance for Extra Work (10%)	L.S.	1	\$0	\$2,007
Contingency (20%)	L.S.	1	\$0	\$4,014
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$27,240
DESIGN CONSULTANT COST (15% of Construction Cost)				\$4,090
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$3,270
DCM Construction Admin. (20% of Construction Cost)				\$5,450
RIGHT OF WAY COST				\$580
GRAND TOTAL				\$40,630

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-4)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	186	\$15	\$2,785
AC Pavement (surface course)	Tons	15	\$120	\$1,842
AC Pavement (base course)	Tons	61	\$120	\$7,369
Tack Coat	Tons	0.1	\$500	\$28
Vert. Curb & Gutter	Lin. Ft.	148	\$18	\$2,656
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	625	\$7	\$4,372
ADA Ramp	Each	1	\$5,000	\$5,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	656	\$5	\$3,282
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-4)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$27,334
SWPP Allowance (0.7%)	L.S.	1	\$0	\$191
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,367
Allowance for Extra Work (10%)	L.S.	1	\$0	\$2,733
Contingency (20%)	L.S.	1	\$0	\$5,467
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$37,100
DESIGN CONSULTANT COST (15% of Construction Cost)				\$5,570
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$4,460
DCM Construction Admin. (20% of Construction Cost)				\$7,420
RIGHT OF WAY COST				\$30,540
GRAND TOTAL				\$85,090

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-5)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	348	\$15	\$5,216
AC Pavement (surface course)	Tons	29	\$120	\$3,450
AC Pavement (base course)	Tons	115	\$120	\$13,801
Tack Coat	Tons	0.1	\$500	\$53
Vert. Curb & Gutter	Lin. Ft.	327	\$18	\$5,882
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	1391	\$7	\$9,734
ADA Ramp	Each	1	\$5,000	\$5,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	1414	\$5	\$7,068
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-5)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$50,205
SWPP Allowance (0.7%)	L.S.	1	\$0	\$351
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,510
Allowance for Extra Work (10%)	L.S.	1	\$0	\$5,020
Contingency (20%)	L.S.	1	\$0	\$10,041
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$68,130
DESIGN CONSULTANT COST (15% of Construction Cost)				\$10,220
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$8,180
DCM Construction Admin. (20% of Construction Cost)				\$13,630
RIGHT OF WAY COST				\$10,030
GRAND TOTAL				\$110,190

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-6)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	452	\$15	\$6,786
AC Pavement (surface course)	Tons	37	\$120	\$4,489
AC Pavement (base course)	Tons	150	\$120	\$17,956
Tack Coat	Tons	0.1	\$500	\$68
Vert. Curb & Gutter	Lin. Ft.	243	\$18	\$4,372
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	1012	\$7	\$7,085
ADA Ramp	Each	3	\$5,000	\$15,000
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	1009	\$5	\$5,044
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-6)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$60,799
SWPP Allowance (0.7%)	L.S.	1	\$0	\$426
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$3,040
Allowance for Extra Work (10%)	L.S.	1	\$0	\$6,080
Contingency (20%)	L.S.	1	\$0	\$12,160
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$82,510
DESIGN CONSULTANT COST (15% of Construction Cost)				\$12,380
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$9,910
DCM Construction Admin. (20% of Construction Cost)				\$16,510
RIGHT OF WAY COST				\$20,060
GRAND TOTAL				\$141,370

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-7)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	169	\$15	\$2,528
AC Pavement (surface course)	Tons	14	\$120	\$1,673
AC Pavement (base course)	Tons	56	\$120	\$6,690
Tack Coat	Tons	0.1	\$500	\$25
Vert. Curb & Gutter	Lin. Ft.	158	\$18	\$2,837
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	580	\$7	\$4,059
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	632	\$5	\$3,158
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (TR-7)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	0	\$8,000	\$0
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	1	\$9,000	\$9,000
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$29,971
SWPP Allowance (0.7%)	L.S.	1	\$0	\$210
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,499
Allowance for Extra Work (10%)	L.S.	1	\$0	\$2,997
Contingency (20%)	L.S.	1	\$0	\$5,994
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$40,680
DESIGN CONSULTANT COST (15% of Construction Cost)				\$6,110
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$4,890
DCM Construction Admin. (20% of Construction Cost)				\$8,140
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$59,820

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (U-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (U-1)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	7	\$8,000	\$56,000
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$56,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$392
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$2,800
Allowance for Extra Work (10%)	L.S.	1	\$0	\$5,600
Contingency (20%)	L.S.	1	\$0	\$11,200
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$76,000
DESIGN CONSULTANT COST (15% of Construction Cost)				\$11,400
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$9,120
DCM Construction Admin. (20% of Construction Cost)				\$15,200
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$111,720

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (U-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (U-2)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	3	\$8,000	\$24,000
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$24,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$168
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$1,200
Allowance for Extra Work (10%)	L.S.	1	\$0	\$2,400
Contingency (20%)	L.S.	1	\$0	\$4,800
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$32,570
DESIGN CONSULTANT COST (15% of Construction Cost)				\$4,890
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$3,910
DCM Construction Admin. (20% of Construction Cost)				\$6,520
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$47,890

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (U-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
City Provided Items				
Subgrade Preparation	Sq. Yd.	0	\$15	\$0
AC Pavement (surface course)	Tons	0	\$120	\$0
AC Pavement (base course)	Tons	0	\$120	\$0
Tack Coat	Tons	0	\$500	\$0
Vert. Curb & Gutter	Lin. Ft.	0	\$18	\$0
Single Curb	Lin. Ft.	0	\$20	\$0
Ribbon Curb	Lin. Ft.	0	\$18	\$0
Sidewalk	Sq. Ft.	0	\$7	\$0
ADA Ramp	Each	0	\$5,000	\$0
Concrete Median w/ Nose	Sq. Ft.	0	\$12	\$0
Landscaping (incl plants, irrig, granite, etc)	Sq. Ft.	0	\$5	\$0
Tree Removal (12" Dia. & Larger)	Each	0	\$1,200	\$0
Decorative Pavement	Sq. Ft.	0	\$10	\$0
Storm Drain Pipe	Lin. Ft.	0	\$160	\$0
Storm Drain Manholes-Est @ 500' Spacing	Each	0	\$6,000	\$0
Catch Basins	Each	0	\$4,500	\$0
MH & Water Valve Box Adjustments	Each	0	\$350	\$0
Remove Vert Curb & Gutter, Single Curb	Lin. Ft.	0	\$10	\$0
Remove Concrete D/W,S/W,VG,Slab, etc.	Sq. Ft.	0	\$5	\$0
Remove Structures, Backfill & Compact	L.S.	0	\$0	\$0
Box Culvert (\$29/sf opening/lf length/barrel)	L.S.	0	\$0	\$0
Bridge, Complete w/Chnl, etc (per sf deck)	Sq. Ft.	0	\$200	\$0
Misc. Removal and Other Work	L.S.	0	\$0	\$0
Water-related Relocations (FH, Realign)	Each	0	\$5,000	\$0
Traffic Signals (Per Intersection)	Each	0	\$150,000	\$0
Streetlights	Each	0	\$4,100	\$0
Streetlight Trenching	LF	0	\$37	\$0
Additional Items				
Automatic Gates-Roadway	Each	0	\$50,000	\$0
Automatic Gates-Pedestrian	Each	0	\$30,000	\$0
ADA Compliant Pedestrian Grade Crossing Panels	Lin. Ft.	0	\$550	\$0
Wrought Iron Fence	Lin. Ft.	0	\$60	\$0
Reflective Pavement Markings	Lin. Ft.	0	\$1	\$0
Reflective Pavement Marking (White) - 4-inch	Lin. Ft.	0	\$20	\$0
Reflective Pavement Marking (White) - 18-inch	Lin. Ft.	0	\$7	\$0
Reflective Pavement Marking (Bike & Arrow)	Each	0	\$500	\$0
Construct HAWK	Each	0	\$125,000	\$0
Wayfinding Signs	L.S.	0	\$0	\$0
Warning, Marker, or Regulatory Signs	Each	0	\$200	\$0
Guide Signs	Each	0	\$30,000	\$0

**PRELIMINARY
COST ESTIMATE**

**43rd Avenue Safety Project Assessment
from McDowell Road to Bell Road
Project # ST85100389 (U-3)**

Prepared Date: 09-19-2016

Item	Unit	Quantity	Unit Cost	Total
Multi-use Trail	Sq. Ft.	0	\$5	\$0
Pedestrian Countdown Timers	Each	0	\$10,000	\$0
Retroreflective Backplates	Each	0	\$110	\$0
Chain Link Fence	Lin. Ft.	0	\$30	\$0
Concrete Driveways	Sq. Yd.	0	\$80	\$0
Remove Asphalt Pavement	Sq. Yd.	0	\$8	\$0
12.5 kV Utility Pole Relocation	Each	2	\$8,000	\$16,000
LED Replacement	Each	0	\$1,000	\$0
Transit Stop Shelter	Each	0	\$9,000	\$0
Transit Stop Bench	Each	0	\$1,300	\$0
Transit Stop Trashcan	Each	0	\$700	\$0
Concrete Flume with Covers	Each	0	\$10,000	\$0
Headwall Extension	Each	0	\$10,000	\$0
Sub Total Construction Cost				\$16,000
SWPP Allowance (0.7%)	L.S.	1	\$0	\$112
Traffic Control/Police Officer (5%)	L.S.	1	\$0	\$800
Allowance for Extra Work (10%)	L.S.	1	\$0	\$1,600
Contingency (20%)	L.S.	1	\$0	\$3,200
Certified Burrowing Owl Surveyor	Each	0	\$1,500	\$0
Archaeological Activities	Each	0	\$75,000	\$0
TOTAL CONSTRUCTION COST				\$21,720
DESIGN CONSULTANT COST (15% of Construction Cost)				\$3,260
Soft Costs:				
DCM Design PM (12% of Construction Cost)				\$2,610
DCM Construction Admin. (20% of Construction Cost)				\$4,350
RIGHT OF WAY COST				\$0
GRAND TOTAL				\$31,940

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