

TOWN OF Duncan

506 SE Old W Hwy
Duncan, AZ 85534



Town of Duncan

High Street Improvement Project

Mini-DCR

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A. INTRODUCTION

The project consists of the pavement of approximately 3,060 feet on High Street in the Town of Duncan, Arizona. The proposed typical crown street cross section is 30 feet. The project connects with US 70 on the East and Stadium Street on the West. The functional classification of this road is Major Collector. The estimated total construction cost is \$1,761,314 (including 5.7% local matching funds of \$106,463).

The Town of Duncan requires a system-wide resurfacing of existing streets. The last new pavement project in the town occurred in 1978, roughly 45 years ago. No additional surfacing projects have taken place since that time. High Street is a critical to the Duncan economy and provides primary access to the high school. This re-paving of this street represents the first step in the improvement of the Town's road network.

B. BACKGROUND DATA

1. PURPOSE AND JUSTIFICATION

The main objective of this project is to improve the local economy by paving this residential/commercial street that is in dilapidated condition. High Street is the primary access road to the high school. Students use this route to walk and bike to school. Safety is of high concern as the concrete sidewalks on this street are in extremely poor condition and beyond repair and lack ADA access. Pedestrians are forced off the sidewalks and into the street. Sidewalk replacement is part of this project.

2. PROJECT DEVELOPMENT

The Town of Duncan received a grant in the amount of \$595,000 for design and other engineering services to address the Town's road network. High Street will be the top design priority. Therefore, no design costs design costs have been addressed in this application.

There is no expected environmental impact by this project. No utilities will be replaced within the project limits. The project consists of the removal of dirt/asphalt millings and layout of 5" of asphalt over 6" of aggregate base course. The adjacent sidewalk will be removed and replaced prior to pavement replacement work. ADOT is administering the design phase of this project. The Town of Duncan is in the process of finalizing the IGA. ADOT will designate an on-call engineering firm to prepare the construction documents. Once the construction documents are complete, the project will be advertised to select the lowest and most responsible bidder.

3. ORIGINAL AND SUBSEQUENT CONSTRUCTION PROJECTS

The land use is residential/commercial. This road was last upgraded in approximately 1978. Currently there is no geo-technical report prepared for this project. However, it is expected to be completed through the selected design firm. Design survey will be provided by the selected consultant engineering firm. No public meeting has been held at this time.

C. PROJECT SCOPE

The scope of this project is the construction of new 30' wide paved roadway for approximately 3,060 feet and includes the following items:

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- Removal of existing surface materials
- Removal of existing sidewalk
- Replacement of sidewalk
- Possible sub-grade soils improvements.
- Paving of roadway
- Traffic control.

D. ENVIRONMENTAL PROJECT DEVELOPMENT CONSIDERATIONS

1. Environmental requirements

The project leads to residential/commercial properties. The following table depicts the expected environmental impacts:

Animal and Plants	No Impact
Wetland & Riparian	No Impact
Floodplain Encroachment	A portion of the roadway is within a floodplain zone AE but surface drainage will not be altered
Section 401/404	No Impact
Section 4(f) Impacts	No Impact
Air Quality	Air Quality will be improved after pavement
Social or Economic Impact	A positive economic impact is expected after pavement
Cultural Resources Investigation	No Impact
Scenic or Historic Routes	No Impact

2. Construction Contract Method

The construction contract will be awarded to the lowest responsible bidder in accordance with ADOT LPA manual and Town of Duncan Purchasing Policy.

3. Geotechnical and Drainage Requirements

Potential geotechnical and surface drainage issues will be addressed during the design phase of this project.

4. Critical Outside Agency Involvement

There is no expected involvement by any outside agency or utility company.

5. Right-of-Way Requirements

The point of contact with US 70 will require Right-of-Way permits from ADOT.

6. Utility Relocation Requirements

No utility relocation is expected.

7. Traffic Requirements

Traffic control plans will be prepared and implemented at the time of construction. Residential users will be allowed limited access during construction.

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8. Seasonal Considerations

There is no planned landscape within the project limits. The construction activities are planned outside of the monsoon season to avoid construction delays or damages caused by storm water.

9. Design Criteria

The pavement design will be prepared in accordance with ADOT standard specifications. A geotechnical report will be prepared for this project to justify the recommended cross section of 5" AC over 6" ABC.

E. Estimation of Costs

Project Phase/Type of Work	Estimated Cost
ADOT Review Fees	\$30,000
Design*	\$0
Right-of-Way**	\$0
Utility Relocation***	\$0
Other (Contingency, 10% of const. cost)	\$225,824
Construction	\$1,505,490
Total Project Cost*	\$1,761,314

* Duncan has secured a grant to cover design costs.

** Project is within Town of Duncan Right of Way

*** No utility relocation is anticipated

F. LOCAL MATCH

The Town of Duncan is prepared to provide a 5.7% match (\$91,347) for the project.

G. FREIGHT MOVEMENT/ECONOMIC VITALITY

According to the 2020 census, the Town of Duncan has a population of 1,339. It is located in the Gila River Valley, 5 miles west of the Arizona–New Mexico border. The town and unincorporated county surrounding the town are primarily populated by farming, ranching, and mining families. The town and unincorporated county surrounding the town are primarily populated by farming, ranching, and mining families. The Town's location at the intersection of SR75 and US70 provides access to the Freeport-McMoRan Morenci & Safford copper mines in southeastern Arizona and Chino & Tyrone in southwestern New Mexico. This provides unique opportunities for growth as the Town's road network improves.

Tourism is extremely important to Duncan economy. Surrounded by scenic mountains, the Gila River, and historic mining sites, working ranches and lush farmlands, the Town of Duncan offers a help

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provide an experience of the Old West. The current condition of Duncan's road network has had a stifling the greater development of the Town of Duncan.

H. SYSTEM PRESERVATION AND IMPROVEMENT

The functional classification is a Major Collector. The street carries an average of 734 vehicles per day. If US 70 was ever closed within Duncan town limits, High Street would serve as a bypass route allowing the continual flow of traffic West to Safford and East to East to New Mexico and Interstate 10. As one of two Major Collector roads in Duncan, this project is critical to the improvement of Duncan's road network.

I. SAFETY

5 years of crash data has been reviewed. There is a record of 1 non-injury crash reported. High Street is the primary access road to the high school. Students use this route to walk and bike to school. Safety is of high concern as the concrete sidewalks on this street are in extremely poor condition and beyond repair and lack ADA access. Pedestrians are forced off the sidewalks and into the street. Sidewalk replacement is part of this project.

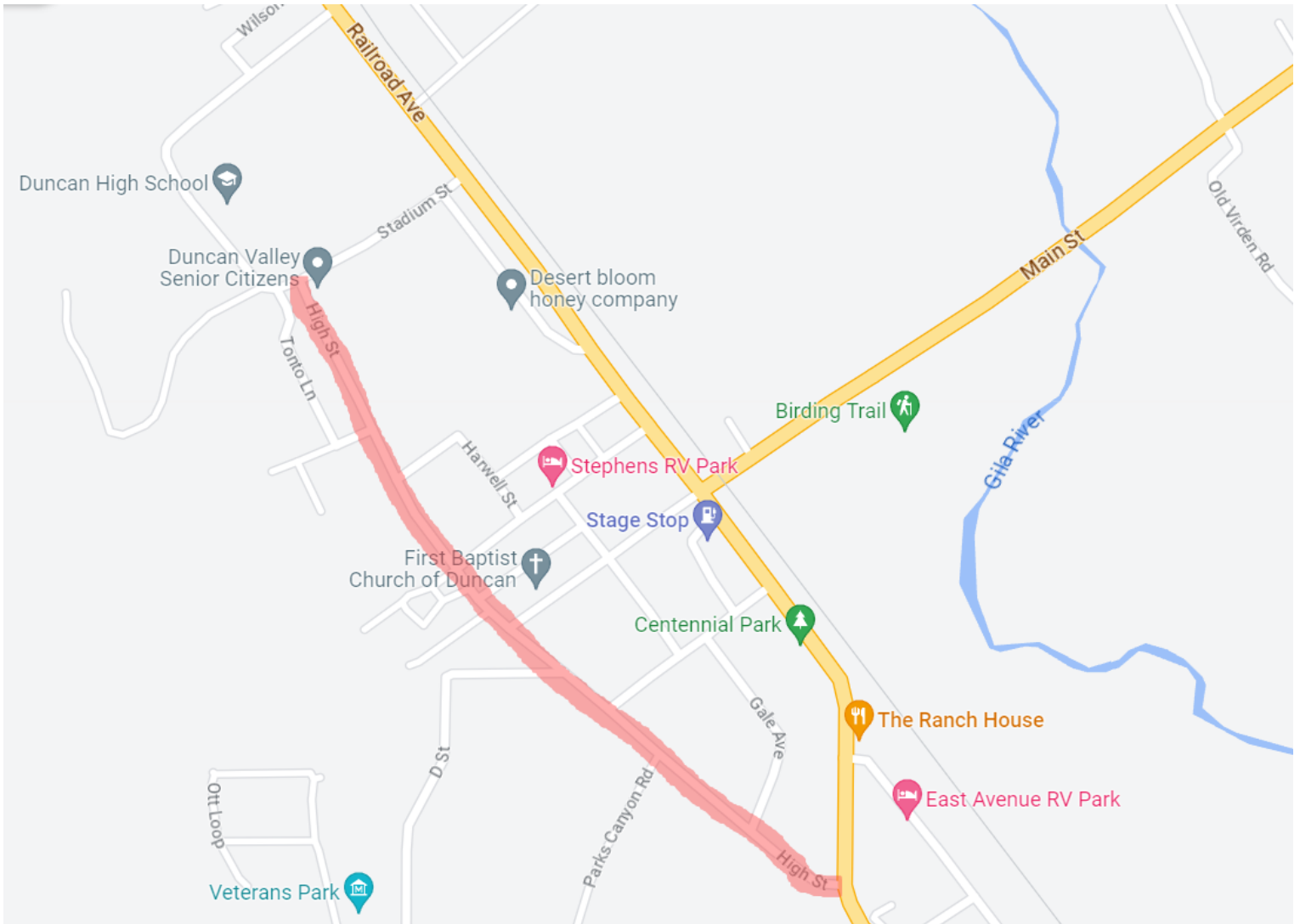
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Attachment 1

Project Location Map



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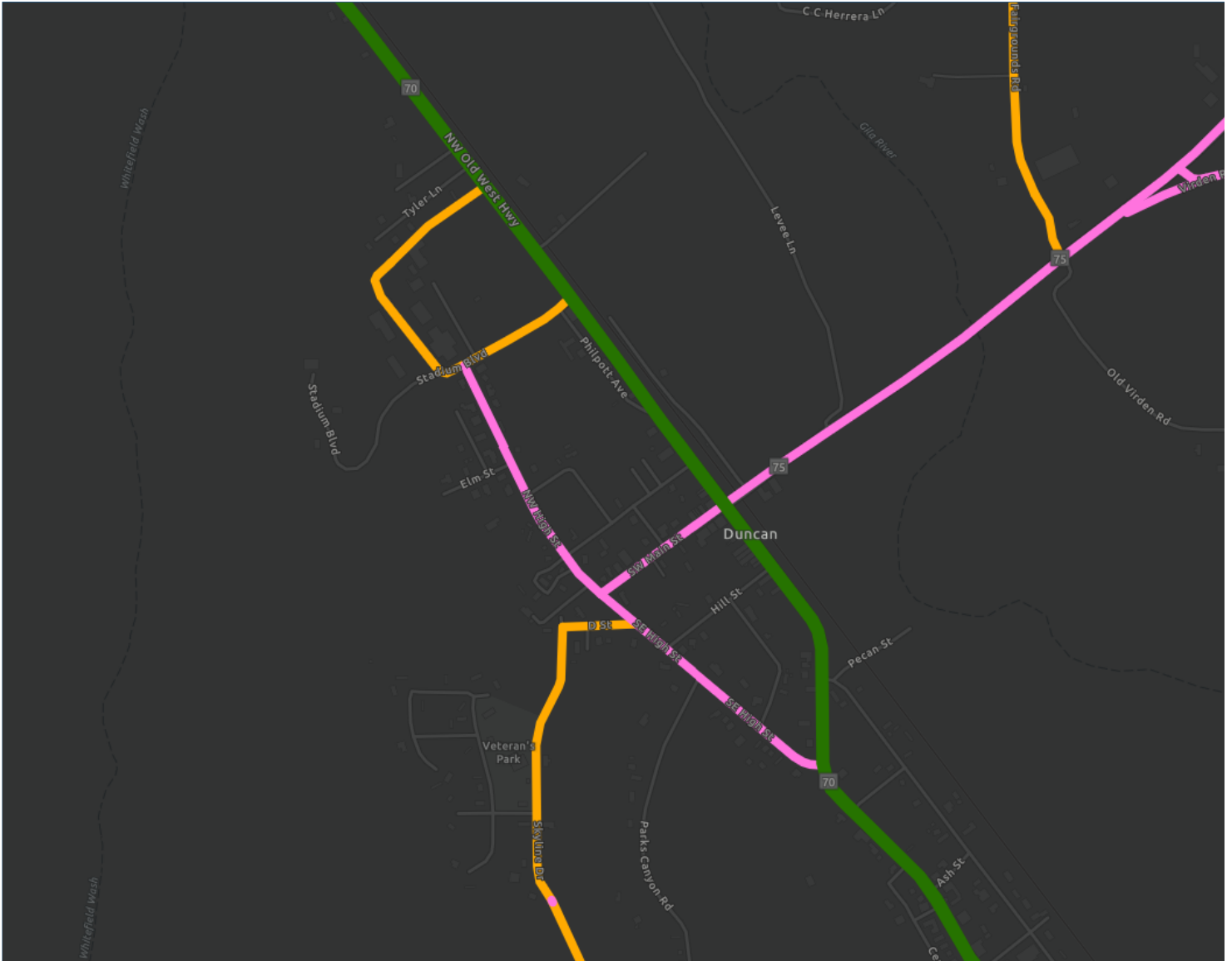
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Attachment 2

Functional Classification Map

ADOT Arizona Roads by Federal Functional Classification



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Attachment 3

Detailed Cost Estimate

**COST ESTIMATE FOR TOWN OF DUNCAN HIGH STREET IMPROVEMENTS
FROM STADIUM STREET TO US70**

#	ITEM	UNIT	QTY	UNIT PRICE	COST
1	Mobilization and Demobilization	LS	1	\$40,000.00	\$40,000.00
2	Maintenance & Traffic Control	LS	1	\$20,000.00	\$25,000.00
3	Construction Surveying and Staking	LS	1	\$10,000.00	\$10,000.00
4	Removal of Existing Sidewalk	LF	3,060	\$20.00	\$61,200.00
5	Pavement Saw Cut	LF	300	\$10.00	\$3,000.00
6	Removal of 5" of Existing Road Material	CY	1,417	\$190.00	\$269,230.00
7	6" Aggregate Base Course	TN	3,356	\$75.00	\$251,700.00
8	Grade Area for Paving	SY	6,626	\$10.00	\$66,260.00
9	Construct Sidewalk	LF	3,060	\$80.00	\$244,800.00
10	5" AC Paving	TN	1,789	\$230.00	\$411,470.00
11	Bituminous Tack Coat	SY	6,566	\$5.00.00	\$32,830.00
12	Geotechnical QA/QC	LS	1	\$30,000.00	\$30,000.00
13	Construction Administration	LS	1	\$50,000.00	\$50,000.00
14	Inspection	LS	1	\$10,000.00	\$10,000.00
					\$1,505,490.00

Construction Costs: \$1,505,490

Contingency Costs (15% of Construction): \$225,824

ADOT Review Fees: \$30,000

Total Project Estimate: \$1,761,314

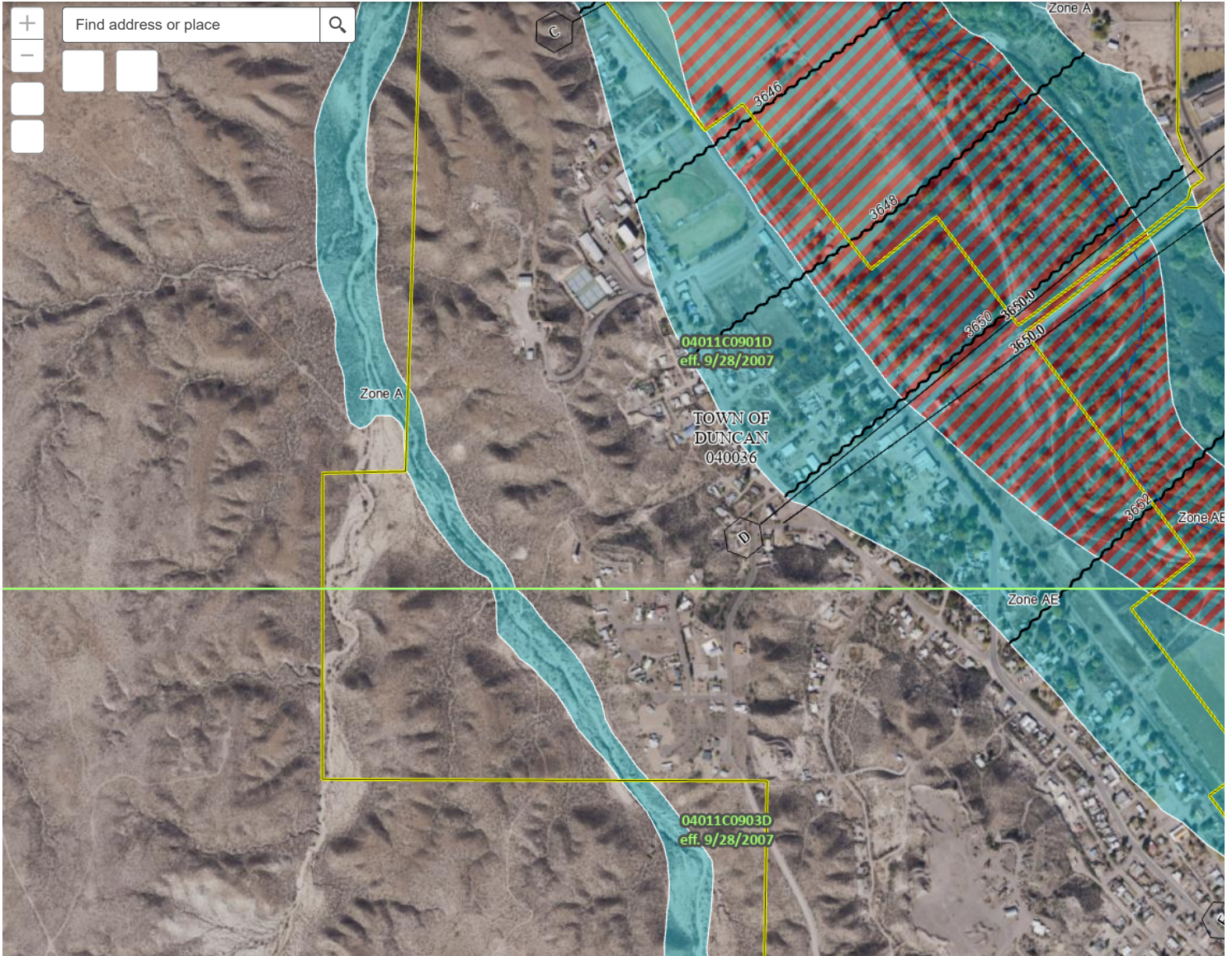
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Attachment 4

Project Flood Plain Map



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Attachment 5

Photos of Current Street Conditions







Attachment 6
5 Year Crash Data
Report



Injury Severity Summary Report

Duncan – High Street

Incident County Name	Incident Year	Incident Injury Severity Desc	Incident Count	Incident Total Injuries	Incident Total Fatalities	Incident Total Units	Incident Total Persons
Greenlee	2018	No Injury	1	0	0	2	2
			1	0	0	2	2

Report Parameters

Request ID : c67d5016-3e8d-41ce-b27f-e26565dc42d6

Incident Date Range : 1/1/2017 to 12/31/21

County: Greenlee

City : Duncan

Cog Description : South Eastern Arizona Governments Organization

Flags Selected : Rural

Both Directions Selected?: Yes

Engineering District Selected : Southeast

Report Generated On : 8/4/2023 9:23:39 AM