

20th Avenue Project, Phase II Relation Street to Golf Course Road Construction 2014



Application for additional funding to Construct the
20th Avenue Widening Improvements

Surface Transportation Program Funds

CITY OF SAFFORD, ARIZONA



INTRODUCTION

The City of Safford is submitting, for your consideration, this application to increase the federal funding on our Surface Transportation Program (STP) project, 20th Avenue (Relation to Golf Course Road), by \$1,707,000 (Total Cost - \$1,809,474). This project is currently on the SEAGO TIP (Project ID SAF 12-02) for construction in FY 2016, for a total cost of \$2,020,148 (on SEAGO's STP Ledger for FY 2018). The Project Assessment, which was completed under the Design project, determined that a Stormwater Sewer system would be necessary to properly drain the street and with the estimated contingencies (\$438,000), construction engineering (\$442,000) and other additional cost, this increased the construction estimate to \$3,538,000 (see Itemized Cost Estimate on page 7). Below is a comparison between the current amounts, the revised amounts, and the total increase amounts.

	<u>Total Cost</u>	<u>Federal (94.3%)</u>	<u>Local Match (5.7%)</u>
Revised Amount :	3,538,000	3,336,334	201,666
Current Amount :	<u>2,020,148</u>	<u>1,905,000</u>	<u>115,148</u>
Difference :	1,517,852	1,431,334	86,518
To Main Street :	<u>291,622</u>	<u>275,000</u>	<u>16,622</u>
Total Increase :	1,809,474	1,706,334	103,140

These funds would be utilized to construction this project, which is the continuation of the improvements made along 20th Avenue and will complete the second of three phases to widen 20th Avenue from US 70 to Discovery Park Boulevard. Phase I, completed in 2006 was a joint venture between the City of Safford and the Town of Thatcher, included the section between US 70 and Relation Street. Phase II, is located just south of Phase I between Relation Street and Golf Course Road. There are two parts to Phase II, the first part, Engineering (STP-SAF-0(207)T, SS988 03D), was funded in 2011 with Surface Transportation (STP) funding. The STP funded Engineering scope includes design, right of way acquisition and environmental. Engineering is currently underway with the final plans and contract specification scheduled to be completed by July 2015. The City of Safford is now requesting to increase the STP funds to complete the construction of Phase II. This project will widen this section of roadway, which will increase capacity and improve the safety of this important urban arterial in Safford and the Gila Valley.

20th Avenue is classified as an urban minor arterial and is a portion of the bypass around Safford from US 70 to US 191. This roadway is the major thoroughfare on the west side of the City and it is the route to the Mount Graham Regional Hospital, numerous health care professional facilities as well as major shopping centers and the Safford High School. It is also a major route for many areas within the Gila Valley and the region. The project length is approximately 3,300 feet or 0.63 miles. Total STP funds estimated to complete the construction is \$3,538,000. We are requesting an increase in funding to the amount awarded to the City in 2012.

BACKGROUND DATA

The existing 20th Avenue roadway is approximately eighteen (18) years old. Preliminary engineering shows the roadway is already distressed. Traffic counts were collected by Works Consulting, LLC in December of 2012 and it showed the Average Daily Traffic (ADT) of this section of road to be about 6,600. In 2007, United Civil Group conducted a Traffic Study and this report showed that this roadway was "at capacity". Under a "No Build" Scenario the projected level of service will be over capacity and the report predicts an ADT of 21,400 at build-out. With a 5 lane facility and this ADT, the report predicted the street would be under capacity. This study also recommended that this street be upgraded to arterial standards.

Accident history, which was obtained from the City's Police Department, shows three (3) injury accidents and eleven (11) non-injury accidents, occurred between the years of 2005-2010 within the termini of this project.

The current speed limit on this section of roadway is 35 mph and it is anticipated to remain at 35. The vertical and horizontal alignment will be such that there will be no sight distance concerns.

DESTINATION LOCATIONS WITHIN THE TERMINI

Below is a list of destination locations within the proposed project termini:

- Mt. Graham Regional Hospital
- Large Medical Clinic
- 5 Dentist Offices
- 10 General Practitioners
- Eye Center
- Cancer Center
- (2) Senior Apartment Complex's
- Assisted Living Center
- Mt. Graham Safe House
- Numerous Specialty Physician Offices
- Rehabilitation Center
- Large RV Park
- Funeral Home
- Medical Supply Business
- 11 Residences

List of destination locations near this area:

- Wal-Mart
- Home Depot
- Shopping Center (anchored by Safeway)

- Walgreens
- Safford High School
- Two additional Clinics
- Residential Subdivision

PROJECT SCOPE

The proposed roadway will consist of 5 lanes of traffic; 2 way traffic on both sides with a continuous left turn lane, curb and gutters and sidewalks on both sides the entire length of the project. The roadway will be constructed with a slope of about 1% throughout the project with a 2% cross slope.

As the entire valley grows in the future, 20th Avenue will become a very important roadway due to its vicinity to the regional hospital, professional health care providers, elderly care, major shopping in the area, High School, other future developments, and to relieve traffic congestion on US 70 through the City. In addition, the sidewalks will serve as a connection of our shared-use paths to the north and south of Relation Street.

PROJECT DEVELOPMENT CONSIDERATIONS

The Environmental requirements as determined by the project scope:

At the present time, the environmental study is being conducted under project STP-SAF-0(207)T (SS 988 03D) and will be completed and approved prior to any construction.

Critical Outside Agency Involvement

There are minimal outside agency involvements. Minimal ROW will be acquired during Project STP-SAF-0(207)T (SS 988 03D). Water, electric, gas and wastewater utilities are all owned by the City of Safford.

We will be working with ADOT and FHWA to insure all requirements are meant and satisfied.

Right-of-Way Requirements

Prior to construction, all the right of way will be cleared under project STP-SAF-0(207)T (SS 988 03D)

Utility Relocation Requirements

Any utility relocation will be completed by the City of Safford for utilities owned by the City (water, waste water, power, & natural gas). Any other relocation on City right of way will be handled on a case by case basis with the utility owner.

There is City water, waste water, power, and & natural gas along the right of way of 20th Avenue. At this time we are anticipating no effects on the current waste water and water system; however, the utilities will be verified during the design process.

The natural gas system will also be verified and may be relocated. The power in this area is above ground and the poles may need to be moved.

Seasonal Considerations

Engineering field work is scheduled to begin the Fall, 2014 with Geotechnical work under project STP-SAF-0(207)T (SS 988 03D). There are no seasonal considerations for construction; however the project should be timed so as not to pave the project between December and February.

Traffic Requirements

The current speed limit on this section of roadway is 35 mph and it is anticipated to remain at 35. There is currently a 4-way stop at the intersection of Relation and 20th Avenue. During the design phase of this project, studies were completed at the intersections of Relation and Golf Course Road to determine if these intersections warrant traffic signals. These studies showed that the Relation Street Intersection does warrant a signal under warrants 2 and 8, while the intersection of Golf Course Road will not warrant a signal until 2028 if the US 191 Alternate Route is constructed and 2047 if it is not constructed.

The vertical and horizontal alignment will be such that there will be no sight distance concerns. Pavement markings, striping and signage will be incorporated into design and installed during construction.

There will be need for a traffic control plan for this project. The construction will need to be constructed under traffic since the road is the only access to the regional hospital, other health care professional, and other important designations in the City. Care will need to be taken to ensure the traveling public can traverse the area and can get to where they need to be as quickly and safely as possible. There may be new signage that will be supplied and erected by the contractor.

Design Concept Report Requirements

We are not anticipating any requirements for either a DCR or a Project Scoping. Since this project will be to reconstruct the roadway, all those issue will be addressed during the design (STP-SAF-0(207)T (SS 988 03D)), which will be completed and accepted prior to construction.

Design Criteria

The design will have been completed under Project STP-SAF-0(207)T (SS 988 03D).

OTHER REQUIREMENTS

The funding source for this project will be Surface Transportation Project funds obtained through the State of Arizona.

We plan on bidding this project as soon as funding becomes available. We are anticipating design to be completed in 2015. The project is being design by AMEC under Project STP-SAF-0(207)A (SS 988 03D). It is anticipated that ADOT will perform the Contract Administration of this project once it goes to construction.

ESTIMATED COST

The cost requested for these STP funds are for Construction only. The design is already funded and will be paid for under another project.

The estimated cost to construct is estimated to be \$3,538,000. This application is requesting an additional \$1,809,474 be added to the amount currently on the SEAGO TIP to ensure that this project will be constructed as timely as possible. For a breakdown for this estimate see attached sheet.

ITEMIZED COST ESTIMATE

Project Number: 0000 GH SAF SS988 01 C

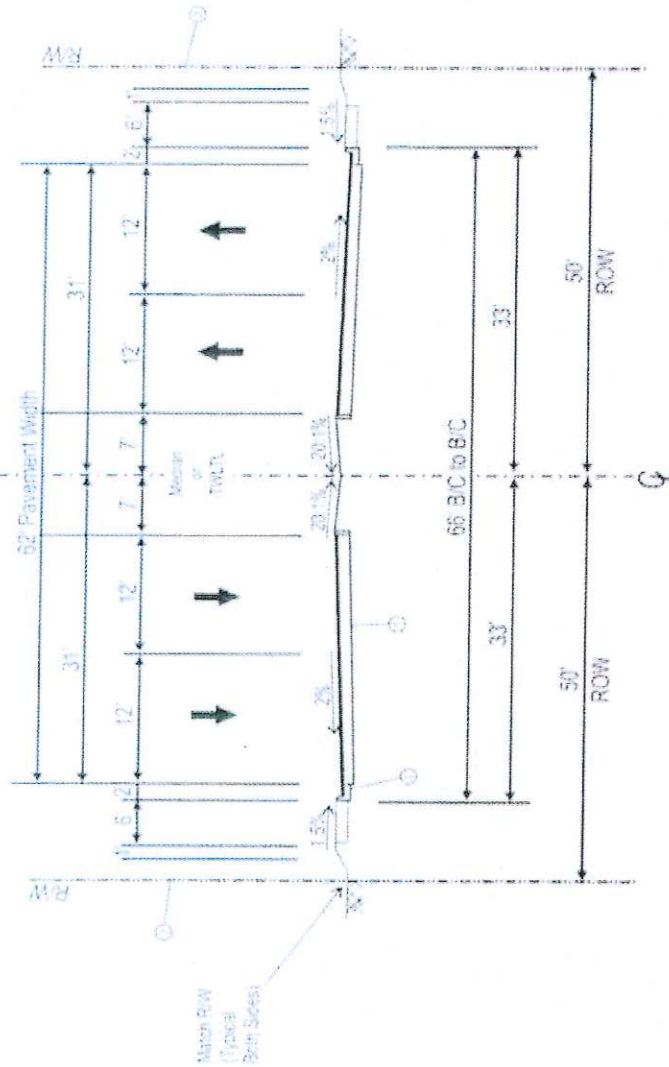
Location: 20TH AVE - GOLF COURSE RD TO RELATION ST

September 20, 2013

ITEMIZED CONSTRUCTION COST

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE (\$)	AMOUNT (\$)
2020029	REMOVAL OF ASPHALTIC CONCRETE PAVEMENT	SQ.YD.	15,512	\$ 2.50	\$ 38,780.00
2030301	ROADWAY EXCAVATION	CU.YD.	9,200	\$ 12.00	\$ 110,400.00
3030022	AGGREGATE BASE, CLASS 2	CU.YD.	5,028	\$ 25.00	\$ 125,700.00
4040111	BITUMINOUS TACK COAT	TON	12	\$ 650.00	\$ 7,800.00
4040116	APPLY BITUMINOUS TACK COAT	HOUR	48	\$ 150.00	\$ 7,200.00
4040270	ASPHALT BINDER (PG 70-10)	TON	306	\$ 600.00	\$ 183,600.00
4140040	ASPHALTIC CONCRETE FRICTION COURSE (ASPHALT-RUBBER)	TON	668	\$ 40.00	\$ 26,720.00
4140042	ASPHALT RUBBER MATERIAL (FOR AR-ACFC)	TON	61	\$ 650.00	\$ 39,650.00
4140044	MINERAL ADMIXTURE (FOR AR-ACFC)	TON	7	\$ 90.00	\$ 630.00
4160002	ASPHALTIC CONCRETE (3/4" MIX) (END PRODUCT)	TON	6,110	\$ 40.00	\$ 244,400.00
4160031	MINERAL ADMIXTURE	TON	62	\$ 90.00	\$ 5,580.00
5010271	PIPE, CORRUGATED METAL (87" x 63")	L.FT.	44	\$ 450.00	\$ 19,800.00
5012512	STORM DRAIN PIPE, 12"	L.FT.	14	\$ 50.00	\$ 700.00
5012515	STORM DRAIN PIPE, 15"	L.FT.	44	\$ 55.00	\$ 2,420.00
5012518	STORM DRAIN PIPE, 18"	L.FT.	1,733	\$ 55.00	\$ 95,315.00
5012524	STORM DRAIN PIPE, 24"	L.FT.	1,077	\$ 65.00	\$ 70,005.00
5012630	IRRIGATION PIPE, 30"	L.FT.	1,857	\$ 70.00	\$ 129,990.00
5030094	CONCRETE CATCH BASIN (C-15.40) ONE 7.5' WING, H=8' OR LESS	EACH	10	\$ 4,000.00	\$ 40,000.00
5030142	CONCRETE CATCH BASIN (MEDIAN) (C-15.80)	EACH	2	\$ 3,500.00	\$ 7,000.00
5040953	IRRIGATION HEADWALL (	EACH	1	\$ 2,500.00	\$ 2,500.00
5050001	MANHOLE (C-18.10) (NO. 1) (FOR PIPES 6" TO 36")	EACH	14	\$ 3,500.00	\$ 49,000.00
6016088	HEADWALL (	EACH	2	\$ 10,000.00	\$ 20,000.00
8082106	PIPE, DUCTILE IRON, 6"	L.FT.	279	\$ 100.00	\$ 27,900.00
8082108	PIPE, DUCTILE IRON, 8"	L.FT.	83	\$ 110.00	\$ 9,130.00
8082112	PIPE, DUCTILE IRON, 12"	L.FT.	1,526	\$ 90.00	\$ 137,340.00
9010001	MOBILIZATION	L.SUM	1	\$ 265,000.00	\$ 265,000.00
9080081	CONCRETE CURB AND GUTTER (C-05.10) (TYPE G)	L.FT.	6,746	\$ 16.00	\$ 107,936.00
9080201	CONCRETE SIDEWALK (C-05.20)	SQ.FT.	28,137	\$ 5.50	\$ 154,754.00
9080296	CONCRETE SIDEWALK RAMP (TYPE A)(C-05.30)	EACH	12	\$ 1,200.00	\$ 14,400.00
9080305	CONCRETE DRIVEWAY (	SQ.FT.	11,335	\$ 8.00	\$ 90,680.00
9140153	RETAINING WALL (SD 7.01)	SQ.FT.	990	\$ 65.00	\$ 64,350.00
9240050	MISCELLANEOUS WORK (INSTALL PRV STATION)	L.SUM	1	\$ 50,000.00	\$ 50,000.00
9240170	CONTRACTOR QUALITY CONTROL	L.SUM	1	\$ 30,000.00	\$ 30,000.00
9250001	CONSTRUCTION SURVEYING AND LAYOUT	L.SUM	1	\$ 15,000.00	\$ 15,000.00
				SUBTOTAL	\$ 2,193,680.00
100XX01	DESIGN CONTINGENCY UNIDENTIFIED ITEMS	COST	20%		\$ 438,736.00
701X001	MAINTENANCE AND PROTECTION OF TRAFFIC	COST	8%		\$ 175,494.00
733X001	TRAFFIC SIGNAL	EACH	1	\$ 140,000.00	\$ 140,000.00
				SUBTOTAL	\$ 2,947,910.00
	CONSTRUCTION ENGINEERING	COST	15%		\$ 442,187.00
	CONTINGENCY	COST	5%		\$ 147,396.00
				SUBTOTAL	\$ 3,537,493.00
				PA TOTAL	\$ 3,538,000.00

TYPICAL SECTION SKETCH



- ① Pavement section to be determined by Geotechnical Engineer in accordance with AASHTO Pavement Design Guide and the City of Safford City Code - Minimum Pavement Section - 3" of AC over 6" of ABC.
 - ② Type A vertical curb and gutter, MAG Detail 220.
 - ③ Additional right-of-way shall be provided where necessary to accommodate dual left-turn lanes or right-turn lanes warranted by traffic demands.
- Notes: Cross-section may be revised on a case-by-case basis. Any revisions must be approved by the City Engineer.

The cross-section outlines the minimum requirements. The desirable street width for an arterial roadway is 68' from back of curb to back of curb.

N.T.S.



Figure 14: Arterial Cross-Section

PICTURES OF 20TH AVENUE FROM RELATION STREET TO GOLF COURSE ROAD

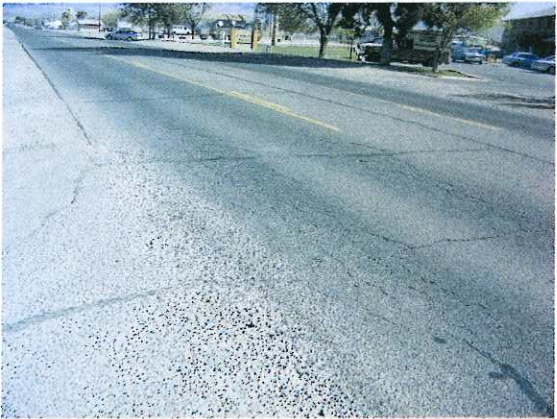


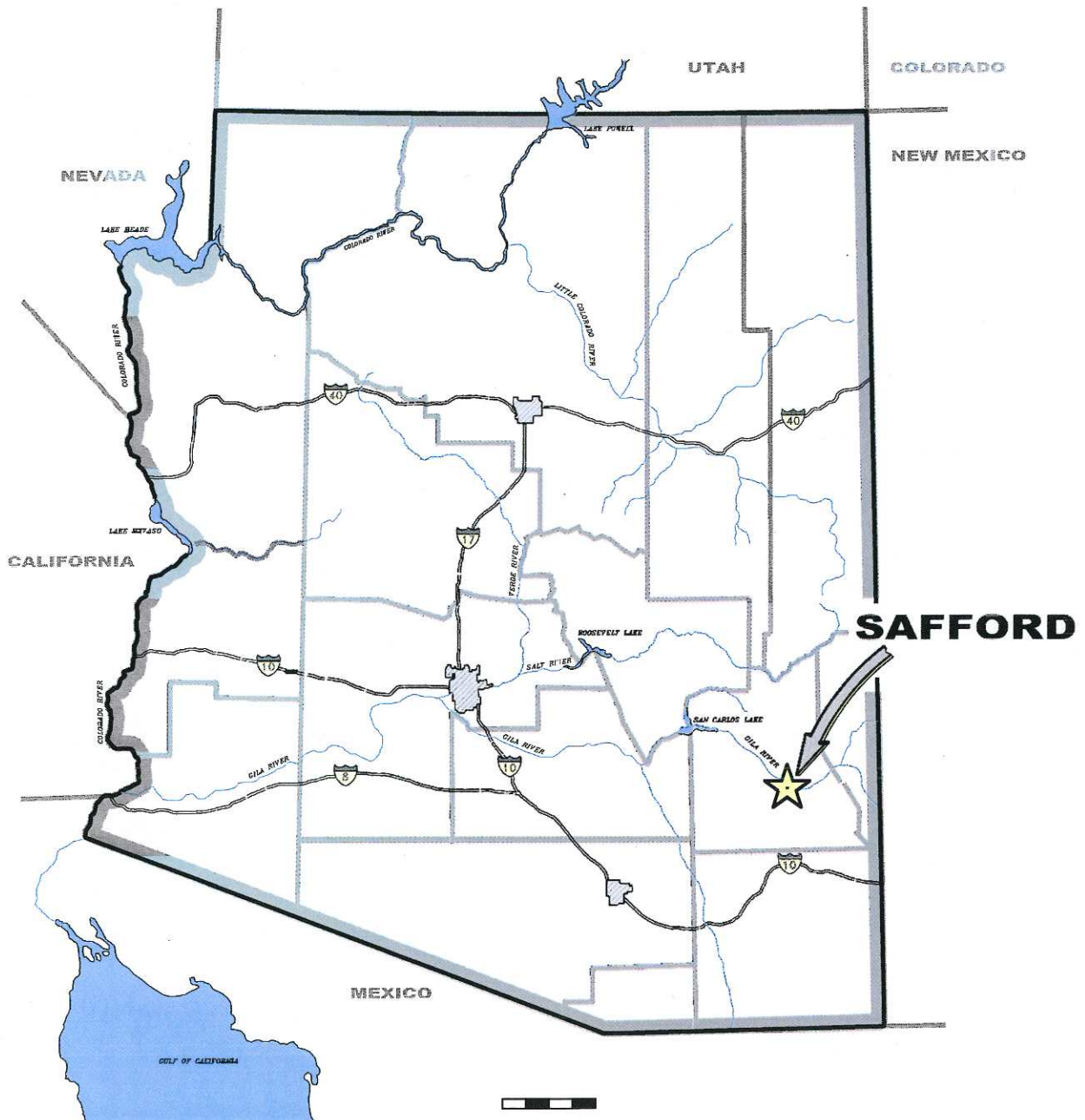
20th Avenue looking North – Portion completed in 2006 (Phase I) is visible north of the cross street, Relation Street. The width is 66'. This is the northern termini of the project.



20th Avenue looking south from Relation Street. Road narrows to 36' (Phase II).

PICTURES OF 20TH AVENUE FROM RELATION STREET TO GOLF COURSE ROAD



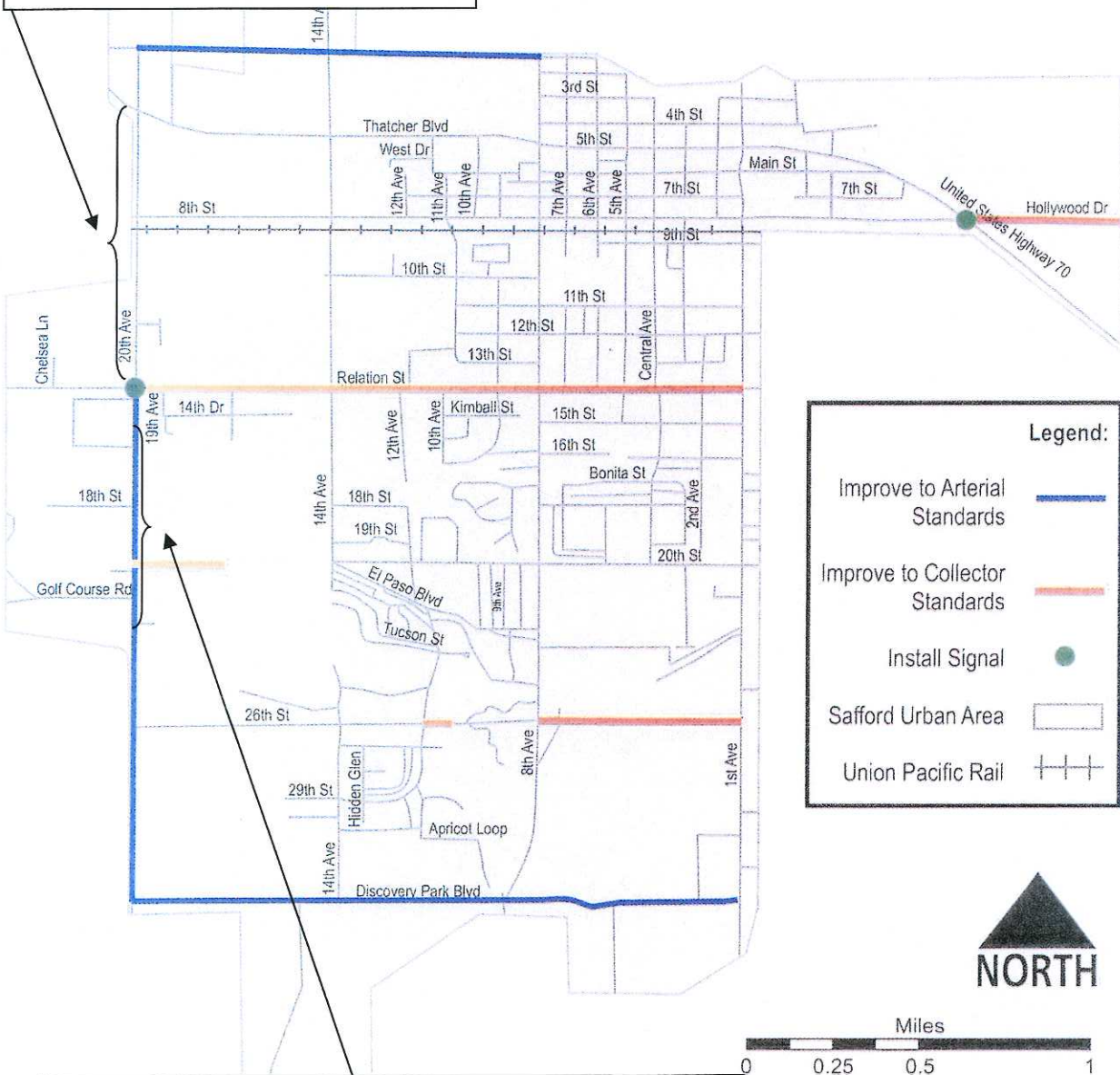


VICINITY MAP

CITY OF SAFFORD

TRANSPORTATION STUDY

Phase I: (completed)
 20th Avenue US 70 to Relation Street
 With a Shared-Use Path



Project Location:
 20th Avenue from Relation Street to Golf Course Road

DESIGN CONCEPT



N.T.S.

