



LOCAL GOVERNMENT FIVE-YEAR
HIGHWAY CONSTRUCTION PROGRAM
**PROJECT NOMINATION SHEET AND
MINI DESIGN CONCEPT REPORT**

Graham County
Reay Lane/Safford-Bryce Road Intersection

INTRODUCTION

This project is the improvement of the Reay Lane, Safford-Bryce intersection. The length of the project is approximately 600'. It is in Graham County north of Thatcher and US Hwy 70 on Reay Lane north of the Gila River at the intersection of Reay Lane and Safford-Bryce Road.

The estimated construction cost is \$418,000. It is anticipated the project will be constructed with Federal funding. Local funding will be used to purchase the right-of-way.

Construction physical year is 2014.

Project development is expected to begin as soon as this project is placed on the TIP. The intersection is of two rural major collectors. This project is needed because the current intersection has an acute angle in the turn going from Reay Lane toward Safford and the Safford Mine. This acute angle requires the traffic making that turn to enter the oncoming traffic lane. The sharp turn results in the stop sign being removed or damaged multiple times by the turning movement of large trucks. The intersection would be rebuilt as a Tee intersection with a turning lane.

BACKGROUND

The Reay Lane existing cross-section is typically chip sealed with base of unknown thickness and 4 inches of asphalt in the intersection. The date of construction is approximately 1986. The current culvert crossing will be abandoned and there will be a new culvert crossing of the Graham Canal which is an irrigation canal. There are no railroad crossings and no major utility conflicts. Reay Lane traffic volume is 1062 ADT. Safford-Bryce Road ADT is 470 west leg and 592 east leg.

PROJECT SCOPE

The project will involve building an embankment up and across the Graham Canal from Reay Lane to intersect with Safford-Bryce Road. The project will include rebuilding the two approach lanes and adding a turn lane at the intersection. The roadway will be rural collector with two twelve feet travel lanes, two feet of paved shoulder on each lane. The turn lane will be fourteen feet incorporated as a left turn lane.



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PROJECT DEVELOPMENT CONSIDERATIONS

1. *Environmental requirements as determined by the project scope.*

- Hazardous waste – aware of none
- No 404 Permit will be required
- No Section 4f lands
- No flood plain encroachments
- No wetlands within the project
- This road is not a scenic or historic Route
- Archeological clearance will be obtained.
- Social and economic impacts will be the increased safety of the intersection as well as eliminating the continual damage of the stop signs at that location.

2. *Critical Outside Agency Involvement*

The Graham Canal Board will need to approve the new crossing, but we anticipate no major issues.

3. *Right-of-Way Requirements*

The right-of-way involves crossing private land and the relocation of the roadway into new right-of-way. The right of way is expected to be acquired for this project by purchase.

4. *Utility Relocation Requirements*

There are no utility impacts and therefore will not require utility relocations.

5. *Seasonal Considerations*

The project will require coordination with the canal dry up occurring between November to February. The canal crossing would need to be constructed during the dry up period.

6. *Traffic Requirements*

A traffic control plan will be needed for the project since it will involve connecting two existing roads which will be in use. No traffic signals will be needed. Installation of markings and signs will be included in the project.



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7. *Design Concept Report Requirements*

Explore the feasibility of an acceleration on Safford-Bryce Road.

8. *Design Criteria*

We expect it to be designed to AASHTO criteria.

F. OTHER REQUIREMENTS

The funding source for this project will be Federal Funding. The desired bid advertisement date is _____. Construction start date will be _____. The project will be developed by the County. The County will perform the construction administration.

G. ESTIMATED COST

Describe the Project Cost by Category

- The design cost will be funded from local funds
- The right-of-way cost will be \$26,500 funded from local funds
- There will be no utility relocation cost
- Construction costs are anticipated to be reimbursed from federal funds with some local match
- Total cost of the project will be about \$444,154.

H. ITEMIZED ESTIMATE

An itemized estimate is attached to this report. (See page 4)

I. VICINITY MAP

A vicinity map is attached to this report. (See page 5)

J. TYPICAL SECTION SKETCH

A typical roadway section is attached to this report. (See page 6)



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**Reay Lane/Safford-Bryce Road Intersection
 PROJECT COST ESTIMATE**

ITEM	UNIT	QTY	UNIT PRICE	TOTAL PRICE
Saw cutting	LF	250	\$2.00	\$500.00
**Bituminous Tack	Ton	4	\$700.00	\$2,800.00
**Apply Bituminous Tack	Hr	2	\$300.00	\$600.00
Structural Excavation	Cu yd	10	\$33.50	\$335.00
Structural Backfill	Cu yd	144	\$40.00	\$5,760.00
CMP 36"	L ft	80	\$100.00	\$8,000.00
CMP 72"	L ft	80	\$200.00	\$16,000.00
Headwall	Ea	2	\$8,000.00	\$16,000.00
Reinforcing Steel	Lb	960	\$1.00	\$960.00
Borrow	Cu yd	4806	\$18.00	\$86,508.00
Aggregate Base	Cu yd	676	\$40.00	\$27,040.00
Asphaltic Concrete (AC)	Ton	525	\$101.00	\$53,025.00
SUBTOTAL ROADWAY				\$217,528.00
Construction Survey (1-3%)	L. Sum		\$6,526.00	\$6,526.00
Furnish Water Supply, Dust Palliative (1 - 2 %)*	L. Sum		\$4,531.00	\$4,531.00
Traffic Control (8%)*	L. Sum		\$17,402.00	\$17,402.00
Mobilization (10%)*	L. Sum		\$21,753.00	\$21,753.00
Quality Control (1 - 2%)*	L. Sum		\$4,351.00	\$4,531.00
Contingencies (15%)*	L. Sum		\$32,629.00	\$32,629.00
Construction Engineering (15%)*	L. Sum		\$32,629.00	\$32,629.00
Change Orders (5%)*	L. Sum		\$10,876.00	\$10,876.00
CONSTRUCTION TOTAL				\$348,045.00
INFLATION FACTOR (4% 5/YR) X Const. Total = Future Year Cost				\$417,654.00

* Percentages are averages based on past construction history for Arizona.

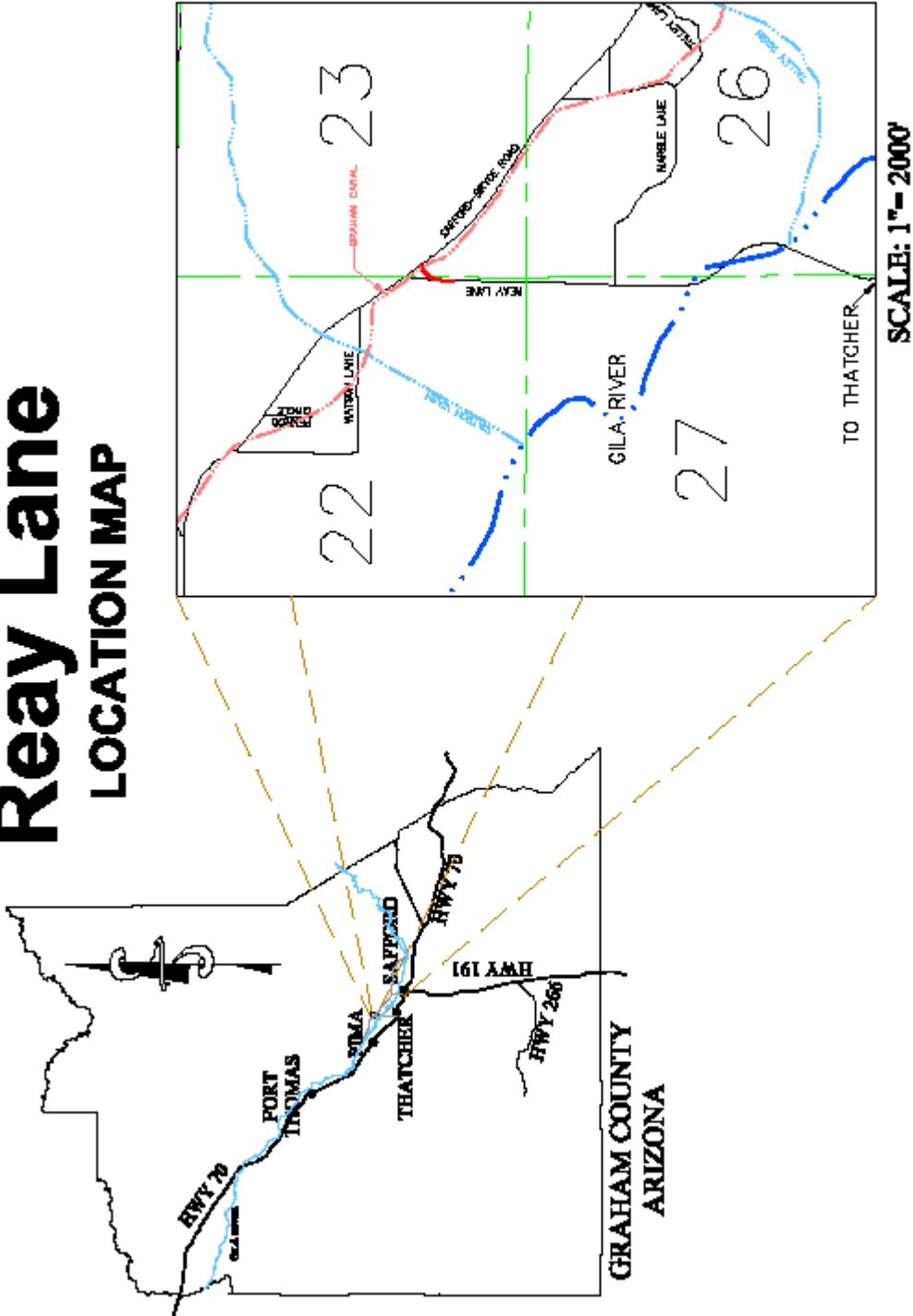
**Such a small amount will most likely cost more.



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Reay Lane

LOCATION MAP

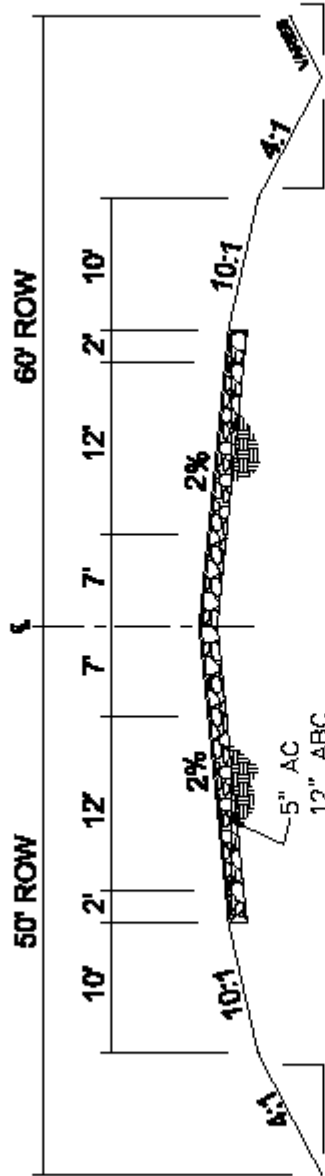




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REAY LANE

TYPICAL ROADWAY WITH TURN LANE NTS



TYPICAL ROADWAY CROWN NTS

