



Graham County Board of Supervisors
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Dustin Welker, County Manager/Clerk

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John Howard, Vice Chairman
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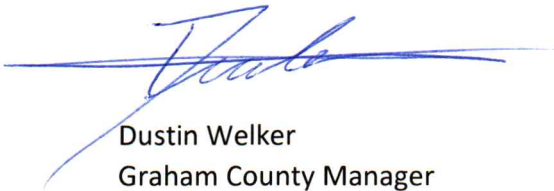
9 August 2023

Re: Reay Lane Improvement Project

To Whom It May Concern:

Graham County proposes to overlay Reay Lane from 1st Street in Thatcher to Safford Bryce Road. The project would extend the service life of the roadway and provide extra width to increase vehicle, pedestrian, and bicycle safety. The County is requesting funding for the project. The estimated project cost is \$3,955,058.40. The local cash match will be \$300,000.00 and Graham County is requesting funding of \$3,655,058.40.

Sincerely,



Dustin Welker
Graham County Manager

**REAY LANE IMPROVEMENT
GRAHAM COUNTY ARIZONA
MINI DESIGN CONCEPT REPORT
AUGUST 2023**

Prepared for:

SEAGO TAC

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Table of Contents

Title Page 1

Table of Contents..... 2

Cover Letter 3

Introduction 4

Background Data..... 4

Project Scope 4

Environmental & Project Development Considerations..... 5

Estimated Cost 5

Local Match..... 5

Safety..... 5

Freight Movement / Economic Vitality 6

System Preservation & Improvement 6

Itemized Estimated Cost 7

Vicinity Map 8

Location Map 9

Typical Proposed Roadway Section..... 10

INTRODUCTION

The project involves Reay Lane which is a major collector. Reay Lane begins at US Highway 70 and terminates at Safford Bryce Road North of the Gila River. This portion of Reay Lane extends from First Avenue in Thatcher to Safford Bryce Road. The roadway length is approximately 2.86 miles. Reay Lane is bordered with farmland, serves residences, and provides a main access to Freeport McMoRan (FMI) Safford. Traffic from Thatcher on Reay Lane includes local traffic, school buses, mine employees, farm employees and equipment, Thatcher refuse trucks, and residents. The purpose of the project is to address several concerns. The volume and type of vehicles using the road are causing it to deteriorate. This road is now subject to much more traffic than it was when it was constructed. The road use increase has been caused by the opening of mines on the north side of the valley and population increases. The mine traffic has many larger vehicles now traveling this roadway. The agricultural equipment increase in size has made the ability to pass safely more difficult. These vehicles frequently exceed the lane widths and run on the shoulders off the edge of the pavement causing the edge to break off and deteriorate. The design and Right of Way acquisition will take one year, and construction will be completed the second year. The improved road will extend the road service life over the next 20-30 years and increase safety.

BACKGROUND DATA

Reay Lane connecting to Safford Bryce Road was improved with select material from local washes and surfaced with a double chip seal in 1975. This improvement completed an improved road surface from Safford Bryce Road to Norton Road. Reay Lane from the Town of Thatcher to Norton Road had been improved previously. The Thatcher Bridge on Reay Lane was constructed over the Gila River in 1986. The bridge was designed to carry the 100-year storm flow.

Two safety projects were completed on Reay Lane in 2017. An open roadside ditch was removed. The intersection of Reay Lane and Safford Bryce Road was reconstructed to accommodate the mine traffic and increase the safety of that intersection. The acute angled intersection at Safford Bryce Road was replaced and the geometry modified to a 90-degree intersection. The RTAC was successful in obtaining Legislative funding to improve the intersection of Reay Lane and Norton Road. The County is waiting for the State funding to reconstruct this intersection.

Reay Lane has a Town of Thatcher sewer line under the roadway. There are utility poles on each side of the road. Irrigation ditches run parallel to the West side of Reay Lane in various locations. There are irrigation and storm drain ditches on the East side and there are irrigation culverts under Reay Lane connecting them.

Reay Lane ADT is 1495. Much of the traffic is trucks hauling sulfuric acid and copper going to and from the mine. Monday through Friday, mine traffic of light vehicles averages 980 vehicles per 24-hour period. Tractor Tractor averages 250-275 trucks per day. Agricultural traffic includes farm vehicles and machinery. FMI expansion plans and other planned development will increase traffic in future years.

PROJECT SCOPE

The project will be an asphalt overlay of Reay Lane. Right of Way will be expanded to accommodate the wider street section. A three-inch overlay will be placed over the existing asphalt. The existing structural section is a double chip seal on a select material base course of 6 to 9 inches. Subsequent chip seals provide the remainder of the existing structural section.

The driving lanes, 26 feet of width, will be the full structural section with the 3 inches of asphalt placed on existing pavement. The shoulders will be 5 feet wide with a safety edge. The shoulders will be constructed with 3 inches of asphalt on native material.

ENVIRONMENTAL & PROJECT DEVELOPMENT CONSIDERATIONS

Reay Lane passes through the 100-year Flood Plain of the Gila River. The road overlay will change the existing grades minimally and have no adverse impacts to the Flood Plain. The construction is expected to have no other environmental impacts.

ESTIMATED COST

Project Phase / Type of Work	Estimated Cost
Engineering-Design	\$100,000.00
Right-of-Way	\$145,500.00
Utility Relocation	\$0
Other (Please Identify)	\$0
Construction	\$3,709,558.40
Total Project Cost	\$3,955,058.40

ITEMIZED ESTIMATED COST

See attached Page 7

LOCAL MATCH

Graham County will provide a 7.6% match (\$300,000). The County has committed to the local match amount in their budget.

VICINITY MAP

See attached page 8

TYPICAL SECTION SKETCH

See attached page 10

SAFETY

The addition of paved shoulders to Reay Lane will increase road safety from unincorporated county areas north of the Gila River to the municipalities south of the river. As the population of the valley has grown, the importance of the road has increased. It also provides an alternate route along the north side of the valley between Safford and Thatcher. Reay Lane is also used for recreation by cyclists and pedestrians.

The project would add shoulders to provide an area for passing agricultural equipment and more recovery area for all vehicles. The shoulder would also increase safety for cyclists and pedestrians. In the future, pedestrian and bicycle traffic will increase when the Gila River Linear Park Trail is built. Funding has been received to begin the Linear Park Trail which will include a path connecting Safford to Thatcher at Reay Lane near the Gila River.

The only recorded crash in the last 5 years is a vehicle which ran through the stop sign at Norton Road and crossed Reay Lane into a flood control channel. However, multiple citizens have expressed concern about conflicts with bicycles, pedestrians, and farm equipment.

FREIGHT MOVEMENT/ECONOMIC VITALITY

Much of the traffic on Reay Lane supports agriculture and mining industries. The Safford Freeport McMoRan Mine employs 1,500 people including employees and 280 contractors. The mine produces 250 million pounds of copper per year. Monday through Friday, mine traffic of light vehicles averages 980 vehicles per 24-hour period. Tractor Trailer averages 250-275 trucks per day. The FMI 2019 total for direct and indirect economic impact was \$133,000,000 in Graham County and \$307,000,000 on the State of Arizona. Agricultural traffic includes farm vehicles and machinery which utilize Reay Lane to directly access approximately 1,200 acres of farm land.

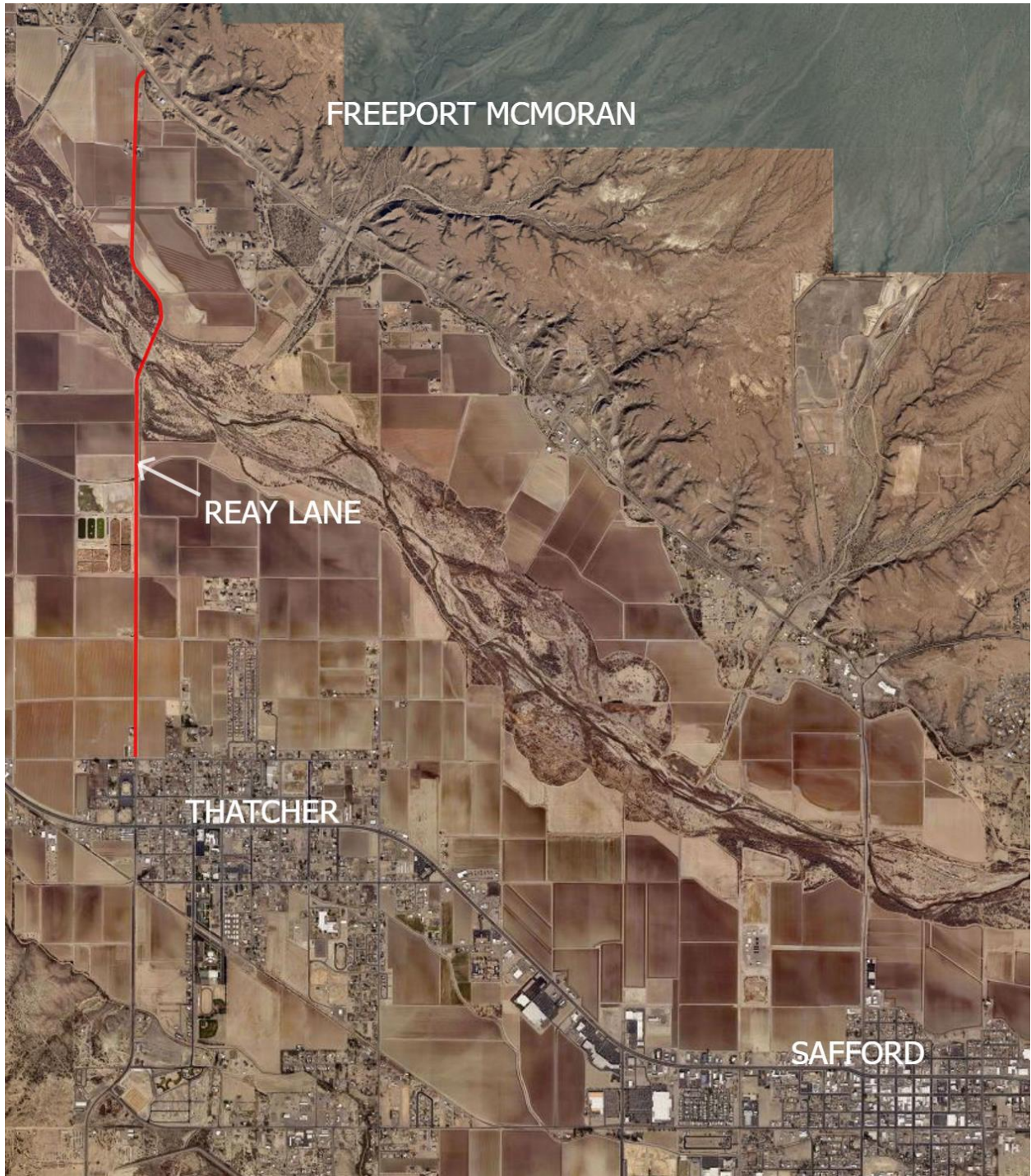
SYSTEM PRESERVATION AND IMPROVEMENT

The roadway improvements will extend the road life by strengthening the structural section. The structural section should last 20-30 years with routine maintenance. The project will improve the pavement life of the existing asphalt and increase safety for vehicles, pedestrians, and cyclists.

August 2023 Itemized Estimated Cost REAY LANE

DESCRIPTION	UNIT OF	QUANTITY	UNIT PRICE	AMOUNT
GRADING ROADWAY SHOULDERS FOR PAVEMENT	SQ. YD.	16,800	\$10.00	\$168,000.00
ASPHALTIC CONCRETE (MISCELLANEOUS STRUCTURAL)	TON	9,853	\$200.00	\$1,970,600.00
PAVEMENT MARKINGS	L.FT.	60,400	\$0.30	\$18,120.00
			SUB TOTAL	\$2,156,720.00
MISCELLANEOUS				
CONSTRUCTION SURVEYING AND LAYOUT	L.SUM		2.00%	\$43,134.40
MOBILIZATION	L.SUM		10.00%	\$215,672.00
QUALITY CONTROL TESTING	L.SUM		2.00%	\$43,134.40
TRAFFIC CONTROL	L.SUM		20.00%	\$431,344.00
CONSTRUCTION CONTINGENCY	L.SUM		20.00%	\$431,344.00
CONSTRUCTION ADMINISTRATION	L.SUM		18.00%	\$388,209.60
RIGHT-OF-WAY	ACRE	4.85	\$30,000.00	\$145,500.00
DESIGN & CONSTRUCTION DOCUMENTS		1	\$100,000.00	\$100,000.00
			SUB TOTAL	\$1,798,338.40

GRAND TOTAL \$3,955,058.40

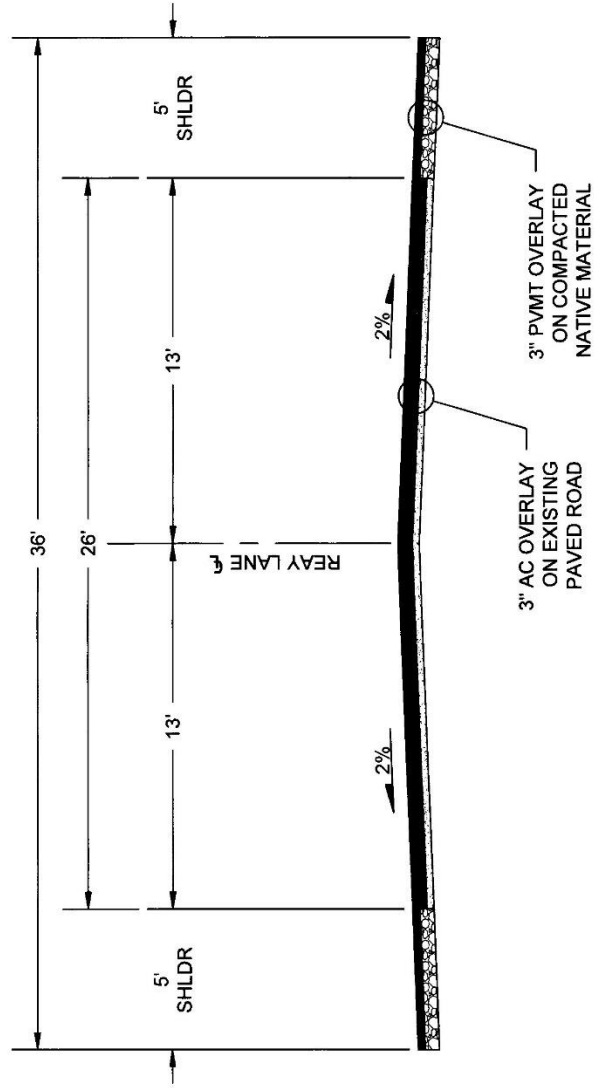


VICINITY MAP



REAY LANE
1ST STREET TO
SAFFORD BRYCE ROAD
THATCHER, ARIZONA

LOCATION MAP



REAY LANE
TYPICAL ROADWAY CROSS SECTION
 SCALE: 1" = 5'

August 10, 2023



Dustin Welker
Graham County Manger
921 Thatcher Blvd
Safford, AZ 85546

Re: Letter of Support for Reay Lane Project

Mr. Welker,

On behalf of the Town of Thatcher, thank you to you and your staff for taking the lead on the mini design concept report (DCR) for the Reay Lane project being submitted to RTAC. Reay Lane is a critical road that serves not only Graham County, but the citizens of Thatcher, Safford and Pima. It's a vital link between Highway 70 and Freeport McMoRan's Safford operations. The existing road is narrow without any paved shoulders and does not allow for safe bicycle or pedestrian traffic. The proposed widening of the roadway will greatly increase safety while the additional structural section will preserve the road that is there and increase the capacity and life of a key transportation corridor.

As you are aware, the south end of the proposed project is in the Town limits for the Town of Thatcher. We give our full support of this project and will assist however possible, including our pro-rated portion of the local match, if needed. We very much agree with and support the improvements proposed in the DCR and encourage SEAGO and RTAC to pursue funding of this much needed project.

Sincerely,

Heath Brown
Town Manager
Town of Thatcher