



City of Mesa  
ALCP Exchange  
February 11, 2020  
Street Committee

The City of Mesa requests to substitute the existing University Drive: Val Vista Drive to Higley Road (and University Drive: Val Vista Drive to Sossaman Road (with four proposed ALCP projects:

1. Sossaman Road at Baseline Road
2. Ellsworth Road: Ray Road to Germann Road
3. Sossaman Road: Warner Road to Ray Road and
4. Ray Road at Ellsworth Road

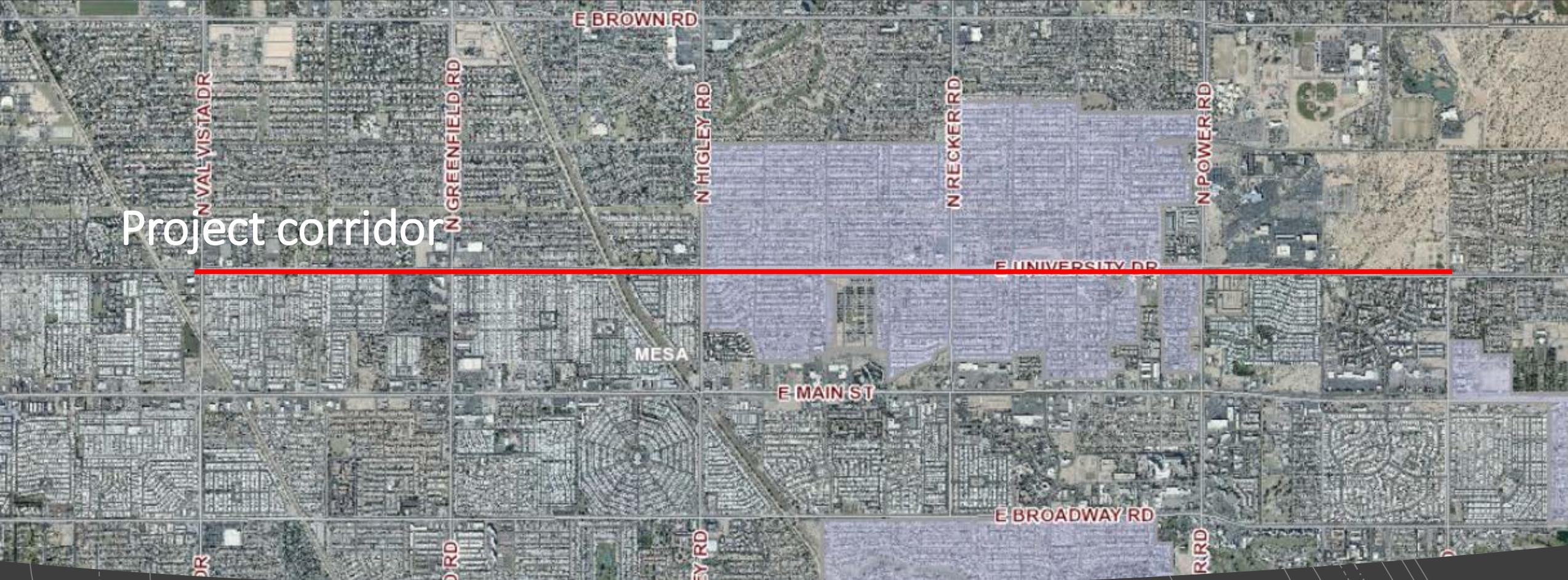


All ALCP funding will be used for eligible projects within the MAG Region.

No additional funding for the region is currently requested.

Four priority projects are asked to be considered - proposed change to ALCP FY2021.





## Project corridor

### Request exchange

University Dr. : Val Vista Dr. to Sossaman Rd. for  
Sossaman Rd. and Baseline Rd. (intersection)

Ellsworth Rd. from Germann Rd. (City limits to Ray Rd.

Sossaman Rd.: Ray Rd. to Warner Rd.

Ray Roads connections at Ellsworth Rd

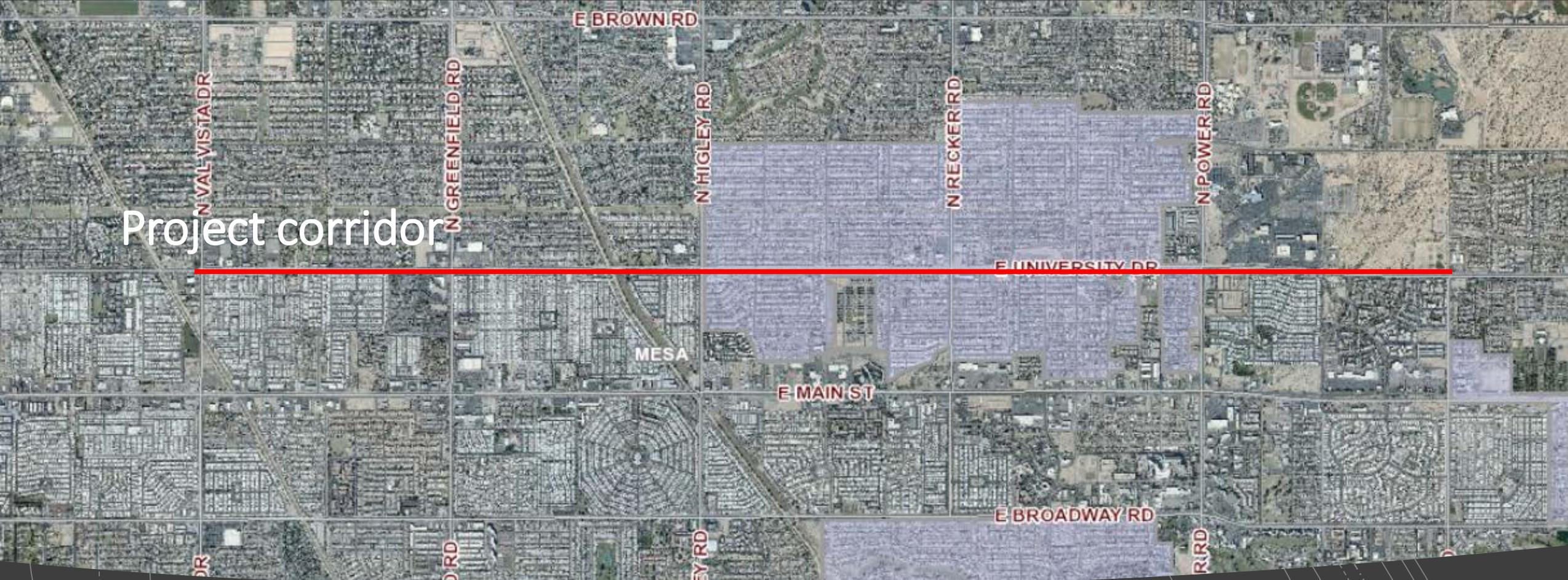
# University Dr. : Val Vista Dr. to Sossaman Rd.

University Dr./Val Vista Dr and University  
Dr./Greenfield Rd. TI are improved.

Further improvement to be done at time of  
development based on existing LOS and  
crash data.

Area includes un-incorporated  
MARICOPA COUNTY segments.





## Project corridor

**Request exchange**

**University Dr. : Val Vista Dr. to Sossaman Rd. for  
*Sossaman Rd. and Baseline Rd. (intersection)***

**Ellsworth Rd. from Germann Rd. (City limits) to Ray Rd.**

**Sossaman Rd.: Ray Rd. to Warner Rd.**

**Ray Roads connections at Ellsworth Rd**

# Sossaman Rd. /Baseline Rd. Intersection improvements Considerations/Scope

CRASHES and WB-NB RT /SB-EB LT DELAYS

Seven years of crash data (2012-2018)

The total # 145 crashes, avg 20/year

The number of crashes per crash severity are; 1 fatal crash, 3 serious injury, 23 minor injury, 36 possible injury and 82 no injury.

Of the total crashes, there were 38 angle crashes, 39 left-turn crashes and 54 rear-end crashes.

Seventy-one percent of all crashes occurred during daytime

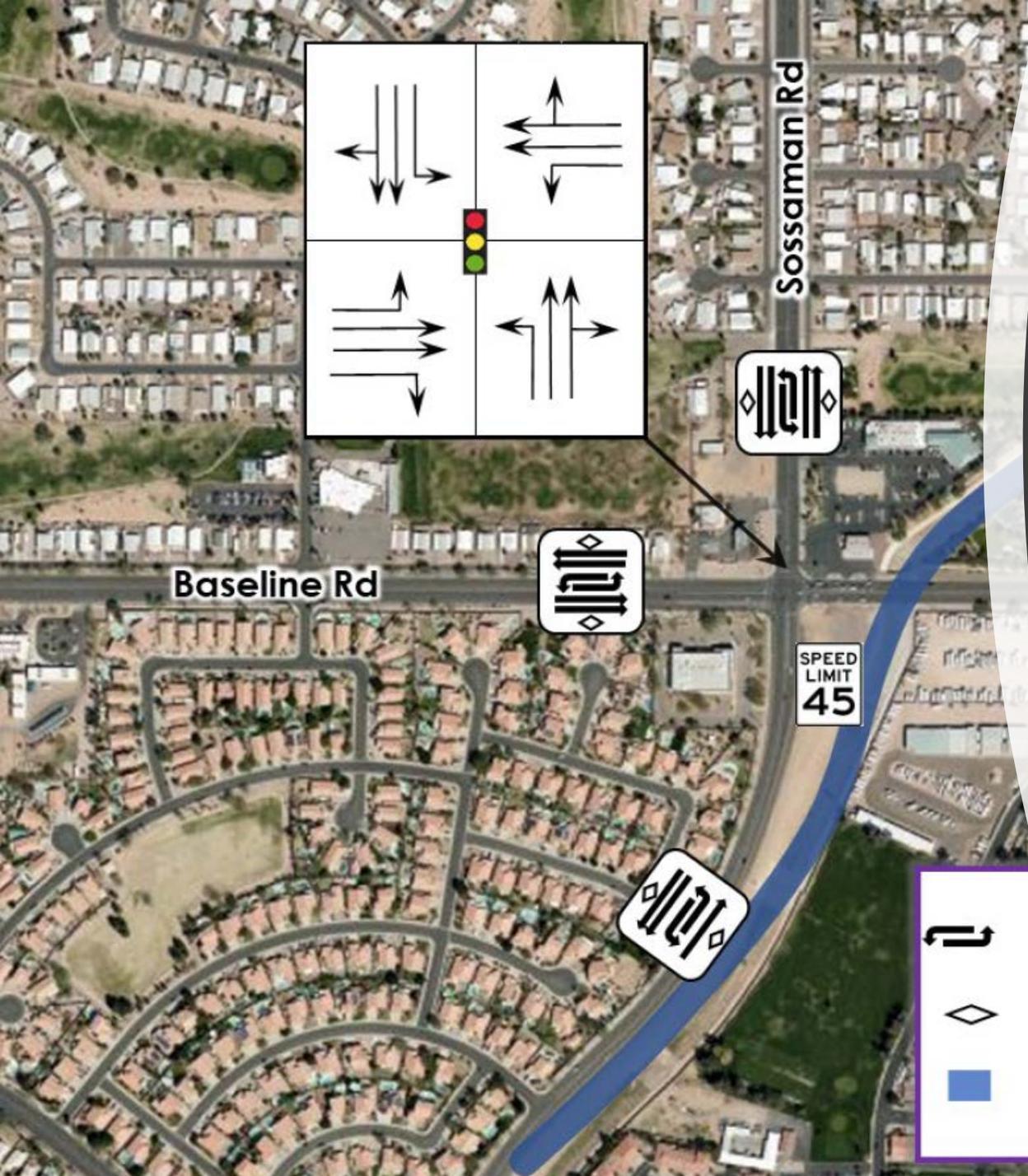




Figure 12: South Edge of Sossaman Road Drainage Channel Structure



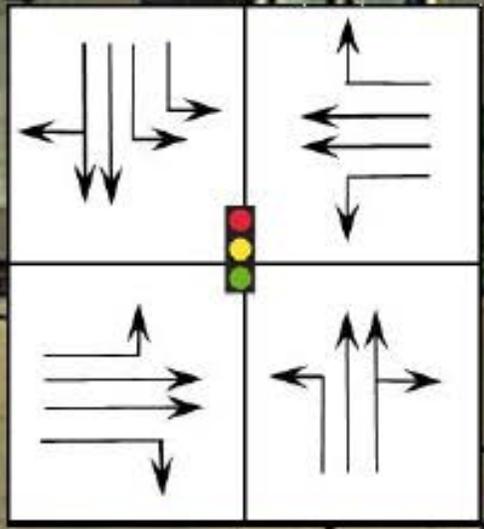
Figure 11: North Edge of Sossaman Road Drainage Channel Structure

# Existing conditions



### ALTERNATIVE 1

- ADD SB LEFT-TURN LANE
- ADD WB RIGHT-TURN LANE



SOSSAMAN RD



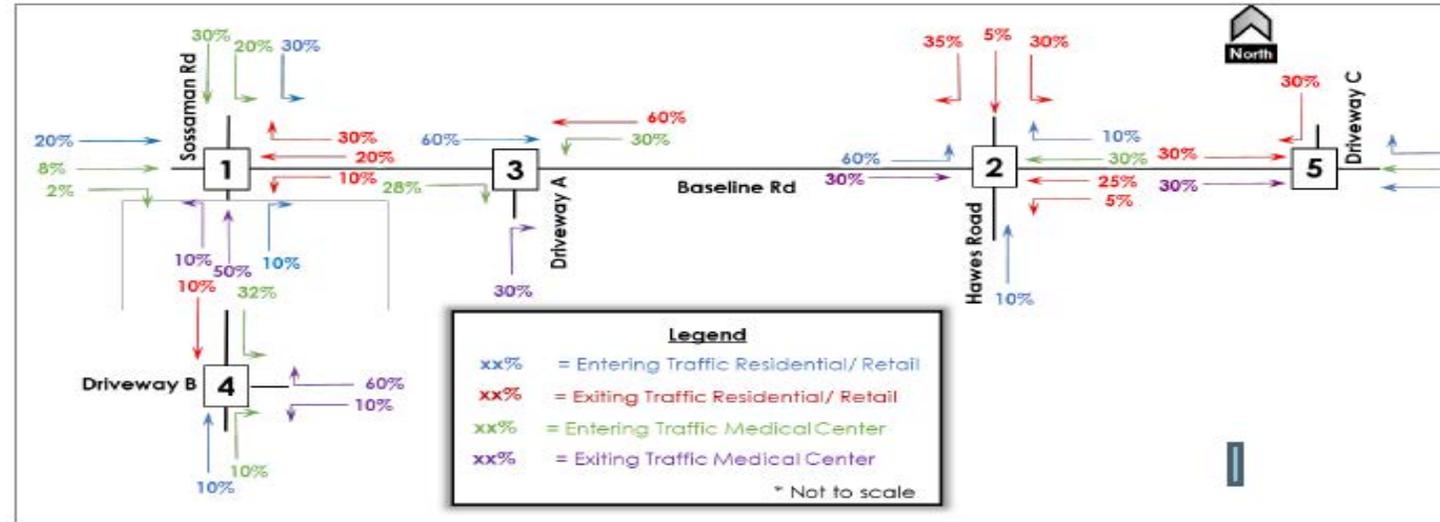
Preferred alternative for inclusion in CIP and future final design

BASELINE RD

# Land Acquisition proposed approach

Right-turn lanes will be City of Mesa standard length and will be designed to limit ROW takes.

Project limits are set to be 1/4 to 1/2 miles of the intersection in each direction.



Future Development Trip Assignment



Future Development Volumes

# Sossaman and Baseline Roads intersection safety improvement



Not to scale



Major F	Phase	FY 21/22	FY 22/23
CP0968	102	\$ 164,877	\$ -
CP0968	103	\$ 18,000	\$ -
CP0968	104	\$ -	\$ 914,195
CP0968	199	\$ 8,244	\$ 45,710
		<b>\$ 191.121</b>	<b>\$ 959.905</b>

**No additional  
Regional or Local  
Funding is  
needed**

- Project exchange has no ALCP funding impact.

**QUANTITATIVE EVALUATION**

PROJECT # AND LIMITS		VOLUME (AAWT)		V/C RATIO		PEAK PM VOLUME		PEAK AM VOLUME		CRASH RATES BY VMT RELATIVE TO CITY-WIDE AVERAGE		TOTAL QUANTITATIVE WEIGHTED SCORE
		Weight	5%	Weight	15%	Weight	5%	Weight	5%	Weight	10%	
		SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	TOTAL
1	University Dr: Val Vista Dr to Sossman Dr	1	0.05			1	0.05	1	0.05			0.15
2	Sossaman Dr to Baseline Rd	2	0.1			2	0.1	2	0.1			0.3

**QUALITATIVE EVALUATION**

PROJECT # AND LIMITS		SEGMENT OF REGIONAL IMPORTANCE		COMPLETE STREETS		ECONOMIC DEVELOPMENT ACCESS		TOTAL QUALITATIVE WEIGHTED SCORE
		Weight	10%	Weight	20%	Weight	10%	
		SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	TOTAL
1	University Dr: Val Vista Dr to Sossman Dr	1	0.1	1	0.2	1	0.1	0.4
2	Sossaman Dr to Baseline Rd	1	0.1	2	0.4	2	0.2	0.7

**ALCP PROJECT CHANGE TOOL**

**11** Prioritized Results

PROJECT # AND LIMITS		TOTAL SCORE
1	Sossaman Dr to Baseline Rd	1
2	University Dr: Val Vista Dr to Sossman Dr	0.55

# ALCP PROJECT CHANGE TOOL

- Quantitative Evaluation
- Qualitative Evaluation
- **Prioritized and Combined Results 1/0.55**



# Project corridor

**Request exchange**

**University Dr. : Val Vista Dr. to Sossaman Rd. for**

**Sossaman Rd. and Baseline Rd. (intersection)**

***Ellsworth Rd. from Germann Rd. (City limits) to Ray Rd.***

**Sossaman Rd.: Ray Rd. to Warner Rd.**

**Ray Roads connections at Ellsworth Rd**

# Ellsworth Rd from Germann Rd. (City limits) to Ray Rd. Considerations/Scope

SR24 is to impact the southeast area.

Mesa completed the SE Mesa LUTP (July 2019)

Project - priority #1

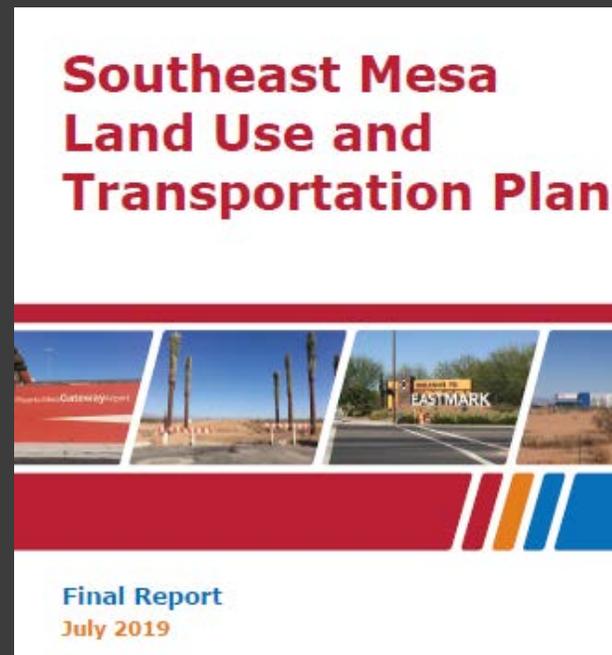
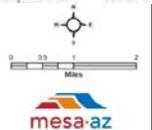
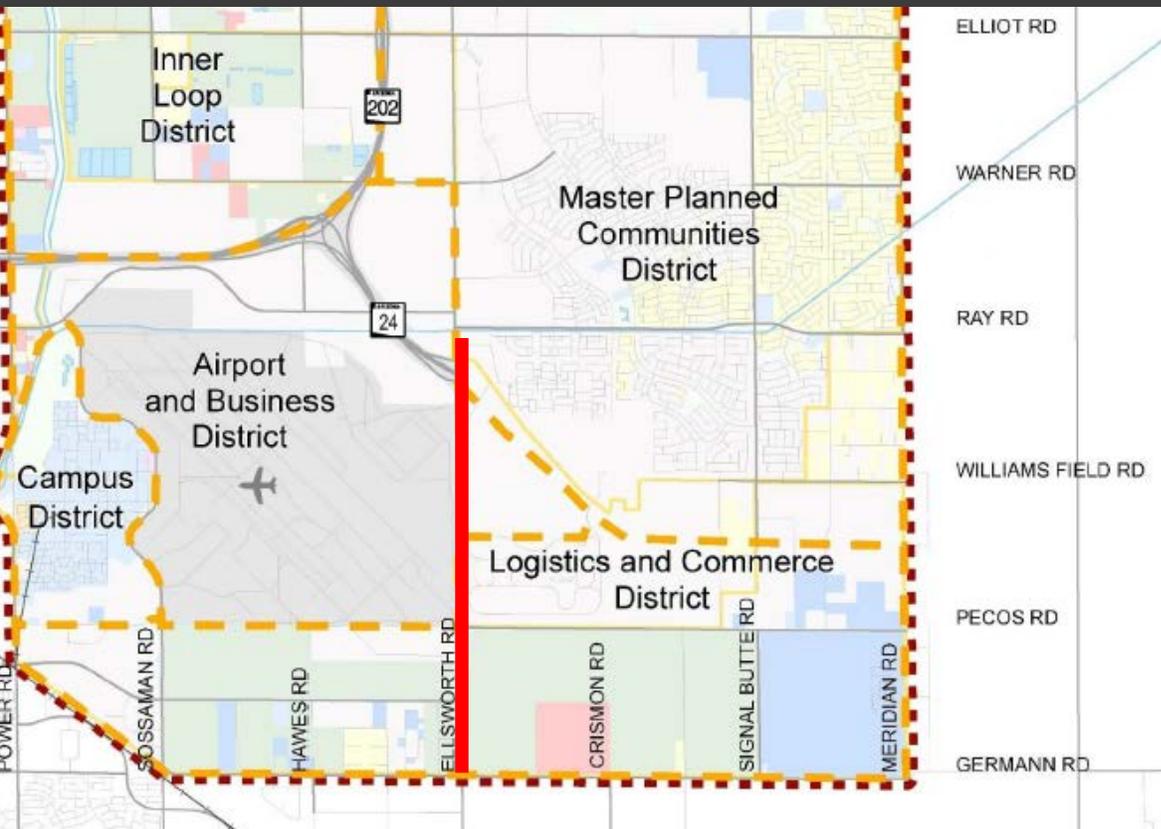


Table 14: Prioritized Recommended Improvements with Scores and Ranking

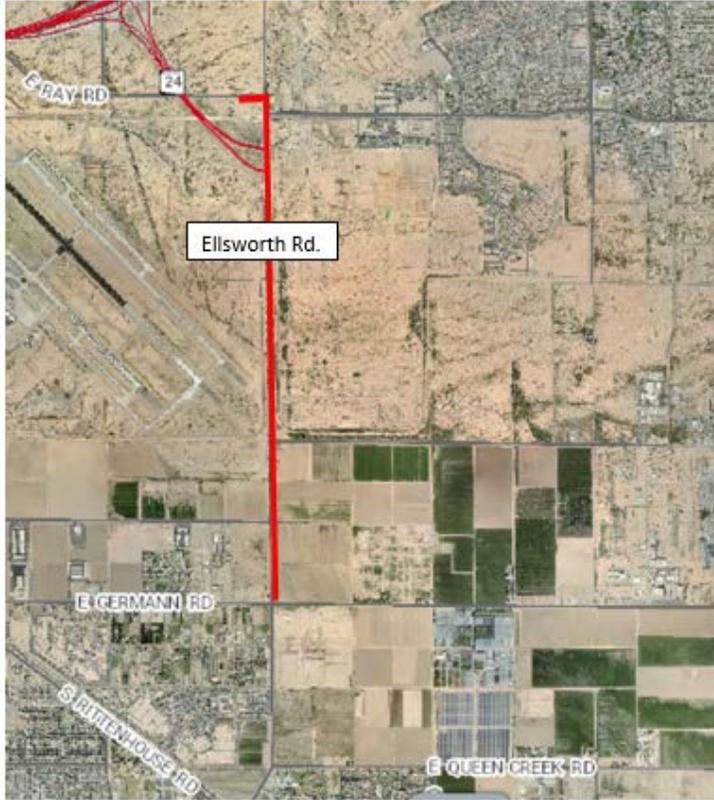
Improvement Description	Prioritization Score					Rank (highest to lowest)	Improves Mobility and Safety					Enhances Economic Vitality		Can Feasibly be Funded and is Cost-Effective		Is Compatible with Approved Plans and Public Input	
	Improves Mobility and Safety	Enhances Economic Vitality	Can Feasibly be Funded and is Cost-Effective	Is Compatible with Approved Plans and Public Input	Total Score		Baseline V/C - Improved V/C	Baseline/Improved LOS & V/C	Baseline Volume/Improved Volume	New Connection	Crash Pattern	Growth Area	Adjacent 2040 Employees	Likely Funding Source	Relative Cost/Length (mi)	Compatible with Approved Plans	Public Support
Widen Ellsworth Rd to 6 lanes between SR 24 and Germann Rd	42	27	12	12	93	1	0.24	E/D 0.98/0.74	34.7/39.7	No	Yes	In GA	25k	Mesa	\$\$\$/2.8	TMP (partial)	Strong

Improvement Description	Prioritization Score					Rank (highest to lowest)	Improves Mobility and Safety	
	Improves Mobility and Safety	Enhances Economic Vitality	Can Feasibly be Funded and is Cost-Effective	Is Compatible with Approved Plans and Public Input	Total Score		Baseline V/C - Improved V/C	Baseline/Improved LOS & V/C
Widen Ellsworth Rd to 6 lanes between SR 24 and Germann Rd	42	27	12	12	93	1	0.24	E/D 0.98/0.74

## Scope and priority table

- Widen Ellsworth Rd to 6-lane cross-section.
- Project to support developer driven improvements along Ellsworth Rd in SE.
- Development is expected to happen after SR24 (2<sup>nd</sup> bridge structure) opening to traffic on Ellsworth Rd

Ellsworth Rd from Germann Rd (City limits) to Ray Rd



Major P	Phase	FY 22/23	FY 23/24	FY 24/25
CP0969	102	\$ 1,003,400	\$ -	\$ -
CP0969	103	\$ -	\$ 380,000	\$ -
CP0969	104	\$ -	\$ -	\$ 4,103,440
CP0969	199	\$ 50,170	\$ 19,000	\$ 205,172
		<b>\$ 1,053,570</b>	<b>\$ 399,000</b>	<b>\$ 4,308,612</b>



**No additional  
Regional or Local  
Funding is  
needed**

- Project exchange has no ALCP funding impact.

**QUANTITATIVE EVALUATION**

PROJECT # AND LIMITS		VOLUME (AAWT)		V/C RATIO		PEAK PM VOLUME		PEAK AM VOLUME		CRASH RATES BY VMT RELATIVE TO CITY-WIDE AVERAGE		TOTAL QUANTITATIVE WEIGHTED SCORE
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		SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	TOTAL
1	University Drive: Val Vista Drive to Sossaman Road	1	0.05			1	0.05	1	0.05			0.15
2	Ellsworth Road: Germann Road to Ray Road	2	0.1			2	0.1	2	0.1			0.3

**QUALITATIVE EVALUATION**

PROJECT # AND LIMITS		SEGMENT OF REGIONAL IMPORTANCE		COMPLETE STREETS		ECONOMIC DEVELOPMENT ACCESS		TOTAL QUALITATIVE WEIGHTED SCORE
		Weight	10%	Weight	20%	Weight	10%	
		SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	TOTAL
1	University Drive: Val Vista Drive to Sossaman Road	1	0.1	1	0.2	1	0.1	0.4
2	Ellsworth Road: Germann Road to Ray Road	1	0.1	2	0.4	2	0.2	0.7

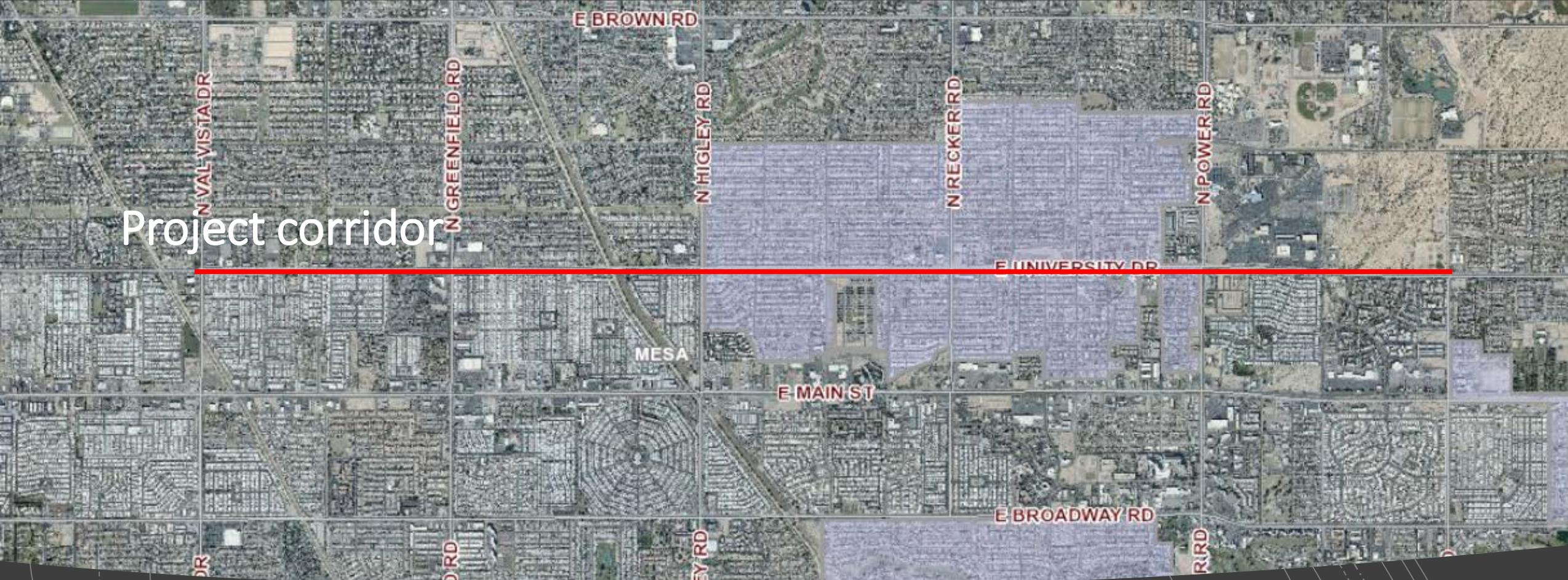
**ALCP PROJECT CHANGE TOOL**

**11** Prioritized Results

PROJECT # AND LIMITS		TOTAL SCORE
1	Ellsworth Road: Germann Road to Ray Road	1
2	University Drive: Val Vista Drive to Sossaman Road	0.55

# ALCP PROJECT CHANGE TOOL

- Quantitative Evaluation
- Qualitative Evaluation
- Prioritized and Combined Results 1/0.55



## Project corridor

**Request exchange**

**University Dr. : Val Vista Dr. to Sossaman Rd. for**

**Sossaman Rd. and Baseline Rd. (intersection)**

**Ellsworth Rd. from Germann Rd. (City limits) to Ray Rd.**

***Sossaman Rd.: Ray Rd. to Warner Rd.***

**Ray Roads connections at Ellsworth Rd**

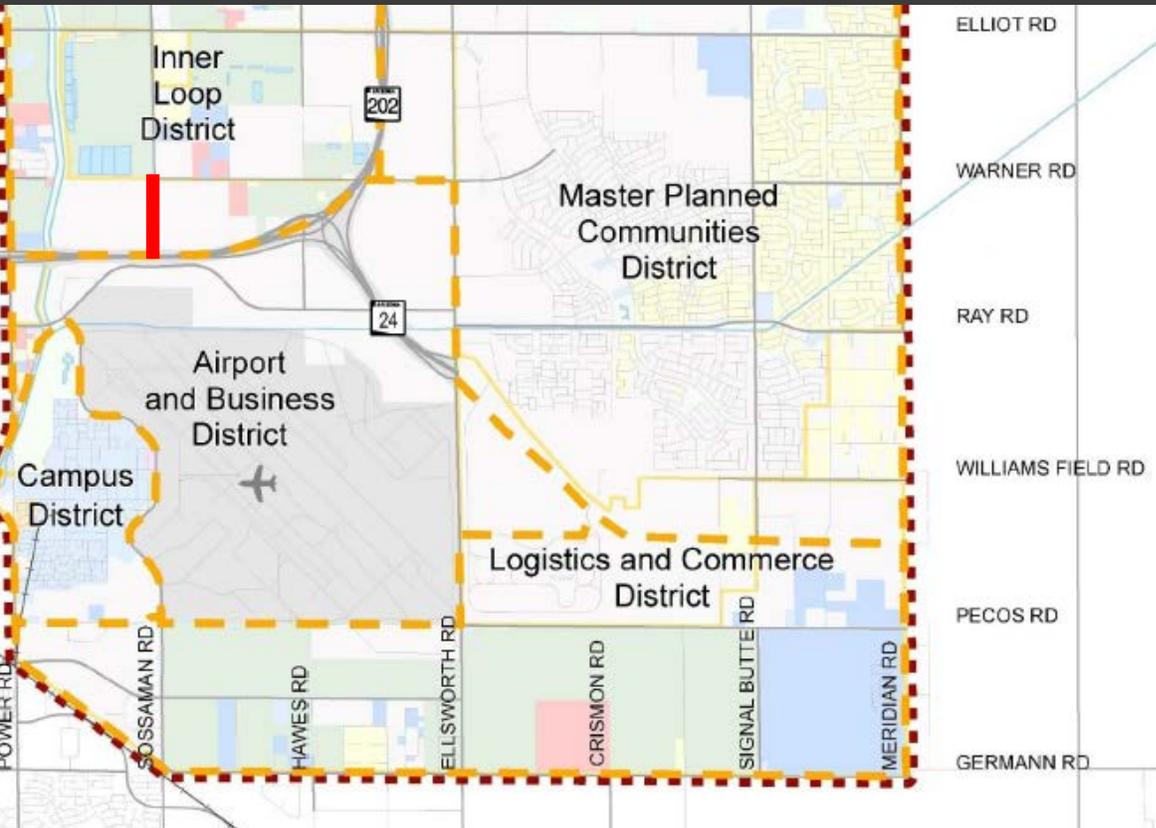
# Sossaman Rd: Ray to Warner Rds.

## Considerations/Scope

SR24 is to impact the southeast area.

Mesa completed the SE Mesa LUTP (July 2019)

Project - priority #2



### **Southeast Mesa Land Use and Transportation Plan**



**Final Report**  
July 2019

Table 14: Prioritized Recommended Improvements with Scores and Ranking

Improvement Description	Prioritization Score					Rank (highest to lowest)	Improves Mobility and Safety					Enhances Economic Vitality		Can Feasibly be Funded and is Cost-Effective		Is Compatible with Approved Plans and Public Input	
	Improves Mobility and Safety	Enhances Economic Vitality	Can Feasibly be Funded and is Cost-Effective	Is Compatible with Approved Plans and Public Input	Total Score		Baseline V/C - Improved V/C	Baseline/Improved LOS & V/C	Baseline Volume/Improved Volume	New Connection	Crash Pattern	Growth Area	Adjacent 2040 Employees	Likely Funding Source	Relative Cost/Length (mi)	Compatible with Approved Plans	Public Support
Widen Ellsworth Rd to 6 lanes between SR 24 and Germann Rd	42	27	12	12	93	1	0.24	E/D 0.98/0.74	34.7/39.7	No	Yes	in GA	25k	Mesa	\$\$\$/2.8	TMP (partial)	Strong
Construct Sossaman Rd as a 4-lane arterial between Warner Rd and Ray Rd	21	27	12	12	72	2	0.03	C/C 0.56/0.53 -/C -/0.10	20.1/18.7 -/3.6	Yes		in GA	9k	Mesa, Developer	\$/0.6	TMP	Moderate

Table 14: Prioritized Recommended Improvements with Scores a

Improvement Description	Prioritization Score					Rank (highest to lowest)	Baseline V/C - Improved V/C	Baseline/Improved LOS & V/C
	Improves Mobility and Safety	Enhances Economic Vitality	Can Feasibly be Funded and is Cost-Effective	Is Compatible with Approved Plans and Public Input	Total Score			
Widen Ellsworth Rd to 6 lanes between SR 24 and Germann Rd	42	27	12	12	93	1	0.24	E/D 0.98/0.74
Construct Sossaman Rd as a 4-lane arterial between Warner Rd and Ray Rd	21	27	12	12	72	2	0.03	C/C 0.56/0.53 -/C -/0.10

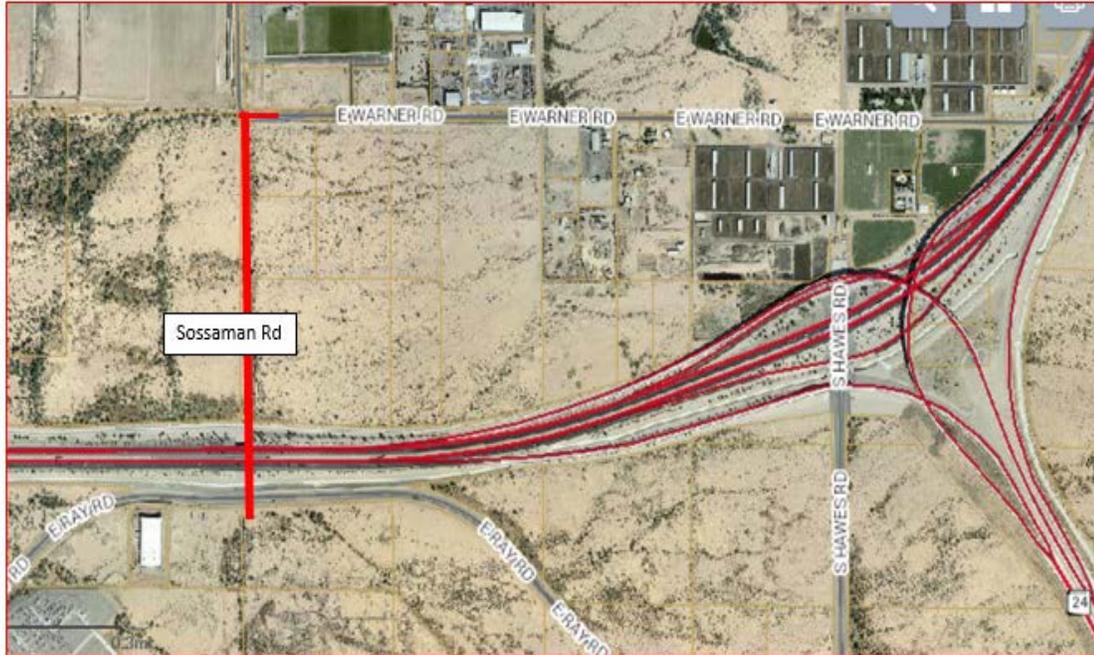
# Scope and priority table

- Improve connectivity into Mesa's Inner-loop.
- New 2 lane road along Sossaman Rd alignment from Ray to Warner Rds. Build full section in ADOT's ROW.
- Project to support developer driven improvements and airport expansion.



### Sossaman Road: Ray to Warner Roads

Not to scale



Fund/S	Major F	Budget	Phase	FY 22/23	FY 23/24	Justification Line Text
13072020	CP0971	2990	102	\$ 681,821.00	\$ -	Sossaman Ray to Warner
13072020	CP0971	2990	103	\$ -	\$ 700,000.00	Sossaman Ray to Warner
13072020	CP0971	2990	104	\$ -	\$ 3,300,000.00	Sossaman Ray to Warner
13072020	CP0971	9213	199	\$ 34,092.00	\$ 165,000.00	Sossaman Ray to Warner
				<b>\$715,913.00</b>	<b>\$4,165,000.00</b>	

# No additional Regional or Local Funding is needed

- Project exchange has no ALCP funding impact.

QUANTITATIVE EVALUATION

PROJECT # AND LIMITS		VOLUME (AAWT)		V/C RATIO		PEAK PM VOLUME		PEAK AM VOLUME		CRASH RATES BY VMT RELATIVE TO CITY-WIDE AVERAGE		TOTAL QUANTITATIVE WEIGHTED SCORE
		Weight	5%	Weight	15%	Weight	5%	Weight	5%	Weight	10%	
		SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	TOTAL
1	University Drive: Val Vista Drive to Sossaman Road	1	0.05			2	0.1	2	0.1			0.25
2	Sossaman Road: Ray Road to Warner Road	2	0.1			1	0.05	1	0.05			0.2

QUANTITATIVE EVALUATION

PROJECT # AND LIMITS		SEGMENT OF REGIONAL IMPORTANCE		COMPLETE STREETS		ECONOMIC DEVELOPMENT ACCESS		TOTAL QUALITATIVE WEIGHTED SCORE
		Weight	10%	Weight	20%	Weight	10%	
		SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	TOTAL
1	University Drive: Val Vista Drive to Sossaman Road	1	0.1	1	0.2	1	0.1	0.4
2	Sossaman Road: Ray Road to Warner Road	1	0.1	2	0.4	2	0.2	0.7

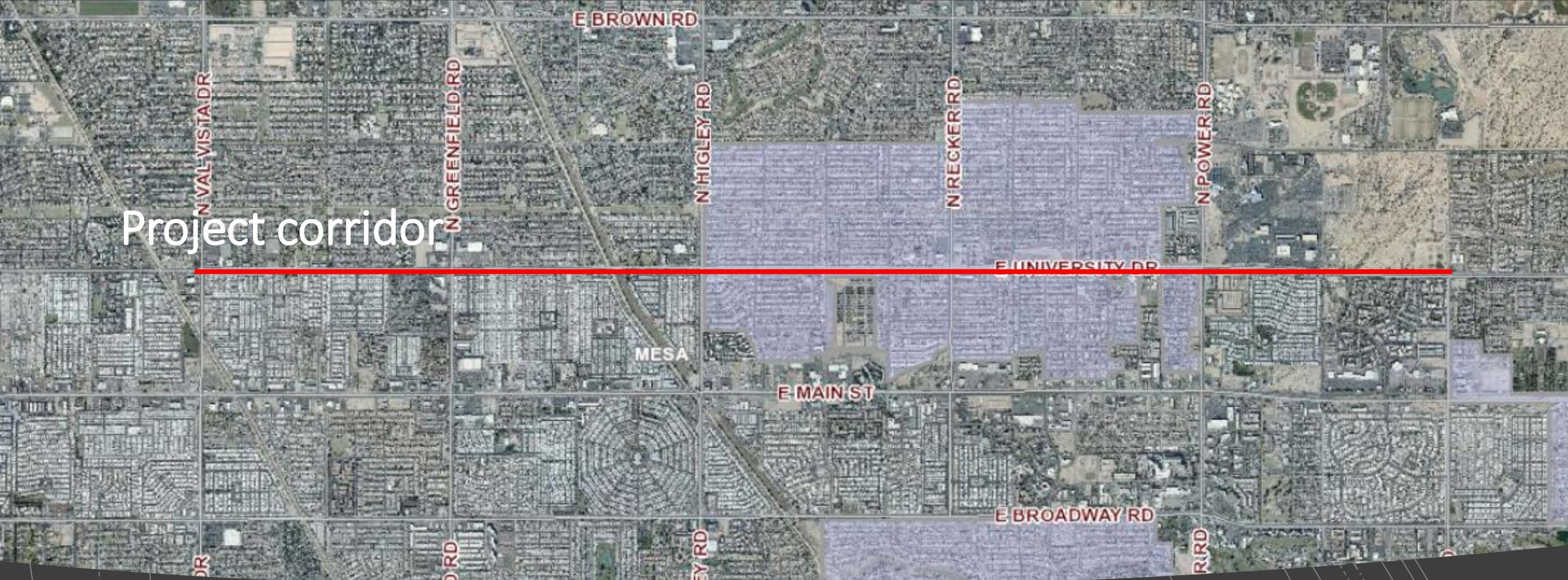
ALCP PROJECT CHANGE TOOL

11 Prioritized Results

PROJECT # AND LIMITS		TOTAL SCORE
1	Sossaman Road: Ray Road to Warner Road	0.9
2	University Drive: Val Vista Drive to Sossaman Road	0.65

# ALCP PROJECT CHANGE TOOL

- Quantitative Evaluation
- Qualitative Evaluation
- Prioritized and Combined Results 0.9/0.65



## Project corridor

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Sossaman Rd. and Baseline Rd. (intersection)

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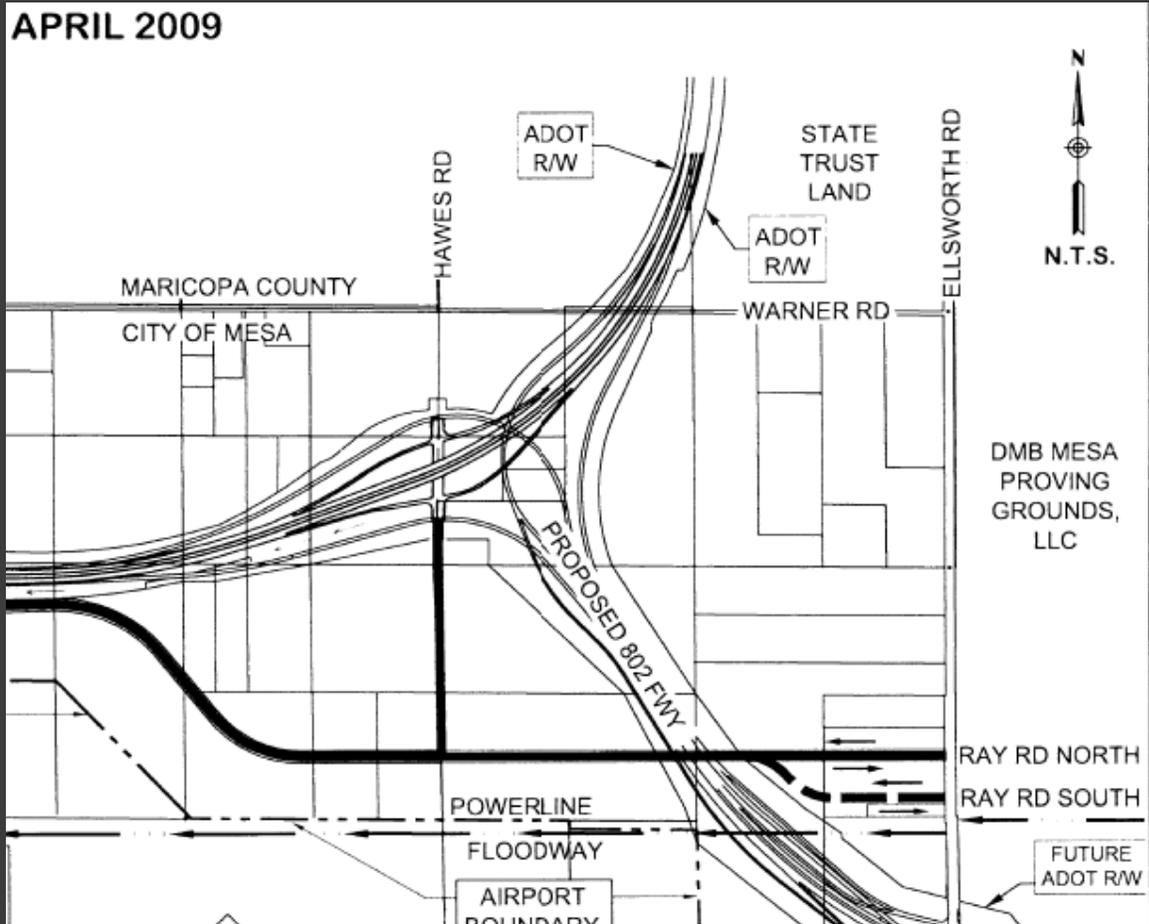
*Ray Roads connections at Ellsworth Rd*

# Ray Rds connection at Ellsworth Rd.

## Considerations/Scope

City Council adopted alignment in 2009.

Implementation timeframe after Eastmark and SR24.



**Date:** June 22, 2009

**To:** City Council

**Through:** Jack Friedline, Deputy City Manager

**From:** Elizabeth Huning, City Engineer

**Subject:** Updated Ray Road Alignment from Power Road to Ellsworth Road  
Project No. 01-205-001  
Council District No. 6

### Purpose and Recommendation

The purpose of this report is to provide information to the Council on the proposed alignment for Ray Road from Power Road to Ellsworth Road. Detailed design for the proposed improvements (including pavement, water, and wastewater) is currently underway for Ray Road and Hawes Road as shown on the attached Exhibit "A".

The Transportation Advisory Board (TAB) reviewed and discussed the proposed alignment at their regular meeting held on May 19, 2009. The Board voted 9-0 to approve the revised alignment for Ray Road as shown on Exhibit "A".

It is recommended that the City Council approve the revised alignment for Ray Road

# Ray Rds at Ellsworth Rd.

# Additional details ROW.

ADOT acquired ROW for SR24  
Additional (star)  
City intends to purchase



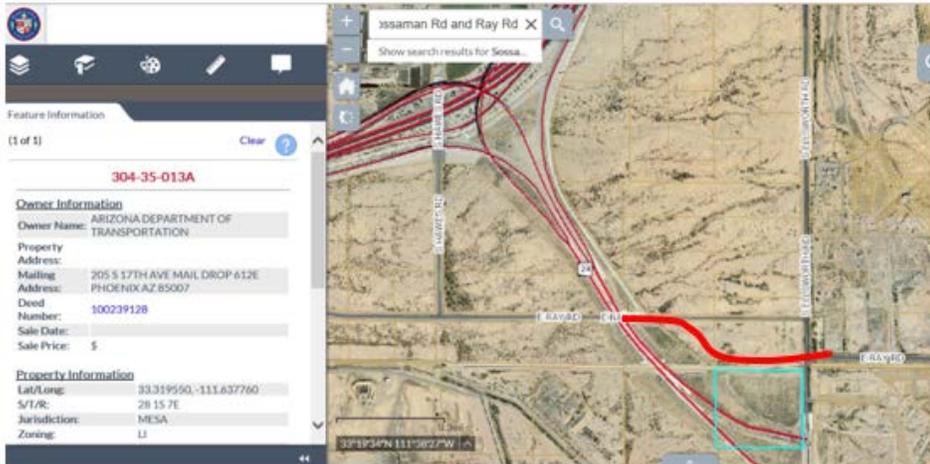
## Ray Roads connections at Ellsworth Road

APRIL 2009



not to scale

Fund/S	Major F	Budget	Phase	FY 21/22	FY 22/23	FY 23/24	FY 24/25	Justification Line Text
13072020	CP0983	2990	102	\$ -	\$ -	\$ 681,821.00	\$ -	Ray Roads connections at Ellsworth Road
13072020	CP0983	2991	103	\$ 2,000,000.00	\$ -	\$ -	\$ 500,000.00	Ray Roads connections at Ellsworth Road
13072020	CP0983	2990	104	\$ -	\$ -	\$ -	\$ 3,000,000.00	Ray Roads connections at Ellsworth Road
13072020	CP0983	9213	199	\$ -	\$ -	\$ 34,091.00	\$ 150,000.00	Ray Roads connections at Ellsworth Road
				<b>\$ 2,000,000.00</b>	<b>\$ -</b>	<b>\$ 715,912.00</b>	<b>\$ 3,650,000.00</b>	



# No additional Regional or Local Funding is needed

- Project exchange has no ALCP funding impact.

QUANTITATIVE EVALUATION

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		SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	TOTAL
1	University Drive: Val Vista Drive to Sossaman Road	1	0.05			2	0.1	2	0.1			0.25
2	Ray Road: 1/4 mile west of Ellsworth Road and 3/4 mile east of Ellsworth Road	2	0.1			1	0.05	1	0.05			0.2

ALCP PROJECT CHANGE TOOL

11 Prioritized Results

QUANTITATIVE EVALUATION

PROJECT # AND LIMITS		SEGMENT OF REGIONAL IMPORTANCE		COMPLETE STREETS		ECONOMIC DEVELOPMENT ACCESS		TOTAL QUALITATIVE WEIGHTED SCORE
		Weight	10%	Weight	20%	Weight	10%	
		SCORE	WEIGHTED	SCORE	WEIGHTED	SCORE	WEIGHTED	TOTAL
1	University Drive: Val Vista Drive to Sossaman Road	1	0.1	1	0.2	1	0.1	0.4
2	Ray Road: 1/4 mile west of Ellsworth Road and 3/4 mile east of Ellsworth Road	1	0.1	2	0.4	2	0.2	0.7

PROJECT # AND LIMITS		TOTAL SCORE
1	Ray Road: 1/4 mile west of Ellsworth Road and 3/4 mile east of Ellsworth Road	0.9
2	University Drive: Val Vista Drive to Sossaman Road	0.65

# ALCP PROJECT CHANGE TOOL

- Quantitative Evaluation
- Qualitative Evaluation
- Prioritized and Combined Results 0.9/0.65

Recommend for approval the substitute the existing University Drive: Val Vista Drive to Higley Road (and University Drive: Val Vista Drive to Sossaman Road (with four projects:

1. Sossaman Road at Baseline Road
2. Ellsworth Road: Ray Road to Germann Road
3. Sossaman Road: Warner Road to Ray Road and
4. Ray Road at Ellsworth Road



Include the proposed project change in the draft FY 2021 ALCP



Questions?

[Mariaangelica.deeb@mesaaz.gov](mailto:Mariaangelica.deeb@mesaaz.gov)

(480) 644-2845