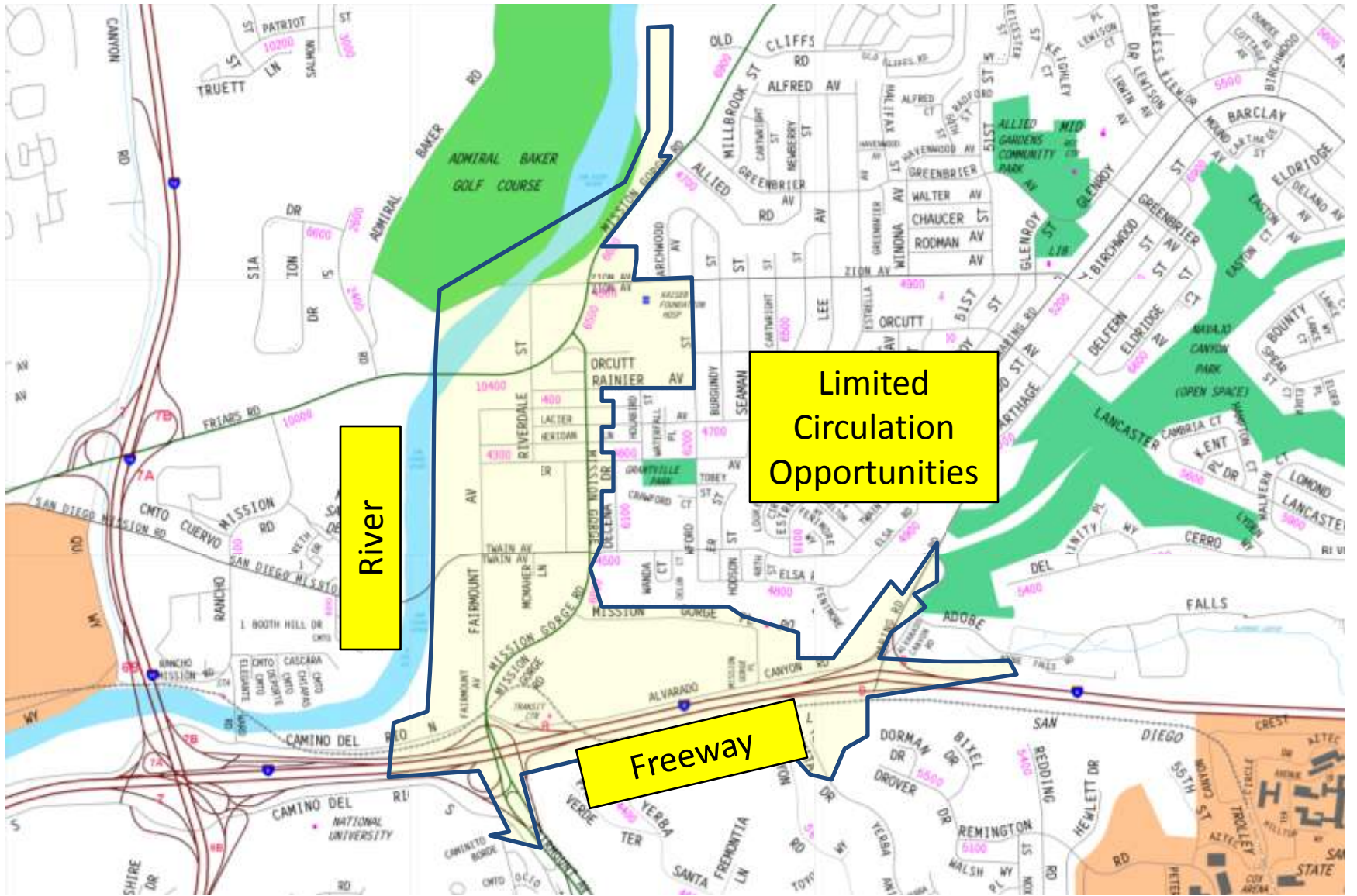
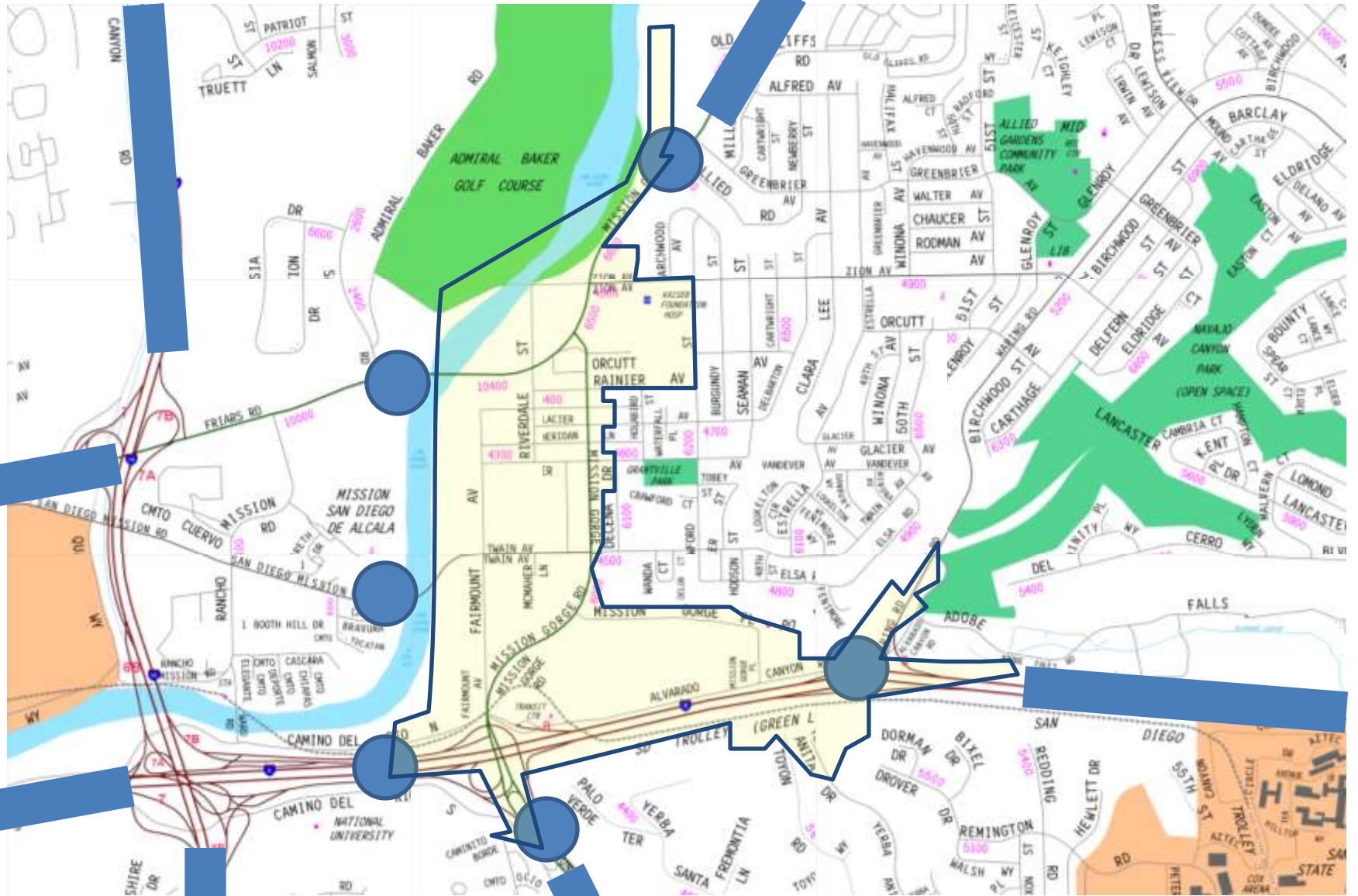
An aerial photograph of a city area, likely Grantville, showing a complex network of roads and a large highway interchange. The image is semi-transparent, allowing the text to be overlaid. The text is centered and reads "Grantville Sub Area A Transportation Analysis".

# **Grantville Sub Area A Transportation Analysis**




## CONTEXT

Grantville Sub Area A Redevelopment Project Area Master Plan



# TRAFFIC PORTALS TO THE REGION

Grantville Sub Area A Redevelopment Project Area Master Plan

An aerial photograph of a city area showing a complex road network. A major multi-lane highway runs horizontally across the bottom of the frame. Above it, a grid of streets is visible, with several roads crossing the highway via overpasses and interchanges. The surrounding area is densely packed with buildings and parking lots. On the left side, there is a large, dark, irregularly shaped area that appears to be a pond or a large drainage basin. The overall scene illustrates a dense urban environment with significant roadway infrastructure.

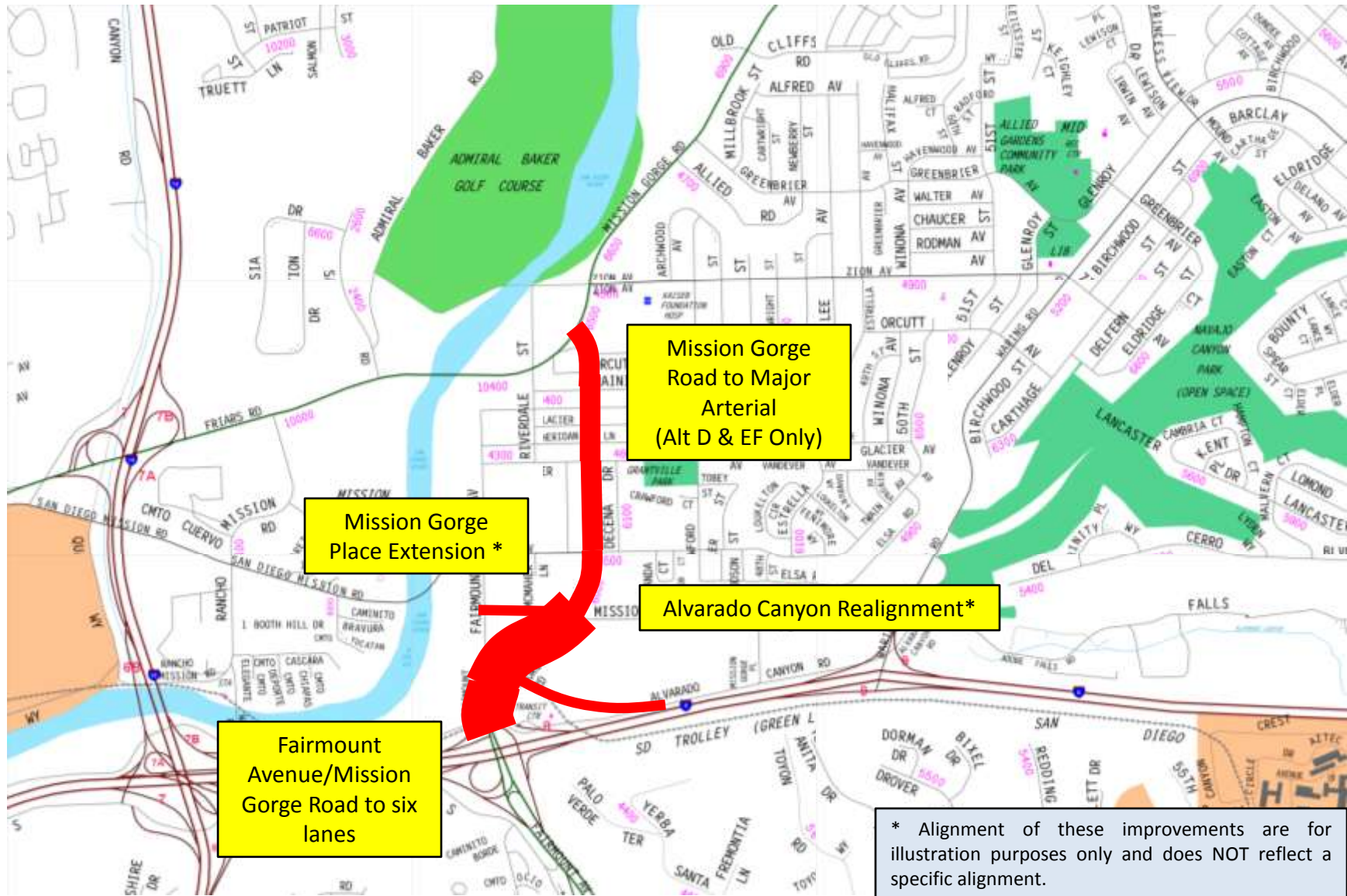
# Roadway Issues/Circulation

- Frontage Road and Interchange Share One Intersection
- Bottleneck at I-8
- Poor Intersection Spacing
- No Parallel Routes South of Twain



## **CIRCULATION BACKBONE**

*Grantville Sub Area A Redevelopment Project Area Master Plan*



Mission Gorge Road to Major Arterial (Alt D & EF Only)

Mission Gorge Place Extension \*

Fairmount Avenue/Mission Gorge Road to six lanes

Alvarado Canyon Realignment\*

\* Alignment of these improvements are for illustration purposes only and does NOT reflect a specific alignment.

# CIRCULATION BACKBONE WITH REQUIRED IMPROVEMENTS

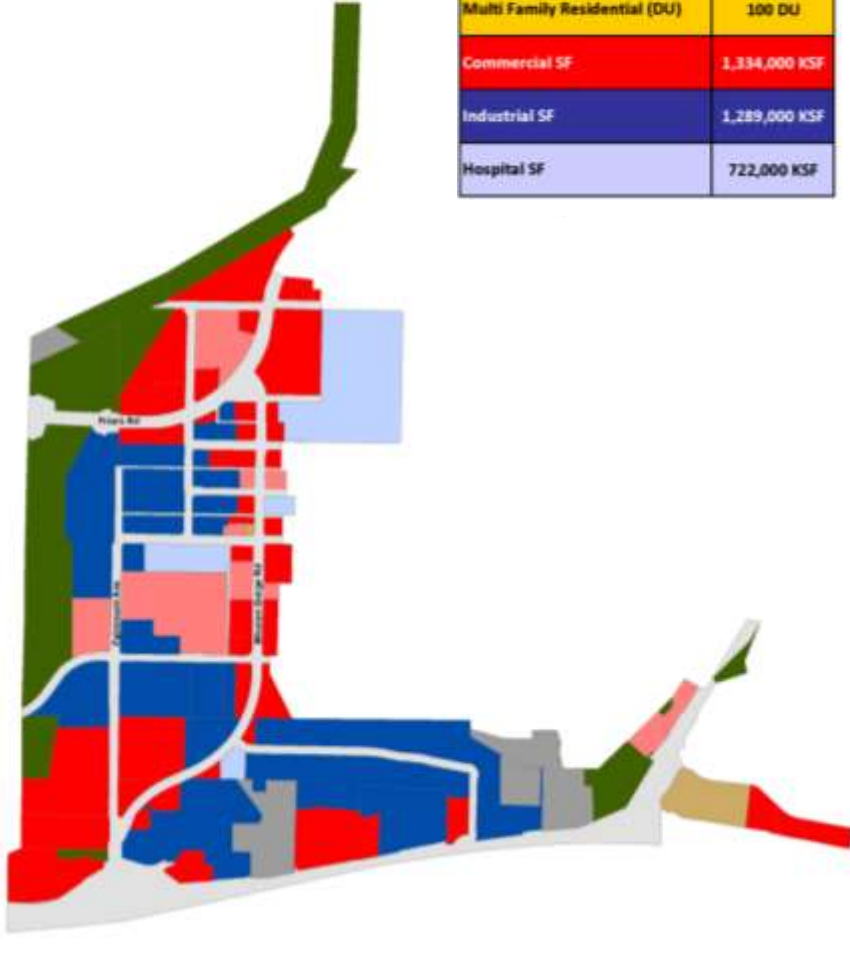
# Process & Methodology

- **Traffic Model Runs / Forecasts for various land-use alternatives** (Included in your handouts)
- **Identifying Forecasted Transportation Deficiencies**  
(Included in your handouts)
- **Model Runs / Evaluation of Potential Transportation Improvements**
- **Final Transportation Improvement Plan**

# Land Use Comparison (Alternative D)

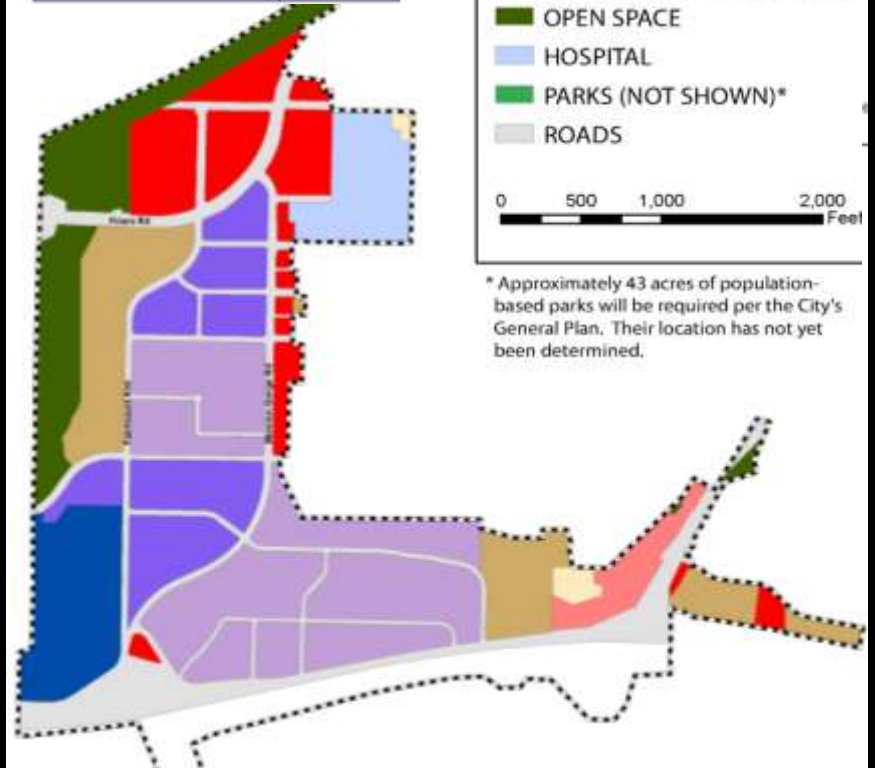
## Existing Land Uses

Land Use	Existing
Multi Family Residential (DU)	100 DU
Commercial SF	1,334,000 KSF
Industrial SF	1,289,000 KSF
Hospital SF	722,000 KSF



## Alternative D

Land Use	Alternative D
Multi Family Residential (DU)	8,100 DU
Commercial SF	1,354,000 KSF
Industrial SF	63,000 KSF
Hospital SF	722,000 KSF



PROJECT BOUNDARY

### Land Uses

- INDUSTRIAL
- OFFICE
- COMMERCIAL
- RESIDENTIAL MIXED USE
- COMMERCIAL MIXED USE
- MULTI FAMILY RESIDENTIAL
- SINGLE FAMILY RESIDENTIAL
- OPEN SPACE
- HOSPITAL
- PARKS (NOT SHOWN)\*
- ROADS

0 500 1,000 2,000 Feet

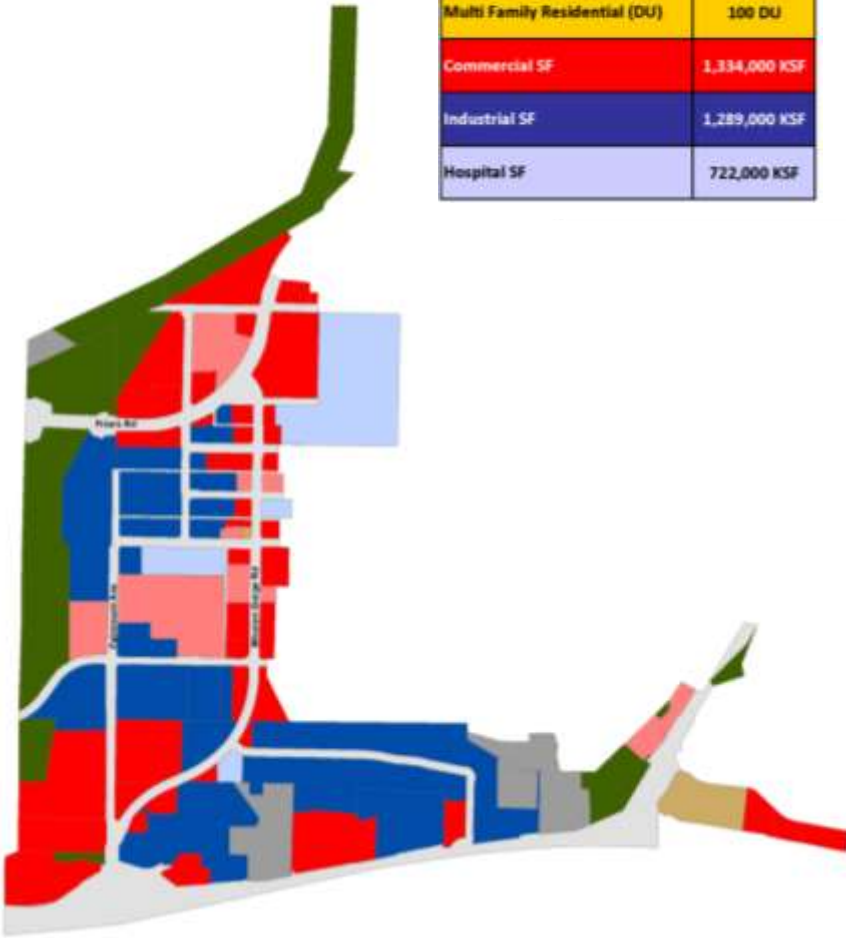
\* Approximately 43 acres of population-based parks will be required per the City's General Plan. Their location has not yet been determined.



# Land Use Comparison (Alternative EF)

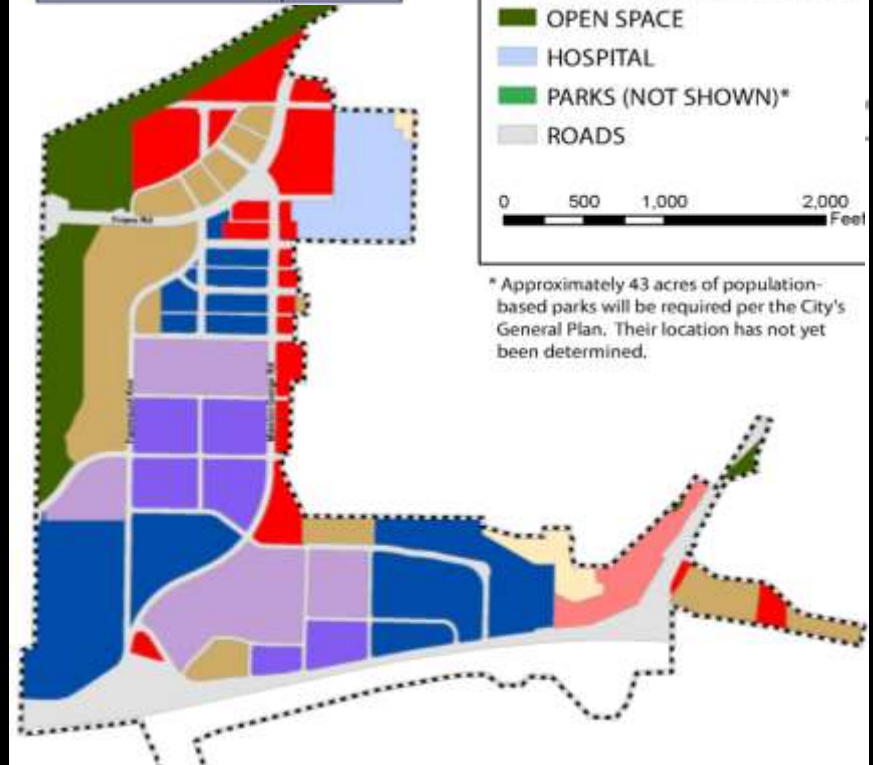
## Existing Land Uses

Land Use	Existing
Multi Family Residential (DU)	100 DU
Commercial SF	1,334,000 KSF
Industrial SF	1,289,000 KSF
Hospital SF	722,000 KSF



## Alternative EF

Land Use	Alternative EF
Multi Family Residential (DU)	4,100 DU
Commercial SF	1,644,000 KSF
Industrial SF	589,000 KSF
Hospital SF	722,000 KSF



PROJECT BOUNDARY

### Land Uses

- INDUSTRIAL
- OFFICE
- COMMERCIAL
- RESIDENTIAL MIXED USE
- COMMERCIAL MIXED USE
- MULTI FAMILY RESIDENTIAL
- SINGLE FAMILY RESIDENTIAL
- OPEN SPACE
- HOSPITAL
- PARKS (NOT SHOWN)\*
- ROADS

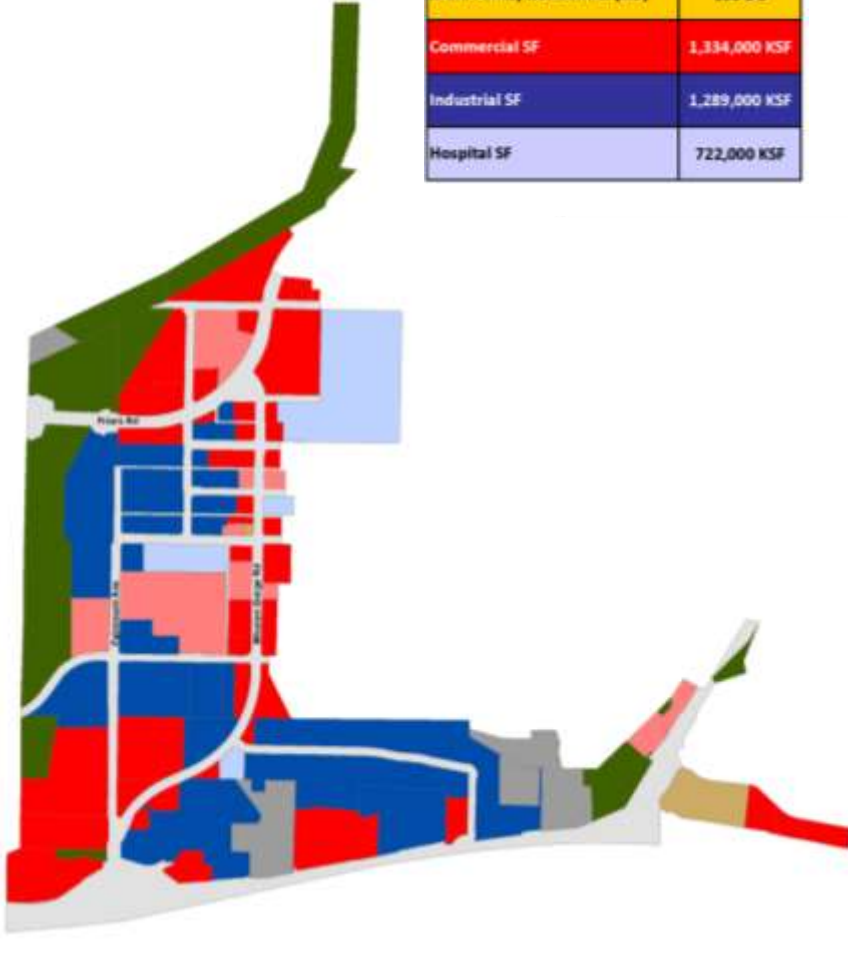
0 500 1,000 2,000 Feet

\* Approximately 43 acres of population-based parks will be required per the City's General Plan. Their location has not yet been determined.

# Land Use Comparison (Alternative G)

## Existing Land Uses

Land Use	Existing
Multi Family Residential (DU)	100 DU
Commercial SF	1,334,000 KSF
Industrial SF	1,289,000 KSF
Hospital SF	722,000 KSF



## Alternative G

Land Use	Alternative G
Multi Family Residential (DU)	6,400 DU
Commercial SF	833,000 KSF
Industrial SF	0 KSF
Hospital SF	722,000 KSF



PROJECT BOUNDARY

### Land Uses

- INDUSTRIAL
- OFFICE
- COMMERCIAL
- RESIDENTIAL MIXED USE
- COMMERCIAL MIXED USE
- MULTI FAMILY RESIDENTIAL
- SINGLE FAMILY RESIDENTIAL
- OPEN SPACE
- HOSPITAL
- PARKS (NOT SHOWN)\*
- ROADS

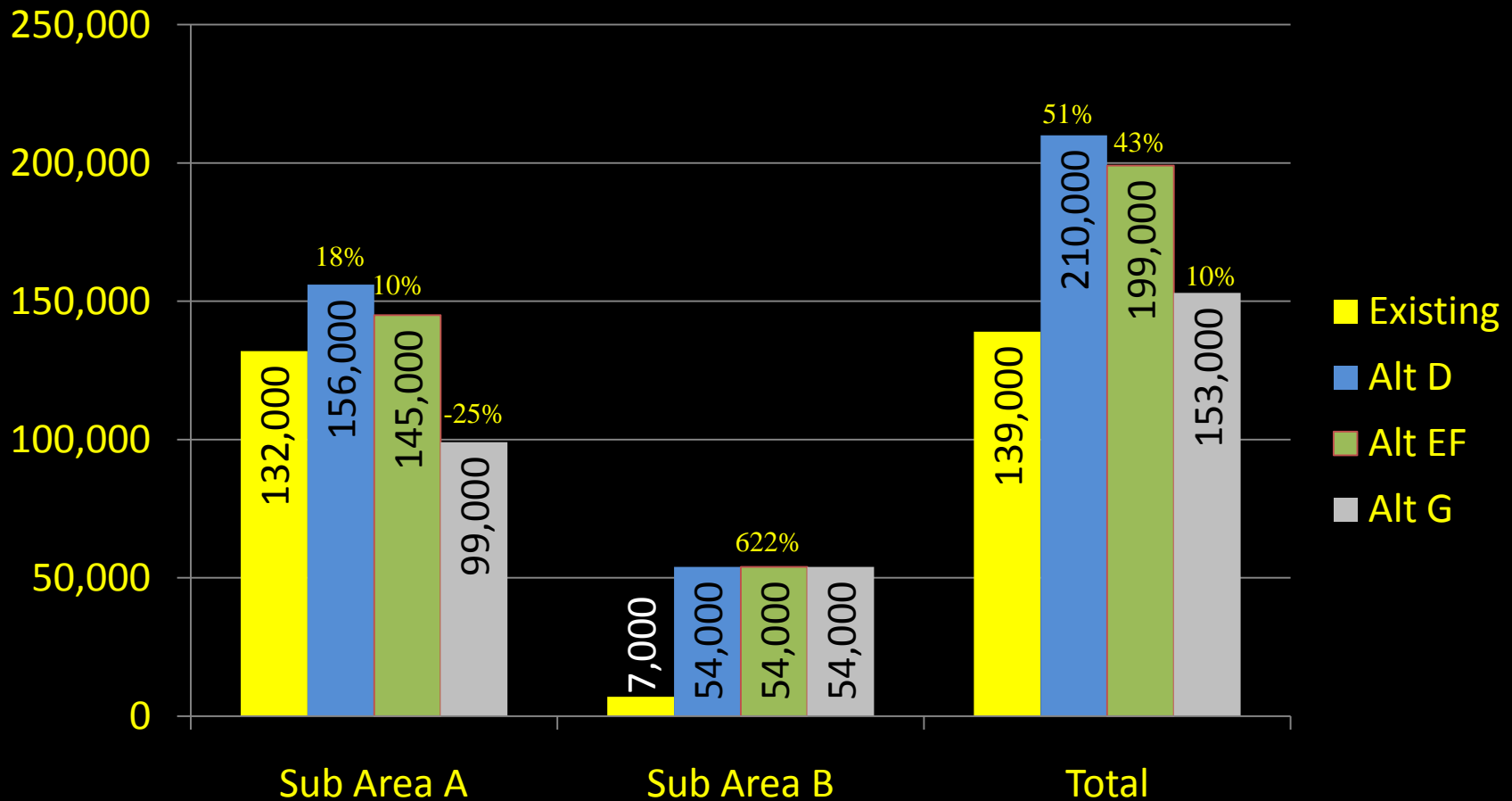
0 500 1,000 2,000 Feet

\* Approximately 43 acres of population-based parks will be required per the City's General Plan. Their location has not yet been determined.

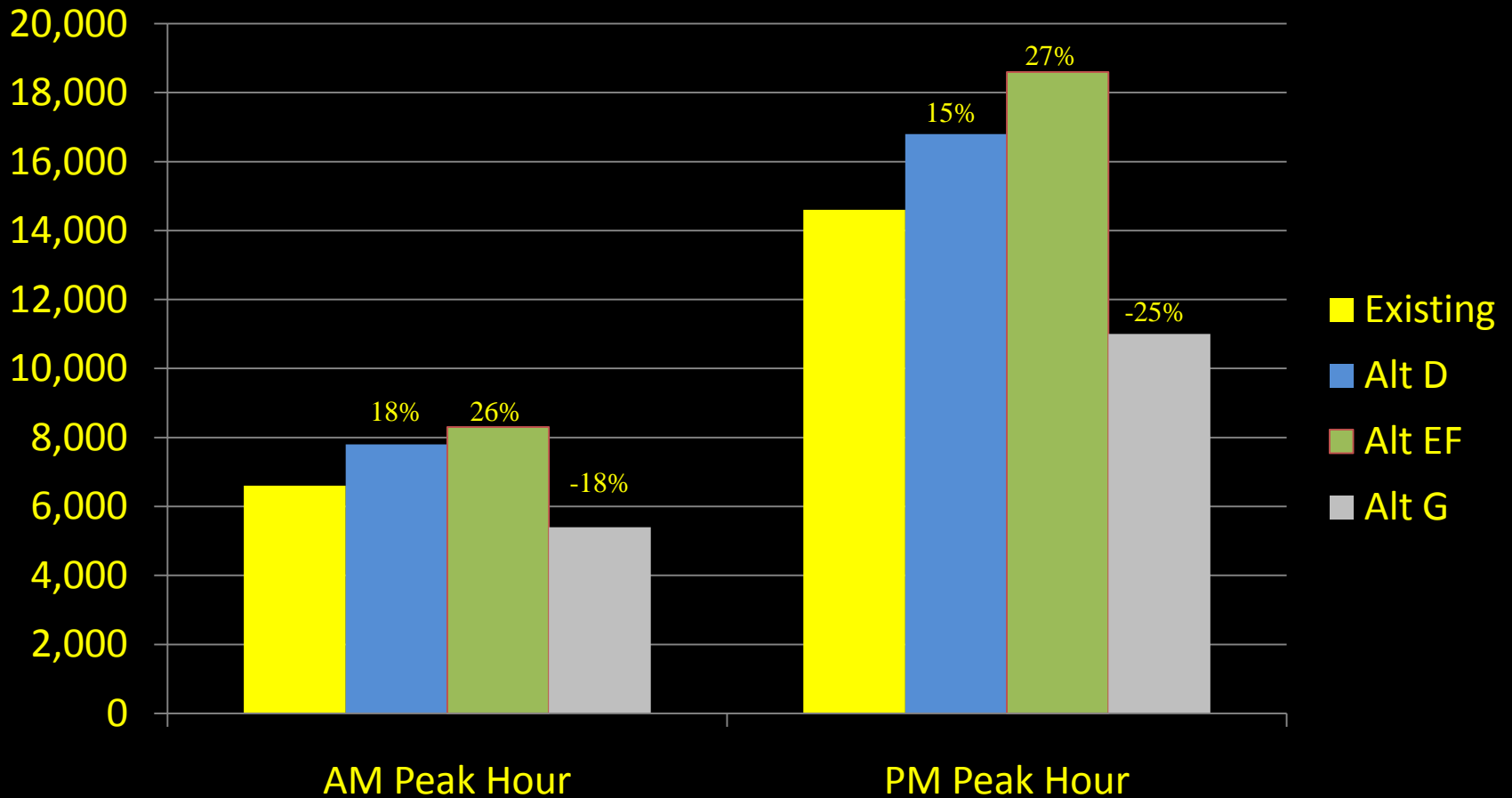
# Basic Land Use Comparison Table (Estimated)

Land Use	Existing	Alternative D	Alternative EF	Alternative G
Multi Family Residential (DU)	100 DU	8,100 DU	4,100 DU	6,400 DU
Commercial SF	1,334,000 KSF	1,354,000 KSF	1,644,000 KSF	833,000 KSF
Industrial SF	1,289,000 KSF	63,000 KSF	589,000 KSF	0 KSF
Hospital SF	722,000 KSF	722,000 KSF	722,000 KSF	722,000 KSF

# Daily Trip Generation Comparisons

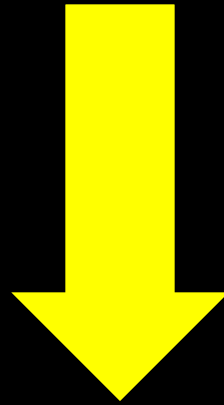


# Peak Hour Comparisons



# Presentation Overview

**Discuss the Problem**

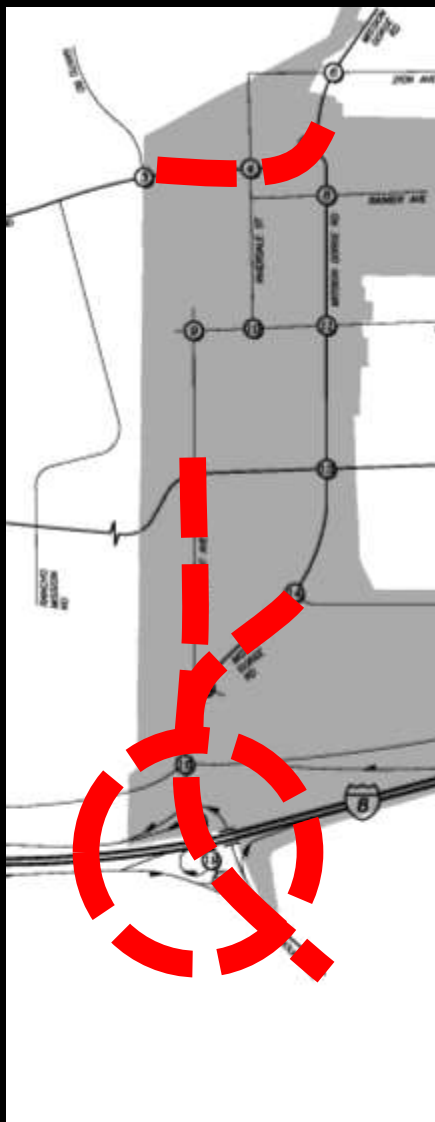


**Discuss/Propose the Solution/Recommended  
Improvement**

# PROBLEM

# Major Segment Vehicular Traffic Constraints

 Failing Locations



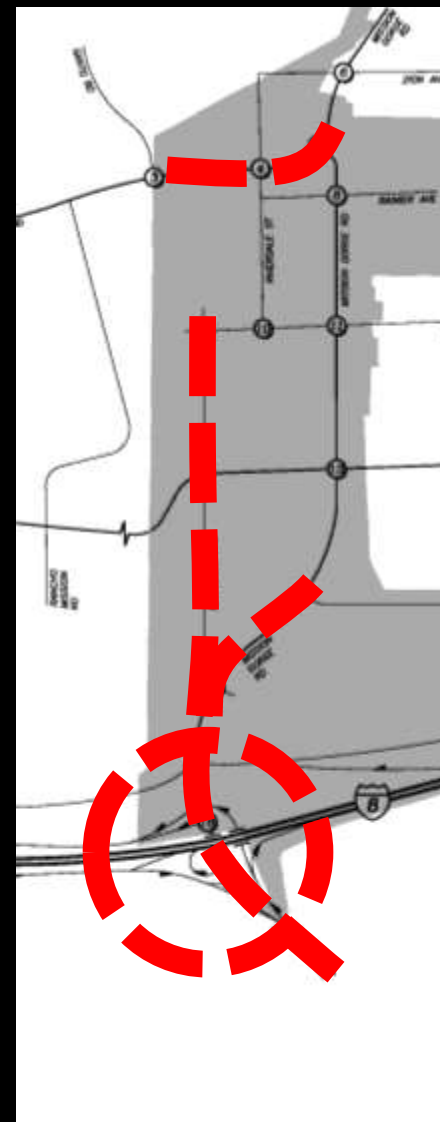
Existing



Alternative D



Alternative EF



Alternative G

# Needed for D, EF & G

# Alvarado Canyon Road Realignment

Improvement  
**D1**  
**EF1**  
**G1**

## Advantages:

- Moves frontage road traffic away from the interchange and increases intersection spacing.
- Improves Fairmount Avenue / Camino del Rio N / I-8 WB off-ramp intersection to acceptable level of service
- Improves Interchange
- Improves Traffic flow on Mission Gorge Road

## Potential Issues:

- Right-of-way acquisition
- Construction Cost is approximately \$10 M – \$13M, based on the chosen alignment



Alvarado Canyon Road Realignment \*

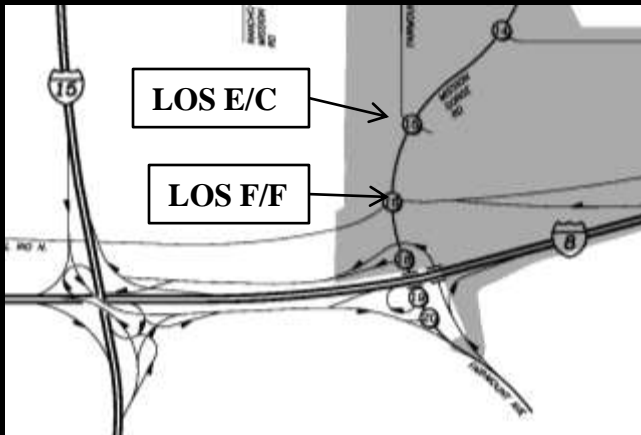
\* Reduces the delay by more than 50%.

\* Alignment of this improvement is for illustration purpose only and does NOT reflect a specific alignment.

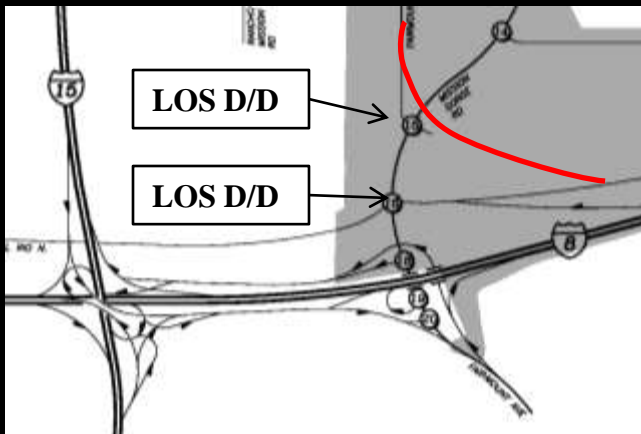


# D1, EF1 & G1

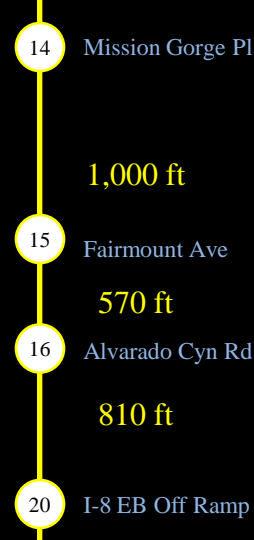
## Existing



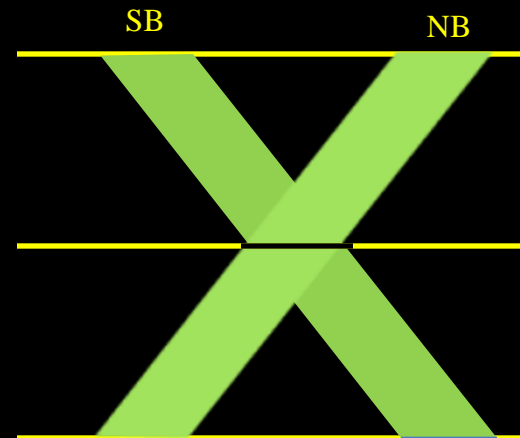
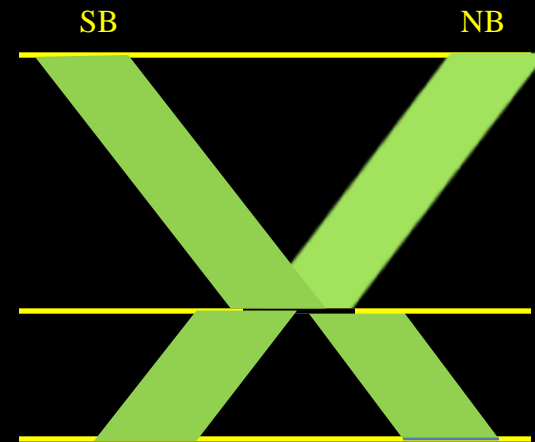
## Proposed



# Intersection Spacing



## Sample Time Space Diagram



# Needed for D, EF & G

# Mission Gorge Place Extension

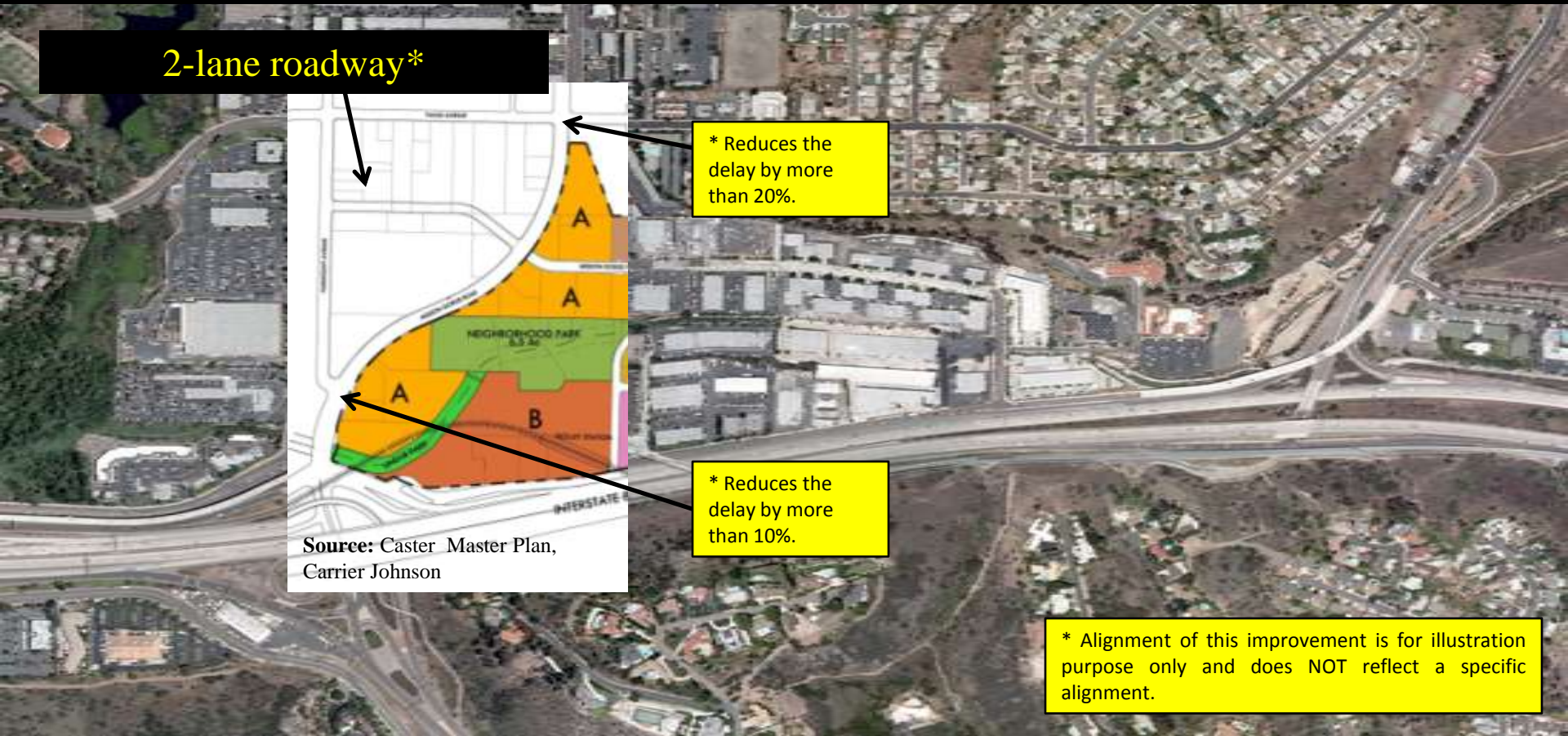
Improvement  
**D2**  
**EF2**  
**G2**

## Advantages:

- Provides better circulation
- Improves Traffic flow on Mission Gorge Road
- Improves Mission Gorge Road/Twain Avenue and Mission Gorge Road /Fairmount Avenue intersections
- Improves Twain Avenue to acceptable level of service
- Additional east-west connection / better circulation

## Potential Issues:

- Right-of-way acquisition
- Construction Cost



2-lane roadway\*

\* Reduces the delay by more than 20%.

\* Reduces the delay by more than 10%.

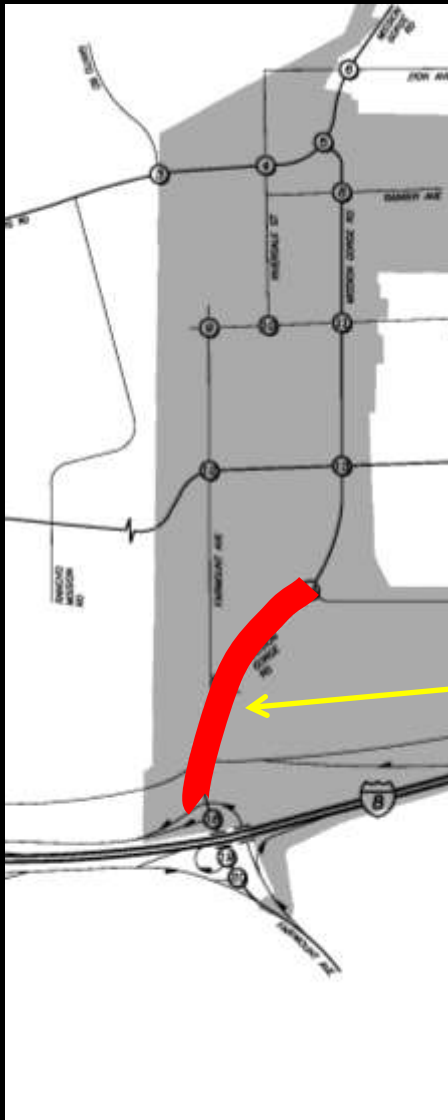
Source: Caster Master Plan,  
Carrier Johnson

\* Alignment of this improvement is for illustration purpose only and does NOT reflect a specific alignment.

**Needed for D, EF & G**

# Widen Fairmount Avenue/Mission Gorge Road to Six Lanes

Improvement  
**D3**  
**EF3**  
**G3**



Mission Gorge Place

Widen to Six Lanes

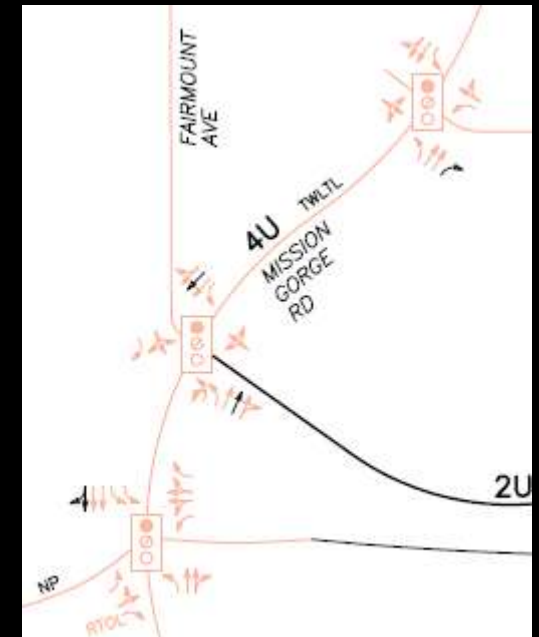
I-8 WB Off Ramp

## Advantages:

- Improves Mission Gorge Road (from Mission Gorge Place to Fairmount Avenue)
- Improves Fairmount Avenue (from Mission Gorge Road to Camino Del Rio North)
- Improves Mission Gorge Road/ Mission Gorge Place, Mission Gorge Road/Fairmount Avenue and Fairmount Avenue/Camino Del Rio North intersections

## Potential Issues:

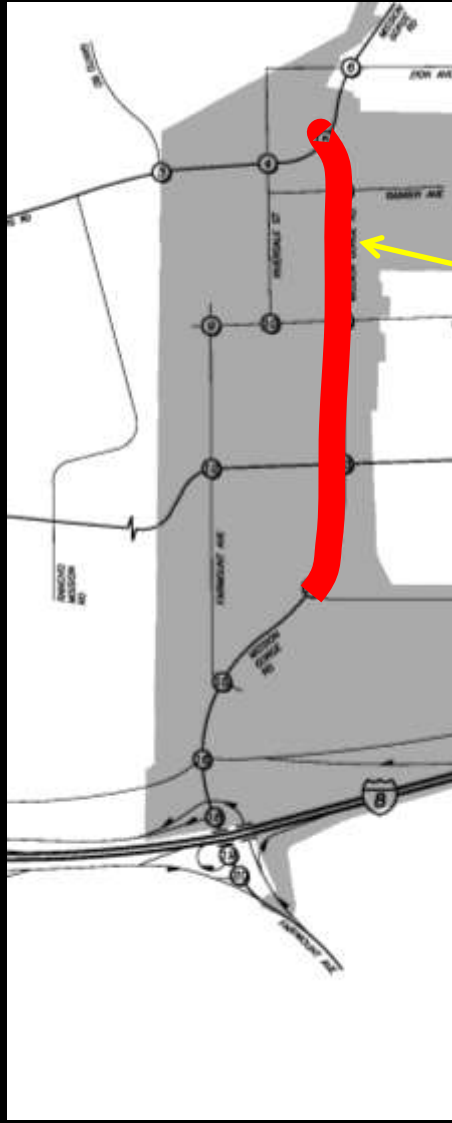
- Right-of-way acquisition
- Construction Cost



**Needed for D & EF**

# Widen Mission Gorge Road to Four Lane Major Road Classification

Improvement  
**D4**  
**EF4**



Friars Road

Widen to Four Lane Major Road standard

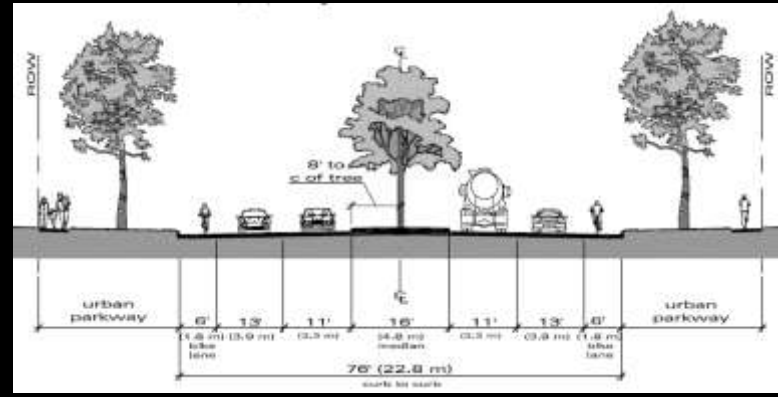
Mission Gorge Place

## Advantages:

- Improves Mission Gorge Road (from Friars Road to Mission Gorge Place)
- Mission Gorge Road will operate at acceptable levels of service
- Improves intersection operations on Mission Gorge Road

## Potential Issues:

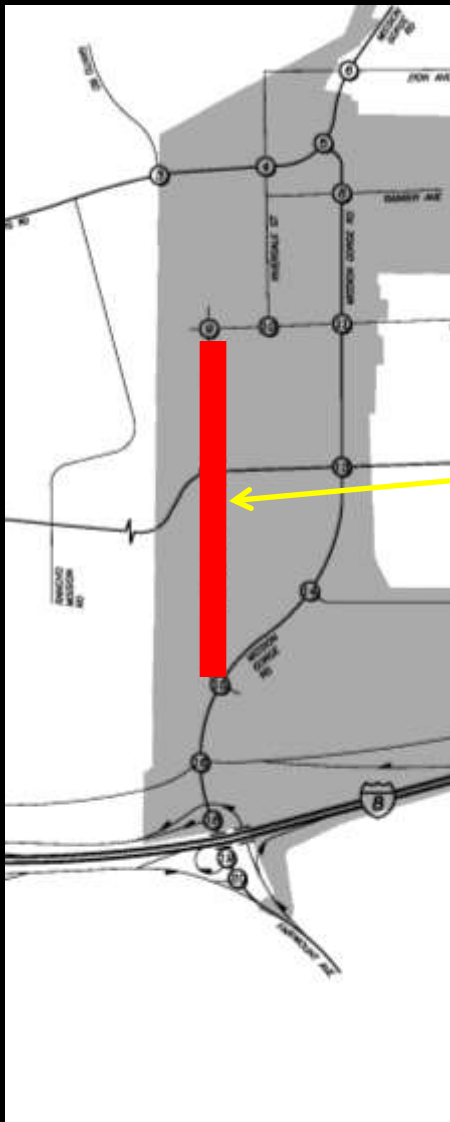
- Right-of-way acquisition
- Removal of on street parking and limited driveway access
- Construction Cost



**Needed for D, EF & G**

# Widen Fairmount Avenue Continuous Left Turn Lane on

Improvement  
**D5**  
**EF5**  
**G4**



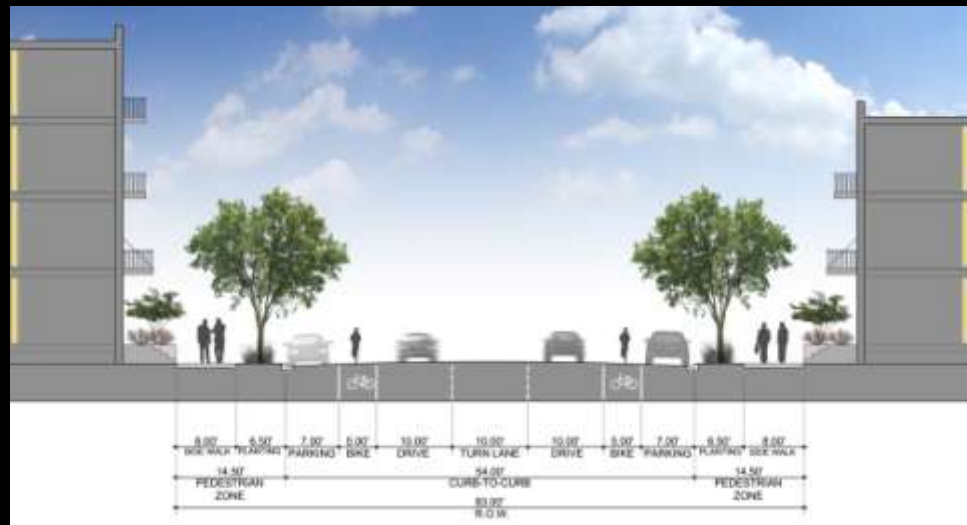
Provide Continuous Turn Lane

## Advantages:

- Improves Fairmount Avenue (from Vandever Avenue to Mission Gorge Road)
- Fairmount Avenue will operate at acceptable levels of service
- Improves intersection operations on Fairmount Avenue

## Potential Issues:

- Right-of-way acquisition
- Construction cost



**Needed for D, EF & G**

## **I-8 / Fairmount Avenue Interchange Improvements**

- Interim solutions such as adding a third southbound lane on Fairmount Avenue (south of Camino del Rio North) are being evaluated.
- Substantial improvement is required for the interchange (i.e. move columns).
- Participate financially in the Interchange improvements identified in the proposed I-8 Corridor Study.



Improvement

**D6**

**EF6**

**G5**

**Needed for D & EF**

Improvement  
**D7**  
**EF7**

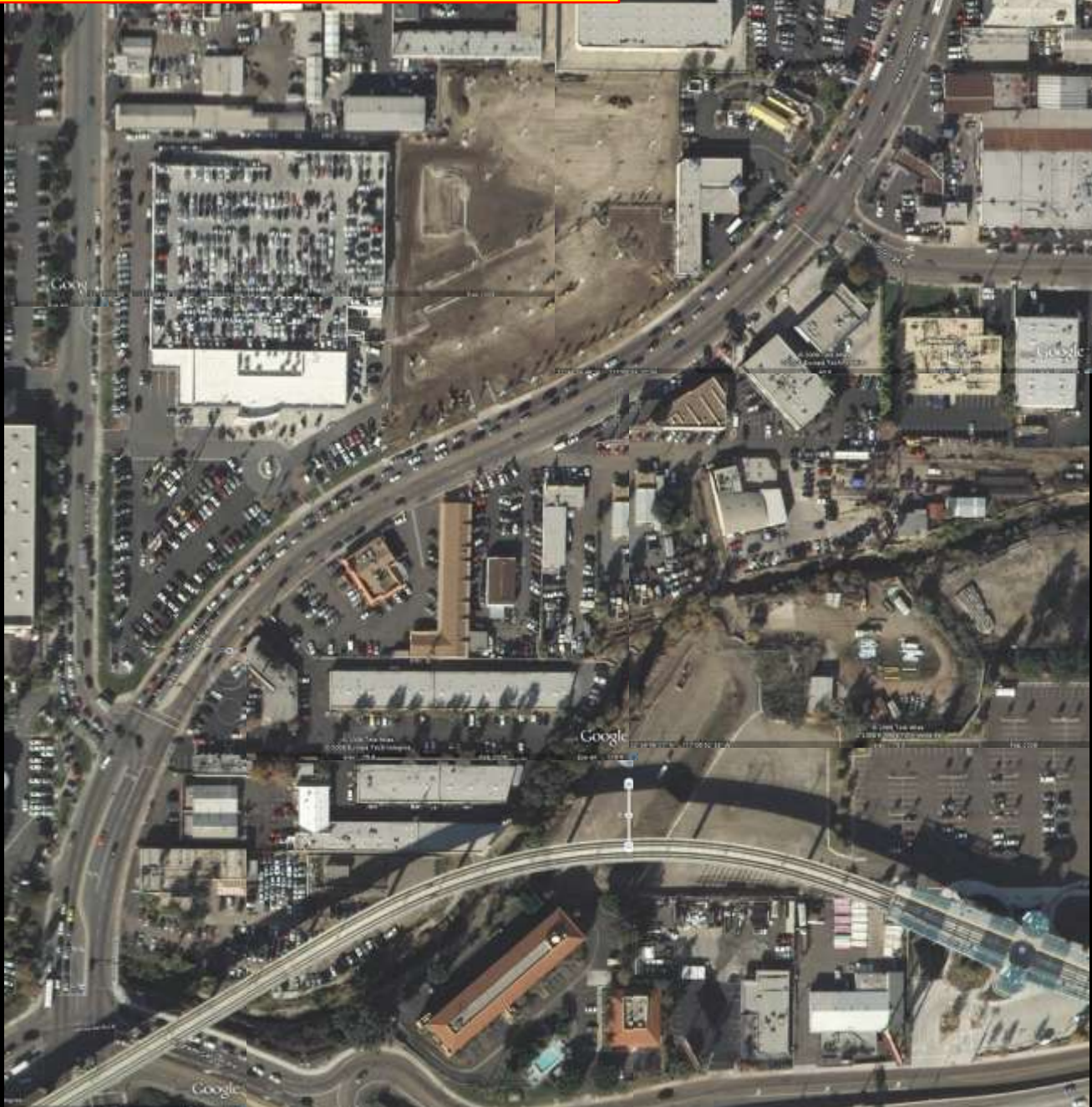


# **Additional Improvements Outside Project Area**

Identify off-site mitigation measures in the Grantville Sub-Area A EIR.

**Needed for D, EF & G**

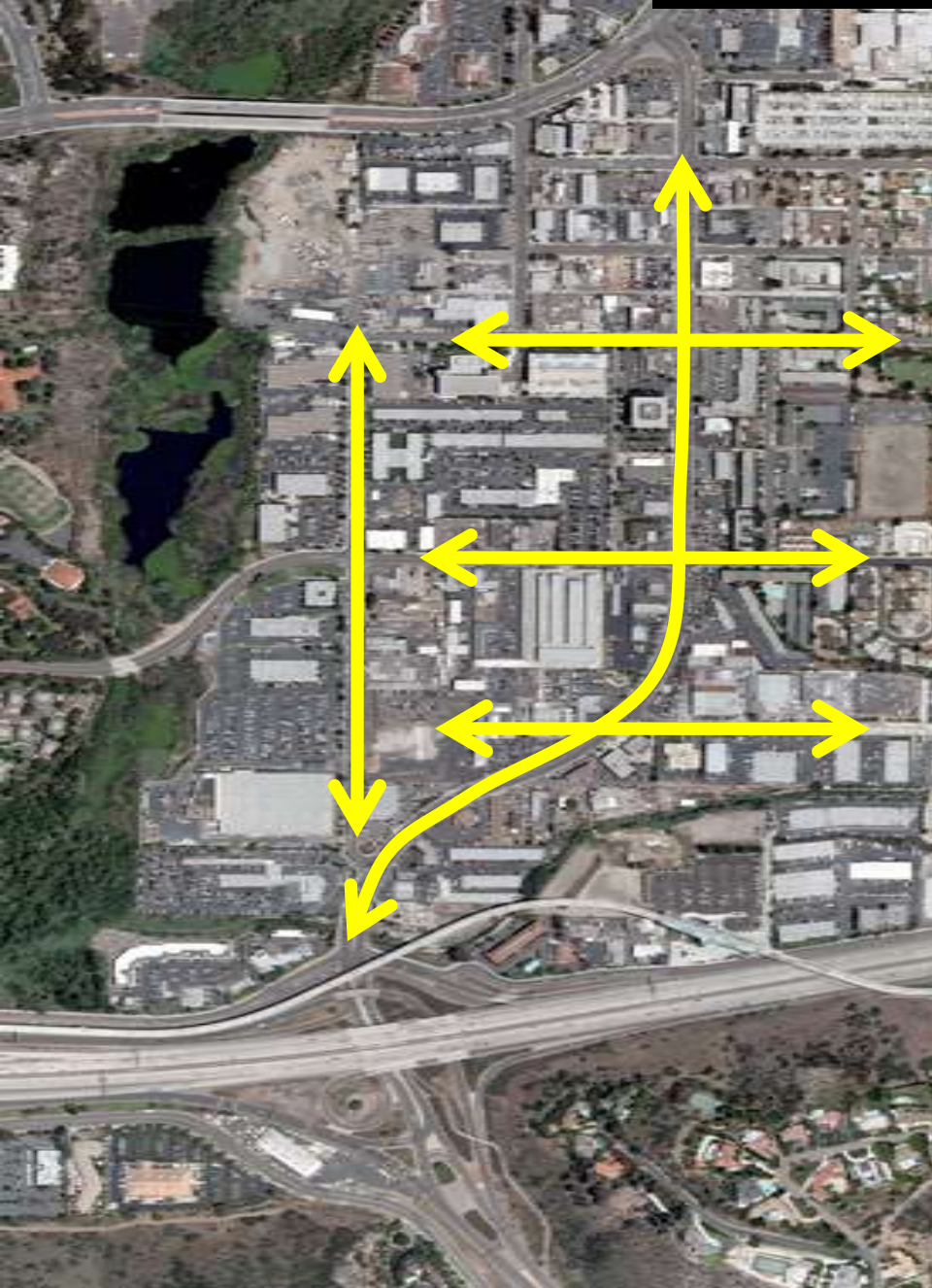
**Improvement  
D8  
EF8  
G6**



# **Signal Coordination**



# Needed for D, EF & G



# Complete Streets

Improvement
D9
EF9
G7

Create safe, comfortable, and convenient streets for all modes of transportation.

All new streets and existing streets which are improved should consider Complete Streets.



# Needed for D, EF & G

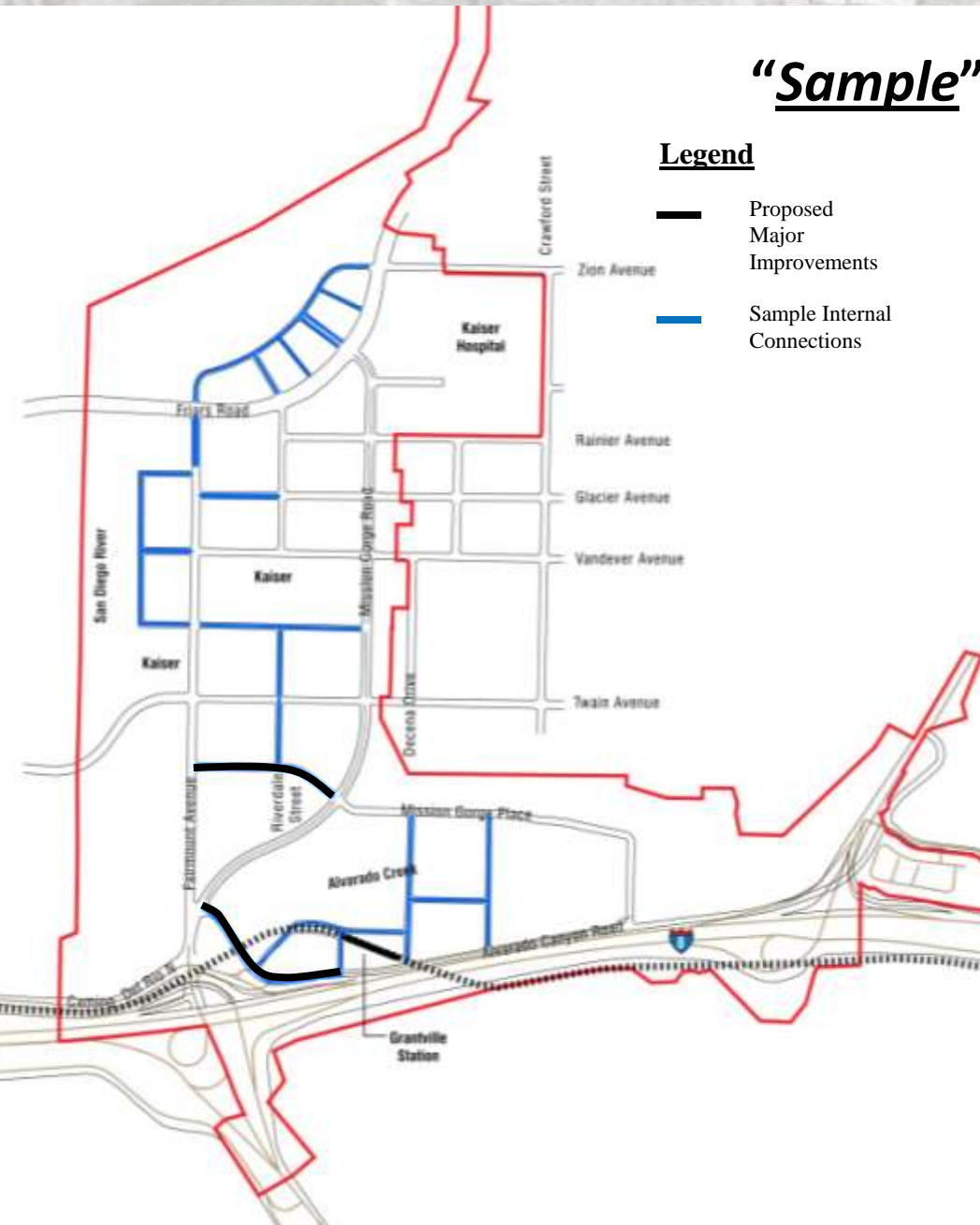
# Internal Connections

Improvement  
**D10**  
**EF10**  
**G8**

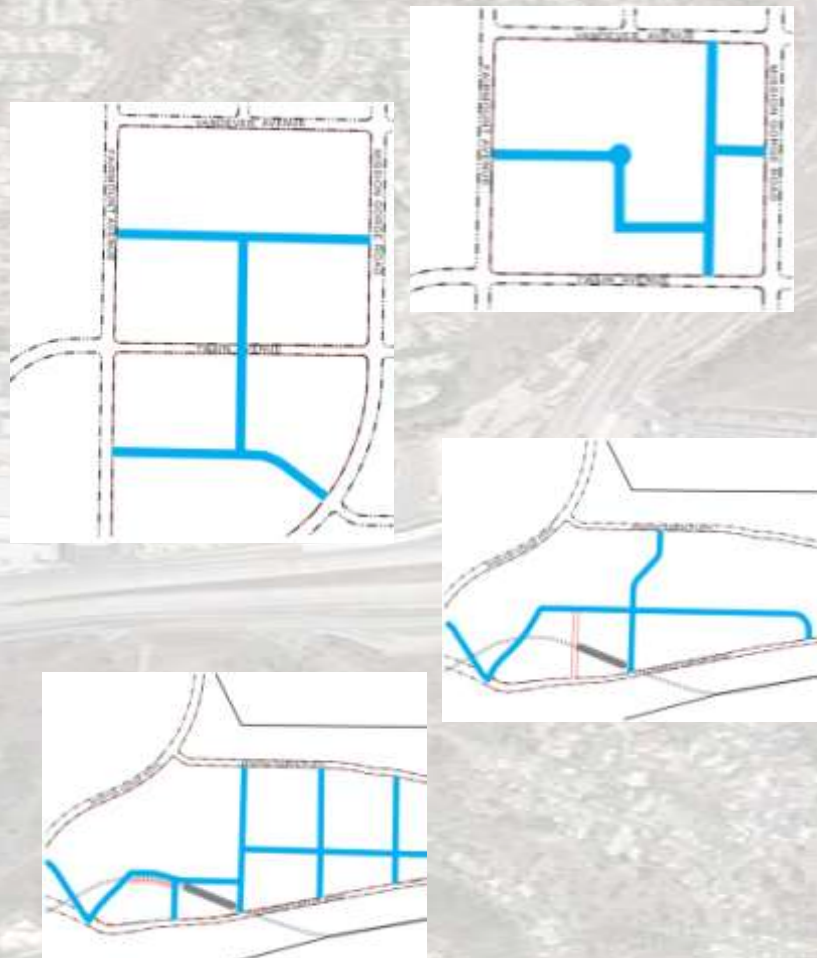
## “Sample” Connection

### Legend

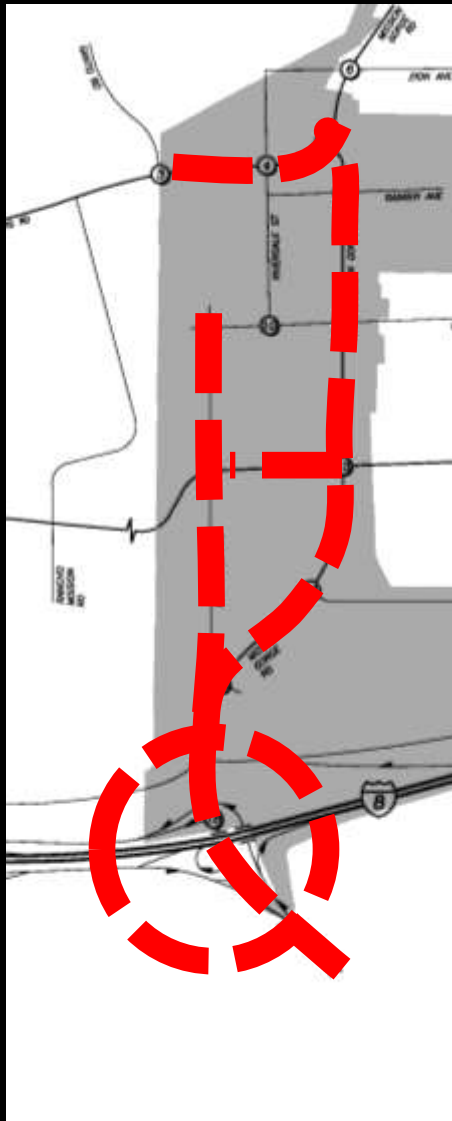
- Proposed Major Improvements
- Sample Internal Connections



Connections Should be considered/assessed for individual parcels during site planning.



# With and Without Improvements



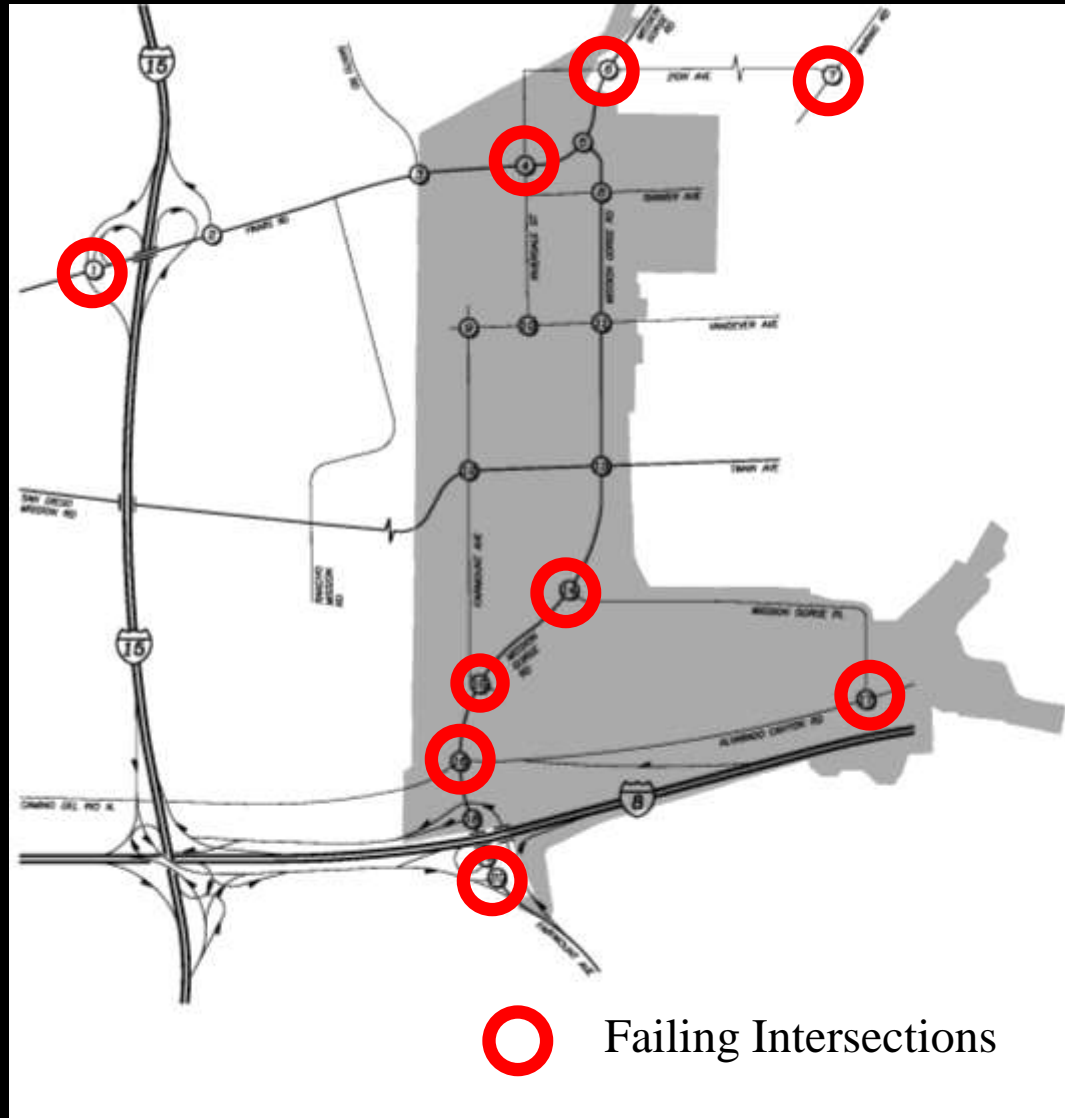
without Improvements



with Improvements

# PROBLEM

## Intersection Constraints for Alternative D

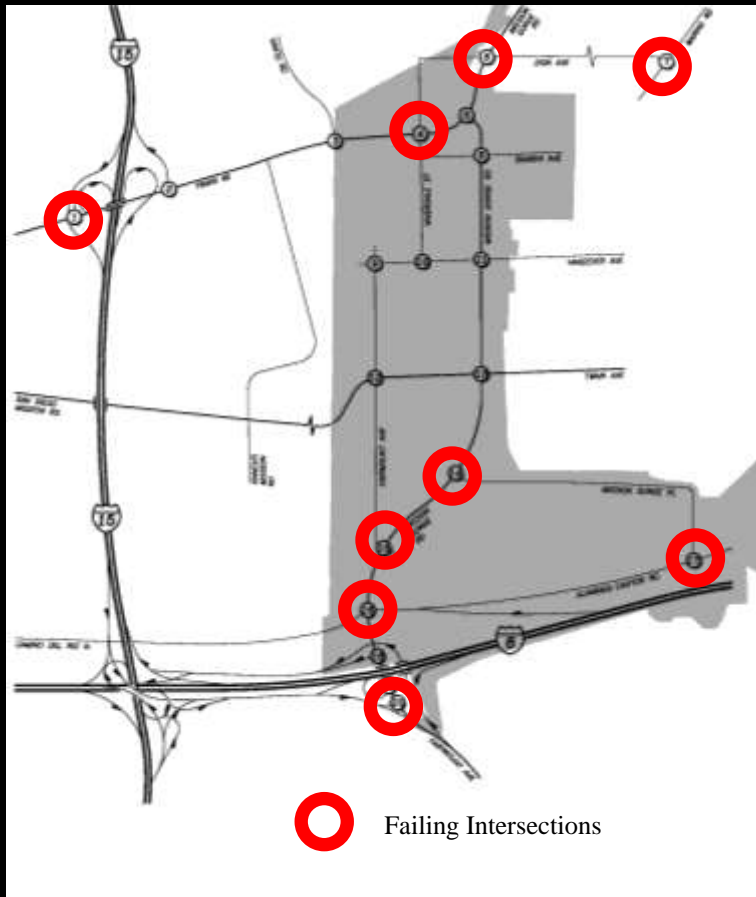


# Needed for D

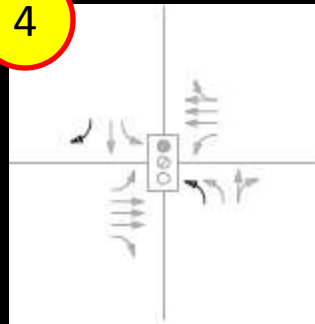
# Intersection Improvements for Alternative D

Improvement

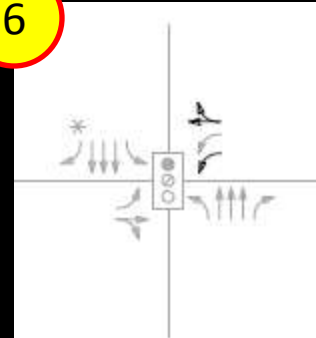
# D11



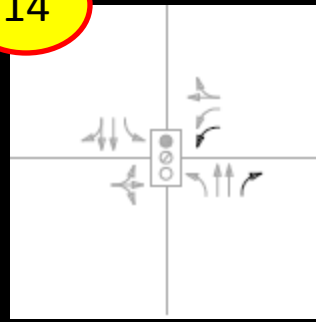
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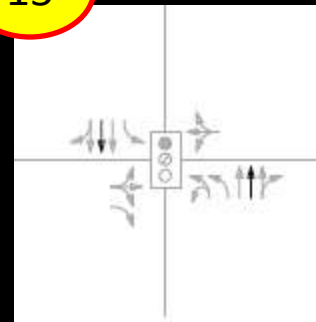
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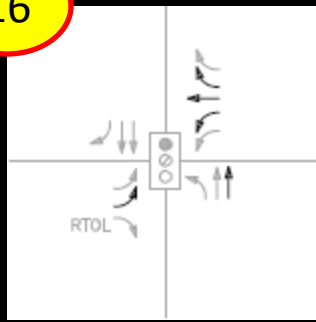
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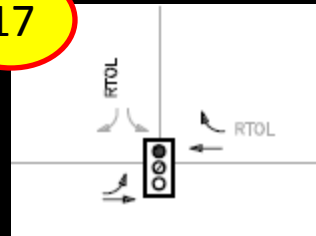
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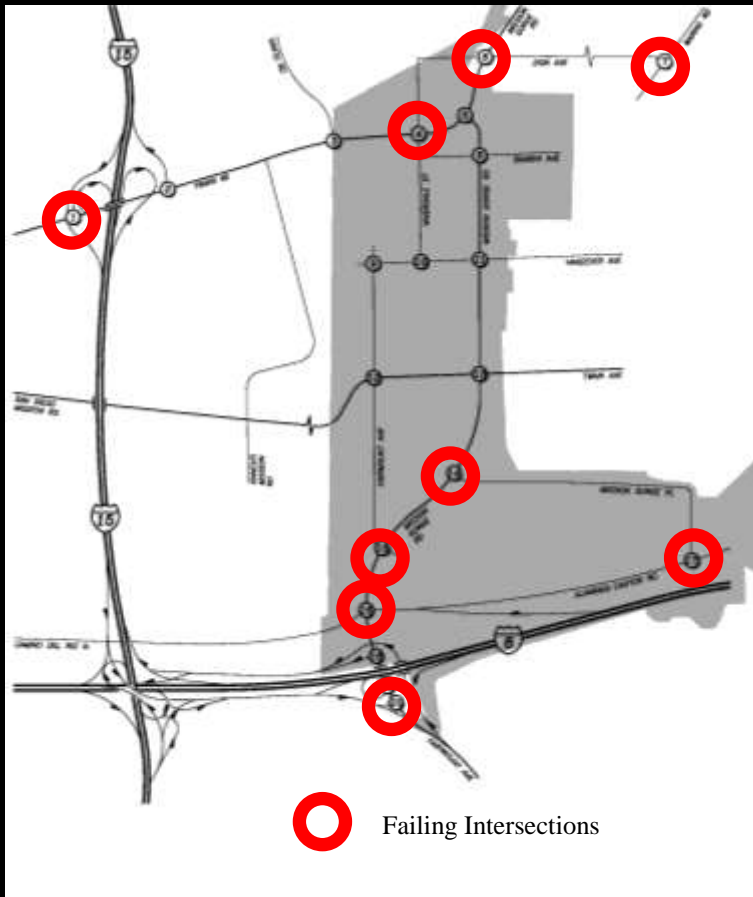
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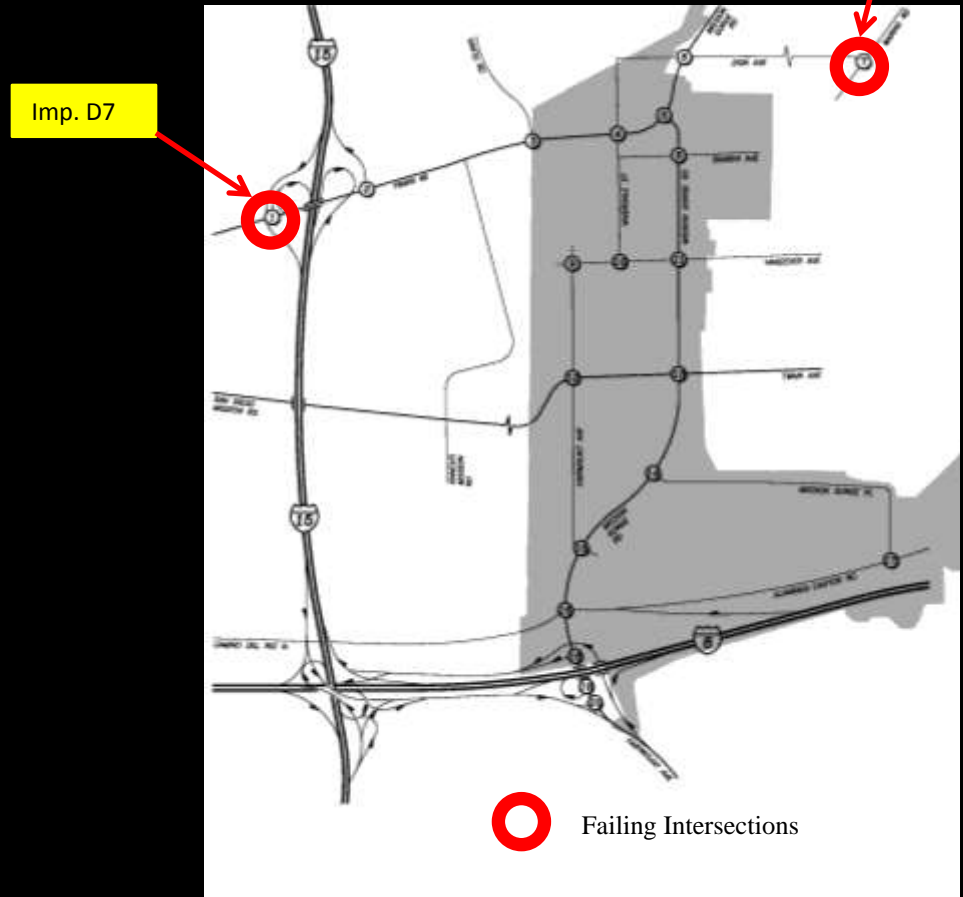
17



# With and Without Improvements



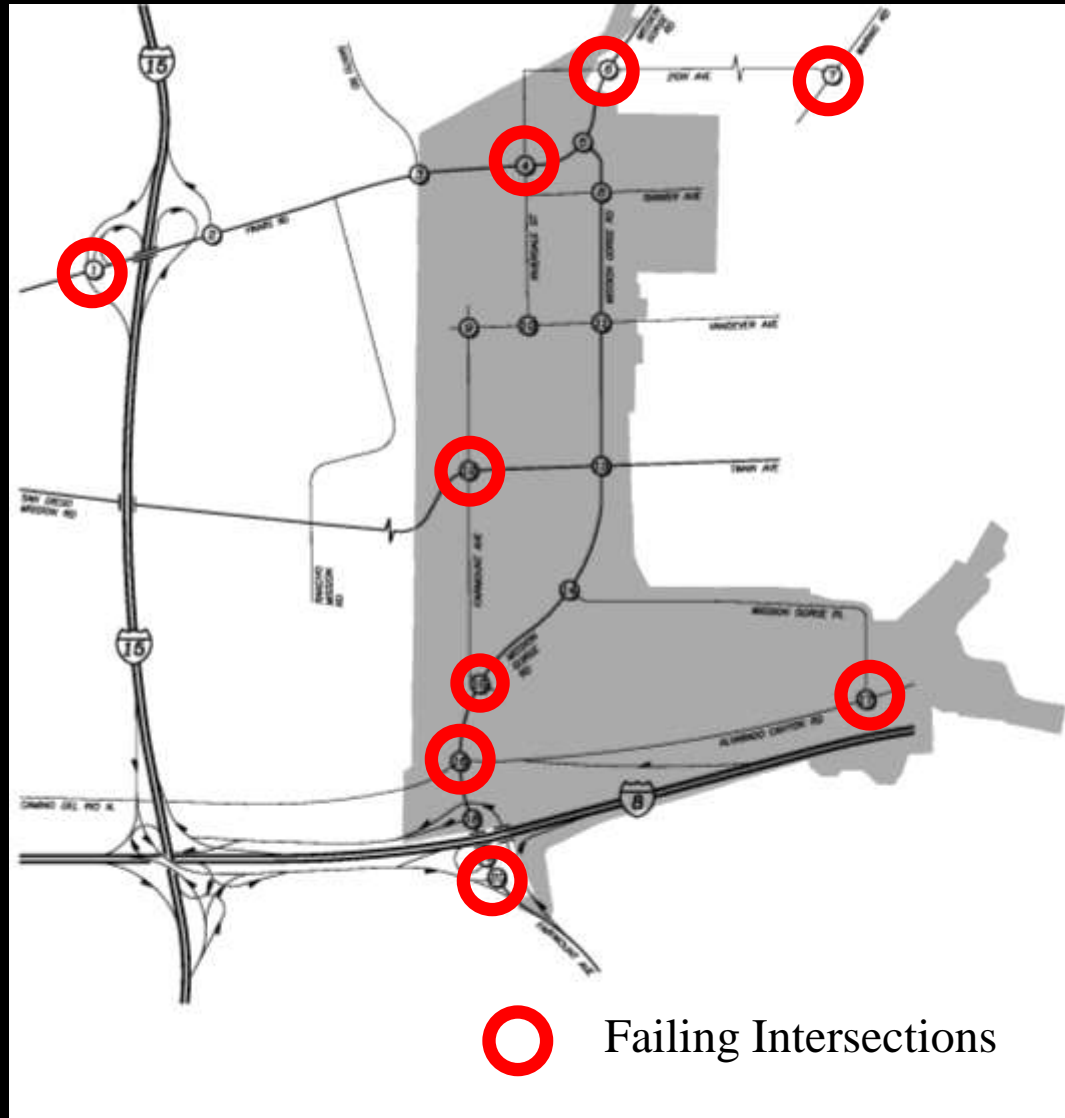
**Alternative D  
without Improvements**



**Alternative D  
with Improvements**

# PROBLEM

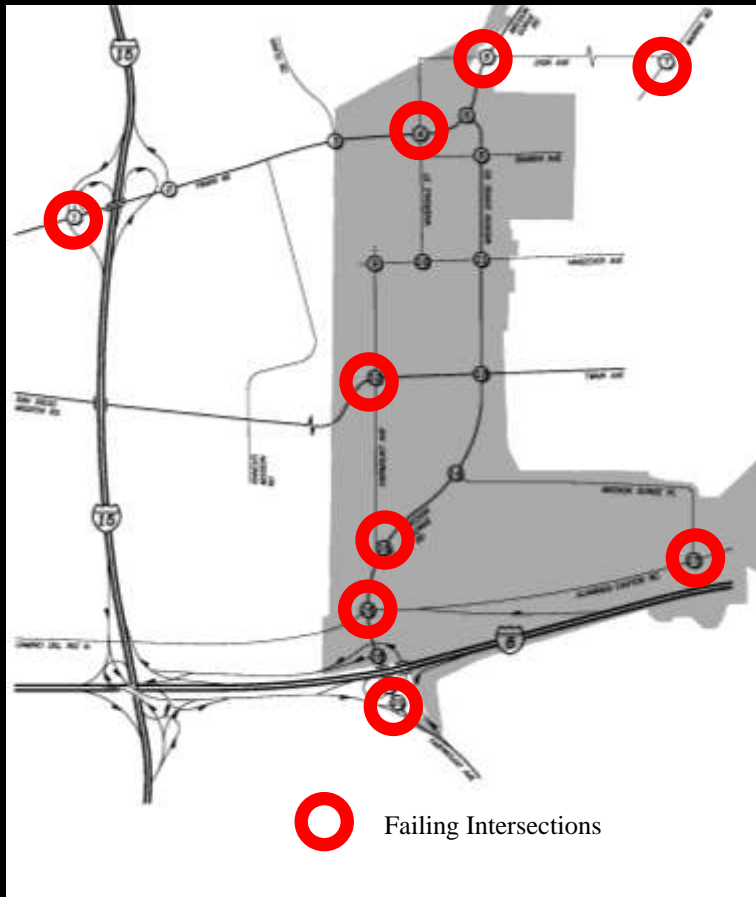
## Intersection Constraints for Alternative EF



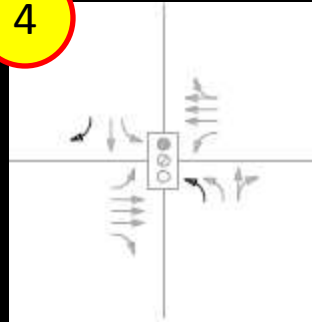
# Needed for EF

# Intersection Improvements for Alternative EF

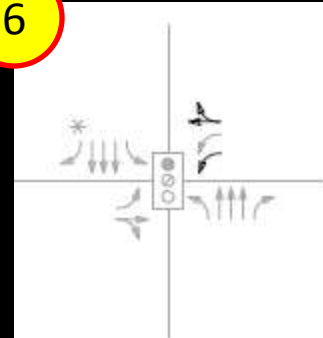
Improvement  
**EF11**



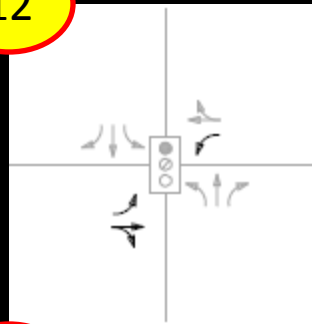
4



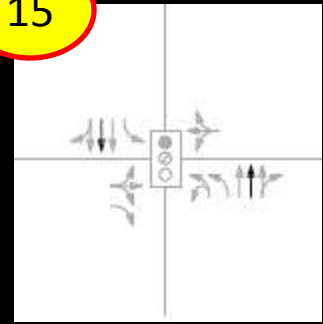
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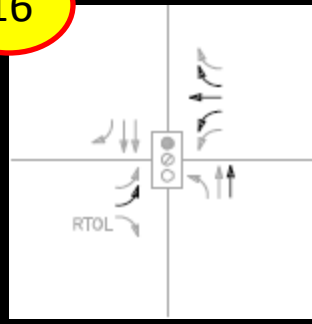
12



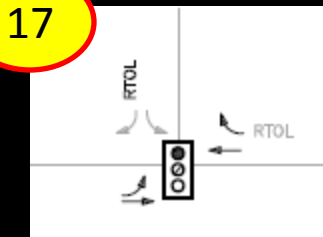
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16

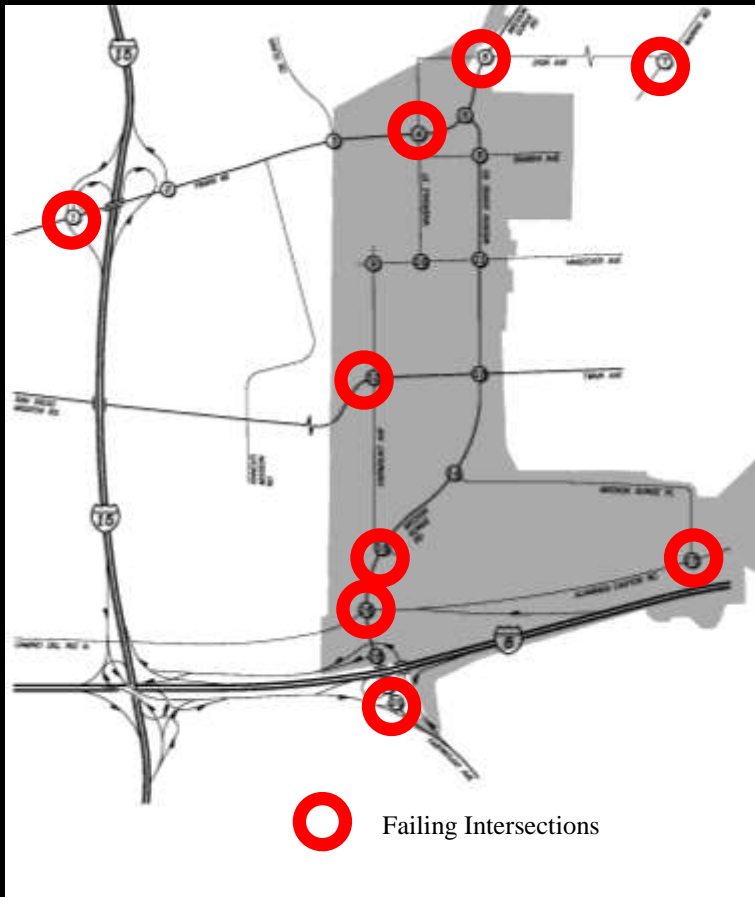


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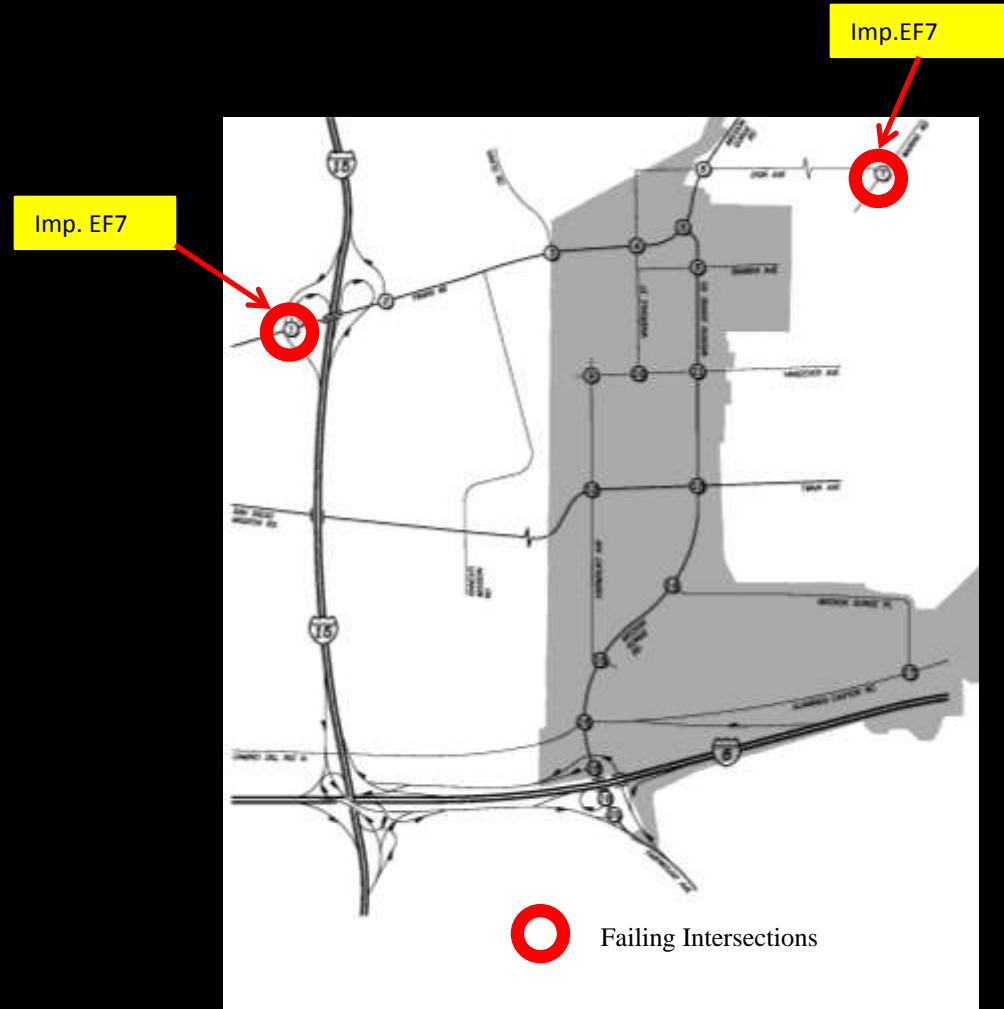




# With and Without Improvements



**Alternative EF  
without Improvements**



**Alternative EF  
with Improvements**

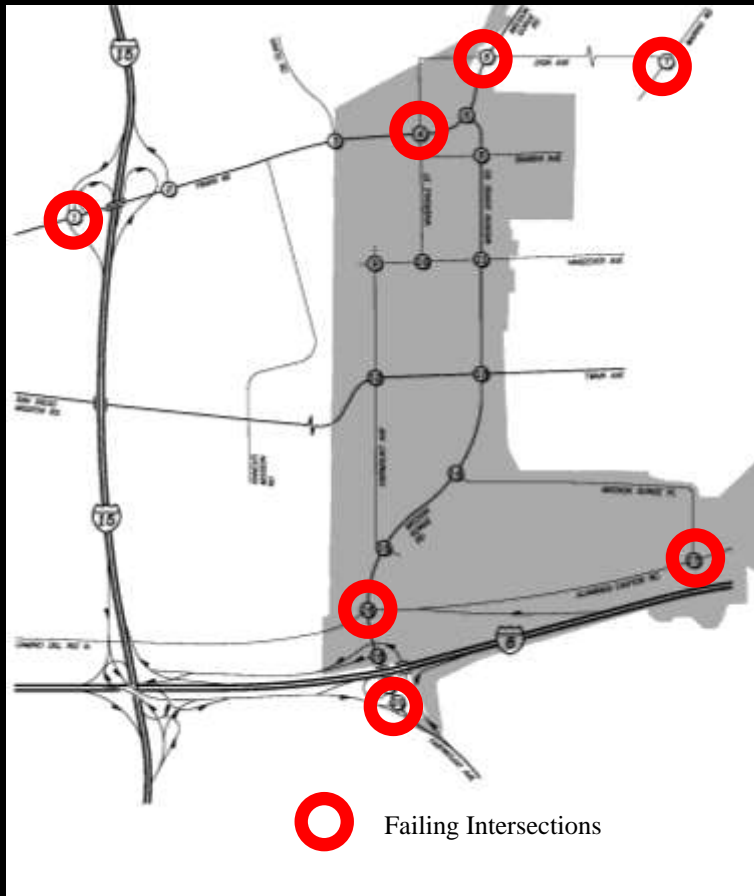


# Needed for G

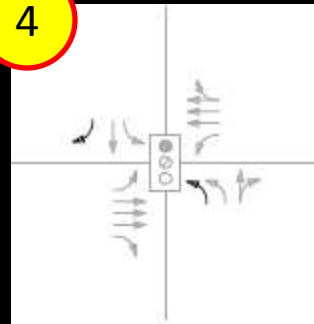
# Intersection Improvements for Alternative G

Improvement

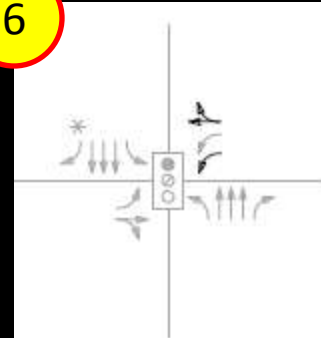
# G9



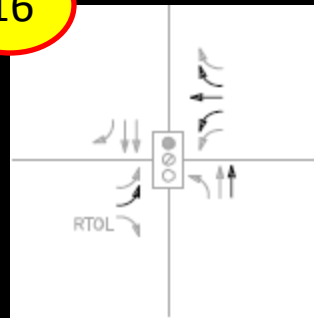
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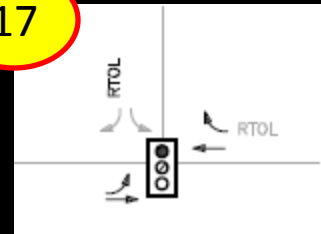
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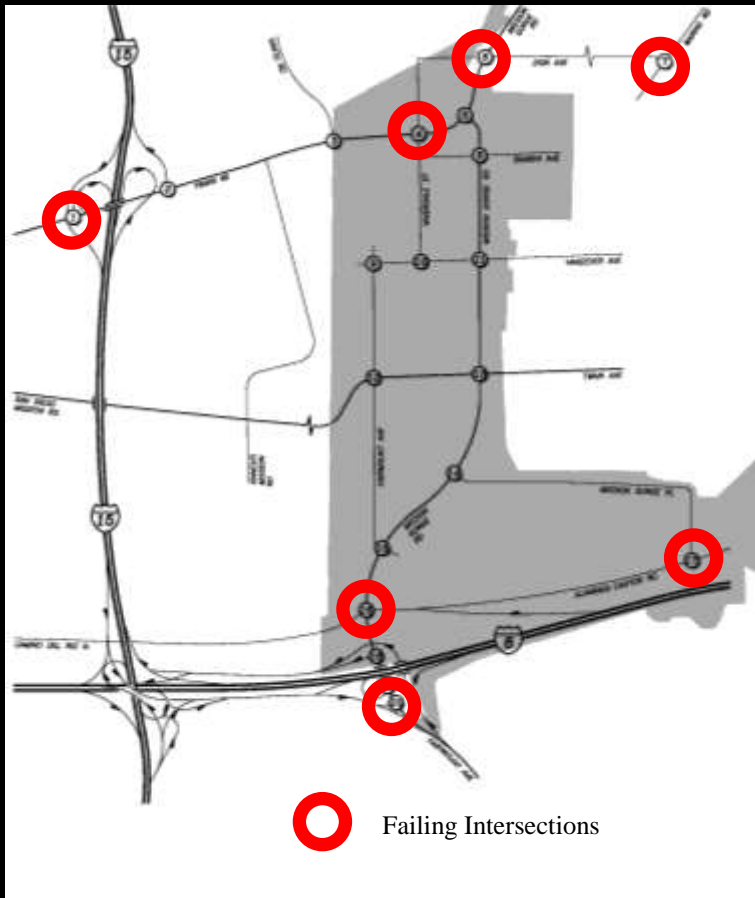
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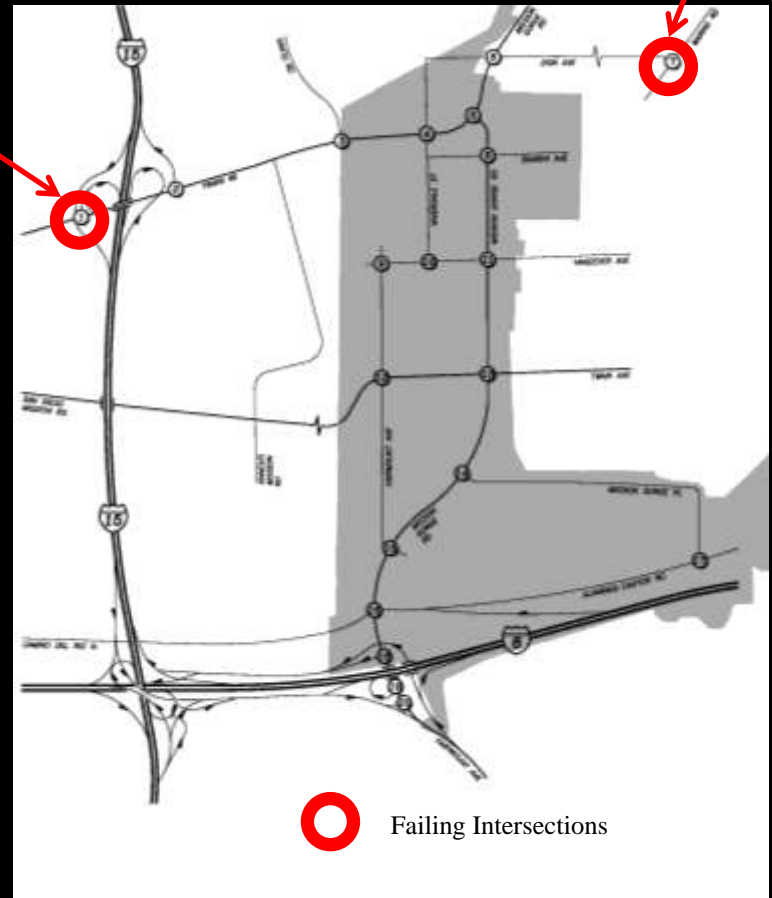


# With and Without Improvements



**Alternative G  
without Improvements**

No Impact



**Alternative G  
with Improvements**

# PROBLEM

## Pedestrian Circulation Constraints

- **I-8 / Mission Gorge Road Interchange**

- **Crosswalks / Signals**

- **Sidewalks**

- **Pedestrian Circulation**



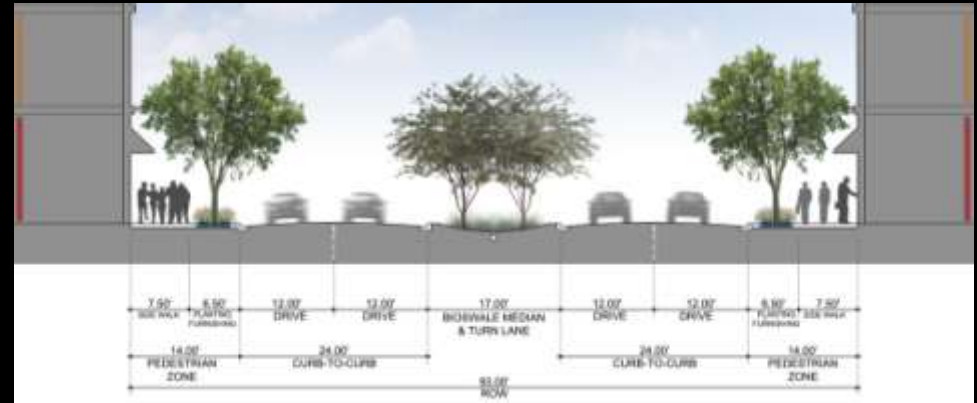
**Needed for D, EF & G**

Improvement

**D12**  
**EF12**  
**G10**

# Sidewalks

**Sidewalks, landscaping and pedestrian-supportive lighting should be considered.**



**MIXED LAND USES**

The availability of stores, offices and residences in close proximity allows residents to work and shop close to home. A mixture of land uses promotes job creation, encourages healthy lifestyles and reduces dependence on the automobile.



**COMPACT DEVELOPMENT**

Building compactly maximizes energy efficiency while minimizing land consumption. Buildings with reduced footprints enable more land to be provided for open space and recreation, as well as for absorbing stormwater. Compact development also increases the viability of public transit.



**RANGE OF HOUSING OPPORTUNITIES**

Great neighborhoods are composed of a diverse range of residents. Communities with a variety of housing types, densities and levels of affordability meet the needs of families, singles, fixed-income households and residents with unique needs, such as the elderly.



## SMART GROWTH PRINCIPLES

Smart growth development is guided by a set of principles that promote economic vitality, create a range of opportunities for all residents. These principles ensure that communities are accessible and transportation choices within walkable and transit-oriented neighborhoods.

**OPEN SPACE AND FARMLAND PRESERVATION**

Open spaces, ecological resources and agricultural land are necessary parts of the community. Access to the natural environment and undeveloped land is an integral part of high-quality communities.



**WALKABLE NEIGHBORHOODS**

Neighborhoods designed for pedestrian activity allow for less dependence on the automobile. In walkable neighborhoods, difficult street crossings and dead-end streets are minimized, and a network of interconnected streets and sidewalks is provided for pedestrians, vehicles and cyclists.



**DEVELOPMENT IN EXISTING COMMUNITIES**

Locating new development within existing communities reduces sprawl and preserves open space and agricultural land. More importantly, infill development takes advantage of existing services and infrastructure while strengthening or revitalizing existing neighborhoods.



**DISTINCTIVE, ATTRACTIVE COMMUNITIES**

Communities with distinctive neighborhood character are desirable for residents, visitors and workers alike. Memorable places are designed with a careful understanding of their topographic and climatic contexts, as well as the character of existing development.



**TRANSPORTATION CHOICES**

Communities with a broad range of mobility options allow all residents to enjoy comfortable, independent lifestyles. Public transit, bicycle facilities and pedestrian-oriented streets can lead to improvements in community health, energy conservation and reductions in greenhouse gas emissions.



**PREDICTABLE DEVELOPMENT DECISIONS**

The practice of smart growth is dependent on private sector investment. Local governments promote quality development by providing economic incentives, streamlining projects, investing in infrastructure and establishing efficient land use policies.



**COMMUNITY AND STAKEHOLDER COLLABORATION**

To create great places, development should reflect the desires of the community. Collaboration between residents, developers and civic leaders promotes development that fits the community's sense of how it wants to grow.



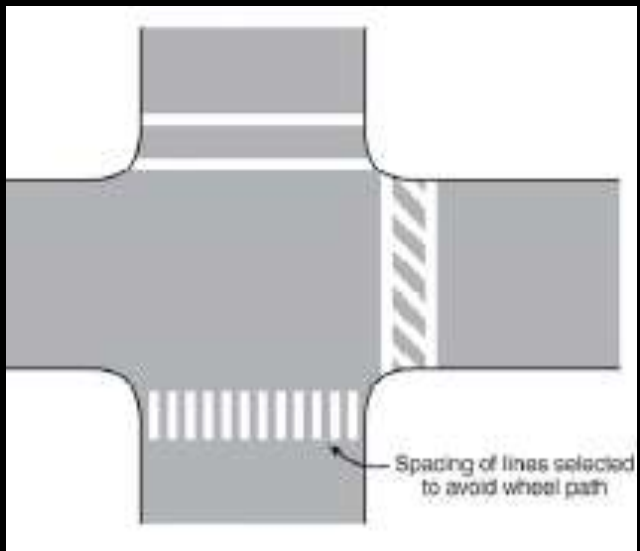
## Goals (City of San Diego's Mobility Element General Plan)

- Create a project where walking is a viable travel choice, particularly for trips of less than one-half mile.
- Create a safe and comfortable pedestrian environment.
- Create a complete, functional, and interconnected pedestrian network, that is accessible to pedestrians of all abilities.
- Create pedestrian friendly streets, sites and buildings.

# Needed for D, EF & G

# Crosswalks / Signals

Improvement  
**D12**  
**EF12**  
**G10**





**Needed for D, EF & G**

# **Pedestrian Connectivity/Access**

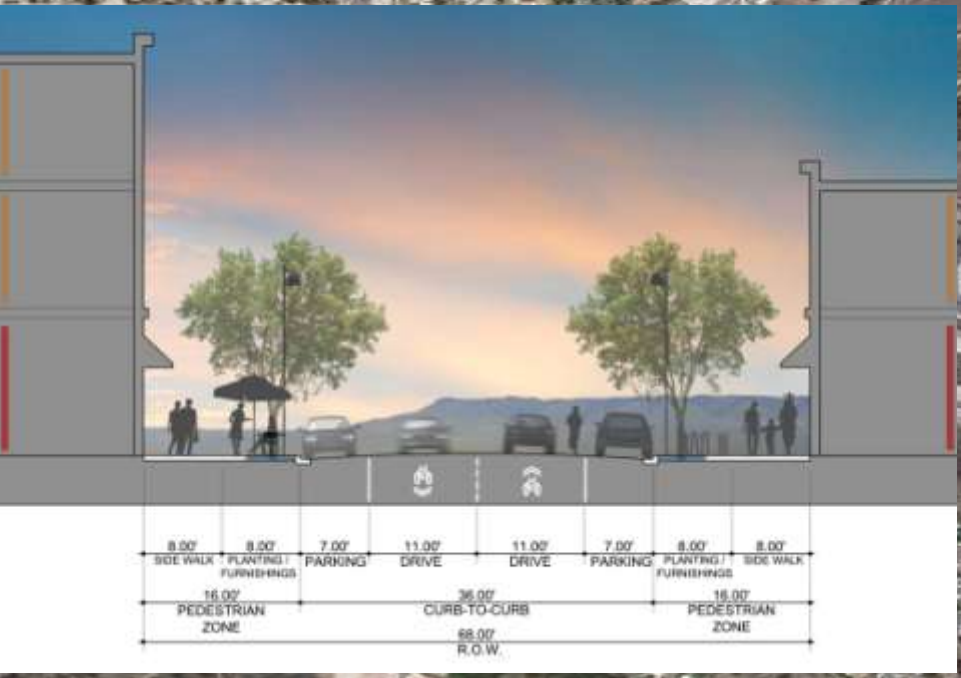
Improvement  
**D12**  
**EF12**  
**G10**



**Needed for D, EF & G**

Improvement  
**D12**  
**EF12**  
**G10**

**Pedestrian connectivity to the River and surrounding parks should be emphasized**



**Needed for D, EF & G**

Improvement  
**D12**  
**EF12**  
**G10**

**Pedestrian connectivity to the transit should be emphasized by providing additional connections to the transit station and the bus stops**



**Needed for D, EF & G**

# ADA Accessibility

Improvement  
**D12**  
**EF12**  
**G10**



# PROBLEM

# Bicycle Circulation Constraints

- **I-8 / Mission Gorge Road Interchange**

- **Crosswalks / Signals**

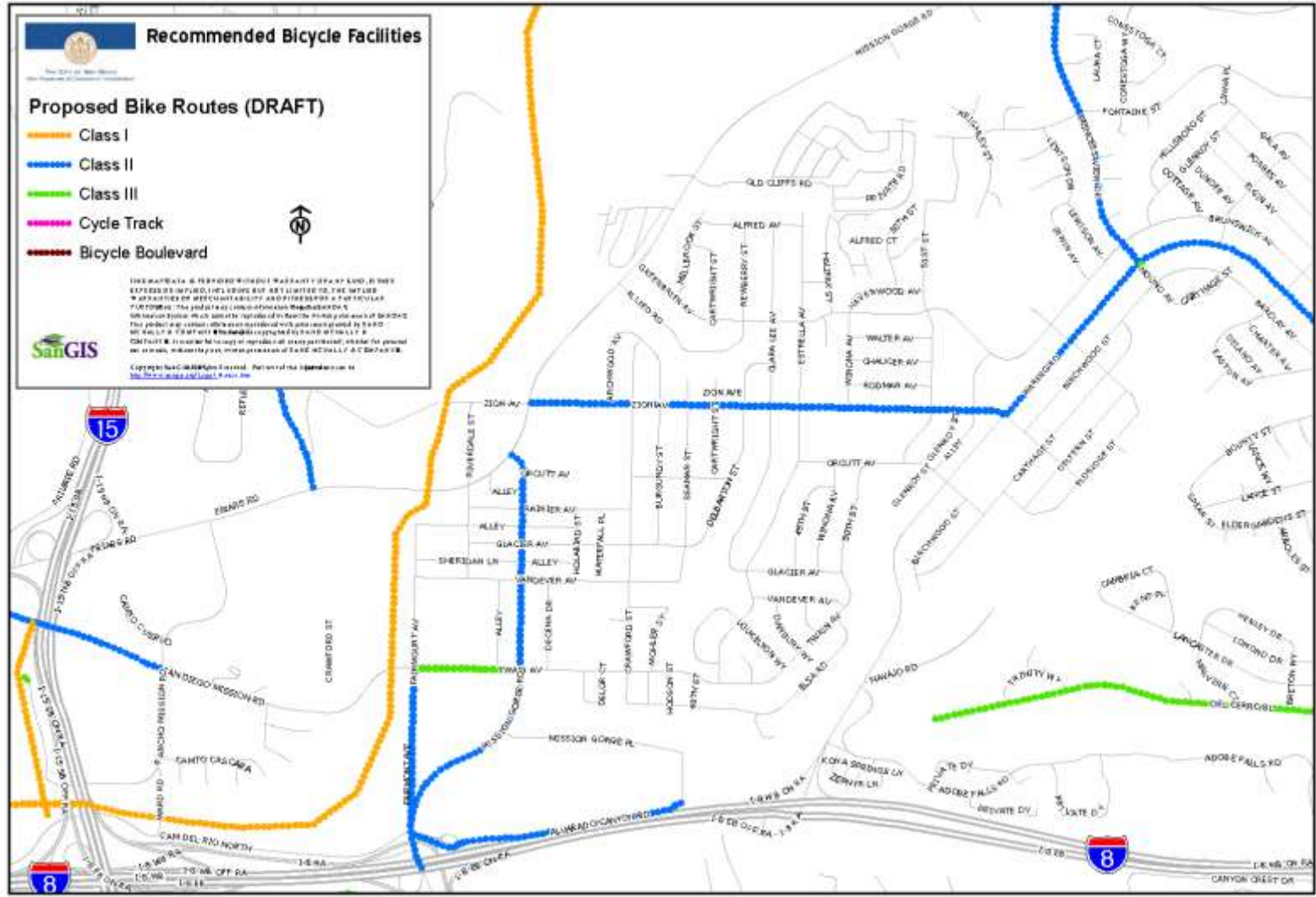
- **Bicycle Circulation**



# Needed for D, EF & G

# Implement the Regional Bicycle Plan

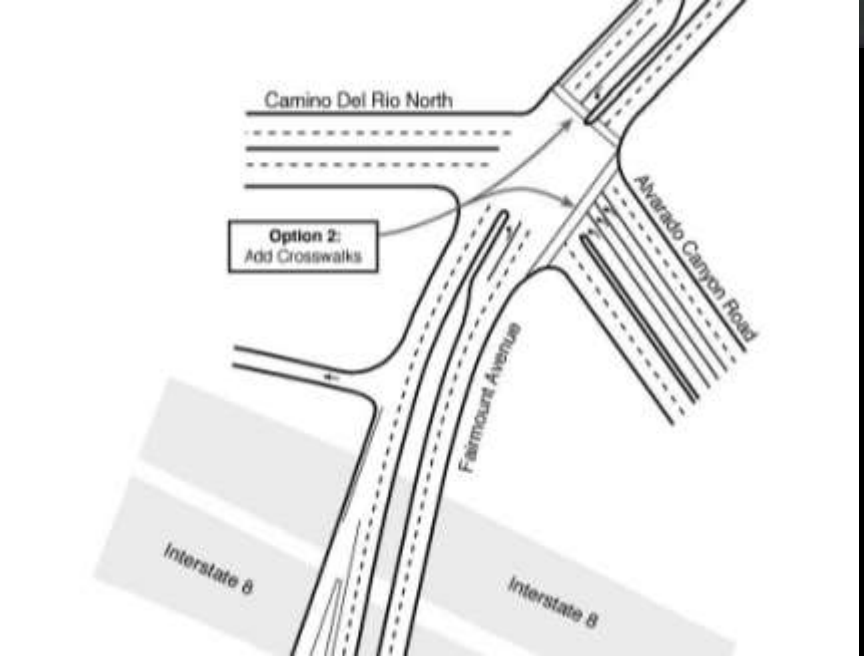
Improvement  
**D13**  
**EF13**  
**G11**



**Needed for D, EF & G**

# Improve Existing Bike Trail Crossing

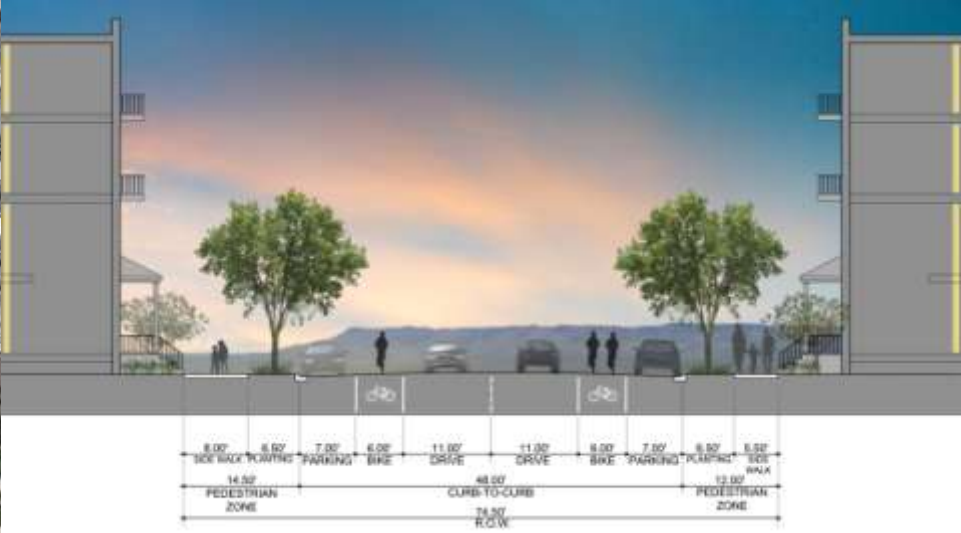
Improvement  
**D13**  
**EF13**  
**G11**



**Needed for D, EF & G**

Improvement  
**D13**  
**EF13**  
**G11**

**Bicyclist's connectivity to the River and surrounding parks should be emphasized**





**Needed for D, EF & G**

Improvement  
**D13**  
**EF13**  
**G11**

**Bicyclist's connectivity to the transit should be emphasized**



**Needed for D, EF & G**

# Bicycle Parking

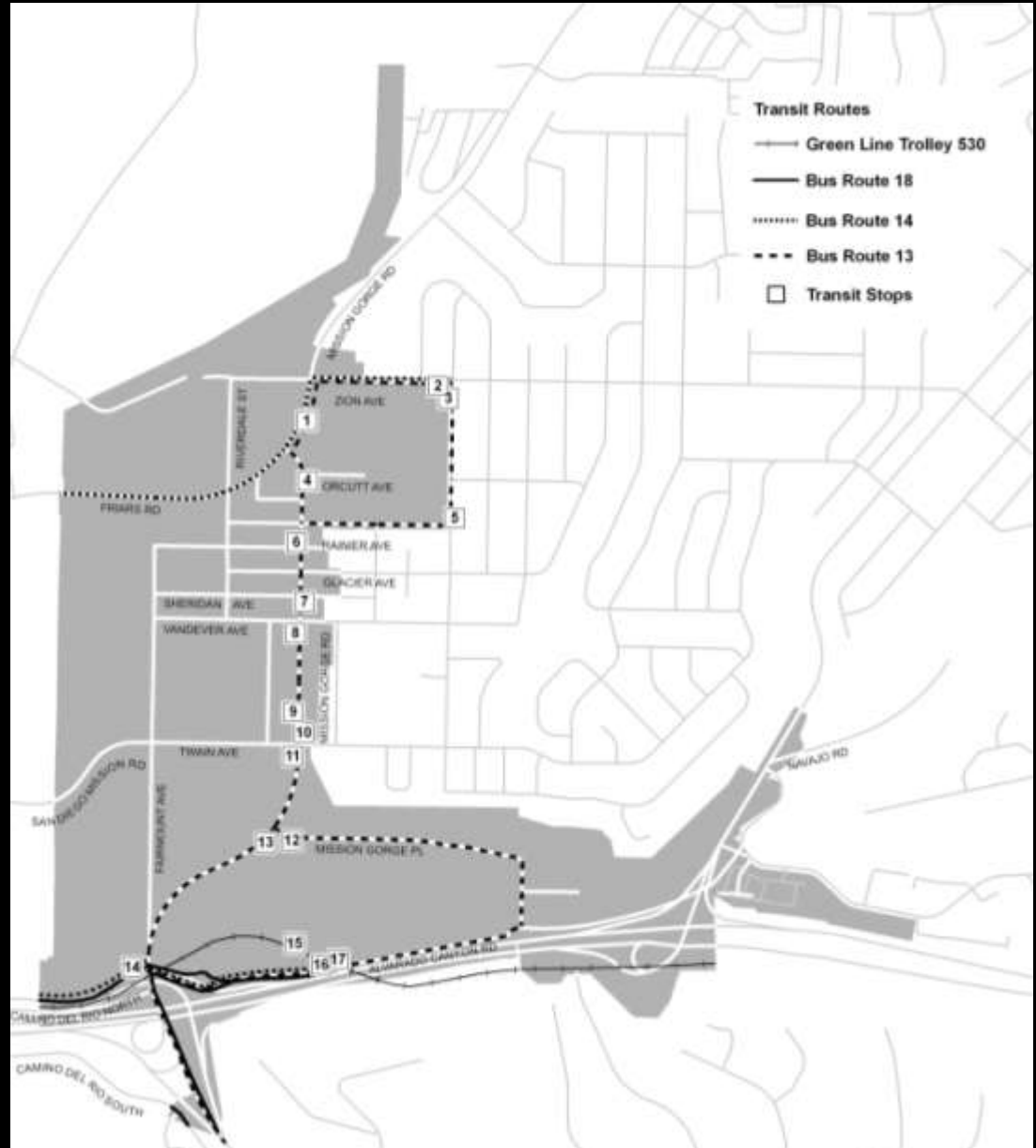
Improvement  
**D13**  
**EF13**  
**G11**



# PROBLEM

# Transit Issues

- **Transit Ridership**
- **Pedestrian/ Bicycle Access**
- **Buses along with vehicular traffic**



# Needed for D, EF & G

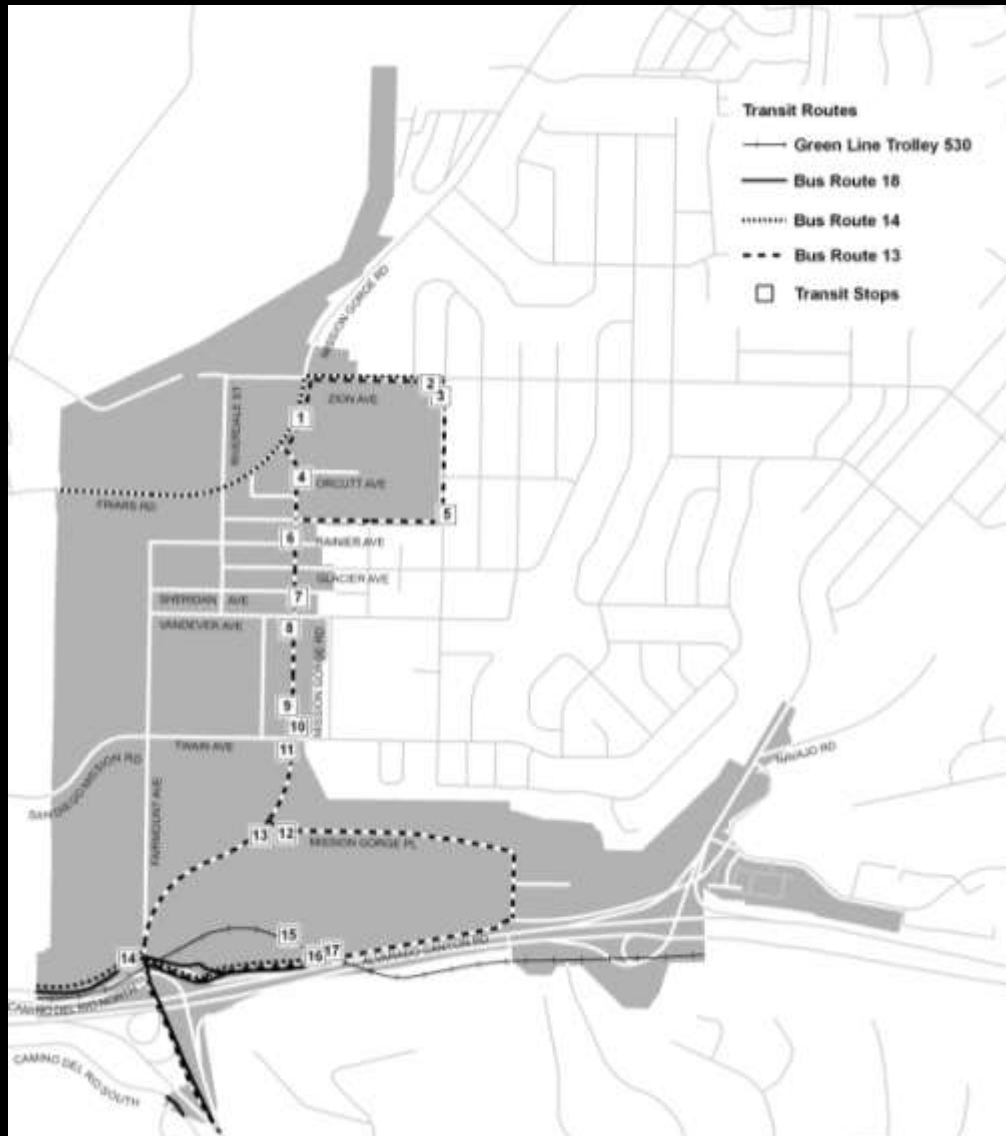
# Transit Improvements

Improvement

D14

EF14

G12



Pedestrian/bicycle circulation improvements should be considered.

All streets which are directly served by transit should be designed or retrofitted to serve pedestrians.

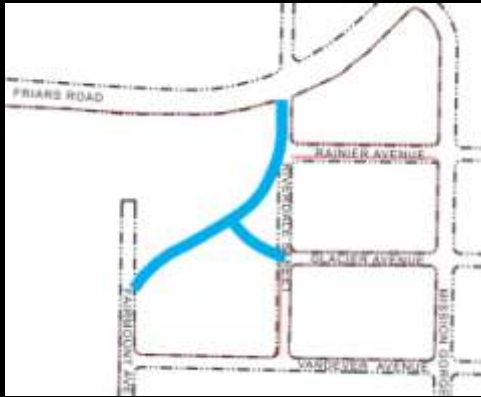
Provide sufficient ADA compliant pedestrian access to all the mass transit facilities.

Shelters should be considered at all bus stops.

Transit Priority Measures should be installed along Mission Gorge Road.

Evaluate transit services based on the future ridership.

# Other Improvements To Be Considered



## Fairmount Avenue / Friars Road Connection

- **One-way Couplet:** Not a traffic solution, but can be accommodated, if desired.
- **Mission Gorge Place extension to San Diego Mission Road**
- **Site specific TDM strategies (ex: promote carpool and vanpool programs, alternative work hours, telecommuting, Transit for development projects, Parking Management, Transit pass or transit discounts)**

# Next Steps

- **Selection of Land Use Alternative (Oct)**
- **CEQA**
- **Community Plan Amendment**
- **Zoning Program**
- **Public Facilities Financing Plan**

TASK	FISCAL YEAR 2011												FISCAL YEAR 2012											
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
<b>COMMUNITY PLAN AMENDMENT</b>																								
Prepare plan elements, land use options, and travel forecast																								
Distribute preliminary public review draft CPA																								
Distribute public hearing draft CPA																								
<b>TRAFFIC ANALYSIS</b>																								
Existing & 2030 Community Plan (Adopted)																								
Alternative D, E/F & G																								
Impact study for CEQA																								
<b>CEQA</b>																								
Initial Study																								
Scoping and Notice of Preparation																								
Prepare special studies and draft EIR (3 Screenchecks)																								
Distribute draft EIR																								
Prepare responses and distribute final EIR																								
<b>ZONING PROGRAM</b>																								
Analyze appropriate citywide zones/Amendments to CPIOZ																								
<b>PUBLIC FACILITIES FINANCING PLAN</b>																								
Prepare PFFP																								
<b>PUBLIC HEARING PROCESS</b>																								
PC Consideration																								
CC Adoption and EIR certification																								



**Thank You  
Questions???**

