

# Level 2 & 3 Alternatives Screening Results

## Level 2 US 85 PEL Alternatives Screening

#	Level 2 Screening Criteria	Level 2 Alternatives								
		Full Corridor	Highlands Ranch Parkway (HRP) to C-470					Titan to HRP		SH 67 to Titan
		No Action - FEIS Alternative	A1 - Expressway	A2 - Expressway w/ Access Options	A3 - Split Pair Eastside of RR	A4 - Split Pair Westside of RR	A5 - Bypass	B1 - Improved US 85 w/ ¼ Movements	B2 - Improved US 85 w/ Right in/Right out	C1 - 4 Lane US 85 w/ Access Options
1	Provides Long-term Capacity & Operational Solution	Unsatisfactory	Unsatisfactory	Good	Fair	Fair	Good	Unsatisfactory	Fair	Fair
2	Results in Improved Travel Safety	Unsatisfactory	Poor	Good	Good	Good	Good	Poor	Good	Fair
3	Provides Reasonable Access	Fair	Unsatisfactory	Fair	Poor	Unsatisfactory	Good	Poor	Poor	Fair
4	Expands Multi-Modal Options for All People	Poor	Fair	Fair	Good	Fair	Good	Fair	Fair	Fair
5	Accommodates Land Use Goals & Plans	Unsatisfactory	Poor	Poor	Poor	Poor	Poor	Fair	Fair	Fair
6	Enhances Life/Safety for NW Douglas Co. Residents	Unsatisfactory	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair
7	Supports the Preservation of the Environment	Fair	Poor	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory	Poor	Poor	Poor
8	Creates a Sustainable Solution	Good	Unsatisfactory	Poor	Poor	Poor	Poor	Poor	Poor	Poor
9	Ensures Implementation	Good	Poor	Poor	Fair	Unsatisfactory	Fair	Fair	Fair	Fair
	Advance Alternative to Level 3?	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes

**Rationale**

Baseline Condition

Interchanges too closely spaced, creating operational safety issues that would require closure of several access points.

Meets P&N, improved safety, and multi-modal options expanded.

Bridges or tunnels needed for this alternative too costly to ensure implementation, and does not provide reasonable access.

Doesn't meet P&N by not adequately improving travel safety or providing long-term operational capacity, but logical as an interim condition.

Improved safety, and can be phased over time with B1.

Accommodates all criteria at an appropriate level.

Meets P&N, provides long-term travel capacity, and travel safety improved.

Meets P&N, provides long-term travel capacity, reasonable access, and travel safety, multi-modal options expanded.

Note: These are the DRAFT results of the Project Team's alternative development, criteria evaluation and screening process. These results will not be finalized until after review and comment by FHWA, CDOT, the public and other project stakeholders.

## Level 3 US 85 PEL Alternatives Screening

#	Level 3 Screening Criteria	Level 3 Mainline Alternatives						Level 3 Interchange Alternatives				
		Full Corridor	Highlands Ranch Parkway (HRP) to C-470				Titan to HRP	Titan Interchange			Airport Road	
		No Action - FEIS Alternative*	Enhanced Expressway	1-way Pair	Bypass	Titan to HRP	SH 67 to Titan	Continuous Flow	Partial Cloverleaf	Directional Ramp	At-Grade	Grade Separated
1	Mainline or Interchange LOS	Poor	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
2	Peak hour cross-street LOS and delay	Unsatisfactory	Fair	Poor	Fair	N/A**	Fair	N/A***	N/A***	Poor	Poor	N/A**
3	Roadway crash reduction	Unsatisfactory	Fair	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor
4	Distance for out-of-direction travel	Good	Good	Poor	Good	Poor	Good	Good	Good	Good	Good	Good
5	Bicycle/Pedestrian comfort level	Unsatisfactory	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
6	Protects existing land uses	Good	Poor	Unsatisfactory	Unsatisfactory	Fair	Fair	Fair	Unsatisfactory	Fair	Fair	Fair
7	Average travel time (emergency response)	Poor	Good	Poor	Good	Good	Fair	Good	Good	Good	Fair	Good
8	Park property and open space impacts	Good	Poor	Poor	Poor	Poor	Good	Poor	Poor	Poor	Good	Good
9	Wetlands and waterways impacts	Good	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor
10	Prairie dog town impacts	Good	Good	Poor	Poor	Good	Good	Good	Good	Good	Good	Good
11	Accommodates wildlife crossing needs	Poor	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
12	Reduction of throw-away - compatible w/ existing	Good	Good	Unsatisfactory	Good	Good	Good	Good	Good	Good	Good	Poor
13	Construction costs	Good	Fair	Poor	Poor	Good	Good	Good	Good	Fair	Good	Poor
14	Maintenance of traffic during construction	Good	Poor	Good	Good	Poor	Poor	Good	Good	Good	Poor	Good
	Advance Alternative?	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

**Rationale**

Baseline condition

Excessive out-of-direction travel, not compatible with existing investment, and longer average travel time compared to the other alternatives.

Operationally acceptable with no unsatisfactory impacts.

Operationally acceptable with no unsatisfactory impacts.

Operationaly acceptable with no unsatisfactory impacts.

Improved crash reduction and average travel time, and more compatible with existing investment.

LOS acceptable, appropriate travel time, and maximizes use of the existing facility.

No unsatisfactory impacts, but directional ramp option is safer and provides more capacity.

Impacts to existing land uses too high, and unsatisfactory peak hour cross-street LOS and delay.

Mainline and cross-street LOS acceptable with no unsatisfactory impacts.

Better suited for reduction of delay and operations/safety associated with railroad conflict, and better accommodates future land uses.

Supports both existing and future land uses.

Note: These are the DRAFT results of the Project Team's alternative development, criteria evaluation and screening process. These results will not be finalized until after review and comment by FHWA, CDOT, the public and other project stakeholders, and additional value engineering.

\* The FEIS Alternative includes 6 lanes with auxiliary lanes, additional access controls, and bicycle and pedestrian facilities

\*\*All local access is right in/right out.

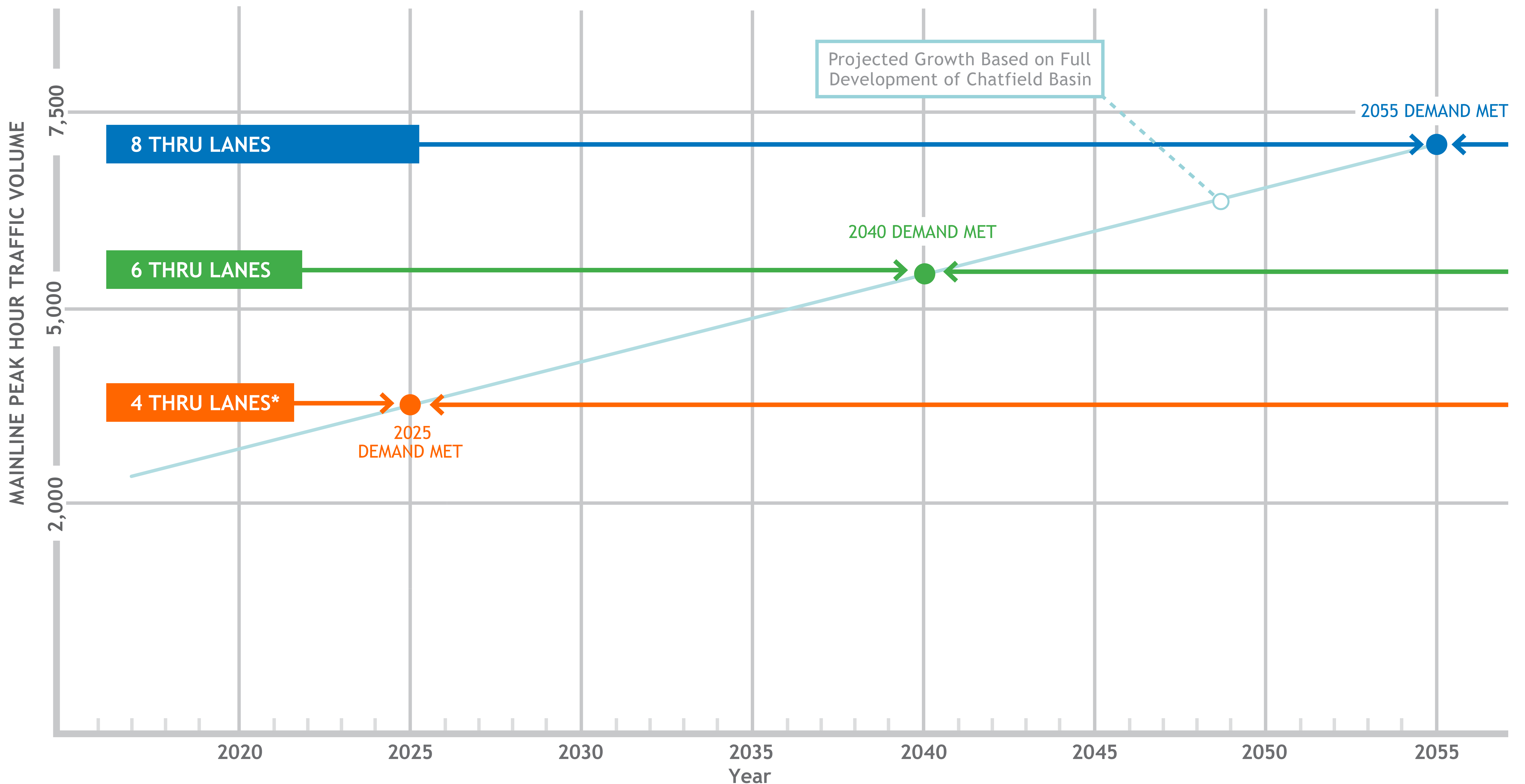
\*\*\*N/A- Cross-street LOS and delay are analyzed as part of the interchange LOS condition.

# DEMAND AND CAPACITY COMPARISON

FIGURE PROVIDES COMPARISON OF HOW DIFFERENT US-85 IMPROVEMENTS CARRY TRAFFIC GROWTH EXPECTED WITH FULL DEVELOPMENT OF CHATFIELD BASIN

## HIGHLANDS RANCH PKWY TO C-470 COMPARISON

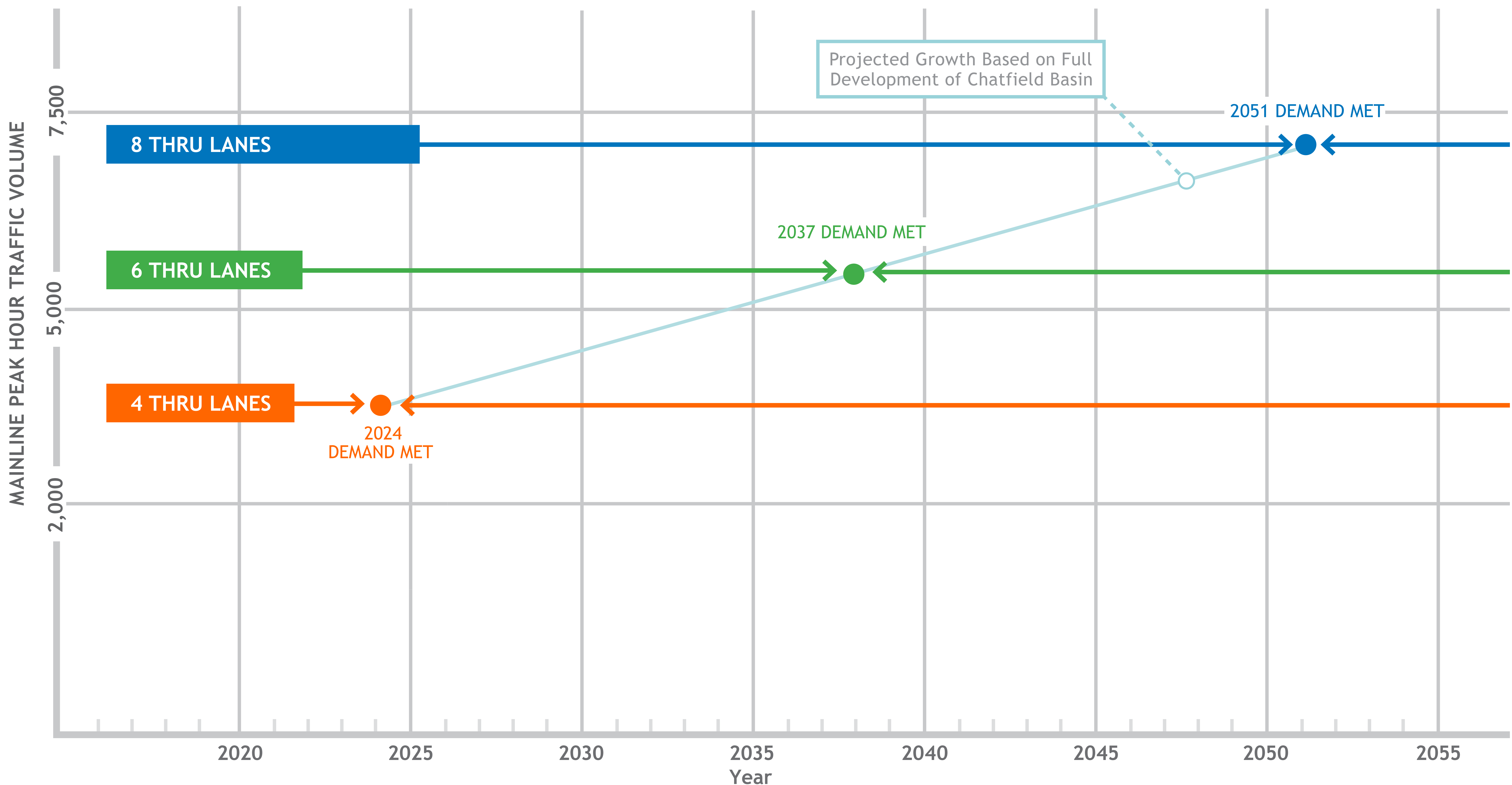
\* THE 2002 RECORD OF DECISION APPROVED **SIX THRU LANES, AUXILIARY LANES, AND DUAL LEFT TURN** OPTION.



# DEMAND AND CAPACITY COMPARISON

FIGURE PROVIDES COMPARISON OF HOW DIFFERENT US-85 IMPROVEMENTS CARRY TRAFFIC GROWTH EXPECTED WITH FULL DEVELOPMENT OF CHATFIELD BASIN

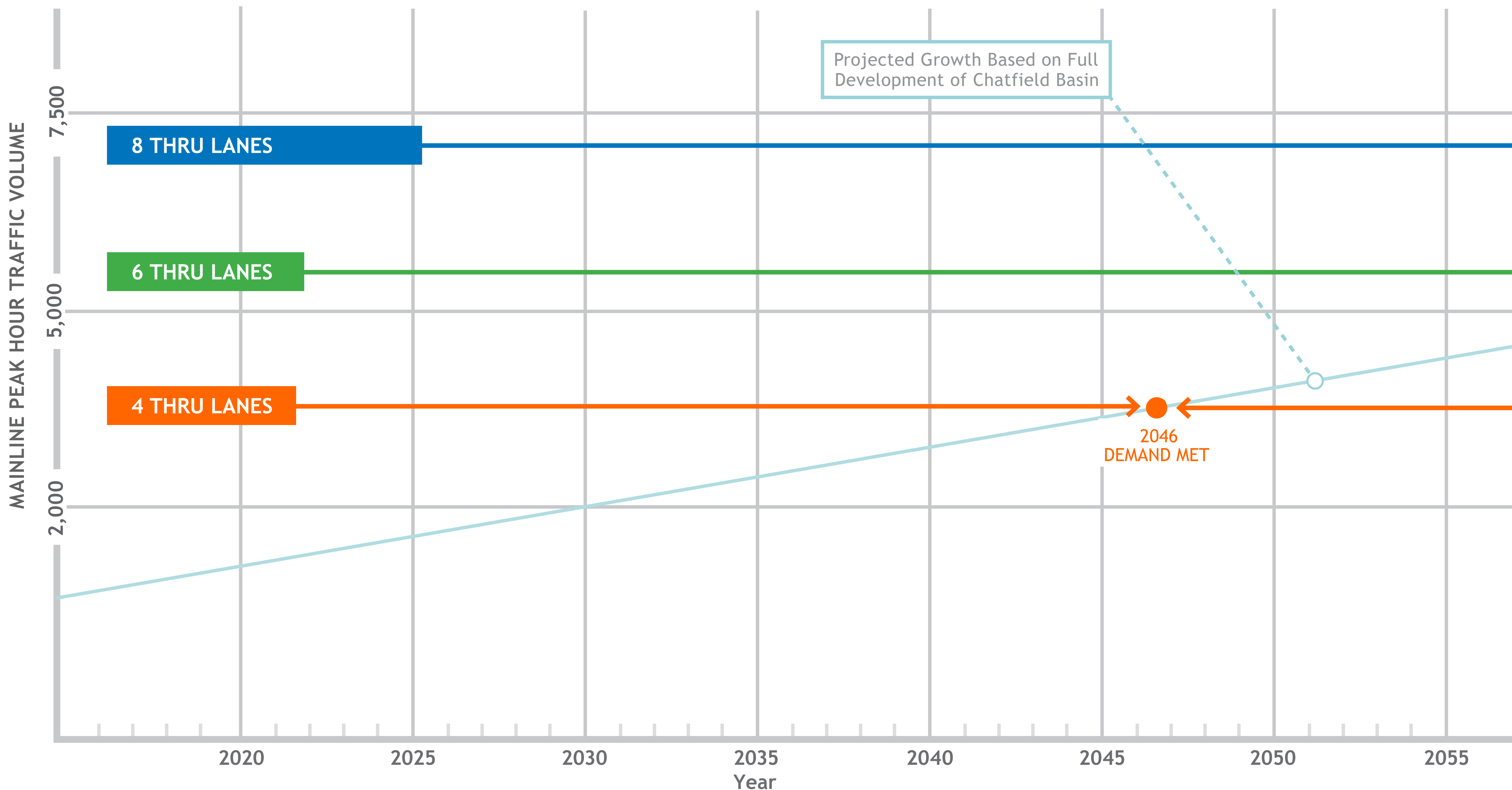
## TITAN PKWY TO HIGHLANDS RANCH PKWY



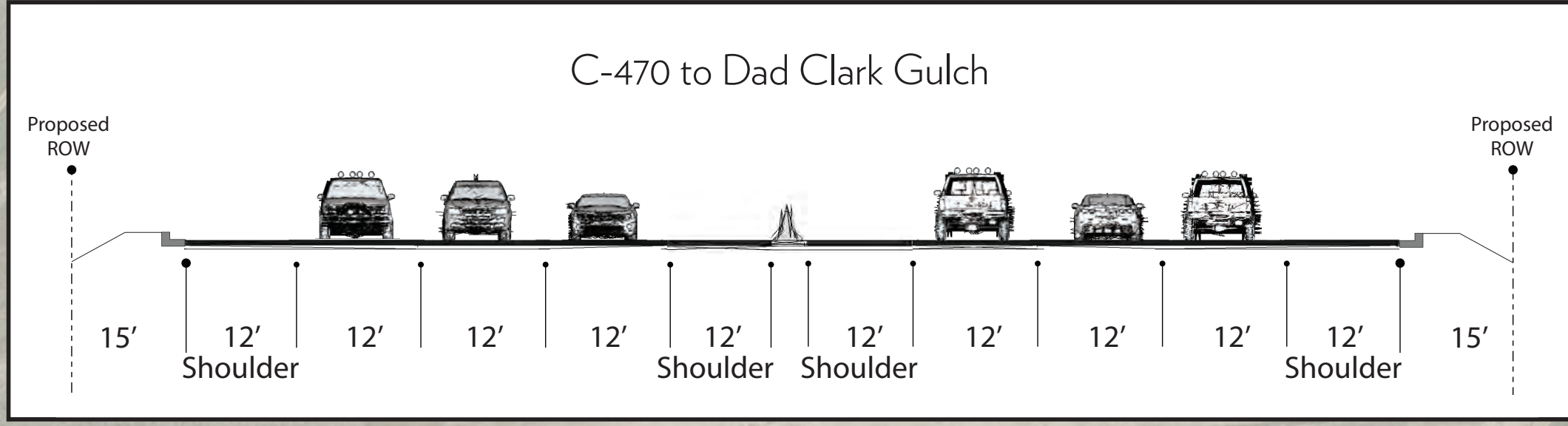
# DEMAND AND CAPACITY COMPARISON

FIGURE PROVIDES COMPARISON OF HOW DIFFERENT US-85 IMPROVEMENTS CARRY TRAFFIC GROWTH EXPECTED WITH FULL DEVELOPMENT OF CHATFIELD BASIN

## SH-67 TO TITAN

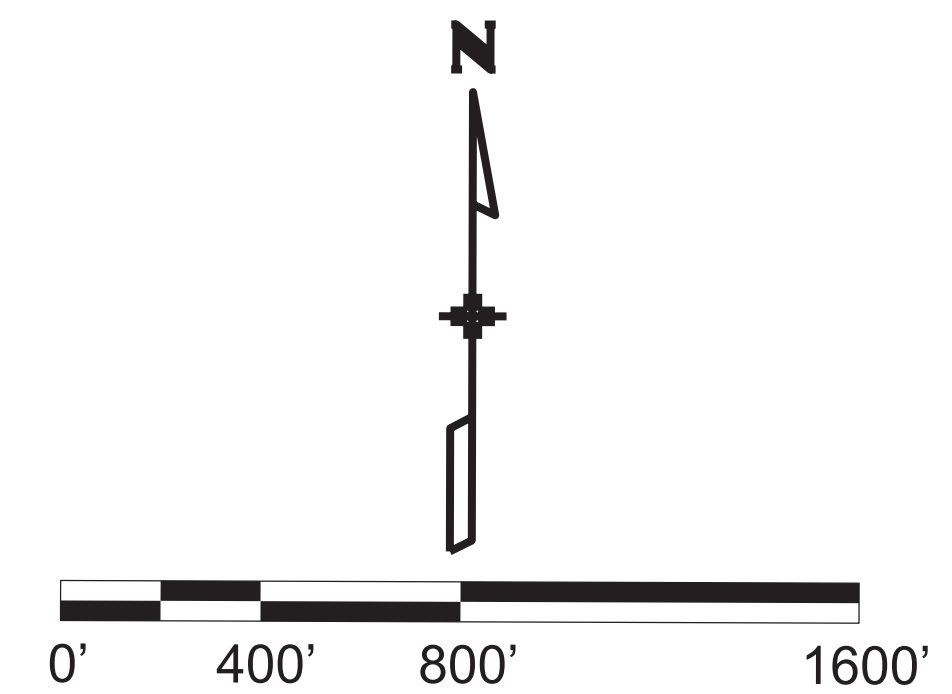
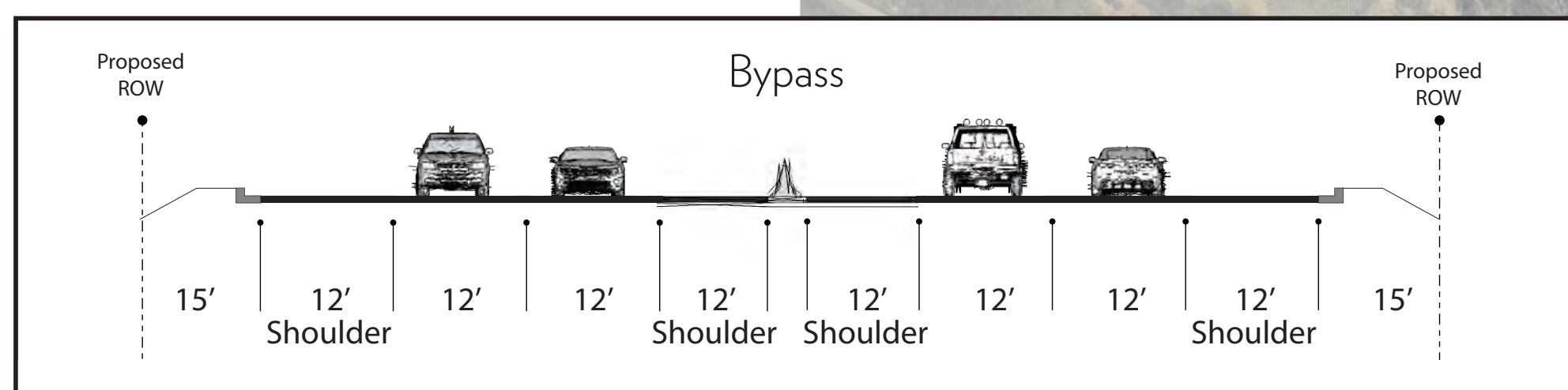
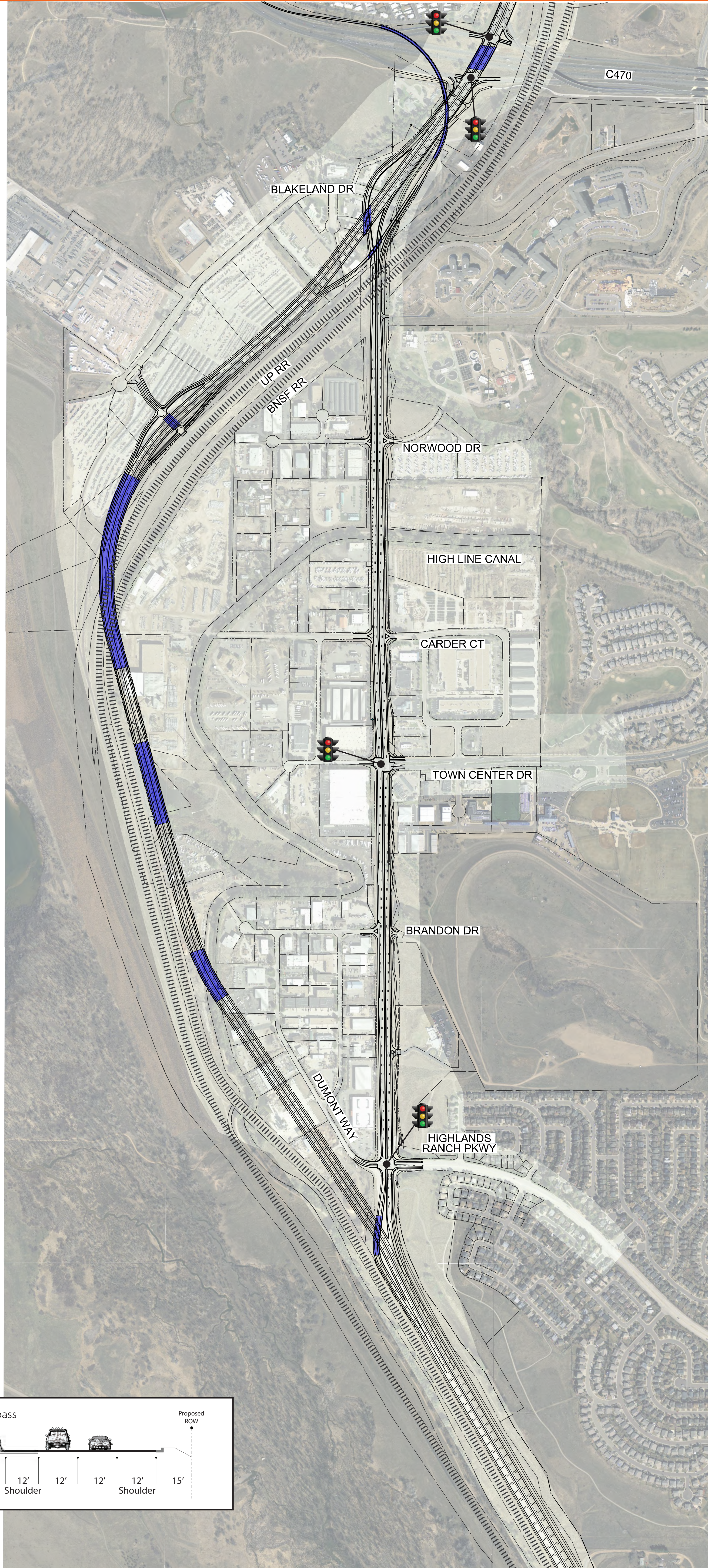




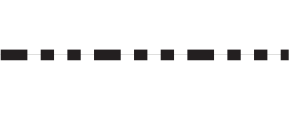


# C-470 to Dad Clark Gulch



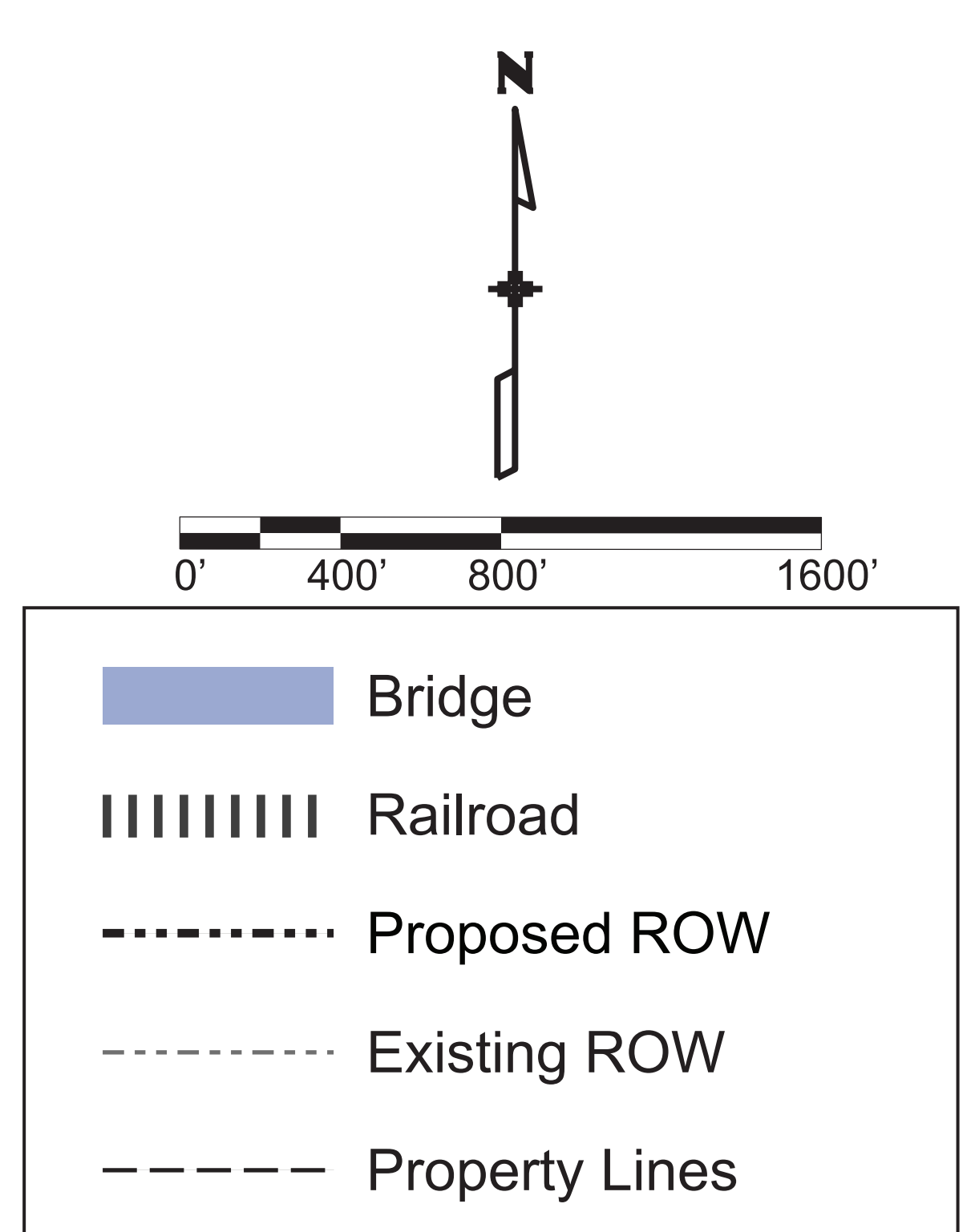
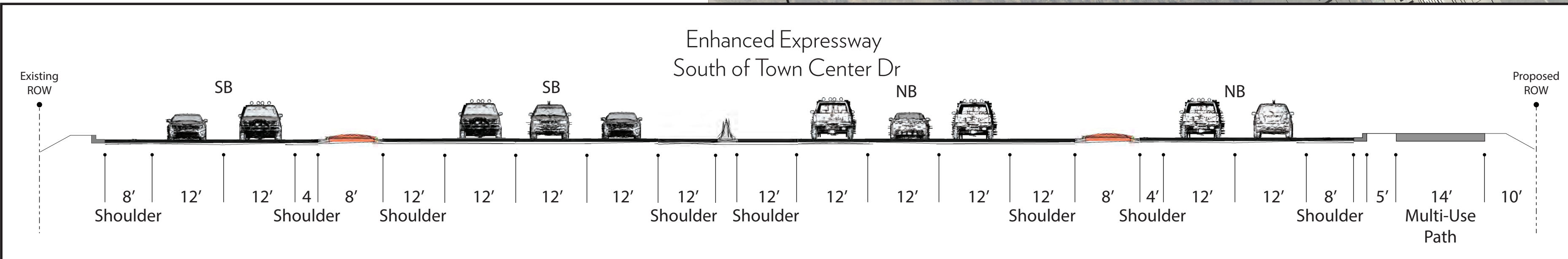
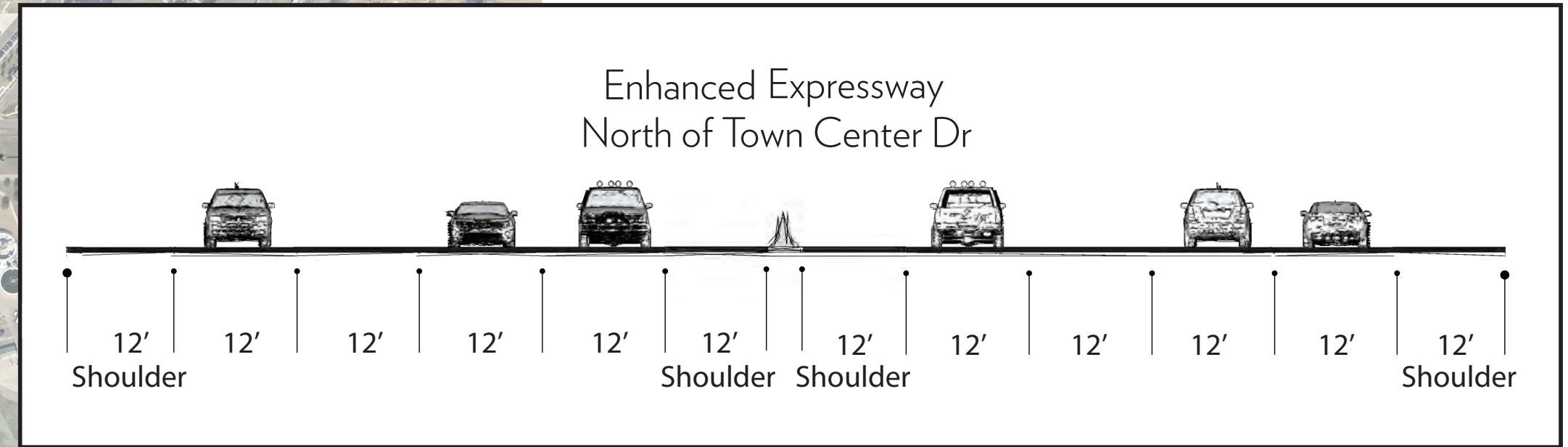
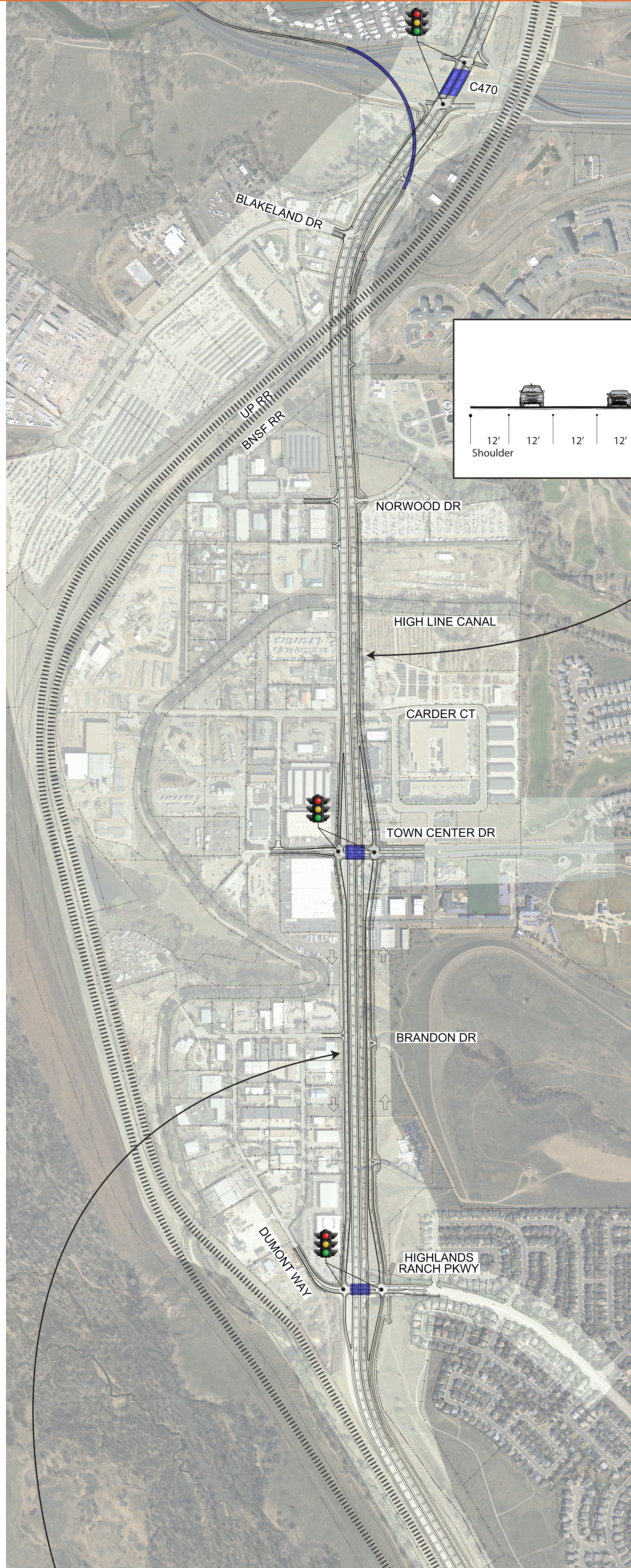
- Bridge
- Railroad
- Proposed ROW
- Existing ROW
- Property Lines

# Highlands Ranch Pkwy to C-470: Bypass

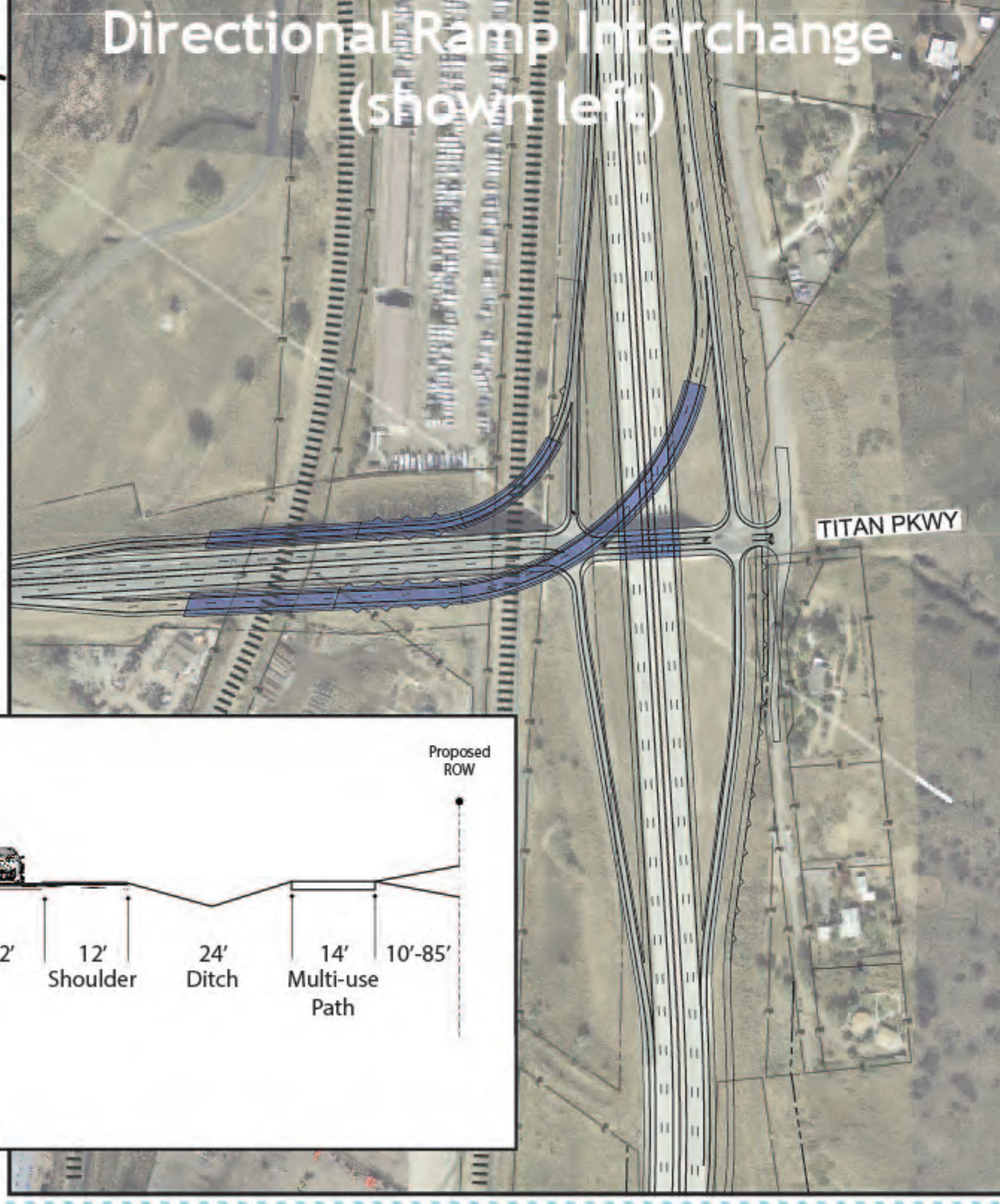
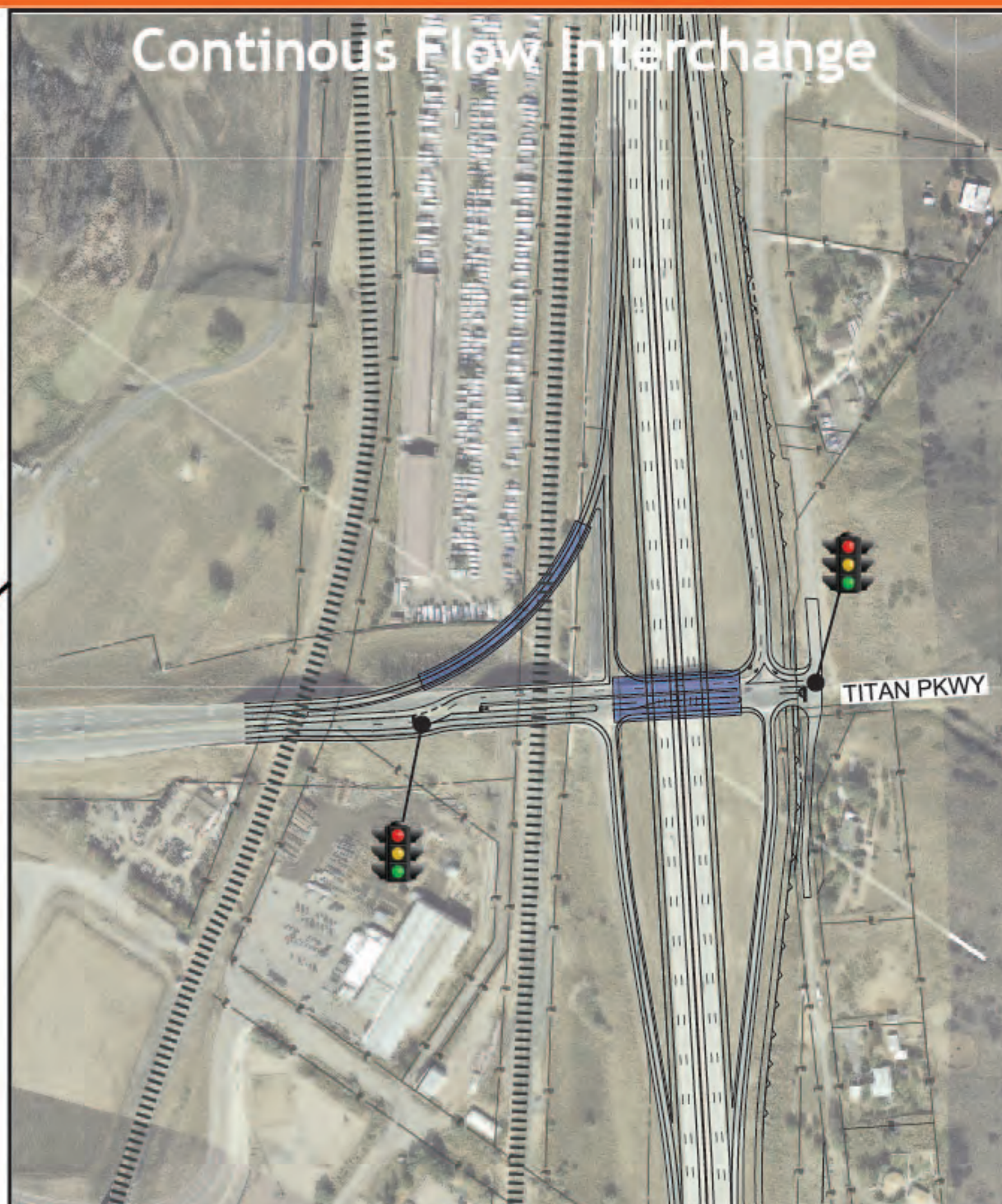


	Bridge
	Railroad
	Proposed ROW
	Existing ROW
	Property Lines

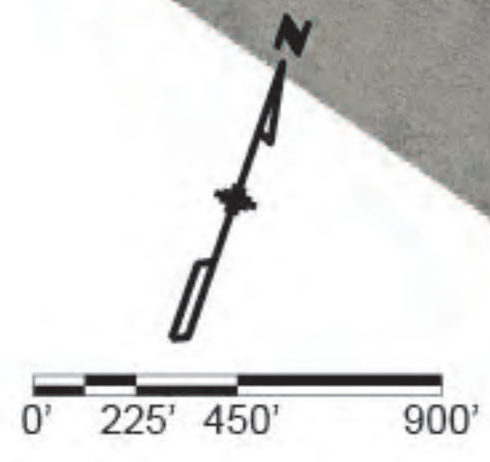
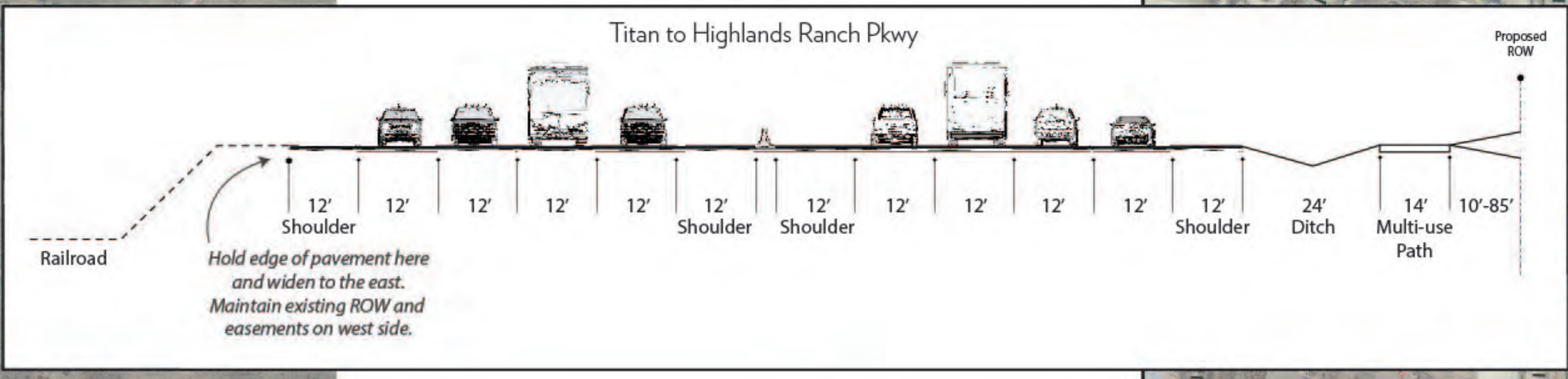
# Highlands Ranch Pkwy to C-470: Enhanced Expressway



# Titan to Highlands Ranch Pkwy

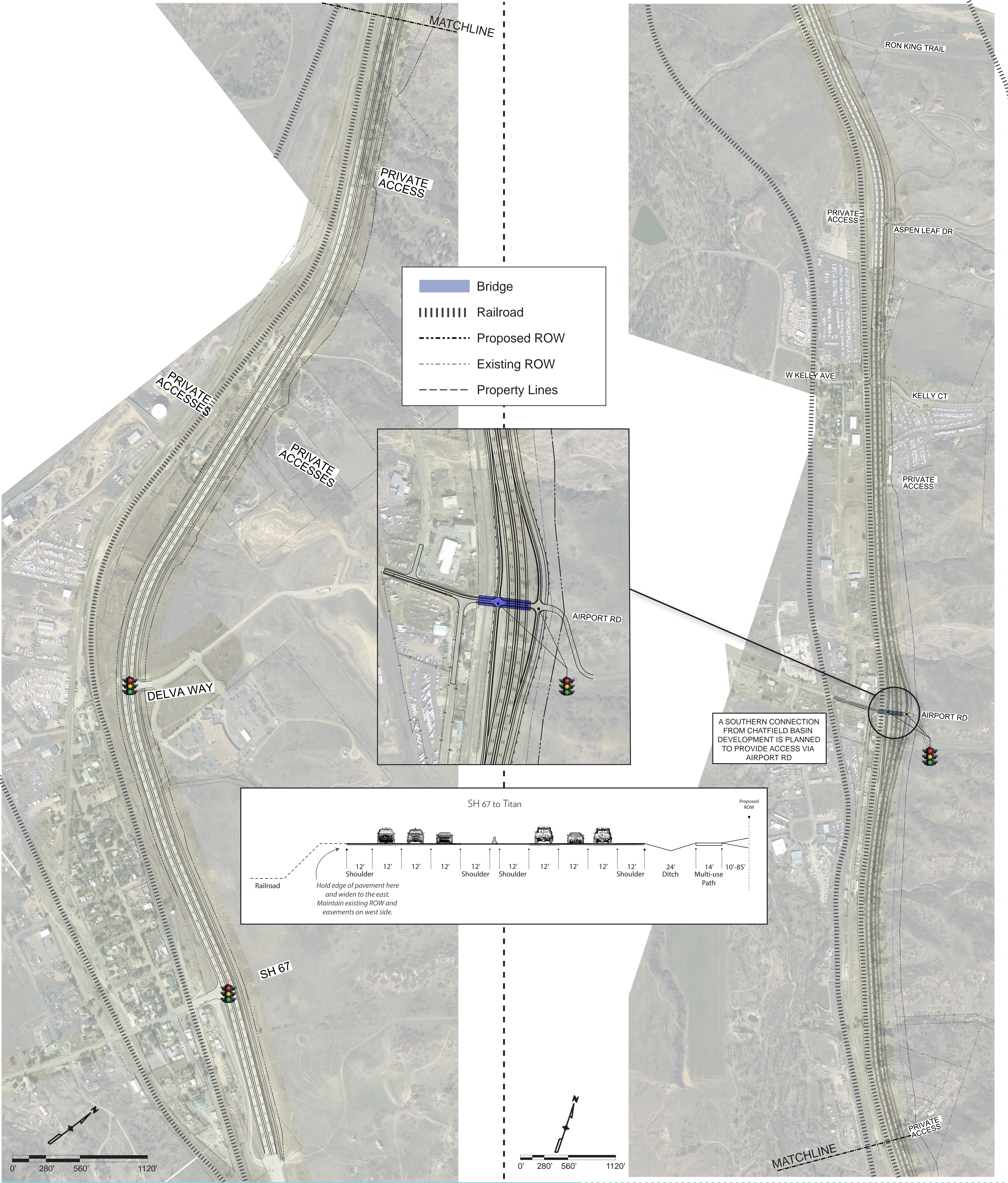


- Bridge
- Railroad
- Proposed ROW
- Existing ROW
- Property Lines

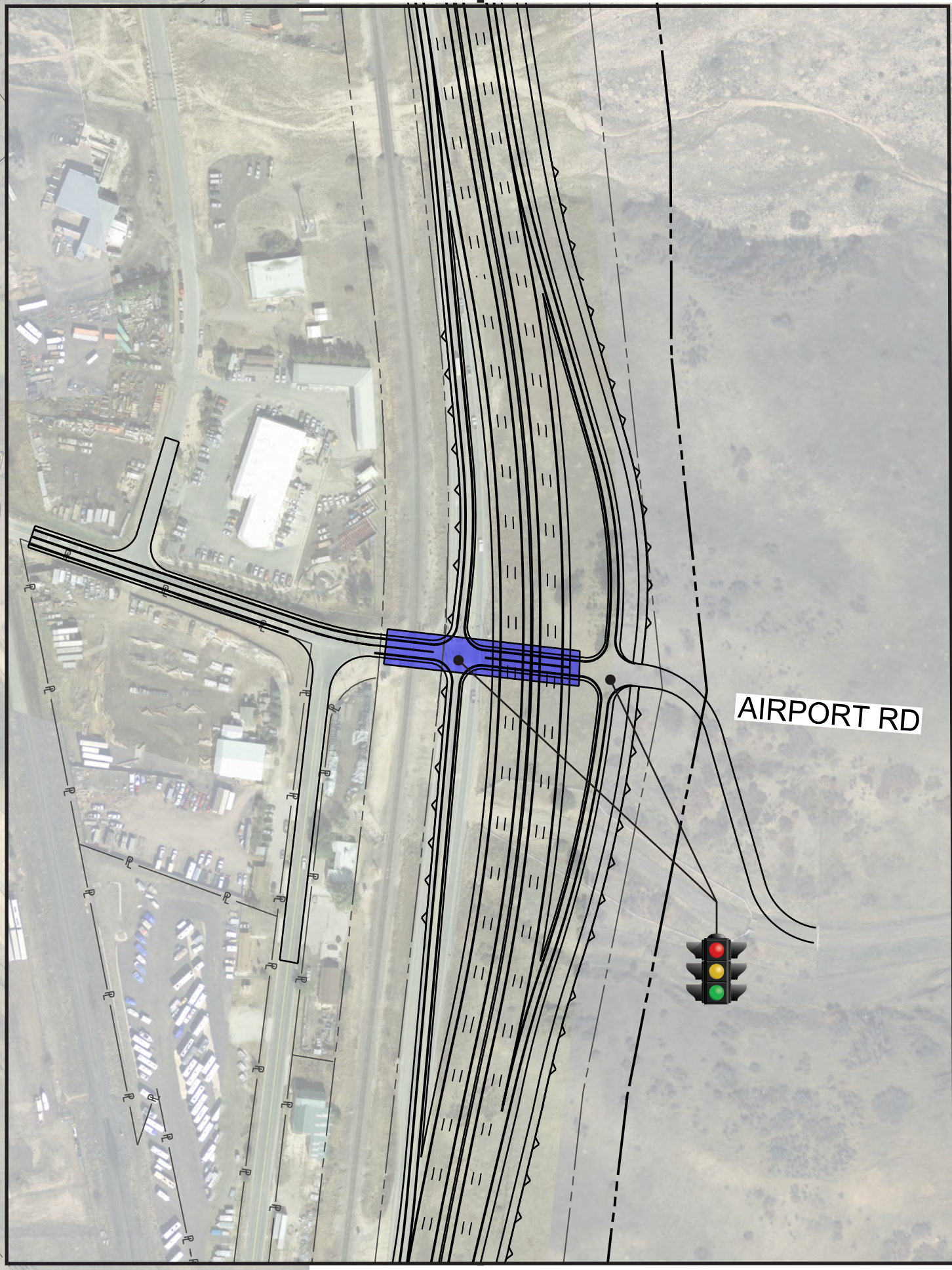




# SH 67 to Titan



	Bridge
	Railroad
	Proposed ROW
	Existing ROW
	Property Lines



A SOUTHERN CONNECTION FROM CHATFIELD BASIN DEVELOPMENT IS PLANNED TO PROVIDE ACCESS VIA AIRPORT RD

