

1st Avenue: River Road to Grant Road

1st Avenue Citizens' Task Force Meeting

6/18/26



Approval of May 21, 2026 Meeting Minutes



Call to the Audience



Refresh and Summary of Items to Discuss



General Outreach Update



1st Avenue – River Road to Grant Road

Community Outreach Phase III– 30% Design August 2026

Purpose

The purpose of this phase of outreach is to:

- Educate the community on this road project and the most up to date 30% Design .
- Collect community and business owners' feedback on proposed roadway options and elements.

Open House Event:

- In person open house event on **Wednesday, August 5, 2026, from 5:30 to 7:00 p.m.** at the Donna R. Liggins Recreation Center.

Online Public Meeting:

- This will be an online version of the open house where people can visit at their convenience from **July 30, 2026, thru August 31, 2026.**

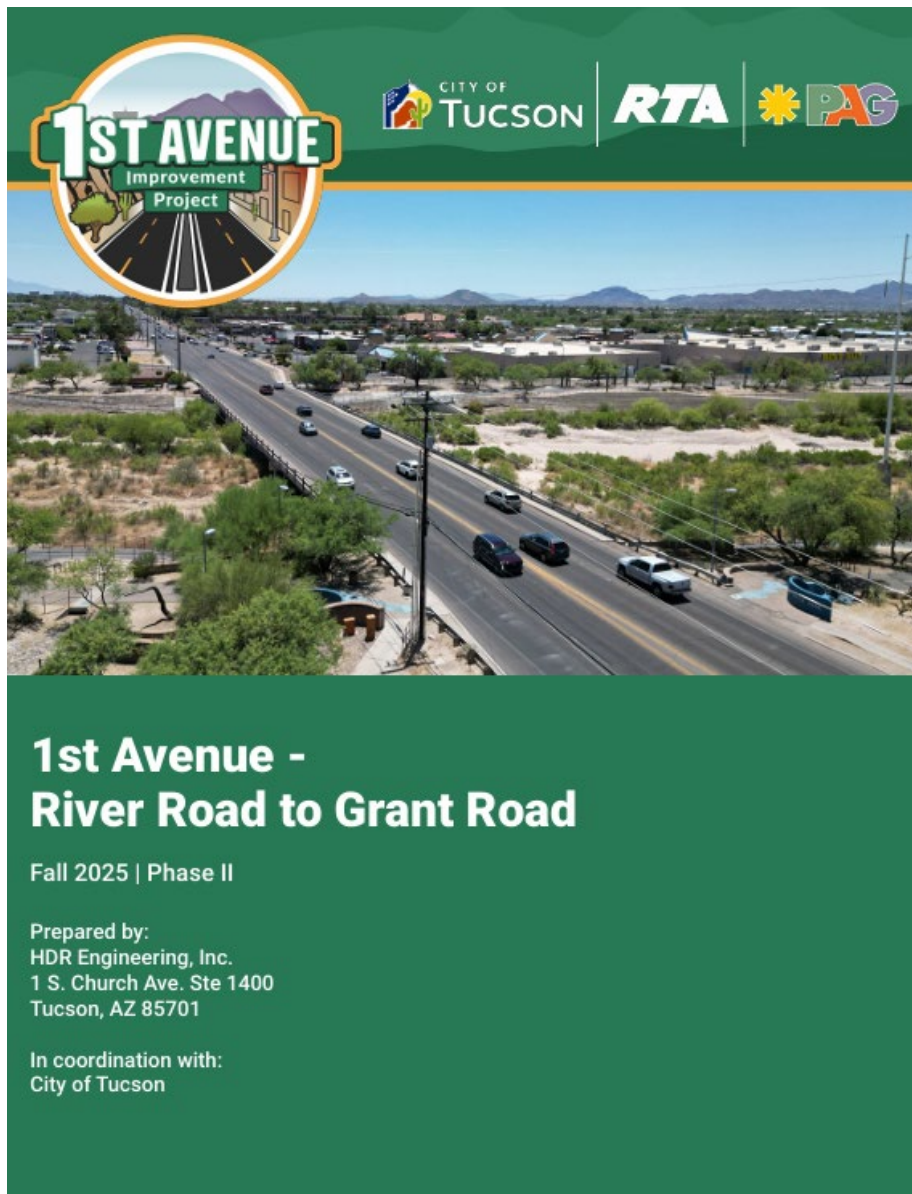
Community Events:

- We will attend the Rillito Heirloom Farmers Market on both **August 16th and August 30th.**
- Ward 3 Event – we will attend a Ward 3 community event during our outreach in August.

Business Outreach and Engagement:

- The RTA MainStreet Program will again talk with businesses along the corridor and work along with the project team as they need with businesses who will be directly affected by the design of the corridor.





**You will find the entire Phase II
Community Outreach Summary
Report on the project website:
“Resources” Page
under “Project Update”**

DCR Refinement Updates



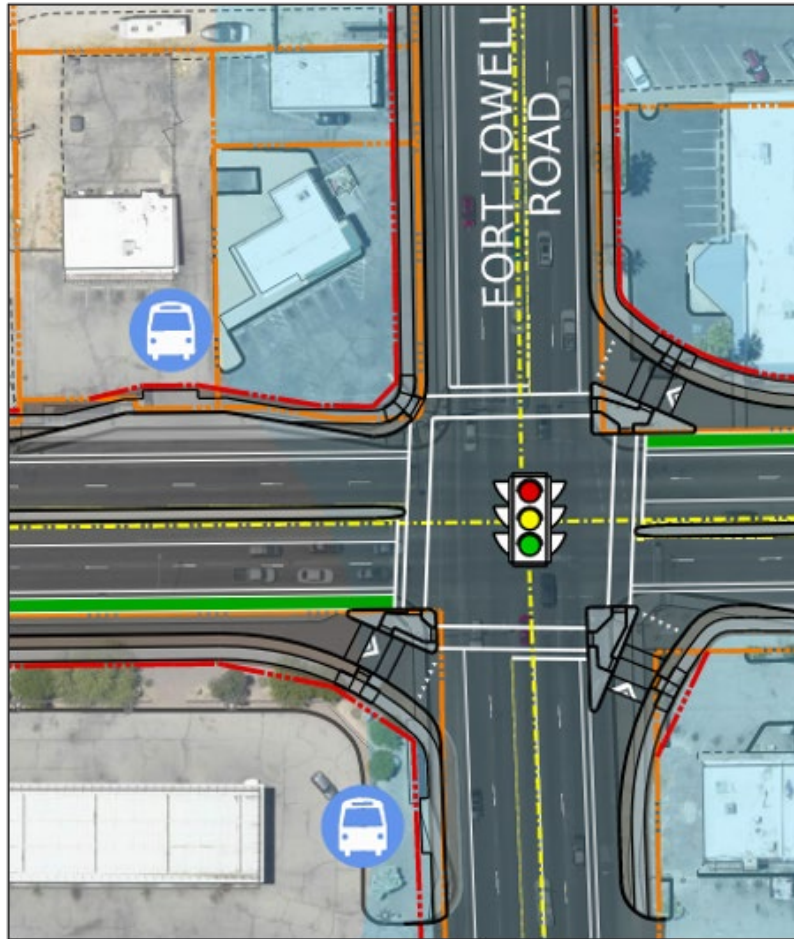
Design Refinements

- ☒ Address DTM Staff Comments
- ☒ Respond to Public Engagement Comments
- ☒ Balancing Safety, Mobility and R/W Impacts
- ☒ Bus Stop Locations and Details

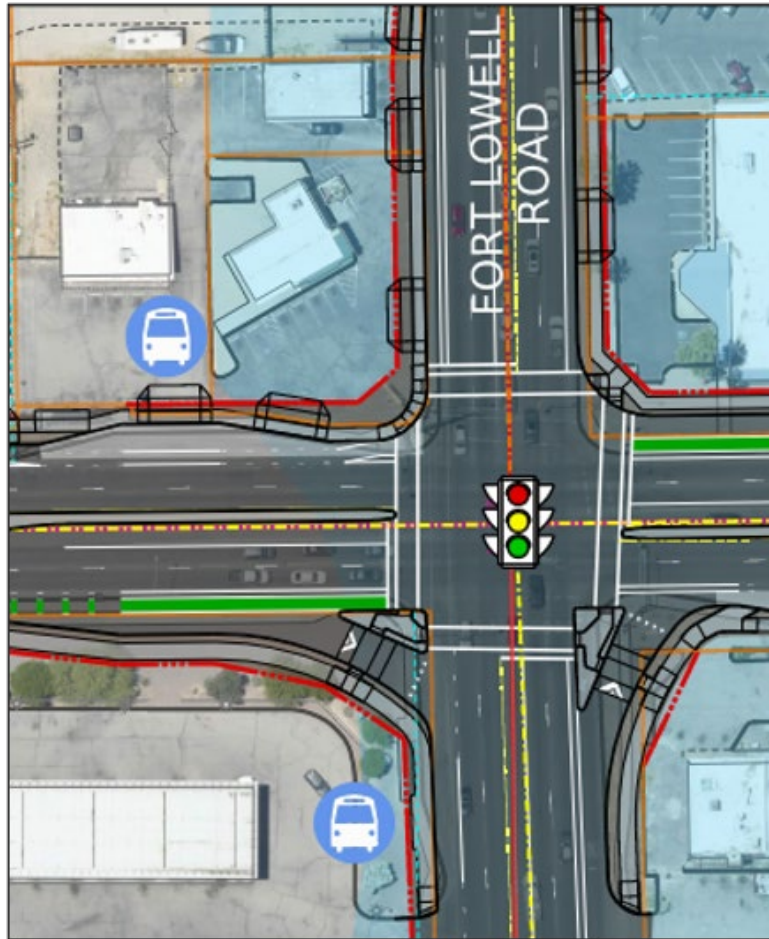
Detailed Design

- ☒ Bridge Substructure Design
- ☒ Bridge Superstructure Design
- ☒ Storm Drain System Design
- ☒ Street Lighting System Design
- ☒ Traffic Signal Design
- Property Access Design
- ☒ Project Phasing and Delivery

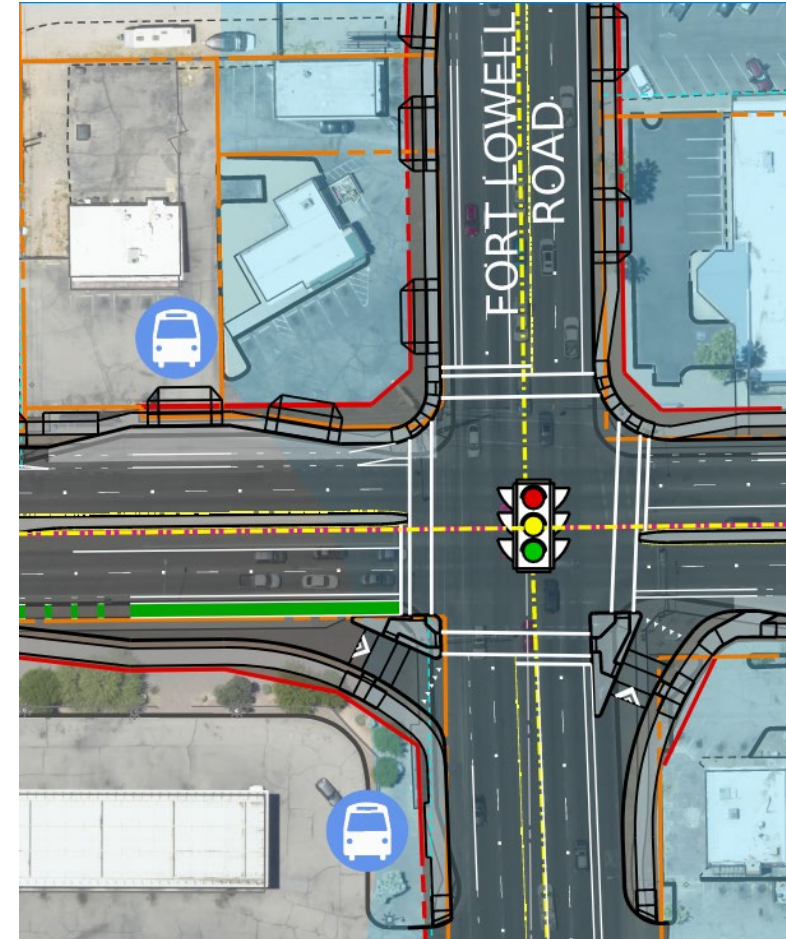
Right Turn Options



Channelized Right Turn Option



Non-Channelized Right Turn Option



Thru Right Turn Option

Updated 2055 Traffic Modeling

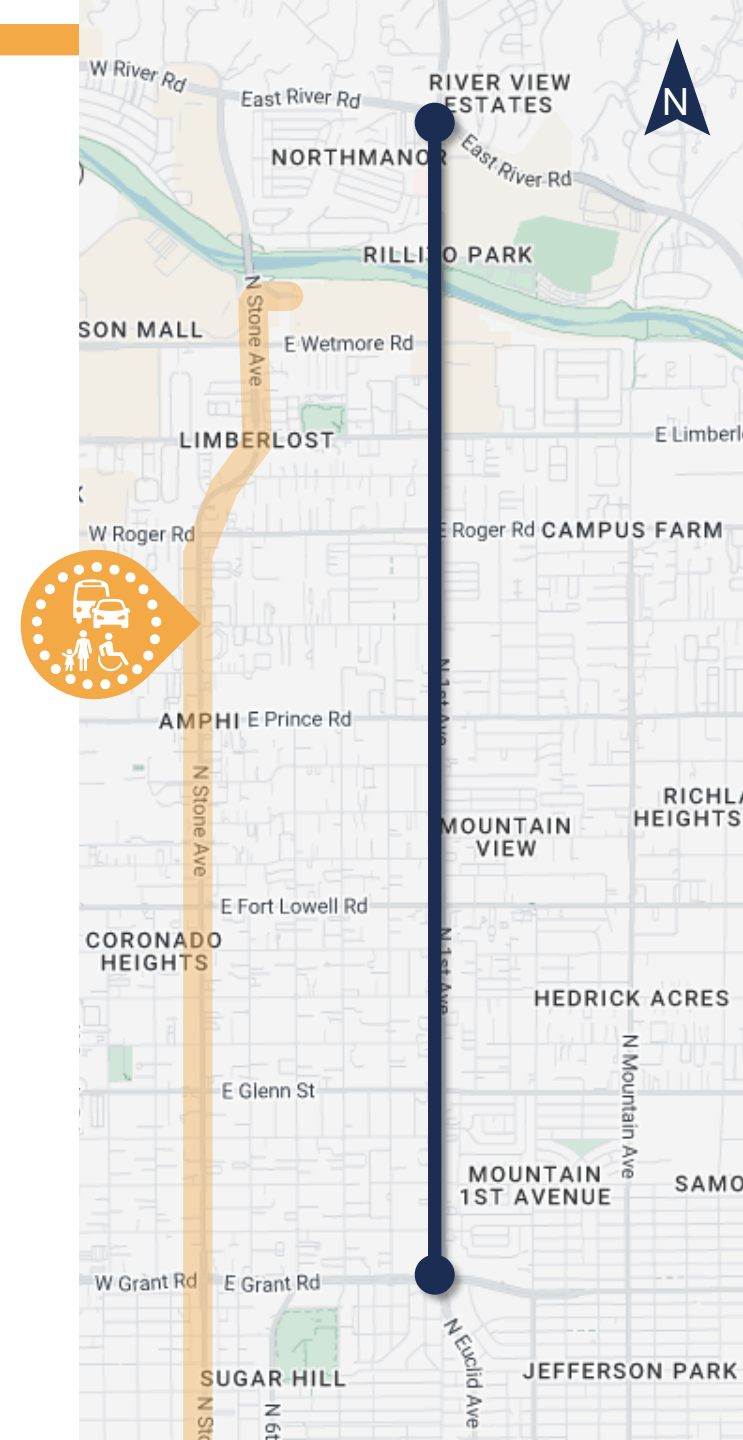


Updated 2055 Traffic Projections

**2045 PAG Travel
Demand model**

**2055 PAG RMAP Travel
Demand model**

*RMAP incorporates the high-capacity
transit project on Stone and includes
newer socio-economic data and
roadway network improvements
planned for the region*

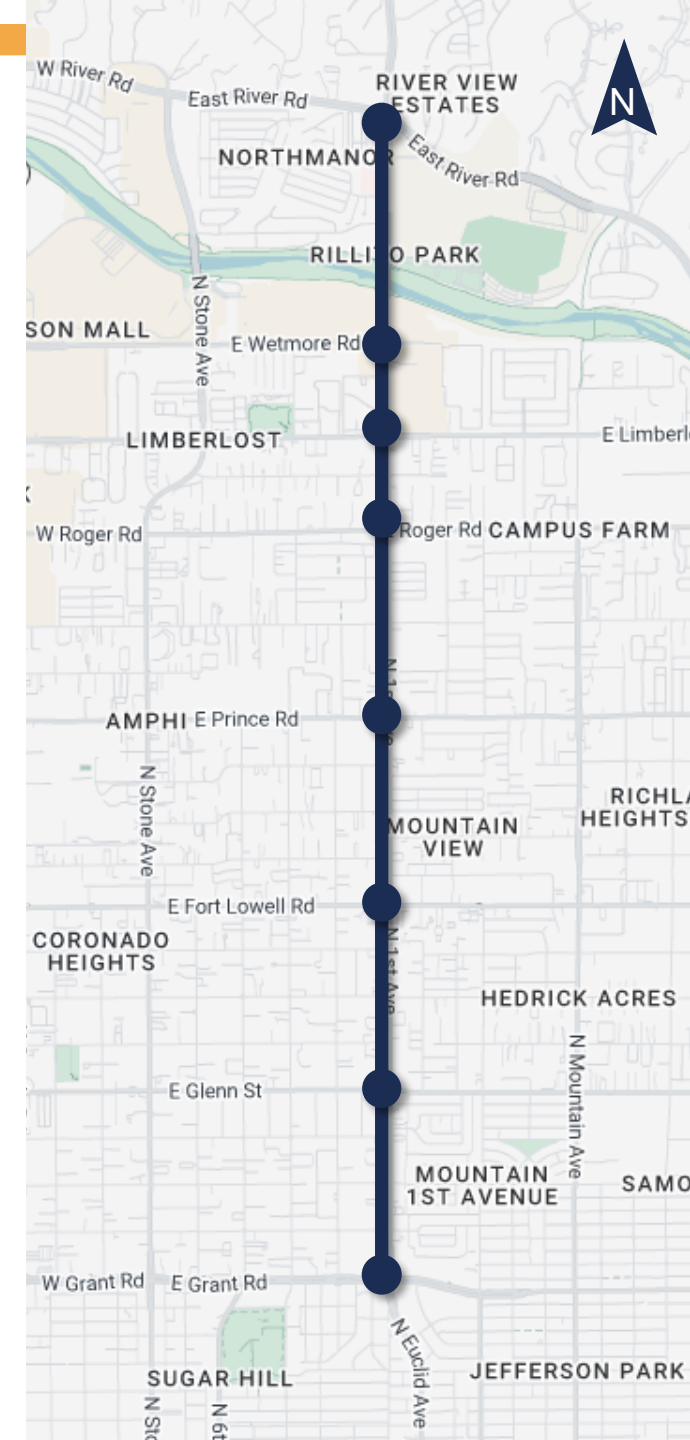




2055 Traffic Projections — Volumes

Intersection	AM Peak Hour			PM Peak Hour		
	2045 Volumes*	2055 Volumes*	Diff (%)	2045 Volumes*	2055 Volumes*	Diff (%)
River Rd	5,089	5,075	-0.3%	5,809	5,865	1.0%
Wetmore Rd	3,182	3,271	2.8%	3,946	4,039	2.4%
Limberlost Dr	2,926	2,998	2.5%	3,775	3,776	0.0%
Roger Rd	2,934	2,918	-0.5%	3,772	3,799	0.7%
Prince Rd	3,745	3,690	-1.5%	4,474	4,553	1.8%
Fort Lowell Rd	3,907	3,983	1.9%	4,628	4,709	1.8%
Glenn Street	2,529	2,589	2.4%	3,177	3,263	2.7%
Grant Rd	5,690	5,565	-2.2%	6,666	6,643	-0.3%

*Intersection Entering Volumes



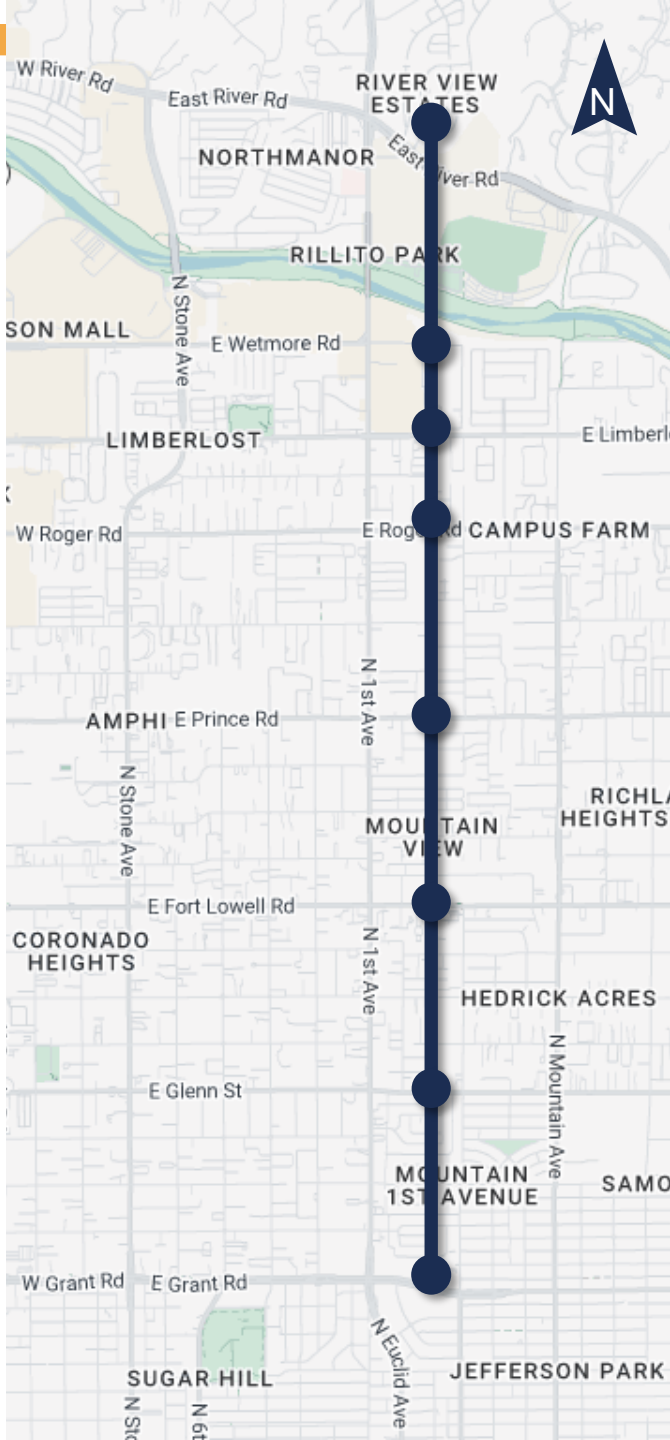


2055 Traffic Projections — Intersection LOS



Updated Intersection Delay and LOS
Updated storage lengths recommendations

Intersection	AM Peak Hour				PM Peak Hour			
	2045 Traffic Projections		2055 Traffic Projections		2045 Traffic Projections		2055 Traffic Projections	
	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
River Rd	19.4	B	18.7	B	25.3	C	25.3	C
Wetmore Rd	15.2	B	15.4	B	14.5	B	14.6	B
Limberlost Dr	31.6	C	36.8	D	33.7	C	37.0	D
Roger Rd	23.8	C	25.1	C	31.1	C	34.1	C
Prince Rd	16.6	B	16.8	B	27.4	C	27.6	C
Fort Lowell Rd	20.4	C	20.3	C	24.8	C	27.8	C
Glenn Street	28.1	C	28.9	C	34.8	C	38.5	D
Grant Rd	44.1	D	44.2	D	54.2	D	52.2	D





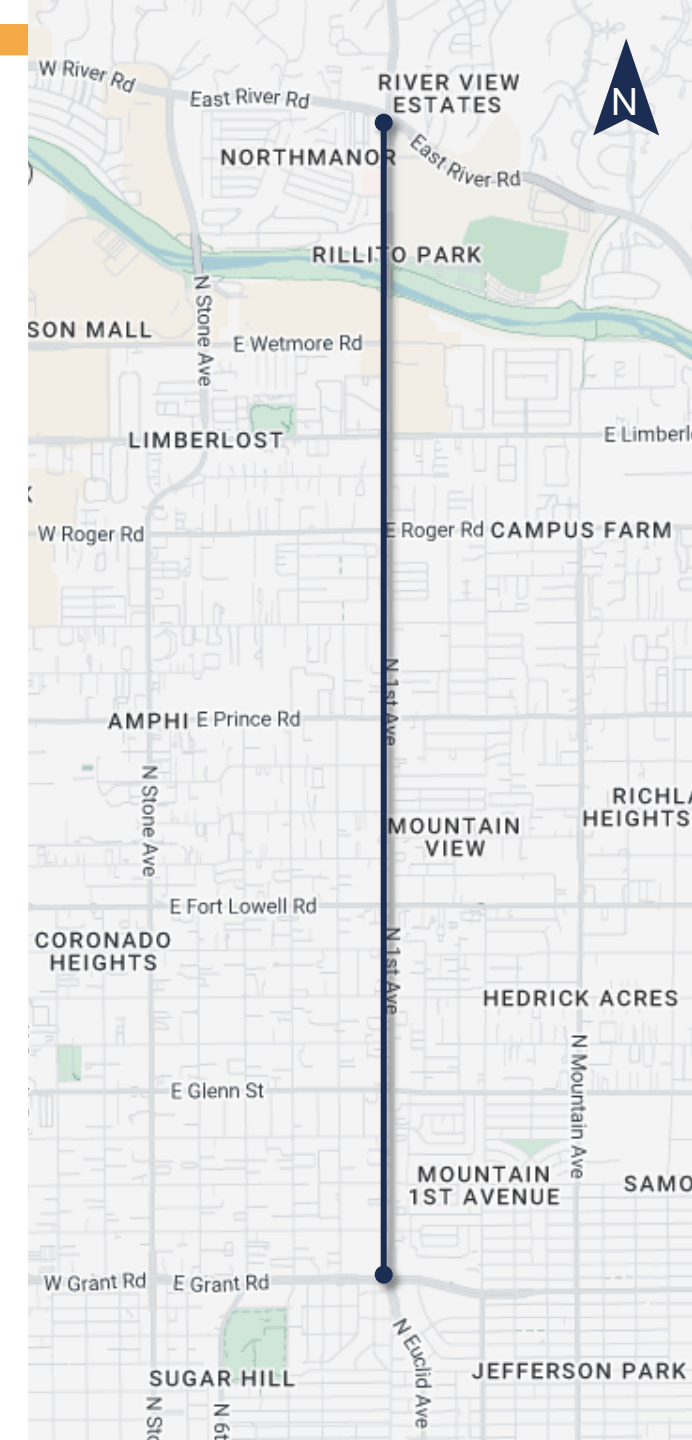
2055 Traffic Projections — Travel Time Results

1st Avenue From River Rd to Grant Rd - Southbound

	AM Peak Hour				PM Peak Hour			
	Existing (30 MPH)	2045 No-Build	2045 Build Alt	2055 Build Alt	Existing (30 MPH)	2045 No-Build	2045 Build Alt	2055 Build Alt
Travel Time (m)	07:44	08:03	09:07	09:23	08:31	08:40	09:07	09:20
Difference (m)	-	00:19	01:04	00:16	-	00:09	00:27	00:13
Southbound LOS	C	C	D	D	C	C	D	D

What The Travel Times Show

- A **16-second and 13-second increase in travel time** is expected in the AM and PM peak hours, respectively, based on the 2055 travel demand projections. Travel time estimated from River Road to Grant Road.
- Corridor LOS would **remain at LOS D or better** under the 2045 and 2055 scenarios.



1st and Ft Lowell 1st and Prince Suggested Intersection Designs



Right Turn Options and Configurations



Shared Right Turn

*South leg of N 1st Ave &
E Prince Rd*



Standard Right Turn

*East leg of University Dr &
Rural Rd*

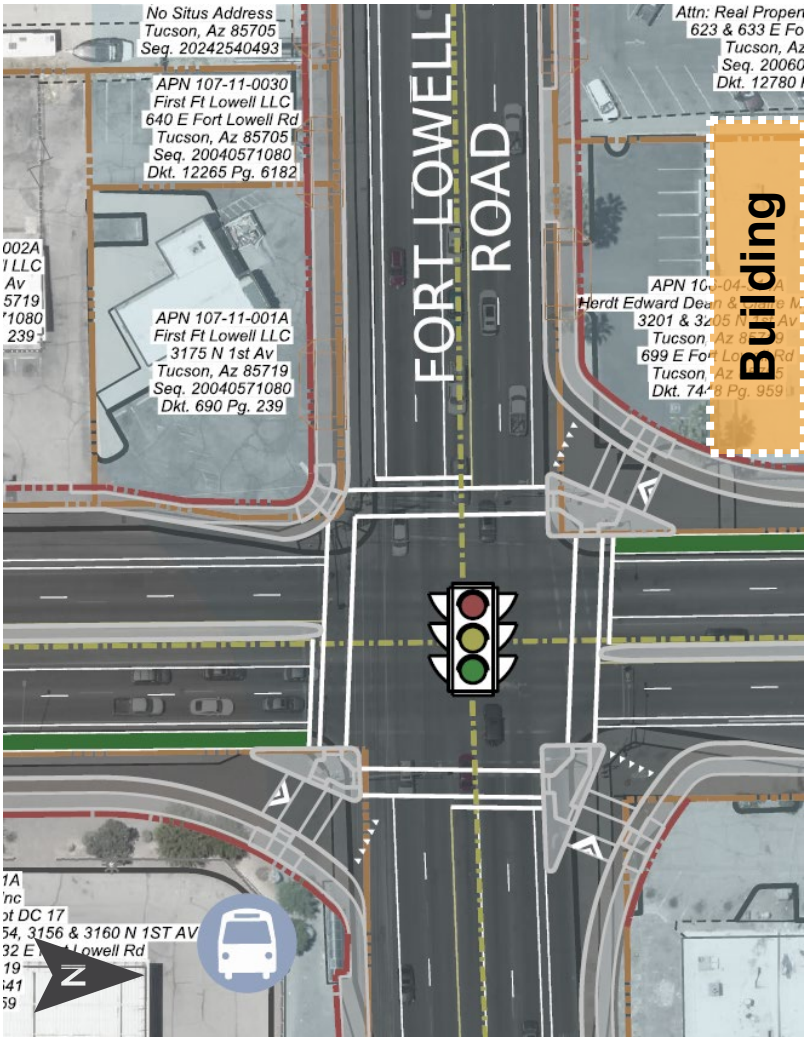


Smart Channel

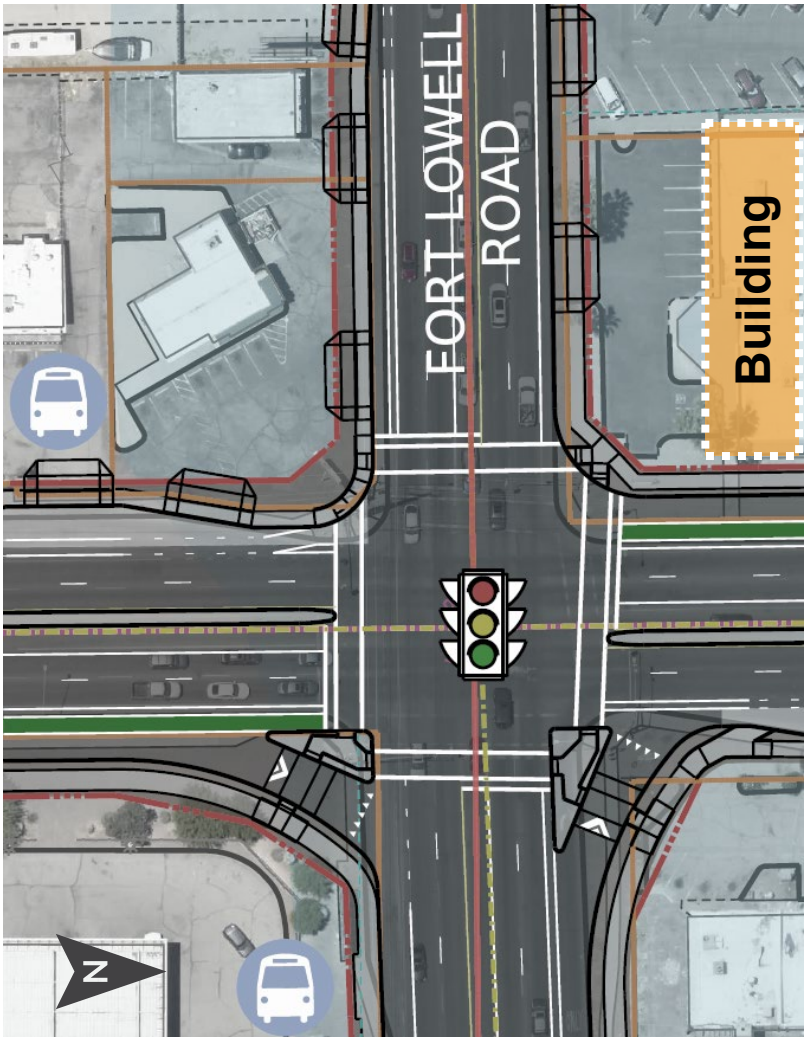
*North leg of US 20 &
NE Butler Market Rd*

Fort Lowell Road & 1st Avenue Intersection

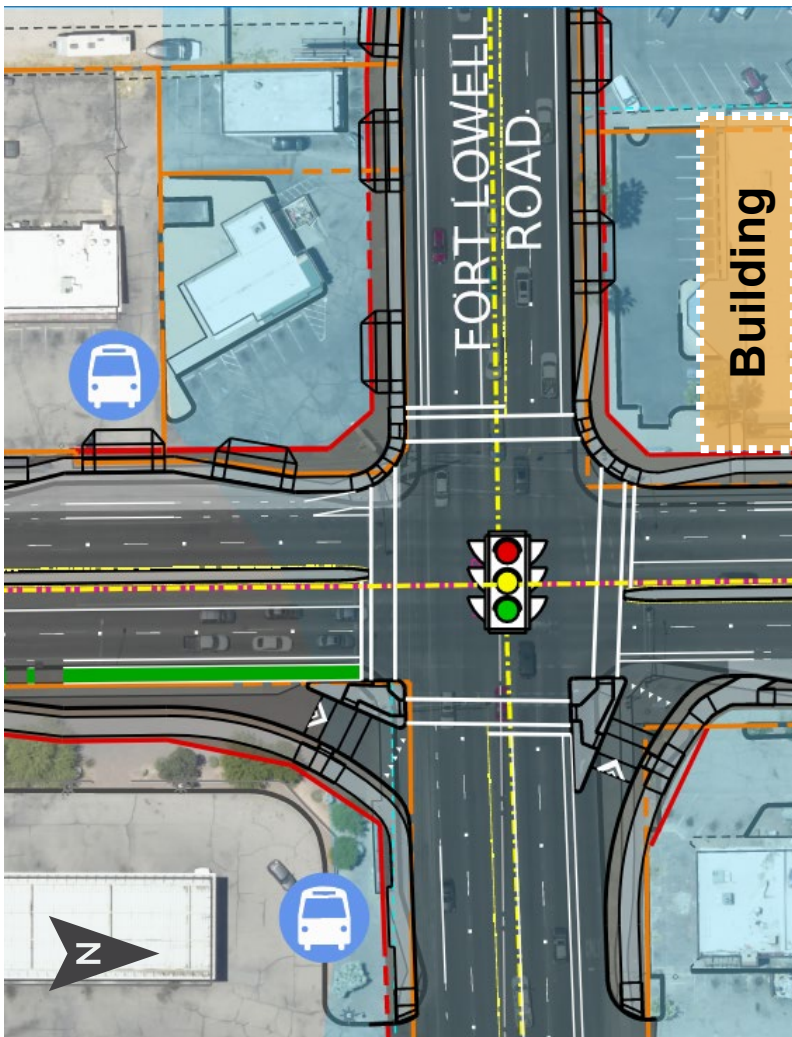
With Smart Channel



With Standard Right Turn Lane

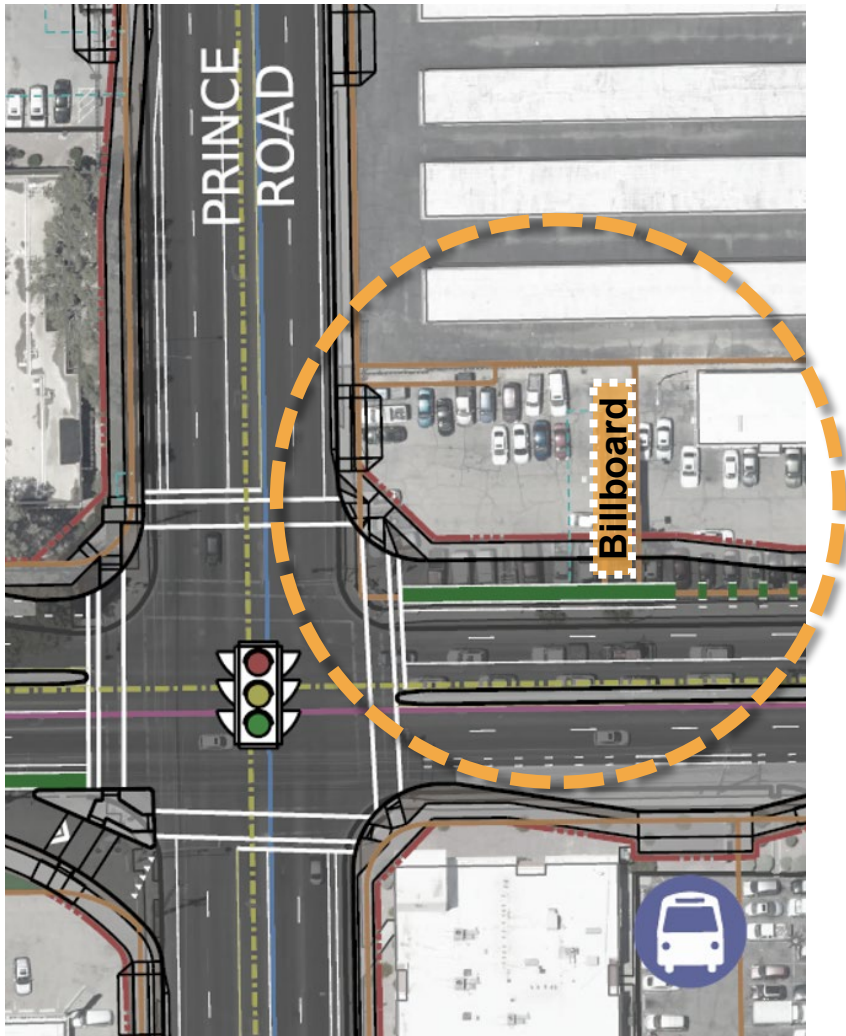


With Shared TH/RT Lane

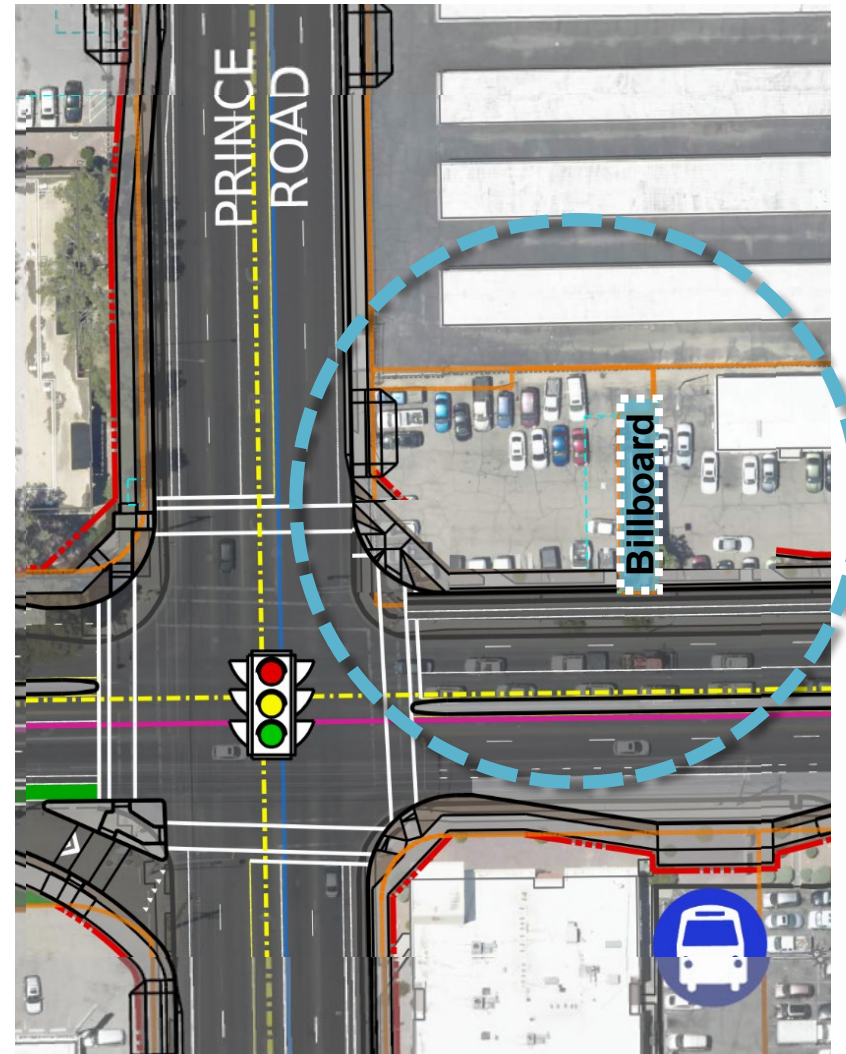


Prince Road and 1st Avenue Intersection

With Standard Right Turn Lane



With Shared Through/Right-Turn Lane



Project Goals



Improve Safety for all users of 1st Avenue, particularly for the most vulnerable road users, such as pedestrians, bicyclists, people with disabilities, motorcyclists, and others.



Support mobility along the corridor through the efficient movement of traffic, including transit, personal, and commercial vehicles.



Minimize the impacts of 1st Avenue improvements on adjacent residents and businesses.



Increase transportation options and reduce barriers on 1st Avenue by improving comfort, convenience, and accessibility for people walking, biking, and using public transport.



Improve the condition of **existing infrastructure** to ensure that 1st Avenue meets community needs now and into the future.



Enhance the visual character of 1st Avenue to support economic and community vitality.

Evaluating Right Turn Lane Options:

CRT (Smart Channel) Research Findings



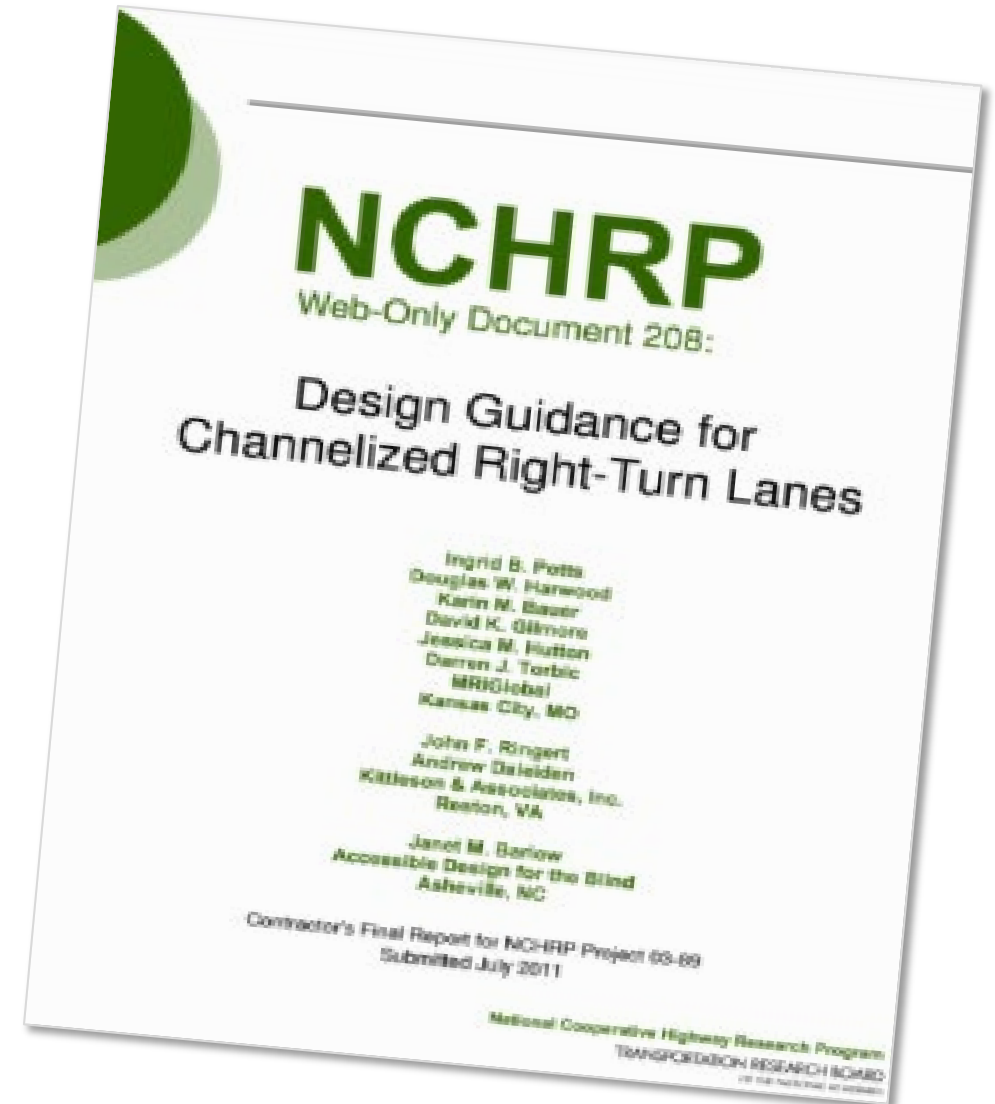
Motor Vehicle Safety Performance

- Similar safety performance as Shared Through-Right Lane (STR)
- CRT is safer than Right Turn Lane (RTL)
- No strong evidence that CRT increases crashes



Pedestrian Safety

- RTL had 70–80% more pedestrian crashes compared to CRTs
- CRT & STR show similar safety performance



Right Turn Lane Guidelines

It's a process for deciding whether an intersection approach should have a dedicated right-turn lane.

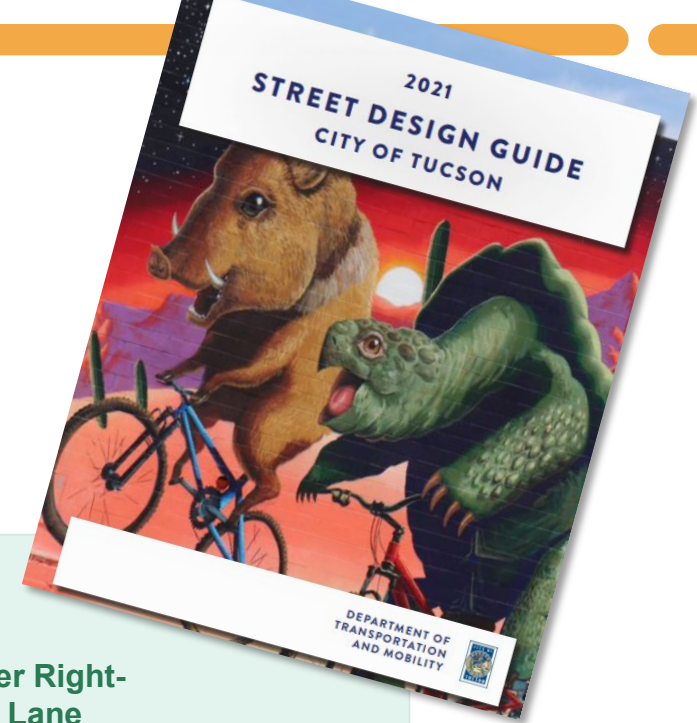
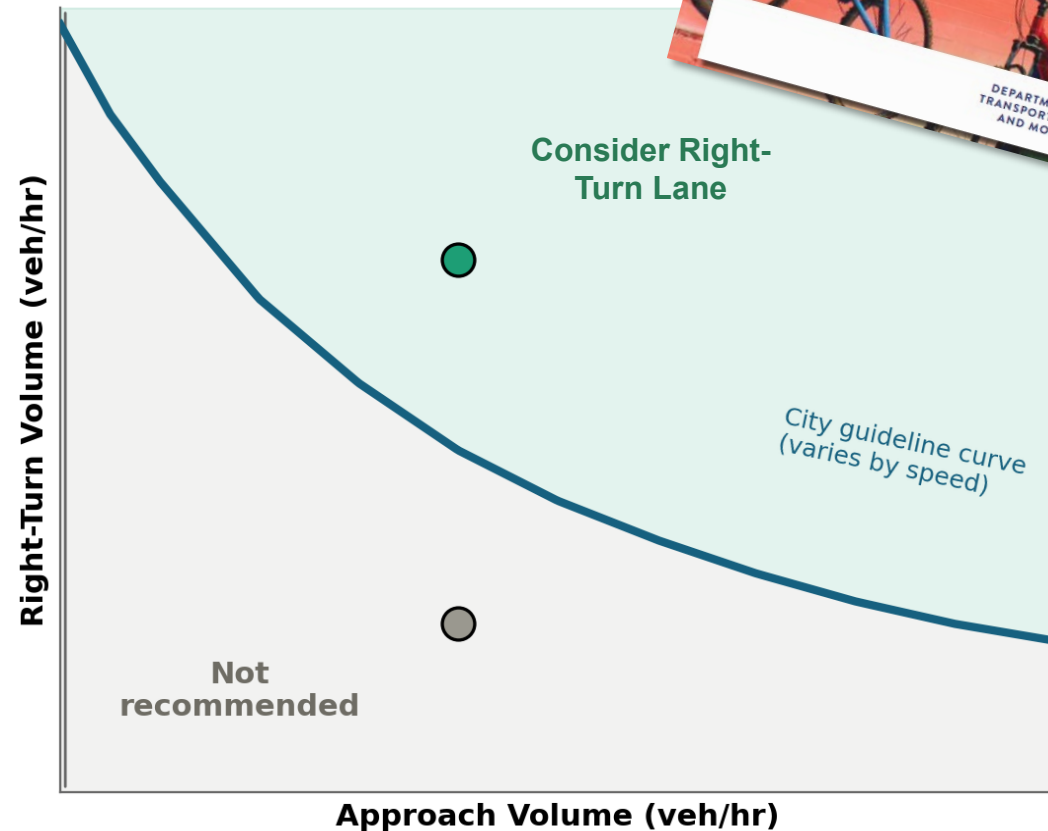
What are the data points?

Two peak-hour volume for the approach:

- Through volume
- Right-turn volume

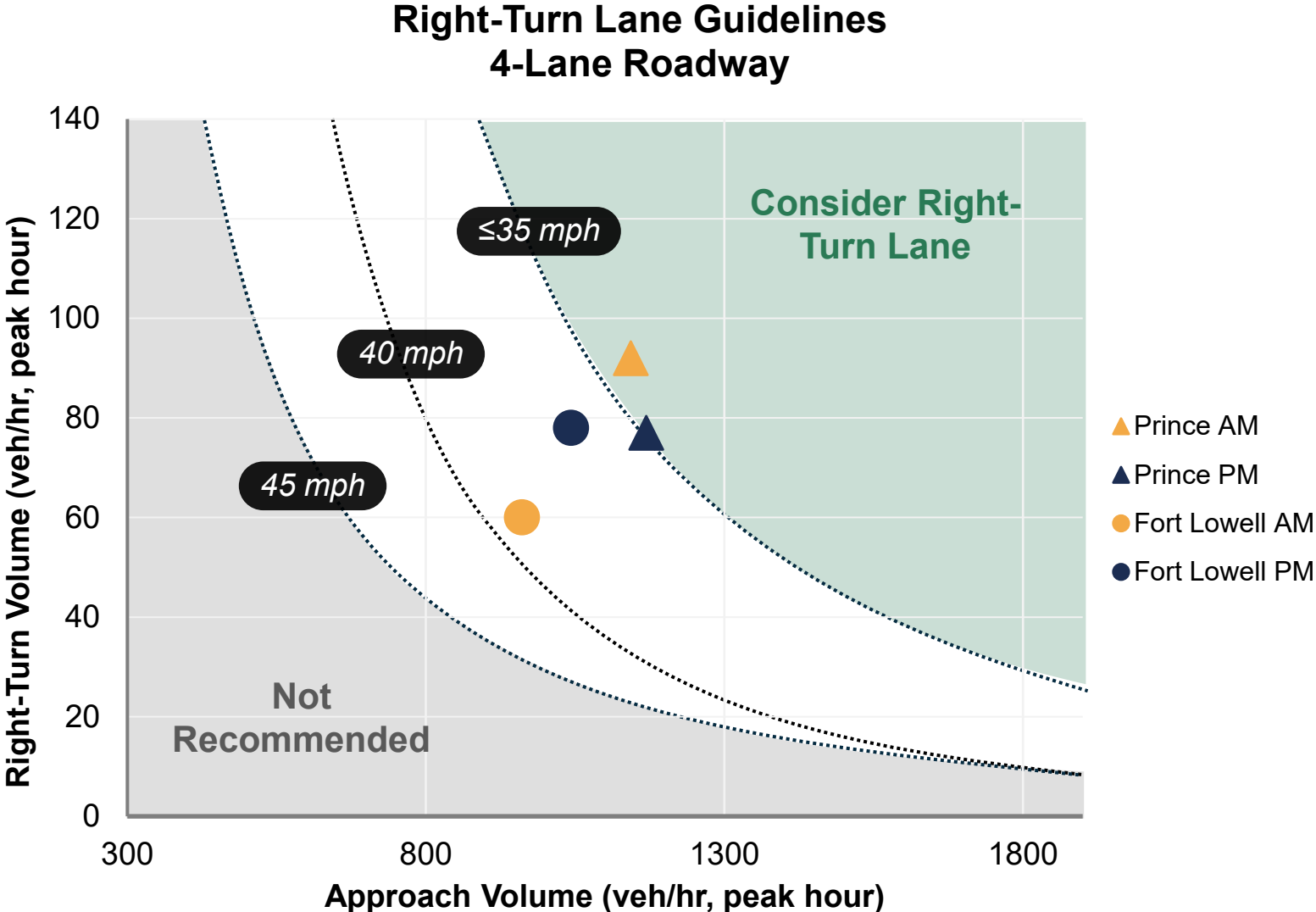
What is the analysis?

If the data point lands above the curve, a right-turn lane should be considered; below, it isn't. Higher speeds and higher volumes push toward "consideration."



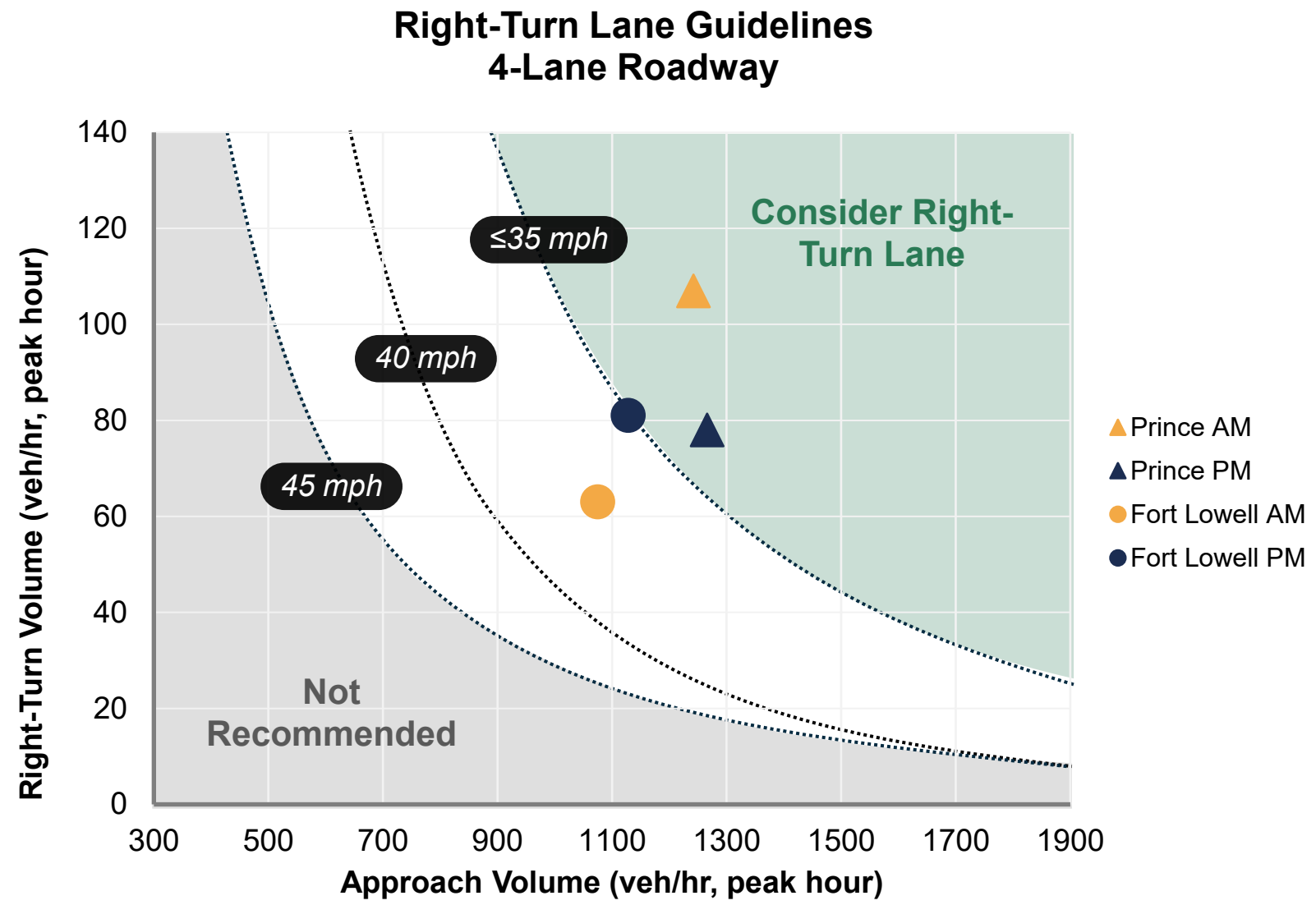
Existing Volumes

Excludes Left turns



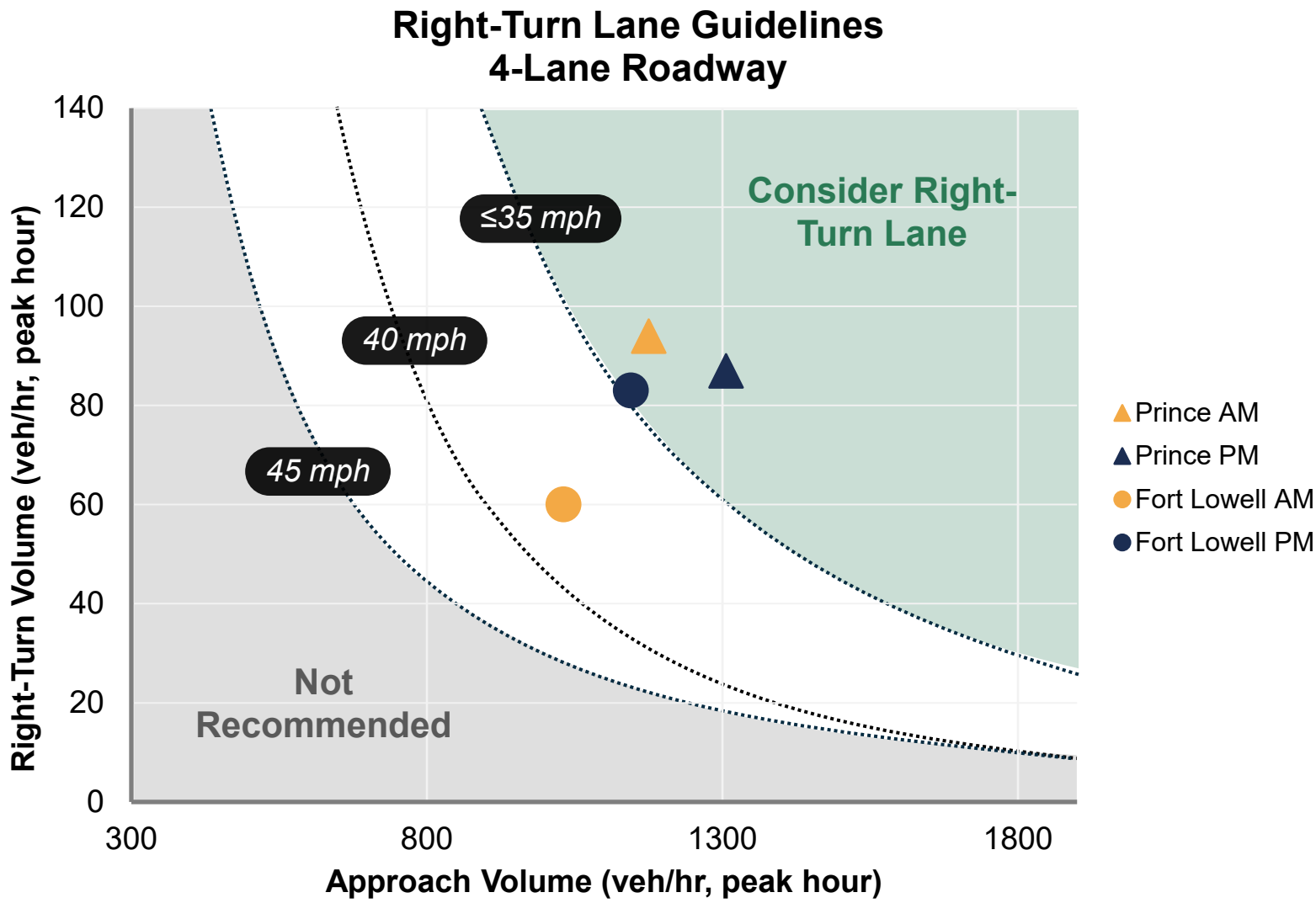
Future Volumes (2045)

Excludes Left turns



Future Volumes (2055)

Excludes Left turns



Summary

Southbound Right Turn Lane Consideration Analysis

**Analysis covers the southbound right-turn movement;
the governing curve is set by street's speed:
1st Avenue (30 mph) → ≤ 35 mph curve governs**

Prince Rd:

Right-turn lane is recommended

AM exceeds the threshold in all scenarios; PM
at the threshold in current scenario, clearly
above the threshold in 2045

Fort Lowell Rd:

Further evaluation of right-turn lane is
recommended

AM below the threshold in every scenario; PM
approaches but stays at the curve in the 2045 and
2055 scenario

TAKEAWAY:

a southbound right-turn lane is recommended at Prince road but further evaluation is recommended for Fort Lowell.



Operational Impact of Removing the SB Right-Turn Lane

Vissim southbound approach results, with vs. without the dedicated SB right-turn lane

Intersection / Peak Hour	With SBR Alt Delay and SB Approach LOS	Without SBR Alt Delay and SB Approach LOS	Change (SB Approach)
Fort Lowell · AM	45.6 s (D)	55.1 s (E)	+9.5 s · D→E
Fort Lowell · PM	28.0 s (C)	32.4 s (C)	+4.4 s
Prince · AM	16.8 s (B)	18.6 s (B)	+1.8 s
Prince · PM	21.3 s (C)	24.7 s (C)	+3.4 s

Why Delay Grows

- Removing the dedicated lane would make right-turners to share the through lane, so the SB right-turn movement LOS degrades (Fort Lowell AM: about 11 s to 51 s) and average right-turn queues lengthen.
- The effect is largest at Fort Lowell in the AM, where the SB approach drops from LOS D to LOS E. Please note that LOS E threshold is 55.0 s.
- Prince stays within the same LOS level in both peaks, so impacts there are smaller.

Queue Lengths

Analysis indicates an increase in maximum southbound through-lane queue lengths at both intersections:

- Fort Lowell:** Increase of 209 ft, from 934 ft to 1,143 ft.
- Prince:** Increase of 76 ft, from 693 ft to 769 ft.



2055 Traffic Projections — Travel Time Results

1st Avenue From River Rd to Grant Rd - Southbound

	AM Peak Hour					PM Peak Hour				
	Existing (30 MPH)	2045 No-Build	2045 Build	2055 Build	2055 No RT	Existing (30 MPH)	2045 No-Build	2045 Build	2055 Build	2055 Build
Travel Time (m)	07:44	08:03	09:07	9:23	09:38	08:31	08:40	09:07	9:20	09:29
Difference (m)	-	00:19	01:04	00:16	00:16	-	00:09	00:27	00:13	00:09
Southbound LOS	C	C	D	D	D	C	C	D	D	D



Near-Miss Results: Overview

VRU-to-vehicle near misses with right-turning vehicles at Fort Lowell Road @ 1st Avenue

Southbound right-turning vehicles

Vehicle turning right from 1st Ave SB

18

Total VRU-
vehicle
near misses

2

critical near
misses
(PET < 2.0 sec)

Critical PETs:
0.4 sec and 1.6 sec

Northbound right-turning vehicles

Vehicle turning right from 1st Ave NB

39

Total VRU-
vehicle
near misses

3

critical near
misses
(PET < 2.0 sec)

Critical PETs:
1.8 sec, 1.9 sec, 1.9 sec

PET = post-encroachment time; a near miss is flagged **critical** when PET is under 2.0 seconds.
The SB movement carries fewer near misses overall but a more severe outlier (0.4 sec).

Wetmore Road @ 1st Avenue: no near misses met the critical criteria at the comparison intersection.

Comparison: Right Turn Treatments Options

Evaluated on safety, mobility, and right of way impact at two intersection

Strong / preferred

Moderate

Weak / main drawback

Fort Lowell & 1st Avenue

Option	Safety	Mobility	Right of Way Impact
Smart Channel	Best	Best	Highest (building)
Standard RT	Acceptable	Best	Minor (parking lot)
Shared	Best	Worse	None

Prince Road & 1st Avenue

Option	Safety	Mobility	Right of Way Impact
Smart Channel	Best	Best	Highest (billboard + car lot)
Standard RT	Acceptable	Best	Moderate (billboard)
Shared	Best	Worse	Minor (billboard)

Recommended Action

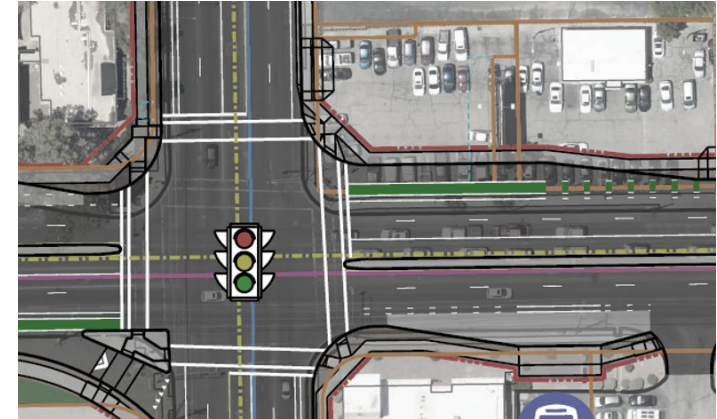
Prince Road:

- Provide a standard right-turn lane

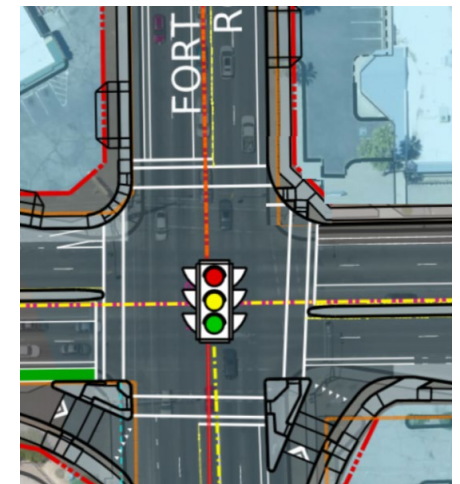
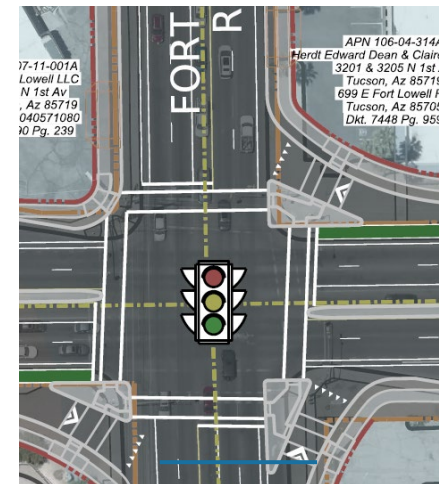
Fort Lowell Road:

- Option 1 – Refine smart channel concept to avoid impacts to adjacent building
- Option 2 – if option 1 is not feasible, proceed with providing a shared through/right turn lane

Prince Road



Fort Lowell Options



Prevailing Speeds after Speed Limit Reduction



What We Studied and Why



In 2025:

The City of Tucson lowered the posted speed limit on 1st Avenue by 10 mph.

- River to Wetmore (north end): 45 mph to 35 mph
- Wetmore to Grant (south end): 40 mph to 30 mph



The task force asked:
did lowering the speed limit change how fast people actually drive?



To answer this:

We conducted a before-and-after analysis of operating speeds — the speeds vehicles actually travel along the corridor — comparing conditions before and after the speed limit change.

How We Measured Speeds

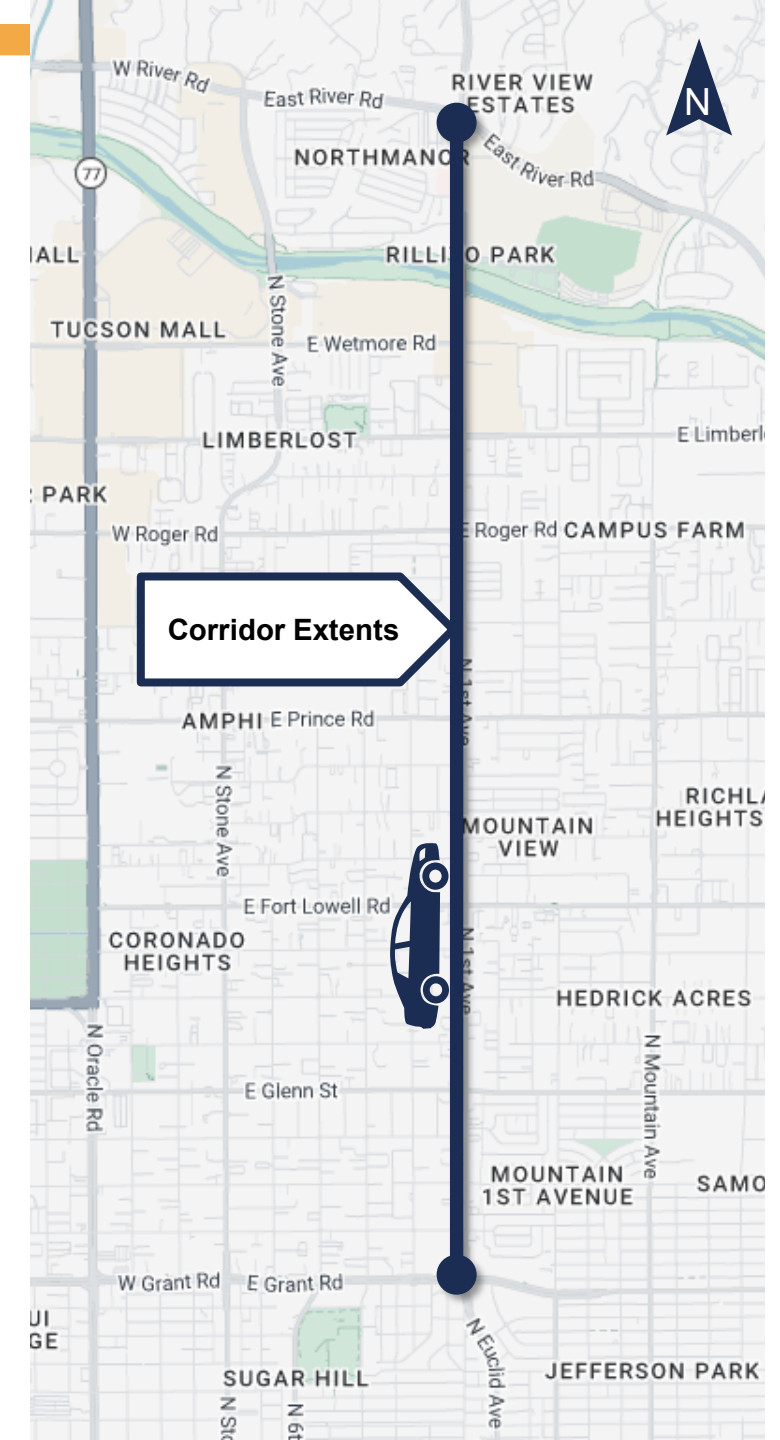
Anonymous GPS data
from connected cars,
navigation devices, and
mobile phones

Captures an
estimated 25–30% of
vehicles traveling on
1st Avenue

Vehicle
probe data
(TomTom)

Weekday speeds
analyzed hour by hour

Before the change:
April 2025
After the change:
April 2026

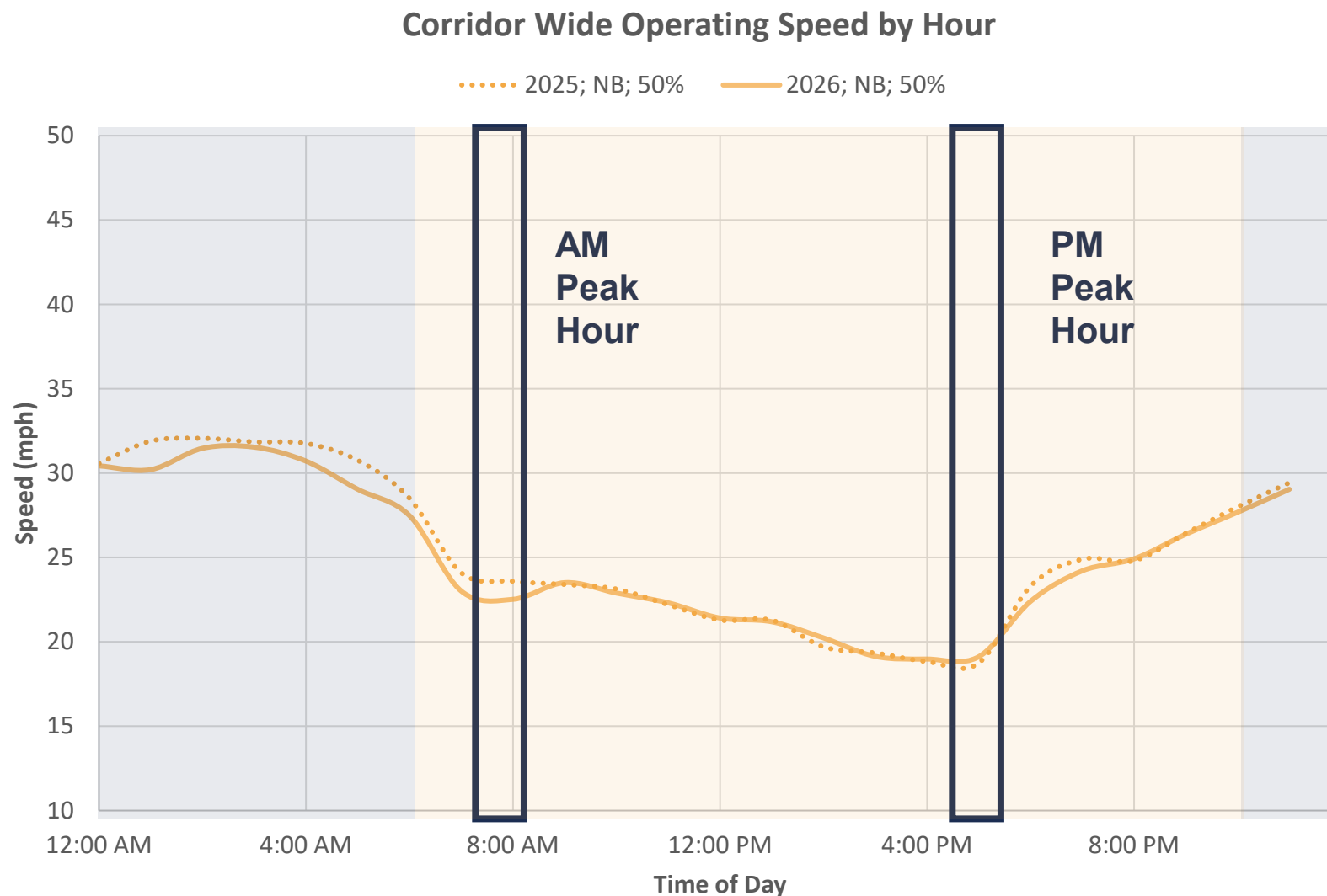


Corridor Wide Operating Speed by Hour

Operating **speed tends to be higher** during nighttime hours (10pm – 6am).

Before posted speeds were lower during the night compared to the day. This is not reflected in the pattern of operating speed overall.

Before and after the posted speeds were changed, the operating speed fluctuates similarly throughout the day.



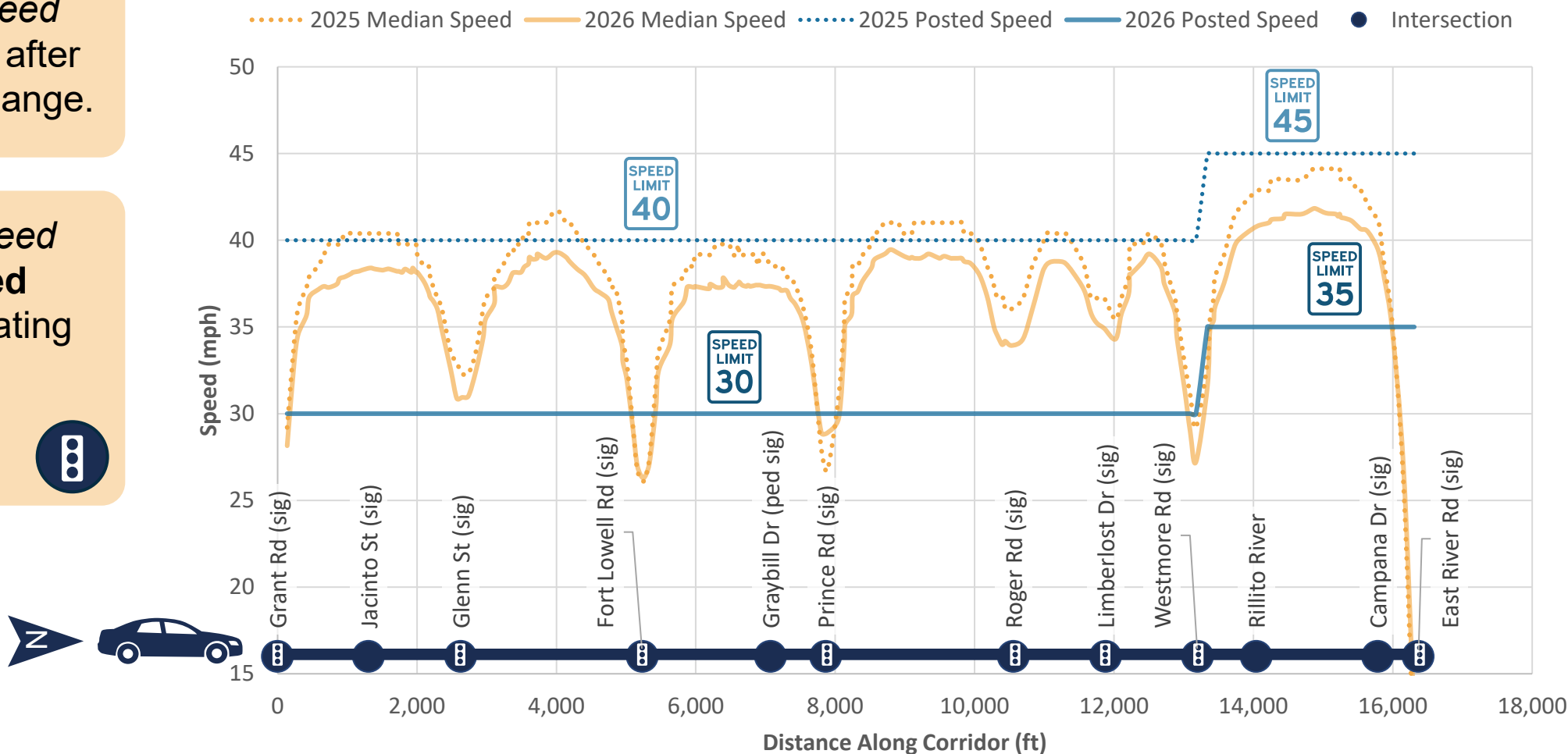
Typical Operating Speed along Corridor in the AM

Typical operating *speed* reduces by 1-2 mph after the posted speed change.

Typical operating *speed* reduces at **signalized intersections**, indicating vehicles coming to a potential stop and queueing.



NB Median Speed by Segment for 5:00-6:00 AM



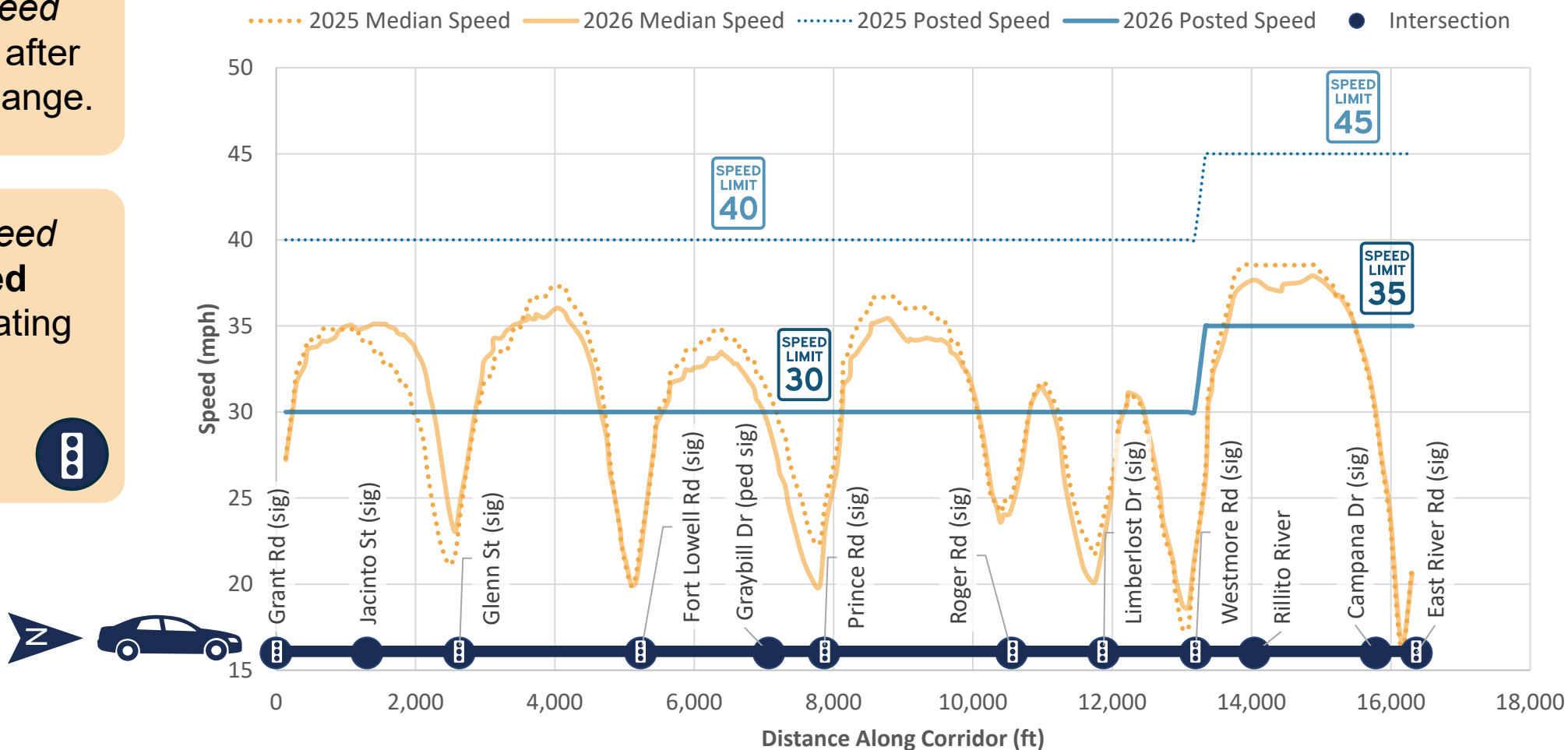
Typical Operating Speed along Corridor in the PM

Typical operating *speed* reduces by 1-2 mph after the posted speed change.

Typical operating *speed* reduces at **signalized intersections**, indicating vehicles coming to a potential stop and queueing.



NB Median Speed by Segment for 5:00 - 6:00 PM



What We Found



Vehicles **slowed down slightly** after the speed limit change — typical driving speeds dropped by about 1–2 mph along the corridor.



Driving **speeds are higher overnight** (10 pm – 6 am), when there is less traffic on the road.



The previous nighttime **speed limit did not appear to affect** nighttime driving speeds.

Roll Plot Presentation



1st Ave Corridor Map – January 2026



Adjournment

