Alternatives Analysis Update

Regional Transportation Authority of Central Oklahoma

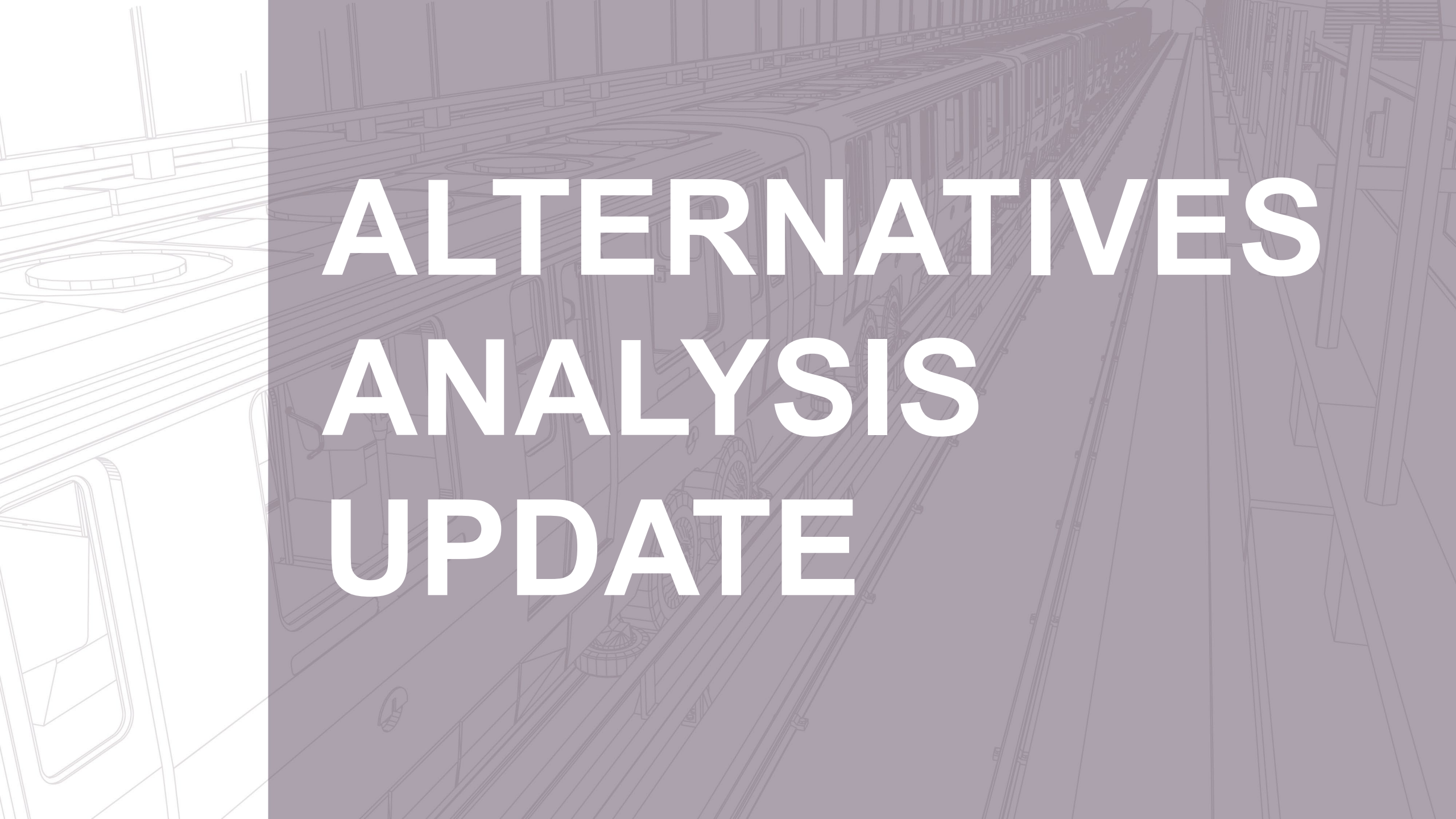
Prepared for Regional Transportation Authority of Central Oklahoma Board of Directors

May 18, 2022

Prepared by Kimley-Horn and Associates

Agenda

- Alternatives Analysis Update
  - Recap Discovery Phase
  - Recent Updates
  - Revised High-Potential Alignments
- Cross-Section Analysis
- Next Steps



ALTERNATIVES ANALYSIS UPDATE

Alternative Analysis (AA) Process

1 DISCOVER

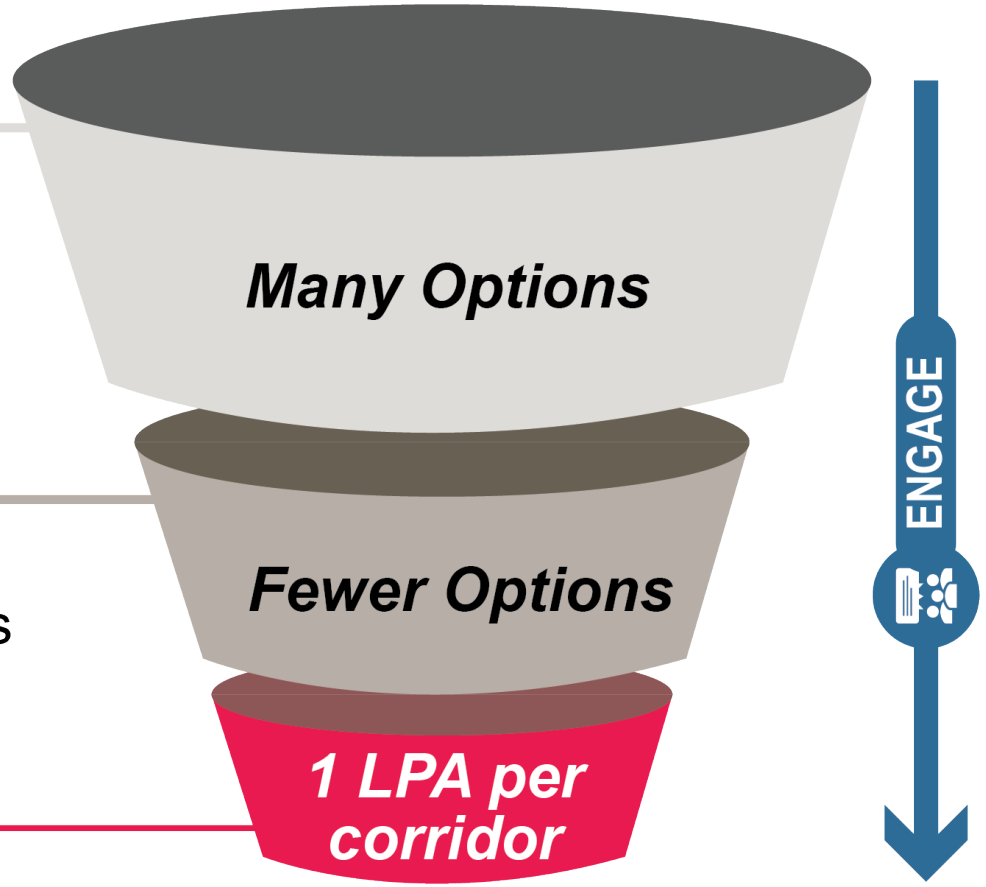
- Define all reasonable alternatives
- Screen against goals & objectives

2 REFINE

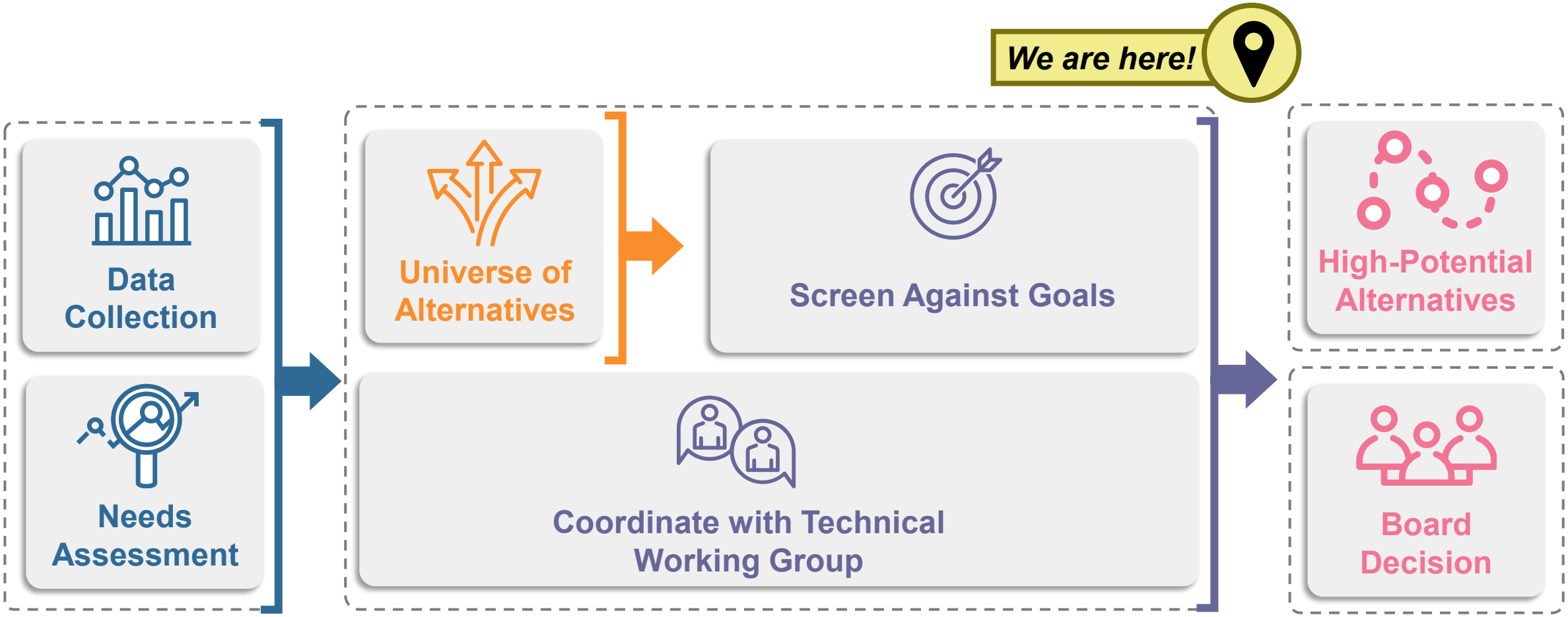
- Advance remaining alternatives
- Perform detailed technical analysis

3 SELECT

- Board consideration of LPA

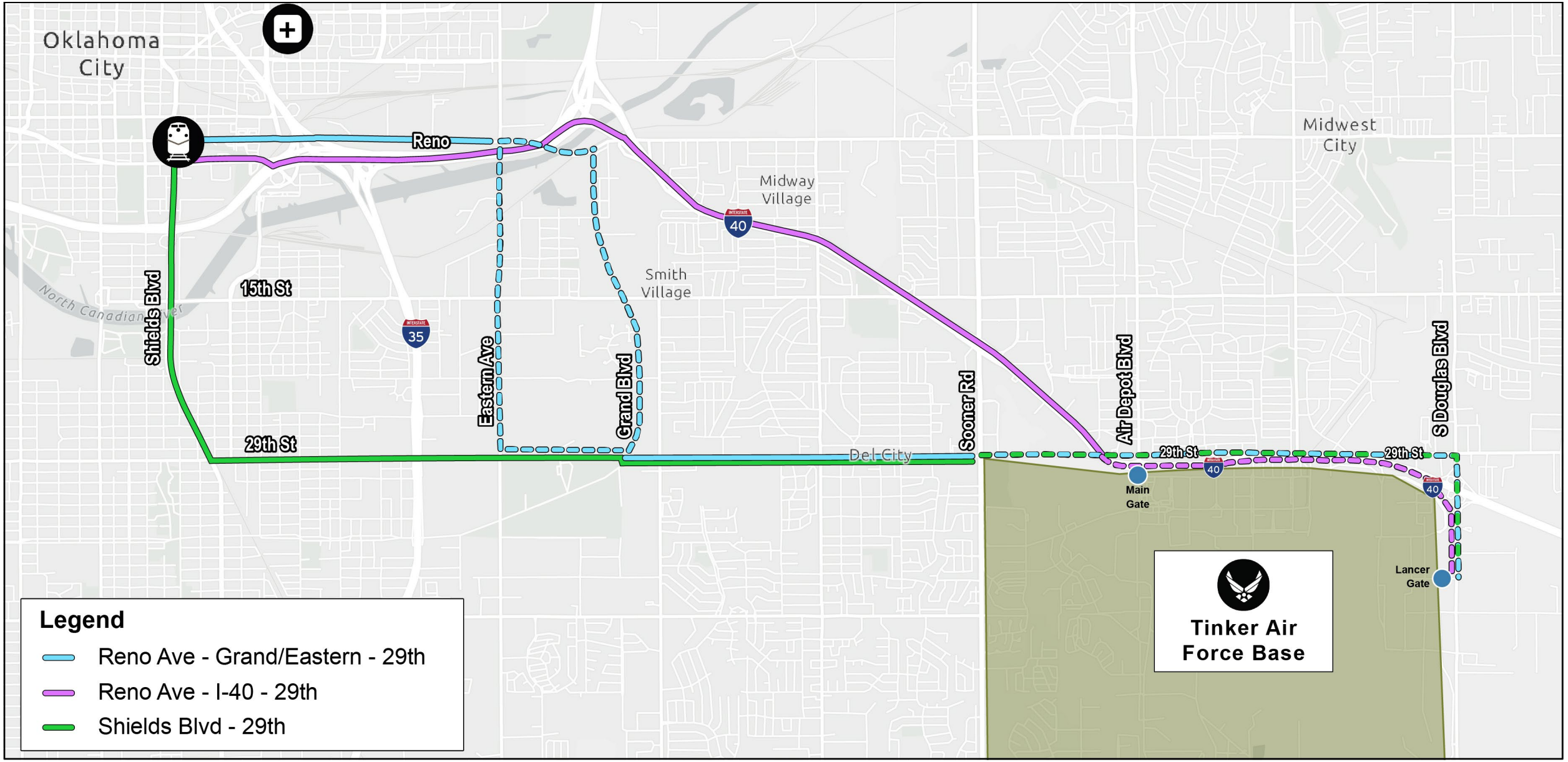


Discover Phase Process



Current High-Potential Alignments

RTA



Recent Analysis Updates

Eastern Ave redevelopment opportunity

Tinker AFB Update:
- Transportation Master Plan
- End-of-Line Facility

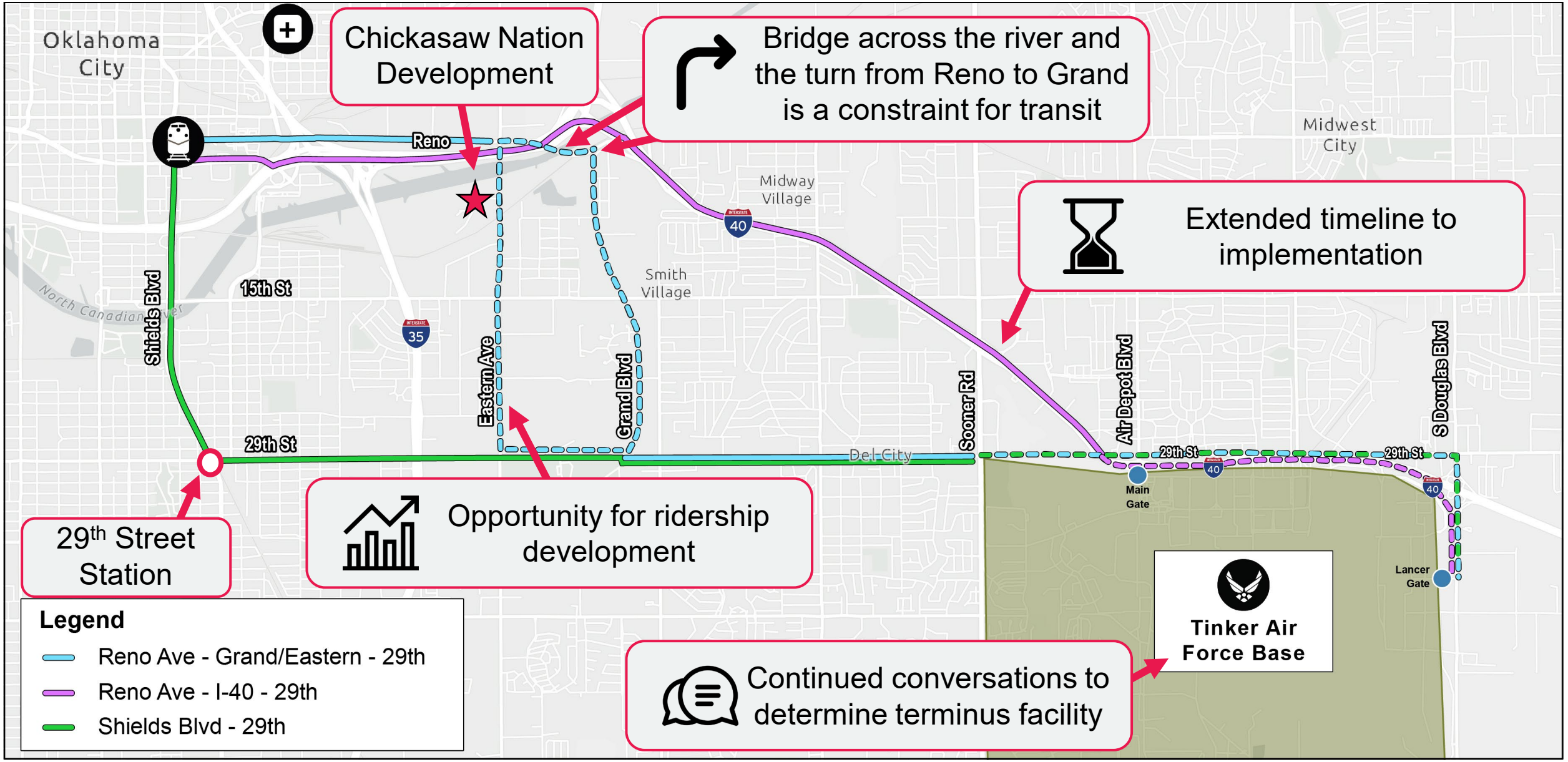
Engineering constraints on Reno Ave and Grand Ave

29th Street Station Opportunity

Alignment widths
(discussed later in this presentation)

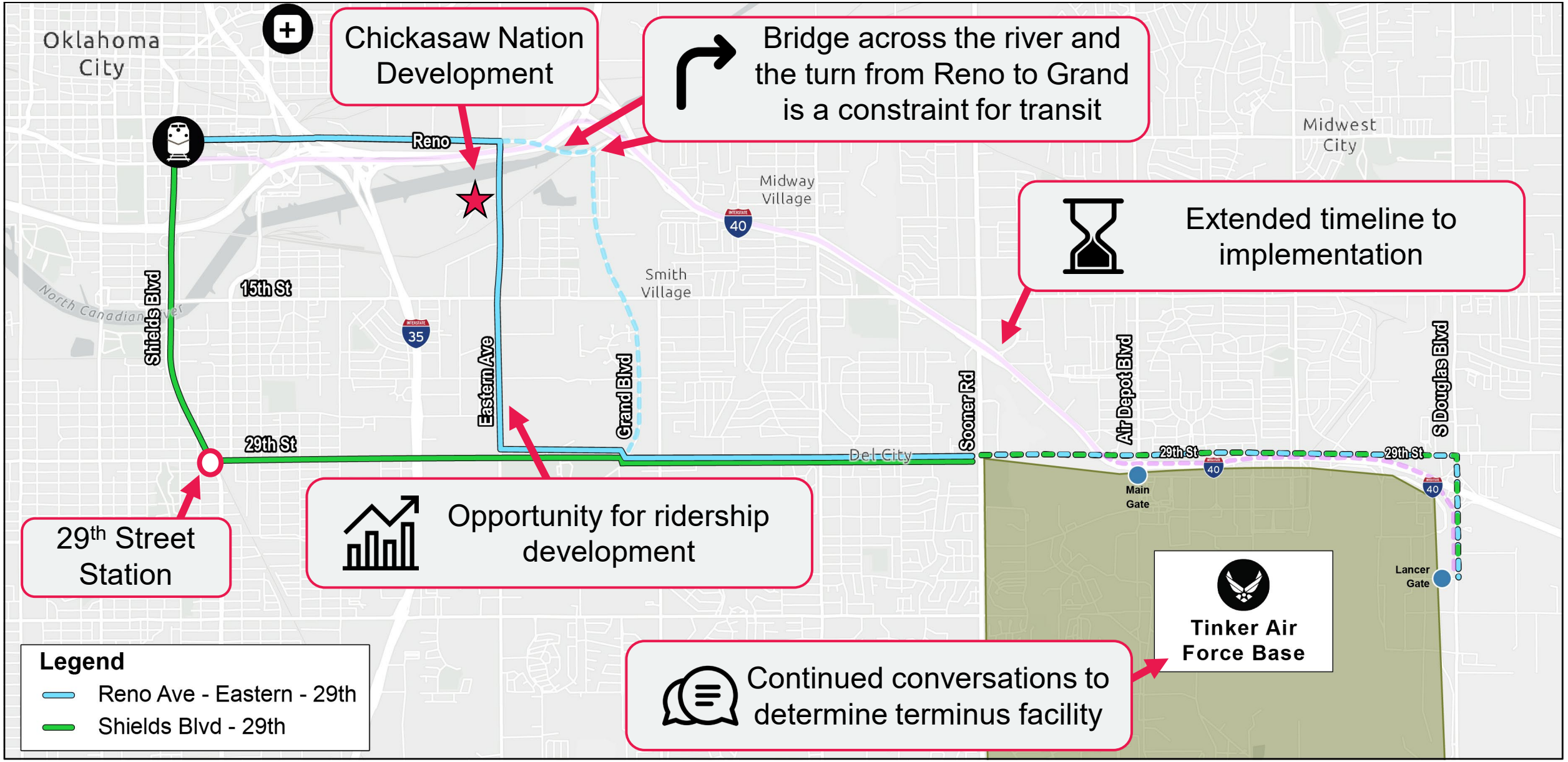
Current High-Potential Alignments

RTA



Updated High-Potential Alignments

RTA



Updated High-Potential Alignments

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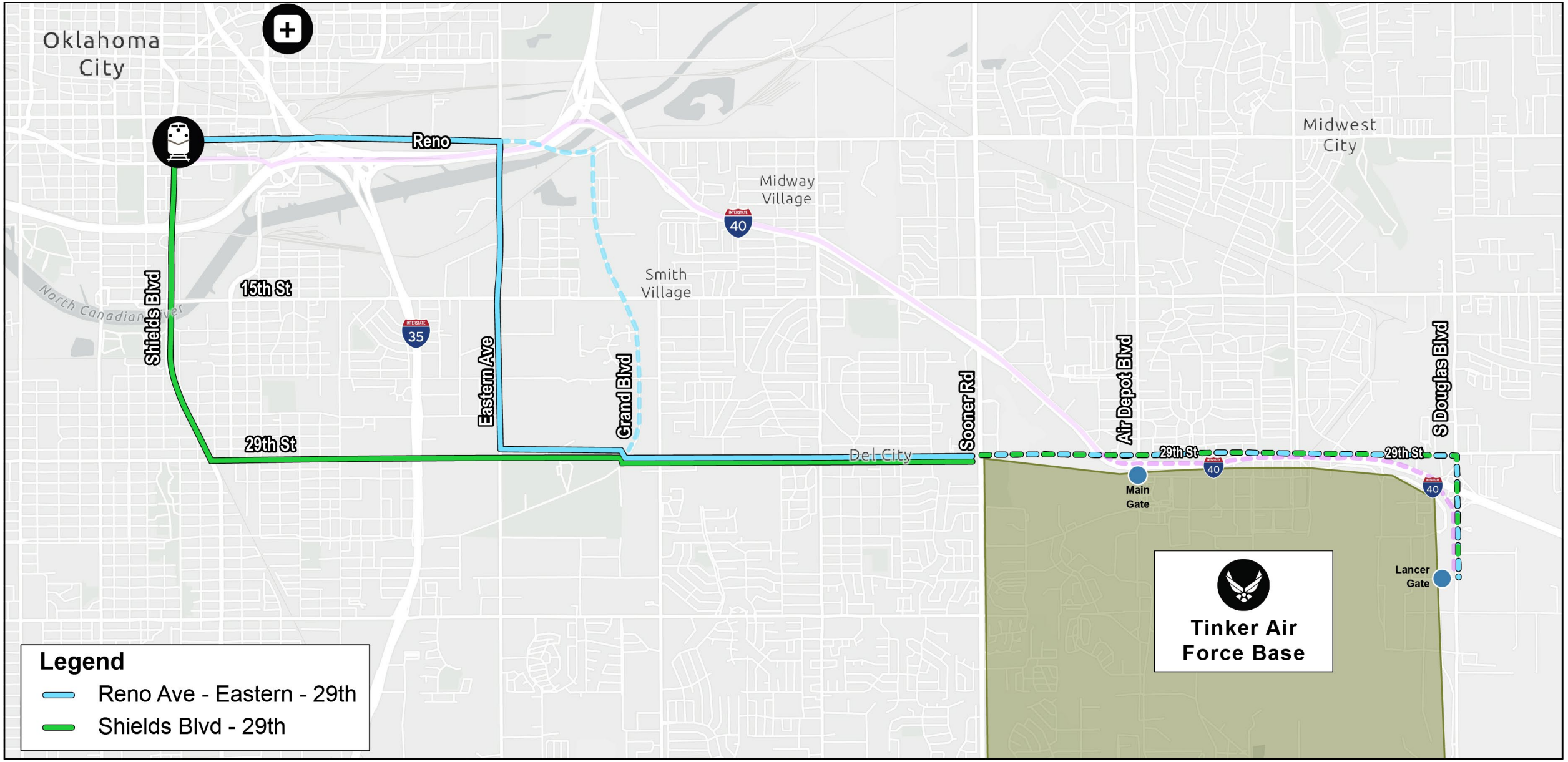
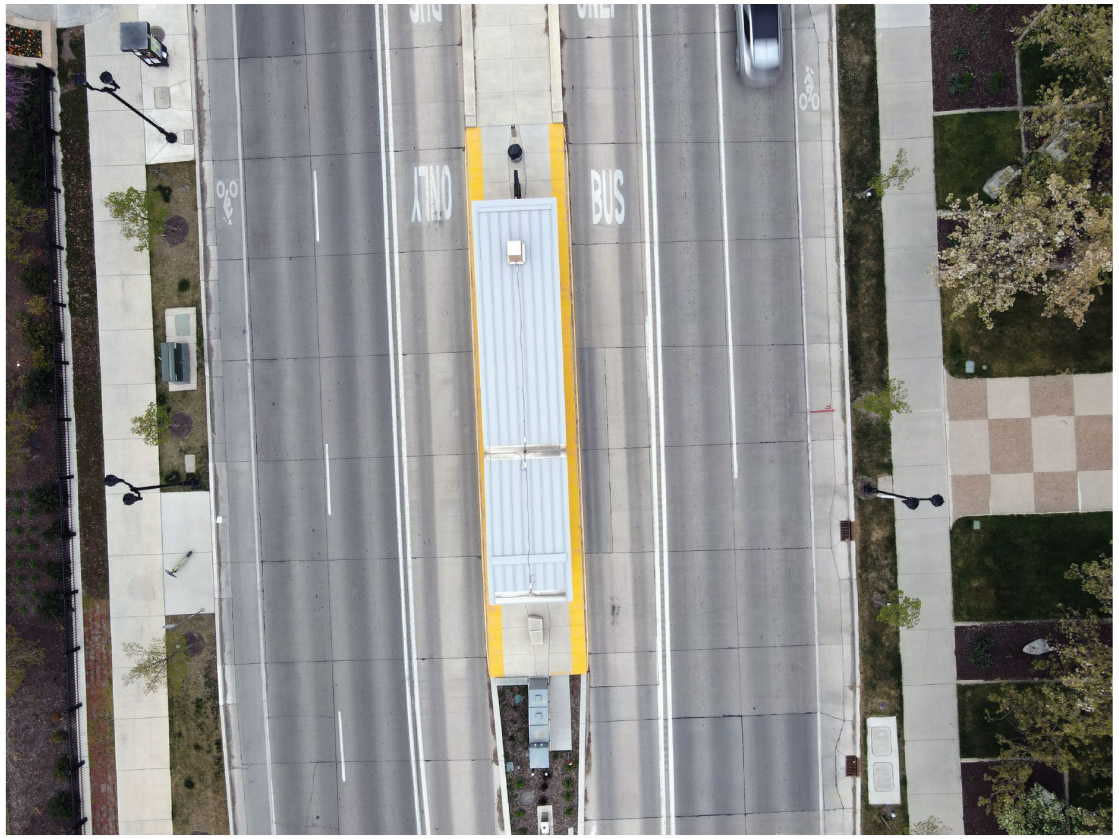


ALIGNMENT CROSS SECTIONS

Cross Section Examples

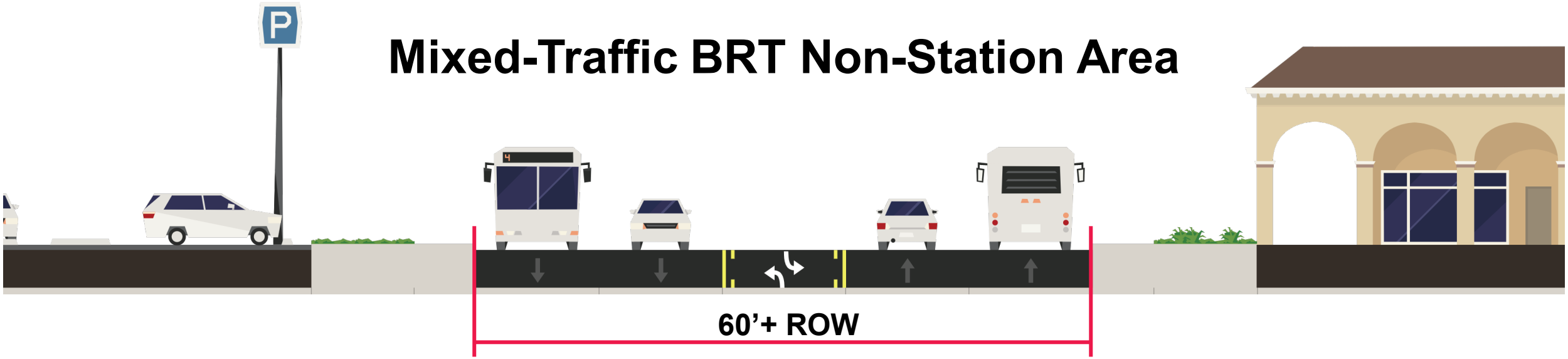
124’ wide from back of sidewalk



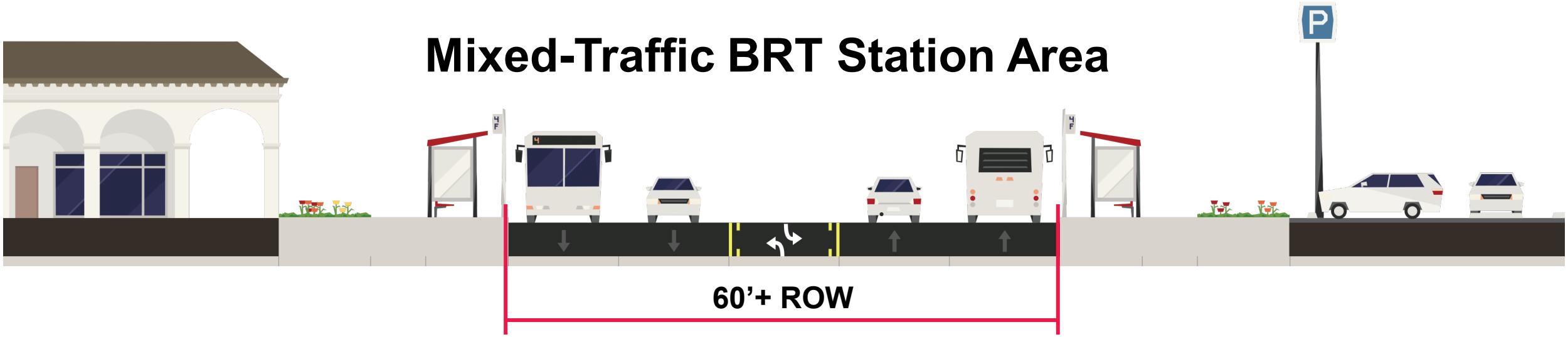
Mixed-Traffic BRT Cross Section (Example)

RTA

Mixed-Traffic BRT Non-Station Area



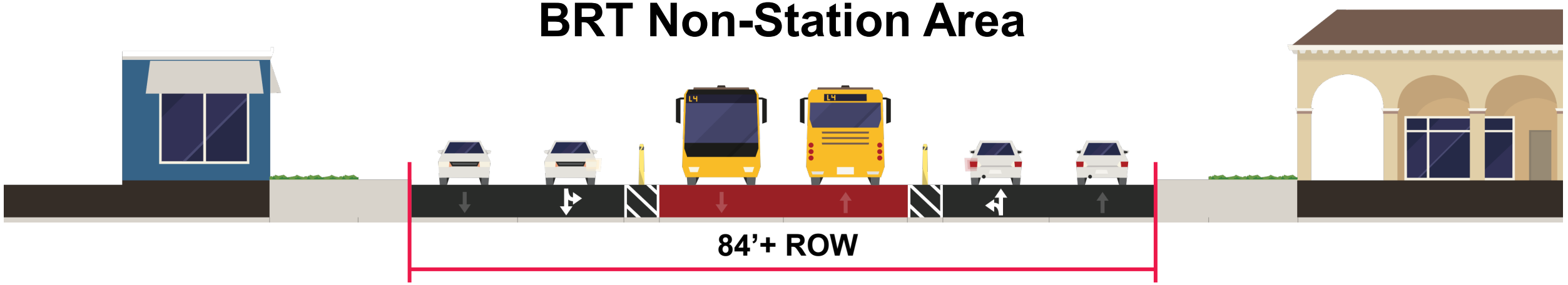
Mixed-Traffic BRT Station Area



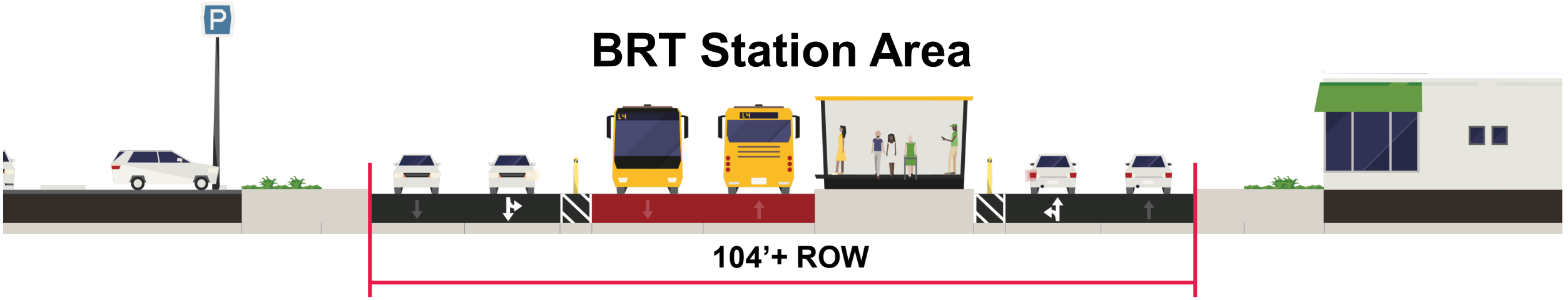
Fixed Guideway BRT Cross Section (Example)

RTA

BRT Non-Station Area



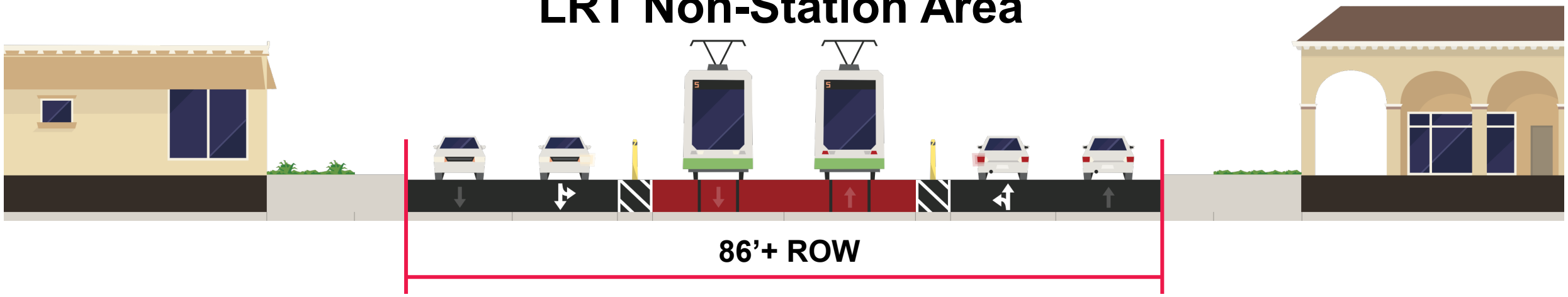
BRT Station Area



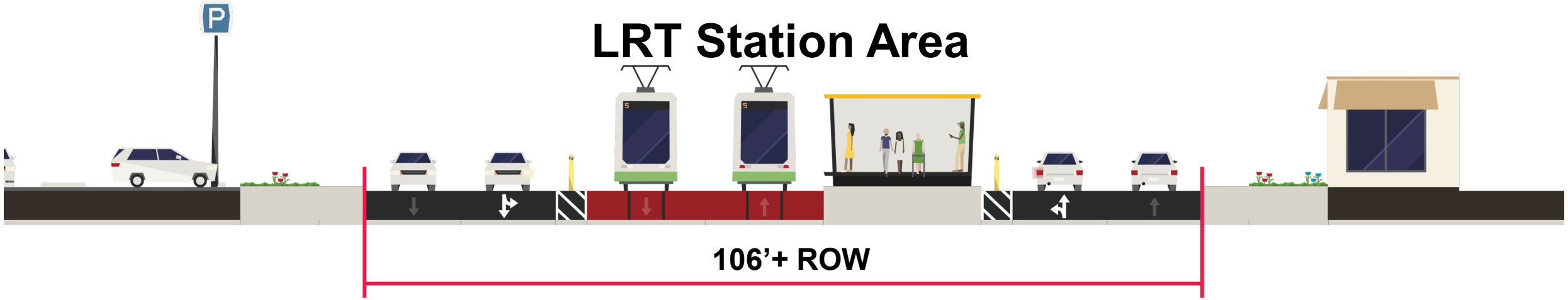
Fixed Guideway LRT Cross Section (Example)

RTA

LRT Non-Station Area

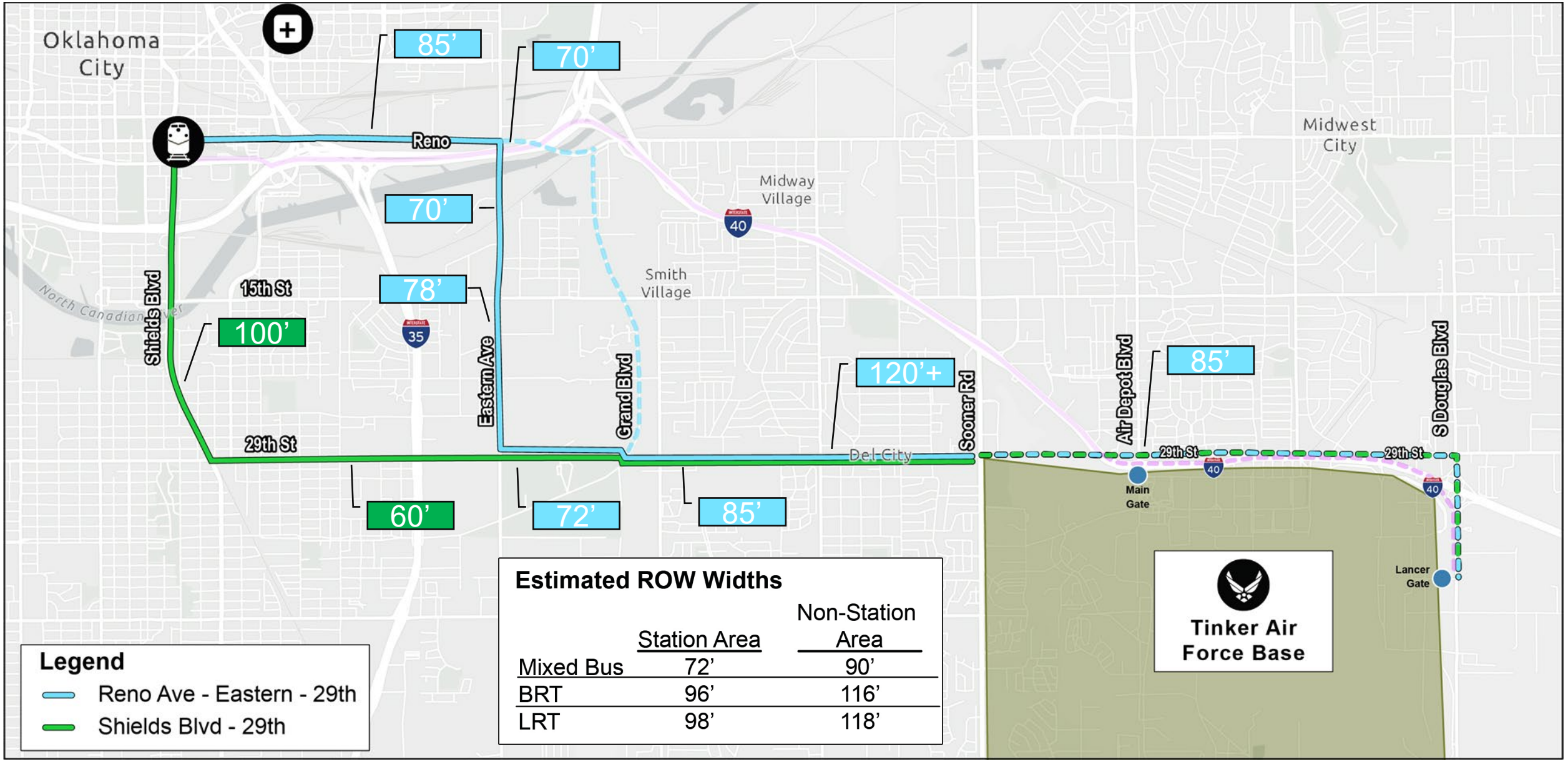


LRT Station Area



Dedicated Guideways vs. Mixed Traffic

RTA

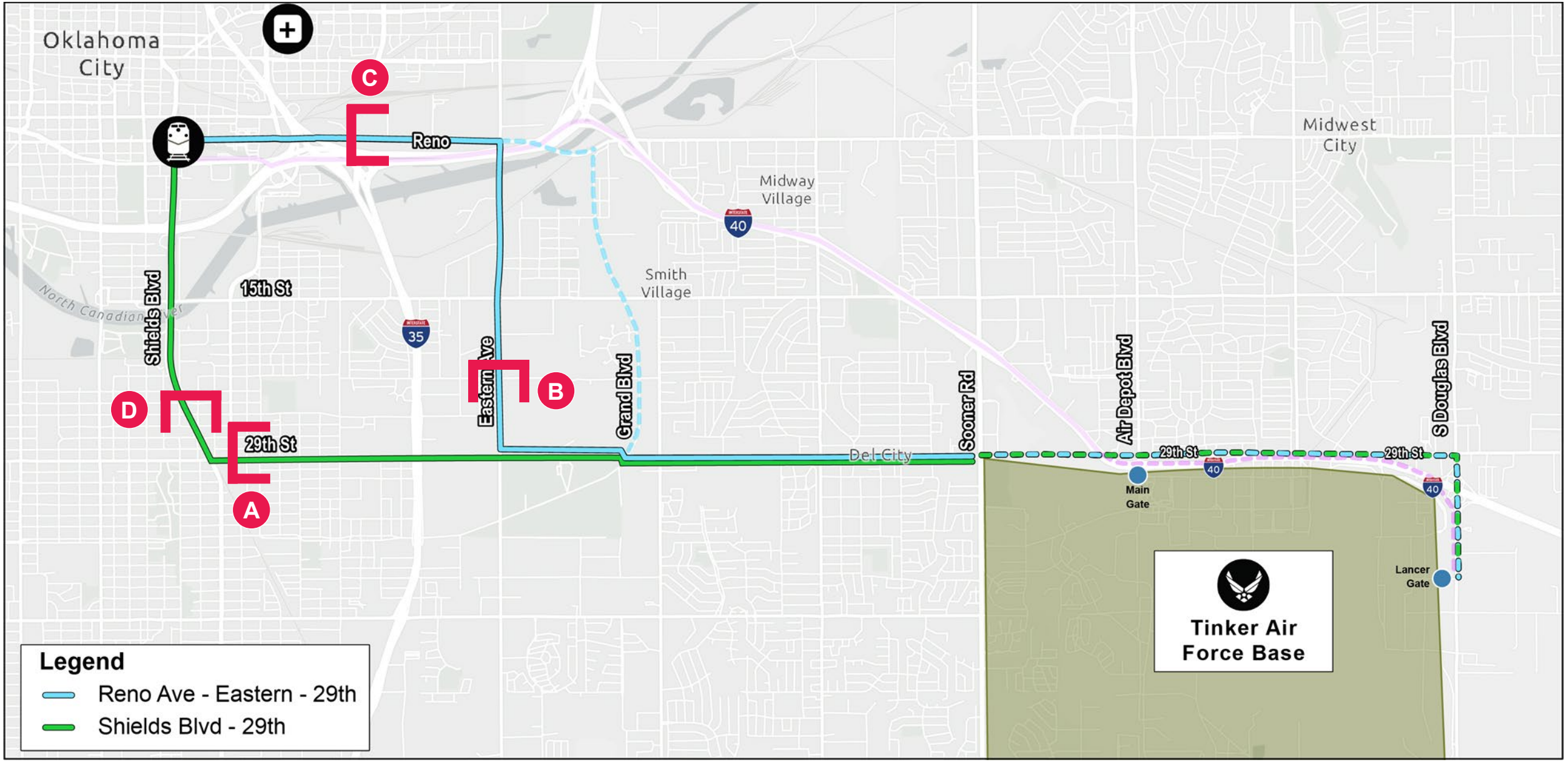


Estimated ROW Widths

	Station Area	Non-Station Area
Mixed Bus	72’	90’
BRT	96’	116’
LRT	98’	118’

Cross Section Analysis

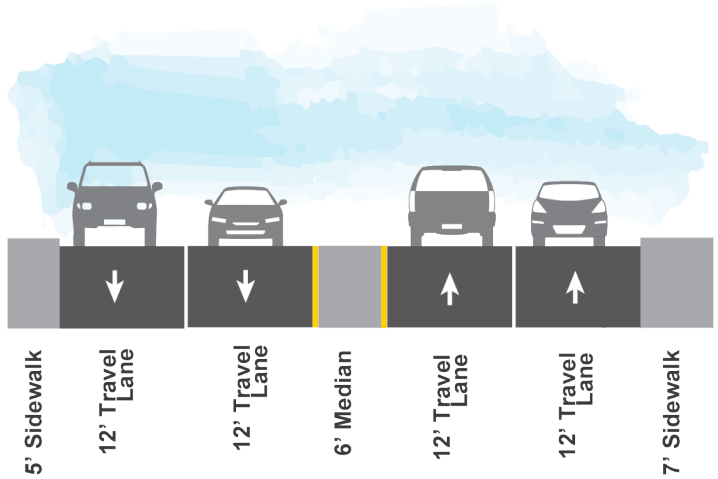
RTA

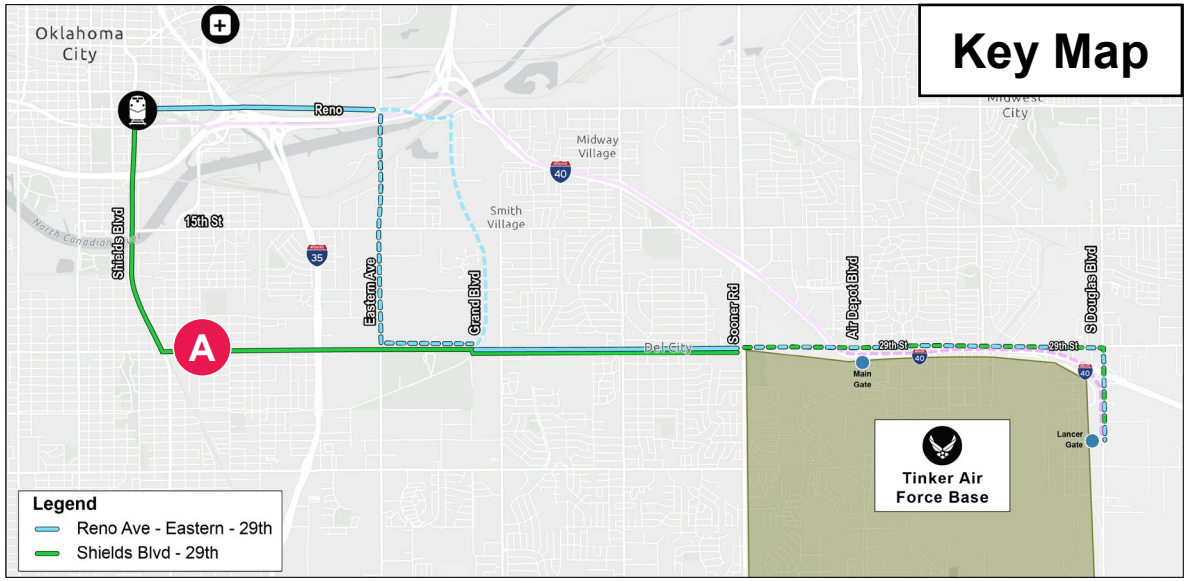


29th Street between Shields and Central

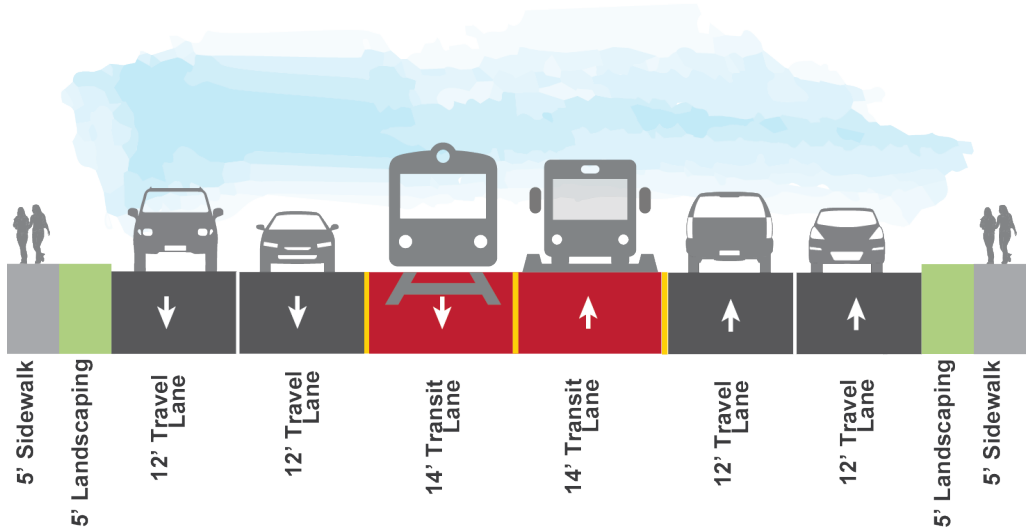
RTA

Existing Travelway: 66’





Potential Travelway: 96’



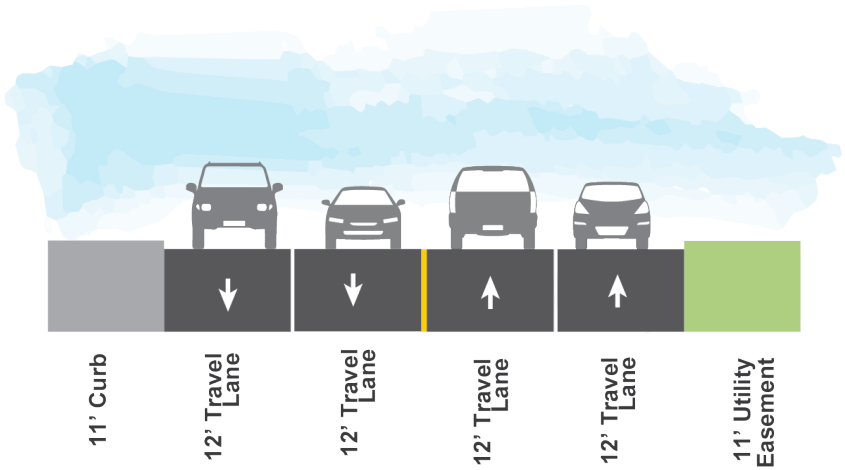
Initial Finding:

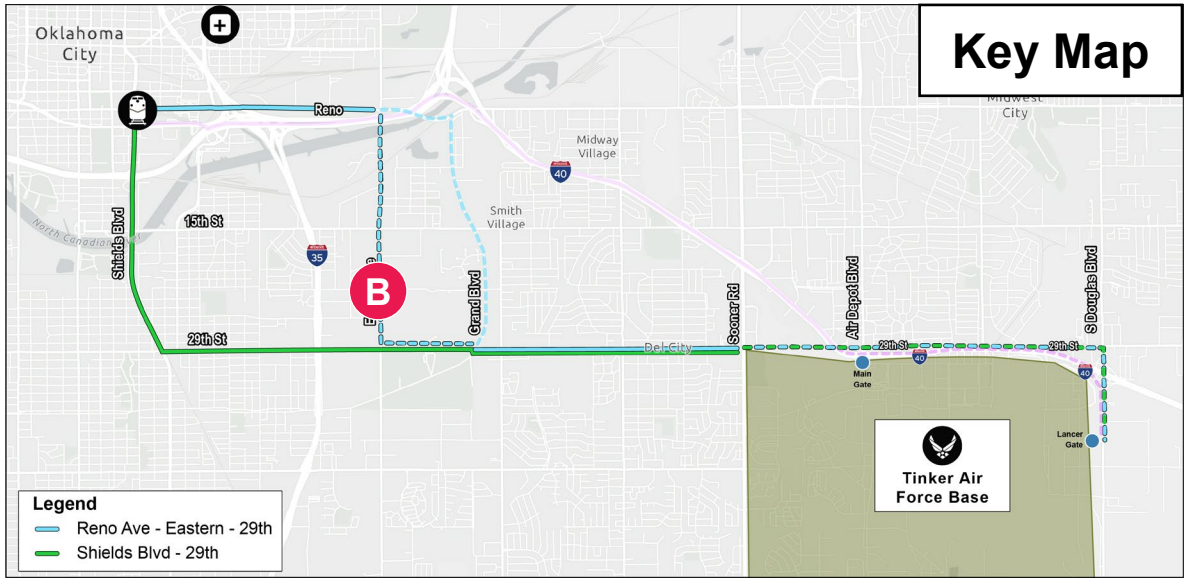
The potential design would require an additional minimum 30’ of travelway

Eastern Avenue at 22nd Street

RTA

Existing Travelway: 70’





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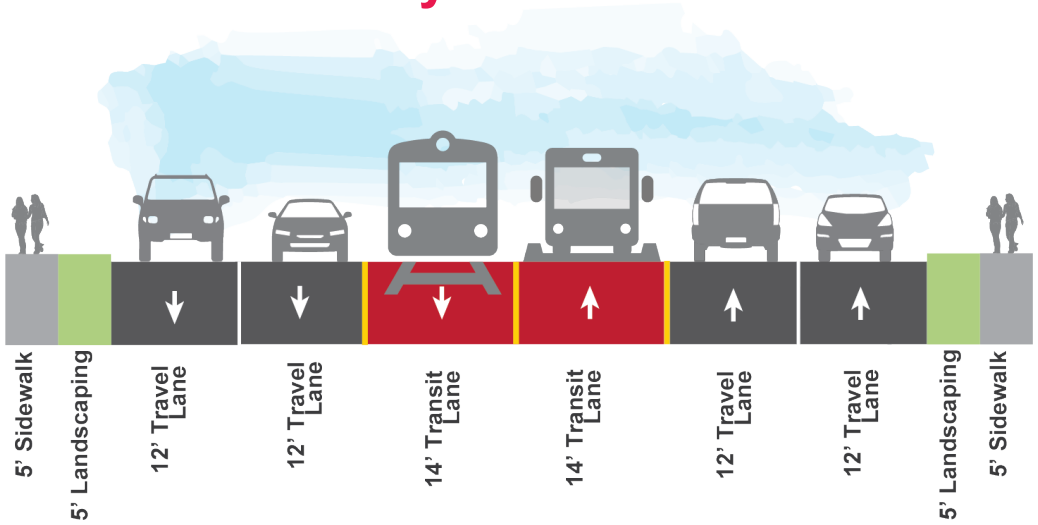
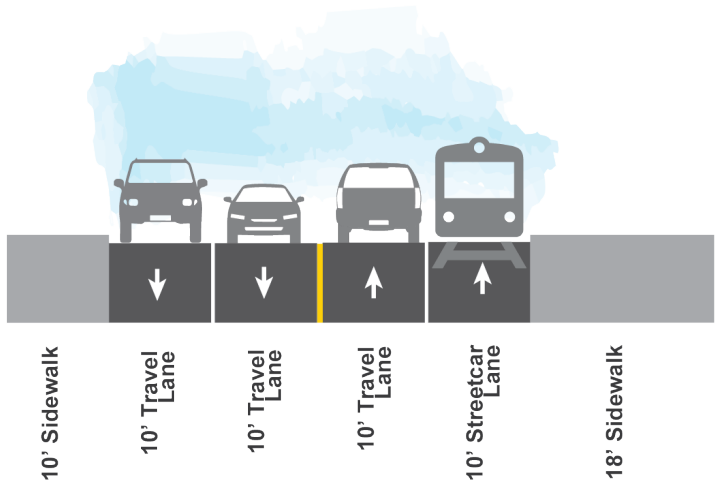


Initial Finding:

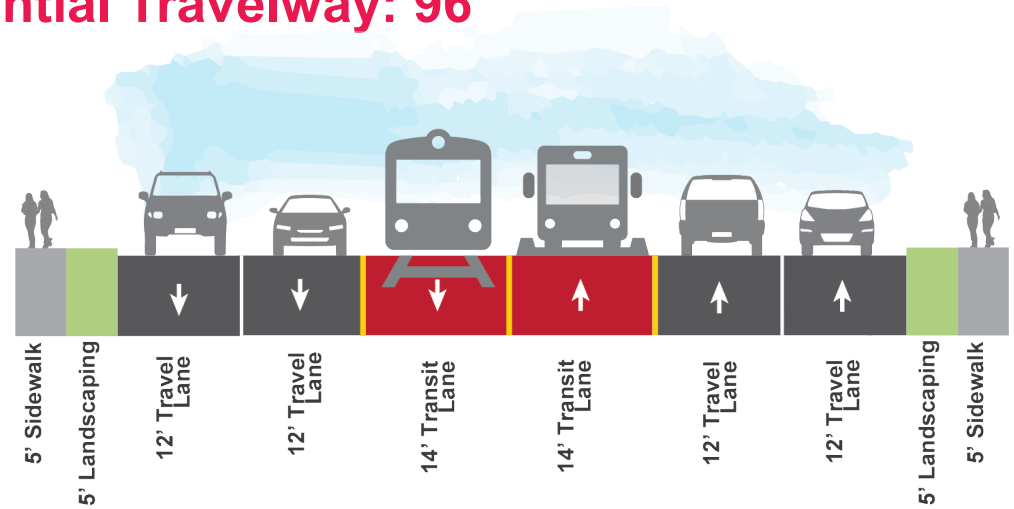
The potential design would require an additional minimum 26’ of travelway

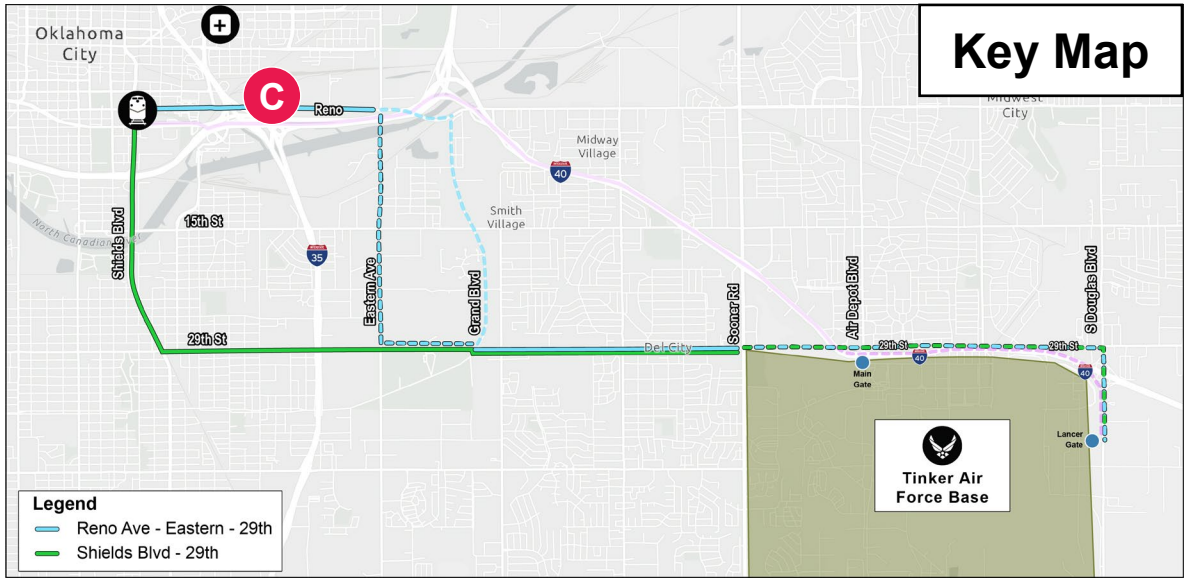
Reno Avenue at Oklahoma Avenue

Existing Travelway: 68’



Potential Travelway: 96’





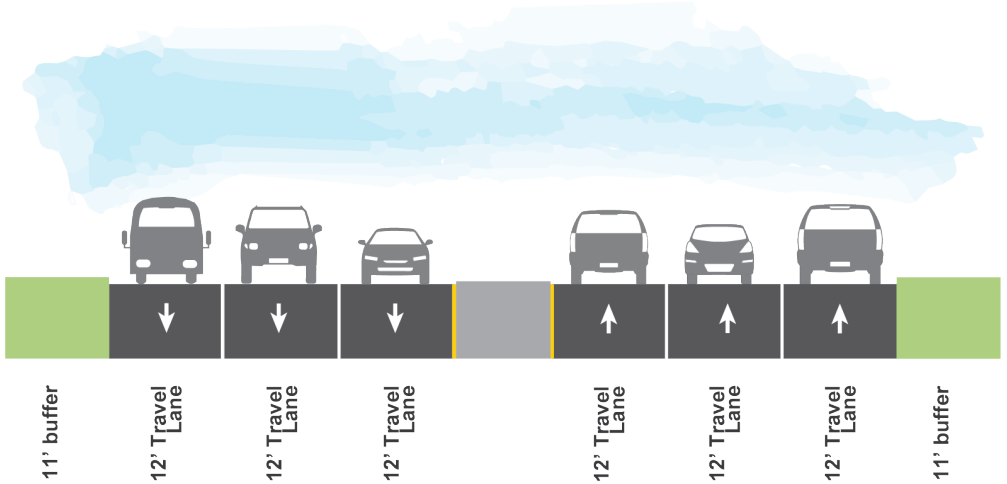
Initial Finding:

The potential design would require an additional minimum 28’ of travelway

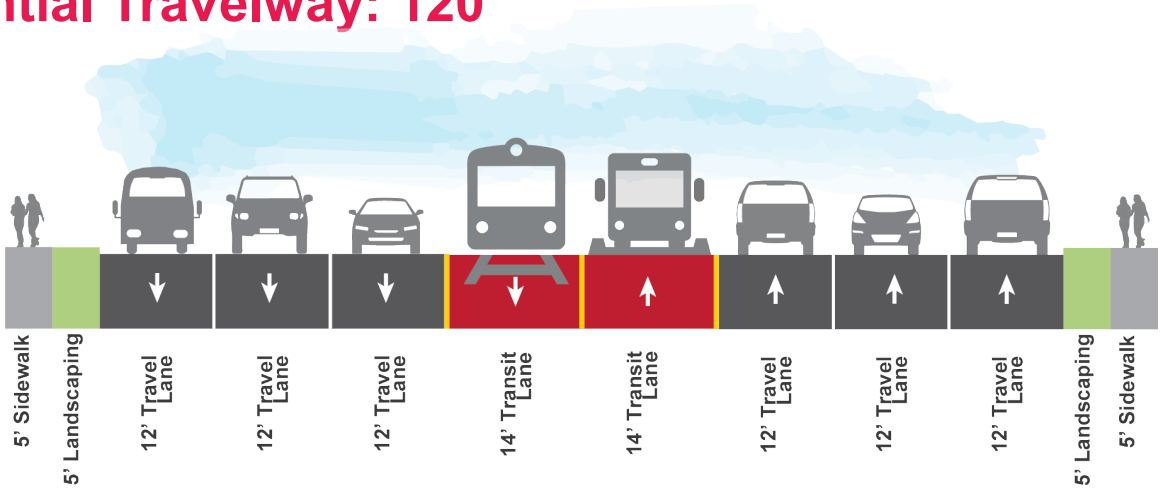
Shields Boulevard at 25th Street

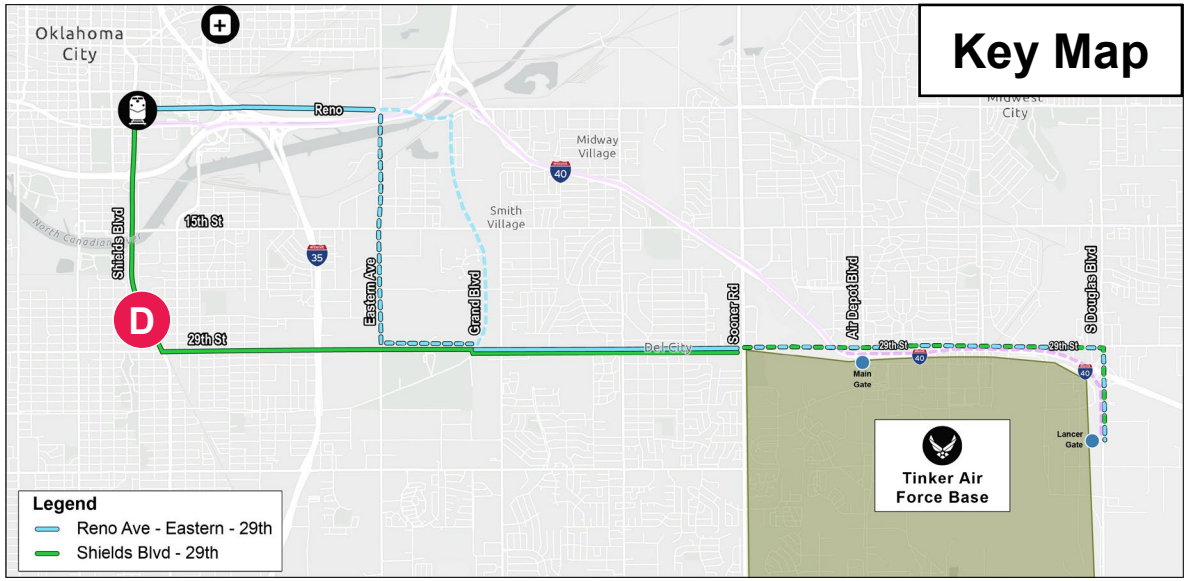
RTA

Existing Travelway: 120’



Potential Travelway: 120’





Initial Finding:

The potential design would require an additional minimum 20’ of travelway

DISCUSSION

Alternative Analysis (AA) Process

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- Define all reasonable alternatives
- Screen against goals & objectives

2 REFINE

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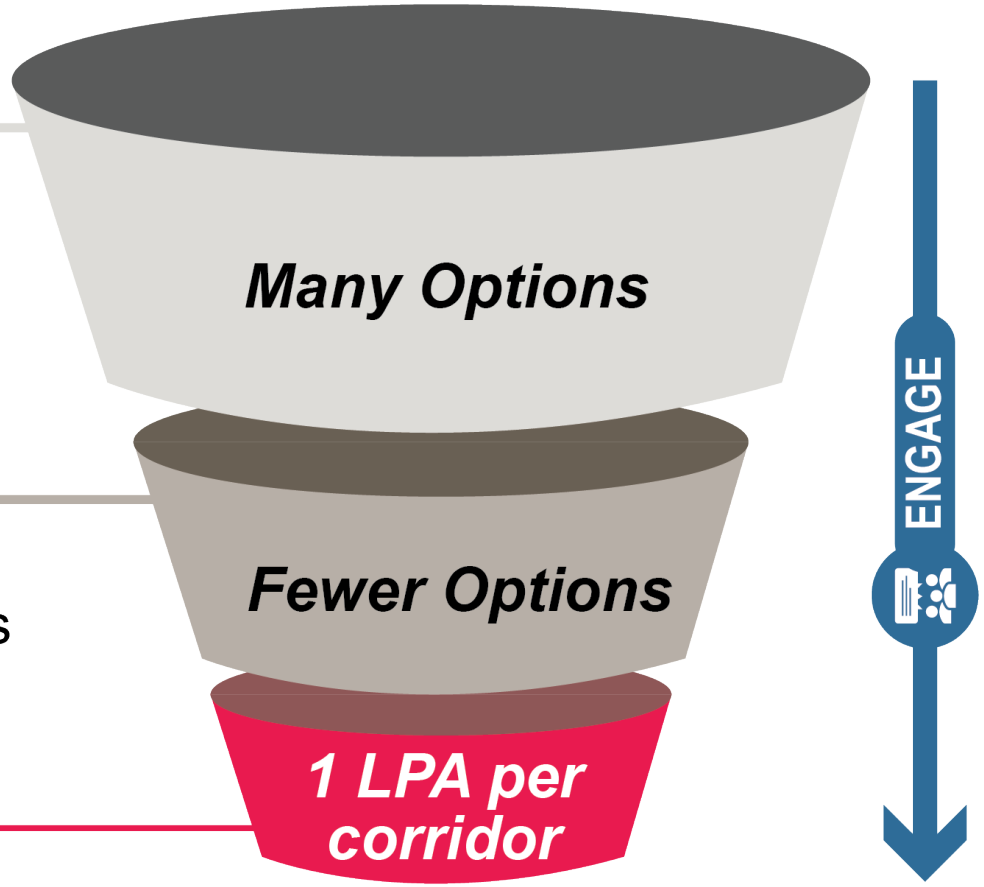
3 SELECT

- Board consideration of LPA



Future Detailed Analysis Components

RTA

Improves Connections

Connect Activity Centers
- Number of Activity Centers/ Corridors
- Access to community facilities

Provide Access to Limited Mobility Populations
- Low Income
- Zero-Car Households
- Senior Communities

Connect to Central OKC and Regional Destinations
- Station potential for Central OKC, Tinker AFB, etc.

Economic Development

Land Use Compatibility
- Compatibility with current and future plans

Population and Employment Density
- Corridor and station-area current and projected

Redevelopment
- Corridor and station-area development potential

Service and System

Ridership Potential
- Estimated ridership threshold analysis

Multimodal Connections
- Connections to pedestrian and bike facilities/trails
- Connections to Highways/Arterials

Reliability, Convenience, and Frequency
- Dedicated ROW quantity
- Vehicle capacity and quantity

Feasibility

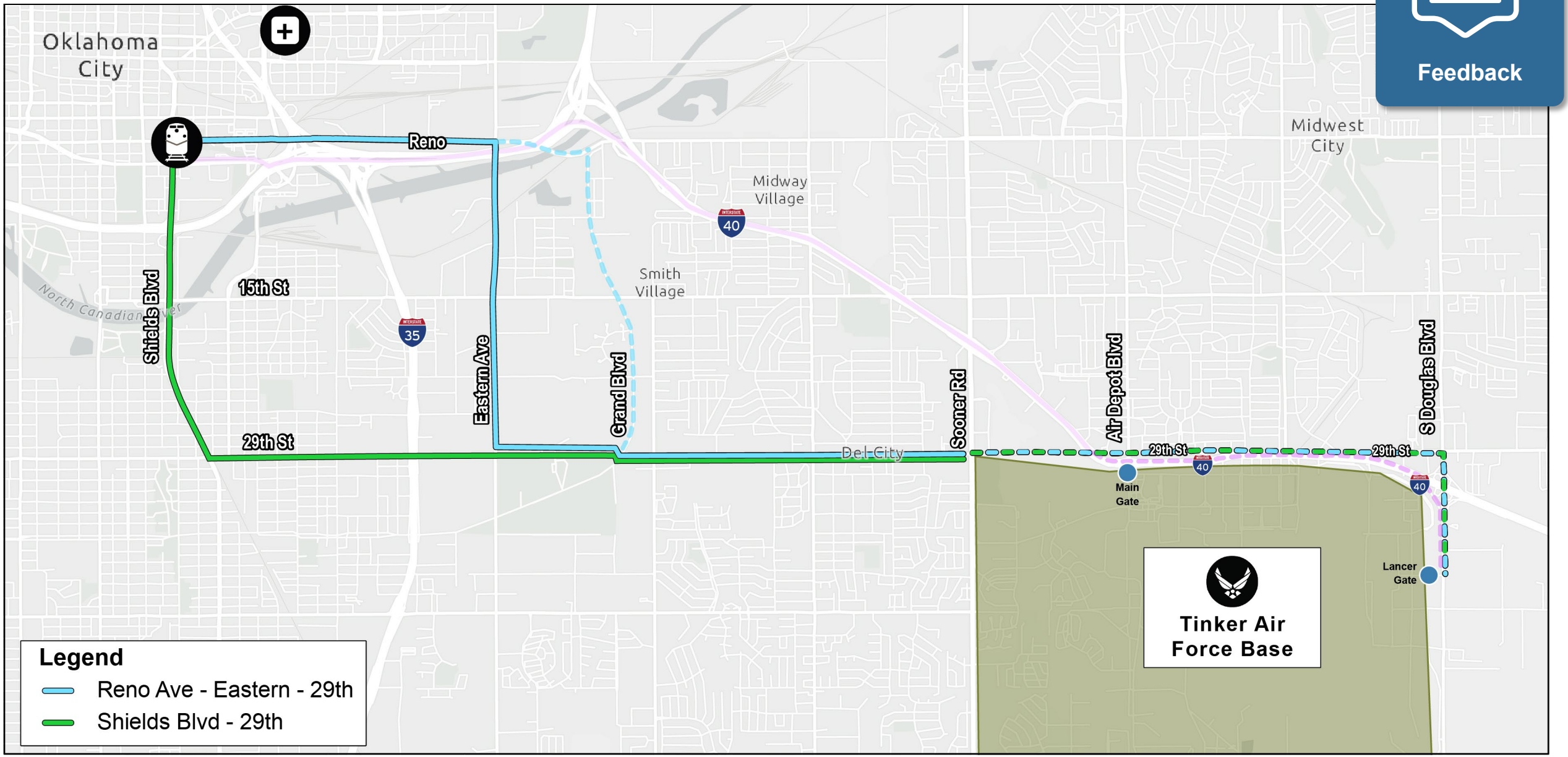
Capital and Operating Cost
- Per mile cost analysis
- Cost element analysis

Engineering Constraints
- ROW and acquisition
- Major utilities
- Parking/Traffic operations

Environmental and Social Justice
- Historic, Hazardous, Floodplains, Air Quality, Noise and Vibrations
- EJ block groups

Updated High-Potential Alignments

Feedback



Fly-Through Video

- Salt Lake City
  - Utah Valley Express (UVX) Line (BRT)
  - TRAX Line (LRT)
  - Frontrunner Line (Commuter Rail)

NEXT STEPS

Look Ahead

RTA

May

TECHNICAL WORKING GROUP MEETING

BOARD: ALTERNATIVES ANALYSIS UPDATE: EAST CORRIDOR

June

PUBLIC ENGAGEMENT: N/S AND EAST CORRIDORS

BOARD ACTION: EAST CORRIDOR ALIGNMENT LPA

July

BOARD: ALTERNATIVES ANALYSIS UPDATE: N/S AND EAST CORRIDORS

START FY2023 WORK PLAN