

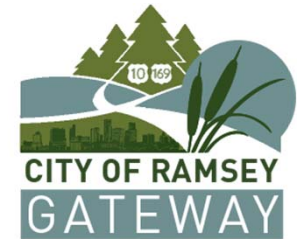
# Ramsey Gateway Highway 10 Project

## City Council Workshop

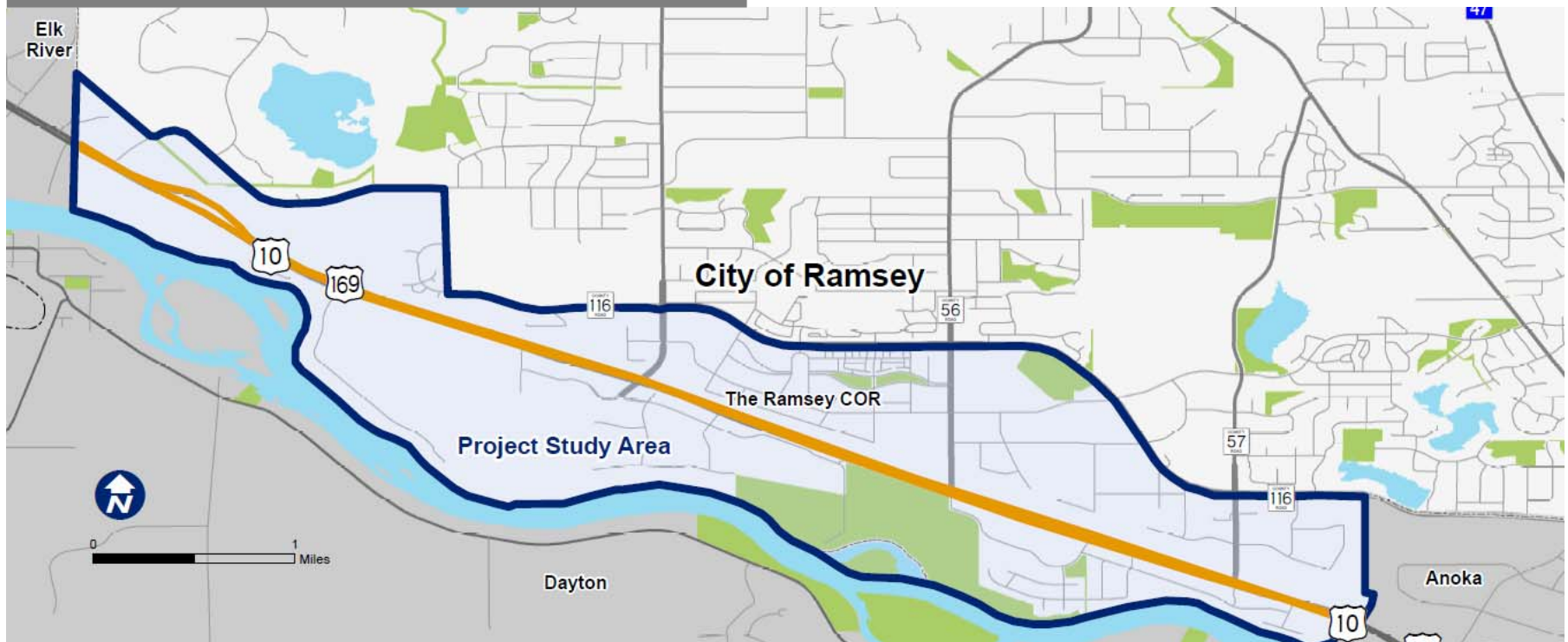
January 29, 2019

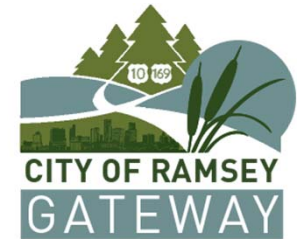


# Meeting Overview



- ✓ Study Recap
- ✓ Purpose of Council Update
- ✓ Draft Improvement Concepts
- ✓ Concept Evaluation
- ✓ Schedule and Next Steps



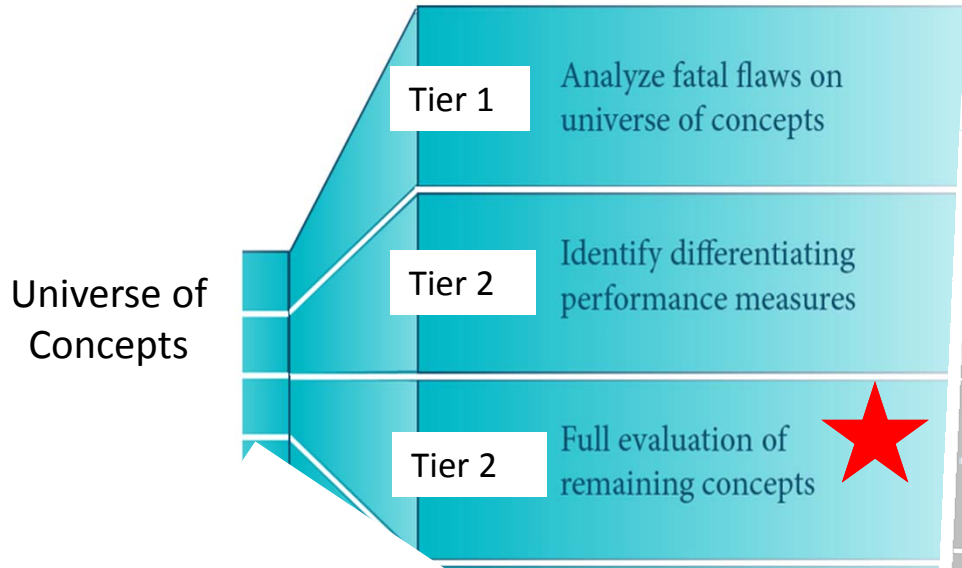
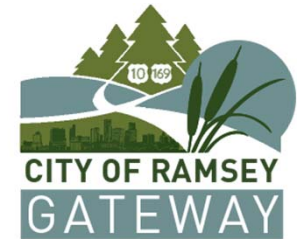


# Ramsey Blvd Concepts

- Railroad Grade Separation Options
- Standard Diamond
- Tight Diamond
- Folded EB On Tight Diamond
- Folded WB Off Tight Diamond
- Folded EB On & WB Off Tight Diamond
- Folded EB On & Semi-folded WB Off Tight Diamond
- Single Point Urban Interchange (SPUI)
- Overpass with Right-In/Right-Out



# Concept Evaluation Process



RAMSEY GATEWAY PROJECT		Sunfish Lake Blvd			
Highway 10/169 Concept DRAFT Evaluation		No Build	Right-of-Way	High T	No Build
Objectives	Performance Measure				
Goal A: Safely accommodate all users (motor vehicles, freight, rail, transit, pedestrians, bicyclists)	Eliminate fatal and serious injury crashes				
	Provide safe pedestrian and bicycle facilities along roadways and at crossings of roads and rail				
	Minimize vehicle delay from railroad operations that results in backups across adjacent intersections and onto Highway 10				
Goal B: Provide efficient mobility and access for all modes of travel	Provide acceptable mobility and system reliability on Highway 10 for access to Ramsey and beyond including regional				
	Ensure acceptable vehicle delay and travel times for arterial highways (e.g., Sunfish Lake Blvd, Ramsey Blvd, and Armstrong Blvd)				
	Provide reasonable and responsible access to optimize mobility and reduce the need for vehicles to enter onto Highway 10 for short trips				
Goal C: Develop a financially responsible infrastructure implementation plan	Minimize right-of-way costs				
	Maximize benefit-cost of improvements				
	Maximize potential to secure multiple funding scenarios				
Goal D: Support plans to build a connected and recognizable Highway 10 corridor	Attract visitors and residents to the Highway 10 corridor by car, train/transit, bike or foot				
	Create a cohesive and inviting aesthetic including appropriate signage, lighting and landscape				
	Promote business expansion				
Goal E: Provide infrastructure improvements compatible with the natural and built environment	Seek consistency with state, regional and local plans				
	Avoid impacts to environmental resources				
	Minimize impacts to the built environment				

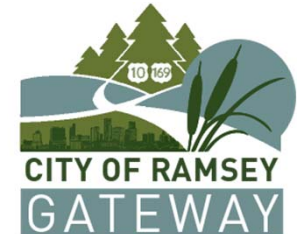
# Evaluation Measures - Differentiators



Project Goals	Measures
Safely accommodates all users	<b>Pedestrian-Vehicle Conflict Points</b>
	<b>Perceived Pedestrian Comfort</b>
Provide efficient mobility and access for all modes of travel	<b>Design Year Traffic Operations</b>
	<b>Requires a Separate Pedestrian Bridge</b>
	<b>Community Connectivity - Provides all movements</b>
	<b>Provides Railroad Grade Separation</b>
	<b>Ease of Business Access - Retail</b>
	<b>Ease of Business Access - Industrial</b>
Compatible with the natural and built environment	<b>Access to Business Park</b>
	<b>Potential Property Impacts*</b>
	<b>Impact to Regional Park</b>
Develop a financially responsible infrastructure implementation plan	<b>Impact to Public Works Campus</b>
	<b>Relative Cost Comparison</b>
Support plans to build a connected and recognizable Highway 10 corridor	<b>Constructability/Long Term Maintenance</b>
	<b>Likelihood of Railroad Approval</b>
	<b>Agency Support to Carry Concept Forward</b>

*\*Assessment based on planning-level concepts and will require further review to verify actual impacts.*

# Ramsey Blvd Evaluation

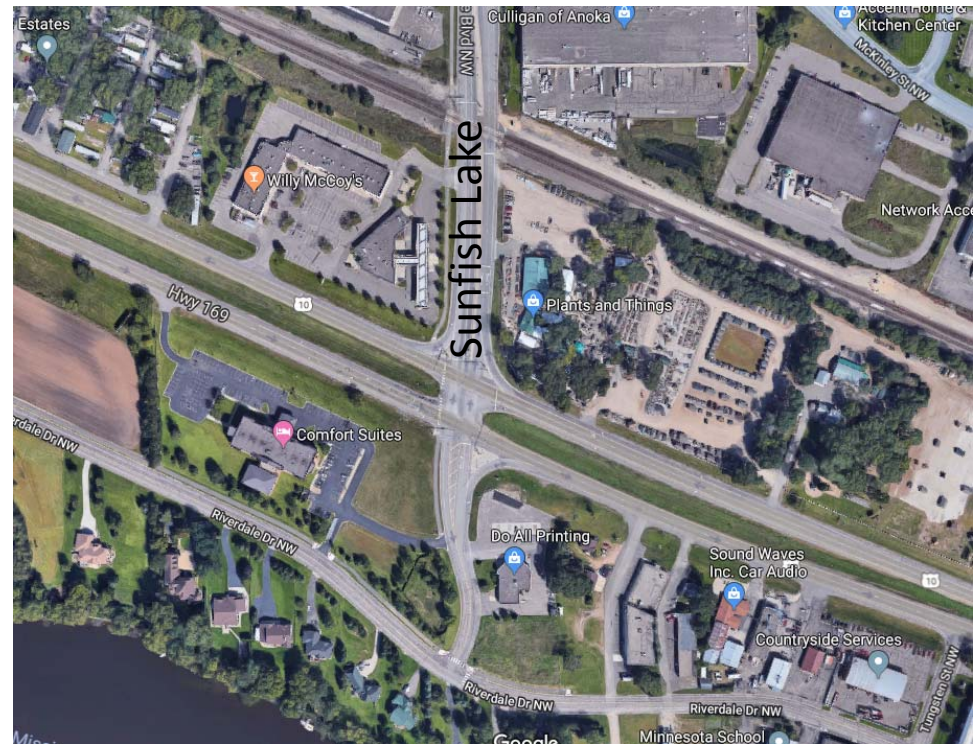


Measure	No Build	RAMSEY BLVD OVER RAILROAD CONCEPTS									RAMSEY BLVD UNDER RAILROAD CONCEPTS									Notes
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8			
		Standard Diamond	Tight Diamond	Folded EB On Tight Diamond	Folded WB Off Tight Diamond	Folded EB On & WB Off Tight Diamond	Folded EB On & Semi-Folded WB Off Tight Diamond	Overpass with Right-In/Right-Out	Single Point Urban Interchange (SPUI)	Standard Diamond	Tight Diamond	Folded EB On Tight Diamond	Folded WB Off Tight Diamond	Folded EB On & WB Off Tight Diamond	Folded EB On & Semi-Folded WB Off Tight Diamond	Overpass with Right-In/Right-Out	Single Point Urban Interchange (SPUI)			
<b>Pedestrian-Vehicle Conflict Points</b>	13	23	23	43	27	47	47	27	23	23	23	43	27	47	47	27	23	Conflict points were counted where crosswalks and sidewalks connections will be provided		
<b>Perceived Pedestrian Comfort</b>																				
<b>Design Year Traffic Operations</b>																		Design year 2045		
<b>Ease of Business Access - Retail</b>	From ED TH 18	N/A	N/A							N/A								Azusa traveling to Holiday Gar Station. Green - add +60% candr Yellow - add +60-120% candr Red - add +120% candr		
	From WB TH 18	N/A	N/A							N/A										
<b>Ease of Business Access - Industrial</b>	From ED TH 18	N/A																Azusa traveling to 142nd Ave at Ebony St Green - add +60% candr Yellow - add +60-120% candr Red - add +120% candr		
	From WB TH 18	N/A																		
<b>Potential Property Impacts*</b>	N/A																			
<b>Impact to Regional Park</b>	N/A	21 Acres	4 Acres	21 Acres	4 Acres	21 Acres	21 Acres	4 Acres	4 Acres	21 Acres	4 Acres	21 Acres	4 Acres	21 Acres	21 Acres	4 Acres	4 Acres	Any impact is a concern because the park is already smaller than the average regional park.		
<b>Impact to Public Works Campus</b>	N/A																	Underpass options require a right-of-way which impacts the existing Public Works Campus.		
<b>Relative Cost Comparison</b>	N/A	-10%	-13%	-11%	-13%	-11%	-11%	-18%	+20%	+6%	Median Cost	+7%	+3%	+10%	+10%	Median Cost	+51%	Green: +10% Median Cost Yellow: +7-10% Median Cost Red: +10% Median Cost		
<b>Constructability/Long Term Maintenance</b>	N/A																	Underpass options require a right-of-way which influences the construction schedule and requires extra measures for drainage. Additionally TH 18 grade change is more impactful to traffic than Ramsey grade change.		
<b>Likelihood of Railroad Approval</b>	N/A																	Discussion with BNSF Railroad indicates strong preference for an overpass.		
<b>Agency Support to Carry Concept Forward</b>	N/A	No Support		No Support		No Support	No Support		No Support	No Support	No Support	No Support	No Support	No Support	No Support	No Support	No Support			

\*Assessment based on planning-level concepts and will require further review to verify actual impacts.

# Sunfish Lake Blvd Concepts

- Railroad At-Grade and Grade Separation Options
- Overpass with Right-In/Right-Out
- Standard Diamond
- Tight Diamond
- Single Point Urban Interchange
- Grade-Separated Roundabout
- Center Turn Overpass
- High-T



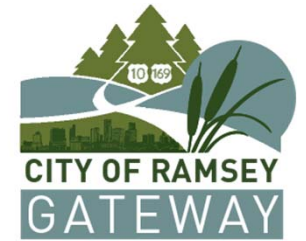
# Sunfish Lake Blvd Evaluation



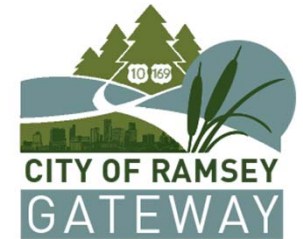
Measure		No Build	SUNFISH LAKE BLVD CONCEPTS										Notes
			GRADE SEPARATED RAILROAD CROSSING							AT GRADE RAILROAD CROSSING			
			1A	1B	3	4	5A	6A	7	2	5B	6B	
		Overpass with Right-Inf/Right Out	Overpass with Right-Inf/Right Out	Standard Diamond	Tight Diamond	Single Point Urban Interchange (SPUI)	Grade Separated Roundabout	Center Turn Overpass	High-T	Single Point Urban Interchange (SPUI)	Grade Separated Roundabout		
<b>Pedestrian-Vehicle Conflict Points</b>		7	26	17	30	30	30	30	30	23	30	30	Conflict points were counted where crosswalks and side walk connections will be provided
<b>Perceived Pedestrian Comfort</b>										Assumes separate ped bridge			
<b>Design Year Traffic Operations</b>													Design year 2045
<b>Requires a Separate Pedestrian Bridge</b>		N/A	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	
<b>Community Connectivity - Provide all movements</b>													
<b>Ease of Business Access - Retail</b>		From EP TH 18: N/A											Assume traveling to Dalt All Printing Green - addr <60+re+can dr Yellow - addr <60-120+re+can dr Red - addr 120+re+can dr
<b>Ease of Business Access - Industrial</b>		From EP TH 18: N/A											Assume traveling to McKinley St at Unity St Green - addr <60+re+can dr Yellow - addr <60-120+re+can dr Red - addr 120+re+can dr
<b>Access to Business Park</b>		N/A											
<b>Potential Property Impact*</b>													
<b>Provide Railmed Grade Separation</b>													
<b>Relative Cost Comparison</b>		N/A	+6%	+6%	+12%	+20%	+20%	+11%	Median Cost	-38%	-11%	-13%	Green: <10% Median Cost Yellow: +7-10% Median Cost Red: 10% Median Cost
<b>Constructability/Long Term Maintenance</b>		N/A											TH10 grade change is more impactful to traffic than Sunfish Lake grade change.
<b>Agency Support to Carry Concept Forward</b>		N/A			No Support	No Support				No Support			

\*Assessment based on planning-level concepts and will require further review to verify actual impacts.

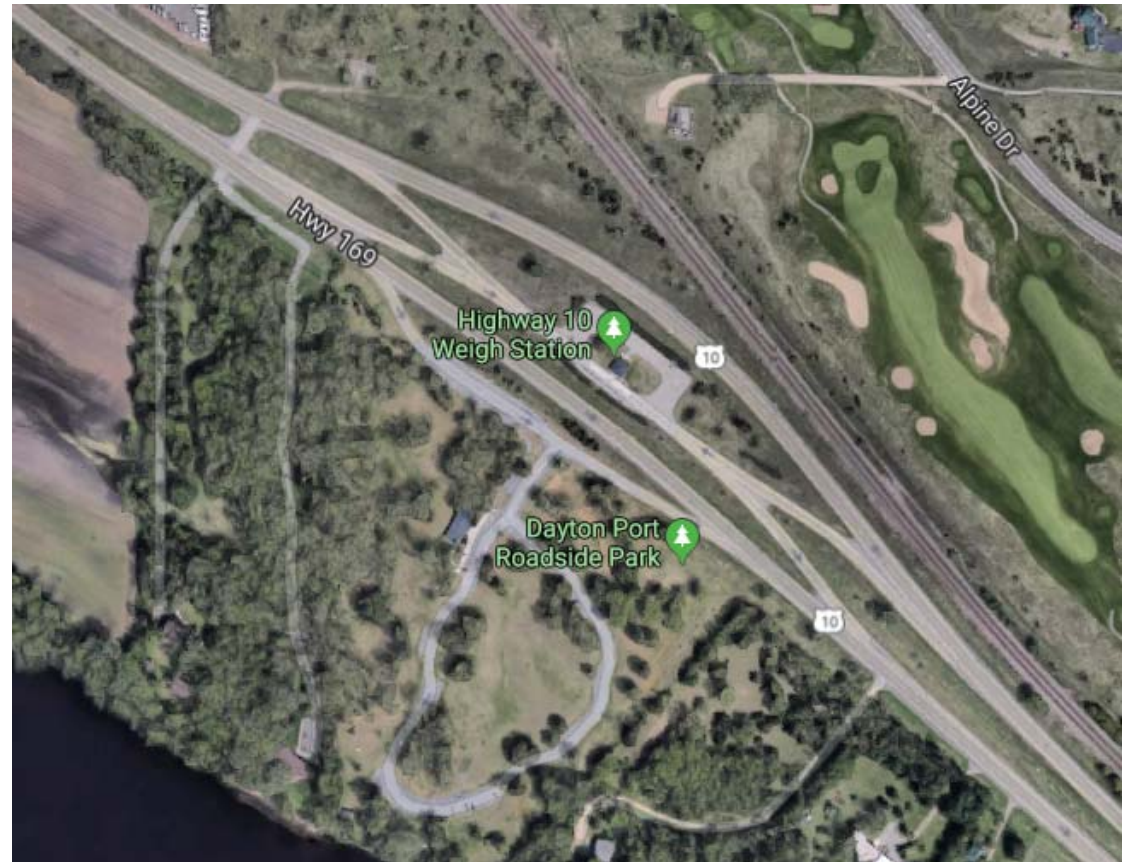
# West End Concepts



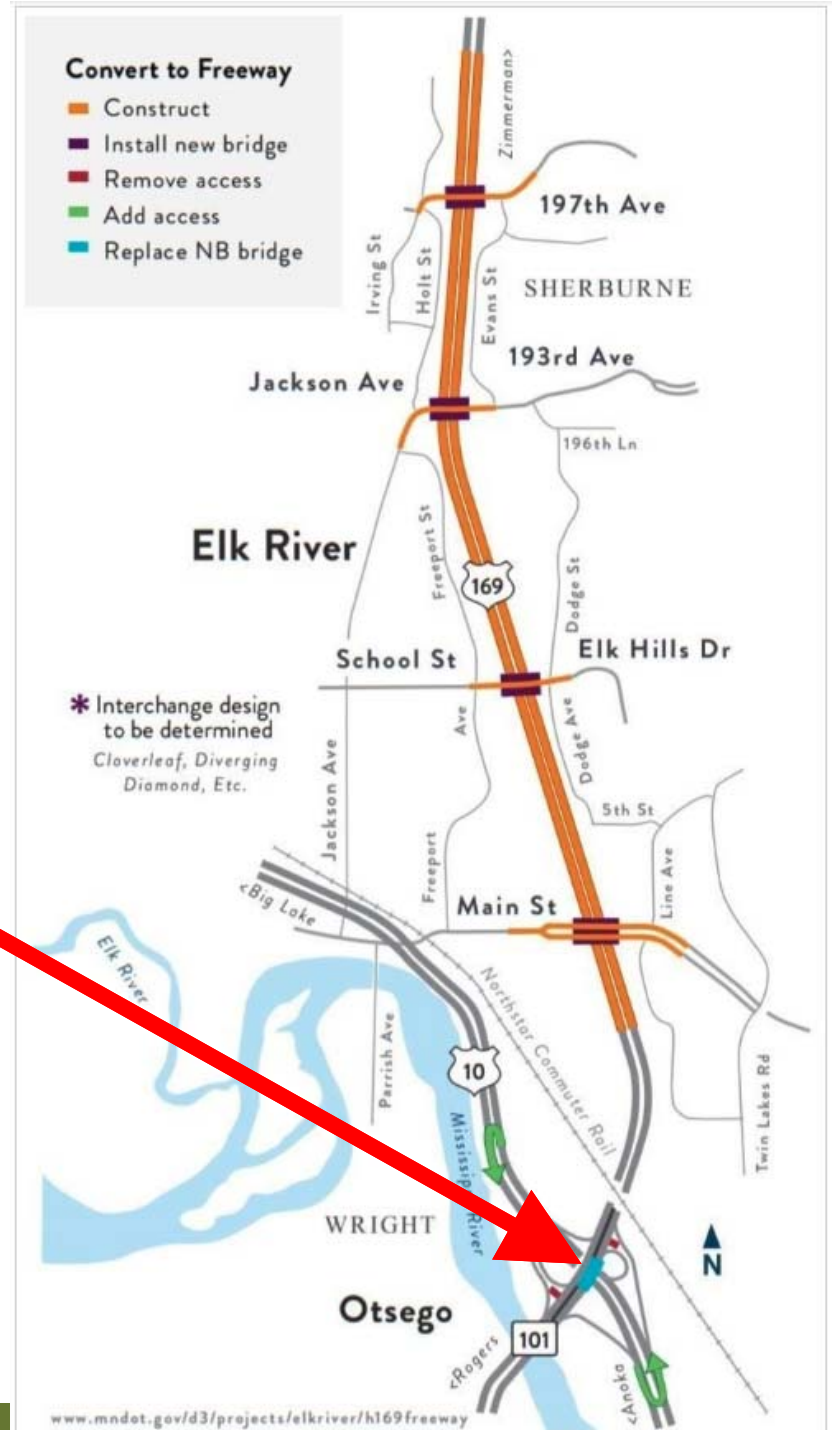
# MnDOT Rest Area/Weigh Station Input



- Weigh station accel/decel lanes substandard length
- Weigh station closed during peak traffic hours for safety
- No plans to close weigh station
- Rest Area entrance/exit confusing



# TH 10 at TH 101/ TH 169 (Elk River)

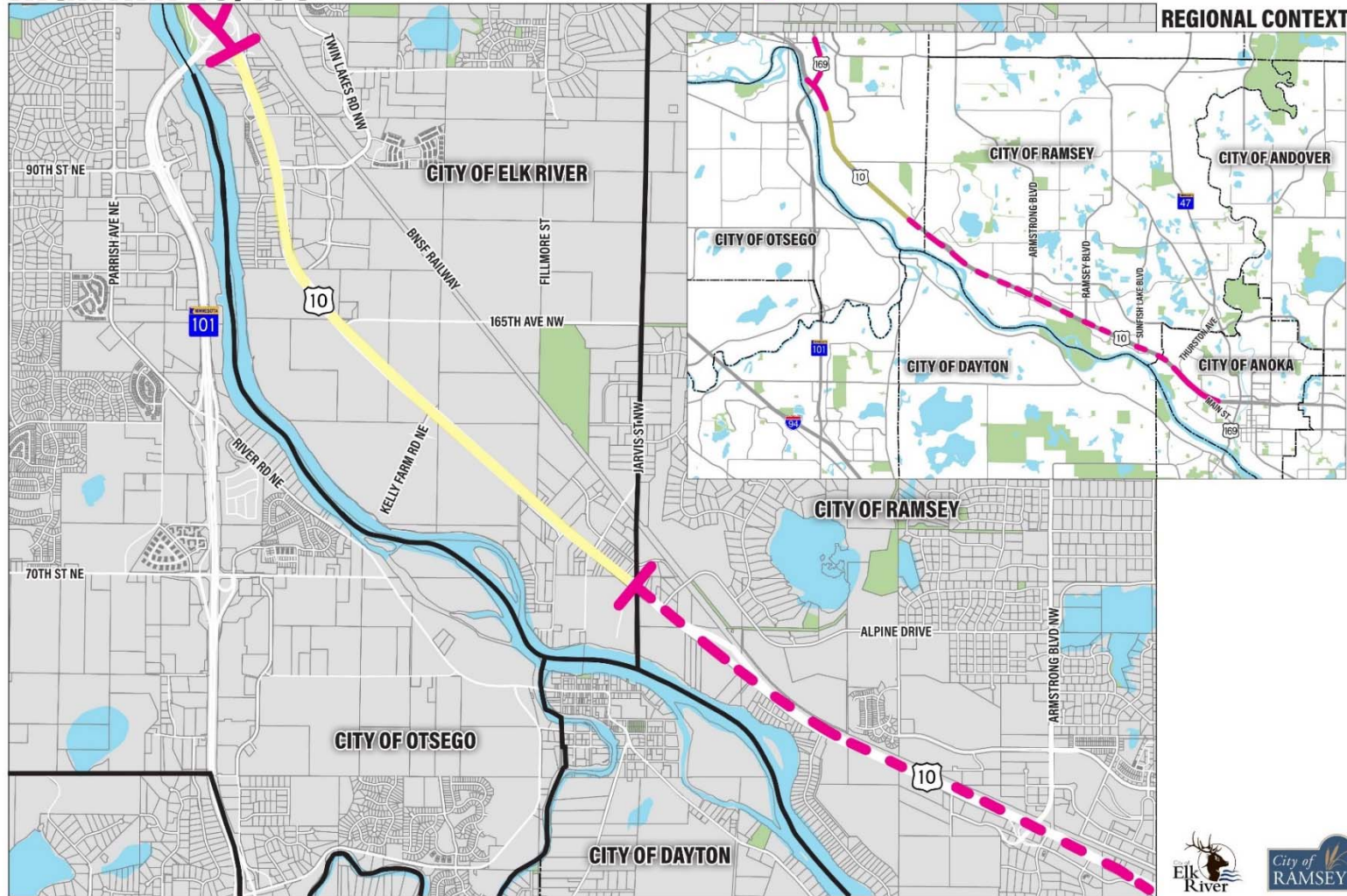


# Corridor Vision West of Ramsey Unknown

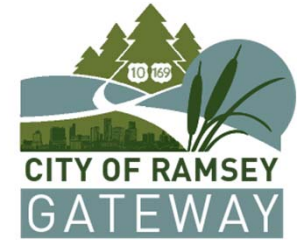


## HIGHWAY 10/169

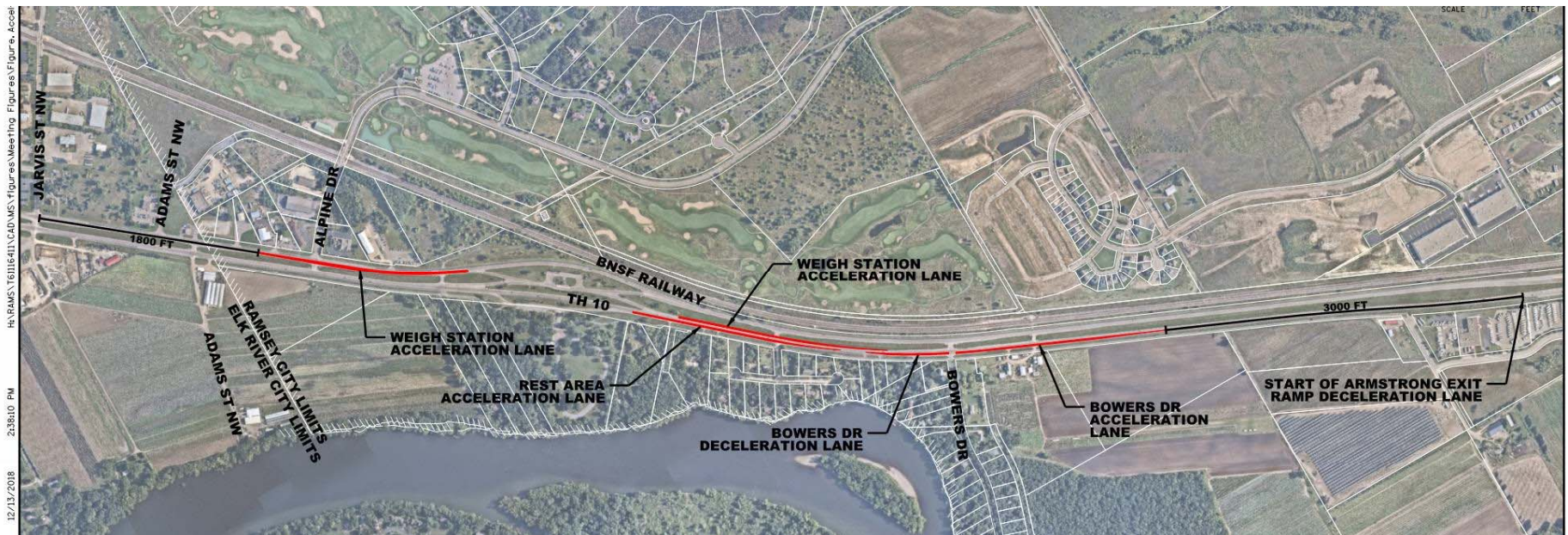
— CITY LIMITS    - - - UNDER STUDY    — FUNDED PROJECT



# West End Range of Concepts - See Link



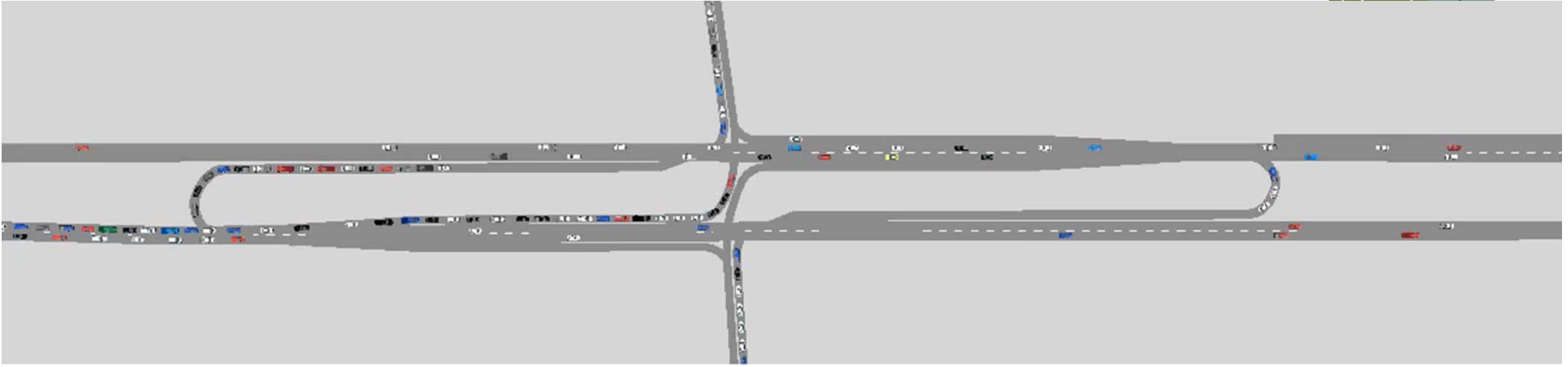
- Signalized RCUT
- Overpass at with RIRO
- Right-in/Right-out at Bowers Dr
- Lengthen accel/decel to weigh station
- Rest Area scenarios
  - Remains in current location
  - Expand to north side Hwy 10 for WB access
  - No longer exists in study area



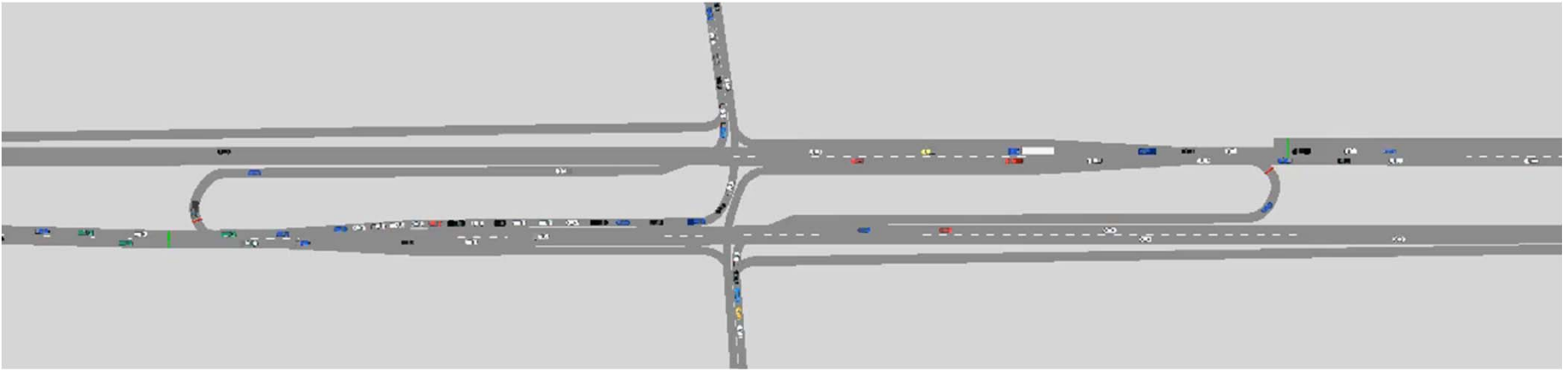
# West End Concepts



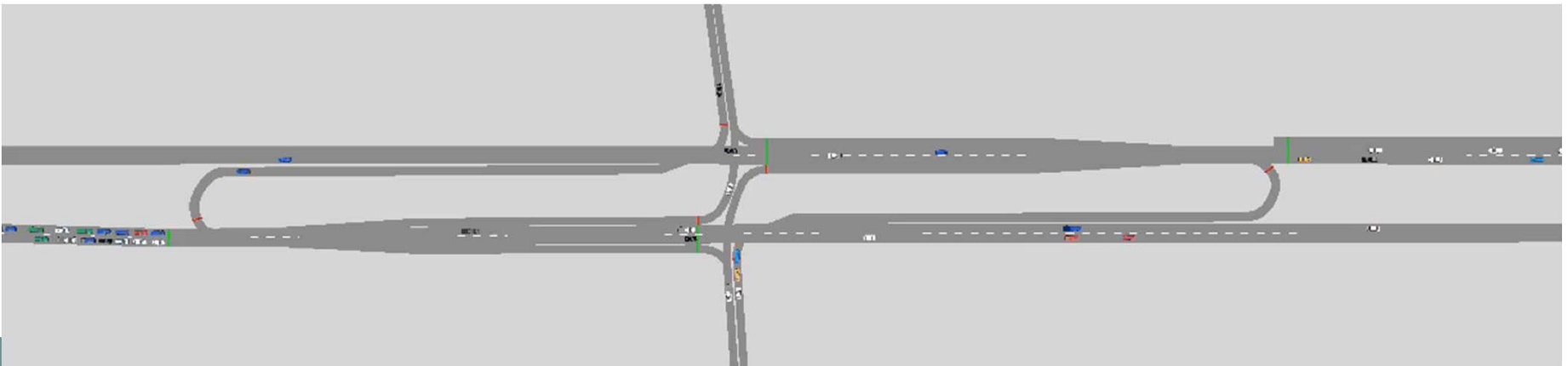
UNSIGNALIZED



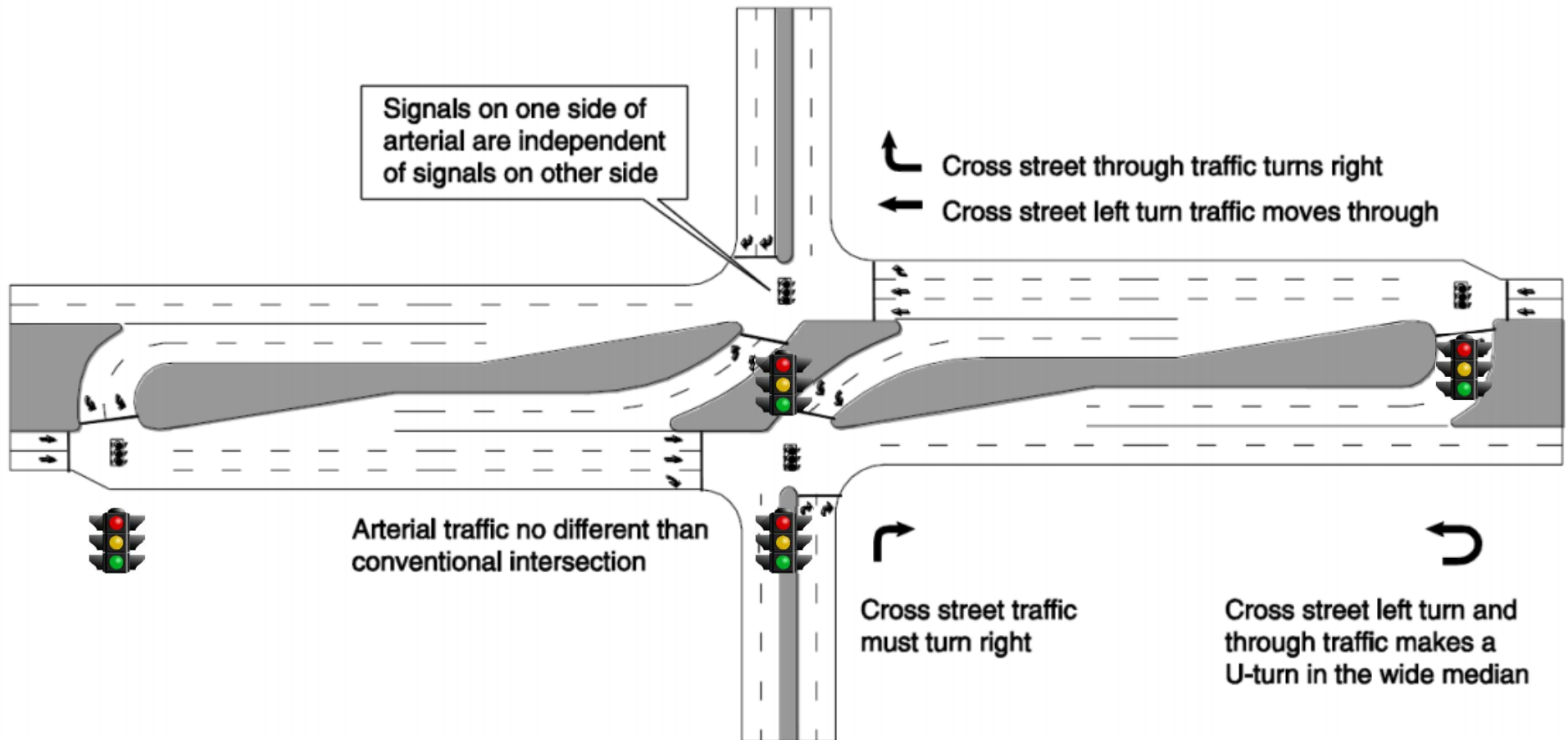
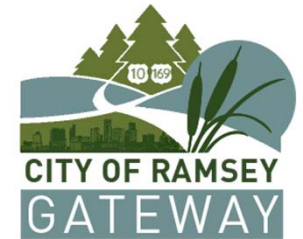
SIGNALIZED U-TURN



SIGNALIZED



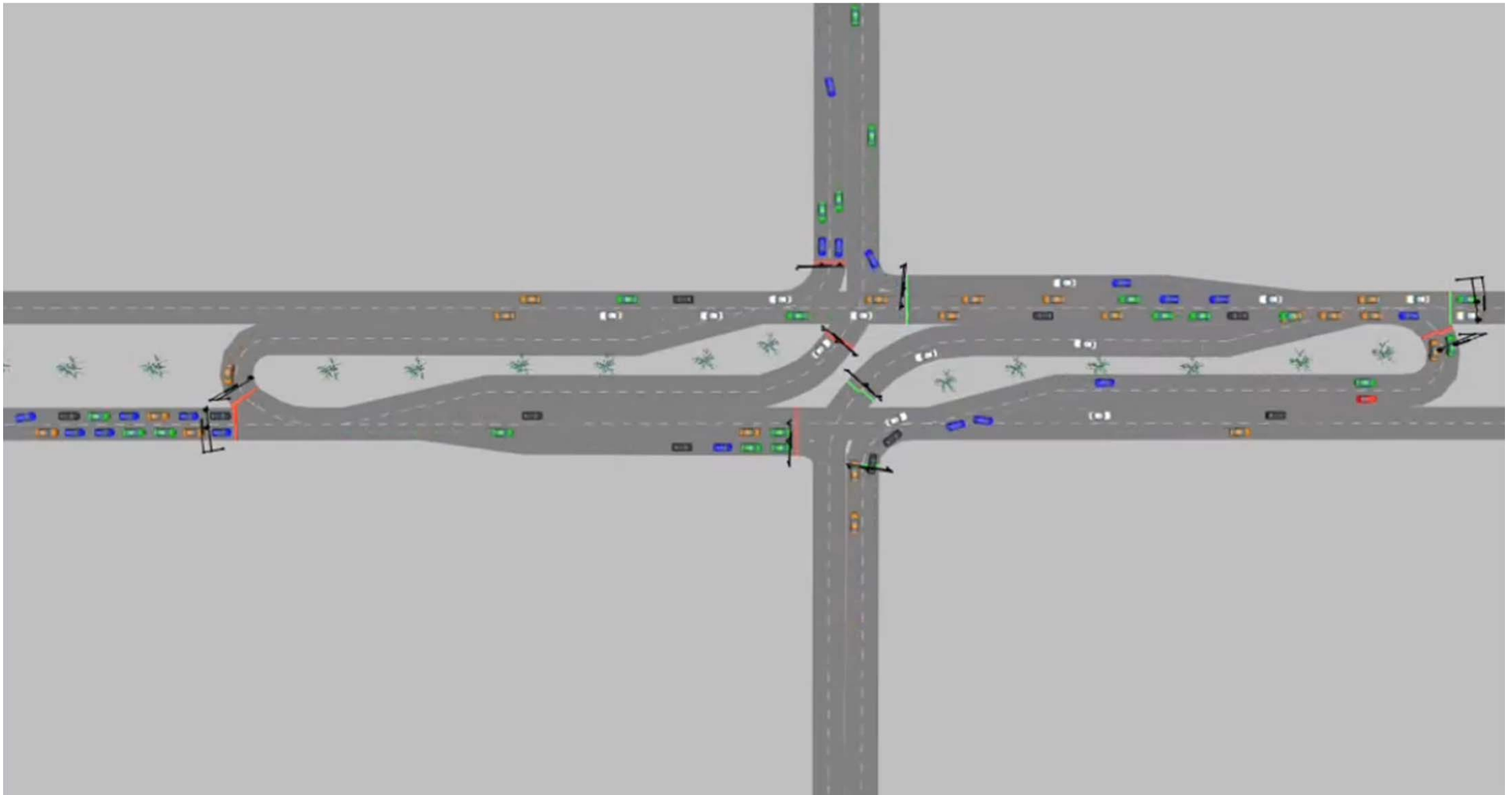
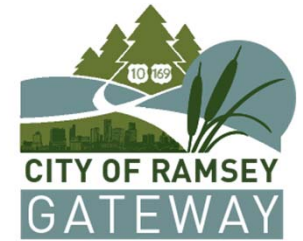
# Signalized RCUT Example



[https://www.youtube.com/watch?time\\_continue=2&v=tnSETIn90hc](https://www.youtube.com/watch?time_continue=2&v=tnSETIn90hc)

# Concept Development

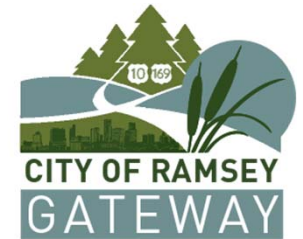
## Signalized RCUT Example





## West End Evaluation Criteria

- Traffic Operations/Safety
- Access
- Property Impacts
- Cost



# Public Involvement Plan

- Steering Committee – February/Early March
- Property Owner Meetings – Early March
- Open House – March

