



SR 303 Corridor Study

Stakeholder Advisory Group Meeting #5

March 30, 2020



Agenda

Introduction

Needs Review

Alternative Review

Second level screening

Cost

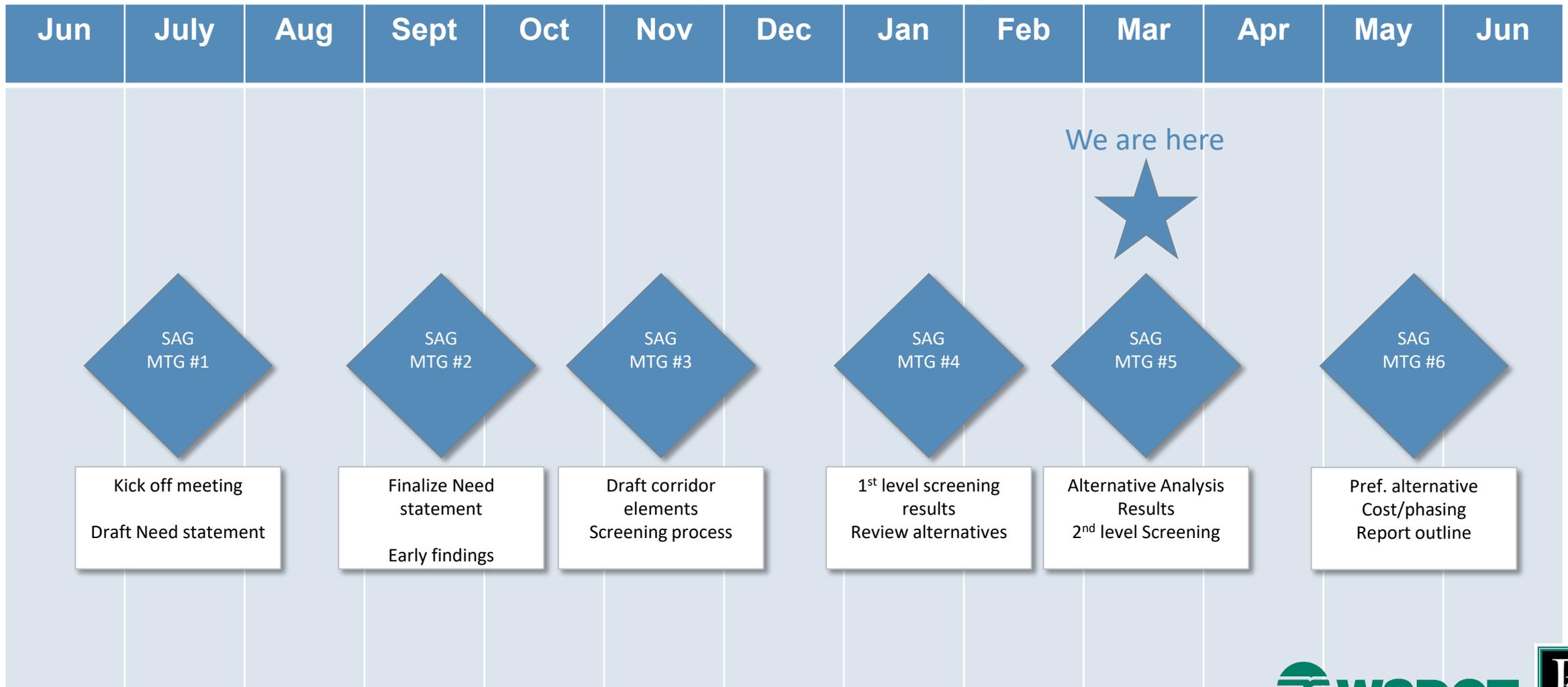
Open House

Next Steps

Meeting Protocols

- Always mute microphone unless speaking
- Questions and comments can be shared via the comment button in the Skype window
- Please be courteous with other members and try not to talk over each other

Stakeholder advisory meeting schedule



Meeting Goals

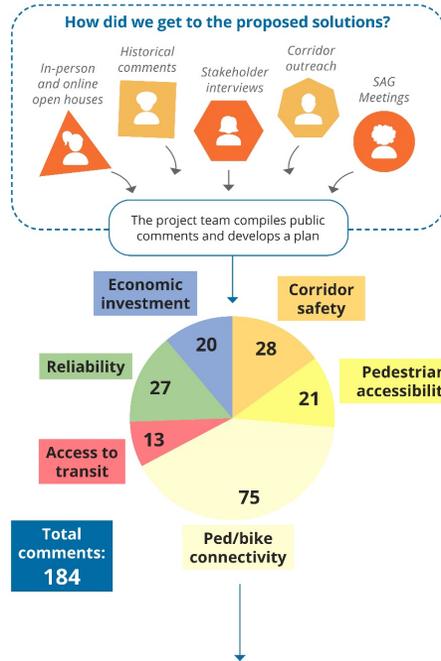
Review alternatives

Understand screening process and findings

Begin conversation about preferred alternative

Consider phasing options

SR 303 Corridor Study



DRAFT - For internal concept discussion purposes only

Alternative Development

Alternatives	Corridor Needs					
	Corridor safety	Pedestrian accessibility	Ped/bike connectivity	Access to transit	Reliability	Economic investment
Traffic Management	<ul style="list-style-type: none"> Pedestrian lighting 	<ul style="list-style-type: none"> ADA ramps 	<ul style="list-style-type: none"> Complete gaps in bike network 		<ul style="list-style-type: none"> Green wave or adaptive signal timing Improve signal phasing 	<ul style="list-style-type: none"> Placemaking and wayfinding
Multi-modal	<ul style="list-style-type: none"> Pedestrian crossings Lighting Wider shoulders 	<ul style="list-style-type: none"> Remove utilities from sidewalks Widen sidewalks 	<ul style="list-style-type: none"> Complete gaps in sidewalk network Pedestrian crossings Neighborhood connectivity 	<ul style="list-style-type: none"> Neighborhood connectivity Relocate bus stops closer to crossings 	<ul style="list-style-type: none"> Signal timing for transit Transit-only lane 	<ul style="list-style-type: none"> Remove utilities from sidewalks Widen sidewalks Viewpoint on Warren Ave. Bridge Public art
Boulevard	<ul style="list-style-type: none"> Roundabouts Median control 	<ul style="list-style-type: none"> Bury utilities 	<ul style="list-style-type: none"> Neighborhood connectivity 	<ul style="list-style-type: none"> Neighborhood connectivity 	<ul style="list-style-type: none"> Roundabouts 	<ul style="list-style-type: none"> Bury utilities

Corridor Needs

EXISTING CONDITIONS		PROJECT NEEDS
	<ul style="list-style-type: none"> 1,200 crashes in 5-year period Two pedestrian fatalities 	Improve corridor safety
	<ul style="list-style-type: none"> Existing PM Peak Hour: 7 intersections \geq LOS D / 1 intersections at LOS F 2040 PM Peak Hour: 9 intersections \geq LOS D / 1 intersections at LOS F 	Improve corridor reliability
	<ul style="list-style-type: none"> Sidewalks are narrow 90 obstructions south of bridge 30 obstructions north of bridge Narrow walk on bridge 1 mile of sidewalk gaps 	Improve pedestrian and bicycle connectivity
	<ul style="list-style-type: none"> 10% office space vacancy rate 6% retail space vacancy rate 3% multifamily vacancy rate 24% of the total parcel acreage is vacant (including parks) 	Increase economic investment
	<ul style="list-style-type: none"> Limited accessibility Impacted by traffic operations No bus bypass options 	Improve access to transit

Baseline Needs

Category	Metric	Measure	Target
Safety	Total Crash Frequency	Total number of crashes	Improved compared to No Build
	Crash Severity	Number of serious and fatal crashes	Zero serious injury or fatalities
Non-Motorized	Gaps in non-motorized system	Number of gaps in non-motorized system along SR 303	Zero gaps in non-motorized system
	Obstructions to non-motorized facilities	Number of obstructions to non-motorized facilities along SR 303	Zero obstructions to non-motorized facilities
	Walkability	Marked pedestrian crossings per mile along SR 303	Improved compared to No Build
Traffic Operations	Segment Delay	Delay	Improved compared to No Build
	Person Mobility	Ratio of number of persons to person travel time for SOV	Improved compared to No Build
	Freight Access	Number of impacted freight routes	Zero diversions

Baseline Needs

Category	Metric	Measure	Target
Transit	Accessibility	Pedestrian accessibility directly to transit facilities	Improved compared to No Build
	Person Mobility	Ratio of number of persons to person travel time for bus	Improved compared to No Build
Economic Vitality	Adjacent Property Values	Value of property adjacent to SR 303	Improve value
	Access to Business	Access to existing businesses	Improved compared to No Build

Comparative Measures

Category	Metric	Measure	Target
ROW	Property Impacts	Number of properties impacted by alternative	Zero impacts
	Property Acquisitions	Number of full property acquisitions	Zero impacts

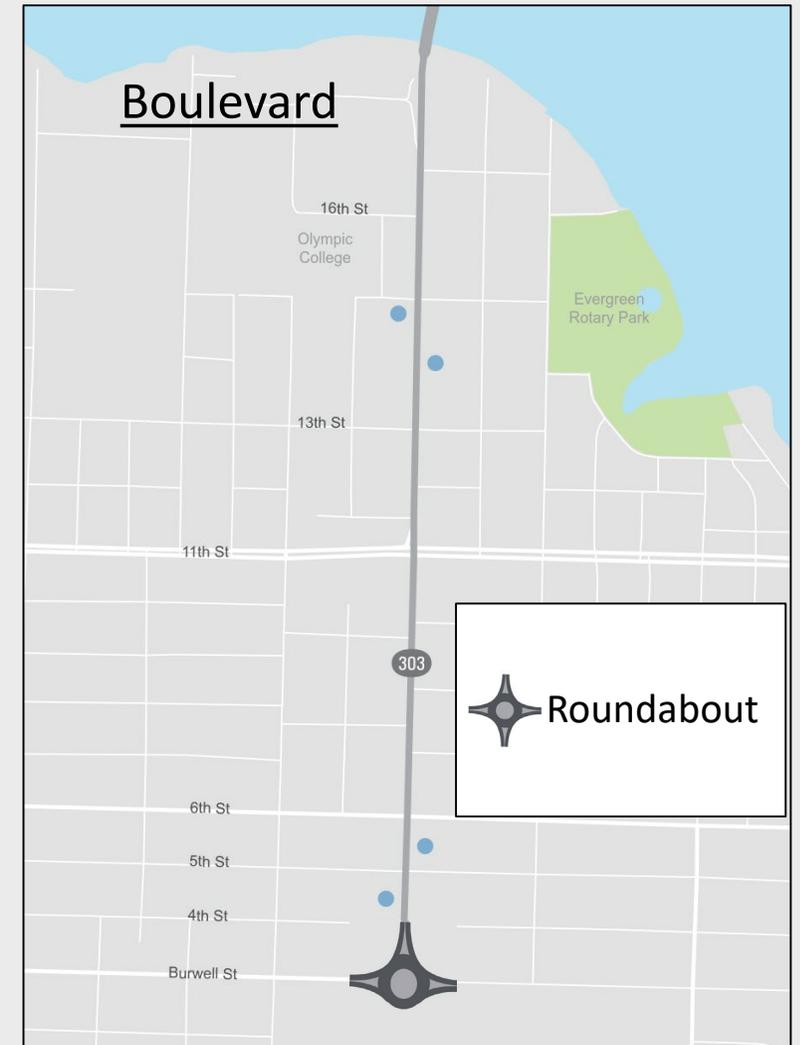
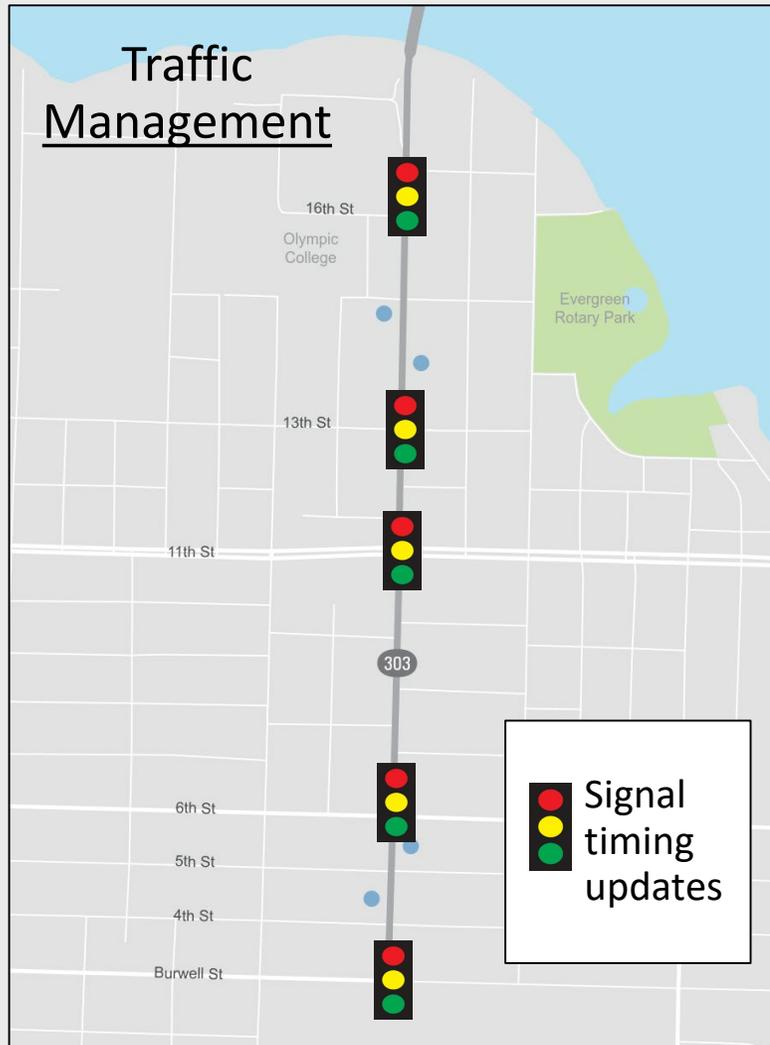
Review Alternatives

Overall Rankings

	Alternative	Cost	TOTAL
			Rating
TOTAL CORRIDOR	No Build		
	Traffic Management	\$	
	Multi-modal	\$\$	
	Boulevard	\$\$\$	

Segment 1: Burwell to 16th

Segment 1: Burwell to 16th – Key Segment Concepts



● Existing bus stops

Segment 1: Burwell to 16th

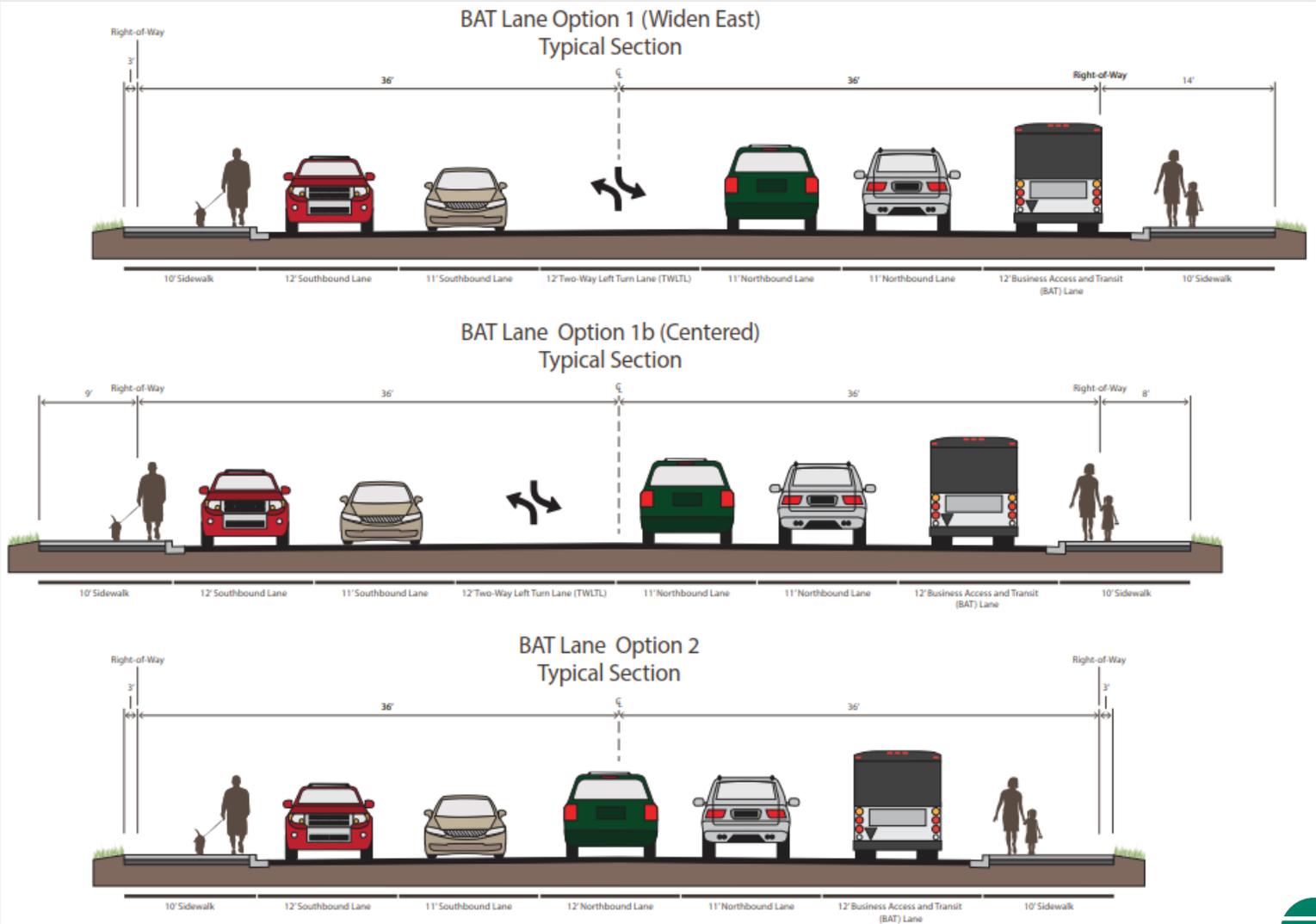
Segment	Alternative	Cost	Safety		Non-Motorized			Traffic Operations			Transit		ROW		Economic Vitality		TOTAL
			Total Crash Frequency	Crash Severity	Gaps	Obstructions	Walkability	Segment Delay	Person Mobility	Freight Access	Accessibility	Person Mobility	Property Impacts	Property Acquisitions	Adjacent Property Values	Access to Business	
			Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	
1: Burwell to 16th	No Build		○	○	●	○	◐	○	○	●	◐	○	●	●	○	●	◐
	Traffic Management	\$	●	◐	●	◐	◐	●	●	●	◐	●	◐	●	◐	●	●
	Multi-modal	\$\$	◐	◐	●	●	●	◐	◐	●	●	◐	◐	◐	●	●	◐
	Boulevard	\$\$\$	◐	●	●	◐	●	◐	◐	●	◐	◐	○	●	◐	●	●

Key Findings

- Traffic Management: largest reduction in segment delay (5% larger than Boulevard)
- Boulevard: largest reduction in crash severity (60% larger than Traffic Management)
- Multi-modal: highest transit accessibility benefit

Business Access Transit Lane Concepts

BAT Lane Options



BAT Lane Options

Segment	Alternative	Safety		Traffic Operations	Transit	ROW		TOTAL
		Total Crash Frequency	Crash Severity	Segment Delay	Transit Delay	Property Impacts	Property Acquisitions	
		Rank	Rank	Rank	Rank	Rank	Rank	Rating
TOTAL	Opt A1: Sheridan Add (East)	●	●	●	●	●	●	○
	Opt A1b: Sheridan Add (Center)	●	●	●	●	●	●	○
	Opt A2: Sheridan No TWLTL	●	●	○	○	●	●	●
	Opt B1: Callahan Add (East)	●	●	●	●	●	●	●
	Opt B2: Callahan No TWLTL	●	●	●	●	●	●	●

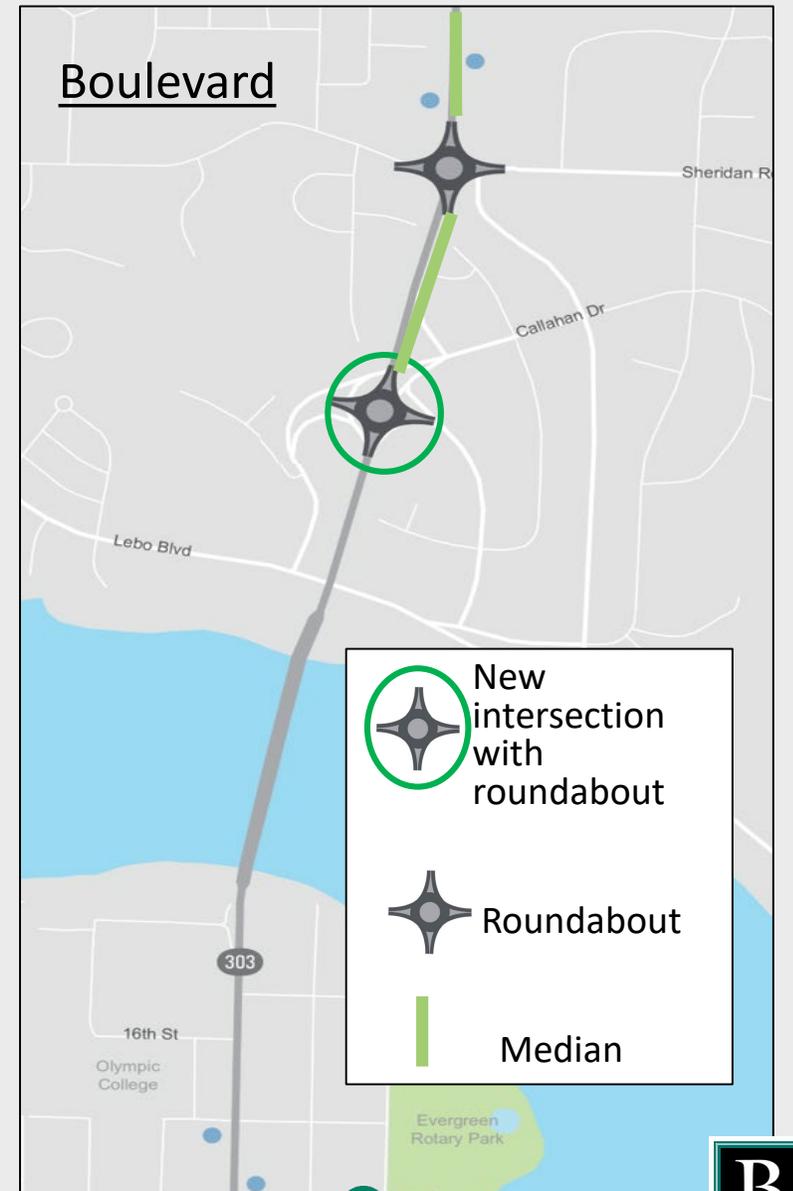
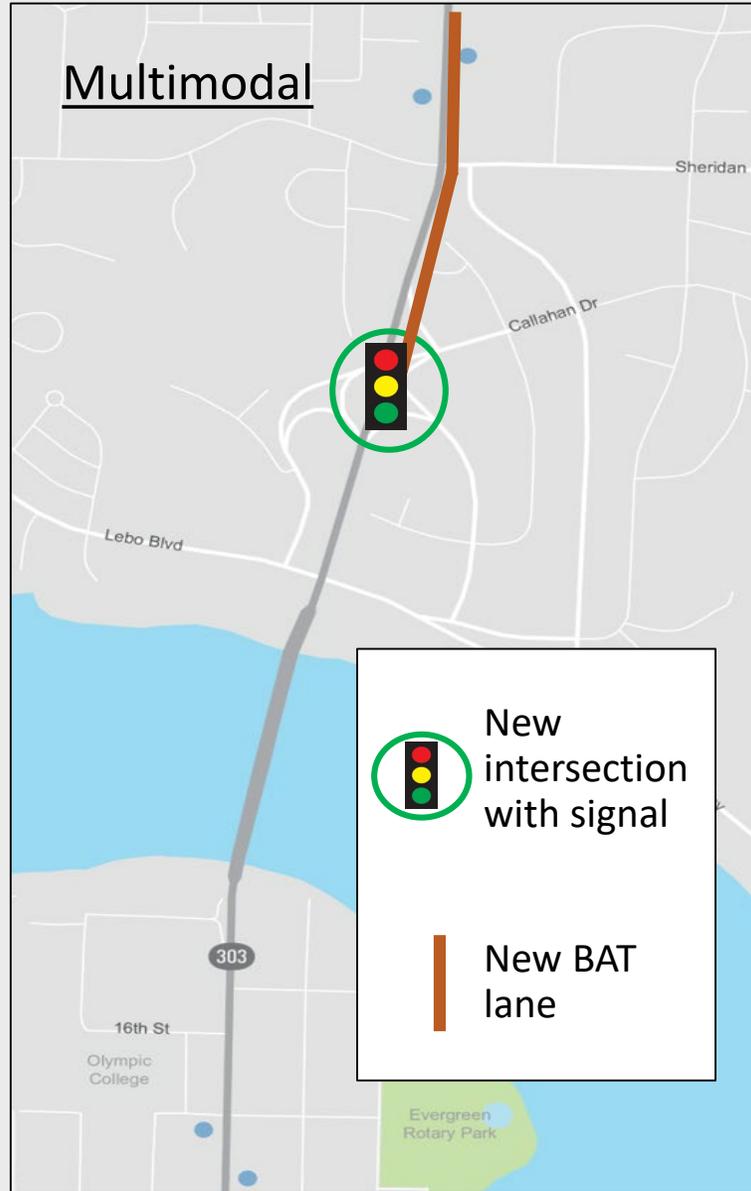
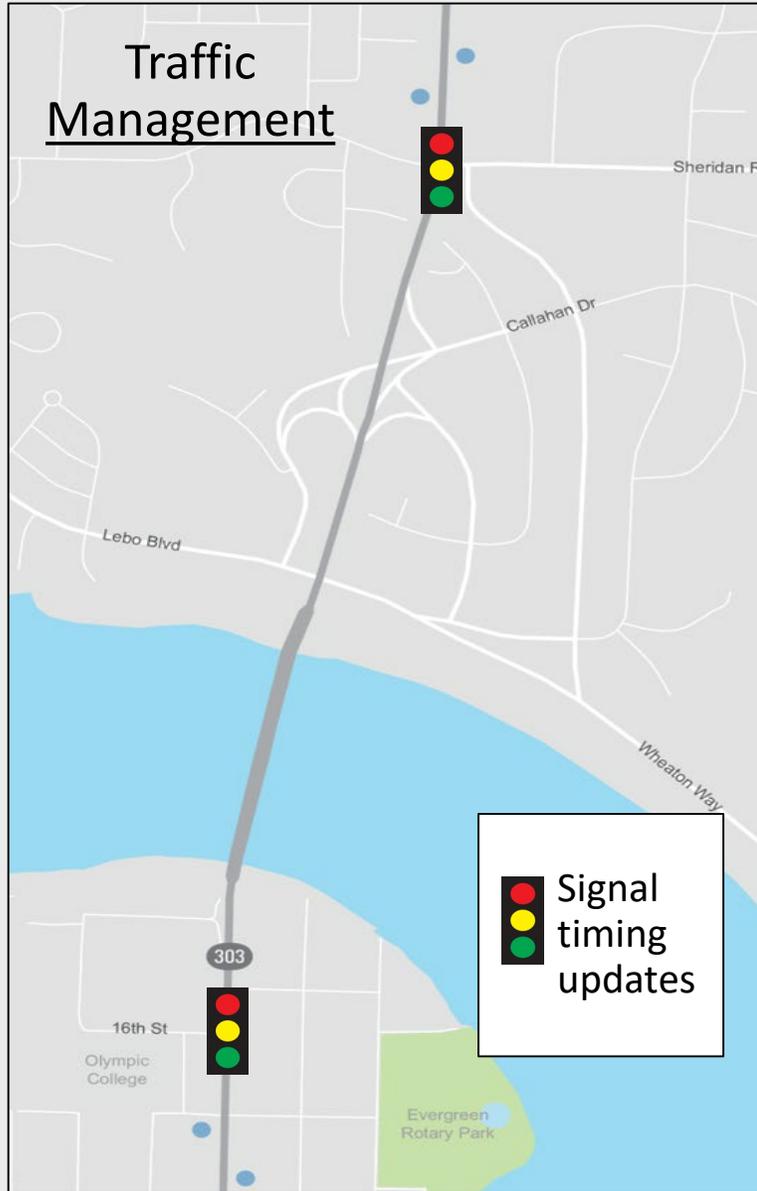
Recommended BAT Lane

Option B2: north of Callahan to south of Hollis, remove TWLTL and shift traffic west

- Largest reduction in total crash frequency (20% reduction from No Build)
- Largest reduction in crash severity (15% reduction from No Build)
- Lowest property impacts and acquisitions

Segment 2: 16th to Sheridan

Segment 2: 16th to Sheridan– Key Segment Concepts



● Existing bus stops

Segment 2: 16th to Sheridan

Segment	Alternative	Cost	Safety		Non-Motorized			Traffic Operations			Transit		ROW		Economic Vitality		TOTAL
			Total Crash Frequency	Crash Severity	Gaps	Obstructions	Walkability	Segment Delay	Person Mobility	Freight Access	Accessibility	Person Mobility	Property Impacts	Property Acquisitions	Adjacent Property Values	Access to Business	
			Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	
2: 16th to Sheridan	No Build		○	◐	◐	◐	◐	◐	◐	●	◐	○	●	●	○	●	○
	Traffic Management	\$	◐	◐	◐	◐	◐	●	●	●	◐	●	●	●	◐	●	◐
	Multi-modal	\$\$	◐	◐	●	●	●	○	○	●	●	◐	◐	●	◐	●	◐
	Boulevard	\$\$\$	●	●	●	●	●	◐	◐	●	◐	◐	◐	◐	●	●	●

Key Findings

- Boulevard: largest reduction in crash severity (50% reduction from No Build)
- Traffic Management: largest reduction in segment delay (10% larger than Boulevard)
- Multi-modal:
 - Highest segment delay (20% increase from No Build)
 - Transit person mobility would likely benefit from extending proposed BAT lane south of Callahan intersection

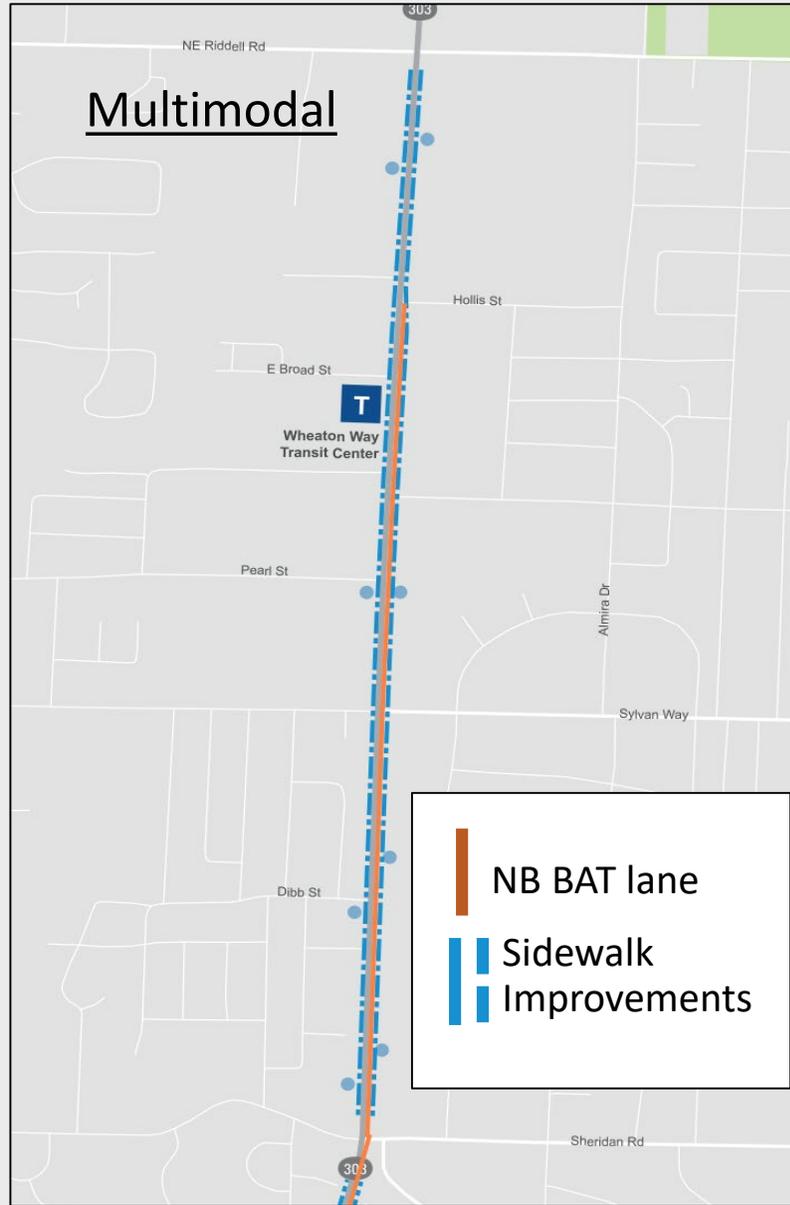
Segment 3:
Sheridan to
Riddell

Segment 3: Sheridan to Riddell – Key Segment Concepts

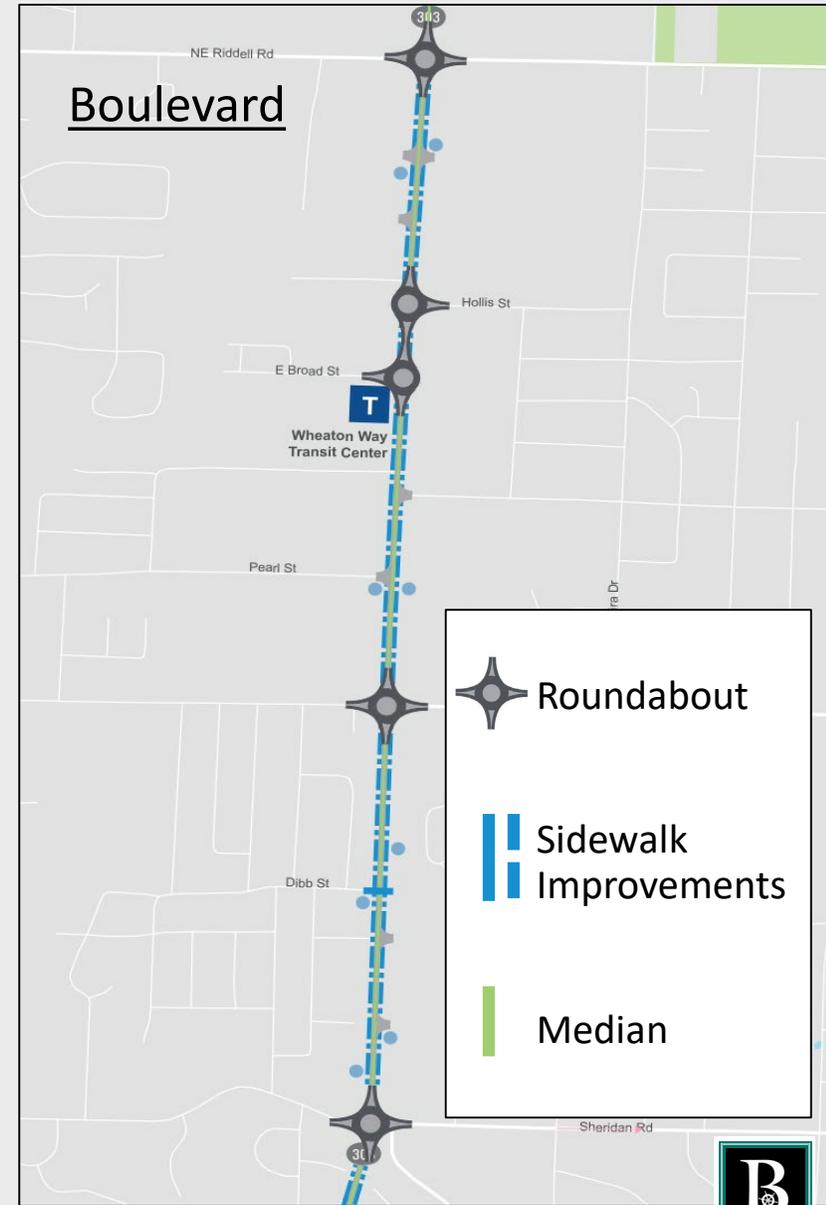
Traffic Management



Multimodal



Boulevard



● Existing bus stops

Segment 3: Sheridan to Riddell

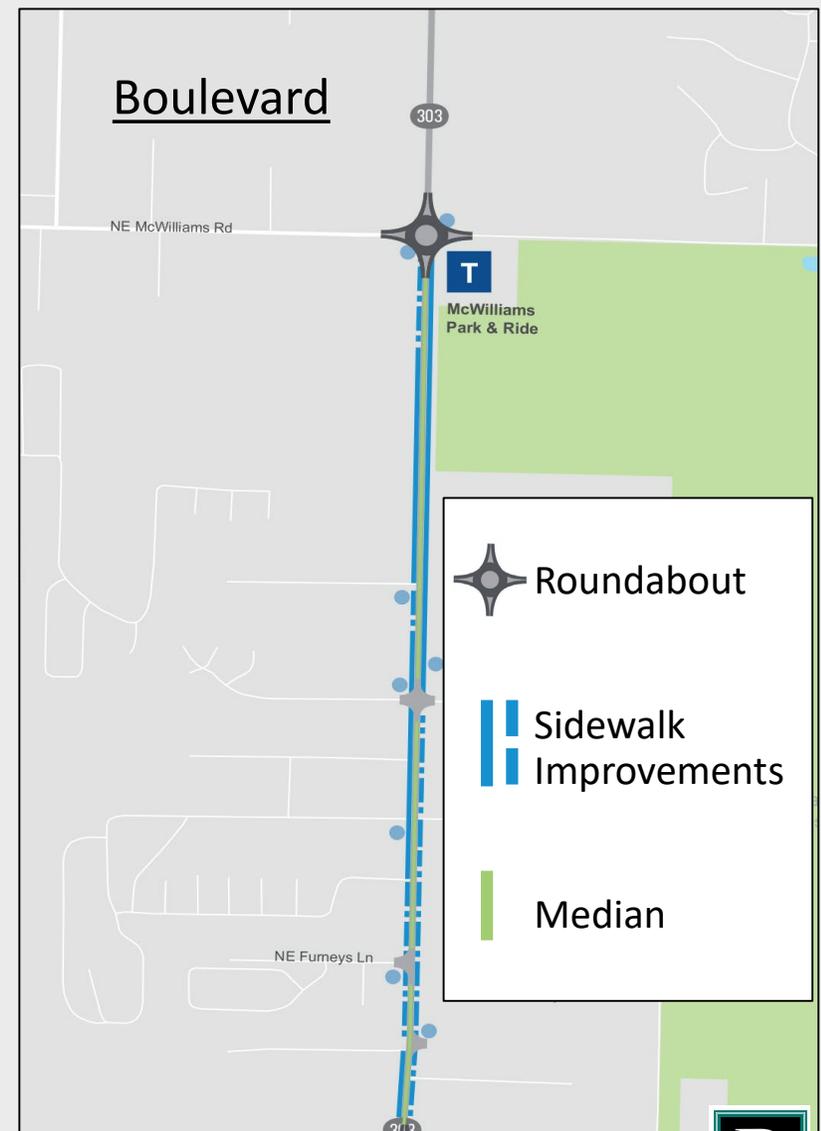
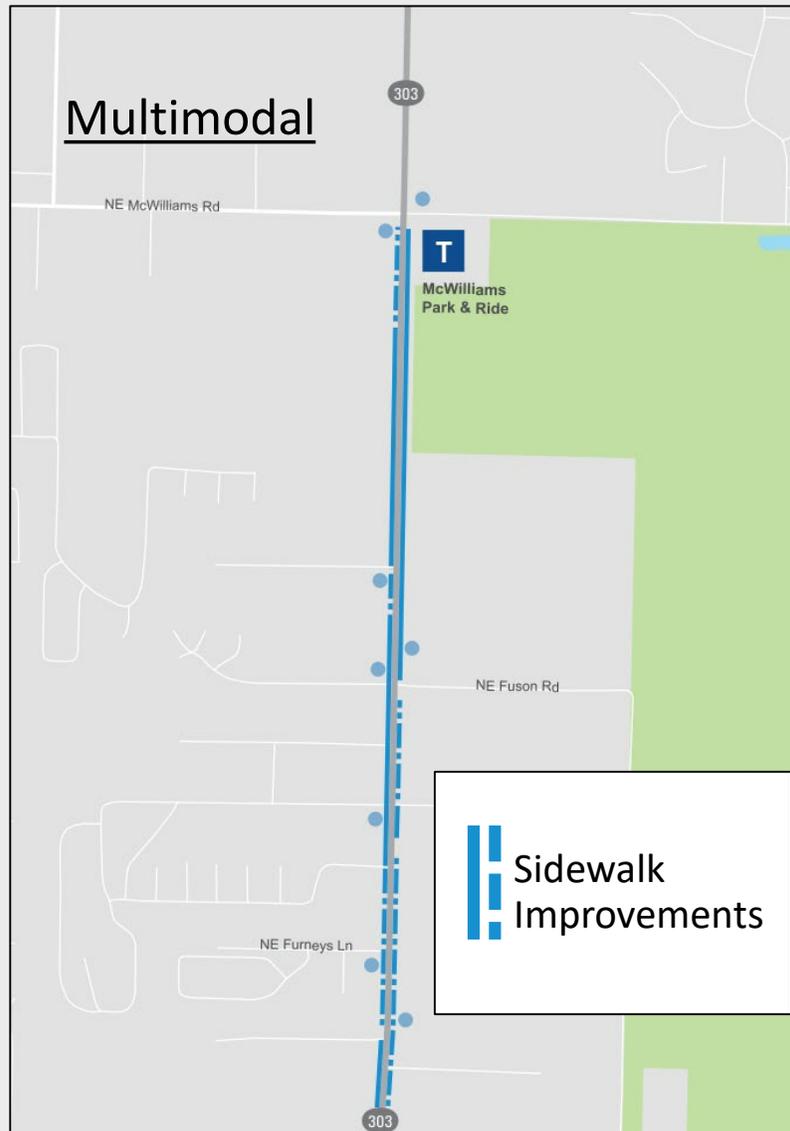
Segment	Alternative	Cost	Safety		Non-Motorized			Traffic Operations			Transit		ROW		Economic Vitality		TOTAL
			Total Crash Frequency	Crash Severity	Gaps	Obstructions	Walkability	Segment Delay	Person Mobility	Freight Access	Accessibility	Person Mobility	Property Impacts	Property Acquisitions	Adjacent Property Values	Access to Business	
			Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	
3: Sheridan to Riddell	No Build		○	○	●	◐	◐	◐	◐	●	◐	○	●	●	○	◐	○
	Traffic Management	\$	◐	◐	●	◐	◐	◐	◐	●	◐	◐	◐	●	◐	◐	◐
	Multi-modal	\$\$	◐	◐	●	◐	◐	○	○	●	●	●	◐	◐	●	◐	◐
	Boulevard	\$\$\$	●	●	●	●	●	●	●	◐	◐	◐	○	◐	◐	●	●

Key Findings

- Boulevard:
 - Largest safety benefit (8x larger than Traffic Management)
 - Largest reduction in segment delay (2x larger than Traffic Management)
 - Highest property impacts (30% larger than Multi-modal)
 - Improves access to business
- Multi-modal: highest transit accessibility and person mobility
- Traffic Management: smallest property impact and acquisitions

Segment 4:
Riddell to
McWilliams

Segment 4: Riddell to McWilliams – Key Segment Concepts



Segment 4: Riddell to McWilliams

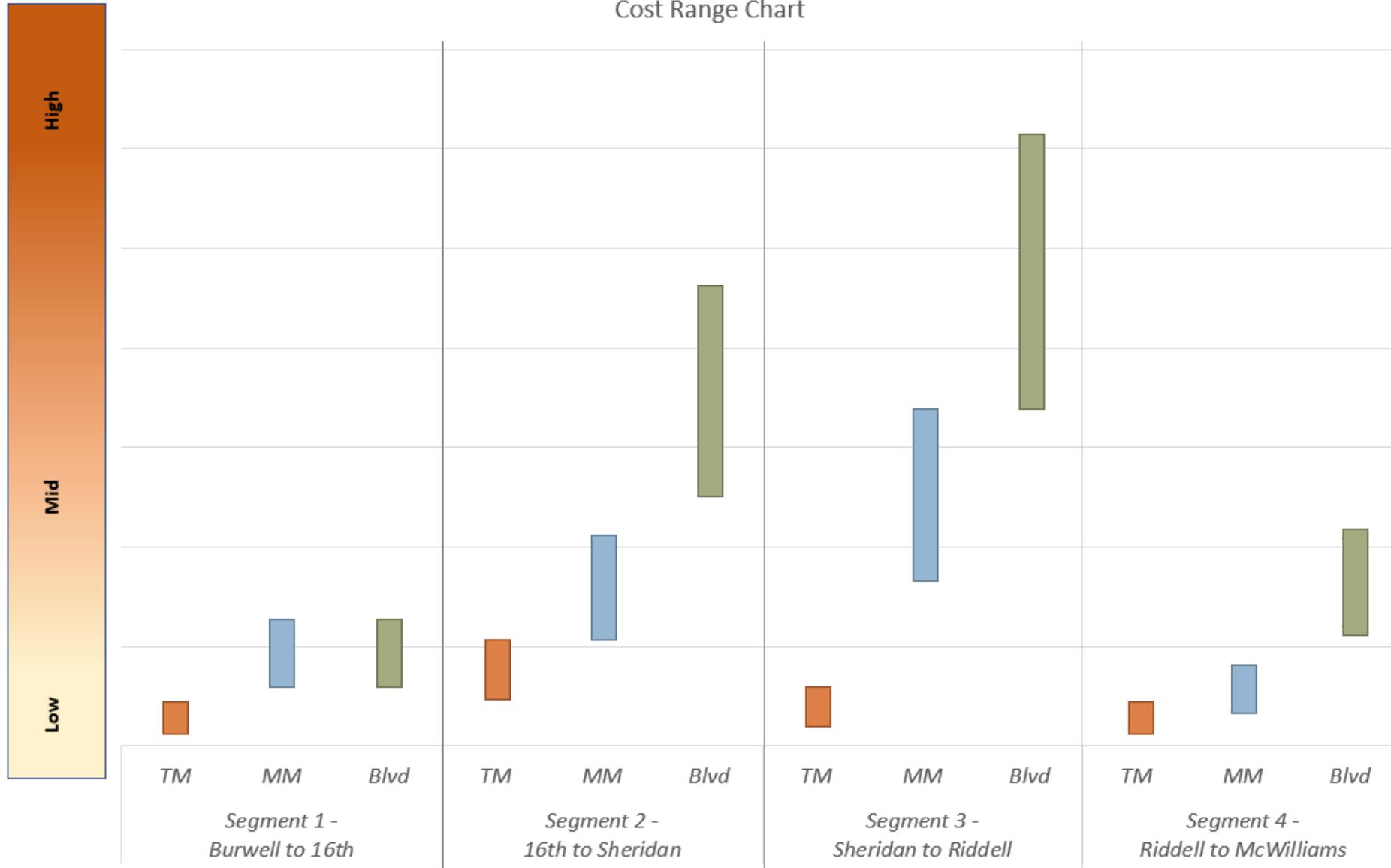
Segment	Alternative	Cost	Safety		Non-Motorized			Traffic Operations			Transit		ROW		Economic Vitality		TOTAL
			Total Crash Frequency	Crash Severity	Gaps	Obstructions	Walkability	Segment Delay	Person Mobility	Freight Access	Accessibility	Person Mobility	Property Impacts	Property Acquisitions	Adjacent Property Values	Access to Business	
			Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	
4: Riddell to McWilliams	No Build		○	◐	◑	◑	●	○	○	●	◑	○	●	●	○	◑	○
	Traffic Management	\$	◑	◑	◑	◑	●	◑	◑	●	◑	◑	●	●	◑	◑	◑
	Multi-modal	\$\$	◑	◑	●	●	●	◑	◑	●	●	◑	●	●	◑	◑	◑
	Boulevard	\$\$\$	●	●	●	●	●	●	●	◑	●	●	●	●	●	●	●

Key Findings

- Boulevard:
 - Largest safety benefit (6x larger than Traffic Management)
 - Largest reduction in segment delay (3x larger than Multi-modal)
 - Highest property impacts (30% larger than Multi-modal)
 - Improves access to business
- Multi-modal: highest benefit to non-motorized
- Traffic Management: lowest crash frequency benefit

Cost Data

SR 303 Corridor Study Cost Range Chart



Meeting Goals

Review alternatives

Understand screening process and findings

Begin conversation about preferred alternative

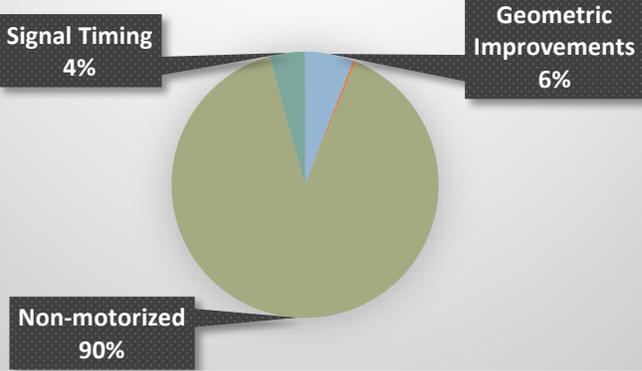
Consider phasing options

Alternative Comparison

Alternatives	Corridor Needs					
	Corridor safety	Pedestrian accessibility	Ped/bike connectivity	Access to transit	Reliability	Economic investment
Traffic Management	<ul style="list-style-type: none"> • Pedestrian lighting 	<ul style="list-style-type: none"> • ADA ramps 	<ul style="list-style-type: none"> • Complete gaps in bike network 		<ul style="list-style-type: none"> • Adaptive signal timing • Improve signal phasing 	<ul style="list-style-type: none"> • Placemaking and wayfinding
Multi-modal	<p><i>Includes Traffic Management improvements</i></p> <ul style="list-style-type: none"> • Pedestrian crossings • Lighting • Wider shoulders 	<p><i>Includes Traffic Management improvements</i></p> <ul style="list-style-type: none"> • Remove utilities from sidewalks • Widen sidewalks 	<p><i>Includes Traffic Management improvements</i></p> <ul style="list-style-type: none"> • Complete gaps in sidewalk network • Pedestrian crossings • Neighborhood connectivity 	<ul style="list-style-type: none"> • Neighborhood connectivity • Relocate bus stops closer to crossings 	<ul style="list-style-type: none"> • Signal timing for transit • BAT lane 	<p><i>Includes Traffic Management improvements</i></p> <ul style="list-style-type: none"> • Remove utilities from sidewalks • Widen sidewalks • Viewpoint on Warren Ave Bridge • Public art
Boulevard	<p><i>Includes Multi-modal improvements</i></p> <ul style="list-style-type: none"> • Roundabouts • Median control 	<p><i>Includes Multi-modal improvements</i></p> <ul style="list-style-type: none"> • Bury utilities 	<p><i>Includes Multi-modal improvements</i></p>	<ul style="list-style-type: none"> • Neighborhood connectivity 	<ul style="list-style-type: none"> • Roundabouts 	<p><i>Includes Multi-modal improvements</i></p> <ul style="list-style-type: none"> • Bury utilities

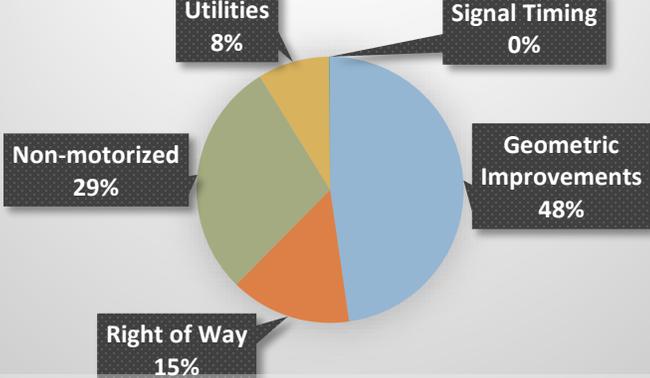
Cost Element Comparison

Traffic Management Alternative Example Cost Distribution



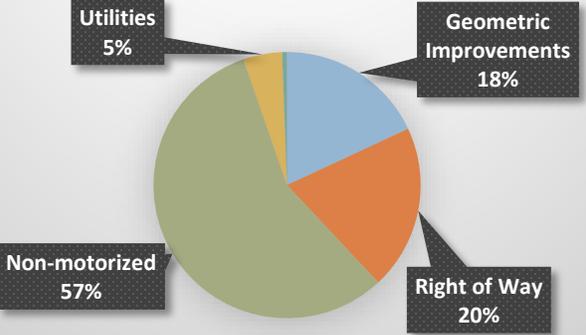
■ Geometric Improvements ■ Right of Way ■ Non-motorized ■ Utilities ■ Signal Timing

Boulevard Alternative Example Cost Distribution



■ Geometric Improvements ■ Right of Way ■ Non-motorized ■ Utilities ■ Signal Timing

Multi-modal Alternative Example Cost Distribution



■ Geometric Improvements ■ Right of Way ■ Non-motorized ■ Utilities ■ Signal Timing

Discussion



Online open house

Purpose

Timing

Survey questions

Next steps

Refine alternative

Public on-line open house

Categorize responses

Outline most likely Preferred Alternative

Outline Report

SAG #6

Finalize Report

Q&A

