

Salem River Crossing Project

Salem City Council Work Session
January 30, 2019

Robert D. Chandler, PhD, PE
Assistant Public Works Director

January 30, 2019 Salem River Crossing Project Council Work Session

Phillip Ditzler – Division Administrator, Oregon Division, Federal Highway Administration

Mike Morrow, PE – Senior Field Operations Engineer, Oregon Division, Federal Highway Administration

Emily Cline – Acting Environmental Manager, Oregon Division, Federal Highway Administration

Matthew Garrett – Director, Oregon Department of Transportation

Sonny Chickering, PE – Region 2 Manager, Oregon Department of Transportation

Terry Cole – Region 2 Transportation Planning Manager, Oregon Department of Transportation

Lisa Nell – Region 2, Area 3 Manager, Oregon Department of Transportation

Mike Jaffe – Transportation Planning Director, Mid-Willamette Valley Council of Governments

Julie Warncke – Transportation Planning Manager, Salem Public Works

City Council Motion

That City Council hold a work session to discuss all potential issues concerning the Environmental Impact Statement for the third bridge, including but not limited to its effect on neighborhoods, Wallace Marine Park, Edgewater Drive, the Rosemont exit, projected congested areas and travel times under Build and No Build options, and financing options.

November 26, 2018

City Council Motion

That City Council hold a work session to discuss all potential issues concerning the Environmental Impact Statement for the third bridge, including but not limited to its effect on neighborhoods, Wallace Marine Park, Edgewater Drive, the Rosemont exit, projected congested areas and travel times under Build and No Build options, and financing options.

November 26, 2018

The Process Leading to FHWA Record of Decision

Salem City Council Work Session
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FHWA = Federal Highway Administration

What is a Record of Decision?

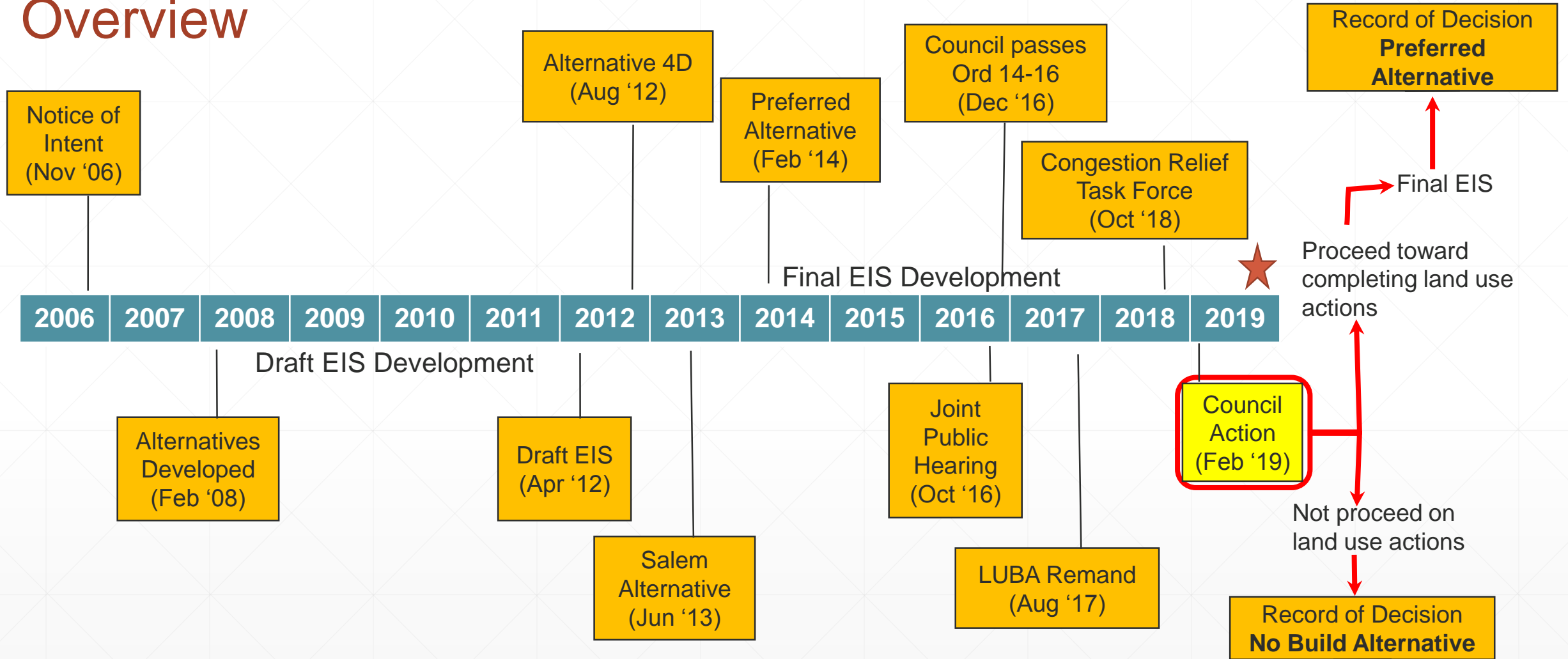
➤ The Record of Decision:

- Final step in the Environmental Impact Statement process
- Identifies all the alternatives considered
- Identifies the Selected Alternative
- Presents the basis for the decision
- Provides information on the means to avoid, minimize, and compensate for impacts

➤ Once issued, a Record of Decision:

- Requires commencement of initial right-of-way acquisition *or* initial construction
- Does not expire (may require review of environmental impacts)

Overview



EIS = Environmental Impact Statement

LUBA = Land Use Board of Appeals

ROD = Record of Decision

★ = Sept 30, 2019 FHWA Deadline for ROD

Developing the Preferred Alternative

Salem City Council Work Session
January 30, 2019

Terms

SKATS – Salem-Keizer Area Transportation Study

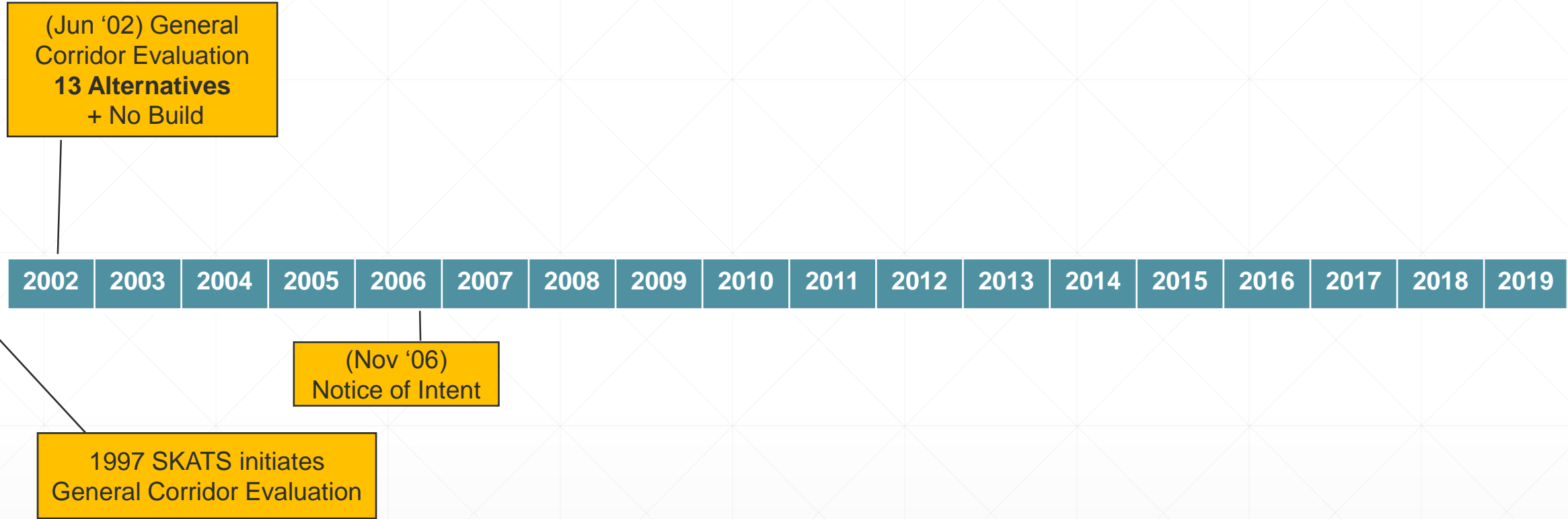
The federally-mandated Metropolitan Planning Organization (MPO) for the Salem-Keizer area. SKATS focuses on transportation planning activities, plans, and studies for transportation facilities of regional significance.

Task Force – Salem River Crossing Project

Members include leaders of neighborhoods on both sides of the river as well as representatives of local and regional business groups, advocates for different bridge user groups, and local public agencies. Advises Oversight Team.

Oversight Team - Salem River Crossing Project

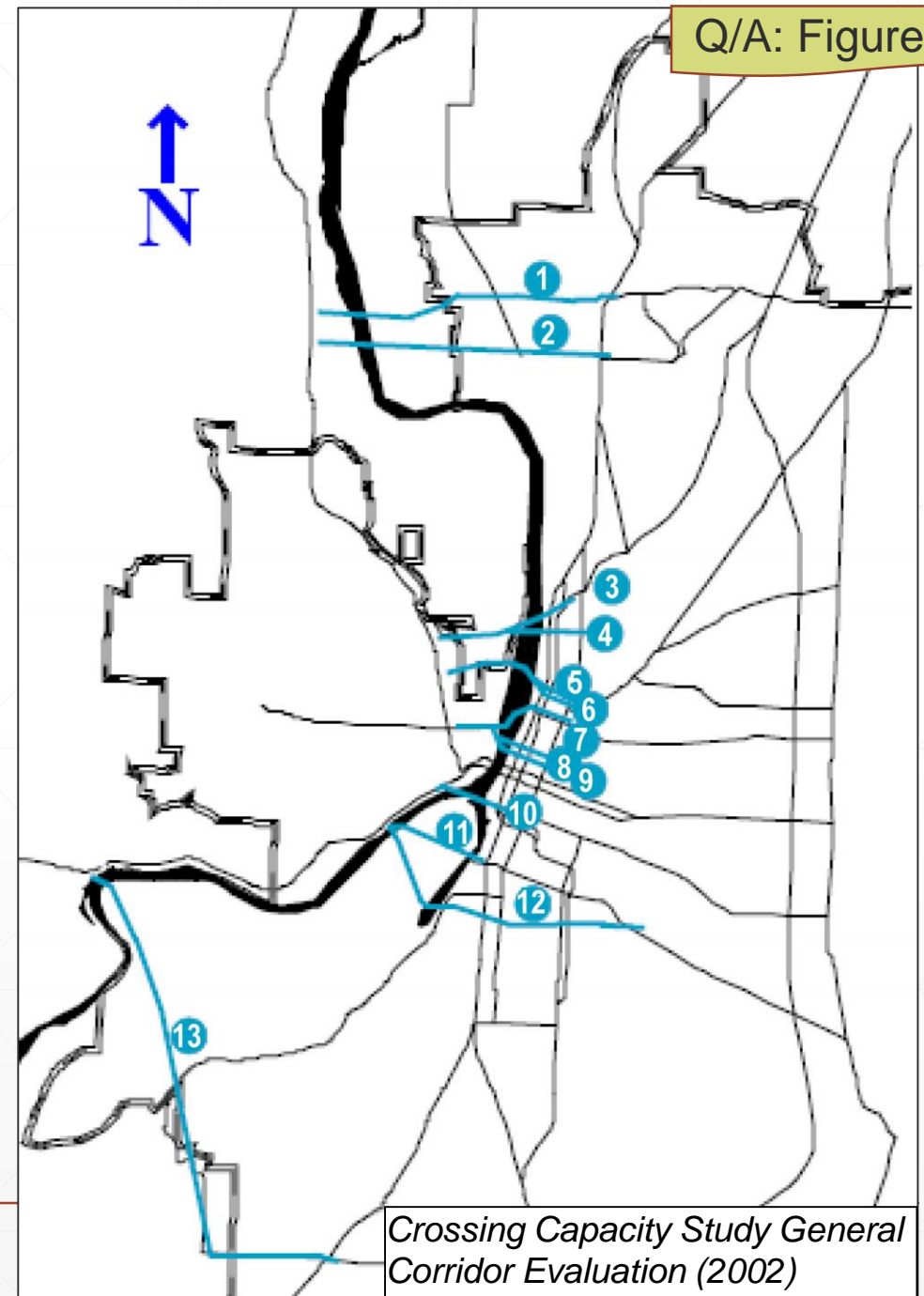
Elected or appointed officials from City of Salem, City of Keizer, Marion County, Polk County, Cherriots, ODOT. FHWA is a non-voting member. Advises local governments, SKATS, ODOT, and FHWA.



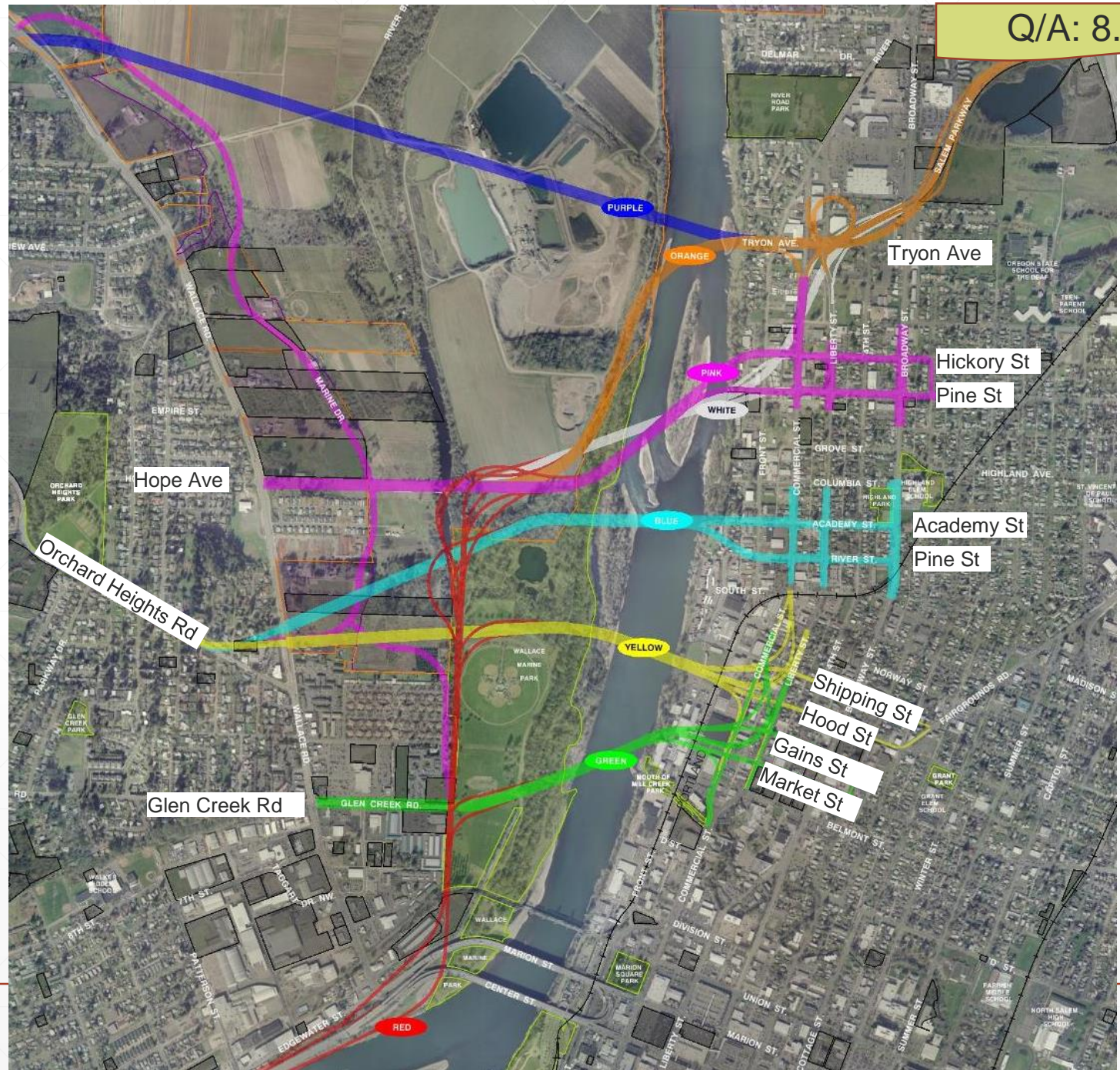
SKATS = Salem-Keizer Area Transportation Study [The regional metropolitan planning organization]

Potential Bridge Corridors

1. Lockhaven Drive
2. Chemawa Road
3. Tryon Street
4. Pine Street
5. Shipping Street
6. Hood Street
7. Market Street
8. Division Street
9. Union Street
10. Pringle Parkway
11. Mission Street
12. Cross Street
13. Kuebler Road
14. *No Build*



Potential Bridge Corridors

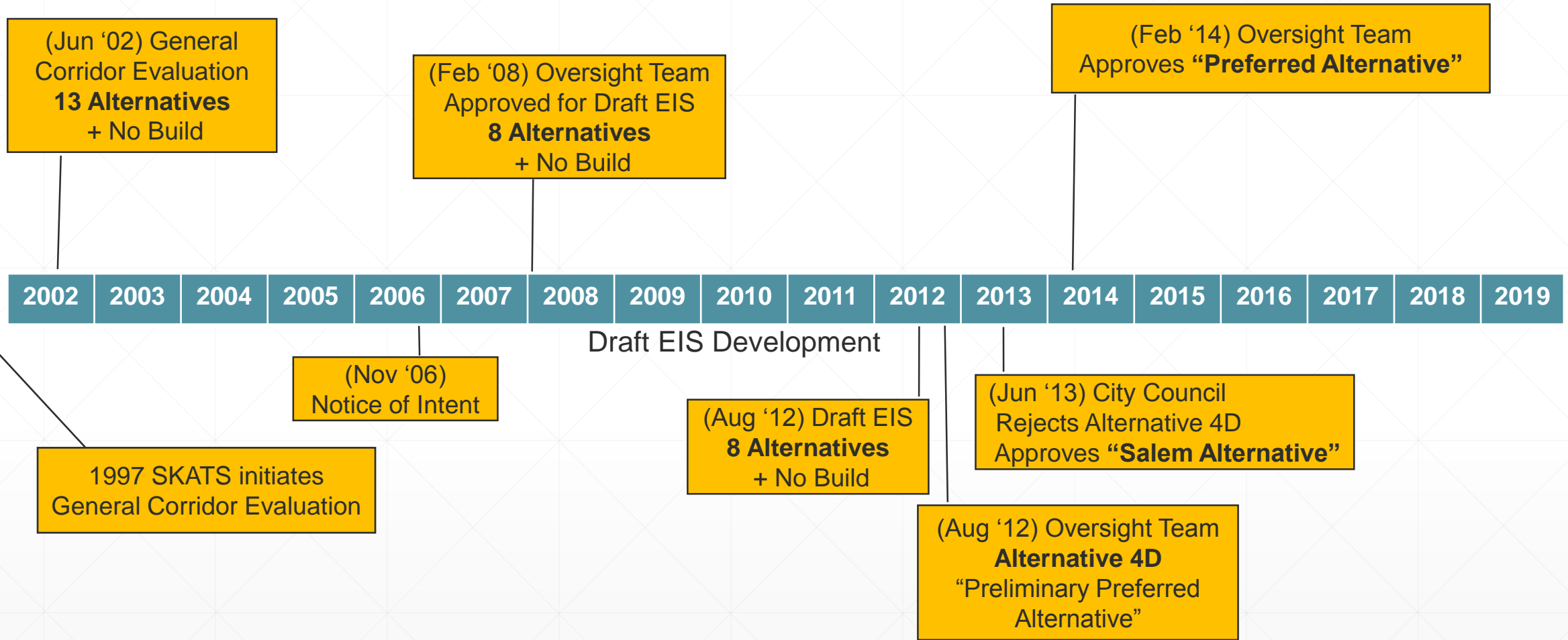


Alternatives Recommended for Further Study in the Draft Environmental Impact Statement

- **Alternative 1: No Build** (required)
- **Alternative 2A: Widen Existing Bridges**
- **Alternative 2B: New Bridge, OR 22/Marine Drive to Commercial**
- **Alternative 3: New Bridge, Hope to Tryon**
- **Alternative 4: New Bridge Hope to Pine/Hickory**
 - **Alternative 4A:** New bridge
 - **Alternative 4B:** New bridge + widen existing bridges
 - **Alternative 4C:** New bridge + Hwy 22 and Salem Parkway direct connection. Pine/Hickory ends at Broadway
 - **Alternative 4D:** New bridge, Hwy 22 and Salem Parkway direct connection, Pine/Hickory ends at Liberty
 - **Alternative 4E:** New bridge + Hwy 22 and Salem Parkway direct connection. Pine/Hickory ends at Broadway, avoids direct impacts to west side of Wallace Marine Park

Developing the Preferred Alternative

Q/A: 2.d. 2.h, 2.i

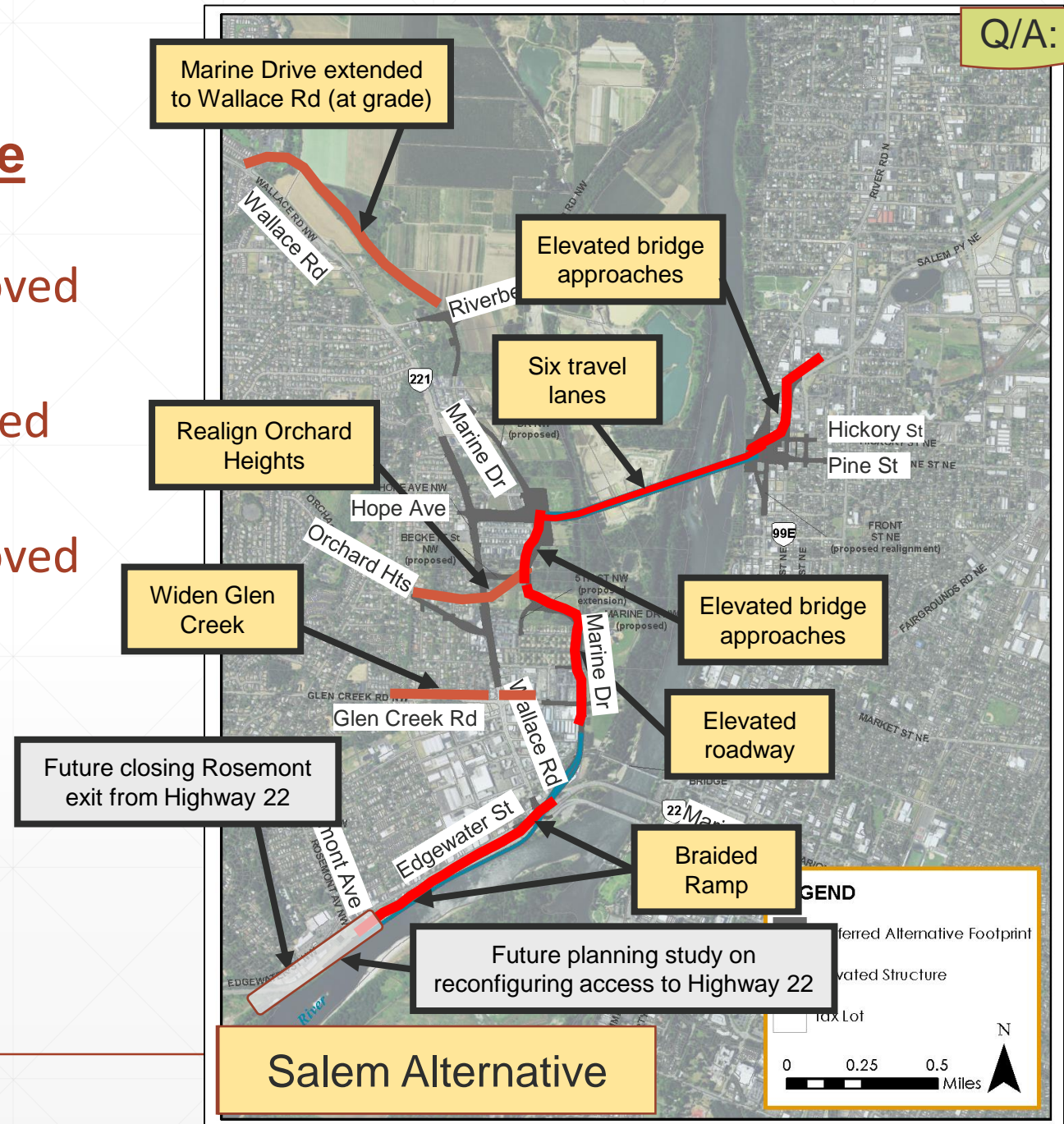


SKATS = Salem-Keizer Area Transportation Study

EIS = Environmental Impact Statement

Alternative 4D to Salem Alternative

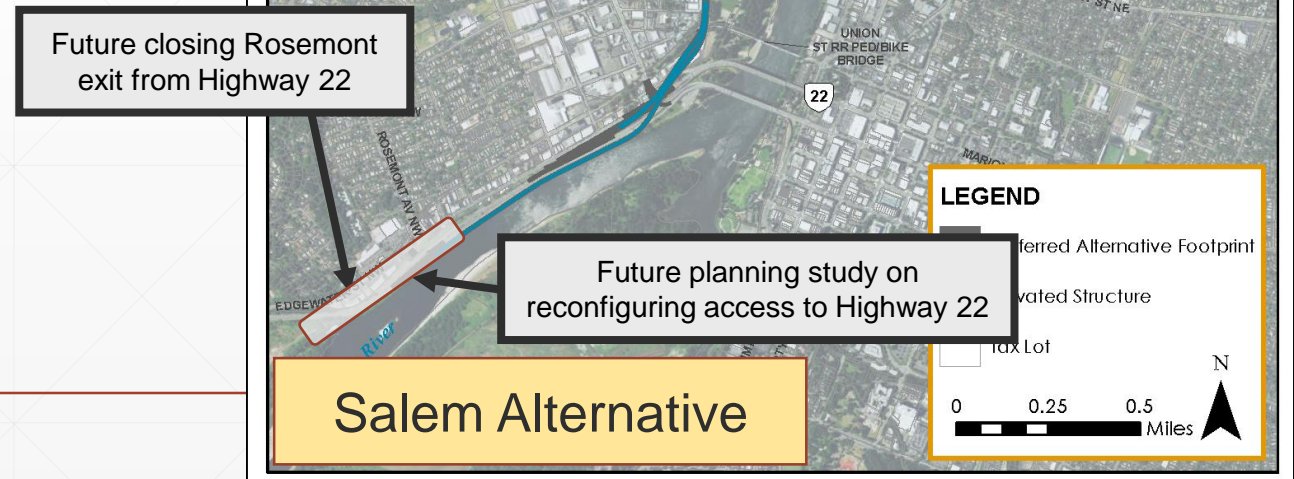
- Six-lane bridge → Four-Lane Bridge
- Elevated Bridge Approaches → Removed
- Marine Drive Extended → Removed
- Orchard Heights Realigned → Removed
- Glen Creek Widened → Removed
- Elevated Bridge Approaches → Removed
- Elevated Roadway → Removed
- Braided Ramps → Removed



Salem Alternative

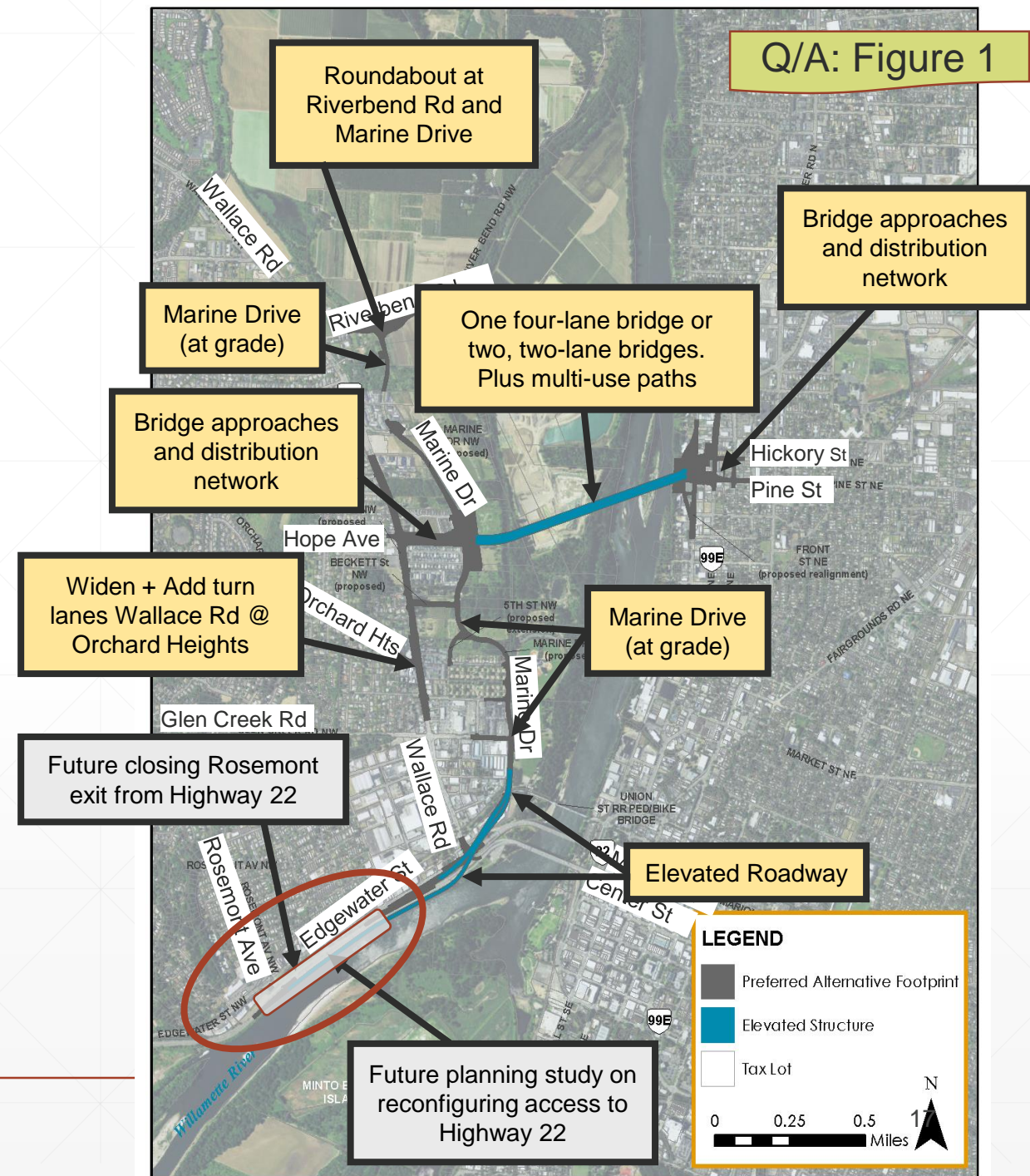
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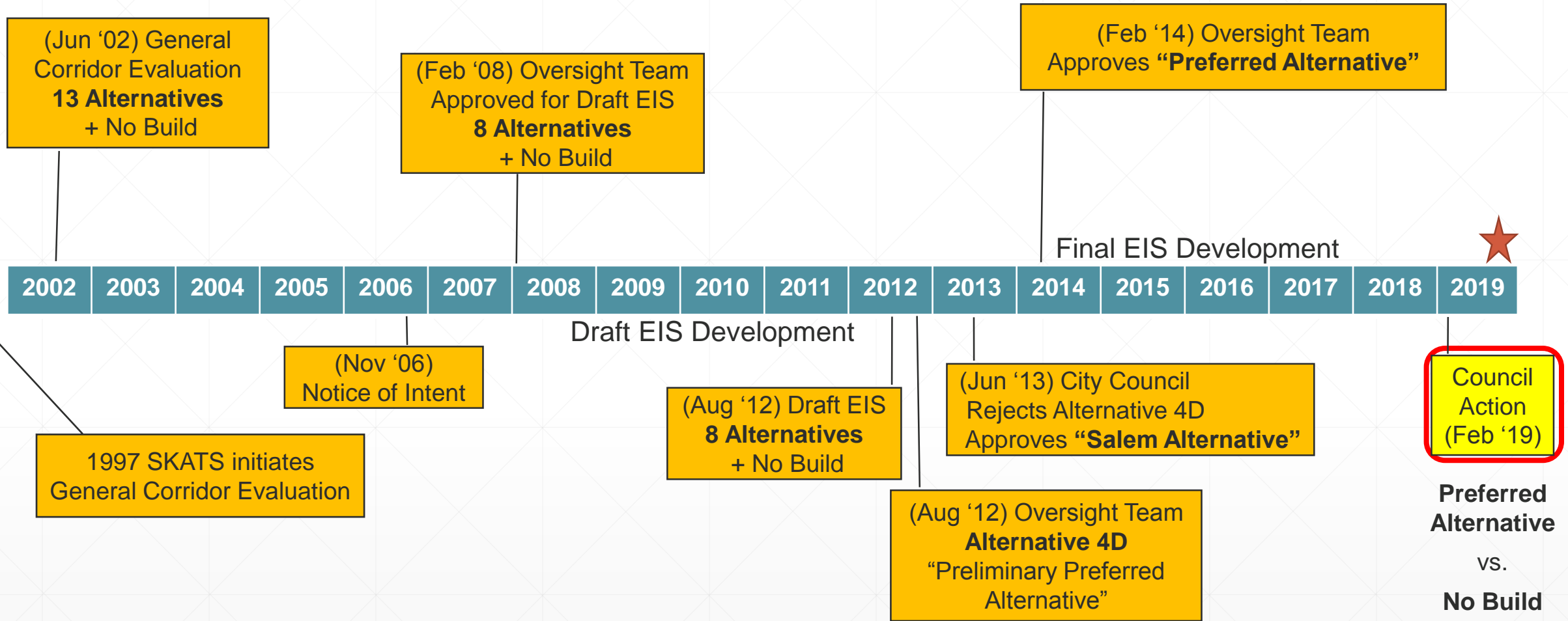


Preferred Alternative

- A four-lane bridge, either a single structure or two side-by-side structures; multiuse paths
- Bridge approaches and distribution networks at bridge approaches
- Widening intersection/add turn lanes of Wallace Road at Orchard Heights
- Marine Drive at grade
- Roundabout at Riverbend/Marine Dr.
- Two, one-lane elevated roadways connecting Marine Drive at Glen Creek Road to Highway 22.



Developing the Preferred Alternative



SKATS = Salem-Keizer Area Transportation Study

EIS = Environmental Impact Statement

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Funding the Preferred Alternative

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Possible phasing of the Project

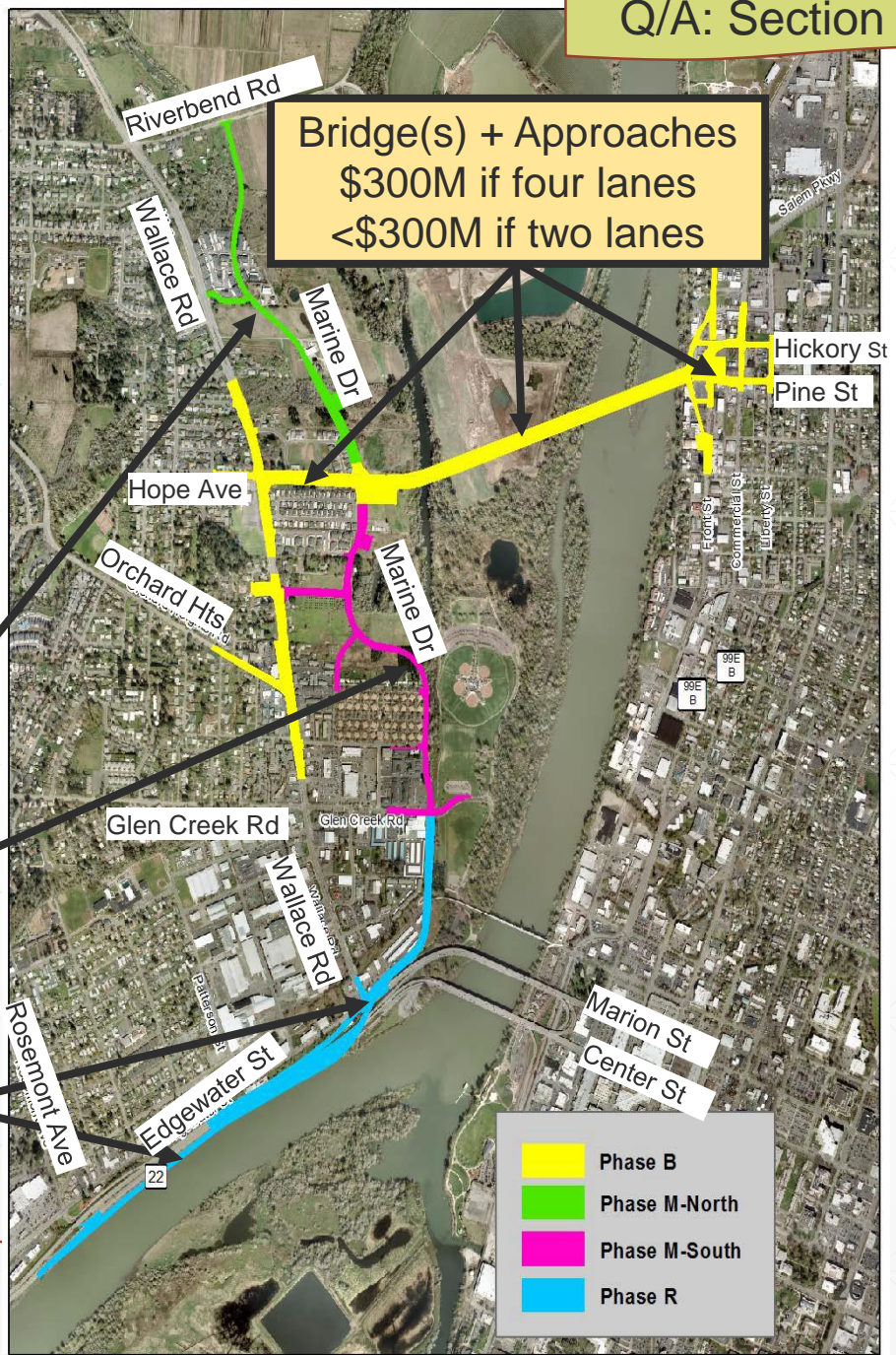
- The Bridge(s)
 - A single structure with four lanes
 - First phase if bridge with two lanes, followed by a Second phase of second bridge with two lanes
- Bridge approaches and distribution networks at:
 - Wallace Road and newly constructed Marine Drive
 - Vicinity of Pine and Hickory Streets
- Marine Drive - at grade
 - Bridge north to Riverbend Road
- Marine Drive - at grade
 - Bridge south to Glen Creek Road
- Marine Drive - Connecting to Highway 22
 - At grade at Glen Creek Road to elevated flyovers to Hwy 22

Marine Drive \$10M

Marine Drive \$20M

Ramps to/from Highway 22 \$100M

Bridge(s) + Approaches
\$300M if four lanes
<\$300M if two lanes



Oversight Team December 11, 2014

Project Phase	Cost	Funding Source					
		FEDERAL	STATE	LOCAL	LOCAL	City of Salem	LOCAL
				Gas Tax	Vehicle Reg. Fee	Property Tax	Tolling
Phase B	\$300,000,000	\$20 M*	\$5 M* \$75 M**	\$65 M	\$65 M	--	\$175 M
Phase M-South	\$20,000,000					\$20 M	
Phase M-North	\$10,000,000					\$10 M	
Phase R	\$100,000,000	\$20 M*	\$75 M**	\$20 M	\$20 M		
Total Project Cost	\$430,000,000	\$40 M*	\$5 M* \$150 M**	\$85 M	\$85 M	\$30 M	\$175 M
Tax/Fee/Toll necessary to generate revenue shown				\$.06/Gallon	\$25/Year	\$0.37/\$1K	\$1.50/crossing

M = Million

*Potential MWACT STIP allocation

** Would require legislative action

See Table 2 in Q/A Report (p 38)

Project Phase	Funding Source						
	FEDERAL	STATE	LOCAL	LOCAL	SALEM	LOCAL	LOCAL
	<u>Dec 3, 2014 - Funding Workshop Purpose</u>						
	“Step through interactive funding tool....”						
	“Understand tradeoffs between potential funding sources”						
Phase B	“Discuss the proposed construction phases....”						
Phase M-South	<u>Dec 11, 2014 – Oversight Team</u>						
Phase M-North	“Conceptual funding strategy”						
Phase R	“Guiding framework for the future”						
Total Project Cost	“This is an iterative process”						
Tax/Fee/Toll necessary to generate revenue shown	“No decision regarding actual funding commitments”						

M = Million

*Potential MWACT STIP allocation

** Would require legislative action

See Table 2 in Q/A Report (p 38)

Project Phase	Funding Source				City of Salem	LOCAL
	FEDERAL	STATE	LOCAL	LOCAL		
			Gas Tax	Vehicle Reg. Fee	Property Tax	Tolling
Phase B		\$5 M*			--	\$175 M
Phase M-South	\$20,000,000				\$20 M	
Phase M-North					\$10 M	
Phase R				\$20 M		
Total Project Cost			\$85 M	\$85 M	\$30 M	\$175 M
Tax/Fee/Toll necessary to generate revenue shown					\$0.37/\$1K	\$1.50/crossing

On Local/Regional Funding

Voter approval required for:

- Gas Tax
- Vehicle Registration Surcharge
- Property Tax Levy

Tolling

- Requires OTC approval
- Requires FHWA approval

Vehicle Registration Fee

- Can only be levied by counties

Gas Tax and Property Tax

- Can be levied by cities or counties

M = Million

*Potential MWA/CT STIP allocation

** Would require legislative action

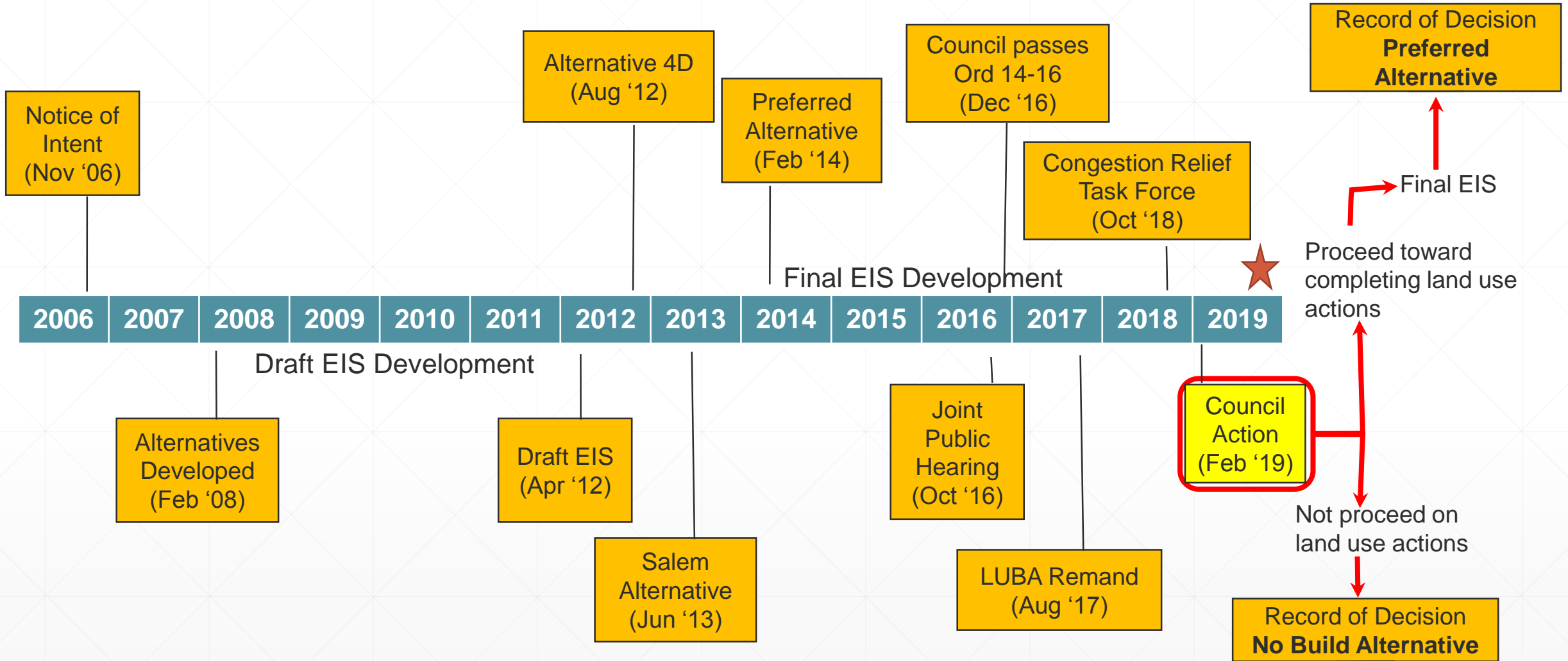
See Table 2 in Q/A Report (p 38)

Summary

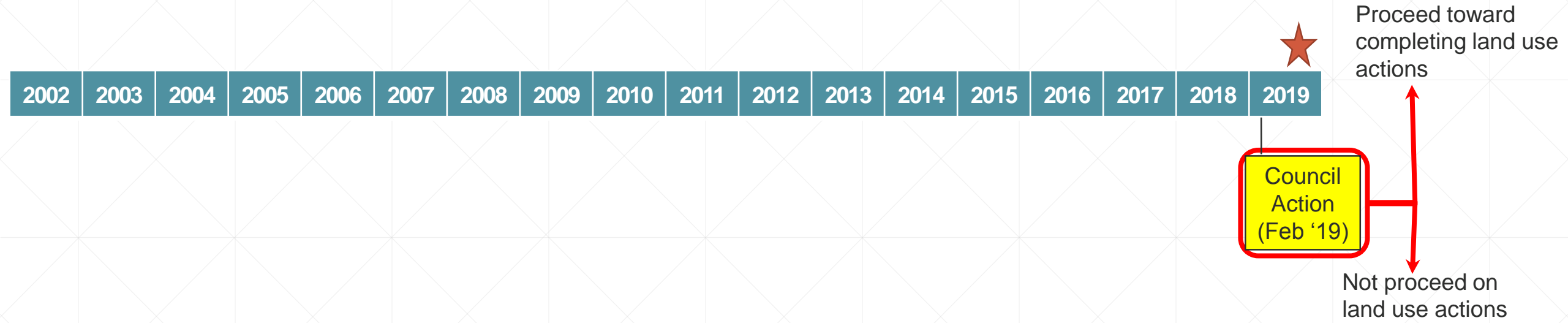
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Summary

Q/A: Section 4, Section 6, Section 7



★ = Sept 30, 2019 FHWA Deadline for ROD



Council Discussion

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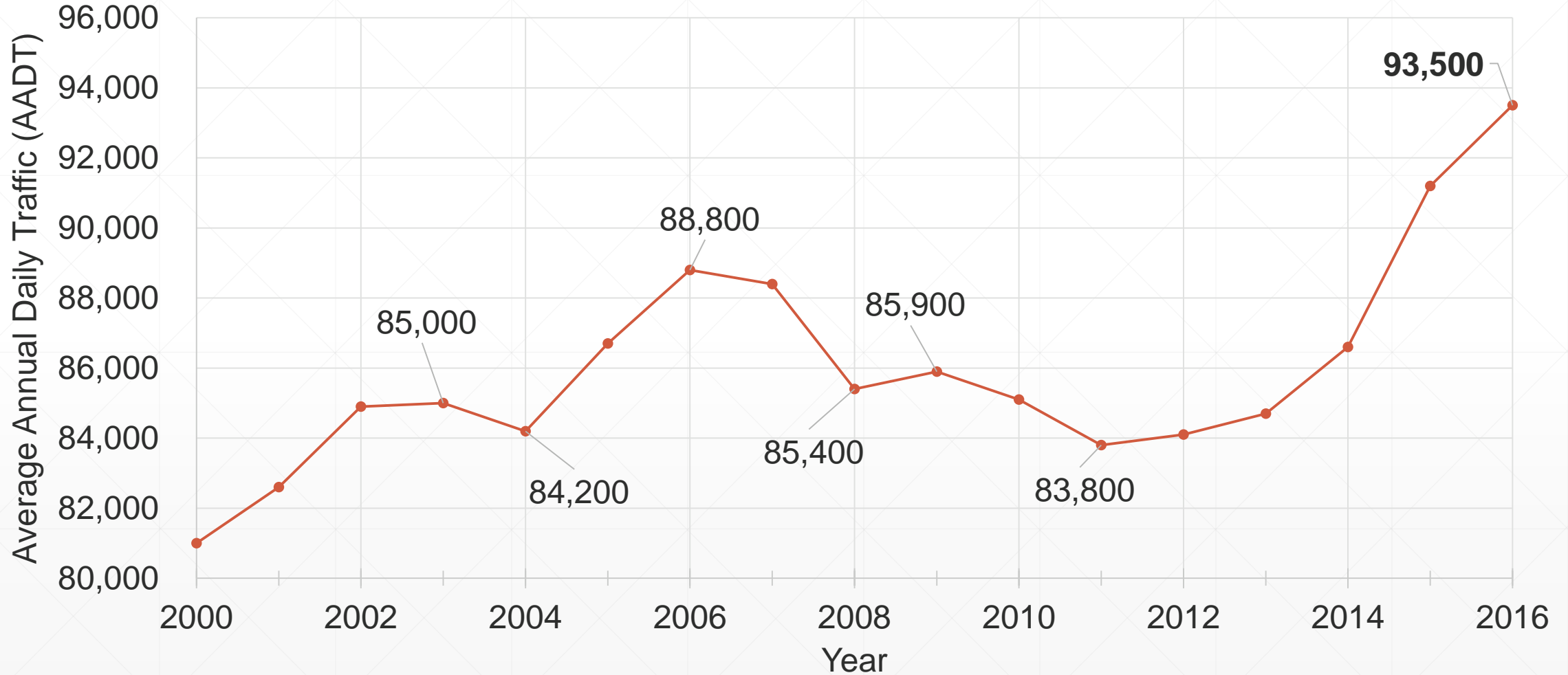
Supplemental Slides

These were provided as handouts to Council

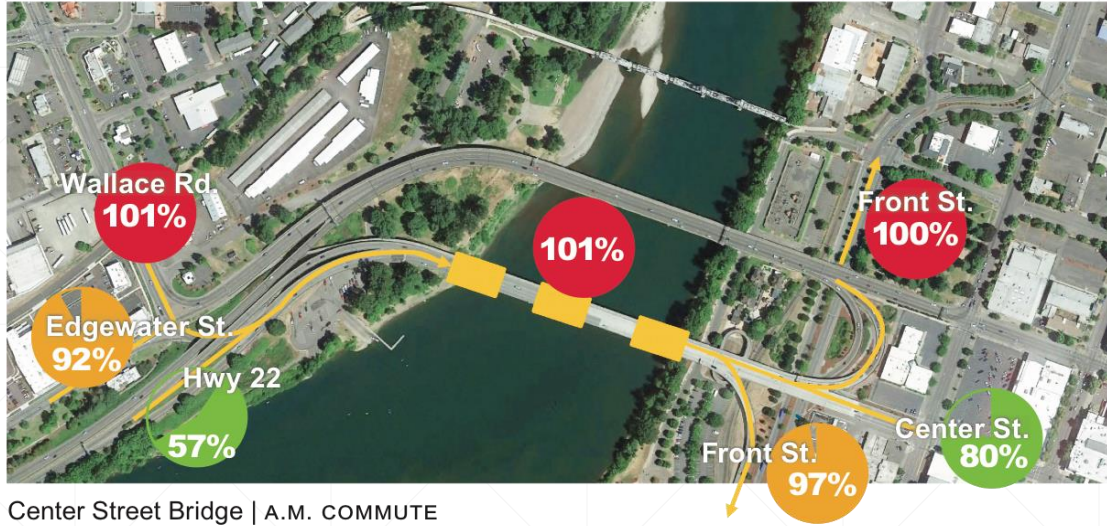
Congestion Relief Task Force

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Average Annual Daily Traffic Volumes



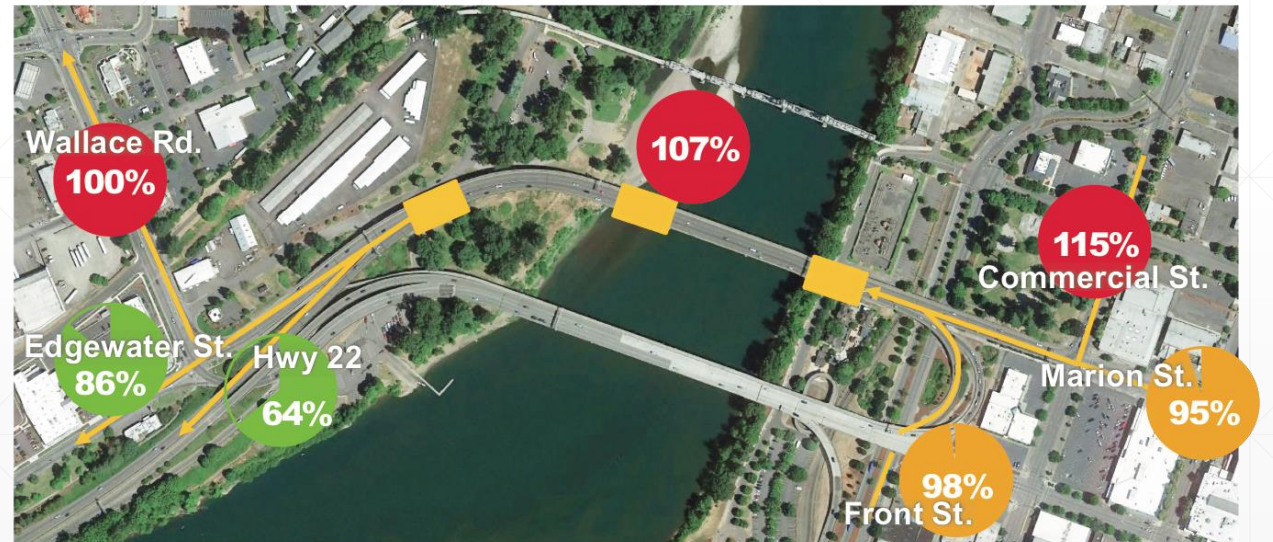
Roadway and Bridge Capacities (2018)



Center Street Bridge | A.M. COMMUTE

Center Street Bridge
AM Commute

Marion Street Bridge
PM Commute



Marion Street Bridge | P.M. COMMUTE

Widen Marion and Center Street Bridges?

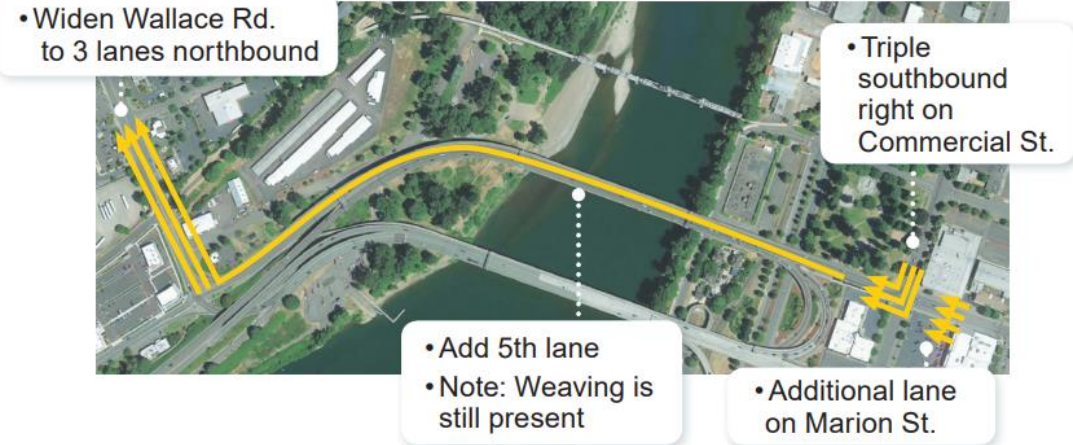
Center Street Bridge Package



Summary

- Improves Wallace Rd. and Front St.
- Bottlenecks still exist at both Commercial St./Front St. intersections
- Project Cost: \$100–\$137 million

Marion Street Bridge Package

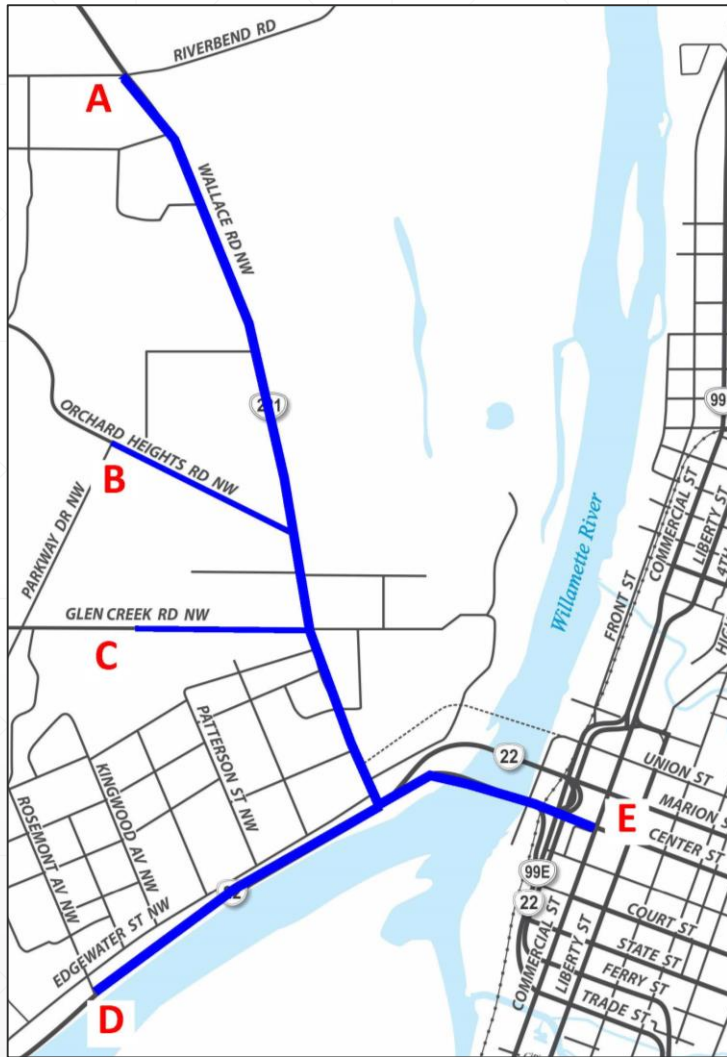


Summary

- Improves Commercial St., Marion St., and Wallace Rd.
- Weaving (lane-changing) on bridge still occurs, and with five lanes
- No improvements for Front St. on-ramp to bridge
- Project Cost: \$55–\$65 million

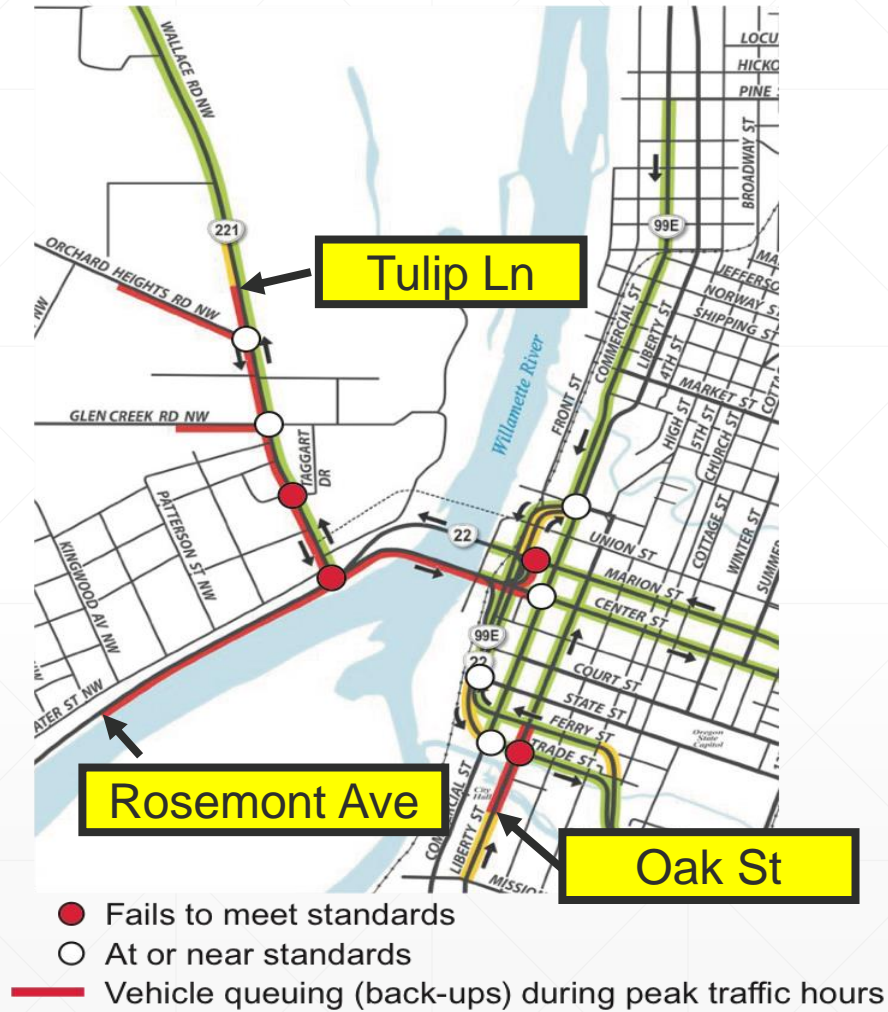
Total Estimated Cost: \$155-\$202 million
[Does not include costs for seismic retrofitting.]

AM Peak Hour Travel Times

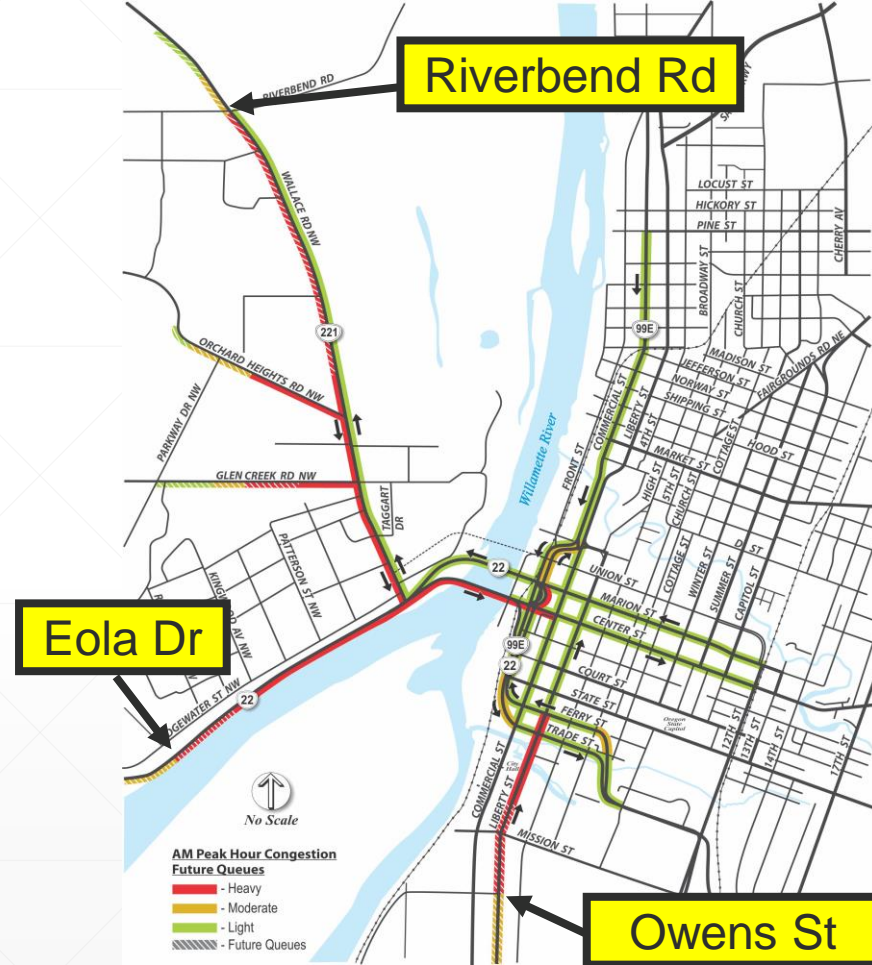


AM Travel Times (mins)					
Start	End	AM Peak (Existing)	AM Peak (Build 2018)	AM Peak (No Build 2028)	AM Peak (Build 2028)
A	E	11 mins	6 mins	15 mins	10 mins
B	E	10 mins	5 mins	14 mins	9 mins
C	E	7 mins	4 mins	10 mins	7 mins
D	E	5 mins	3 mins	7 mins	5 mins

AM Peak Hour Congestion and Queueing

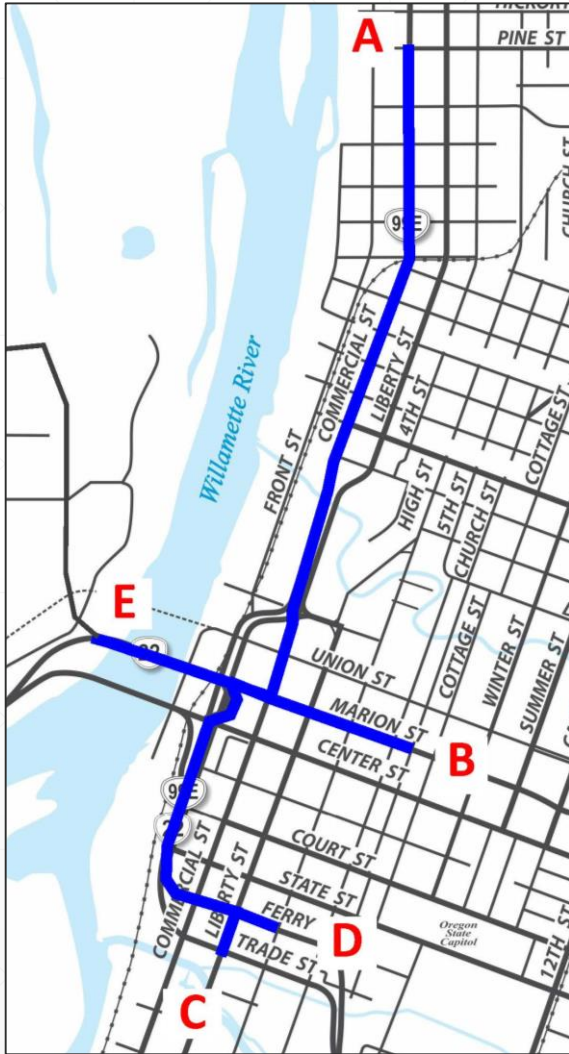


AM Peak Hour Congestion (2018)



AM Peak Hour Congestion – No Build (2035)

PM Peak Hour Travel Times



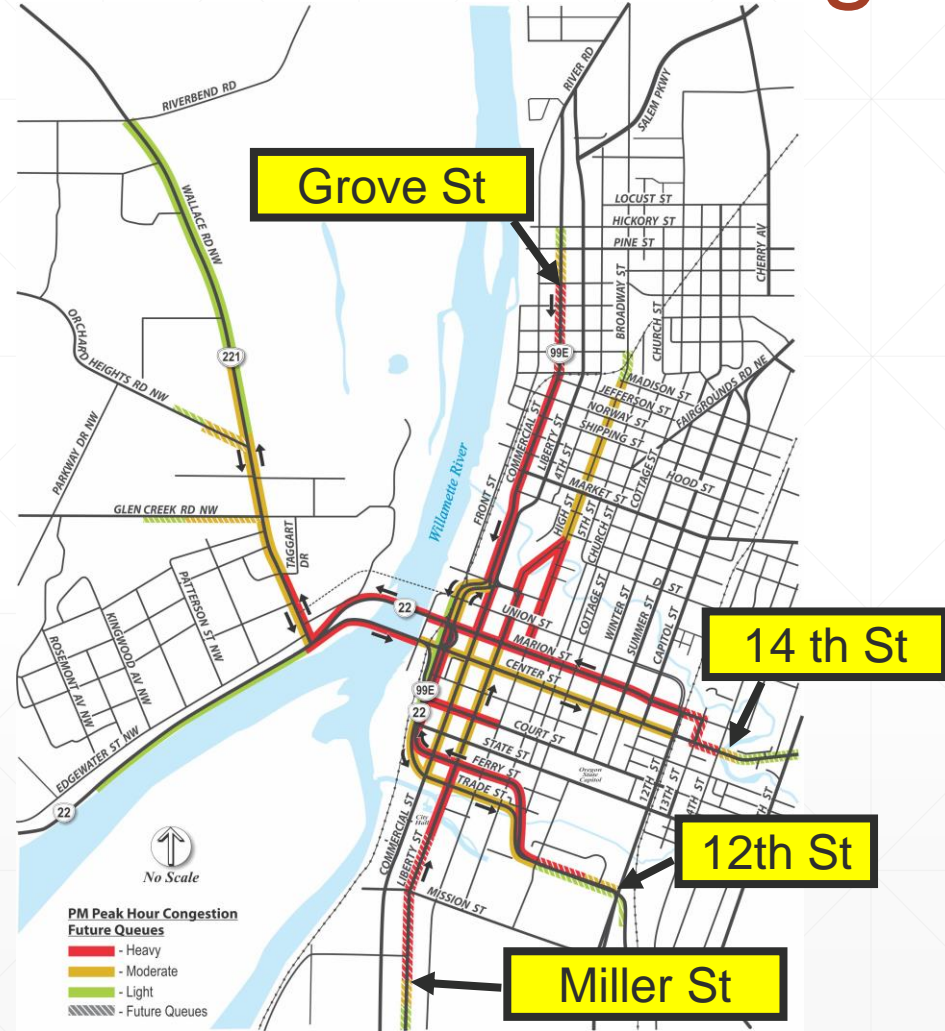
PM Travel Times (mins)					
Start	End	PM Peak (Existing)	PM Peak (Build 2018)	PM Peak (No Build 2028)	PM Peak (Build 2028)
A	E	12 mins	8 mins	15 mins	10 mins
B	E	9 mins	4 mins	14 mins	12 mins
C	E	8 mins	8 mins	10 mins	10 mins
D	E	8 mins	8 mins	10 mins	10 mins

PM Peak Hour Congestion and Queueing



- Fails to meet standards
- At or near standards
- Vehicle queuing (back-ups) during peak traffic hours

PM Peak Hour Congestion (2018)



PM Peak Hour Congestion – No Build (2035)

Summary of Costs

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Costs of the Preferred Alternative

Costs of the No Build Alternative

Compared to the No Build Alternative, in 2040 the costs of the Preferred Alternative include:

1. **Increased** congestion during PM peak north of downtown on arterials and approaches leading to the eastern bridge landing (Question 13b)
2. **Impacts** to views of Wallace Marine Park and from Union Street Railroad Bridge (Question 3e)
3. **Impacts** to Wallace Marine Park (Section 17)
4. **Impacts** to green space and businesses along south side of Edgewater (Questions 3g, 3j)
5. **Higher** Vehicle Miles Traveled during the AM and PM peaks (Question 13c, 13f)
6. **Higher** operational energy consumption (Question 19d)
7. **Closing** the Rosemont Avenue Exit from Highway 22 (Question 3k)
8. **Changing** Front Street in the vicinity of Pine/Hickory (Question 3h)
9. **Construction costs** (Question 3f, 9c, 9d, 3n):^{a, b}
 - ≈\$300 million for bridge, approaches, multiuse paths, connections
 - ≈\$100 million for flyover, Marine Drive to Hwy 22
 - Unknown cost for Hwy 22/Eola/Rosemont reconfiguration

Compared to the Preferred Alternative, in 2040 the costs of the No Build Alternative include:

1. **Increased** congestion at east and west bridgeheads of existing bridges, connecting arterials, and downtown (Question 13a)
2. **Increased** congestion downtown during the PM peak (Question 13b)
3. **Increased** congestion on Wallace Road during the PM peak (Question 13b)
4. **Higher** total bridge trips over the Marion and Center Street bridges (Question 15d)
5. **Higher** number of downtown intersections not meeting mobility standards (Question 13b)
6. **Higher** Vehicle Hours Delay (Question 13f)
7. **Higher** Vehicle Hours Traveled (Question 13f)
8. **Higher** average travel times (Question 16a)
9. **Longer** peak congestion periods (Question 13a)
10. **Longer** queue lengths on westbound Marion Street at High Street during both AM and PM Peaks (Question 13e)
11. **Longer** queue lengths during AM Peak on Wallace Road, Edgewater Road, and Commercial Street (Question 13e)^c
12. **Longer** queue lengths during PM Peak on Commercial Street, Marion Street, and Liberty Street (Question 13e)^c
13. **Higher** emissions of criteria pollutants (Question 19b)
14. **Higher** emissions of CO2 based on average speeds (Question 19c)
15. **Lower** average speeds (Question 19c)
16. **No** Final Environmental Impact Statement is issued (Question 4g, 4h)
17. **Sunk costs** of approximately \$9-10 million total (Question 1i)

^a Capital construction costs for new Marine Drive NW not included because project is in the Salem *Transportation System Plan* and may be built even under No Build Alternative.

^b Costs include acquisition costs, estimated at ≈\$54.9 million total for all components including Marine Drive.

^c Queue lengths are for the year 2035.