



# Agenda

Introductions	<i>Bob Townsend</i>
Progress Report/How We Got Here	<i>Marc Butorac</i>
Refinements to Alternatives	<i>Marc Butorac</i>
Comparison of Refined System Alternatives	<i>Marc Butorac</i>
Recommended Preferred Plan	<i>Marc Butorac</i>
Next Steps	<i>Marc Butorac</i>
Feedback Session	<i>Group</i>

# Progress Report

- Tech Memo #1-5 Previously Completed
- Concept Development Workshop – *Sept. 11<sup>th</sup> to 13<sup>th</sup>*
- Neighborhood Alliance Meeting – *Nov. 7<sup>th</sup>*
- Tech Memo #6: Alternatives Analysis – *Sept. 13<sup>th</sup> to Dec. 4<sup>th</sup>*
- Advisory Committee Meeting #3 – *Dec. 4<sup>th</sup>*
- Business and Property Meeting – *Dec. 18<sup>th</sup>*
- Tech Memo #7: Identification of Preferred Alternative - *Dec. 4<sup>th</sup> to Jan. 8<sup>th</sup>*
- Advisory Committee Meeting #4 – *Jan. 9<sup>th</sup>*



# How Did We Get Here?



**Legend:**



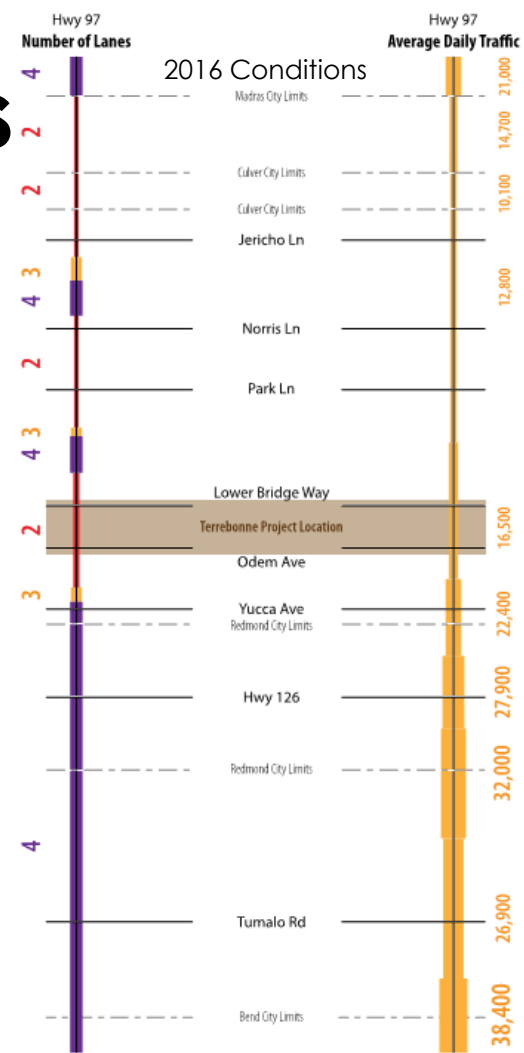
# Corridor Needs

- Highway demand will necessitate some form of 2 NB and 2 SB lanes
- Provide connectivity and access for all users in Terrebonne
- Address US 97/Lower Bridge Way Capacity/Safety
- Address US 97 / B Avenue Capacity
- US 97 is a key freight corridor



# Context of Highway Volumes

- Average Daily Traffic (ADT) on US 97 through Terrebonne is anticipated to grow to 32,000 by 2040.
- This will meet or exceed the two-lane capacity of US 97 within Terrebonne.
- Truck traffic is also expected to remain high along the US 97 corridor.



# Refinements to Alternatives



# Couplet Refinements

- Southern U-turn Shift
  - Improved accessibility
  - Speed reduction
  - Reduced right-of-way impacts
- Local street enhancements
  - Provided a local street between 11<sup>th</sup> and 13<sup>th</sup> Streets near church
  - Provision for long-term 12<sup>th</sup>/13<sup>th</sup> north-south local parallel route
- SB Diamond to Parclo “B” Ramp Conversion
  - Reduce right-of-way Impacts (*Reduced Cost*)
  - Slow drivers by changing the high speed perspective
  - Created lateral shift for SB motorists

# Couplet Refinements (cont.)

- Reduced sidewalk width (10 to 8 feet) and travel lane widths (12 to 11 feet) (*Reduced Cost*)
  - Reduce potential right of way impacts and cost
- Introduced rectangular rapid flash beacons and marked crossings at the B Avenue-Smith Way crossings of US 97 (existing) and 11th Street
- Added eastbound cycle track for the one-way portion of B Avenue between US 97 (existing) and 11th Street
- Improved access to businesses at the corner of US 97/11th Street including the post office.

# Refined Couplet System Alternative



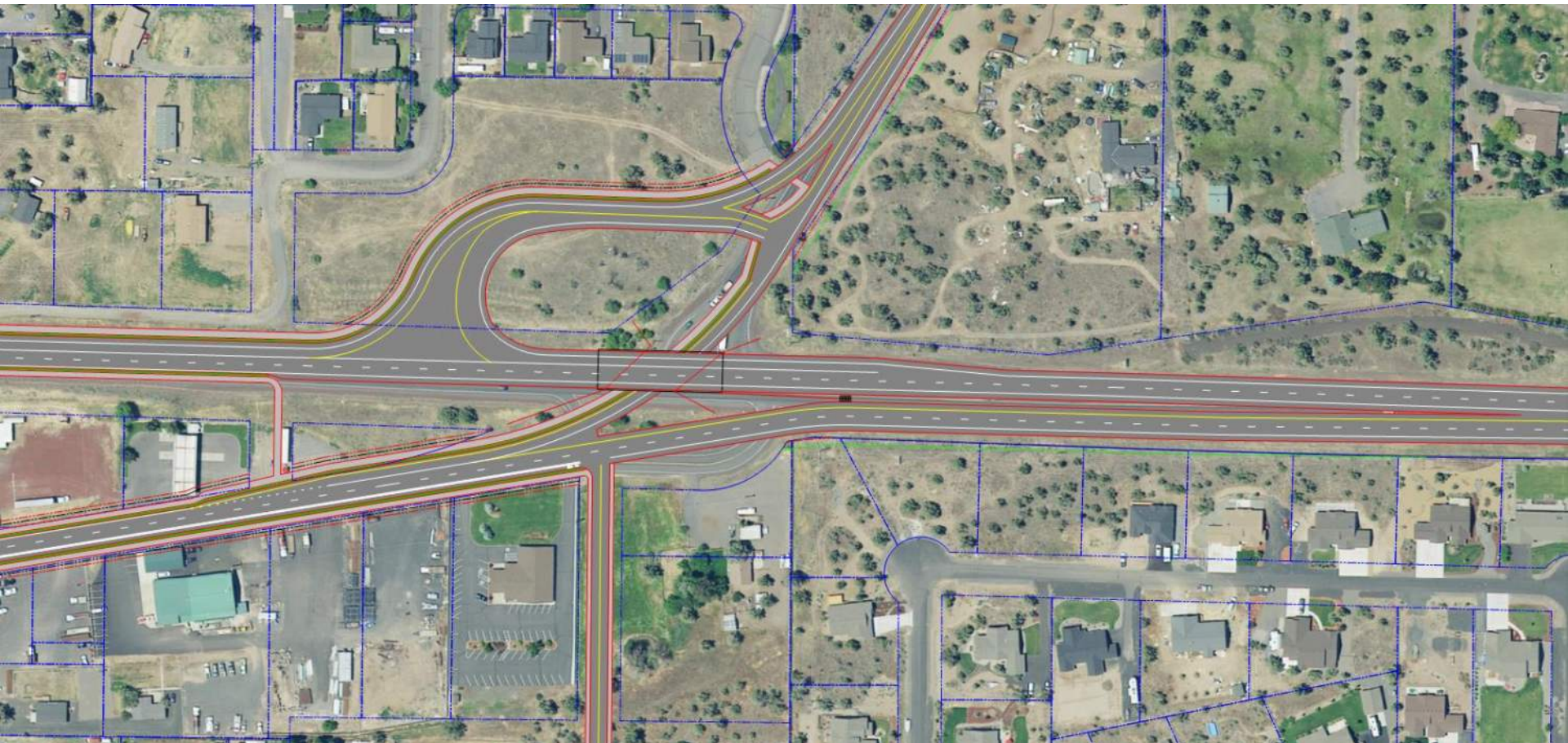


# Southern U-turn Shift (Couplet)





# Local Street and LBW SB Ramp

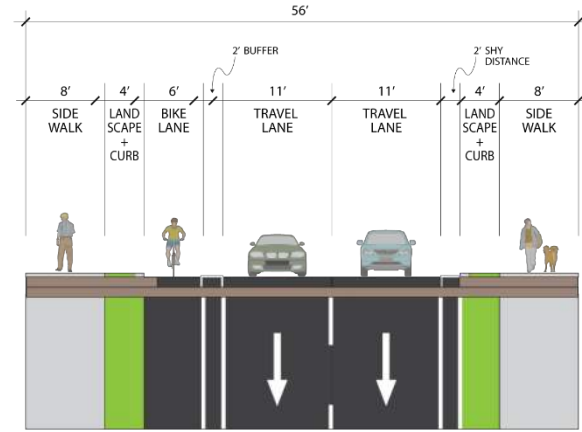




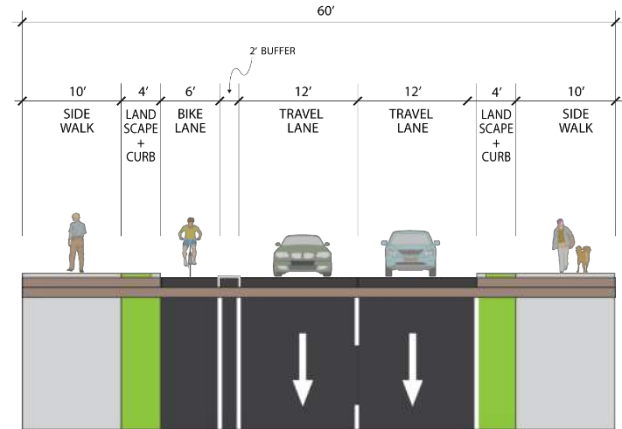
# Couplet Cross-Section

- Reduced sidewalk width (10 to 8 feet)
- Reduced travel lane widths (12 to 11 feet)

RECOMMENDED



PREVIOUS



# Cross Section – B Avenue

Before



After



# Cycle Track and RRFBs



# Five Lane Refinements

- Reduced sidewalk width (10 to 8 feet) and travel lane widths (12 to 11 feet) (*Reduced Cost*)
  - Reduce potential right of way impacts and cost
  - Reduced the curb to curb exposure for ped/bike (78 to 74 feet)
- SB Diamond to Parclo “B” Ramp Conversion
  - Reduce right-of-way Impacts (*Reduced Cost*)
  - Slow drivers by changing the high speed perspective



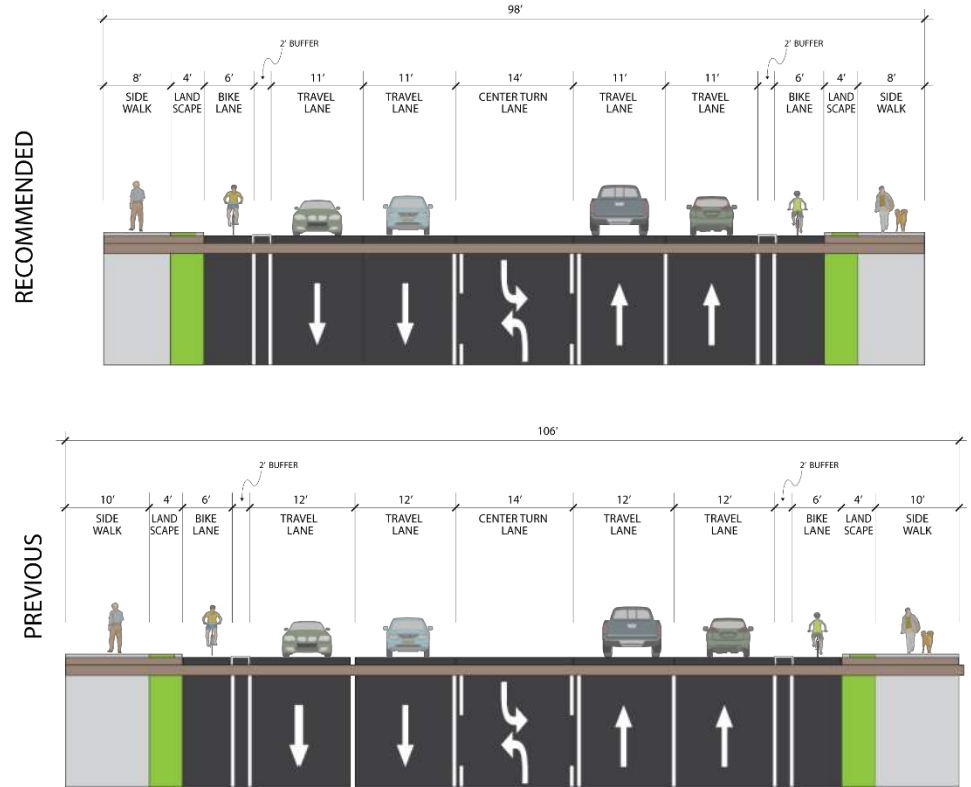
# Refined Five-Lane System Alternative





# Five-Lane Cross-Section

- Reduced sidewalk width (10 to 8 feet)
- Reduced travel lane widths (12 to 11 feet)



# Gateway Treatments for Speed Control



Speed Feedback Sign



Curbed Roadway with  
Bike Lane and Sidewalk



Welcome Signs



Street Lighting  
(with Banners)



Chicanes and  
Lateral shifts

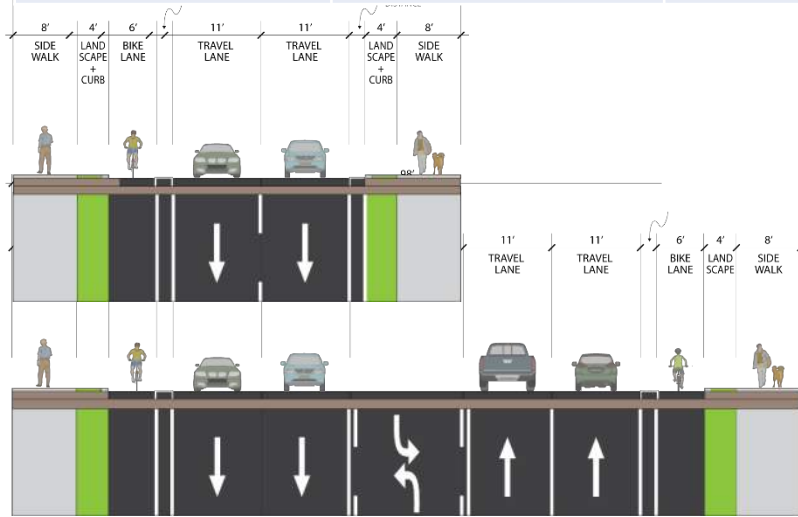


Landscaping

# Comparison of Refined System Alternatives

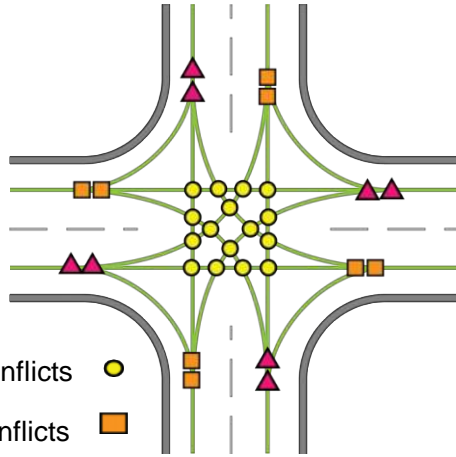
# Pedestrian and Bicycle Exposure

Alternative	Traffic Flow	Number of Lanes	Exposure
Couplet	One-Way	4 [2 lanes (US 97) + 2 lanes(11 <sup>th</sup> )]	64' (32' widest)
Five Lane	Two-Way	7 [5 lanes (US 97) + 2 lanes(11 <sup>th</sup> )]	86' (54' widest)



# Conflicts and Accessibility

## Vehicle



16 Crossing Conflicts



8 Merging Conflicts

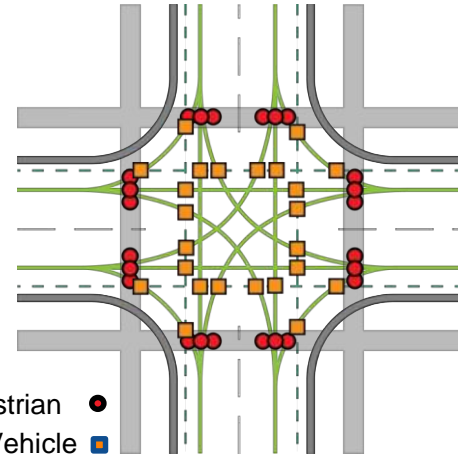


8 Diverging Conflicts



32 Total

## Pedestrian and Bicycle



24 Pedestrian



24 Bicycle– Vehicle

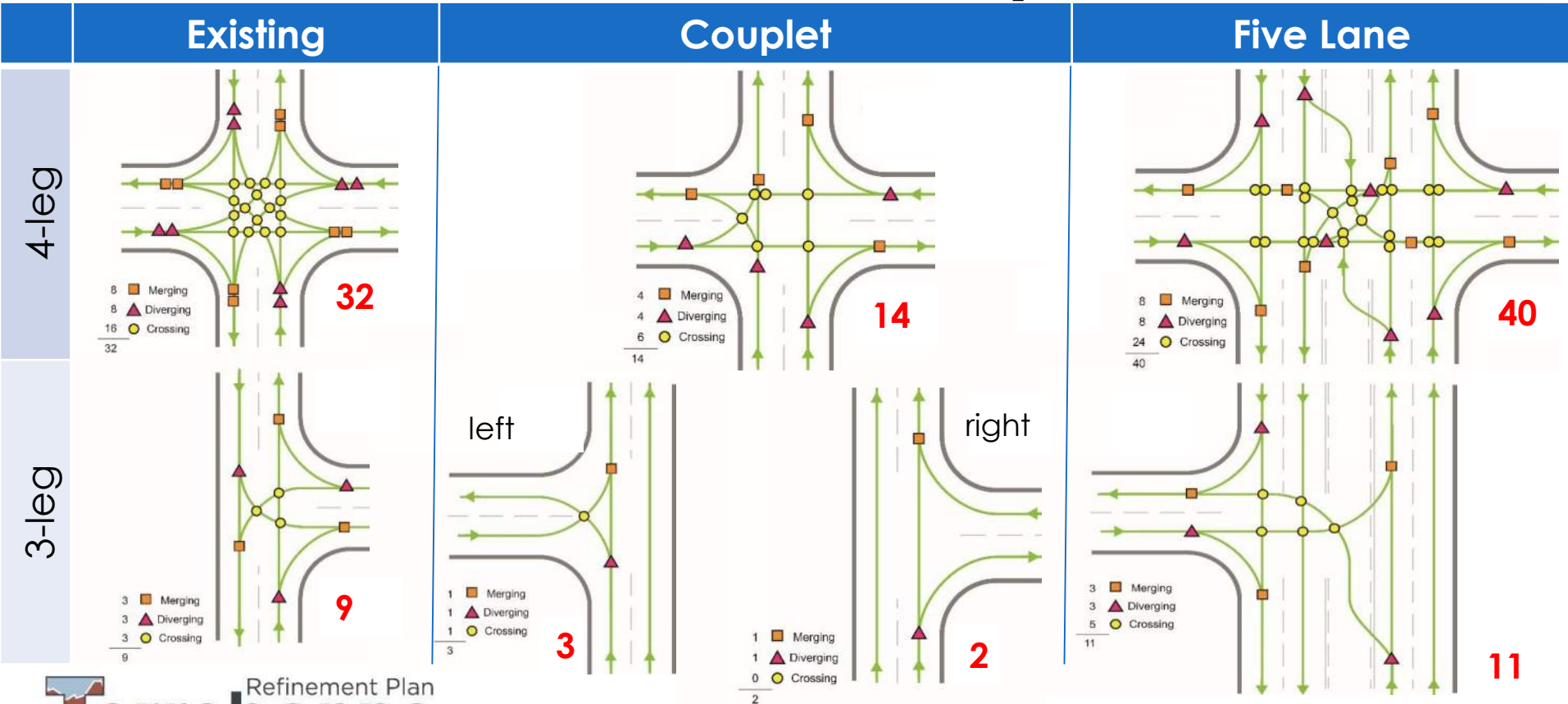


(Excluding 32 conflicts  
with left-turning vehicles)

48 Total Conflicts



# Conflicts and Accessibility



# Conflicts and Accessibility (cont.)

- Couplet **reduces** all conflicts by 60%
- Couplet has 63% **less** conflicts than 5-lane
- 5-lane **increases** crossing conflicts by 19%
- Couplet **reduces** crossing conflicts by 64%

Condition	Merging	Diverging	Crossing	Total
Existing	185	185	289	659
Couplet	79	79	105	263
Five Lane	185	185	343	713

















# Updated Cost Estimate

## Couplet and 5-Lane

Intersection Elements	Preliminary Cost Estimate
<b>Couplet</b> South of Central Avenue (B Avenue Configuration) North of Central Avenue (Fly-under)	<b>\$22.5M</b> \$6.9M \$15.6M
<b>Five-Lane</b> South of Central Avenue (Traffic Signal) North of Central Avenue (Fly-under)	<b>\$25.9M</b> \$5.4M \$20.5M

# Evaluation Results

Goal	Couplet	Five-Lane
Community & Livability		
Mobility		
Safety & Health		
Accessibility		
Financial Responsibility		
Economic Vitality		
<b>Total</b>		

# Project Team Recommendation

- The ***Couplet*** best meets the Corridor needs
  - Meets forecasted highway demand and provides 2 NB and 2 SB travel lanes
  - Provides connectivity and access for all users in Terrebonne
  - Addresses US 97/Lower Bridge Way Capacity/Safety
  - Addresses US 97/"B" Avenue Capacity
  - Maintains US 97 as a key freight corridor

# We need your feedback



Thank you for your input and recommendations that have helped shape the Terrebonne Refinement Plan to date. Based on our analysis, AC and community feedback, we have identified a Preferred Alternative. We now need the AC to weigh in on the evaluation results. Your feedback will be reviewed by the project management team and be used with the development of the final recommended plan. The final recommended plan will be reviewed and approved by the Deschutes County Board of Commissioners and the Oregon Transportation Committee (OTC).

Please review the evaluation criteria matrix results and provide your feedback to the questions below.

[www.TerrebonneRefinementPlan.com](http://www.TerrebonneRefinementPlan.com)

After reviewing the alternatives evaluation results, is there anything else the team should consider to make the Couplet alternative successful?

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Overall, do you support the Couplet Alternative (Preferred Alternative)?

YES     NO

Please explain your answer:

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Is there anything else you would like to share?

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# Feedback Session – Floor Mat Exercise

**Questions**



**Concerns**



# Next Steps

- Final Comments on Technical Memorandum #7 due Monday, January 21<sup>st</sup>
- Project Management Team Recommendation
  - Deschutes County Board of Commissioners
  - Oregon Transportation Commission
- Public Hearings on Terrebonne Refinement Plan
  - Deschutes County Planning Commission
  - Deschutes County Board of Commissioners
  - Oregon Transportation Commission

# THANK YOU!

