

**Why Provide an Indirect Access from Lower Bridge Way to US97 Northbound?**

- Existing roadway alignments presents challenges to providing on- and off-ramps to/from US97
- Over 20 interchange concepts have been explored to date at the Lower Bridge Way/US97 intersection
- Developing an interchange similar to the Yew Avenue/US97 in Redmond requires the realignment of 11th Street and impacts to multiple businesses (see other side of handout for more details)
- The Couplet configuration allows for a narrow interchange footprint and avoids impacts to existing businesses
- The eastbound left-turn movement (including those who utilize 19th Avenue or Central Avenue) from Lower Bridge represents less than 50 vehicles in the peak hour
- Time to complete the indirect left-turn movement via Central Avenue under the preferred plan is equal to or less than motorists spend today waiting to turn left

**Comparing the Options**

Design/Condition	Lower Bridge Way to NB US97 Delay/Travel Time	Properties/Businesses Impacted	Vehicle Conflicts	Cost*
Existing	2 minutes	NA	1 crossing 1 merge	NA
Existing (Year 2040)	3 minutes	NA	1 crossing 1 merge	NA
Preferred Plan	~ 2 minutes	1 undeveloped lot	2 merge 1 diverge	\$15.6Million
Diamond Interchange (see other side)	20 seconds	3 businesses 1 church 4 residents 1 undeveloped lot	1 crossing 1 merge 1 diverge	+ \$23 Million
NB Parclo Loop Ramp (see Box A)	78 seconds	3 businesses 1 undeveloped lot	1 merge 1 diverge	+ \$20 Million
NB U-turn (see Box B)	83 seconds	4 businesses 1 undeveloped lot	1 merge 1 diverge	+ \$21 Million

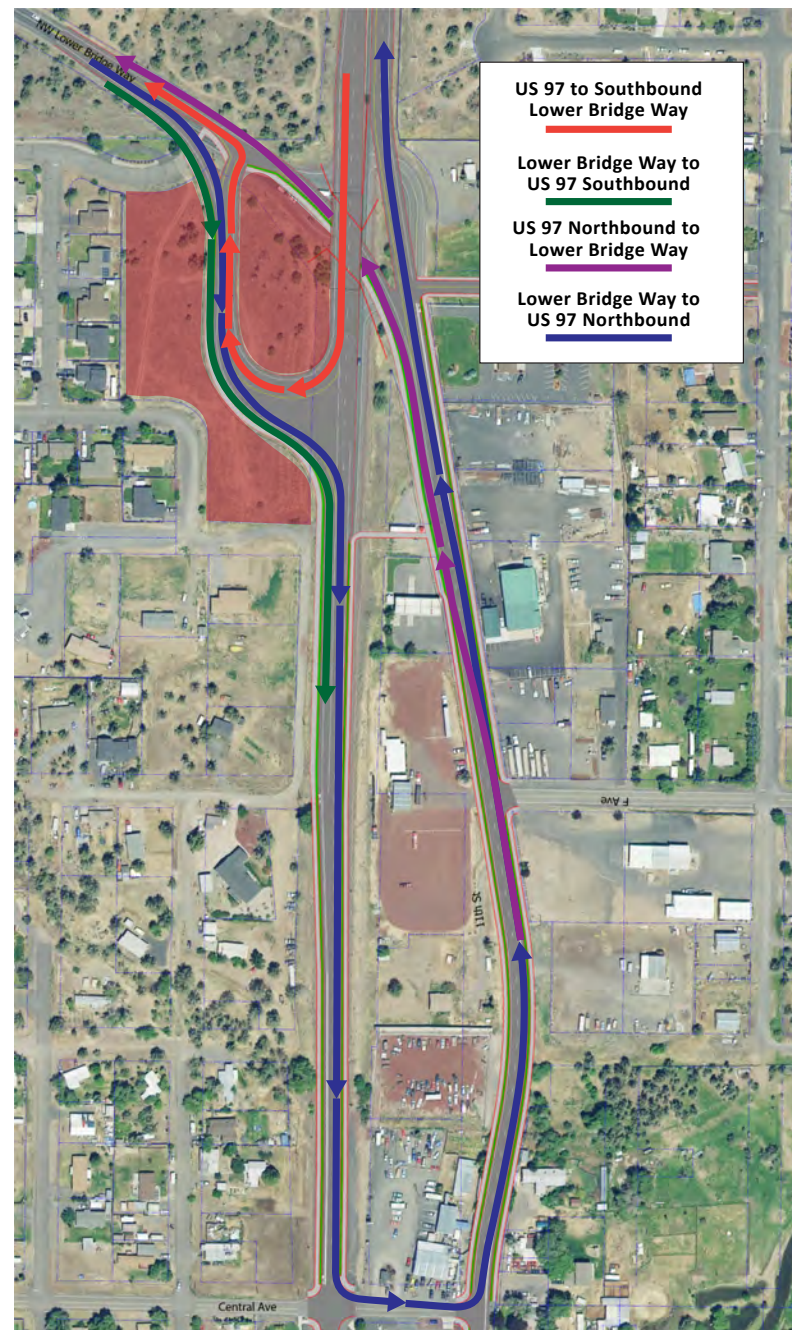
\*Improvements and right-of-way costs north of Central Avenue

**Why was the Recommendation Made to Have Indirect Access to US 97 Northbound?**

In weighing the tradeoffs above, the project team didn't believe it could justify impacting at least 3 businesses and spending +\$5 Million in additional tax payer funds to reduce the delay of 50 vehicles in the peak hour by 100 seconds.

NB: Northbound

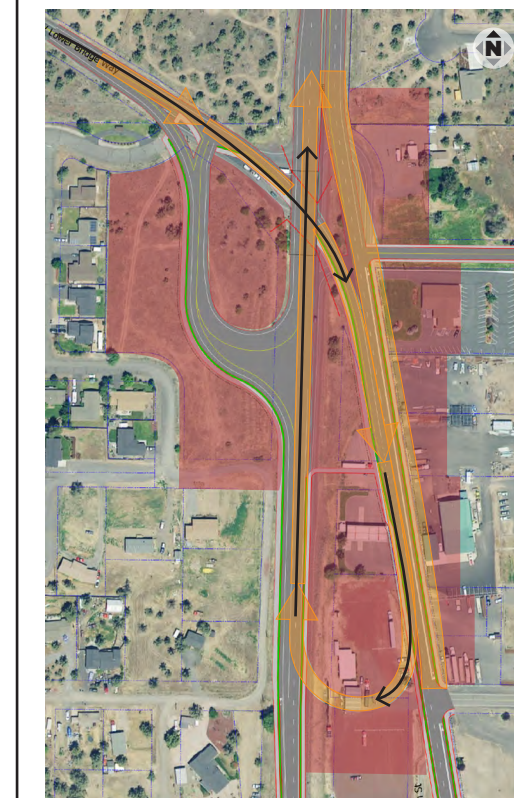
**Preferred Interchange Plan for Lower Bridge Way at US 97**



**Why was the Preferred Couplet Fly Under Interchange Selected?**

- The Couplet configuration allows for a smaller overall interchange footprint
- Focuses most impacts on vacant land
- Allows continuous flow northbound US97 to Lower Bridge Way movement
- Balances impacts with the existing and future demand volumes
- Provides a safe indirect Lower Bridge Way to northbound US97 movement.
- Limits impacts to existing businesses along 11th Street north of F Avenue
- Best meets the goals, objectives, and evaluation criteria of the Terrebonne Refinement Plan

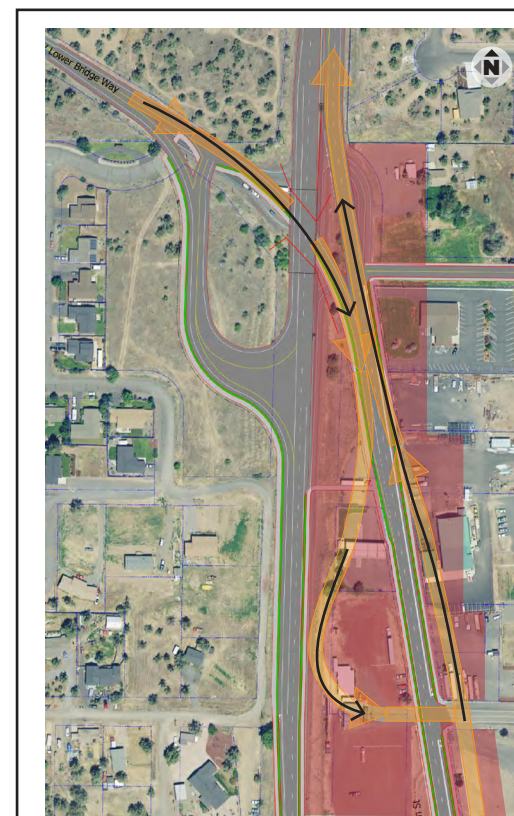
**Other Fly Under Options Evaluated with Direct Lower Bridge Way Access to Northbound US97**



**A**

**Northbound Parclo Loop Ramp**

- Requires 11th Street to be realigned approximately 50 east near F Avenue
- Requires widening of the bridge structure to accommodate the northbound acceleration lane
- Impacts at least 3 businesses with two requiring complete purchase and the remaining one requiring the partial removal of a new building
- Increases the project cost by \$5 million plus dollars



**B**

**Northbound U-Turn at F Avenue**

- Requires 11th Street to be realigned approximately 150 east near F Avenue
- Impacts at least 4 businesses with three likely requiring complete purchase
- Introduces a potential weave movement between NB merging and diverging traffic
- Increases the project cost by \$6 million plus dollars

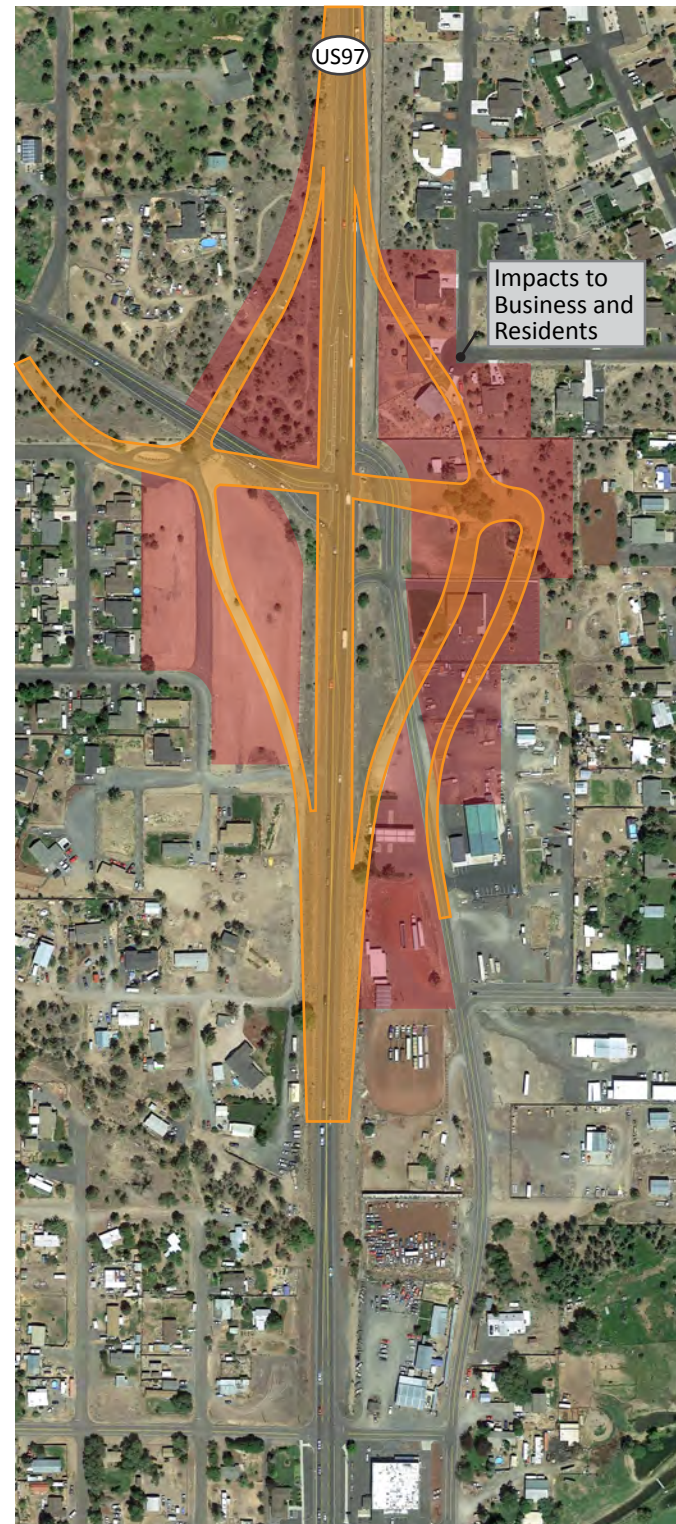
 **Impacted Properties**

# Why Can't a Diamond Interchange Similar to Yew Avenue/US97 work at Lower Bridge Way/US97?



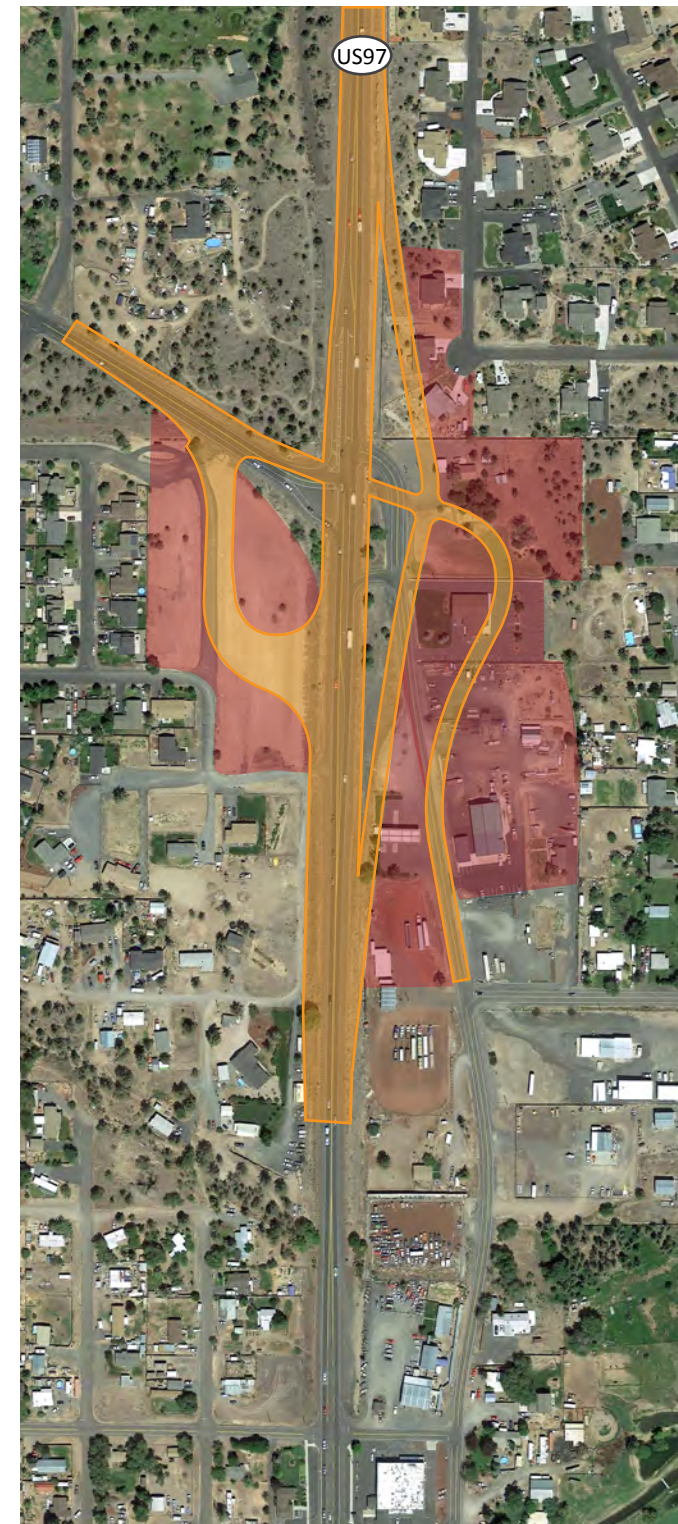
**Yew Avenue/US97 Diamond Interchange (Redmond, OR)**

- A traditional diamond interchange with diagonal on-and off-ramps
- Ramps allow motorists the distance to change elevation (approximately 25 feet) to access the underpass
- Ramps allow motorists to accelerate and decelerate to/from the highway
- Interchange footprint comprises a total of 16 acres



**The Yew Avenue Interchange at Lower Bridge Way**

- Ramps would impact properties and buildings in all four quadrants
- Northbound off-ramp would impact four businesses
- 11th Street and Lower Bridge Way don't align perpendicularly to US97 and would need to be realigned



**How to Modify a Diamond Interchange to Minimize Impacts**

- Convert southbound off ramp to a loop ramp
- Tighten northbound ramps closer to US97
- Realign Lower Bridge Way and 11th Street
- Significant impacts remain



**Why the Save Terrebonne Interchange Improvement Plan is Fatally Flawed**

- The Concept as shown (in gray) is neither constructable nor functional
- Illustrated ramps are less than 100 to 200 feet in length
- Ramp grades would be 13 to 25 percent and non-traversable
- Trucks could not make it through any of the proposed turns
- An interchange addressing these issues would have significant impacts to businesses and houses