

IMPACTS

1. RELOCATE TRANSFORMER.
2. RELOCATE SIGNAL EQUIPMENT INCLUDING CABINET, AND USP BEHIND NEW SIDEWALK.
3. REMOVE BUSINESS SIGN.
4. RELOCATE EXISTING R9-3 AND R9-3bP (NO PEDESTRIAN CROSSING USE NEXT CROSSWALK).
5. RELOCATE WAYFINDING SIGNS .
6. RIGHT-OF-WAY IMPACT.
7. RELOCATE BUSINESS SIGN (MAVERIK).
8. RELOCATE FIRE HYDRANT.
9. REPLACE WITH 65' MAST ARM. REPLACE LEFT-TURN SIGNAL HEAD WITH TYPE III SIGNAL HEADS.
10. REMOVE EXISTING SIGNAL POLE AND JUNCTION BOX.
11. INSTALL SIGNAL POLE WITH 65' MAST ARM.
12. INSTALL SIGNAL POLE WITH 50' MAST ARM AND TYPE C JUNCTION BOX.
13. RELOCATE FENCE.
14. INSTALL RIGHT-TURN MUST TURN RIGHT SIGN.
15. INSTALL PEDESTRIAN ACCESS RAMP.

DESIGN NOTES

- A. DUAL LEFT TURNS ADDED TO WESTBOUND MOVEMENT AT THE WEBER DR AND 2700 E INTERSECTION.
- B. ALL LANES ARE 12' WIDE.
- C. SHEETS DISPLAY CONCEPT DESIGN ONLY. FINAL DESIGN TO BE COMPLETED BY OTHERS.

CONCEPT DESIGN
NOT FOR CONSTRUCTION

SOUTH WEBER CITY
1600 EAST SOUTH WEBER DRIVE
SOUTH WEBER, UT 84405
PHONE: 801-767-9767

WALL CONSULTANT GROUP
2139 SOUTH 1200 WEST
SALT LAKE CITY, UT 84119
PHONE: 801-465-3847

SOUTH WEBER 2700 E
ALT 2 EB TH/RT AT INT
22-133
DETAIL

PROJECT
PROJECT NUMBER

SHEET NO. DT-01

CHECKED BY: PLP

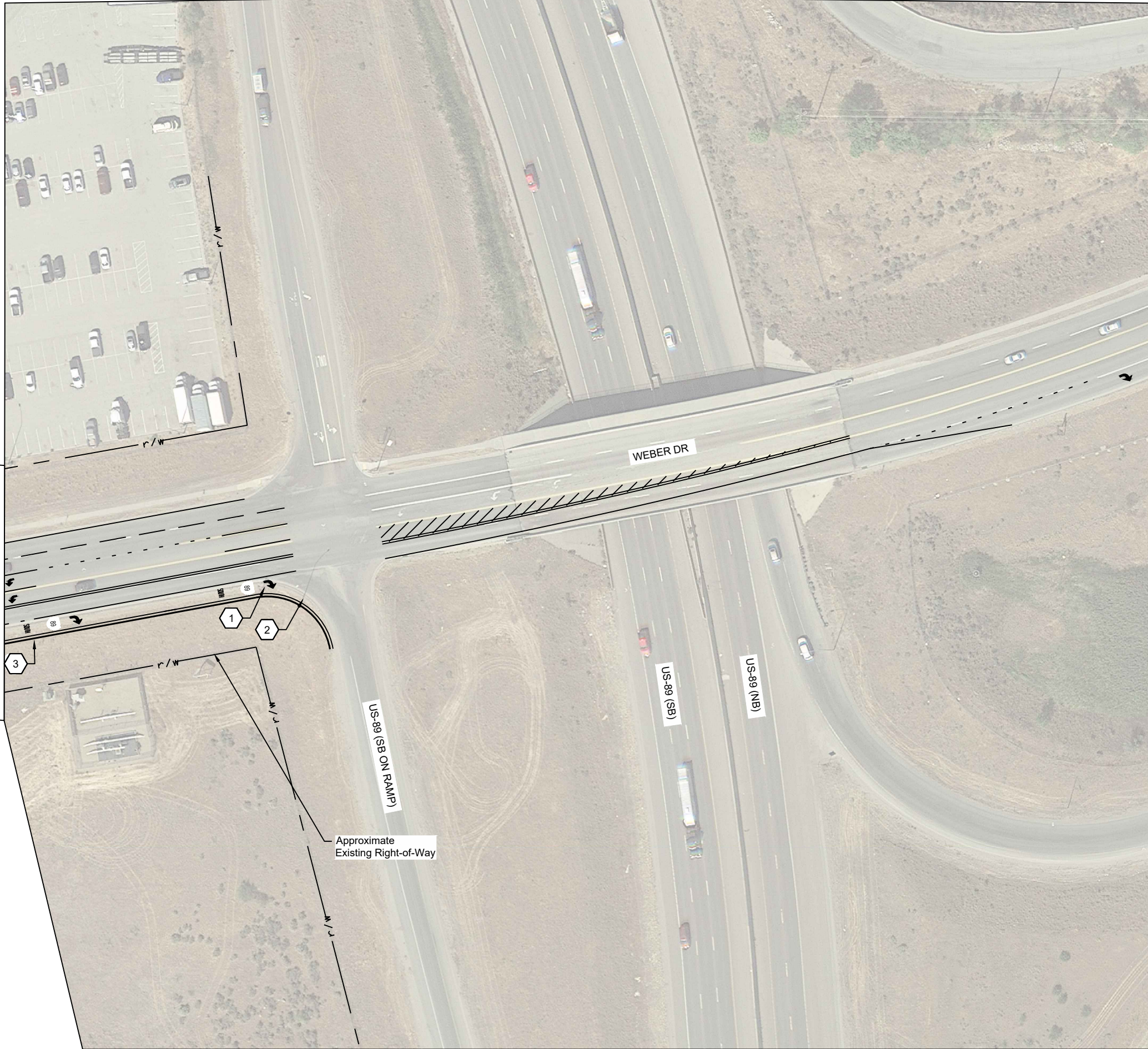
DESIGNED BY: CR

DATE: 06/23/22

SCALE: 80:1

PROFESSIONAL ENGINEER

APPROVED



IMPACTS

1. RELOCATE WAYFINDING SIGNS .
2. RELOCATE LUMINAIRE.
3. INSTALL RIGHT-TURN MUST TURN RIGHT SIGN.

DESIGN NOTES

- A. SINGLE EASTBOUND THROUGH LANE, AFTER BRIDGE THERE IS A RIGHT-TURN POCKET FOR THE US-89 NORTHBOUND ON-RAMP.
- D. SHEETS DISPLAY CONCEPT DESIGN ONLY. FINAL DESIGN TO BE COMPLETED BY OTHERS.

SHEET NO. DT-02

PROJECT SOUTH WEBER 2700 E
 ALT 2 EB TH/RT AT INT
 PROJECT NUMBER 22-133
 DETAIL



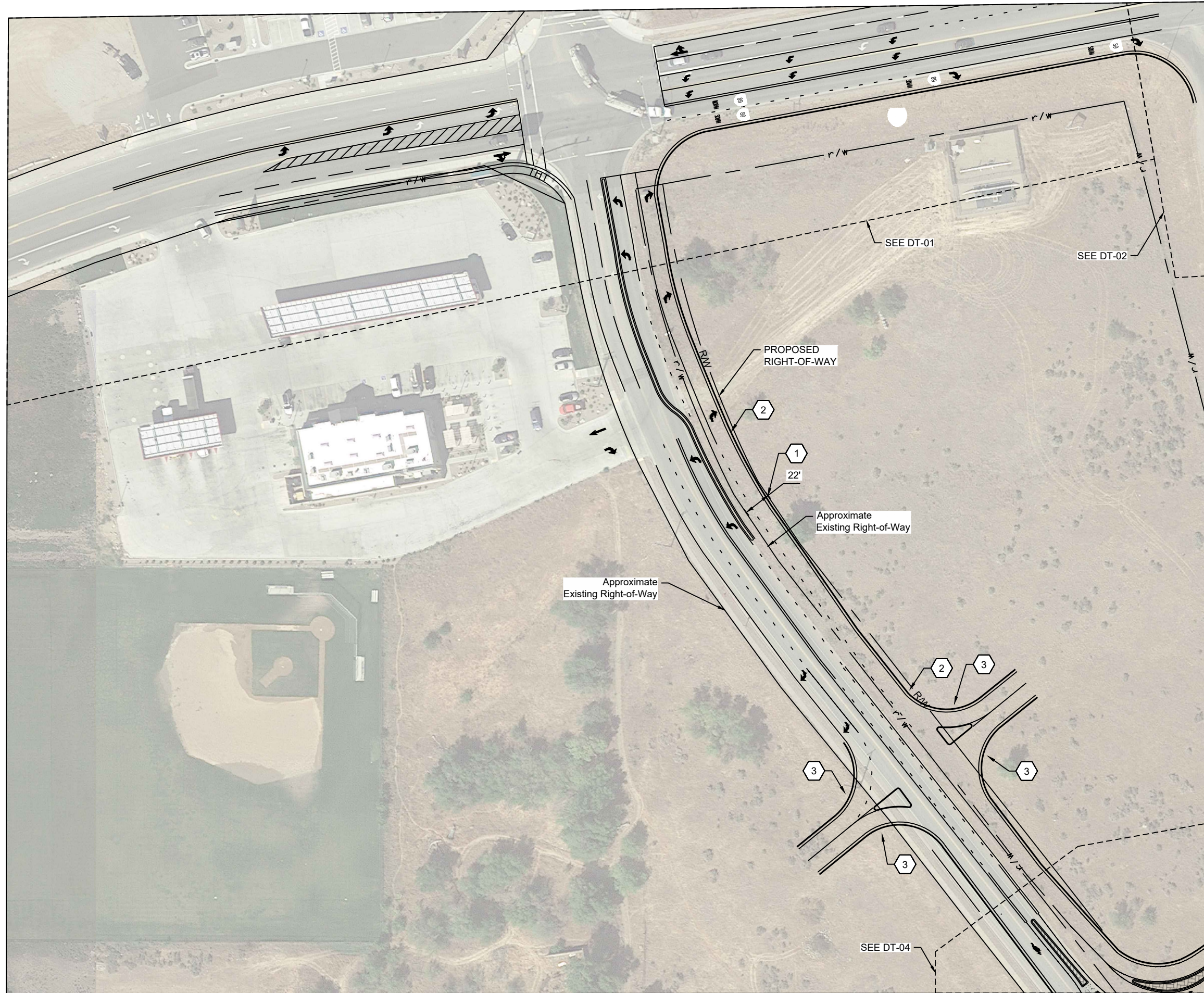
WALL CONSULTANT GROUP
 2139 SOUTH 1200 WEST
 SALT LAKE CITY, UT 84119
 PHONE: 801-465-3847

APPROVED _____
 PROFESSIONAL ENGINEER

SOUTH WEBER CITY
 1800 EAST SOUTH WEBER DRIVE
 SALT LAKE CITY, UT 84145
 PHONE: 801-476-9767

DATE: 06/23/22
 DESIGNED BY: CR
 CHECKED BY: PLP

CONCEPT DESIGN
NOT FOR CONSTRUCTION



IMPACTS

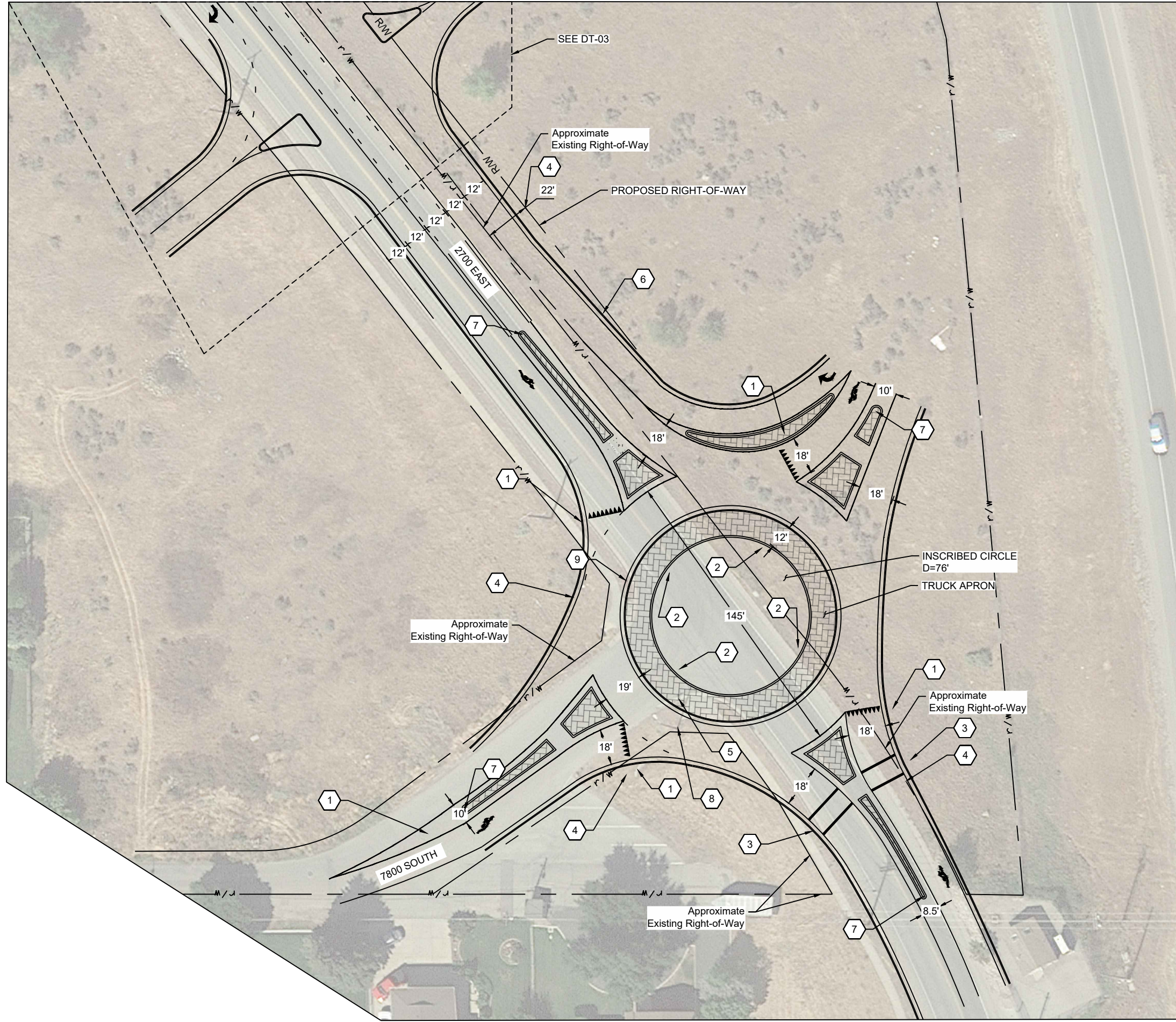
1. RIGHT-OF-WAY IMPACT.
2. INSTALL RIGHT-TURN MUST TURN RIGHT SIGN.
3. INSTALL PEDESTRIAN ACCESS RAMP.

DESIGN NOTES

- A. EAST MAVERIK ACCESS TURNED TO A $\frac{3}{4}$ ACCESS (NO LEFT-TURN OUT).
- B. NEW ACCESSES ADDED ON EITHER SIDE OF ROADWAY BETWEEN MAVERIK ACCESS AND THE ROUNDABOUT.
- C. ALL LANES ARE 12' WIDE.
- D. SHEETS DISPLAY CONCEPT DESIGN ONLY. FINAL DESIGN TO BE COMPLETED BY OTHERS.

PROJECT	SOUTH WEBER 2700 E ALT 2 EB TH/RT AT INT	DATE:	06/23/22
PROJECT NUMBER	22-133	DESIGNED BY:	CR
SHEET NO.	DT-03	CHECKED BY:	PLP
 WALL CONSULTANT GROUP 2139 SOUTH 1260 WEST SALT LAKE CITY, UT 84119 PHONE: 801-465-3847		SCALE:	80:1
APPROVED		PROFESSIONAL ENGINEER	
SOUTH WEBER CITY 1600 EAST SOUTH WEBER DRIVE SOUTH WEBER, UT 84405 PHONE: 801-476-9767			

CONCEPT DESIGN
NOT FOR CONSTRUCTION



IMPACT

1. INSTALL YIELD SIGN.
2. INSTALL ROUNDABOUT DIRECTIONAL SIGN R6-4.
3. INSTALL PEDESTRIAN ACCESS RAMP.
4. RIGHT-OF-WAY IMPACT.
5. REMOVE SIGN
6. INSTALL ADDED LANE SIGN W4-3.
7. INSTALL OM3-L OBJECT MARKER SIGN.
8. RELOCATE POWER POLE.
9. RELOCATE FIRE HYDRANT.

DESIGN NOTES

- A. SINGLE-LANE ROUNDABOUT PROPOSED AT THE 2700 E AND 7800 S INTERSECTION.
- B. RIGHT-TURN BYPASS LANE INCLUDED FOR THE WESTBOUND RIGHT-TURN MOVEMENT.
- C. CROSSWALKS INCLUDED IN THE WEST, SOUTH AND EAST LEGS.
- D. SHEETS DISPLAY CONCEPT DESIGN ONLY. FINAL DESIGN TO BE COMPLETED BY OTHERS.

<p>CONCEPT DESIGN NOT FOR CONSTRUCTION</p>									
<p>SOUTH WEBER CITY 1600 EAST SOUTH WEBER DRIVE SOUTH WEBER, UT 84405 PHONE: 801-476-9767</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">DATE:</td> <td style="width: 35%;">06/23/22</td> <td style="width: 15%;">DESIGNED BY:</td> <td style="width: 35%;">CR</td> </tr> <tr> <td>SCALE:</td> <td>40:1</td> <td>CHECKED BY:</td> <td>PLP</td> </tr> </table>	DATE:	06/23/22	DESIGNED BY:	CR	SCALE:	40:1	CHECKED BY:	PLP
DATE:	06/23/22	DESIGNED BY:	CR						
SCALE:	40:1	CHECKED BY:	PLP						
<p>WALL CONSULTANT GROUP 2139 SOUTH 1200 WEST SALT LAKE CITY, UT 84119 PHONE: 801-465-3847</p>	<p>APPROVED _____ PROFESSIONAL ENGINEER</p>								
<p>SOUTH WEBER 2700 E ALT 2 EB TH/RT AT INT 22-133</p>	<p>DETAIL</p>								
<p>SHEET NO. DT-04</p>									

Shared Eastbound Thru/Right

AM Peak Hour - C (29.1)
PM Peak Hour - C (23.5)

South Weber Drive

2700 East

Key

Intersection LOS (Avg Delay in sec/veh)

Separate Eastbound Right

AM Peak Hour - C (22.9)
PM Peak Hour - C (21.7)

South Weber Drive

2700 East



Intersection Configuration Comparison - 2050

South Weber TMP

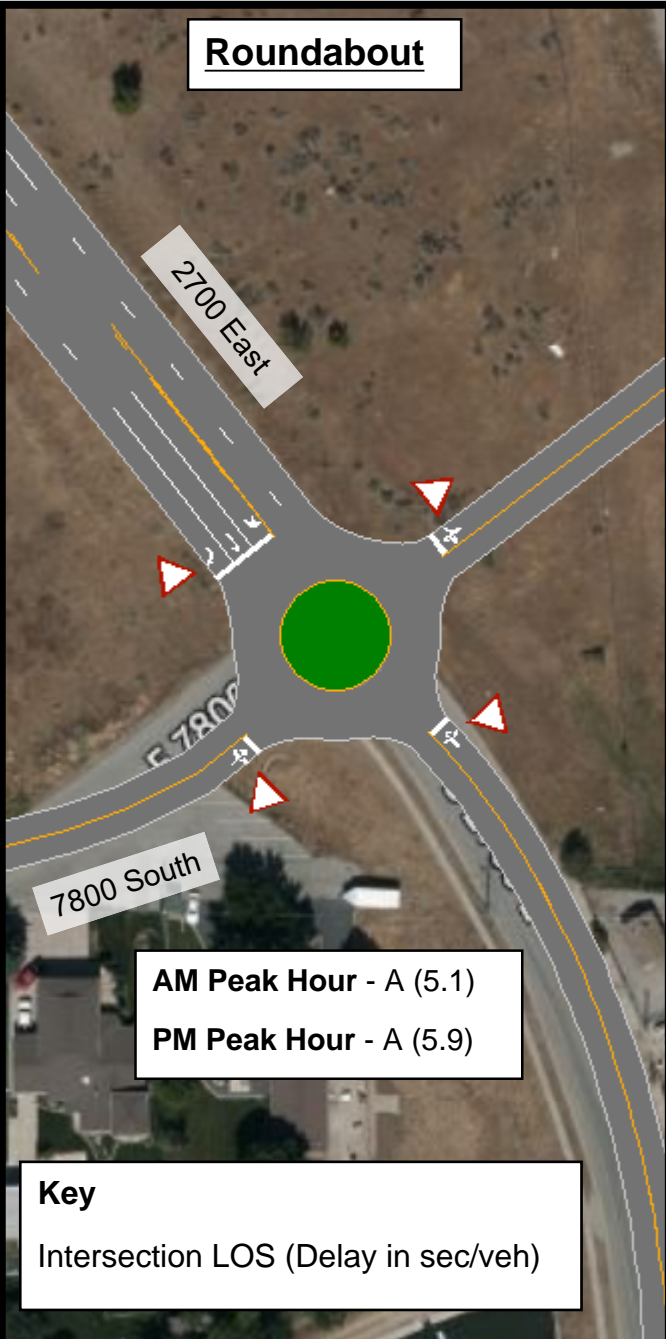


07/15/2022

PROJECT:
22-133

Figure XX

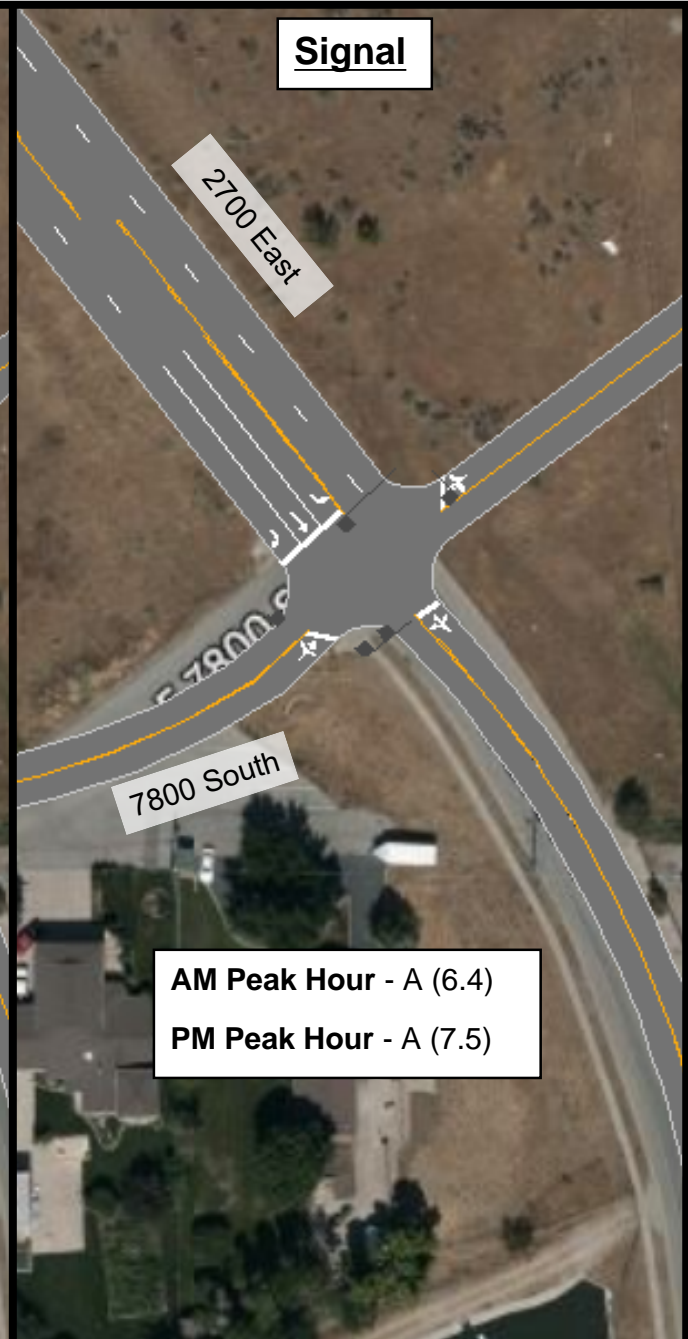
Roundabout



2-Way Stop



Signal

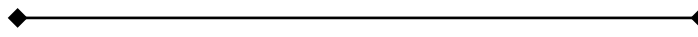


Key

Intersection LOS (Delay in sec/veh)



Intersection Configuration Comparison - 2050



South Weber TMP



07/25/2022

PROJECT:
22-133

Figure XX

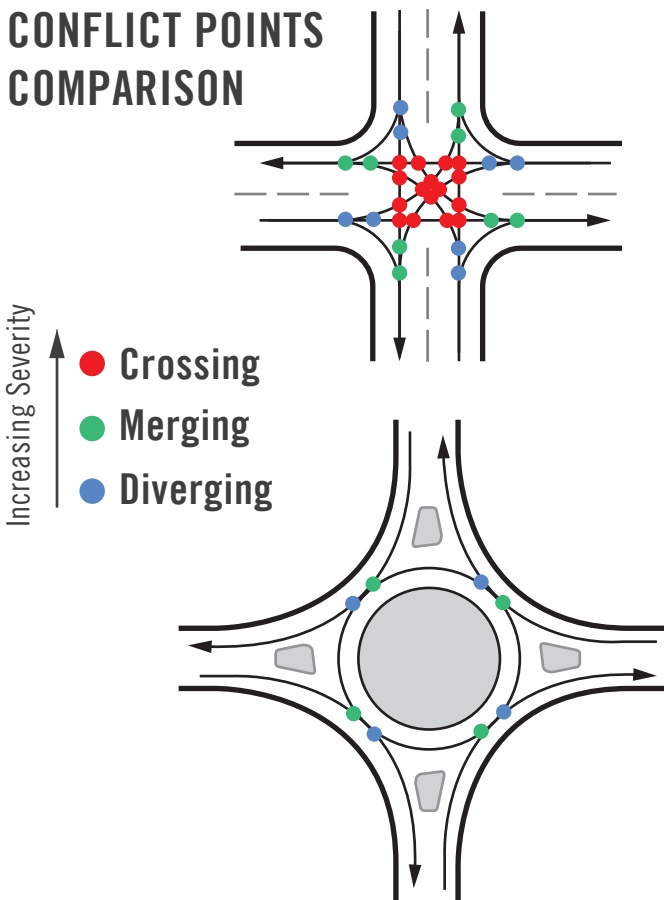
ROUNABOUTS REDUCE FATAL AND SERIOUS INJURY CRASHES BY UP TO **88%**

↓ PEDESTRIANS ARE LESS LIKELY TO BE SERIOUSLY INJURED AT ROUNABOUTS DUE TO SLOWER TRAVEL SPEEDS

25 TO 65 ROUNABOUTS CAN BE SAFELY DESIGNED FOR ALL HIGHWAY SPEEDS



CONFLICT POINTS COMPARISON



WHY IS IT IMPORTANT?

Intersections are consistently the most dangerous locations on a roadway, accounting for 23% of all fatal crashes. A traditional 4-leg intersection has 32 conflict points where a crossing, turning, or merging maneuver may result in a collision. Traditional intersections do little to reduce speeds, increasing the likelihood of severe crashes.

WHAT DOES IT DO?

Roundabouts reduce the number of conflict points at a typical intersection from 32 to just 8. The 8 remaining are merge or diverge type conflicts that very rarely result in severe crashes. In addition, roundabouts require users to slow down, reducing the severity of crashes that may occur.

HOW EFFECTIVE IS IT?

Roundabouts reduce fatal and serious injury crashes at intersections by up to 88%. They can be designed for urban and rural areas with approach speeds ranging from 25-65 mph. Other benefits include low maintenance cost, efficient traffic flow, and traffic calming.



PROJECT: ENOCH SR-130 & MIDVALLEY ROAD

2021

Severe Crashes - Before: 3 | Forecast After: 1
Total Crashes - Before: 7 | Forecast After: 3
Benefit/Cost: 13.0



PROJECT: BRYCE CANYON SR-63 & SR-12

2021

Severe Crashes - Before: 0 | Forecast After: 0
Total Crashes - Before: 6 | Forecast After: 3
Benefit/Cost: 1.73



PROJECT: HOOPER SR-97 & 5500 WEST

2024

Severe Crashes - Before: 1 | Forecast After: 0
Total Crashes - Before: 8 | Forecast After: 4
Benefit/Cost: 10.3



PROJECT: LA VERKIN SR-9 & SR-17

2024

Severe Crashes - Before: 1 | Forecast After: 0
Total Crashes - Before: 15 | Forecast After: 7
Benefit/Cost: 6.8

Protected Under 23 USC 409

South Weber 2700 East Concept Costs		
Project	Type	Estimated Cost
South Weber Drive / 2700 East	Intersection	\$1,000,000
2700 East Widening	Roadway	\$620,000
7800 South / 2700 East Roundabout	Intersection	\$900,000
Total Cost:		\$2,520,000
Alternative Options		
EB Right-turn Pocket on South Weber Drive	Intersection	\$300,000
7800 South / 2700 East Signal	Intersection	\$400,000
WCG, 2022		