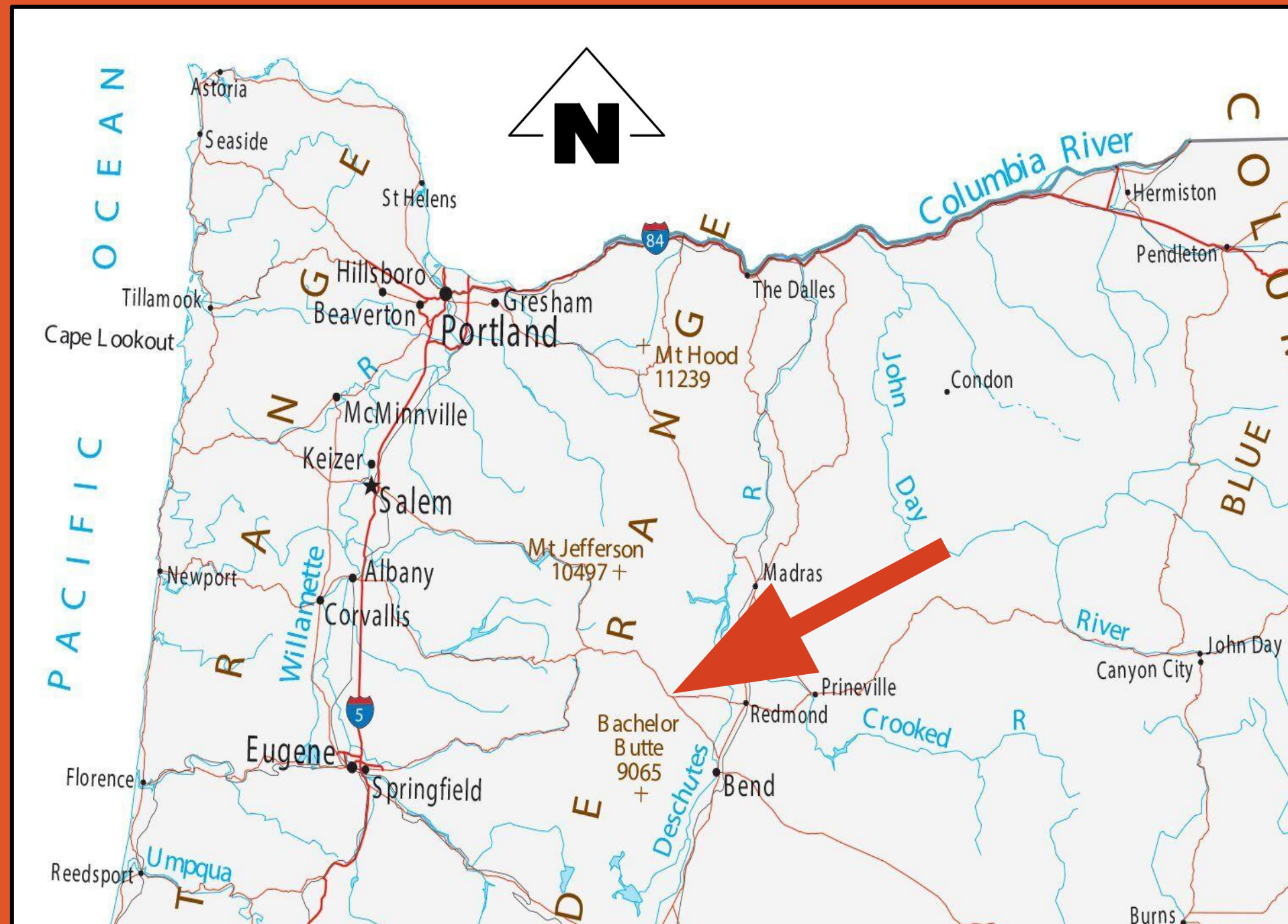


PROJECT OVERVIEW
PROJECT LOCATION



EXISTING CONDITIONS



INTERSECTION FEATURES FREE FLOWING TRAFFIC ALONG HIGHWAY U.S. 20, AND STOP CONTROLLED CROSS TRAFFIC AT O.B. RILEY ROAD AND COOK AVENUE IN TUMALO, OR. AERIAL IMAGE FROM GOOGLE EARTH.

PROJECT OBJECTIVES AND DESIGN SELECTION

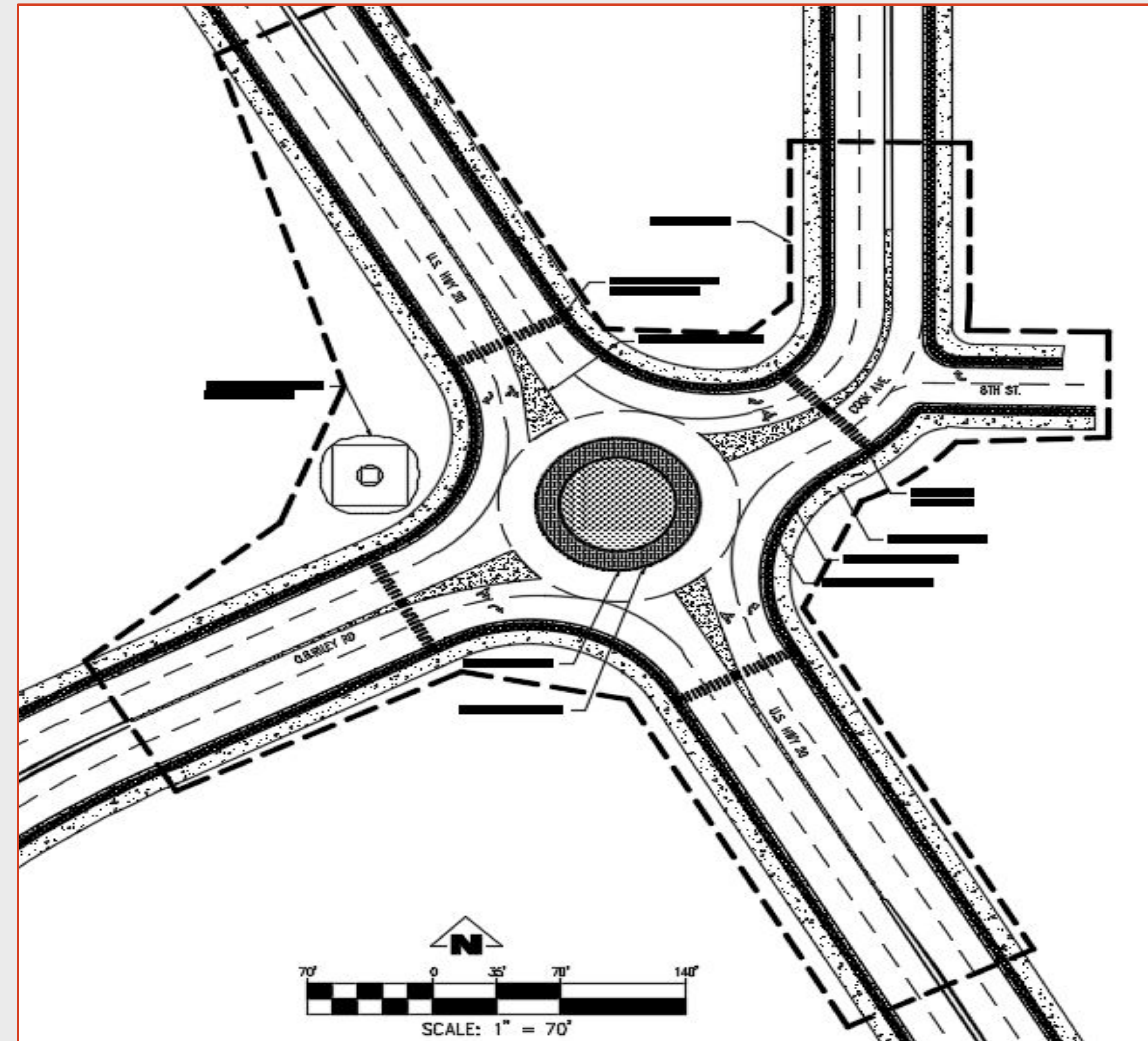
- Improved traffic flow
- Decreased vehicle queues
- Decreased vehicle crash rates
- Improved stormwater management
- Improved pedestrian and bicycle safety

FIVE PEAKS USED THE ABOVE CRITERIA TO PURSUE A ROUNDABOUT AS THE DESIGN SOLUTION.



TUMALO INTERSECTION REDESIGN

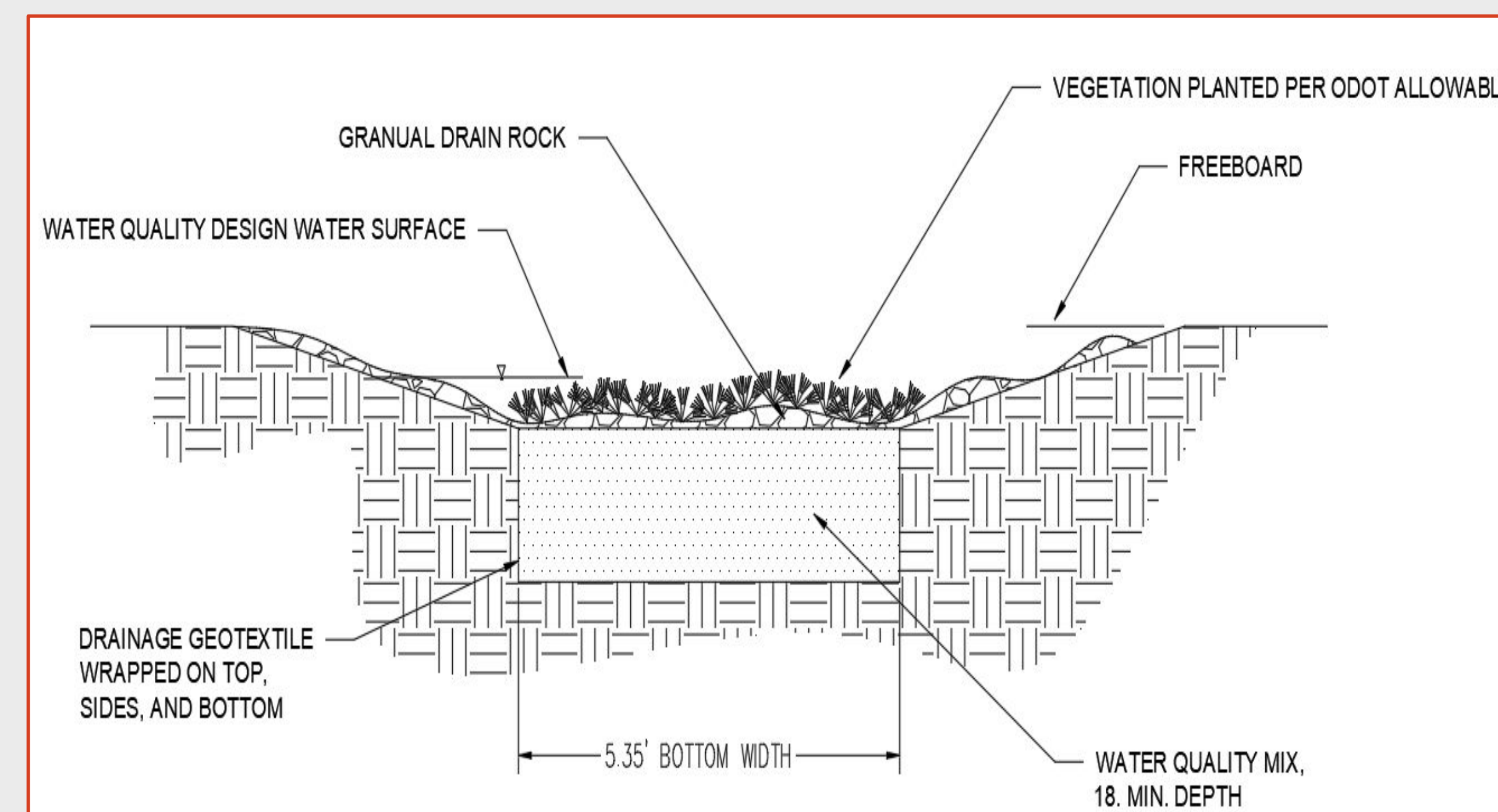
Located in Tumalo, OR on US Highway 20 and O.B. Riley Rd/Cook Ave



PROPOSED SITE PLAN

WATER RESOURCES

- Upgrade stormwater infrastructure to mitigate the effects of the increased impervious surfaces
- Install trapezoidal bioswales to treat and filter stormwater runoff
- Install trapezoidal bioretention pond to retain excess stormwater runoff and allow it to infiltrate into the ground
- Install storm drains and stormwater pipes to convey water off of the roadway and take it to the bioretention pond and bioswales



PROPOSED BIOSWALE SECTION

Ahmad Alsaad
Thomas Augee
Madysen Ivey
Mihret Kamal
Sophia Pezzetti



TRANSPORTATION ENGINEERING

TRAFFIC CONTROL DESIGN

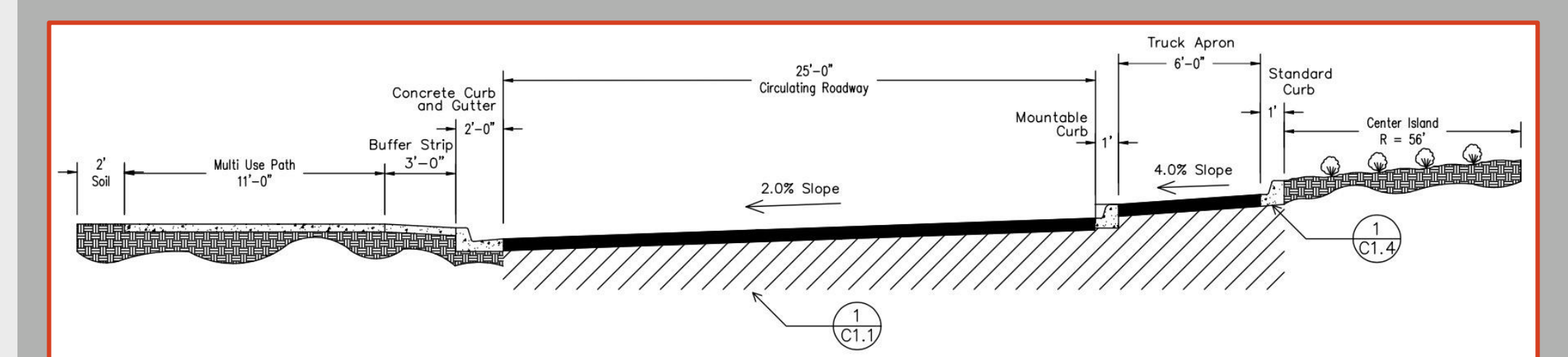
- Traffic Counts for existing conditions and future estimates provided by Kittelson & Associates.
- Traffic Analysis completed using Synchro in accordance with the MUTCD.
- Proposed design maintains Level of Service for US 20 and improves both Cook Ave. and OB Riley Rd to Level of Service C

SIGNAGE AND STRIPING

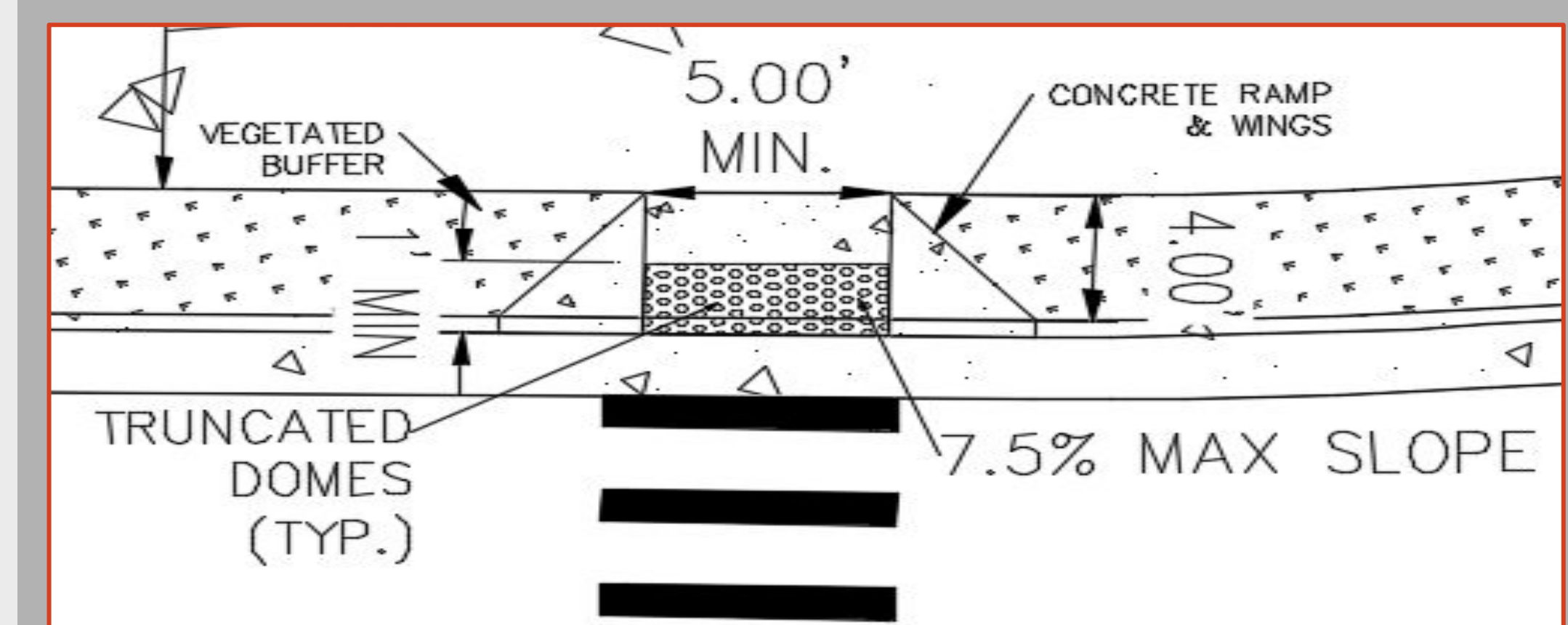
- All signage and striping will conform to MUTCD standards.
- Rectangular Rapid Flashing Beacons present at all crosswalks to improve pedestrian visibility.
- Key Signage and Striping Features: 14' Travel Lanes, Bike Lanes, Crosswalk Striping, and Improved Signage.

PEDESTRIAN AND BICYCLE ACCESS ROUTES AND ADA RAMP DESIGN

- 4 proposed crosswalks with new receiving sidewalks
- 8 proposed curb ramps per ODOT STD DWG RD912
- Ramps are ADA Compliant in location, Dimension, and Slopes
- 10 foot wide multi use path spanning all four directions of the intersection.
- Marked Bike lanes that merge with the multi-use path.



PROPOSED TYPICAL SECTION



PROPOSED ADA CURB RAMP