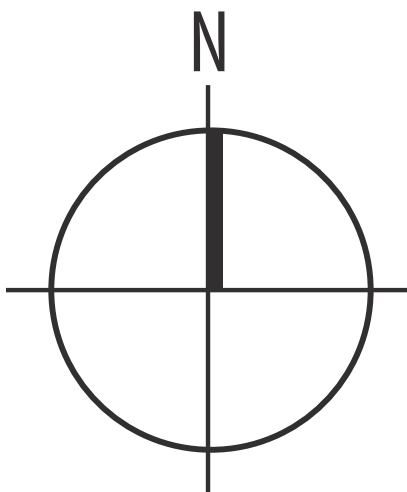


# Alternatives Process

<i>Roundabout</i>		<i>Signal</i>	<i>Notes</i>
Footprint Size			How much space is needed for the intersection and the roadway approaches?
Peak Hour Queue Lengths			Generally how far does traffic back up at the itnersection during the afternoon peak commute?
Total Daily Delay			How many hours of delay per day combined for all vehicles moving through the intersection?
Safety			How do differing intersection configurations generally compare with regards to safety?
Construction Cost			How much does it cost to build the different types of intersections?
Maintenance Cost			How much does it cost to maintain the different types of intersections?





# Intersection Options



Roundabout Overview

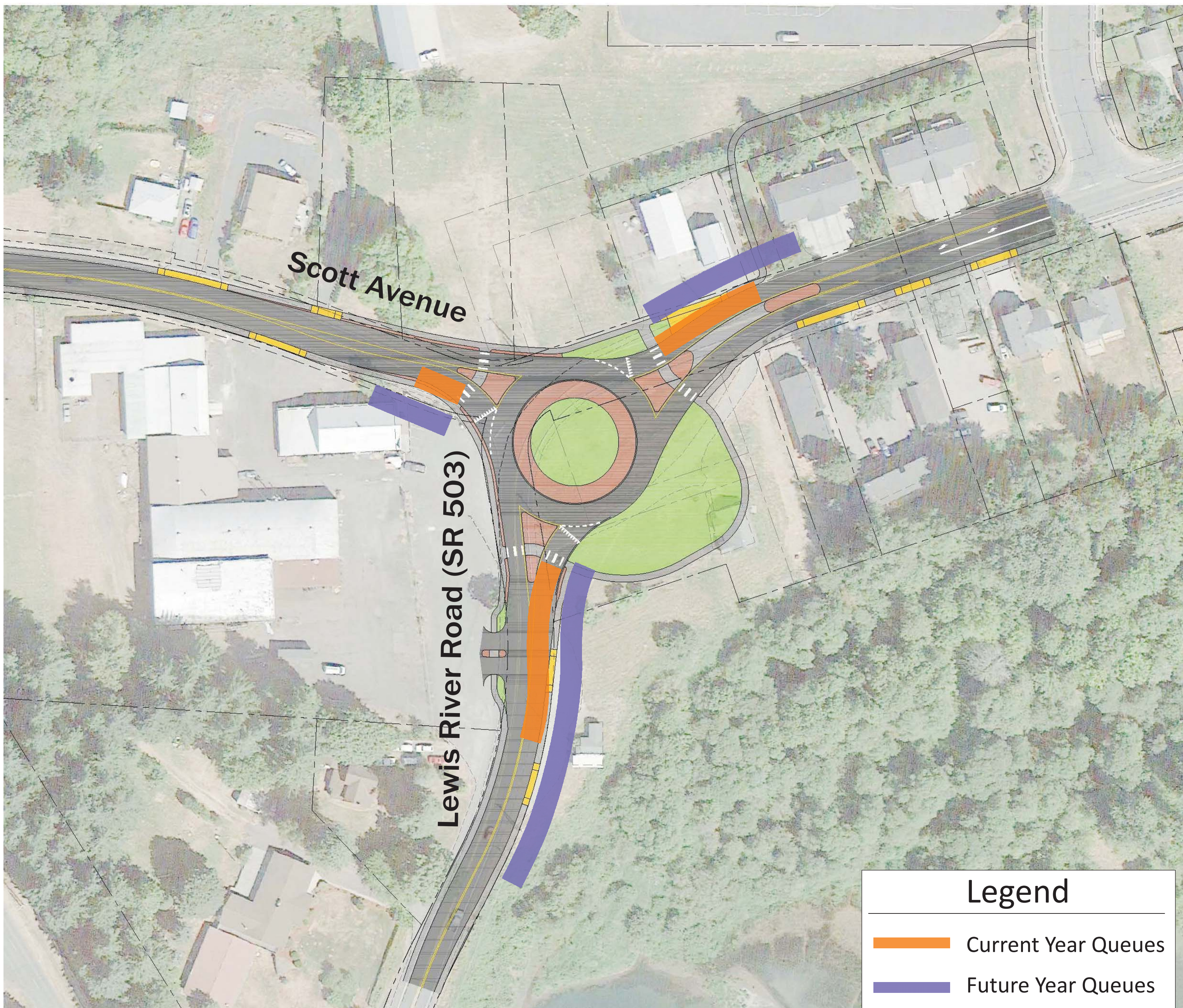
Signal Overview



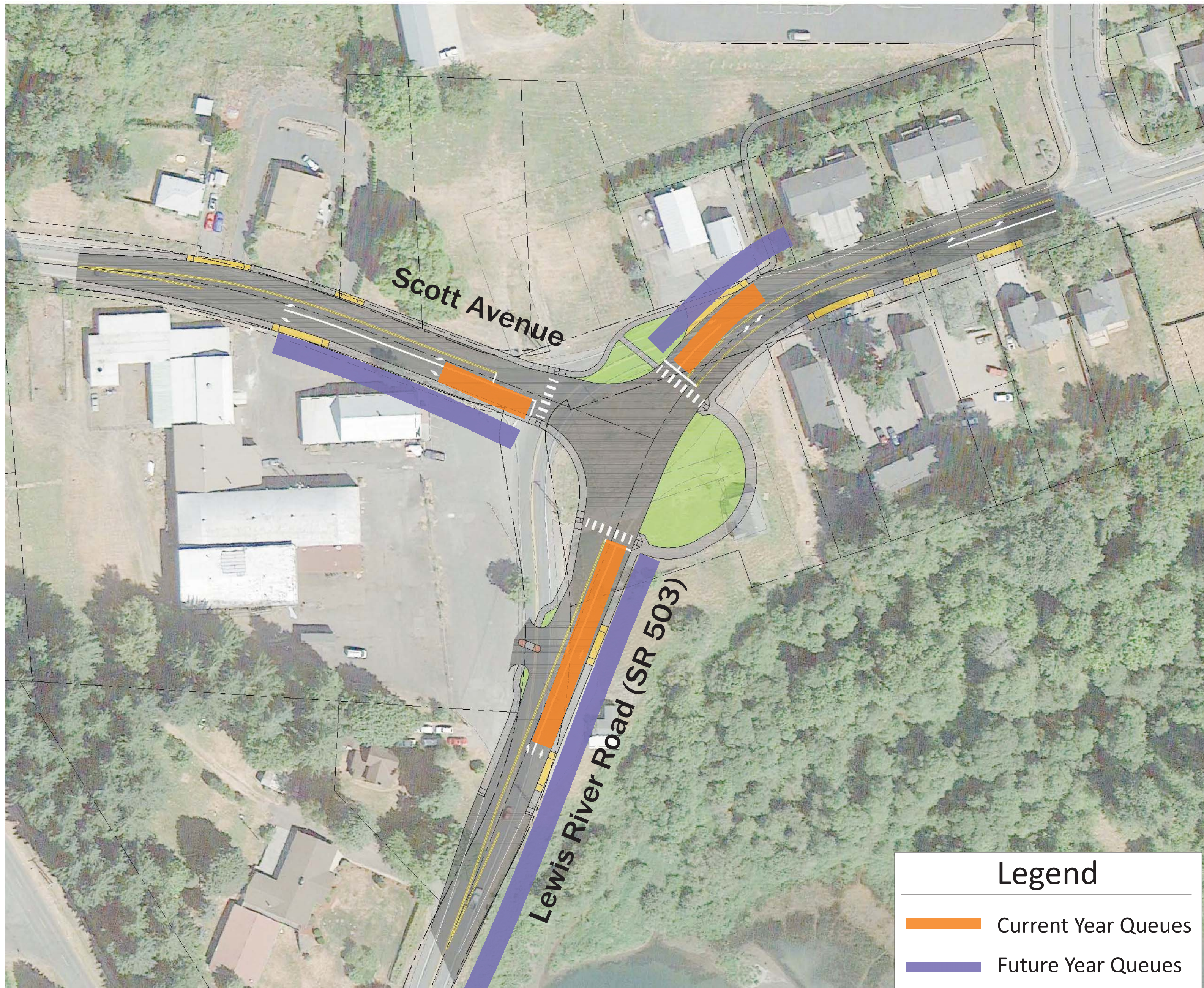


## Peak Hour Queuing

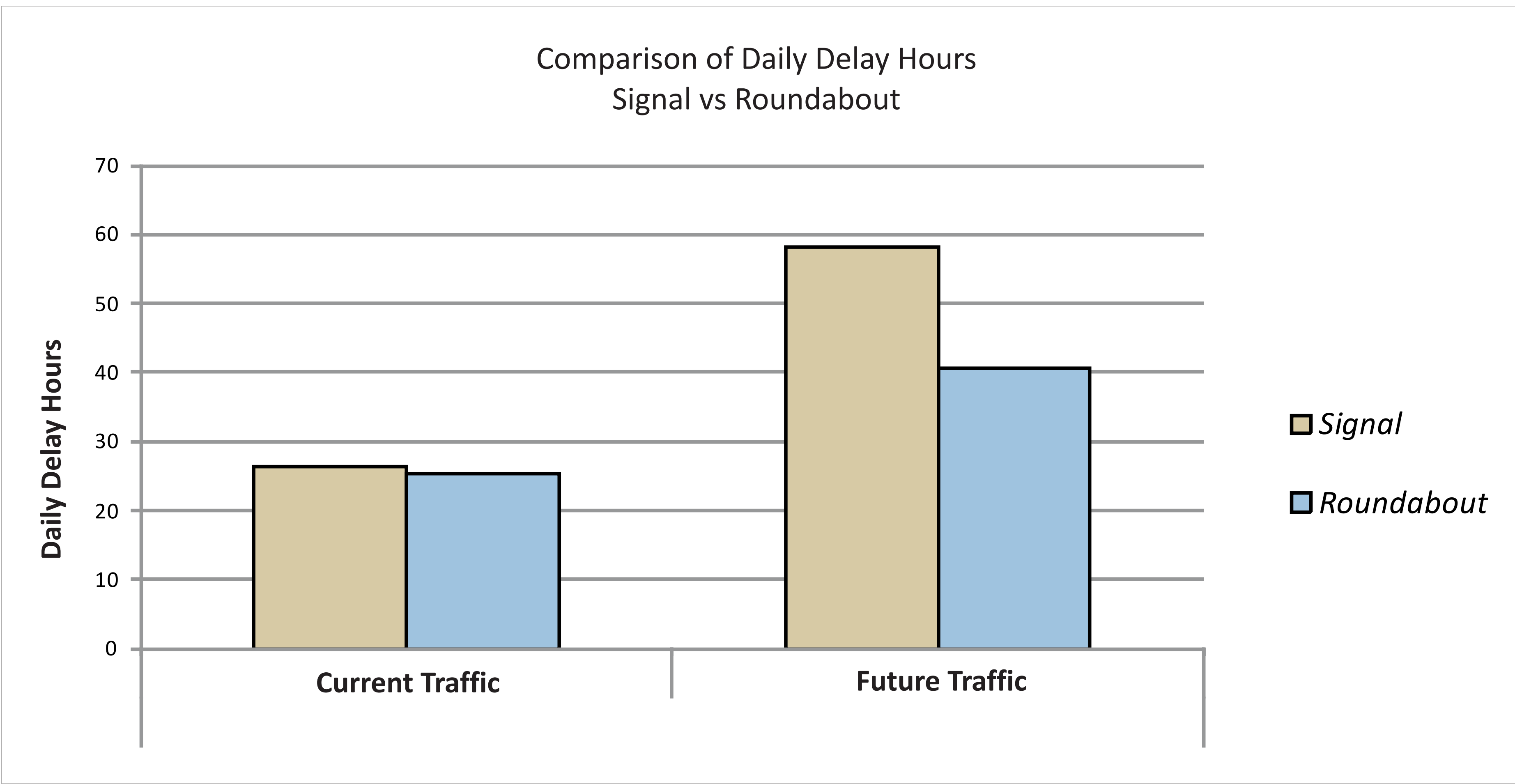
Roundabout Queue Results



Traffic Signal Queue Results



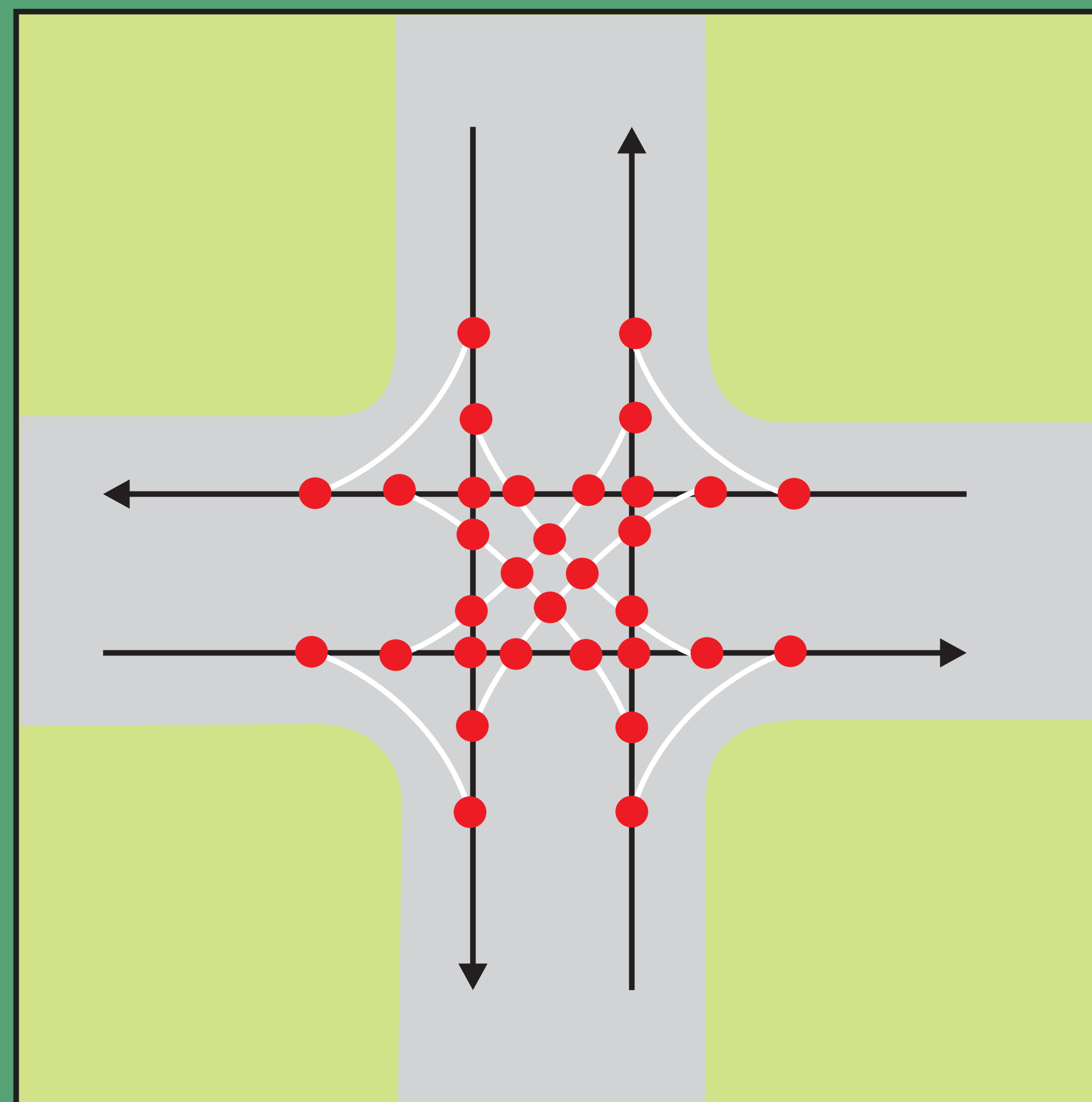
## Daily Intersection Delay



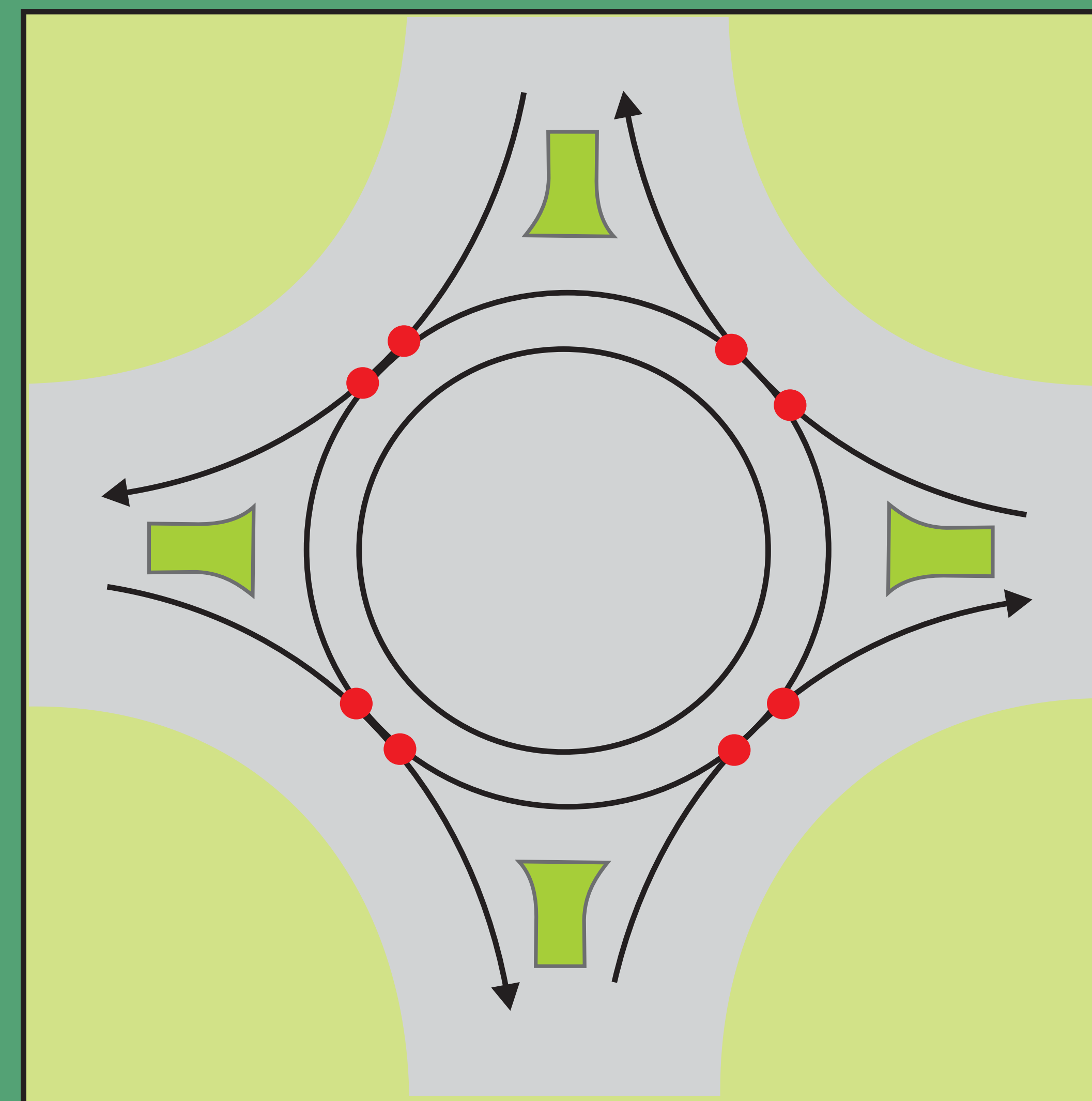


# Safety for Vehicles, Pedestrian, and Bikes

With roundabouts, head-on and high-speed right angle collisions are virtually eliminated.



Traffic Signal



Roundabout



Potential vehicles conflict point

## Roundabout Benefits

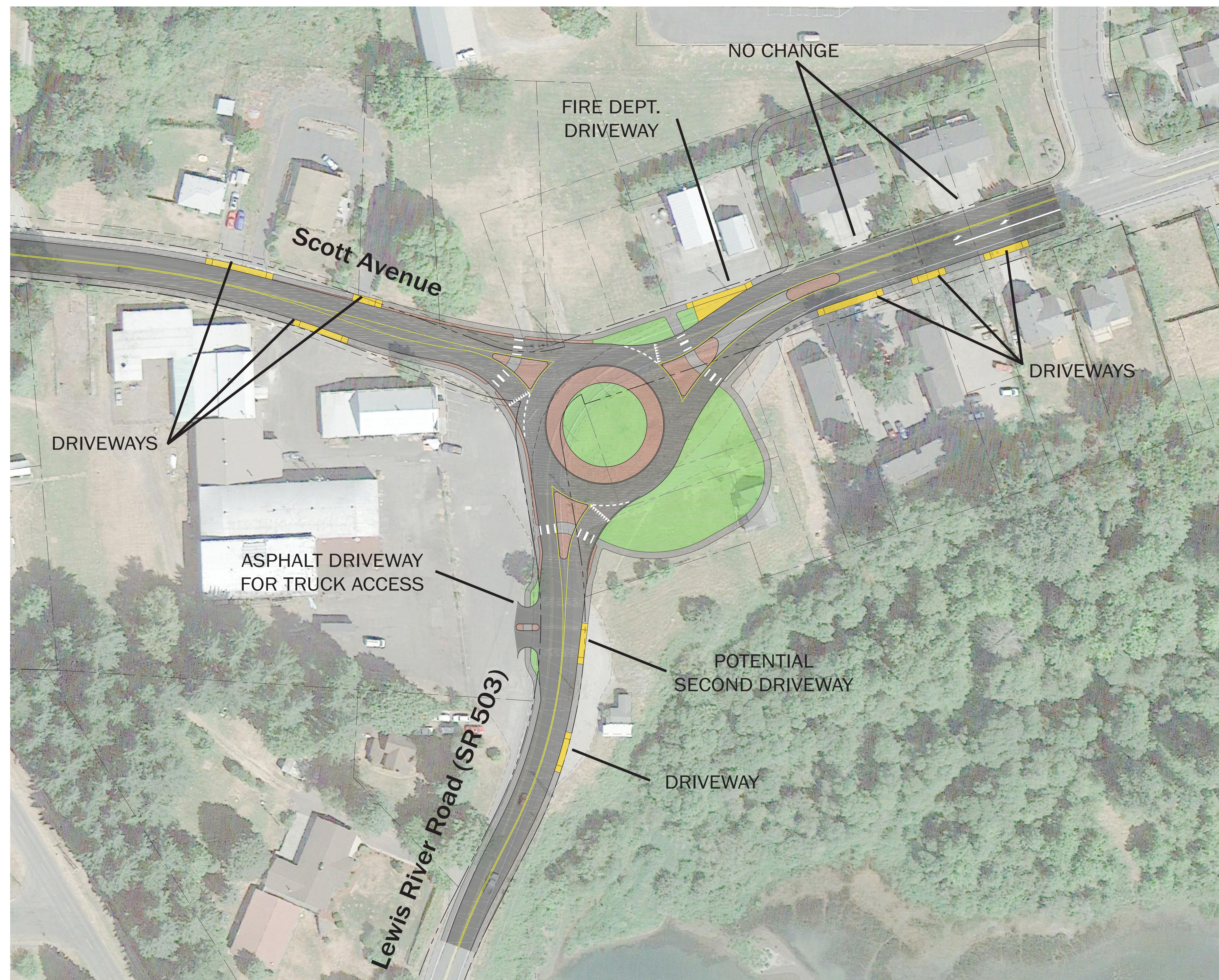
- More than 90% reduction in fatalities<sup>1</sup>
- 76% reduction in injuries<sup>2</sup>
- 35% reduction in all crashes<sup>2</sup>
- Slower speeds are generally safer for pedestrians

1. "Safety Effect of Roundabout Conversions in the United States: Empirical Bayes Observational Before-After Study." Transportation Research Record 1751, Transportation Research Board (TRB), National Academy of Sciences (NAS), Washington, D.C., 2001.
2. NCHRP Report 572: Roundabouts in the United States. National Cooperative Highway Research Program, TRB, NAS, Washington, D.C., 2007.



# Access for Area Properties

## Roundabout Option

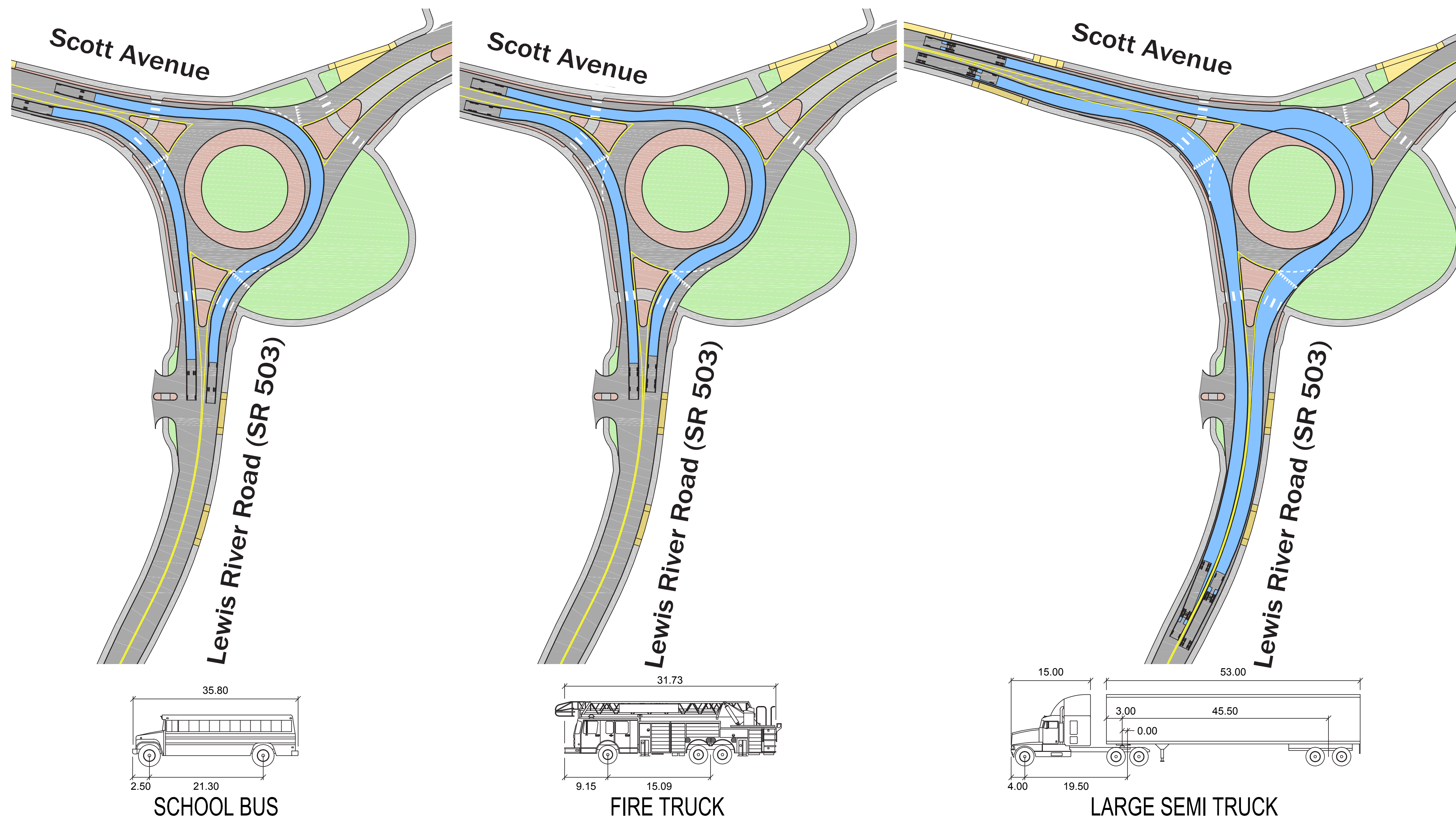


## Signal Option



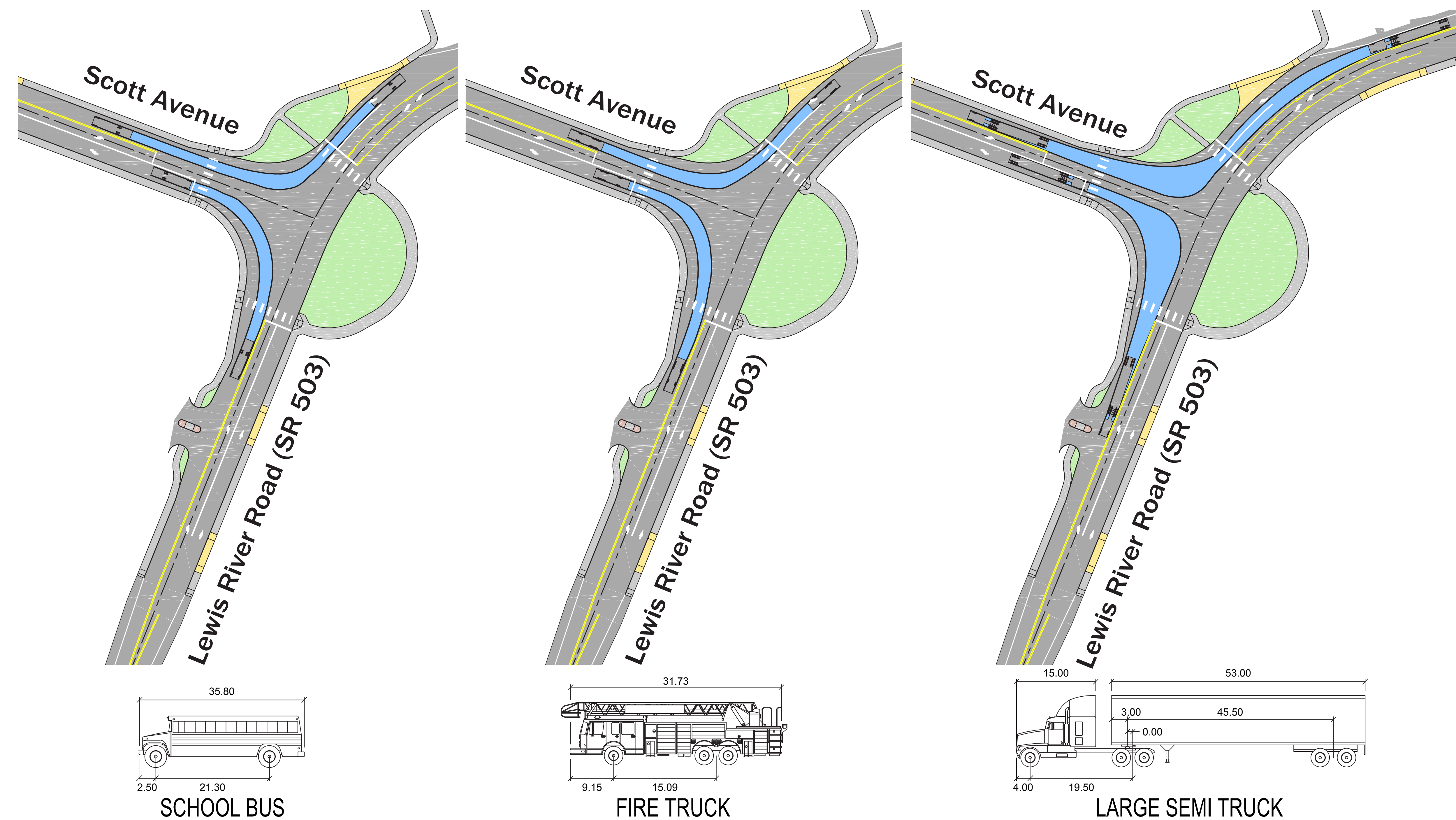


# Turning for Emergency Vehicles, Trucks, and Buses



## Roundabout Options

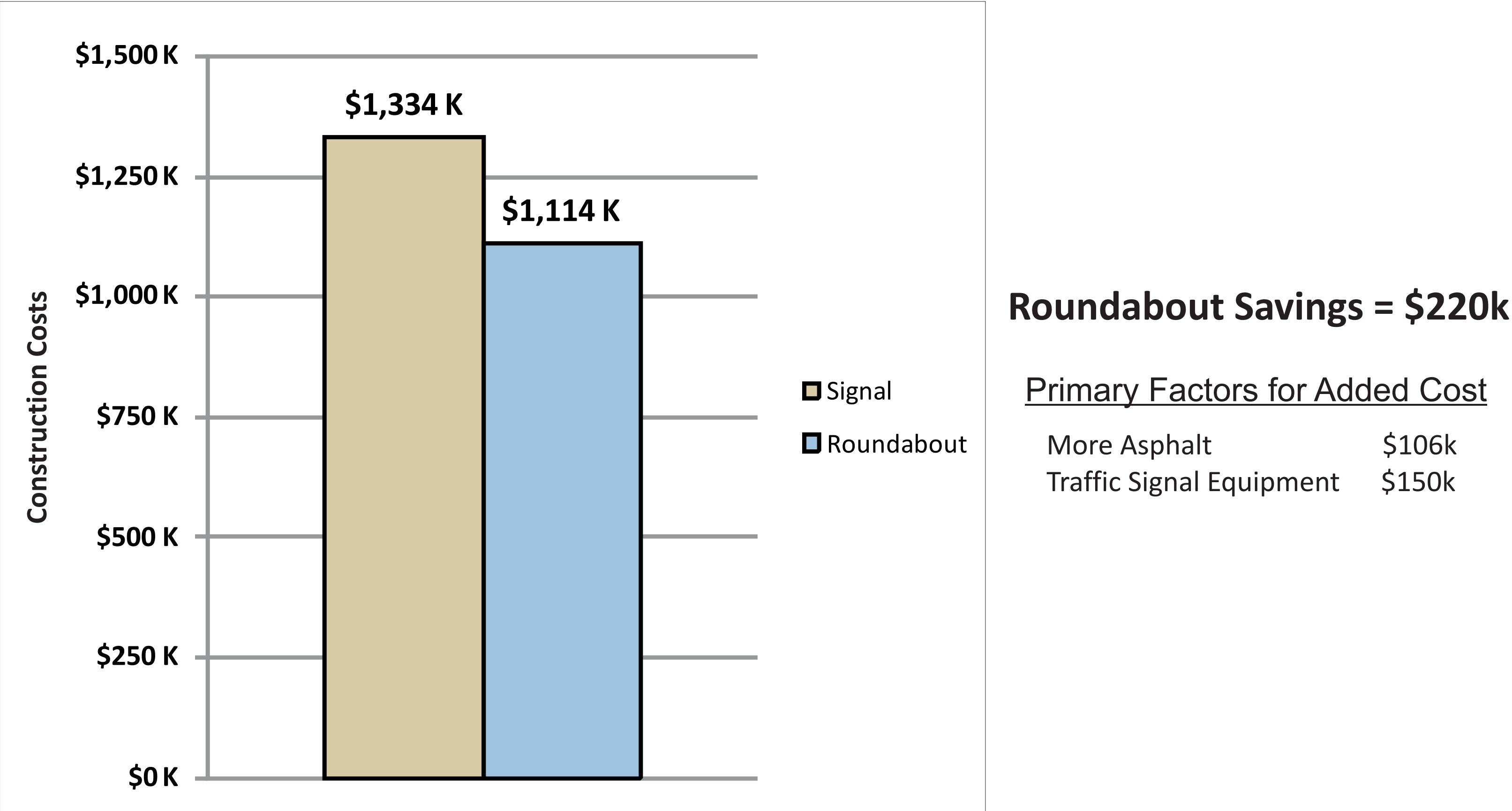
## Signal Options



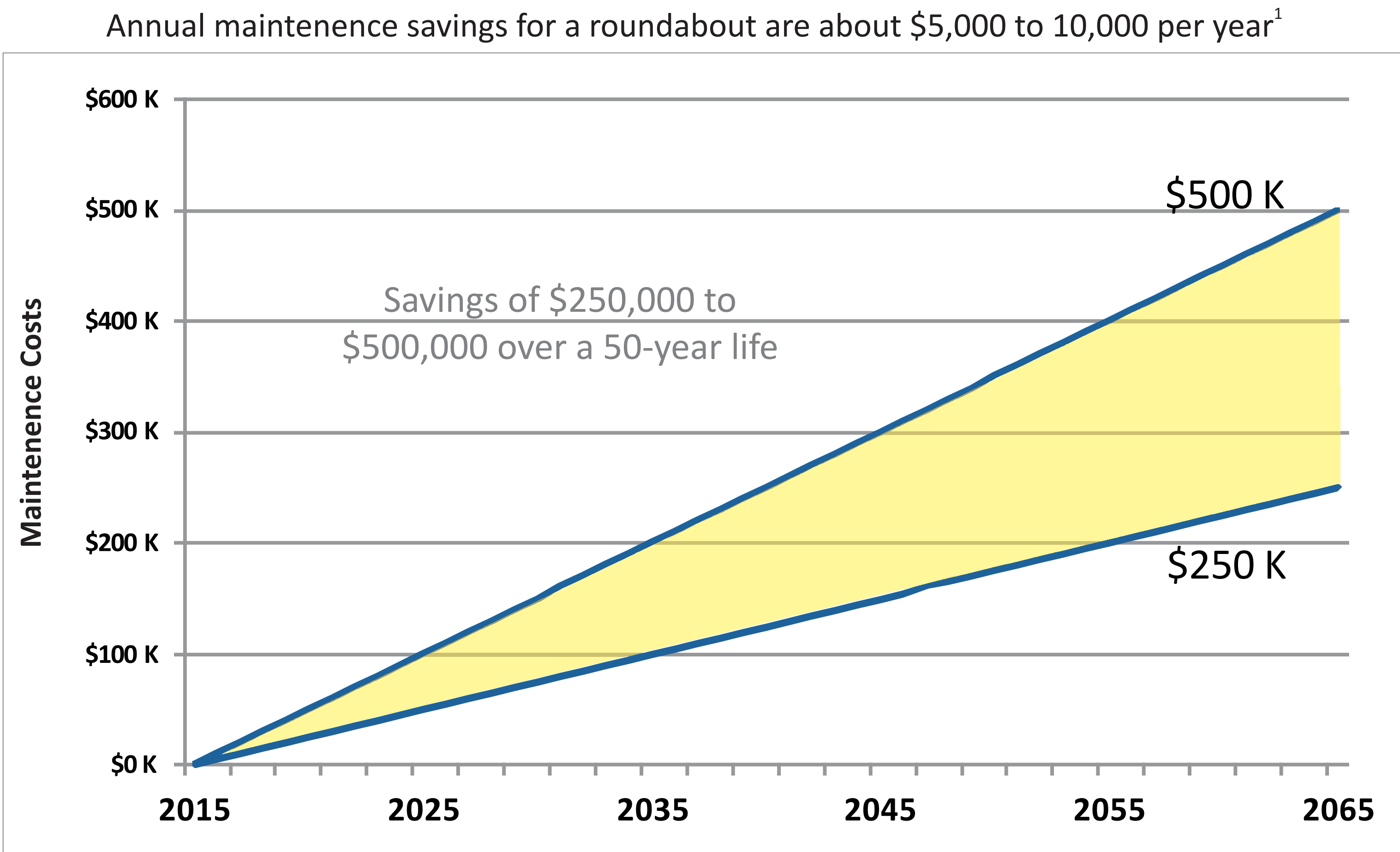


# Cost and Right of Way

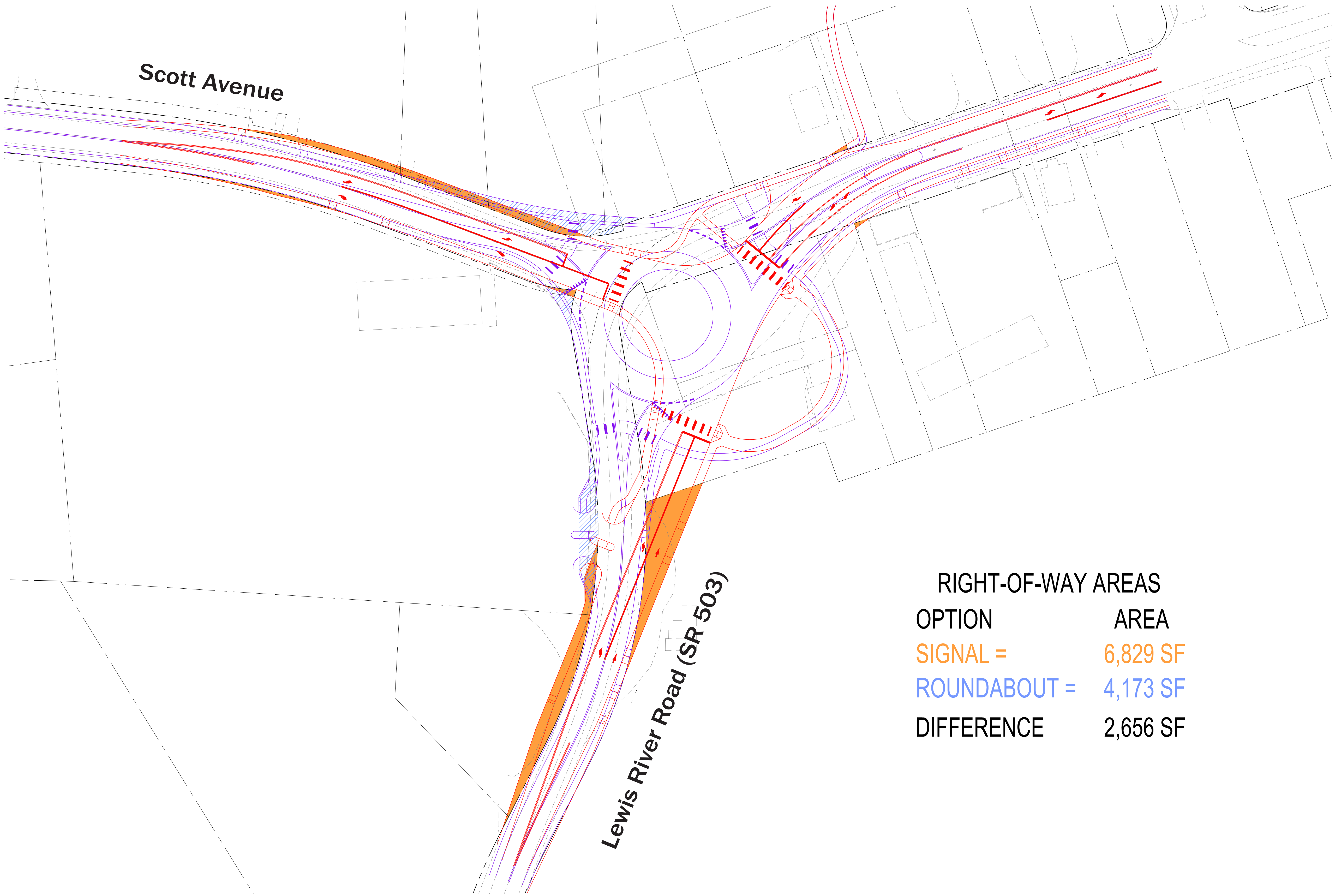
Construction Costs



Long-term Maintenance Costs



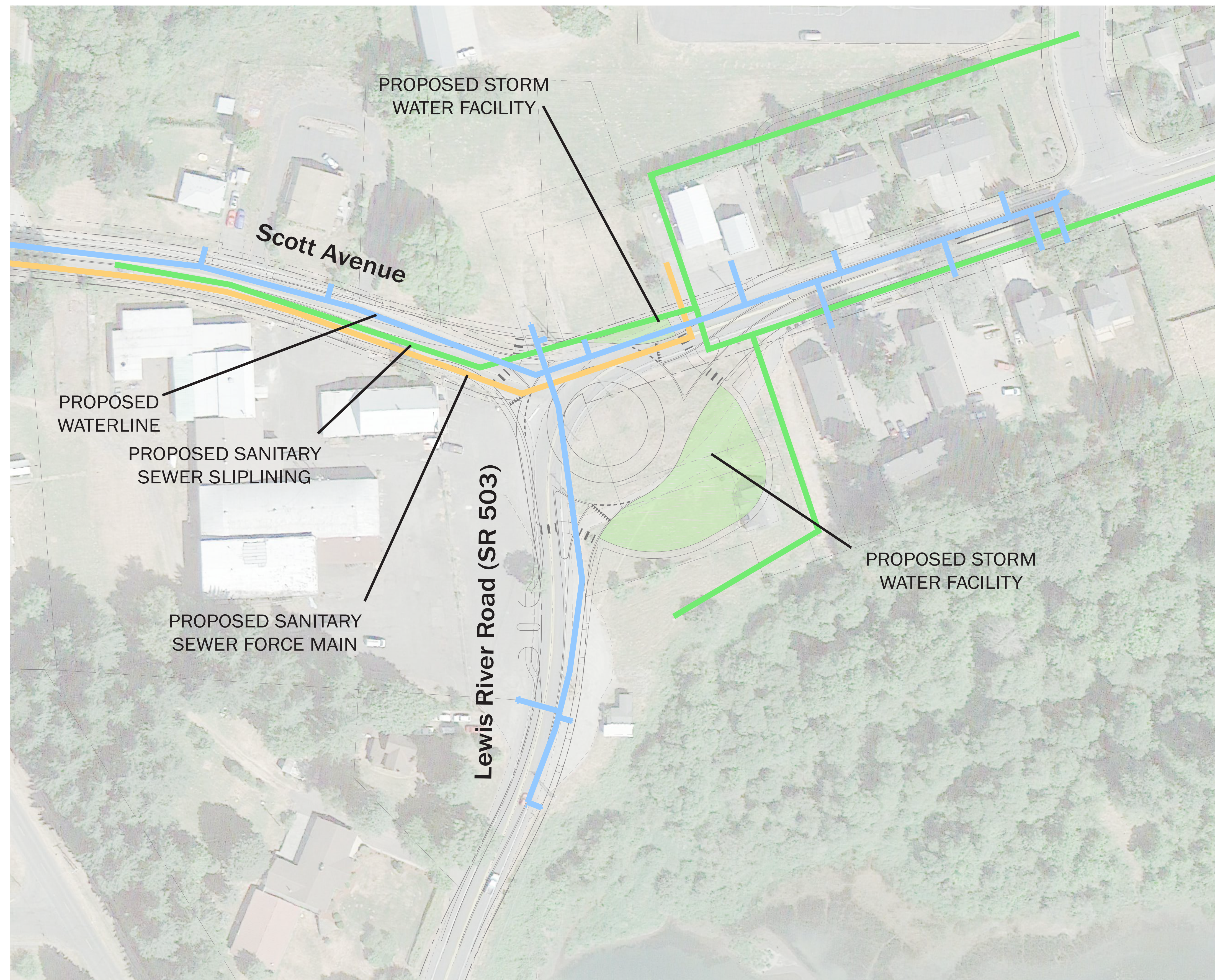
1. <http://www.wsdot.wa.gov/safety/roundabouts/benefits.htm>



RIGHT-OF-WAY AREAS	
OPTION	AREA
SIGNAL =	6,829 SF
ROUNDAABOUT =	4,173 SF
DIFFERENCE	2,656 SF

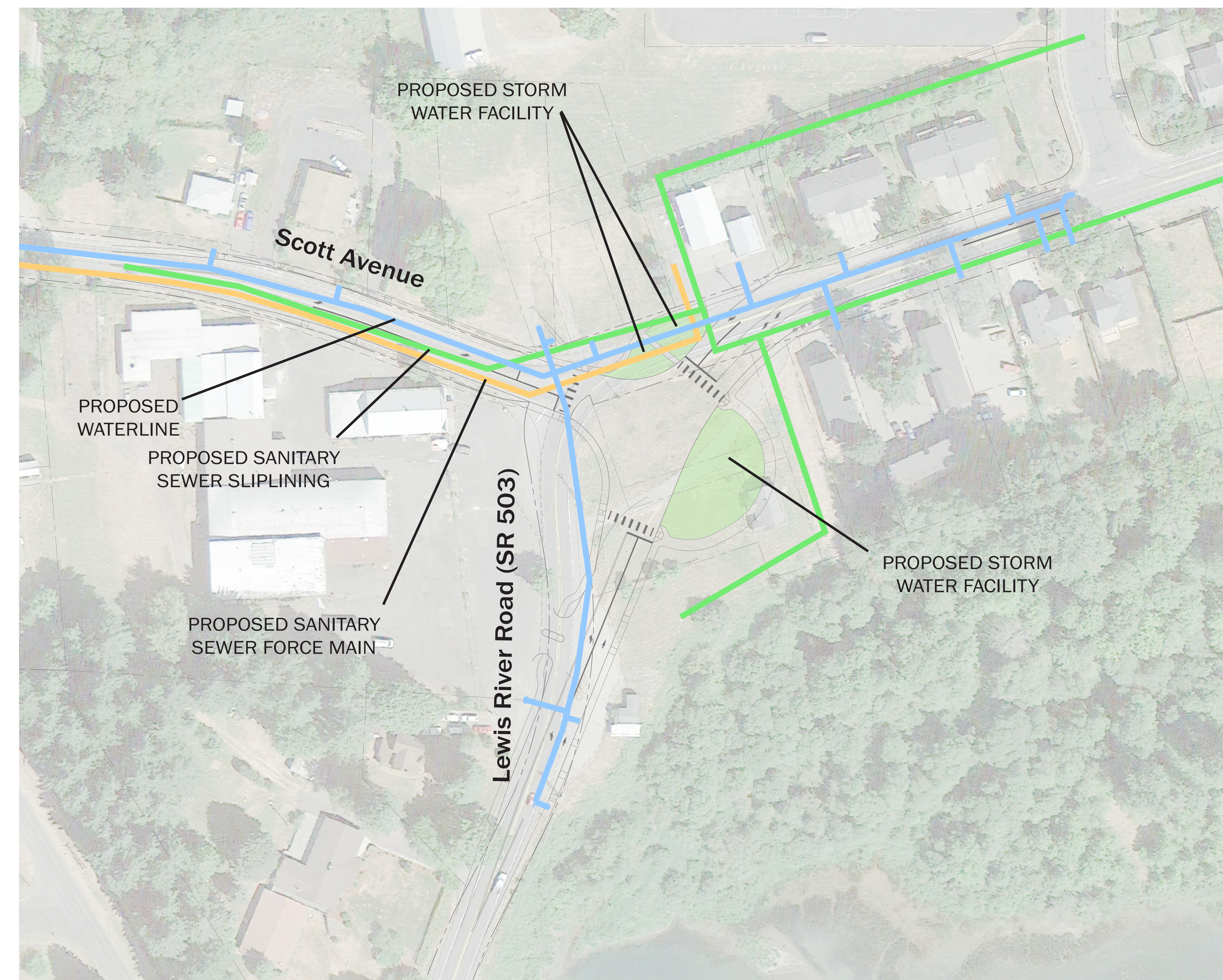


# Storm Water, Sewer, and Water Upgrades



Roundabout Option

Signal Option





[illegible]