



RIVERTON CITY ROUNDABOUT

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PROBLEM STATEMENT

The growing population of Riverton City warrants the need for a new intersection connecting a series of proposed roads with the ability to safely and effectively accommodate future traffic demands.

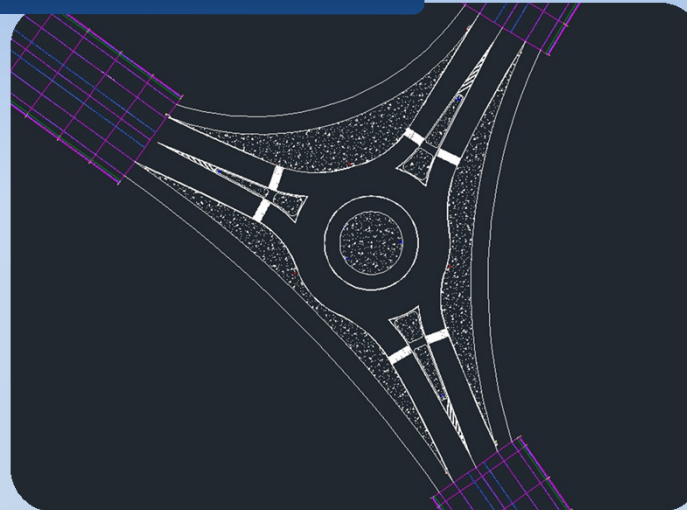
PROJECT SITE



PROJECT CONSTRAINTS

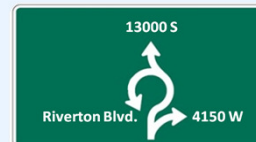
- Level of Service (LOS) C or better for design year 2030
- Maximize safety
- Maximize user-friendliness
- Minimize costs
- Aesthetic fit with community

PROPOSED DESIGN



DESIGN COMPONENTS

- Single lane roundabout with slip lanes
- Slip lanes are free movements (no stopping or yielding)
- Roundabout approaches are yield controlled
- User-friendly signs and pavement markings for easy navigation:



TRAFFIC ANALYSIS

- Performed using 2010 Highway Capacity Manual method
- LOS calculated based on vehicle delay
- LOS C or better when peak hour traffic is 10 percent or less of projected daily traffic (2030)
- Traffic simulated in Synchro 7 to observe queuing patterns

COST ANALYSIS

	Roundabout	Signalized
Construction	\$0.7 million	\$0.7 million
Annual Maintenance	\$2,000	\$5,000

SUMMARY OF BENEFITS

- Reduced delays and maintenance cost compared to signalized intersections
- Fewer collision points compared to traditional two lane roundabouts
- User friendly and aesthetically pleasing