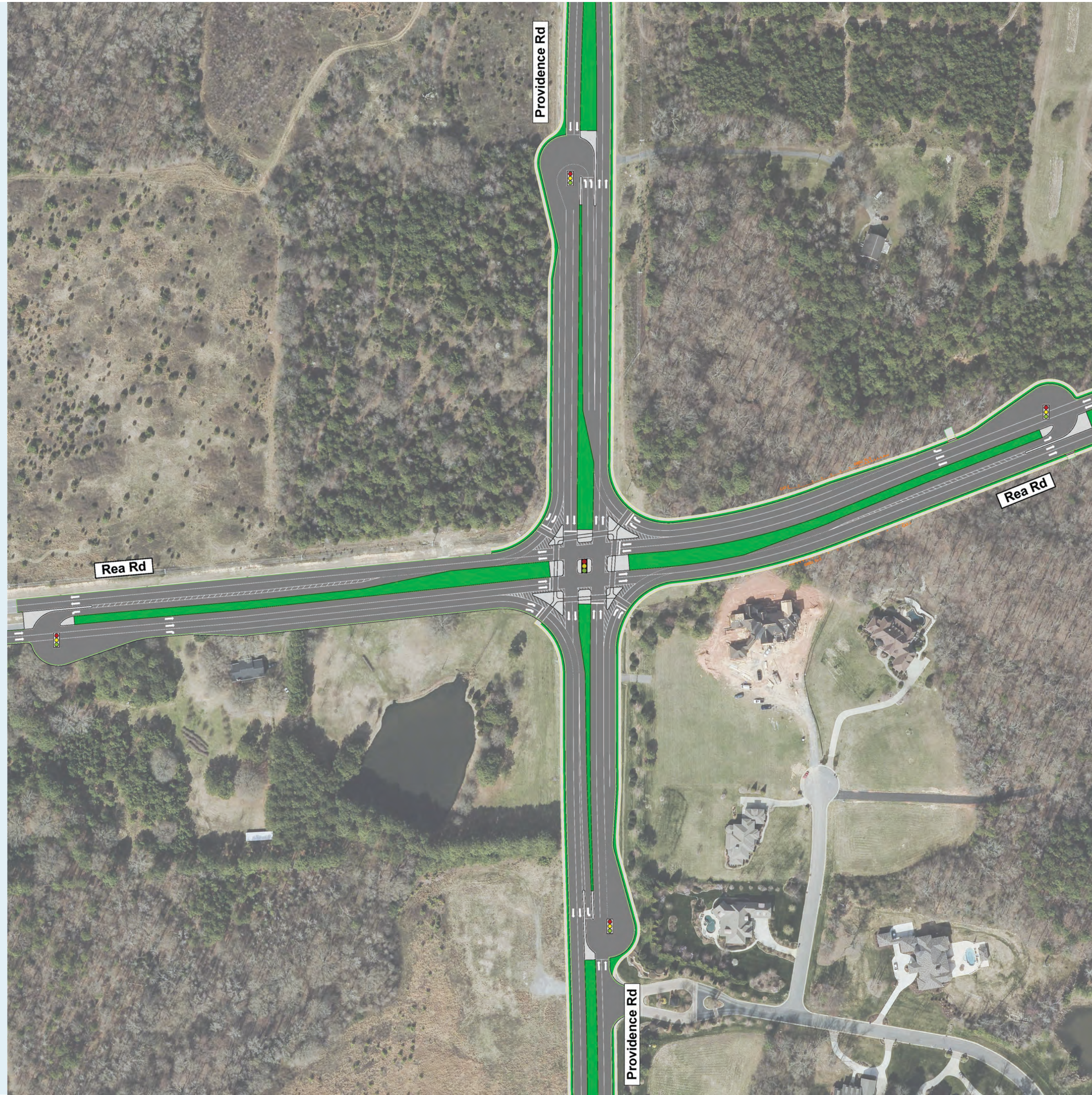


# Michigan Left Intersection



## What is a Michigan Left?

A Michigan Left is an innovative intersection design where left turns are not allowed at the main intersection. To make a left turn, instead of turning left at the intersection, you must go straight or turn right, and then make a U-turn at the median crossover.

## What are the advantages of a Michigan Left intersection?

- REDUCED CONGESTION**

Michigan Left intersections provide 20-50% greater capacity compared to traditional intersections as vehicles spend less time waiting at the signal for cars to turn left.

- IMPROVED SAFETY**

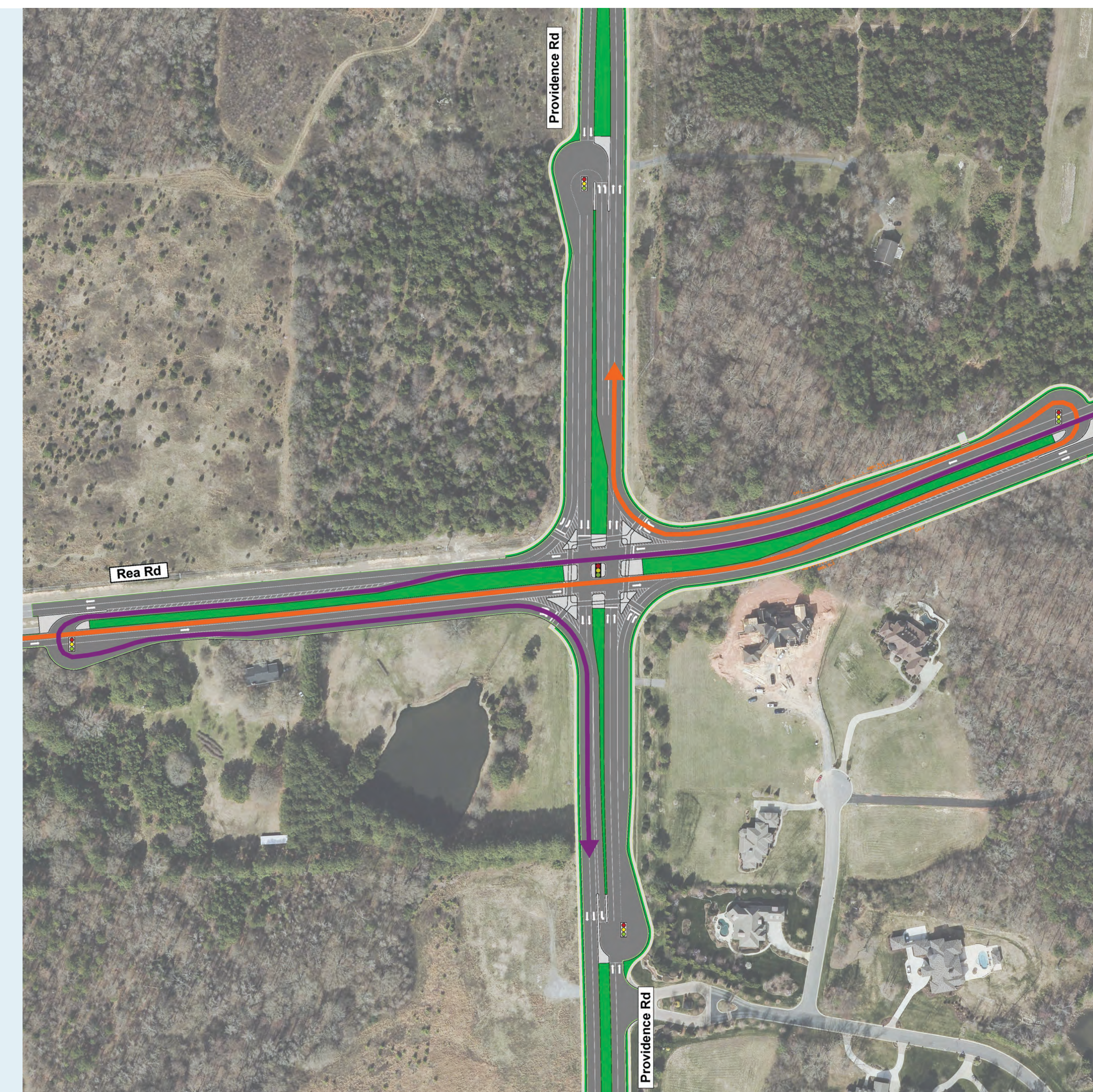
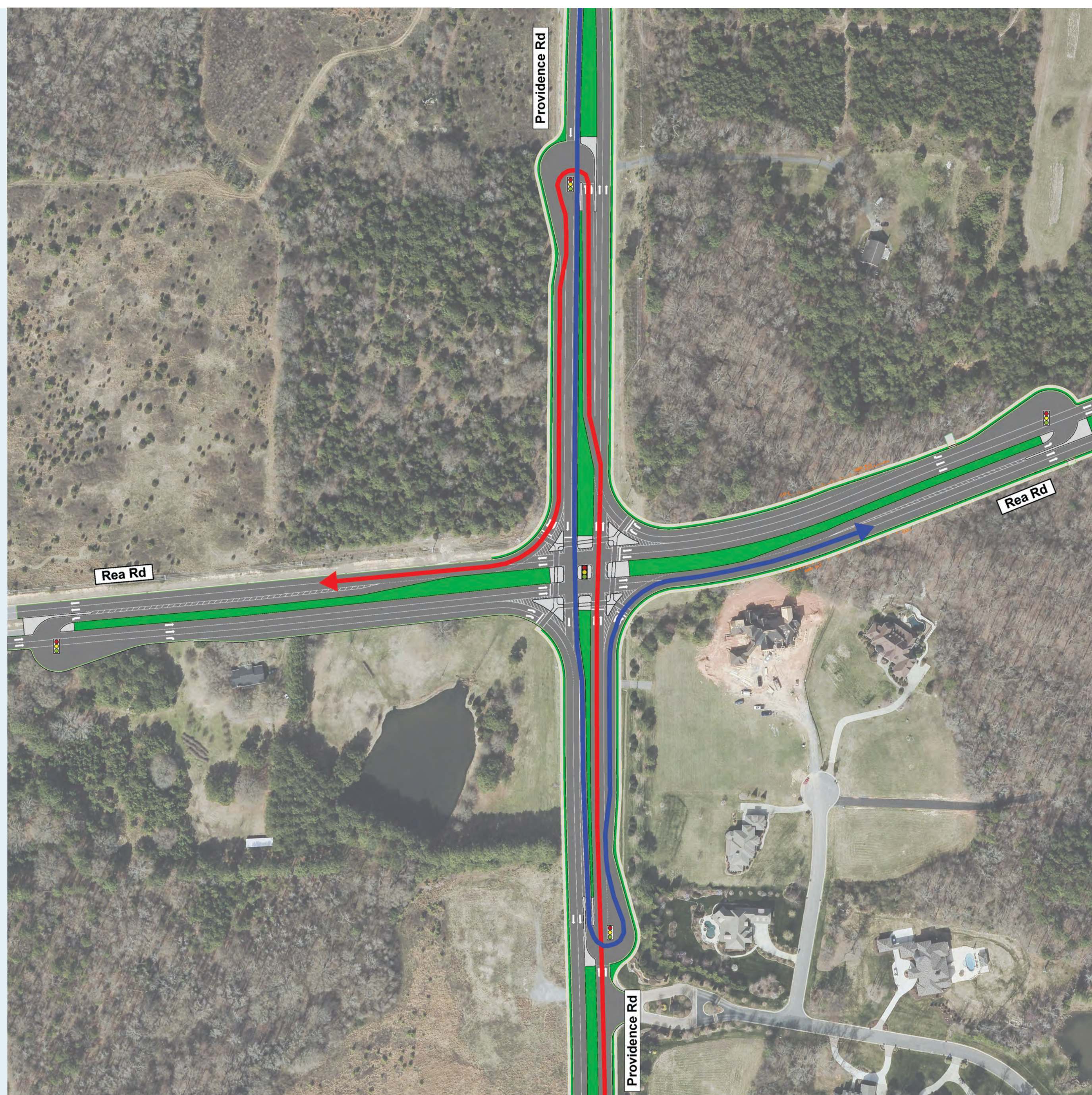
By eliminating the direct left turning movement at the intersection, Michigan Lefts reduce the number of vehicle-to-vehicle conflict points by half. Not only are conflict points reduced by half, but the conflict points that remain have less likelihood of severe injury.

- IMPROVED ROADWAY OPERATIONS**

With fewer crashes and less congestion, a Michigan Left intersection will function better for all users.

## Why is a Michigan Left preferred for this project?

- It relocates the left turns away from the Providence/Rea Road intersection, which will improve roadway operations and safety for all users.
- It provides notable travel time improvement, especially in the morning peak hour.
- It impacts the least number of parcels when compared to other improvement alternatives.



- Providence Rd Northbound to Rea Rd Westbound
  - Providence Rd Southbound to Rea Rd Eastbound
  - Rea Rd Eastbound to Providence Rd Northbound
  - Rea Rd Westbound to Providence Rd Southbound
- 
- Existing Traffic Signal
  - Proposed Traffic Signal

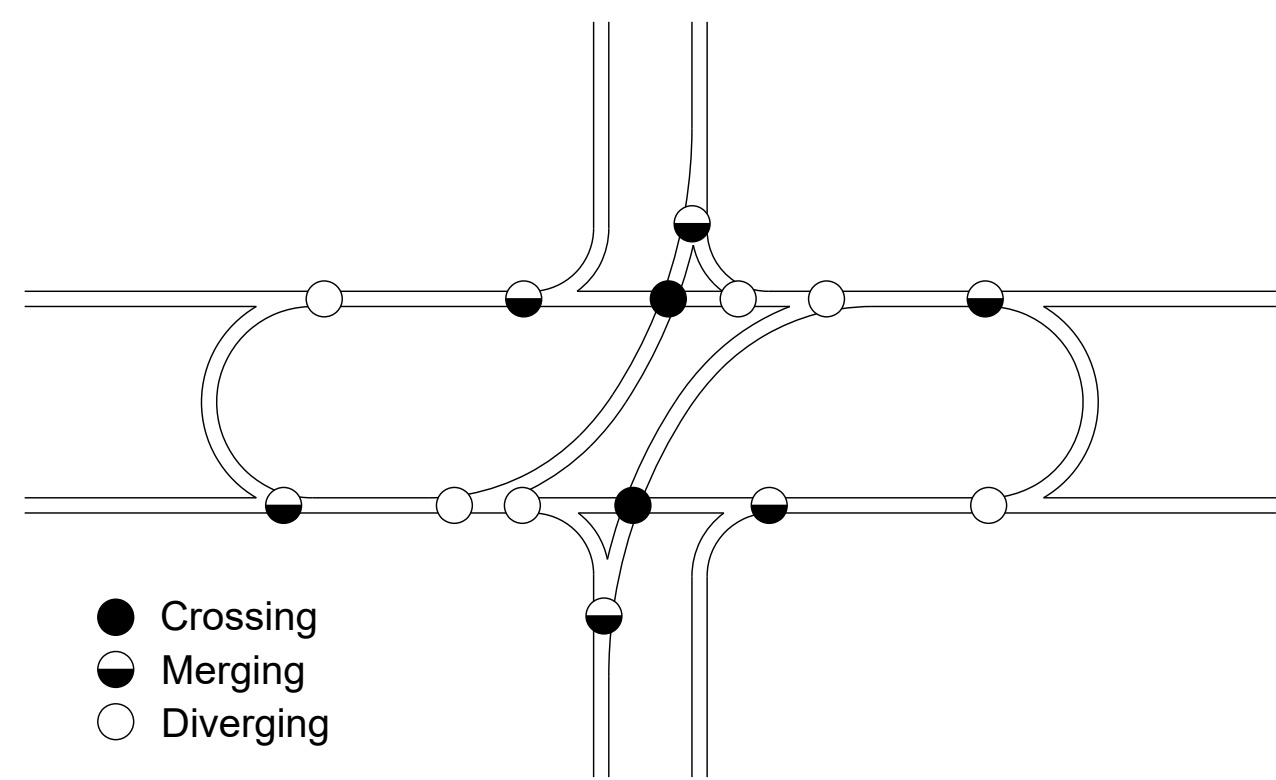




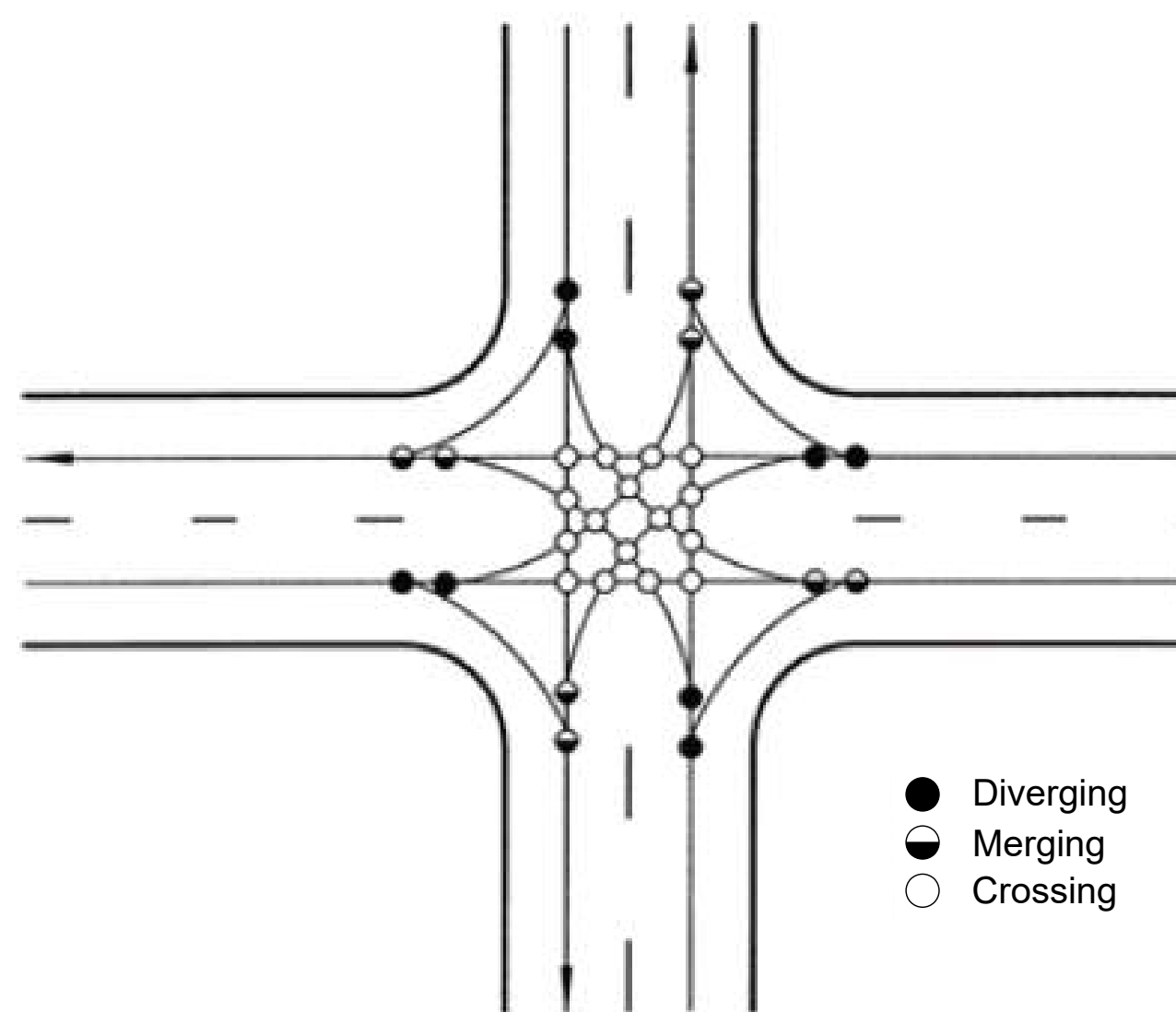
# Superstreet Benefits

## Safety – Conflict Points

Superstreet Intersection  
14 Conflict Points



Conventional Intersection  
32 Conflict Points



## Signal Operation

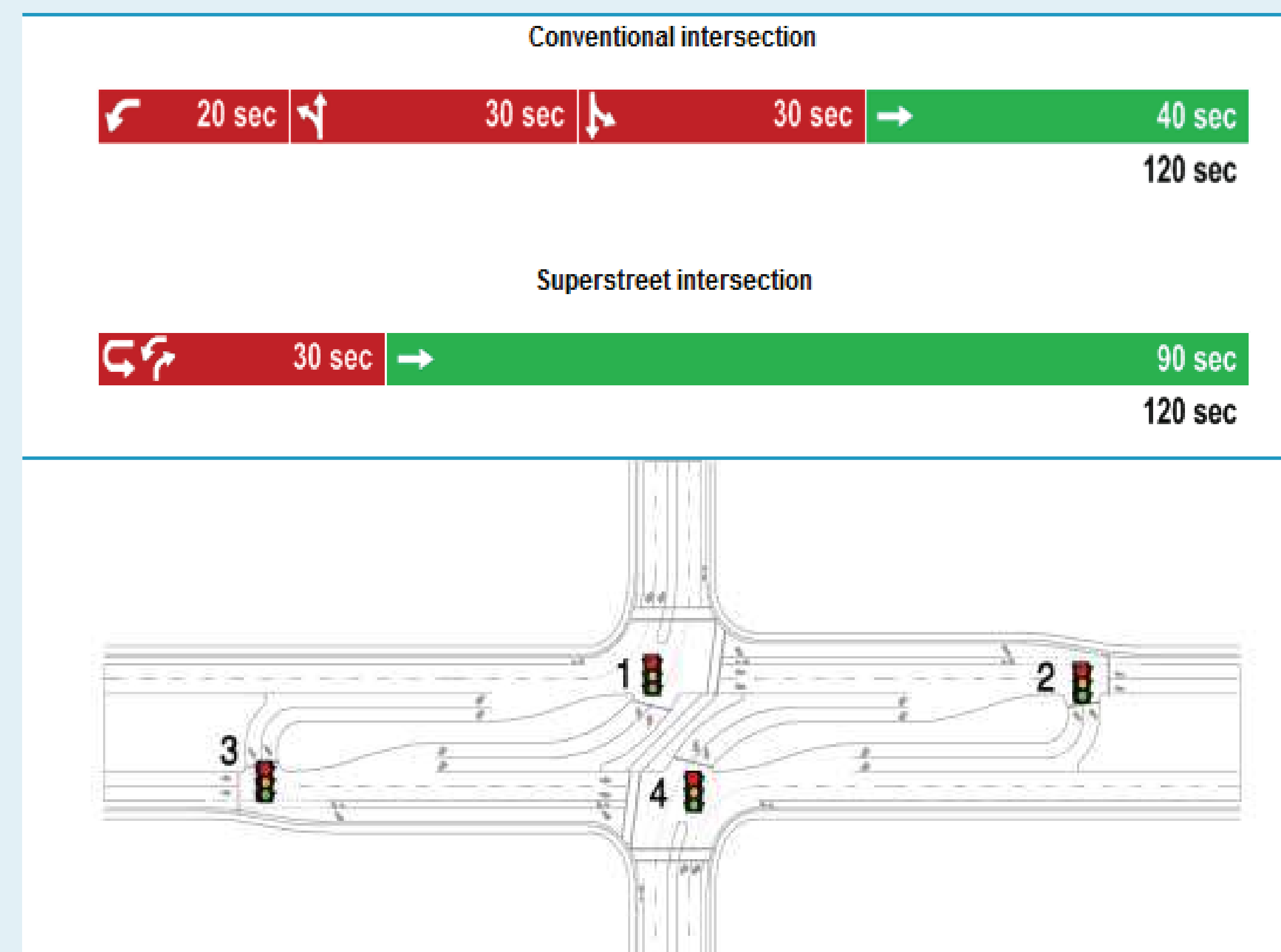
Two-phase signals allow more green time for the major street through movements

Shorter cycle lengths

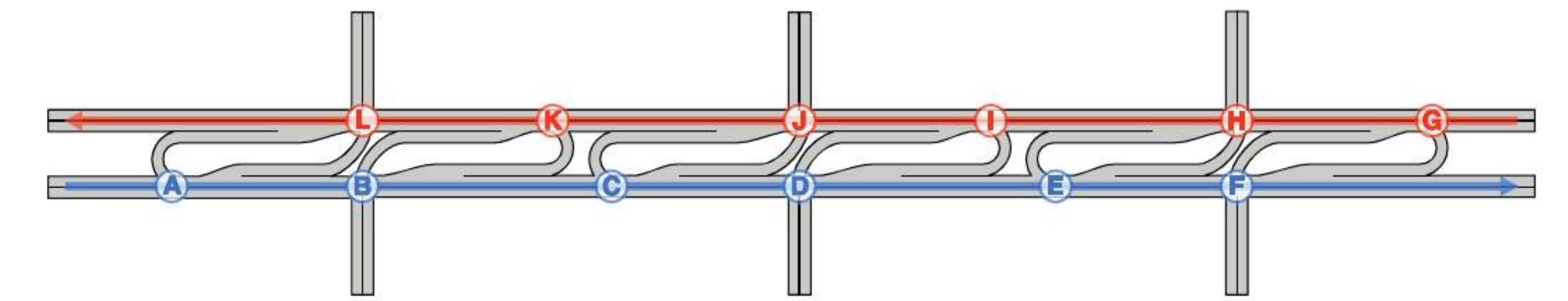
Reduced delay for most vehicles and for pedestrians

Can have different cycle lengths for each direction on the major street

High capacity - side street volume can exceed 20,000 AADT



## One Way Progression



Signals only affect one direction of main street travel

One-Way Street – “Perfect” progression in both directions

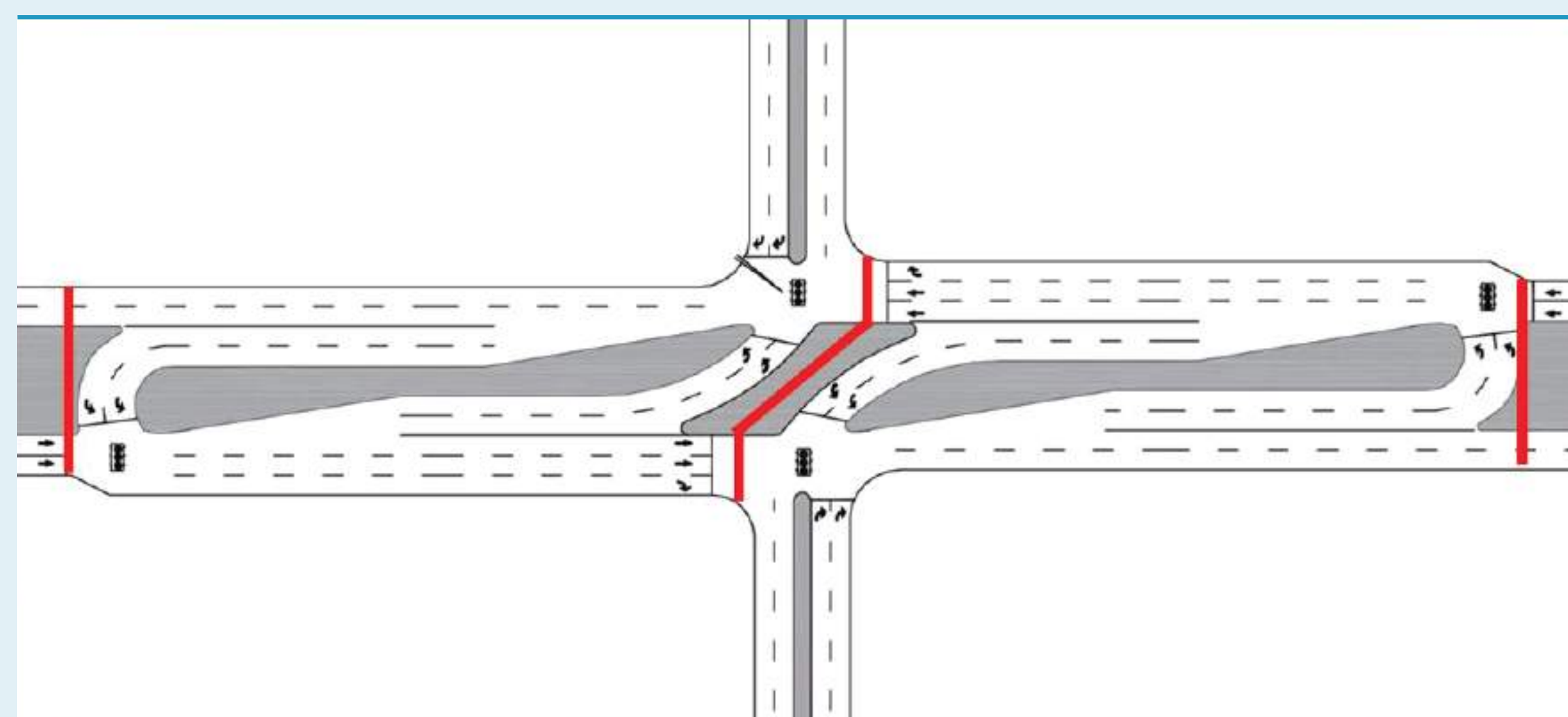
Maximized efficiency

Effective at any speed or any signal spacing

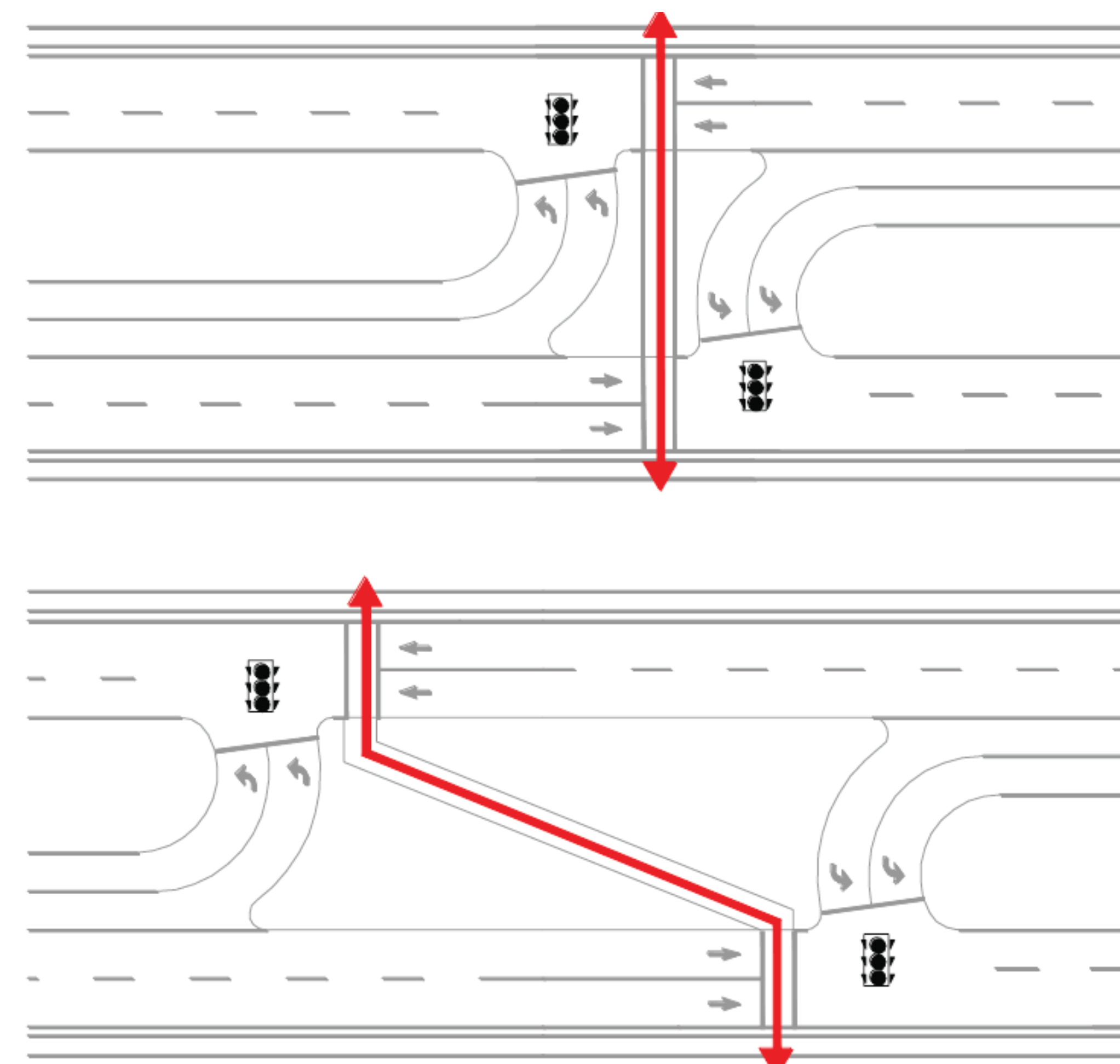
Can control speeds using progression – the progression speed can be adjusted by location, direction, time, day – drivers will adjust quickly

No special signal equipment is needed

## Pedestrians



## Pedestrians



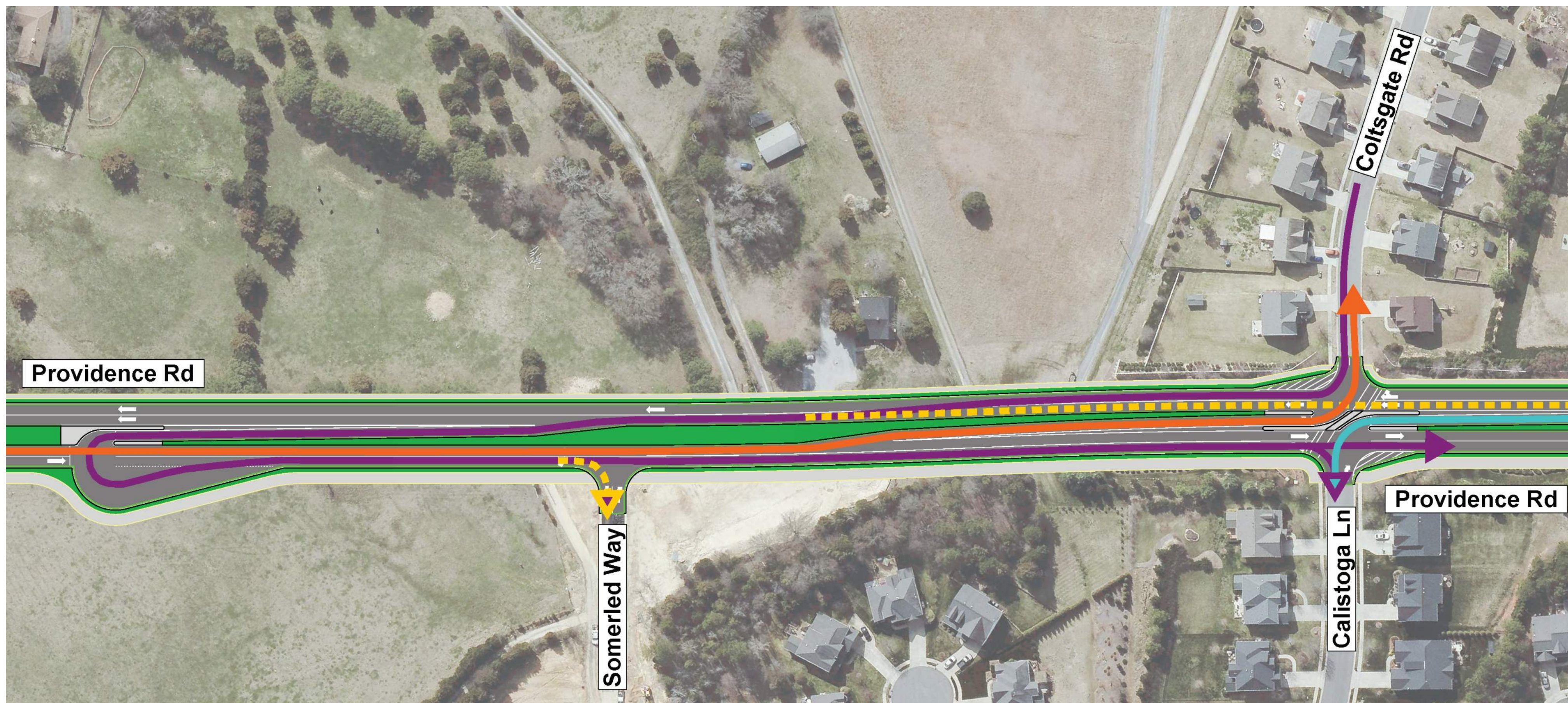
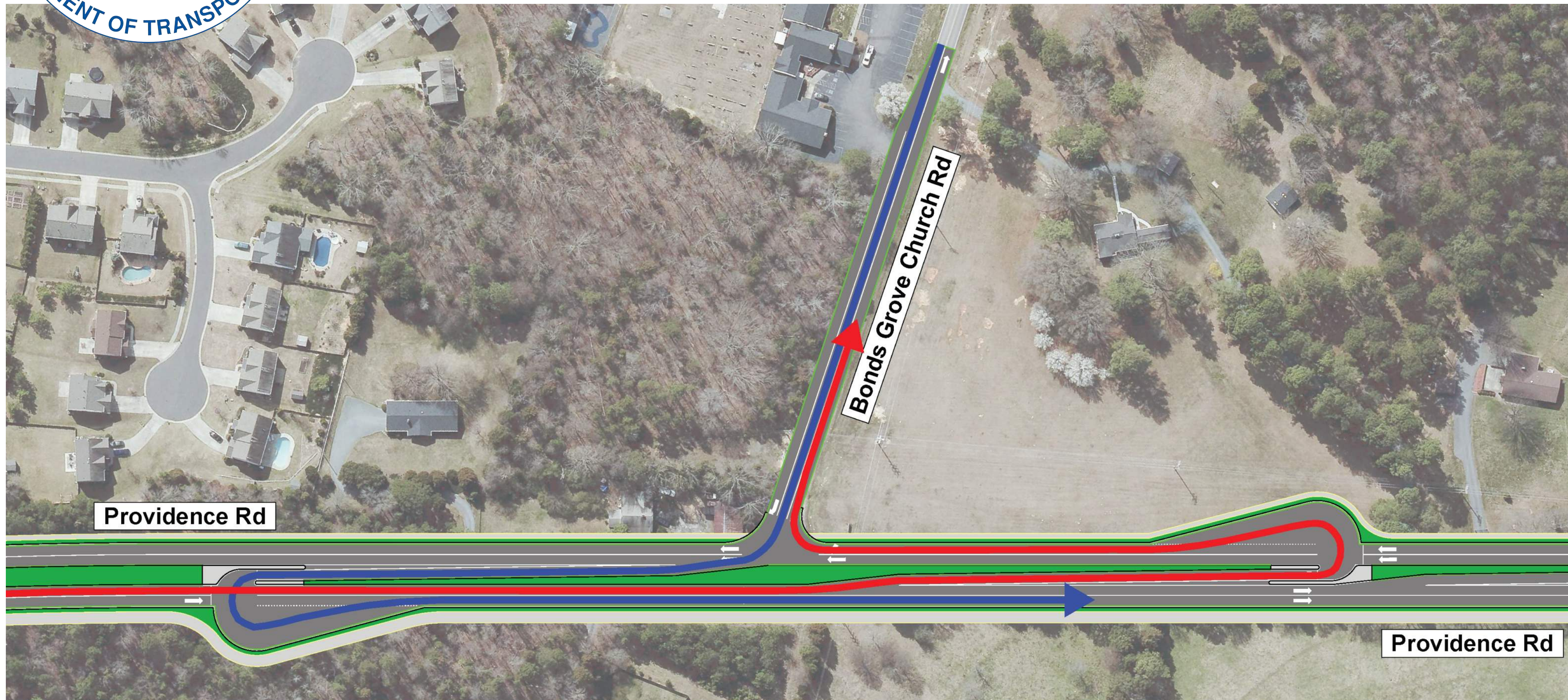
## Travel Time along Corridor







Time Period	Conventional				Superstreet			
	Northbound		Southbound		Northbound		Southbound	
	Travel Time (min)	Speed (mph)	Travel Time (min)	Speed (mph)	Travel Time (min)	Speed (mph)	Travel Time (min)	Speed (mph)
AM	13.6	26	13.2	26	13.1	27	11.2	31
PM	12.2	29	13.0	26	12.0	29	12.0	29





# How to Navigate Superstreets



-  Providence Rd Northbound to Bonds Grove Church Rd
-  Bonds Grove Church Rd to Providence Rd Northbound
-  Providence Rd Northbound to Coltsgate Rd
-  Coltsgate Rd to Providence Rd Northbound including Somerled Way & Calistoga Ln
-  Providence Rd Southbound to Calistoga Ln
-  Providence Rd Southbound to Somerled Way