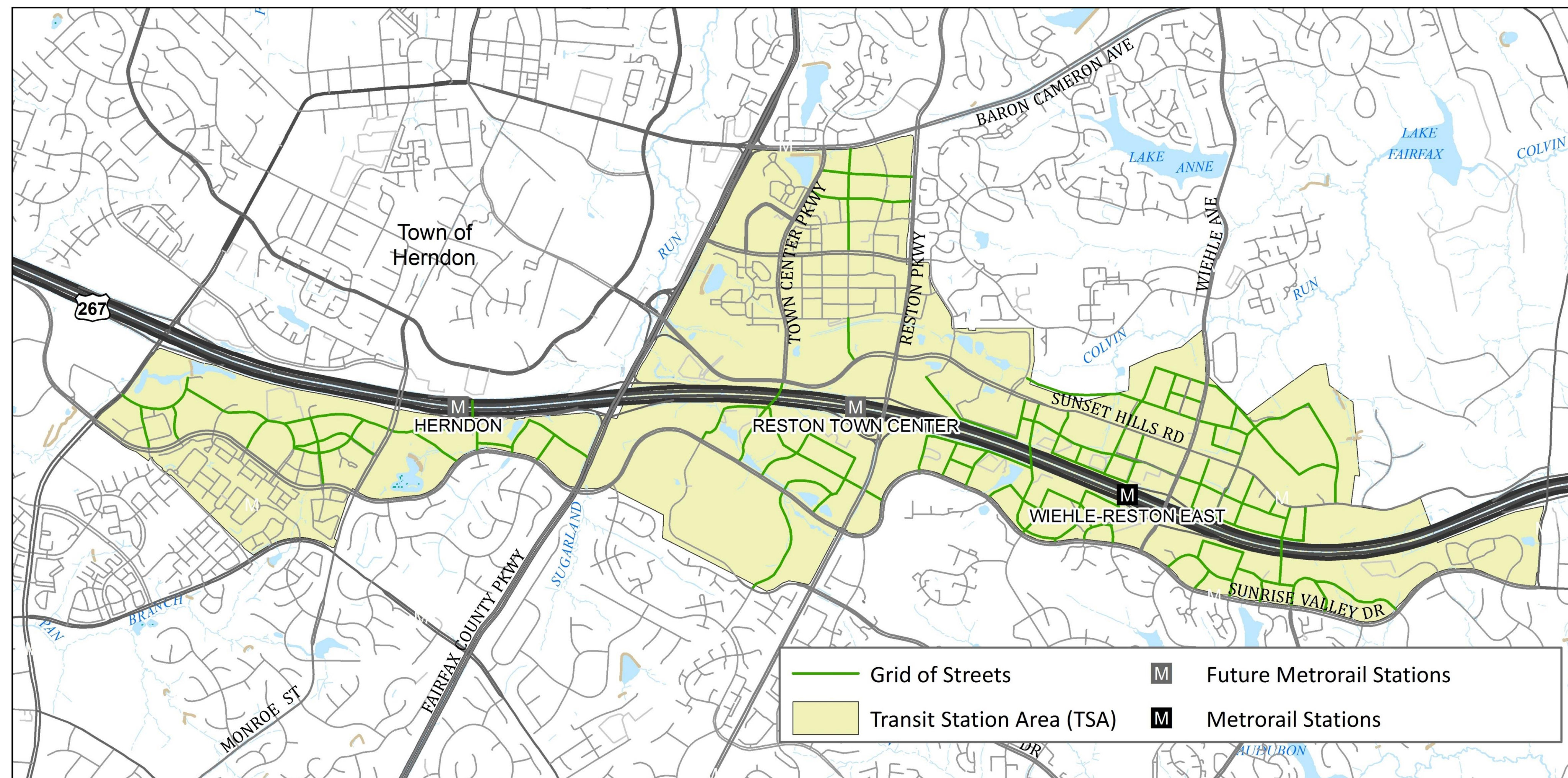
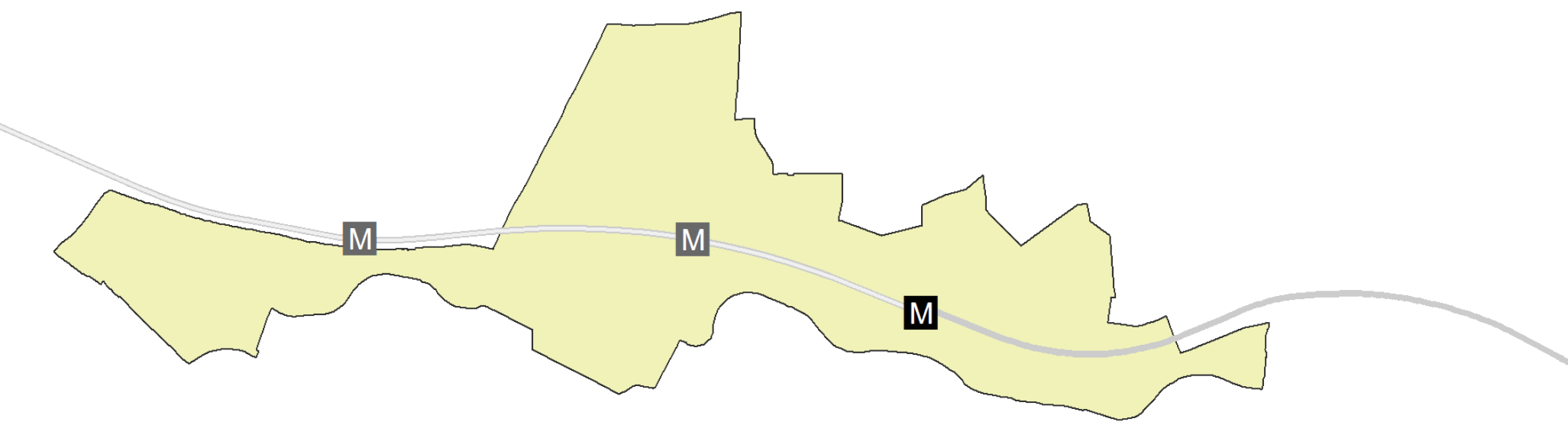


# RESTON NETWORK ANALYSIS

## What is the Network Analysis?



## What is the Network Analysis?

The Network Analysis is evaluating the conceptual grid of streets in the Reston Transit Station Areas (TSAs) adopted in the Reston Phase I Plan Amendment. It takes into account the future demand for travel associated with the development around the three Reston Metrorail Stations.

The analysis will identify the roadway features that are necessary to support acceptable traffic conditions and a walkable and bikeable environment in the TSAs.

## What will it accomplish?

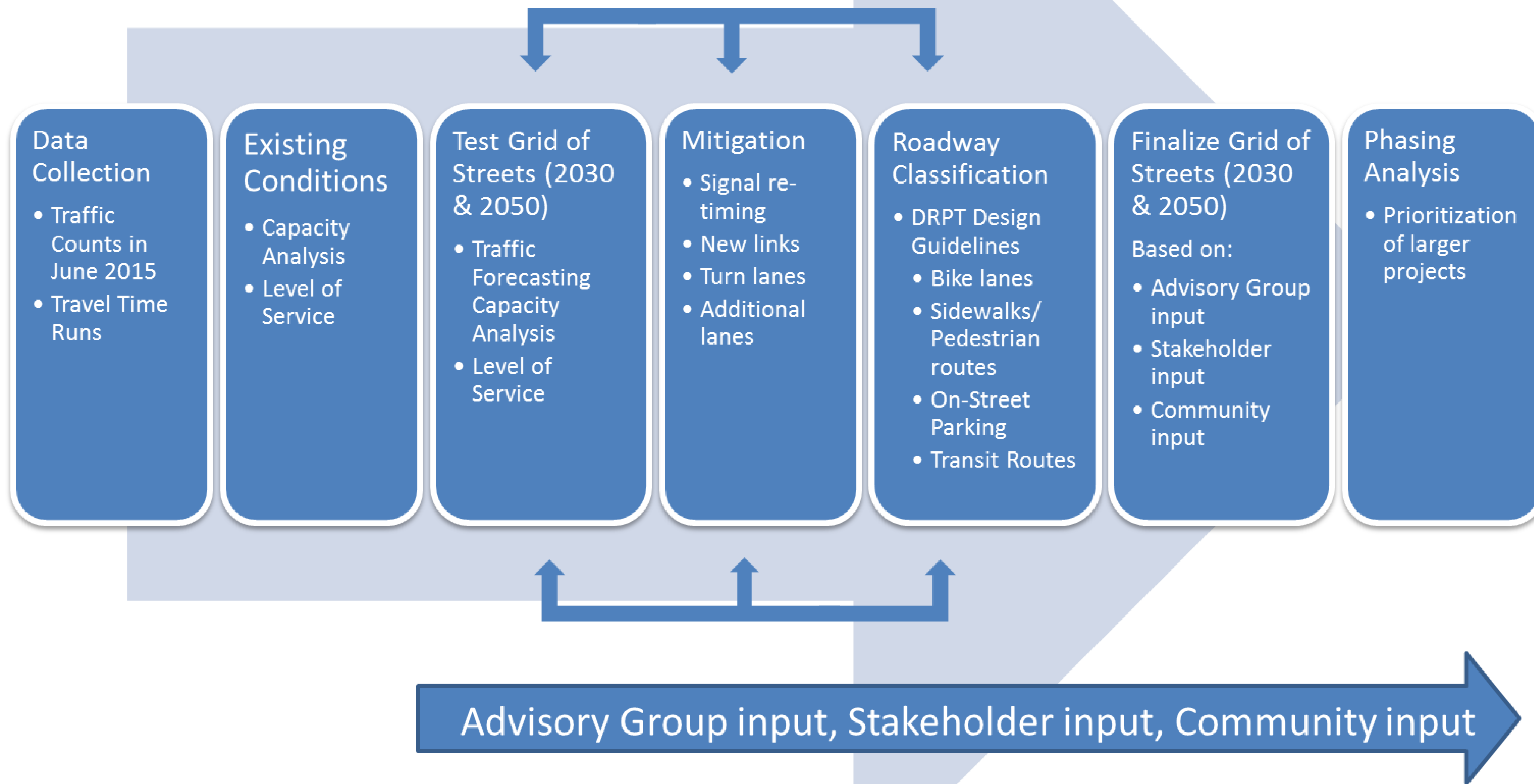
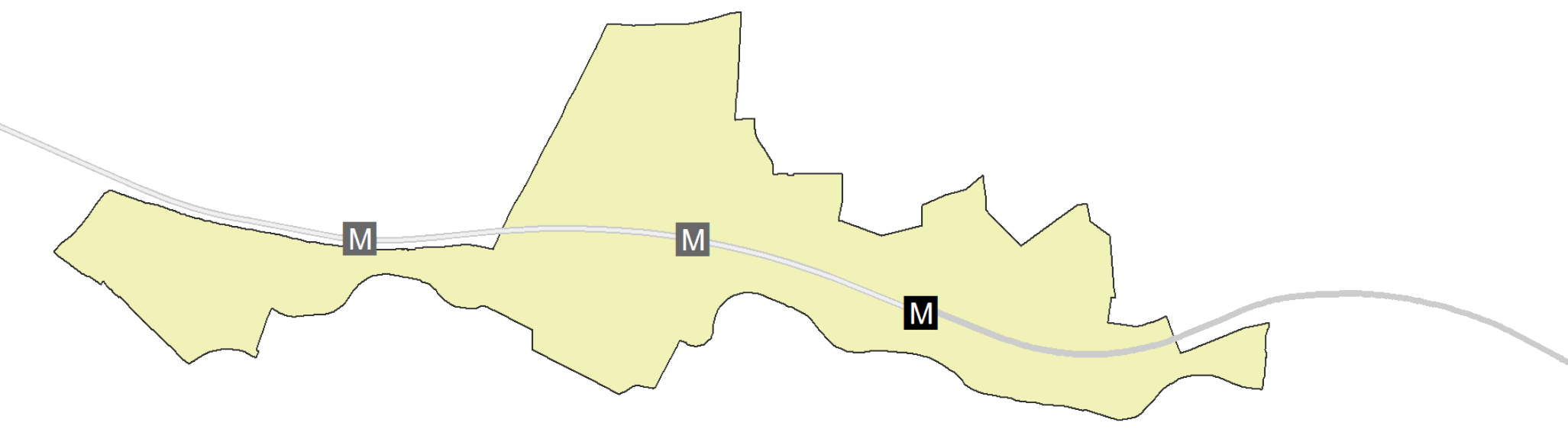
The end result will be a street network that is cost effective and requires the minimum right-of-way, with the least impacts to adjacent properties while addressing the future travel demand. It will take into consideration the provisions of the Reston Phase I Master Plan.

The study has identified mitigation measures needed to achieve LOS E in the TSAs including new signals and turn lanes at new intersections. It will begin looking at locations where LOS E could not be achieved through these mitigation Measures.

The study is scheduled to be complete late 2016.

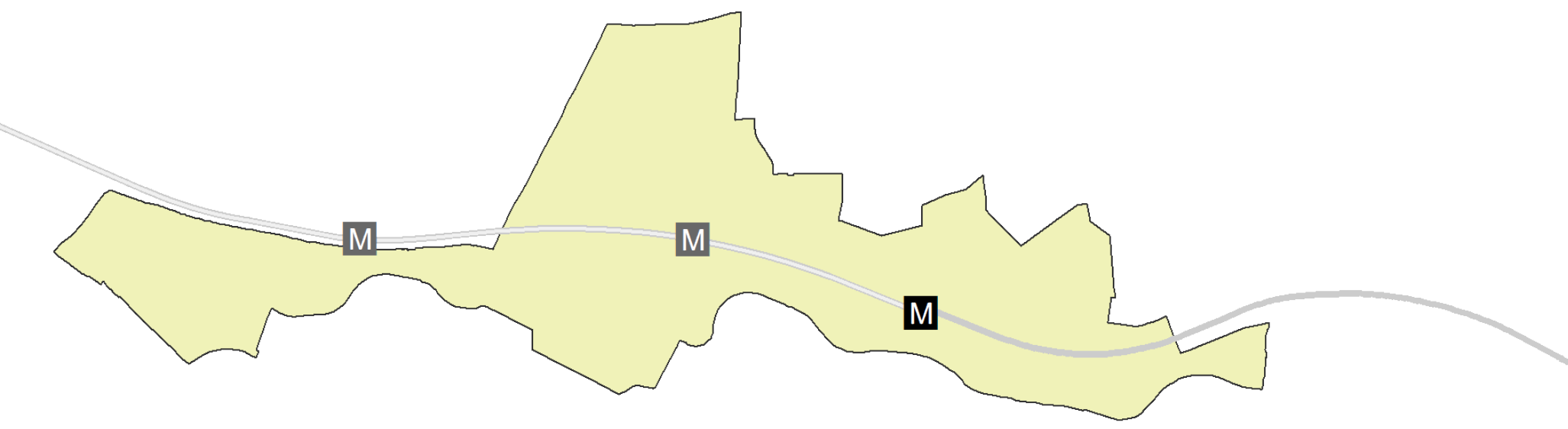
# RESTON NETWORK ANALYSIS

## Project Process



# RESTON NETWORK ANALYSIS

## Other Planning Efforts in Reston



### How does the Network Analysis relate to other efforts in Reston?

New development, redevelopment, bikeshare and more; there sure is a lot going on in Reston! The Reston Network Analysis is a long-range look at the transportation conditions in the Reston Transit Station Areas (TSAs) in 2030 and 2050.

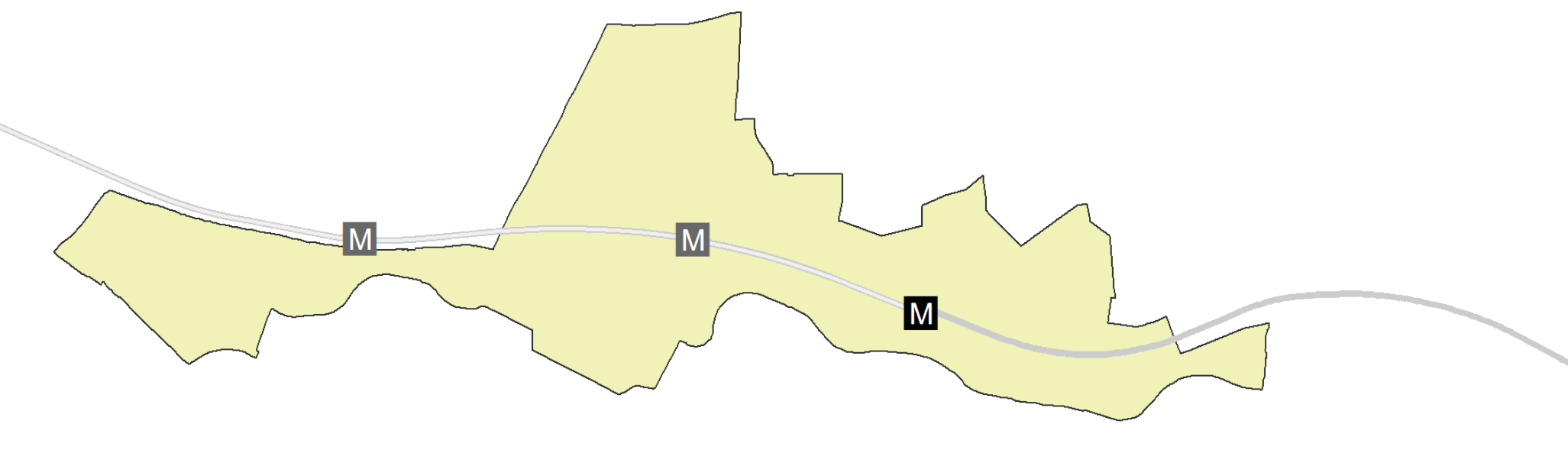
The Network Analysis takes into account ongoing planning efforts by the Fairfax County Department of Transportation (FCDOT) and others which will impact the future of the transportation network in the Reston TSAs.

The Reston Funding Plan is an concurrent effort by FCDOT to identify potential sources of revenue to implement the transportation recommendations made in the Reston Phase I Master Plan. The phasing of the funding for the improvements will be informed by the Network Analysis.



# RESTON NETWORK ANALYSIS

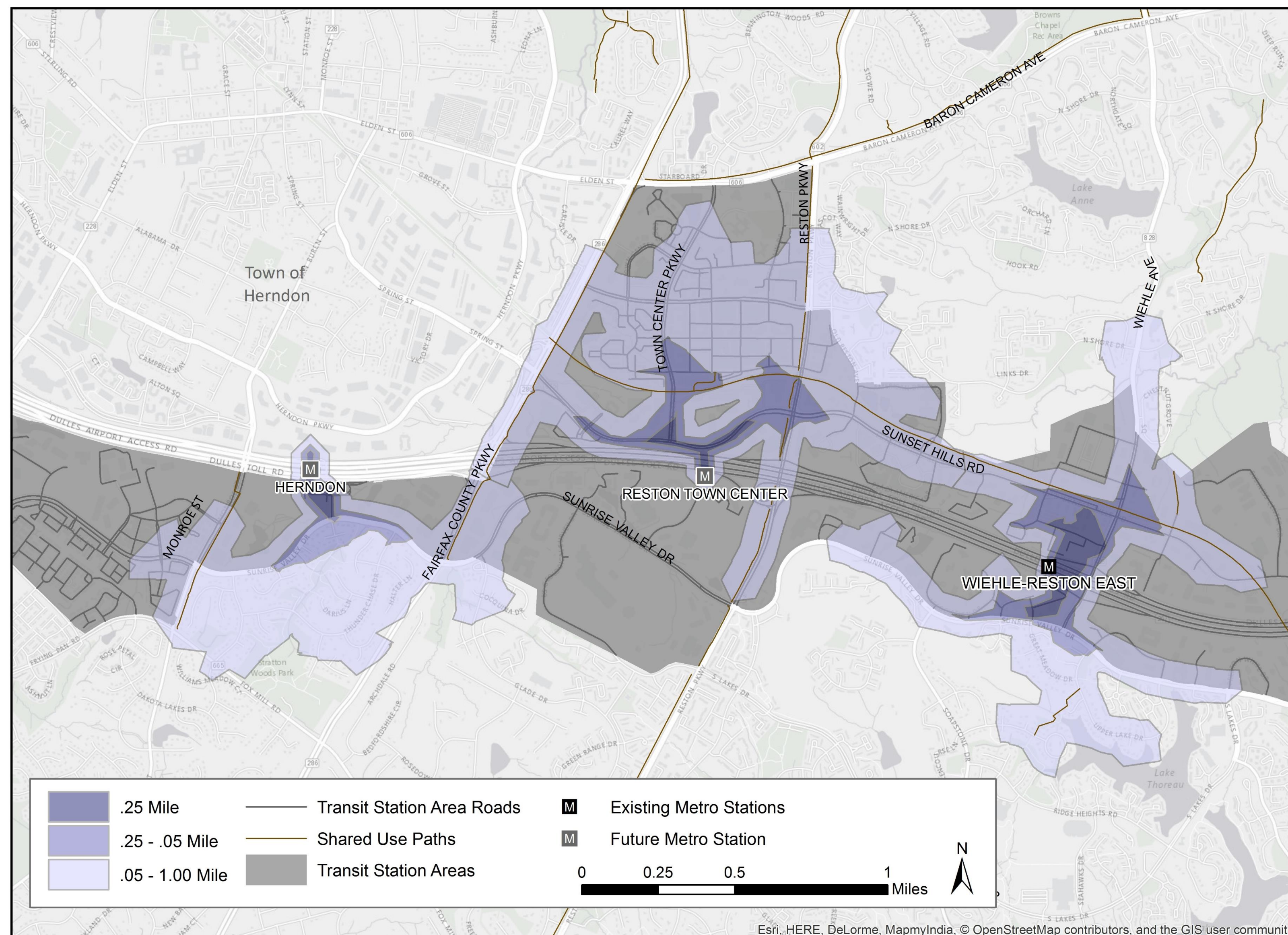
## Pedestrian Connections



### What is a walkshed?

Walksheds are the area which can be reached on foot from a defined location. A lack of pedestrian infrastructure limits pedestrian mobility and accessibility in an area. Map 1 shows the current walkable areas within quarter-mile, half-mile, and 1 mile from Reston's 3 Metrorail Stations.

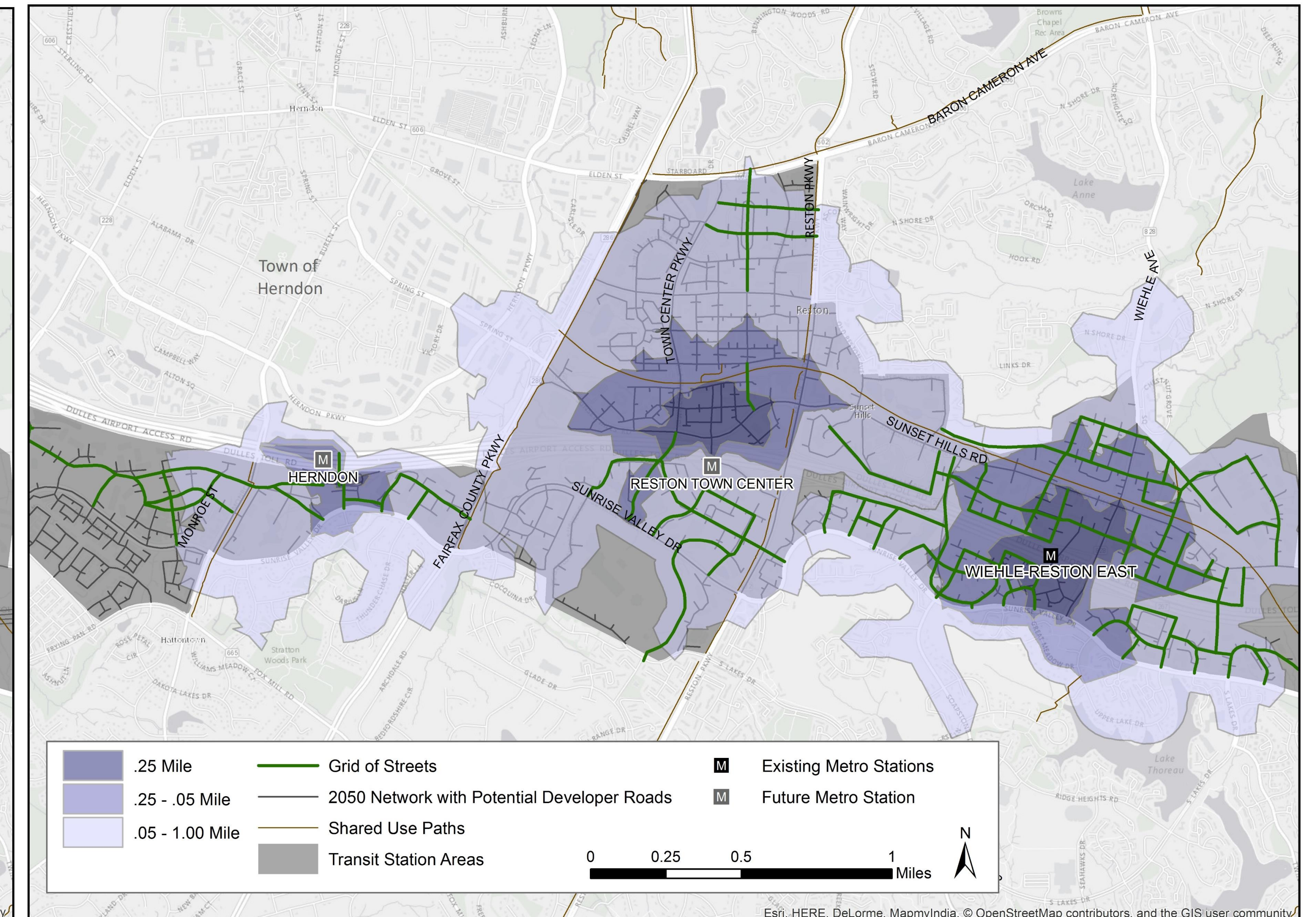
Map 1: 2015 Walkshed



### The Grid of Streets makes a difference

The Grid of Streets will be implemented as “complete streets”. The addition of these links to Reston’s transportation network enhance movement of all modes. The grid will add much needed pedestrian facilities, increasing the area which can be accessed within a quarter-mile and half-mile walk from the Metrorail Stations. This improvement can be seen in Map 2.

Map 2: 2050 Walkshed with Grid of Streets



# 2050 Peak Hour LOS Results

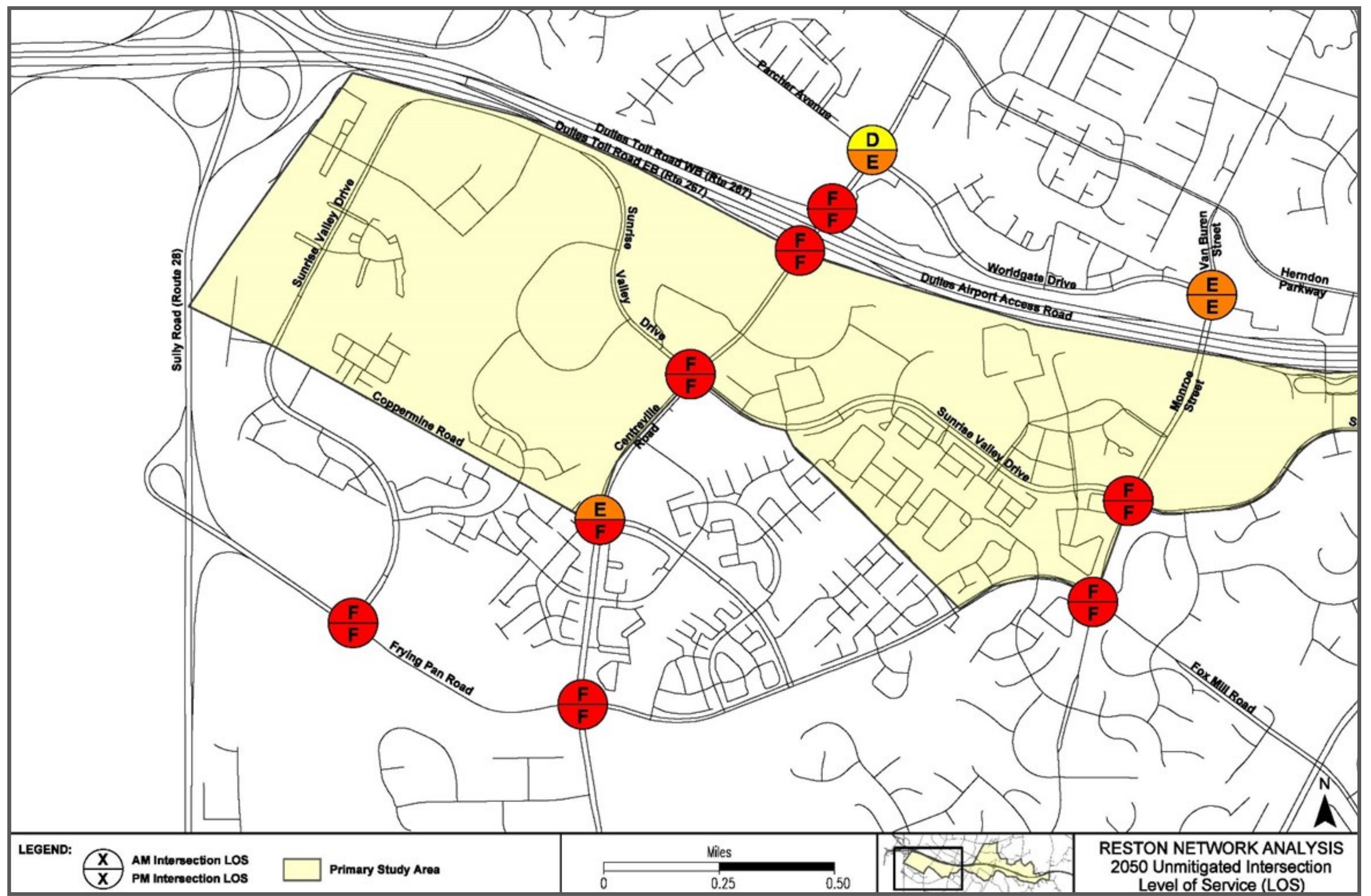
## Unmitigated

Unmitigated results (right) show 2050 level of service (LOS) based on planned Comprehensive Plan improvements, including the grid of streets. Failing intersections demonstrate that further mitigation is necessary to meet the acceptable LOS E standard in the Reston Transit Station Areas (TSAs).

### Level of Service (LOS)

LOS measures peak hour delay at an intersection or how well traffic moves along a roadway. LOS E is the standard for the Reston TSAs.

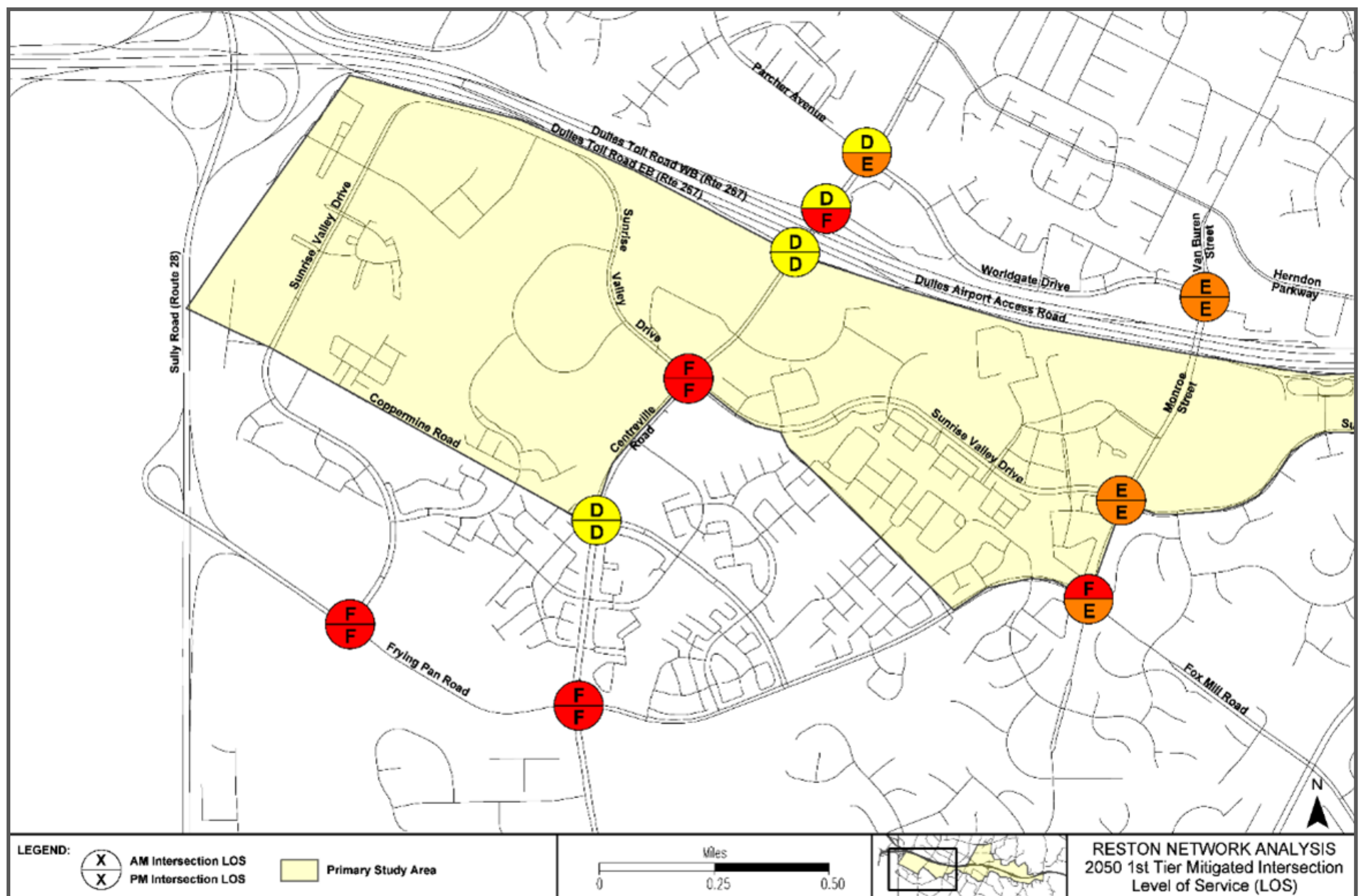
Today, most intersections operate at an acceptable LOS but are projected to fail in the future as the demand for travel increases.



## 1<sup>st</sup> Tier

### Mitigation

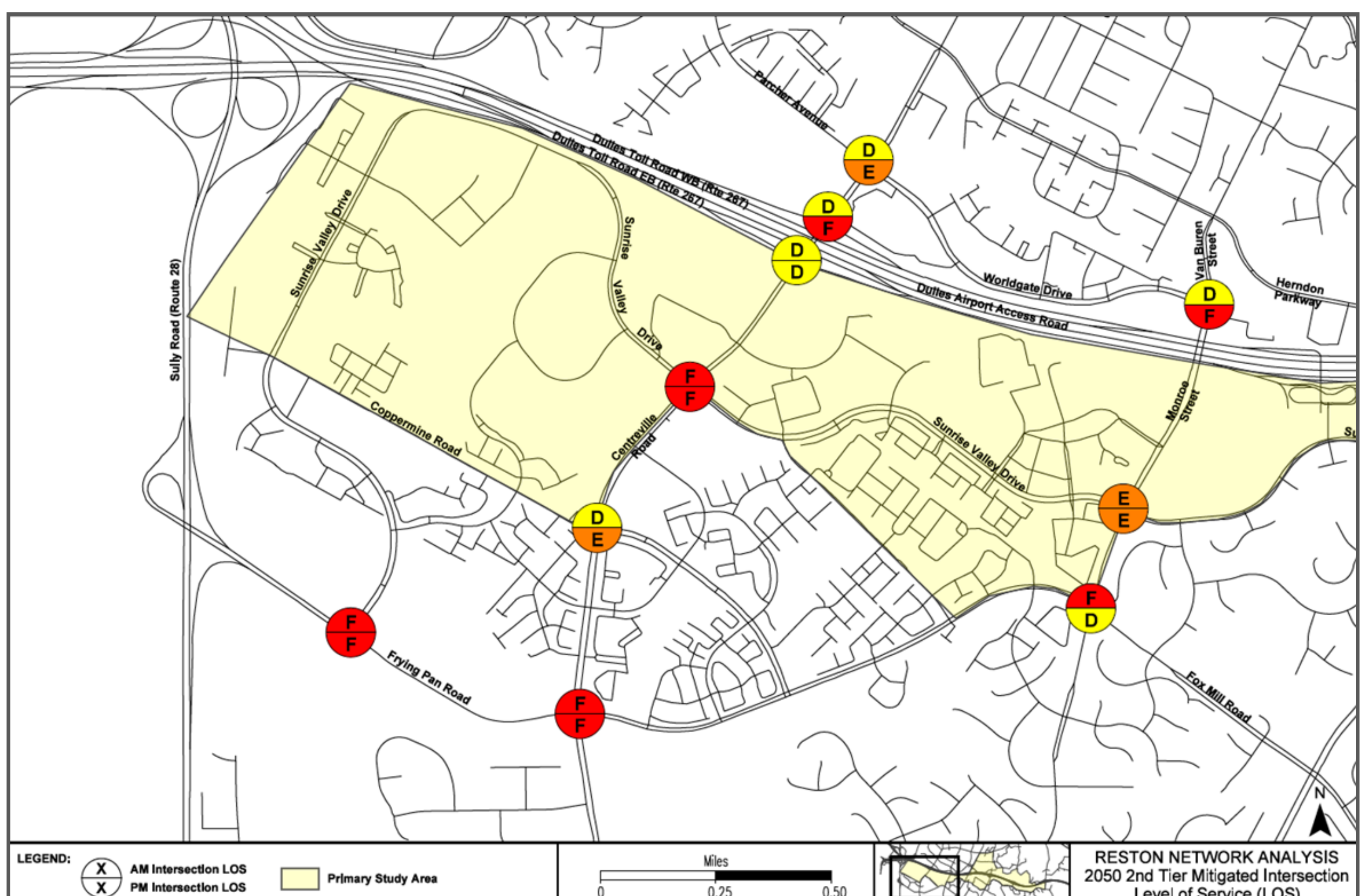
Tier 1 results (right) show 2050 LOS with mitigation measures that have no right of way (ROW) impact, including signal optimization, modified lane configurations, and new stop signs and signals. Intersections which continue to fail require more mitigating measures.



## 2<sup>nd</sup> Tier

### Mitigation

Tier 2 results (right) show 2050 LOS with mitigation measures that include some right of way (ROW) impact, such as new through lanes and turn lanes, as well as additional signal re-timings and signals. Intersections which continue to fail will require larger-scale mitigation efforts.



# 2050 Peak Hour LOS Results

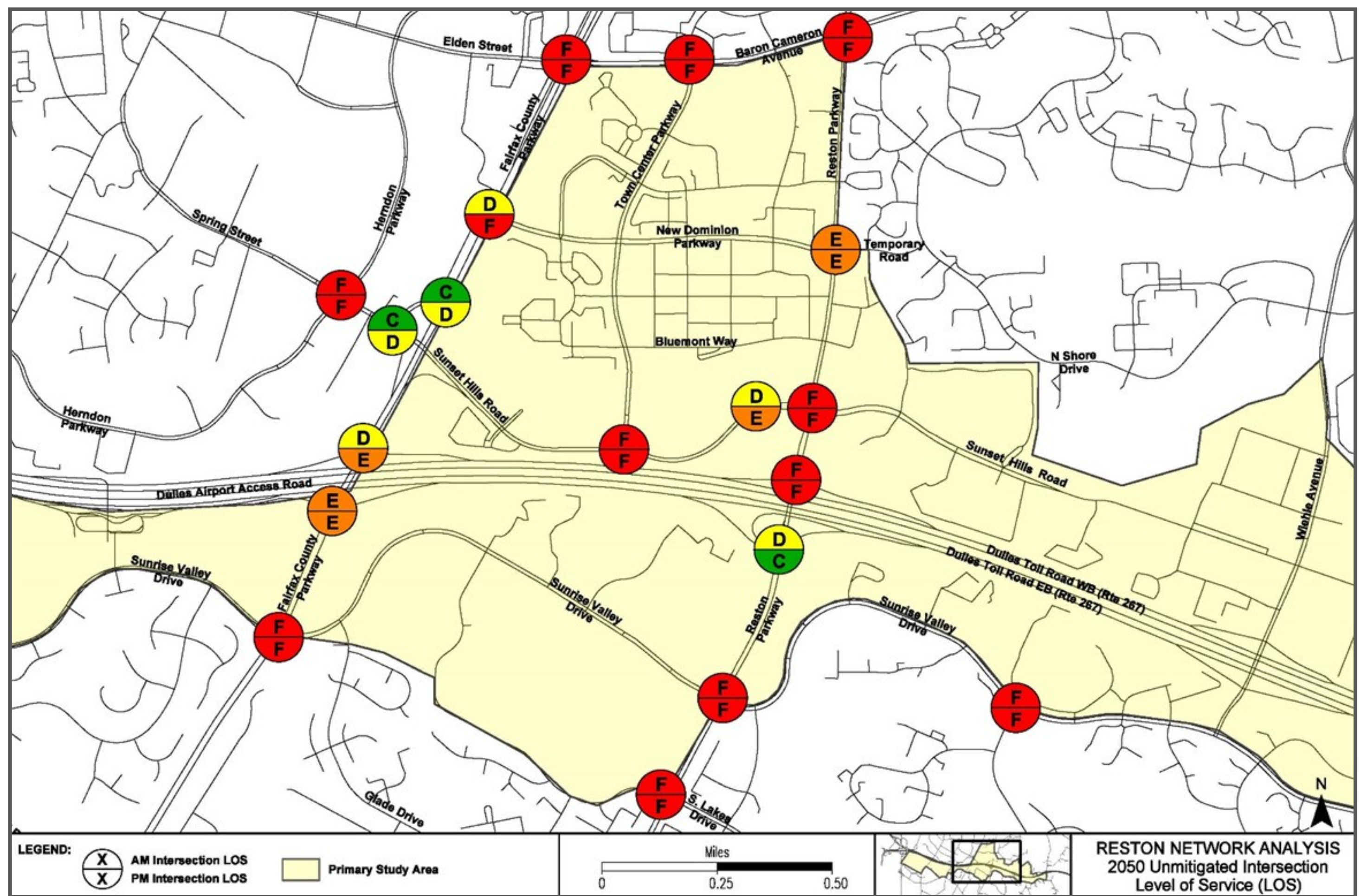
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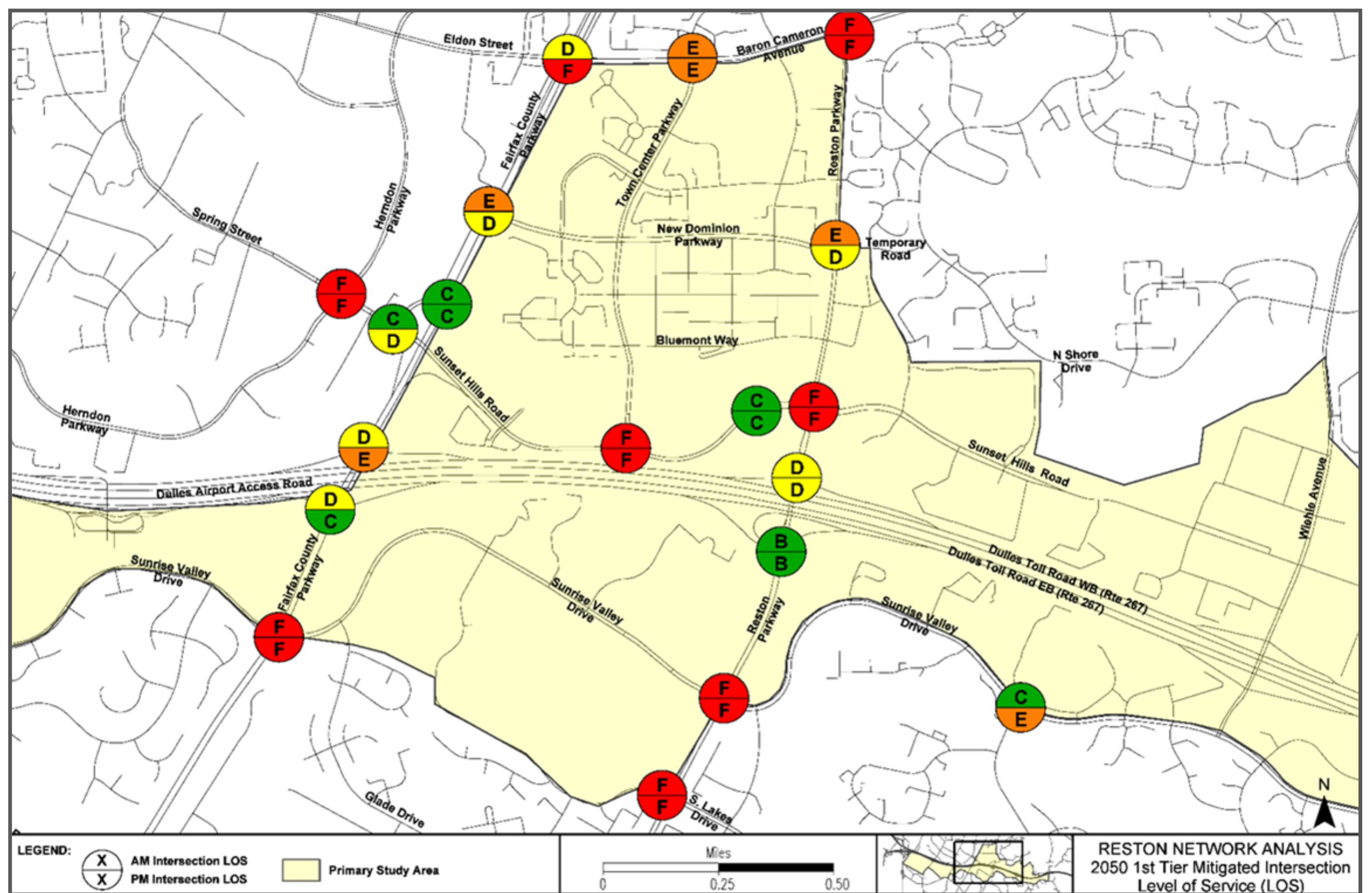
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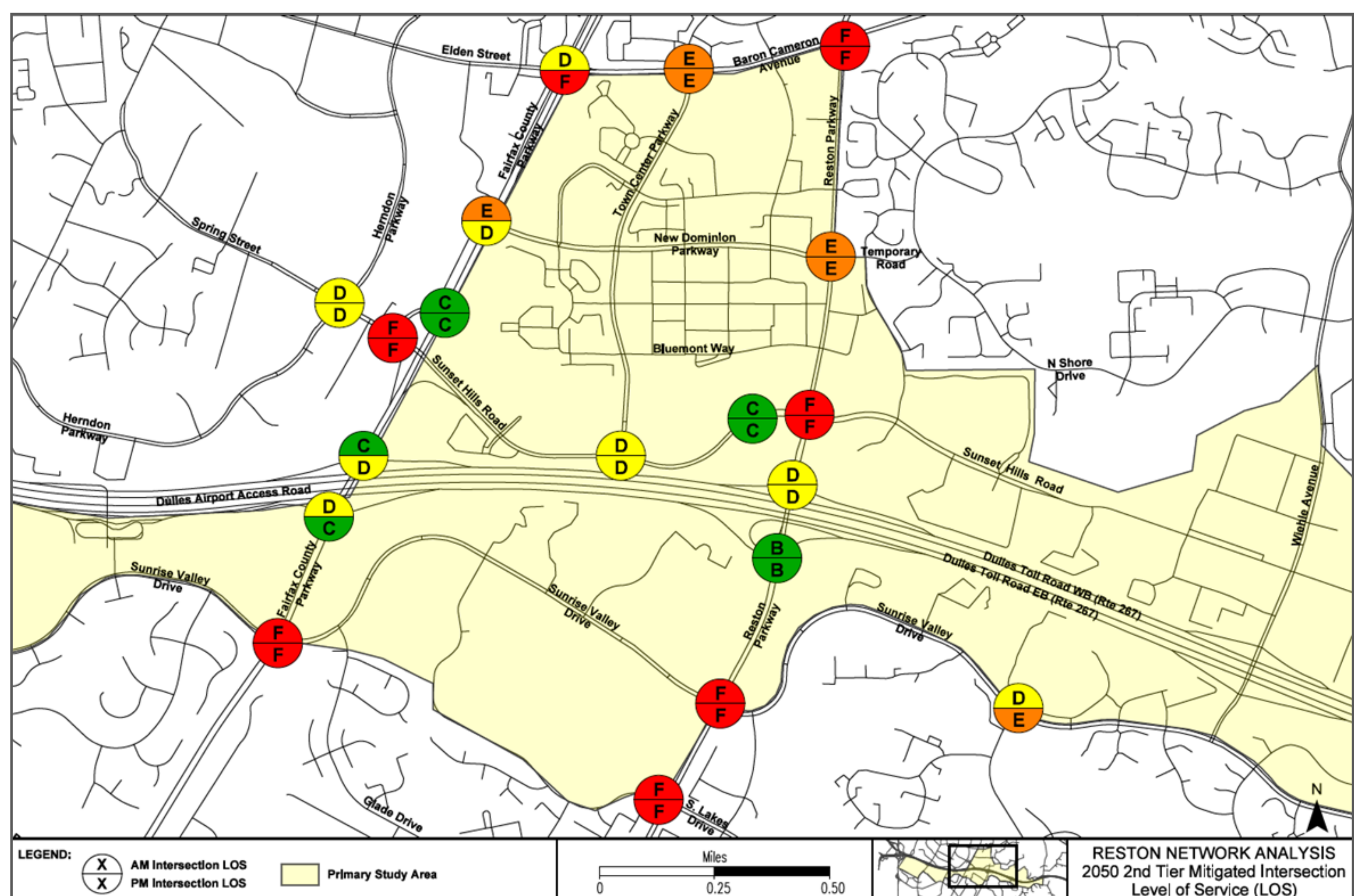
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Tier 1 results (right) show 2050 LOS with mitigation measures that have no right of way (ROW) impact, including signal optimization, modified lane configurations, and new stop signs and signals. Intersections which continue to fail require more mitigating measures.



## 2<sup>nd</sup> Tier Mitigation

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# 2050 Peak Hour LOS Results

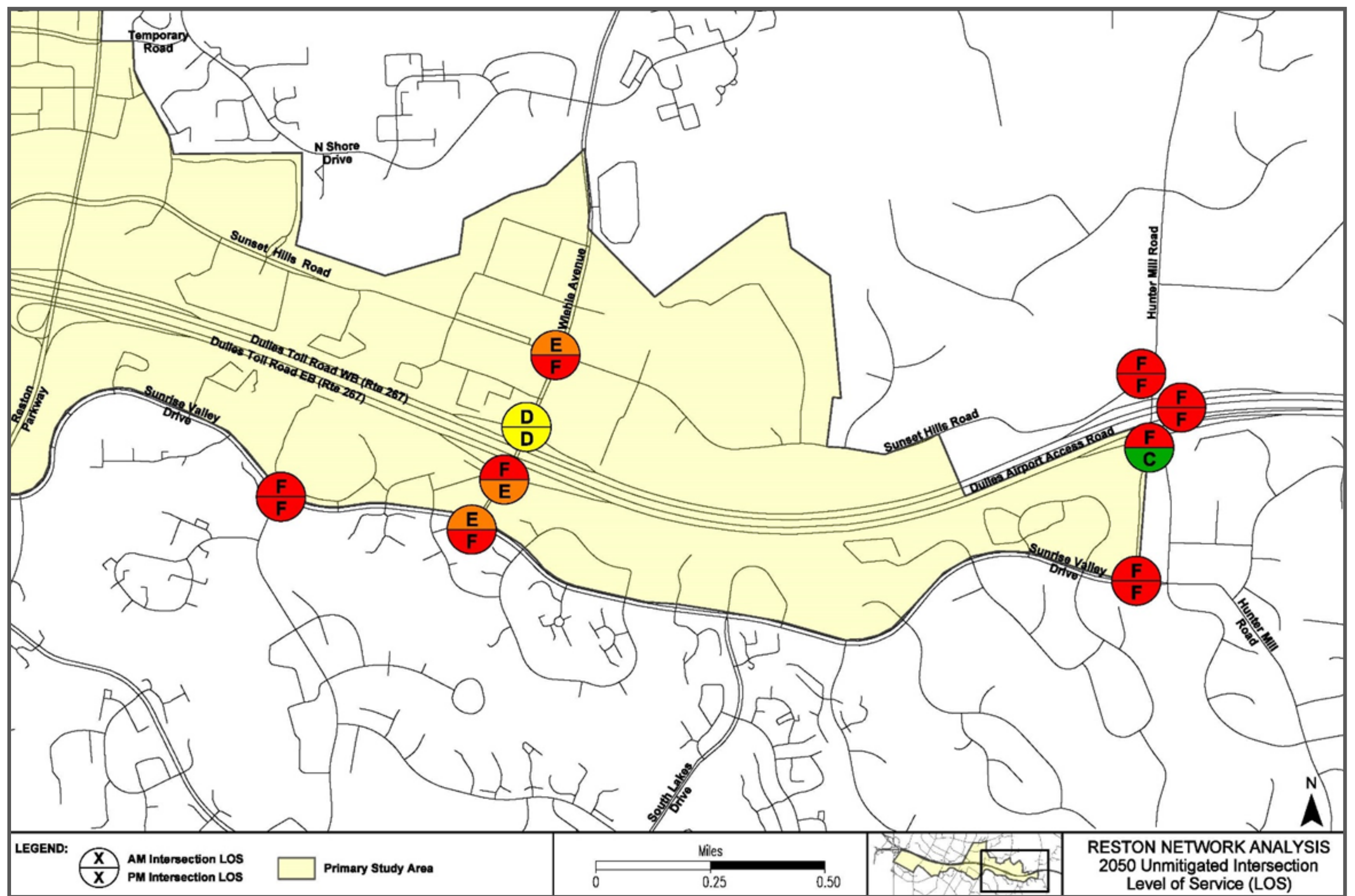
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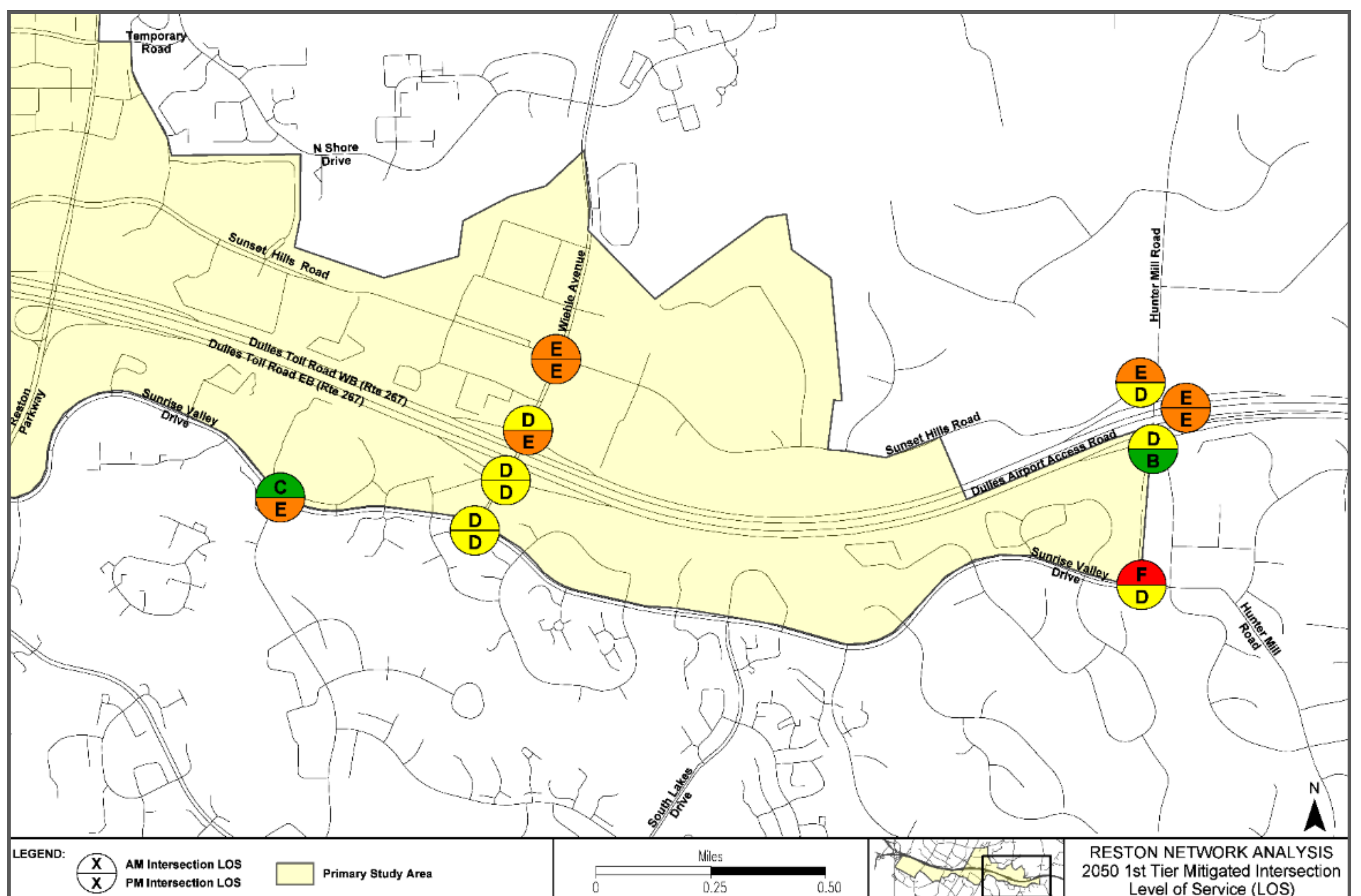
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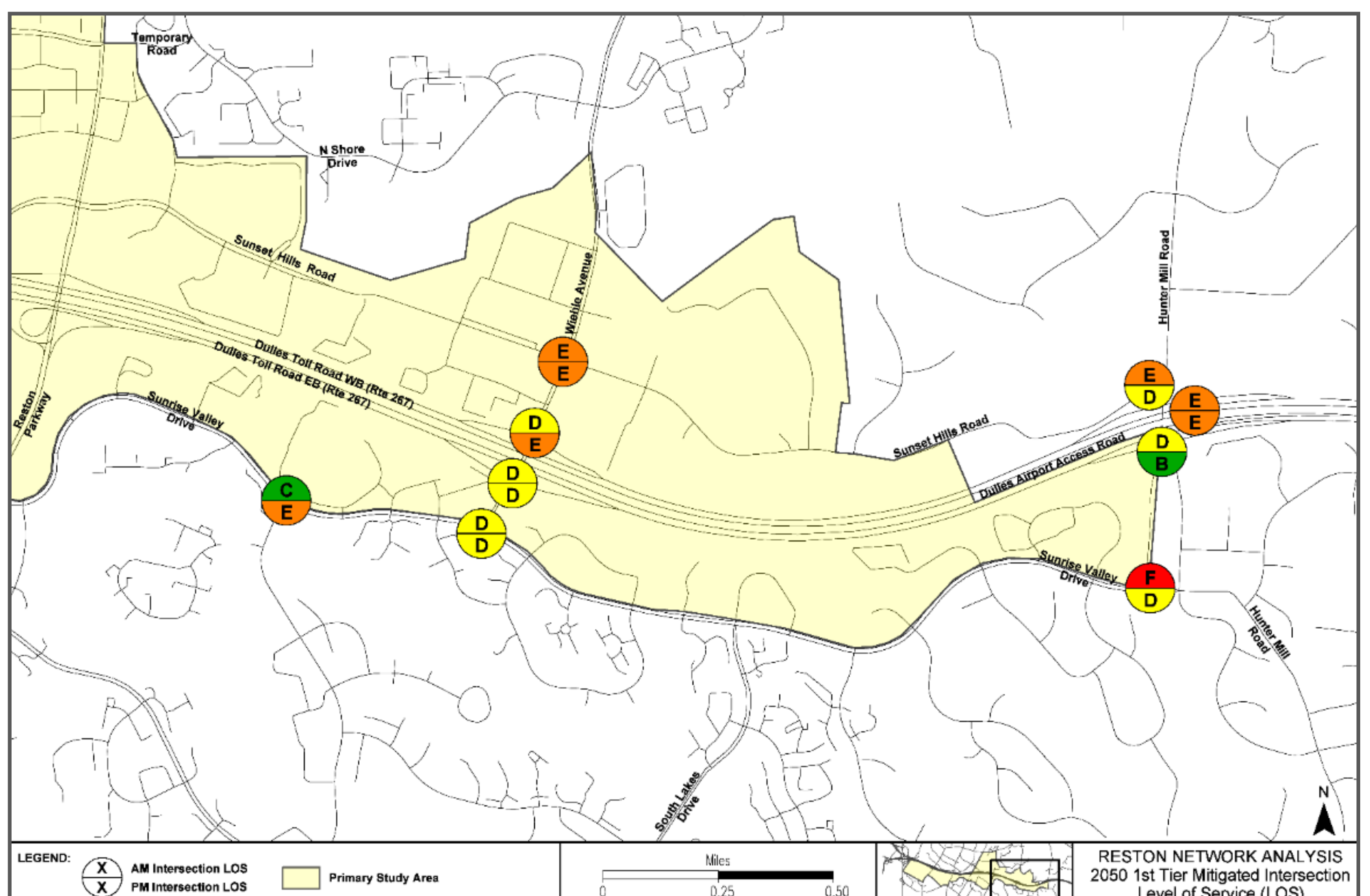
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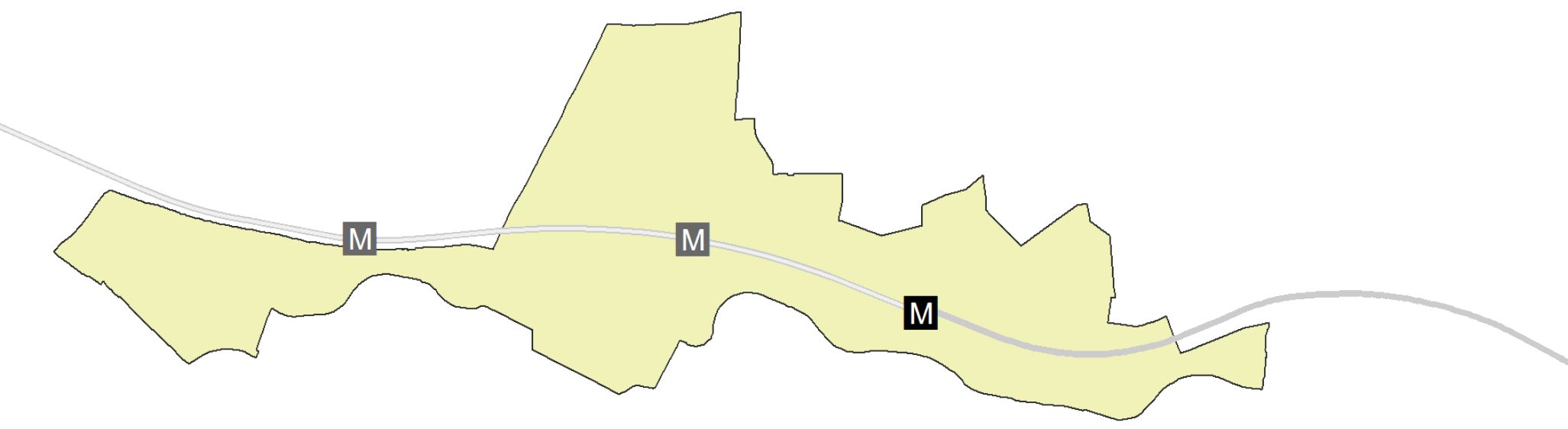


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# RESTON NETWORK ANALYSIS



## Traffic Signals

The first mitigation measures considered was the addition of new intersection control i.e. traffic signals, and the optimization of existing and proposed signals on the 2050 road network.

Installation of traffic signals are subject to Virginia Department of Transportation (VDOT) standards.

There are 78 existing signals in Reston. 26 new signals were identified in Tier 1, and 4 additional signals were identified in Tier 2

