

As part of the Falls of Neuse corridor analysis, a “high level” traffic analysis was performed for each signalized intersection along the corridor (Durant Road, Raven Ridge Road, Dunn Road, and Old Falls of Neuse Road / Wide River Drive). Falls of Neuse Road currently has a four-lane median divided cross-section with turn-lanes present at each major intersection. The roadway has a multi-use path along the east side of the corridor and sidewalk along the west side of the corridor (from Raven Ridge Road through Old Falls of Neuse Road). The 2015 average annual daily traffic volume along Falls of Neuse Road immediately north of Durant Road is 36,000 vehicles per day.

On June 13th, 2017, Timmons Group performed field observations of the Falls of Neuse corridor. Based on these observations, several deficiencies were noted and have been listed below. To help remedy the subject deficiencies, corridor / regional recommendations have also been provided.

Vehicular:

- Significant southbound AM peak hour traffic and queuing along Falls of Neuse Road
- Southbound queues spilling back from I-540 Westbound ramps to north of the existing water treatment plant (shy of Raven Ridge Road)
- Westbound left-turn queues along Durant Road for vehicles wishing to turn south onto Falls of Neuse Road
- Westbound left-turn queues along Dunn Road for vehicles wishing to turn south onto Falls of Neuse Road
- Minimal left and right-turns from unsignalized side streets onto north/southbound Falls of Neuse Road due to lack of available vehicular gaps

Pedestrian:

- No sidewalks present along the west side of Falls of Neuse Road from Durant Road to Raven Ridge Road
- No crosswalks crossing the northern, southern, or western intersection legs at the intersection of Durant Road / Falls of Neuse Road
- No pedestrian actuation or pedestrian heads for the southern and western crosswalks at the intersection of Raven Ridge Road / Falls of Neuse Road – Manual on Uniform Traffic Control Devices (MUTCD) violation
- No wheel chair ramps in the southwest intersection quadrant at the intersection of Raven Ridge Road / Falls of Neuse Road
- No crosswalk crossing the southern intersection leg at the intersection of Dunn Road / Falls of Neuse Road

Bicycle:

- Existing bicyclists utilize existing multi-use path along the east side of the Falls of Neuse Road



- Existing 12-foot lanes along Falls of Neuse Road do not encourage / facilitate on-street riders

Existing Levels of Service (Delay):

Utilizing Synchro files, existing signal timings, and count data information provided by the City, Timmons Group completed existing AM and PM peak hour capacity analyses of the signalized intersections along the Falls of Neuse corridor from Durant Road to Wide River Drive. Synchro analyses are provided below:

Falls of Neuse Road / Durant Road*

AM Peak Hour: Level of Service (LOS) E (60.9 seconds/vehicle)

PM Peak Hour: LOS E (80.0 seconds/vehicle)

Falls of Neuse Road / Raven Ridge Road*

AM Peak Hour: LOS C (23.4 seconds/vehicle)

PM Peak Hour: LOS D (46.0 seconds/vehicle)

Falls of Neuse Road / Dunn Road*

AM Peak Hour: LOS C (28.1 seconds/vehicle)

PM Peak Hour: LOS B (15.3 seconds/vehicle)

Falls of Neuse Road / Old Falls of Neuse Road**

AM Peak Hour: LOS B (11.0 seconds/vehicle)

PM Peak Hour: LOS E (72.7 seconds/vehicle)

Falls of Neuse Road / Wide River Drive**

AM Peak Hour: LOS A (4.8 seconds/vehicle)

PM Peak Hour: LOS A (9.6 seconds/vehicle)

* 2016 count data from Spencer Ridge Traffic Impact Analysis

** Count data from provided Synchro file

Based on the preliminary observations and existing analyses, Timmons Group provided several corridor / regional recommendations for the Falls of Neuse corridor. Recommendations have been provided below.

Potential Corridor/Regional Recommendations:

- The existing traffic data confirms the City's Long Range Transportation Plan recommendation for a third northbound and third southbound vehicular travel lane along Falls of Neuse Road (north of Durant Road) to alleviate congestion due to peak hour commuter volumes
- The NCDOT project U-5826, planned for construction in 2022, will help alleviate existing queuing south of the proposed study area for vehicles wishing to access I-540.
- Restripe westbound Durant Road approach at Falls of Neuse Road to include dual left-turn lanes and a single shared through / right-turn lane. Widen existing monolithic concrete island (to the north) to create a refuge for



northbound pedestrians. Restripe western intersection leg to properly align with westbound through traffic flow.

- Construction of a sidewalk along the west side of Falls of Neuse Road from Durant Road to Raven Ridge Road. Ultimately, sidewalk should be extended south of Durant Road to connect to the City's sidewalk system (outside of project limits).
- Pedestrian improvements at the intersection of Raven Ridge / Falls of Neuse Road to make the intersection MUTCD / ADA (Americans with Disabilities Act) compliant
 - Installation of pedestrian actuation and pedestrian heads for the southern and western intersection crosswalks
 - Construction of wheel chair ramps in the southwest intersection quadrant
- Reserve right-of-way for pedestrian connection from Falls of Neuse Road to Fonville Road and/or Holmes Hollow Road should redevelopment occur east of Fonville Road (north of Falls of Neuse Road) adjacent to Wake Forest Fire Department Station 5
- Construct pedestrian / bicycle connections from multi-use path along Falls of Neuse Road to Lowery Farm Lane
- Provide bicycle wayfinding along Lowery Farm Lane, Wide River Drive, and Wake Bluff Drive to tie into City's existing bike network. All bicycle improvements to be consistent with the City of Raleigh's Long Term Bikeway Plan.
- Add crosswalk striping for the existing multi-use path at the Galligan Family Dentistry Driveway