



The purpose of the public hearing is to consider the facts in order to formulate a decision. The Thoroughfare and Collector Street Plan map (last amended in July 2020) of Advance Apex: The 2045 Comprehensive Transportation Plan represents a network of current and future facilities that provide guidance on what is likely to be suitable for long term growth. The plan does not require a schedule for implementation nor does it set aside funding for improvements. Instead, the plan helps the Town establish long term priorities.

Proposed Amendments to the Thoroughfare and Collector Street Plan Map:

The purpose of this hearing is to consider proposed amendments to the network of planned thoroughfare and collector streets reflecting recommendations from the 2019 Southwest Area Study (SWAS) led by the Capital Area Metropolitan Planning Organization (CAMPO). The proposed amendments are presented in this staff report in two sections, (1) amendments related to railroad crossings, and (2) amendments related to updated traffic projections and regional plans.

Amendments associated with CSX Railroad Crossings:

The SWAS analyzed five railroad crossings in Apex, as shown in Figure 1. The SWAS recommendations for the crossing shown at Laura Duncan Road (1) is consistent with the Town’s adopted Transportation Plan and is not addressed in this staff report. The crossing shown at the Apex Barbecue Collector Street (2) was removed from the Town’s Transportation Plan in July 2020 and is not addressed in this staff report. The crossing shown at New Hill Olive Chapel/New Hill Holleman Road (5) is still being analyzed and will be presented for consideration at a future public hearing. Recommendations for roadway/railroad grade separations at Friendship Road and Holland Road (3) and Bosco Road/future Richardson Road Extension (4) are addressed in this staff report.

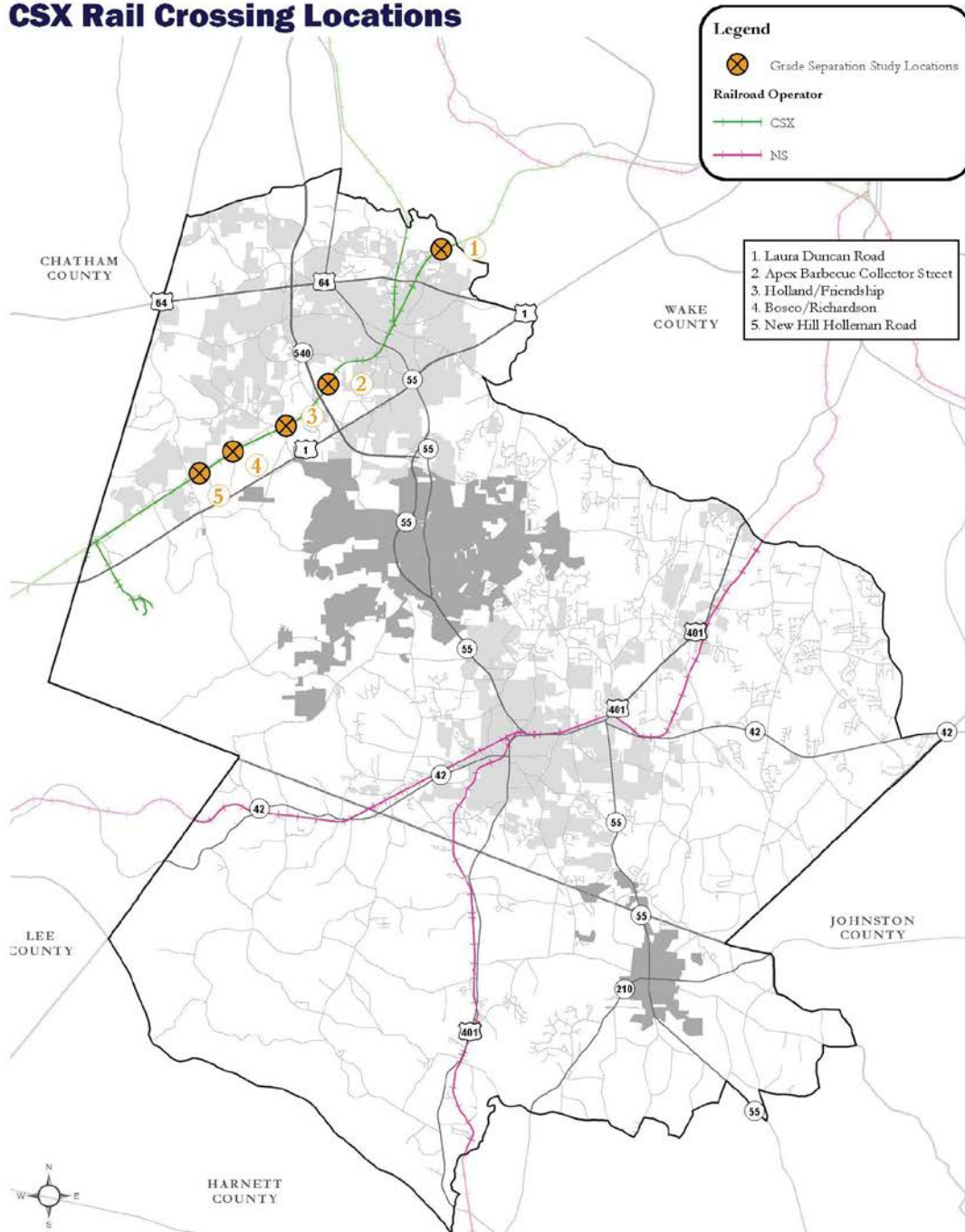
As part of the analysis, an exposure index was calculated for each crossing location using the number of trains operated per day (nine) times the current annual average daily traffic count (AADT). Transportation model runs were also conducted that provide a projection of the AADT in the year 2045. These were used to calculate the projected exposure index for each crossing location, assuming the same number of nine trains each day. NCDOT guidelines recommend consideration of a grade separation in rural areas when the exposure index is 15,000 or more and grade separations in urban areas when the exposure index is 30,000 or more. The current and projected AADT and current and projected exposure index for each potential grade separation is provided in Table 1. Figures depicting each potential crossing location and more detailed information about each is provided following the table and overall map. Separating vehicular traffic from train traffic can be in the public interest to reduce travel delays and potential safety concerns.

Table 1. Annual Average Daily Traffic, Exposure Index, and SWAS recommendations for potential grade-separation locations

Street	AADT	2045 AADT	Exposure Index	Projected Exposure Index*
Friendship Road	850	4,300	7,650	38,700
Bosco Road (Future Richardson Rd Extension)	170	6,800-12,700	1,530	61,200-114,300

**These values were not provided in the SWAS.*

CSX Rail Crossing Locations



Map 7-1: CSX Rail Crossing Locations

Figure 1. CSX Rail Crossing Locations considered in the Southwest Area Study

Amendment 1. Holland Road at Old US 1 Highway, Friendship Road at Old US 1 Highway, and associated collector streets.

The proposed amendment would remove the future realignment of Holland Road at Old US 1 Highway and remove the existing Friendship Road railroad crossing, add a new future grade separation of Old US 1 Highway and the adjacent railroad tracks to connect Holland Road and Friendship Road, and revise the planned alignments of future major and minor collector streets between Friendship Road and Pleasant Plains Road. See Figures 2 and 3. Figure 2 corresponds with recommendations from the SWAS and Figure 3 shifts the connection at Holland Road slightly south to minimize property impacts.

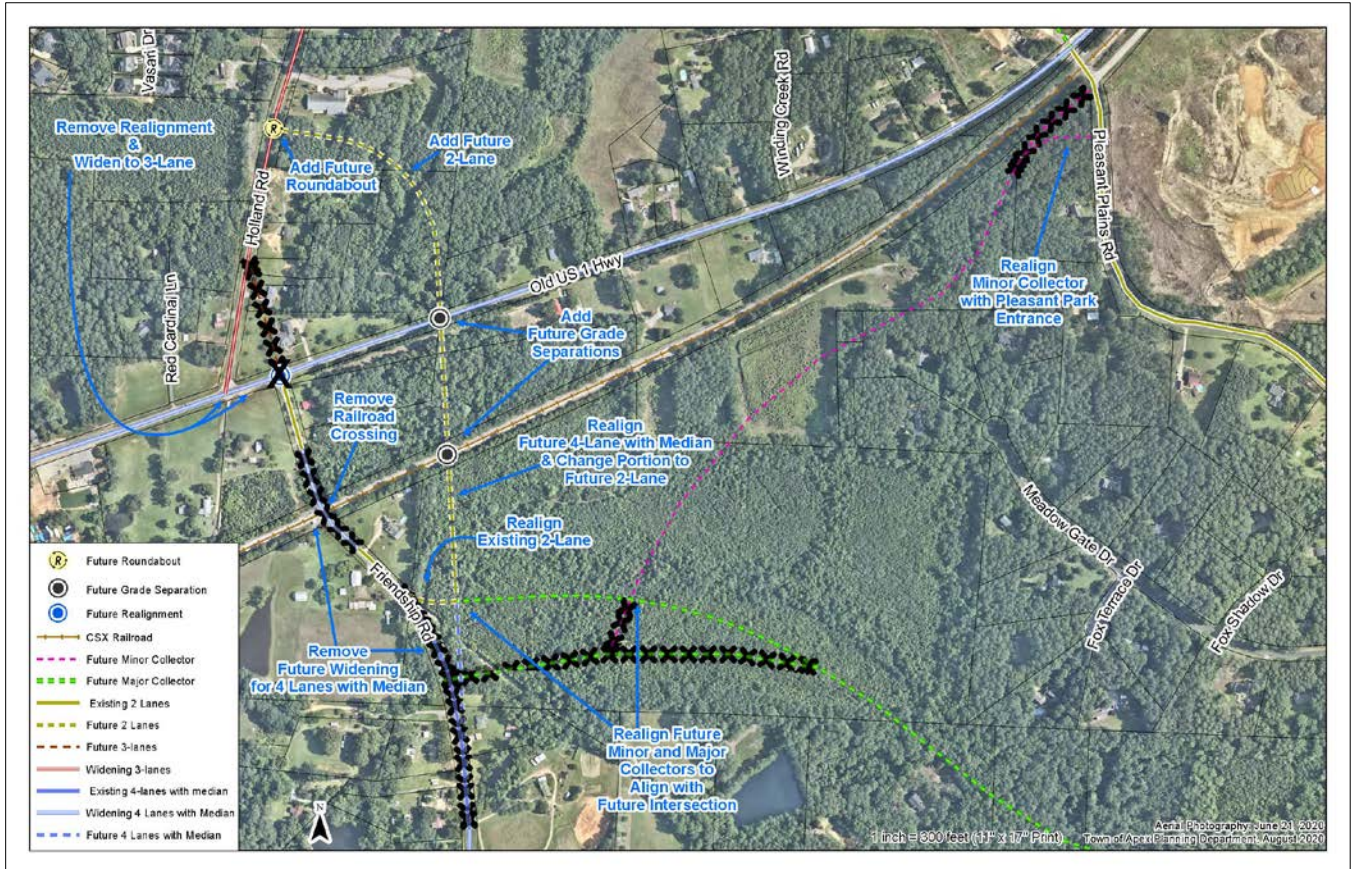


Figure 2. Proposed amendment to plans for Friendship Road and Holland Road at Old US 1 Highway – Alternative 1

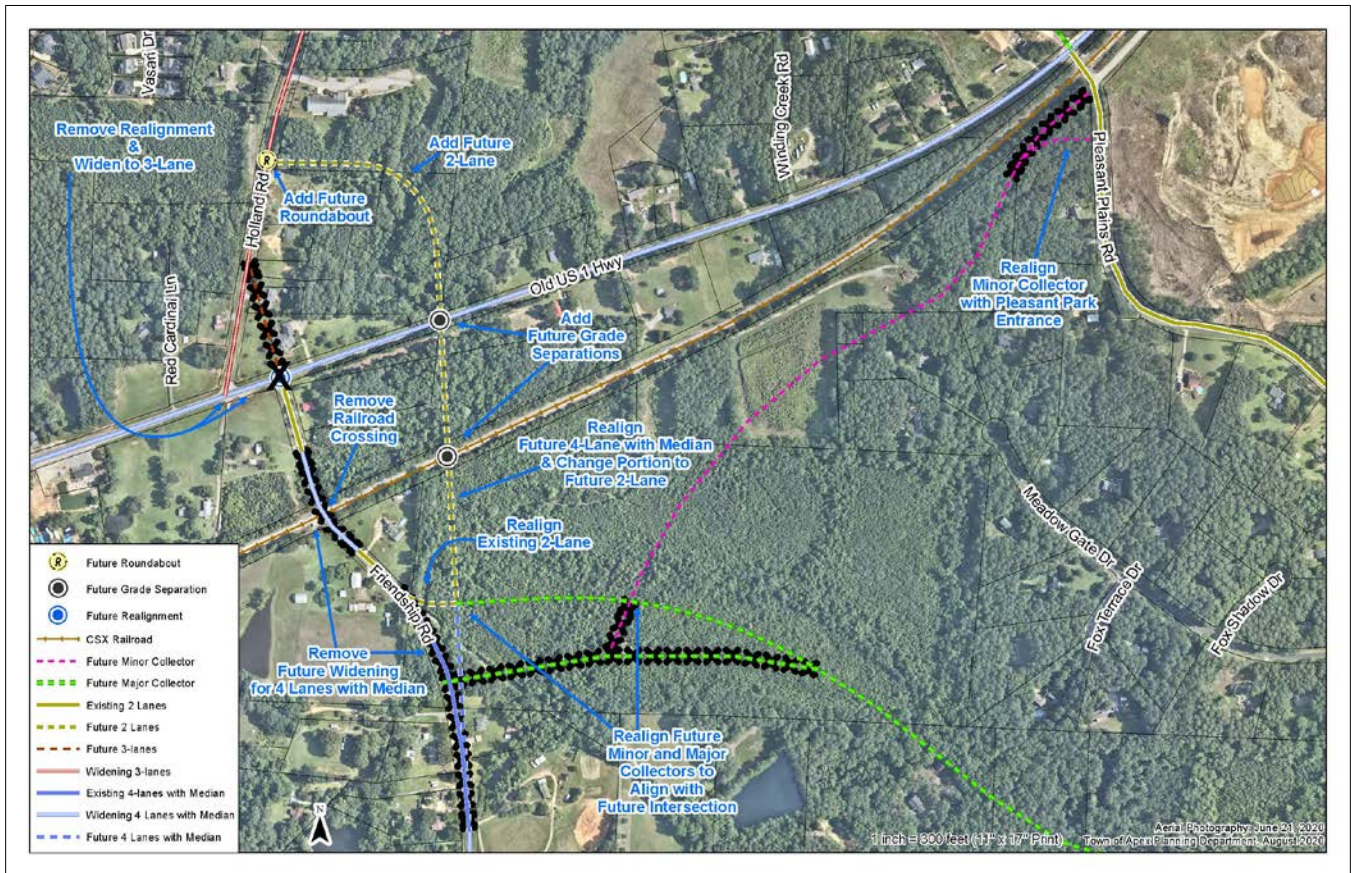


Figure 3. Proposed amendment to plans for Friendship Road and Holland Road at Old US 1 Highway – Alternative 2

Amendment 2. Richardson Road between Humie Olive Road and Old US 1 Highway.

The proposed amendment would revise the alignment of future Richardson Road and revise the alignment of the future local connection between Richardson Road and Old US 1 Highway. The alignment, as proposed, is consistent with plans for Friendship Station PUD and the requested area of release of right of way from the Little Beaver Creek Conservation Easement. See Figure 4.

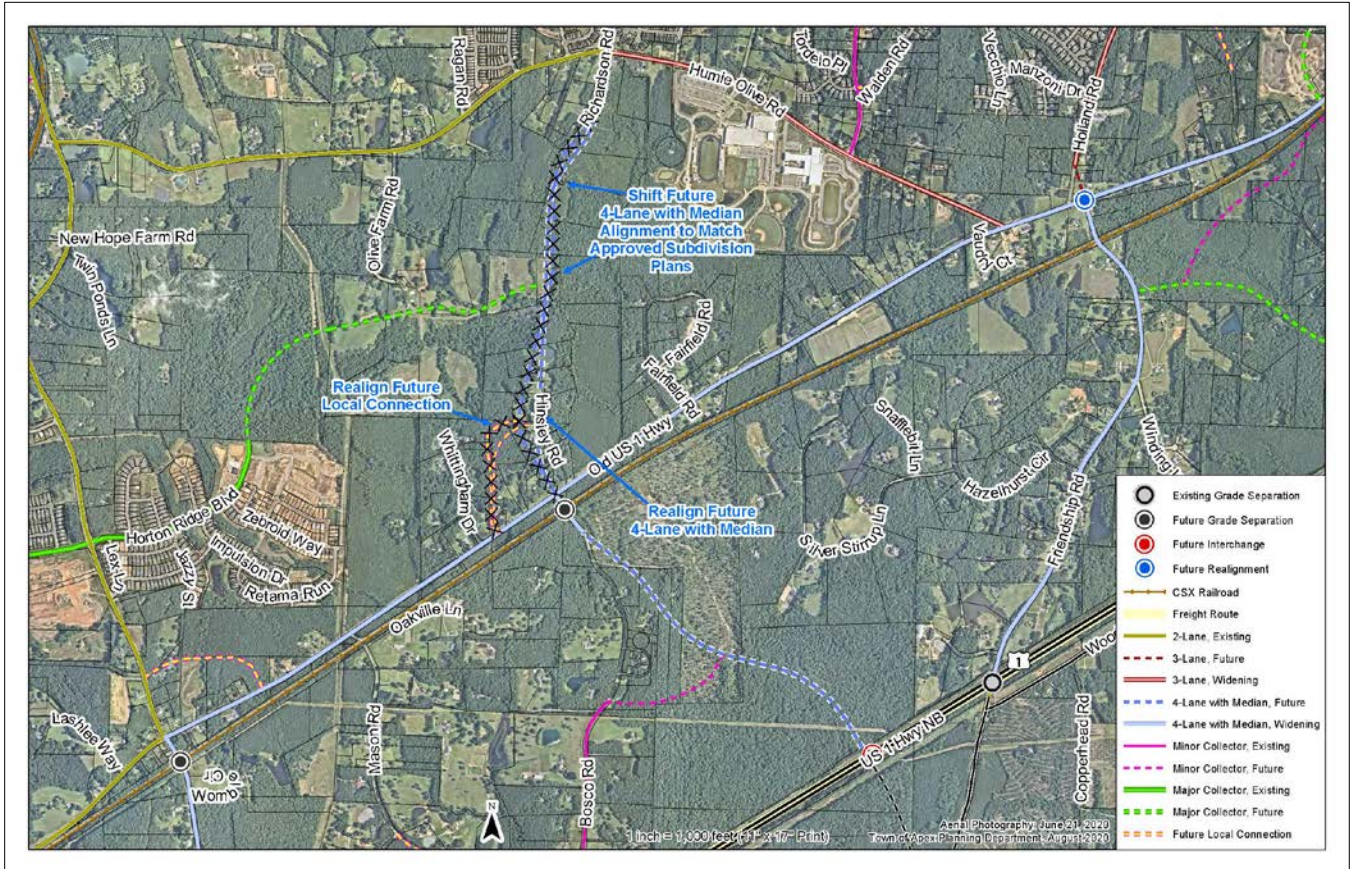


Figure 4. Proposed amendment to Richardson Road

Amendments associated with Updated Traffic Projections and Regional Plans:

Amendment 3. New Hill Olive Chapel Road between Old US 1 Highway and Olive Chapel Road.

The proposed amendment would upgrade plans for this roadway from 2-lane, Existing to 4-lane with Median (Widening). See Figure 5. These plans are consistent with the SWAS recommendation to upgrade this corridor to highway standards and designate as NC 751. The extended corridor for future NC 751 would stretch 20 miles, from where it currently terminates north of US 64 to US 401 in Lillington. The traffic model runs project 15,000 – 17,700 vehicles per day by 2045.

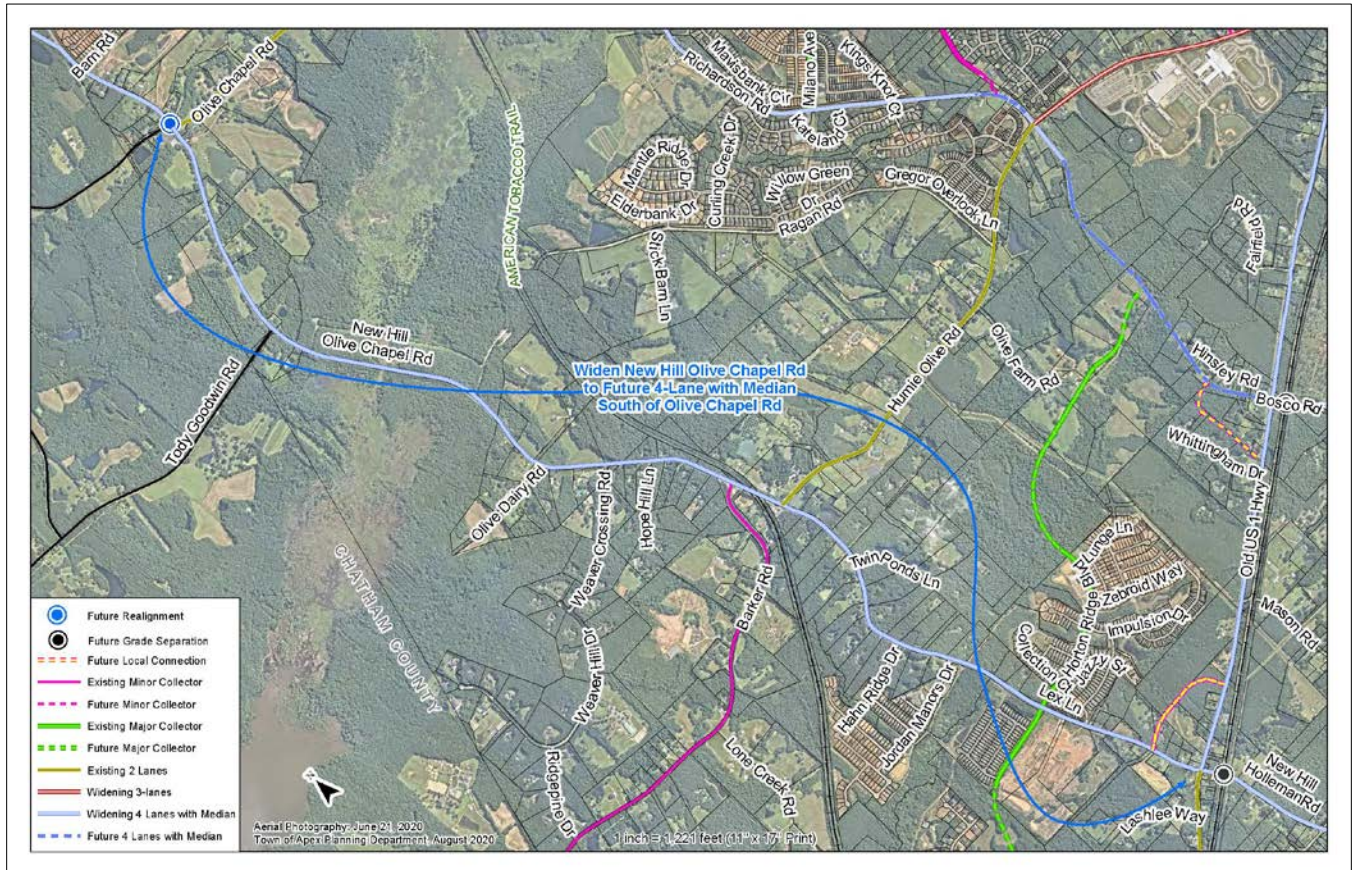


Figure 5. Proposed amendment to New Hill Olive Chapel Road corridor

Amendment 4. Ten Ten Road/Center Street between Waterford Green Drive and Stephenson Road.

The proposed amendment would upgrade plans for this roadway from Future 4-lane with Median (Widening) to Future 6-lane with Median (Widening). This amendment is consistent with North Carolina Department of Transportation plans for improvements to Ten Ten Road and SWAS recommendations. See Figure 6.

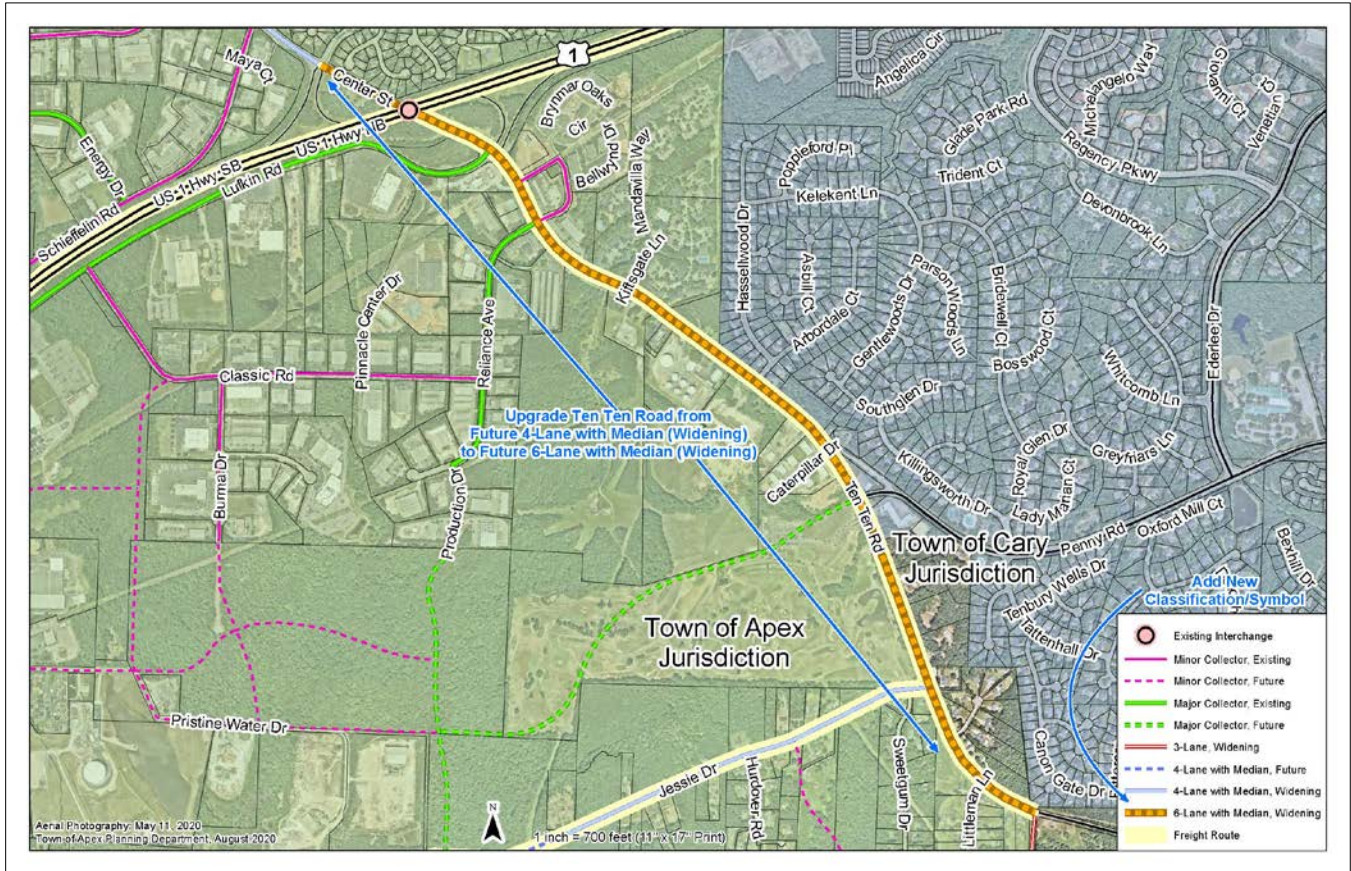


Figure 6. Proposed amendment to plans for Ten Ten Road/Center Street

Amendment 5. North Salem Street between Apex Peakway and US 64.

The proposed amendment would upgrade plans for this roadway from Future 3-lane (Widening) to Future 4-lane with Median (Widening). This recommendation is due to anticipated traffic volumes of 23,000 – 26,400 vehicles per day by 2045. See Figure 7.

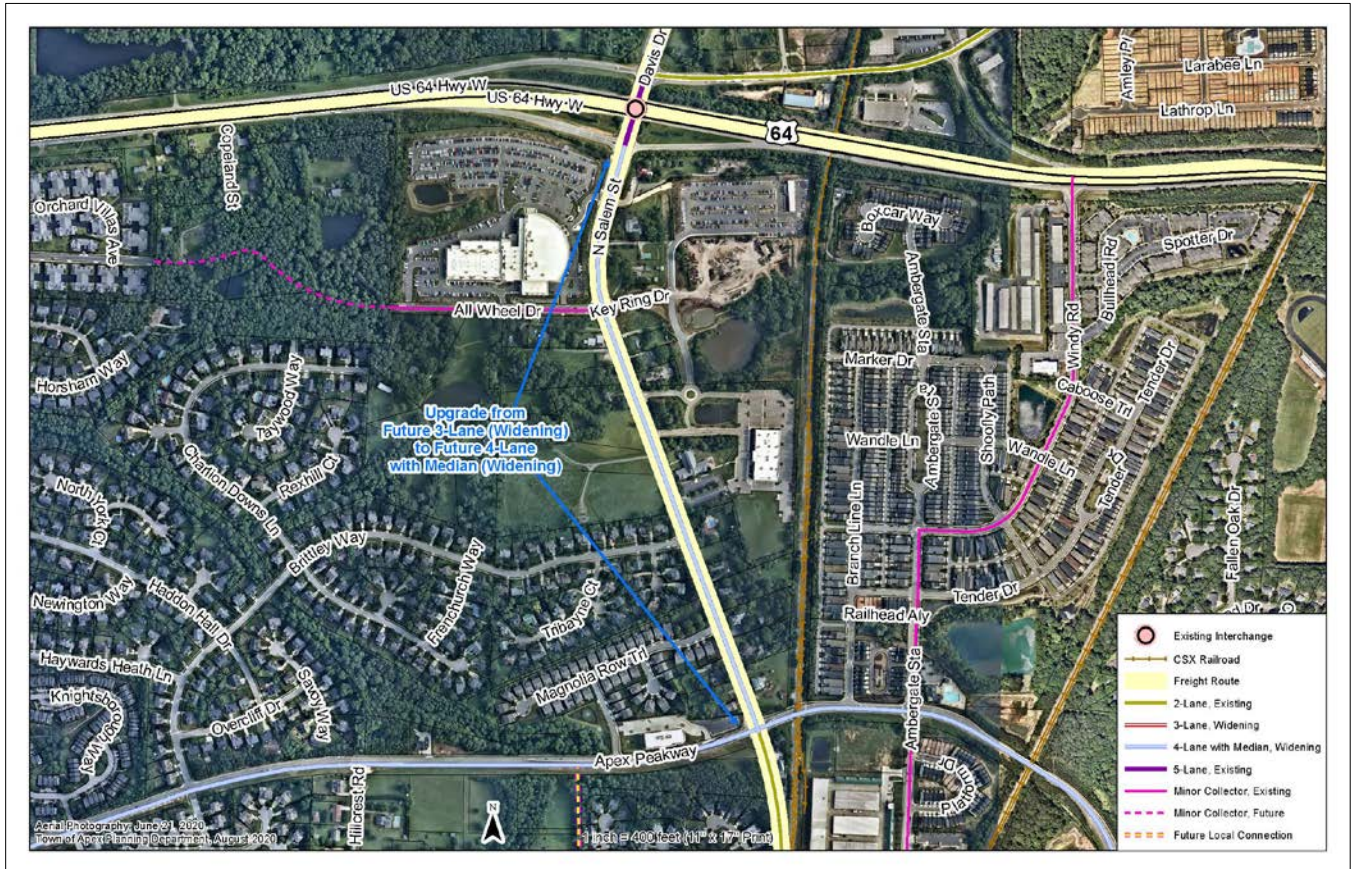


Figure 7. Proposed amendment to plans for North Salem Street

Staff Recommendation:

The proposed amendments were reviewed with staff from Public Works and Transportation, Police, Fire, and EMS. The capacity benefits and potential reductions in conflicts were noted as benefits. In particular, it was noted that the proposed widening of North Salem Street could help to address issues with carpool queues for school-related traffic. There were no substantial concerns; however, Police, Fire, and EMS will want to be engaged further as any potential project designs move forward to ensure appropriate accommodation for movements of emergency vehicles.

Planning staff and the Planning Board offer the following considerations and recommendations:

Amendment 1. Holland Road at Old US 1 Highway, Friendship Road at Old US 1 Highway, and associated collector streets.

- Planning Staff recommendation:
 - Planning staff **recommends approval of realigning the future minor collector street** with the Pleasant Park entrance.
 - In the initial report to the Planning Board, Planning staff recommended approval of Alternative 2 for the future road/railroad grade separation, for the following reasons:
 - There is a capacity and connectivity benefit to this project and it removes a potential conflict between trains and motor vehicles. The projected exposure index is above the threshold recommended for consideration by NCDOT.
 - This connection is likely to be more important now that the Town removed the future collector street that would have crossed Old US 1 Highway and the railroad tracks east of NC 540.
 - It would also eventually provide an additional point of egress from future Pleasant Park in the case of an emergency.
 - Following the initial staff report to the Planning Board, Planning staff received hundreds of public comments regarding the anticipated impact of the proposed grade separation of Holland and Friendship Roads over Old US 1 Hwy and the railroad tracks. These comments mainly cited concern about the property impacts to the Roman Catholic Diocese of Raleigh, but also noted concern about potential noise impacts and the proximity of the thoroughfare to important gathering and reflection places. While Alternative 2 was proposed to minimize impacts to this property, the ability of the Roman Catholic Diocese of Raleigh to expand facilities as planned would be impacted. Given the additional information provided and the substantial public concern, Planning staff suggest that the impacts of this proposed amendment outweigh the potential benefits and **recommends denial of the proposed grade separation**.
- Planning Board recommendation:
 - The Planning Board unanimously recommended **approval of the realignment of the future minor collector street with the Pleasant Park** entrance and unanimously recommended **denial of the proposed grade separation** connecting Friendship Road and Holland Road.

Amendment 2. Richardson Road between Humie Olive Road and Old US 1 Highway.

- Planning staff recommendation:
 - **Approval** of the proposed amendment. It is consistent with the least environmentally damaging practicable alternative identified for the Richardson Road corridor through studies and coordination with regulatory agencies. It is also consistent with plans for the Friendship Station PUD.
- Planning Board recommendation:
 - The Planning Board unanimously recommended **approval** of the proposed amendment.

Amendment 3. New Hill Olive Chapel Road between Old US 1 Highway and Olive Chapel Road.

- Planning staff recommendation:
 - **No recommendation.** There is a clear capacity benefit to this project, which will serve regional mobility. In previous planning processes, this benefit has been recognized but the desire to maintain the current context of this roadway has been prioritized. Since New Hill Olive Chapel Road is designated as a Rural 2-lane Thoroughfare on the adopted plan, the right-of-way dedicated with any new development is equivalent to the right-of-way dedicated for a 4-lane with Median (Widening). This approach allows for potential future widening, but is not consistent with regional plans.
- Planning Board recommendation:
 - The Planning Board unanimously recommended **approval** of the proposed amendment. Recognizing the need for additional capacity along this corridor and a desire to complete improvements with development as possible. The Planning Board also cited interest in context sensitive to maintain the rural character of the corridor to the extent possible.

Amendment 4. Ten Ten Road/Center Street between Waterford Green Drive and Stephenson Road.

- Planning staff recommendation:
 - **Approval** of the proposed amendment. This amendment is consistent with approved NCDOT plans for this roadway. Showing these plans on the Town's Thoroughfare and Collector Street Plan map will improve transparency to the public.
- Planning Board recommendation:
 - The Planning Board unanimously recommended **approval** of the proposed amendment.

Amendment 5. North Salem Street between Apex Peakway and US 64.

- Planning staff recommendation:
 - **No recommendation.** There is a capacity benefit to this amendment as North Salem Street is projected to serve heavy traffic volumes. The traffic benefits need to be weighed with the unique context of N Salem Street. There are historic homes close to the intersection of Apex Peakway and N Salem Street. While a narrow section and careful design could help to minimize impacts to historic resources, the context of this corridor would be altered.
- Planning Board recommendation:
 - The Planning Board unanimously recommended **approval** of the proposed amendment. The Planning Board recognized the need for additional capacity along this corridor. They also noted the changing characteristics of the corridor north of the Apex Peakway. A desire to minimize impacts to historic resources as part of any future roadway design project was also noted.