

APPENDIX E

Traffic



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## Area Traffic Study

Red Schoolhouse Road  
Village of Chestnut Ridge, Rockland County, New York

December 29, 2020  
Revised February 3, 2021

*Prepared For*  
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**LIST OF DEFINITIONS/ABBREVIATIONS**

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AADT ..... AVERAGE ANNUAL DAILY TRAFFIC

AASHTO ..... AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS

ATR ..... AUTOMATIC TRAFFIC RECORDER

GSP ..... GARDEN STATE PARKWAY

ITE ..... INSTITUTE OF TRANSPORTATION ENGINEERS

MUTCD ..... MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

NYSDOT ..... NEW YORK STATE DEPARTMENT OF TRANSPORTATION

NYSTA ..... NEW YORK STATE THRUWAY AUTHORITY

RCHD ..... ROCKLAND COUNTY HIGHWAY DEPARTMENT

R.O.W. .... RIGHT-OF-WAY

STIP ..... STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM

## EXECUTIVE SUMMARY

### RED SCHOOLHOUSE ROAD CORRIDOR TRAFFIC STUDY

A detailed Traffic Impact Study has been prepared for the Red Schoolhouse Road Corridor between the New Jersey State Line and Williams Road. The purpose of this study was to identify existing conditions, prepare estimates of traffic from planned or proposed developments in the area, and to identify future operating conditions based on future total traffic volumes. Note that the study area is generally identified on Figure E-1. Based on these traffic projections and results of the analysis, certain recommended improvements were identified for the corridor. The details of the methodology are contained in the overall study dated December 8, 2020.

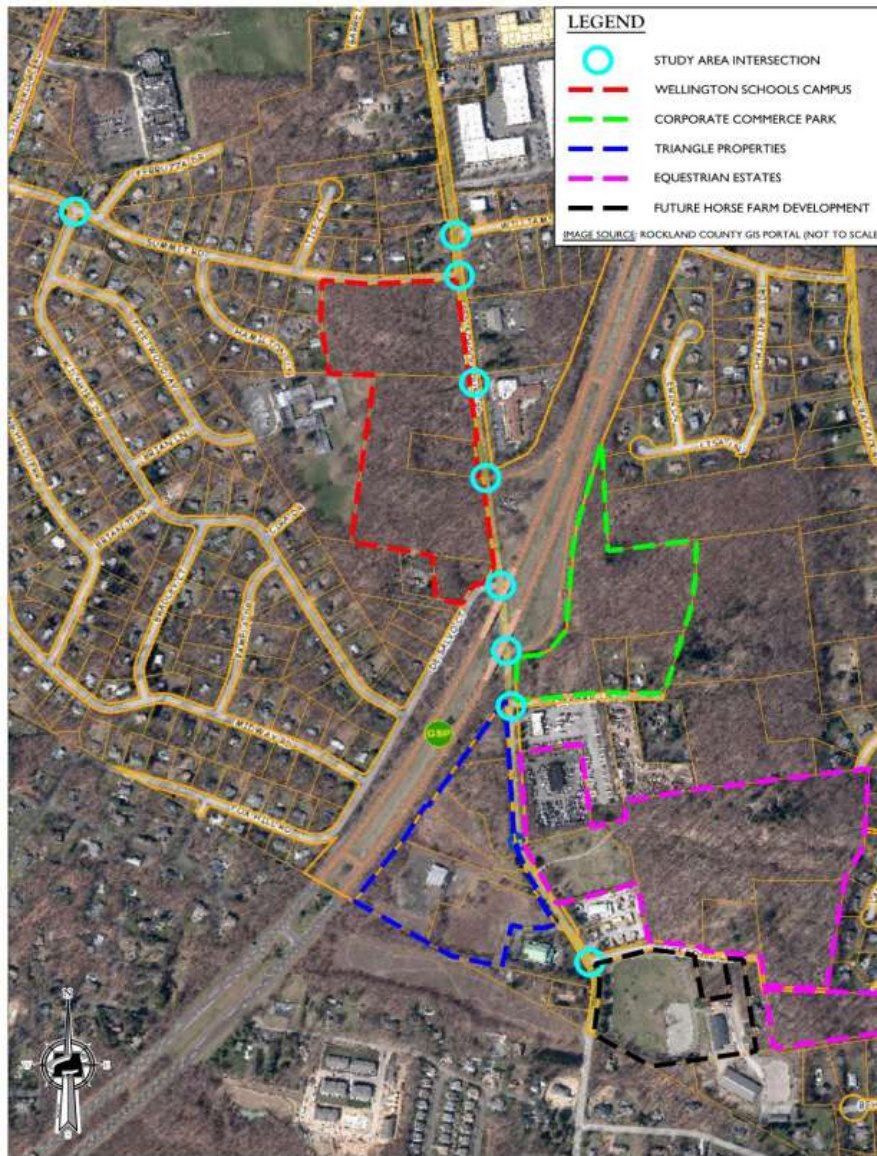


FIGURE E-1

The types of improvements that have been identified include traffic signal upgrades and/or new traffic signal installations, intersection widenings, and other related improvements to accommodate both vehicular traffic and pedestrians. Due to the length of the corridor, complexities relative to geometrics in the vicinity of the GSP and potential environmental considerations, the study outlines various intersection improvements that could be completed on a phased basis. Note that the improvements have only been conceptually identified and that construction level design drawings would be required to be able to implement any of these improvements. The types of improvements, which are shown on the Summary Figures identified herein, include the following:

- Construction of a separate southbound left turn lane on Red Schoolhouse Road at Williams Road.
- Construction of separate northbound left turn lane on Red Schoolhouse Road at Summit Road, installation of a new traffic signal and installation of pedestrian sidewalks with signalized pedestrian crossings.
- At the proposed Wellington Schools access connection with Red Schoolhouse Road, construct separate northbound and southbound left turn lanes and construct a sidewalk along the Wellington Schools Site frontage between Summit Road and DeSalvo Court.
- At the GSP SB Exit Ramp upgrade the existing traffic signal with new actuation and traffic signal timings. Further improvements should include the widening of the GSP southbound off-ramp to provide a double dual left turn along with a two-lane received on Red Schoolhouse Road Southbound. This widening will also require the replacement of the existing traffic signal.
- Modifying the intersection of DeSalvo Court and Red Schoolhouse Road for right turn entry/right turn exit-only.
- Construction of a northbound channelized right turn lane on Red Schoolhouse Road and associated ramp widening at GSP On-Ramp to provide a free right turn movement onto the ramp.
- Possible construction of a “jug handle” and/or roundabout to allow U-turn maneuvers to access the GSP northbound on-ramp in lieu of a separate left turn lane due to the complications created by the GSP overpass bridge piers. This could also help alleviate left turn conflicts for the Corporate Commerce Park Development.
- Construction of intersection improvements including construction of auxiliary left and right turn lanes on Red Schoolhouse Road and installation of a new traffic signal to serve the Triangle Properties Development and Equestrian Estate Development.
- Possible construction of a separate southbound left turn lane on Red Schoolhouse Road at Loescher Lane as part of the Future Horse Farm Development.

It should be noted that the above improvements if completed as one project would provide a full widening of Red Schoolhouse Road from Williams Road to Loescher Lane providing a minimum of a three (3) lane cross section throughout the corridor. Other related or alternative improvements are also identified below. These improvements would either compliment or be added onto those identified above.

- Complete sight distance and signing and striping improvements at the intersection of Wilshire Drive and Summit Road.
- Possible replacement of approximately 750 LF of existing asphalt sidewalk on the south side of Summit Road west of Red Schoolhouse Road
- Further future Red Schoolhouse Road lane widening under the GSP Overpass on the west side of the center bridge piers, including dedicated pedestrian and bicycle accommodations. Figure E-2 below identifies past consideration of this possibility based on NYSTA record plan information for the GSP Overpass at Red Schoolhouse Road. It should be noted that there may be safety concerns with this configuration due to the location of the GSP Overpass center bridge piers.

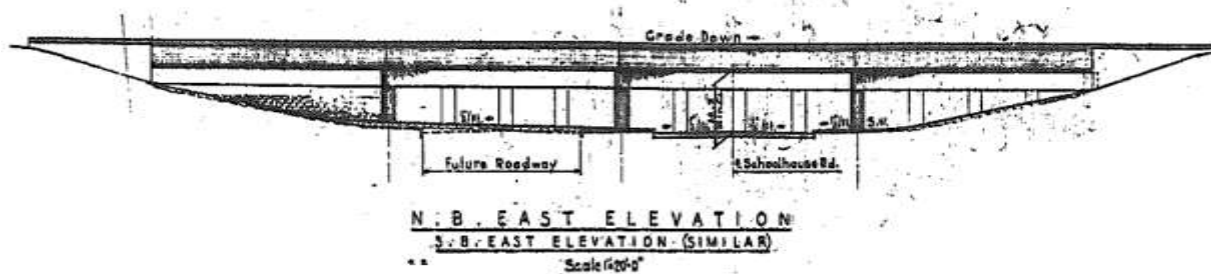


FIGURE E-2

The majority of the above improvements could be constructed independently of each other, which is important due to the potential cost and other constraints. The budget cost for the types of improvements are identified in Table C-1. Note that in addition to these individual intersection improvements, the provision of sidewalks as part of each component and also the allocation of R.O.W. dedication to accommodate future improvements, including the longer-term improvement of a comprehensive widening of Red Schoolhouse Road from Williams Road through Loescher Lane, would be made possible with the proper land dedications and/or easements for each of the property owners of proposed/planned developments along the corridor. Note that there may also be other land acquisitions necessary for those parcels along the corridor that are not part of the currently planned developments.





TABLE E-1 SUMMARY OF RED SCHOOLHOUSE ROAD IMPROVEMENTS AND ANTICIPATED BUDGET COSTS			
LOCATION	IMPROVEMENT DESCRIPTION <sup>(1)</sup>	PROPOSED RESPONSIBILITY	BUDGET COST <sup>(2)</sup>
RED SCHOOLHOUSE ROAD/WILLIAMS ROAD (SHEET NO. CP-1)	CONSTRUCTION OF SEPARATE SOUTHBOUND LEFT TURN LANE ON RED SCHOOLHOUSE ROAD	EXISTING CONDITION/ CUMULATIVE IMPACT	\$200,000.00
	CONSTRUCTION OF SEPARATE NORTHBOUND LEFT TURN LANE ON RED SCHOOLHOUSE ROAD	EXISTING CONDITION/ CUMULATIVE IMPACT	\$350,000.00
	TRAFFIC SIGNAL INSTALLATION		\$200,000.00
	INSTALL SIDEWALK WITH ADA RAMPS		\$100,000.00
RED SCHOOLHOUSE ROAD/WELLINGTON SCHOOLS CAMPUS/PROMENADE AT CHESTNUT RIDGE (SHEET NO. CP-2)	CONSTRUCTION OF SEPARATE LEFT TURN LANES NORTHBOUND AND SOUTHBOUND ON RED SCHOOLHOUSE ROAD	WELLINGTON SCHOOLS ACCESS RELATED	\$500,000.00
	CONSTRUCT SIDEWALK ON WEST SIDE OF RED SCHOOLHOUSE ROAD FROM SUMMIT ROAD TO DESALVO COURT		\$220,000.00
RED SCHOOLHOUSE ROAD/GSP SB OFF RAMP <sup>(3)</sup> (SHEET NO. CP-3)	MODIFY TRAFFIC SIGNAL ACTUATION/TIMINGS	EXISTING CONDITION	\$60,000.00
	WIDEN RAMP TO PROVIDE DUAL LEFT TURN LANE ON PARKWAY EXIT INCLUDING TWO LANE RECEIVER ON SOUTHBOUND RED SCHOOLHOUSE ROAD	CUMULATIVE IMPACT	\$550,000.00
	REPLACE TRAFFIC SIGNAL		\$200,000.00
RED SCHOOLHOUSE ROAD/DESALVO COURT <sup>(3)</sup> (SHEET NO. CP-3)	CREATE A RIGHT-TURN ENTRY/RIGHT-TURN EXIT TO ELIMINATE LEFT TURN CONFLICTS	EXISTING CONDITION	\$100,000.00
RED SCHOOLHOUSE ROAD/GSP NB ON RAMP <sup>(3)</sup> (SHEET NO. CP-3)	WIDEN RED SCHOOLHOUSE ROAD TO PROVIDE SEPARATE CHANNLEIZED NORTHBOUND RIGHT TURN LANE, PROHIBIT LEFT TURNS FROM RED SCHOOLHOUSE ROAD AND PROVIDE A FREE RIGHT TURN MOVEMENT	CUMULATIVE IMPACT	\$450,000.00
	CONSTRUCTION OF "JUG HANDLE" WITH TRAFFIC SIGNAL TO ACCOMMODATE U-TURNS TO GSP AND TO RED SCHOOLHOUSE ROAD NORTHBOUND	CORPORATE COMMERCE PARK ACCESS RELATED/ CUMULATIVE IMPACT	\$950,000.00
RED SCHOOLHOUSE ROAD AT SEPHAR LANE/CORPORATE COMMERCE PARK ACCESS <sup>(3)</sup> (SHEET NO. CP-4)	INSTALL TRAFFIC SIGNAL		\$200,000.00



Traffic Impact Study  
 Red Schoolhouse Road Area  
 MC Project No. 20003327A  
 Executive Summary

LOCATION	IMPROVEMENT DESCRIPTION <sup>(1)</sup>	PROPOSED RESPONSIBILITY	BUDGET COST <sup>(2)</sup>
RED SCHOOLHOUSE ROAD AT TRIANGLE PROPERTIES/ EQUESTRIAN ESTATES ACCESS (SHEET NO. CP-5)	CONSTRUCTION OF 4-WAY INTERSECTIN WITH WIDENING OF SEPARATE LEFT TURN LANES ON RED SCHOOL HOUSE ROAD. INSTALL NEW TRAFFIC SIGNAL	TRIANGLE PROPERTIES/ EQUESTRIAN ESTATES ACCESS RELATED	\$600,000.00 \$200,000.00
RED SCHOOLHOUSE ROAD AT LOESCHER LANE/FUTURE HORSE FARM DEVELOPMENT ACCESS (SHEET NO. CP-6)	POSSIBLE LEFT TURN LANE WIDENING	FUTURE HORSE FARM DEVELOPMENT ACCESS RELATED	\$450,000.00
SUMMIT ROAD/WILSHIRE DRIVE	STRIPING, SIGNING, AND SIGHT DISTANCE IMPROVEMENTS	EXISTING CONDITION	\$25,000.00
<b>ALTERNATE IMPROVEMENTS</b>			<b>\$5,355,000.00</b>
GSP INTERCHANGE AND UNDERPASS AREA <sup>(3)</sup> (SHEET NO. CP-7)	WIDEN RED SCHOOLHOUSE ROAD ON WEST SIDE OF GSP OVERPASS SUPPORT COLUMNS TO ACCOMMODATE ADDED LANE AND DEDICATED PEDESTRIAN/BICYCLE FACILITIES.	WELLINGTON SCHOOLS	\$1,250,000.00
SUMMIT ROAD REPLACEMENT SIDEWALK	REPLACEMENT OF APPROXIMATELY 750 LF OF EXISTING ASPHALT SIDEWALK ON SOUTH SIDE OF SUMMIT ROAD WITH NEW FULLY ADA COMPLIANT CONCRETE SIDEWALK	CORPORATE COMMERCE PARK ACCESS RELATED/ CUMULATIVE IMPACT	\$900,000.00
RED SCHOOLHOUSE ROAD AT SEPHAR LANE/CORPORATE COMMERCE PARK ACCESS <sup>(3, 5)</sup> (SHEET NO. CP-4A)	ALTERNATE CONSTRUCTION OF ROUNDABOUT TO SERVE TRIANGLE PROPERTIES/CORPORATE COMMERCE PARK	TRIANGLE PROPERTIES/ EQUESTRIAN ESTATES ACCESS RELATED/ CUMULATIVE IMPACT	\$900,000.00
RED SCHOOLHOUSE ROAD AT TRIANGLE PROPERTIES ACCESS (SHEET NO. CP-4B) <sup>(5)</sup>	ALTERNATE CONSTRUCTION OF ROUNDABOUT TO SERVE TRIANGLE PROPERTIES/EQUESTRIAN ESTATES ACCESS	CUMULATIVE IMPACT	\$1,250,000.00
<b>NOTES:</b>			
1. SEE CONCEPTUAL IMPROVEMENT SKETCHES AS IDENTIFIED ABOVE AND CONTAINED IN APPENDIX D.			
2. REPRESENTS "BALL PARK" BUDGETARY ESTIMATES BASED ON COST OF OTHER RECENTLY COMPLETED IMPROVEMENTS OF SIMILAR NATURE AS WELL AS AVAILABLE NYSDOT UNIT PRICE INFORMATION. ACTUAL COSTS WILL BE DEPENDENT ON LOCATION OF SPECIFIC FACTORS INCLUDING EXISTING UTILITIES, GRADING, DRAINAGE, AND ANY ENVIRONMENTAL CONSTRAINTS.			
3. IMPROVEMENTS IN AND AROUND THE GSP INTERCHANGE RAMPS WILL REQUIRE REVIEW AND APPROVAL AS WELL AS PERMITTING FROM THE NYSTA.			
4. ALL PROPOSED IMPROVEMENTS INCLUDING PROPOSED PROJECT ACCESS CONNECTIONS WILL REQUIRE REVIEW AND APPROVAL OF THE RCHD.			
5. ALTERNATE ROUNDABOUT IMPROVEMENTS AT SEPHAR LANE AND/OR TRIANGLE PROPERTIES ACCESS WOULD REPLACE "JUG HANDLE" ALTERNATIVE AND REQUIRED TRAFFIC SIGNAL INSTALLATION.			
6. RED SCHOOLHOUSE ROAD WIDENING AS IDENTIFIED ON SHEET NO. CP-7 WOULD BE IN ADDITION TO GSP SB OFF-RAMP IMPROVEMENTS. THIS ALTERNATE WOULD BE REQUIRED IF JUG-HANDLE OR ROUNDABOUT IMPROVEMENTS COULD NOT BE IMPLEMENTED DUE TO REQUIRED LAND DEDICATIONS/ACQUISITIONS.			