



TECHNICAL MEMORANDUM
P.S. 70, Staten Island (SEQR Project No. 17-018)
Synchro Analysis of Traffic Mitigation Measures (Post-FEIS)

Thursday, December 06, 2018

The New York City School Construction Authority (SCA) proposes to create a new, approximately 748-seat primary school (PS) facility, currently known as PS 70, at 45 Waverly Place/357 Targee Street on Staten Island (“proposed action”). The proposed new school would serve students in grade levels pre-kindergarten through five within Community School District (CSD) No. 31. Pursuant to the State Environmental Quality Review Act (SEQRA), the SCA determined that the proposed action is a “Type I” action (6 NYCRR 617.4) and, therefore, prepared a comprehensive Draft Environmental Impact Statement (DEIS) and Final Environmental Impact Statement (FEIS). The FEIS, along with a Notice of Completion for the FEIS, were completed and issued on May 17, 2018. The Statement of Findings was issued on June 13, 2018.

In the FEIS, STV Incorporated recommended traffic mitigation measures at the intersections of Vanderbilt Avenue at Osgood Avenue and at Targee Street to avoid expected significant project-generated traffic impacts. The proposed traffic mitigation measures at the intersection of Vanderbilt and Osgood avenues included shifting three seconds of green time from the Vanderbilt Avenue green phase to the Osgood Avenue green phase during the AM peak hour, in addition to daylighting 100 feet of the east and westbound approaches. Using HCS+ (HCM 2000 methodology) software, these proposed mitigation measures would have avoided a project-related significant impact at this intersection.

As per comments received from the New York City Department of Transportation (DOT) on September 7, 2018, DOT did not recommend the Osgood Avenue daylighting proposal to provide a wider travel lane as DOT policy does not recognize this as an appropriate mitigation measure as it could encourage speeding and compromise safety. By removing the daylighting measure, the HCS analysis concluded that six seconds of green time needed to be shifted from the Vanderbilt Avenue green phase to the Osgood Avenue green phase in order to avoid project-generated traffic impacts at this intersection. A six-second shift would exceed the five-second shift typically allowable by DOT standards. Further investigation prompted an analysis to be performed using Synchro (HCM 2000 methodology) software in order to study the effects of the traffic signal timing shift of the subsequent upstream and downstream signalized intersections. Using Synchro (HCM 2000 methodology) software, it was determined that only a four-second green time shift from the Vanderbilt Avenue green phase to the Osgood Avenue green phase would be needed to avoid project-generated traffic impacts at this intersection. In addition to the recommended mitigation measure at Vanderbilt and Osgood avenues, recommended traffic mitigation measures in the EIS included a signal timing shift at the intersection of Vanderbilt Avenue and Targee Street, which was included in the Synchro analysis as well.

Based on the Synchro analysis, the revised traffic mitigation measures for the intersections of Vanderbilt Avenue at Osgood Avenue and at Targee Street are shown below:

- Osgood Avenue and Vanderbilt Avenue: Shifting four seconds of green time from Vanderbilt Avenue to Osgood Avenue during the AM peak hour would restore the LOS for east and westbound Osgood Avenue to No Build conditions, and would avoid project-generated traffic impacts.
- Vanderbilt Avenue and Targee Street: Shifting four seconds of green time from Targee Street to Vanderbilt Avenue during the AM peak hour would eliminate the significant impact to eastbound Vanderbilt Avenue. Shifting two seconds of green time from Targee Street to Vanderbilt Avenue during the PM peak hour would eliminate the significant impact to eastbound Vanderbilt Avenue.

Therefore, the findings related to the traffic mitigation measures are consistent with the FEIS as the projected significant adverse impacts at the intersections of Vanderbilt Avenue at Osgood Avenue and at Targee Street would be avoided by implementing signal timing adjustments, a standard traffic improvement measure.

NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY



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