
Date: March 18, 2022

To: Orchard Park Central School District

Project: Orchard Park Central School District Capital Improvements Project, 2022

Re: Traffic Assessment

Introduction

This desktop traffic assessment was conducted to assess potential traffic impacts associated with proposed improvements in vehicle and pedestrian circulation, the expansion of pre-Kindergarten (Pre-K) programs at the elementary schools and increase in on-site parking at the Orchard Park Central School District campuses. It is noted that at all the schools there was a large increase in the volume of parent drop-offs and pick-ups during the pandemic. It is anticipated that this volume of traffic will revert closer to pre-pandemic levels in the future school years.

Orchard Park Middle School

The Middle School is bounded by US Route 20A (West Quaker Street) on the north, South Lincoln Avenue on the east and Thorn Avenue on the south. Access to the Middle School is through two driveways, one on South Lincoln Avenue and one on West Quaker Street. There also is a drop-off loop on South Lincoln Avenue that buses use in the morning and parents use in the afternoon. According to the New York State Department of Transportation (“NYSDOT”) Traffic Data Viewer, average daily traffic volume on Thorn Avenue is approximately 4,400 vehicles per day (vpd) and 13,500 vpd on West Quaker Street.

The proposed improvements at the Middle School include additional on-site parking areas and a new driveway to Thorn Avenue. The improvements will not change student or staff populations or associated vehicular traffic volumes. Although the volume of vehicular traffic will not increase at the Middle School due to the project and is anticipated to revert closer to pre-pandemic levels, there currently are and have been, localized, longstanding congestion issues during morning student arrival and afternoon student departure on South Lincoln Avenue. To address the congestion on South Lincoln Avenue, conceptual plans call for circulation modifications, including utilizing a new driveway connecting to Thorn Avenue which forms the southern border of the campus, to help address the traffic flow and safety issues.

Currently, there are approximately 40 buses and 150 parent drop-offs during the morning, with the number of parent drop-offs decreasing anticipated to decrease to approximately 100 (pre-pandemic level). The Middle School buses use the loop on South Lincoln Avenue and parent drop-offs occur along the internal campus driveways with all parent traffic exiting onto South Lincoln Avenue. The combined bus and vehicular traffic on South Lincoln Avenue causes localized congestion for a short period of time, typically between 7:45 and 8:00 am. Staff typically arrive earlier than the student drop-off period and park either in the pool lot off of West Quaker street or in other on-campus parking areas.

With the proposed improvements, buses will continue to use the loop on South Lincoln Avenue in the morning, and staff will park in the existing and new on-campus parking areas. Parents will continue to



enter the campus to drop off students, and the new driveway connecting to Thorn Avenue will provide a new exit alternative for the parent drop-offs. This will reduce congestion and improve safety on South Lincoln Avenue by separating the bus and parent traffic. There is some parental traffic that currently uses Thorn Avenue to travel west after exiting the campus onto South Lincoln Avenue.; Even if all parental traffic were to exit onto Thorn Avenue, given the relatively low volume of existing traffic on Thorn Avenue, which according to the Village was designed as a bypass road to relieve traffic from West Quaker Street and the center of the Village, the redistribution of existing Middle School traffic onto Thorn Avenue will have a minimal impact to traffic flow for a limited time period.

During the afternoon dismissal, Middle School parents use the existing loop on South Lincoln Avenue, and buses enter the campus from West Quaker Street and exit onto South Lincoln Avenue, causing congestion as parent vehicles mix with the bus traffic on South Lincoln Avenue. Conceptual plans contemplate that after the improvements are complete, parents would continue to use the loop on South Lincoln Avenue, and buses would continue to pick up students on the internal campus driveway, with the proposed new Thorn Avenue driveway providing a new exit alternative. Similar to the morning future scenario, this would decrease congestion and improve safety on South Lincoln Avenue. Approximately 25% of the buses that currently exit onto South Lincoln turn west onto Thorn Avenue, so even if all of the 40+/- buses were to use the Thorn Avenue exit in the future, the net increase in peak dismissal traffic would be approximately 30 buses. This proposed increase in traffic during peak dismissal is well within the range of the daily variation in traffic and will not cause an adverse impact. After peak dismissal time, there may be additional traffic using the Thorn Avenue driveway as staff from the Middle School exit the site. That traffic would be periodic and not cause an adverse impact to Thorn.

South Davis Elementary School

At the South Davis Elementary School portion of Middle School/elementary school campus, a small number (5+/-) of buses use the bus loop off of South Davis Street, and parents typically use the school driveway that connects with South Davis Street to enter and exit the campus. The proposed improvements include the relocation of the existing playground located at the south of the end of the driveway away from the neighboring lumber facility. In the former playground area, a small on-campus parking area and a new driveway that would connect to Thorn Avenue. Having an internal one-way driveway connecting Thorn Avenue and South Davis Street will improve traffic circulation and safety for parents and students by eliminating the existing on-site turnaround of vehicles and also accommodate the anticipated increase in parental traffic associated with the projected increase in Pre-K population (46+/- between 2024-25 and 2025-26 from 18+/- to 64+/-), with approximately half of the additional population anticipated to be transported by parents (see below). The increase in traffic on Thorn Avenue entering the South Davis Elementary driveway will be minor. As stated above, it is anticipated that parent drop-offs and pick-ups will revert to near pre-pandemic levels helping to offset the increase of approximately 20-25 parent trips associated with the expanded Pre-K program. Also, the arrival and dismissal times at South Davis Elementary occur later than the Middle School so there will not be an overlap in traffic entering and exiting the overall campus. Given the low volume of traffic currently using Thorn Avenue, this potential increase in volume will have no significant impact to traffic operations on Thorn Avenue and will improve traffic and safety conditions on South Davis Street.

Currently, there are an insufficient number of parking spaces on the Middle School / South Davis Elementary campus to meet existing demand, including for athletic and other school related events, therefore vehicles currently park along the shoulders of Thorn Avenue and South Davis Street creating vehicular and pedestrian safety issues. Additional on-campus parking areas near each school will provide more off-street parking spaces to address existing demand and future parking needs, including those associated with the expanded Pre-K program at South Davis Elementary. The proposed parking area at



the Middle School and along the new driveway connecting to Thorn Avenue will accommodate vehicles which currently park on the Thorn Avenue shoulder, improving traffic flow and safety conditions.

Orchard Park High School

At the High School, student and staff populations will not increase due to the proposed improvements, and there will be no new curb cuts or alterations to campus driveway intersections with public roads. A new expanded parking area is proposed to be located near the new pool to serve school and community use of the pool. It is anticipated that the community use of the pool and associated vehicular trips will be outside regular school hours and peak travel periods, and will not cause significant traffic impacts.

Ellicott, Windom and Eggert Elementary Schools

Under the proposed project, new building additions are proposed to accommodate expanded Pre-K programs. With the building additions, Pre-K enrollment is forecast to increase between school years 2024-25 and 2025-26 at Eggert Elementary (20+/- from 62+/- to 82+/-) and at Ellicott and Windom Elementary (both 87+/- from 18+/- to 105+/-), and at South Davis Elementary as discussed above. Accordingly, the largest increases in traffic due to the expanded Pre-K programs will occur at Windom Elementary and Ellicott Elementary.

Access to Ellicott Elementary school is from NYS Route 240 (Ellicott Road) which carries approximately 6,600 vpd according to NYSDOT data. Access to Eggert Elementary school is from Eggert Road via NYS Route 277 (North Buffalo Street.) Eggert Road carries approximately 700 vpd, and North Buffalo Street carries approximately 14,500 vpd according to NYSDOT data.

Based on the reported experience at another local school district which added Pre-K to existing campuses, it is anticipated that approximately half of the Pre-K students will be transported to and from the schools by parents and approximately half by buses (40+/- trips each mode of transportation). As noted above, it is expected that the number of parent drop-offs and pick-ups associated with existing grade levels, which have increased during the pandemic, will revert closer to pre-pandemic levels. Also, it is expected that some of the Pre-K students will be transported by their parents who already transport older siblings. These factors will help offset the additional trips associated with the expanded Pre-K programs. The roadways that serve these elementary schools all have additional capacity to accommodate increases in traffic associated with the project, and it is likely that the increase in traffic will not be noticeable to the traveling public. There will not be a significant adverse impact on traffic operations due to the expansion of Pre-K programs at these schools. Additional parking areas at each campus will be constructed to address the additional population and current demand.

Conclusion

The proposed upgrades at the campuses will improve vehicular and pedestrian movements and safety and provide additional parking areas. The low volume of additional and redistributed traffic associated with the proposed project at the school campuses referenced above will be of short duration, and the existing transportation network has adequate excess capacity to accommodate the traffic. The project will not have a significant impact to traffic operations. In keeping with standard school project development procedures, if the project were to be approved by the public, the project would progress to design stage and agencies such as the New York State Department of Transportation and the Village of Orchard Park which have been involved in the SEQRA coordinated review, would continue to be consulted and approvals would be obtained, if required.

Timothy Faulkner, P.E., Sr. Transportation Engineer