



CITY of NOVI CITY COUNCIL

**Agenda Item D
September 8, 2008**

SUBJECT: Approval of Traffic Control Order 08-06 for the installation of No Left Turn from 8:00 am to 10:00 am and 3:00 pm to 5:00 pm signage from northbound Willowbrook onto all Village Oaks School Entrances.

SUBMITTING DEPARTMENT: DPW

CITY MANAGER APPROVAL:

BACKGROUND INFORMATION:

As recommended in OHM's June 2008 Village Oaks School Traffic Study, right turns only in and out of school driveways during peak school traffic hours will simplify traffic operations (busses and parents dropping off and picking up children), minimize congestion, eliminate many of the turning conflicts, and improve safety. We have not received any complaints regarding the temporary signage installed in March, 2008.

RECOMMENDED ACTION: Approval of Traffic Control Order 08-06 for the installation of No Left Turn from 8:00 am to 10:00 am and 3:00 pm to 5:00 pm signage from northbound Willowbrook onto all Village Oaks School Entrances.

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Capello				
Council Member Crawford				
Council Member Gatt				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Staudt				

CITY OF NOVI
TRAFFIC CONTROL ORDER

____ SPEED

DATE OF ORDER: August 21, 2008

____ PARKING

CONTROL NUMBER: 08-06

X OTHER

PURSUANT TO CHAPTER NO. 33 OF THE CODE OF ORDINANCES OF THE CITY OF NOVI, MICHIGAN, SAME BEING THE UNIFORM TRAFFIC CODE FOR CITIES, TOWNSHIPS, AND VILLAGES OF MICHIGAN, AND IN THE INTEREST OF PUBLIC SAFETY AND CONVENIENCE, THE FOLLOWING TRAFFIC CONTROL ORDER IS HEREBY ISSUED BY WILLIAM McCUSKER, DIRECTOR OF PUBLIC WORKS, DULY AUTHORIZED AS TRAFFIC ENGINEER, BY SEC. 33.141 OF THE AFORESAID CHAPTER.

ISSUANCE OF THIS TRAFFIC CONTROL ORDER WAS PRECEDED BY STUDY AND INVESTIGATION OF TRAFFIC CONDITIONS ON THE FOLLOWING PUBLIC ROAD OR ROADS IN THE CITY OF NOVI, MICHIGAN.

Willowbrook Drive

AND AFTER SAID INVESTIGATION, IT IS HEREBY ORDERED AND DIRECTED THAT THE DEPARTMENT OF PUBLIC WORKS ERECT AND MAINTAIN THE NO LEFT TURN SIGN (S) IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS REQUIRED BY SEC. 33.217 OF THE AFORESAID CHAPTER, SAID SIGNS TO GIVE NOTICE OF THE FOLLOWING DETERMINATION:

No Left Turn from 8:00 a.m. to 10:00 a.m. and 3:00 p.m. to 5:00 p.m. from Northbound Willowbrook onto all Village Oaks School Entrances


TRAFFIC ENGINEER

DATED: August 21, 2008

APPROVED BY CITY COUNCIL

TRAFFIC CONTROL ORDER NUMBER 08-06 HAVING BEEN PRESENTED TO THE COUNCIL OF THE CITY OF NOVI, MICHIGAN FOR STUDY AND APPROVAL, IS HEREBY APPROVED AND IT IS HEREBY ORDERED AND DIRECTED THAT THIS ORDER BE FILED IN THE OFFICE OF THE CITY CLERK AND A COPY THEREOF IN THE OFFICE OF THE CHIEF OF POLICE OF SAID CITY.

IT IS FURTHER ORDERED AND DIRECTED THAT THIS ORDER SHALL BECOME EFFECTIVE UPON BEING FILED WITH THE CLERK AND UPON ERECTION OF ADEQUATE SIGNS GIVING NOTICE OF THE EXISTENCE OF AFORESAID,

No Left Turn from 8:00 a.m. to 10:00 a.m. and 3:00 p.m. to 5:00 p.m. from Northbound Willowbrook onto all Village Oaks School Entrances

ADOPTED AT THE REGULAR MEETING
OF COUNCIL ON _____.

BY: _____
MAYOR – David Landry

CITY CLERK – Maryanne Cornelius

Willowbrook Dr

No left turn from 8:00 am to 10:00am and 3:00pm to 5:00pm from northbound Willowbrook onto all Village Oaks School entrances.

September 2, 2008



June 18, 2008



Mr. Rob Hayes, P.E.
Novi City Engineer
45175 W. Ten Mile Road
Novi, MI 48375

Re: Village Oaks Elementary School Traffic Study

Dear Mr. Hayes:

Now that the school year is over, Orchard, Hiltz & McCliment, Inc. (OHM) is pleased to submit this final report evaluating the traffic and pedestrian safety and operation of the Village Oaks Elementary School.

If you have any questions concerning this report, please do not hesitate to call me at 734-522-6711.

Sincerely,

Orchard, Hiltz & McCliment, Inc.

A handwritten signature in black ink that reads "Stephen B. Dearing". The signature is written in a cursive, flowing style.

Stephen B. Dearing, P.E., PTOE
Manager of Traffic Engineering

SBD\sbd

Village Oaks Elementary School
23333 Willowbrook Drive
Novi, MI 48375-3654
248-499-1300

Location:

The school is located in Section 25, on the west side of Willowbrook Rd north of Village Wood Road. See Attachment 1 for an overview of the site.

General:

Visited the school on January 28 and 29, 2008. Introduced myself to the office staff, and discussed issues with the principal, Ms. Sue Burnham. Ms. Burnham indicated her concern with the congestion in the front of the building. Specifically, she felt that the congestion and conflicting turning movements constituted a hazard to pedestrians.

Initial Observations:

On-Site:

General:

- Other than an incomplete path on school grounds, there are no sidewalks along Willowbrook or the surrounding streets to the school.
- There is a separate pedestrian walking connection leading from the school to the southwest to Village Wood Road.
- None of the pedestrian paths are ADA compliant, lacking ramps, detectable warning or both, depending on location.
- The entrance to the parent loading zone and the exit to the bus loop are immediately adjacent to each other, only separated by the school pedestrian crossing of Willowbrook.

Parent Loading Zone:

- Only the entrance to the parent loading zone is signed one-way at the street.
- Although it appears that this is a one-way loop in front of the building, the south-most driveway handles two-way traffic. It is the entrance to the parking lot as well as the exit for the parent loading zone.
- There appeared to be confusion over which vehicle had the right of way between ones entering at the south drive, exiting the parent loading zone and exiting the parking lot. This is also a pedestrian crossing point for those using the sidewalk to get to/come from Guilford. There appeared to be an unsanctioned 'crossing guard', either a teacher or parent volunteer, with a STOP paddle to aid students at this location. However, this individual did not have a high-visibility vest on, as would regular crossing guards.
- Only about 13 to 14 cars can fit alongside the sidewalk that frames the area between the parking lot entrance and Willowbrook. However, only a portion along the school is considered the loading zone, good for about 5 to 6 cars. While limiting the area for

students to enter / leave vehicles, resulting in a safer operation, it also slows the process of passenger transfer.

- Observed problems with drivers not moving up as vehicles ahead in the line shifted position or departed.

Bus Loop:

- There are no signs noting the one-way circulation for this pair of driveways.
- There is only one sign that states that this is a bus-only area. However, the location is such that the sign is not visible until after a vehicle has turned into the entrance to the loop.
- Length of loop is only just adequate for current demand of six busses; if future needs require adding one or more busses, it will not be possible to stage them in this loop.
- Bus dismissal at same time as rest of school, so busses are leaving site at the peak time and contributing to the congestion.

Parking Area:

- This parking area has three aisles, with 90 degree parking along them.
- The only handicap parking stalls on site (total of 3) are located in this area. The pavement markings are not adequate and signs do not conform to the MMUTCD.
- While considered staff parking, the parking lot is used extensively by parents for both the arrival and dismissal periods, to compensate for the lack of space in the loading zone.

Adjacent Streets:

Willowbrook Drive:

- This is a two-lane, two-way local street about 22' wide (uncurbed). There are no auxiliary lanes at any of the school driveways or side streets. There is modest horizontal curvature to the roadway, but no vertical or horizontal sight obstructions. The street does not have any centerline pavement markings.
- Willowbrook is posted 15 mph speed limit from about Chance Road (south of Rock Hill Lane) to Village Wood Road. The east side is posted NO PARKING ANY TIME. The west side has the parking restriction NO PARKING 8 TO 9:30 AM & 2:30 TO 4 PM, SCHOOL DAYS ONLY.
- There appeared to be a significant number of school pedestrians for both a.m. and p.m., but I was not in a position to provide a good count of this activity.
- Due to absence of sidewalks, pedestrians walked along edge of street. However, they uniformly failed to follow safety rules for pedestrians, and large numbers did not walk on the left side of traffic (facing traffic).
- The congestion associated with arrival and dismissal periods is the only reason that adult crossing guard(s) would be needed to protect street crossings. There are two guards and crossing locations, again because of a lack of sidewalk connections.
- None of the pedestrian crossings are ADA compliant. The north crossing, between the bus exit and parent entrance, is lacking a ramp with detectable warning. The south crossing, opposite the intersection with Guilford, does not have detectable warning.

- I observed parents queuing up on Willowbrook to enter parent loading zone. During the dismissal period, the queues were from 4 to 7 vehicles for both NB and SB. The SB queue blocked the bus exit, and was impacted by the school pedestrian crossing. The queues in the arrival period were shorter, only about 3 to 4 in each direction. NB and SB traffic took turns to enter.
- The crossing guard noted that the backups this day were much shorter than normal, with longer queues happening when weather was poor. She suggested that normal queues would routinely block (SB) the bus loop entrance and (NB) the parent loop / parking lot.
- During both the a.m. and p.m. periods, when parents were otherwise queuing to enter the school site, I observed numerous instances when vehicles would drive left of center to pass the queue. When this happened with both NB and SB traffic, I saw the vehicles literally go head-to-head. What is most distressing is that this conflict happens right at the north pedestrian crossing location. The crossing guard related that she has also seen this happen between a bus exiting the school and a passing car.

Other Streets:

- Noted that on-street stopping, standing and parking occurred on Oak Tree, Franklin Mill and Guilford, as parents sought to avoid the school site congestion. Only significant problem noted was that some would park too close to the STOP signs for these streets.

Initial Recommendations:

City of Novi -

1. The 15 mph speed limit is in direct violation of the Michigan Vehicle Code (MVC) and must be changed to 25 mph. See MVC Sections 257.627 and 627a.
2. A school crossing warning sign is missing for NB Willowbrook for the south pedestrian crossing. Due to revisions to the MMUTCD, it is no longer appropriate to use a S2-1 sign at the point of the pedestrian crossing. Rather a S1-1 sign with a W16-7p plaque should be used. The City may wish to consider replacing all the existing S2-1 signs for this street at this time.
3. City should consider changing all the school warning signs over to the strong (florescent) yellow/green color.
4. Consider establishing a NO PASSING zone along Willowbrook:
 - a. SB from the bridge north of Oak Tree to the south school pedestrian crossing,
 - b. NB from Village Wood to the north school pedestrian crossing.
5. It is not apparent why the parking restrictions along Willowbrook extend such a long distance from the school property. This is especially true north of Oak Tree. Consider revising the parking restriction to reduce the length of street subject to the limits.
6. Post NO PARKING HERE TO CORNER on both sides of Oak Tree, Franklin Mill, and Guilford at their intersection with Willowbrook. The standard distance per the MVC is 20' from the stop sign.
7. Upgrade the pedestrian crossing(s) to be ADA compliant.
8. Upgrade the sidewalk at the bridge north of Oak Tree to be ADA compliant.

9. Provide a pedestrian facility along Willowbrook. First priority should be from Oak Tree to Village Wood. There are two options:
10. Build a sidewalk along the east side (preferred).
11. Widen the road to provide 5' paved shoulders along both sides (second choice).
12. Until such time as the new pedestrian facility (Recommendation No. 9) can be provided, consider placing a temporary adult crossing guard, with the appropriate signs and pavement markings across the north leg of Willowbrook at Oak Tree.
13. When the recommendation for providing a pedestrian facility along Willowbrook, as discussed above, has been accomplished, eliminate the south school pedestrian crossing (at Guilford), the temporary crossing (at Oak Tree), and consolidate all crossings at the location of the existing one north of Franklin Mill.
14. Until such time as the School District has constructed the long term improvements describe below, post all school driveways for right turns in / out only. While this will require all busses and parents driving to approach from the north and depart to the south, it will simplify operations, minimize congestion, eliminate many of the turning conflicts, and improve safety.

School District –

Short Term:

- I. The exit of the bus loop should be signed for one-way exit only.
- II. Upgrade the pedestrian crossing(s) to be ADA compliant.
- III. For parent loading zone area, add PULL FORWARD TO DROP-OFF / PICK-UP signs in conjunction with the existing NO PARKING signs.
- IV. Replace handicap parking signs with MMUTCD compliant R7-8 signs.
- V. Consider shifting the bus dismissal time either forward or back from the standard time, to have their departure no longer coincide exactly with the peak congestion interval.

Long Term:

- VI. Construct a new horseshoe shaped loop for the parent loading zone, beginning and returning to the existing south driveway to the school site.
 - a. Close the existing north entrance to the parent loading zone, removing the entering traffic from the highly congested location of the pedestrian crossing.
 - b. The reconfiguration / expansion will provide more curbside loading area.

[See Attachment 2 for potential layout.]

Follow Up Discussions and Actions Taken:

The recommendations were transmitted to the City on January 31, 2008. Their receipt resulted in a series of meetings with the city and school staff from February through April to weigh the various options and decide which to implement. The City decided to move ahead with the recommendation (No. 12 above) concerning the placement of an additional crossing guard at the north leg of Willowbrook at Oak Tree, until such time as the construction of a sidewalk along the east side of Willowbrook (No. 9 & 10) can be accomplished. They also decided to accept the recommendation (No. 14) that limits the school driveways to right in / out operations until the school reconfigures their site.

In addition to discussing the options related to modifications to the school site, we provided information to the school about the Safe Routes to School (SR2S) program, available through the Michigan Department of Transportation and the Governor's Council on Physical Fitness, Health and Sports/Michigan Fitness Foundation. This SR2S program is a potential funding source for school pedestrian safety education efforts, as well as the construction of needed long term improvements, such as the needed sidewalk along Willowbrook and reconfiguring the parent loading zone.

This information was communicated to the residents of the neighborhood in a meeting held on April 17, 2008, just before the various short turn measures were implemented. I then conducted follow up reviews the week of April 28th for the arrival and dismissal periods.

Follow Up Observations:

On-Site:

Parent Loading Zone:

- There continued to be problems at dismissal time with drivers not moving up as vehicles ahead in the line shifted position or departed.

Adjacent Streets:

Willowbrook Drive:

- The total number of school pedestrians continued strong for both a.m. and p.m. periods.
- While congestion as measured by the total number of vehicles queued to enter the school site was about the same, the chaotic conditions associated with arrival and dismissal periods appeared to be significantly diminished. There was a far greater sense of order and courtesy.
- I observed a very few violations of the turn restrictions for entering traffic. However, these tended to be parents who were arriving much earlier or later than those coming "at the crush of the start bell". Slightly more common were violations of the no left turn restriction upon exiting the site.
- Unlike my initial observations, when I saw numerous instances when vehicles would drive left of center to pass the queue, there were no conflicts of this type noted with these follow up reviews.

Other Streets:

- Noted that on-street stopping, standing and parking continued to occur on Oak Tree, Franklin Mill and Guilford. It appeared that there was a modest increase of this for all three side streets for both a.m. and p.m. periods.
- Some pedestrians walking along Oak Tree, Franklin Mill and Guilford continued to fail to follow safety rules by not uniformly walking on the left side of traffic (facing traffic). There did not appear to be any unusual conflicts between pedestrians and vehicles along Oak Tree, given the anticipated increase in traffic using that street to access the school.

Conclusions:

The first steps of adding the crossing guard and implementing turn restrictions appear to have helped improve traffic and pedestrian safety at Village Oaks school. However, there is much room for further improvement. We would continue to urge the City of Novi and Novi Public Schools to implement the balance of the recommendations listed above. We suggest that Novi Police continue to monitor this area for enforcing the turn restrictions. Further, they should monitor the behavior of pedestrians and vehicles along Oak Tree.