



# CITY of NOVI CITY COUNCIL

**Agenda Item E**  
**June 1, 2009**

**SUBJECT:** Approval of Traffic Control Orders 09-01 for the installation of a stop sign on southbound Valley Starr Drive to stop at Oak Tree Road, 09-02 for the installation of a stop sign on southbound Nilan Drive to stop at Oak Tree Road, and 09-03 for the installation of a stop sign on southbound Londonderry to stop at Oak Tree Road.

**SUBMITTING DEPARTMENT:** Department of Public Services, Engineering Division *R24 BTC*

**CITY MANAGER APPROVAL:** 

**BACKGROUND INFORMATION:**

A request was received from the Village Oaks Common Areas Association requesting a review of the following intersections, Londonderry and Oak Tree; and Nilan and Oak Tree. Upon review in the field it was determined by Engineering Division staff that there was no existing traffic control signage for either three-way intersection. The field visit also noted that a review of traffic control signage was needed for a third intersection at Oak Tree and Valley Starr which also lacked a stop or yield sign to regulate the intersection.

Using traffic counts obtained by the Field Operations Division, the enclosed traffic study was completed by our traffic consultant, Birchler Arroyo. The study (attached) reviewed the warrants for stop control and yield control at each intersection and determined that stop control was warranted at all three intersections in order to stop traffic on southbound Londonderry at Oak Tree, southbound Nilan at Oak Tree and southbound Valley Starr at Oak Tree.

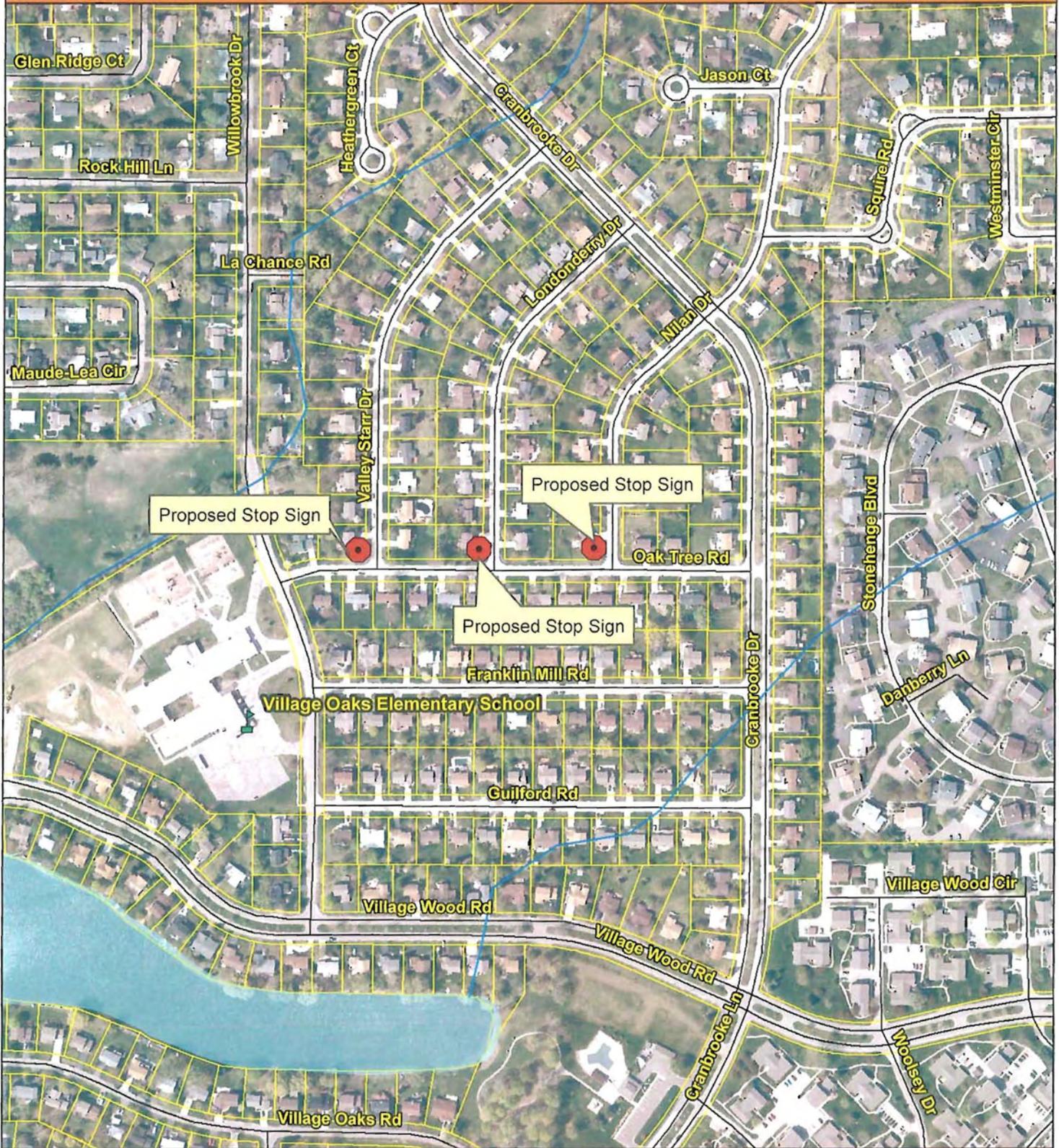
**RECOMMENDED ACTION:** Approval of Traffic Control Orders 09-01 for the installation of a stop sign on southbound Valley Starr Drive to stop at Oak Tree Road, 09-02 for the installation of a stop sign on southbound Nilan Drive to stop at Oak Tree Road, and 09-03 for the installation of a stop sign on southbound Londonderry to stop at Oak Tree Road.

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

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

# LOCATION MAP

## New Stop Signs in Village Oaks



**CITY OF NOVI**  
 ENGINEERING DIVISION  
 46175 W TEN MILE RD  
 NOVI, MI 48375-3029  
 (248) 347-0454  
 MAP AUTHOR: Brian Coburn PE



1 INCH = 347 FEET

MAP PRINT DATE: 5/2/2009

**MAP INTERPRETATION NOTICE**  
 Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

# MEMORANDUM



BIRCHLER ARROYO  
ASSOCIATES, INC.

DATE: April 29, 2009

TO: Brian T. Coburn, P.E., Senior Civil Engineer  
Dept. of Public Services-Engineering Div., City of Novi

FROM: Rodney L. Arroyo, AICP, Vice President  
William A. Stimpson, P.E., Director of Traffic Engineering

SUBJECT: **Oak Tree Drive Intersections with Valley Starr, Londonderry, and Nilan**

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At your request, we have evaluated the above three currently uncontrolled intersections with respect to the appropriate type of right-of-way control signage (e.g. YIELD or STOP sign). In response to the Village Oaks Homeowners Association, we have also considered the resident's concern over a driver turning right into Londonderry in an unsafe manner.

## Recommendations

The southbound approach to Oak Tree of each side street – Valley Starr, Londonderry, and Nilan – should be controlled by a STOP (R1-1) sign, and each of those three STOP signs should be supported by a Traffic Control Order. The eastbound and westbound (Oak Tree) approaches to each of these three side streets should remain uncontrolled.

## Supporting Analyses

**Sight Distance** – The locations of corner sight obstructions were measured relative to the abutting streets, and the recommended Road Commission nomograph was applied to determine the Critical Speed on each intersection's southbound (minor) approach. The Critical Speeds were found to be 12 mph on Valley Starr, 12 mph on Londonderry, and 23 mph on Nilan.

A STOP sign is required for Critical Speeds below 10 mph and often considered for Critical Speeds in the range of 10-15 mph. Ordinarily, a YIELD sign is more appropriate for Critical Speeds above 15 mph; however, special circumstances may call for the more restrictive STOP sign instead. Section 2B.05 of the 2005 Michigan Manual of Uniform Traffic Control Devices (MMUTCD) lists several special circumstances relative to STOP sign application, including "Stopping the direction that conflicts the most with established pedestrian crossing activity or school walking routes." We believe that the use of Oak Tree Drive as a walking route to/from Village Oaks Elementary, along with the absence of sidewalks, warrants the use of a STOP rather than a YIELD sign on Nilan. A STOP sign here would also provide signing consistency throughout the subdivision.

**Warrants for Multi-way Stop Control** – Although we question the potential effectiveness of multi-way stop control in slowing drivers entering any of the side streets from Oak Tree, we did, nonetheless, evaluate the published warrants for such signage. Per Section 2B.07 of the MMUTCD, “Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.” *Counts made by the City (Table A-1, attached) show, however, that the volumes on Oak Tree are significantly higher (and therefore not “approximately equal”) to those on any of the three side streets.*

The MMUTCD also states that “The decision to install multi-way stop control should be based on an engineering study” considering the following:

- A. Interim measure prior to signalization – *Criterion not applicable.*
- B. Crash problem, as indicated by 5 or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop – The Traffic Improvement Association reports only one crash in this area over the past five years, involving a westbound vehicle striking a car parked just east of Londonderry, at 4-5 a.m. on a weeknight. *Criterion not met.*
- C. Minimum vehicular volumes:
  - 1. At least 300 vehicles per hour on major street (total of both approaches) for any 8 hours of an average day, and
  - 2. Combined vehicular, pedestrian, and bicycle volume on minor approach(es) averaging at least 200 units per hour for the same 8 hours, and
  - 3. Above thresholds reduced 30% if 85<sup>th</sup>-percentile major-street speed exceeds 40 mph.

Table A-1 shows that *the hourly traffic volumes are well below the MMUTCD’s warrants for multi-way stop control.* The average daily volume on Oak Tree is 318 vehicles, with corresponding daily volumes on the southbound side-street approaches of 77, 50, and 77 vehicles on Valley Starr, Londonderry, and Nilan, respectively. The 85<sup>th</sup>-percentile speed on Oak Tree between Londonderry and Nilan is 27-28 mph, indicating relative good compliance with the 25 mph speed limit.

“Other criteria that may be considered include:”

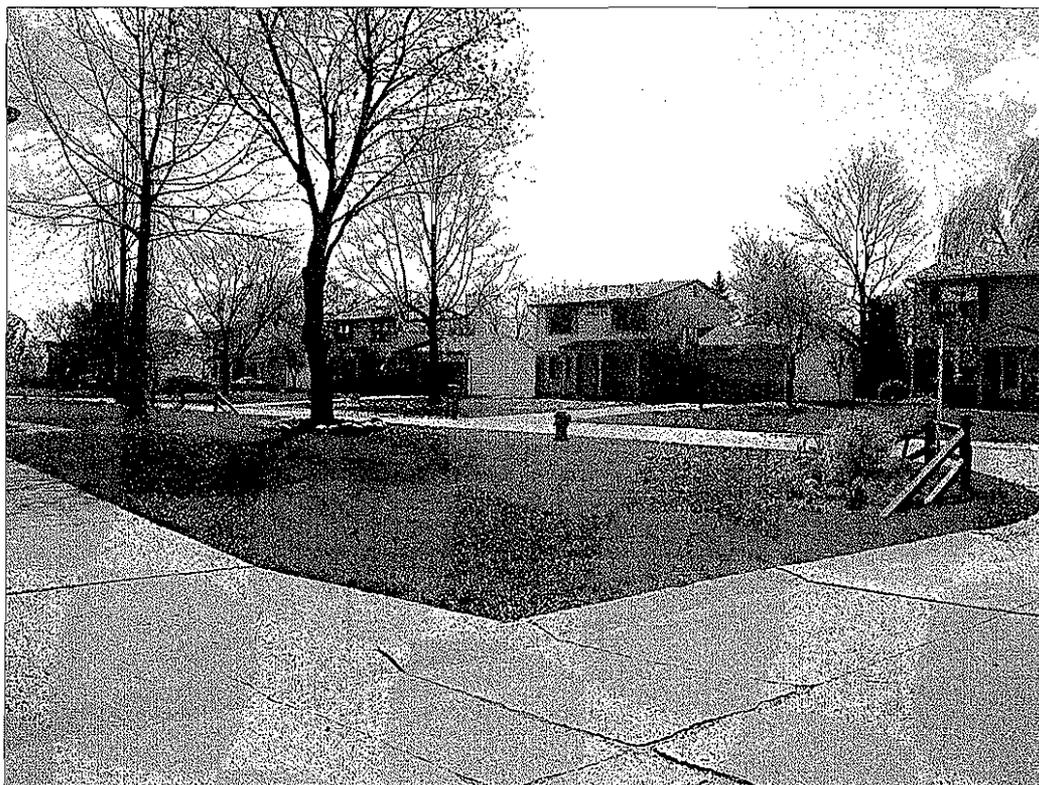
- A. The need to control opposing left-turn conflicts. *Criterion not applicable.*
- B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes. *Drivers turning left into one of the side streets must yield to pedestrians walking*

*along Oak Tree and as well as opposing through traffic. We do not consider the likely conflict frequency adequate to justify the installation of STOP signs on Oak Tree.*

- C. Locations where the sight distance to cross-street traffic is limited. *Criterion not applicable.*
- D. Improved operations at intersection of two collector (through) streets. *Criterion not applicable.*

In summary, multi-way stop control would be unwarranted and inappropriate at all three of the intersections evaluated. All-way STOP signs would be considered unreasonable by most drivers, widely disrespected, result in frequent rolling stops, and give pedestrians a false sense of security.

Assuming that no vehicles are parked near the corners so as to obscure visibility, drivers rounding the corner from Oak Tree should be able to see vehicles backing out of nearby driveways (see photo below). We remain unconvinced that an Oak Tree driver not looking well enough now – and/or making the turn into the side street at a questionably high rate of speed – would, in fact, alter their driving behavior as desired if faced by an unwarranted STOP sign prior to turning. If anything, that new sign may distract them from looking down the side street as much as they currently do.



**Northeast Corner of Oak Tree and Londonderry**

**Table A-1. Volume and Speed Counts by Day and Hour**

Hour Ending	Day and Date	Minor Approach Volume (all SB)			Major Approach Volumes			85%tile Speeds (mph)	
		Valley Starr	Londonderry	Nilan	EB	WB	Total	EB	WB
7:00a	Tuesday, 4-14-09	3	1	2	8	1	9	28.7	26.7
8:00a		3	4	3	10	5	15		
9:00a		6	4	10	3	64	67		
10:00a		4	3	2	4	19	23		
11:00a		5	1	1	2	2	4		
12:00p		6	3	2	5	6	11		
1:00p		1	3	3	8	11	19		
2:00p		2	1	3	3	5	8		
3:00p		4	2	8	6	7	13		
4:00p		12	6	10	6	33	39		
5:00p		4	0	10	7	21	28		
6:00p		4	1	6	8	13	21		
7:00p		2	2	6	3	11	14		
8:00p		3	4	2	5	9	14		
9:00p		1	1	3	2	6	8		
10:00p		0	0	2	0	2	2		
11:00p		1	0	0	0	0	0		
12:00p		0	0	1	0	2	2		
1:00a	Wednesday, 4-15-09	1	0	0	0	2	2	26.7	27.5
2:00a		0	0	0	0	0	0		
3:00a		0	1	1	1	0	1		
4:00a		1	0	0	1	0	1		
5:00a		0	0	0	0	0	0		
6:00a		1	0	0	0	0	0		
7:00a		3	4	0	8	1	9		
8:00a		4	6	6	16	5	21		
9:00a		6	5	5	5	48	53		
10:00a		5	5	4	2	28	30		
11:00a		3	1	7	2	6	8		
12:00p		3	0	1	5	6	11		
1:00p		5	2	4	4	9	13		
2:00p		6	1	4	4	6	10		
3:00p		1	4	8	5	6	11		
4:00p		8	5	4	5	32	37		
5:00p		7	4	9	10	19	29		
6:00p		7	2	9	6	15	21		
7:00p		8	2	6	7	15	22		
8:00p		11	8	2	12	6	18		
9:00p	3	2	6	5	10	15			
10:00p	2	2	3	2	8	10			
11:00p	0	1	2	1	3	4			
12:00p	1	2	1	4	1	5			

**Table A-1. Summary of Volume and Speed Data (cont'd)**

Hour Ending	Day and Date	Minor Approach Volume (all SB)			Major Approach			85%tile Speeds (mph)	
		Valley Starr	Londonderry	Nilan	EB	WB	Total	EB	WB
1:00a	Thursday, 4-16-09	0	0	0	0	0	0	28.9	28.6
2:00a		1	0	0	1	1	2		
3:00a		0	1	0	1	0	1		
4:00a		0	0	0	0	0	0		
5:00a		0	0	0	1	0	1		
6:00a		2	0	0	2	2	4		
7:00a		1	4	1	7	3	10		
8:00a		6	5	3	12	4	16		
9:00a		7	6	2	8	42	50		
10:00a		6	4	5	10	28	38		
11:00a		4	1	0	0	5	5		
12:00p		2	4	0	7	2	9		
1:00p		5	0	8	6	11	17		
2:00p		7	1	5	4	7	11		
3:00p		4	4	5	4	4	8		
4:00p		4	9	6	6	31	37		
5:00p		7	2	7	8	16	24		
6:00p		10	4	11	7	18	25		
7:00p		6	1	6	8	7	15		
8:00p		3	6	3	11	7	18		
9:00p		5	1	6	5	10	15		
10:00p		2	1	3	2	9	11		
11:00p		0	1	1	2	0	2		
12:00p		1	2	2	0	2	2		
1:00a	Friday, 4-17-09	1	0	0	0	1	1	28.5	23.5
2:00a		1	0	0	1	1	2		
3:00a		0	0	1	0	0	0		
4:00a		0	0	0	0	0	0		
5:00a		0	0	0	0	0	0		
6:00a		0	0	0	1	0	1		
<b>3-Day Total</b>		<b>232</b>	<b>150</b>	<b>231</b>	<b>299</b>	<b>654</b>	<b>953</b>		
<b>3-Day Average</b>		<b>77</b>	<b>50</b>	<b>77</b>	<b>100</b>	<b>218</b>	<b>318</b>	<b>28.1</b>	<b>27.3</b>



Common Areas Association

Village Oaks Common Areas Association  
22859 Brook Forest  
Novi, MI 48375  
(248) 349-0510

March 2, 2009

Mr. Rob Hayes  
Director of Public Services  
26300 Delwal Street  
Novi, MI 48375

Dear Mr. Hayes:

I am enclosing a copy of the letter sent to the Village Oaks Homeowners Association, requesting additional stop signs be placed on the corners of Londonderry and Oak Tree and Nilan and Oak Tree streets. We have received several complaints over the past several years concerning the traffic on these streets. This particular resident lives on the corner and makes it dangerous backing out of his driveway when cars make turns onto Londonderry without having to stop or slow down.

We are requesting that you look into this situation and advise us as to your thoughts concerning this matter.

We look forward to hearing from you.

Village Oaks Common Areas Association  
Board of Directors

*Judy Clawson*  
*Office Manager*

**Date:** January 14, 2009  
**To:** Board of Directors  
Village Oaks Commons Areas Association (VOCCAA)  
**From:** Stanley Neal  
Member, VOCAA  
**Subject:** Safety Concerns: Need Installation of Stop or Yield Signs.

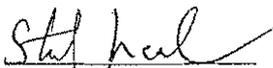
On November 2005, I moved into the Village Oaks Community, located in Novi, MI. Since my residency there have been several vehicle accident near misses on the corner of Oak Tree and Londonderry, Nilan and Oak Tree Streets.

Today was the last event, in which I was almost hit by the oncoming traffic from Oak Tree while existing my drive way from Londonderry. This vehicle made a right turn and never used any caution to slow down while turning onto Londonderry Street.

The Root Cause: There are no traffic signs notifying drivers to slow down and proceed with caution prior to entering onto or crossing another intersection.

Today (01/05/2009), I called the City of Novi, Traffic Division, who advised me to send a letter to my association requesting that a stop or yield signs be installed at the above areas in question.

Therefore, I'm requesting that a stop or yield signs be posted on the corners of Londonderry and Oak Tree, Nilan and Oak Tree Streets; to prevent a serious vehicle or pedestrian accident from occurring.

  
Stanley Neal  
23510 Londonderry  
Novi, Mi 48375

Thanks for your help regarding these matters

CITY OF NOVI  
TRAFFIC CONTROL ORDER

\_\_\_\_ SPEED  
\_\_\_\_ PARKING  
 X  OTHER

DATE OF ORDER: May 20, 2009  
CONTROL NUMBER: 09-01

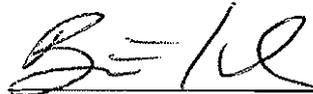
PURSUANT TO CHAPTER NO. 33 OF THE CODE OF ORDINANCES OF THE CITY OF NOVI, MICHIGAN, SAME BEING THE UNIFORM TRAFFIC CODE FOR CITIES, TOWNSHIPS, AND VILLAGES OF MICHIGAN, AND IN THE INTEREST OF PUBLIC SAFETY AND CONVENIENCE, THE FOLLOWING TRAFFIC CONTROL ORDER IS HEREBY ISSUED BY BRIAN COBURN, SENIOR CIVIL ENGINEER, 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.

**VALLEY STARR DRIVE**

AND AFTER SAID INVESTIGATION, IT IS HEREBY ORDERED AND DIRECTED THAT THE DEPARTMENT OF PUBLIC WORKS ERECT AND MAINTAIN THE STOP 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:

**Southbound Valley Starr Drive to Stop at Oak Tree Road**



\_\_\_\_\_  
TRAFFIC ENGINEER – Brian Coburn

DATED: 5/20/09

**APPROVED BY CITY COUNCIL**

TRAFFIC CONTROL ORDER NUMBER **09-01** 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,

**Southbound Valley Starr Drive to Stop at Oak Tree Road**

ADOPTED AT THE REGULAR MEETING  
OF COUNCIL ON \_\_\_\_\_.

BY: \_\_\_\_\_  
MAYOR – David Landry

CITY CLERK – Maryanne Cornelius

CITY OF NOVI  
TRAFFIC CONTROL ORDER

\_\_\_\_ SPEED  
\_\_\_\_ PARKING  
 X  OTHER

DATE OF ORDER: May 20, 2009  
CONTROL NUMBER: 09-02

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 BRIAN COBURN, SENIOR CIVIL ENGINEER, 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.

**NILAN DRIVE**

AND AFTER SAID INVESTIGATION, IT IS HEREBY ORDERED AND DIRECTED THAT THE DEPARTMENT OF PUBLIC WORKS ERECT AND MAINTAIN THE STOP 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:

**Southbound Nilan Drive to Stop at Oak Tree Road**

  
\_\_\_\_\_  
TRAFFIC ENGINEER – Brian Coburn

DATED: 5/20/09

**APPROVED BY CITY COUNCIL**

TRAFFIC CONTROL ORDER NUMBER **09-02** 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,

**Southbound Nilan Drive to Stop at Oak Tree Road**

ADOPTED AT THE REGULAR MEETING  
OF COUNCIL ON \_\_\_\_\_.

BY: \_\_\_\_\_  
MAYOR – David Landry

CITY CLERK – Maryanne Cornelius

CITY OF NOVI  
TRAFFIC CONTROL ORDER

\_\_\_\_ SPEED  
\_\_\_\_ PARKING  
 X  OTHER

DATE OF ORDER: May 20, 2009  
CONTROL NUMBER: 09-03

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 BRIAN COBURN, SENIOR CIVIL ENGINEER, 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.

**LONDONDERRY DRIVE**

AND AFTER SAID INVESTIGATION, IT IS HEREBY ORDERED AND DIRECTED THAT THE DEPARTMENT OF PUBLIC WORKS ERECT AND MAINTAIN THE STOP 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:

**Southbound Londonderry Drive to Stop at Oak Tree Road**

  
\_\_\_\_\_  
TRAFFIC ENGINEER – Brian Coburn

DATED: 5/20/09

**APPROVED BY CITY COUNCIL**

TRAFFIC CONTROL ORDER NUMBER 09-03 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,

**Southbound Londonderry Drive to Stop at Oak Tree Road**

ADOPTED AT THE REGULAR MEETING  
OF COUNCIL ON \_\_\_\_\_.

BY: \_\_\_\_\_  
MAYOR – David Landry

CITY CLERK – Maryanne Cornelius