# **CITY of NOVI CITY COUNCIL**



Agenda Item N November 23, 2015

SUBJECT: Approval of Traffic Control Orders 15-20 and 15-21 for new traffic control signs in Bradford of Novi.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division BTC

CITY MANAGER APPROVAL:

#### BACKGROUND INFORMATION:

Engineering staff received a complaint from a motorist regarding the lack of traffic control devices within Bradford of Novi, specifically the intersection of Worcester Drive and Galway Drive. This prompted staff to work with the Bradford of Novi Homeowners Association and the City's traffic consultant (URS/AECOM) to review the intersections along Worcester.

The attached report from the traffic consultant recommends the installation of yield signs at the intersections of Worcester and Galway and at Worcester and Daleview. Currently, these intersections do not have any traffic control. The HOA president circulated the traffic report to the residents and conducted a survey of the residents. The survey indicated that the residents overwhelmingly supported the installation of the proposed yield signs.

Traffic control orders are required by the Uniform Traffic Code to enforce traffic control signs that are to be installed on public streets. Therefore, staff has reviewed the planned installation of the traffic control signs and prepared the attached traffic control order for approval by City Council.

The traffic control signs will be scheduled for installation in the coming weeks through the DPS Field Operations Division.

**RECOMMENDED ACTION:** Approval of Traffic Control Orders 15-20 and 15-21 for new traffic control signs in Bradford of Novi.

	1	2	Y	Ν		1	2	Y	Ν
Mayor Gatt					Council Member Markham				
Mayor Pro Tem Staudt					Council Member Mutch				
Council Member Burke Council Member Wrobel									
Council Member Casey									



Author: Date: 11/18/2015 Pi rei Sit

related to this map. This map was produced under the terms of the City's Internet Site Use Policy available at http://cityofnovi.org/Resources/SiteUsePolicy.asp

#### CITY OF NOVI TRAFFIC CONTROL ORDER

SPEED	DATE OF ORDER:	11/17/2015
PARKING		
X OTHER	CONTROL NUMBER:	15-20

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, ENGINEERING MANAGER, DULY AUTHORIZED AS TRAFFIC ENGINEER, BY SEC. 33-51 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.

#### WORCESTER DRIVE

AND AFTER SAID INVESTIGATION, IT IS HEREBY ORDERED AND DIRECTED THAT THE DEPARTMENT OF PUBLIC SERVICES ERECT AND MAINTAIN THE YIELD SIGN (S) IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS REQUIRED BY SEC. 33-51 OF THE AFORESAID CHAPTER, SAID SIGNS TO GIVE NOTICE OF THE FOLLOWING DETERMINATION:

#### WESTBOUND WORCESTER DRIVE TO YIELD AT GALWAY

Brian Coburn, P.E. - Traffic Engineer Dated: <u>11/17/2015</u>

#### APPROVED BY CITY COUNCIL

TRAFFIC CONTROL ORDER NUMBER <u>15-20</u> 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 THEROF 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,

WESTBOUND WORCESTER DRIVE TO YIELD AT GALWAY

ADOPTED AT THE REGULAR MEETING OF CITY COUNCIL ON <u>11/23/2015.</u>

By: \_

Robert J. Gatt, Mayor

By: \_

Maryanne Cornelius, Clerk

#### CITY OF NOVI TRAFFIC CONTROL ORDER

SPEED	DATE OF ORDER:	11/17/2015	
PARKING			
X OTHER	CONTROL NUMBER:	15-21	

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, ENGINEERING MANAGER, DULY AUTHORIZED AS TRAFFIC ENGINEER, BY SEC. 33-51 OF THE AFORESAID CHAPTER.

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#### EASTBOUND WORCESTER DRIVER TO YIELD AT DALEVIEW

Brian Coburn, P.E. - Traffic Engineer Dated: <u>11/17/2015</u>

#### APPROVED BY CITY COUNCIL

TRAFFIC CONTROL ORDER NUMBER <u>15-21</u> 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 THEROF 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,

EASTBOUND WORCESTER DRIVER TO YIELD AT DALEVIEW

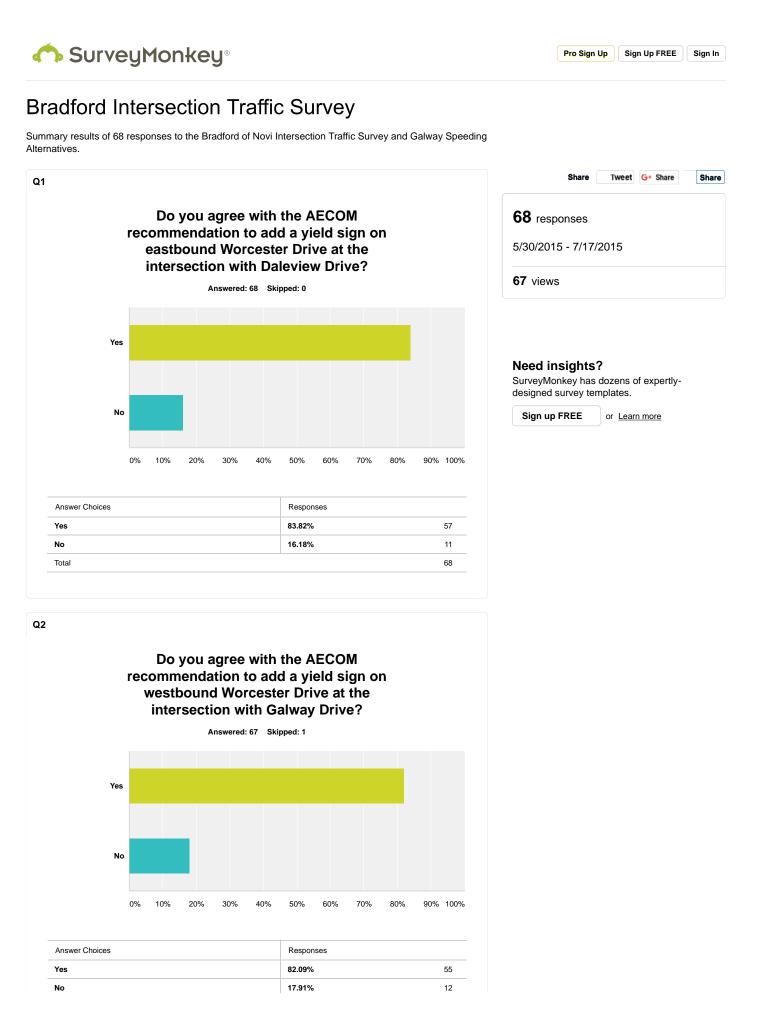
ADOPTED AT THE REGULAR MEETING OF CITY COUNCIL ON <u>11/23/2015.</u>

By: \_\_\_\_\_

Robert J. Gatt, Mayor

By:

Maryanne Cornelius, Clerk



#### **Coburn**, Brian

From:	Dave <dms54mi@yahoo.com></dms54mi@yahoo.com>
Sent:	Saturday, August 01, 2015 6:22 PM
То:	Coburn, Brian
Subject:	Re: RE: Bradford of Novi Traffic Intersection and Galway Speed Reduction
	Opportunities Survey Results

You're welcome. Thank-you for your support.

Dave

Sent from Yahoo Mail on Android

From: "Coburn, Brian" <<u>bcoburn@cityofnovi.org</u>> Date:Fri, Jul 24, 2015 at 2:57 PM Subject:RE: Bradford of Novi Traffic Intersection and Galway Speed Reduction Opportunities Survey -- Results

Dave,

Thanks for the great information! I love getting helpful feedback like this.

We will create the plan and work with our Field Operations side to get the signs installed.

Have a great weekend,

Brian

From: Dave [mailto:dms54mi@yahoo.com]
Sent: Thursday, July 23, 2015 12:05 AM
To: Coburn, Brian; Staup, Aaron; Penzak, Shawn; Wiktorowski, Matt; Walsh, Sheryl; Croy, Ben
Cc: Jennifer Cook; 12 (Eliason); 99 (Zervos)
Subject: Bradford of Novi Traffic Intersection and Galway Speed Reduction Opportunities Survey -- Results

To: Brian Coburn (Engineering Manager)

Ben Croy (Civil Engineer)

Aaron Staup (Construction Engineering Coordinator)

Matt Wiktorowski (Field Operations Manager)

Sheryl Walsh (Neighborhood and Business Relations Director) Officer Shawn Penzak (Novi Police)

cc: Bradford Board of Directors

Bradford Homeowners

The link below will allow you to review the summary results of the subject survey. We had 68 responses from our homeowner database of 138 homes.

https://www.surveymonkey.com/results/SM-XZW3NX2Y/

The Bradford Board and the majority of respondents (82-83%) are in favor of the AECOM recommendations to add yield signs at the westbound Worcester/Galway and eastbound Worcester/Daleview intersections. **Please proceed with adding the standard City supplied yield signs on metal posts.** 

You will also find the results on the survey related to excessive speeds on Galway Drive. Almost 80% believe steps should be taken to reduce speeds. Support for the individual alternatives range from 17% to 47%. You can also view the 15 "write-in" answers to this question by clicking on the "responses" hyperlink next to the "Other" category.

Please let me know if you have any questions.

Dave Santoro

**Bradford President** 



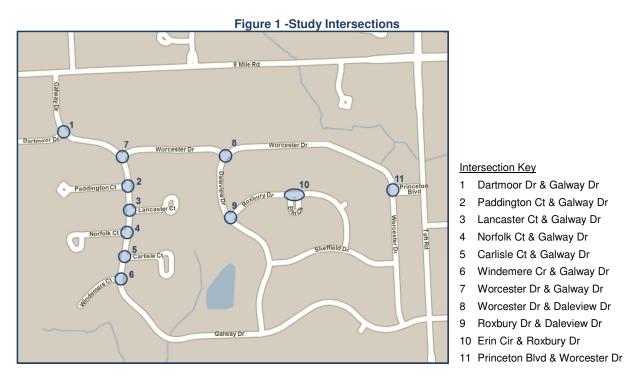
AECOM 27777 Franklin Road Suite 2000 Southfield, MI 48034 www.aecom.com

## Memorandum

То	Brian Coburn, PE	Page 1
сс		
Subject	Bradford of Novi Intersection Study	
From	Matt Klawon, PE	
Date	April 08, 2015	

### Introduction

This study evaluates the existing traffic operations at 11 intersections in the Bradford of Novi subdivision, as shown in Figure 1, and provides recommendations regarding traffic control at each intersection. Bradford of Novi is located on the south side of Nine Mile Road, west of Taft Road. The subdivision has one (1) entrance off of Nine Mile Road at Galway Drive and two (2) entrances off of Taft Road at Galway Drive, which is the entrance to Lexington Green subdivision, and Princeton Boulevard.





The City requested this study be conducted after a complaint was received from a resident regarding a near miss due to a vehicle's failure to stop at Worcester Drive and Galway Drive.

The following information was gathered during a field review on March 20, 2015 at each intersection:

- Sight distance measurements
- Existing pedestrian facilities
- Existing traffic control signs
- On-street parking

The roadways throughout the subdivision carry two-way traffic and have a speed limit of 25 miles per hour (mph). On-street parking is allowed throughout the subdivision. An all-way stop exists at the Daleview Drive and Galway Drive intersection.

Intersection approach photos are included in **Appendix A** at the end of this document.

#### <u>Analysis</u>

#### **General Analysis**

In order to determine if stop or yield control should be considered at each intersection, Section 2B of the Michigan Manual on Uniform Traffic Control Devices (MMUTCD) was reviewed. MMUTCD indicates that engineering judgment should be used to determine appropriate intersection control and the following factors should be considered:

- Vehicular, bicycle and pedestrian traffic volumes
- Number and angle of approaches
- Approach speed
- Sight distance available on each approach
- Reported crashes

Multi-way stop control is used where safety concerns exist and the volume of traffic on each road is approximately equal, as discussed in Section 2B.07 of MMUTCD. For purposes of this study, Galway Drive and Worcester Drive were considered the "main" roads of the subdivision. The minor roads intersecting these main roads do not have the same traffic volumes, and therefore, multi-way stop control does not appear suitable at the study locations.

Sight distance measurements taken in the field were compared to the standards listed in Figure VIII-E of the City of Novi's Code of Ordinances. For a 25 mph roadway, the minimum corner sight distance required is 260 feet.

Existing bus stop and school pedestrian routes in the area were also studied. Thornton Creek Elementary School, which is in the Northville school district, is located on the north side of Nine Mile Road, about 400 feet east of the Galway Drive entrance. Due to the close proximity of the school, there are no bus stops in the subdivision for the elementary students. A bus stop for those residents attending Hillside Middle School or Northville High School is located at Thornton Creek Elementary School. Existing sidewalks, school crossing signs and pavement markings are in place on Nine Mile Road for pedestrians traveling to/from the Bradford of Novi subdivision and Thornton Creek Elementary School.



#### Field Observations and Recommendations

The following is an intersection-by-intersection review of the 11 study locations. Existing condition observations and proposed mitigation measures are addressed at each location. As previously stated, approach photos for each location can be found in Appendix A.

#### 1. Dartmoor Drive and Galway Drive

- A. Existing conditions Dartmoor Drive intersects Galway Drive at approximately a 90 degree angle from the west along a curve in Galway Drive. An existing yield sign is located on Dartmoor Drive at Galway Drive. Dartmoor Drive serves as a neighborhood connection to the Barclay Estates subdivision to the west. There are sidewalks along both sides of Galway Drive and Dartmoor Drive with ADA ramps at the crossings. There is a marked crosswalk on the north side of the intersection, crossing Galway Drive. Appropriate warning signs are located along both directions of Galway Drive and contain a sticker on the back indicating the signs were installed in 2008. The intersection is located approximately 500 feet south of the Nine Mile Road entrance.
- B. *Proposed* Field review concluded that the sight distance meets City standards. Stop signs are not recommended on Galway Drive due to the close proximity of the Nine Mile Road entrance. AECOM recommends maintaining the current condition of this intersection.

#### 2. Paddington Court and Galway Drive

- A. Existing conditions Paddington Court intersects Galway Drive at approximartely a 90 degree angle from the west. There are no traffic control signs located at this intersection. There are sidewalks along both sides of Galway Drive with ADA ramps at the Paddington Court crossing. Paddington Court is located approximately 800 feet south of Dartmoor Drive and 300 feet south of Worcester Drive. Paddington Court serves 10 homes.
- B. Proposed Field review concluded that the sight distance meets City standards. Due to the low volume of traffic on Paddington Court and existing geometry of the intersection, AECOM recommends maintaining the current condition of this intersection.

#### 3. Lancaster Court and Galway Drive

- A. Existing conditions Lancaster Court intersects Galway Drive at approximately a 90 degree angle from the east. There are no traffic control signs located at this intersection. There are sidewalks along both sides of Galway Drive with ADA ramps at the Lancaster Court crossing. Lancaster Court is located approximately 220 feet south of Paddington Court and serves nine (9) homes.
- B. *Proposed* Field review concluded that the sight distance meets City standards. Due to the low volume of traffic on Lancaster Court and existing geometry of the intersection, AECOM recommends maintaining the current condition of this intersection.



#### 4. Norfolk Court and Galway Drive

- A. Existing conditions Norfolk Court intersects Galway Drive at approximately a 90 degree angle from the west. There are no traffic control signs located at this intersection. There are sidewalks along both sides of Galway Drive with ADA ramps at the Norfolk Court crossing. Norfolk Court is located approximately 200 feet south of Lancaster Court and serves 11 homes.
- B. *Proposed* Field review concluded that the sight distance meets City standards. Due to the low volume of traffic on Norfolk Court and existing geometry of the intersection, AECOM recommends maintaining the current condition of this intersection.

#### 5. Carlisle Court and Galway Drive

- A. Existing conditions Carlisle Court intersects Galway Drive at approximately a 90 degree angle from the east. There are no traffic control signs located at this intersection. There are sidewalks along both sides of Galway Drive with ADA ramps at the Carlisle Court crossing. Carlisle Court is located approximately 225 feet south of Norfolk Court and serves 10 homes.
- B. *Proposed* Field review concluded that the sight distance meets City standards. Due to the low volume of traffic on Carlisle Court and existing geometry of the intersection, AECOM recommends maintaining the current condition of this intersection.

#### 6. Windermere Court and Galway Drive

- A. *Existing conditions* Windemere Court intersects Galway Drive at approximately a 90 degree angle from the west, just north of a curve in Galway Drive. There are no traffic control signs located at this intersection. There are sidewalks along both sides of Galway Drive with ADA ramps at the Windermere Court crossing. Windermere Court is located approximately 200 feet south of Carlisle Court and serves eight (8) homes.
- B. Proposed Field review established that the sight distance meets City standards. Due to the low volume of traffic on Windermere Court and existing geometry of the intersection, AECOM recommends maintaining the current condition of this intersection.

#### 7. Worcester Drive and Galway Drive

- A. *Existing conditions* Worcester Drive intersects Galway Drive at approximately a 90 degree angle from the east along a curve in Galway Drive. There are no traffic control signs located at this intersection. There are sidewalks along both sides of Galway Drive with ADA ramps at the Worcester Drive crossing. Worcester Drive serves 13 homes and functions as a connection between Galway Drive and Daleview Drive. Worcester Drive is located approximately 560 feet south of Dartmoor Drive.
- B. *Proposed* Field review established that the sight distance meets City standards. Due to the curvature of both Worcester Drive and Galway Drive and the potential of higher volumes of



cars traveling between the two sections of the subdivision, AECOM recommends installing a yield sign on westbound Worcester Drive.

#### 8. Worcester Drive and Daleview Drive

- A. *Existing conditions* Worcester Drive intersects Daleview Drive at approximately a 90 degree angle from the west within a 90 degree horizontal curve in Daleview Drive. There are no traffic control signs located at this intersection and there are no sidewalks along either street.
- B. Proposed Field review established that the sight distance meets City standards. It was observed in the field that a car traveling eastbound on Worcester Drive did not stop at Daleview Drive. Due to the curvature of both Worcester Drive and Galway Drive and the potential of higher volumes of cars traveling between the two sections of the subdivision, AECOM recommends installing a yield sign on eastbound Worcester Drive.

#### 9. Erin Circle and Roxbury Drive

- A. Existing conditions Erin Circle intersects Roxbury Drive from the south at two locations, each of which is a 90 degree intersection. There are no traffic control signs located at this intersection and there are no sidewalks along either street. Erin Circle is located approximately 625 feet east of Daleview Drive and serves two (2) homes.
- B. *Proposed* Field review established that the sight distance meets City standards. Due to the low volume of traffic on Erin Circle and existing geometry of the intersection, AECOM recommends maintaining the current condition of this intersection.

#### 10. Roxbury Drive and Daleview Drive

- A. *Existing conditions* Roxbury Drive intersects Daleview Drive at approximately a 90 degree angle from the east. There are no traffic control signs located at this intersection and there are no sidewalks along either street. The intersection is located approximately 600 feet south of Worcester Drive and on the west side of Daleview Drive there is a small cul-de-sac that serves three (3) homes.
- B. *Proposed* Field review established that the sight distance meets City standards. Due to the lower volume of traffic on Roxbury Drive and existing geometry of the intersection, AECOM recommends maintaining the current condition of this intersection.

#### 11. Princeton Boulevard and Worcester Drive

A. *Existing conditions* – Princeton Blvd intersects Worcester Drive at approximately a 90 degree angle from the east. There are no traffic control signs located at this intersection. There are no sidewalks along either street. The intersection is located approximately 220 feet west of the Taft Road entrance.



B. *Proposed* – Field review established that the sight distance meets City standards. Due to the short distance and low speed cars would be traveling on Princeton Boulevard, AECOM recommends maintaining the current condition of this intersection.

#### **Conclusion**

Based on the field review and the conditions listed in MMUTCD for adding stop or yield signs, recommendations were made for each intersection. AECOM primarily recommends maintaining exiting conditions at study intersections, with the exception of the intersections of Worcester Drive and Galway Drive and Worcester Drive and Daleview Drive, where yield signs are recommended.

Neighborhood outreach and education, through an informational pamphlet that covers the topics of residential roadway operations such as intersection right-of-way rules, speed limits and other topics, may be beneficial to provide to concerned residents.



APPENDIX A

**INTERSECTION APPROACH PHOTOS** 

# 1. Dartmoor Drive and Galway Drive



Southbound Galway Dr Approaching Dartmoor Dr



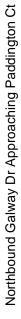


Eastbound Dartmoor Dri Approaching Galway Dr



# 2. Paddington Court and Galway Drive







# Southbound Galway Dr Approaching Paddington Ct



Eastbound Paddington Ct Approaching Galway Dr



# 3. Lancaster Court and Galway Drive



Southbound Galway Dr Approaching Lancaster Ct





# 4. Norfolk Court and Galway Drive







Eastbound Norfolk Ct Approaching Galway Dr



# 5. Carlisle Court and Galway Drive





Southbound Galway Dr Approaching Carlisle Ct

Westbound Carlisle Ct Approaching Galway Dr



# 6. Windermere Court and Galway Drive



Southbound Galway Dr Approaching Windermere Ct





Eastbound Windermere Ct Approaching Galway Dr



# 7. Worcester Drive and Galway Drive



Northbound Galway Dr Approaching Worcester Dr

Southbound Galway Dr Approaching Worcester Dr





Westbound Worcester Dr Approaching Galway Dr



# 8. Worcester Drive and Daleview Drive





Westbound Worceseter Dr Approaching Daleview Dr



# 9. Erin Circle and Roxbury Drive

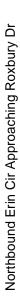




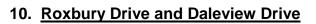


# Westbound Roxbury Dr Approaching Erin Cir











Southbound Daleview Dr Approaching Roxbury Dr





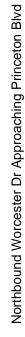
Westbound Roxbury Dr Approaching Daleview Dr





# 11. Princeton Boulevard and Worcester Drive









Westbound Princeton Blvd Approaching Worcester Dr

