

CITY COUNCIL ACTION REPORT

August 26, 2008

TO: Phillip L. Nelson, City Manager

FROM: Brian P. Murphy, Asst. City Manager/Economic Development Services
Steven J. Vandette, City Engineer *SV*
William J. Huotari, Deputy City Engineer *WJH*

SUBJECT: Traffic Committee Recommendations
August 20, 2008

Background:

The Traffic Committee considered these items at the August 20, 2008 meeting and made the following recommendations (minutes attached):

- Recommend that the old "No Outlet" sign be replaced with a new, more visible sign and that a second "No Outlet" sign be installed on the opposite corner, at Lancer Court and Babcock Drive.
- Recommend that, with the approval of the Road Commission for Oakland County, the following changes be made on Maple Road at Fire Station #4:
 - a. Install two signs, "Do Not Enter" and "Authorized Vehicles Only" on one post on each side of the west driveway,
 - b. Install "Do Not Block Driveway" sign, with yellow lights (if possible) blinking from 6:00 a.m. to 9:00 a.m., Monday through Friday, on the east side of the west driveway,
 - c. Remove "Fire Department Parking Only" signs.
- Recommend installing "No U-Turn" signs on Northfield Parkway between Durand Drive and the northerly driveway to Troy High School.

Financial Considerations:

- Signs cost approximately \$115.

Policy Considerations:

- Troy has enhanced the health and safety of the community.

Options:

- Council can approve or deny the recommendations.

A regular meeting of the Troy Traffic Committee was held Wednesday, August 20, 2008 in the Lower Level Conference Room at Troy City Hall. Pete Ziegenfelder called the meeting to order at 7:30 p.m.

1. Roll Call

PRESENT: Sara Binkowski
Ted Halsey
Jan Hubbell
Richard Kilmer
Pete Ziegenfelder
Sam Jiang

ABSENT: John Diefenbaker
Gordon Schepke

Also present: Bill Huotari, Deputy City Engineer
Lt. David Livingston, Troy Police Dept.
Lt. Eric Caloia, Troy Fire Dept.
Joyce Mann, 1206 Torpey
Mark Dziatczak, 1197 Kinlock Dr.
Colleen Hill, Hubbell, Roth and Clark - Consultant

RESOLUTION #2008-08-29

Moved by Kilmer
Seconded by Hubbell

To excuse Mr. Diefenbaker and Mr. Schepke.

YES: All-5
NO: None
ABSENT: 2 (Diefenbaker, Schepke)
MOTION CARRIED

2. Minutes – April 16, 2008**RESOLUTION #2008-08-30**

Moved by Hubbell
Seconded by Halsey

To approve the July 16, 2008 minutes.

YES: All-5
NO: None
ABSENT: 2 (Diefenbaker, Schepke)
MOTION CARRIED

REGULAR BUSINESS

3. Request for Directional Sign at Lancer Court and Babcock Drive

RESOLUTION #2008-08-31

Moved by Binkowski
Seconded by Hubbell

To replace the old “No Outlet” sign with a new, more visible sign and add a second No Outlet sign on the opposite corner.

YES: All-5
NO: None
ABSENT: 2 (Diefenbaker, Schepke)
MOTION CARRIED

4. Request for Stop Sign on Torpey Drive at Baker Middle School

RESOLUTION #2008-08-32

Moved by Hubbell
Seconded by Binkowski

To table this item until the September meeting. Mr. Huotari will be meeting with school officials on August 21 for further discussion and possible resolution.

YES: All-5
NO: None
ABSENT: 2 (Diefenbaker, Schepke)
MOTION CARRIED

5. Traffic Issues at Fire Station #4

RESOLUTION #2008-08-33

Moved by Halsey
Seconded by Kilmer

To

- (a) Install two signs on Maple Road at Fire Station #4, Do Not Enter and Authorized Vehicles Only on one post on each side of the west driveway
- (b) Install Do Not Block Driveway sign on Maple Road, with yellow lights (if possible) blinking from 6:00 a.m. to 9:00 a.m., Monday through Friday, on the east side of the west driveway of Fire Station #4
- (c) Remove Fire Department Parking Only signs at Fire Station #4, with approval from the Road Commission for Oakland County (RCOC).

YES: All-5
NO: None
ABSENT: 2 (Diefenbaker, Schepke)
MOTION CARRIED

6. Install No U-Turn Signs on Northfield Parkway at Troy High School**RESOLUTION #2008-08-34**

Moved by Hubbell

Seconded by Halsey

To install No U-Turn Signs on Northfield Parkway between Durand Drive and the northerly driveway to Troy High School.

YES: All-5

NO: None

ABSENT: 2 (Diefenbaker, Schepke)

MOTION CARRIED

7. Signage on 14 Mile at Panera Bread Driveway

Presented as information only.

8. Public Comment

No one else wished to address the committee.

9. Other Business

There was discussion about signage at Troy Marketplace, on Big Beaver east of Rochester. Lt. Livingston is waiting for results of a traffic study before recommending times for additional turn prohibitions.

Joyce Mann, 1206 Torpey, spoke about Item 4, Torpey Drive, which had been tabled. She has lived on Torpey for over twenty years, and reported that traffic is horrible. Since the International Academy opened, it is even worse, and it is dangerous for her to pick up her mail and newspaper. Motorists drive too fast, and yell at the mail carrier to get out of the way. She doesn't think the stop sign will have any effect.

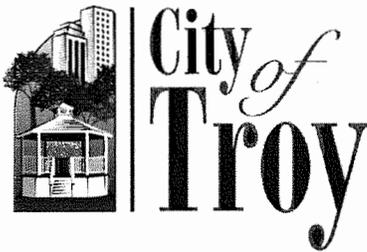
Lt. Livingston will have the radar trailer placed on Torpey to register traffic speeds and warn motorists to slow down.

10. Adjourn

The meeting adjourned at 8:28 p.m.

Pete Ziegenfelder, Chair

Laurel Nottage, Recording Secretary



TRAFFIC COMMITTEE REPORT

July 23, 2008

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer

SUBJECT: Lancer Court at Babcock Drive
Directional Sign Request

Background:

- Julie Daniels, of 2043 Lancer, requests that directional signs to Coolidge Road be placed at the intersection of Lancer Court with Lancer Drive and Babcock Drive.
- Ms. Daniels stated that vehicles traveling on Lancer Drive, from the Schroeder School, continue on Lancer Court assuming that they can access Coolidge Highway even though there is a "NO OUTLET" sign posted at the intersection.
- When these vehicles get to the cul-de-sac and realize that they cannot access Coolidge Highway, they travel at high speeds to exit the cul-de-sac and drive back on Lancer Court to find their way out.
- Ms. Daniels stated that she has seen at least one vehicle drive over the sidewalk and greenbelt area to access Coolidge Road rather than drive back around.
- The city requested that our traffic engineering consultant review the request and provide a report of their findings and recommendations.
- A copy of this report is attached.

Recommendations:

- Staff recommends that landscaping be installed in the greenbelt area between Lancer Court and Coolidge Highway to provide a visual obstruction of Coolidge Highway for vehicles on Lancer Court.
- Additional signage is not recommended as the "NO OUTLET" sign is prominently posted and visible.

Suggested Resolutions:

- a. Recommend installation of landscaping in the greenbelt area between Lancer Court and Coolidge Highway.
- b. Recommend a directional sign be placed at the intersection of Lancer Court and Babcock Drive to direct traffic to Coolidge Highway.
- c. Recommend no changes on Lancer Court at Babcock Drive.



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July 14, 2008

City of Troy
500 W. Big Beaver Road
Troy, Michigan 48084

Attn: Mr. William Huotari, P.E., Deputy City Engineer

Re: Lancer Court and Babcock Drive Intersection Review HRC Job No. 20080464.02

Dear Mr. Huotari:

At your request, we have reviewed the intersection of Lancer Court and Babcock Drive in the City of Troy (Figure 1). This intersection is located between Big Beaver Road and Wattles Road, west of Coolidge Highway. There is no outlet on Lancer Court to Coolidge Highway; however, motorists coming from Schroeder School and the Swim Club on Jack Drive continue on Lancer Drive to Lancer Court to access Coolidge Highway instead on turning north on Babcock Drive to exit to Coolidge Highway. This intersection review was completed to determine what can be done to stop motorists from trying to exit to Coolidge Highway from Lancer Court.



Figure 1: Aerial Photograph of Study Area in the City of Troy [Source: Google Earth Pro]

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Existing Conditions

Motorists that attempt to use Lancer Court to exit to Coolidge Highway realize that it is a dead end and are forced to turn around in the court and use Babcock Drive. At least one motorist that did not want to turn around chose to exit to Coolidge Highway by driving over the grass median that separates Lancer Court from Coolidge Highway. The grass median is relatively flat and does not have any landscaping so a large vehicle, such as a pick-up truck, could drive over it.

Currently there is a “NO OUTLET” sign on Lancer Court to warn motorists that they are unable to access another road from Lancer Court. The “NO OUTLET” sign can be clearly seen by motorists traveling east on Lancer Drive approaching Babcock Drive as shown in Photograph 1.



Photograph 1: Yield Sign on Lancer Court at Intersection with Babcock Drive

Vehicles on Coolidge Highway are visible to motorists traveling east on Lancer Drive as they approach the intersection with Babcock Drive (see Photograph 1). Being able to see vehicles on Coolidge Highway gives motorists the impression that they can access Coolidge Highway by traveling straight down Lancer Court.

Traffic Crash Analysis

Traffic crash data was obtained from the Traffic Improvement Association Traffic Crash Analysis Tool (TCAT) website for the intersection of Lancer Drive and Babcock Drive for the past five years. There was one reported traffic crash. A vehicle traveling westbound on Lancer Drive hit a parked vehicle west of the intersection with Babcock Drive. There were no crashes that resulted from motorists attempting to use Lancer Court to exit to Coolidge Highway.

Conclusions and Recommendations

Since the “NO OUTLET” sign is clearly visible, HRC does not recommend adding another sign to direct motorists to Babcock Drive to exit to Coolidge Highway. If motorists do not acknowledge the existing “NO OUTLET” sign, they are unlikely to see another sign that is added.

Since motorists can see the vehicles on Coolidge Highway, HRC recommends that landscaping be added to the grass median between Lancer Court and Coolidge Highway. Properly designed landscaping could

Mr. William Huotari
July 14, 2008
HRC Job Number 20080464.02
Page 3 of 3



ITEM 3

prevent motorists on Lancer Drive from seeing the vehicles on Coolidge Highway. This could also restrict the movement of vehicles traveling over the grass median at Lancer Court attempting to reach Coolidge Highway.

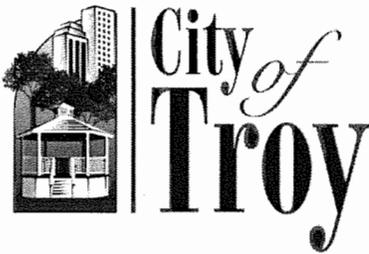
Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Colleen L. Hill, P.E., PTOE
Transportation Project Engineer

LFG/

pc: HRC; W. Alix, File



TRAFFIC COMMITTEE REPORT

July 23, 2008

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer

SUBJECT: Torpey Drive at Baker Middle School
Stop Sign Request

Background:

- The Troy Police Department requests that a "STOP" sign be placed at the end of Torpey Drive at the entrance to Baker Middle School.
- Baker Middle School and the new International Academy are located at the end of Torpey Drive, east of Rochester Road.
- There is an existing "STOP" sign at the approach from the International Academy to Torpey Drive.
- There are no signs or physical obstructions limiting the vehicular movement out of the existing Baker Middle School parking lot or cul-de-sac.
- The Police Department has worked with the school district to facilitate flow of traffic from the school site to Torpey Drive, but the school district is not currently willing to construct physical improvements on their site.
- Staff requested that our traffic engineering consultant review the request and provide a report of their findings and recommendations.
- A copy of this report is attached.

Recommendations:

- Staff recommends that a "STOP" sign be placed at the intersection of eastbound Torpey Drive and the school property.
- Staff further recommends that additional studies be conducted once school is in session in cooperation with the school district.

Suggested Resolutions:

- a. Recommend installation of a "STOP" sign at eastbound Torpey Drive and Baker Middle School and further study of the area to be completed after school is in session.
- b. Recommend no changes at Torpey Drive and Baker Middle School.



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July 14, 2008

City of Troy
 500 W. Big Beaver Road
 Troy, Michigan 48084

Attn: Mr. William Huotari, P.E., Deputy City Engineer

Re: Baker School Stop Sign Request

HRC Job No. 20080463.02

Dear Mr. Huotari:

At your request, we have reviewed the Baker School entrance from Torpey Drive and the parking lot to determine if a stop sign should be installed on Torpey Drive. Baker School is located at 1291 Torpey Drive in the City of Troy (See Figure 1). The school is located north of Big Beaver Road and east of Rochester Road.

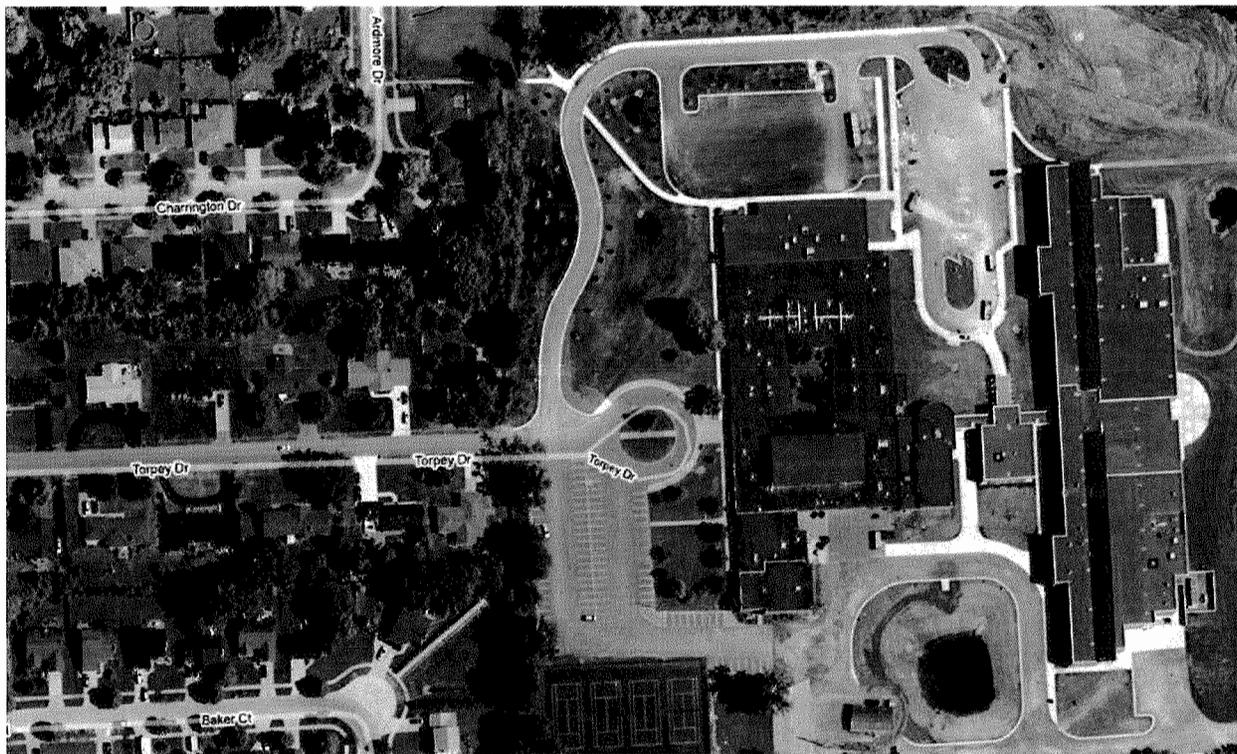


Figure 1: Aerial Photograph of Baker School [Source: Google Earth Pro]

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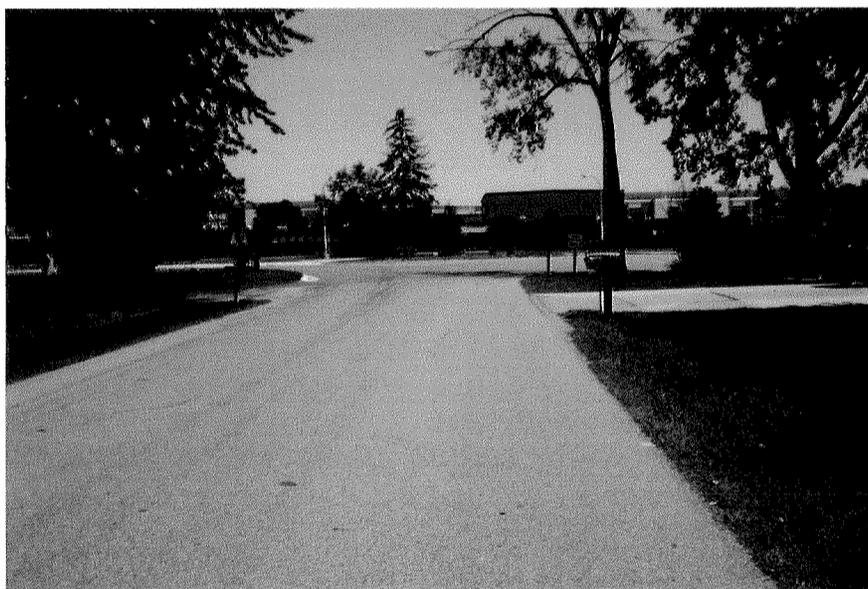
This review was completed to determine if traffic control devices are required to ensure safe and efficient travel based on the criteria prescribed in the Michigan Manual of Uniform Traffic Control Devices (MMUTCD). Since school is out for the summer, HRC was unable to collect traffic volume data to use in this review. Traffic crash data and sight distance information were analyzed to determine if traffic control devices are needed.

Traffic Crash Experience

Traffic crash data was obtained from the Traffic Improvement Association Traffic Crash Analysis Tool (TCAT) website for the Baker School Parking Lot and the intersection with Torpey Drive for the past three years. There were no reported traffic crashes at this location during that time.

Sight Distance

Our field review of Torpey Drive as it approaches Baker School's parking lot showed that there are some trees limiting the visibility of motorists approaching the intersection to see conflicting traffic as shown in Photograph 1. However, a vehicle can still approach the intersection at a speed of 25 miles per hour and still stop in time to avoid a collision with a vehicle in the parking lot. A traffic control device is not recommended based on sight distance.



Photograph 1: Eastbound Torpey Drive at Baker School Parking Lot

Conclusions

Our review of the traffic crash experience and sight distance information indicates that the approach does not meet the criteria for a stop or yield sign. Therefore, HRC does not recommend installing a traffic control device for Torpey Drive at Baker School's parking lot.

Instead of installing a traffic control device at this location, HRC recommends reviewing and reconfiguring Baker School's parking lot for on-site circulation issues when school is in session. Vehicle paths from several directions meet at this location. The vehicles traveling through the parking lot are not



directed through the parking lot. The parking lot for Baker School could possibly be reconfigured to provide more efficient site circulation; thus, improving potential congestion problems.

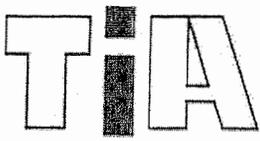
Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Colleen L. Hill, P.E., PTOE
Transportation Project Engineer

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August 19, 2008

Michael Adamczyk
 Assistant Superintendent
 Troy School District
 4400 Livernois Road
 Troy, Michigan 48098

Dear Mr. Adamczyk:

TIA was asked to review the traffic control signing at the old Baker Middle School in regard to the school being changed to an International Baccalaureate Program and Adult Special Education program. I reviewed the location on Wednesday, July 30, 2008 and have the following suggestions:

1. In the parking lot on the south side of Torpey in the middle aisle of parking spaces close/crosshatch the end parking spot on the west side of the aisle. Install a Stop sign at this location. This stop sign will control traffic going north from the parking lot to the drive to the new Baker Middle School. There is an existing Stop sign for southbound traffic on the drive from the new Baker Middle School.
2. Relocate the Stop sign and Stop Bar on drive from the new Baker Middle School at Torpey southerly a few feet so when the drivers are stopped at the Stop sign and Stop Bar they have a good view of traffic on Torpey—there is a bush in the way now. Another option is to remove the bush(es).
3. Close the northerly most parking spot on the parking space aisle that is along the old Baker Middle School and install a Stop sign. This will control traffic coming from the parking lot and allow parents dropping of their children in the circular drive to not have conflicts with traffic from the parking lot.
4. To improve sight distance for drivers using the parking aisle closest to the old Baker Middle School building close/crosshatch the last full parking spot on the east side of the north end of the middle parking stalls.
5. Install a symbolic Do Not Enter sign in the island of the circular drive near where vehicles exit so that vehicles do not enter in the wrong direction.
6. Consider installing No Parking Fire Lane signs on the circular drive in front of old Baker Middle School. These signs would be similar to what are installed at the new Baker Middle School and on the north end of the old Baker Middle School. The signs should be installed perpendicular to the drive.

7. At the westerly exit drive from the north parking lot at the old Baker Middle School remove the first and third trees (close to curb) east of the drive to improve sight distance. Also, remove the first tree to the west of the drive to improve sight distance.
8. At the easterly exit drive from the north parking lot at the old Baker Middle School remove the first three trees to the west of the drive to improve sight distance.
9. At the crosswalk in the northwest corner of the school property that goes to the subdivision to the west remove the first two trees on the east side of the drive north of the crosswalk and the first tree on the east side of the drive south of the crosswalk to improve sight distance.
10. Replace the missing School sign on the westbound drive from the new Baker Middle School at the crosswalk in the northwest corner of the school property. An "Arrow Panel" needs to be installed under this sign. Consider replacing the existing School sign and install new Fluorescent Yellow-Green School and Arrow Panel signs for better conspicuity, if all crossing signs are replaced—see item 11.
11. At the two crosswalk locations on the drive to the new Baker Middle School install "Arrow Panels" under the school signs with the arrows pointing down and toward the road. This is the standard sign for school crosswalks. Consider replacing the existing School signs and install new Fluorescent Yellow-Green School and Arrow Panel signs for better conspicuity.
12. Turn No Parking Fire Lane Buses Only signs on the north side of the old Baker Middle School so they are perpendicular to the drive, which will make them more visible to the drivers.
13. Contact the City of Troy about replacing the missing School sign on Torpey just east of Rochester Road by the school pavement marking legend.
14. In regard to your new sign indicating which way to Baker Middle School, International Academy and Buses/Deliveries the sign should have at least a 5 foot bottom sign height and a 7 foot bottom sign height if there will be pedestrians walking near it. When determining the location of this sign make sure that it will not be blocking the sight distance for drivers coming from the parking lot, drive to the new Baker Middle School, etc.
15. Where Boyd St. enters the school property at the south, trim shrubs and bushes, especially on the east side of Boyd St. so there is better sight distance for the driveway on the south side of the school property. Also, if this east-west school drive is a two-way drive, consider installing a Stop sign in the northeast corner of the drive at Boyd St. for westbound drivers on the driveway.

The following are other comments I have on signing at the new Baker Middle School:

1. Replace Do Not Enter One Way signs with standard symbolic Do Not Enter signs.
2. Turn No Parking Fire Lane signs 90 degrees so they are perpendicular to the driveway and more easily visible to the drivers. This is for the north loop in front of the building and also the big loop at the south end of the building.

Page 3
Adamczyk
August 19, 2008

If you have any questions or would like to meet concerning the above, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "David F. Allyn". The signature is written in black ink and is positioned to the right of the word "Sincerely,".

David F. Allyn, P.E.
Engineering and Data Services



TRAFFIC COMMITTEE REPORT

July 24, 2008

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer

SUBJECT: Troy Fire Station #4 – Maple Road, East of John R
Traffic Issues

Background:

- The Troy Fire Department requests that traffic operations in and around Fire Station #4 be reviewed due to a high number of vehicles making U-turns in the driveways as well as frequent backups on westbound Maple Road that block the westerly driveway to the fire station.
- The single biggest problem is the stacking of traffic west bound that blocks the west drive so firefighters can't get in to the station and the truck have problems getting out. This is most prevalent between the hours of 0600 and 0900 Mon-Fri.
- The other problem that the firefighters have noticed is a relatively high number of vehicles that make a U-Turn in the station to go west on Maple.
- It appears that many of them are doing this to avoid the left turn signal (NB John R to WB Maple). They make a right turn on Maple, pull a U turn in the fire station and are WB on Maple.
- It appears that the traffic signal timing at John R and Maple should be retimed to improve operations of the intersection.
- The traffic signal is under the jurisdiction of the Road Commission for Oakland County (RCOC) and as such any changes or request for changes must be discussed further with their staff.
- There are existing signs as follows at the fire station driveways
 1. "Do not Block Driveway" on Maple at the east side of the west driveway
 2. "Fire Dept Parking Only" on the west side of the west driveway
 3. "Do Not Enter Authorized Vehicles Only" on the east side of the east drive
 4. "Fire Dept Parking Only" on the east side of the east drive
- The no parking signs can be removed as the nearby business has relocated and unauthorized parking has not been an issue since that time.
- John R is under the jurisdiction of the RCOC and as such, they are the responsible party to revise, replace or add signage within the road right-of-way for roads under their control.
- Staff requested that our traffic engineering consultant review the request and provide a report of their findings and recommendations.
- A copy of this report is attached.

Recommendations:

- Staff recommends the following:
 - Removal of both "FIRE DEPARTMENT PARKING ONLY" signs.
 - Addition of "DO NOT ENTER" signs and "AUTHORIZED VEHICLES ONLY" signs on both sides of the west driveway.

Suggested Resolutions:

- a. Recommend that "DO NOT ENTER" and "AUTHORIZED VEHICLES ONLY" signs be installed on both sides of the westerly driveway to Fire Station #4 and further that staff meet with the RCOC to review traffic signal timing at the intersection of John R and Maple.
- b. Recommend no changes to signage at Fire Station #4.



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July 14, 2008

City of Troy
 500 W. Big Beaver Road
 Troy, Michigan 48084

Attn: Mr. William Huotari, P.E., Deputy City Engineer

Re: Troy Fire Station No. 4 Traffic Control Review

HRC Job No. 20080461.02

Dear Mr. Huotari:

At your request, we have reviewed the traffic control for Fire Station No. 4 located at 2103 E. Maple Road in the City of Troy. This Fire Station is located on the north side of Maple Road just east of John R Road (See Figure 1).



Figure 1: Aerial Photograph of Troy Fire Station No.4 on Maple Road [Source: Google Earth Pro]

According to the station chief, there are two problems that exist with Fire Station No. 4's driveway. The first problem is that there are a significant number of vehicles making a U-Turn into the driveway in order to travel west on Maple Road. These vehicles turn right on Maple Road from Northbound John R Road, make a U-Turn in the driveway, and travel west on Maple Road instead of using the left-turn signal on

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Northbound John R Road to travel west on Maple Road. The second problem is vehicles traveling westbound on Maple Road blocking the driveway so fire trucks have difficulty entering and exiting the driveway. The vehicles are backed up on westbound Maple Road from the traffic signal at John R Road. This occurs mostly during the AM peak hours of 6:00 AM to 9:00 AM Monday through Friday. A study of this driveway was conducted to develop recommendations to mitigate these problems.

Traffic Crash Experience

Traffic crash data was obtained from the Traffic Improvement Association Traffic Crash Analysis Tool (TCAT) website for crashes near Fire Stations No. 4's driveway for the past three years. There were a total of 45 crashes on Maple Road between John R Road and Leaf Green Drive. None of the crashes were a result of Fire Stations No. 4's driveway or fire trucks from this driveway. Table 1 provides a summary of crash severity by year and Table 2 provides a summary of crash type by year for the crashes on Maple Road near Fire Station No. 4 from John R Road and Leaf Green Drive.

Table 1: Traffic Crash Severity by Year (2005-2007) on Maple Road near Fire Station No. 4

Crash	2005	2006	2007	Total Crashes	Percentage of Total
Property Damage Only	11	11	15	37	82%
Personal Injury	3	2	3	8	18%
Fatal	-	-	-	0	0%
Total Crashes	14	13	18	45	100%

Table 2: Traffic Crash Type by Year (2005-2007) on Maple Road near Fire Station No. 4

Crash Type	2005	2006	2007	Total Crashes
Head-On	-	1	-	1
Angle	-	5	8	13
Rear-End	13	6	7	26
Sideswipe-Same	-	1	2	3
Single Motor Vehicle	-	-	1	1
Other	1	-	-	1
Total Crashes	14	13	18	45

As shown in the above tables, the majority of the crashes were property damage only (82%) and there were no fatal crashes for the three year period from 2005 to 2007. The most common type of crash was rear-end crashes and was often a result of vehicles braking due to the traffic signal at Maple Road and John R Road or traffic congestion on Maple Road. The second most common type of crash was angle crashes and the majority of these were caused by vehicles turning into or out of private driveways.

Existing Signage

Currently there are traffic signs to warn motorists to not block the driveway, watch for emergency vehicles, authorized vehicles only are allowed, and parking is for the fire department only (see Figure 2). The fire fighters mentioned that they no longer have a problem with unauthorized vehicles parking in their lot since a nearby business relocated and therefore, some of those signs may be removed to make room for the new signs.



Figure 2: Existing Signage at Fire Station No. 4 [Google Earth Pro]

Conclusions

Since the fire department no longer has an issue with unauthorized vehicles parking in their lot, HRC recommends removing both "Fire Department Parking Only" signs.

HRC recommends adding "DO NOT ENTER" signs (R5-1) and "AUTHORIZED VEHICLES ONLY" signs (R5-15) to both sides of the Fire Station's driveway on the west. These signs should be installed parallel to Maple Road. This would prohibit the use of the west driveway to all entering vehicles except fire trucks.

HRC recommends retiming the signal to improve the operation of the intersection of John R Road and Maple Road especially the westbound Maple Road through movement and northbound John R Road left-turn movement. Motorists are blocking Fire Station No. 4's driveway because they are stopped by the traffic signal at John R Road. By shortening the queue on the westbound approach, vehicles will stop backing up to the driveway. Also, by improving the northbound John R left-turn phase, vehicles may no longer need to use Fire Station No. 4's driveway to conduct a U-Turn to travel westbound on Maple Road.

Very truly yours,

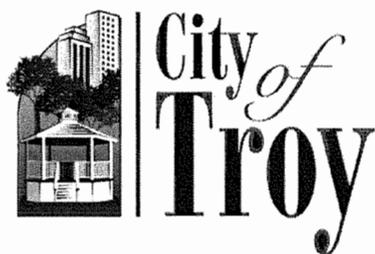
HUBBELL, ROTH & CLARK, INC.

A handwritten signature in black ink that reads "Colleen L. Hill". The signature is written in a cursive, flowing style.

Colleen L. Hill, P.E., PTOE
Transportation Project Engineer

LFG/

pc: HRC; W. Alix, File



TRAFFIC COMMITTEE REPORT

July 24, 2008

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer

SUBJECT: Northfield Parkway at Troy High School
No U-Turn Sign Request

Background:

- The Troy Police Department requests that "NO U-TURN" signs be placed on Northfield Parkway between Durand Drive and the northerly driveway to Troy High School.
- This area was reviewed recently by the Traffic Committee and two (2) Traffic Control Orders were approved:
 - TCO #07-03-P – installation of "NO PARKING/STOPPING/STANDING" signs along Northfield Parkway between Durand and Long Lake
 - TCO #07-12-MR – pavement markings on Northfield Parkway between Durand and Long Lake to create two through lanes and one center two-way left turn lane in the vicinity of Troy High School.
- Both TCO's were approved by City Council on December 17, 2007. Work orders for both TCO's were sent to the Department of Public Works on January 10, 2008. The work order for the "NO PARKING/STOPPING/STANDING" signs was completed with an installation date of February 2008.
- The pavement markings will be completed later this summer after the Department of Public Works completes concrete slab replacements on Northfield Parkway.
- The current request deals with congestion and backups due to the use of the student drop off area on the south end of the site.
- The student drop off area near Perrin Drive causes long backups on Northfield Parkway.
- Parents picking up and dropping off their children are making illegal U-turns on Northfield Parkway to access the drop off area.
- The Police Department has been patrolling this area on a regular basis during the school year as well as during the summer for the summer school students.
- The Police Department has talked with the school in the past, but the school district has not been willing to make physical changes to their site to facilitate the flow of traffic.
- Mark Dziatczak, the Principal for Troy High School, was contacted and he is willing to meet with staff to discuss the flow of traffic in and around the high school after school starts in September.
- Staff requested that our traffic engineering consultant review the request and provide a report of their findings and recommendations.
- A copy of this report is attached.

Recommendations:

- Staff recommends that “NO U-TURN” signs be placed on Northfield Parkway, between Durand Drive and the northerly entrance to Troy High School.
- Staff further recommends that additional studies be conducted once school is in session in cooperation with the school district.

Suggested Resolutions:

- a. Recommend that “NO U-TURN” signs be installed on Northfield Parkway between Durand Drive and the northerly driveway to Troy High School and further study of the area be completed after school is in session.
- b. Recommend no changes on Northfield Parkway at Troy High School.



HUBBELL, ROTH & CLARK, INC
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 Robert F. DeFrain
 Marshall J. Grazioli
 Thomas D. LaCross
 Dennis J. Benoit

July 14, 2008

City of Troy
 500 W. Big Beaver Road
 Troy, Michigan 48084

Attn: Mr. William Huotari, P.E., Deputy City Engineer

Re: Troy High School Traffic Control Review

HRC Job No. 20080475.02

Dear Mr. Huotari:

At your request, we have reviewed Troy High School traffic operations. Troy High School is located at 4777 Northfield Parkway in the City of Troy (see Figure 1). It is south of Long Lake Road and east of Coolidge Highway.



Figure 1: Aerial Photograph of Study Area in the City of Troy [Source: Google Earth Pro]

Y:\200804\20080475\Design\Corrs\01Ltr-TroyHS.doc

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Engineering. Environment. Excellence.



In February of 2008, “NO PARKING STOPPING STANDING” signs were installed along Northfield Parkway from Durand Drive to Long Lake Road. Pavement markings on Northfield Parkway were also approved to provide a three lane cross-section (one through lane in each direction and one center left-turn lane) from Durand Drive to Long Lake Road. The pavement markings will be installed in coordination with other road work scheduled this summer for this road segment.

Currently, there are two problems present at Toy High School. The first problem is that there are long back ups from the parent drop off area causing congestion in the drop off area and on Northfield Parkway. The second problem is that many parents are making illegal U-Turns on Northfield Parkway to enter the High School drop off area. This review was conducted to determine ways of improving the congestion problem and determine if “NO U-Turn” signs should be installed on Northfield Parkway.

Traffic Crash Analysis

Traffic crash data was obtained from the Traffic Improvement Association Traffic Crash Analysis Tool (TCAT) website for Northfield Parkway near Troy High School for the past three years. There were a total of seven crashes near Troy High School that were a result of Troy High School. Table 1 shows the seven crashes by type and year.

Table 1: Crash Types on Northfield Parkway near Troy High School (2005-2007)

Crash Type	2005 Crashes	2006 Crashes	2007 Crashes	Total Crashes
Angle	0	1	1	2
Rear-End	1	1	1	3
Sideswipe-Same	1	1	0	2
Total	2	3	2	7

Of the seven crashes shown above, two were injury crashes and none were fatal crashes. One of the rear-end crashes occurred because a parent stopped in the middle of Northfield Parkway to drop off their child. The two sideswipe-same crashes occurred because motorists were turning into Troy High School’s driveway and another motorist attempted to pass them on the wrong side of the road. The two angle crashes were caused by motorists exiting Troy High School’s driveway and hitting the motorists traveling southbound on Northfield Parkway. Some of the abovementioned crashes may be mitigated by the installation of the center left-turn lane (pavement markings).

Conclusions and Recommendations

HRC does not recommend installing “NO U-TURN” signs on Northfield Parkway as a permanent solution. Enforcement of the “NO U-TURN” signs would penalize the parents who are making these U-Turns to drop off their children; however, this does not solve the problem. The U-Turns on Northfield Parkway appear to be the result of parents entering the drop off area which is over capacity.

HRC recommends reviewing the site circulation when school is in session to determine how to mitigate the congestion issues. HRC recommends meeting with the school administration to review drop-off /

pick-up procedures and determine what changes can be made to improve school traffic operations. The school administration will help educate the parents and students on the proper way of entering and exiting Troy High School's driveways and parking lots.

If you have any questions or require any additional information, please do not hesitate to contact me.

Very truly yours,

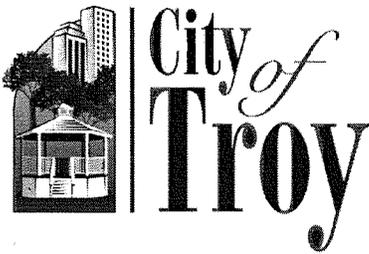
HUBBELL, ROTH & CLARK, INC.



Colleen L. Hill, P.E., PTOE
Transportation Project Engineer

LFG/

pc: HRC; W. Alix, File



TRAFFIC COMMITTEE REPORT

July 24, 2008

TO: Traffic Committee

FROM: Bill Huotari, Deputy City Engineer

SUBJECT: 14 Mile at Panera Bread Driveway
Request for Additional Signs

Background:

- The Troy Police Department requests that additional signs be added to the median area on 14 Mile west of John R in the vicinity of Panera Bread.
- This area of 14 Mile is at the end of the boulevard section and therefore has no physical restrictions to prohibit vehicular travel, only pavement markings and limited signage.
- In reviewing the area as well as construction plans from the Road Commission for Oakland County (RCOC) improvements completed on 14 Mile in 2004, there are several signs that were either not installed or have been hit/removed since that time.
- There is an issue with drivers exiting the Panera Bread driveway as well as the adjoining driveway to the east at 977 John R and traveling across 14 Mile to access eastbound 14 Mile.
- There are "ONE WAY" signs present but no additional signs in place restricting this movement.
- 14 Mile is under the jurisdiction of the RCOC and as such, they are the responsible party to revise, replace or add signage within the road right-of-way for roads under their control.
- Staff has reviewed the area and provided recommendations to the RCOC (copy of email attached).
- The RCOC has agreed that additional signage is needed and will install the following signs:
 - At the westerly driveway (at Panera Bread – Driveway #2) – install a "TURN RIGHT ONLY" sign in the median under the existing "ONE WAY RIGHT" sign
 - At the easterly driveway (at 977 John R – Driveway #3) – install a "DO NOT ENTER" sign on the back side of the existing "STOP" and "ONE WAY LEFT" sign installation and at the location of the existing "ONE WAY LEFT" sign.

Recommendations:

- There are no recommendations with this item. It is presented as information only.

William J Huotari

From: Chuck Keller [ckeller@rcoc.org]
Sent: Thursday, July 17, 2008 9:41 AM
To: William J Huotari
Cc: Lee Liston; Les Saunders; Michael Bachman; Danny R Daniel
Subject: Re: 14 Mile Westbound, East of John R

Bill:

I've looked into your request. The RCOC will do the following to address the situation.

At driveway location No. 1 - No additional signing is required.

At driveway location No. 2 - Install a "Turn Right Only" sign in the median under the existing "One Way Right" sign.

At driveway location No. 3 - Install a "Do Not Enter" sign on the back side of the existing "Stop & One Way Left" sign installation and at the location of the existing "One Way left" sign.

The stop signs located on the private driveways are not installed or maintained by the RCOC. Any signs installed at these locations need to be done by the private property owners (developers) or the city.

Chuck

Charles T. Keller, P.E.
Traffic Engineer
Traffic-Safety Department
Road Commission for Oakland County
2420 Pontiac Lake Road
Waterford, MI 48328
Phone (248) 858-4830
Fax (248) 858-4814
E-mail: ckeller@rcoc.org

>>> "William J Huotari" <HuotariWJ@troymi.gov> 7/11/2008 11:07 AM >>>

Chuck, I talked with Danielle the other day and she said she forwarded my original question to you. I called this morning and found out you were on vacation until next week so I thought I would forward you an email so that you can look at the same information that I have.

I received a request from our Police Department for some additional signage on 14 Mile, east of John R at the westerly driveway from the shopping plaza on the site. There are two (2) driveways from the site and then another driveway to 977 John R. Motorists exiting the westerly driveway from the site are driving straight across to get to eastbound 14 Mile (this area is the taper area from the existing median so there is no physical barrier to prevent the vehicles just double solid yellow lines). This is causing problems in the area and there needs to be additional signs added to enforce the area (aerial of the area is attached).

I took a look at the plans for 14 Mile, Stephenson to John R (RCOC Project # 47011) when 14 Mile was resurfaced (attached). The permanent signing and striping sheet shows the proposed

signs for this section and there are two (2) "TURN RIGHT ONLY" signs and two (2) "DO NOT ENTER"

signs that are shown on the plan but do not exist in the field. These are signs that should be installed ASAP.

<<14 Mile_Panera Bread.pdf>>

I went out and took pictures today and attached the pictures looking at 14 Mile from each of the three driveways. The easterly driveway (1) does have the "TURN RIGHT ONLY" sign posted but it is not obeyed as I witnessed two vehicles exiting the driveway and going straight across 14 Mile to the cross over.

<<Driveway 1_Main Plaza.JPG>> <<Driveway 2_Panera Bread.JPG>> <<Driveway 3_977 John R.JPG>>
As the signs in the vicinity of the westerly driveway were shown on the proposed plan sheet, I would assume that the RCOC would install them or do I need to go through our Traffic Committee/City Council sign request process and then forward that to you?

A general question as well:

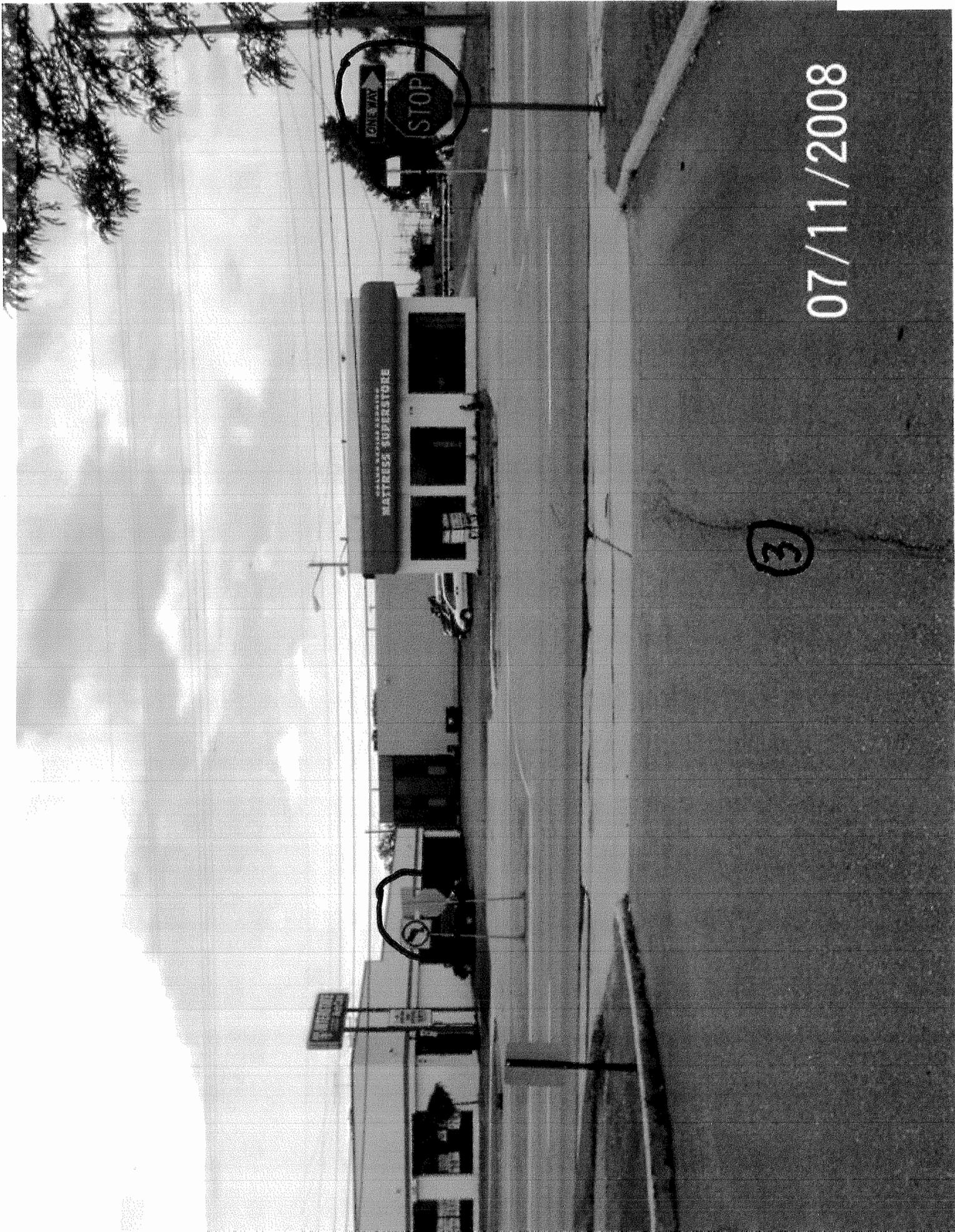
If I were to get a sign request for signage on a County Road, how should this be handled?

Thanks and let me know how you want to proceed.

Bill

<<Picture (Device Independent Bitmap)>>

<<William J Huotari P E .vcf>>



07/11/2008

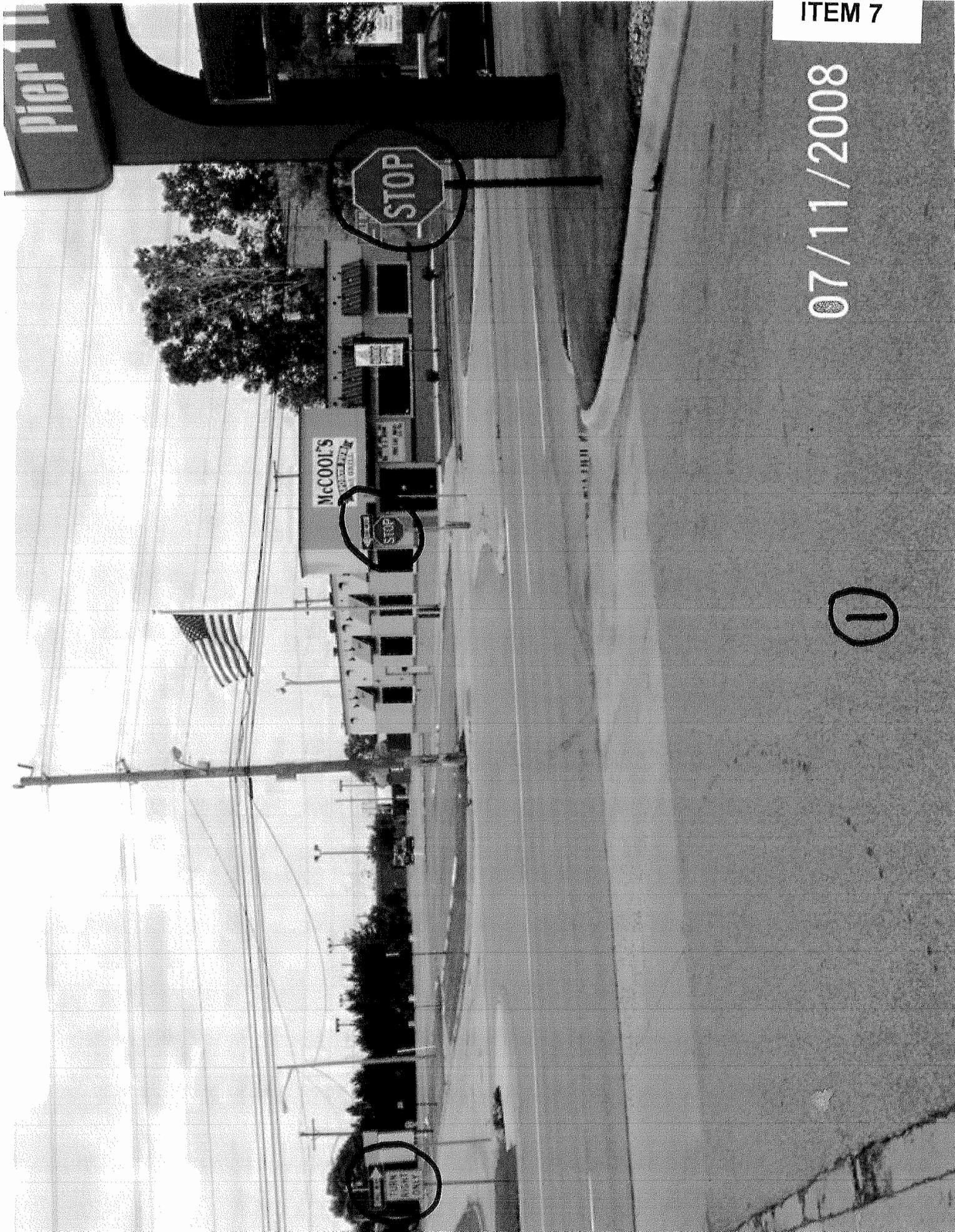
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Geographical Information Systems Online



E FOURTEEN MILE

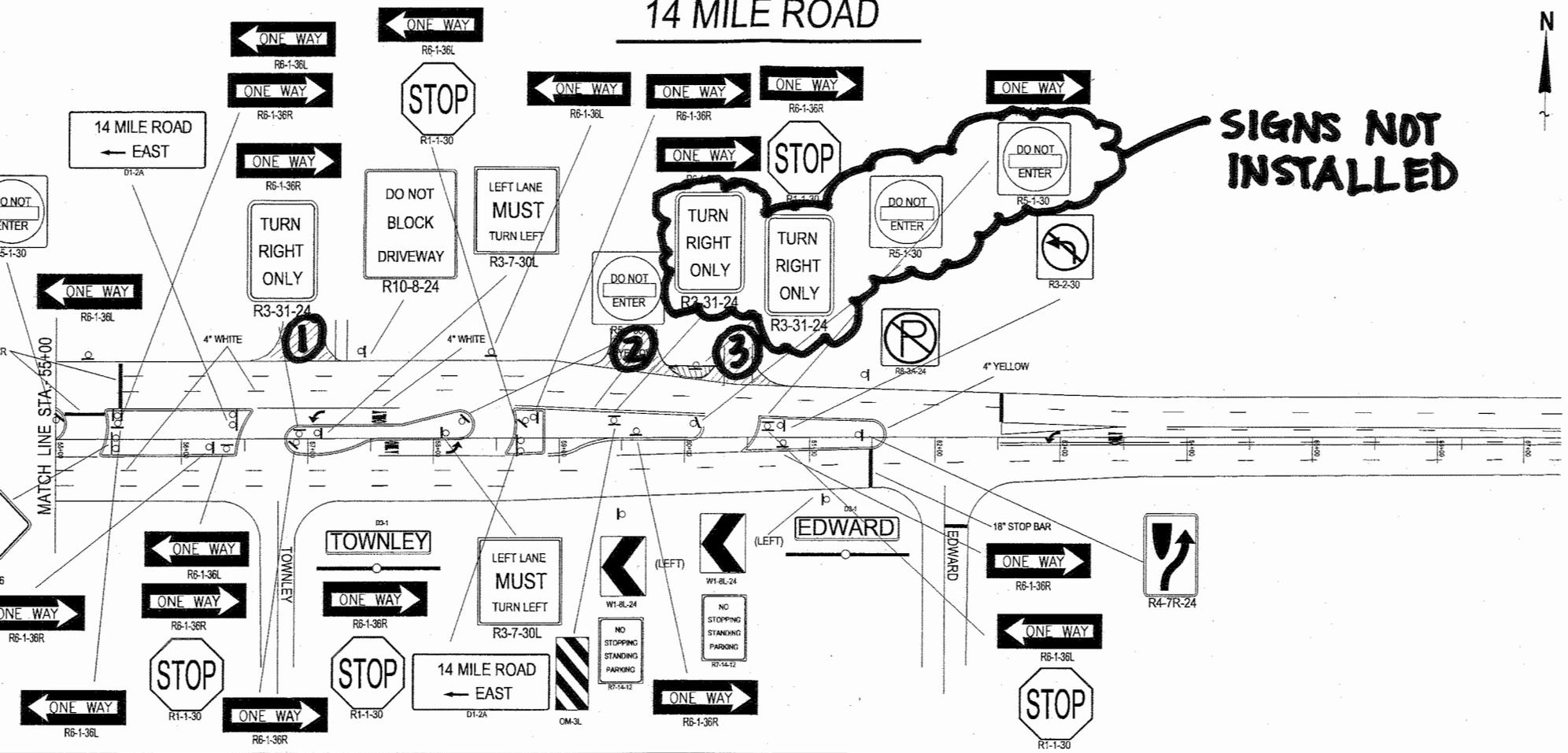
E FOURTEEN MILE



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Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.

14 MILE ROAD



SIGNS NOT INSTALLED

MATERIAL REQUIRED

(BY R.C.O.C.)

- | | |
|---------------|-----------------------|
| 5-R1-1-30 | STOP |
| 4-R5-1-30 | DO NOT ENTER |
| 2-R3-7-30(L) | L.T. LN. MUST TR. LT. |
| 3-R3-31-24 | TURN RIGHT ONLY |
| 1-R3-2-30 | NO LEFT TURN |
| 1-R10-8-24 | DO NOT BLOCK DRIVEWAY |
| 2-R7-14-12 | N.S.S.P. |
| 1-R6-34-12 | NO PARKING |
| 1-OM-3-24 | OBJECT MARKER |
| 1-W1-8-24 | CHEVRON |
| 12-R6-1-36(R) | ONE WAY |
| 6-R6-1-36(L) | ONE WAY |
| 1-R4-7-24 | KEEP RIGHT |
| 2-D1-2A-60 | GUIDE |
| 1-W4-2-36(R) | TRANSITION |

PAVEMENT MARKING

(BY CONTRACTOR)

SPRAYABLE THERMOPLASTIC

- | | |
|-----------|--------------|
| 4" WHITE | 1100 LN. FT. |
| 4" YELLOW | 1200 LN. FT. |

COLD PLASTIC

- | | |
|----------------------|-------------|
| 18" STOP BAR | 110 LN. FT. |
| LEFT TURN ARROW ONLY | 2 EA. |
| | 2EA. |

PERMANENT SIGNING DIAGRAM
AND
PAINTING DIAGRAM

SHT. OF

**RCOC PROJECT No. 47011
14 MILE, STEPHENSON TO
JOHN R.**