



**To:** MAYOR AND CITY COUNCIL

**Agenda Item #:** VIII. A.

**From:** Chad A. Millner, PE, Director of Engineering

**Action**

**Date:** April 21, 2015

**Discussion**

**Information**

**Subject:** Project Update - Tracy Avenue, Valley View Road, Valley Lane Intersection Improvements

**Action Requested:**

N/A

**Information / Background:**

The project was initiated by staff based on comments we received from residents and the City Council about pedestrians crossing Tracy Avenue when using the future Nine Mile Creek Regional Trail. Concerns with the intersection and utilities exist that are listed below and detailed in the attached preliminary engineering report.

- Traffic Speeds
- Traffic Queuing from Valley Lane onto Tracy Avenue
- Multiple Traffic Safety Requests
- Storm Water Drainage
- Box Culvert on Valley Lane at the Nine Mile Creek
- Remaining Service Life of the Watermain

Staff would like to update the council on this project. The scope of the project is listed in the Capital Improvement Plan under Project #'s 15-151 and 15-165. The funding under these CIP Project #'s did not account for the funding provided by Three Rivers Park District in the amount up to \$420,000 per the trailway agreement.

**Attachment:**

Preliminary Engineering Report BA-430



# PRELIMINARY ENGINEERING REPORT

## BA-430

### ENGINEERING DEPARTMENT

#### CITY OF EDINA

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## 2016 TRACY AVENUE, VALLEY VIEW ROAD AND VALLEY LANE INTERSECTION IMPROVEMENTS

APRIL 21, 2015

### SUMMARY:

The project involves installation of a one-lane roundabout at the intersection of Tracy Avenue, Valley View Road, and Valley Lane. These segments are classified as municipal state aid streets. This facility will provide a safer pedestrian crossing facility for the Nine Mile Creek Regional Trail, will slow traffic along Tracy Avenue and Valley View Road, and will improve access onto Tracy Avenue and Valley View Road from Valley Lane.

The estimated total project cost is \$1,045,000 and will be funded by a combination of the City's Municipal State Aid, PACS and utility funds and also by Three Rivers Park District.

### LOCATION:

The proposed project area includes the intersection of Tracy Avenue, Valley View Road, and Valley Lane. The drawing below is a project location map (Figure 1).



**Figure 1. Project Area Map**

### INITIATION & ISSUES:

This project was initiated by staff based on resident and City Council comments and concerns about pedestrians crossing Tracy Avenue as they use the Nine Mile Creek Regional Trail.

**Preliminary Engineering Report  
Intersection Improvements BA430  
April 21, 2015**

There have been two traffic safety requests related to queuing from Valley Lane and safety along Tracy Avenue with the volume and speed of traffic. A copy of these requests can be found in the Appendix.

Staff Issues

The following is a list of issues, some generated by resident comments, addressed in this report:

- Traffic speeds along Tracy Avenue and Valley View Road
- Traffic queuing issues from Valley Lane
- Pedestrian safety
- Replacement need of Nine Mile Creek box culvert on Valley Lane
- Remaining service life of the existing watermain
- Storm water drainage

Resident Input

An informational meeting was held on Monday, March 23, attended by 61 residents representing 54 properties. Most of the residents that attended the meeting were in support of the project concept as presented. Various questions and concerns were discussed and noted. Two general themes from the meeting were pedestrian safety and drainage of the roadway and creek through the existing culverts. Materials and notes from this meeting can be found in the Appendix.

School District Input

The concept was submitted to the Edina Public School District for comment. In general conversations, no concerns were expressed with the concept.

Staff Input

Input was solicited from the Public Works, Fire, and Police Departments.

Fire: The Fire Department commented on the need for two-way traffic during construction, and raised concerns about high school traffic if constructed during the school year. It was requested that staff review hydrant locations in the area and ensure the final design can accommodate their largest vehicle.

Police: The Police Department had no concerns or comments with the proposed facility.

Public Works: The Public Works Department inquired about the vertical component of the center island, drainage in the area, and recommended low-maintenance landscaping.

Edina Transportation Commission Input

On March 19, the preliminary layout of the roundabout was presented to the Edina Transportation Commission for feedback. The following is a summary of their input:

- Queuing and high speeds are a problem in this area; the roundabout solution should be effective in slowing vehicles down.
- Some concern was expressed regarding the future Nine Mile Creek Regional Trail crossing, and if the design presented was indeed the best solution (safest for cyclists and pedestrians).
- It was acknowledged that traffic problems extend beyond this intersection (at TH 62 ramps and on Valley View Road adjacent to Edina High School) and may be caused by issues beyond the reach of this project.
- Some felt that this solution would not create enough gaps for traffic exiting Valley Lane; however, several agreed that the slower traffic in the roundabout would allow for westbound traffic to enter the intersection more easily.
- A temporary “trial” solution was suggested: placing bollards (or other) in the intersection to create a temporary roundabout (or traffic circle) and observe over a period of time.
- One commissioner asked to see the difference in costs for a roundabout vs. other possible solutions.

**EXISTING CONDITIONS:**

Street

The intersection was constructed in the 1960's. The existing width of Tracy Avenue and Valley View Road varies from 40 to 45 feet wide. Valley Lane is 35 feet wide. The pavement condition varies in this area, but is in satisfactory condition (Photos 1 & 2).



**Photo 1. Existing Intersection Facing North from Valley View Road**



**Photo 2. Existing Intersection Facing West from Valley Lane**

Traffic speeds and volumes were measured in 2014. The 85th percentile speed was 36.9 mph with an ADT of 9,190 vehicles per day. There have been 8 reported crashes in the last 10 years, with the majority of those happening during the summer months. 6 of these were right-angle crashes, while 6 resulted in property damage only

#### **Pedestrian Facilities**

Bike lanes are marked along both sides of Tracy Avenue and Valley View Road. A sidewalk exists along the east side of Valley View Road up to Valley Lane and continues along the south side of Valley Lane heading east.

A pedestrian bridge exists adjacent to Valley Lane over Nine Mile Creek. This bridge will be replaced by Three Rivers Park District as part of the Nine Mile Creek Regional Trail Project.

Utilities

Based on bridge inspection reports, the box culvert on Valley Lane at Nine Mile Creek is in need of replacement. Staff is also investigating the condition of the culvert that carries the flow of the creek under Tracy Avenue.

Non-destructive watermain testing was performed in this area in 2014. The testing revealed concerns with the remaining service life of the watermain trunk pipes at this location.

Public Works is currently televising the sanitary sewer pipes in the area to evaluate their condition.

**PROPOSED IMPROVEMENTS:**

The project involves installation of a one-lane roundabout at the intersection of Tracy Avenue, Valley View Road, and Valley Lane (Figure 2). This facility will provide a safer pedestrian crossing facility for the Nine Mile Creek Regional Trail, will slow traffic along Tracy Avenue and Valley View Road, and will improve access onto Tracy Avenue and Valley View Road from Valley Lane.



**Figure 2. Proposed Roundabout Concept**

**Preliminary Engineering Report  
Intersection Improvements BA430  
April 21, 2015**

Staff will continue to analyze the sanitary sewer, storm sewer, and watermain facilities to determine what improvements are needed and can be implemented as part of this project.

Other types of improvements were considered to address pedestrian safety, traffic speed, and traffic queuing. These are listed below;

<b>Other Options</b>	<b>Issues Addressed</b>	<b>Comments</b>
Signalized intersection	Pedestrian Safety	1. Warrants not met 2. Moves traffic issue to different location(s)
Pedestrian refuge islands with rectangular rapid flashing beacons	Pedestrian Safety	Does not address traffic speed or queuing
Overpass	Pedestrian Safety	1. Does not address traffic speed or queuing 2. Cost concerns
Underpass	Pedestrian Safety	1. Does not address traffic speed or queuing 2. In flood plain 3. Cost concerns
Enforcement	Traffic Speed	Not a permanent solution
Change speed limit	Traffic Speed	Creates enforcement work
Stop signs	Traffic Queuing	Moves traffic issue to different location(s)
Roundabout	1. Pedestrian Safety 2. Traffic Speed 3. Traffic Queuing	Holistic solution

While other improvement options each address a single issue, staff believes installing a roundabout is the best solution, as it addresses multiple issues raised by residents and staff.

Permitting will be completed as required with agencies including Minnesota Department of Transportation, Nine Mile Creek Watershed District, Minnesota Pollution Control Agency, Department of Natural Resources, and others.

**RIGHT-OF-WAY  
& EASEMENTS:**

All proposed improvements stay within the right-of-way and no additional easement requirements are anticipated. Specific project construction limits will be determined during the final design process. Due to the large right-of-way in this area, some residents may not understand where property lines are located. Staff will work with residents to address concerns with trees, landscaping, driveway access, fences, and other potential construction impacts.

**Preliminary Engineering Report  
Intersection Improvements BA430  
April 21, 2015**

**PROJECT COSTS &  
FUNDING SOURCES:**

The total estimated project cost is \$1,045,000. The total cost includes direct costs for engineering, clerical and construction finance costs. It is listed in the Capital Improvement Plan (CIP) as CIP Project #'s 15-151 and 15-165. The table below shows the anticipated funding sources from the CIP. Per the Cooperative Agreement dated January 22, 2015, the Three Rivers Park District has agreed to fund up to \$420,000 dollars for improvements associated with the Nine Mile Creek Regional Trail.

<b>Funding Sources</b>	<b>CIP Funding Amount</b>	<b>Anticipated Funding Amount</b>
Municipal State Aid	\$850,000	\$430,000
Utility Funds	\$145,000	\$145,000 (1)
PACS	\$50,000	\$50,000
Three Rivers Park District	\$0	\$420,000
	<b>\$1,045,000</b>	<b>\$1,045,000</b>

(1) Potential increase as utilities are studied more in-depth.

**PROJECT SCHEDULE:**

The following schedule is feasible from an Engineering standpoint:

Receive PW, FD, PD, and School District Input	Jan – Feb, 2015
Receive Resident and ETC Input	March, 2015
<b>Receive Preliminary Engineering Report</b>	<b>April 21, 2015</b>
Authorize Professional Engineering Services	May 5, 2015
Bid Opening	Winter 2015
Award Contract	Winter 2015
Begin Construction	Spring 2016
Complete Construction	Fall 2016

**FEASIBILITY:**

Staff believes this project addresses issues related to traffic, pedestrian safety, and utilities, and is cost-effective and feasible to improve the public infrastructure.

**APPENDIX:**

- A. March 23, 2015 Informational Meeting Materials
- B. Final Alignment of the Nine Mile Creek Regional Trail
- C. Crash History
- D. Traffic Safety Requests

**APPENDIX A**

**Informational Meeting**

**Materials**

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# Tracy Avenue, Valley Lane & Valley View Road Intersection Modification

## Informational Meeting

March 23, 2015

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### Agenda

- Project Location
- Existing Conditions
- Considerations
- Project Concept
- Funding
- Timeline
- What You Can Expect
- Communication Tools
- Q&A



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### Project Location



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### Project Location

- Final Alignment of Nine Mile Creek Regional Trail



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### Existing Conditions

- Nine Mile Creek Regional Trail Crossing
  - Distance of Crossing Roadway with Traffic
- Traffic Data
  - 85% speed in 2014 = 36.7 mph (speed limit = 30 mph)
  - 8 crashes in last 10 years
    - 6 right angle crashes – Valley Lane onto Tracy Ave
    - 6 property damage only

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### Existing Conditions

- Traffic Queuing on Valley Lane
  - Due to traffic volume on Tracy / Valley View
  - Mon-Fri ADT 9,190 vehicles
- City has received several traffic safety requests regarding pedestrian safety at and near this intersection

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**Existing Conditions**

- Bike Lanes on Tracy Avenue / Valley View
- Sidewalk on one side south of Valley Ln
- Utility Concerns
  - Watermain
  - Storm Sewer
  - Bridge
- Any others?



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**Considerations**

- Safety of Trail Crossing
  - Signalized Intersection
  - Rapid Flashing Beacons
  - Refuge Islands
- Overpass
- Underpass
- Change Speed Limit
- Enforcement
- Stop Signs



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**Ideas: How do we solve these issues?**



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**Project Concept**

- This concept addresses the issues identified earlier.
- Pedestrian Crossing
- Speed
- Queuing



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**Funding**

- City of Edina
  - Municipal State Aid Funds
  - Utility Funds
  - Pedestrian and Cyclist Safety (PACS) Fund
- Three Rivers Park District Trail Funding
- Special assessments will not fund this project.

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**Timeline**

Jan / Feb	FD, PD, PW, & School District Input
March	Resident and ETC Input
April 17	City Council Discussion
	Consider Authorizing Professional Services
Winter 2015/16	Solicit Bids
Summer 2016	Construction Begins
Fall 2016	Construction Concludes

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**What You Can Expect**

- We will keep you informed of the project and its progress.
- You will have opportunities to provide input.
- We will do our best to minimize inconveniences, but construction does not come without pain points.
- Dust, noise, vibrations.

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**Communication Tools / City Extra**

You will be notified of all meetings and schedules via regular mail.

“City Extra” emails are the best way to receive regular updates once construction begins. These are free weekly email updates about your project.

- Sign up on City of Edina website: [www.EdinaMN.gov](http://www.EdinaMN.gov).
  - Check the box next to your project name.
- If you cannot receive email, we will mail you City Extra updates upon request.

www.EdinaMN.gov

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**Contact Us**

Email: [mail@edinamn.gov](mailto:mail@edinamn.gov)  
 Call: 952-826-0371  
 Visit: Engineering Department  
 7450 Metro Blvd.

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**Thanks for your time!  
Questions?**



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### Do Taxes Cover Wall Projects?

- Roughly 20 percent of your property taxes go to the City for expenses such as Police, Fire, Parks and Public Works (snowplowing, pothole repairs, sealcoating, and other street maintenance).
- Your taxes do not pay for wall construction.

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### Process



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graph LR; 1((1 Evaluate infrastructure)) --> 2((2 Informational meeting)); 2 --> 3((3 Feasibility study)); 3 --> 4((4 Public hearing)); 4 --> 5((5 Council decision)); 5 --> 6((6 Project ordered)); 6 --> 7((7 Planning & bidding)); 7 --> 8((8 Bids awarded)); 8 --> 9((9 Construction begins)); 9 --> 10((10 Final assessment));
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TRACY AVENUE, VALLEY LANE  
AND VALLEY VIEW ROAD  
INTERSECTION MODIFICATION

INFORMATIONAL MEETING  
MARCH 23, 2015

	NAME	ADDRESS
1	RODGER & SHARON PEISSIG	6116 WESTRIDGE BLVD
2	Mike Selter	6617 Cahill Rd
3	Suzanne Davison	6716 Galway Dr
4	JERRY STRAUSS	5828 CREEK VALLEY Rd
5	Barbara Griffiths	5844 Creek Valley Rd
6	Jim Peterson	6520 Creek Dr
7	JOHN BRANDEL	5700 Creek valley Rd.
8	TOBY MUSE	10901 RED CIRCLE DR, ST #300
9	DAN RIVARO	5704 Creek Valley Rd
10	Michael Bowers	5612 Hillside Ct.
11	GARY SCHWITZER	6400 LIMERICK DR
12	Peter Hauns	5600 Valley Lane.
13	Gene + Jenny Knorz	6613 Cahill Rd
14	Barbara Kliner	6321 Limerick Lane
15	Mary Turner	6724 Valley View Rd
16	Bryce Martinson	6100 Ridgeway Rd
17	Robert Michelis	6836 Chapel Lane
18	SHAN DUGGAN	6631 Limerick Dr
19	BRIAN HANSEN	5704 BROOK DR
20	Efrem Berman	6617 Hillside Ln
21	Stacey Lackner	5221 Birchcrest Dr.
22	WAYNE + RUTH KENITSCH	5624 DORON DR
23	Anniko Lackner	5221 Birchcrest Dr.
24	RICK LACKNER	" " "
25	Jacobson	6704 Galway Dr
26	Donal Friedman	5813 -Creek Valley RD
27	Dorothy Silvestrand	7104 Down Rd
28	Constance Rateile	5521 Valley Ln
29	Steve Bonnerick	6712 Cahill Rd
30	DAVID THOMPSON	5517 VALLEY LANE

TRACY AVENUE, VALLEY LANE  
AND VALLEY VIEW ROAD  
INTERSECTION MODIFICATION

INFORMATIONAL MEETING  
MARCH 23, 2015

	NAME	ADDRESS
1	PAUL NELSON	5220 DUGGAN PLAZA
2	Patty Bullion	6016 Shane Dr
3	Bob Sandilla	6715 Cahill Rd
4	INNA HAYS	5857 Creek Valley Rd
5	Spike Johnson	5821 Creek Valley Rd.
6	FORREY ASP	6601 HILLSIDE LN
7	Carol Fredlund	5813 Creek Val Rd
8	PAVE HENRY	5712 Creek Vly Rd
9	TOE LIPPY	6500 Creek Dr.
10	Wendy Thang	5705 Grace Ter.
11	Jean Hagens	6501 Creek Dr.
12	David Hagens	6501 Creek Dr.
13	Richard Zulu	5720 Loos Ln
14	Sally Zulu	" " "
15	Ann Anderson	5708 Susan Avenue
16	Chad Schwinhammer	5513 Valley Lane
17	Howard Fulk	6604 Galway
18	BARBARA SWAIN	6700 Colwell Rd
19	JAY SMITH	5717 SUSAN AVE.
20	Knith Brown	5713 Grace Ten
21	PETER ANDERSON	5701 W 66 ST
22	Susan Johnson	5232 Duggan Plz.
23	Lectie Schroeder	5824 W 68th St, 55439
24	Bryan Applegquist	5540 Valley Ln 55439
25	SUJIT VARMA	6504 Creek dr, 55439
26	Jim Thompson	5517 Valley Ln
27	BOB MALBY	6517 LINDRICK DR
28		
29		
30		

QUESTION / COMMENT CARD

ROUND ABOUT GREAT IDEA.

BUT DON'T WANT TAKE GRASSER  
S DRIVERS CAN'T SEE LIKE

YOU'D ON 70TH ST BETTER  
YORK FRANCE.

HOPEFULLY THE ROUNDABOUT WOULD  
DOWN HIGH SCHOOL TRAFFIC. KIDS  
BARREL DOWN VV AHEAD. WE  
PUT ON CLASSIS ON HOW TO DRIVE  
ROUND ABOUTS.

Name Bob MAURY Address 6517 KIMBRIGHT DR

PLEASE PRINT

PLEASE PRINT

QUESTION / COMMENT CARD

Roundabout Comment

When considering plantings, please  
consider visibility. With some of the  
other roundabouts in Edina, it can be  
hard to see pedestrians & bikers soon  
enough to react adequately  
because of the plants. (In general,  
consider that drivers need time & need to see  
well without obstructions to keep children & others safe.)

Name Ann Anderson Address 5708 Susan Avenue

PLEASE PRINT

PLEASE PRINT

QUESTION / COMMENT CARD

Roundabout Concern

It will be difficult for children  
biking to school who are  
coming from Valley Lane.

Name

Address

PLEASE PRINT

PLEASE PRINT

QUESTION / COMMENT CARD

When you're driving South on Jersey  
Taking a loop on Daley Lane, the  
traffic really moves things and in  
it'll come up there a car following right  
on wheels and you impatient to go  
around coming around. Very dangerous.  
One lane for the other 25000  
on 25000.

Name

PLEASE PRINT

Address

PLEASE PRINT

? Will these changes increase traffic on Aberdeen Ave.  
we have needs to meet now as it's the first left  
turn coming from the South on Tracy - I'm concerned  
As we have a lot of people going through winter  
on any amount of the snow. Run Street is also snowed out there.

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**ENGINEERING DEPARTMENT**

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## **APPENDIX B**

# **Final Alignment of the Nine Mile Creek Regional Trail**



# **APPENDIX C**

## **Crash History**

#### Crash History for Valley View and Valley Lane

- 8 Crashes in last 10 years,
- 6 Property Damage Only, 2 'C' injury
- Right Angle crashes are the most likely in the area, with 6
- Spring and Summer months have the majority of the crashes, with only one happening from October until the beginning of March

Overall, the crash history supports a roundabout in this location.

# **APPENDIX D**

## **Traffic Safety Requests**

(Oct 2014)

**B1. Request for the intersection of Valley Lane and Tracy Avenue to be converted from a one-way stop to an all way stop**

The requestor states that delays are common and turning left from Valley Lane to Tracy Avenue is difficult. A delay study was executed for the intersection and it was found that the average hourly delay during rush hours was maximized at times 07:21:20 - 08:21:20, with an average delay of 14.6 seconds per vehicle. The maximum hourly average delay for the PM peak hour was from 16:52:20 - 17:52:20, and had an average vehicle delay of 14.2 seconds per vehicle. One crash has been reported in this location in the past year. Four crashes have been reported in the last five years. Tracy Avenue in this location has an 85<sup>th</sup> percentile speed of 36.9 mph, and AADT of 9190. 33%-45% of vehicles turn left at this intersection, and likely have a higher amount of delay, however this is not considered in the warrants. This intersection does not meet engineering warrants from the Minnesota Manual on Uniform Traffic Control Devices for multi-way stop control. Warrants are attached in Appendix A.



*Photo : Tracy Ave. Looking north, towards Valley Lane*



*Map : Valley Lane and Tracy*

**After review, staff recommends denial of this request at this time. This recommendation was due to a lack of warrants and pending improvements to the intersection that will be built in conjunction with the Nine-Mile Regional Trail.**

(Jan 2014)

**C3. Request for an All-Way Stop sign at the intersection of Valley View Road and Valley Lane.**

This request comes from a resident who uses the intersection. The requestor states; the volume of vehicles at the intersection of Valley View Road and Valley Lane is causing delays and possible traffic safety issues. The requestor would like for an All-Way Stop sign at the intersection.

Currently there exist a stop sign on Valley Lane westbound. There is a left turn lane for southbound Valley View Road. There are 8



*Picture: Valley View Rd. and Valley Ln. facing west*

recorded crashes at this intersection since 2008, including several failures to yield the right-of-way and a vehicle making a left turn.

The criterion for installation of Multi-Way Stop signs is found in the Appendix section 1B.

The volume of traffic entering the intersection from Valley View Road (major street) did not average at least 200 vehicles per hour over the same 8 hour period. There were a total of 980 southbound left turns, 712 northbound right turns, 842 westbound right turns and 374 westbound left turns during the 24 hour study.



Map: Valley View Rd. and Valley Ln.

**Peak Hour Turning Movements**

SB Left Turns	NB Right Turns	WB Left Turns	WB Right Turns
166	260	33	79

Peak Hour: 5 p.m. 1046 vehicles through intersection

**Valley View Road vs. Valley Lane: Vehicles per Hour**

Time	Vehicles Per Hour Major	Vehicles Per Hour Minor
10:00	351	66
11:00	365	46
12:00	386	69
13:00	451	69
14:00	454	91
15:00	438	65
16:00	501	99
17:00	707	112
18:00	934	112
19:00	588	83
20:00	377	58
<b>Average</b>	<b>505</b>	<b>79</b>

After discussion the staff recommends including study of this intersection along with traffic analysis of Tracy / TH 62 associated with future Tracy Avenue reconstruction before making a recommendation.