

## CITY COUNCIL AGENDA ITEM

Date: February 5, 2020

To: Mark F. Miller, City Manager

From: Robert J. Bruner, Assistant City Manager

R. Brent Savidant, Community Development Director

Subject: PUBLIC HEARING - REZONING REQUEST (Z JPLN2019-0025) - Proposed

Sylvanwood Court RT Development Rezoning, Northwest corner of Rochester Road and Sylvanwood (88-20-10-426-029, -030 and -031), Section 10, From R-1C (One Family

Residential) to RT (One Family Attached Residential) Zoning District.

The applicant Eureka Building Co. seeks rezoning of the subject parcel from R-1C (One-Family Residential) District to RT (One Family Attached) District. The parcel is 1.2 acres in area.

The applicant submitted a concept plan showing two (2), five (5) unit buildings. This sketch is required as part of the application but is non-binding.

A summary of the project was prepared by the Planning Consultant and is included in the attached agenda item from the October 8, 2020 Planning Commission regular meeting.

The Planning Commission held a public hearing on this item on October 8, 2020 and recommended approval of the rezoning by a 5-4 vote.

At the request of numerous residential neighbors, the City's Traffic Consultant OHM prepared the attached memorandum dated December 6, 2019. The memorandum summarizes the results of a Speeding/Cut-Through study conducted for Sylvanwood, Trinway and Creston west of Rochester in October, 2019. The attached memorandum prepared by OHM and dated September 24, 2018 summarizes the traffic that can be anticipated from a 10-unit attached residential condominium project.

A City Council public hearing has been scheduled for February 10, 2020.

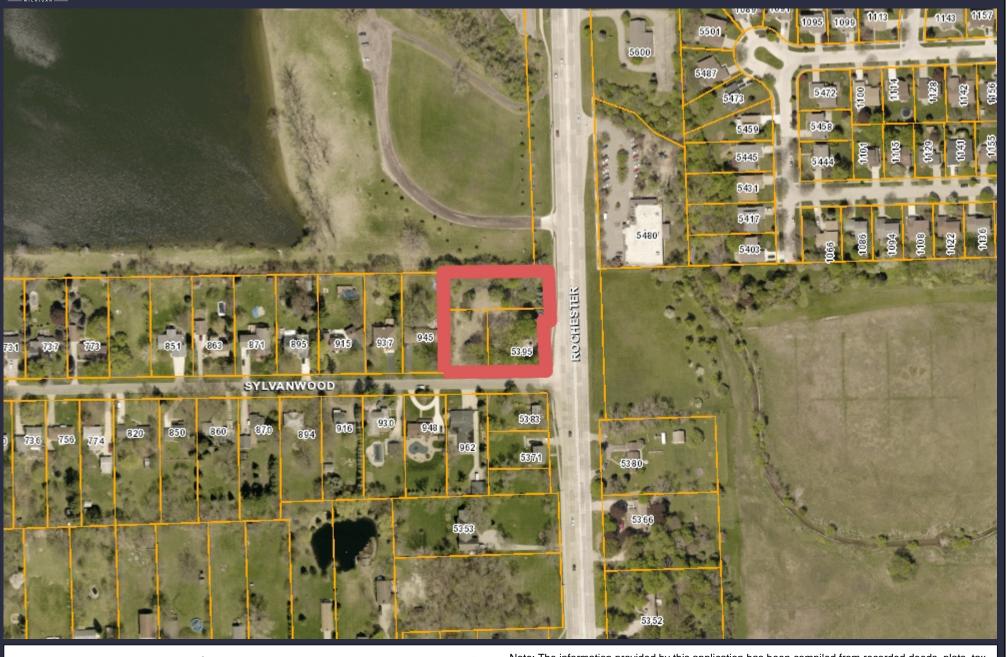
### Legal Review

This item was submitted to the City Attorney for review pursuant to City Charter Section 3.17.

#### Attachments:

- 1. Maps
- 2. Rezoning application
- 3. Report prepared by Carlisle/Wortman Associates, Inc.
- 4. Minutes from October 8, 2019 Planning Commission Regular meeting (excerpt)
- 5. Memorandum prepared by OHM dated December 6, 2019 (Speeding/Cut-Through Traffic)
- 6. Memorandum prepared by OHM, dated September 24, 2018

# GIS Online







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.

# RICHIGAN

# **GIS Online**







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.

# CITY OF TROY REZONING REQUEST APPLICATION

CITY OF TROY PLANNING DEPARTMENT 500 W. BIG BEAVER TROY, MICHIGAN 48084

248-524-3364

E-MAIL: planning@troymi.gov



REZONING REQUEST APPLICATION \$1,800.00

\$1,500.00

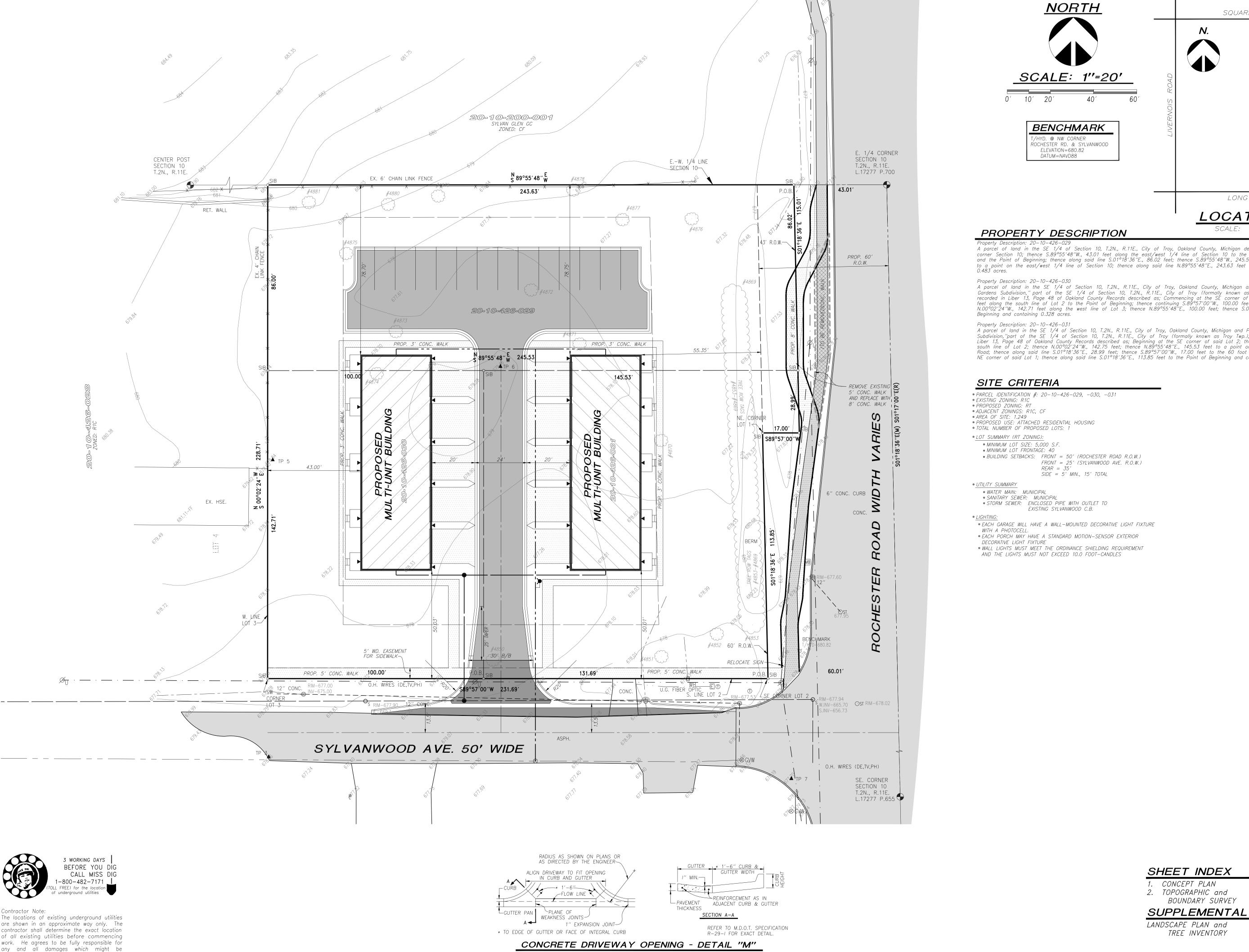
#### NOTICE TO THE APPLICANT

REGULAR MEETINGS OF THE TROY PLANNING COMMISSION ARE HELD ON THE SECOND AND FOURTH TUESDAY OF EACH MONTH AT 7:00 P.M. AT CITY HALL.

APPLICATIONS SHALL BE FILED NOT LATER THAN THIRTY (30) DAYS BEFORE THE SCHEDULED DATE OF THE MEETING.

A PLANNING COMMISSION PUBLIC HEARING SHALL BE SCHEDULED FOLLOWING A DETERMINATION BY THE PLANNING DEPARTMENT THAT THE APPLICATION IS COMPLETE.

PL	EASE COMPLETE THE FOLLOWING:	
1.	NAME OF THE PROPOSED DEVELOPMENT: Sylvan	wood Court RT Development
2.	ADDRESS OF THE SUBJECT PROPERTY: 5395 R	ochester
3.	CURRENT ZONING CLASSIFICATION:	
4.	PROPOSED ZONING CLASSIFICATION:	<u> </u>
5.	TAX ID NUMBER(S) OF SUBJECT PROPERTY: 2010-4	26-031 2010-426-036 2010-426-02
6.	APPLICANT FOR REZONING:	OWNER OF THE SUBJECT PROPERTY:
	NAME E. Mikolla	NAME same as applicant.
	COMPANY Eureka Boilding Co	COMPANY
	ADDRESS 1985 W. Big Beaver #320	ADDRESS
	CITY Trou STATE MI ZIP 48084	CITYSTATE ZIP
	TELEPHONE (584) 405 4080	TELEPHONE
	E-MAIL eure ka blole gmail. com	E-MAIL
7.	THE APPLICANT BEARS THE FOLLOWING RELATIONSHIP	TO THE OWNER OF THE SUBJECT PROPERTY:
8.	SIGNATURE OF THE PROPERTY OWNER:  BY THIS SIGNATURE, THE PROPERTY OWNER AUTHO TO INFORM THE PUBLIC AS TO THIS REQUEST FOR RE	RIZES PLACEMENT OF A SIGN ON THE PROPERTY
9.	SIGNATURE OF THE APPLICANT:	lle



(NO SCALE)

occasioned by his failure to exactly locate

nd preserve any and all underground utilities.

SQUARE LAKE ROAD SYLVANWOOD DR LONG LAKE ROAD LOCATION MAP

SCALE: 4" = 1 MILE

Property Description: 20-10-426-029

A parcel of land in the SE 1/4 of Section 10, T.2N., R.11E., City of Troy, Oakland County, Michigan described as; Commencing at the East 1/4 corner Section 10; thence S.89°55′48″W., 43.01 feet along the east/west 1/4 line of Section 10 to the 43 foot right of way of Rochester Road and the Point of Beginning; thence along said line S.01°18′36″E., 86.02 feet; thence S.89°55′48″W., 245.53 feet; thence N.00°02′24″W., 86.00 feet to a point on the east/west 1/4 line of Section 10; thence along said line N.89°55′48″E., 243.63 feet to the Point of Beginning and containing

A parcel of land in the SE 1/4 of Section 10, T.2N., R.11E., City of Troy, Oakland County, Michigan and Part of Lots 1,2, and 3, "Sylvanwood Gardens Subdivision," part of the SE 1/4 of Section 10, T.2N., R.11E., City of Troy (formally known as Troy Twp.), Oakland County, Michigan as recorded in Liber 13, Page 48 of Oakland County Records described as; Commencing at the SE corner of said Lot 2; thence S.89°57′00′W., 131.69 feet along the south line of Lot 2 to the Point of Beginning; thence continuing S.89°57′00′W., 100.00 feet to the SW corner of said Lot 3; thence N.00°02′24′W., 142.71 feet along the west line of Lot 3; thence N.89°55′48″E., 100.00 feet; thence S.00°02′24″E., 142.75 feet to the Point of

A parcel of land in the SE 1/4 of Section 10, T.2N., R.11E., City of Troy, Oakland County, Michigan and Part of Lots 1 and 2, "Sylvanwood Gardens Subdivision," part of the SE 1/4 of Section 10, T.2N., R.11E., City of Troy (formally known as Troy Twp.), Oakland County, Michigan as recorded in Liber 13, Page 48 of Oakland County Records described as; Beginning at the SE corner of said Lot 2; thence S.89°57′00″W., 131.69 feet along the south line of Lot 2; thence N.00°02′24″W., 142.75 feet; thence N.89°55′48″E., 145.53 feet to a point on the 43 foot right of way of Rochester Road; thence along said line S.01°18′36″E., 28.99 feet; thence S.89°57′00″W., 17.00 feet to the 60 foot right of way of Rochester Road and the NE corner of said Lot 1; thence along said line S.01°18′36″E., 113.85 feet to the Point of Beginning and containing 0.438 acres.

# LEGEND

EXISTING CONTOURS

EXISTING GRADE

PROPOSED GRADE

EXISTING GRAVEL EXISTING PAVEMENT

PROPOSED CONCRETE

WALL MOUNTED LIGHT FIXTURE O BE REMOVED

> TOPOGRAPHY LEGEND

— — — STORM SEWER ----- SANITARY SEWER ---- EASEMENT — · · — · · — EX. U.G. ELEC ----- EX.O.H. WIRES 

—— — — EX. U.G. GAS ROUND CATCH BASIN **SQUARE CATCH BASIN** O<sub>II</sub> UTILITY MANHOLE

⊙<sub>ST</sub> STORM MANHOLE END OF PIPE O<sub>S</sub> SANITARY MANHOLE

MANHOLE Q hydrant

⊗GVW GATE VALVE WELL 

O<sub>WB</sub> water box ○V VALVE LIGHT POLE

AC AIR CONDITIONER MB MAIL BOX FENCE POST DOWN SPOUT **⊕**SB SOIL BORING

EPAD ELEC TRANS PAD  $arnothing_{\mathsf{IJ}}$  utility pole ↓ GUY ANCHOR 了 GUY POLE SIGN POST → SPRINKLER HEAD G GAS METER

TELEPHONE RISER © ELECTRICAL RISER © CABLE TV RISER FINISHED FLOOR

GF GARAGE FLOOR BF BASEMENT FLOOR CONC. CONCRETE

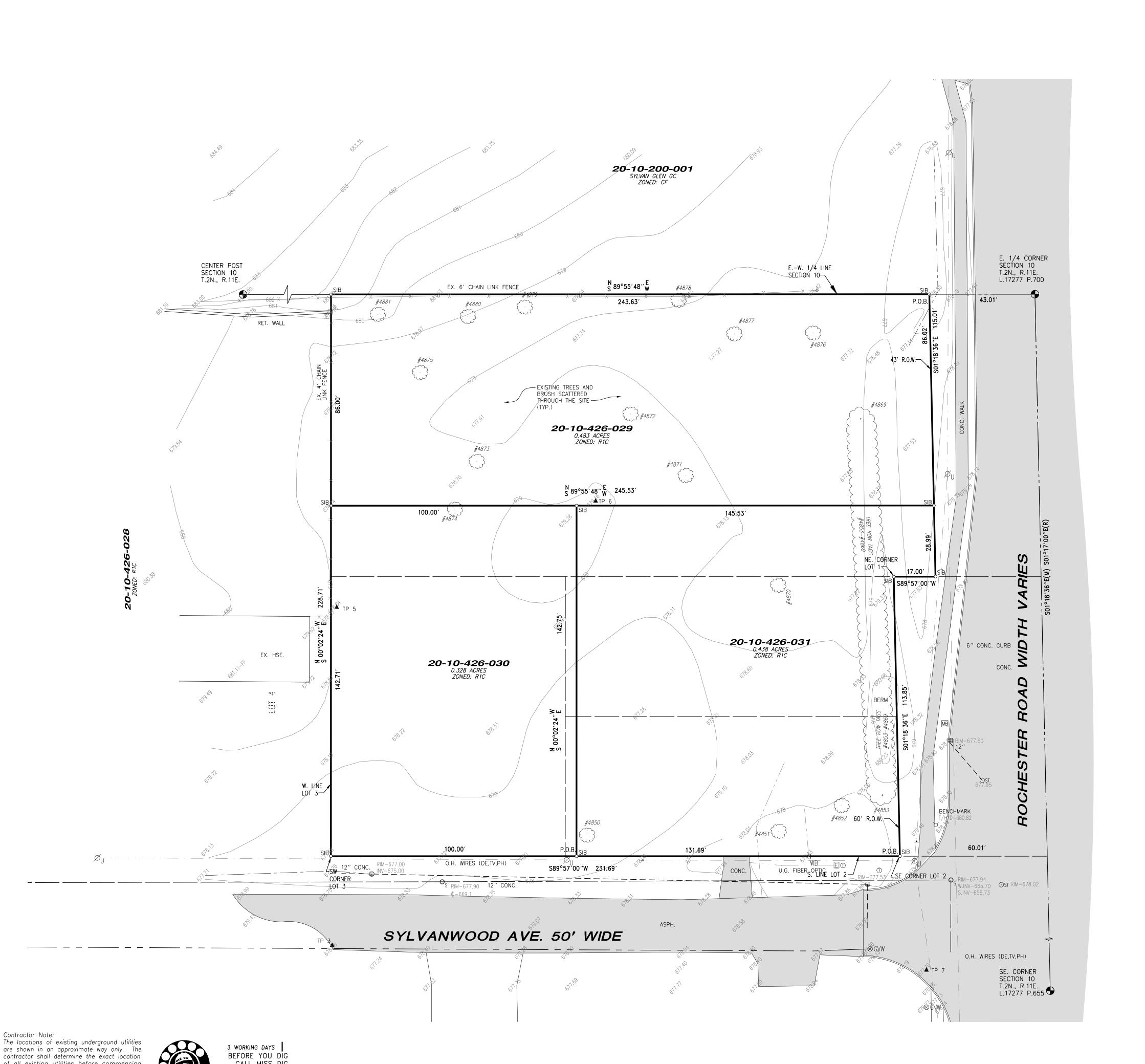
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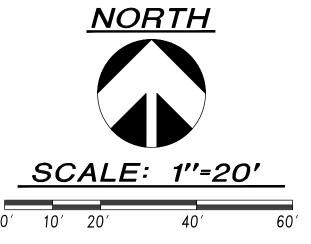
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FIB FOUND IRON BAR ●F-MON FOUND C. MONUMENT A N C

 $\vdash$ 

CONCEPT PLAN - SHEET 1 of 2





**BENCHMARK** T/HYD. @ NW CORNER ROCHESTER RD. & SYLVANWOOD

ELEVATION=680.82 DATUM=NAVD88

SYLVANWOOD DR

SQUARE LAKE ROAD

LONG LAKE ROAD

# LOCATION MAP SCALE: 4" = 1 MILE

# PROPERTY DESCRIPTION

Property Description: 20-10-426-029

A parcel of land in the SE 1/4 of Section 10, T.2N., R.11E., City of Troy, Oakland County, Michigan described as; Commencing at the East 1/4 corner Section 10; thence S.89°55'48"W., 43.01 feet along the east/west 1/4 line of Section 10 to the 43 foot right of way of Rochester Road and the Point of Beginning; thence along said line S.01°18′36″E., 86.02 feet; thence S.89°55′48″W., 245.53 feet; thence N.00°02'24"W., 86.00 feet to a point on the east/west 1/4 line of Section 10; thence along said line N.89°55′48″E., 243.63 feet to the Point of Beginning and containing 0.483 acres.

## Property Description: 20-10-426-030

A parcel of land in the SE 1/4 of Section 10, T.2N., R.11E., City of Troy, Oakland County, Michigan and Part of Lots 1,2, and 3, "Sylvanwood Gardens Subdivision," part of the SE 1/4 of Section 10, T.2N., R.11E., City of Troy (formally known as Troy Twp.), Oakland County, Michigan as recorded in Liber 13, Page 48 of Oakland County Records described as; Commencing at the SE corner of said Lot 2; thence S.89°57'00"W., 131.69 feet along the south line of Lot 2 to the Point of Beginning; thence continuing S.89°57'00"W., 100.00 feet to the SW corner of said Lot 3; thence N.00°02'24"W., 142.71 feet along the west line of Lot 3; thence N.89°55'48"E., 100.00 feet; thence S.00°02'24"E., 142.75 feet to the Point of Beginning and containing 0.328 acres.

# Property Description: 20-10-426-031

A parcel of land in the SE 1/4 of Section 10, T.2N., R.11E., City of Troy, Oakland County, Michigan and Part of Lots 1 and 2, "Sylvanwood Gardens Subdivision," part of the SE 1/4 of Section 10, T.2N., R.11E., City of Troy (formally known as Troy Twp.), Oakland County, Michigan as recorded in Liber 13, Page 48 of Oakland County Records described as; Beginning at the SE corner of said Lot 2; thence S.89°57'00"W., 131.69 feet along the south line of Lot 2; thence N.00°02'24"W., 142.75 feet; thence N.89°55'48"E., 145.53 feet to a point on the 43 foot right of way of Rochester Road; thence along said line S.01°18'36"E., 28.99 feet; thence S.89°57'00"W., 17.00 feet to the 60 foot right of way of Rochester Road and the NE corner of said Lot 1; thence along said line S.01°18'36"E., 113.85 feet to the Point of Beginning and containing 0.438 acres.

TOPOGRAPHY LEGEND LEGEND

— — — STORM SEWER EXISTING CONTOURS ----- SANITARY SEWER EXISTING GRADE EXISTING GRAVEL UTILITY MANHOLE STORM MANHOLE END OF PIPE EXISTING PAVEMENT

I, Jarrett L. Miller, Professional Land Surveyor of the State of Michigan, hereby state that to the best of my knowledge, information and belief, all information hereon is true and accurately shown.

# Surveyor's Certificate

I hereby certify that I have surveyed and mapped the land above platted and/or described on November 27, 2017 and that the ratio of closure on the unadjusted field observations of such survey was 1/10,000 and that all of the requirements of P.A. 132 1970 as amended have been complied with.

Jarrett L. Miller Professional Land Surveyor No. 52454 jmiller@urban-land.com

Date

EASEMENT — · · — · · — EX. U.G. ELEC. EX.O.H. WIRES EX. U.G. TELE. EX. U.G. GAS ROUND CATCH BASIN SQUARE CATCH BASIN SANITARY MANHOLE CLEAN-OUT MANHOLE HYDRANT GVW GATE VALVE WELL WATER VALVE WR WATER BOX VALVE LIGHT POLE AIR CONDITIONER MB MAIL BOX o FENCE POST DOWN SPOUT **⊕**SB **SOIL BORING** EPAD ELEC TRANS PAD  $arnothing_{\Box}$  utility pole GUY ANCHOR GUY POLE SIGN POST

SPRINKLER HEAD

TELEPHONE RISER ELECTRICAL RISER CABLE TV RISER

FINISHED FLOOR

GARAGE FLOOR

CONC. CONCRETE

SMN SET MAG. NAIL

osib set iron bar ofib found iron bar

●F-MON FOUND C. MONUMENT

BASEMENT FLOOR

GAS METER

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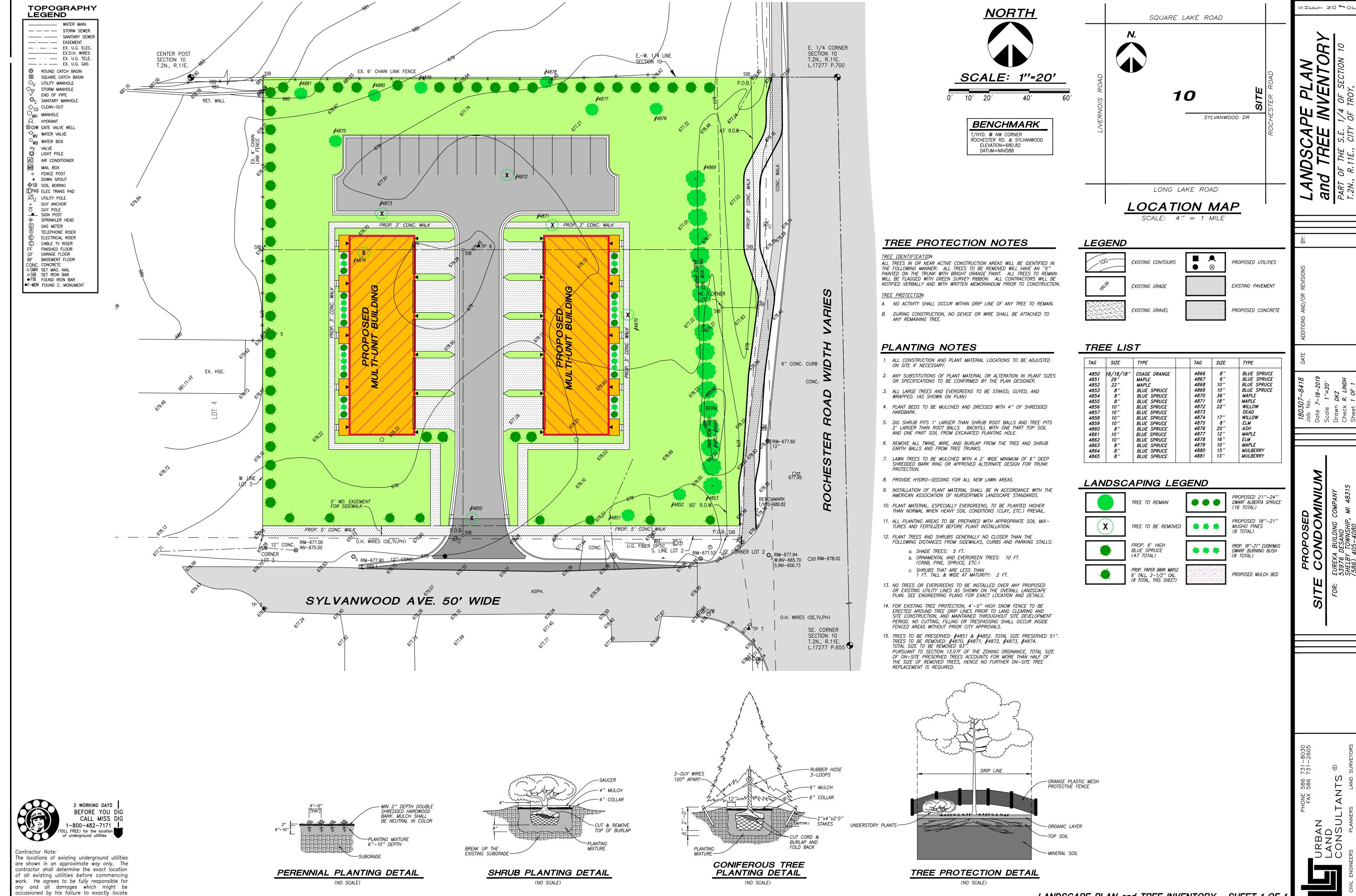
NIMMH SO,  $\mathcal{O}$ OF

TOPOGRAPHIC and BOUNDARY SURVEY - SHEET 2 of

Contractor Note: of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate

and preserve any and all underground utilities.





and preserve any and all underground utilities.

LANDSCAPE PLAN and TREE INVENTORY - SHEET 1 OF

#### Rezoning Statement.

ONE (1) HARD COPY OF A PROPOSED SITE PLAN INDICATING THE SUBJECT PROPERTY AND THE BUILDINGS / USES PROPOSED TO BE CONSTRUCTED

A detailed development is not proposed at this time, since the uses will be tied directly into the requirements of the RT one family attached. Once the rezoning to RT is approved, the Planning Department will then be consulted regarding potential development site plan layouts and associated requirements under the zoning ordinance in the ordinary course of action. All site plan, and associated form-based elements, will then be addressed though a site plan submission meeting pursuant to ordinance requirements.

ONE (1) HARD COPY OF A STATEMENT INDICATING WHY, IN THE OPINION OF THE APPLICANT, THE REZONING REQUESTED IS CONSISTENT WITH THE MASTER PLAN, AND WHY SUCH A REZONING IS CONSISTENT WITH ADJACENT ZONING DISTRICTS AND USES, AND WILL NOT BE DETRIMENTAL TO THE PROPERTY OF OTHER PERSONS LOCATED IN THE VICINITY

Re-zoning to RT meets Troy Master Plan objectives by providing a transition from non-residential area & main artery roadway and lower density residential land use areas. The City of Troy Zoning Ordinance has additional requirements that must be met for all rezoning approvals. More specifically, Section 16.03(C), Rezoning Procedures, of the ordinance provides the following standards for rezoning requests:

- C. Standards for Approval. A rezoning may be approved upon a finding and determination that all of the following are satisfied:
- 1. The proposed rezoning is consistent with the Master Plan. If the current zoning is in material conflict with the Master Plan, such conflict is due to one of the following: a. A change in City policy since the Master Plan was adopted. b. A change in conditions since the Master Plan was adopted. c. An error in the Master Plan.

The proposed rezoning of the subject site from R1-C, One Family Residential District, to RT Multi Family Residential, is consistent with the Future Land Use designation of Rochester Road in the City of Troy Master Plan. The project enables medium density residential development in one of the "Targeted Locations in Troy for Missing Middle housing." (See Master Plan Chapter 8 Pg. 6)

Rezoning the site to RT would enable the project to satisfy the characteristics of Missing Middle Housing as noted in the Master Plan by providing for: 1. Walkable context and sense of community; Transitional density, by creating housing at densities which fall between traditional single family and multiple family; Smaller, well designed units and efficient use of space; Deemphasizing parking.

2. The proposed rezoning will not cause nor increase any non-conformity.

The proposed rezoning to RT One Family Attached will not cause or increase any non-conformity. Any new development must be in conformity with current City ordinances and Planning Department site plan review and approval as such the development will of necessity continue and transition the current theme of the neighborhood.

3. Public services and facilities affected by a proposed development will be capable of accommodating service and facility loads caused by use of the development.

The subject site is not large in size (1.2 acres) and any proposed development, in compliance with the RT One Family Attached would be easily accommodated by public services and facilities that serve the surrounding commercial and residential developments.

4. The rezoning will not impact public health, safety, or welfare.

The proposed RT designation for this site, and the associated development review process, is intended to ensure that a project does not impact the public health, safety, or welfare. The very designation of the site is intended to provide affordable housing for young families.

5. The rezoning will ensure compatibility with adjacent uses of land.

The rezoning will continue an ongoing theme in the Rochester Road corridor where a number of RT developments have been approved by the city and constructed in recent years in conformity with the Master Plan and its dictates.

ONE (1) CD CONTAINING AN ELECTRONIC VERSION OF THE COMPLETE REZONING APPLICATION

A flash drive with the complete application is provided



117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: September 24, 2019

# Rezoning Analysis For City of Troy, Michigan

**Project Name:** Sylvanwood Court RT Development

**Location:** 5395 Rochester Road

**Current Zoning:** R-1C, One-Family Residential

**Proposed Rezoning**: RT, One-Family Attached Residential

Action Requested: Rezone to RT, One-Family Attached Residential

**Required Information:** As provided within this review

#### PROJECT AND SITE DESCRIPTION

An application was submitted to straight rezone the property at 5395 Rochester Road from one-family residential (R-1C) to one-family attached residential (RT). There are no conditions offered by the applicant for the rezoning. The 1.20-acre site includes three (3) parcels. Two (2) parcels are vacant and one (1) parcel is improved with a single-family home.

In late 2018, the Planning Commission recommended Conditional Rezoning of the site, with the condition of the rezoning to be the site plan. The site plan proposed to construct ten (10) multiple family units, 30-feet in height. If the site was straight rezoned to RT, ten (10) units, 30-feet in height, would still be the maximum density and height.

On November 27, 2018, the Planning Commission recommended approval of the proposed conditional rezoning and site plan on a vote of 6-2. On July 8, 2019, the Troy City Council held a public hearing on the meeting. After receiving public comments and City Council deliberation, the City Council voted 7-0 to deny the conditional rezoning.

An aerial image of the subject site is depicted in **Figure 1**.

Figure 1: Subject Site



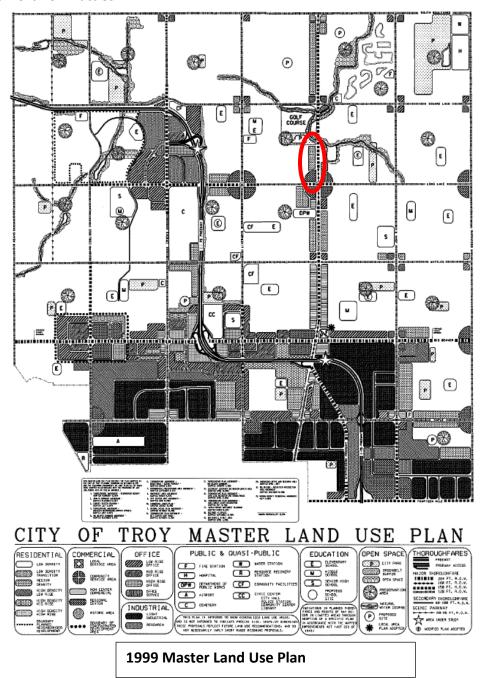
Sylvanwood (outlined in Blue) is a paved street, approximately 22-feet in road paving width, with approximately +/- 53 houses street fronting on it.



#### **MASTER PLAN (HISTORY AND CURRENT)**

In 1999, the city updated the Master Land Use Plan. During the process, the city spent considerable amount of time and input deliberating the future use of key corridors including Big Beaver, Crooks, Maple, and Rochester. Due to traffic volume, noise, and market economics, the Future Land Use Plan recognized parcels that abut major mile corridors such as Rochester would be difficult to develop or redevelop as single-family residential. For this reason, the city considered alternative land use patterns along these corridors that were contextually relevant and compatible with surrounding and adjacent land use.

The 1999 amended Master Land Use Plan , added medium density residential along Rochester Road north of Wattles.



In 2002, the City adopted a Future Land Use Plan, which retained medium density residential along Rochester Road north of Wattles. In 2008, the City comprehensively updated the Master Plan. The process of updating the Master Plan included a significant public participation component that included numerous opportunities for public input. The 2008 comprehensive update to the Master Plan also retained medium density residential along Rochester Road north of Wattles.

The Master Plan was updated in 2017, also retained medium density residential along Rochester Road north of Wattles. From a land use perspective, the updated 2017 Master Plan calls for this site:

North of Long Lake Road, the land use pattern evolves, becoming a mix of commercial and office near the intersections and older single-family homes and multiple-family complexes in between.

Uses along Rochester Road will include a variety of mixed uses, established in a "pulsing" pattern where the most intense mixed-use or exclusively non-residential development will occur near the Neighborhood Nodes situated along its main intersections. Lower-impact uses, such as small scale retail or condominiums should be encouraged along the corridor frontage between these nodes..... The areas between nodes should develop as lower-rise office and multiple-family. The height differences encourage a visual "pulse." (pg. 87-88)

This section of Rochester Road Master Plan also calls for use of innovative stormwater management:

Ultimately, the Rochester Road Corridor will become a regional showcase for effective stormwater management and enhancement of the natural environment, while encouraging a combination of high-quality land uses. Effective landscaping focused on native plantings, and improved land use and access management along Rochester will create a green corridor that provides a high level of service for motorists, and which provides an effective natural buffer between high traffic volumes and people visiting adjacent properties. The creation of this green corridor would occur primarily in the right-of-way along road frontages and in the median of a future boulevard.

New construction along the corridor may include detention and retention basins that work together from site-to-site with other features to create a continuous, linear landscape feature. By connecting properties, the basins create visual relief from traffic. Low impact development methods will be used throughout the corridor to filter stormwater runoff. (pg. 87)

The site has been master-planned for medium density multiple family residential for 20 years. We find that a rezoning to RT, One-Family Attached Residential District complies with the Master Plan.

#### PROPOSED DEVELOPMENT VS. BY-RIGHT

The stated intent of the RT, One Family Attached Residential is as follows:

#### SECTION 4.07 RT ONE-FAMILY ATTACHED RESIDENTIAL DISTRICT

A. Intent. The intent of the RT, One-Family Attached Residential District is to provide medium density residential areas in those areas which are served with public sewer and water, and where attached forms of residential development achieves the objectives of the Master Plan. The District is designed primarily to permit attached residential dwellings which may serve as a transition between high intensity or nonresidential use areas, and lower density residential land use areas. The RT District is further intended to provide medium density residential development in compact areas so as to encourage walkability.

The RT, One-family Attached Residential District is consistent with the medium density residential as contemplated in the Master Plan.

The table below outlines the development differences of the proposed plan versus what could be done by-right under the current zoning:

	By-Right R-1C Zoning	Proposed by applicant if rezoned to RT Zoning
Density	4 single-family detached lots via a site condominium	10 multiple family units
Height	2.5 stories and 30 feet	2.5 stories and 30 feet
Setbacks	Front: 30 feet	Front (Rochester): 50 feet
	Sides: 15 feet	Front (Sylvanwood): 25 feet
	Rear: 40 feet	Sides: 5 single / 15 total feet
		Rear: 35 feet
Open	Max % of lot covered by building:	Max % of lot covered by building: 30%
Space	30%	

If rezoned the maximum number and height of units if rezoned would be ten (10) units, 30-feet in height.

#### SITE ACCESS AND CIRCULATION

Due to intersection distance requirements, access for future development, regardless if rezoned or not, would remain off Sylvanwood.

#### TRAFFIC STUDY

Based upon the 10-unit plan previously submitted by the applicant, the City's traffic consultant, OHM, conducted a traffic review. See the OHM memo for additional details. OHM's review concludes:

During the morning (AM) peak hour, the proposed Sylvanwood condominium development is expected to generate 5 new trips: 1 inbound (entering the site), and 4 outbound (exiting the site). During the evening (PM) peak hour, the proposed site is expected to generate 8 new vehicle trips: 5 inbound (entering the site) trips, and 3 outbound (exiting the site). This pattern coincides with residents typically leaving in the morning for work, and returning home in the evening.

On Sylvanwood Drive, the development would result in slight increases to traffic volumes, amounting to one additional vehicle every 7-8 minutes during "rush hour". Most drivers would not even notice this additional traffic.

In conclusion, the traffic impacts as a result of the proposed development are very minimal and are not expected to significantly worsen traffic conditions on Sylvanwood Drive or Rochester Road.

#### **REZONING STANDARDS**

As set forth in Section 16.03.C, the Planning Commission shall consider the following standards:

- 1. The proposed rezoning is consistent with the Master Plan. If the current zoning is in material conflict with the Master Plan, such conflict is due to one of the following:
  - a. A change in City policy since the Master Plan was adopted.
  - b. A change in conditions since the Master Plan was adopted.
  - c. An error in the Master Plan.
- 2. The proposed rezoning will not cause nor increase any non-conformity.
- 3. Public services and facilities affected by a proposed development will be capable of accommodating service and facility loads caused by use of the development.
- 4. The rezoning will not impact public health, safety, or welfare.
- 5. The rezoning will ensure compatibility with adjacent uses of land.

We find that the rezoning standards have been met:

• The site has been master planned for medium density residential for 20 years.

- Rezoning the site that abut Rochester Road from R-1C, One-Family Residential District to RT, One-Family Attached Residential District is consistent with the Master Plan.
- Rezoning the site to RT, One-Family Attached Residential District provides a transition from the heavily traveled Rochester Road arterial to the adjacent neighborhood.
- Innovative stormwater management can be required and confirmed during the site planning process.
- The rezoning will permit a maximum of 10 townhome units, as compared to four (4) single-family homes permitted with the current R-1C Zoning. Six (6) more units than what can be built with the current zoning will not adversely impact the public health, safety, and welfare of the neighborhood.
- Based on the maximum number of ten (10) units that could be constructed if built, the traffic impact analysis concludes that "The traffic impacts as a result of the proposed development are very minimal and are not expected to significantly worsen traffic conditions on Sylvanwood Drive or Rochester Road."

## **RECOMMENDATIONS**

We recommend rezoning of the properties from R-1C, One-Family Residential District to RT, One-Family Attached Residential District

CARLISLE WORTIMAN ASSOC., INC.

Benjamin R. Carlisle, AICP, LEED AP

PUBLIC HEARING – SYLVANWOOD COURT RT DEVELOPMENT REZONING REQUEST (Z JPLN2019-0015) – Proposed Sylvanwood Court RT Development Rezoning, Northwest Corner of Rochester and Sylvanwood (88-20-10-426-029, 88-20-10-426-030, 88-20-10-426-031), Section 10, From R-1C (One Family Residential) Zoning District to RT (One Family Attached Residential) Zoning District

Mr. Savidant presented a background and history of a previous Conditional Rezoning request for the subject property. He explained the request before the Board this evening is a straight rezoning request with no conditions attached to it. Mr. Savidant reviewed the City's Land Use Policies along Rochester Road dating back to 1999 and stated the City's Land Use Policies for the last 20 years have called for medium density residential along Rochester Road and north of Wattles.

Mr. Carlisle reviewed the rezoning request application and compared what could be developed by-right with R-1C zoning versus what could be developed with the proposed RT zoning. He addressed the traffic review and findings of the City Traffic Consultant (OHM) and the Rezoning Standards for consideration by the Planning Commission. Mr. Carlisle recommended that the Planning Commission recommend to City Council to grant the rezoning request.

Erion Nikolla said the rezoning request is to develop multiple family residential at this site which is consistent with the Master Plan. Mr. Nikolla said the proposed development would be very similar to the conceptual plan submitted in the application.

There was discussion on:

- Master Plan classification along Rochester Road.
- Correlation between previously denied Conditional Rezoning request and traditional Rezoning Request before the Board this evening.
- Proposed development as relates to adjacent single family residential and City right-of-way.
- Conceptual plan; non-binding.
- Density and building height permitted in RT zoning district.

#### PUBLIC HEARING OPENED

The following people spoke in opposition expressing concerns with traffic, traffic study results, compatibility with existing neighborhood, property values, density, snow removal, safety of children and pedestrians, access off Sylvanwood and parking.

- Don Tarr, 937 Sylvanwood
- Daniel Levitt, 871 Sylvanwood
- Richard Lisowski, 5697 Wright
- Marcia Bossenberger, 369 Ottawa
- April Orselli, 894 Sylvanwood
- Tara Hulett, 948 Sylvanwood
- Allison Peck, 863 Sylvanwood
- Christine Simancik, 5464 Whitehaven
- Matthew Mikiczenko, 625 Sylvanwood
- David Orselli, 894 Sylvanwood
- Danuta Sitarczyk, 895 Sylvanwood
- Nathaniel Wilkowski, 1396 Byron Lane
- Jeanne Mikiczenko, 625 Sylvanwood
- Chris Sarsfield, 773 Sylvanwood
- Pierre Harik, 692 Sylvanwood
- Dorothy Clendening, 5371 Rochester
- Mike Donahue, 962 Sylvanwood
- Robert Flora, 607 Sylvanwood
- Surab Shrestha, 674 Sylvanwood

#### PUBLIC HEARING CLOSED

#### Discussion continued:

- Role of Planning Commission; recommending body, legal constraints.
- Rezoning request as relates to Master Plan and Rezoning Standards.
- City Traffic Consultant findings; trip generations.
- Access; off Sylvanwood or Rochester.
- Right-of-way acquisition; site plan requirement to meet ultimate right-of-way.
- Existing traffic and safety concerns; speeding, cut-through, no sidewalks.

Mr. Lambert addressed concerns of compatibility with adjacent single family residential, as relates to Rezoning Standard No. 5.

Chair Faison addressed concerns with public health, safety and welfare of potential traffic impact resulting from access off Sylvanwood, as relates to Rezoning Standard No. 4.

#### Resolution # PC-2019-10-069

Moved by: Hutson Support by: Tagle

**RESOLVED**, That the Planning Commission hereby recommends to the City Council that the R-1C to RT rezoning request, as per Section 16.03 of the City of Troy Zoning Ordinance, located on the northwest corner of Rochester and

Sylvanwood, within Section 10, being approximately 1.2 acres in size, be **GRANTED** for the following reasons:

- 1. The proposed rezoning is consistent with the Master Plan.
- 2. The proposed rezoning does not appear to cause or increase any nonconformity.
- 3. If rezoned the property will be capable of accommodating service and facility loads caused by use of the development.
- 4. The rezoning does not appear to impact public health, safety or welfare.
- 5. The rezoning will ensure compatibility with adjacent uses of land.

Yes: Apahidean, Crusse, Fowler, Hutson, Tagle

No: Faison, Krent, Lambert, Rahman

#### **MOTION CARRIED**



ARCHITECTS. ENGINEERS. PLANNERS.

# memorandum

Date: December 6, 2019

To: Bill Huotari, PE

**CC:** Stephen Dearing, PE, PTOE

From: Stephan Maxe, PE

Re: Speeding/Cut-Through Traffic Concerns on Sylvanwood Drive

#### Introduction

There are resident concerns related to the development of 10 units of condominiums on Sylvanwood Drive at the intersection with Rochester Road. This is due to the perceived existing issue of speeding along Sylvanwood Drive as well as cut through traffic. In order to address these concerns a speed and volume study was conducted on Sylvanwood Drive, Trinway Road and Creston Road as these are all parallel streets with access to Rochester Road in the area of the proposed development. This study will also investigate if there is cut through traffic and discuss possible countermeasures.

#### Speed and Volume Study

As requested, speed and volume data has been collected on Sylvanwood Drive, Trinway Road and Creston Road west of Rochester Road. The data has been processed and summarized. Attached to this memo is the actual data collected for both speed and volumes. The posted speed limit is 25 mph on all 3 roads. Data was collected for a time period spanning from October 11, 2019 to October 28, 2019.



**Table 1 - Speed Data Results** 

	Sylvanwood Drive				
	Westbound	Eastbound			
85 <sup>th</sup> Percentile (MPH)	29	33			
Mean Speed (MPH)	24	27			
10 MPH Pace Speed (MPH)	21-30	21-30			
Percent in Pace (%)	66.7	58.8			
Violation Rate (%)	48.0	67.7			
	Trinway Road				
	Westbound	Eastbound			
85 <sup>th</sup> Percentile (MPH)	30	34			
Mean Speed (MPH)	25	28			
10 MPH Pace Speed (MPH)	21-30	26-35			
Percent in Pace (%)	62.4	59.0			
Violation Rate (%)	49.1	71.6			
	Creston Road				
	Westbound	Eastbound			
85 <sup>th</sup> Percentile (MPH)	34	36			
Mean Speed (MPH)	26	30			
10 MPH Pace Speed (MPH)	26-35	26-35			
Percent in Pace (%)	48.4	54.9			
Violation Rate (%)	60.1	76.2			

Based on Table 1, at all 3 locations, the 85<sup>th</sup> percentile speed is higher than the posted speed limit of 25 mph for both directions.

Table 2 is a day—by-day summary of the traffic volumes along Sylvanwood Drive, Trinway Road and Creston Road. On average, eastbound traffic volumes (entering the neighborhood) are higher on all the study roadways.



Table 2 - Traffic Volumes

Sylvanwood Drive  Day Westbound Fastbound Total													
Day	Westbound	Eastbound	Total										
Saturday 10/12	213	209	422										
Sunday 10/13	209	195	404										
Monday 10/14	246	284	530										
Tuesday 10/15	268	288	556										
Wednesday 10/16	249	270	519										
Thursday 10/17	263	297	560										
Average Weekday Daily Traffic*	261	285	546										
Average Weekend Daily Traffic	211	202	413										
	Trinway Road												
Day	Westbound	Eastbound	Total										
Saturday 10/12	216	269	485										
Sunday 10/13	174	224	398										
Monday 10/14	206	294	500										
Tuesday 10/15	239	324	563										
Wednesday 10/16	213	316	529										
Thursday 10/17	246	336	582										
Average Weekday Daily Traffic*	133	325	558										
Average Weekend Daily Traffic	195	247	442										
	Creston Road												
Day	Westbound	Eastbound	Total										
Tuesday 10/22	151	293	444										
Wednesday 10/23	128	404	532										
Thursday 10/24	138	327	465										
Friday 10/25	148	278	426										
Saturday 10/26	123	194	317										
Sunday 10/28	103	134	237										
Average Weekday Daily Traffic*	139	341	480										
Average Weekend Daily Traffic	113	164	277										

Table 3 shows the percentage of the total traffic in each speed range.



Table 3 –Percent Traffic Volume in Each Speed Range

	Sylvanwood Drive	
Speed Range	Westbound	Eastbound
1-15	9.8%	7.7%
16-20	6.4%	5.6%
21-25	31.3%	19.0%
26-30	35.4%	35.2%
31-35	9.8%	23.6%
36-40	2.1%	7.5%
41-45	0.3%	1.4%
	Trinway Road	
Speed Range	Westbound	Eastbound
1-15	7.8%	6.9%
16-20	12.4%	5.0%
21-25	30.7%	16.4%
26-30	31.7%	32.0%
31-35	14.3%	27.0%
36-40	2.7%	10.4%
41-45	0.3%	1.9%
	Creston Road	
Speed Range	Westbound	Eastbound
1-15	11.7%	6.6%
16-20	9.0%	3.8%
21-25	19.3%	13.4%
26-30	27.7%	26.3%
31-35	20.7%	28.6%
36-40	8.8%	16.3%
41-45	2.4%	3.9%

#### **Cut-Through Traffic**

There are over 200 single-family homes in the southeast quadrant of the square mile bounded by Long Lake Road, Livernois Road, Rochester Road and Square Lake Road. There are even more in the western part of this square mile as the lots are more compact. This southeast quadrant has access to/from Rochester Road via Sylvanwood Drive, Trinway Road and Creston Road as well as to/from Long Lake Road via Somerton Drive and Falmouth Drive.

The ITE trip generation manual: 10<sup>th</sup> Edition was used to determine the expected number of vehicle trips to/from the neighborhood. This number can be compared to the volume data collected to see if there is a higher number of trips which would imply that there is cut through traffic occurring. According to the ITE trip generation manual a single-family home generates 9.44 trips per weekday. 200 homes would be expected to generate 1,888 trips in an average weekday. The number of vehicle trips counted on an average weekday for Sylvanwood Drive, Trinway Road and Creston Road was 1,584. This is less than the projected number of trips generated by the houses. While many of these houses may be accessed from Long Lake Road via Somerton Drive and Falmouth Drive, there are also many other houses in the neighborhood that could be using these routes.



In summary, there is not an obvious case of vehicles utilizing Sylvanwood Drive, Trinway Road or Creston Road as a cut-through between the major (arterial) roads.

#### **Traffic Calming**

Traffic calming measures are used to reduce vehicle speeds, volumes, or both to improve the safety and comfort of pedestrians and bicyclists. Lower traffic volumes reduce the number of potential conflicts between pedestrians or bikes and vehicles, while lower rates of speed reduce the likelihood of severe injury in the event a crash occurs, as well as provide more time to perceive and react to potential conflicts, such as a pedestrian crossing the road. However, installing calming measures remains a trade-off, as it reduces the efficient travel of vehicles – including essential public services like police, fire trucks, school buses, snow removal, and trash collection.

Most traffic calming measures include physical alterations intended to slow traffic, by forcing vehicles to maneuver around or over obstacles. These alterations may consist of center islands, curb bulb-outs, chicanes, mini roundabouts, and speed tables, to name a few. Calming measures to reduce traffic volumes involve restricting vehicle access, such as installing barriers or by street closures. However, because these also impact emergency vehicles, DPW maintenance, and other essential services, proposed measures must judiciously consider overall public safety and mobility needs.

Resident concerns and the speed study conducted do show that speeds on all 3 streets have high violation rates with speeds over 25 mph on average. All 3 streets are straight roadways with no horizontal or vertical curves or traffic control measures between their end points.

Initially, we recommend first applying education & enforcement strategies that do not physically modify the street, such as supplementing law enforcement patrols with a neighborhood speed watch program or a neighborhood awareness campaign. If speeding concerns persist, we suggest consideration of a horizontal deflection, such as a chicane or reducing the width of the street through the installation of a median island or curb modifications.

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None

### 34000 Plymouth Road Livonia, MI 48150 Advancing Communities

Start	07-Oct-	-19	Tue	<b>.</b>	Wed		Thu		Fr	i	Sa	t	Su	n	Week Ave	rage
Time	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	ĒΒ
12:00 AM	*	*	*	*	*	*	*	*	*	*	2	0	3	6	2	3
01:00	*	*	*	*	*	*	*	*	*	*	1	0	3	2	2	1
02:00	*	*	*	*	*	*	*	*	*	*	2	1	0	0	1	0
03:00	*	*	*	*	*	*	*	*	*	*	3	0	1	0	2	0
04:00	*	*	*	*	*	*	*	*	*	*	0	1	3	1	2	1
05:00	*	*	*	*	*	*	*	*	*	*	2	1	1	0	2	0
06:00	*	*	*	*	*	*	*	*	*	*	0	3	1	1	0	2
07:00	*	*	*	*	*	*	*	*	*	*	0	7	3	0	2	4
08:00	*	*	*	*	*	*	*	*	*	*	4	12	4	14	4	13
09:00	*	*	*	*	*	*	*	*	*	*	3	13	9	13	6	13
10:00	*	*	*	*	*	*	*	*	*	*	6	10	10	12	8	11
11:00	*	*	*	*	*	*	*	*	*	*	14	21	10	16	12	18
12:00 PM	*	*	*	*	*	*	*	*	*	*	20	11	14	14	17	12
01:00	*	*	*	*	*	*	*	*	16	10	17	16	15	21	16	16
02:00	*	*	*	*	*	*	*	*	15	13	18	15	14	14	16	14
03:00	*	*	*	*	*	*	*	*	14	22	20	19	20	12	18	18
04:00	*	*	*	*	*	*	*	*	20	25	18	14	24	16	21	18
05:00	*	*	*	*	*	*	*	*	18	25	22	13	20	11	20	16
06:00	*	*	*	*	*	*	*	*	19	26	23	16	18	15	20	19
07:00	*	*	*	*	*	*	*	*	10	13	16	13	10	11	12	12
08:00	*	*	*	*	*	*	*	*	18	9	5	6	6	4	10	6
09:00	*	*	*	*	*	*	*	*	10	8	9	3	12	9	10	7
10:00	*	*	*	*	*	*	*	*	6	6	4	9	5	2	5	6
11:00	*	*	*	*	*	*	*	*	6	3	4	5	3	1	4	3
Lane	0	0	0	0	0	0	0	0	152	160	213	209	209	195	212	213
Day	0		0		0		0		312	<u> </u>	422		404		425	
AM Peak	-	-	-	-	-	-	-	-	-	-	11:00	11:00	10:00	11:00	11:00	11:00
Vol.	-	-		-			-	-	-	-	14	21	10	16	12	18
PM Peak	-	-	-	-	-	-	-	-	16:00	18:00	18:00	15:00	16:00	13:00	16:00	18:00
Vol.	-	-	-	-	-	-	-	-	20	26	23	19	24	21	21	19

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None

ADT

ADT 545

AADT 545

#### 34000 Plymouth Road Livonia, MI 48150 Advancing Communities

Start	14-Oct	t-19	Tu		We	ed	Th	าน	Fı	ri	Sa	t	Su	n	Week Av	/erage
Time	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	ĔΒ
12:00 AM	0	1	2	2	0	0	0	1	0	0	*	*	*	*	0	1
01:00	1	0	1	0	0	0	1	0	0	1	*	*	*	*	1	0
02:00	0	1	0	0	0	0	0	0	0	0	*	*	*	*	0	0
03:00	1	0	3	0	1	1	2	1	1	1	*	*	*	*	2	1
04:00	0	2	1	1	0	0	1	1	1	2	*	*	*	*	1	1
05:00	0	5	1	4	0	3	2	4	0	2	*	*	*	*	1	4
06:00	4	10	4	13	4	9	4	3	3	9	*	*	*	*	4	9
07:00	12	20	16	19	14	25	12	25	11	22	*	*	*	*	13	22
08:00	21	35	21	33	18	25	16	29	14	22	*	*	*	*	18	29
09:00	14	9	14	13	12	11	9	9	9	16	*	*	*	*	12	12
10:00	9	9	14	7	12	15	7	21	9	10	*	*	*	*	10	12
11:00	11	14	11	14	7	9	15	15	20	11	*	*	*	*	13	13
12:00 PM	20	22	10	12	16	13	18	25	30	27	*	*	*	*	19	20
01:00	13	14	18	17	18	10	9	17	30	10	*	*	*	*	18	14
02:00	16	25	14	22	21	19	23	17	12	14	*	*	*	*	17	19
03:00	19	26	23	20	24	28	22	20	*	*	*	*	*	*	22	24
04:00	15	16	22	17	13	22	20	20	*	*	*	*	*	*	18	19
05:00	27	27	21	35	24	25	31	29	*	*	*	*	*	*	26	29
06:00	19	14	25	24	16	23	18	21	*	*	*	*	*	*	20	20
07:00	21	18	14	13	24	13	14	14	*	*	*	*	*	*	18	14
08:00	13	9	19	16	17	10	23	15	*	*	*	*	*	*	18	12
09:00	4	5	7	3	3	5	10	6	*	*	*	*	*	*	6	5
10:00	2	1	3	3	3	3	4	3	*	*	*	*	*	*	3	2
11:00	4	1	4	0	2	1	2	1	*	*	*	*	*	*	3	1
Lane	246	284	268	288	249	270	263	297	140	147	0	0	0	0	263	283
Day	530		556		519		56		287		0		0		546	
AM Peak	08:00	08:00	08:00	08:00	08:00	07:00	08:00	08:00	11:00	07:00	-	-	-	-	08:00	08:00
Vol.	21	35	21	33	18	25	16	29	20	22	-	-		-	18	29
PM Peak	17:00	17:00	18:00	17:00	15:00	15:00	17:00	17:00	12:00	12:00	-	-	-	-	17:00	17:00
Vol.	27	27	25	35	24	28	31	29	30	27	-	-	-	-	26	29
Comb. Total	53	0	Ę	556	!	519		560	Ę	599	4	22	4	04	9	71

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None

# **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/11/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	7	2	2	5	0	0	0	0	0	0	0	0	0	0	16	21-30	7
14:00	0	1	1	9	3	1	0	0	0	0	0	0	0	0	15	25-34	12
15:00	1	1	3	6	1	1	0	1	0	0	0	0	0	0	14	21-30	9
16:00	0	3	12	3	1	1	0	0	0	0	0	0	0	0	20	16-25	15
17:00	0	1	6	5	5	1	0	0	0	0	0	0	0	0	18	21-30	11
18:00	1	4	6	6	2	0	0	0	0	0	0	0	0	0	19	21-30	12
19:00	0	1	4	3	1	1	0	0	0	0	0	0	0	0	10	21-30	7
20:00	2	2	8	6	0	0	0	0	0	0	0	0	0	0	18	21-30	14
21:00	0	3	1	5	1	0	0	0	0	0	0	0	0	0	10	21-30	6
22:00	0	0	4	0	2	0	0	0	0	0	0	0	0	0	6	16-25	4
23:00	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6	16-25	6
Total	11	18	53	48	16	5	0	1	0	0	0	0	0	0	152		
Percent	7.2%	11.8%	34.9%	31.6%	10.5%	3.3%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-		
AM Peak																	
Vol.																	
PM Peak	13:00	18:00	16:00	14:00	17:00	14:00		15:00							16:00		
Vol.	7	4	12	9	5	1		1							20		

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None WR

# **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/12/19	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
02:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
03:00	1	0	0	2	0	0	0	0	0	0	0	0	0	0	3	20-29	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	20-29	2
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
08:00	0	1	1	1	1	0	0	0	0	0	0	0	0	0	4	14-23	2
09:00	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	14-23	2
10:00	0	2	2	2	0	0	0	0	0	0	0	0	0	0	6	15-24	4
11:00	2	2	3	5	2	0	0	0	0	0	0	0	0	0	14	21-30	8
12 PM	2	2	3	10	3	0	0	0	0	0	0	0	0	0	20	26-35	13
13:00	0	3	5	6	3	0	0	0	0	0	0	0	0	0	17	21-30	11
14:00	0	0	7	8	2	1	0	0	0	0	0	0	0	0	18	21-30	15
15:00	1	1	3	13	1	1	0	0	0	0	0	0	0	0	20	21-30	16
16:00	0	2	4	10	2	0	0	0	0	0	0	0	0	0	18	21-30	14
17:00	3	1	6	9	3	0	0	0	0	0	0	0	0	0	22	21-30	15
18:00	1	6	5	8	3	0	0	0	0	0	0	0	0	0	23	20-29	13
19:00	0	0	5	8	3	0	0	0	0	0	0	0	0	0	16	21-30	13
20:00	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5	20-29	5
21:00	0	0	4	4	1	0	0	0	0	0	0	0	0	0	9	21-30	8
22:00	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	25-34	4
23:00	0	0	3	0	0	1	0	0	0	0	0	0	0	0	4	16-25	3
Total	10	21	57	96	26	3	0	0	0	0	0	0	0	0	213		
Percent	4.7%	9.9%	26.8%	45.1%	12.2%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	11:00	11:00	11:00										11:00		
Vol.	2	2	3	5	2										14		
PM Peak	17:00	18:00	14:00	15:00	12:00	14:00									18:00		
Vol.	3	6	7	13	3	1									23		

34000 Plymouth Road Livonia, MI 48150

# **Advancing Communities**

Sylvanwood W of Rochester

WB

Weather: Various Serial Number: 32214

Other Notes: None

Installed by: Matt Clark

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/13/19	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	19-28	2
01:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	20-29	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
04:00	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3	19-28	2
05:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
06:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
07:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	19-28	3
08:00	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
09:00	0	1	2	5	1	0	0	0	0	0	0	0	0	0	9	21-30	7
10:00	0	1	1	5	2	1	0	0	0	0	0	0	0	0	10	26-35	7
11:00	0	2	3	3	1	1	0	0	0	0	0	0	0	0	10	21-30	6
12 PM	3	1	5	3	2	0	0	0	0	0	0	0	0	0	14	20-29	8
13:00	0	2	1	7	2	3	0	0	0	0	0	0	0	0	15	24-33	9
14:00	0	0	5	9	0	0	0	0	0	0	0	0	0	0	14	21-30	14
15:00	0	4	5	9	2	0	0	0	0	0	0	0	0	0	20	21-30	14
16:00	0	3	7	8	4	1	1	0	0	0	0	0	0	0	24	21-30	15
17:00	2	1	5	9	2	1	0	0	0	0	0	0	0	0	20	21-30	14
18:00	2	5	5	5	1	0	0	0	0	0	0	0	0	0	18	16-25	10
19:00	1	2	5	2	0	0	0	0	0	0	0	0	0	0	10	21-30	7
20:00	0	2	1	3	0	0	0	0	0	0	0	0	0	0	6	19-28	4
21:00	1	2	4	4	0	0	1	0	0	0	0	0	0	0	12	20-29	8
22:00	0	1	1	2	1	0	0	0	0	0	0	0	0	0	5	26-35	3
23:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	19-28	3
Total	10	27	62	82	19	7	2	0	0	0	0	0	0	0	209		
Percent	4.8%	12.9%	29.7%	39.2%	9.1%	3.3%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	04:00	11:00	08:00	09:00	10:00	10:00									10:00		
Vol	1	2	4	5	2	1									10		
PM Peak	12:00	18:00	16:00	14:00	16:00	13:00	16:00								16:00		
Vol.	3	5	7	9	4	3	1								24		

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None

# **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/14/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	2	0	2	0	0	0	0	0	0	0	0	0	4	15-24	2
07:00	2	3	3	2	1	1	0	0	0	0	0	0	0	0	12	16-25	6
08:00	4	1	7	5	2	1	0	0	0	1	0	0	0	0	21	21-30	12
09:00	1	3	5	5	0	0	0	0	0	0	0	0	0	0	14	20-29	10
10:00	0	1	5	2	1	0	0	0	0	0	0	0	0	0	9	21-30	7
11:00	2	0	3	5	0	1	0	0	0	0	0	0	0	0	11	21-30	8
12 PM	5	6	2	5	2	0	0	0	0	0	0	0	0	0	20	16-25	8
13:00	0	2	3	5	3	0	0	0	0	0	0	0	0	0	13	21-30	8
14:00	3	1	4	7	0	1	0	0	0	0	0	0	0	0	16	21-30	11
15:00	2	1	9	5	1	1	0	0	0	0	0	0	0	0	19	21-30	14
16:00	1	4	7	3	0	0	0	0	0	0	0	0	0	0	15	16-25	11
17:00	3	4	6	11	3	0	0	0	0	0	0	0	0	0	27	21-30	17
18:00	3	1	8	7	0	0	0	0	0	0	0	0	0	0	19	21-30	15
19:00	8	3	3	5	2	0	0	0	0	0	0	0	0	0	21	20-29	8
20:00	1	3	5	3	1	0	0	0	0	0	0	0	0	0	13	16-25	8
21:00	0	0	1	2	0	1	0	0	0	0	0	0	0	0	4	20-29	3
22:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	24-33	2
23:00	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4	20-29	3
Total	35	33	75	75	21	6	0	0	0	1	0	0	0	0	246		
Percent	14.2%	13.4%	30.5%	30.5%	8.5%	2.4%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	08:00	08:00	06:00	07:00				08:00					08:00		
Vol.	4	3	7	5	2	1		,		1					21		
PM Peak	19:00	12:00	15:00	17:00	13:00	14:00									17:00		
Vol.	8	6	9	11	3	1									27		

34000 Plymouth Road Livonia, MI 48150

# **Advancing Communities**

Weather: Various Serial Number: 32214

Installed by: Other Notes	Matt Clark							ivonia, M icing Co		ities							ylvanwood Rochester
WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/15/19	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	*	1
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	2	0	0	0	0	1	0	0	0	0	0	0	3	15-24	2
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
05:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
06:00	1	2	1	0	0	0	0	0	0	0	0	0	0	0	4	13-22	3
07:00	3	0	7	3	1	2	0	0	0	0	0	0	0	0	16	21-30	10
08:00	5	2	4	7	2	1	0	0	0	0	0	0	0	0	21	21-30	11
09:00	2	1	4	5	2	0	0	0	0	0	0	0	0	0	14	21-30	9
10:00	3	3	1	7	0	0	0	0	0	0	0	0	0	0	14	21-30	8
11:00	1	1	3	4	2	0	0	0	0	0	0	0	0	0	11	21-30	7
12 PM	2	1	6	1	0	0	0	0	0	0	0	0	0	0	10	20-29	7
13:00	1	3	8	5	0	1	0	0	0	0	0	0	0	0	18	20-29	13
14:00	2	1	6	5	0	0	0	0	0	0	0	0	0	0	14	21-30	11
15:00	3	2	7	10	1	0	0	0	0	0	0	0	0	0	23	21-30	17
16:00	3	5	6	7	1	0	0	0	0	0	0	0	0	0	22	20-29	13
17:00	3	3	7	8	0	0	0	0	0	0	0	0	0	0	21	21-30	15
18:00	5	4	4	8	4	0	0	0	0	0	0	0	0	0	25	26-35	12
19:00	0	0	6	6	2	0	0	0	0	0	0	0	0	0	14	21-30	12
20:00	5	1	5	4	3	1	0	0	0	0	0	0	0	0	19	21-30	9
21:00	0	0	2	3	2	0	0	0	0	0	0	0	0	0	7	26-35	5
22:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	24-33	3
23:00	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4	21-30	4
Total	40	29	81	91	21	5	0	1	0	0	0	0	0	0	268		
Percent	14.9%	10.8%	30.2%	34.0%	7.8%	1.9%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	07:00	08:00	08:00	07:00		03:00							08:00		
Vol.	5	3	7	7	2	2		1							21		
PM Peak	18:00	16:00	13:00	15:00	18:00	13:00									18:00		
Vol.	5	5	8	10	4	1									25		

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None WB

# **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/16/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	1	2	1	0	0	0	0	0	0	0	0	0	0	4	15-24	3
07:00	3	4	3	4	0	0	0	0	0	0	0	0	0	0	14	15-24	7
08:00	2	1	6	7	1	0	0	0	1	0	0	0	0	0	18	21-30	13
09:00	1	0	4	4	2	1	0	0	0	0	0	0	0	0	12	21-30	8
10:00	2	0	2	8	0	0	0	0	0	0	0	0	0	0	12	21-30	10
11:00	0	1	3	3	0	0	0	0	0	0	0	0	0	0	7	21-30	6
12 PM	1	1	6	7	1	0	0	0	0	0	0	0	0	0	16	21-30	13
13:00	1	4	5	7	1	0	0	0	0	0	0	0	0	0	18	21-30	12
14:00	2	2	8	7	2	0	0	0	0	0	0	0	0	0	21	21-30	15
15:00	1	6	5	7	4	0	0	1	0	0	0	0	0	0	24	19-28	12
16:00	1	0	6	5	0	1	0	0	0	0	0	0	0	0	13	21-30	11
17:00	3	0	11	7	3	0	0	0	0	0	0	0	0	0	24	21-30	18
18:00	1	2	7	6	0	0	0	0	0	0	0	0	0	0	16	21-30	13
19:00	0	1	9	11	3	0	0	0	0	0	0	0	0	0	24	21-30	20
20:00	2	0	7	5	3	0	0	0	0	0	0	0	0	0	17	21-30	12
21:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	19-28	3
22:00	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3	19-28	2
23:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	14-23	1
Total	20	25	87	92	20	3	0	1	1	0	0	0	0	0	249		
Percent	8.0%	10.0%	34.9%	36.9%	8.0%	1.2%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	08:00	10:00	09:00	09:00			08:00						08:00		
Vol.	3	4	6	8	2	1			1						18		
PM Peak	17:00	15:00	17:00	19:00	15:00	16:00		15:00							15:00		
Vol.	3	6	11	11	4	1		1							24		

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None WB

# **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/17/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
05:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	*	1
06:00	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	19-28	4
07:00	0	1	5	5	1	0	0	0	0	0	0	0	0	0	12	21-30	10
08:00	3	2	5	4	1	0	1	0	0	0	0	0	0	0	16	21-30	9
09:00	0	2	0	5	2	0	0	0	0	0	0	0	0	0	9	26-35	7
10:00	1	1	1	3	1	0	0	0	0	0	0	0	0	0	7	26-35	4
11:00	0	3	6	4	1	0	0	0	1	0	0	0	0	0	15	21-30	10
12 PM	2	1	5	7	3	0	0	0	0	0	0	0	0	0	18	21-30	12
13:00	0	1	1	2	3	2	0	0	0	0	0	0	0	0	9	31-40	5
14:00	4	0	10	2	4	2	0	1	0	0	0	0	0	0	23	20-29	12
15:00	2	3	5	8	4	0	0	0	0	0	0	0	0	0	22	21-30	13
16:00	1	2	8	8	1	0	0	0	0	0	0	0	0	0	20	21-30	16
17:00	9	3	9	8	2	0	0	0	0	0	0	0	0	0	31	21-30	17
18:00	3	0	9	5	1	0	0	0	0	0	0	0	0	0	18	21-30	14
19:00	1	2	6	2	3	0	0	0	0	0	0	0	0	0	14	16-25	8
20:00	3	3	11	6	0	0	0	0	0	0	0	0	0	0	23	21-30	17
21:00	0	2	2	5	1	0	0	0	0	0	0	0	0	0	10	21-30	7
22:00	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4	19-28	3
23:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	20-29	2
Total	30	28	90	79	29	4	1	1	1	0	0	0	0	0	263		
Percent	11.4%	10.6%	34.2%	30.0%	11.0%	1.5%	0.4%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	11:00	07:00	09:00		08:00		11:00						08:00		
Vol.	3	3	6	5	2		1		1						16		
PM Peak	17:00	15:00	20:00	15:00	14:00	13:00		14:00							17:00		
Vol.	9	3	11	8	4	2		1							31		

Number

### **OHM Advisors**

34000 Plymouth Road Livonia, MI 48150

# **Advancing Communities**

51

56

61

66

71

76

46

Sylvanwood W of Rochester

Pace

Start		10	Z I	20	31	30	41	40	31	50	01	00	/ 1	70		race	Nullibel
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/18/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	16-25	3
07:00	0	0	6	4	1	0	0	0	0	0	0	0	0	0	11	21-30	10
08:00	4	2	2	4	1	1	0	0	0	0	0	0	0	0	14	21-30	6
09:00	1	2	2	2	2	0	0	0	0	0	0	0	0	0	9	26-35	4
10:00	0	0	3	6	0	0	0	0	0	0	0	0	0	0	9	21-30	9
11:00	3	0	5	8	2	0	2	0	0	0	0	0	0	0	20	21-30	13
12 PM	1	4	8	12	5	0	0	0	0	0	0	0	0	0	30	21-30	20
13:00	2	0	7	14	6	1	0	0	0	0	0	0	0	0	30	21-30	21
14:00	4	1	1	3	2	1	0	0	0	0	0	0	0	0	12	26-35	5
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

0

4

0.2%

0.0%

0

2

0.1%

0.0%

0

0.0%

0.1%

0

0

0.0%

0.0%

0

0

0.0%

0.0%

0

0

0.0%

0.0%

0

0

0.0%

0.0%

140

11:00

12:00

1740

20

30

35.4% 15th Percentile : 17 MPH

50th Percentile: 24 MPH 85th Percentile: 29 MPH

53

8

14

616

37.9%

11:00

13:00

19

2

6

171

9.8%

13.6%

09:00

13:00

3

2.1%

08:00

13:00

2.1%

36

2

2

5

0.3%

1.4%

11:00

95th Percentile: 33 MPH

Stats 10 MPH Pace Speed: 21-30 MPH Number in Pace : 1160

Weather: Various

Other Notes: None

WB

Start

23:00

Total

Vol.

Vol.

Total

Percent

Percent

AM Peak

PM Peak

15

4

10.7%

08:00

14:00

171

9.8%

Serial Number: 32214 Installed by: Matt Clark

16

1

21

26

31

36

41

Percent in Pace: 66.7%

Number of Vehicles > 25 MPH: 835 Percent of Vehicles > 25 MPH: 48.0% Mean Speed(Average): 24 MPH

39

6

8

544

31.3%

27.9%

07:00

12:00

9

6.4%

08:00

12:00

190

10.9%

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None

# **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/11/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	2	0	2	3	1	2	0	0	0	0	0	0	0	0	10	21-30	5
14:00	2	1	3	2	5	0	0	0	0	0	0	0	0	0	13	25-34	7
15:00	2	0	2	12	5	1	0	0	0	0	0	0	0	0	22	26-35	17
16:00	2	2	4	12	4	1	0	0	0	0	0	0	0	0	25	21-30	16
17:00	2	1	6	9	5	2	0	0	0	0	0	0	0	0	25	21-30	15
18:00	1	0	8	10	6	1	0	0	0	0	0	0	0	0	26	21-30	18
19:00	1	1	3	5	3	0	0	0	0	0	0	0	0	0	13	21-30	8
20:00	2	0	3	2	2	0	0	0	0	0	0	0	0	0	9	21-30	5
21:00	0	0	1	2	4	1	0	0	0	0	0	0	0	0	8	26-35	6
22:00	0	0	2	3	0	1	0	0	0	0	0	0	0	0	6	21-30	5
23:00	0	0	1	0	2	0	0	0	0	0	0	0	0	0	3	24-33	2
Total	14	5	35	60	37	9	0	0	0	0	0	0	0	0	160		
Percent	8.8%	3.1%	21.9%	37.5%	23.1%	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak																	
Vol.																	
PM Peak	13:00	16:00	18:00	15:00	18:00	13:00									18:00		
Vol.	2	2	8	12	6	2									26		

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None

# **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/12/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
05:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
06:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	26-35	3
07:00	0	1	1	3	0	2	0	0	0	0	0	0	0	0	7	20-29	4
08:00	0	2	1	5	2	2	0	0	0	0	0	0	0	0	12	26-35	7
09:00	0	0	0	5	6	1	1	0	0	0	0	0	0	0	13	26-35	11
10:00	0	2	1	2	4	1	0	0	0	0	0	0	0	0	10	26-35	6
11:00	3	1	4	6	7	0	0	0	0	0	0	0	0	0	21	26-35	13
12 PM	1	0	1	7	2	0	0	0	0	0	0	0	0	0	11	24-33	9
13:00	2	0	2	6	5	1	0	0	0	0	0	0	0	0	16	26-35	11
14:00	0	0	4	7	3	0	1	0	0	0	0	0	0	0	15	21-30	11
15:00	2	1	3	4	8	1	0	0	0	0	0	0	0	0	19	26-35	12
16:00	2	0	1	4	5	2	0	0	0	0	0	0	0	0	14	26-35	9
17:00	1	0	5	2	4	1	0	0	0	0	0	0	0	0	13	21-30	7
18:00	1	1	5	4	3	2	0	0	0	0	0	0	0	0	16	21-30	9
19:00	1	1	5	3	2	1	0	0	0	0	0	0	0	0	13	20-29	8
20:00	0	0	0	2	3	0	1	0	0	0	0	0	0	0	6	26-35	5
21:00	0	1	1	0	0	1	0	0	0	0	0	0	0	0	3	14-23	2
22:00	0	0	0	6	2	1	0	0	0	0	0	0	0	0	9	26-35	8
23:00	0	1	11	2	0	11	0	0	0	0	0	0	0	0	5	21-30	3
Total	13	12	35	70	59	17	3	0	0	0	0	0	0	0	209		
Percent	6.2%	5.7%	16.7%	33.5%	28.2%	8.1%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	08:00	11:00	11:00	11:00	07:00	09:00								11:00		
Vol.	3	2	4	6	7	2	1 1								21		
PM Peak	13:00	15:00	17:00	12:00	15:00	16:00	14:00								15:00		
Vol.	2	1	5	7	8	2	1								19		

34000 Plymouth Road Livonia, MI 48150

# Advancing Communities

Sylvanwood W of Rochester

EΒ

Weather: Various Serial Number: 32214

Other Notes: None

Installed by: Matt Clark

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/13/19	0	0	1	2	2	1	0	0	0	0	0	0	0	0	6	26-35	4
01:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	9-18	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
08:00	0	0	1	3	8	2	0	0	0	0	0	0	0	0	14	26-35	11
09:00	0	1	2	5	4	1	0	0	0	0	0	0	0	0	13	26-35	9
10:00	0	1	0	1	6	2	2	0	0	0	0	0	0	0	12	31-40	8
11:00	2	0	3	3	6	2	0	0	0	0	0	0	0	0	16	26-35	9
12 PM	1	0	0	3	7	2	1	0	0	0	0	0	0	0	14	26-35	10
13:00	0	2	3	10	4	0	2	0	0	0	0	0	0	0	21	26-35	14
14:00	0	1	2	5	6	0	0	0	0	0	0	0	0	0	14	26-35	11
15:00	0	0	1	2	8	1	0	0	0	0	0	0	0	0	12	26-35	10
16:00	0	0	4	4	5	2	1	0	0	0	0	0	0	0	16	26-35	9
17:00	0	2	5	2	2	0	0	0	0	0	0	0	0	0	11	21-30	7
18:00	1	1	4	5	3	0	1	0	0	0	0	0	0	0	15	21-30	9
19:00	0	0	3	2	2	4	0	0	0	0	0	0	0	0	11	30-39	6
20:00	0	0	0	3	1	0	0	0	0	0	0	0	0	0	4	24-33	4
21:00	0	0	3	2	3	1	0	0	0	0	0	0	0	0	9	26-35	5
22:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	24-33	2
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
Total	4	10	32	54	70	18	7	0	0	0	0	0	0	0	195		
Percent	2.1%	5.1%	16.4%	27.7%	35.9%	9.2%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	01:00	11:00	09:00	08:00	08:00	10:00								11:00		
Vol.	2	1	3	5	8	2	2								16		
PM Peak	12:00	13:00	17:00	13:00	15:00	19:00	13:00								13:00		
Vol.	1	2	5	10	8	4	2								21		

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None

## **Advancing Communities**

Sylvanwood W of Rochester

Other Hotes	. 110110															V V O1	1 (001100101
EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/14/19	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	29-38	2
05:00	0	0	0	3	0	2	0	0	0	0	0	0	0	0	5	21-30	3
06:00	0	0	2	2	4	1	1	0	0	0	0	0	0	0	10	26-35	6
07:00	1	0	3	9	6	1	0	0	0	0	0	0	0	0	20	26-35	15
08:00	5	2	10	11	3	4	0	0	0	0	0	0	0	0	35	21-30	21
09:00	0	2	1	5	1	0	0	0	0	0	0	0	0	0	9	21-30	6
10:00	0	0	1	5	2	1	0	0	0	0	0	0	0	0	9	26-35	7
11:00	0	1	1	6	4	2	0	0	0	0	0	0	0	0	14	26-35	10
12 PM	5	2	3	11	0	0	1	0	0	0	0	0	0	0	22	21-30	14
13:00	1	1	1	8	1	2	0	0	0	0	0	0	0	0	14	25-34	9
14:00	3	1	2	10	6	2	1	0	0	0	0	0	0	0	25	26-35	16
15:00	3	2	1	11	8	1	0	0	0	0	0	0	0	0	26	26-35	19
16:00	1	0	4	6	5	0	0	0	0	0	0	0	0	0	16	26-35	11
17:00	4	2	8	10	3	0	0	0	0	0	0	0	0	0	27	21-30	18
18:00	0	2	4	3	5	0	0	0	0	0	0	0	0	0	14	24-33	8
19:00	3	1	4	6	3	1	0	0	0	0	0	0	0	0	18	21-30	10
20:00	3	0	1	4	0	1	0	0	0	0	0	0	0	0	9	21-30	5
21:00	0	1	2	1	0	1	0	0	0	0	0	0	0	0	5	21-30	3
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	29	17	49	113	53	20	3	0	0	0	0	0	0	0	284		
Percent	10.2%	6.0%	17.3%	39.8%	18.7%	7.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	08:00	07:00	08:00	06:00								08:00		
Vol.	5	2	10	11	6	4	1								35		
PM Peak	12:00	12:00	17:00	12:00	15:00	13:00	12:00								17:00		
Vol.	5	2	8	11	8	2	1								27		

34000 Plymouth Road Livonia, MI 48150

Weather: Various Serial Number: 32214 Installed by: Matt Clark Other Notes: None

### **Advancing Communities**

Sylvanwood W of Rochester

Outer Hotes.	. 140110															** 01	1 (001100101
EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/15/19	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	*	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
05:00	0	0	2	0	2	0	0	0	0	0	0	0	0	0	4	15-24	2
06:00	1	0	2	4	6	0	0	0	0	0	0	0	0	0	13	26-35	10
07:00	1	4	8	3	3	0	0	0	0	0	0	0	0	0	19	16-25	12
08:00	5	3	7	11	5	2	0	0	0	0	0	0	0	0	33	21-30	18
09:00	1	4	2	5	1	0	0	0	0	0	0	0	0	0	13	21-30	7
10:00	1	1	3	2	0	0	0	0	0	0	0	0	0	0	7	19-28	5
11:00	0	4	3	2	5	0	0	0	0	0	0	0	0	0	14	26-35	7
12 PM	0	0	3	4	2	3	0	0	0	0	0	0	0	0	12	21-30	7
13:00	2	1	2	5	4	2	1	0	0	0	0	0	0	0	17	25-34	9
14:00	1	3	4	11	2	1	0	0	0	0	0	0	0	0	22	21-30	15
15:00	3	0	3	10	3	1	0	0	0	0	0	0	0	0	20	21-30	13
16:00	4	1	2	5	2	3	0	0	0	0	0	0	0	0	17	26-35	7
17:00	2	2	8	13	7	3	0	0	0	0	0	0	0	0	35	21-30	21
18:00	3	2	4	5	7	3	0	0	0	0	0	0	0	0	24	26-35	12
19:00	0	1	1	9	1	1	0	0	0	0	0	0	0	0	13	24-33	10
20:00	2	2	4	4	2	1	1	0	0	0	0	0	0	0	16	21-30	8
21:00	0	1	1	0	0	1	0	0	0	0	0	0	0	0	3	14-23	2
22:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	24-33	3
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	27	29	60	96	53	21	2	0	0	0	0	0	0	0	288		
Percent	9.4%	10.1%	20.8%	33.3%	18.4%	7.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	08:00	06:00	08:00									08:00		
Vol.	5	4	8	11	6	2									33		
PM Peak	16:00	14:00	17:00	17:00	17:00	12:00	13:00								17:00		
Vol.	4	3	8	13	7	3	1								35		

34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

Sylvanwood W of Rochester

Other Notes: None EB

Weather: Various Serial Number: 32214 Installed by: Matt Clark

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/16/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	2	0	1	0	0	0	0	0	0	0	0	3	20-29	2
06:00	0	0	2	2	2	3	0	0	0	0	0	0	0	0	9	29-38	5
07:00	3	1	5	9	6	0	1	0	0	0	0	0	0	0	25	24-33	15
08:00	3	0	4	11	5	2	0	0	0	0	0	0	0	0	25	26-35	16
09:00	1	0	1	5	4	0	0	0	0	0	0	0	0	0	11	26-35	9
10:00	0	0	4	2	7	1	1	0	0	0	0	0	0	0	15	26-35	9
11:00	0	0	1	4	2	1	1	0	0	0	0	0	0	0	9	26-35	6
12 PM	1	1	2	6	1	2	0	0	0	0	0	0	0	0	13	21-30	8
13:00	2	1	1	4	2	0	0	0	0	0	0	0	0	0	10	26-35	6
14:00	2	1	5	2	8	1	0	0	0	0	0	0	0	0	19	26-35	10
15:00	3	0	7	14	3	1	0	0	0	0	0	0	0	0	28	21-30	21
16:00	1	0	9	5	7	0	0	0	0	0	0	0	0	0	22	21-30	14
17:00	1	3	7	9	4	1	0	0	0	0	0	0	0	0	25	21-30	16
18:00	3	1	3	9	5	2	0	0	0	0	0	0	0	0	23	26-35	14
19:00	0	1	2	5	4	1	0	0	0	0	0	0	0	0	13	26-35	9
20:00	2	0	3	3	1	1	0	0	0	0	0	0	0	0	10	21-30	6
21:00	0	0	0	2	3	0	0	0	0	0	0	0	0	0	5	26-35	5
22:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	20-29	3
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	22	9	57	97	65	17	3	0	0	0	0	0	0	0	270		
Percent	8.1%	3.3%	21.1%	35.9%	24.1%	6.3%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	08:00	10:00	06:00	07:00								07:00		
Vol.	3	1	5	11	7	3	11								25		
PM Peak	15:00	17:00	16:00	15:00	14:00	12:00									15:00		
Vol.	3	3	9	14	8	2									28		

34000 Plymouth Road Livonia, MI 48150

# Advancing Communities

Sylvanwood W of Rochester

EΒ

Weather: Various Serial Number: 32214

Other Notes: None

Installed by: Matt Clark

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/17/19	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
05:00	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4	26-35	4
06:00	0	0	1	1	0	1	0	0	0	0	0	0	0	0	3	19-28	2
07:00	0	1	6	14	4	0	0	0	0	0	0	0	0	0	25	21-30	20
08:00	4	1	3	12	5	4	0	0	0	0	0	0	0	0	29	26-35	17
09:00	0	0	2	4	3	0	0	0	0	0	0	0	0	0	9	24-33	7
10:00	1	2	4	7	3	4	0	0	0	0	0	0	0	0	21	21-30	11
11:00	1	0	4	6	2	1	1	0	0	0	0	0	0	0	15	21-30	10
12 PM	3	0	5	10	5	1	1	0	0	0	0	0	0	0	25	21-30	15
13:00	0	0	5	9	2	1	0	0	0	0	0	0	0	0	17	21-30	14
14:00	2	1	3	6	4	0	1	0	0	0	0	0	0	0	17	24-33	10
15:00	3	2	2	5	5	2	0	1	0	0	0	0	0	0	20	26-35	10
16:00	0	3	2	7	6	2	0	0	0	0	0	0	0	0	20	26-35	13
17:00	5	1	10	5	5	3	0	0	0	0	0	0	0	0	29	21-30	15
18:00	0	1	3	9	5	3	0	0	0	0	0	0	0	0	21	25-34	14
19:00	2	0	4	2	6	0	0	0	0	0	0	0	0	0	14	25-34	8
20:00	1	1	4	5	4	0	0	0	0	0	0	0	0	0	15	21-30	9
21:00	0	0	2	2	1	1	0	0	0	0	0	0	0	0	6	21-30	4
22:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	20-29	3
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	22	14	61	110	63	23	3	1	0	0	0	0	0	0	297		-
Percent	7.4%	4.7%	20.5%	37.0%	21.2%	7.7%	1.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	07:00	07:00	08:00	08:00	11:00								08:00		
Vol.	4	2	6	14	5	4	1								29		
PM Peak	17:00	16:00	17:00	12:00	16:00	17:00	12:00	15:00							17:00		
Vol.	5	3	10	10	6	3	1	1							29		

34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

Sylvanwood W of Rochester

E	В
	Sta

Weather: Various

Other Notes: None

Serial Number: 32214

Installed by: Matt Clark

FB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/18/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	9-18	1
05:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	20-29	2
06:00	0	1	2	4	2	0	0	0	0	0	0	0	0	0	9	26-35	6
07:00	0	0	5	13	4	0	0	0	0	0	0	0	0	0	22	21-30	18
08:00	3	2	2	5	4	5	1	0	0	0	0	0	0	0	22	25-34	9
09:00	1	0	2	6	6	1	0	0	0	0	0	0	0	0	16	26-35	12
10:00	0	0	0	4	5	1	0	0	0	0	0	0	0	0	10	26-35	9
11:00	0	0	2	4	2	1	2	0	0	0	0	0	0	0	11	26-35	6
12 PM	4	1	5	8	4	4	1	0	0	0	0	0	0	0	27	21-30	13
13:00	0	1	1	3	5	0	0	0	0	0	0	0	0	0	10	26-35	8
14:00	4	2	3	1	3	1	0	0	0	0	0	0	0	0	14	15-24	5
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	12	8	22	52	36	13	4	0	0	0	0	0	0	0	147		
Percent	8.2%	5.4%	15.0%	35.4%	24.5%	8.8%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	07:00	09:00	08:00	11:00								07:00		
Vol.	3	2	5	13	6	5	2								22		
PM Peak	12:00	14:00	12:00	12:00	13:00	12:00	12:00								12:00		
Vol.	4	2	5	8	5	4	1								27		
Total	143	104	351	652	436	138	25	1	0	0	0	0	0	0	1850		
Percent	7.7%	5.6%	19.0%	35.2%	23.6%	7.5%	1.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

20 MPH 15th Percentile : 27 MPH 50th Percentile: 85th Percentile: 33 MPH

95th Percentile: **37 MPH** 

Stats 10 MPH Pace Speed: 26-35 MPH Number in Pace : 1088

Percent in Pace: 58.8% 1252

Number of Vehicles > 25 MPH: Percent of Vehicles > 25 MPH: 67.7% Mean Speed(Average): 27 MPH

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/11/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	9-18	2
13:00	4	1	7	5	3	1	1	0	0	0	0	0	0	0	22	21-30	12
14:00	1	1	3	5	6	2	0	0	0	0	0	0	0	0	18	26-35	11
15:00	0	2	3	7	6	1	0	0	0	0	0	0	0	0	19	26-35	13
16:00	0	4	1	12	5	4	0	0	0	0	0	0	0	0	26	26-35	17
17:00	1	3	9	12	14	2	1	0	0	0	0	0	0	0	42	26-35	26
18:00	2	0	6	4	6	4	0	0	0	0	0	0	0	0	22	31-40	10
19:00	0	0	1	1	5	0	0	0	0	0	0	0	0	0	7	26-35	6
20:00	1	0	1	0	3	0	0	0	0	0	0	0	0	0	5	25-34	3
21:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	25-34	3
22:00	1	0	1	0	1	1	1	0	0	0	0	0	0	0	5	36-45	2
23:00	6	11	0	0	0	0	0	0	0	0	0	0	0	0	7	6-15	4
Total	18	13	32	47	51	15	3	0	0	0	0	0	0	0	179		
Percent	10.1%	7.3%	17.9%	26.3%	28.5%	8.4%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak																	
Vol.																	
PM Peak	23:00	16:00	17:00	16:00	17:00	16:00	13:00								17:00		
Vol.	6	4	9	12	14	4	1								42		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

### 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/12/19	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	15-24	1
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
05:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
06:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	20-29	2
07:00	1	0	0	2	0	0	0	0	0	0	0	0	0	0	3	20-29	2
08:00	0	0	2	5	1	0	0	0	0	0	0	0	0	0	8	21-30	7
09:00	1	0	2	6	6	3	1	0	0	0	0	0	0	0	19	26-35	12
10:00	3	1	2	15	2	3	0	0	0	0	0	0	0	0	26	21-30	17
11:00	0	3	1	7	16	1	0	0	0	0	0	0	0	0	28	26-35	23
12 PM	0	0	5	9	1	3	0	0	0	0	0	0	0	0	18	21-30	14
13:00	2	2	5	6	6	0	0	0	0	0	0	0	0	0	21	24-33	12
14:00	2	0	0	11	5	4	0	0	0	0	0	0	0	0	22	26-35	16
15:00	0	1	3	4	11	3	0	1	0	0	0	0	0	0	23	26-35	15
16:00	1	2	1	5	5	0	0	0	0	0	0	0	0	0	14	26-35	10
17:00	0	0	0	7	8	3	0	0	0	0	0	0	0	0	18	26-35	15
18:00	0	2	1	7	3	2	1	0	0	0	0	0	0	0	16	26-35	10
19:00	1	0	2	6	1	0	0	0	0	0	0	0	0	0	10	21-30	8
20:00	0	1	1	2	4	4	0	0	0	0	0	0	0	0	12	30-39	8
21:00	0	0	2	1	3	1	0	0	0	0	0	0	0	0	7	31-40	4
22:00	6	0	1	2	0	0	0	0	0	0	0	0	0	0	9	6-15	4
23:00	1	0	0	3	2	0	0	0	0	0	0	0	0	0	6	25-34	5
Total	19	14	30	101	75	27	2	1	0	0	0	0	0	0	269		
Percent	7.1%	5.2%	11.2%	37.5%	27.9%	10.0%	0.7%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		-	
AM Peak	10:00	11:00	08:00	10:00	11:00	09:00	09:00								11:00		
Vol.	3	3	2	15	16	3	1								28		
PM Peak	22:00	13:00	12:00	14:00	15:00	14:00	18:00	15:00							15:00		
Vol.	6	2	5	11	11	4	1	1							23		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/13/19	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	14-23	1
01:00	1	0	1	0	0	1	0	0	0	0	0	0	0	0	3	*	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3	15-24	2
05:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	24-33	3
06:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
07:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
08:00	1	0	1	2	1	1	0	0	0	0	0	0	0	0	6	26-35	3
09:00	0	0	2	2	6	2	1	0	0	0	0	0	0	0	13	31-40	8
10:00	6	2	1	6	11	1	0	0	0	0	0	0	0	0	27	26-35	17
11:00	0	3	2	7	4	4	0	0	0	0	0	0	0	0	20	26-35	11
12 PM	5	1	3	10	5	2	1	0	0	0	0	0	0	0	27	25-34	15
13:00	1	0	2	6	0	0	0	0	0	0	0	0	0	0	9	21-30	8
14:00	3	1	3	4	8	1	0	1	0	0	0	0	0	0	21	26-35	12
15:00	1	0	2	3	6	1	2	0	0	0	0	0	0	0	15	26-35	9
16:00	3	0	2	0	3	7	0	0	0	0	0	0	0	0	15	31-40	10
17:00	0	1	3	8	3	0	0	0	0	0	0	0	0	0	15	21-30	11
18:00	0	1	3	6	4	1	0	0	0	0	0	0	0	0	15	26-35	10
19:00	1	2	4	1	1	1	0	0	0	0	0	0	0	0	10	16-25	6
20:00	0	1	1	1	2	0	0	0	0	0	0	0	0	0	5	24-33	3
21:00	0	0	3	1	2	0	0	0	0	0	0	0	0	0	6	19-28	4
22:00	2	0	1	1	2	0	0	0	0	0	0	0	0	0	6	24-33	3
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	25	12	37	62	60	23	4	1	0	0	0	0	0	0	224		
Percent	11.2%	5.4%	16.5%	27.7%	26.8%	10.3%	1.8%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	04:00	11:00	10:00	11:00	09:00								10:00		
Vol.	6	3	2	7	11	4	11		,						27		
PM Peak	12:00	19:00	19:00	12:00	14:00	16:00	15:00	14:00							12:00		
Vol.	5	2	4	10	8	7	2	1							27		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/14/19	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	14-23	1
05:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	20-29	2
06:00	1	0	1	3	0	2	0	0	0	0	0	0	0	0	7	21-30	4
07:00	0	1	2	6	4	1	1	0	0	0	0	0	0	0	15	26-35	10
08:00	0	2	3	7	6	1	1	0	0	0	0	0	0	0	20	26-35	13
09:00	0	0	1	2	8	2	1	0	0	0	0	0	0	0	14	28-37	10
10:00	1	1	4	6	4	1	0	0	0	0	0	0	0	0	17	21-30	10
11:00	0	2	4	8	7	1	0	0	0	0	0	0	0	0	22	26-35	15
12 PM	4	1	1	8	0	2	0	0	0	0	0	0	0	0	16	21-30	9
13:00	1	1	2	3	3	4	0	0	0	0	0	0	0	0	14	29-38	7
14:00	5	3	3	4	3	1	0	0	0	0	0	0	0	0	19	19-28	7
15:00	0	0	5	10	6	4	1	0	0	0	0	0	0	0	26	24-33	16
16:00	2	1	5	12	9	5	0	0	0	0	0	0	0	0	34	26-35	21
17:00	0	1	7	9	9	7	1	0	0	0	0	0	0	0	34	25-34	18
18:00	2	3	3	11	5	3	0	0	0	0	0	0	0	0	27	25-34	16
19:00	2	0	1	7	1	0	0	0	0	0	0	0	0	0	11	22-31	8
20:00	2	0	0	1	5	0	0	0	0	0	0	0	0	0	8	26-35	6
21:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
23:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	20-29	2
Total	21	16	44	103	71	34	5	0	0	0	0	0	0	0	294		
Percent	7.1%	5.4%	15.0%	35.0%	24.1%	11.6%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	01:00	08:00	10:00	11:00	09:00	06:00	07:00								11:00		
Vol.	1	2	4	8	8	2	1								22		
PM Peak	14:00	14:00	17:00	16:00	16:00	17:00	15:00								16:00		
Vol.	5	3	7	12	9	7	1								34		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/15/19	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	3	0	3	0	0	0	0	0	0	0	0	0	6	31-40	3
06:00	0	0	3	3	3	1	0	0	0	0	0	0	0	0	10	26-35	6
07:00	1	1	2	7	6	2	0	0	0	0	0	0	0	0	19	26-35	13
08:00	2	0	6	6	6	1	1	0	0	0	0	0	0	0	22	21-30	12
09:00	4	2	4	3	2	4	0	0	0	0	0	0	0	0	19	19-28	7
10:00	4	0	4	2	4	0	0	0	0	0	0	0	0	0	14	26-35	6
11:00	0	1	4	4	1	1	1	0	0	0	0	0	0	0	12	21-30	8
12 PM	1	1	3	6	3	1	0	0	0	0	0	0	0	0	15	21-30	9
13:00	2	1	5	3	1	1	1	0	0	0	0	0	0	0	14	20-29	8
14:00	3	0	2	5	3	5	0	0	0	0	0	0	0	0	18	24-33	8
15:00	1	4	5	7	4	1	0	0	0	0	0	0	0	0	22	21-30	12
16:00	5	2	3	13	15	0	0	0	0	0	0	0	0	0	38	26-35	28
17:00	0	2	7	14	12	3	1	0	0	0	0	0	0	0	39	26-35	26
18:00	0	2	9	11	7	3	0	0	0	0	0	0	0	0	32	21-30	20
19:00	1	0	2	9	1	1	0	0	0	0	0	0	0	0	14	21-30	11
20:00	3	1	1	3	1	1	1	1	0	0	0	0	0	0	12	26-35	4
21:00	0	0	2	6	1	1	0	0	0	0	0	0	0	0	10	21-30	8
22:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4	29-38	3
23:00	0	11	1	0	0	0	0	0	0	0	0	0	0	0	2	14-23	2
Total	27	18	67	104	74	28	5	1	0	0	0	0	0	0	324		
Percent	8.3%	5.6%	20.7%	32.1%	22.8%	8.6%	1.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	08:00	07:00	07:00	09:00	08:00								08:00		
Vol.	4	2	6	7	6	4	11								22		
PM Peak	16:00	15:00	18:00	17:00	16:00	14:00	13:00	20:00							17:00		
Vol.	5	4	9	14	15	5	1	1							39		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/16/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	9-18	1
05:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	25-34	2
06:00	1	0	2	3	3	0	0	0	0	0	0	0	0	0	9	24-33	6
07:00	0	1	1	11	5	3	0	0	0	0	0	0	0	0	21	26-35	16
08:00	0	0	2	7	4	2	1	0	0	0	0	0	0	0	16	26-35	11
09:00	1	2	2	6	6	1	0	0	0	0	0	0	0	0	18	26-35	12
10:00	0	0	6	6	2	1	1	0	0	0	0	0	0	0	16	21-30	12
11:00	0	1	2	4	2	1	0	0	0	0	0	0	0	0	10	26-35	6
12 PM	1	0	3	3	4	2	0	0	0	0	0	0	0	0	13	26-35	7
13:00	0	1	3	5	4	0	0	0	0	0	0	0	0	0	13	24-33	9
14:00	2	1	4	3	7	2	0	0	0	0	0	0	0	0	19	26-35	10
15:00	0	3	5	4	6	1	1	0	0	0	0	0	0	0	20	24-33	10
16:00	0	0	2	13	17	5	0	0	0	0	0	0	0	0	37	26-35	30
17:00	1	1	13	16	15	10	1	0	0	0	0	0	0	0	57	25-34	31
18:00	0	0	7	13	10	1	1	0	0	0	0	0	0	0	32	26-35	23
19:00	0	1	0	2	2	1	0	0	0	0	0	0	0	0	6	26-35	4
20:00	3	1	0	4	2	0	0	0	0	0	0	0	0	0	10	26-35	6
21:00	1	0	3	2	3	1	0	0	0	0	0	0	0	0	10	23-32	5
22:00	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	19-28	4
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	10	13	58	104	95	31	5	0	0	0	0	0	0	0	316		
Percent	3.2%	4.1%	18.4%	32.9%	30.1%	9.8%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	09:00	10:00	07:00	09:00	07:00	08:00								07:00		
Vol.	1	2	6	11	6	3	1								21		
PM Peak	20:00	15:00	17:00	17:00	16:00	17:00	15:00								17:00		
Vol.	3	3	13	16	17	10	1								57		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

### 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/17/19	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3	15-24	2
05:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
06:00	0	2	2	5	2	0	1	0	0	0	0	0	0	0	12	26-35	7
07:00	2	0	0	6	4	2	0	0	0	0	0	0	0	0	14	26-35	10
08:00	0	2	1	10	3	4	0	0	0	0	0	0	0	0	20	26-35	13
09:00	1	0	4	5	3	1	1	0	0	0	0	0	0	0	15	21-30	9
10:00	0	0	0	2	4	1	0	0	0	0	0	0	0	0	7	26-35	6
11:00	2	0	2	5	9	1	0	0	0	0	0	0	0	0	19	26-35	14
12 PM	1	3	2	11	5	1	0	0	0	0	0	0	0	0	23	26-35	16
13:00	3	0	6	6	0	0	0	0	0	0	0	0	0	0	15	21-30	12
14:00	2	4	5	9	6	2	0	0	0	0	0	0	0	0	28	24-33	15
15:00	0	0	2	5	8	5	1	0	0	0	0	0	0	0	21	26-35	13
16:00	0	0	7	9	17	11	1	1	0	0	0	0	0	0	46	30-39	28
17:00	2	0	7	18	22	4	3	0	0	0	0	0	0	0	56	26-35	40
18:00	0	3	3	5	10	1	0	0	0	0	0	0	0	0	22	26-35	15
19:00	0	0	3	7	3	1	0	0	0	0	0	0	0	0	14	21-30	10
20:00	2	2	2	3	1	1	1	1	0	0	0	0	0	0	13	21-30	5
21:00	1	0	1	0	3	0	0	0	0	0	0	0	0	0	5	25-34	3
22:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	16	16	50	107	102	35	8	2	0	0	0	0	0	0	336		
Percent	4.8%	4.8%	14.9%	31.8%	30.4%	10.4%	2.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	06:00	09:00	08:00	11:00	08:00	06:00								08:00		
Vol.	2	2	4	10	9	4	1								20		
PM Peak	13:00	14:00	16:00	17:00	17:00	16:00	17:00	16:00							17:00		
Vol.	3	4	7	18	22	11	3	1							56		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

# **Advancing Communities**

Trinway W of Rochester

Ciliei Notes	. INOTIC							_								VV OI	Nochester
EB Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	7 T	999	Total	Speed	in Pace
10/18/19	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
01:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8-17	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	1	1	0	0	1	0	0	0	0	0	0	0	3	19-28	2
05:00	0	0	0	1	1	1	1	0	0	0	0	0	0	0	4	24-33	2
06:00	2	0	3	3	6	2	0	0	0	0	0	0	0	0	16	26-35	9
07:00	0	0	4	4	2	2	1	0	0	0	0	0	0	0	13	21-30	8
08:00	0	0	6	4	3	0	1	1	0	0	0	0	0	0	15	21-30	10
09:00	0	0	4	4	3	3	0	0	0	0	0	0	0	0	14	21-30	8
10:00	0	0	0	3	5	1	1	0	0	0	0	0	0	0	10	26-35	8
11:00	0	0	3	2	2	7	0	0	0	0	0	0	0	0	14	31-40	9
12 PM	1	1	0	5	2	1	1	0	0	0	0	0	0	0	11	26-35	7
13:00	1	0	1	6	4	5	1	0	0	0	0	0	0	0	18	26-35	10
14:00	1	1	1	3	4	0	0	0	0	0	0	0	0	0	10	26-35	7
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	•	*	*	*	*	*	*	*	*	*	*	•	
22:00 23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	7	2	23	36	32	23	7	1	0	0	0	0	0	0	131		
Percent	5.3%	1.5%	17.6%	27.5%	24.4%	17.6%	5.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	101		
AM Peak	01:00	11070	08:00	07:00	06:00	11:00	04:00	08:00	0.070	0.070	0.070	0.070	0.070	0.070	06:00		
Vol.	2		6	4	6	7	1	1							16		
PM Peak	12:00	12:00	13:00	13:00	13:00	13:00	12:00								13:00		
Vol.	1	1	1	6	4	5	1								18		
Total	143	104	341	664	560	216	39	6	0	0	0	0	0	0	2073		
Percent	6.9%	5.0%	16.4%	32.0%	27.0%	10.4%	1.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
			4 E ( ) D	411	00 14011												

15th Percentile: 20 MPH 50th Percentile: 28 MPH 85th Percentile: 34 MPH 95th Percentile: 38 MPH

Stats 10 MPH Pace Speed: 26-35 MPH Number in Pace: 1224

Percent in Pace : 59.0%

Number of Vehicles > 25 MPH : 1485

Percent of Vehicles > 25 MPH : 71.6%

Mean Speed(Average) : 28 MPH

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

Start         1         16         21           Time         15         20         25           10/11/19         *         *         *           01:00         *         *         *           02:00         *         *         *           03:00         *         *         *           04:00         *         *         *           05:00         *         *         *           06:00         *         *         *           07:00         *         *         *           08:00         *         *         *           09:00         *         *         *	26 31 30 35 * * * * * * * * * * * * *	36 40 * * * * * * *	41 45 * * * *	46 50 * * * * *	51 55 * * *	56 60 * * *	61 65 * *	66 70 * *	71 75 *	76 999 * *	Total * *	Pace Speed * *	Number in Pace
10/11/19 * * * * 01:00 * * * 02:00 * * * 03:00 * * 04:00 * * 05:00 * * 06:00 * * 07:00 * * 08:00 * *	* * * * * * * * * * * * * * * * * * *	* * * * * * *	* * * * *	* * * *	* * *	* * *	* *	* *	* *	*	*	Speed * *	in Pace *
01:00	* * * * * * * * * * * * * * * * * * * *	* * * * * *	* * * *	* * *	*	*	*	*	*	*		*	*
01:00 02:00	* * * * * * * * * * * * * * * * * * *	* * *	* * *	* *	*	*	*	*	*			*	*
02:00 03:00 * * * * 04:00 * * * 05:00 * * * 06:00 * * 07:00 * * 08:00 * *	* * * * * * * * *	*	* *	*	*					*	*	*	
04:00	* * * * * * *	*	*	*		*	*						*
04:00 05:00 * * * * 06:00 * * * 07:00 * * *	* * *	*	*		*			*	*	*	*	*	*
05.00 06:00 * * * 07:00 * * * 08:00 * *	* *					*	*	*	*	*	*	*	*
07:00	* *	*		*	*	*	*	*	*	*	*	*	*
08:00 * * *	* *		*	*	*	*	*	*	*	*	*	*	*
06.00	* *	*	*	*	*	*	*	*	*	*	*	*	*
09:00 * * *		*	*	*	*	*	*	*	*	*	*	*	*
	* *	*	*	*	*	*	*	*	*	*	*	*	*
10:00 * * *	* *	*	*	*	*	*	*	*	*	*	*	*	*
11:00 * * *	* *	*	*	*	*	*	*	*	*	*	*	*	*
12 PM 2 0 1	0 0	0	0	0	0	0	0	0	0	0	3	8-17	1
<b>1</b> 3:00 <b>5</b> 2 7	3 2	0	0	0	0	0	0	0	0	0	19	21-30	10
14:00 2 1 4	6 4	0	0	0	0	0	0	0	0	0	17	26-35	10
15:00 2 1 3	3 4	0	0	0	0	0	0	0	0	0	13	24-33	7
16:00 1 0 5	6 2	0	0	0	0	0	0	0	0	0	14	21-30	11
17:00 2 3 <b>10</b>	6 1	0	0	0	0	0	0	0	0	0	22	21-30	16
18:00 1 1 2	4 0	2	0	0	0	0	0	0	0	0	10	21-30	6
19:00 0 2 2	0 0	0	0	0	0	0	0	0	0	0	4	15-24	4
20:00 0 <b>7</b> 2	4 1	0	0	0	0	0	0	0	0	0	14	15-24	9
21:00 1 0 2	1 1	0	0	0	0	0	0	0	0	0	5	21-30	3
22:00 1 0 5	1 1	0	0	0	0	0	0	0	0	0	8	19-28	6
23:00 2 3 6	3 1	0	0	0	0	0	0	0	0	0	15	16-25	9
Total 19 20 49	37 17	2	0	0	0	0	0	0	0	0	144		
Percent 13.2% 13.9% 34.0%	25.7% 11.8%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak													
Vol.													
	14:00 14:00	18:00									17:00		
Vol. 5 7 10	6 4	2									22		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

WB	s. None															VV OI	Rochester
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/12/19	2	0	1	2	0	0	0	0	0	0	0	0	0	0	5	20-29	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	24-33	2
08:00	1	0	2	1	1	0	0	0	0	0	0	0	0	0	5	21-30	3
09:00	0	1	0	8	1	0	0	0	0	0	0	0	0	0	10	24-33	9
10:00	0	1	6	4	2	0	0	0	0	0	0	0	0	0	13	21-30	10
11:00	0	2	6	2	1	0	0	0	0	0	0	0	0	0	11	21-30	8
12 PM	2	4	5	9	3	0	0	0	0	0	0	0	0	0	23	21-30	14
13:00	1	1	3	5	6	0	0	0	0	0	0	0	0	0	16	26-35	11
14:00	0	1	3	9	4	1	0	0	0	0	0	0	0	0	18	24-33	13
15:00	0	1	4	5	4	0	0	0	0	0	0	0	0	0	14	21-30	9
16:00	0	0	2	7	5	0	0	0	0	0	0	0	0	0	14	26-35	12
17:00	0	1	5	8	2	0	0	0	0	0	0	0	0	0	16	21-30	13
18:00	0	1	5	4	1	0	0	0	0	0	0	0	0	0	11	21-30	9
19:00	0	2	7	7	3	0	0	0	0	0	0	0	0	0	19	21-30	14
20:00	0	3	5	7	1	0	0	0	0	0	0	0	0	0	16	21-30	12
21:00	0	0	5	2	0	1	0	0	0	0	0	0	0	0	8	21-30	7
22:00	2	0	1	1	0	0	0	0	0	0	0	0	0	0	4	19-28	2
23:00	3	1_	2	2	2	0	0	0	0	0	0	0	0	0	10	26-35	4_
Total	11	19	62	84	38	2	0	0	0	0	0	0	0	0	216		
Percent	5.1%	8.8%	28.7%	38.9%	17.6%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.00		
AM Peak	00:00	11:00	10:00	09:00	10:00										10:00		
Vol.	22.00	12:00	10:00	12:00	12:00	14.00									13		
PM Peak	23:00	12:00	19:00 7	12:00	13:00	14:00									12:00		
Vol.	3	4	7	9	6	Т									23		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

WB	s. None															VV OI	Rochester
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/13/19	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	14-23	2
01:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	*	1
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
07:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
08:00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	9-18	1
09:00	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	21-30	5
10:00	0	1	1	7	1	1	0	0	0	0	0	0	0	0	11	22-31	8
11:00	1	2	3	4	3	2	0	0	0	0	0	0	0	0	15	20-29	7
12 PM	0	1	4	7	4	0	0	0	0	0	0	0	0	0	16	26-35	11
13:00	1	0	3	8	4	0	2	0	0	0	0	0	0	0	18	26-35	12
14:00	1	1	1	5	4	0	0	0	0	0	0	0	0	0	12	26-35	9
15:00	1	2	2	5	1	1	0	0	0	0	0	0	0	0	12	21-30	7
16:00	3	1	5	3	0	1	0	0	0	0	0	0	0	0	13	20-29	8
17:00	0	4	4	4	1	0	0	0	0	0	0	0	0	0	13	16-25	8
18:00	0	3	5	5	2	0	0	0	0	0	0	0	0	0	15	21-30	10
19:00	2	1	4	6	1	0	0	0	0	0	0	0	0	0	14	21-30	10
20:00	0	1	1	3	1	0	0	0	0	0	0	0	0	0	6	26-35	4
21:00	1	0	6	1	1	0	0	0	0	0	0	0	0	0	9	21-30	7
22:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	24-33	3
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	10-19	2
Total	12	21	40	69	25	5	2	0	0	0	0	0	0	0	174		
Percent	6.9%	12.1%	23.0%	39.7%	14.4%	2.9%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	01:00	11:00	11:00	10:00	11:00	11:00									11:00		
Vol.	1	2	3	7	3	2									15		
PM Peak	16:00	17:00	21:00	13:00	12:00	15:00	13:00								13:00		
Vol.	3	4	6	8	4	1	2								18		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

WB	. None															VV OI	Rochester
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/14/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
06:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	19-28	2
07:00	2	0	5	3	1	0	0	0	0	0	0	0	0	0	11	21-30	8
08:00	1	1	7	2	2	0	0	0	0	0	0	0	0	0	13	21-30	9
09:00	0	1	4	1	0	0	0	0	0	0	0	0	0	0	6	18-27	5
10:00	4	0	5	2	0	0	0	0	0	0	0	0	0	0	11	21-30	7
11:00	1	1	2	5	2	0	0	0	0	0	0	0	0	0	11	26-35	7
12 PM	0	4	6	4	2	0	0	0	0	0	0	0	0	0	16	21-30	10
13:00	5	3	1	4	1	1	0	0	0	0	0	0	0	0	15	23-32	5
14:00	1	5	2	2	0	1	0	0	0	0	0	0	0	0	11	16-25	7
15:00	2	2	2	7	0	0	0	0	0	0	0	0	0	0	13	21-30	9
16:00	1	0	5	8	2	0	0	0	0	0	0	0	0	0	16	21-30	13
17:00	1	2	11	8	0	0	0	0	0	0	0	0	0	0	22	21-30	19
18:00	1	2	7	1	0	0	0	0	0	0	0	0	0	0	11	16-25	9
19:00	0	3	8	10	3	0	0	0	0	0	0	0	0	0	24	21-30	18
20:00	1	1	1	3	2	1	0	0	0	0	0	0	0	0	9	26-35	5
21:00	0	2	2	2	0	0	1	0	0	0	0	0	0	0	7	21-30	4
22:00	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	19-28	4
23:00	0	0	1_	0	0	0	0	0	0	0	0	0	0	0	1_	14-23	1_
Total	20	27	73	64	18	3	1	0	0	0	0	0	0	0	206		
Percent	9.7%	13.1%	35.4%	31.1%	8.7%	1.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	08:00	11:00	08:00										08:00		
Vol.	4	1_	7	5	2										13		
PM Peak	13:00	14:00	17:00	19:00	19:00	13:00	21:00								19:00		
Vol.	5	5	11	10	3	1	1								24		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

WB	. None															VV OI	Rochester
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/15/19	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	25-34	2
06:00	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5	20-29	5
07:00	1	1	6	3	1	1	0	0	0	0	0	0	0	0	13	20-29	9
08:00	1	3	3	4	1	2	0	0	0	0	0	0	0	0	14	21-30	7
09:00	2	2	3	2	0	0	0	0	0	0	0	0	0	0	9	21-30	5
10:00	4	1	1	3	0	0	0	0	0	0	0	0	0	0	9	21-30	4
11:00	1	0	2	7	1	2	0	0	0	0	0	0	0	0	13	21-30	9
12 PM	0	0	1	5	2	1	0	0	0	0	0	0	0	0	9	26-35	7
13:00	3	2	2	1	0	0	0	0	0	0	0	0	0	0	8	14-23	4
14:00	1	3	10	1	2	1	0	0	0	0	0	0	0	0	18	16-25	13
15:00	2	3	6	6	0	1	0	0	0	0	0	0	0	0	18	21-30	12
16:00	2	7	7	3	1	0	0	0	0	0	0	0	0	0	20	16-25	14
17:00	1	6	13	9	4	0	0	0	0	0	0	0	0	0	33	21-30	22
18:00	1	4	12	1	0	0	0	0	0	0	0	0	0	0	18	16-25	16
19:00	0	1	8	6	1	2	0	0	0	0	0	0	0	0	18	21-30	14
20:00	0	2	1	10	4	0	0	0	0	0	0	0	0	0	17	26-35	14
21:00	0	0	1	2	3	0	0	0	0	0	0	0	0	0	6	25-34	5
22:00	0	0	3	1	0	1	0	0	0	0	0	0	0	0	5	21-30	4
23:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8-17	1_
Total	21	35	83	67	22	11	0	0	0	0	0	0	0	0	239		
Percent	8.8%	14.6%	34.7%	28.0%	9.2%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	07:00	11:00	05:00	08:00									08:00		
Vol.	4	3	6	7	2	2									14		
PM Peak	13:00	16:00	17:00	20:00	17:00	19:00									17:00		
Vol.	3	7	13	10	4	2									33		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

WB	i. None															VV OI	Rochester
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/16/19	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3	15-24	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
06:00	0	0	1	1	1	1	0	0	0	0	0	0	0	0	4	19-28	2
07:00	0	3	4	1	1	1	0	0	0	0	0	0	0	0	10	16-25	7
08:00	1	2	3	7	2	2	0	0	0	0	0	0	0	0	17	21-30	10
09:00	2	1	5	3	2	0	0	0	0	0	0	0	0	0	13	20-29	8
10:00	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	14-23	2
11:00	2	1	3	3	0	0	0	0	0	0	0	0	0	0	9	20-29	6
12 PM	1	2	6	5	0	0	0	0	0	0	0	0	0	0	14	21-30	11
13:00	2	4	8	3	0	0	0	0	0	0	0	0	0	0	17	16-25	12
14:00	0	0	4	5	3	0	0	0	0	0	0	0	0	0	12	21-30	9
15:00	1	1	5	8	4	0	0	0	0	0	0	0	0	0	19	21-30	13
16:00	2	1	8	3	4	2	1	0	0	0	0	0	0	0	21	20-29	11
17:00	0	2	5	6	3	0	0	0	0	0	0	0	0	0	16	21-30	11
18:00	1	3	6	4	3	0	0	0	0	0	0	0	0	0	17	19-28	10
19:00	1	2	4	7	3	0	0	0	0	0	0	0	0	0	17	21-30	11
20:00	0	1	3	8	0	0	0	0	0	0	0	0	0	0	12	21-30	11
21:00	0	1	1	1	1	0	0	0	0	0	0	0	0	0	4	14-23	2
22:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	14-23	1
23:00	0	0	1_	0	0	0	0	0	0	0	0	0	0	00	1	14-23	1
Total	14	26	71	67	28	6	1	0	0	0	0	0	0	0	213		
Percent	6.6%	12.2%	33.3%	31.5%	13.1%	2.8%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	07:00	09:00	08:00	08:00	08:00									08:00		
Vol.	2	3	5_	7	2	2									17		
PM Peak	13:00	13:00	13:00	15:00	15:00	16:00	16:00								16:00		
Vol.	2	4	8	8	4	2	1								21		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/17/19	0	2	0	1	1	0	0	0	0	0	0	0	0	0	4	10-19	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
06:00	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4	21-30	4
07:00	0	4	0	2	3	0	0	0	0	0	0	0	0	0	9	26-35	5
08:00	1	2	6	5	4	1	0	0	0	0	0	0	0	0	19	21-30	11
09:00	0	0	4	2	4	0	0	0	0	0	0	0	0	0	10	20-29	6
10:00	2	1	0	2	2	0	0	0	0	0	0	0	0	0	7	25-34	4
11:00	0	1	4	5	6	0	0	0	0	0	0	0	0	0	16	26-35	11
12 PM	2	5	9	6	5	0	0	0	0	0	0	0	0	0	27	19-28	15
13:00	4	6	6	3	0	0	0	0	0	0	0	0	0	0	19	16-25	12
14:00	3	2	5	3	1	1	0	0	0	0	0	0	0	0	15	19-28	8
15:00	1	1	7	6	2	1	0	0	0	0	0	0	0	0	18	21-30	13
16:00	0	1	5	8	2	1	0	0	0	0	0	0	0	0	17	21-30	13
17:00	0	1	3	6	5	0	0	0	0	0	0	0	0	0	15	26-35	11
18:00	1	1	7	2	2	0	0	0	0	0	0	0	0	0	13	21-30	9
19:00	4	3	6	8	3	1	0	0	0	0	0	0	0	0	25	21-30	14
20:00	0	0	4	2	2	0	1	0	0	0	0	0	0	0	9	21-30	6
21:00	1	3	3	2	1	0	0	0	0	0	0	0	0	0	10	16-25	6
22:00	0	1	1	3	0	0	0	0	0	0	0	0	0	0	5	20-29	4
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	19	34	74	70	43	5	1	0	0	0	0	0	0	0	246		
Percent	7.7%	13.8%	30.1%	28.5%	17.5%	2.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	07:00	08:00	08:00	11:00	08:00									08:00		
Vol.	2	4	6	5	6	1									19		
PM Peak	13:00	13:00	12:00	16:00	12:00	14:00	20:00								12:00		
Vol.	4	6	9	8	5	1	1								27		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

WB

34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

Trinway W of Rochester

VVD																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/18/19	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
05:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	5	4	3	0	3	0	0	0	0	0	0	0	0	15	16-25	9
08:00	0	0	1	3	4	2	0	0	0	0	0	0	0	0	10	26-35	7
09:00	0	0	4	3	3	0	0	0	0	0	0	0	0	0	10	21-30	7
10:00	0	0	1	2	1	2	0	0	0	0	0	0	0	0	6	20-29	3
11:00	0	1	3	4	5	0	0	0	0	0	0	0	0	0	13	25-34	9
12 PM	1	0	2	5	3	0	0	0	0	0	0	0	0	0	11	24-33	8
13:00	0	2	3	2	8	0	0	0	0	0	0	0	0	0	15	26-35	10
14:00	3	0	1	4	4	1	0	0	0	0	0	0	0	0	13	26-35	8
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	4	8	19	28	29	8	0	0	0	0	0	0	0	0	96		
Percent	4.2%	8.3%	19.8%	29.2%	30.2%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		07:00	07:00	11:00	11:00	07:00									07:00		
Vol.		5	4	4	5	3									15		
PM Peak	14:00	13:00	13:00	12:00	13:00	14:00									13:00		
Vol.	3	2	3	5	8	11									15		
Total	120	190	471	486	220	42	5	0	0	0	0	0	0	0	1534		
Percent	7.8%	12.4%	30.7%	31.7%	14.3%	2.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
			COL Dance	411	47 MDII												

15th Percentile: 17 MPH 50th Percentile: 24 MPH 85th Percentile: 30 MPH 95th Percentile: 34 MPH

Stats 10 MPH Pace Speed: 21-30 MPH Number in Pace: 957

Percent in Pace : 62.4%

Number of Vehicles > 25 MPH : 753

Percent of Vehicles > 25 MPH : 49.1%

Mean Speed(Average) : 25 MPH

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150 Advancing Communities

Start	07-Oct-	-19	Tue	9	Wed		Thu		F	ri	Sa	at	Su	n	Week Ave	erage
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	ŴВ
12:00 AM	*	*	*	*	*	*	*	*	*	*	1	5	2	3	2	4
01:00	*	*	*	*	*	*	*	*	*	*	2	0	3	2	2	1
02:00	*	*	*	*	*	*	*	*	*	*	1	1	0	1	0	1
03:00	*	*	*	*	*	*	*	*	*	*	1	0	0	0	0	0
04:00	*	*	*	*	*	*	*	*	*	*	1	0	3	0	2	0
05:00	*	*	*	*	*	*	*	*	*	*	1	0	3	0	2	0
06:00	*	*	*	*	*	*	*	*	*	*	2	0	1	1	2	0
07:00	*	*	*	*	*	*	*	*	*	*	3	2	1	1	2	2
08:00	*	*	*	*	*	*	*	*	*	*	8	5	6	2	7	4
09:00	*	*	*	*	*	*	*	*	*	*	19	10	13	5	16	8
10:00	*	*	*	*	*	*	*	*	*	*	26	13	27	11	26	12
11:00	*	*	*	*	*	*	*	*	*	*	28	11	20	15	24	13
12:00 PM	*	*	*	*	*	*	*	*	3	3	18	23	27	16	16	14
01:00	*	*	*	*	*	*	*	*	22	19	21	16	9	18	17	18
02:00	*	*	*	*	*	*	*	*	18	17	22	18	21	12	20	16
03:00	*	*	*	*	*	*	*	*	19	13	23	14	15	12	19	13
04:00	*	*	*	*	*	*	*	*	26	14	14	14	15	13	18	14
05:00	*	*	*	*	*	*	*	*	42	22	18	16	15	13	25	17
06:00	*	*	*	*	*	*	*	*	22	10	16	11	15	15	18	12
07:00	*	*	*	*	*	*	*	*	7	4	10	19	10	14	9	12
08:00	*	*	*	*	*	*	*	*	5	14	12	16	5	6	7	12
09:00	*	*	*	*	*	*	*	*	3	5	7	8	6	9	5	7
10:00	*	*	*	*	*	*	*	*	5	8	9	4	6	3	7	5
11:00	*	*	*	*	*	*	*	*	7	15	6	10	1	2	5	9
Lane	0	0	0	0	0	0	0	0	179	144	269	216	224	174	251	194
Day	0		0		0		0		323	3	485	5	398	3	445	
AM Peak	-	-	-	-	-	-	-	-	-	-	11:00	10:00	10:00	11:00	10:00	11:00
Vol	-	-	-	-	-	-	-	-		-	28	13	27	15	26	13_
PM Peak	-	-	-	-	-	-	-	-	17:00	17:00	15:00	12:00	12:00	13:00	17:00	13:00
Vol.	-	-	-	-	-	_	-	-	42	22	23	23	27	18	25	18

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

ADT

ADT 558

AADT 558

#### 34000 Plymouth Road Livonia, MI 48150 Advancing Communities

Start	14-Oc	t-19	Tu		We	ed	TI	าน	Fı	ri	Sa	t	Su	n	Week Av	erage
Time	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	1	0	2	1	0	3	1	4	1	1	*	*	*	*	1	2
01:00	1	1	0	1	1	0	0	0	2	0	*	*	*	*	1	0
02:00	0	0	0	0	0	0	0	2	0	0	*	*	*	*	0	0
03:00	0	0	0	0	0	1	0	0	0	0	*	*	*	*	0	0
04:00	2	0	0	0	2	0	3	0	3	1	*	*	*	*	2	0
05:00	2	1	6	2	2	1	1	2	4	1	*	*	*	*	3	1
06:00	7	3	10	5	9	4	12	4	16	0	*	*	*	*	11	3
07:00	15	11	19	13	21	10	14	9	13	15	*	*	*	*	16	12
08:00	20	13	22	14	16	17	20	19	15	10	*	*	*	*	19	15
09:00	14	6	19	9	18	13	15	10	14	10	*	*	*	*	16	10
10:00	17	11	14	9	16	3	7	7	10	6	*	*	*	*	13	7
11:00	22	11	12	13	10	9	19	16	14	13	*	*	*	*	15	12
12:00 PM	16	16	15	9	13	14	23	27	11	11	*	*	*	*	16	15
01:00	14	15	14	8	13	17	15	19	18	15	*	*	*	*	15	15
02:00	19	11	18	18	19	12	28	15	10	13	*	*	*	*	19	14
03:00	26	13	22	18	20	19	21	18	*	*	*	*	*	*	22	17
04:00	34	16	38	20	37	21	46	17	*	*	*	*	*	*	39	18
05:00	34	22	39	33	57	16	56	15	*	*	*	*	*	*	46	22
06:00	27	11	32	18	32	17	22	13	*	*	*	*	*	*	28	15
07:00	11	24	14	18	6	17	14	25	*	*	*	*	*	*	11	21
08:00	8	9	12	17	10	12	13	9	*	*	*	*	*	*	11	12
09:00	1	7	10	6	10	4	5	10	*	*	*	*	*	*	6	7
10:00	1	4	4	5	4	2	1	5	*	*	*	*	*	*	2	4
11:00	2	1	2	2	0	1	0	0	*	*	*	*	*	*	1	1
Lane	294	206	324	239	316	213	336	246	131	96	0	0	0	0	313	223
Day	500		563		529		58		227		0		0		536	
AM Peak	11:00	08:00	08:00	08:00	07:00	08:00	08:00	08:00	06:00	07:00	-	-	-	-	08:00	08:00
Vol	22	13	22	14	21	17	20	19	16	15	-	-	-	-	19	15
PM Peak	16:00	19:00	17:00	17:00	17:00	16:00	17:00	12:00	13:00	13:00	-	-	-	-	17:00	17:00
Vol.	34	24	39	33	57	21	56	27	18	15	-	-	-	-	46	22
Comb.	<b>5</b> 0	0	r.	:62	,	=20		E92		550	4	0 <i>E</i>	2	00	0.0	0.4
Total	50	U		563	;	529		582		000	4	85	3	98	98	B1

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150 Advancing Communities

Start	21-Oct	:-19	Tu	e	We	ed	Th	าน	F	ri	Sa	nt	Sı	ın	Week Ave	erage
Time	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	ĒΒ
12:00 AM	*	*	1	0	1	0	2	0	1	0	4	2	1	5	2	1
01:00	*	*	0	0	0	1	0	0	0	0	3	6	1	0	1	1
02:00	*	*	1	1	0	0	0	0	0	0	0	0	1	2	0	0
03:00	*	*	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:00	*	*	0	1	0	0	1	2	1	2	1	0	1	0	1	1
05:00	*	*	1	3	1	3	1	2	1	2	0	0	1	0	1	2
06:00	*	*	3	3	6	10	4	4	4	3	0	2	0	0	3	4
07:00	*	*	4	16	4	9	0	6	1	9	1	1	0	2	2	7
08:00	*	*	10	9	4	12	8	7	15	10	1	4	2	2	7	7
09:00	*	*	9	12	4	10	5	10	6	10	4	9	0	5	5	9
10:00	*	*	7	13	4	11	7	9	5	9	4	11	10	8	6	10
11:00	*	*	12	10	12	14	13	9	3	19	7	14	7	13	9	13
12:00 PM	*	*	9	12	10	15	11	11	13	10	9	13	6	8	10	12
01:00	*	*	18	10	8	15	11	23	10	12	10	18	8	15	11	16
02:00	*	*	9	16	13	15	15	12	20	17	11	12	5	7	12	13
03:00	*	*	9	19	10	20	9	25	8	29	9	11	14	14	10	20
04:00	12	62	12	53	6	110	7	61	6	42	14	16	7	15	9	51
05:00	9	101	13	60	11	104	11	72	16	41	9	18	11	10	11	58
06:00	7	30	8	23	11	27	11	28	8	20	9	15	8	4	9	21
07:00	10	13	8	13	6	14	5	11	7	13	10	14	8	8	8	12
08:00	6	5	4	7	8	6	12	13	13	12	6	5	6	8	8	8
09:00	4	9	5	9	4	4	3	11	4	10	3	11	2	5	4	8
10:00	3	2	7	0	4	3	1	4	6	3	2	6	2	3	4	3
11:00	3	0	1	3	11	1	1	7	0	5	5	6	2	0	2	3
Lane	54	222	151	293	128	404	138	327	148	278	123	194	103	134	135	280
Day	276	5	444		532		46		426		317		237		415	
AM Peak	-	-	11:00	07:00	11:00	11:00	11:00	09:00	08:00	11:00	11:00	11:00	10:00	11:00	11:00	11:00
Vol.	-	-	12	16	12	14	13	10	15	19	7	14	10	13	9	13_
PM Peak	16:00	17:00	13:00	17:00	14:00	16:00	14:00	17:00	14:00	16:00	16:00	13:00	15:00	13:00	14:00	17:00
Vol.	12	101	18	60	13	110	15	72	20	42	14	18	14	15	12	58

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150 Advancing Communities

Start	28-Oct	t-19	Tue	)	Wed	<u> </u>	Thu	ı	Fri		Sat		Sur	)	Week Av	rerage
Time	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	ĔB
12:00 AM	1	0	*	*	*	*	*	*	*	*	*	*	*	*	1	0
01:00	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0
02:00	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0
03:00	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0
04:00	0	0	*	*	*	*	*	*	*	*	*	*	*	*	0	0
05:00	1	2	*	*	*	*	*	*	*	*	*	*	*	*	1	2
06:00	2	3	*	*	*	*	*	*	*	*	*	*	*	*	2	3
07:00	5	8	*	*	*	*	*	*	*	*	*	*	*	*	5	8
08:00	12	10	*	*	*	*	*	*	*	*	*	*	*	*	12	10
09:00	4	9	*	*	*	*	*	*	*	*	*	*	*	*	4	9
10:00	7	7	*	*	*	*	*	*	*	*	*	*	*	*	7	7
11:00	9	17	*	*	*	*	*	*	*	*	*	*	*	*	9	17
12:00 PM	6	11	*	*	*	*	*	*	*	*	*	*	*	*	6	11
01:00	13	10	*	*	*	*	*	*	*	*	*	*	*	*	13	10
02:00	9	12	*	*	*	*	*	*	*	*	*	*	*	*	9	12
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lane	69	89	0	0	0	0	0	0	0	0	0	0	0	0	69	89
Day	158	3	0		0		0		0		0		0		158	
AM Peak	08:00	11:00	-	-	-	-	-	-	-	-	-	-	-	-	08:00	11:00
Vol.	12	17	-	-	-	-	-	-	-	-	-	-	-	-	12	17_
PM Peak	13:00	14:00	-	-	-	-	-	-	-	-	-	-	-	-	13:00	14:00
Vol.	13	12	-	-	=	-	-	-	-	-	-	-	-	-	13	12
Comb.	43	4	44	14	53	32	4	65	42	26	31	7	23	37	5	73
Total	73	•	-		30	_	7		72	-0	3	•	2.		3	
ADT	,	ADT 480	AA	DT 480												

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/21/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	6	1	1	3	1	0	0	0	0	0	0	0	0	0	12	6-15	4
17:00	3	1	0	2	1	1	1	0	0	0	0	0	0	0	9	26-35	3
18:00	0	0	1	3	2	1	0	0	0	0	0	0	0	0	7	26-35	5
19:00	1	1	1	5	1	0	1	0	0	0	0	0	0	0	10	24-33	6
20:00	1	1	2	2	0	0	0	0	0	0	0	0	0	0	6	19-28	4
21:00	0	2	1	1	0	0	0	0	0	0	0	0	0	0	4	14-23	3
22:00	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3	14-23	2
23:00	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	8-17	1
Total	13	7	7	16	7	2	2	0	0	0	0	0	0	0	54		
Percent	24.1%	13.0%	13.0%	29.6%	13.0%	3.7%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak																	
Vol.																	
PM Peak	16:00	21:00	20:00	19:00	18:00	17:00	17:00								16:00		
Vol.	6	2	2	5	2	1	1								12		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

# **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/22/19	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
06:00	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3	15-24	3
07:00	0	2	0	0	1	0	1	0	0	0	0	0	0	0	4	10-19	2
08:00	1	0	3	3	3	0	0	0	0	0	0	0	0	0	10	21-30	6
09:00	1	1	2	2	2	1	0	0	0	0	0	0	0	0	9	26-35	4
10:00	0	0	1	2	2	0	1	1	0	0	0	0	0	0	7	26-35	4
11:00	0	0	2	7	3	0	0	0	0	0	0	0	0	0	12	24-33	10
12 PM	0	1	2	3	1	2	0	0	0	0	0	0	0	0	9	21-30	5
13:00	5	3	3	3	3	1	0	0	0	0	0	0	0	0	18	15-24	6
14:00	2	0	3	0	2	2	0	0	0	0	0	0	0	0	9	31-40	4
15:00	0	3	2	3	0	1	0	0	0	0	0	0	0	0	9	21-30	5
16:00	0	0	3	2	5	1	1	0	0	0	0	0	0	0	12	26-35	7
17:00	1	3	0	7	2	0	0	0	0	0	0	0	0	0	13	26-35	9
18:00	1	0	3	3	1	0	0	0	0	0	0	0	0	0	8	21-30	6
19:00	1	0	2	4	1	0	0	0	0	0	0	0	0	0	8	21-30	6
20:00	0	0	2	1	1	0	0	0	0	0	0	0	0	0	4	19-28	3
21:00	0	1	2	1	0	0	0	1	0	0	0	0	0	0	5	21-30	3
22:00	0	0	0	0	4	3	0	0	0	0	0	0	0	0	7	31-40	7
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	12	16	34	42	31	11	3	2	0	0	0	0	0	0	151		
Percent	7.9%	10.6%	22.5%	27.8%	20.5%	7.3%	2.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	08:00	11:00	08:00	09:00	07:00	10:00							11:00		
Vol.	1	2	3	7	3	1	1	1							12		
PM Peak	13:00	13:00	13:00	17:00	16:00	22:00	16:00	21:00							13:00		
Vol.	5	3	3	7	5	3	1	1							18		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/23/19	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
06:00	2	1	0	2	0	1	0	0	0	0	0	0	0	0	6	26-35	2
07:00	1	1	2	0	0	0	0	0	0	0	0	0	0	0	4	15-24	3
08:00	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	21-30	4
09:00	0	0	0	2	1	1	0	0	0	0	0	0	0	0	4	24-33	3
10:00	0	0	1	2	0	1	0	0	0	0	0	0	0	0	4	20-29	3
11:00	1	0	4	4	1	2	0	0	0	0	0	0	0	0	12	21-30	8
12 PM	2	2	0	4	2	0	0	0	0	0	0	0	0	0	10	26-35	6
13:00	0	0	2	5	1	0	0	0	0	0	0	0	0	0	8	21-30	7
14:00	0	1	1	4	7	0	0	0	0	0	0	0	0	0	13	26-35	11
15:00	2	2	1	1	4	0	0	0	0	0	0	0	0	0	10	26-35	5
16:00	0	1	1	1	2	0	0	1	0	0	0	0	0	0	6	26-35	3
17:00	0	3	4	3	0	0	1	0	0	0	0	0	0	0	11	16-25	7
18:00	2	1	1	3	4	0	0	0	0	0	0	0	0	0	11	26-35	7
19:00	2	0	2	0	2	0	0	0	0	0	0	0	0	0	6	15-24	2
20:00	2	0	1	2	2	1	0	0	0	0	0	0	0	0	8	26-35	4
21:00	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	19-28	4
22:00	2	0	0	0	1	1	0	0	0	0	0	0	0	0	4	29-38	2
23:00	0	0	1_	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
Total	17	12	24	38	27	8	1	11	0	0	0	0	0	0	128		
Percent	13.3%	9.4%	18.8%	29.7%	21.1%	6.3%	0.8%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	06:00	11:00	08:00	09:00	11:00									11:00		
Vol.	2	11	4	4	1	2									12		
PM Peak	12:00	17:00	17:00	13:00	14:00	20:00	17:00	16:00							14:00		
Vol.	2	3	4	5	7	1	1	1							13		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

WB	s. None															W OI RO	nester Ru
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/24/19	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
06:00	1	1	1	0	1	0	0	0	0	0	0	0	0	0	4	13-22	2
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
08:00	0	0	2	2	1	2	1	0	0	0	0	0	0	0	8	21-30	4
09:00	1	0	2	1	1	0	0	0	0	0	0	0	0	0	5	21-30	3
10:00	0	0	2	2	2	1	0	0	0	0	0	0	0	0	7	26-35	4
11:00	1	1	2	3	4	1	1	0	0	0	0	0	0	0	13	26-35	7
12 PM	0	0	4	3	4	0	0	0	0	0	0	0	0	0	11	26-35	7
13:00	1	0	2	2	4	2	0	0	0	0	0	0	0	0	11	31-40	6
14:00	0	1	3	6	3	1	0	1	0	0	0	0	0	0	15	26-35	9
15:00	1	0	2	1	3	1	1	0	0	0	0	0	0	0	9	31-40	4
16:00	0	0	0	1	3	3	0	0	0	0	0	0	0	0	7	31-40	6
17:00	4	1	2	1	0	2	1	0	0	0	0	0	0	0	11	36-45	3
18:00	1	2	0	5	3	0	0	0	0	0	0	0	0	0	11	26-35	8
19:00	0	0	1	2	0	0	2	0	0	0	0	0	0	0	5	20-29	3
20:00	2	0	3	5	2	0	0	0	0	0	0	0	0	0	12	21-30	8
21:00	0	0	1	1	0	1	0	0	0	0	0	0	0	0	3	19-28	2
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
23:00	0	0	0	0	11	0	0	0	0	0	0	0	0	0	1_	24-33	1_
Total	14	6	29	36	32	14	6	11	0	0	0	0	0	0	138		
Percent	10.1%	4.3%	21.0%	26.1%	23.2%	10.1%	4.3%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	04:00	06:00	08:00	11:00	11:00	08:00	08:00								11:00		
Vol.	1	1_	2	3	4	2	1								13		
PM Peak	17:00	18:00	12:00	14:00	12:00	16:00	19:00	14:00							14:00		
Vol.	4	2	4	6	4	3	2	1							15		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

### 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

WB	s. None															W OI RO	mester Ru
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/25/19	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
06:00	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4	19-28	3
07:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
08:00	1	0	3	8	3	0	0	0	0	0	0	0	0	0	15	21-30	11
09:00	1	0	0	3	2	0	0	0	0	0	0	0	0	0	6	25-34	5
10:00	1	2	1	0	1	0	0	0	0	0	0	0	0	0	5	16-25	3
11:00	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3	15-24	2
12 PM	1	1	2	3	4	2	0	0	0	0	0	0	0	0	13	26-35	7
13:00	2	0	4	2	1	1	0	0	0	0	0	0	0	0	10	21-30	6
14:00	1	0	3	10	3	3	0	0	0	0	0	0	0	0	20	21-30	13
15:00	0	2	2	2	1	0	1	0	0	0	0	0	0	0	8	21-30	4
16:00	0	0	1	1	2	2	0	0	0	0	0	0	0	0	6	29-38	4
17:00	3	1	5	4	2	0	1	0	0	0	0	0	0	0	16	21-30	9
18:00	2	1	0	2	3	0	0	0	0	0	0	0	0	0	8	26-35	5
19:00	1	0	0	3	1	2	0	0	0	0	0	0	0	0	7	26-35	4
20:00	0	2	3	4	2	1	1	0	0	0	0	0	0	0	13	21-30	7
21:00	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4	20-29	3
22:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0	6 0	21-30	3
23:00 Total	0 17	0 11	30	47	0 29	11	3	0	0	0	0	0	0	0	148		
Percent	11.5%	7.4%	20.3%	31.8%	19.6%	7.4%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	140		
AM Peak	04:00	10:00	08:00	08:00	08:00	7.470	2.0 /0	0.076	0.076	0.076	0.076	0.076	0.076	0.076	08:00		
Vol.	04.00	10.00	3	00.00	3										15		
PM Peak	17:00	15:00	17:00	14:00	12:00	14:00	15:00					-			14:00		
Vol.	3	2	17.00	14.00	4	3	10.00								20		
v Oi.	J	_	J	10		3	•								20		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

WB	i. None															W OI RO	inester Ru
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/26/19	0	0	2	1	1	0	0	0	0	0	0	0	0	0	4	19-28	3
01:00	1	1	0	0	0	1	0	0	0	0	0	0	0	0	3	15-24	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
08:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
09:00	0	0	3	1	0	0	0	0	0	0	0	0	0	0	4	19-28	4
10:00	0	1	0	3	0	0	0	0	0	0	0	0	0	0	4	20-29	3
11:00	1	1	0	3	2	0	0	0	0	0	0	0	0	0	7	25-34	5
12 PM	1	2	0	2	4	0	0	0	0	0	0	0	0	0	9	26-35	6
13:00	0	0	0	7	1	2	0	0	0	0	0	0	0	0	10	26-35	8
14:00	2	1	4	1	2	1	0	0	0	0	0	0	0	0	11	19-28	5
15:00	0	2	3	0	4	0	0	0	0	0	0	0	0	0	9	16-25	5
16:00	6	3	1	1	1	0	2	0	0	0	0	0	0	0	14	11-20	5
17:00	1	1	2	1	3	1	0	0	0	0	0	0	0	0	9	31-40	4
18:00	0	3	1	2	3	0	0	0	0	0	0	0	0	0	9	25-34	5
19:00	0	2	2	3	0	2	1	0	0	0	0	0	0	0	10	21-30	5
20:00	1	1	1	2	1	0	0	0	0	0	0	0	0	0	6	26-35	3
21:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3	8-17	1
22:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
23:00	0	0	1	4	0	0	0	0	0	0	0	0	0	0	5	21-30	5
Total	15	18	22	33	24	8	3	0	0	0	0	0	0	0	123		
Percent	12.2%	14.6%	17.9%	26.8%	19.5%	6.5%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	01:00	01:00	09:00	10:00	11:00	01:00									11:00		
Vol.	1	1 1	3	3	2	1 10 00	40.00								10.00		
PM Peak	16:00	16:00	14:00	13:00	12:00	13:00	16:00								16:00		
Vol.	6	3	4	7	4	2	2								14		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/27/19	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
08:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	*	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
10:00	1	0	2	4	3	0	0	0	0	0	0	0	0	0	10	24-33	7
11:00	0	0	1	1	2	3	0	0	0	0	0	0	0	0	7	30-39	5
12 PM	1	1	0	1	2	0	0	0	1	0	0	0	0	0	6	26-35	3
13:00	0	1	2	4	0	1	0	0	0	0	0	0	0	0	8	21-30	6
14:00	0	1	0	1	2	1	0	0	0	0	0	0	0	0	5	31-40	3
15:00	4	0	1	4	3	2	0	0	0	0	0	0	0	0	14	25-34	7
16:00	0	0	0	2	2	2	1	0	0	0	0	0	0	0	7	31-40	4
17:00	0	0	4	3	3	1	0	0	0	0	0	0	0	0	11	21-30	7
18:00	0	1	3	0	2	2	0	0	0	0	0	0	0	0	8	16-25	4
19:00	1	0	3	1	3	0	0	0	0	0	0	0	0	0	8	26-35	4
20:00	1	2	1	2	0	0	0	0	0	0	0	0	0	0	6	13-22	3
21:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	14-23	1
22:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
23:00	0	0	0	1	1_	0	0	0	0	0	0	0	0	0	2	24-33	2
Total	11	6	20	26	24	14	1	0	1	0	0	0	0	0	103		
Percent	10.7%	5.8%	19.4%	25.2%	23.3%	13.6%	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	04:00		10:00	10:00	10:00	11:00									10:00		
Vol.	1		2	4	3	3									10		
PM Peak	15:00	20:00	17:00	13:00	15:00	15:00	16:00		12:00						15:00		
Vol.	4	2	4	4	3	2	1		1						14		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

WR

34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

Creston Dr W of Rochester Rd

WB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/28/19	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
06:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	*	1
07:00	1	1	1	1	0	1	0	0	0	0	0	0	0	0	5	21-30	2
08:00	0	3	2	4	3	0	0	0	0	0	0	0	0	0	12	24-33	7
09:00	1	1	0	0	1	1	0	0	0	0	0	0	0	0	4	29-38	2
10:00	0	0	2	0	3	2	0	0	0	0	0	0	0	0	7	31-40	5
11:00	0	0	2	4	1	2	0	0	0	0	0	0	0	0	9	21-30	6
12 PM	0	1	0	2	2	0	1	0	0	0	0	0	0	0	6	26-35	4
13:00	0	0	3	1	4	3	2	0	0	0	0	0	0	0	13	30-39	7
14:00	4	0	0	1	1	3	0	0	0	0	0	0	0	0	9	31-40	4
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	8	6	10	15	15	12	3	0	0	0	0	0	0	0	69		
Percent	11.6%	8.7%	14.5%	21.7%	21.7%	17.4%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	08:00	08:00	08:00	08:00	10:00									08:00		
Vol.	1	3	2	4	3	2									12		
PM Peak	14:00	12:00	13:00	12:00	13:00	13:00	13:00								13:00		
Vol.	4	1_	3	2	4	3	2								13		
Total	107	82	176	253	189	80	22	4	1	0	0	0	0	0	914		
Percent	11.7%	9.0%	19.3%	27.7%	20.7%	8.8%	2.4%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
			1 E D	411	40 14511												

15th Percentile: 16 MPH 50th Percentile: 26 MPH 85th Percentile: 34 MPH 95th Percentile: 38 MPH

Stats 10 MPH Pace Speed: 26-35 MPH Number in Pace: 442

Number in Pace : 442
Percent in Pace : 48.4%
Number of Vehicles > 25 MPH : 549
Percent of Vehicles > 25 MPH : 60.1%
Mean Speed(Average) : 26 MPH

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/21/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	2	1	9	21	20	9	0	0	0	0	0	0	0	0	62	26-35	41
17:00	2	1	16	28	38	14	2	0	0	0	0	0	0	0	101	26-35	66
18:00	5	0	8	7	7	3	0	0	0	0	0	0	0	0	30	21-30	15
19:00	1	0	3	5	4	0	0	0	0	0	0	0	0	0	13	24-33	9
20:00	0	1	1	0	2	1	0	0	0	0	0	0	0	0	5	31-40	3
21:00	0	0	2	2	4	0	0	1	0	0	0	0	0	0	9	26-35	6
22:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	14-23	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	10	3	40	63	76	27	2	1	0	0	0	0	0	0	222		
Percent	4.5%	1.4%	18.0%	28.4%	34.2%	12.2%	0.9%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak	18:00	16:00	17:00	17:00	17:00	17:00	17:00	21:00	,					,	17:00		
Vol.	5	1	16	28	38	14	2	1							101		
VOI.	J	I	10	20	50	14		1							101		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

## **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/22/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	39-48	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
05:00	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	25-34	2
06:00	0	0	1	0	1	1	0	0	0	0	0	0	0	0	3	29-38	2
07:00	3	1	2	7	1	1	1	0	0	0	0	0	0	0	16	21-30	9
08:00	0	0	3	4	1	1	0	0	0	0	0	0	0	0	9	21-30	7
09:00	2	2	1	2	3	2	0	0	0	0	0	0	0	0	12	31-40	5
10:00	1	0	0	4	5	3	0	0	0	0	0	0	0	0	13	26-35	9
11:00	0	1	0	2	3	3	0	1	0	0	0	0	0	0	10	31-40	6
12 PM	0	0	4	1	4	3	0	0	0	0	0	0	0	0	12	30-39	7
13:00	2	1	4	1	1	1	0	0	0	0	0	0	0	0	10	19-28	5
14:00	4	1	3	3	4	1	0	0	0	0	0	0	0	0	16	26-35	7
15:00	2	1	3	6	1	6	0	0	0	0	0	0	0	0	19	21-30	9
16:00	4	1	8	11	20	5	3	0	1	0	0	0	0	0	53	26-35	31
17:00	1	4	9	18	22	6	0	0	0	0	0	0	0	0	60	26-35	40
18:00	3	0	2	5	8	4	1	0	0	0	0	0	0	0	23	26-35	13
19:00	0	1	1	6	2	2	1	0	0	0	0	0	0	0	13	26-35	8
20:00	1	1	3	0	1	1	0	0	0	0	0	0	0	0	7	16-25	4
21:00	0	0	0	3	4	2	0	0	0	0	0	0	0	0	9	26-35	7
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	2	0	0	11	0	0	0	0	0	0	0	3	20-29	2
Total	24	14	45	75	83	42	7	2	1	0	0	0	0	0	293		
Percent	8.2%	4.8%	15.4%	25.6%	28.3%	14.3%	2.4%	0.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	08:00	07:00	10:00	10:00	07:00	02:00							07:00		
Vol.	3	2	3	7	5	3	11	1							16		
PM Peak	14:00	17:00	17:00	17:00	17:00	15:00	16:00		16:00						17:00		
Vol.	4	4	9	18	22	6	3		1						60		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/23/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	1	0	1	0	1	0	0	0	0	0	0	0	0	0	3	*	1
06:00	3	1	0	4	1	0	1	0	0	0	0	0	0	0	10	24-33	5
07:00	0	1	0	5	2	1	0	0	0	0	0	0	0	0	9	26-35	7
08:00	0	0	2	4	3	1	1	0	1	0	0	0	0	0	12	24-33	7
09:00	1	1	1	1	3	3	0	0	0	0	0	0	0	0	10	30-39	6
10:00	0	0	1	3	5	2	0	0	0	0	0	0	0	0	11	26-35	8
11:00	1	0	0	3	7	3	0	0	0	0	0	0	0	0	14	26-35	10
12 PM	1	1	1	3	3	5	1	0	0	0	0	0	0	0	15	31-40	8
13:00	3	2	1	3	3	3	0	0	0	0	0	0	0	0	15	25-34	6
14:00	0	1	0	2	6	3	2	1	0	0	0	0	0	0	15	31-40	9
15:00	1	1	4	4	6	3	1	0	0	0	0	0	0	0	20	25-34	10
16:00	0	1	2	28	49	25	4	1	0	0	0	0	0	0	110	26-35	77
17:00	5	1	7	26	36	24	3	2	0	0	0	0	0	0	104	26-35	62
18:00	0	1	3	5	12	3	2	1	0	0	0	0	0	0	27	26-35	17
19:00	1	1	3	4	1	4	0	0	0	0	0	0	0	0	14	21-30	7
20:00	0	0	0	4	0	1	1	0	0	0	0	0	0	0	6	26-35	4
21:00	0	0	1	1	1	1	0	0	0	0	0	0	0	0	4	19-28	2
22:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	9-18	2
23:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	34-43	1
Total	19	13	27	101	139	82	17	5	1	0	0	0	0	0	404		
Percent	4.7%	3.2%	6.7%	25.0%	34.4%	20.3%	4.2%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	06:00	08:00	07:00	11:00	09:00	06:00		08:00						11:00		
Vol.	3	1	2	5	7	3	1		1						14		
PM Peak	17:00	13:00	17:00	16:00	16:00	16:00	16:00	17:00							16:00		
Vol.	5	2	7	28	49	25	4	2							110		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

	EB																	
10/24/19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Start	1	16	21			36	41	46	51	56	61	66	71	76		Pace	Number
01:00	Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
02:00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10/24/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00 0 0 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00 0 0 0 0 0 2 0 2 0 2 0 0 0 0 0 0 0 0	04:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	14-23	1
07:00	05:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	15-24	1
08:00 0 0 0 1 2 4 0 0 0 0 0 0 0 0 0 0 0 0 7 26-35 09:00 0 0 0 0 0 3 4 3 0 0 0 0 0 0 0 0 0 0 0	06:00	0	0	0	2	0	2	0	0	0	0	0	0	0	0	4	20-29	2
09:00 0 0 0 0 0 3 4 3 0 0 0 0 0 0 0 0 0 0 0	07:00	1	0	0	1	0	3	1	0	0	0	0	0	0	0	6	36-45	4
10:00	08:00	0	0	1	2	4	0	0	0	0	0	0	0	0	0	7	26-35	6
11:00 0 0 0 0 2 5 2 0 0 0 0 0 0 0 0 0 0 9 31-40  12 PM 1 0 1 3 4 2 0 0 0 0 0 0 0 0 0 0 0 11 26-35  13:00 5 0 2 3 6 6 6 1 0 0 0 0 0 0 0 0 0 0 0 12 33 1-40  14:00 0 0 0 0 0 5 5 2 0 0 0 0 0 0 0 0 0 0 0	09:00	0	0	0	3	4	3	0	0	0	0	0	0	0	0	10	26-35	7
12 PM	10:00	2	1	1	2	0	2	1	0	0	0	0	0	0	0	9	36-45	3
13:00         5         0         2         3         6         6         1         0         0         0         0         0         23         31-40           14:00         0	11:00	0	0	0	2	5	2	0	0	0	0	0	0	0	0	9	31-40	7
14:00 0 0 0 0 0 5 5 5 2 0 0 0 0 0 0 0 0 12 31-40 15:00 1 1 1 3 5 10 5 0 0 0 0 0 0 0 0 0 0 0 0 25 26:35 16:00 2 1 5 18 23 4 8 0 0 0 0 0 0 0 0 0 0 0 0 0 61 26:35 17:00 5 3 7 27 18 11 1 0 0 0 0 0 0 0 0 0 0 0 0 0 72 26:35 18:00 4 3 8 9 3 0 1 0 0 0 0 0 0 0 0 0 0 0 0 28 21:30 19:00 0 0 0 0 0 4 3 3 3 1 0 0 0 0 0 0 0 0 0 0 0 0 28 21:30 19:00 0 0 0 0 0 0 0 0 0 0 0 0 0 11 26:35 20:00 0 0 0 0 0 2 2 2 3 3 3 2 2 1 0 0 0 0 0 0 0 0 0 11 26:35 22:00 0 0 0 1 1 2 2 1 0 0 0 0 0 0 0 0 0 0 0	12 PM	1	0	1	3	4	2	0	0	0	0	0	0	0	0	11	26-35	7
15:00	13:00	5	0	2	3	6	6	1	0	0	0	0	0	0	0	23	31-40	12
16:00       2       1       5       18       23       4       8       0 </td <td>14:00</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>5</td> <td>5</td> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>12</td> <td>31-40</td> <td>10</td>	14:00	0	0	0	0	5	5	2	0	0	0	0	0	0	0	12	31-40	10
17:00	15:00	1	1	3	5	10	5	0	0	0	0	0	0	0	0	25	26-35	15
18:00	16:00	2		5		23	•	8	0	0	0	0	0	0	0		26-35	41
19:00 0 0 0 0 4 3 3 3 1 0 0 0 0 0 0 0 0 0 0 11 26-35 20:00 0 0 0 2 2 3 3 3 2 1 0 0 0 0 0 0 0 0 0 13 31-40 21:00 1 1 0 0 2 6 1 0 0 0 0 0 0 0 0 0 0 0 0 11 26-35 22:00 0 0 1 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	17:00	5	3	7	27	18	11	1	0	0	0	0	0	0	0	72	26-35	45
20:00         0         0         2         2         3         3         2         1         0         0         0         0         0         0         13         31-40           21:00         1         1         0         2         6         1         0	18:00	4	3	8	9	3	0	1	0	0	0	0	0	0	0	28	21-30	17
21:00         1         1         0         2         6         1         0 <td>19:00</td> <td>0</td> <td>0</td> <td>0</td> <td>4</td> <td>3</td> <td>3</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>26-35</td> <td>7</td>	19:00	0	0	0	4	3	3	1	0	0	0	0	0	0	0		26-35	7
22:00         0         0         1         2         1         0 <td>20:00</td> <td>0</td> <td>0</td> <td>2</td> <td></td> <td>3</td> <td>3</td> <td>2</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>13</td> <td>31-40</td> <td>6</td>	20:00	0	0	2		3	3	2	1	0	0	0	0	0	0	13	31-40	6
23:00         0         0         2         0         3         1         0         1         0         0         0         0         0         0         0         7         31-40           Total         23         11         34         87         99         53         18         2         0         0         0         0         0         0         327           Percent         7.0%         3.4%         10.4%         26.6%         30.3%         16.2%         5.5%         0.6%         0.0%		1	1	0	2	6	1	0	0	0	0	0	0	0	0	11	26-35	8
Total         23         11         34         87         99         53         18         2         0         0         0         0         0         327           Percent         7.0%         3.4%         10.4%         26.6%         30.3%         16.2%         5.5%         0.6%         0.0%<		0	0	1	2	1	0	0	0	0	0	0	0	0	0	4		3
Percent         7.0%         3.4%         10.4%         26.6%         30.3%         16.2%         5.5%         0.6%         0.0%							1		1								31-40	4
AM Peak     10:00     05:00     04:00     09:00     11:00     07:00     07:00     09:00       Vol.     2     1     1     3     5     3     1     10       PM Peak     13:00     17:00     18:00     17:00     16:00     17:00     16:00     20:00																327		
Vol.         2         1         1         3         5         3         1         10           PM Peak         13:00         17:00         18:00         17:00         16:00         20:00         17:00									0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
PM Peak 13:00 17:00 18:00 17:00 16:00 20:00 17:00			05:00	04:00				07:00										
			1	1				1										
Vol. 5 3 8 27 23 11 8 1 72									20:00									
	Vol.	5	3	8	27	23	11	8	1							72		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/25/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	14-23	1
05:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	*	1
06:00	0	0	0	2	0	1	0	0	0	0	0	0	0	0	3	20-29	2
07:00	0	1	1	2	2	2	1	0	0	0	0	0	0	0	9	31-40	4
08:00	2	1	1	4	1	0	1	0	0	0	0	0	0	0	10	23-32	5
09:00	0	1	3	3	0	2	1	0	0	0	0	0	0	0	10	21-30	6
10:00	2	1	2	2	1	1	0	0	0	0	0	0	0	0	9	21-30	4
11:00	1	0	5	2	6	2	2	1	0	0	0	0	0	0	19	24-33	8
12 PM	1	0	2	2	4	1	0	0	0	0	0	0	0	0	10	26-35	6
13:00	0	0	0	3	6	2	1	0	0	0	0	0	0	0	12	26-35	9
14:00	2	2	3	2	5	1	2	0	0	0	0	0	0	0	17	26-35	7
15:00	1	2	6	9	6	4	0	1	0	0	0	0	0	0	29	21-30	15
16:00	1	1	6	12	9	9	4	0	0	0	0	0	0	0	42	26-35	21
17:00	3	1	5	8	13	8	3	0	0	0	0	0	0	0	41	31-40	21
18:00	2	1	2	8	4	2	1	0	0	0	0	0	0	0	20	25-34	12
19:00	2	1	2	5	1	2	0	0	0	0	0	0	0	0	13	21-30	7
20:00	0	0	1	5	2	3	1	0	0	0	0	0	0	0	12	24-33	7
21:00	0	0	2	4	3	1	0	0	0	0	0	0	0	0	10	24-33	7
22:00	1	0	0	1	1	0	0	0	0	0	0	0	0	0	3	24-33	2
23:00	0	0	0	2	2	1	0	0	0	0	0	0	0	0	5	26-35	4
Total	19	12	43	76	66	43	17	2	0	0	0	0	0	0	278		
Percent	6.8%	4.3%	15.5%	27.3%	23.7%	15.5%	6.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	11:00	08:00	11:00	07:00	11:00	11:00							11:00		
Vol.	2	1	5	4	6	2	2	11							19		
PM Peak	17:00	14:00	15:00	16:00	17:00	16:00	16:00	15:00							16:00		
Vol.	3	2	6	12	13	9	4	1							42		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

Start	76 999 Tot 0 0 0 0 0 0 0	Pace Numb al Speed in Pa 2 24-33 6 41-50 0 * 0 * 0 * 0 * 2 14-23 1 29-38
10/26/19         0         0         0         1         1         0<	0 0 0 0 0 0 0	2 24-33 6 41-50 0 * 0 * 0 * 0 * 2 14-23
01:00         0         0         2         0         1         1         1         0 <th>0 0 0 0 0 0</th> <th>6 41-50 0 * 0 * 0 * 0 * 2 14-23</th>	0 0 0 0 0 0	6 41-50 0 * 0 * 0 * 0 * 2 14-23
02:00         0 <td>0 0 0 0 0</td> <td>0 * 0 * 0 * 0 * 0 * 2 14-23</td>	0 0 0 0 0	0 * 0 * 0 * 0 * 0 * 2 14-23
03:00         0 <td>0 0 0 0</td> <td>0 * 0 * 0 * 2 14-23</td>	0 0 0 0	0 * 0 * 0 * 2 14-23
04:00	0 0 0 0	0 * 0 * 2 14-23
05:00         0 <td>0 0 0</td> <td>0 * 2 14-23</td>	0 0 0	0 * 2 14-23
06:00	0	2 14-23
07:00         0 <td>0</td> <td></td>	0	
08:00	-	4 20.20
09:00         0 <td>0</td> <td>1 29-36</td>	0	1 29-36
10:00	•	4 19-28
11:00       0       0       2       5       5       2       0 <td>0</td> <td>9 24-33</td>	0	9 24-33
12 PM	0 '	1 26-35
13:00       1       0       1       8       4       3       1       0 <td>0 '</td> <td>l<b>4</b> 26-35</td>	0 '	l <b>4</b> 26-35
14:00       3       0       1       4       2       2       0 <td>0</td> <td>31-40</td>	0	31-40
15:00       2       1       2       3       2       1       0 <td>0 ′</td> <td>l<b>8</b> 26-35</td>	0 ′	l <b>8</b> 26-35
16:00       2       2       4       3       2       3       0 <td>0</td> <td>26-35</td>	0	26-35
17:00       1       2       6       8       1       0 <td>0</td> <td>1 26-35</td>	0	1 26-35
18:00     0     1     1     6     4     3     0     0     0     0     0     0     0     0       19:00     0     0     0     2     4     4     4     0     0     0     0     0     0     0       20:00     0     0     0     2     2     1     0     0     0     0     0     0     0       21:00     0     0     2     4     3     1     0     1     0     0     0     0     0	0	6 19-28
19:00     0     0     2     4     4     4     0     0     0     0     0     0     0       20:00     0     0     0     2     2     1     0     0     0     0     0     0     0     0       21:00     0     0     0     2     4     3     1     0     1     0     0     0     0     0	0	8 21-30
20:00 0 0 2 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 21:00 0 0 2 4 3 1 0 <b>1</b> 0 0 0 0 0	0	5 26-35
21:00 0 0 2 4 3 1 0 <b>1</b> 0 0 0 0	0	4 25-34
	0	5 21-30
	0	1 24-33
22:00	0	6 31-40
23:00 1 0 0 2 1 2 0 0 0 0 0 0 0	0	6 24-33
Total 13 10 34 57 47 27 4 2 0 0 0 0 0	0 19	)4
Percent 6.7% 5.2% 17.5% 29.4% 24.2% 13.9% 2.1% 1.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	0.0%	
AM Peak 10:00 09:00 11:00 11:00 01:00 01:00	11:0	0
Vol. 1 3 5 5 2 1 1		14
PM Peak 14:00 12:00 17:00 13:00 12:00 19:00 12:00 21:00	13:0	
Vol. 3 2 6 8 6 4 1 1		18

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

EB																	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace
10/27/19	0	1	1	1	2	0	0	0	0	0	0	0	0	0	5	24-33	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	*	1
08:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	20-29	2
09:00	2	0	0	1	2	0	0	0	0	0	0	0	0	0	5	25-34	3
10:00	1	0	2	3	1	1	0	0	0	0	0	0	0	0	8	21-30	5
11:00	1	0	1	5	2	3	0	1	0	0	0	0	0	0	13	26-35	7
12 PM	1	1	2	1	1	2	0	0	0	0	0	0	0	0	8	31-40	3
13:00	2	1	3	2	3	3	0	1	0	0	0	0	0	0	15	29-38	6
14:00	0	0	3	0	2	1	0	0	1	0	0	0	0	0	7	31-40	3
15:00	2	0	1	1	4	5	1	0	0	0	0	0	0	0	14	31-40	9
16:00	2	0	1	7	1	4	0	0	0	0	0	0	0	0	15	21-30	8
17:00	1	2	5	1	0	0	1	0	0	0	0	0	0	0	10	16-25	7
18:00	0	1	0	2	0	1	0	0	0	0	0	0	0	0	4	19-28	2
19:00	1	0	1	1	2	2	1	0	0	0	0	0	0	0	8	29-38	4
20:00	0	0	2	3	2	1	0	0	0	0	0	0	0	0	8	26-35	5
21:00	0	0	1	1	3	0	0	0	0	0	0	0	0	0	5	25-34	4
22:00	0	0	1	0	0	2	0	0	0	0	0	0	0	0	3	30-39	2
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	14	6	26	32	25	25	3	2	11	0	0	0	0	0	134		
Percent	10.4%	4.5%	19.4%	23.9%	18.7%	18.7%	2.2%	1.5%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	00:00	02:00	11:00	00:00	11:00		11:00							11:00		
Vol.	2	1	2	5	2	3		1							13		
PM Peak	13:00	17:00	17:00	16:00	15:00	15:00	15:00	13:00	14:00						13:00		
Vol.	2	2	5	7	4	5	1	1	1						15		

Weather: Various Serial Number: 32213 Installed by: Matt Clark Other Notes: None

#### 34000 Plymouth Road Livonia, MI 48150

### **Advancing Communities**

Creston Dr W of Rochester Rd

Ciliei Notes	s. INOTIC							_								VV OI IXO	chester itu
EB		40						40			0.4			70			
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number
Time	<u>15</u> 0	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed *	in Pace
10/28/19		0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	-	-	0	0	~	0	0	-	0	-	-	Ū	~	*	*
02:00 03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	*	1
06:00	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3	24-33	1
07:00	0	1	0	3	1	2	1	0	0	0	0	0	0	0	8	26-35	
08:00	1	0	0	3	4	1	1	0	0	0	0	0	0	0	10	26-35	7
09:00	0	0	3	1	2	0	2	1	0	0	0	0	0	0	9	19-28	1
10:00	0	1	3	1	2	0	0	0	0	0	0	0	0	0	7	21-30	4
11:00	0	2	1	3	6	3	2	0	0	0	0	0	0	0	17	26-35	9
12 PM	0	0	1	3	1	5	1	0	0	0	0	0	0	0	11	31-40	6
13:00	1	0	2	1	2	3	0	1	0	0	0	0	0	0	10	30-39	5
14:00	3	1	0	3	1	3	1	0	0	0	0	0	0	0	10 12	27-36	1
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	×	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	6	5	11	19	20	18	8	2	0	0	0	0	0	0	89		
Percent	6.7%	5.6%	12.4%	21.3%	22.5%	20.2%	9.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	11:00	09:00	07:00	11:00	11:00	09:00	09:00							11:00		
Vol.	1	2	3	3	6	3	2	1	,						17		
PM Peak	14:00	14:00	13:00	12:00	13:00	12:00	12:00	13:00							14:00		
Vol.	3	1_	2	3	2	5	1_	1_							12		
Total	128	74	260	510	555	317	76	18	3	0	0	0	0	0	1941		
Percent	6.6%	3.8%	13.4%	26.3%	28.6%	16.3%	3.9%	0.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile: 21 MPH 50th Percentile: 29 MPH 85th Percentile: 36 MPH 95th Percentile: 39 MPH

Stats 10 MPH Pace Speed: 26-35 MPH Number in Pace: 1065

Percent in Pace: 54.9%

Number of Vehicles > 25 MPH: 1479

Percent of Vehicles > 25 MPH: 76.2%

Mean Speed(Average): 30 MPH



# memorandum

Date: September 24, 2018

To: Bill Huotari, PE

From: Sara Merrill, PE, PTOE

Re: Sylvanwood Condominium

PCR 2018-002

The purpose of this memorandum is to provide an overview of anticipated traffic impacts resulting from the proposed Sylvanwood Condominium development.

The preliminary site plan for the proposed Ottawa residential cluster development was prepared by Urban Land Consultants and dated August 30<sup>th</sup>, 2018. The site plan depicts a 10-unit attached residential site condominium project, with a single driveway access point off Sylvanwood Drive. Sylvanwood Drive is located on the west side of Rochester Road, approximately halfway between Square Lake Road and Long Lake Road. Rochester Road is a 5-lane roadway, with two through lanes in each direction, a center left turn lane and a right turn deceleration taper at Sylvanwood Drive.

The Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition, provides trip generation rates for numerous land uses, based on thousands of studies throughout the United States and Canada. This data can then be used to estimate the number of vehicle trips generated by a development. For residential housing, traffic impacts are usually most noticeable during the peak hour of adjacent street traffic – that is, during morning and evening "rush hour", when traffic on the roads is most congested. In most areas, the morning (AM) peak is a one hour period that occurs between 7 am – 9 am, and the evening (PM) peak is a one hour period usually between 4 pm – 6 pm.

The table below provides the calculated number of trips generated for the proposed Ottawa Cluster Development, based on the ITE Trip Generation Manual for Multi-Family Housing (Low Rise) (ITE Land Use Code #220). Low-Rise Multi-Family housing includes townhouses and condominiums located within the same building with at least three other dwelling units, and have one or two floors.

			Nu	mber of S	ite-Gen	erated Tr	ips		
Number of Dwelling Units	АМ	Peak H	our	PM	Peak H	our		Daily	
_	Total	In	Out	Total	In	Out	Total	In	Out
10 Units	5	1	4	8	5	3	35	17	18



During the morning (AM) peak hour, the proposed Sylvanwood condominium development is expected to generate 5 new trips: 1 inbound (entering the site), and 4 outbound (exiting the site). During the evening (PM) peak hour, the proposed site is expected to generate 8 new vehicle trips: 5 inbound (entering the site) trips, and 3 outbound (exiting the site). This pattern coincides with residents typically leaving in the morning for work, and returning home in the evening.

The traffic generated by the proposed condo is quite minimal, adding just a handful of vehicle trips during the peak ("busiest") hour. The traffic impact of this site on the adjacent road network is negligible, and would be imperceptible to other road users.

As a point of comparison, Rochester Road (between Long Lake Road and Square Lake Road) carries over 3,500 vehicles during the PM peak hour, and averages approximately 40,000 vehicles per day. Even amongst typical weekdays, traffic volumes during the peak hours alone often vary by 5-10% from one day to the next. These day-to-day fluctuations are on orders of magnitude measuring in hundreds of vehicles (per hour). Sylvanwood condominiums are expected to generate fewer than 10 new vehicle trips during the peak hour.

On Sylvanwood Drive, the development would result in slight increases to traffic volumes, amounting to one additional vehicle every 7-8 minutes during "rush hour". Most drivers would not even notice this additional traffic.

In conclusion, the traffic impacts as a result of the proposed development are very minimal and are not expected to significantly worsen traffic conditions on Sylvanwood Drive or Rochester Road.