

CHARTER TOWNSHIP OF GARFIELD PLANNING COMMISSION MEETING

Wednesday, September 28, 2022 at 7:00 pm
Garfield Township Hall
3848 Veterans Drive
Traverse City, MI 49684
Ph: (231) 941-1620

A G E N D A

ORDER OF BUSINESS

Call meeting to order

Pledge of Allegiance

Roll call of Board Members

1. Public Comment

Public Comment Guidelines:

Any person shall be permitted to address a meeting of The Planning Commission, which is required to be open to the public under the provision of the Michigan Open Meetings Act, as amended. (MCLA 15.261, et.seq.) Public Comment shall be carried out in accordance with the following Commission Rules and Procedures: a.) any person wishing to address the Commission is requested to state his or her name and address. b.) No person shall be allowed to speak more than once on the same matter, excluding time needed to answer Commissioner's questions. Where constrained by available time the Chairperson may limit the amount of time each person will be allowed to speak to (3) minutes. 1.) The Chairperson may at his or her own discretion, extend the amount of time any person is allowed to speak. 2.) Whenever a Group wishes to address a Committee, the Chairperson may require that the Group designate a spokesperson; the Chairperson shall control the amount of time the spokesperson shall be allowed to speak when constrained by available time. Note: If you are here for a Public Hearing, please hold your comments until that Public Hearing time.

2. Review and Approval of the Agenda – Conflict of Interest

3. Minutes – September 14, 2022

4. Correspondence

5. Reports

- a. Township Board
- b. Planning Commissioners
 - i. Zoning Board of Appeals
 - ii. Parks and Recreation Commission
 - iii. Joint Planning Commission
- c. Staff Report

6. Unfinished Business

- a. PD 2022-91 – Master Plan Update – Survey Results
- b. PD 2022-92 – Meijer Driveway Study Results

7. New Business

8. Public Comment

9. Other Business

10. Items for Next Agenda – October 26, 2022

- a. 7 Brew 2537 North US 31 – Special Use Permit – Public Hearing

11. Adjournment

**Joe Robertson, Secretary
Garfield Township Planning Commission
3848 Veterans Drive
Traverse City, MI 49684**

The Garfield Township Board will provide necessary reasonable auxiliary aids and services, such as signers for hearing impaired and audio tapes of printed materials being considered at the meeting to individuals with disabilities upon the provision of reasonable advance notice to the Garfield Township Board. Individuals with disabilities requiring auxiliary aids or services should contact the Garfield Township Board by writing or calling Lanie McManus, Clerk, Ph: (231) 941-1620.

**CHARTER TOWNSHIP OF GARFIELD
PLANNING COMMISSION MEETING
September 14, 2022**

Call Meeting to Order: Chair Racine called the September 14, 2022 Planning Commission meeting to order at 7:00pm at the Garfield Township Hall.

Pledge of Allegiance

The Pledge of Allegiance was recited by all in attendance.

Roll Call of Commission Members:

Present: Molly Agostinelli, Pat Cline, Joe McManus, Chris DeGood, Robert Fudge and John Racine

Absent and Excused: Joe Robertson

Staff Present: Planning Director John Sych and Deputy Planning Director Steve Hannon

1. Public Comment (7:00)

None

2. Review and Approval of the Agenda – Conflict of Interest (7:01)

McManus moved and Fudge seconded to approve the agenda as presented

Yeas: McManus, Fudge, Cline, Agostinelli, DeGood, Racine

Nays: None

4. Minutes (7:02)

a. August 24, 2022 Regular Meeting

Fudge moved and DeGood seconded to approve the August 24, 2022 Regular Meeting minutes as presented.

Yeas: Fudge, DeGood Cline, Agostinelli, McManus, Racine

Nays: None

4. Correspondence (7:02)

a. PD 2022-82 – Planning Department Monthly Report to Township Board

b. Letter to Tom Nemitz – dated August 25, 2022

c. Correspondence from Haggard's Plumbing and Heating. East Bay Township and Green Lake Township

5. Reports (7:04)**Township Board Report**

Agostinelli stated that the board voted to allow the BATA/TCHC project to begin since the State of Michigan showed that \$6 million is earmarked for the housing portion of the PUD. The board also approved the Zoning Ordinance Amendments and the Hammond Road Apartments rezoning.

Planning Commissioners**(i) Zoning Board of Appeals**

Fudge said there was no meeting.

(ii) Parks and Recreation Commission

DeGood said they are working on the Commons Trail and there will be one more community planning session on the Commons plan.

(iii) Joint Planning Commission

McManus stated that there was no quarterly meeting.

Staff Report

Sych stated that he is meeting with engineering consultants to start planning infrastructure at the Grand Traverse Commons area.

6. Unfinished Business**a. PD 2022-86 Brewery Terra Firma PUD – Conceptual Review (7:06)**

The applicant is seeking feedback on adding a kitchen to the existing Brewery Terra Firma building located at 2959 Hartman Road, at the southeast corner of Hartman Road and Dracka Road. The Brewery Terra Firma PUD was originally approved on March 22, 2011. According to Section 426, the procedures allowing for planned unit developments are intended “to further the health, safety, and general welfare of Township residents by permitting the Township flexibility in the regulation of land development and encouraging innovation and variety in land use and design of projects.” There are also six criteria that must be met for a site to be a PUD.

Applicant John Niedermaier stated that a kitchen is needed in part because guests would like some sustenance with their beer and also because some of the crops grown on the property need to be processed onsite. An onsite kitchen would grant flexibility in the agricultural sustainability of the operation.

Chair Racine opened the public comment at 7:14pm.

William Kuski, owner of Grand Traverse Culinary Oils, has worked with John Niedermaier in his fields and uses products grown at Terra Firma. He is in support of allowing a kitchen on site at Terra Firma.

Derek Wooten, Terra Firma employee at Terra Firma, is in support of the proposed kitchen.

Public comment was closed at 7:18.

Commissioners asked questions and shared some concerns with what is grown on the property and what was represented in the original RDO. Rob Larrea, of Community Planning and Land Use Consulting, and former Planner in Garfield Township, commented on the project and its original intent. He stated that the intent and approval was based on the acreage and the use with crops to be determined since this concept had never been brought to the township and was a fairly new concept in the region. Niedermaier stated that neighboring residents have been asking for food in this location. Board members discussed the proposed addition of the kitchen and were concerned about a restaurant type use in this zoning district. Food would need to be regulated so that “snacks” were offered instead of full-blown meals so it did not become a destination as a restaurant. Commissioners determined that significant evidence would be needed in terms of the proposed PUD and the RDO that was approved in 2011 showing that the conditions were met.

b. PD 2022-87 – Kensington Park PURD (7:57)

The application was introduced to the Planning Commission at their July 13, 2022 regular meeting, and the Planning Commission set a public hearing for the August 10, 2022 meeting. At this meeting, the Planning Commission granted preliminary approval for the PURD. Hannon reviewed the conditions of preliminary approval. Representing the applicant, Rob Larrea explained how the sidewalks would be installed by spring and any certificate of occupancy could be issued after sidewalks were complete. Chair Racine called for a short recess at 8:09 to allow for the rewriting of condition #2. The meeting was reconvened at 8:23pm.

Agostinelli moved and Fudge seconded THAT the Findings of Fact for application SUP-2002-06-E, included in PD Report 2022-87 and forming part of this motion, BE APPROVED.

*Yeas: Agostinelli, Fudge, Cline, DeGood, McManus, Racine
Nays: None*

Agostinelli moved and Cline seconded THAT application SUP-2002-06-E, submitted by Patrick Rokosz & Ryan McCoon, for a major amendment to the Kensington Park Planned Unit Residential Development (PURD), BE APPROVED, subject to the following conditions:

- 1. Consideration of the proposed amendment does not remove any other requirements from previous approvals for this site such as landscaping, sidewalks, and other site elements.*
- 2. Before a Certificate of Occupancy is issued for buildings 3, 20, or 21; and before building permits for any other buildings are issued, sidewalks shall be constructed in front of buildings 1, 2, and 13 through 18. Once completed, thereafter, sidewalks shall be constructed in front of buildings 4 through 9, 11, 12, and 19 before a Certificate of Occupancy is issued for*

each building. Sidewalks shall be constructed in front of each building and halfway to each building or building site.

3. Final engineering review and approval by the Township Engineer is required including all infrastructure and stormwater and including design review of the sidewalks.

4. All final reviews from agencies with jurisdiction shall be provided prior to any Land Use Permits being issued.

5. The applicant shall provide two (2) full-size plan sets, one (1) 11x17" plan set, and one electronic copy of the full application (in PDF format) with all updates as required by the conditions of this approval and indicating compliance with all provisions of the Zoning Ordinance.

6. The applicant shall record promptly the amended Report and Decision Order (RDO) and any amendment to such order with the Grand Traverse County Register of Deeds in the chain of title for each parcel or portion thereof to which the RDO pertains. A copy of each recorded document shall be filed with the Director of Planning within thirty (30) days of final approval by the Township or approval shall be considered to have expired.

Yeas: Agostinelli, Cline, DeGood, Fudge, McManus, Racine

Nays: None

c. PD 2022-88 – 7Brew 2537 North US 31 – Special Use Permit - Update (8:27)

The Township's traffic engineer, OHM Advisors, conducted a review of the traffic impact report and made a couple recommendations regarding the site. A taper could be provided to allow for left turn stacking, but may need to be discussed with MDOT since south bound traffic would be spilling into the through lanes. Access management was also discussed in the report and some modifications were proposed to allow for improved traffic patterns to help traffic navigate leaving and entering 7Brew and considering traffic to and from the gas station. Commissioners discussed the landscape plan and did not see any reason why a waiver was needed on the site. The commissioners addressed the traffic issues on the site and asked to hear more from MDOT and OHM regarding additional information on the traffic movements at the public hearing since they had many concerns with the traffic movements and this location.

McManus moved and Fudge seconded THAT application SUP 2022-01, submitted by BFA, Inc., for a Special Use Permit for a drive-through coffee shop at Parcel 05-021-036-10, BE ACCEPTED, and BE SCHEDULED for a public hearing for the October 26, 2022, Planning Commission meeting, subject to the following additional information being provided by the applicant:

1. A detailed landscaping plan with required buffers shall be provided unless adjusted by the Planning Commission.

2. The lighting plan shall provide the height the of the light poles and adjust the lighting fixtures to meet illumination levels in accordance with Section 517 of the Zoning Ordinance.

3. The site plan shall be subject to agency reviews, including but not limited to the Township Engineer, Grand Traverse County Road Commission, and Metro Fire.

Yeas: McManus, Fudge, Cline, Agostinelli, DeGood, Racine

Nays: None

7. New Business (8:55)

8. Public Comment (8:55)

John Schebaum from BFA, Inc. clarified comments from the commissioners regarding the landscaping plan for the proposed 7Brew on US 31 and asked for guidance from the planning department. He encouraged the planning department to work with OHM and BFA together to tackle the traffic situation. TJ Likens, Traffic Engineer from Fishbeck, will also help work through the traffic issues and would welcome any discussion on the matter. Higher traffic volumes would typically occur in the morning for this use.

9. Other Business: (9:07pm)

Racine noted a lighting issue on US 31 near the KFC.

Planning staff spoke with the Nicolet Bank who had cleared its site and discussed restoration options.

Sych said the commissioners should contact staff with any zoning issues they see around the township.

10. Items for Next Agenda – September 28, 2022 (9:09)

- a. Master Plan Update – Survey Results
- b. Zoning Ordinance – Drive-Through Standards – Update

11. Adjournment

Fudge moved to adjourn the meeting at 9:10pm.

Joe Robertson, Secretary
Garfield Township Planning
Commission
3848 Veterans Drive
Traverse City, MI 49684

 Charter Township of Garfield Planning Department Report No. 2022-91		
Prepared:	September 21, 2022	Pages: 1
Meeting:	September 28, 2022	Attachments: <input checked="" type="checkbox"/>
Subject:	2022 Community Survey - Draft Summary Report	

BACKGROUND:

In preparation of the update to the Township Master Plan, a community survey of residents was conducted by the Township in August. The attached report provides an overview of the survey results.

ACTION:

No action is required. The draft summary report is for review only. Any comments will assist staff in revising the summary report. The report will be presented to the Township Board.

Attachments:

1. Master Plan – 2022 Draft Community Survey Questionnaire

2022 Charter Township of Garfield Community Survey

Summary Report

DRAFT

September 21, 2022

Prepared by:
Planning Department
Charter Township of Garfield
3848 Veterans Drive
Traverse City, MI 49684

Introduction

The purpose of this report is to summarize the community survey prepared and conducted by the Charter Township of Garfield in August 2022. The survey was part of a broader effort to create a master plan of how Garfield should evolve and develop in the coming years. Using a random sample process to ensure accuracy, a total of 875 Township residents responded to the survey.

Survey Process

Utilizing the qualified voter file from the Township Clerk, a random sample of survey recipients was created to be evenly distributed among the Township's seven voting precincts. Precinct boundaries are drawn geographically to subdivide the Township's population relatively evenly, so this method this was a way to ensure that the surveys were evenly generated across the Township, and not by chance based on the overall voting populace. Because numerous registered voters often reside in the same household, duplicates were removed so that there was only one recipient per address.

The Township's population was 19,499 in 2020. To generate a margin of error which was low enough to be confident that the entire population would have answered similarly, 4,200 persons were randomly selected to receive survey. With 875 survey responses, there was a return rate of 20.83%.

The survey was mailed to all 4,200 recipients utilizing Maple River Direct. A postage-paid return envelope was provided with the questionnaire. Another option for recipients was to respond to the survey online by utilizing SurveyMonkey. Survey responses were tracked by a survey code number to ensure that no recipient responded more than once.

Key Findings

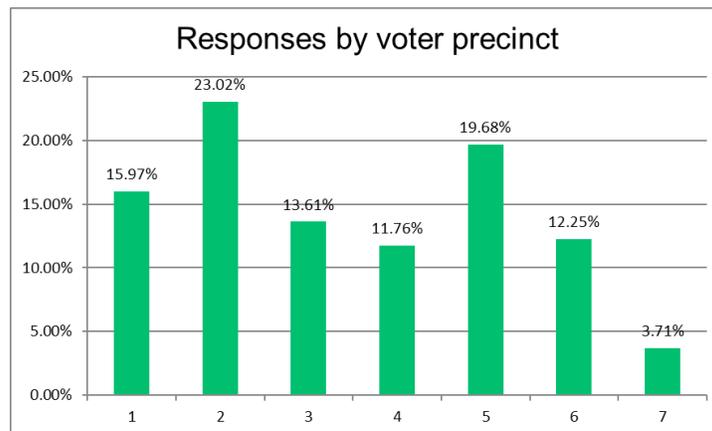
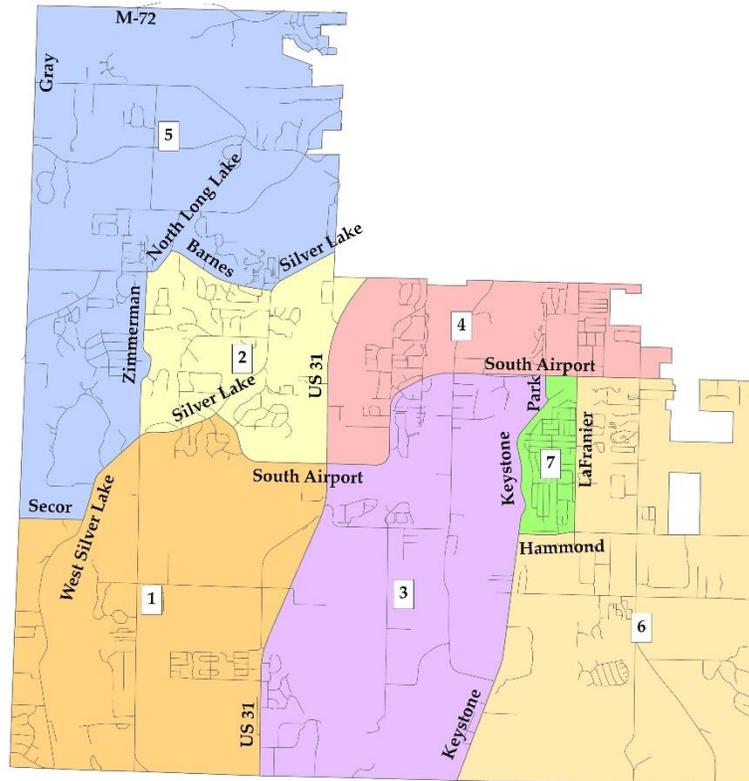
The following key findings were observed in the survey responses:

- **A feeling of safety and security** and **relationship to nature** are the top reasons for the quality of life for residents.
- **Protect the natural environment, housing choices and affordability,** and **quality and quantity of parks and open spaces** are the areas that Garfield should focus upon.
- A slight majority of responses say Garfield is **developing** about right, but residents are increasingly feeling that Garfield is developing too quickly.
- Nearly 90% of residents support **incentivizing redevelopment** of outdated commercial and industrial areas.
- Protecting **agriculture and rural areas** remains a very high priority.
- Nearly two-thirds of residents support more **pathways**.
- Over 75% of residents want improvement of **commercial corridors**.
- While residents don't necessarily desire a park closer to their home, nearly two-thirds of residents support the purchase of **more parkland**.
- Residents are split on **winery tasting rooms**, but strongly oppose **marijuana dispensaries**.
- Opposition to **short term rentals** is supported by nearly two-thirds of residents.
- There is general support for **accessory dwelling units** (i.e., granny flats).
- There is strong support against **tall buildings** and **changing the name** of Garfield.

Survey Participants

Of the 4,200 survey recipients, 875 completed the survey. The following charts and information provide an overview of the participants in the survey.

Responses by voter precinct

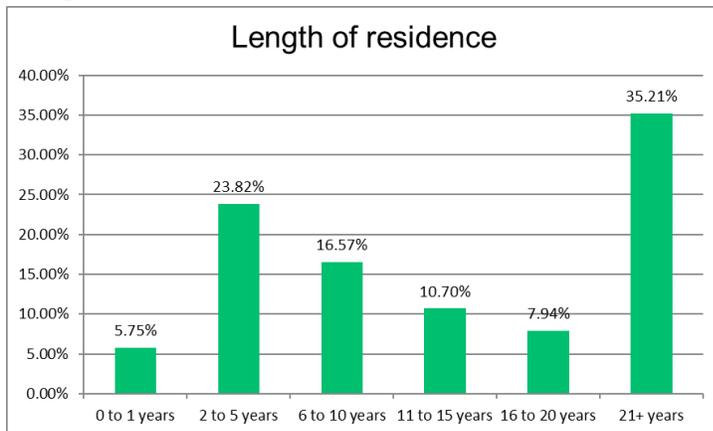


Age of respondents and all other members within the household

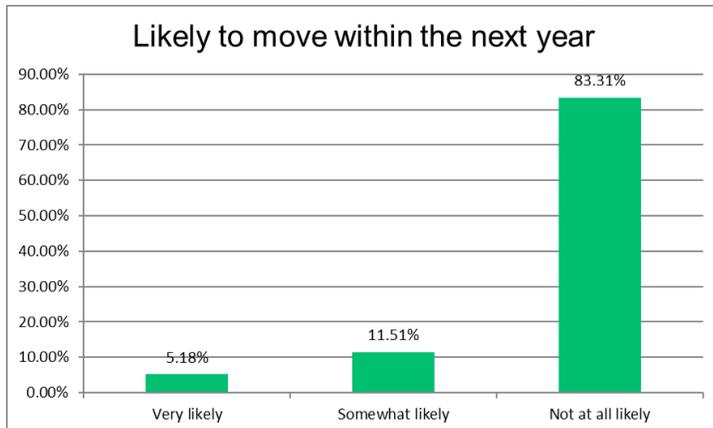
Age of respondents and all other members of the household										
	1		2		3		4		Total	Weighted Average
<7 years	54.72%	29	37.74%	20	3.77%	2	3.77%	2	53	1
7-12 years	49.02%	25	45.10%	23	5.88%	3	0.00%	0	51	1
13-17 years	59.62%	31	30.77%	16	9.62%	5	0.00%	0	52	1
18-25 years	62.07%	36	32.76%	19	5.17%	3	0.00%	0	58	1
26-35 years	56.86%	58	37.25%	38	5.88%	6	0.00%	0	102	1
36-45 years	54.90%	56	44.12%	45	0.98%	1	0.00%	0	102	1
46-55 years	56.52%	65	43.48%	50	0.00%	0	0.00%	0	115	1
56-65 years	61.17%	126	38.83%	80	0.00%	0	0.00%	0	206	1
>65 years	54.85%	266	44.95%	218	0.00%	0	0.21%	1	485	1
									Answered	869
									Skipped	6
									Total Household Occupants	1,782

Average household size of survey respondents is 2.05 persons. In comparison, the average household size in Garfield is 2.09 persons according to the U.S. Census.

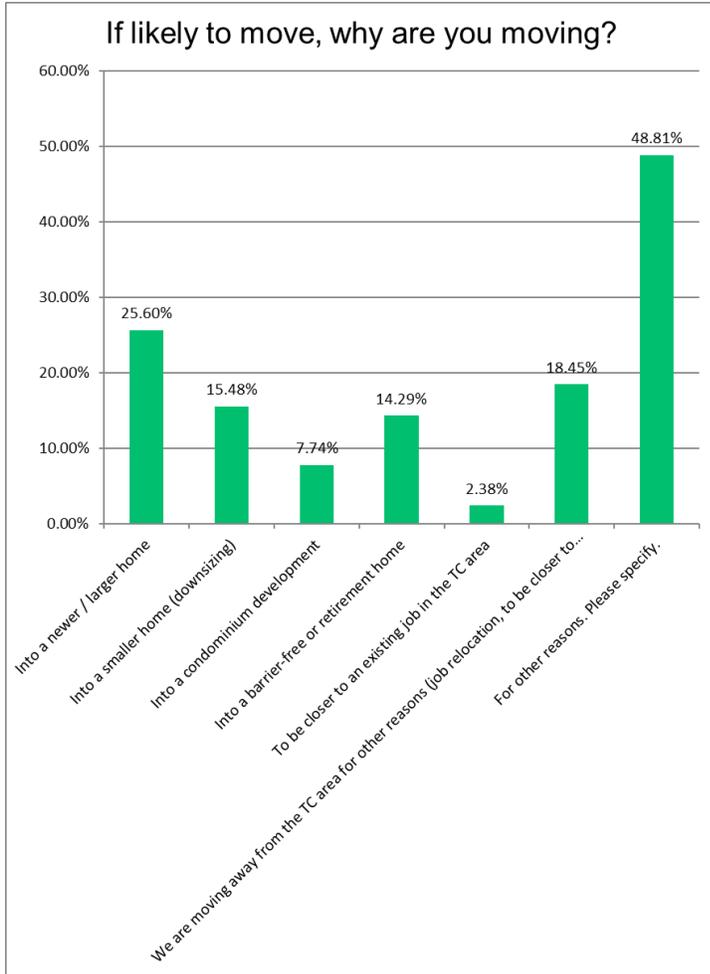
Length of residence



Likely are you to move within the next year



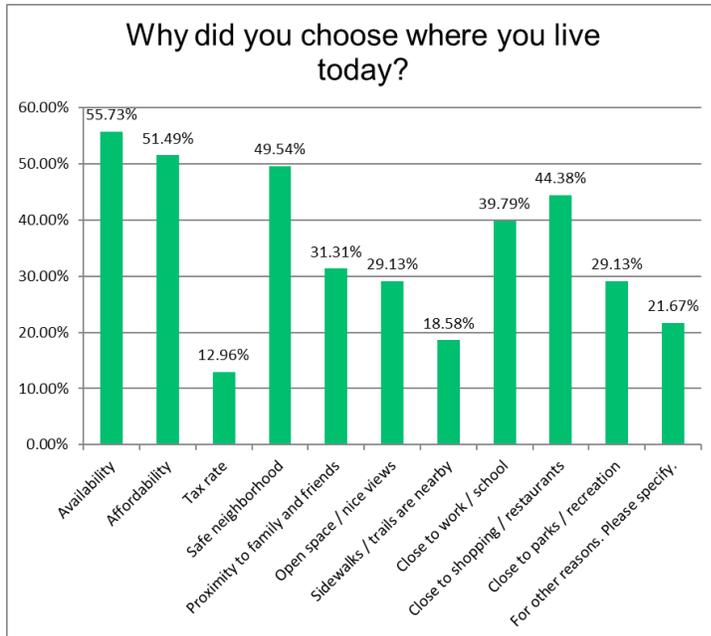
If likely to move, why are you moving?



“For other reasons. Please specify” - Top three responses:

1. Seeking more affordable housing
2. Downsizing
3. Work related move

Why did you choose where you live today?

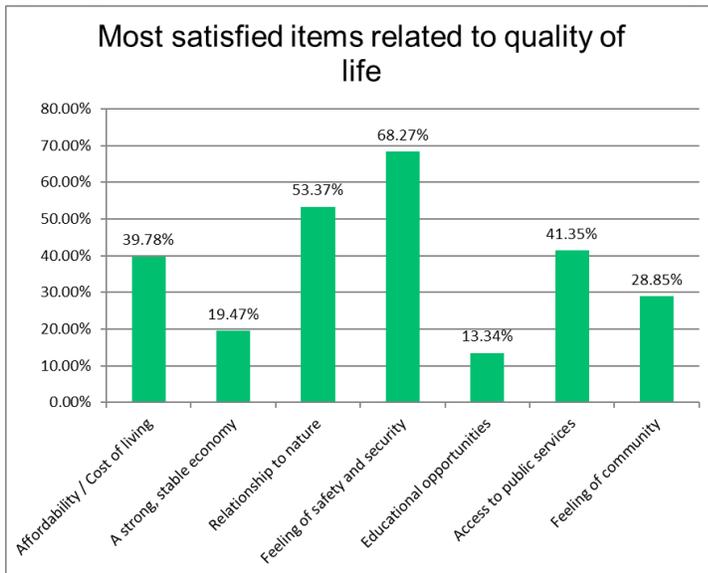


“For other reasons. Please specify” - Top three responses:

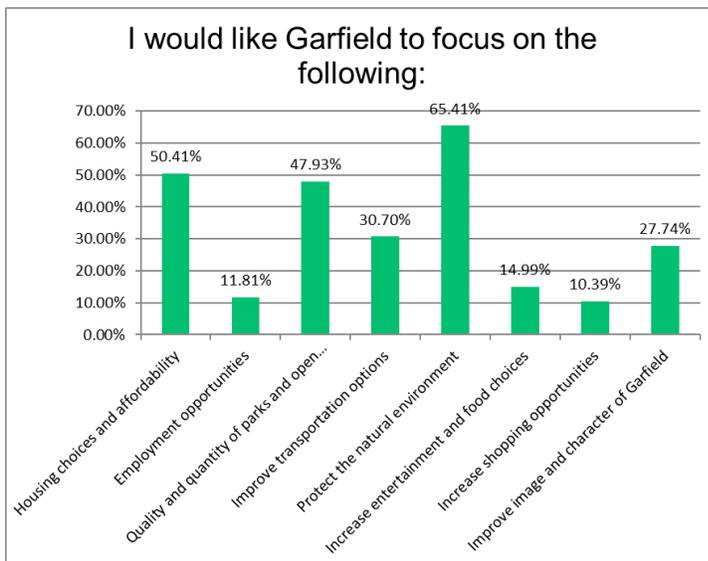
1. Proximity to City, urban services, etc.
2. Closer to amenities, lakefront
3. Family reasons (inherited home, etc.)

Results by Topic

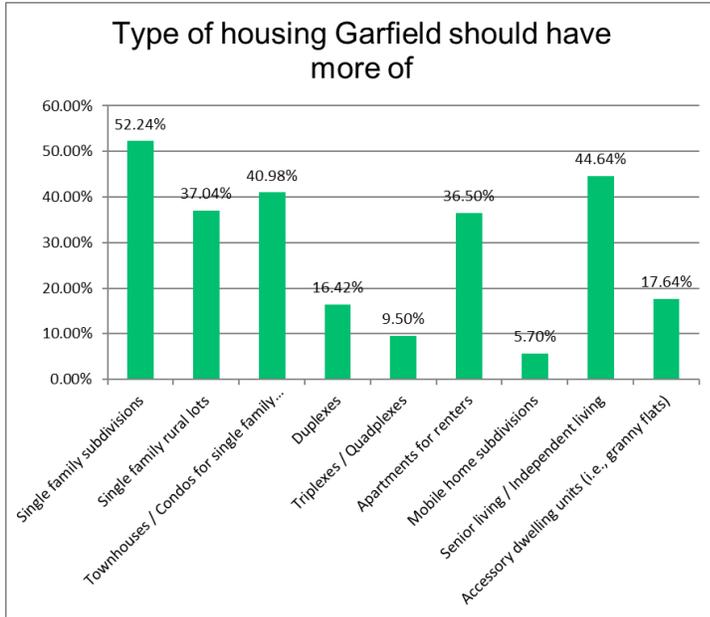
Quality of Life: Most satisfied items related to quality of life



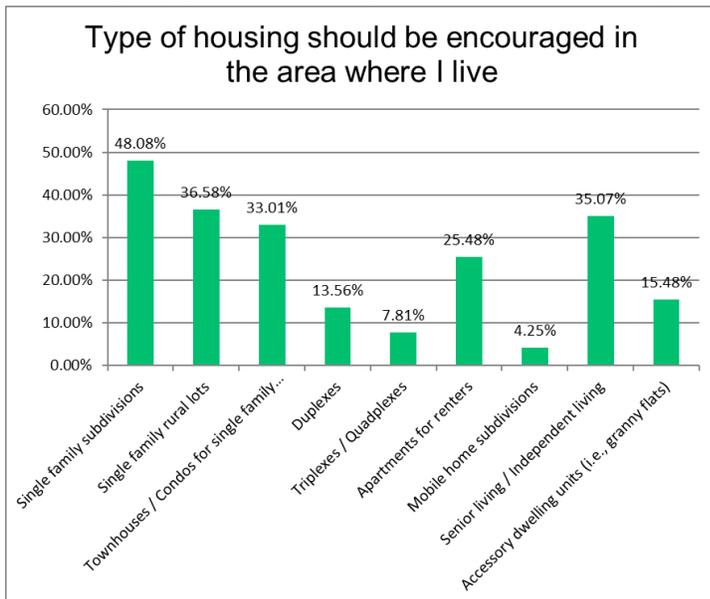
Future Goals: I would like Garfield to focus on the following:



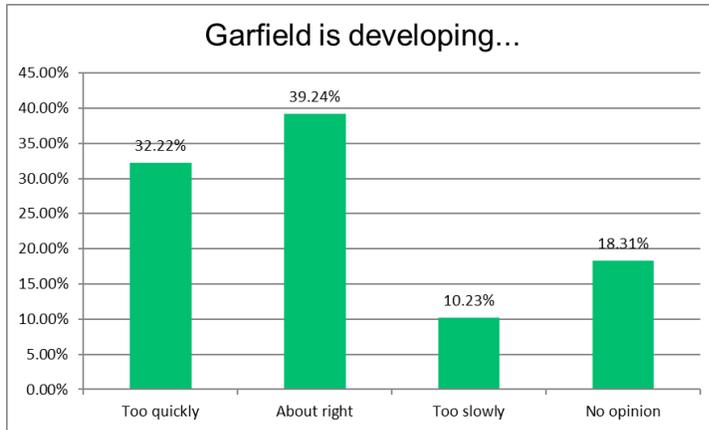
Housing: Type of housing Garfield should have more of



Housing: Type of housing should be encouraged in the area where I live



Land Use: Garfield is developing...



In 2015, responses were as follows:

- Too quickly 25.47%
- About right 51.58%
- Too slowly 5.55%
- No opinion 14.88%

Views on a variety of topics

	Strongly agree	Agree	Disagree	Strongly disagree	Total
Garfield should incentivize redevelopment of outdated commercial and industrial areas.	30.81%	56.32%	10.47%	2.41%	831
Outer edges of Garfield should stay mostly residential and agricultural in character.	39.51%	53.61%	5.94%	0.93%	858
Large, new housing development should include a variety of housing types (i.e., single family homes, duplexes, apartments, etc.).	19.28%	50.42%	20.00%	10.30%	835
Efforts should be made to retain agricultural land in Garfield.	44.33%	46.32%	7.60%	1.75%	855
I want more paved bicycle paths and sidewalks in the area where I live.	28.19%	34.58%	26.99%	10.24%	830
Garfield should fund the construction of bike paths and sidewalks in the form of a millage, grants, general fund, or other funding sources.	22.22%	40.34%	23.55%	13.89%	828
Garfield should fund the improvement of commercial corridors, such as South Airport Road, through limiting signs, building sidewalks, reducing driveways, adding trees, etc.	29.12%	46.90%	19.93%	4.06%	838
Garfield should direct dense, multi-family residential development to places which are closer to Traverse City.	15.92%	48.85%	29.04%	6.20%	823
I wish there was a park closer to my home.	10.62%	32.74%	49.18%	7.46%	791
Garfield should purchase more parkland.	15.87%	47.86%	30.40%	5.86%	819
Garfield should permit winery tasting rooms.	10.71%	36.19%	34.40%	18.69%	840
Garfield should permit marijuana dispensaries.	10.94%	22.82%	26.00%	40.24%	850
Garfield should permit short term rentals.	9.07%	26.27%	32.51%	32.16%	849
Garfield should permit accessory dwelling units (i.e., granny flats)	13.30%	47.28%	25.03%	14.39%	827
Garfield should permit buildings taller than four stories.	8.10%	18.43%	35.45%	38.03%	852
A new state law allows townships to change their names. Garfield should change its name.	2.74%	6.31%	42.62%	48.33%	840

Comments

Survey respondents were able to provide any comments as part of their survey. Out of 268 comments made in the “Other Comments” section, the following themes were identified based on five (5) or more comments made:

- Traffic and poor road conditions (49)
- Pathways, sidewalks, and pathway maintenance (43)
- More affordable housing including rental and home ownership opportunities (42)
- More parks and park amenities (20)
- No short-term rentals (19)
- Too much unattractive development (16)
- Support short-term rentals (10)
- Protect rural areas, natural environment, Silver Lake (10)
- More senior living and services (9)
- Supportive of changing Township name if it is reflective of area (8)
- No, against Hartman Hammond Bridge (6)
- Yes, for the Hartman Hammond Bridge (6)
- Complimentary of Township leadership and operations (5)

Number in parentheses is number of times the comment was made.

Appendix
Survey Questionnaire

You've been selected for the

2022 CHARTER TOWNSHIP OF GARFIELD COMMUNITY SURVEY

The Charter Township of Garfield Planning Commission is developing a new master plan that establishes long-term goals, policies, and strategies for growth of the Township. You have been randomly selected to complete this survey so that the Planning Commission can understand the interests and priorities of our residents. Thank you for your willingness to complete this brief questionnaire. It should be completed by an adult in your household and will only take a few minutes of your time.

If you prefer, please take this survey online by using the following QR code. Open your phone's camera app. Move your camera so the QR code is in the frame. You'll see the code's URL message appear.

Tap on the message to open the URL and access the survey.



PLEASE RESPOND BY AUGUST 31, 2022

If you have any questions, feel free to contact the Planning Department at 941-1620.

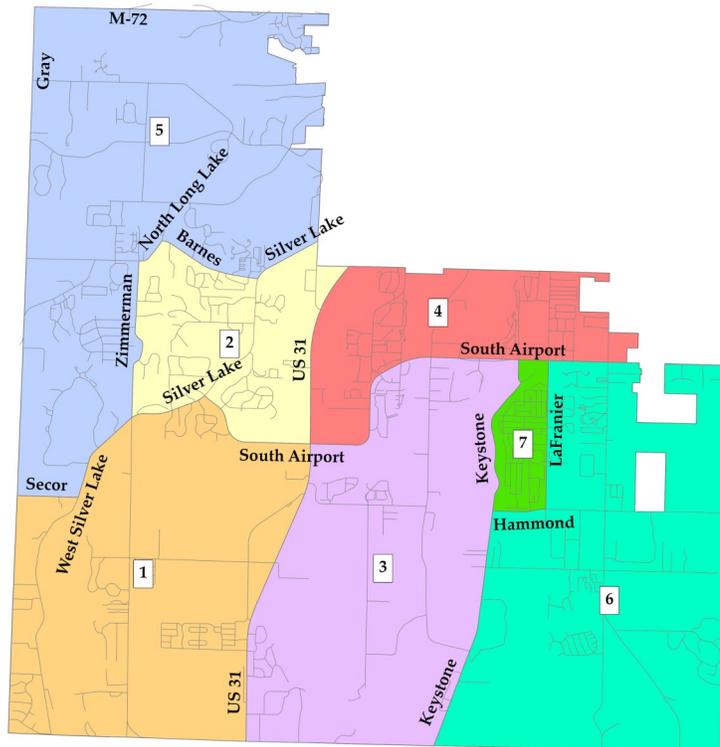


Charter Township of Garfield
Planning Commission
3848 Veterans Drive
Traverse City, MI 49685

www.garfield-twp.com

1. Looking at the map below, check the box that corresponds to the area where you live. Note: this is your voting precinct.

Area: 1 2 3 4 5 6 7



2. What is the approximate age of yourself and of all other members

Age:	Number of persons:			
<6 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
7-12 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
13-17 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
18-25 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
26-35 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
36-45 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
46-55 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
56-65 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
>66 years	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

3. How long have you lived in Garfield?

- 0 to 1 years
- 2 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- 21+ years

4. How likely are you to move within the next year?

- Very likely
- Somewhat likely
- Not at all likely

5. If you are at least somewhat likely to move next year, why are you moving? (If you are not likely to move, please skip this question. Check all that apply.)

- Into a newer / larger home
- Into a smaller home (downsizing)
- Into a condominium development
- Into a barrier-free or retirement home
- To be closer to an existing job in the TC area
- We are moving away from the TC area for other reasons (job relocation, to be closer to family, etc.)

For other reasons. Please specify:

6. Why did you choose where you live today? (Check all that apply.)

- Availability
- Affordability
- Tax rate
- Safe neighborhood
- Proximity to family and
- Open space / nice views
- Sidewalks / trails are nearby
- Close to work / school
- Close to shopping / restaurants
- Close to parks / recreation

For other reasons. Please specify:

7. The items I feel most satisfied with related to quality of life

- Affordability / Cost of living
- A strong, stable economy
- Relationship to nature
- Feeling of safety and security
- Educational opportunities
- Access to public services
- Feeling of community

8. For the future, I would like Garfield to focus on the

- Housing choices and affordability
- Employment opportunities
- Quality and quantity of parks and open space
- Improve transportation options
- Protect the natural environment
- Increase entertainment and food choices
- Increase shopping opportunities
- Improve image and character of Garfield

9. Do you think Garfield should have more housing? If so, what types of housing should be encouraged in Garfield?

- Single Family Subdivisions
- Single Family Rural Lots
- Townhouses/Condos for Single Family Homeowners
- Duplexes
- Triplexes, Quadplexes
- Apartments for Renters
- Mobile Home Subdivisions
- Senior Living/Independent Living
- Accessory Dwelling Units (i.e., granny flats)

10. What types of housing should be encouraged in the area

- Single Family Subdivisions
- Single Family Rural Lots
- Townhouses/Condos for Single Family Homeowners
- Duplexes
- Triplexes, Quadplexes
- Apartments for Renters
- Mobile Home Subdivisions
- Senior Living/Independent Living
- Accessory Dwelling Units (i.e., granny flats)

11. Do you think Garfield Township is developing...

- Too quickly About right Too slowly No opinion

12. Please indicate whether you agree or disagree with the following statements:

a. Garfield should incentivize redevelopment of outdated commercial and industrial areas.

- Strongly Agree Agree Disagree Strongly Disagree

b. Outer edges of Garfield should stay mostly residential and agricultural in character.

- Strongly Agree Agree Disagree Strongly Disagree

c. Large, new housing developments should include a variety of housing types (i.e., single family homes, duplexes, apartments, etc.)

- Strongly Agree Agree Disagree Strongly Disagree

d. Efforts should be made to retain agricultural land in Garfield.

- Strongly Agree Agree Disagree Strongly Disagree

e. I want more paved bicycle paths and sidewalks in the area where I live.

- Strongly Agree Agree Disagree Strongly Disagree

f. Garfield should fund the construction of bike paths and sidewalks in the form of a millage, grants, general fund, or other funding source.

- Strongly Agree Agree Disagree Strongly Disagree

g. Garfield should fund the improvement of commercial corridors, such as South Airport Road, through limiting signs, building sidewalks, reducing driveways, adding trees, etc.

- Strongly Agree Agree Disagree Strongly Disagree

h. Garfield should direct dense, multifamily residential development to places which are closer to Traverse City.

- Strongly Agree Agree Disagree Strongly Disagree

i. I wish there was a park closer to my home.

Strongly Agree Agree Disagree Strongly Disagree

j. Garfield should purchase more parkland.

Strongly Agree Agree Disagree Strongly Disagree

k. Garfield should permit winery tasting rooms.

Strongly Agree Agree Disagree Strongly Disagree

l. Garfield should permit marijuana dispensaries.

Strongly Agree Agree Disagree Strongly Disagree

m. Garfield should permit short term rentals.

Strongly Agree Agree Disagree Strongly Disagree

n. Garfield should permit accessory dwelling units (i.e., granny flats).

Strongly Agree Agree Disagree Strongly Disagree

o. Garfield should permit buildings taller than four stories.

Strongly Agree Agree Disagree Strongly Disagree

p. A new state law allows townships to change their names. Garfield should change its name.

Strongly Agree Agree Disagree Strongly Disagree

Any other comments? Provide them here:

THAT'S IT!

THANK YOU FOR YOUR TIME & INPUT

PLEASE RESPOND BY AUGUST 31, 2022

Please send this survey back in the enclosed return envelope.

No stamp is necessary!

		Charter Township of Garfield	
		Planning Department Report No. 2022-92	
Prepared:	September 21, 2022	Pages:	2
Meeting:	September 28, 2022	Attachments:	<input checked="" type="checkbox"/>
Subject:	Meijer 33 Remodel PUD Minor Amendment Traffic Update		
File No.	PUD-1997-01-F	Parcel No.	05-016-009-00
Applicant:	Meijer Inc.		
Agent:	Jon Ledy PE, Paradigm Design Inc.		
Owner:	Meijer Inc.		

SUBJECT PROPERTY:

The Meijer Planned Unit Development (PUD) is located at 3955 North U.S. 31 South, between Franke and Silver Lake Roads.

PUD MINOR AMENDMENT:

Approval for a Minor Amendment to the PUD was granted by the Planning Commission at its meeting on June 8, 2022. The first condition of approval stated:

1. Subject to the 1997 condition of approval, Section 618 of the Zoning Ordinance, and understanding that appropriate study and design are needed to occur prior to any improvement or traffic reconfiguration, the following requirements apply to the signaled driveway entrance on US-31:
 - a. Study and design of the subject intersection be completed by the applicant by January 1, 2023 in conjunction with MDOT. Following that date, a presentation by the applicant of the study and design shall be provided to the Township for review and approval.
 - b. Furthermore, any required improvements as determined by the study and design of the subject intersection and as approved by the Township shall be constructed and completed by January 1, 2024.

TRAFFIC STUDY:

Fishbeck completed a traffic study on behalf of Meijer for the signaled entrance from US-31 on August 19, 2022. See attached summary. OHM conducted a review of the traffic study on behalf of the Township. See attached memorandum dated August 26, 2022.

Since no design and or improvements will be needed for the site entrance per the Fishbeck study and concurrence by OHM, Staff recommends that the Planning Commission accept the traffic study and recognize that Condition 3.2 has been met.

ACTION REQUESTED:

With the provision of the traffic study and subsequent review, the following motion is offered for consideration by the Planning Commission:

MOTION THAT the Fishbeck Traffic Study provided as a condition for application PUD-1997-01-F BE ACCEPTED and acknowledge that Condition 3.2 of the Meijer PUD Minor Amendment Report and Decision Order has been met.

Attachments:

1. Report and Decision Order for PUD-1997-01-F Meijer Planned Unit Development – Minor Amendment – recorded July 22, 2022
2. Fishbeck Traffic Analysis (Summary Only) – dated August 19, 2022
3. OHM Review of Traffic Analysis – dated August 26, 2022



DocId:8370883

Tx:4226231

2022R-12073
STATE OF MICHIGAN
GRAND TRAVERSE COUNTY
RECORDED 07/22/2022 10:53:53 AM
PEGGY HAINES REGISTER OF DEEDS
PAGE 1 OF 7

Above Space for Recorder's Use

REPORT and DECISION ORDER

for

PUD-1997-01-F

Meijer Planned Unit Development – Minor Amendment

**CHARTER TOWNSHIP OF GARFIELD
GRAND TRAVERSE COUNTY, MICHIGAN**

Owner: Meijer Inc
2929 Walker Ave NW
Grand Rapids, Michigan 49544

WHEREAS, an application was made by the above-named for a Minor Amendment to the Meijer Planned Unit Development, original PUD #1997-01, and incorporated in Minor Amendment Report and Decision Order # PUD-1997-01-F, affecting land legally described as follows:

Parcel 05-016-009-00, described as COM N 1/4 COR SEC 16 T27N R11W TH N 88 DEG 03' E 1057.62' TH S 18 DEG 57' E 178.44' TH S 46 DEG 42' W 90' TH S 70 DEG 30' W 28.18' TH S 62 DEG 42' E 108.82' TH S 37 DEG 4' W 114.25' TH N 52 DEG 55' W 30' TH S 37 DEG 4' W 20' TH S 52 DEG 55' E 30' TH S 37 DEG 4' W 13.42' TH SWLY 447.78' ALG ROW AND ARC OF 5729.65' CURVE TO LEFT (CHORD = S 34 DEG 47'20" W 447.69') TH SWLY 643.02' ALG ROW AND ARC OF 5804.65' CURVE TO LEFT (CHORD = S 29 DEG 27'55" W 642.69') TH S 88 DEG 10'36" W 457.33' TH N 1314.34' TO POB EXC RD ROW.

Contains 25.13 acres.

WHEREAS, the Planning Commission adopted Findings of Fact for Minor Amendment application PUD-1997-01-F, dated June 8, 2022, incorporated herein by reference; and

WHEREAS, it has been demonstrated that the standards and conditions for approval set forth in the Garfield Township Zoning Ordinance have been met through the proposed site Development Plan and Findings of Fact adopted by the Planning Commission; and

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3848 Veterans Drive
Traverse City, MI 49684

WHEREAS, under the provisions of the Garfield Township Zoning Ordinance with due notice having been given and a public hearing having been held on the above-referenced application; and

WHEREAS, the Planning Commission has determined that the application meets the each of the standards set forth in the Garfield Township Zoning Ordinance and Public Act 110 of 2006 (Michigan Zoning Enabling Act), as amended; and

WHEREAS, the Planning Commission has determined that certain conditions upon the use of the above-referenced property are necessary to protect the health, safety, and welfare of Garfield Township residents, to uphold the spirit and intent of the Garfield Township Zoning Ordinance, and to ensure that the development is appropriate:

NOW, THEREFORE, the Planning Commission does hereby enter this Report and Decision Order for the development and use of the above-referenced property as the Meijer Planned Unit Development, subject to the following requirements:

1. **Development Plan.** Subject to the requirements set forth in this Report and Decision Order, the applicant's Development Plan described below, together with the sheets set out in the Schedule of Documents below, shall constitute the development and use allowed by this Special Use Permit.

DEVELOPMENT PLAN

Drawing Name	Original Issue Date	Latest Revision Date	Sheet	Scale
Paradigm Design - Exterior Design (Daytime)	N/A	N/A	N/A	N/A
Paradigm Design - Exterior Design (Nighttime)	N/A	N/A	N/A	N/A
Paradigm Design - Exterior Design - Gas Station	N/A	N/A	N/A	N/A
Paradigm Design - Exterior Design - Gas Station	N/A	N/A	N/A	N/A
Paradigm Design - Exterior Design - Gas Station	N/A	N/A	N/A	N/A
Overall Floor Plan (Store)	N/A	N/A	A100	1/32"=1.0'
Overall Floor Plan (Gas Station)	N/A	N/A	A120	1/4"=1.0'
Existing Conditions	5/4/2022	5/26/2022	C100	N/A
Demolition Plan	5/4/2022	5/26/2022	C101	1"=40'
Gas Station Existing Conditions & Demolition Plan	5/4/2022	5/26/2022	C102	1"=20'
Temporary Driveway Plan	5/4/2022	5/26/2022	C103	1"=30'

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Overall Site Layout Plan	5/4/2022	5/26/2022	C200	1"=40'
Site Layout & Utility Plan	5/4/2022	5/26/2022	C201	Varies
Gas Station Layout, Utility, & Striping Plan	5/4/2022	5/26/2022	C202	1"=20'
Concrete Jointing Plan	5/4/2022	5/26/2022	C203	Varies
Grading Plan	5/4/2022	5/4/2022	C301	Varies
Gas Station Grading Plan	5/4/2022	5/26/2022	C302	1"=20'
Bike Path Plans	5/4/2022	5/26/2022	C401	1"=40'
Striping & Signage Plan	5/4/2022	5/26/2022	C501	Varies
Details	5/4/2022	5/26/2022	C700	N/A
Landscape Plan	5/5/2022	5/5/2022	L-101	1"=40'
Cover Sheet/Sheet Index for Stormwater & Paving Plans	N/A	N/A	N/A	N/A
Overall Site Plan	5/11/2022	5/11/2022	C1.1	1"=50'
Demolition Plan	5/11/2022	5/11/2022	C1.2	1"=50'
Overall Utility Plan	5/11/2022	5/11/2022	C1.3.0	1"=30'
Basin A.1 Plan & Profile	5/11/2022	5/11/2022	C1.3.1	Varies
Basin A.2 Plan & Profile	5/11/2022	5/11/2022	C1.3.2	Varies
Basin C & D Plan & Profile	5/11/2022	5/11/2022	C1.3.3	Varies
Stormtech Chamber Details - 1	5/11/2022	5/11/2022	C1.3.4.1	N/A
Stormtech Chamber Details - 2	5/11/2022	5/11/2022	C1.3.4.2	N/A
Outlet Control Structure Details	5/11/2022	5/11/2022	C1.3.5	N/A
Pretreatment Details	5/11/2022	5/11/2022	C1.3.6	N/A
Overall Grading Plan	5/11/2022	5/11/2022	C1.4.0	1"=50'
Grading Plan (1 of 3)	5/11/2022	5/11/2022	C1.4.1	1"=20'
Grading Plan (2 of 3)	5/11/2022	5/11/2022	C1.4.2	1"=20'
Grading Plan (3 of 3)	5/11/2022	5/11/2022	C1.4.3	1"=20'
Basin B Bioretention Plan & Profile	5/11/2022	5/11/2022	C1.4.4	1"=20'

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Traverse City, MI 49684

Existing Drainage Areas	5/11/2022	5/11/2022	C1.5.1	1"=40'
Proposed Drainage Area Map	5/11/2022	5/11/2022	C1.5.2	1"=40'
Layout Plan	5/11/2022	5/11/2022	C1.7.1	1"=50'
Topographic Survey (AECOM)	N/A	N/A	C1.9	1"=50'
Basin B Planting Plan	5/11/2022	5/11/2022	L1.1	1"=10'
Pavement Plan (Pavement)	2/13/2004	2/12/2019	C-200	N/A
Pavement Plan (Curb & Gutter)	2/13/2004	2/12/2019	C-200	N/A
Pavement Plan (Phasing)	2/13/2004	2/12/2019	C-200	N/A
GPRS Utility Finding Map	12/2/2020	12/2/2020	1	1"=80'

2. **Documentation.** The representations made by the applicant in its application, as amended and incorporated as a part of the approval dated June 8, 2022, by the documents appearing in the Schedule of Documents below, and by the Development Plan as referenced above, have been relied upon by the Township in making its determination in this matter. It is a condition of this Report and Decision Order that the applicant shall abide by all representations in such documents and may not substantially deviate from such documents without the prior written consent of Garfield Township unless otherwise provided for in the Garfield Township Zoning Ordinance. The Schedule of Documents is as follows:

SCHEDULE OF DOCUMENTS

Document Name	Date
Special Use Permit Minor Amendment Application	3/4/2022
Impact Statement/Letter from Steven Douglas, Paradigm Design	5/4/2022
Completion Review Letter from Stephen Hannon, Garfield Township Deputy Planning Director	5/12/2022
Letter from Steven Douglas, Paradigm Design including Memorandum from Stephen Orosz, PE	5/26/2022
PD Report 2022-49 Planning Commission Meeting	6/1/2022
Planning Commission Meeting Minutes	6/08/2022

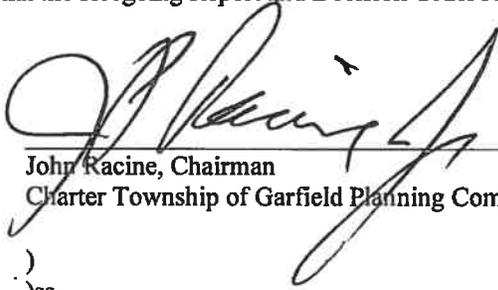
3. **Further Conditions.** This Report and Decision Order is subject to the following conditions:

- a. Location and details of the proposed traffic blocks need to be provided.
- b. Alternate bike racks need to be provided in accordance with Section 522.C of the Zoning Ordinance.
- c. Subject to the 1997 condition of approval, Section 618 of the Zoning Ordinance, and understanding that appropriate study and design are needed to occur prior to any improvement or traffic reconfiguration, the following requirements apply to the signaled driveway entrance on US-31:

Prepared by Garfield Township Planning Department. Once recorded, return to:

3848 Veterans Drive
Traverse City, MI 49684

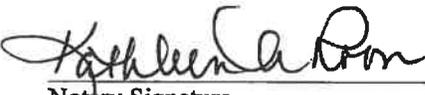
The undersigned hereby certifies that he is the Chairman of the Charter Township of Garfield Planning Commission, Grand Traverse County, Michigan, and that the foregoing Report and Decision Order reflects the approval granted by the Township on June 8, 2022.



John Racine, Chairman
Charter Township of Garfield Planning Commission

STATE OF MICHIGAN)
)
)ss
COUNTY OF GRAND TRAVERSE)

The foregoing instrument was acknowledged before me on July 6, 2022, by John Racine, Chairman of the Charter Township of Garfield Planning Commission.



Notary Signature

KATHLEEN A. ROON.

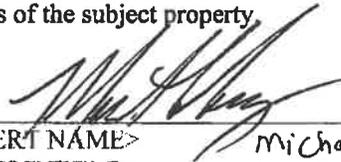
Notary Printed Name

Kathleen A. Roon
Notary Public-State of Michigan
County of Grand Traverse
My Commission Expires 4/21/2023
Acting in the County of _____

Notary Public, GRAND TRAVERSE County, State of Michigan
My Commission expires: 4/21/2023
Acting in the County of: GRAND TRAVERSE

[SIGNATURE LINES CONTINUED ON NEXT PAGE]

Owner, Meijer, Inc., does hereby acknowledge receipt of the Report and Decision Order and that it has read and understands all of the terms and conditions of the Report and Decision Order. The Owner agrees to comply with all of the terms and conditions thereof, and further agrees that all of the terms and conditions of said Report and Decision Order shall be binding upon all subsequent owners of the subject property



<INSERT NAME>
<INSERT TITLE>
Meijer, Inc.

Michael Flickinger
its Vice President - Real Estate

STATE OF MICHIGAN)
 KENT)ss
COUNTY OF ~~GRAND TRAVERSE~~)

The foregoing instrument was acknowledged before me on

July 20, 2022

Michael Flickinger, the
Vice President - Real Estate of
<INSERT NAME>



Notary Signature

Angela M Mazurek

Notary Printed Name

Notary Public, Ottawa County, State of Michigan

My Commission expires: 3/2/2028

Acting in the County of: Kent

ANGELA M MAZUREK
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY OF OTTAWA
My Commission Expires March 02, 2028
Acting in the County of Kent

Prepared by Garfield Township Planning Department. Once recorded, return to:

3848 Veterans Drive
Traverse City, MI 49684

Memo

TO: Philip Quartey – Meijer Real Estate

FROM: Kyle Reidsma, PE, PTOE
Timothy J. Likens, PE, PTOE

DATE: August 19, 2022

PROJECT NO.: 220967

RE: Meijer Store #033 (Garfield Township, MI)
Traffic Analysis

Study Purpose

The subject Meijer store and gas station are located on the west side of US-31 immediately south of the Traverse City limits in Garfield Township, Grand Traverse County, Michigan. This Meijer location is scheduled to be renovated beginning August 2022, which has initiated review processes with the agencies having jurisdiction. Garfield Township has jurisdiction over the site Planned Unit Development (PUD) and the Michigan Department of Transportation (MDOT) has jurisdiction over US-31.

The site currently has three full access points to US-31; two are stop-controlled on the driveway approach to US-31, and the northern driveway across from Walgreens is controlled by a traffic signal. There is also access to Franke Road on the west side of the property. No changes are being proposed to the site that would alter access, traffic volumes, or patterns from the existing operation; therefore, MDOT is approving of the proposed renovations and has issued no further requirements related to site access or MDOT right-of-way.

Garfield Township has expressed concern regarding operations at the northern signalized driveway related to lane configuration and queuing on this egress approach. Specifically, the Township has recommended that a study of the intersection be completed related to the Meijer egress queuing that occurs. The Township stated that a second left turn lane on the egress approach is required per a preliminary site plan found on file in their office and meeting minutes from June 26, 1997. Requirement to study this intersection is outlined in the Township Planning Commission meeting minutes from June 8, 2022. The scope of work for this study was submitted to MDOT and the Township, and the study was executed as presented in that scope.

The purpose of this traffic study is to evaluate traffic operations and safety at this location by analysis of current traffic delays, Level of Service (LOS), queuing, and historical crash data. Where operational and/or safety issues are identified (if any), candidate mitigation measures are identified and evaluated. This study is conducted according to the guidelines and practices published by the Institute of Transportation Engineers (ITE) and applicable MDOT standards. Associated with study of the northern signalized access, MDOT has requested inclusion of the nearest upstream and downstream traffic signals on this coordinated US-31 corridor; however, alterations are not investigated at these offsite locations. The intent of including the adjacent signalized intersections is to determine what impacts, if any, modifications to the Meijer traffic signal would have on the corridor operations.

Baseline Data

US-31 is principal arterial with a typical five-lane cross section with two lanes in either direction and a center lane for left turns. In the vicinity of the site, US-31 has a posted speed limit of 45 miles per hour (mph). The northern Meijer driveway is a private approach to US-31 that opposes a private driveway serving Walgreens. This intersection is controlled by a two-phase traffic signal with pedestrian signals on the east, west, and south legs. The intersection is fully actuated, operating on the Split Cycle Offset Optimization Technique (SCOOT) adaptive traffic system. Although this study is focused on operations at the signalized intersection of Meijer/Walgreens with US-31, the upstream and downstream signals operating on the SCOOT system at Silver Lake Road/14th Street and at Marketplace Circle/Lowes Drive were also included in the analysis for the purpose of modeling traffic flows on the coordinated signal corridor.

The signalized Meijer egress approach provides approximately 200 feet of storage between US-31 and the internal site intersection adjacent to the gas station. Approximately 100 feet of this area is carried over Kids Creek by a structure having width for one lane in each direction and a pedestrian pathway. A second lane develops east of the creek crossing to provide additional storage and capacity on the egress approach to US-31. The internal site intersection is two-way stop-controlled with the ingress/egress lanes to/from US-31 having the right-of-way.

Evaluation of the signalized Meijer driveway was completed during the summer weekday and weekend peak periods to capture operations when the intersection is typically busiest. In order to identify the busiest periods, MDOT provided 24-hour turning movement counts at the intersection recorded over a week from the SCOOT system Gridsmart detection cameras. Gridsmart data were reviewed at the US-31/Meijer intersection from Monday, June 6 thru Saturday, June 11, 2022, to identify that the weekday peak occurs during the afternoon from 2:30 to 4:30 p.m. and the weekend peak occurs on Friday afternoon from 3:00 to 5:00 p.m. Traffic volume data for the average weekday is very similar to Friday; however, the Saturday volumes were approximately 20% lower. Overall, the weekday and weekend peak volumes were similar but with varying peak times.

In order to ensure accuracy of the traffic volume data at the US-31/Meijer intersection, Fishbeck also collected vehicular and non-motorized data using MioVision Scout cameras. Data were collected during the weekday/weekend peak periods identified above on Thursday, July 21, 2022, and Friday, July 22, 2022. Traffic data were collected in 15-minute intervals and included heavy vehicle counts and pedestrian volumes. MioVision data were compared to Gridsmart counts from the same days and the overall intersection volume was determined to be approximately 1-3% higher as recorded by Miovision. Therefore, the Miovision counts were referenced to analyze the US-31/Meijer signalized intersection. This small variation by comparison also validates use of Gridsmart counts to model the other signalized intersections on the US-31 corridor. MDOT provided Gridsmart turning movement counts for the intersections of US-31 at Silver Lake Road/14th Street and Marketplace Circle/Lowes Drive for the same time periods that Fishbeck collected MioVision data at the Meijer intersection for inclusion in the modeling.

Historical traffic data on US-31 between the signalized Meijer driveway and Silver Lake Road were obtained from the MDOT Transportation Data Management System (TDMS). Hourly segment data were obtained from 2001 thru 2022 and growth trends were evaluated over time. Overall, traffic volumes on US-31 have declined over time, with a more substantial drop in 2020-21 reflective of stay-at-home orders associated with the COVID-19 pandemic. Volumes are seen to rebound in 2022; however, the difference between the 2022 counts and the historical trendline indicates the 2022 volumes are approximately 5% lower than the historical trendline. Therefore, a global 5% upward adjustment was applied to account for any remaining impacts of COVID-19 on corridor traffic volumes. As current traffic data were collected during the peak summer months, no seasonal adjustment was applied to establish Existing 2022 peak hour traffic volumes.

In addition to collecting existing traffic volume data on US-31, Fishbeck performed a field review of operations and collected data relative to the Meijer egress approach to US-31. During the weekday and weekend peak periods outlined above, Fishbeck collected Miovision turning movement counts at the stop-controlled internal driveway intersection approximately 250 feet west of US-31 and adjacent to the Meijer gas station. Fishbeck also recorded queues and processing times for the Meijer egress approach to US-31. These observations and recorded results were used to validate the analysis models and draw conclusions regarding current operations.

Modeling Methodology

Intersection operations were modeled using Synchro traffic analysis software based on methodologies published in the Highway Capacity Manual 6th Edition (HCM). Measures of effectiveness for this study include vehicle delay, Level of Service (LOS), and vehicle queue lengths. Modeling and simulation were completed in accordance with the MDOT *Electronic Traffic Control Device Guidelines*. Simulated traffic operations were observed using SimTraffic and vehicle delays and queues were calculated based on the average of five one-hour simulations for each condition.

The most recent HCM 6th Edition requires standard national Electrical Manufacturers Association (NEMA) phasing to calculate vehicle delay and LOS. Investigating alternative intersection operations including dual-left turn lanes are not consistent with standard NEMA phasing and HCM 6th Edition calculations; therefore, HCM 2000 results were referenced for these scenarios. This methodology has been discussed previously with MDOT and deemed acceptable to analyze signalized intersection operations under these constraints.

Synchro models for the study network were created based on the existing roadway configurations and traffic controls. Existing roadway geometrics and traffic controls were determined based on available plans and aerial/street view imagery. MDOT provided traffic signal timing permits and SCOOT operational parameters for the study intersections, as signal split and cycle length times vary to optimize corridor operations. The signal at the Meijer driveway typically operates with a 160 to 176 second cycle length during the p.m. peak period, with splits for the Meijer/Walgreens approach being in the 32-52 second range. These data were referenced to model adaptive traffic signal operations in Synchro. Corridor traffic signals were modeled to run a 176-second cycle during weekday/weekend peak hours, with coordination along US-31. Minor approaches and left-turn movements were set to actuated operation with no recall (in the absence of minor movement demand, green time is allocated to US-31). These modeled timings were validated based on actual field observations on the egress approach of the Meijer driveway to US-31 as described below.

SimTraffic simulations were utilized to evaluate intersection operations and queueing on the Meijer egress approach to US-31. In order to validate the network, simulated queues, delays, and signal timings were compared to actual field observations and SCOOT parameters. The following comparisons validate that the model settings are consistent with actual peak hour operations:

- Observed and simulated average queues for the EB Meijer egress are consistent between 110 to 120 feet.
- Periodic queue spillback from US-31 was observed into the internal Meijer intersection two to three times per hour, which corresponds to simulated upstream spillback for 4% of each peak hour.
- Observation and simulation both indicate queues are typically cleared each signal cycle. The 95th percentile simulated queue length is 214 feet which corresponds to the available storage length of 200 feet and periodic queue interaction with the internal intersection.
- Simulated average vehicle delays of 35 to 38 seconds per vehicle were calculated, which includes all vehicles regardless of arrival on green or into queue. This reasonably corresponds to observed average times for a vehicle in the back of the queue to clear the intersection of 42 to 55 seconds.

- Lastly, simulated green times for the Meijer egress approach range between 24 and 46 seconds per phase based on vehicle demand and signal actuation, whereby the signal typically “gaps out” before reaching its maximum green allocation. This range corresponds to the SCOOT parameters provided by MDOT.

Baseline Intersection Operations

As described above, Synchro was utilized to calculate vehicle delay and LOS based on HCM methodology. LOS is a letter grade that describes traffic operations based on the amount of delay experienced by vehicles at an intersection, along an intersection approach (e.g., eastbound (EB), WB), or in a specific lane group (e.g., EB right turn, EB thru/left). LOS is measured using letter grades ranging from A to F, with LOS A representing negligible delay and LOS F indicating failing conditions. Table 1 presents the HCM criteria for various LOS for unsignalized and signalized intersections. The color coding in the table is used in the capacity analysis summary tables later in this report.

Table 1 – LOS Criteria for Intersections

LOS	Average Stopped Vehicle Delay (seconds)	
	Unsignalized	Signalized
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Vehicle delay and LOS for the Baseline (existing) conditions are summarized in Table 2 for the weekday and weekend peak hours. Results were calculated at both the signalized intersection of US-31 with the Meijer/Walgreens driveways and the internal two-way stop-controlled intersection of the Meijer driveway adjacent to the gas station.

These results indicate that the signalized intersection of US-31 with the Meijer/Walgreens driveway operates at an overall LOS B, which represents acceptable operations. The minor approaches operate at a LOS E, with priority for the trunkline approaches of US-31 which operate at a LOS A. Signals on MDOT trunkline corridors are often intended to operate in this manner; providing the minimum necessary green time to process demand on the minor approaches in order to provide maximum throughput for the trunkline. This operation is consistent with other signals on the corridor, including the US-31 and Marketplace Circle/Lowes Drive intersection, where the commercial driveway approaches operate at a LOS E and US-31 operates at a LOS B.

Observations and simulations indicate that the minor approach typically “gaps out” before reaching maximum allocated green time, even during peak hours. This indicates that the signal is programmed to provide more green time to the minor approach when vehicles are present; however, peak demands are being serviced and additional green time to clear the queue is not necessary. In short, the maximum allocated green time for the minor approach is not typically reached before traffic clears; therefore, minor approaches operating at a LOS E is a product of the cycle length, which must be held consistent along the corridor to provide progression through subsequent traffic signals.

All movements at the two-way stop-controlled intersection internal to Meijer operate at a LOS C or better during both peak hours, which is acceptable.

Table 2 – Baseline 2022 LOS/Delay

Approach	Lane Group	LOS/Delay (s)	
		Weekday Peak Hour	Weekend Peak Hour
US-31 & Meijer Driveway (signalized)			
EB Meijer Driveway	Left	E (78.8)	E (78.4)
	Thru/right	E (63.8)	E (67.1)
	Approach	E (73.2)	E (74.1)
WB Walgreens Driveway	Left	E (70.1)	E (72.2)
	Thru/Right	E (61.5)	E (63.1)
	Approach	E (64.6)	E (66.0)
NB US-31	Left	B (14.6)	B (13.2)
	Thru	A (8.1)	A (7.0)
	Right	A (8.0)	A (7.0)
	Approach	A (8.3)	A (7.3)
SB US-31	Left	B (10.4)	A (8.9)
	Thru	A (8.7)	A (7.5)
	Right	A (7.1)	A (6.2)
	Approach	A (8.4)	A (7.3)
Overall		B (17.3)	B (15.5)
Internal Meijer Site Intersection (minor stop-controlled)			
EB Meijer Driveway	Left	A (0.0)	A (0.0)
	Thru/Right	free movement	
WB Meijer Driveway	Left	A (7.7)	A (7.8)
	Thru/Right	free movement	
NB Gas Station Access	Approach	B (11.8)	B (12.8)
SB Internal Access	Approach	C (18.7)	C (19.8)

Crash Analysis

Historical crash data for the intersection of US-31 with the Meijer/Walgreens driveways was obtained from the Michigan Traffic Crash Facts (MTCF) website, which references the Michigan State Police database. Crash data for the subject segment of US-31 were filtered to include crashes that occurred within 250 feet of the intersection. Data are not recorded on the private Meijer site driveway interior to the site but do include crashes related to the intersection (one rear-end crash was reported on the Meijer driveway). This range is typical of intersection crash

studies and isolates the analysis to crashes that occurred due to conflicts at this location, rather than upstream/downstream traffic flows and nearby intersections/driveways. Crash data were reviewed for the most recent available five-year period from 2017 to 2021.

Historical crash data indicate that 13 crashes were recorded at this location, or 2.6 crashes per year on average. Angle crash types were most prevalent within these limits, with seven angle, three rear-end, two sideswipe (same direction), and one head-on left-turn crash. Eleven crashes resulted in property damage only (PDO), with one minor injury and one possible minor injury. Zero serious injury or fatal crashes have occurred. In general, the frequency, type, and severity of crash occurrence does not indicate a correctable crash pattern.

Of these crash types, angle and head-on left-turn crash types (specifically those involving the Meijer approach) are of particular interest for this study. More specifically, if potential congestion on the Meijer approach is related to crash occurrence of these types during peak periods. Related evidence would include left-turn vehicles selecting inadequate gaps in the opposing traffic stream or running through a red light. UD-10 crash reports were reviewed, which indicated that a single related crash occurred where a driver ran a red light during the afternoon peak hours, during the winter holiday period. Other angle crashes were related to right-turn-on-red movements, movements during the overnight period when the signal flashes red/amber, and movements on US-31. Overall, crash history does not indicate that modifications to this intersection would result in a reduction in crash frequency or severity. Absent of such evidence, alterations to the current intersection configuration and traffic control may actually result in increased crash occurrence. For example, dual left-turn lanes typically result in an increase in sideswipe crashes.

Left-Turn Warrant Analysis

The MDOT *Electronic Traffic Control Device Guidelines* documents types of left-turn signal phasing used in the State of Michigan. The reference document also provides guidance for determining when to consider the use of left-turn phasing, as well as which type of left-turn phasing would be appropriate. MDOT has an Excel spreadsheet that was utilized to perform left-turn phasing threshold analysis. As weekend traffic volumes are slightly higher than the weekday, weekend data were referenced for this analysis.

The results indicate protected-only or permissive/protected left-turn phasing criteria are not met. Some of the base criteria are flagged for further investigation including number of lanes and left-turn delay; however, the cross product of the EB left-turn volume versus the WB conflicting volume is far below thresholds for left-turn protection. Meijer egress traffic does not encounter significant conflict with the relatively low-volume Walgreens approach. Therefore, left-turn protection would provide negligible benefit as compared to the current operation.

The Federal Highway Association (FHWA) *Signalized Intersections: Informational Guide* provides guidelines for engineering design features of signalized intersections. Chapter 12 (Individual Movement Treatments) indicates that “dual left-turn lanes are generally considered when left-turn volumes exceed 300 vehicles per hour (assuming moderate levels of opposing through traffic and adjacent street traffic).” The Meijer approach left-turn demand is 166 and 171 during the respective weekday/weekend p.m. peak hour. The highest hourly volume of left-turn traffic observed in the data for this study was 183, which occurred between 12:45 and 1:45 p.m. on a Thursday. This volume of left-turn traffic does not exceed 300 vehicles per hour and would therefore not satisfy these criteria.

Alternative Intersection Operations

Overall, the operations and safety analyses outlined herein indicate that the intersection of US-31 with the Meijer/Walgreens driveway operates acceptably. The traffic signal parameters typically process peak vehicle demands and clear the queue on the Meijer egress approach with minimal spillback into the internal Meijer intersection. While the peak hour delays for the Meijer/Walgreens approaches exceed the threshold for LOS E,

that is expected due to the long cycle length for progression along the US-31 corridor. The sidestreet delay/LOS is similar to that of the Marketplace Circle/Lowes Driveway intersection with US-31 to the south. These study results would not typically trigger further analysis nor mitigation; however, alternative concepts for intersection configuration and traffic control were investigated to provide additional information to the Township and MDOT. Analysis of these alternatives is compared to the existing operational results to determine if modifications to the intersection would provide operational benefit for Meijer patrons and the motoring public. The two alternatives include:

1. Signal timing modifications to increase green time allocation to the Meijer egress approach.
2. Modify the Meijer egress approach to provide a second (dual) left-turn lane.

The results of these alternatives analyses are summarized in Table 3 (LOS/Delay) and Table 4 (Queue Length).

Table 3 – Alternative 2022 LOS/Delay Comparison

Approach	Lane Group	LOS/Delay (s)					
		Existing		Alternative 1 (Signal Timing)		Alternative 2 (Dual Left Turn)	
		Weekday Peak Hour	Weekend Peak Hour	Weekday Peak Hour	Weekend Peak Hour	Weekday Peak Hour	Weekend Peak Hour
US-31 & Meijer Driveway (signalized)							
EB Meijer Driveway	Left	E (78.8)	E (78.4)	E (77.8)	E (78.1)	F (80.9)	F (80.8)
	Thru/right	E (63.8)	E (67.1)	E (63.7)	E (67.0)	E (75.0)	E (74.5)
	Approach	E (73.2)	E (74.1)	E (72.5)	E (73.9)	E (78.6)	E (78.4)
WB Walgreens Driveway	Left	E (70.1)	E (72.2)	E (69.9)	E (72.1)	F (82.3)	F (84.0)
	Thru/Right	E (61.5)	E (63.1)	E (61.4)	E (63.0)	F (83.6)	F (84.6)
	Approach	E (64.6)	E (66.0)	E (64.4)	E (65.9)	F (83.1)	F (84.4)
NB US-31	Left	B (14.6)	B (13.2)	B (14.7)	B (13.3)	A (5.2)	A (5.1)
	Thru/Right	A (8.1)	A (7.0)	A (8.1)	A (7.1)	A (5.4)	A (5.1)
	Approach	A (8.3)	A (7.3)	A (8.4)	A (7.4)	A (5.3)	A (5.1)
SB US-31	Left	B (10.4)	A (8.9)	B (10.4)	A (9.0)	A (6.3)	A (5.9)
	Thru	A (8.7)	A (7.5)	A (8.7)	A (7.5)	A (8.4)	A (7.6)
	Right	A (7.1)	A (6.2)	A (7.2)	A (6.2)	C (25.3)	C (23.4)
	Approach	A (8.4)	A (7.3)	A (8.5)	A (7.3)	B (11.6)	B (10.6)
Overall		B (17.3)	B (15.5)	B (17.3)	B (15.5)	B (19.1)	B (17.3)

Table 4 – Alternative 2022 Queue Comparison

Approach	Queue	Queue Length (feet)					
		Existing		Alternative 1 (Signal Timings)		Alternative 2 (Dual Left Turn)	
		Weekday Peak Hour	Weekend Peak Hour	Weekday Peak Hour	Weekend Peak Hour	Weekday Peak Hour	Weekend Peak Hour
US-31 & Meijer Driveway (signalized)							
<i>EB Meijer Driveway</i>	<i>Avg Q</i>	117'	114'	109'	118'	67'	64'
	<i>95th % Q</i>	214'	212'	213'	224'	136'	134'
<i>WB Walgreens Driveway</i>	<i>Avg Q</i>	29'	56'	29'	23'	26'	26'
	<i>95th % Q</i>	63'	58'	66'	53'	61'	58'
<i>NB US-31</i>	<i>Avg Q</i>	83'	94'	79'	82'	98'	97'
	<i>95th % Q</i>	163'	187'	165'	170'	197'	193'
<i>SB US-31</i>	<i>Avg Q</i>	92'	83'	82'	88'	97'	99'
	<i>95th % Q</i>	187'	168'	164'	185'	195'	201'

These results indicate that signal timing modifications would result in negligible change to vehicle delay and queue length, including on the Meijer egress approach. As previously stated, the minor approach demand typically “gaps out” and the signal is already programmed to provide more green time than is demanded during peak hours. Increasing the maximum green time therefore has minimal impact, as the minor phase continues to gap out, and additional available green time is prioritized to US-31. Average and 95th percentile queue lengths would also experience negligible change with signal timing modifications.

Analysis of signal timing modifications only includes the reallocation of maximum green time, with no changes to the cycle length of 176 seconds. A shorter cycle length would reduce minor approach delays as a product of not waiting as long for the next green interval; however, SCOOT coordination requires that signals along the US-31 corridor operate on the same cycle length. While a shorter cycle may reduce delay at this location, the same may have adverse impacts on other corridor intersections with higher volume conflicting movements, such as Silver Lake Road/14th Street. A half-cycle length (88 seconds) would retain coordination at the Meijer driveway but would introduce 20 additional cycles per hour. Additional cycles incur additional vehicle stops and decision points which increases the risk for rear-end, head-on left-turn, and angle crashes that typically occur during the green/yellow/all-red change intervals. Absent of definitive benefit, considering coordination with the SCOOT adaptive system, and potentially increasing stops and crash occurrence on US-31, signal timing modifications are not recommended at this location as they will result in minimal benefit.

In order to reconfigure the Meijer egress approach to have two (dual) left-turn lanes, the existing traffic signal phasing would have to be modified to provide a protected left-turn only phase for this movement, which is a requirement when dual left-turns are used. This can be done by running concurrent protected left-turn phasing for both the Meijer and Walgreens approaches, or by splitting the Meijer and Walgreens green phases to operate separately. Regardless, an additional phase will be required, which will occupy a portion of green time currently allocated to other movements within the 176-second cycle length. Peak hour volumes on the Meijer approach are approximately four times higher than on the Walgreens approach, indicating that split phasing would be more

efficient, allowing the Walgreens phase to operate on minimal green time or even be skipped absent of demand. This was tested and verified that split phasing would provide slightly better results than concurrent left-turn protection.

Operational results with dual left-turn lanes on the Meijer approach to US-31 indicate increased delay and degraded LOS as compared to existing conditions. Despite the additional lane, operations on the Meijer egress left-turn are calculated to operate at a LOS F, with the Walgreens approach also operating at a LOS F. Similar to existing conditions, the minor approaches typically “gap out” prior to the maximum available green time. With dual left-turn lanes, sufficient green time can be provided to the minor approaches without reducing existing green time on US-31 as to not degrade trunkline operations. Taking additional green time from US-31 and allocating to the Meijer/Walgreens driveways does not improve minor approach operations as these movements gap out. The additional delay and degraded LOS is a product of minor approach traffic having to wait longer prior to getting green time. More Meijer traffic will arrive on red than under current conditions. Walgreens traffic must wait for an additional signal phase before receiving a green indication.

Queuing results do indicate that the second egress left-turn lane would provide additional storage and therefore reduce vehicle queue length on the Meijer egress approach. Compared to existing, the average queue for the Meijer driveway is approximately 2 vehicles shorter, and approximately 3 vehicles shorter for the 95th percentile queue. Dual left-turn lanes also introduce greater probability of sideswipe collisions with two lanes of traffic completing turns adjacent to one another.

Conclusions and Recommendations

This Meijer is scheduled to undergo onsite renovations beginning in August 2022 which has initiated review processes with Garfield Township and MDOT. MDOT is approving of the proposed renovations and has issued no further requirements related to site access or MDOT right-of-way. Garfield Township has expressed concern regarding operations at the northern signalized driveway related to lane configuration and queuing on this egress approach. Specifically, the Township has recommended that a study of the intersection be completed related to the Meijer egress queuing that occurs.

The purpose of this traffic study is to evaluate traffic operations and safety at this location by analysis of current traffic delays, Level of Service (LOS), queuing, and historical crash data. Where operational and/or safety issues are identified (if any), candidate mitigation measures are identified and evaluated. The following conclusions are based on the data, analyses, and results as outlined herein.

1. Under existing conditions, the signalized intersection of US-31 with the Meijer/Walgreens driveway operates at an overall LOS B, which represents acceptable operations.
2. Meijer/Walgreens minor approaches currently operate at a LOS E, with the US-31 trunkline approaches operating at a LOS A. Priority is given to the US-31 trunkline consistent with other signals along the corridor, including the Marketplace Circle/Lowes Drive commercial driveways.
3. Meijer/Walgreens minor approaches typically “gap out” and additional green time allocation to the Meijer driveway would result in negligible operational change.
4. Shortening the signal cycle length would decrease minor approach delays; however, a consistent cycle length must be maintained along the SCOOT adaptive corridor. A half cycle length would maintain progression but would introduce additional vehicle stops and decision points, which increases the risk for rear-end, head-on left-turn, and angle crashes during the green/yellow/all-red change intervals. To minimize the negative impacts to US-31 progression, the intersection is currently allowed to use a half-cycle during some non-peak periods: after 7:00p.m. on weekdays, before 8:30 a.m. on weekends, and after 5:00 p.m. on weekends.

5. Crash history at this location does not indicate that modifications to this intersection would result in a reduction in crash frequency or severity.
6. MDOT and FHWA criteria for left-turn signal phasing and dual left-turn lanes are not satisfied.
7. Construction of a second egress left-turn lane on the Meijer approach is shown to reduce the queue length but increase delays compared to existing conditions. Additional phasing required to facilitate dual left-turn lanes would increase delays on the minor approaches, with movements operating at a LOS F. Overall intersection delays increase as well, which would increase user costs and vehicle emissions.

Periodic queue spillback from US-31 was observed into the internal Meijer intersection two to three times per hour, which corresponds to the simulated upstream spillback for 4% of each peak hour. The addition of a second egress left-turn lane would reduce the average queue by approximately 2 vehicles and the 95th percentile queue by approximately 3 vehicles. There is approximately 200 feet of existing storage between US-31 and the internal Meijer gas station driveway. The existing 95th percentile queue extends just beyond that space (214' queue). While the second left-turn lane would reduce queueing, the spillback from existing queues does not impact the internal intersection very often. These queues are typically cleared each signal cycle.

Drivers were observed to navigate temporary conflicts during peak hours as is typical of any large commercial site. In order to enhance safety onsite, pavement markings and signage at this internal intersection could be refreshed. Based on the results of this study and onsite observations, it is recommended that lane configuration and traffic control at this internal intersection should be retained.

A second egress left-turn lane on the Meijer approach to US-31 would provide additional pavement and therefore queue storage; however, the results of this study indicate that negative operational and safety implications of dual left-turn lanes do not outweigh periodic onsite vehicle interactions. Dual left-turn lanes introduce greater probability of sideswipe collisions and have negative implications on vehicle delay. Modifications to signal timings would have negligible benefit and may result in additional safety concerns on US-31. Therefore, no roadway nor traffic control improvements are recommended at the US-31 intersection with Meijer/Walgreens.

Attachments: Traffic Volume Data
Back-Up Delay Study
Historical Crash Data
Left-Turn Warrant Analysis
Synchro HCM Calculations
SimTraffic Queue Calculations

By email

Copy: Jason Vander Kodde, PE – Fishbeck



memorandum

Date: August 26, 2022

To: John Sych, AICP

From: Stephan Maxe, PE

Re: Meijer Store #033 (Garfield Township, MI)
Traffic Analysis Review

We have reviewed the traffic analysis report for the north driveway of the existing Meijer store for Garfield Township. The site is scheduled for renovation in August 2022. The existing north driveway is being analyzed for potential operational and geometric alternatives. The traffic analysis report was prepared by Fishbeck and is dated August 19th, 2022.

OHM recommends approval of the traffic analysis report, the methodology and its recommendations.