

CHARTER TOWNSHIP OF GARFIELD PLANNING COMMISSION MEETING

Wednesday, September 14, 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 – August 24, 2022

4. Correspondence

- a. PD 2022-83 – Planning Department Monthly Report to Township Board
- b. Letter to Tom Nemitz – dated August 25, 2022
- c. Correspondence from Haggard's Plumbing & Heating, East Bay Township, and Green Lake Township

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 2022-86 – Brewery Terra Firma PUD – Conceptual Review
- b. PD 2022-87 – Kensington Park PURD – Major Amendment – Final Review
- c. PD 2022-88 – 7 Brew 2537 North US 31 – Special Use Permit – Update

7. New Business

8. Public Comment

9. Other Business

10. Items for Next Agenda – September 28, 2022

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

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
August 24, 2022**

Call Meeting to Order: Chair Racine called the August 24, 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, Joe Robertson, Pat Cline, Joe McManus, Chris DeGood, Robert Fudge and John Racine

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)

Staff asked to add items 9a – 3530 North Country Drive and 9b - correspondence from Tom Nemitz.

McManus moved and Fudge seconded to approve the agenda as amended adding items 9a and b.

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

Nays: None

4. Minutes (7:02)

a. August 10, 2022 Regular Meeting

Fudge moved and Cline seconded to approve the August 10, 2022 Regular Meeting minutes as presented.

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

Nays: None

4. Correspondence (7:02)

Planning Director Sych stated that correspondence included a letter from Tom Nemitz, material regarding 3530 N. Country Drive, and an updated zoning map

5. Reports (7:03)

Township Board Report

Agostinelli stated that the Hammond Road Apartments Rezoning and Zoning Ordinance Amendments will have a public hearing in September. She updated

commissioners on the Barlow Road issue with Safe Routes to School. PILOT guidelines were also discussed.

Planning Commissioners

(i) Zoning Board of Appeals

Fudge said the ZBA met last month to review a case for 4085 Jefferson Avenue.

(ii) Parks and Recreation Commission

DeGood said that there was an open house for the Commons Natural Area to gain public comment on a proposed master plan for the park. The commission is working on a recommended budget for 2023.

(iii) Joint Planning Commission

McManus stated that the commission approved funding for a study of the infrastructure needs for the Commons Area.

Staff Report

Sych said that 776 responses were received on the Master Plan Survey which equated to a 18% response rate. The survey runs until August 31st.

6. Unfinished Business

a. PD 2022-81 Master Plan Update – Transportation and Recent Development Activity (7:10)

Since the current Master Plan was approved in September 2018, there have been several new developments approved by the Township. Hannon reviewed a map of major developments since 2018 when the last Master Plan was updated. The LaFranier Hill neighborhood had four larger developments in recent years and main commercial corridors have seen some improvements and redevelopments. Commissioners provided feedback on the map and agreed that notes on the specific developments would be helpful.

Transportation improvements such as changes to existing roadways, non-motorized trails as well as revised parking standards could be helpful in the future for any planning and should be taken into consideration when any major project comes before the Planning Commission. Some key corridors in the Township have been identified for improvement and the Township can impact the development and redevelopment of these corridors through land use regulation and plan review, but the vision for these corridors may require changes to the roadway itself. These corridors include portions of US 31, Hammond Road, South Airport, North Long Lake Road, and Cass Road.

Commissioners discussed long term corridor management and access managements. Sych explained that the Planning Enabling Act, Public Act 33 of 2008, has a provision for a Master Street Plan which allows for an agreement between the Township and the Road Commission that would help coordinate projects of mutual benefit. The Road Commission plans

could potentially help manage the impact of developments and their access drives.

7. New Business (7:59)

a. PD 2022-82 – Zoning Ordinance – Drive-Through Standards – Discussion

At the January 2022 study session, the Planning Commission discussed its work priorities for the upcoming year. These priorities included several parts of the Zoning Ordinance to review and potentially amend to address different issues, including a review and potential update of drive-through standards in Section 730. There are currently 14 drive-through standards in Section 730 of the Zoning Ordinance. Commissioners discussed clarifying setbacks from the road and utilizing expert recommendations for drive-throughs to ensure that they are designed for optimum performance. Requirements for curbs and gutters were suggested.

8. Public Comment (8:14)

None

9. Other Business:

a. 3530 North Country Drive (8:14)

Sych said that there was quite a bit of clear cutting on the property. The original approval required that landscaping be left as is. Restoration will be needed. A letter of information was sent by the Zoning Administrator to the business and the violation was outlined. Commissioners discussed ways to avoid this type of situation in the future.

b. Letter from Tom Nemitz (8:31)

Sych stated that Mr. Nemitz submitted a letter to the township suggesting a Zoning Text amendment regarding Building Projections and Vertical additions on non-conforming lots. Sych stated that the ultimate goal is to slowly abolish the non-conformities in the township, while still allowing rights to the property owner to use his property. Side setbacks are very important and any changes to the ordinance could have unseen ramifications. Staff is reluctant to make changes to this section of the ordinance and will respond to the letter accordingly.

10. Items for Next Agenda – August 24, 2022 (8:50)

- a. Brewery Terra Firma PUD – Conceptual Review
- b. Kensington Park PURD – Major Amendment – Final Review
- c. 7 Brew 2537 North US 31 – Special Use Permit – Update

11. Adjournment

Fudge moved to adjourn the meeting at 9:00pm.

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

		<h2 style="margin: 0;">Charter Township of Garfield</h2> <h3 style="margin: 0;">Planning Department Report No. 2022-83</h3>	
Prepared:	September 6, 2022	Pages:	2
Meeting:	September 13, 2022 Township Board	Attachments:	<input type="checkbox"/>
Subject:	Planning Department Monthly Report for September 2022		

PURPOSE:

Staff provides a monthly report to the Township Board on activities of the Planning Department and the Planning Commission. Presentation of this report also provides a venue for the Township Board to have dialog with staff about any of the activities or planning-related issues facing the Township.

DEVELOPMENTS:

The Planning Commission is currently conducting the following development review activity:

Hammond Road Apartments – R-3 Zoning Map Amendment (Rezoning)

- Location: 2051 N Garfield Road, northwest corner of Garfield and Hammond Roads
- Development Description: Proposed rezoning of about 24 acres from the Agricultural (A) to the Multi-Family Residential (R-3) zoning district.
- Status: Planning Commission conducted a public hearing on 7/13/2022; and adopted Findings of Fact and recommended approval of the application to the Township Board on 8/10/2022. Township introduced the application on 8/23/2022 and scheduled a public hearing for 9/13/2022.

7Brew – Special Use Permit

- Location: 2537 N US 31 South, near South Airport Road (former PNC Bank site)
- Development Description: Proposed drive-through coffee shop.
- Status: Planning Commission introduced the application on 7/13/2022. Commissioners expressed concerns about left-turn vehicular movements into and out of the site and there were some questions regarding site design. The application was tabled to allow the applicant to address these concerns and receive comments from OHM Advisors on their review of the applicants’ traffic impact study. Staff has helped facilitate discussions between the applicant and OHM Advisors as they work to resolve the issues described above.

Kensington West / Kensington Park Planned Unit Residential Development (PURD) – Major Amendment

- Location: Woodward Avenue, north of South Airport Road
- Development Description: Amend PURD to accommodate expanded building footprints and meet sidewalk requirements.
- Status: The Planning Commission introduced the application on 7/13/2022 and scheduled a public hearing for 8/10/2022. The Planning Commission also gave preliminary approval of the proposed PURD amendment with conditions on 8/10/2022. Applicants are working towards final approval. Planning Commission will next have an opportunity to review this application on 9/14/2022.

Brewery Terra Firma – Kitchen Concept

- Location: 2959 Hartman Road, southeast corner of Hartman Road and Dracka Road
- Development Description: Conceptual review of a proposed kitchen space for the Brewery Terra Firma Planned Unit Development (PUD)
- Status: The Planning Commission will see a conceptual review of this proposal on 9/14/2022. The conceptual review included full public notice (newspaper and owners/residents within 300 feet).

PLANNING:

Other planning activities include the following:

- The Planning Commission has studied several topics for potential Zoning Ordinance amendments including wetland delineation and setback requirements, wetland setbacks for snow storage areas, outdoor display area standards, and changeable copy signs in industrial districts, at study sessions on 4/27/2022, 5/25/2022, and 6/22/2022. The Planning Commission formally introduced these proposed amendments at its meeting on 7/13/2022. They held a public hearing on 8/10/2022 and recommended the proposed amendments to the Township Board. The Township Board introduced the proposed Zoning Ordinance amendments package on 8/23/2022 and scheduled a public hearing for 9/13/2022.
- The Planning Commission will continue to study other potential Zoning Ordinance updates. At the study session on 8/24/2022, they held a discussion on potential updates to drive-through standards. Reviewing these standards may be especially beneficial after the Planning Commission has done several site plan reviews of drive-throughs over the past three years.
- At its study session on 8/24/2022, the Planning Commission discussed two items related to the Master Plan update process. Staff prepared a map of development activity since 2018, the last time the full Master Plan was updated, to study development trends since then. Most of the largest new developments since 2018 have been on LaFranier Road in the areas designated for High Density Residential. Staff also gave an overview of the East-West Corridor Study by the Grand Traverse County Road Commission as part of a discussion on transportation. As the Township updates its Master Plan, it will be important to understand the potential impact of Road Commission projects on the Township, such as the potential Hartman-Hammond bridge.
- Staff continues to work together with Environmental Consulting & Technology, Inc. (ECT) on the Grand Traverse Commons Natural Area Design Plan and continues to meet with key stakeholders and property owners from the area around the Commons Natural Area. The most recent open house was held on Wednesday August 10 at Kirkbride Hall to get feedback on the proposed park design, trail system, and site elements. The final steps of the design plan will include scoping potential future projects and a potential timeline for implementation. There is anticipated to be one more public engagement event in fall 2022.
- The 2022 Community Survey closed on August 31. 813 responses were received which equates to a 19.4% response rate. Staff is currently entering in all the mail in responses and preparing a summary report for the Township Board and Planning Commission.

STAFF:

John Sych, AICP, Planning Director
Email: jsych@garfield-twp.com
Direct Line: (231) 225-3155

Stephen Hannon, AICP, Deputy Planning Director
Email: shannon@garfield-twp.com
Direct Line: (231) 225-3156



Charter Township of Garfield

Grand Traverse County

3848 VETERANS DRIVE
TRAVERSE CITY, MICHIGAN 49684
PH: (231) 941-1620 • FAX: (231) 941-1588

August 25, 2022

Tom Nemitz
1439 Lake Drive
Traverse City, MI 49685

RE: Article 8 - Nonconformity

Dear Tom:

Thank you for your comments regarding nonconformity in the Township Zoning Ordinance. On behalf of the Planning Commission, I offer the following comments:

1. Enlargement, expansion or extension of nonconforming uses and buildings is generally restricted because each is usually contrary to the intent of the zoning ordinance. Prohibiting any enlargement or expansion of nonconforming uses and buildings avoids the use or building being entrenched when the ordinance objective is for nonconforming uses and buildings to either go away or to be changed to conform to the ordinance.
2. Language in the zoning ordinance is intended to be clear and reduce the need for interpretation. When requirements are left for interpretation or allow for some level of ambiguity, then decisions may be arbitrary and capricious and possibly invalidate the zoning ordinance.
3. The zoning ordinance covers every parcel within Garfield Township. Changes to the ordinance can have far reaching impact and, in some cases, unforeseen ramifications. Decisions made by the Zoning Board of Appeals may or may not impact the need to alter the ordinance. Typically, amendments to the zoning ordinances are to resolve a series of complications and not an isolated situation.

At this point, the Planning Commission will not be moving forward with the information presented. If a formal application is made to amend the Zoning Ordinance, then any proposed language must be complete for review and consideration by the Township.

Let me know if you have any questions.

Sincerely,

John C. Sych, AICP
Planning Director

cc: Planning Commission
Mike Green, Zoning Administrator
Steve Hannon, Deputy Planning Director



August 29, 2022

Garfield Township Planning Commission
3848 Veterans Dr.
Traverse City, MI 49684

Ref: Brewery Terra Firma Planned Unit request to add a kitchen to their existing farm and microbrewery operation at 5956 Hartman Rd.

To whom it May Concerns,

Upon reviewing the above notice, I would like to express my view on the above request. Haggard's Plumbing & Heating is not opposed to the changes of the property and/or the request. If a property owner is fortunate enough to have the ability and the recourses in this time to either build and/or improve their existing property, it would only help the economy continue to grow. It would prove positive for the local, county, and state to do all we can to improve and promote in anyways possible.

Sincerely,

John Haggard

Haggard's Plumbing & Heating



August 23, 2022

To Whom it May Concern,

Pursuant to the requirements of the Michigan Planning Enabling Act (PA 33 of 2008, as amended), this notification is to inform you that the East Bay Township Planning Commission will be holding a public hearing on the draft East Bay Charter Township Master Plan on Tuesday, September 20, 2022, at 6:30 PM at the Township Hall, 1965 N Three Mile Road, Traverse City MI 49696. Members of the public are welcome and encouraged to attend the public hearing and provide public comment

The draft plan is available for review on the Township's Website: www.eastbaytwp.org. You may also review a copy of the draft plan at the East Bay Township Hall: 1965 N. Three Mile Road, Traverse City, MI 49696.

Please submit comments to Claire Karner at ckarner@eastbaytwp.org or at the Township mailing address listed above. If you would like to receive any future notices regarding the Township's Master Plan electronically, please e-mail your request along with your e-mail address to Claire Karner at ckarner@eastbaytwp.org.

Sincerely,

Claire Karner, AICP
Director of Planning & Zoning

RECEIVED
AUG 24 2022
PLANNING



Green Lake Township
9394-10th Street
Interlochen MI 49643
(231) 276-9329
greenlaketownship.org

PUBLIC NOTICE

Green Lake Township, Grand Traverse County, Michigan Notice of Public Input Session Regarding the Township Master Plan

Please take note that the Green Lake Township Planning Commission will hold a public input session to gain insight on the opinions of township residents, property owners and the like as we undertake planning efforts to develop our Master Plan and the Plan's Future Land Use Map for possible changes, in accordance with the requirements of the Michigan Planning Enabling Act, PA 33 of 2008, as amended.

The Township asks for your cooperation and assistance with this input session by attending and providing comments regarding the Master Plan development.

The input session is scheduled for Saturday, September 24, 2022, at 10am at the Golden Fellowship Hall, 9700 Riley Road, Interlochen.

Your attendance is encouraged.

Please direct any correspondence or questions to:

Green Lake Township
9394 10th Street
Interlochen, MI 49643
231-276-9329
zoning@greenlaketownship.org

Sincerely,

Alycia Reiten
Planning Zoning Director

RECEIVED
SEP 1 2022
PLANNING

 Charter Township of Garfield Planning Department Report No. 2022-86			
Prepared:	September 7, 2022	Pages:	4
Meeting:	September 14, 2022 Planning Commission	Attachments:	<input checked="" type="checkbox"/>
Subject:	Brewery Terra Firma – Kitchen Concept		
Applicant:	Niedermaier Brewhouse Inc.		

OVERVIEW:

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.

Adjacent existing land uses are as follows:

- North: Liv Arbors apartment complex
- East: TC Congregation of Jehovah’s Witnesses / Single-family homes
- South: Single-family homes
- West: Traverse Manor / Single-family homes

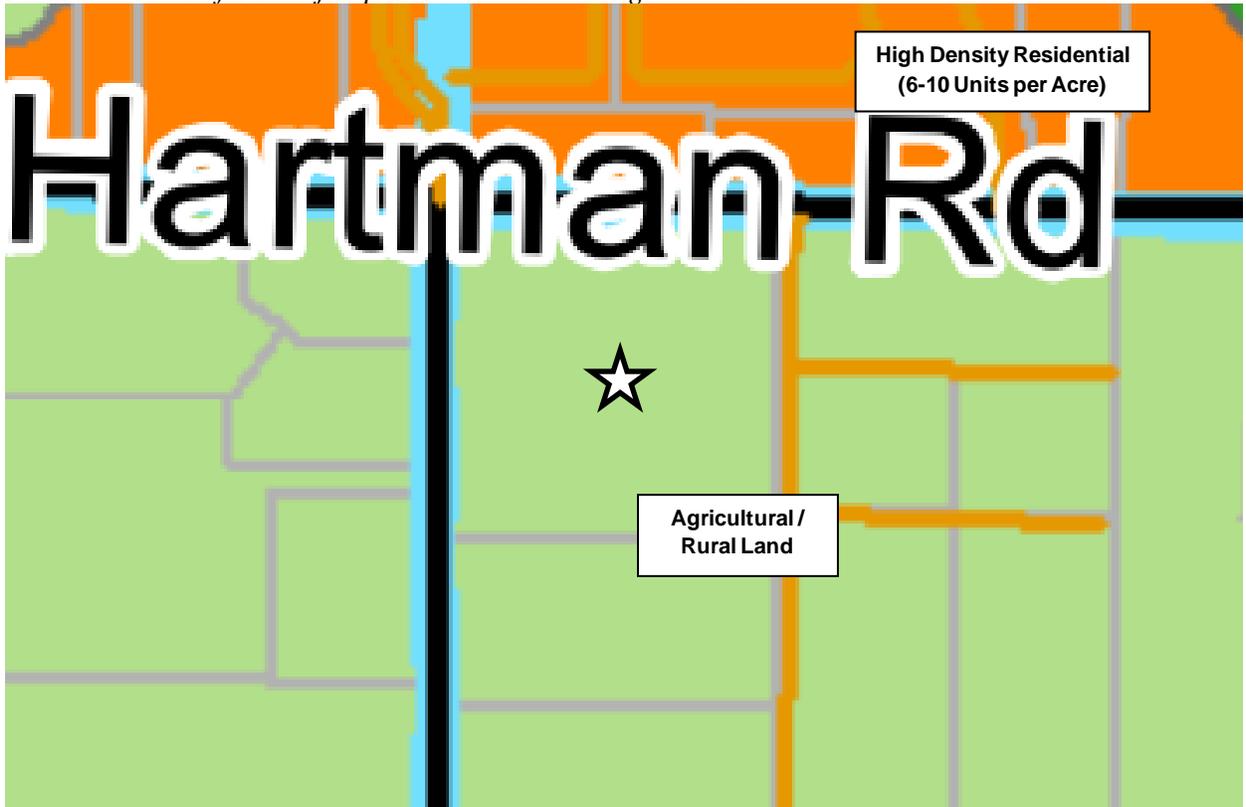
Aerial photo of subject property (highlighted in blue):



Zoning of the subject parcel and surrounding area is shown below:



Future land use of the subject parcel and surrounding area is shown below:



BACKGROUND:

The Brewery Terra Firma PUD was originally approved on March 22, 2011. The original site plan and the Report and Decision Order (RDO) of the original approval have been included as attachments to this report. The RDO includes the original conditions of approval, including the following:

- Approval specifically recognizes that the site will be operated as an integrated and interdependent development model. Agricultural production areas shall be used on a consistent and regular basis to grow products that are used in the production of beer. Any divergence from the integrated model as represented, without prior Township approval, may be considered to be grounds for revocation of the Planned Unit Development approval.
- The applicant shall provide the Township with evidence that a Micro Brewer license has been granted by the Michigan Liquor Control Commission prior to the issuance of a Certificate of Occupancy for the premises.
- For the purposes of this approval, the brewery may only be operated under the Micro Brewer license classification, as defined by MCL 436.1109 (3). Any proposed change in the liquor license classification shall be subject to Township review and approval as an amendment to this PUD approval.
- Operating hours shall be limited to between 7:00 am and 10:00 pm.
- Live music entertainment shall be prohibited. Entertainment related to the agricultural use of the property, such as farm tours, shall be permitted.

In 2013, there was discussion before the Planning Commission regarding the potential of having catering at up to 6 events per year on the site. According to the Planning Commission minutes from their regular meeting on October 9, 2013, “The Planning Commission felt that the brewery was too new to gauge the effect on neighboring properties and didn’t feel that formal action was appropriate at this time. The Planning Commission agreed to allow two catered events over the next year that will be monitored by staff for compliance with the SUP and zoning ordinance. Following the events, the applicant may request an amendment from the Planning Commission.”

STAFF COMMENTS:

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.” Projects may be eligible for a PUD if the site meets one or more of the following criteria:

- (a) Mixed or varied uses are proposed that cannot be achieved under a single zoning district
- (b) The site exhibits unusual topography or a unique setting within the community
- (c) Innovation and variety of design are proposed that are not achievable under the current zoning districts of this ordinance
- (d) Additional amenities are made possible by and incorporated within the development
- (e) A substantial public benefit is proposed within or as a result of the project
- (f) A cross-jurisdictional development is proposed that warrants flexibility in terms of design and layout.

Also, “approval will not be granted when the planned unit development is determined to be sought primarily to avoid the imposition of standards and requirements of existing zoning classifications rather than to achieve the objectives of this ordinance.”

The intended “innovation” and “substantial public benefit” of this PUD is the on-site agricultural operation used “to grow products that are used in the production of beer” as indicated in the RDO. If the proposed change to the Brewery Terra Firma PUD of adding a kitchen were to be considered, the site would still need to adhere to the “integrated and interdependent development model” as specified within the RDO, ensuring the primarily agricultural nature of uses on the site. If any changes to the PUD were to lead to the loss of agriculture on the site (e.g., the site would function solely as a restaurant), it may be considered that these changes are being “sought primarily to avoid the imposition of standards and requirements of existing zoning classifications rather than to achieve the objectives of this ordinance.”

ACTION REQUESTED:

A conceptual review is intended to provide an opportunity for dialogue between the Planning Commission and the applicant. No formal action is requested.

Attachments:

1. Conceptual Review Application dated August 8, 2022
2. Brewery Terra Firma Kitchen Sketch Plan
3. Brewery Terra Firma Project Narrative
4. Site Plan from original Brewery Terra Firma PUD approval, dated January 31, 2011
5. Report and Decision Order (RDO) of original Brewery Terra Firma PUD approval, dated May 26, 2011



Charter Township of Garfield

Grand Traverse County

3848 VETERANS DRIVE
TRAVERSE CITY, MICHIGAN 49684
PH: (231) 941-1620 • FAX: (231) 941-1588

CONCEPTUAL REVIEW (CRV) APPLICATION

ASSISTANCE

This application must be completed in full. An incomplete or improperly prepared application will not be accepted and will result in processing delays. Before submitting an application, it is recommended that you contact the Planning Department to arrange an appointment to discuss your proposed application. Time is often saved by these preliminary discussions. For additional information or assistance in completing this development application, please contact the Planning Department at (231) 941-1620.

ACTION REQUESTED

At the discretion of the applicant, the conceptual review before the Planning Commission may take place following public notice of the meeting. Opportunity for public comment shall be provided during the conceptual review process when public notice has been provided.

- Conceptual Review with no public notice
- Conceptual Review with direct mail notice only
- Conceptual Review with full public notice

PROJECT / DEVELOPMENT NAME

APPLICANT INFORMATION

Name:

Address:

Phone Number:

Email:

AGENT INFORMATION

Name:

Address:

Phone Number:

Email:

OWNER INFORMATION

Name:

Address:

Phone Number:

Email:

CONTACT PERSON

Please select one person to be contact person for all correspondence and questions:

Applicant:

Agent:

Owner:

LOCATION OF THE PROPOSED PROJECT

Property Address:

Property Identification Number:

Legal Description:

Zoning District:

Master Plan Future Land Use Designation:

Area of Property (acres or square feet):

Existing Use(s):

Proposed Use(s):

REQUIRED SUBMITTAL ITEMS

A complete application for a Conceptual Review consists of the following:

Application Form:

One original signed application

One digital copy of the application (PDF only)

Application Fee:

Fees are established by resolution of the Garfield Township Board and are set out in the current Fee Schedule as listed on the Planning Department page of the Township website (<http://www.garfield-twp.com>). Please make check out to Charter Township of Garfield.

Fee

Sketch Plan:

Ten complete stapled 11"x17" paper sets

One digital set (PDF only)

Written Supporting Information (if applicable):

Ten paper copies of Written Supporting Information

One digital copy of Written Supporting Information (PDF only)

Digital items to be delivered via email or USB flash drive

SUBMITTAL DEADLINE

Submittal deadlines are listed on the Planning Department page of the Township website (<http://www.garfield-twp.com>). Please note that the listed dates are the deadlines after which submittals will not be considered for the indicated meeting. Any errors or missing information on an application submitted at the deadline will result in a delay in the processing of the application. An earlier submittal is encouraged to avoid possible delays.

SUPPORTING INFORMATION AND SKETCH PLAN

In providing written and/or sketch plan information to the Planning Commission for the purposes of a conceptual review, submittal of the following information, when known, is encouraged:

1. The boundaries of the development site.
2. The total number of acres in the project.
3. The number of acres to be developed by each type of use.
4. The number of residential units.
5. The number and/or square feet and type of nonresidential uses.
6. A description of the proposal in terms of its relationship and intended connections to surrounding land uses, development projects, public lands, and existing and future street networks.
7. The general topography of the site and its relationship to adjoining land.
8. A general description of the natural resources and natural features of the site and, where known, an indication of which will be preserved and which will be removed.
9. The number of acres to be preserved as open or recreational space, and its general location.
10. Variations from ordinance regulations that are being sought and the reasons to support the requested changes.
11. The public facilities intended to serve the planned unit development, such as sewage disposal, water supply, storm water systems, etc.

OTHER INFORMATION

If there is any other information that you think may be useful in the review of this application, please attach it to this application or explain it on a separate page.

REVIEW PROCESS

1. The intent of the conceptual review process is to provide an opportunity for an informal dialogue between an applicant and the Planning Commission to discuss a potential development project. Upon submittal of this application, Staff will forward the application to the Planning Commission for review.
2. The Planning Commission shall conduct a conceptual plan review to identify potential issues and concerns that should be addressed prior to formal review of any application requiring Planning Commission review and approval.
3. Conceptual plan review shall not constitute an approval of the application, nor shall statements by the Planning Commission, Township Staff and/or Township consultants be construed as a position regarding the merits of the application.

PERMISSION TO ENTER SUBJECT PROPERTY

Permission is hereby granted to Garfield Township staff and Planning Commissioners to enter the premises subject to this application for the purposes of making inspections associated with this application, during normal and reasonable working hours.

Owner Signature:

Applicant Signature:

Agent Signature:

Date:

OWNER'S AUTHORIZATION

If the applicant is not the registered owner of the lands that is the subject of this application, the owner(s) must complete the authorization set out below.

I/We _____ authorize to make this application on my/our behalf and to provide any of my/our personal information necessary for the processing of this application. Moreover, this shall be your good and sufficient authorization for so doing.

Owner Signature:

Date:

AFFIDAVIT

The undersigned affirms that he/she or they is (are) the owner, or authorized agent of the owner, involved in the application and all of the information submitted in this application, including any supplemental information, is in all respects true and correct. The undersigned further acknowledges that willful misrepresentation of information will terminate this permit application and any permit associated with this document.

Owner Signature:

Date:

Applicant Signature:

Date:



Brewery Terra Firma

Brewery Terra Firma is Michigan's 1st Sustainable Agricultural Craft Brewery thanks to the vision and faith Garfield Township has shown the project over the past 10 years.

Since that time we have seen our needs change due to many hardships on a global level and feel we need to add a kitchen to our model as that is the number one request from our guests and also a big part of what we do.

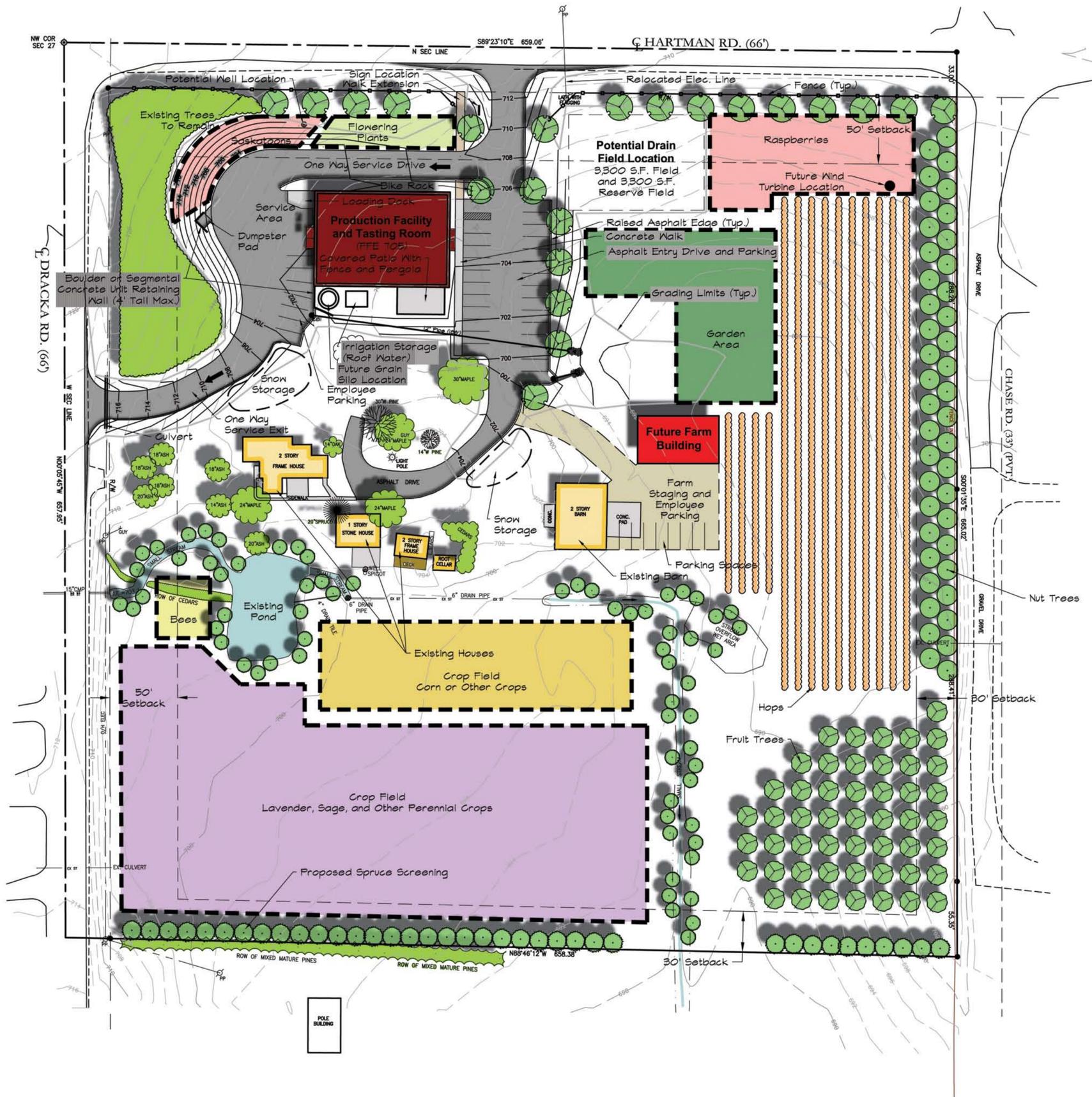
BTF was initially intended to have a kitchen (as can still be seen in the floor plan drawings from Cornerstone) but was shelved at the advice of the Planning Commission at the time thinking it was too complex a project to get approval with food included.

But beer is food too and we are frequented by chefs and foodies from all over who ask daily when we will add a kitchen.

Our farm can produce some of the materials and the brewery could benefit greatly from a process kitchen for pumpkins, herbs and many materials grown here on the farm and purchased that are used in the brewing process adding emphasis to our local sustainable model.

More substantial food also adds to the safety of our guests and community.

The utilities were built into the structure at the time of construction in hopes of adding food later and with the tremendous residential housing growth just across the street alone we feel it is needed as well.



NOTES

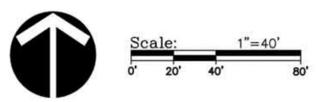
- The overall intent of the Brewery Terra Firma P.U.D. is to utilize the existing 10 acre parcel located at 2951 Hartman Rd. to grow a wide variety of crops and utilize those crops in the production of beer in the proposed brewery production facility, similar to the model utilized by many local wineries
- An on site tasting room is proposed within the same structure as the production facility
- It is intended that the character of the property be agricultural in nature and the proposed production facility / tasting room architecture reflects that intent (please see provided building elevation sketches)
- Production facility / tasting room is 7,000 S.F. in size with the potential for future expansion
- Existing barn to remain as agricultural facility
- Existing houses to remain on site as potential rental housing, staff housing, bed and breakfast
- Rainwater to be captured from roof of production facility / tasting room and to be stored for irrigation use
- Excess water from production process to be captured and stored for irrigation use whenever possible
- Patio outside of tasting area to be enclosed with fence and covered by a pergola and/or awning system
- Future wind turbine will comply with the standards of the Garfield Township Zoning Ordinance Sec. 8.7(8) and require additional approval in the future
- All proposed parking spaces comply with the size requirements of the Garfield Township Zoning Ordinance (9' x 20')
- Please see attached documents for details regarding proposed signage and lighting
- It is intended that the proposed Brewery and Tasting Room utilize public utilities that will be extended from the property to north of Hartman Road (Arbors Apartments). Drain field and well locations have been shown on the site plan in the event that public utilities can not be extended
- Proposed walk extension connects concrete walk in front of brewery / tasting room to Hartman Road R.O.W. Proposed material is wood chips with possible upgrade to concrete in the future if use is high

SITE DATA

Total Property Area: 435,660 S.F. (10.0 Acres)
 Total Property Area Excluding Road R.O.W.: 393,283 S.F.
 Open Space: 345,401 S.F.
 Parking / Drive Area: 33,687 S.F.
 Building Area: 14,195 S.F.
 Property Area Within Road R.O.W.: 42,377 S.F.

SITE PLAN

BREWERY TERRA FIRMA



R. CLARK ASSOCIATES, INC.
 Landscape Architects & Land Planners
 3335 W. South Airport Rd., Traverse City, MI 49684
 (231)941-8505 FAX (231) 947-2748 rclark@rclarkinc.com

Revisions:
 12-28-10 Staff Comment
 1-28-11 Agency Comment
 1-31-11 Staff Comment

Date: 12-22-10
 Scale: As Shown
 Drawn By: dmc
 Checked By:

Client:
 John Niedermaier
 2810 E. Kasson Rd.
 Cedar, MI

Sheet Title:
 Brewery Terra Firma
 Garfield Township, MI

Project:
 Project No. 10042
 Sheet 4 of



8 0 4 5 0 4 8

Tx:4018458

2011R-09176

STATE OF MICHIGAN

GRAND TRAVERSE COUNTY

RECORDED

05/26/2011 12:29 PM PAGE 1 OF 6

PEGGY HAINES REGISTER OF DEEDS

**CHARTER TOWNSHIP OF GARFIELD
REPORT AND DECISION ORDER**

For Special Use Permit and Planned Unit Development #2011-01

Brewery Terra Firma

To: Maureen Harty, Owner
John Niedermaier, Applicant
* 2810 E. Kasson Road
Cedar, MI 49621

WHEREAS an application has been made by the above named for a Special Use Permit for a mixed-use Planned Unit Development, for the premises as described below:

THE NW ¼ OF THE NW ¼ OF THE NW ¼, SECTION 27, T 27 N, R 11 W, GARFIELD TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN;

AND WHEREAS the Township Board has adopted Findings of Fact for Special Use Permit and Planned Unit Development #2011-01, dated March 22, 2011 and incorporated herein by reference;

AND WHEREAS, it has been demonstrated that the standards and conditions for approval as set forth in the Garfield Township Zoning Ordinance have been met through the proposed site development plan and the Findings of Fact adopted by the Township Board;

AND WHEREAS due notices have been given and public hearings have been held on said Application, and the Township Board has determined that the requested Special Use Permit is appropriate, and in the best interest of the Township and meets the specific and special standards as set forth in the Zoning Ordinance as required by Sections 125.3501 – 125.3504 of Public Act 110 of 2006, as amended; and

WHEREAS, the Township Board has determined that certain conditions upon the use of the premises are necessary to protect the health, safety, and welfare of Township residents, to uphold the spirit and intent of the Zoning Ordinance, and to ensure that the development is harmonious and appropriate;

NOW, THEREFORE, the Township Board does hereby issue this Report and Decision Order for the use of the above referenced property, 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, comprised of the drawings set out in the Schedule below, shall constitute the Development Plan for the Special Use Permit.

DEVELOPMENT PLAN

Drawing Name	Original Issue Date	Latest Revision Date	Sheet	Scale
Cover Sheet	12/22/10	12/28/10	1	NTS
Existing Site Conditions	12/22/10	-	2	1"=40'
Demolition Plan	12/22/10	12/28/10	3	1"=40'
Site Plan	12/22/10	1/31/11	4	1"=40'
Landscape Plan	12/22/10	12/28/10	5	1"=40'
Phasing Plan	12/22/10	-	6	1"=40'
Lighting Plan	12/22/10	Subject to Final Planning Department Review and Approval		
Building Elevations	12/22/10	-	-	NTS
Floor Plan	12/22/10	-	-	1"=20'
Proposed Signage	1/31/11	-	-	NTS
Topographic Survey/Site Survey	11/30/10	-	1 of 1	1"=40'

2. **Documentation.** The representations made by the Applicant in its Application dated December 22, 2010, by the documents appearing in the Schedule below, and by the Development Plan as referenced above, have been relied upon by the Township Board 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 these documents and may not deviate from these documents without the prior written consent of the Township Board unless otherwise provided for in the Zoning Ordinance. The Schedule of Documents follows:

DOCUMENTS

Document Name	Date
Application for Planned Unit Development and Special Use Permit, including: <ul style="list-style-type: none"> • Project Intent • Narrative • Impact Assessment • Additional Project Information • Drawings 	12/22/10
Dumpster Enclosure Details	1/26/11
Excerpt of MCL 436.1109(3): Definition of Micro Brewer license classification	2/1/11
Township Board Adopted Findings of Fact	3/22/11

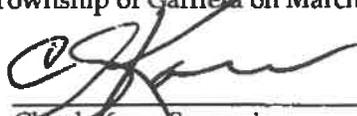
3. **Further Conditions.** This Report and Decision Order is subject to the following conditions:
- a. Approval of the application applies to and relies specifically on materials submitted in the application dated December 22, 2010 and revised materials submitted on February 1, 2011.

- b. Approval specifically recognizes that the site will be operated as an integrated and interdependent development model. Agricultural production areas shall be used on a consistent and regular basis to grow products that are used in the production of beer. Any divergence from the integrated model as represented, without prior Township approval, may be considered to be grounds for revocation of the Planned Unit Development approval.
- c. It is recognized that it is not possible for all ingredients necessary for the production of beer to be grown on site. Some ingredients, notably barley, will be delivered to the production facility from off-site.
- d. The applicant shall provide the Township with evidence that a Micro Brewer license has been granted by the Michigan Liquor Control Commission prior to the issuance of a Certificate of Occupancy for the premises.
- e. For the purposes of this approval, the brewery may only be operated under the Micro Brewer license classification, as defined by MCL 436.1109 (3). Any proposed change in the liquor license classification shall be subject to Township review and approval as an amendment to this PUD approval.
- f. Residential structures may be used for staff housing, offices, and for regular accessory uses to the agricultural and production uses. Any intended use of a residential structure as a bed and breakfast shall be subject to a Major PUD Amendment.
- g. A revised lighting plan shall be submitted by the applicant to the Garfield Township Planning Department for review and approval. Lighting levels along the west building wall shall be reduced to a level that is appropriate for the nature of the site and the surrounding area. Future changes in lighting fixture details may be approved by the Planning Department subject to review of fixture details and, if requested by Township Staff, a revised photometric plan.
- h. Approval is subject to final approval and acceptance by the offices of the Grand Traverse Metro Fire Department, County Drain Commissioner, County Health Department, and County Road Commission.
- i. Any future expansion of the production facility or tasting room shall be considered to be a Major Amendment to the Planned Unit Development (exception: the future silo shall not be considered to be subject to this condition). Any future wind turbine shall also be approved in accordance with Major PUD Amendment standards.
- j. Construction of the future, secondary agricultural outbuilding shall not be considered to be an amendment to the PUD, and may be administratively approved by the Zoning Administrator following review for compliance with approved site plans and the applicable standards of the zoning ordinance. A land use permit will be required prior to the construction of the building. The future agricultural outbuilding may only be used for traditional agricultural purposes. Construction of the future silo addition to the production facility may also be administratively approved by the Zoning Administrator.
- k. A monument sign along Hartman Road is approved in the general form as proposed on the sheet dated 1/31/11. Minor changes to sign detail, such as color, logo, and font shall be permitted. The maximum dimensions for the monument sign shall be 21 square feet in face area and 6.5 feet in height above grade. One wall sign of no greater than 6 square feet in face area to identify the tasting room shall be permitted on the east building elevation. Any requested change in signage shall be subject to review and approval by the Planning Commission.
- l. Service drive signage, as indicated in a detail sheet dated 1/26/11, shall be installed prior to the issuance of a certificate of occupancy for the production facility and tasting room.

- m. Prior to the issuance of a grading permit, natural areas to remain undisturbed during construction shall be physically indicated and protected on the site itself.
- n. Operating hours shall be limited to between 7:00 am and 10:00 pm.
- o. Live music entertainment shall be prohibited. Entertainment related to the agricultural use of the property, such as farm tours, shall be permitted.
- p. The applicant shall record promptly the PUD order 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 PUD order pertains. Alternatively, a Memorandum of PUD may be prepared by the Township in such a recordable form as deemed appropriate and shall then be recorded promptly by the applicant with the Grand Traverse County Register of Deeds. A copy of each recorded document shall be filed with the Township within ninety (90) days of final approval by the Township or approval shall be considered to have expired. No land use permits shall be issued until all required recorded documents have been provided to the Township.

The undersigned hereby certifies that he is the Supervisor of the Charter Township of Garfield, Traverse City, Michigan, and that the foregoing Report and Decision Order reflects the approval granted by the Township Board of the Charter Township of Garfield on March 22, 2011.

Signed:

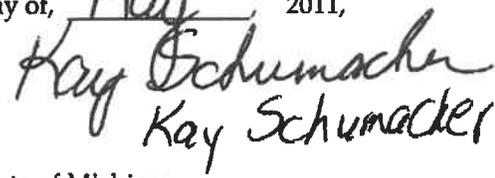


Chuck Korn, Supervisor
Charter Township of Garfield

STATE OF MICHIGAN)
) ss
COUNTY OF GRAND TRAVERSE)

The foregoing instrument was acknowledged before me this 24 day of May, 2011,
by Chuck Korn, Supervisor of the Charter Township of Garfield.

Kay Schumacher
Notary Public
Grand Traverse County, State of Michigan
Acting in Grand Traverse County


Kay Schumacher

My Commission expires: 9-3-2014

Owner, Maureen Harty, does hereby acknowledge receipt of the Report and Decision Order, and 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 other owners or occupants of the subject property.

Signed:

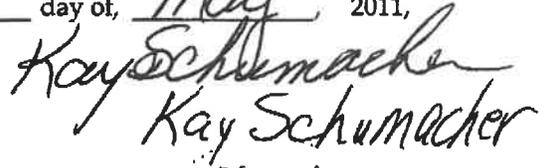


Maureen Harty

STATE OF MICHIGAN)
) ss
COUNTY OF GRAND TRAVERSE)

The foregoing instrument was acknowledged before me this 24 day of May, 2011,
by Maureen Harty.

Kay Schumacher
Notary Public
Grand Traverse County, State of Michigan
Acting in Grand Traverse County


Kay Schumacher

My Commission expires: 9-3-2014

		Charter Township of Garfield	
		Planning Department Report No. 2022-87	
Prepared:	September 7, 2022	Pages:	7
Meeting:	September 14, 2022 Planning Commission	Attachments:	<input checked="" type="checkbox"/>
Subject:	Kensington Park PURD – Major Amendment – Findings of Fact / Final Approval		
File No.:	SUP 2002-06-E	Parcel No.	n/a
Applicant:	Patrick Rokosz & Ryan McCoon		
Agent:	Community Planning & Land Use Consulting, LLC		
Owner:	The Carson Group, LLC		

OVERVIEW:

The Kensington Park Planned Unit Residential Development (PURD) project was originally approved by the Planning Commission in June 2003 and has since been amended several times, as follows:

- April 25, 2003 – original approval (SUP 2002-06)
- March 19, 2004 – amended SUP for second phase / Homestretch project (SUP 2002-06-A)
- November 8, 2005 – amended SUP to include an additional lot in the PURD (SUP 2002-06-B)
- October 24, 2012 – amended SUP for multi-family / Carson Square project (SUP 2002-06-C)

In 2021, applicants on behalf of Kensington Park applied for a Minor Amendment (SUP 2002-06-D) for a request to remove the requirement for sidewalk installation, which was withdrawn.

This new application (SUP 2002-06-E) requests a Major Amendment to the Kensington Park PURD. The details of this application are summarized as follows:

- The proposal would accommodate expanded building footprints for several yet-to-be-built duplex units, with single-story structures to be built instead of previously approved two-story structures.
- Overall square footage of the structures would remain roughly the same.
- Project density would also decrease slightly with one fewer unit being built along Carson Street.
- The requirement for constructing sidewalks on Carson Street, Linden Avenue, Floresta Street, and Woodward Avenue, forming a loop around this phase of the PURD, remains in place.

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 amendment with conditions, which are discussed later in this report.

The application is placed on the Planning Commission agenda for their regular meeting on September 14, 2022 to consider final review of the proposed PURD major amendment.

SUBJECT PROPERTY:

The Kensington Park PURD is located west of the Cherryland Center site. The main portion of the project is roughly bounded by Carson Street, Linden Avenue, Floresta Street, and Woodward Avenue. East of this portion is a second phase of the project done by Homestretch. South of the main portion is Carson Square apartments done by Goodwill Industries.

Aerial view of Kensington Park PURD site (highlighted in yellow)



PURD AMENDMENTS:

According to Section 427.E of the Zoning Ordinance, amendments to an approved Planned Unit Residential Development shall be considered according to the review procedure of Section 423.G and review criteria of Section 427.D(4). An application for major amendment is covered by Section 423.G(6) as follows:

REVIEW PROCEUDRES FOR MAJOR AMENDMENTS:

Any proposed amendment other than those provided for in § 423.G.(4) Administrative Amendments and § 4.23.G.(5) Minor Amendments are considered a major amendment and shall be approved in the same manner and under the same procedures as are applicable to the issuance of the original special use permit approval.

For the purposes of this section, “major amendments” include but are not necessarily limited to changes that:

- (a) Increase the number of dwelling units, floor area, height, impervious surface development, or any additional land-use disturbance other than as provided for in subsections (4) or (5), above;*
- (b) Introduce different land uses than that requested in the application;*
- (c) Request larger land area than indicated in the original application;*
- (d) Request greater relief than that requested in the application;*
- (e) Allow any decrease in buffer or transition areas, reduction in landscaping, reduction of required yards, or any change in the design characteristics or materials used in construction of the structures;*
- (f) Reduce or eliminate conditions attached to a legislative or quasi-judicial development order; or*
- (g) Reduce or eliminate pedestrian circulation.*

The applicants propose to change the previously approved two-story duplexes to one-story, which would result in a significant increase in impervious surface. Thus, it is appropriate to consider the application as a proposed major amendment. The review process for a major amendment is the same as for an entirely new PURD application.

A PURD is reviewed in two phases: preliminary and final. The final review procedures for the Planning Commission are described in Section 427.C.(3) as follows:

- (a) *The Planning Commission may hold a public hearing on such application for final review and decision.*
- (b) *Following review, the Planning Commission shall render a decision to approve, approve with final conditions, or deny the request. Approval of a planned unit residential development shall be incorporated in a Report and Decision Order that shall include the decision, the basis for the decision and any final conditions imposed.*

This application is placed on tonight's meeting agenda to consider the final review of the application for a proposed PURD major amendment. This application is also being reviewed by relevant outside agencies including the Township Engineer.

CONDITIONS OF PRELIMINARY APPROVAL:

According to Section 427.C.(1) of the Zoning Ordinance, Final review shall address all conditions imposed by the Planning Commission in the preliminary decision on the planned unit residential development. Submissions for final review and decision shall not be considered until all conditions have been addressed. Staff comments on the status of each condition being addressed are as follows:

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.***

This condition acknowledges the scope of the proposed PURD amendment. Other than the changes to buildings as proposed in the application, no other changes to the Kensington Park PURD are described.

The application indicates that there is an understanding that the sidewalks will be constructed around the block of Carson Street, Linden Avenue, Floresta Street, and Woodward Avenue.

2. ***Sidewalk design is subject to review approval by the Township Engineer per Section 522.A(5) of the Zoning Ordinance including the materials, design, location, and ADA accessibility requirements. The sidewalk details shall be submitted to the Township Engineer.***

As shown on the site plan, the sidewalks are proposed to be constructed through the driveways serving the new buildings, but not constructed through the driveways for the buildings that are already there. Details for the sidewalks were submitted to the Township Engineer and review of the sidewalk design is currently ongoing. The Grand Traverse County Road Commission also gave comment in support of the proposed sidewalks providing they are ADA compliant.

3. ***For the final review, the applicant shall obtain any necessary reviews or approvals from the Township Engineer, Grand Traverse Metro Fire Department, Grand Traverse County Department of Public Works, Grand Traverse County Road Commission, and Grand Traverse County Soil Erosion and Sedimentation Control.***

Communication from the Grand Traverse County Road Commission is attached to this report indicating review of the storm water and sidewalks and their approval of the development with the condition that sidewalks are ADA compliant.

The Township Engineer issued a letter dated July 25, 2022 with the following comments: “As a result of this review, we agree that use of the deepened French Drains meet the standards for storm water review for the proposed buildings. Understanding the review of this system is a continuation of previously approved plans, we’ve requested some minor clarifications to finalize. At this point it is requested the Applicant submit a final signed and sealed along with the necessary revisions and confirmations for the above comments.”

The comments from the Township Engineer shall be addressed. Also, all final reviews from agencies with jurisdiction shall be provided prior to any Land Use Permits being issued.

4. ***Before a Certificate of Occupancy is issued for the first newly completed building, sidewalks shall be constructed in front of all existing buildings, and thereafter, sidewalks shall be constructed in front of each additional building before a Certificate of Occupancy is issued.***

This condition is proposed to be carried forward as part of the final approval, however Staff recommends reviewing and clarifying the language for this condition. As currently written, the condition could be perceived as to allow building permits for any number of the currently unbuilt buildings to be issued before the sidewalks are constructed in front of all the existing buildings. Also, the condition as currently written makes it unclear how sidewalks in between the buildings would be constructed, as the buildings are condominium units and not located on individual lots. Thus, staff recommends the following language for this condition:

“Before any additional building permits are issued, sidewalks shall be constructed in front of all existing buildings and in front of spaces on either side of all existing buildings, halfway to the next building or building site. Thereafter, sidewalks shall be constructed in front of each additional building, and in front of spaces on either side of each additional building, halfway to the next building or building site before a Final Certificate of Occupancy is issued for that building.”

5. ***An open space easement declaration shall be reviewed and approved by the Township and recorded with the Grand Traverse County Register of Deeds to assure that the common open space area will remain open.***

In the Kensington West Condominium Master Deed, Condominium Bylaws, Section 7.3 Use and Occupancy Restrictions, subsection (m) The “Courtyard” (recorded July 6, 2004) it states:

“The Courtyard, as a general common element, is dedicated for passive, non-motorized, recreational use. No trees or shrubs shall be cut or removed, without the approval of the Association Board of Directors, nor are fires permitted. Likewise, no structures, equipment, or other personal property may be stored unattended in the Courtyard. In this regard, the board is given authority to adopt, and/or revise or appeal, regulations regarding the types of passive use to be used in the Courtyard, and to determine the type and location of recreational equipment to be placed there for the benefit of the owners. Skateboard parks are prohibited.”

An excerpt from the Kensington West Condominium Master Deed is attached to this report. This language in the Master Deed describes regulations on a general common element and is not an easement. However, Staff is of the opinion that this language meets the intent of the condition to assure that the common open space area (courtyard) will remain open.

Also, according to Section 425.J.(1)(c) of the Zoning Ordinance, “An amendment for land within a Planned Development which has been subdivided pursuant to the Condominium Act (Act 59 of 1978, as amended) shall also be subject to review in accordance with § 429, Condominium Developments. In the case of conflict between the sections, the standards of § 429 shall prevail.” The Master Deed is part of the Kensington West Condominium, and so any future amendments, including those which may impact the courtyard area, would need to be reviewed by the Township prior to approval.

FINDINGS OF FACT:

The proposed Findings of Fact evaluate the application by the standards of Section 427.D(4) of the Zoning Ordinance as described below:

(4) General Criteria

The PURD is intended to encourage well designed neighborhoods that emphasize safe movement of pedestrian traffic and open areas that encourage active lifestyles and quality of life. The Planning Commission shall determine if the project meets the following standards of approval:

(a) The project is compatible and harmonious with adjacent and surrounding land uses and properties;

*The Planning Commission may find this standard to be **MET** for the following reasons:*

- The proposal is to construct several one-story duplex units instead of previously approved two-story duplex units and to slightly reduce the overall density.
- The proposed use remains the same as in the previous approval for the PURD.
- The proposed amendment enables the PURD to remain compatible and harmonious with the adjacent and surrounding land uses and properties in the neighborhood.

(b) The project minimizes motorized / non-motorized conflict points and creates a separation of pedestrian and vehicular traffic;

*The Planning Commission may find this standard to be **MET** for the following reasons:*

- As described within the application, the applicant has obtained written support from the association to install sidewalks in front of existing homes and will also construct sidewalks in front of new homes to eventually complete the neighborhood loop. Constructing these sidewalks around Carson Street, Linden Avenue, Floresta Street, and Woodward Avenue is in accordance with the original site plan approval for this project and will greatly enhance pedestrian safety, minimize conflict points, and provide a separation of pedestrian and vehicular traffic.
- The applicant has updated the site plan to connect the sidewalks at the corner of Floresta Street and Linden Avenue, per comments from the Planning Commission at their regular meeting on July 13, 2022.
- Per Section 522.A.(5) of the Zoning Ordinance, “The Township engineer shall review and approve proposed construction materials and design of all pathways.” Sidewalk design is also subject to ADA accessibility requirements. Details for the sidewalks were submitted to the Township Engineer. Final engineering review can be made a condition of the final approval.
- The Grand Traverse County Road Commission also gave comment in support of the proposed sidewalks providing they are ADA compliant.

- (c) *The development consolidates and maximizes useable open space while encouraging neighborhood interaction;*

*The Planning Commission may find this standard to be **MET** for the following reasons:*

- The Kensington Park PURD is designed with a central open space (“courtyard”) behind all the homes on Carson Street, Linden Avenue, Floresta Street, and Woodward Avenue.
- The proposed amendment is only to alter the designs of some of the buildings and maintains the courtyard at the center of this block. No other changes to the site are proposed as part of this amendment.
- The Kensington West Condominium Master Deed, Condominium Bylaws has language providing for the courtyard area as a general common element dedicated for passive, non-motorized, recreational use.

- (d) *The proposed use will retain as many natural features of the property as practicable, particularly where the natural features assist in preserving the general character of the neighborhood;*

*The Planning Commission may find this standard to be **MET** for the following reasons:*

- The courtyard will be retained even though the proposed redesigned buildings will increase the building envelope and impervious surface. No other changes are proposed as part of this amendment.
- The Kensington West Condominium Master Deed, Condominium Bylaws has language providing for the courtyard area as a general common element dedicated for passive, non-motorized, recreational use.
- There are no known specific natural features on the site of concern to be preserved.

- (e) *The development is compatible with the intent and purpose of the adopted master plan.*

*The Planning Commission may find this standard to be **MET** for the following reasons:*

- The Future Land Use Map in the Master Plan designates the subject area as High Density Residential. The PURD and proposed amendment are compatible with this designation.
- Further, there are other goals in the Master Plan which support the development, including a goal from the Implementation section stating to: “Continue to use the Township’s Zoning Ordinance to encourage a wide variety of housing types and densities, as well as the mixing of residential uses with commercial and light-industrial uses where compatible.”

ACTION REQUESTED:

If, following discussion, the Planning Commission is prepared to decide on the proposed Major Amendment to the PURD, the following separate motions in support of approval are offered for consideration:

MOTION 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.

MOTION 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 any additional building permits are issued, sidewalks shall be constructed in front of all existing buildings and in front of spaces on either side of all existing buildings, halfway to the next building or building site. Thereafter, sidewalks shall be constructed in front of each additional building, and in front of spaces on either side of each additional building, halfway to the next building or building site before a Final Certificate of Occupancy is issued for that building.
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.

Any additional information the Planning Commission deems necessary should be added to this motion.

Attachments:

1. Planned Development Application – Major Amendment and supplemental information dated June 8, 2022.
2. Updated Site Plan dated August 8, 2022.
3. Excerpt from Kensington West Condominium Master Deed recorded July 6, 2004.
4. Email from Grand Traverse County Road Commission dated August 31, 2022.
5. Letter from Township Engineer dated July 25, 2022.

APPLICATION FOR HEARING

Charter Township of Garfield Planning Commission
Grand Traverse County, Michigan

**Kensington Park PURD Amendment Request
Application Narrative**

Subject Property: Kensington Park PURD - Kensington West Condominium
Zoning District: R-3 Multiple Family, with PURD Overlay

Owner: Kensington West Condo Association
Agent: Community Planning and Land Use Consulting, LLC

Summary of Request:

The application requests an amendment to the Kensington Park Planned Unit Residential Development (PURD) to accommodate expanded building footprints for a number of yet-to-be-built duplex units within the Kensington West Condominium.

The purpose of the request is to allow single-story residences to be built in lieu of presently approved two-story structures, while retaining a similar square footage of living space per unit. In doing so, the building footprint will increase, but the overall square footage of the structures will remain roughly the same.

Specifically, the amendment requests expanded footprints for Buildings 3, 4, 5, 6, 7, 11, 19, 20, and 21. The project density will decrease slightly, as five units would be built along Carson Street to the west of existing Building 2, rather than six as currently approved.

Of note, the Kensington Park PURD includes three separate condominium entities. In addition to Kensington West, the development also includes Carson Square (to the south) and the Kensington Park East Condominium (to the east/northeast). This application affects only certain remaining, unbuilt lots within the Kensington Park West

Condo, in the area bounded by Linden Avenue to the west, Floresta Street to the north, Woodward Avenue to the east, and Carson Street to the south.

Lastly, in a parallel but separate process, the applicant has met with the Planning Department to discuss sidewalk requirements within the development. The applicant has obtained written support from the association to install sidewalks in front of existing homes, and will also construct sidewalks in front of new homes, in order to eventually complete the neighborhood loop.

Applicant's response to standards of approval:

Amendments to an approved Planned Unit Residential Development shall be considered according to the review procedure of §423.G and the review criteria of §427.D(4) of the ordinance.

This report is intended to address those standards, as well as the standards of the PURD amendment application request form. As such, this report addresses, in order:

- Section 423.E Approval Criteria, as required on the application form;
 - Section 427.D(4) General Criteria;
 - Section 425.J(1)(C) - Planned Development / Condominium Act considerations;
- and

§ 423.E APPROVAL CRITERIA

The proposed use will be consistent with the purpose and intent of the master plan and this ordinance, including all regulations of the applicable zoning district;

- The approved PURD has been deemed compatible with the current master plan and is the remaining phase of the mixed residential development.
- The Master Plan identifies the area as High Density Residential, and the zoning district is R-3 Multiple Family Residential, each of which identifies duplex development as appropriate. Additionally, the Township has approved a PURD for the property including duplex development.

- The subject property is within the Barlow Garfield Neighborhood, a subplan of the Master Plan. The project promotes a number of goals of this subplan, including:
 - Infill development in proximity to the Cherryland Center.
 - Demand for smaller, attached housing units especially for young singles or retired people. In particular, single-story living is of increasing demand for the aging population.
 - Open space / gathering areas to create a sense of community.
 - The overall neighborhood will benefit from investments in sidewalk infrastructure within the project. The project includes construction of sidewalks to meet the intent of the Non-Motorized Transportation Plan.
- The subject property is currently planned, zoned, and approved for two-family residential uses.

The proposed use will be designed, constructed, operated and maintained so as to be compatible, harmonious and appropriate with the existing or planned character and uses of the neighborhood, adjacent properties and the natural environment;

- The two-family residential use is an approved phase of the existing mixed residential Kensington Park PURD. The adjacent phases have been constructed and have been deemed compatible with the current duplex phase.
- The development is located in an established neighborhood area with an existing mix of residential structure types, including one-story and two-story residential buildings, and single-family, two-family, and multiple-family dwelling units.

The proposed use will not be detrimental, hazardous or disturbing to existing or future adjacent uses or to the public welfare by reason of excessive traffic, noise, dust, gas, smoke, vibration, odor, glare, visual clutter, electrical or electromagnetic interference;

- This nuisance standard does not apply.
- The increase in building footprint of the residential duplex units will not be detrimental or create any nuisance concerns.
- The project includes a slight reduction in density.

- The project location is centered within an existing residential neighborhood of similar or the same uses.

Potential adverse effects arising from the proposed use on the neighborhood and adjacent properties will be minimized through the provision of adequate parking, the placement of buildings, structures and entrances, as well as the provision and location of screening, fencing, landscaping, buffers or setbacks;

- This standard does not apply.
- There are no adverse effects from changing building sizes of the approved duplex units.
- Each home will retain its own driveway and garage (as is currently approved) in order to accommodate parking.

The proposed use will retain as many natural features of the property as practicable, particularly where the natural features assist in preserving the general character of the neighborhood;

- The proposed increase in unit size does not negatively affect the natural features of the site.
- The planning commission has determined that the inclusion of an open park area as the general common element of the project meets the intent of this standard.
- The proposed/approved use has not changed.

Adequate public and private infrastructure and services such as streets, water and sewage facilities, drainage structures, police and fire protection, and schools, already exist or will be provided without excessive additional requirements at public cost;

- Infrastructure and services already exist and will be unaffected by the request to increase the approved building footprint.

The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;

- This standard does not apply.
- The use (a two-family residential development) currently exists and is an approved phase of the mixed residential PURD.

The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use;

- The increase in building footprint will accommodate single-story living and provide affordable housing units in close proximity to amenities and public transportation.
- The request complies with and follows the Master Plan by providing infill development and a mix of housing in the Cherryland area.
- The proposed/approved use has not changed.

Adequate measures shall be taken to provide ingress and egress so designed as to minimize traffic hazards and to minimize traffic congestion on the public roads;

- The subject property is an existing residential development project with approved access to existing public roads in an established residential neighborhood.
- All residential units have private access from the public roadway.

Adequate measures shall be taken to provide vehicular and pedestrian traffic within the site, and in relation to streets and sidewalks servicing the site in a safe and convenient manner; and

- The applicant has incorporated a sidewalk network within the development and in accordance with the zoning ordinance.
- The applicant has met with the Planning Department and Grand Traverse County Road Commission to ensure sidewalk construction in the development is properly located and built to meet the intent of the original and amended PURD approvals.
- The site is served by existing public streets.

The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district.

- The request is simply to amend an existing number of approved, two-story residential units into single-story residential units. Approval of the request will not impede the orderly development and improvement of surrounding properties.
- A request will complete the project and encourage additional development in the vicinity of the Cherryland Mall.

§ 427.G (4) GENERAL CRITERIA

The PURD is intended to encourage well designed neighborhoods that emphasize safe movement of pedestrian traffic and open areas that encourage active lifestyles and quality of life. The Planning Commission shall determine if the project meets the following standards of approval:

(a) The project is compatible and harmonious with adjacent and surrounding land uses and properties;

- The mixed residential PURD project has been deemed compatible with the adjacent and developed phases of the PURD. In addition, the PURD as whole has been deemed compatible with the single family, two family, and multi-family units adjacent to the project. An increase in building footprint will not change its compatibility.

(b) The project minimizes motorized / non-motorized conflict points and creates a separation of pedestrian and vehicular traffic;

- The project includes proposed sidewalks for existing and proposed units in accordance with the zoning ordinance.

(c) The development consolidates and maximizes useable open space while encouraging neighborhood interaction;

- The application retains an approved park area in the center of the project.

(d) The proposed use will retain as many natural features of the property as practicable, particularly where the natural features assist in preserving the general character of the neighborhood;

- The application retains an approved park space area in the center of the project. This partially wooded, park-like setting encourages community recreation and open space in a public gathering area.

(e) The development is compatible with the intent and purpose of the adopted master plan.

- The approved PURD has been deemed compatible with the current master plan and is the remaining phase of the mixed residential development.
- The Master Plan identifies the area as High Density Residential, and the zoning district is R-3 Multiple Family Residential, each of which identifies duplex development as appropriate.
- The subject property is within the Barlow Garfield Neighborhood, a subplan of the Master Plan. The project promotes a number of goals of this subplan, including:
 - Infill development in proximity to the Cherryland Center.
 - Demand for smaller, attached housing units especially for young singles or retired people. In particular, single-story living is of increasing demand for the aging population.
 - Open park / gathering areas to create a sense of community.
 - The overall neighborhood will benefit from investments in sidewalk infrastructure within the project. The project includes construction of sidewalks to meet the intent of the Non-Motorized Transportation Plan.
- The subject property is currently planned, zoned, and approved for two-family residential uses.

§ 425.J (1)(C) PLANNED DEVELOPMENT CONDOMINIUM CONSIDERATIONS

An amendment for land within a Planned Development which has been subdivided pursuant to the Condominium Act shall also be subject to review in accordance with § 429, Condominium Developments.

- The subject property has been subdivided pursuant to the Condominium Act, and is subject to review in accordance with § 429, *Condominium Developments*.

Conclusion:

The proposed amendment to the Kensington West Planned Unit Residential development is closely aligned with the intent and purpose of the Garfield Township Zoning Ordinance and Master Plan. Thank you for the opportunity to present this project. We look forward to meeting with you.

Enclosed:

Completed Application Form

Owner Authorization Letters

Site Plan



Charter Township of Garfield

Grand Traverse County

3848 VETERANS DRIVE
TRAVERSE CITY, MICHIGAN 49684
PH: (231) 941-1620 • FAX: (231) 941-1588

PLANNED DEVELOPMENT (PD) APPLICATION

ASSISTANCE

This application must be completed in full. An incomplete or improperly prepared application will not be accepted and will result in processing delays. Before submitting an application, it is recommended that you contact the Planning Department to arrange an appointment to discuss your proposed application. Time is often saved by these preliminary discussions. For additional information or assistance in completing this development application, please contact the Planning Department at (231) 941-1620.

ACTION REQUESTED

New Planned Unit Development Application
New Planned Unit Residential Development Application
Major Amendment
Minor Amendment
Administrative Amendment

PROJECT / DEVELOPMENT NAME

APPLICANT INFORMATION

Name:

Address:

Phone Number:

Email:

AGENT INFORMATION

Name:

Address:

Phone Number:

Email:

OWNER INFORMATION

Name:

Address:

Phone Number:

Email:

CONTACT PERSON

Please select one person to be contact person for all correspondence and questions:

Applicant:

Agent:

Owner:

PROPERTY INFORMATION

Property Address:

Property Identification Number:

Legal Description:

Zoning District:

Master Plan Future Land Use Designation:

Area of Property (acres or square feet):

Existing Use(s):

Proposed Use(s):

PROJECT TIMELINE

Estimated Start Date:

Estimated Completion Date:

REQUIRED SUBMITTAL ITEMS

A complete application for a Planned Unit Development Application or a Planned Unit Residential Development Application consists of the following:

Application Form:

One original signed application

One digital copy of the application (PDF only)

Application Fee:

Fees are established by resolution of the Garfield Township Board and are set out in the current Fee Schedule as listed on the Planning Department page of the Township website (<http://www.garfield-twp.com>). Please make check out to Charter Township of Garfield.

Fee

Escrow Fee:

Additional fees may be required if a review by independent professional help is deemed necessary by the Township. If required, such additional fees must be placed in escrow by the applicant in accordance with the escrow policies of the Township and prior to any further processing of this application. Any unused escrow funds shall be returned to the applicant. Please complete an Escrow and Review (ER) Application form.

Site Plan:

- Ten complete stapled 11"x17" paper sets Administrative Amendments require one copy
- Two complete bound 24"x36" paper sets
- One digital set (PDF only)

Written Information:

- Ten paper copies of the Approval Criteria Administrative Amendments require one copy
- One digital copy of the Approval Criteria (PDF only)
- Ten paper copies of the Impact Assessment Administrative Amendments require one copy
- One digital copy of the Impact Assessment (PDF only)

Digital items to be delivered via email or USB flash drive

SUBMITTAL DEADLINE

Submittal deadlines are listed on the Planning Department page of the Township website (<http://www.garfield-twp.com>). Please note that the listed dates are the deadlines after which submittals will not be considered for the indicated meeting. Any errors or missing information on an application submitted at the deadline will result in a delay in the processing of the application. An earlier submittal is encouraged to avoid possible delays.

WAIVERS

Submittal Waiver:

At the discretion of the Director of Planning, a Site Development Plan may be waived in any of the following cases when it is determined that the submission would serve no useful purpose:

1. The erection or enlargement of an accessory structure;
2. The enlargement of a principal building by less than 20 percent of its existing gross floor area, provided such enlargement will not result in a requirement for additional off-street parking;
3. A change in principal use where such change would not result in an increase in impervious surface area, additional off-street parking, site access, other external site characteristics or a violation of this ordinance.

Data Waiver:

The Director of Planning may waive a particular element of information or data otherwise required for a Site Development Plan upon a finding that the information or data is not necessary to determine compliance with this ordinance or that such information or data would not bear on the decision of the approval authority.

SITE PLAN

Check that your site plan includes all required elements for a Site Development Plan (SDP). Please use the Required Site Plan Elements Checklist below.

APPROVAL CRITERIA

Indicate on a separate sheet of paper, how the proposed special use will comply with, meet, or facilitate each of the following Approval Criteria from § 423.E of the Zoning Ordinance. The Planning Commission must determine that each of these criteria are satisfied in order to grant approval of a Special Use Permit. A special use is permitted only if the applicant demonstrates that:

The proposed use will be consistent with the purpose and intent of the master plan and this ordinance, including all regulations of the applicable zoning district;

The proposed use will be designed, constructed, operated and maintained so as to be compatible, harmonious and appropriate with the existing or planned character and uses of the neighborhood, adjacent properties and the natural environment;

The proposed use will not be detrimental, hazardous or disturbing to existing or future adjacent uses or to the public welfare by reason of excessive traffic, noise, dust, gas, smoke, vibration, odor, glare, visual clutter, electrical or electromagnetic interference;

Potential adverse effects arising from the proposed use on the neighborhood and adjacent properties will be minimized through the provision of adequate parking, the placement of buildings, structures and entrances, as well as the provision and location of screening, fencing, landscaping, buffers or setbacks;

The proposed use will retain as many natural features of the property as practicable, particularly where the natural features assist in preserving the general character of the neighborhood;

Adequate public and private infrastructure and services such as streets, water and sewage facilities, drainage structures, police and fire protection, and schools, already exist or will be provided without excessive additional requirements at public cost;

The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;

The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use;

Adequate measures shall be taken to provide ingress and egress so designed as to minimize traffic hazards and to minimize traffic congestion on the public roads;

Adequate measures shall be taken to provide vehicular and pedestrian traffic within the site, and in relation to streets and sidewalks servicing the site in a safe and convenient manner; and

The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district.

IMPACT ASSESSMENT

1. Planned Unit Developments: A written impact statement of the application as it relates to 426.A and 426.E of the Zoning Ordinance.
2. Planned Unit Residential Developments: A written impact statement of the application as it relates to 427.A and 427.C of the Zoning Ordinance.

ADDITIONAL INFORMATION

If applicable, provide the following further information:

- | | <u>Yes</u> | <u>No</u> | <u>Not
Applicable</u> |
|--|------------|-----------|---------------------------|
| A. <u>Sanitary Sewer Service</u> | | | |
| 1. Does project require extension of public sewer line?
If yes, has a Utility Agreement been prepared? | | | |
| 2. Will a community wastewater system be installed?
If yes, has a Utility Agreement been prepared?
If yes, provide construction plans and specifications | | | |
| 3. Will on-site disposal be used?
If yes, is it depicted on plan? | | | |
| B. <u>Water Service</u> | | | |
| 1. Does project require extension of public water main?
If yes, has a Utility Agreement been prepared? | | | |
| 2. Will a community water supply be installed?
If yes, has a Utility Agreement been prepared?
If yes, provide construction plans and specifications | | | |
| C. <u>Public utility easements required?</u> | | | |
| If yes, show on plan. | | | |
| D. <u>Stormwater Review/Soil Erosion</u> | | | |
| 1. Soil Erosion Plans approved by Soil Erosion Office?
If so, attach approval letter.
If no, are alternate measures shown? | | | |
| 2. Stormwater Plans approved by Township Engineer?
If so, attach approval letter.
If no, are alternate measures shown? | | | |
| Note: Alternate measures must be designed and sealed by a registered Engineer. | | | |
| E. <u>Roads and Circulation</u> | | | |
| 1. Are interior public streets proposed?
If yes, has Road Commission approved (attach letter)? | | | |
| 2. Will public streets connect to adjoining properties or future streets? | | | |
| 3. Are private roads or interior drives proposed? | | | |
| 4. Will private drives connect to adjoining properties service roads? | | | |
| 5. Has the Road Commission or MDOT approved curb cuts?
If yes, attach approved permit. | | | |

OTHER INFORMATION

If there is any other information that you think may be useful in the review of this application, please attach it to this application or explain it on a separate page.

REVIEW PROCESS - PLANNED UNIT DEVELOPMENT - NEW

Preliminary Review and Decision

1. Upon submittal of this application, Staff will review the materials submitted and will, within ten (10) working days, forward a determination of completeness to the applicant. If the submission is incomplete or noncompliant with the Zoning Ordinance, it will be returned to the applicant for revision. Once the submission is revised, Staff will again

review it for completeness and again forward a determination to the applicant within ten (10) working days. This procedure shall be repeated until a complete submission is received.

2. Once the application is deemed to be complete and submitted according to the application deadlines, it will be forwarded to the Planning Commission for review. The Planning Commission will determine if the application is complete and schedule a public hearing.
3. Upon holding a public hearing, the Planning Commission shall submit a written recommendation to the Township Board. A public hearing may be held by the Township Board.
4. The Township Board shall approve, approve with conditions, or deny the request for preliminary Planned Unit Development approval.

Final Review and Decision

5. For Final Approval, the Planning Commission shall review and submit a written recommendation to the Township Board. A public hearing shall be held by the Township Board.
6. The Township Board shall approve, approve with conditions, or deny the request for final Planned Unit Development approval.
7. If approved or approved with conditions, the decision of the Township Board shall be incorporated into a written report and decision order.

REVIEW PROCESS – PLANNED UNIT RESIDENTIAL DEVELOPMENT - NEW

Preliminary Review and Decision

1. Upon submittal of this application, Staff will review the materials submitted and will, within ten (10) working days, forward a determination of completeness to the applicant. If the submission is incomplete or noncompliant with the Zoning Ordinance, it will be returned to the applicant for revision. Once the submission is revised, Staff will again review it for completeness and again forward a determination to the applicant within ten (10) working days. This procedure shall be repeated until a complete submission is received.
2. Once the application is deemed to be complete and submitted according to the application deadlines, it will be forwarded to the Planning Commission for review. The Planning Commission will determine if the application is complete and schedule a public hearing.
3. Upon holding a public hearing, the Planning Commission shall approve, approve with conditions, or deny the request for preliminary Planned Unit Residential Development approval.

Final Review and Decision

4. Final review shall address all conditions imposed by the Planning Commission in the preliminary decision on the planned unit residential development. Submissions for final review and decision shall not be considered until all conditions have been addressed. The Director of Planning or designee shall conduct a completeness review to determine that all conditions of the preliminary decision have been addressed.
5. Once the plans and conditions are deemed substantially complete, the project shall be referred to the Planning Commission for its final review and decision. No application shall be referred to the Planning Commission until this standard has been satisfied. The Planning Commission may hold a public hearing on such application for final review and decision.
6. If approved or approved with conditions, the decision of the Planning Commission shall be incorporated into a written report and decision order.

REVIEW PROCESS – PLANNED DEVELOPMENT – MAJOR AMENDMENT

Any proposed amendment other than those provided for below are considered a major amendment and shall be approved in the same manner and under the same procedures as are applicable to the issuance of the original special use permit approval. Major amendments include but are not necessarily limited to changes that:

1. Increase the number of dwelling units, floor area, height, impervious surface development, or any additional land-use disturbance other than as provided for below;
2. Introduce different land uses than that requested in the application;
3. Request larger land area than indicated in the original application;
4. Request greater relief than that requested in the application;
5. Allow any decrease in buffer or transition areas, reduction in landscaping, reduction of required yards, or any change in the design characteristics or materials used in construction of the structures;
6. Reduce or eliminate conditions attached to a legislative or quasi-judicial development order; or
7. Reduce or eliminate pedestrian circulation.

REVIEW PROCESS – PLANNED DEVELOPMENT – MINOR AMENDMENT

The Planning Commission may authorize the following amendments to an approved development plan without a public hearing:

1. Changes to the timing or phasing of the proposed development, provided that the use and overall geographic land area remains the same and that required public improvements are not delayed.
2. Increases in total building height of greater than five (5) feet provided that maximum height regulations are complied with.
3. Any other proposed amendment which is determined by the Planning Commission to have no detrimental impact on any adjacent property and is not considered or classified a Major Amendment under § 423(6) Major Amendments.

REVIEW PROCESS – PLANNED DEVELOPMENT – ADMINISTRATIVE AMENDMENT

The Director of Planning may authorize the following amendments to an approved site development plan:

1. Shifts in on-site location and changes in size, shape, or configuration of less than 15 percent, or a 15 percent or less change in either impervious surface or floor area over what was originally approved.
2. An increase in total building height of less than five (5) feet, provided that maximum height regulations of the underlying zoning district are met.
3. Minor adjustment of the location of utilities and walkways, provided however that no sidewalks or paths required by the approval authority may be eliminated.
4. The substitution of landscape material provided the substituted materials are of a similar nature and quality and will comply with the standards of § 530, Landscape Materials of Article 5, Development Standards, of this ordinance.
5. Minor revisions to an internal street circulation pattern not increasing the number of lots or lowering the connectivity ratio.

- 6. Minor realignment of ingress and egress locations if required by the Grand Traverse County Road Commission or Michigan Department of Transportation.
- 7. A reduction in the number of proposed lots or the combination of units.

PERMISSION TO ENTER SUBJECT PROPERTY

Permission is hereby granted to Garfield Township staff and Planning Commissioners to enter the premises subject to this application for the purposes of making inspections associated with this application, during normal and reasonable working hours.

Owner Signature:

Applicant Signature:

Agent Signature:

Date:

OWNER'S AUTHORIZATION

If the applicant is not the registered owner of the lands that is the subject of this application, the owner(s) must complete the authorization set out below.

I/We _____ authorize to make this application on my/our behalf and to provide any of my/our personal information necessary for the processing of this application. Moreover, this shall be your good and sufficient authorization for so doing.

Owner Signature:

Date:

AFFIDAVIT

The undersigned affirms that he/she or they is (are) the owner, or authorized agent of the owner, involved in the application and all of the information submitted in this application, including any supplemental information, is in all respects true and correct. The undersigned further acknowledges that willful misrepresentation of information will terminate this permit application and any permit associated with this document.

Owner Signature:

Date:

Applicant Signature:

Date:

Required Site Plan Elements Checklist (See § 956 of the Zoning Ordinance) Site Diagram (SD) / Administrative Site Plan (ASP) / Site Development Plan (SDP)	SD	ASP/ SDP
A. Basic Information		
1. Applicant's name, address, telephone number and signature		
2. Property owner's name, address, telephone number and signature		
3. Proof of property ownership		
4. Whether there are any options or liens on the property		
5. A signed and notarized statement from the owner of the property that the applicant has the right to act as the owner's agent		
6. The address and/or parcel number of the property, complete legal description and dimensions of the property, setback lines, gross and net acreages and frontage		
7. A vicinity map showing the area and road network surrounding the property		
8. Name, address and phone number of the preparer of the site plan		
9. Project title or name of the proposed development		
10. Statement of proposed use of land, project completion schedule, any proposed development phasing		
11. Land uses and zoning classification on the subject parcel and adjoining parcels		
12. Seal of the registered engineer, architect, landscape architect, surveyor, or planner who prepared the plan, as well as their name, address and telephone number		
B. Site Plan Information		
1. North arrow, scale, and date of original submittal and last revision		
2. Boundary dimensions of natural features		
3. Natural features such as woodlots, water bodies, wetlands, high risk erosion areas, slopes over twenty-five percent (25%), beach, drainage, and similar features		
4. Proposed alterations to topography and other natural features		
5. Existing topographic elevations at two-foot intervals except shown at five-foot intervals where slopes exceed 18%		
6. Soil erosion and sediment control measures as required by the Grand Traverse County Soil Erosion Department.		
7. The location, height and square footage of existing and proposed main and accessory buildings, and other existing structures		
8. Location and specifications for any existing or proposed (above or below ground) storage facilities for any chemicals, salts, flammable materials, or hazardous materials. Include any containment structures or clear zones required by county, state or federal government authorities		
9. Proposed finish floor and grade line elevations of any structures <i>*Required only for habitable construction within the floodplain on site diagrams and administrative site plans.</i>	*	
10. Existing and proposed driveways, including parking areas		
11. Neighboring driveways and other vehicular circulation features adjacent to the site		
12. A dimensional plan indicating the location, size and number of parking spaces of the on-site parking areas, and shared parking areas		
13. Identification and dimensions of service lanes and service parking, snow storage areas, loading and unloading and docks		
14. Proposed roads, access easements, sidewalks, bicycle paths, and other vehicular and pedestrian circulation features within and adjacent to the site		
15. Location and dimensions of curb cuts, acceleration, deceleration and passing lanes		
16. Location of neighboring structures that are close to the parcel line or pertinent to the proposal		
17. Location of water supply lines and/or wells		
18. Location of sanitary sewer lines and/or sanitary sewer disposal systems		
19. Location, specifications, and access to a water supply in the event of a fire emergency		
20. Sealed (2) stormwater plans including the location and design of storm sewers, retention or detention ponds, swales, wastewater lines, clean out locations, connection points and treatment systems		
21. A utility plan including the location of all other utilities on the site including but not limited to natural gas, electric, cable TV, telephone and steam		
22. A sign plan indicating the location, size and specifications of all signs and advertising features, including cross sections		
23. A lighting plan including exterior lighting locations with area of illumination illustrated by point values on a photometric plan, Kelvin rating, as well as the type of fixtures and shielding to be used		
24. Proposed location of any open spaces, landscaping and buffering features such as buffer areas, vegetation belts, fences, walls, trash receptacle screening, and other screening features with cross sections shown		
25. A Landscape plan and table identifying the species, size of landscape materials, and number proposed, compared to what is required by the Ordinance. All vegetation to be retained on site must also be indicated, as well as, its typical size by general location or range of sizes as appropriate		
26. Statements regarding the project impacts on existing infrastructure (including traffic capacity, schools, and existing utilities, and on the natural environment on and adjacent to the site)		
27. Changes or modifications required for any applicable regulatory agencies' approvals		

- 6. Minor realignment of ingress and egress locations if required by the Grand Traverse County Road Commission or Michigan Department of Transportation.
- 7. A reduction in the number of proposed lots or the combination of units.

PERMISSION TO ENTER SUBJECT PROPERTY

Permission is hereby granted to Garfield Township staff and Planning Commissioners to enter the premises subject to this application for the purposes of making inspections associated with this application, during normal and reasonable working hours.

Owner Signature: DocuSigned by:
Carson Group, LLC Lynne Moon
7ADD2CA94A51463... 6/8/2022 | 10:59 EDT

Applicant Signature: [Signature] 6/6/22

Agent Signature: R. V. R. R., COMMUNITY PLANNING + LAND USE CONSULTING

Date:

OWNER'S AUTHORIZATION

If the applicant is not the registered owner of the lands that is the subject of this application, the owner(s) must complete the authorization set out below.

I/We The Carson Group, Lynne Moon authorize to make this application on my/our behalf and to provide any of my/our personal information necessary for the processing of this application. Moreover, this shall be your good and sufficient authorization for so doing.

Owner Signature: DocuSigned by:
Carson Group, LLC Lynne Moon
7ADD2CA94A51463... 6/8/2022 | 10:59 EDT

Date:

AFFIDAVIT

The undersigned affirms that he/she or they is (are) the owner, or authorized agent of the owner, involved in the application and all of the information submitted in this application, including any supplemental information, is in all respects true and correct. The undersigned further acknowledges that willful misrepresentation of information will terminate this permit application and any permit associated with this document.

Owner Signature: DocuSigned by:
Carson Group, LLC Lynne Moon
7ADD2CA94A51463... 6/8/2022 | 10:59 EDT

Date:

Applicant Signature: [Signature] 6/6/22

Date:

OWNER'S AUTHORIZATION LETTER

I/We The Carson Group, LLC Lynne Moon hereby designate Ryan McCoon & Patrick Rokosz
as applicant for the purpose of amendment for PURD,
including authorization to apply for any and all planning and zoning reviews, permitting, etc.,
regarding the application.

Signed:

DocuSigned by:

Carson Group, LLC Lynne Moon 6/6/2022 | 14:36 EDT

Signature: 7ADD2CA94A51463...

Date:

The Carson Group, LLC, Lynne Moon

Print Name:

OWNER'S AUTHORIZATION LETTER

I/We Rebecca Moore hereby designate Ryan McCoon & Patrick Rokosz
as applicant for the purpose of amendment for PURD,
including authorization to apply for any and all planning and zoning reviews, permitting, etc.,
regarding the application.

Signed:

DocuSigned by:

Rebecca Moore

6/6/2022 | 16:36 EDT

Signature: 9D0B979ACE6C4BE...

Date:

Rebecca Moore

Print Name:

From: Patrick Rokosz <Patrick.Rokosz@lmcu.org>
Sent: Tuesday, January 04, 2022 11:43 AM
To: Mark Kwilinski
Cc: Ryan McCoon
Subject: Kensington West

Hello Mark,

- Lynn Moon has hired a consulting firm to work with Garfield Township to resolve the sidewalk issue. Now that the revised subdivision plan is approved, I suspect they will get start dialogue with Garfield Township.
- Once the sidewalk issue is resolved attorney David Rowe will prepare an ammendment to the current master deed to be approved by association members.

Thank you for you cooperation,
Patrick/Ryan

From: Mark Kwilinski <mkwilinski@live.com>
Sent: Tuesday, January 4, 2022 11:30 AM
To: Patrick Rokosz <Patrick.Rokosz@lmcu.org>
Cc: Ryan McCoon <ryan@endurahomes.com>
Subject: RE: Kensington West

WARNING: This email originated outside of LMCU. Do not click links or open attachments unless you know the sender and know the content is safe.

Good morning gentlemen,

Yes, I agree with changing to single story units assuming that the footprint meets the limitations of the lots and the zoning.

I would like to see this as a package including a resolution to the sidewalk issue and either removal from the HOA or a letter of understanding with the HOA.

What's your target date or scheduled meeting to present this to the Planning Commission?

Thanks much,
Mark

From: Patrick Rokosz <Patrick.Rokosz@lmcu.org>
Sent: Tuesday, January 4, 2022 10:08 AM
To: mkwilinski@live.com
Cc: Ryan McCoon <ryan@endurahomes.com>
Subject: Kensington West

Hello Mark,

Please respond to this email with your approval to change your building 6 and building 7 from a two story unit to a single story unit. If we don't hear from you by noon tomorrow we will move forward without making any changes to your buildings/units. Sorry to put a short deadline on this but we have plans to meet with Garfield Township and we need to have a final subdivision plan completed.

Thank you,
Patrick Rokosz
989-239-3315

From: Patrick Rokosz
Sent: Friday, December 17, 2021 12:47 PM
To: 'mkwilinski@live.com' <mkwilinski@live.com>
Cc: Ryan McCoon <ryan@endurahomes.com>
Subject: Kensington West

Hello Mark,

I've tried to reach a few times on your cell. I've attached the revised subdivision print, please review and call me with any questions. Ryan and I would like to sit down with you to discuss the subdivision and building prints. Give me a call when you have a free moment to set up a day and time.

Patrick
989-239-3315

April 14, 2022

To Whom It May Concern,

This letter is to notify you that Kensington West Condominium Association has been made aware and has accepted that there will be sidewalks installed around the four sides of the complex. The financial responsibility to pave sidewalks and make necessary repairs to lawns, sprinkler systems and mailboxes around Carson, Floresta and Linden will be Ryan McCoon and Patrick Rokosz after the successful closing of the vacant lots that they have under contract. The Carson Group and Mary Ann Moore Trust shall bear the financial responsibility of paving Woodward Avenue sidewalk as well as repairs to lawns, sprinkler systems and mailboxes upon the successful closing of the lots that they are selling to Patrick McCoon and Patrick Rokosz.

Please note, we will attend the Garfield Planning board meeting in May of 2022 to approve this action and move forward so the developer of the vacant lots and the purchasers, Patrick Rokosz and Ryan McCoon can complete the condominium project.

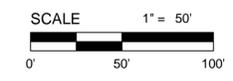
We look forward to having this project up and running and remain positive that it will enhance our already lovely complex.

Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Carolyn (Ketta) Strand".

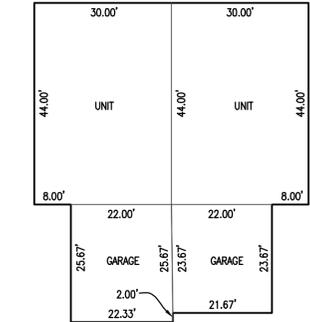
Carolyn (Ketta) Strand



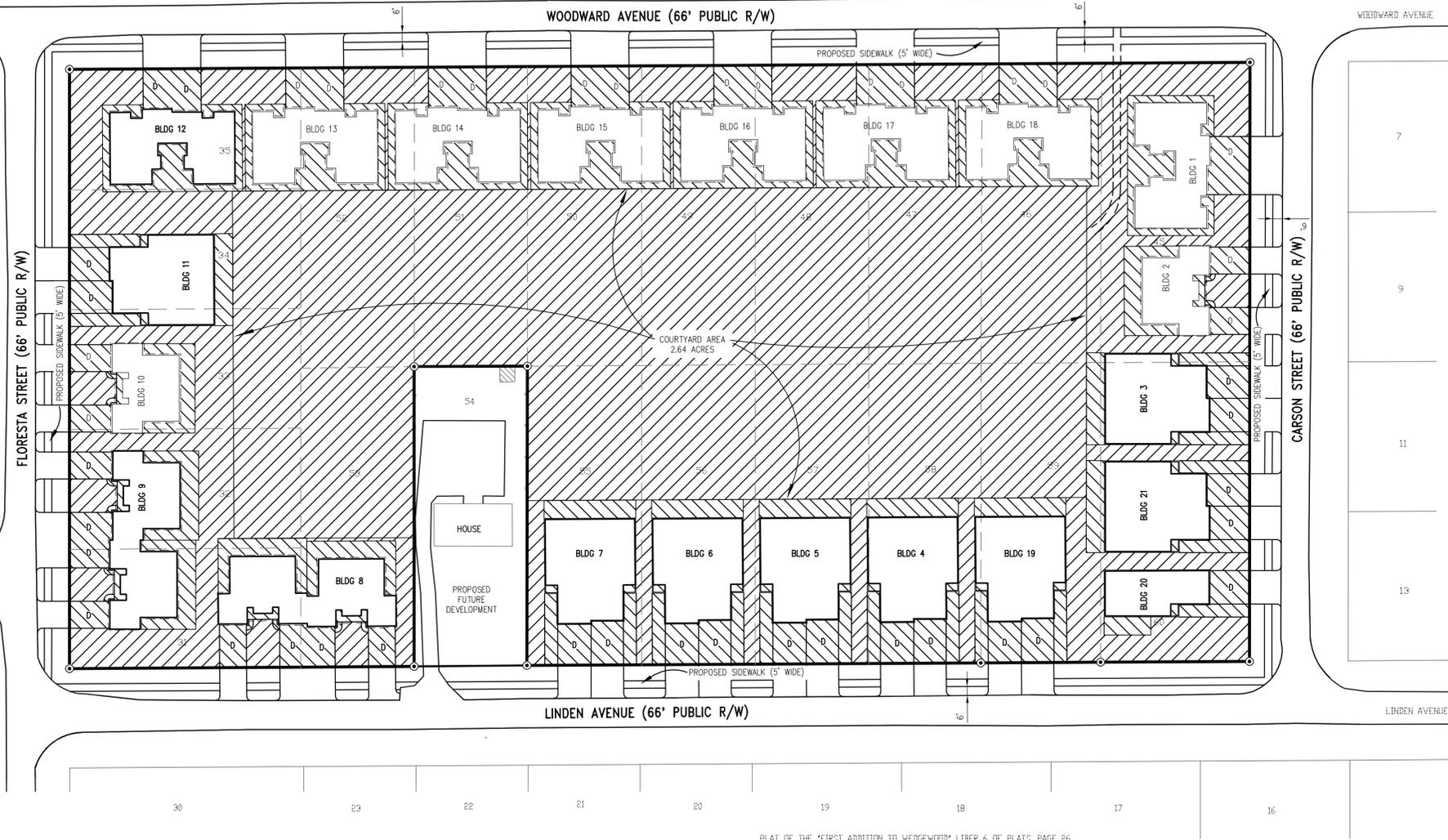
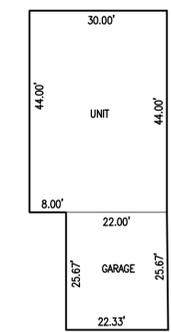
LEGEND

- BOUNDARY MONUMENT
- P.O.B. POINT OF BEGINNING
- ▨ GENERAL COMMON ELEMENT
- ▧ LIMITED COMMON ELEMENT
- D DRIVEWAY

TYPICAL LAYOUT
 BUILDINGS 3, 4, 5, 6, 7, 11, 19 AND 21



TYPICAL LAYOUT
 BUILDING 20



BUILDING AREA CHANGES		
BUILDING	PRIOR PLAN	PROPOSED PLAN
BUILDING 3	6344 SQ.FT.	9349 SQ.FT. (INCLUDING BUILDINGS 20 & 21)
BUILDING 4	2119 SQ.FT.	3726 SQ.FT.
BUILDING 5	2119 SQ.FT.	3726 SQ.FT.
BUILDING 6	2119 SQ.FT.	3726 SQ.FT.
BUILDING 7	2119 SQ.FT.	3726 SQ.FT.
BUILDING 8	4232 SQ.FT.	4232 SQ.FT.
BUILDING 9	4232 SQ.FT.	4232 SQ.FT.
BUILDING 11	2119 SQ.FT.	3726 SQ.FT.
BUILDING 12	3409 SQ.FT.	3409 SQ.FT.
BUILDING 19	3409 SQ.FT.	3726 SQ.FT.

- NOTES:
 THE FOLLOWING DIMENSIONAL CONSTRAINTS HAVE BEEN MAINTAINED WHICH IS CONSISTENT WITH PRIOR APPROVAL AND CURRENT RECORDED CONDOMINIUM DRAWINGS
- SIDE DISTANCE BETWEEN BUILDING OR TO ADJACENT PROPERTY LINE - 12'
 - REAR DISTANCE TO ADJACENT BUILDINGS - 30 FEET WITH THE EXCEPTION OF BUILDINGS 20 AND 21 TO 19 IN WHICH CASE 27'
 - FRONT DISTANCE TO BUILDING - 27'
 - 34% OF THE SITE IS COVERED BY BUILDINGS WHICH IS BELOW THE MAXIMUM OF 35%

**KENSINGTON WEST CONDOMINIUM
 CONCEPTUAL SITE PLAN
 PATRICK ROKOSZ**

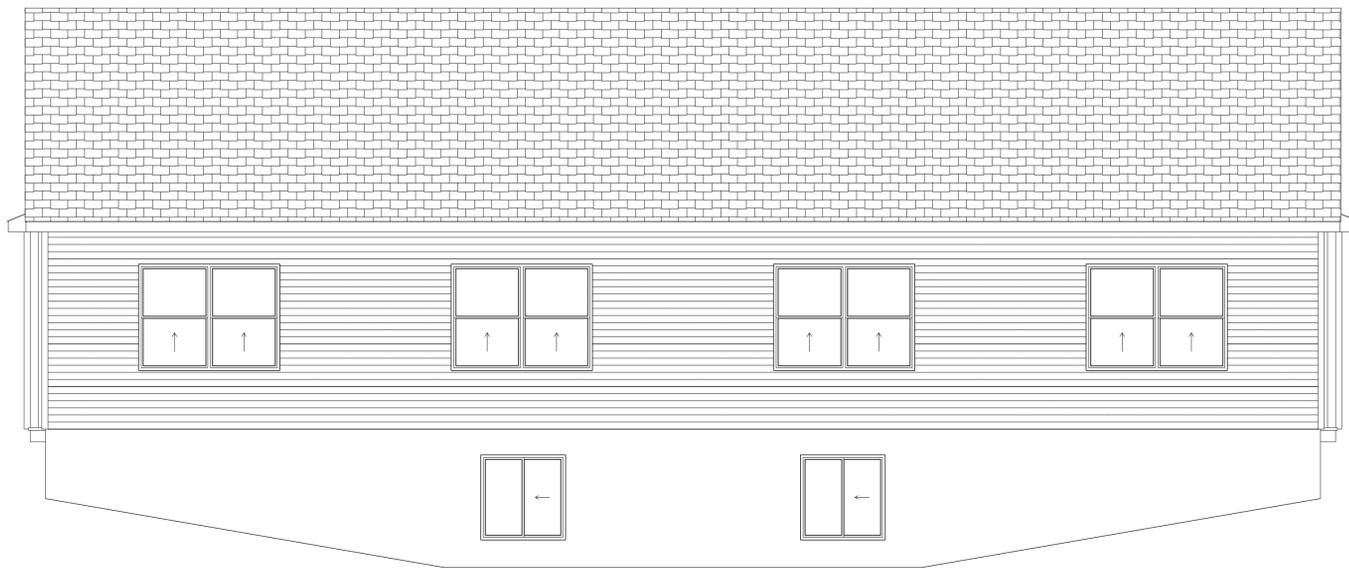
No.	Date	Revision	By
3	4/22/2022	MOVED SIDEWALKS	CLK
2	4/19/22	MOVED SIDEWALK ALONG EAST SIDE	CLK
1	3/21/22	ADDED SIDEWALK ALONG EAST SIDE	CJP

Location:
 KENSINGTON WEST CONDOMINIUM
 NW 1/4 OF THE SE 1/4 OF
 SECTION 14, T27N, R11W
 GARFIELD TOWNSHIP
 GRAND TRAVERSE COUNTY

Project Number:
 2021214001.01



FRONT ELEVATION
SCALE: 1/4" = 1'-0"



REAR ELEVATION
SCALE: 1/4" = 1'-0"

Patrick Rokosz:
Ryan McCoon

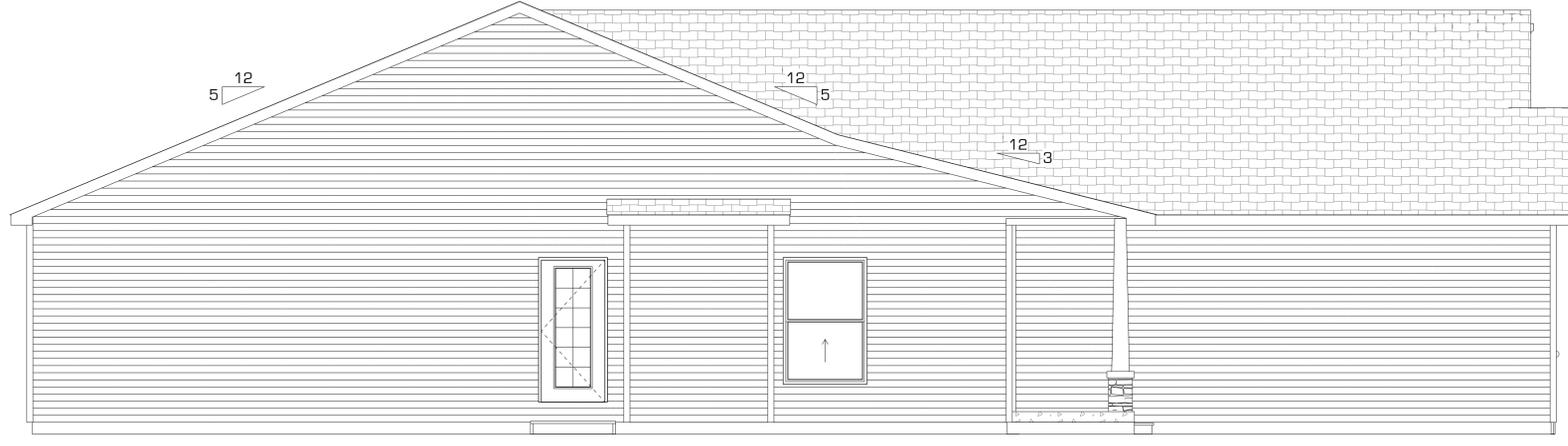
4650 E. Wilder Road
Ray City
MI 48706

DESIGNING PERFECTION

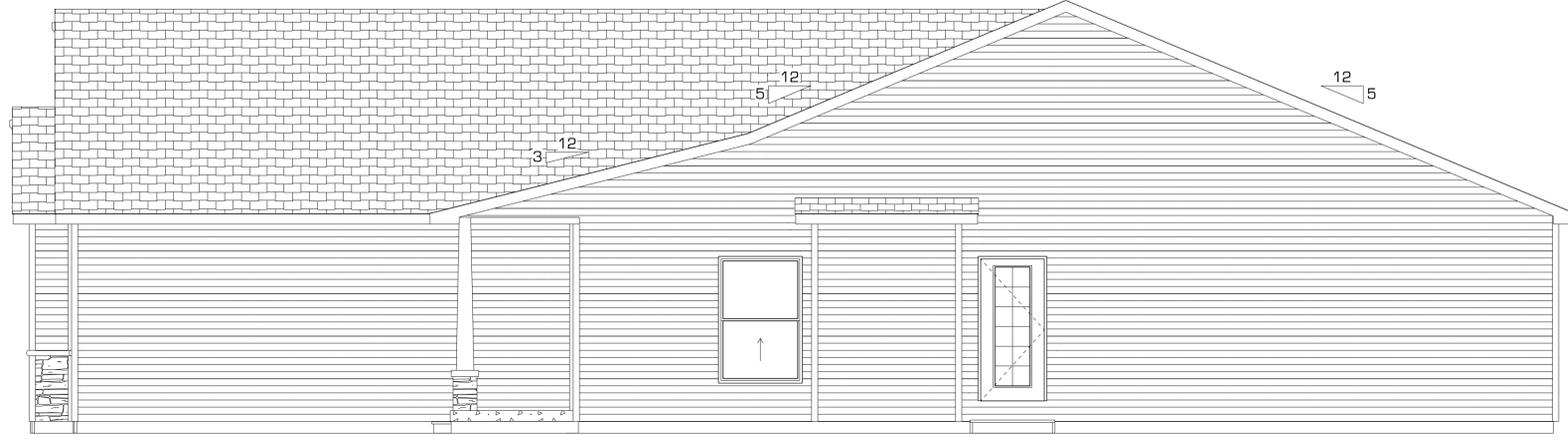
800 S POSEYVILLE ROAD
MIDLAND, MI 48640
jacob@designingperfection.net

Designing Perfection is not an architect or engineer and construction from these plans should not be undertaken without the assistance of a construction professional. The purchaser and builder of this plan release Designing Perfection from any claims or lawsuits that may arise during or construction of the project. Designing Perfection is not responsible for the accuracy of these drawings in excess of their original purchase price. Therefore, the builder must carefully inspect all dimensions and details in these drawings and assume responsibility for the same.





LEFT ELEVATION
SCALE: 1/4" = 1'-0"



RIGHT ELEVATION
SCALE: 1/4" = 1'-0"





Designing Perfection is not an architect or engineer and construction from these plans should not be undertaken without the assistance of a construction professional. The purchaser and builder of the plan release Designing Perfection from any claims or lawsuits that may arise during the construction of the project. Designing Perfection is not responsible for the accuracy of these plans to accept any liability for the accuracy or overall integrity of these drawings in excess of their original purchase price. Therefore, the builder must carefully inspect all dimensions and details in these drawings and assume responsibility for the same.

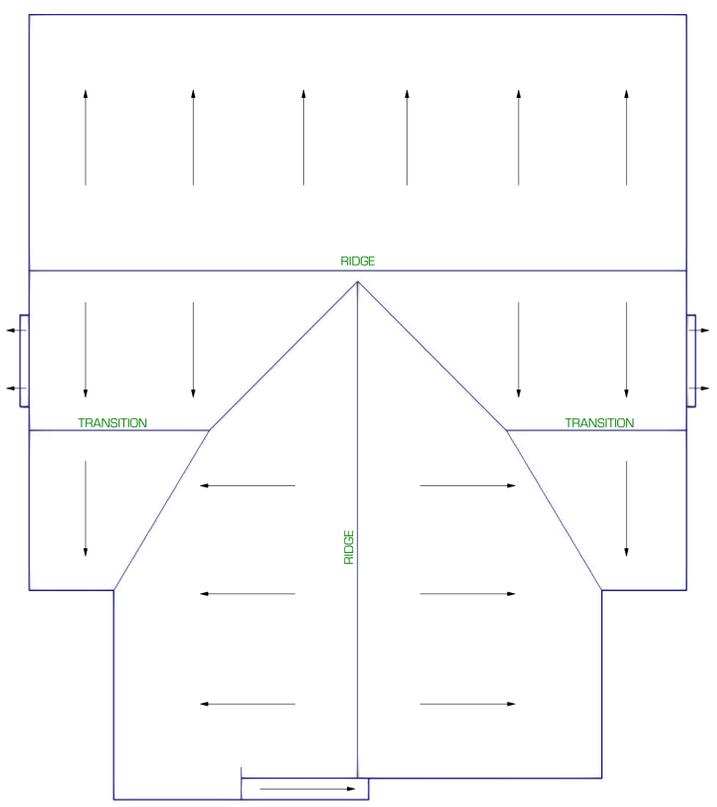
DESIGNING PERFECTION
 800 S POSEYVILLE ROAD
 MIDLAND, MI 48840
 jacobdesigningperfection.net

Patrick Rokosz:
Ryan McCoon
 4650 E. Wilder Road
 Bay City
 MI 48706

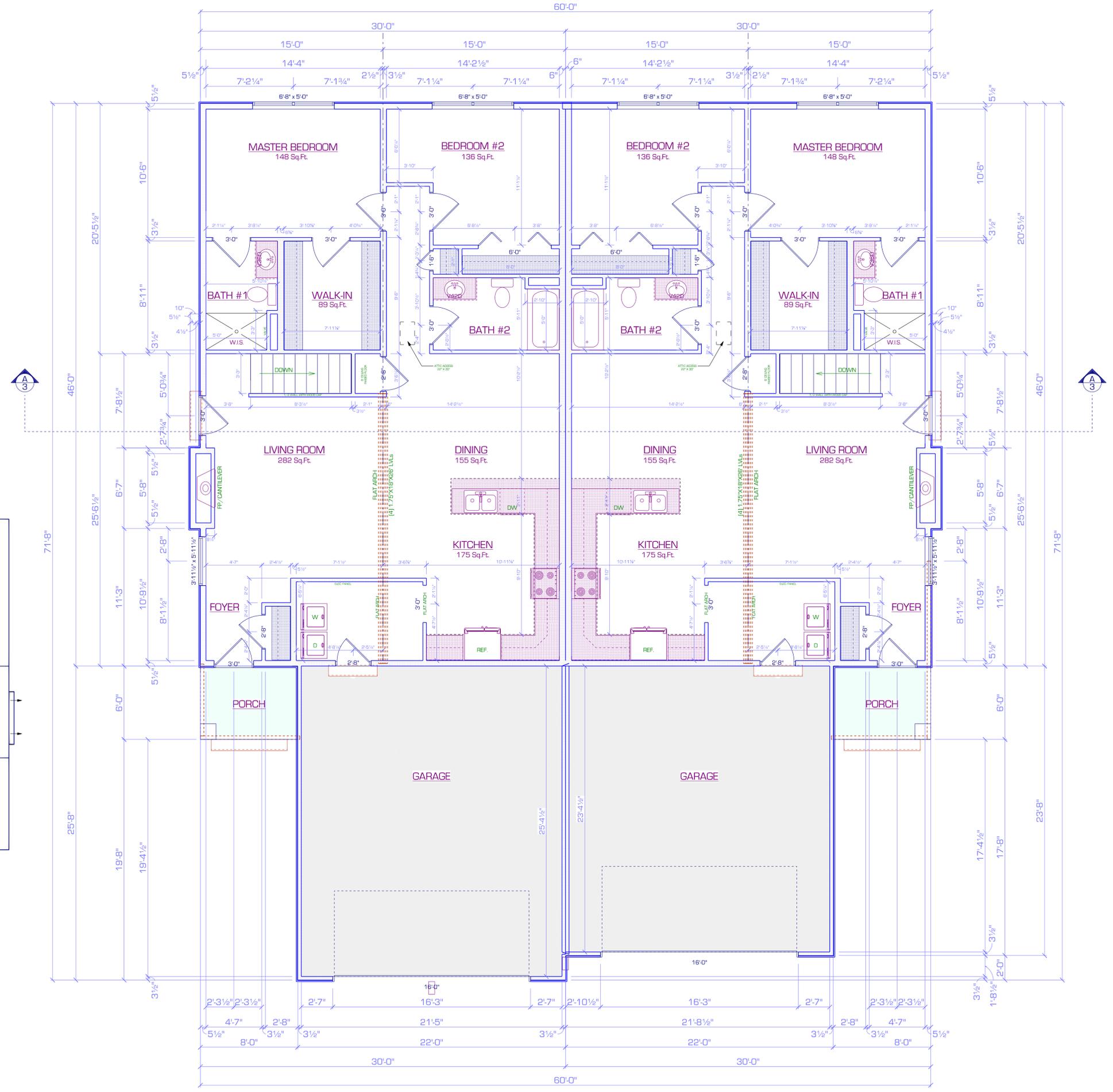
SCALE: As Noted
 DRAWN BY: JACOB PYLES
 DATE: Tuesday, January 11, 2022
 APPROVED:

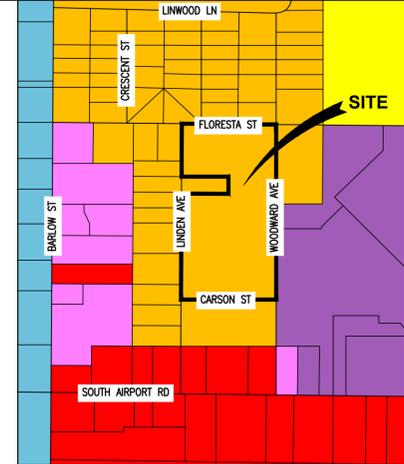
- GENERAL NOTES:**
- GABLE OVERHANGS ARE 12" AND EAVES ARE 24"
 - CLOSETS ARE 2'1" DEEP UNLESS NOTED OTHERWISE
 - EXTERIOR WALLS ARE 2X6 STUDS UNLESS NOTED OTHERWISE
 - WALL HEIGHTS ARE 9' 1-1/8" TALL
 - AREA: 1380 SQ.FT. (EACH UNIT), TOTAL: 2760 SQ.FT.
 - ALL INTERIOR WALLS ARE DIMENSIONED FROM STUD TO STUD
 - FIREPLACE WALL DIMENSIONS TO BE VERIFIED AFTER SELECTION IS MADE
 - FIREPLACE AREA TO BE CANTILEVERED WITH FLOOR SYSTEM
 - ALL INTERIOR WALLS ARE 2X4 STUDS UNLESS NOTED OTHERWISE
 - MINIMUM R-19 EXTERIOR WALL INSULATION
 - MINIMUM R-49 LOOSE FILL INSULATION IN ATTIC
 - ALL HEADERS SIZED BY MATERIAL SUPPLIERS

FLOOR PLAN V3
 SCALE: 1/4" = 1'-0"



ROOF PLAN
 SCALE: 1/8" = 1'-0"

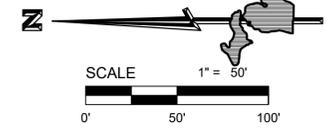




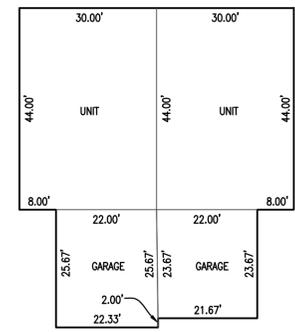
LOCATION MAP
NO SCALE

LEGEND

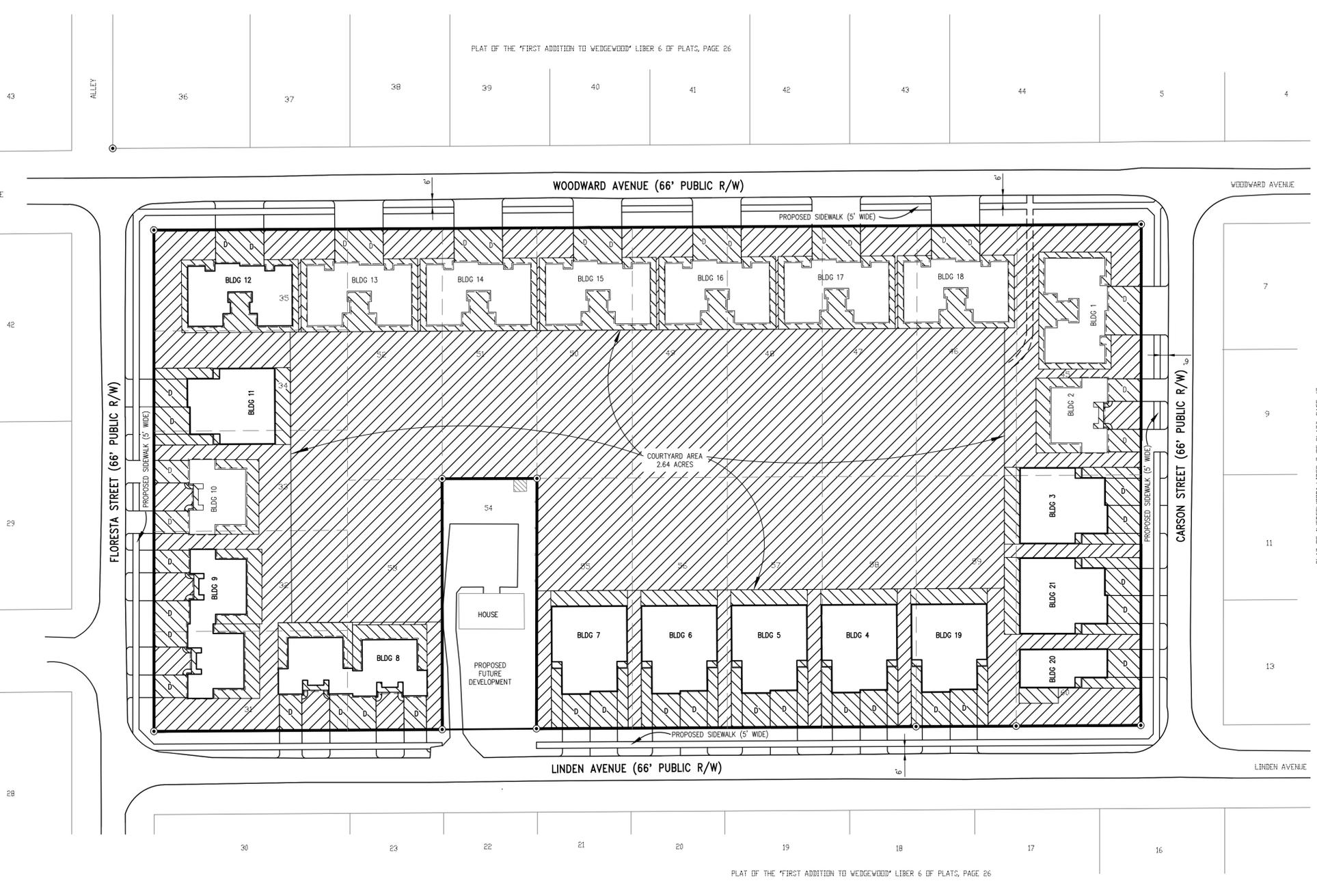
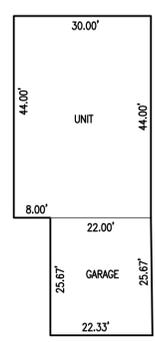
[Orange Box]	R-3 MULTI-FAMILY RESIDENTIAL
[Purple Box]	C-P PLANNED SHOPPING
[Pink Box]	C-L LOCAL COMMERCIAL
[Red Box]	C-G GENERAL COMMERCIAL
[Yellow Box]	R-1 ONE FAMILY RESIDENTIAL
[Blue Box]	I-G GENERAL INDUSTRIAL



TYPICAL LAYOUT
BUILDINGS 3, 4, 5, 6, 7, 11, 19 AND 21

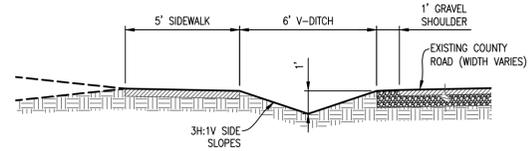


TYPICAL LAYOUT
BUILDING 20



BUILDING AREA CHANGES

BUILDING	PRIOR PLAN	PROPOSED PLAN
BUILDING 3	6344 SQ.FT.	9349 SQ.FT. (INCLUDING BUILDINGS 20 & 21)
BUILDING 4	2119 SQ.FT.	3726 SQ.FT.
BUILDING 5	2119 SQ.FT.	3726 SQ.FT.
BUILDING 6	2119 SQ.FT.	3726 SQ.FT.
BUILDING 7	2119 SQ.FT.	3726 SQ.FT.
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BUILDING 11	2119 SQ.FT.	3726 SQ.FT.
BUILDING 12	3409 SQ.FT.	3409 SQ.FT.
BUILDING 19	3409 SQ.FT.	3726 SQ.FT.



REVISED OPEN DITCH SECTION
NOT TO SCALE

LEGEND

⊙	BOUNDARY MONUMENT
P.O.B.	POINT OF BEGINNING
[Hatched Box]	GENERAL COMMON ELEMENT
[Dotted Box]	LIMITED COMMON ELEMENT
D	DRIVEWAY

- NOTES:**
- THE FOLLOWING DIMENSIONAL CONSTRAINTS HAVE BEEN MAINTAINED WHICH IS CONSISTENT WITH PRIOR APPROVAL AND CURRENT RECORDED CONDOMINIUM DRAWINGS
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**KENSINGTON WEST CONDOMINIUM
 CONCEPTUAL SITE PLAN
 PATRICK ROKOSZ**

Date Issued: 12/17/2021
 Date Surveyed:
 Designed By:
 Drawn By: CLK
 Checked By: CJP
 Scale: 1"=50'
 Original sheet size is 22x34

Location:
 KENSINGTON WEST CONDOMINIUM
 NW 1/4 OF THE SE 1/4 OF
 SECTION 14, T27N, R11W
 GARFIELD TOWNSHIP
 GRAND TRAVERSE COUNTY

Project Number:
 2021214001.01

to any continuing degree of accuracy would be unlikely. Thus, the dog owners are to be encouraged to police themselves.

- i. *Storage of vehicles and other equipment.* No recreational vehicles, non-operational vehicles, boats, trailers, house trailers, camping trailers, or any other kind of trailer, shall be parked or stored anywhere on the property, except within the units, with the garage door closed. No snowmobile, all-terrain vehicle, or other motorized recreational vehicle shall be operated on the Courtyard nor on any portion of the common elements other than the driveways serving each unit. No maintenance or repair shall be performed on any boat or recreational vehicle except within a garage or residence where totally isolated from public view.
- j. *Satellite dishes.* A co-owner may install a satellite dish on the co-owner's unit, subject to reasonable prior written approval by the association as to size, location, color, and screening. To the extent required by applicable federal law, the association's regulations shall not unreasonably impair a co-owner's installation, maintenance, or use of the satellite dish.
- k. *Application of restrictions.* Unless there is an election to arbitrate pursuant to these bylaws, a dispute or question as to whether a violation of any specific regulation or restriction contained in this section has occurred shall be submitted to the board, which shall conduct a hearing and render a decision in writing; the decision shall be binding upon all co-owners and other parties having an interest in the project.
- l. *Use of common elements.* The general common elements shall not be used for the storage of supplies or personal property (except for such short periods of time as may be reasonably necessary to permit the placement of trash for collection the next day). No co-owner shall in any way restrict access to any utility line or other area that must be accessible to service the common elements or that affects an association responsibility in any way. In general, no activity shall be carried on nor condition maintained by any co-owner either in the co-owner's unit or upon the common elements that despoils the appearance of the condominium.
- m. *The "Courtyard".* The Courtyard, as a general common element, is dedicated for passive, non-motorized, recreational use. No trees or shrubs shall be cut or removed, without the approval of the Association Board of Directors, nor are fires permitted. Likewise, no structures, equipment, or other personal property may be stored unattended in the Courtyard. In this regard, the board is given authority to adopt, and/or revise or repeal, regulations regarding the types of passive use to be used in the Courtyard, and to determine the type and location of recreational equipment to be placed there for the benefit of the owners. Skateboard parks are prohibited.
- n. *Yard Areas.* These areas are limited common elements and may be used by the designated owners for landscaping and/or garden uses, subject to such regulations as the board of directors may, from time to time, adopt.

Ryan McCoon

From: Steve Barry <sbarry@gtcrc.org>
Sent: Wednesday, August 31, 2022 2:41 PM
To: Ryan McCoon
Subject: Kensington West Condos

Ryan,

GTCRC has reviewed storm water and sidewalks plan and approve of the development under the condition that the sidewalks need to meet ADA compliant.

Thank you,

Steve Barry
GTCRC Permit and Violations Agent
231-922-4849 EXT 205



PROPOSED CONDITION

The proposed drainage plan is in the same drainage configuration as previous approved. Upgraded building drainage was indicated in the applicant's submittal – deeper French Drains. The following is noted:

1. The buildings proposed with expanded footprint are listed on the Storm Water Clarification document as 3, 4, 5, 6, 7, 11, 19, 20 and 21. A site plan dated 04/22/2003 was provided without building numbers. GFA referenced record Township utility plans showing building numbers one (1) through eighteen (18). Please provided a site plan with building numbers. Also please quantify the expansion per building and total roof drainage area per building.
2. Regarding roadway drainage, record utility plans were referenced for this review. They show ditching around all roadways with frontages shedding towards ditching. No change to the road system is proposed with this application. However, its assumed that drainage improvements were only installed as the condominium was built out. The submitted correspondence indicated road drainage was a condition of approval. Please confirm the typical improvements to the roadway frontage of each building were implemented– ditching, ect, in effort to establish a continuity with the previously approved plans of 2004.
3. Regarding building drainage, roof runoff is proposed to utilize gutter collection and downspouts to convey storm water to French drains located at each downspout, or around the building perimeter in locations lacking gutter collection. The proposed French drains are two (2) feet in depth in comparison to the existing six (6) inch deep drains detailed on the 11/21/2003 Overall Site Plan (Sheet 1 of 6). The proposed French drain sizing is presumably adequate for storm water management of the proposed building footprint increase. The following is noted:

GFA ran a validation calculation and anticipate the level of management being somewhere between 25-yr and 100-yr level depending on plausible 3 to 6 in/hr infiltration rates over 24 hrs which is reasonable and acceptable for this area.



RECOMMENDATION

As a result of this review, we agree that use of the deepened French Drains meet the standards for storm water review for the proposed buildings. Understanding the review of this system is a continuation of previously approved plans, we've requested some minor clarifications to finalize. At this point it is requested the Applicant submit a final signed and sealed along with the necessary revisions and confirmations for the above comments. After a cursory review, we recommend the Township approve the site for storm water control upon receipt of the final plans, agreements and permits. We appreciate the opportunity to assist the Township during the approval of this project. If you have any questions, please don't hesitate to contact me at (231) 946-5874.

Sincerely,

Engineer

cc: Community Planning & Land Use Consulting, LLC

		Charter Township of Garfield Planning Department Report No. 2022-88	
Prepared:	September 7, 2022	Pages:	8
Meeting:	September 14, 2022 Planning Commission	Attachments:	<input checked="" type="checkbox"/>
Subject:	7Brew 2537 North US-31 Special Use Permit – Update/Set Public Hearing		
File No.	SUP 2022-01	Parcel No.	05-021-036-10
Applicant:	2537 N US 31 South LLC – Kevin Myers		
Agent:	BFA, Inc. – John Schebaum		
Owner:	2537 N US 31 South LLC		

BRIEF OVERVIEW:

- Location: 2537 N US-31 South, north of South Airport Road
- Parcel area: 0.46 acres
- Existing land use: Former PNC Bank building with drive-through
- Existing zoning: C-G General Commercial District

PURPOSE OF APPLICATION:

This application requests approval of a Special Use Permit for a proposed 652-square foot drive-through coffee shop with only drive-through and walk-up service, with no dine-in services. Drive-through business uses are permitted via Special Use Permit in the C-G General Commercial District. The site (Parcel ID #05-021-036-10) is occupied by the former PNC Bank building with drive-through.

Aerial image of the subject property (property lines highlighted in blue):



SITE DESIGN AND ZONING COMPLIANCE OVERVIEW:

In approving any special use permit pursuant to Section 423, the Planning Commission may impose such reasonable standards, conditions, or requirements, in addition to or that supersede any standard specified in this ordinance, as it may deem necessary to protect the public interest and welfare. Such additional standards may include, but need not be limited to:

- a) Financing;
- b) Availability of adequate public facilities or services;
- c) Dedication of land;
- d) Reservation of land;
- e) Creation of special assessment districts;
- f) Creation of restrictive covenants or easements;
- g) Special setbacks;
- h) Yard requirements;
- i) Increased screening or landscaping requirements;
- j) Area requirements;
- k) Development phasing; or
- l) Standards pertaining to traffic, circulation, noise, lighting, hours of operation, protection of environmentally sensitive areas, and similar characteristics.

Staff offers the following comments regarding site design and compliance with the Zoning Ordinance:

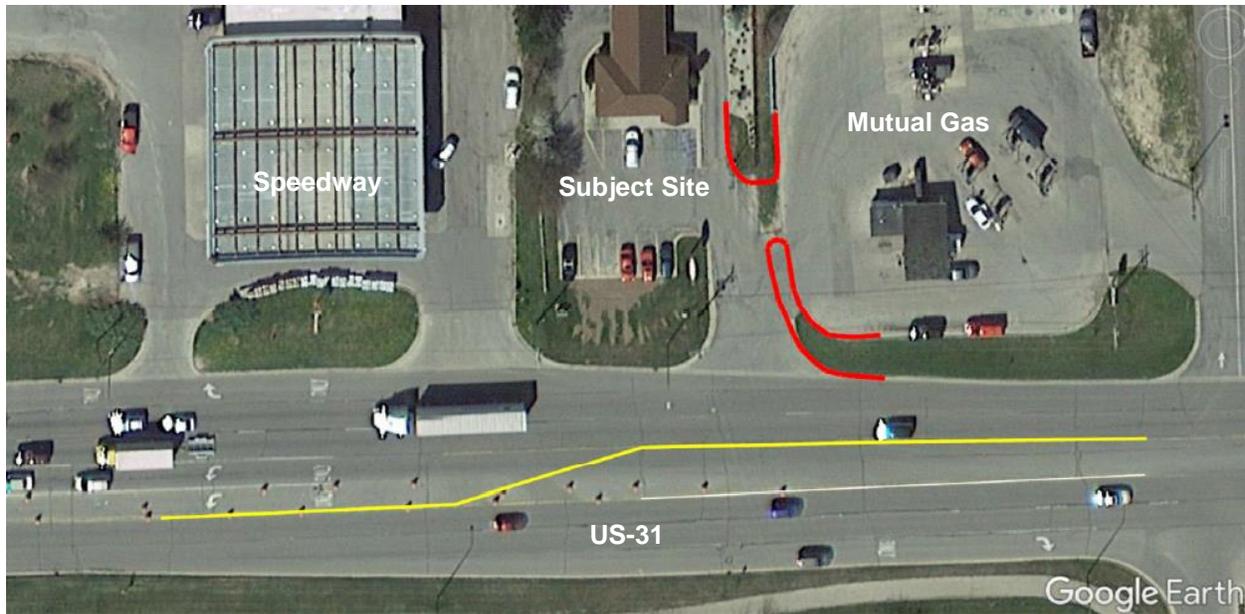
Setbacks:

The front setback is 40 feet in the C-G District; however, drive-throughs are required to have a 60-foot setback from the right-of-way line. Side and rear yards in the C-G District shall be ten percent (10%) of the lot width and depth, respectively, but need not exceed twenty-five (25) feet each, provided that no setback shall be less than ten (10) feet. In this case, the parcel is 100 feet wide, therefore the side and rear yard setbacks shall be 10 feet. The proposed buildings and structures meet the front, side, and rear yard setback requirements.

Traffic Impact Report:

In accordance with Section 618, a traffic impact report was requested to determine that unsafe or hazardous conditions will not be created by the development as proposed. As requested, the applicant has provided a traffic impact report prepared by Fishbeck. The Township's traffic engineer, OHM Advisors, conducted a review of the traffic impact report and provided a response. See attached reports from Fishbeck and OHM. As noted in the OHM report dated September 6, 2022, the following recommendation was made:

“US-31 at Airport Road Queues – The analysis indicates that the PM peak southbound queues (both existing and future) extend to and beyond the 7Brew site drive. This may become an issue when vehicles are attempting to access the site traveling NB on US-31. While the study indicates there is room for two vehicles to stack to turn left into the site, there may be no room due to queues extending through this area. In addition, for vehicles to get into this storage area there is no taper, so vehicles would need to cross the double yellow to get in. Providing a taper and stacking for left turns in would be safer for 7Brew traffic but would then have SB US-31 left-turn traffic spilling into the through lanes. This leaves this situation as an area of concern and may warrant further discussion with MDOT.”



Access Management:

Currently, ingress from and egress to US-31 is through a shared drive with the Mutual gas station. The shared driveway was never approved for the site, however it was constructed as part of an MDOT intersection improvement project in 2003. As part of their review, OHM was directed to review the driveway configuration to determine that unsafe or hazardous conditions will not be created by the proposed development. As noted in the OHM report dated September 6, 2022, the following recommendation was made:

“The site plan has been improved to help traffic navigate leaving and entering 7Brew while considering traffic to/from the gas station. The proposed changes include providing a setback stop for vehicles leaving 7Brew, which would provide right of way to traffic leaving the gas station. While this does improve on the previous site plan, there could be further improvement if the gas station and 7Brew worked together to revise the access for both sites. The figure above provides an additional concept to further channelize traffic to reduce conflicts. In this configuration, traffic leaving both 7Brew and the gas station could be under stop control. This concept gives priority to traffic entering both sites, which in turn prevents vehicles from backing up out onto US-31.”

Furthermore, a shared driveway easement and agreement will be necessary for this joint driveway.

Parking, Loading, and Snow Storage

Drive-in or drive-through only restaurants have a minimum parking requirement of 1 for each employee on the largest shift plus one for each outdoor table. The site plan indicates there are 5 employees per shift. There are 6 parking spaces proposed including 1 barrier-free space. The building is small enough that a loading zone is not required.

Bicycle parking shall be provided at the rate of 2 bicycle spaces per 25 motor vehicle spaces. One bicycle rack is proposed and indicated on the plan, which will give space for 2 bicycles.

As required by Section 551 of the Ordinance, a ratio of ten (10) square feet of snow storage is required per one hundred (100) square feet of parking area. With 10,390 square feet of parking area, 1,275 square feet of snow storage area has been indicated on the site plan which meets this requirement.

Sidewalks:

A bike path is required on US-31 according to Section 522.A. of the Zoning Ordinance. A 10-foot-wide asphalt bike path is shown on the site plan. A five-foot-wide concrete sidewalk from the bike path towards the building is also shown.

Lighting

A photometric site plan is included with the site plan. Lighting standards of Section 517 of the Zoning Ordinance are described as follows:

Zoning Ordinance Lighting Standard	Subject Site
<i>A. Applicability</i> – All outdoor lighting shall be installed in conformance with the provisions of this section. Certain light fixtures exempt from this section include decorative lighting, public streetlights, emergency lights, nonconforming existing lights, neon, and flag lighting.	None of these exceptions apply to this site, so all lighting for this site is subject to the requirements of this section.
<i>B. Shielding and Filtration</i> – Lighting fixtures shall provide glare free area beyond the property line and light shall be confined to the lot from which it originates. All fixtures shall have full cut-off and shall not direct light upwards. Light sources shall be located, and light poles shall be coated, to minimize glare.	Information has been provided on the type of fixtures and appear to meet these requirements.
<i>C. Illumination</i> – Average illumination levels shall not exceed 3.0 foot-candles (FC) for the main parking area, 2.0 FC for the peripheral parking area, 5.0 FC for main drive areas, and 20.0 FC directly below the lighting fixture. The illumination levels shall also not exceed 1.0 FC adjoining another nonresidential zoning district along a property line, or 2.0 FC along an arterial. Average lighting values of illuminated areas ranging from 0.5 to 1.5 FC are recommended.	The photometric plan shows 29 light fixtures, including four pole mounted fixtures, one building mounted fixture, and 24 under canopy fixtures. The most intense light is under the canopy at 30.7 foot-candles. The illumination levels at the south side of the site exceed property line levels of 2.0. The lighting fixtures need to be adjusted to meet the lighting standards of Section 517 for illumination.
<i>D. Color Temperature</i> – All proposed lamps shall emit light measuring 3,500 K or warmer.	Fixture specifications have been provided that indicate a color temperature of 3,000 K which meets this requirement.
<i>E. Prohibitions</i> – Prohibitions include mercury-vapor or metal halide fixture and lamps, laser source lights, searchlights, or any light that does not meet shielding and illumination standards.	Information has been provided on the type of fixtures and appear to meet these requirements.
<i>F. Pole Height</i> – All pole-mounted lighting shall not exceed the maximum zoning district height.	Four light poles are proposed. The height of the poles needs to be provided.

Landscaping

Landscaping requirements are described by the following for each length of greenspace area (e.g., without including the ingress and egress drives):

Greenspace (Length)	Adjacent Land Use	Buffer Planting Requirement	Amount Required	Amount Provided
East (75 ft.)	State Highway (US 31)	Type “D” * Ground cover as specified in Section 530.J, plus * 4 large trees, 3 medium or small trees, and 3 evergreen or coniferous trees per 100 linear feet of greenspace area * Minimum width: 20 feet	3 large trees 2 med./small trees 2 evergreen trees 20-foot width	0 large trees 3 med./small trees 0 evergreen trees 21 shrubs 10-foot to 20-foot width
North (165 ft.)	Commercial	Type “B” * Ground cover as specified in Section 530.J, plus * 2 large trees, 1 medium or small tree, and 4 shrubs per 100 linear feet of greenspace area * Minimum width: 10 feet	3 large trees 2 med./small trees 6 shrubs 10-foot width	0 large trees 2 existing med./small trees (*credit for 4 trees) 1 new med./small tree 10 shrubs 7-foot width
West (161 ft.)			2 large trees 1 med./small tree 4 shrubs 10-foot width	Existing retaining wall with gravel due to the steep slope.
South (200 ft.)			4 large trees 2 med./small trees 8 shrubs 10-foot width	4 existing large trees (*credit for 16 trees) 4 existing med./small trees (*credit for 8 trees) 5-foot width

The Planning Commission may waive or adjust any landscaping requirement in whole or in part provided that certain conditions exist upon the site.

- As proposed, the plantings for the north and south buffers are acceptable due to credit from existing trees. The existing widths of the buffers are substandard with the north at 7 feet and the south at 5 feet, however they are acceptable.
- The existing west buffer consisting of landscape gravel and a retaining wall is acceptable due to the steep slope between the subject site and the existing Best Buy store.
- As proposed, the east buffer does not meet planting requirements and the buffer width is substandard in places. The applicant is seeking relief due to existing utilities. Given that this is a completely new site, this is a self-created hardship. At a minimum, staff recommends two large trees (i.e., street trees).

Dumpster Enclosure

Section 516 states that enclosures shall be finished with the same materials and colors as the exterior finish of the principal structure or shall be concrete block or similar material. A dumpster enclosure is shown for the northside of the site. Details of the enclosure are included (Sheet A5.0) and show an enclosure that is 16-0” x 12-8” and 7’ tall. The enclosure will be a red brick and block with a wood gate.

Signs

Signs require sign permit review and are not approved under the site plan review process. A note on Sheet SP-1 states “Signs are subject to sign permit review by Garfield Township.”

Stormwater Management

Stormwater review by the Township Engineer will be required prior to the issuance of a Land Use Permit.

Other Reviews:

Other reviews may be necessary including Metro Fire and Michigan Department of Transportation.

USE STANDARDS – DRIVE-THROUGH:

Section 730 of the Zoning Ordinance outlines several specific regulations and conditions for drive-in and drive-through uses, including the following:

1. *Service and dining may be in automobiles or outdoors, but all other activities shall be carried on within a building.*

The site plan shows the building, drive-through, and parking area. No outdoor dining is proposed, but a picnic table is provided.

2. *A setback of at least sixty (60) feet from the right-of-way line of any existing or proposed street shall be maintained.*

The building measures approximately 60 feet from the right-of-way line of US-31.

3. *Ingress and egress points shall be located at least fifty (50) feet from the nearest edge of the traveled portion of any intersecting streets.*

The proposed drive is 400 feet from the intersection of US-31 and South Airport Road. However, due to the large scale of this intersection, deceleration lanes and double left turn lanes extend back from the intersection to the subject site.

4. *Pedestrian areas shall be clearly marked and maintained.*

The site plan shows internal sidewalks around the front and sides of the building with a designated connection to the pathway on US-31.

5. *Only one (1) ingress-egress drive shall be allowed per major thoroughfare.*

There is only one existing ingress-egress drive for this site onto US-31.

6. *All parking requirements shall comply with Article 5 of this Ordinance.*

Parking requirements are described in a previous section of this report.

7. *Notwithstanding the dimensional standards of this Ordinance, lots used for drive-in businesses and drive-in or drive-through restaurants shall have a minimum width of one hundred (100) feet.*

The parcel width is 100 feet.

8. *Queuing requirements, drive-in and drive-through businesses shall be designed to accommodate the maximum number of queuing vehicles that may be expected to seek service at any one time without queuing onto an adjacent thoroughfare, including service drives. The determination as to the required queuing spaces shall be established by the Planning Commission based upon the anticipated number of vehicles likely to queue while waiting for service. The Planning Commission may require more than twelve (12) queuing spaces based upon evidence presented to it, but in no event shall the required number of queuing spaces be reduced below twelve (12).*

The site plan shows the drive-through lanes will accommodate at least 12 queuing spaces.

9. *Notwithstanding the provisions of this section, the queuing of vehicles onto the traveled portion of a public roadway providing access to the business establishment such that queuing interferes to an extent with the free flow of traffic on the traveled portion of that roadway shall subject the Special Use Permit holder to enforcement action, including fines, injunctive relief and/or revocation of the Special Use Permit.*

This requirement shall be enforced as needed as part of the operation of the site.

10. *The site shall have been found to be a suitable site for a drive-in or drive-through establishment, with regard to traffic safety, by a registered engineer with an educational specialization in traffic engineering.*

The applicant has provided a traffic impact report from a registered traffic engineer.

ACTION REQUESTED:

At this point, the application can be accepted and schedule a public hearing as required for a special use permit. Following an opportunity for applicant presentation and Commissioner discussion, the following motion is offered for consideration:

MOTION THAT application SUP 2022-01, submitted by BFA, Inc., for a Special Use Permit for s 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.

Any additional information that the Planning Commission determines to be necessary should be added to this motion.

Attachments:

1. Application for Special Use Permit (dated June 8, 2022)
2. Impact Statement and Basis of Determination (dated June 8, 2022)
3. 7Brew – Traffic Impact Study (from Fishbeck dated June 8, 2022 – summary only)
4. Proposed 7Brew Coffee Shop Traffic Impact Study Review (from OHM dated July 28, 2022)
5. 7Brew Traffic Impact Study – Response to OHM Review (from Fishbeck dated August 23, 2022 – summary only)
6. OHM Comments Re: 7Brew – Traffic Impact Study Response to OHM Review (from OHM dated September 6, 2022)
7. Site Plan prepared by BFA, Inc. (dated September 6, 2022)



Charter Township of Garfield

Grand Traverse County

3848 VETERANS DRIVE
TRAVERSE CITY, MICHIGAN 49684
PH: (231) 941-1620 • FAX: (231) 941-1588

SPECIAL USE PERMIT (SUP) APPLICATION

ASSISTANCE

This application must be completed in full. An incomplete or improperly prepared application will not be accepted and will result in processing delays. Before submitting an application, it is recommended that you contact the Planning and/or Zoning Department to arrange an appointment to discuss your proposed application. Time is often saved by these preliminary discussions. For additional information or assistance in completing this development application, please contact the Planning Department at (231) 941-1620.

ACTION REQUESTED

- New Special Use Permit
- Major Amendment
- Minor Amendment
- Administrative Amendment

PROJECT / DEVELOPMENT NAME

7Brew - 2537 N. US 31

APPLICANT INFORMATION

Name: 2537 N US 31 SOUTH LLC - Kevin Myers
Address: PO Box 100843 Fort Worth, TX 76185
Phone Number: 940-300-6569
Email: km@netleasedev.com

AGENT INFORMATION

Name: BFA, Inc. - John Schebaum
Address: 103 Elm Street Washington, MO 63090
Phone Number: 636-231-4337
Email: jschebaum@bfaeng.com

OWNER INFORMATION

Name: 2537 N US 31 SOUTH LLC
Address: PO Box 100843 Fort Worth, TX 76185
Phone Number: 940-300-6569
Email: km@netleasedev.com

CONTACT PERSON

Please select one person to be contact person for all correspondence and questions:

Applicant:

--

Agent:

BFA, Inc. - John Schebaum

Owner:

--

PROPERTY INFORMATION

Property Address:

2537 N US 31 South Traverse City, MI

Property Identification Number:

05-021-036-10

Legal Description:

Attached

Zoning District:

C-G General Commercial

Master Plan Future Land Use Designation:

Commercial

Area of Property (acres or square feet):

0.46 Acres

Existing Use(s):

Vacant Bank

Proposed Use(s):

Drive-Through Coffee Shop

PROJECT TIMELINE

Estimated Start Date:

September 2022

Estimated Completion Date:

December 2022

REQUIRED SUBMITTAL ITEMS

A complete application for a Special Use Permit consists of the following:

Application Form:

- One original signed application
- One digital copy of the application (PDF only)

Application Fee:

Fees are established by resolution of the Garfield Township Board and are set out in the current Fee Schedule as listed on the Planning Department page of the Township website (<http://www.garfield-twp.com>). Please make check out to Charter Township of Garfield.

- Fee

Escrow Fee:

Additional fees may be required if a review by independent professional help is deemed necessary by the Township. If required, such additional fees must be placed in escrow by the applicant in accordance with the escrow policies of the Township and prior to any further processing of this application. Any unused escrow funds shall be returned to the applicant. Please complete an Escrow and Review (ER) Application form.

Site Development Plan:

- Ten complete stapled 11"x17" paper sets (Administrative Amendments require one copy)
- Two complete bound 24"x36" paper sets
- One digital set (PDF only)

Written Information:

- Ten paper copies of the Approval Criteria (Administrative Amendments require one copy)
- One digital copy of the Approval Criteria (PDF only)
- Ten paper copies of the Impact Assessment (Administrative Amendments require one copy)
- One digital copy of the Impact Assessment (PDF only)

Digital items to be delivered via email or USB flash drive

SUBMITTAL DEADLINE

Submittal deadlines are listed on the Planning Department page of the Township website (<http://www.garfield-twp.com>). Please note that the listed dates are the deadlines after which submittals will not be considered for the indicated meeting. Any errors or missing information on an application submitted at the deadline will result in a delay in the processing of the application. An earlier submittal is encouraged to avoid possible delays.

WAIVERS

Submittal Waiver:

At the discretion of the Director of Planning, a Site Development Plan may be waived in any of the following cases when it is determined that the submission would serve no useful purpose:

1. The erection or enlargement of an accessory structure;
2. The enlargement of a principal building by less than 20 percent of its existing gross floor area, provided such enlargement will not result in a requirement for additional off-street parking;
3. A change in principal use where such change would not result in an increase in impervious surface area, additional off-street parking, site access, other external site characteristics or a violation of this ordinance.

Data Waiver:

The Director of Planning may waive a particular element of information or data otherwise required for a Site Development Plan upon a finding that the information or data is not necessary to determine compliance with this ordinance or that such information or data would not bear on the decision of the approval authority.

SITE PLAN

Check that your site plan includes all required elements for a Site Development Plan (SDP). Please use the Required Site Plan Elements Checklist below.

APPROVAL CRITERIA

Indicate, on a separate sheet of paper, how the proposed special use will comply with, meet, or facilitate each of the following Approval Criteria from § 423.E of the Zoning Ordinance. The Planning Commission must determine that each of these criteria are satisfied in order to grant approval of a Special Use Permit. A special use is permitted only if the applicant demonstrates that: special use is permitted only if the applicant demonstrates that:

- The proposed use will be consistent with the purpose and intent of the master plan and this ordinance, including all regulations of the applicable zoning district;

- The proposed use will be designed, constructed, operated and maintained so as to be compatible, harmonious and appropriate with the existing or planned character and uses of the neighborhood, adjacent properties and the natural environment;
- The proposed use will not be detrimental, hazardous or disturbing to existing or future adjacent uses or to the public welfare by reason of excessive traffic, noise, dust, gas, smoke, vibration, odor, glare, visual clutter, electrical or electromagnetic interference;
- Potential adverse effects arising from the proposed use on the neighborhood and adjacent properties will be minimized through the provision of adequate parking, the placement of buildings, structures and entrances, as well as the provision and location of screening, fencing, landscaping, buffers or setbacks;
- The proposed use will retain as many natural features of the property as practicable, particularly where the natural features assist in preserving the general character of the neighborhood;
- Adequate public and private infrastructure and services such as streets, water and sewage facilities, drainage structures, police and fire protection, and schools, already exist or will be provided without excessive additional requirements at public cost;
- The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;
- The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use;
- Adequate measures shall be taken to provide ingress and egress so designed as to minimize traffic hazards and to minimize traffic congestion on the public roads;
- Adequate measures shall be taken to provide vehicular and pedestrian traffic within the site, and in relation to streets and sidewalks servicing the site in a safe and convenient manner; and
- The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district.

IMPACT ASSESSMENT

A written impact statement to include the following information:

- A written illustrative description of the environmental characteristics of the site prior to development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.
- Types of uses and other man-made facilities.
- The number of people to be housed, employed, visitors or patrons and vehicular and pedestrian traffic.
- Phasing of the project including ultimate development proposals.
- Natural features which will be retained, removed and/or modified including vegetation, drainage, hillsides, streams wetlands, woodlands, wildlife and water. The description of the areas to be changed shall include their effect on the site and adjacent properties. An aerial photo may be used to delineate the areas of change.
- The method to be used to serve the development with water and sanitary sewer facilities.
- The method to be used to control drainage on the site and from the site. This shall include runoff control during periods of construction.
- If the public sewers are not available to the site, the Applicant shall submit a current approval from the Health Department or other responsible public agency indicating approval of plans for sewage treatment.

- The method to be used to control any increase in effluent discharge to the air or any increase in noise level emanating from the site. Consideration of any nuisance that would be created within the site or external to the site whether by reason of dust, noise, fumes vibration, smoke or lights.
- An indication of how the proposed use conforms with existing and potential development patterns and any adverse effects.
- The proposed density in units per acre for residential developments.
- Name(s) and address(es) of person(s) responsible for preparation of statement.
- Description of measures to control soil erosion and sedimentation during grading and construction operations and until a permanent ground cover is established. Recommendations for such measures may be obtained from the County Soil Erosion and Sedimentation office.
- Type, direction, and intensity of outside lighting.
- General description of deed restrictions, if any.

ADDITIONAL INFORMATION

If applicable, provide the following further information:

	<u>Yes</u>	<u>No</u>	<u>Not Applicable</u>
A. <u>Sanitary Sewer Service</u>			
1. Does project require extension of public sewer line?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, has a Utility Agreement been prepared?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Will a community wastewater system be installed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, has a Utility Agreement been prepared?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, provide construction plans and specifications			
3. Will on-site disposal be used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, is it depicted on plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B. <u>Water Service</u>			
1. Does project require extension of public water main?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, has a Utility Agreement been prepared?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Will a community water supply be installed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, has a Utility Agreement been prepared?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, provide construction plans and specifications			
C. <u>Public utility easements required?</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, show on plan.			
D. <u>Stormwater Review/Soil Erosion</u>			
1. Soil Erosion Plans approved by Soil Erosion Office?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If so, attach approval letter.			
If no, are alternate measures shown?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Stormwater Plans approved by Township Engineer?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If so, attach approval letter.			
If no, are alternate measures shown?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Note: Alternate measures must be designed and sealed by a registered Engineer.

E. Roads and Circulation

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Are interior public streets proposed? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| If yes, has Road Commission approved (attach letter)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Will public streets connect to adjoining properties or future streets? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Are private roads or interior drives proposed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Will private drives connect to adjoining properties service roads? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Has the Road Commission or MDOT approved curb cuts? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If yes, attach approved permit. | | | |

OTHER INFORMATION

If there is any other information that you think may be useful in the review of this application, please attach it to this application or explain it on a separate page.

REVIEW PROCESS

- Upon submittal of this application, Staff will review the materials submitted and will, within ten (10) working days, forward a determination of completeness to the applicant. If the submission is incomplete or noncompliant with the Zoning Ordinance, it will be returned to the applicant for revision. Once the submission is revised, Staff will again review it for completeness and again forward a determination to the applicant within ten (10) working days. This procedure shall be repeated until a complete submission is received.
- Once the application is deemed to be complete and submitted according to the application deadlines, it will be forwarded to the Planning Commission for review. The Planning Commission will determine if the application is complete and schedule a public hearing.
- Upon holding a public hearing, the Planning Commission may approve, approve with conditions, or deny the proposed special use.
- If approved or approved with conditions, the decision of the Planning Commission shall be incorporated into a written report and decision order.

PERMISSION TO ENTER SUBJECT PROPERTY

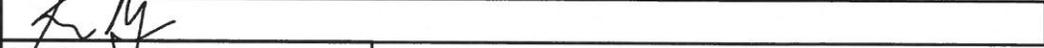
Permission is hereby granted to Garfield Township staff and Planning Commissioners to enter the premises subject to this application for the purposes of making inspections associated with this application, during normal and reasonable working hours.

Owner Signature:	
Applicant Signature:	
Agent Signature:	
Date:	6/7/22

OWNER'S AUTHORIZATION

If the applicant is not the registered owner of the lands that is the subject of this application, the owner(s) must complete the authorization set out below.

I/We 2537 N US 31 SOUTH LLC authorize to make this application on my/our behalf and to provide any of my/our personal information necessary for the processing of this application. Moreover, this shall be your good and sufficient authorization for so doing.

Owner Signature: 
Date: 

AFFIDAVIT

The undersigned affirms that he/she or they is (are) the owner, or authorized agent of the owner, involved in the application and all of the information submitted in this application, including any supplemental information, is in all respects true and correct. The undersigned further acknowledges that willful misrepresentation of information will terminate this permit application and any permit associated with this document.

Owner Signature: 
Date: 
Applicant Signature: 
Date: 

Required Site Plan Elements Checklist (See § 956 of the Zoning Ordinance) Site Diagram (SD) / Administrative Site Plan (ASP) / Site Development Plan (SDP)	SD	ASP/ SDP
A. Basic Information		
1. Applicant's name, address, telephone number and signature	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. Property owner's name, address, telephone number and signature	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Proof of property ownership	<input type="checkbox"/>	<input type="checkbox"/>
4. Whether there are any options or liens on the property	<input type="checkbox"/>	<input type="checkbox"/>
5. A signed and notarized statement from the owner of the property that the applicant has the right to act as the owner's agent	<input type="checkbox"/>	<input type="checkbox"/>
6. The address and/or parcel number of the property, complete legal description and dimensions of the property, setback lines, gross and net acreages and frontage	<input type="checkbox"/>	<input type="checkbox"/>
7. A vicinity map showing the area and road network surrounding the property		<input type="checkbox"/>
8. Name, address and phone number of the preparer of the site plan	<input type="checkbox"/>	<input type="checkbox"/>
9. Project title or name of the proposed development	<input type="checkbox"/>	<input type="checkbox"/>
10. Statement of proposed use of land, project completion schedule, any proposed development phasing	<input type="checkbox"/>	<input type="checkbox"/>
11. Land uses and zoning classification on the subject parcel and adjoining parcels	<input type="checkbox"/>	<input type="checkbox"/>
12. Seal of the registered engineer, architect, landscape architect, surveyor, or planner who prepared the plan, as well as their name, address and telephone number		<input type="checkbox"/>
B. Site Plan Information		
1. North arrow, scale, and date of original submittal and last revision	<input type="checkbox"/>	<input type="checkbox"/>
2. Boundary dimensions of natural features		<input type="checkbox"/>
3. Natural features such as woodlots, water bodies, wetlands, high risk erosion areas, slopes over twenty-five percent (25%), beach, drainage, and similar features		<input type="checkbox"/>
4. Proposed alterations to topography and other natural features		<input type="checkbox"/>
5. Existing topographic elevations at two-foot intervals except shown at five-foot intervals where slopes exceed 18%		<input type="checkbox"/>
6. Soil erosion and sediment control measures as required by the Grand Traverse County Soil Erosion Department.	<input type="checkbox"/>	<input type="checkbox"/>
7. The location, height and square footage of existing and proposed main and accessory buildings, and other existing structures		<input type="checkbox"/>
8. Location and specifications for any existing or proposed (above or below ground) storage facilities for any chemicals, salts, flammable materials, or hazardous materials. Include any containment structures or clear zones required by county, state or federal government authorities		<input type="checkbox"/>
9. Proposed finish floor and grade line elevations of any structures <i>*Required only for habitable construction within the floodplain on site diagrams and administrative site plans.</i>	<input type="checkbox"/>	<input type="checkbox"/>
10. Existing and proposed driveways, including parking areas	<input type="checkbox"/>	<input type="checkbox"/>
11. Neighboring driveways and other vehicular circulation features adjacent to the site		<input type="checkbox"/>
12. A dimensional plan indicating the location, size and number of parking spaces of the on-site parking areas, and shared parking areas	<input type="checkbox"/>	<input type="checkbox"/>
13. Identification and dimensions of service lanes and service parking, snow storage areas, loading and unloading and docks		<input type="checkbox"/>
14. Proposed roads, access easements, sidewalks, bicycle paths, and other vehicular and pedestrian circulation features within and adjacent to the site		<input type="checkbox"/>
15. Location of and dimensions of curb cuts, acceleration, deceleration and passing lanes		<input type="checkbox"/>
16. Location of neighboring structures that are close to the parcel line or pertinent to the proposal		<input type="checkbox"/>
17. Location of water supply lines and/or wells	<input type="checkbox"/>	<input type="checkbox"/>
18. Location of sanitary sewer lines and/or sanitary sewer disposal systems	<input type="checkbox"/>	<input type="checkbox"/>
19. Location, specifications, and access to a water supply in the event of a fire emergency		<input type="checkbox"/>
20. Sealed (2) stormwater plans including the location and design of storm sewers, retention or detention ponds, swales, wastewater lines, clean out locations, connection points and treatment systems		<input type="checkbox"/>
21. A utility plan including the location of all other utilities on the site including but not limited to natural gas, electric, cable TV, telephone and steam		<input type="checkbox"/>
22. A sign plan indicating the location, size and specifications of all signs and advertising features, including cross sections		<input type="checkbox"/>
23. A lighting plan including exterior lighting locations with area of illumination illustrated by point values on a photometric plan, Kelvin rating, as well as the type of fixtures and shielding to be used		<input type="checkbox"/>
24. Proposed location of any open spaces, landscaping and buffering features such as buffer areas, vegetation belts, fences, walls, trash receptacle screening, and other screening features with cross sections shown		<input type="checkbox"/>
25. A Landscape plan and table identifying the species, size of landscape materials, and number proposed, compared to what is required by the Ordinance. All vegetation to be retained on site must also be indicated, as well as, its typical size by general location or range of sizes as appropriate		<input type="checkbox"/>
26. Statements regarding the project impacts on existing infrastructure (including traffic capacity, schools, and existing utilities, and on the natural environment on and adjacent to the site)		<input type="checkbox"/>
27. Changes or modifications required for any applicable regulatory agencies' approvals		<input type="checkbox"/>

 First American Title™	ALTA Commitment for Title Insurance
	ISSUED BY First American Title Insurance Company
Schedule C	

Commitment No.: TC13-101789

The land is described as follows:

Land situated in the Township of Garfield, County of Grand Traverse, State of Michigan, described as follows:

Part of the Northwest 1/4 of Section 21, Town 27 North, Range 11 West, more particularly described as:

THE NORTH 100 FEET of the following described premises:

Commencing at the center of said Section 21; thence West along the East-West 1/4 line 51.27 feet to the West right of way line of Highway US 31; thence along said line, being parallel to and 75 feet distant from the centerline of said Highway, North 01 degree 19 minutes West 33.01 feet to the North right of way line of County Road and Point of Beginning; thence continuing along West right of way line of US 31, North 01 degree 19 minutes West 461.00 feet; thence West 200.00 feet; thence South 01 degree 19 minutes East 461.00 feet to the aforesaid North right of way line of County Road; thence along said line, East 200.00 feet to the point of beginning, except a parcel in the Southeast corner thereof measuring 105 East and West by 161 feet North and South, Section 21, Town 27 North, Range 11 West.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

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DATE: June 8, 2022

TO: John Sych, Planning Director
Charter Township of Garfield Planning Commission

FROM: John Schebaum, BFA, Inc. – Civil Engineer for NLD Acquisitions LLC

SUBJECT: 2537 US Hwy 31 Development Traverse City, MI (Charter Township of Garfield)
Proposed 7Brew Coffee Shop

Mr. Sych and Members of the Planning Commission,

Thank you for your time and consideration of our proposed development. On behalf of NLD Acquisitions LLC, we would like to introduce a proposed redevelopment of the former PNC Bank property located at 2537 North US Hwy 31 in Traverse City, Michigan. This project was originally in front of the Planning Commission on March 9th, 2022 for a Conceptual Review. We appreciate the initial comments and concerns that were presented at this meeting, and believe the documents provided with our Special Use Permit Application adequately address them.

The proposed use of a drive-through coffee shop is consistent with the purpose and intent of the master plan, and this ordinance. The property is zoned C-G General Commercial, which permits a drive-through business by a Special Use Permit.

Approval Criteria

- The proposed use will be consistent with the purpose and intent of the master plan and this ordinance, including all regulations of the applicable zoning district;
 - **The Master Plan Future Land Use Designation is Commercial, which applies to the proposed use. The proposed use is consistent with the regulations of the applicable zoning district.**
- The proposed use will be designed, constructed, operated and maintained so as to be compatible, harmonious and appropriate with the existing or planned character and uses of the neighborhood, adjacent properties and the natural environment;
 - **The proposed commercial use is compatible to the surrounding commercial uses.**
- The proposed use will not be detrimental, hazardous or disturbing to existing or future adjacent uses or to the public welfare by reason of excessive traffic, noise, dust, gas, smoke, vibration, odor, glare, visual clutter, electrical or electromagnetic interference;
 - **The proposed use will not have any negative impacts on the surrounding uses.**
- Potential adverse effects arising from the proposed use on the neighborhood and adjacent properties will be minimized through the provision of adequate parking, the placement of buildings, structures and entrances, as well as the provision and location of screening, fencing, landscaping, buffers or setbacks;
 - **The surrounding neighborhood and properties will benefit from the new commercial use that will provide a unique service to the surrounding area. Adequate parking and site design have been completed and designed to compliment the proposed use.**

- The proposed use will retain as many natural features of the property as practicable, particularly where the natural features assist in preserving the general character of the neighborhood;
 - **The site was designed in a manner to preserve many existing trees and site features to enhance the redeveloped property.**
- Adequate public and private infrastructure and services such as streets, water and sewage facilities, drainage structures, police and fire protection, and schools, already exist or will be provided without excessive additional requirements at public cost;
 - **Adequate infrastructure exists, and no additional requirements at public cost are anticipated.**
- The establishment, maintenance, or operation of the proposed use shall not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;
 - **The proposed use will not have any negative impacts to public health.**
- The public interest and welfare supporting the proposed use shall be sufficient to outweigh individual interests that are adversely affected by the establishment of the proposed use;
 - **The proposed use will not have any negative impacts to the public interest or welfare.**
- Adequate measures shall be taken to provide ingress and egress so designed as to minimize traffic hazards and to minimize traffic congestion on the public roads;
 - **As detailed in the Traffic Impact Study, the proposed development will not result in traffic hazards or traffic congestion on the public roads.**
- Adequate measures shall be taken to provide vehicular and pedestrian traffic within the site, and in relation to streets and sidewalks servicing the site in a safe and convenient manner;
 - **Vehicular and pedestrian traffic are adequately handled within the site using pavement striping and curbs. Vehicular access to the public road is provided by an existing Michigan DOT approved access.**
- The proposed use shall not impede the orderly development and improvement of surrounding property for uses permitted within the zoning district.
 - **The proposed use will not impede the development and improvement of surrounding properties.**

Impact Assessment

- A written illustrative description of the environmental characteristics of the site prior to development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.
 - **The existing site is a vacant bank with drive-through, parking, and associated site features. An existing retaining wall is located at the western side of the property, with drainage facilities located throughout the site, draining towards the east/US 31.**
- Types of uses and other man-made facilities.
 - **The proposed use will include a new drive-through coffee shop building with canopy, parking, and associated site features.**
- The number of people to be housed, employed, visitors or patrons and vehicular and pedestrian traffic.
 - **The proposed coffee shop will have 5 employees on the max shift. The anticipated vehicular traffic is detailed in the Traffic Impact Study provided. Pedestrian traffic is not anticipated due to the specific type of use proposed.**
- Phasing of the project including ultimate development proposals.
 - **The project is anticipated to be completed in one demolition/construction phase.**
- Natural features which will be retained, removed and/or modified including vegetation, drainage, hillsides, streams, wetlands, woodlands, wildlife and water. The description of the areas to be changed shall include their effect on the site and adjacent properties. An aerial photo may be used to delineate the areas of change.
 - **As shown on the Civil Plans, the existing retaining wall and slopes on the west portion of the property are to remain. Existing landscaping/mature trees are also proposed to remain where possible.**
- The method to be used to serve the development with water and sanitary sewer facilities.
 - **The proposed development will be served with water and sanitary sewer similar to the existing bank building, connecting to the mains located along US 31.**
- The method to be used to control drainage on the site and from the site. This shall include runoff control during periods of construction.
 - **The proposed development will collect stormwater drainage similar to the existing bank site via inlets and storm piping. Erosion and Sediment Control devices will be installed by the contractor during construction to prevent stormwater pollution.**
- If the public sewers are not available to the site, the Applicant shall submit a current approval from the Health Department or other responsible public agency indicating approval of plans for sewage treatment.
 - **N/A**
- The method to be used to control any increase in effluent discharge to the air or any increase in noise level emanating from the site. Consideration of any nuisance that would be created within the site or external to the site whether by reason of dust, noise, fumes vibration, smoke or lights.
 - **No increase is anticipated.**

- An indication of how the proposed use conforms with existing and potential development patterns and any adverse effects.
 - **The proposed use conforms with the surrounding commercial uses and no adverse effects are anticipated.**
- The proposed density in units per acre for residential developments.
 - **N/A**
- Name(s) and address(es) of person(s) responsible for preparation of statement.
 - **NLD Acquisitions LLC – Kevin Myers**
 - **BFA, Inc. – John Schebaum**
(Contact information provided on application)
- Description of measures to control soil erosion and sedimentation during grading and construction operations and until a permanent ground cover is established. Recommendations for such measures may be obtained from the County Soil Erosion and Sedimentation office.
 - **Detailed Erosion and Sediment Control Plans are provided in the Civil Plans submitted.**
- Type, direction, and intensity of outside lighting.
 - **Photometric Plans are provided detailing the proposed site lighting for the commercial use.**
- General description of deed restrictions, if any.
 - **None known.**

Supplemental Use Regulations – Drive-Through Use

1. Service and dining may be in automobiles or outdoors, but all other activities shall be carried on within a building.
 - **Requirement met.**
2. A setback of at least sixty (60) feet from the right-of-way line of any existing or proposed street shall be maintained.
 - **Requirement met.**
3. Ingress and egress points shall be located at least fifty (50) feet from the nearest edge of the traveled portion of any intersecting streets.
 - **Requirement met.**
4. Pedestrian areas shall be clearly marked and maintained.
 - **Requirement met.**
5. Only one (1) ingress-egress drive shall be allowed per major thoroughfare.
 - **Requirement met.**
6. All parking requirements shall comply with Article 5 of this Ordinance.
 - **Requirement met.**
7. Notwithstanding the dimensional standards of this Ordinance, lots used for drive-in businesses and drive-in or drive-through restaurants shall have a minimum width of one hundred (100) feet.
 - **Requirement met.**
8. Queuing requirements, drive-in and drive-through businesses shall be designed to accommodate the maximum number of queuing vehicles that may be expected to seek service at any one time without queuing onto an adjacent thoroughfare, including service drives. The determination as to the required queuing spaces shall be established by the Planning Commission based upon the anticipated number of vehicles likely to queue while waiting for service. The Planning Commission may require more than twelve (12) queuing spaces based upon evidence presented to it, but in no event shall the required number of queuing spaces be reduced below twelve (12).
 - **The proposed coffee shop has internal storage for 20 vehicles without impacts to site circulation nor queue spillback onto US 31.**
9. Snack and nonalcoholic beverage bars shall have a minimum queuing space in advance of order boards to accommodate six (6) motor vehicles at any time.
 - **N/A**
10. These requirements shall not apply to drive-in or drive-through businesses including restaurants, where queuing is accommodated entirely within the confines of a development exclusive of that development's access or service drives.
 - **N/A**
11. Notwithstanding the provisions of this section, the queuing of vehicles onto the traveled portion of a public roadway providing access to the business establishment such that queuing interferes to an extent with the free flow of traffic on the traveled portion of that roadway shall subject the Special Use Permit holder to enforcement action, including fines, injunctive relief and/or revocation of the Special Use Permit.
 - **N/A**
12. The site shall have been found to be a suitable site for a drive-in or drive-through establishment, with regard to traffic safety, by a registered engineer with an educational specialization in traffic engineering.
 - **The Traffic Impact Study provided by Fishbeck finds that the site is suitable for the proposed use.**

13. For the C-L Local Commercial and C-O Office Commercial districts, a Financial Institution, with Drive-Through shall have a maximum of two (2) drive-through lanes.
 - **N/A**
14. For the C-G General Commercial district, a Financial Institution, with Drive-Through which has two (2) or fewer drive-through lanes shall be permitted by special conditions. All other drive-in and drive-through uses in the C-G district shall require a Special Use Permit.
 - **N/A**

Please note the existing site, and proposed site, do not meet the 10-foot side yard landscape setback. Mr. Sych has advised that the minor encroachment into the landscape setback could potentially be approved by the Planning Commission in lieu of obtaining approval from Zoning Board of Appeals. In order to accommodate this request, the landscaping has been designed in a manner to maintain a majority of the existing, mature, trees on site.

We appreciate your review of our proposed development, and look forward to working with the Charter Township of Garfield.

Respectfully,

John B. Schebaum

John B. Schebaum – BFA, Inc.
Project Manager

Memo

TO: John Schebaum, PE – BFA, Inc

FROM: Kyle Reidsma, PE, PTOE
Jeffery Morden, PE, PTOE

DATE: June 8, 2022

PROJECT NO.: 220851

RE: 7Brew – Traffic Impact Study

Introduction

BFA, Inc is proposing a 7Brew Coffee Shop in Garfield Township, Grand Traverse County, Michigan. The project site is located on the west side of US-31 approximately 475 feet north of South Airport Road. The site was formerly occupied by an approximately 1,050 square-foot PNC Drive-in Bank with five drive-through lanes. PNC Bank will be torn down and a new building will be constructed. The project is expected to be built and in operation by 2023.

Garfield Township has jurisdiction over the review and approval of the proposed 7Brew Coffee Shop. The Township has required a traffic study to compare traffic generation potential of the proposed coffee shop versus the previously occupied PNC Bank. In addition, the Michigan Department of Transportation (MDOT) has jurisdiction over US-31 and the Grand Traverse County Road Commission (GTCRC) has jurisdiction over South Airport Road. All work was completed according to methodology published by the Institute of Transportation Engineers (ITE). Relevant data and calculations are attached to this memorandum. The project location and study intersections are indicated on Figure 1.



Figure 1: Project Location and Study Network

Baseline Traffic Conditions (without 7Brew Coffee Shop)

US-31 is principal arterial under MDOT jurisdiction. In the vicinity of the site, US-31 has five lanes (two in either direction and a center lane for left turns), and a speed limit of 45 miles per hour (mph). South Airport Road is a minor arterial under GTCRC jurisdiction. In the vicinity of the site, South Airport Road has five lanes to the east and two lanes to the west with a speed limit of prima facie, 55 mph. The intersection of US-31 and South Airport Road is signalized. All intersection approaches have dual left turn lanes with protected only phasing. The north, south, and westbound approaches of the intersection have exclusive right turn lanes with overlap phases. This signal runs on an adaptive control system, which is fully actuated and capable to respond to traffic demand variations. Push-button actuated pedestrian crossings are located east, west, and south legs of the intersection.

Existing intersection turning movement traffic volumes were collected by Fishbeck subconsultant Gewalt Hamilton Associates, Inc. (GHA) using MioVision Scout cameras. Data were collected during the weekday morning (7:00 to 9:00 a.m.) peak period on Tuesday, May 24, 2022. Traffic data were collected in 15-minute intervals and included heavy vehicle counts. The analysis was limited to the morning peak hour as that would typically be the busiest time for a coffee shop resulting in the most site trips.

Historical traffic data for South Airport Road, east of US-31 and US-31, south of Silver Lake Road/Fourteenth Street were obtained from the MDOT Transportation Data Management System (TDMS). Hourly segment data were obtained from 2021 and 2017, respectively, reflective of conditions before and after the COVID-19 pandemic of 2020. Review of the historical data in comparison with the May 2022 counts collected by GHA for this study indicate that current a.m. peak hour volumes are larger than the 2021 and 2017 traffic volumes from South Airport Road and US-31. Based on this review, there was no compelling evidence to apply a COVID adjustment factor to the collected turning movement counts (TMCs).

Additional historical data on US-31 dating back to 2009 were also obtained from the MDOT TDMS system and reviewed relative to seasonal variations in traffic demand. Counts taken between 2009 and 2014 were recorded during the summer (June/July) months, whereas data were recorded in October of 2017. Comparison of average daily traffic (ADT) volumes on US-31 between summer 2009-14 and fall 2017 indicate that volumes are approximately 13% higher during the summer months.

Baseline volumes reflect traffic conditions absent of the proposed 7Brew Coffee Shop. Fishbeck has completed several studies across Michigan during the post-pandemic era; in most cases traffic volumes have returned to pre-pandemic levels. Typical adjustment factors applied and accepted by MDOT have ranged between 0% to 5%. Based on this review of historical traffic counts, a seasonal adjustment factor of 15% was applied to the existing May 2022 volumes. This slightly conservative growth rate also accounts for any ambient background traffic growth that may occur to the expected opening year 2023.

Baseline Operations Analysis

Baseline intersection operations were calculated using Synchro traffic analysis software based on methodologies published in the Highway Capacity Manual (HCM), 6th Edition. Simulated traffic operations and vehicle queues were also observed using SimTraffic. 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*.

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. LOS D is generally considered acceptable for most areas. 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

The study network includes the following intersections:

1. US-31 and South Airport Road (signalized);
2. US-31 and Site Driveway (minor stop-controlled).

This development will be using the existing access on US-31 which is shared with the Mutual Gas Station to the north.

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 imagery. MDOT provided a traffic signal timing permit for the intersection of US-31 and South Airport Road as well as supplemental information regarding operations of the adaptive signal control. The traffic signal was modeled to run a 160-second cycle during the a.m. peak hour, as specified with traffic signal splits within the weekday a.m. timing parameters provided.

Baseline 2023 vehicle delay and LOS at the study intersections, absent of the proposed 7Brew Coffee Shop, are shown in Table 2. These results indicate that the signalized intersection of US-31 and South Airport Road currently operates at an overall LOS D during the a.m. peak hour. The EB and WB approaches operate at LOS F and E, respectively. Several of the individual movements operate at an acceptable LOS D or better except EB left, EB thru, EB thru/right, and NB left movements operate at LOS F and WB left and SB left operates at LOS E. The stop-controlled EB approach and NB left-turn movement at US-31 and the Site Driveway operate at a LOS C or better with existing gas station traffic. Observation of simulations indicate no adverse operations during the a.m. peak hour. Vehicle queues at the US-31/South Airport Road traffic signal are typically serviced each traffic signal cycle and this operation is determined to be acceptable despite the calculated LOS E/F.

Table 2 – Baseline 2023 LOS/Delay (without 7Brew Coffee Shop)

Approach	Lane Group	LOS/Delay (s)
		a.m. Peak Hour
US-31 & South Airport Road (signalized)		
EB South Airport Road	Left	F (80.3)
	Thru	F (86.8)
	Thru/right	F (87.2)
	Approach	F (86.0)
WB South Airport Road	Left	E (77.0)
	Thru	D (46.9)
	Right	D (39.0)
	Approach	E (58.5)
NB US-31	Left	F (80.4)
	Thru	D (38.3)
	Right	C (22.4)
	Approach	D (38.8)
SB US-31	Left	E (79.9)
	Thru	C (27.0)
	Right	B (19.1)
	Approach	D (41.3)
Overall		D (53.3)
US-31 & Site Driveway (minor stop-controlled)		
NB US-31	Left	A (8.9)
SB US-31	Thru/Right	free movement
EB Site Driveway	Left	C (19.3)
	Right	B (10.4)

Site Trip Generation

The volume of traffic that would be generated by the 7Brew Coffee Shop was forecast based on data published by ITE in *Trip Generation, 11th Edition*. Land use and density information was provided by the Applicant and was compared to land use codes described in the ITE dataset. The 7Brew Coffee Shop will have two (2) drive-through lanes. In addition to forecasting the number of vehicle trips expected for the proposed 7Brew Coffee Shop, a trip generation forecast was completed for the PNC Bank that formerly occupied the site.

As is the case for most commercial development, a portion of the traffic generated by the former site uses is considered to be “pass-by” in nature. Pass-by trips are trips already present on the adjacent roadway network, which are interrupted to visit the site. Pass-by trips are normally expressed as a percentage of the total trips generated by the development. ITE data indicates that 29% of the former PNC Bank and 90% of the proposed 7Brew Coffee Shop trips are pass-by in nature for the a.m. peak hour. For the weekday forecast trips, the analysis referenced the midday peak hour ITE pass-by rates which were 26% and 84%, for the PNC Bank and 7Brew Coffee Shop, respectively. In order to provide a direct comparison of new trips for the former and proposed uses, pass-by trips are accounted for by reducing the number of forecast trips added to the adjacent roadway network; however, actual driveway volumes are not reduced.

Trip generation forecasts for the former and proposed uses are shown in Table 3 and Table 4, respectively. A comparison of the trip generation potential for the former and proposed site occupancies is shown in Table 5. The comparison shows the proposed 7Brew Coffee Shop will generate significantly fewer trips on a typical weekday, both at the driveway and on the adjacent road network. During the a.m. peak hour, driveway trips will be slightly higher with a coffee use as compared to the former bank use; however, the number of new trips on the adjacent road network is actually reduced.

Table 3 - Weekday Trip Generation: Former PNC Bank

ITE Code	ITE Rate Description	Unit	Amount	a.m. Peak Hour			Weekday (In + Out)
				In	Out	Total	
912	Drive-in Bank (PNC Bank)	Lanes	5	26	17	43	625
<i>Pass-by Trips (912: 29% AM, 26% Weekday)</i>				8	5	13	163
New Trips				18	12	30	462

Table 4 - Weekday Trip Generation: Proposed 7-Brew Coffee Shop

ITE Code	ITE Rate Description	Unit	Amount	a.m. Peak Hour			Weekday (In + Out)
				In	Out	Total	
938	Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	Drive-Through Lanes	2	40	40	80	358
<i>Pass-by Trips (912: 90% AM, 84% Weekday)</i>				36	36	72	301
New Trips				4	4	8	57

Table 5 - Trip Generation Comparison Summary

Development Scenario	Trip Type	a.m. Peak Hour			Weekday (In + Out)
		In	Out	Total	
Previous PNC Bank	Total Trips	26	17	43	625
	Pass-by	8	5	13	163
	New Trips	18	12	30	462
Proposed 7Brew Coffee Shop	Total Trips	40	40	80	358
	Pass-by	36	36	72	301
	New Trips	4	4	8	57
Driveway Trip Potential Difference		14	23	37	-267
New Trip Potential Difference		-14	-8	-22	-405

Trip Distribution

The directions that site traffic will travel to and from the subject site were based upon existing traffic patterns during the a.m. peak hour. The existing traffic patterns reflect the gravity between origins and destinations in the study area, and therefore an accurate indication of where the proposed trips would be coming from and going to. Key rationale for this distribution model includes:

1. Trips will be distributed to the adjacent road network based on ITE methodology, which indicates new trips will return to their direction of origin.
2. Traffic patterns at the intersection of US-31 and South Airport Road indicate a pattern towards Traverse City with slightly heavier volumes on the traveling north and east in the morning.

This trip distribution model applied to the site-generated trips is summarized in Table 6.

Trip Assignment

The assignment of traffic to the roadway network is based on the development’s trip generation in conjunction with the expected directional distribution on the adjacent roadways. The proposed site will have one access point, which will operate under stop-control on the minor approach:

1. US-31 and Site Driveway: shared access with Mutual Gas Station

The existing driveway location and configuration is proposed to remain the same.

Table 6 – Trip Distribution Model (a.m. Peak Hour)

Direction	Via	Trip Origin		Pass-by
		To	From	To/From
North	US-31	36%	17%	68%
South	US-31	20%	45%	32%
East	Airport Road	33%	17%	-
West	Airport Road	11%	21%	-
Total		100%	100%	100%

Turn Lane Warrant Analysis

An evaluation was performed in accordance with MDOT guidelines to determine if a right-turn deceleration lane is required at the site access point with US-31. MDOT publishes turn lane warrant criteria in *Geometric Design Guidance* document prepared by the Traffic and Safety Department. There is an existing center lane for left turns that would facilitate ingress movements from US-31; therefore, left-turn lane criteria were not reviewed.

The minimum thresholds to warrant a taper or full-width right-turn lane at a site driveway on US-31 are 20 and 40 right-turns per hour, respectively. The maximum number of ingress right-turns from the north at the driveway on US-31 is expected to be 13 vehicles per hour. Therefore, no new auxiliary turn lane is warranted.

Build (2023) Traffic Analysis

The objective of this TIS is to determine what impacts, if any, the proposed 7Brew Coffee Shop will have on traffic operations along adjacent public roadways or what mitigation measures may be warranted. To quantify these impacts, the intersection traffic operations under the 2023 Baseline (no-build) conditions were compared to operations under the 2023 Opening Year Build conditions scenarios.

Where traffic operations under Build conditions remain acceptable (LOS D or better), the impact of the proposed 7Brew Coffee Shop on local traffic operations is assumed to be minimal. Where traffic operations under Build conditions are considerably worse than those of the Baseline (no-build) conditions, or if operations degrade from acceptable operations (LOS D or better) to unacceptable levels (LOS E or F), the proposed 7Brew Coffee Shop is considered to have an impact on network traffic operations. In this instance, mitigation is investigated which returns the overall intersection operations to LOS D or near the Baseline conditions (LOS or delay), as feasible for overall intersection operations or affected lane group movements.

Table 7 presents the intersection capacity analysis results for the Build conditions in the Opening Year (2023) for the weekday a.m. peak hour. The Baseline 2023 conditions are also shown for reference. These results indicate no discernable impact to operations at the signalized intersection of US-31 and South Airport Road as a result of the proposed redevelopment. The adaptive traffic signal accommodates the small increase in traffic volume due to the proposed 7Brew Coffee Shop with minimal increase in vehicle delay. The stop-controlled approaches and left-turns at the driveway intersection continue to operate at a LOS C or better.

Table 7 – Build 2023 LOS/Delay (with 7Brew Coffee Shop)

Approach	Lane Group	Baseline 2023	Build 2023
		a.m. Peak Hour	a.m. Peak Hour
US-31 & South Airport Road (signalized)			
EB South Airport Road	Left	F (80.3)	F (80.4)
	Thru	F (86.8)	F (86.8)
	Thru/Right	F (87.2)	F (87.2)
	Approach	F (86.0)	F (86.0)
WB South Airport Road	Left	E (77.0)	E (77.8)
	Thru	D (46.9)	D (47.0)
	Right	D (39.0)	D (39.1)
	Approach	E (58.5)	E (58.9)
NB US-31	Left	F (80.4)	F (80.4)
	Thru	D (38.3)	D (38.3)
	Right	C (22.4)	C (22.4)
	Approach	D (38.8)	D (38.8)
SB US-31	Left	E (79.9)	E (79.9)
	Thru	C (27.0)	C (26.9)
	Right	B (19.1)	B (19.0)
	Approach	D (41.3)	D (41.3)
Overall		D (53.3)	D (53.3)
US-31 & Site Driveway (minor stop-controlled)			
NB US-31	Left	A (8.9)	B (9.0)
SB US-31	Thru/Right	free movement	
EB Site Driveway	Left	C (19.3)	C (23.4)
	Right	B (10.4)	B (10.6)

Observation of network simulations indicates no adverse queuing on the adjacent road network or on the stop-controlled driveway approach. Based on a review of simulations and SimTraffic queue calculations, SB US-31 queues did not back-up to nor block the Site Driveway for any portion of the a.m. peak hour. NB US-31 95th percentile left-turn queue length into the site is calculated to be 44 feet. SB US-31 95th percentile queue length at South Airport Road is calculated to be 224 feet for the thru lanes and 175 feet for the left turn lanes. There is approximately 400 feet between the SB stop bar on US-31 at South Airport Road, and the site driveway location. Therefore, conflicting left-turn queues are provided sufficient storage and will not interlock.

Drive-Through Storage

7Brew provided observed field data from one of their other locations in Missouri from February 2022. In that review of site operations, 61 vehicles/hour were observed in the morning peak hour. The average queue during the peak period was five vehicles with a maximum observed queue of 14 vehicles. The proposed 7Brew coffee shop has internal storage for 20 vehicles without impacts to site circulation nor queue spillback onto US-31. These observations are conservative as compared to the ITE trip generation forecast. Based on the observed queuing data and the proposed site plan, there will be sufficient drive-through storage on-site.

Conclusions and Recommendations

Garfield Township and MDOT have required a traffic study to compare the traffic generation potential of the proposed 7Brew Coffee Shop versus the previously occupied PNC Bank. The objective of this TIS is to determine what impacts, if any, the proposed coffee shop will have on traffic operations along adjacent public roadways or what mitigation measures may be warranted. The following conclusions are based on the data, analyses, and results as outlined herein.

1. Review of historical data in comparison with May 2022 traffic counts indicate that current volumes are larger than the 2021 and 2017 traffic volumes from South Airport Road and US-31, respectively. Based on this review, there was no compelling evidence to apply a COVID adjustment factor to the collected TMCs.
2. Baseline traffic volumes for this study were conservatively adjusted upward by 15% to adjust for seasonal variations to peak summer months and any ambient traffic growth to the expected 2023 buildout year, based on review of historical data.
3. The proposed 7Brew Coffee Shop will generate significantly fewer trips on a typical weekday, both at the driveway and on the adjacent road network as compared to the former bank. During the a.m. peak hour, driveway trips will be slightly higher with a coffee use as compared to the former bank use; however, the number of new trips on the adjacent road network is actually reduced.
4. The signalized intersection of US-31 and South Airport Road will continue to operate acceptably with this proposed 7Brew Coffee Shop. Minor changes in traffic demands will be accommodated by the adaptive signal operation and no timing adjustments are necessary.
5. All movements at the stop-controlled driveway approach at US-31 will operate at a LOS C or better.
6. No additional turn lanes are warranted at the site driveway.
7. The existing access point will be maintained in the current configuration.
8. Based on observed peak hour data provided from 7Brew from another one of their locations, the proposed site stacking space (20 vehicles) will be adequate to accommodate peak hour drive-through queuing.

Based on the results of this traffic study, no roadway nor traffic control improvements are necessary to accommodate the proposed redevelopment project.

Attachments: Traffic Volume Data
ITE Trip Generation Calculations
Turn Lane Warrant Criteria
Synchro HCM Calculations
SimTraffic Queue Calculations

By email

Copy: Timothy J. Likens, PE PTOE – Fishbeck



memorandum

Date: July 28, 2022

To: John Sych, AICP

From: Taryn Juidici, PE &
Stephen Dearing, PE, PTOE

Re: Proposed 7Brew Coffee Shop
Traffic Impact Study Review

We have reviewed the traffic impact study for the proposed 7Brew coffee shop for Garfield Township. The site was formerly occupied by a PNC drive-in bank. The existing shared driveway will be used for the proposed development. The traffic impact study was prepared by Fishbeck and is dated June 8th, 2022.

OHM does not recommend approval of the traffic impact study and its recommendations, due to concerns with the report.

OHM's comments are as follows:

1. TIS Report:
 - a. Please provide the Synchro modeling files for review. We have significant concerns about the adequacy of gaps to allow left turns in and out of the site and want to review the SimTraffic simulations to see if enough information is available, or if it will be required that a field gap study be performed. Please note that if the signal to the north (Lowes / Marketplace Dr) is not part of the model, gap information from the simulation may not be considered adequate.
 - b. A stamp by a current Michigan Professional Engineer with expertise in Traffic Engineering is missing.
 - c. Only the AM peak hour was evaluated within this study. While coffee shops will likely be busiest in the morning, this does not limit the potential traffic impacts to only the morning peak hour. We assume the proposed developments hours of operation will extend beyond the AM peak hour. Analysis of the PM Peak hour should be included.
 - d. In Table 7, an additional column stating the change in delay could be beneficial when comparing baseline versus build conditions.
 - e. As stated in Article 6 of the zoning ordinance, "...the impact of development shall be analyzed for the year after the development is completed and 10 years after the development is completed". In this memo only 2023 baseline and 2023 build conditions were analyzed. Based on the above statement years 2024 and 2034 should also be included in this study.



- f. In the Appendix for the driveway conditions, there are southbound right turning volumes; however, no right turn designation. Under the southbound through category, the lane configuration should be thru, thru & right.
- g. NB US-31 has a double yellow centerline marking up to this site, which precludes use of center lane for 2-way left turns. This is a function of the left turn lane widening to provide the dual SB left lanes at the South Airport intersection. For the purposes of this analysis, delete dedicated NBL lane in the Synchro analysis and show NBT as a shared thru/left. Make this modification for all periods analyzed.

2. Site Plan:

- a. In the outside lane of the drive-thru there is a dimension labeled as 5', which does not seem accurate. Looks like it should be 15'.
- b. It does not appear that the site plan identifies where the order board(s) are being positioned for the two drive thru lanes. This needs to be shown.
- c. There is a circulation concern for garbage trucks. If there are vehicles in the drive-thru the garbage truck will have to wait for the queue to clear to be able to exit the site.
- d. We note that the shared-use driveway north of the Mutual Gas Station, used for that property and also Best Buy, is signed and marked for inbound only traffic. So most all gas station traffic, including the tanker trucks, must exit by way of the shared-use driveway with this site. This site plan should explore ways to harmonize the inbound and exiting traffic of both properties in the short distance of the driveway approach to US-31.

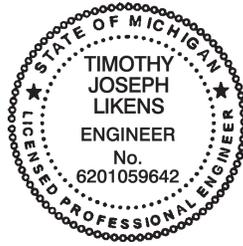
Memo

TO: John Schebaum, PE – BFA, Inc

FROM: Timothy J. Likens, PE, PTOE

DATE: August 23, 2022

RE: 7Brew – Traffic Impact Study
Response to OHM Review



Digitally signed by
Timothy J. Likens,
PE, PTOE
Date: 2022.08.23
11:56:11-04'00'

PROJECT NO.: 220851

Introduction

BFA, Inc is proposing a 7Brew Coffee Shop in Garfield Township, Grand Traverse County, Michigan. The project site is located on the west side of US-31 approximately 475 feet north of South Airport Road. The site was formerly occupied by an approximately 1,050 square-foot PNC Drive-in Bank with five drive-through lanes. PNC Bank will be torn down and a new building will be constructed. Fishbeck completed a Traffic Impact Study (TIS) for the proposed project as outlined in a June 8, 2022 memorandum.

Garfield Township has jurisdiction over special land use review and approval of the proposed 7Brew Coffee Shop. Garfield Township's traffic engineering consultant, OHM Advisors, reviewed the TIS and presented findings to the Township in a memorandum dated July 28, 2022. Subsequently, Fishbeck and the applicant met virtually with OHM and Township Planning Department representatives on August 4, 2022. The purpose of this meeting was to discuss the concerns outlined in the OHM review and establish consensus on technical steps and assumptions required to address those concerns. These steps were completed by Fishbeck per direction from OHM:

1. Obtain weekday a.m. and p.m. peak period turning movement counts and signal timing data at the intersection of US-31 and Marketplace/Lowes Drive from MDOT. Additionally, obtain weekday p.m. peak period turning movement counts at the intersection of US-31 and S Airport Road from MDOT. These data were obtained from a weekday in July; therefore, no seasonal adjustment was applied.
2. Collect weekday p.m. turning movement counts at the intersection of US-31 and the site driveway. Video was also obtained to observe current driveway operations and relative gaps on US-31.
3. Add the Marketplace/Lowes Drive intersection to the Synchro traffic analysis models. The project is expected to add negligible traffic volume to this intersection; whereby, operational results are not reported but this modeling was required by OHM to reflect traffic flows from the upstream traffic signal.
4. Calculate operational results for the weekday a.m. and p.m. peak hours for the 2034 horizon year. The results outlined herein reflect horizon year 2034 traffic volumes with a 0.5% annual growth rate applied. This represents a slightly conservative scenario as compared to opening year 2023 conditions.

The following points are in response to the items outlined in the OHM review memorandum. All work was completed according to methodology published by the Institute of Transportation Engineers (ITE). Site-generated trips for the p.m. peak hour were calculated based on ITE *Trip Generation* data as shown in Table 1 and assigned to the study network based on existing traffic patterns.

Table 1 - Weekday Trip Generation: Proposed 7-Brew Coffee Shop

ITE Code	ITE Rate Description	Unit	Amount	a.m. Peak Hour			p.m. Peak Hour			Weekday (In + Out)
				In	Out	Total	In	Out	Total	
938	Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	Drive-Through Lanes	2	40	40	80	15	15	30	358
<i>Pass-by Trips (90% AM, 98% PM, 84% Weekday)</i>				36	36	72	14	14	28	301
New Trips				4	4	8	1	1	2	57

1. TIS Report:

- a. All Synchro traffic analysis files will be submitted to the Township and OHM with this memorandum. Fishbeck also provided data via email to OHM outlining historical traffic volume trends on US-31 to determine the 0.5% annual growth rate to horizon year 2034. Furthermore, new data obtained from MDOT from July 2022 indicate that the 15% seasonal adjustment applied for the a.m. peak hour in the original study is high as compared to actual seasonal fluctuation; therefore, the 2034 forecast represents an overly conservative analysis of future traffic conditions.

Highway Capacity Manual (HCM) calculations indicate that the site driveway egress approach would operate at a LOS D or better during both a.m. and p.m. peak hours, as shown in Table 2. During the critical a.m. peak hour, the project would add less than six seconds of delay per vehicle for vehicles turning left exiting the site, and less than one second per vehicle for vehicles turning left into the site. Increases in delay at the site driveway would be negligible during the p.m. peak hour.

There is approximately 400 feet of storage between the SB stop bar on US-31 at S Airport Road and the site driveway location. Average and 95th percentile simulated queue lengths are shown in Table 3. These results show that during the busiest a.m. period for the coffee shop, the site driveway is not blocked and there is adequate storage for conflicting left turn movements.

During the p.m. peak hour, SB queues do periodically block the site driveway; however, the proposed coffee shop would add negligible traffic volumes to this existing condition during the p.m. peak hour. During our p.m. field observations, vehicles were observed to safely complete left-turn maneuvers when traffic clears, and this operation is expected to remain consistent with current conditions.

Historical crash data from 2014 to 2021 published on the Michigan Traffic Crash Facts website (which references the Michigan State Police database) were reviewed and indicate no pattern of crashes at the site driveway. This date range was utilized to capture a period when the PNC bank was also in operation. Crashes of angle and head-on left-turn type were of particular interest, which would relate to driveway turning maneuvers. Six angle crashes appear to have occurred at this location over the eight-year period. Investigation of UD-10 reports indicate that three actually occurred at the subject driveway, while three others were related to other access points. One crash resulted in B-level injury while the other two resulted in property damage only (PDO).

- b. This memorandum is stamped by a licensed Professional Engineer in the State of Michigan, also certified by the national Transportation Professional Certification Board as a Professional Traffic Operations Engineer (PTOE).

- c. Analysis of the p.m. peak hour has been included as described above. The results of this analysis indicate low trip generation for the proposed use and negligible resultant operational changes as compared to existing weekday afternoon conditions. Tables 2 and 3 show the operational results for both a.m. and p.m. peak hours.

Table 2 – 2034 LOS/Delay Comparison

Approach	Lane Group	a.m. Peak Hour			p.m. Peak Hour		
		No-Build	Build	Delta	No-Build	Build	Delta
US-31 & South Airport Road (signalized)							
EB South Airport Road	Left	F (80.3)	F (80.3)	-	F (87.1)	F (87.1)	No change. No new trips thru this intersection.
	Thru	F (90.5)	F (90.5)	-	F (94.9)	F (94.9)	
	Thru/right	F (90.9)	F (90.9)	-	F (97.5)	F (97.5)	
	Approach	F (89.1)	F (89.1)	-	F (93.9)	F (93.9)	
WB South Airport Road	Left	E (78.6)	E (78.6)	-	F (216.1)	F (216.1)	
	Thru	D (45.9)	D (45.9)	-	D (51.6)	D (51.6)	
	Right	D (38.0)	D (38.0)	-	C (30.9)	C (30.9)	
	Approach	E (58.4)	E (58.4)	-	F (139.6)	F (139.6)	
NB US-31	Left	F (80.2)	F (80.2)	-	F (89.5)	F (89.5)	
	Thru	D (42.4)	D (42.6)	+0.2	D (45.8)	D (45.8)	
	Right	C (24.2)	C (24.3)	+0.1	C (20.9)	C (20.9)	
	Approach	D (42.0)	D (42.1)	+0.1	D (43.4)	D (43.4)	
SB US-31	Left	E (79.8)	E (79.7)	-0.1	F (92.5)	F (92.5)	
	Thru	C (28.7)	C (28d.7)	-	D (43.7)	D (43.7)	
	Right	B (20.1)	C (20.1)	-	C (24.4)	C (24.4)	
	Approach	D (42.3)	D (42.4)	+0.1	D (54.8)	D (54.8)	
Overall		E (55.5)	E (55.6)	+0.1	F (89.4)	F (89.4)	
US-31 & Site Driveway (minor stop-controlled)							
NB US-31	Left	A (9.0)	A (9.2)	+0.2	B (13.3)	B (13.5)	+0.2
SB US-31	Thru/Right	free movement					
EB Site Driveway	Left	C (20.4)	D (26.1)	+5.7	D (32.0)	D (34.4)	+2.4
	Right	B (10.5)	B (10.7)	+0.2	C (17.1)	C (17.4)	+0.3

Table 3 – 2034 Queue Lengths

Approach	Queue (feet)	a.m. Peak Hour		p.m. Peak Hour	
		No-Build	Build	No-Build	Build
US-31 & South Airport Road (signalized)					
SB US-31 thrus	Average	112'	117'	374'	377'
	95th %	180'	198'	468'	471'
SB US-31 lefts	Average	83'	86'	201'	233'
	95th %	142'	149'	364'	420'
US-31 & Site Driveway (minor stop-controlled)					
NB US-31 lefts	Average	4'	14'	6'	9'
	95th %	22'	43'	27'	34'
EB Site Driveway	Average	10'	28'	45'	45'
	95th %	33'	67'	106'	102'
Combined Queue Length (opposing left turn movements)					
400 feet of storage	Average	87'	100'	207'	242'
	95th %	164'	192'	391'	454'

- d. A column showing the delta between baseline/no-build and build conditions has been added to Table 2. As this use generates primarily pass-by trips that are already on US-31, changes at the adjacent traffic signal are negligible.
- e. Study analyses have been updated to reflect a 10-year horizon of 2034. OHM indicated during the review meeting that the 2024 scenario is not necessary given negligible expected change from 2023. Results of the 2034 analysis are shown in Table 2 and 3.
- f. The HCM results indicated in the original study and this memo are not impacted by this lane use coding; however, this has been updated in the 2034 Synchro models.
- g. A field review of the double-yellow pavement markings was completed. The double-yellow marking terminates 50 feet south of the site driveway, providing area for two ingress left-turn vehicles to enter and stack in the center lane. During field observations, all vehicles making this ingress left-turn movement did so from the center lane for left-turns. This configuration was designed and installed to permit such movement; therefore, the coding requested by OHM is not accurate to actual conditions.

2. Site Plan:

- a. The dimension of the outside lane is 15 feet. The text has been updated to be clearer.
- b. There are no order boards proposed for this site. Orders will be taken by employees or via mobile ordering apps.
- c. The 7Brew operations team and manager will coordinate with the garbage services to coordinate pickups that will not impact peak service times. The outside drive-through lane can be closed to vehicle traffic during off-peak times to coordinate waste service.

- d. The proposed site plan includes features to channelize and control on-site circulating traffic and minimize conflicts with gas station traffic. The existing access configuration with the on-site features shown on the site plan are expected to provide acceptable traffic operations to facilitate traffic demands for both uses for the following reasons:
- The results of the TIS and this update do not indicate any operational deficiencies or crash patterns that require mitigation according to accepted traffic engineering practice.
 - The proposed coffee shop peaks during the a.m. peak hour, which is a favorable land use for this site given that traffic volumes on US-31 and exiting the gas station are heavier during the p.m. peak hour. The study analysis indicates that the proposed land use does not create a situation that would otherwise require reconfiguration of access for multiple parcels, nor prohibition of currently permitted turning movements.
 - Access to the north of the gas station (Best Buy driveway) opposes an unsignalized ingress/egress driveway for the Grand Traverse Mall. Permitting egress movements from this driveway would introduce greater conflict points at a location with higher opposing traffic volumes than at the shared use driveway.
 - Tanker trucks were not observed at the gas station during peak hours and are not expected to have significant interactions with driveway queues.
 - MDOT has provided written approval of the proposed use with no changes to the current access configuration.

Attachments: Traffic Volume Data
ITE Trip Generation Calculations
Synchro HCM Calculations
SimTraffic Queue Calculations
Historical Crash Data
MDOT Approval Email
Original TIS Memorandum

Submitted: Synchro Models
Site Photos
Site Video

By email

Copy: Kyle Reidsma, PE, PTOE – Fishbeck

memorandum

Date: September 6, 2022

To: John Sych, AICP

From: Steven Loveland, PE, PTOE
Stephen Dearing, PE, PTOE

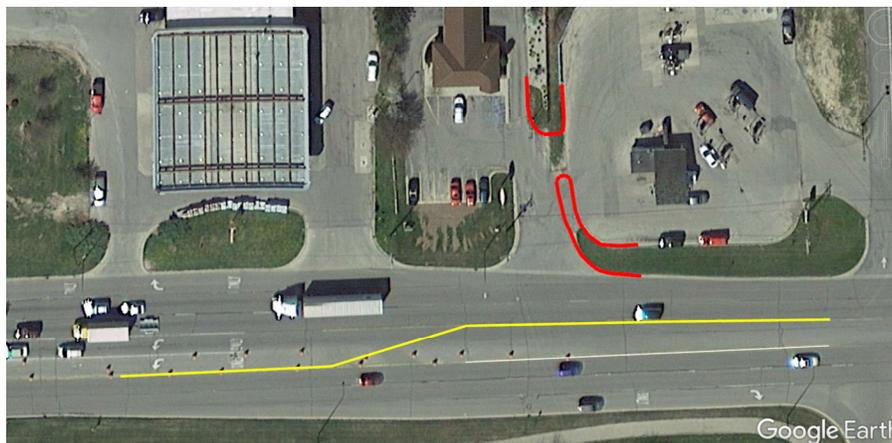
Re: OHM Comments Re: 7Brew – Traffic Impact Study Response to OHM Review

We have reviewed the memo and updated data for the proposed 7Brew Traffic Impact Study. Fishbeck has provided response and information for all the requests put forward from OHM's first review of the TIS. We find the methodology and approach to be acceptable. The following provides some key information provided and offers comments for consideration.

Data Collection – Fishbeck collected the requested traffic count data for the locations of US-31 and Marketplace/Lowes Drive (AM and PM peaks), US-31 and S Airport Road (PM peak), and US-31 at the site drive (PM peak).

Modeling and Analysis – The updated Synchro models added the Marketplace/Lowes Drive intersection, now provide PM peak analysis to go along with AM and include 2034 horizon year analysis. The modeling results indicate that the proposed development will have negligible impact to the operations of adjacent intersections.

US-31 at Airport Road Queues – The analysis indicates that the PM peak southbound queues (both existing and future) extend to and beyond the 7Brew site drive. This may become an issue when vehicles are attempting to access the site traveling NB on US-31. While the study indicates there is room for two vehicles to stack to turn left into the site, there may be no room due to queues extending through this area. In addition, for vehicles to get into this storage area there is no taper, so vehicles would need to cross the double yellow to get in. Providing a taper and stacking for left turns in would be safer for 7Brew traffic but would then have SB US-31 left-turn traffic spilling into the through lanes. This leaves this situation as an area of concern and may warrant further discussion with MDOT.





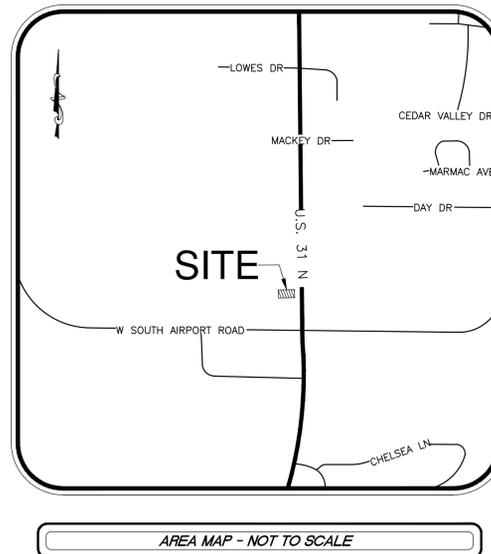
Site Plan – The site plan has been improved to help traffic navigate leaving and entering 7Brew while considering traffic to/from the gas station. The proposed changes include providing a setback stop for vehicles leaving 7Brew, which would provide right of way to traffic leaving the gas station. While this does improve on the previous site plan, there could be further improvement if the gas station and 7Brew worked together to revise the access for both sites. The figure above provides an additional concept to further channelize traffic to reduce conflicts. In this configuration, traffic leaving both 7Brew and the gas station could be under stop control. This concept gives priority to traffic entering both sites, which in turn prevents vehicles from backing up out onto US-31.

Crash Data – Crashes have been reviewed and found 3 angle crashes have occurred over an 8-year period at the site drive. This number is not outside the norm.

PROPOSED 7BREW COFFEE SHOP

2537 NORTH U.S. 31 SOUTH
TRAVERSE CITY, GRAND TRAVERSE COUNTY, MICHIGAN 49684
GARFIELD TOWNSHIP

UTILITY/ GOVERNING AGENCIES CONTACTS	
GAS	DTE ENERGY CONTACT: PHONE:(855)-383-4249 EMAIL:
TELEPHONE	CENTURY LINK CONTACT: PHONE:(866)-770-1479 EMAIL:
ELECTRIC	CONSUMERS ENERGY CONTACT: PHONE: (231)-922-4923
SANITARY SEWER	GRAND TRAVERSE COUNTY DEPARTMENT OF PUBLIC WORKS CONTACT: PHONE: (231)-995-6039 EMAIL:
WATER	GRAND TRAVERSE COUNTY DEPARTMENT OF PUBLIC WORKS CONTACT: PHONE: (231)-995-6039 EMAIL:
STORM SEWER	CHARTER TOWNSHIP OF GARFIELD CONTACT: PHONE: (231)-992-4923 EMAIL:



SHEET INDEX	
SHEET TITLE	SHEET NUMBER
COVER SHEET	CS-1
*ALTA	ALTA
TOPOGRAPHIC SURVEY	TS-1
DEMOLITION PLAN	DM-1
EROSION AND SEDIMENT CONTROL PHASE I	ESC-1
EROSION AND SEDIMENT CONTROL PHASE II	ESC-2
EROSION AND SEDIMENT CONTROL DETAIL SHEET I	ESC-3
EROSION AND SEDIMENT CONTROL DETAIL SHEET II	ESC-4
GRADING PLAN	GR-1
SITE PLAN	SP-1
UTILITY PLAN	UT-1
LANDSCAPE PLAN	LP-1
LANDSCAPE DETAILS	LP-2
PRE DEVELOPMENT DRAINAGE AREA MAP	DA-1
POST DEVELOPMENT DRAINAGE AREA MAP	DA-2
*PROVIDED UNDER SEPARATE SEAL	

CAUTION--NOTICE TO CONTRACTOR REGARDING EXISTING UTILITIES

THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE PERFORMING ANY CONSTRUCTION ACTIVITIES TO REQUEST FIELD LOCATIONS OF THEIR UTILITIES. THE CONTRACTOR MUST BE AWARE THAT SOME EXISTING UTILITIES MAY NOT BE ACCURATELY SHOWN, KNOWN TO EXIST, AND/OR LOCATED BY LOCAL OR STATE UTILITY COMPANIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE NECESSARY ACCOMMODATIONS TO ACCURATELY LOCATE ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK.

ALL EXISTING UTILITIES ON THIS PROJECT SITE AND ON ADJACENT DEVELOPMENTS SHALL REMAIN IN PLACE AND OPERATIONAL AT ALL TIMES DURING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE EXISTING UTILITIES, WHEN NECESSARY, TO FACILITATE THE REQUIRED IMPROVEMENTS SHOWN BY THESE PLANS. THE CONTRACTOR MUST COORDINATE ANY RELOCATIONS OR MODIFICATIONS TO THE EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANY, THE OWNER, AND BFA, INC.

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

FOR REVIEW ONLY

Raymond H. Frankenberg II, P.E. #42538
State of Michigan
Registered Professional Engineer
for BFA, Inc.

09/06/22
Date

bfaeng.com TELEPHONE: (636) 239-4751

103 ELM STREET WASHINGTON, MISSOURI 63090

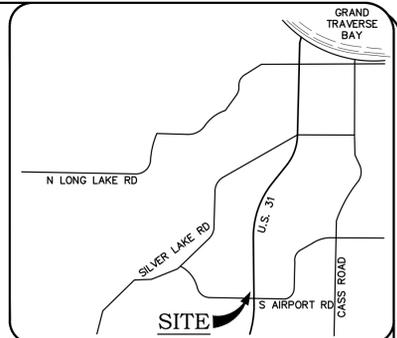
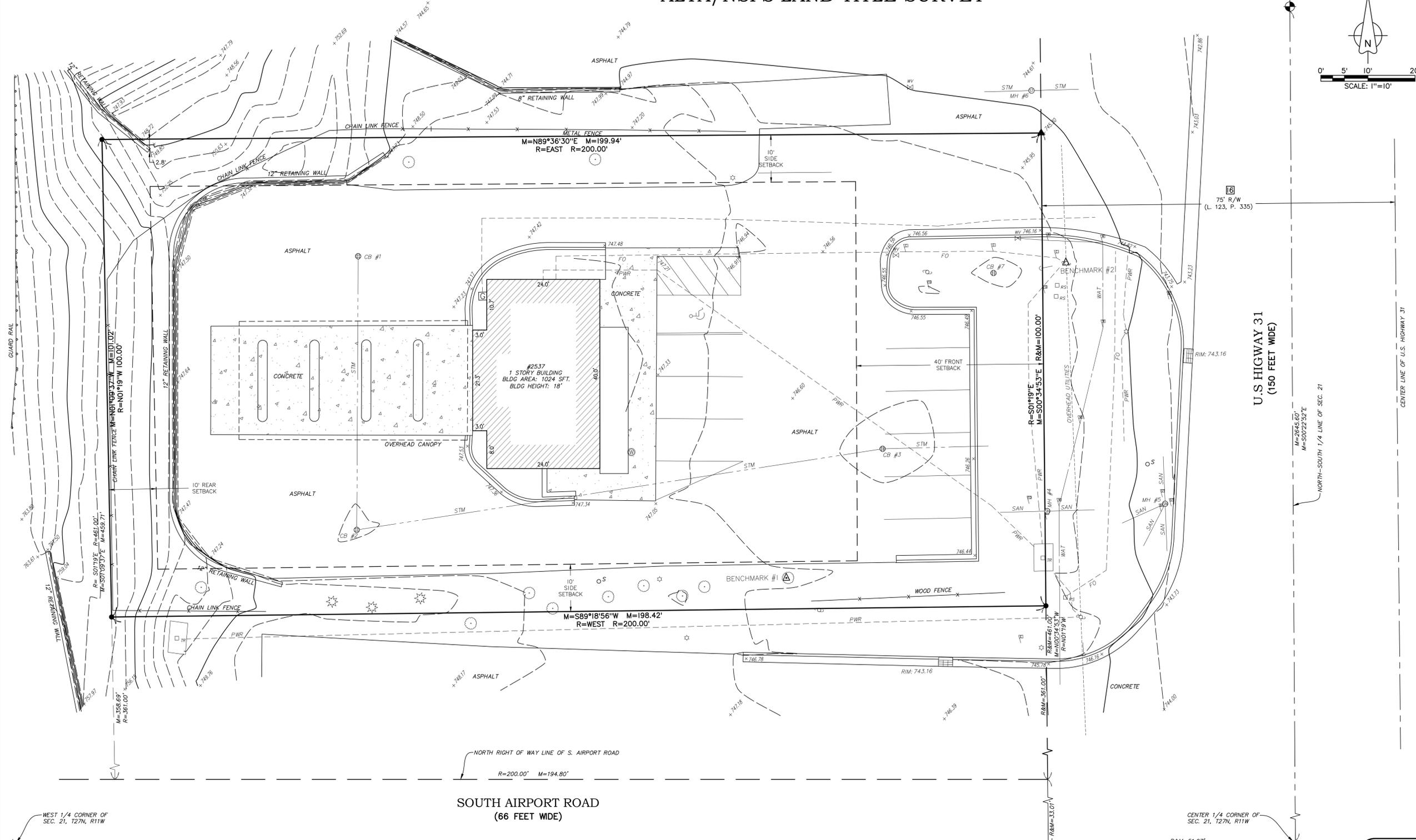
TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

REVISIONS	
1	By: App:
2	By: App:
3	By: App:
4	By: App:

DRAWN
B.L.F.
CHECKED
R.G.R.
DATE
09/06/22
SCALE
NONE
JOB No.
7146
SHEET NAME
COVER SHEET

CS-1

ALTA/NSPS LAND TITLE SURVEY



LOCATION MAP (NOT TO SCALE)

ZONING INFORMATION
 ZONE DISTRICT: C-G - GENERAL COMMERCIAL
 SETBACKS: FRONT 40'
 SIDE 10'
 REAR 10'

FLOOD NOTE
 This property is located in Zone 'X', defined as area of minimal flood hazard according to graphic plotting on Flood Insurance Rate Map, Community Panel Number '26055C 0207 C', effective 08/28/2018.
<http://www.fema.gov>
 Flood Zone lines are approximate locations, taken from the current Flood Insurance Rate Map as noted.
 No field surveying was performed to determine this Zone and an elevation certificate may be needed to verify this determination or apply for a variance from the Federal Emergency Management Agency.

MISCELLANEOUS NOTES

- THIS SURVEY IS BASED ON FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO. TC13-101789, BEARING A COMMITMENT DATE OF APRIL 12, 2022.
- PROPERTY ADDRESS: 2537 N. U.S. 31 S, TRAVERSE CITY, MI, 49684
- THE SUBJECT PROPERTY IS 19,994 SQ. FT. OR 0.459 ACRES.
- UTILITIES SHOWN BY OBSERVED EVIDENCE, MARKING PROVIDED BY MISS DIG LOCATION SERVICES. AT&T HAS INDICATED THAT THERE MAY BE UNDERGROUND FACILITIES ON-SITE THAT WILL NEED TO BE RE-MARKED PRIOR TO COMMENCEMENT OF ANY WORK.
- NO EVIDENCE OF RECENT EARTH MOVING WORK ON SITE.
- NO KNOWN PROPOSED CHANGES TO STREET RIGHT OF WAY LINES.

BENCHMARK INFORMATION

BENCHMARK #1
 MAG IN TREE LOCATED ALONG SOUTH SIDE OF PARKING LOT AND 14 FEET WEST OF A WOOD FENCE.
 EL: 750.24 (NAVD 88)

BENCHMARK #2
 MAG IN UTILITY POLE LOCATED ON SOUTH SIDE OF THE NORTH ENTRANCE TO THE SITE.
 EL: 748.43 (NAVD 88)

FURNISHED LEGAL DESCRIPTION
 (PER FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT #TC 13-101789, DATED JANUARY 24, 2022)
 Land situated in the Township of Garfield, County of Grand Traverse, State of Michigan, described as follows: Part of the Northwest 1/4 of Section 21, Town 27 North, Range 11 West, more particularly described as: THE NORTH 100 FEET of the following described premises: Commencing at the center of said Section 21; thence West along the East-West 1/4 line 51.27 feet to the West right of way line of Highway US 31; thence along said line, being parallel to and 75 feet distant from the centerline of said Highway, North 01 degree 19 minutes West 33.01 feet to the North right of way line of County Road and Point of Beginning; thence continuing along West right of way line of US 31, North 01 degree 19 minutes West 461.00 feet; thence West 200.00 feet; thence South 01 degree 19 minutes East 461.00 feet to the aforesaid North right of way line of County Road; thence along said line, East 200.00 feet to the point of beginning, except a parcel in the Southeast corner thereof measuring 105 East and West by 161 feet North and South, Section 21, Town 27 North, Range 11 West.

LEGEND OF SYMBOLS & ABBREVIATIONS

MEASURED	M=
RECORDED	R=
FOUND IRON	●
FOUND CONCRETE MONUMENT	■
STORM MANHOLE	⊗
CATCH BASIN	⊕
SANITARY MANHOLE	⊙
SIGN	⊛
RISER - PHONE	⊠
WATER VALVE	⊡
CONIFEROUS TREE	⊙
DECIDUOUS TREE	⊙
TRANSFORMER	⊙
CONIFEROUS TREE	⊙
DECIDUOUS TREE	⊙
MISS DIG FLAG - WATER	⊙
MISS DIG FLAG - COMMUNICATIONS	⊙

STRUCTURE INVENTORY

STRUCTURE #1 - CATCH BASIN RIM: 747.03 8" CPP SOUTH INV. 744.23'	STRUCTURE #5 - SANITARY MANHOLE RIM: 744.05 8" PVC NORTH INV. 725.30' 8" PVC SOUTH INV. 725.30' 8" PVC WEST-SOUTHWEST INV. 726.45' 8" PVC WEST-SOUTHWEST INV. 733.20'
STRUCTURE #2 - CATCH BASIN RIM: 746.90 8" CPP NORTH INV. 743.25' 8" CPP EAST-SOUTHEAST INV. 743.10'	STRUCTURE #6 - STORM MANHOLE RIM: 744.76 8" PVC WEST INV. 738.56' 8" PVC EAST INV. 738.56'
STRUCTURE #3 - CATCH BASIN RIM: 745.67 8" CPP WEST-SOUTHWEST INV. 741.67' 10" CPP INV. 742.17'	STRUCTURE #7 - CATCH BASIN RIM: 745.67 10" CPP INV. 740.97'
STRUCTURE #4 - SANITARY MANHOLE RIM: 745.91 8" PVC WEST INV. 736.91' 8" PVC EAST INV. 736.06'	

ITEMS CORRESPONDING TO SCHEDULE B

15 Right of Way in favor of Michigan Public Service Company recorded in Liber 123, page 85
 Blanket in nature and therefore not shown hereon

16 Right of Way in favor of the Michigan State Highway Department recorded in Liber 164, page 335.
 Establishes U.S. 31 as shown hereon

17 Covenants, conditions, restrictions and other provisions as contained in Covenant Deed recorded in Instrument No. 2021R-00970. Please be advised that any provision contained in this document, or in a document that is attached, linked, or referenced in this document, that under applicable law illegally discriminates against a class of individuals based upon personal characteristics such as race, color, religion, sex, sexual orientation, gender identity, familial status, disability, national origin, or any other legally protected class, is illegal and unenforceable.
 Blanket in nature and therefore not shown hereon

SURVEY CERTIFICATION

To BUYER PENDING and FIRST AMERICAN TITLE INSURANCE COMPANY and LENDER PENDING:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6a, 6b, 7a, 7b1, 7c, 8, 9, 10, 11a, 11b, 13, 14, 16, 17, 18 and 19 of Table A thereof. The field work was completed on May 16, 2022.

Date of Plat or Map: _____, 2022

Daniel D. Pratt
 P.S. #4001039094
 1128 Foxchase Lane, SE
 Grand Rapids, MI 49546
 tpc_inc@comcast.net

Terra Pointe Consultants, Inc.
 Client: BFA Inc.
 103 Elm Street
 Washington, MO 63090
 1128 Foxchase Lane, SE
 Grand Rapids, MI 49546
 PH 616.901.1968

ALTA/NSPS Land Title Survey
 Part of the Northwest 1/4
 Section 21, Town 27 North, Range 11 West
 Garfield Township, Grand Traverse County, MI

TPC Job No. 22014 Sheet 1 of 1
 Date of Field Survey: 05/16/2022

TOPOGRAPHIC SURVEY

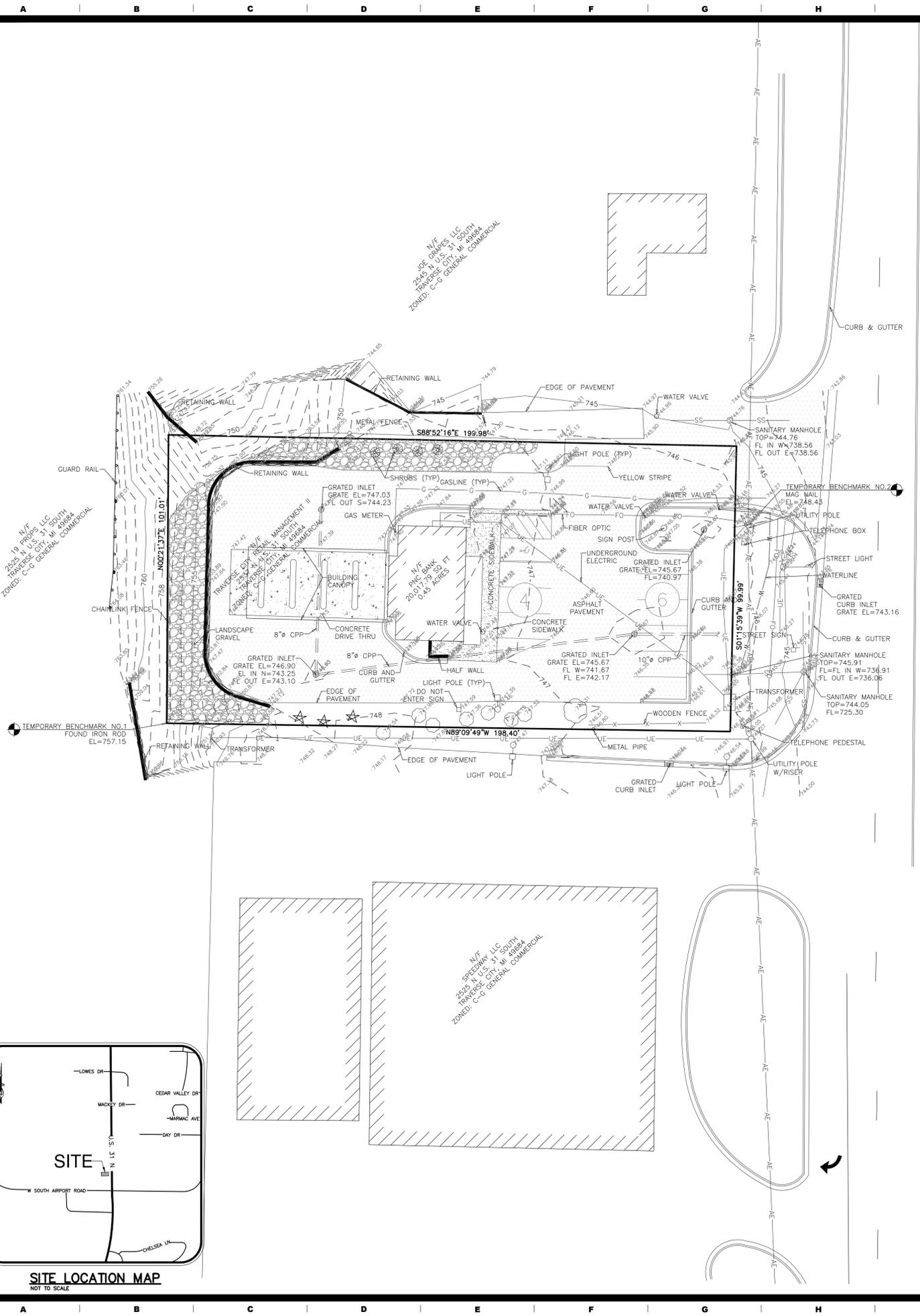
(THIS IS NOT A BOUNDARY SURVEY)

TOPOGRAPHIC SURVEY NOTES:

- Underground facilities, structures, and utilities have been plotted from available surveys and records. Therefore, their location must be considered approximate only. There may be others, the existence of which is presently not known.
 - Bearings and elevation information is based on information provided by Terra Pointe Consultants, Inc. Bearings referenced to Grid North of the Michigan Coordinate System, Central zone and elevations referenced to NAD88 (2011) (INTERNATIONAL FOOT)
 - Bearings and Distances are shown per field data gathered by Terra Pointe Consultants, Inc. on May 02, 2022.
 - Field work was completed on this site by Terra Pointe Consultants, Inc. on May 02, 2022.
 - Contractor shall verify elevation of temporary benchmarks based on the elevation of the primary benchmark, prior to the start of construction. Contractor shall notify engineer if elevations differ from those shown on these plans.
- Primary Benchmark - Bearings and elevation information is based on information provided by Terra Pointe Consultants, Inc. Bearings referenced to Grid North of the Michigan Coordinate System, Central zone and elevations referenced to NAD88 (2011) (INTERNATIONAL FOOT).
- Temporary Benchmark No. 1 - Found Iron Rod South West corner
 Northing = 515655.877
 Easting = 19352258.934'
 Elevation = 757.15'
- Temporary Benchmark No. 2 - Mag Nail in utility pole located on south side of the entrance to the site.
 Northing = 515725.424'
 Easting = 19352463.482'
 Elevation = 748.43'
- This site scales within Zone X, Defined as areas determined to be outside the 0.2% annual chance floodplain, as shown on the Flood Insurance Rate Map prepared by the Federal Emergency Management Agency for the City of Traverse, Grand Traverse County, Michigan, Map Number 26055C0207C, dated August 28, 2018.
 - Existing curbs and gutters on site are vertical. Curbs and gutters along asphalt paved areas are 6" wide with 6" curb and 18" wide gutter. Curbs along concrete areas are 6" high.
 - This site is zoned G-C General Commercial District per Garfield Township, MI Zoning Code.
 Building setback lines as per Garfield Township, MI Zoning Code:
 Front Yard= 40' (60' W/ Drive Thru Use)
 Side Yard= 10% of lot width, not less than 10'
 Rear Yard= 10% of lot width, not less than 10'
 - Water service to this site is provided by Grand Traverse County Public Works at time of survey.
 - Sanitary sewer service to this site is provided by Grand Traverse County Public Works, at time of survey.
 - Electrical service to this site is provided by Consumers Energy, at time of survey.
 - Telephone service to this site is provided by Century Link, at time of survey.
 - Gas service to this site is provided by DTE Energy, at time of survey.
 - NFV = Not Field Verified
 - The minimum depth of cover for waterlines on this site is 72 inches as per Traverse City Sewer and Water Maintenance.



N.U.S. 315
(ASPHALT PAVEMENT)

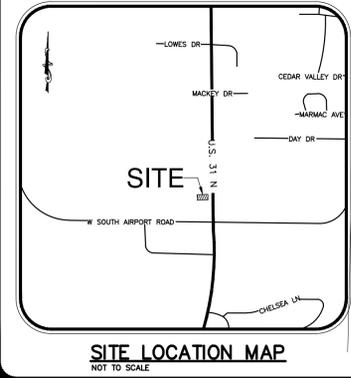


TOPOGRAPHIC LEGEND	
DESCRIPTION	EXISTING
AERIAL ELECTRIC	—AE—
UNDERGROUND ELECTRIC	—UE—
UNDERGROUND TELEPHONE	—UT—
GAS LINE	—G—
WATERLINE	—W—
SANITARY SEWER	—SS—
STORM SEWER	=====
EASEMENT	----
PROPERTY LINE	-----
CHAINLINK/WOODEN FENCE	—o—o—
CONTOURS	---100---
UTILITY POLE	o
GUARD POST	o
SANITARY MANHOLE	o
WATER VALVE	o
FIRE HYDRANT	o
CATCH BASIN	o
JUNCTION BOX	o
FLARED END SECTION	o
CLEANOUT	o
GRATED INLET	o
SOIL BORING	o

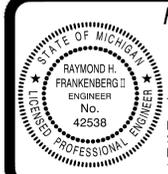
NOTE:
EXISTING FIELD DATA SHOWN HEREON WAS GATHERED BY TERRA PONTI CONSULTANTS, INC. ON 05-02-22

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.



FOR REVIEW ONLY



Raymond H. Frankenberg II, P.E. #42538
 State of Michigan
 Registered Professional Engineer
 for BFA, Inc.

09/06/22
Date

bfaeng.com TELEPHONE: (636) 239-4751



103 ELM STREET WASHINGTON, MISSOURI 63090

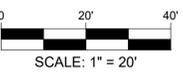
TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

REVISIONS	
1	By: _____ App: _____
2	By: _____ App: _____
3	By: _____ App: _____
4	By: _____ App: _____

DRAWN B.L.F.
 CHECKED R.G.R.
 DATE 09/06/22
 SCALE 1"=20'
 JOB No. 7146
 SHEET NAME TOPOGRAPHIC SURVEY
 TS-1

DEMOLITION PLAN

(THIS IS NOT A BOUNDARY SURVEY)



DEMOLITION PLAN NOTES:

- The Contractor shall conform to all applicable State and local codes for demolition of structures, safety of adjacent structures, dust control, and sediment and erosion control during construction.
- The Contractor shall verify that all required permits and licenses from appropriate authorities have been obtained prior to construction.
- The Contractor shall notify and coordinate scheduling with affected utility companies before starting work and comply with their requirements.
- The Contractor shall not close or obstruct public or private roadways, sidewalks, or fire hydrants without appropriate permits or written authorization.
- The Contractor shall accurately record actual locations of capped utilities and subsurface obstructions that will remain after demolition.
- The Contractor shall provide, erect, and maintain sediment and erosion control devices, temporary barriers, and security devices during construction.
- The Contractor shall protect existing landscaping materials, appurtenances, and structures, which are not to be demolished. Any damage caused by demolition operations shall be repaired by the Contractor at no cost to Owner.
- The Contractor shall protect and maintain in a safe and operable condition utilities that are to remain. The Contractor shall prevent interruption of existing utility service to occupied or used facilities, except when authorized in writing by authorities having jurisdiction. The Contractor shall provide temporary services during interruptions to existing utilities as acceptable to governing authorities and Owner.
- The Contractor shall notify adjacent owners of work that may affect their property, potential noise, utility outages or disruptions.
- Completely fill below grade areas and voids resulting from demolition or removal of structures, footings, foundations, underground fuel storage tanks, wells, cisterns, etc., using approved select fill materials consisting of stone, gravel, and sand. Fill materials shall be free from debris, trash, frozen materials, roots, and other organic matter.
- No burning of any material, debris, or trash on-site or off-site will be allowed, except when allowed by appropriate governing authority and Owner. Any permits required for doing so shall be obtained by the Contractor.
- All items noted "To Remain, and/or To Be Adjusted" shall be raised or lowered to match the new grade indicated or flush with the surrounding pavement. (i.e. manhole rims, valve covers, grates, etc.)
- Unless noted otherwise, utilities designated to be removed shall be removed in their entirety. Trenches shall then be backfilled and compacted. (See soil Preparation and Compaction note on these plans.)
- Should hazardous materials be found during demolition operations, the Contractor shall notify the owner and all governing agencies, if necessary, and conform to all applicable regulatory procedures.
- The Contractor shall provide, install, and maintain traffic control at all times during construction. This includes signs, barriers, construction fencing, striping, etc. necessary to safely control site and construction traffic. Contractor shall be responsible for notifying adjacent property owners when closing cross access drive.
- The Contractor shall keep the premises clean and free of debris during construction.
- The fire protection for the site shall remain in service at all times during construction.
- Existing paint striping within the parking lot shall be removed as necessary for the proposed striping as shown on these plans. Striping shall be removed by sand blasting, milling, or grinding.
- All survey monuments disturbed during construction shall be replaced by a licensed land surveyor, licensed in the state where this project is located.
- The edges of all pavement and curb sections to be removed shall be saw cut. Remaining pavement and curb sections shall have smooth, clean edges. This means additional sawcuts may be necessary depending on contractor's means and methods.
- Remove all stumps, bushes, trees, weeds and other surface obstructions from the site that are within the proposed construction area and that are not otherwise noted to remain. Contractor to strip all topsoil from entire area to be graded. This may be done in phases. (Refer to Erosion and Sediment Control Plans.) Extent of topsoil use on site as per the on site geotechnical representative.
- The sitework for this project shall meet or exceed applicable AHJ Specifications, permit requirements, and manufacturer specifications.
- The contractor shall maintain the site in a well-drained manner in order to assure the shortest possible drying time after each rainfall. This will mean that pumping of standing water in the low areas on the site may be required during construction.
- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility company to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on plans.
- Contractor shall be responsible for repair and replacement of any existing site features that are to remain that is disturbed during construction, including trench backfill, granular base, and pavements. Contractor's bid shall include any and all removal of and replacement of existing features due to utility removals and new connections.
- The Contractor shall be responsible for inspecting the condition of the existing retaining wall to remain prior to bid and provide notice to owner and BFA of any defects, if any. If there are defects/wall maintenance recommendations, the contractor shall provide a detailed estimate and scope of work of proposed improvements. Contractor shall be responsible for repairs and replacement of structures damaged during construction, at their own expense.
- (TBR) = To Be Removed
(TBR&R) = To Be Removed and Replaced/Relocated
(TR) = To Remain
(TBA) = To Remain and adjusted to proposed finish grade

NOTE:
EXISTING FIELD DATA SHOWN HEREON WAS GATHERED
BY TERRA POINTE CONSULTANTS, INC. ON 05-02-22

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

CAUTION - NOTICE TO CONTRACTOR REGARDING EXISTING UTILITIES

THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE PERFORMING ANY CONSTRUCTION ACTIVITIES TO REQUEST FIELD LOCATIONS OF THEIR UTILITIES. THE CONTRACTOR MUST BE AWARE THAT SOME EXISTING UTILITIES MAY NOT BE ACCURATELY SHOWN, KNOWN TO EXIST, AND/OR LOCATED BY LOCAL OR STATE UTILITY COMPANIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE NECESSARY ACCOMMODATIONS TO ACCURATELY LOCATE ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK.

ALL EXISTING UTILITIES ON THIS PROJECT SITE AND ON ADJACENT DEVELOPMENTS SHALL REMAIN IN PLACE AND OPERATIONAL AT ALL TIMES DURING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE EXISTING UTILITIES, WHEN NECESSARY, TO FACILITATE THE REQUIRED IMPROVEMENTS SHOWN BY THESE PLANS. THE CONTRACTOR MUST COORDINATE ANY RELOCATIONS OR MODIFICATIONS TO THE EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANY, THE OWNER, AND BFA, INC.

DEMOLITION LEGEND	
DESCRIPTION	EXISTING
AERIAL ELECTRIC	—AE—
UNDERGROUND ELECTRIC	—UE—
UNDERGROUND TELEPHONE	—UT—
GAS LINE	—G—
WATERLINE	—W—
SANITARY SEWER	—SS—
STORM SEWER	-----
EASEMENT	----
PROPERTY LINE	-----
CHAINLINK/WOODEN FENCE	o-o-o-o
CONTOURS	---100---
UTILITY POLE	o
GUARD POST	oP
SANITARY MANHOLE	o
WATER VALVE	o
FIRE HYDRANT	o
CATCH BASIN	o
JUNCTION BOX	o
FLARED END SECTION	o
CLEANOUT	o
GRADED INLET	o
SOIL BORING	o

FOR REVIEW ONLY

Raymond H. Frankenberg II, P.E. #42538
State of Michigan
Registered Professional Engineer
for BFA, Inc.

09/06/22
Date

bfaeng.com TELEPHONE: (636) 239-4751

103 ELM STREET WASHINGTON, MISSOURI 63090

TRAVERSE CITY, MICHIGAN
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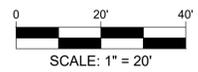
DRAWN B.L.F.
 CHECKED J.B.S.
 DATE 09/06/22
 SCALE 1"=20'
 JOB No. 7146
 SHEET NAME DEMOLITION PLAN
DM-1

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PHASE I EROSION AND SEDIMENTATION CONTROL PLAN / SITE MAP

ACREAGE SUMMARY (IN ACRES)	
PROPERTY AREA	0.45
AREA WITHIN PROPERTY	0.45
AREA OUTSIDE OF TAKE 5 PROPERTY	0.05
TOTAL PROJECT AREA	0.50
IMPERVIOUS AREA BEFORE PROJECT	0.32
IMPERVIOUS AREA AT COMPLETION	0.33
PERVIOUS AREA AT COMPLETION	0.17

SITE FEATURES	
	PROPERTY LINE
	RIGHT OF WAY LINE
	PROPOSED LIMITS OF DISTURBANCE
	EXISTING CONTOUR ELEVATIONS
	STORM DRAIN
	DIRECTION OF OVERLAND FLOW
	SOIL BOUNDARY



SEQUENCE OF CONSTRUCTION

- PHASE I**
- INSTALL STABILIZED CONSTRUCTION EXITS.
 - PREPARE TEMPORARY PARKING AND STORAGE AREA. UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAYDOWN, PORTA POTTIES, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
 - INSTALL INLET PROTECTIONS AND SILT FENCES(S) ON THE SITE.
 - OVER-EXCAVATE FOR BUILDING PAD.
 - BEGIN GRADING THE SITE.
- PHASE II**
- START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
 - TEMPORARILY SEED/STABILIZE DISTURBED AREAS.
 - INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
 - INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
 - PREPARE SITE FOR PAVING.
 - PAVE SITE.
 - INSTALL INLET PROTECTION DEVICES.
 - COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTINGS.
 - REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED).

EROSION DETAILS

- | | | |
|--|------|-----------------------------------|
| | CEP | CONSTRUCTION EXIT ON PAVEMENT |
| | CW | CONCRETE WASHOUT |
| | EE | EROSION EELS |
| | SF | TEMPORARY SILT FENCE |
| | SS | SWMP INFORMATION SIGN |
| | WW | WHEEL WASHOUT |
| | MSLA | MATERIAL LAYDOWN AND STORAGE AREA |
| | RR | RIP-RAP |

EROSION NOTES

- EyB** SOIL TYPE: EMMET SANDY LOAM, 2 TO 6 PERCENT SLOPES
- GxE2** SOIL TYPE: GUELPH-NESTER LOAMS, 18 TO 25 PERCENT SLOPES, MODERATELY ERODED
- KaA** SOIL TYPE: KALKASKA LOAMY SAND, 0 TO 2 PERCENT SLOPES
- KaB** SOIL TYPE: KALKASKA LOAMY SAND, 2 TO 6 PERCENT SLOPES
- RcA** SOIL TYPE: RICHTER LOAMS, 0 TO 2 PERCENT SLOPES, OVERWASH

BENCHMARK INFORMATION	
TEMPORARY BENCHMARK NO. 1 - FOUND IRON ROD	ELEVATION=757.15'
TEMPORARY BENCHMARK NO. 2 - MAG NAIL	ELEVATION=748.43'

NOTE:

IN THE EVENT THAT AN INSPECTOR OF THE U.S. E.P.A. OR A STATE OR LOCAL AGENCY SHOULD APPEAR AT THE PROJECT TO CONDUCT AN INSPECTION, THE CONTRACTOR SHALL IMMEDIATELY CONTACT BFA, INC. AT 636-239-4751 AND ADVISE THEM OF THE INSPECTION.

DEVELOPER/OWNER:
 NLD ACQUISITIONS, LLC
 PO BOX 100843
 FORT WORTH, TX 76185

SITE OPERATOR/GENERAL CONTRACTOR:

 SUPERINTENDENT:

MINIMIZATION OF DISTURBED AREAS:

- CONTRACTOR SHALL MANAGE CONSTRUCTION ACTIVITIES TO REDUCE EROSION AND RETAIN SEDIMENT AND OTHER POLLUTANTS IN THE SOIL AT THE CONSTRUCTION SITE.
- CONTRACTOR SHALL MINIMIZE THE TIME BARE SOIL IS EXPOSED.
- CONTRACTOR SHALL MINIMIZE SITE DISTURBANCE BY MINIMIZING THE EXTENT OF GRADING AND CLEARING TO EFFECTIVELY REDUCE SEDIMENT YIELD.

NOTE TO GC: OWNER HAS AUTHORITY AT ANY TIME TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, BORROW AND EMBANKMENT OPERATIONS AND TO DIRECT THE GC TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES.

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FOR REVIEW ONLY

Raymond H. Frankenberg II, P.E. #42538 09/06/22
 State of Michigan Date
 Registered Professional Engineer
 for BFA, Inc.

bfaeng.com TELEPHONE: (636) 239-4751

103 ELM STREET WASHINGTON, MISSOURI 63090

TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

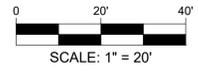
REVISIONS	
1	By: _____ App: _____
2	By: _____ App: _____
3	By: _____ App: _____
4	By: _____ App: _____

DRAWN
 B.L.F.
 CHECKED
 R.G.R.
 DATE
 09/06/22
 SCALE
 1"=20'
 JOB No.
 7146
 SHEET NAME
 ESC PHASE I
ESC-1

PHASE II EROSION AND SEDIMENTATION CONTROL PLAN / SITE MAP

ACREAGE SUMMARY (IN ACRES)	
PROPERTY AREA	0.45
AREA WITHIN PROPERTY	0.45
AREA OUTSIDE OF TAKE 5 PROPERTY	0.05
TOTAL PROJECT AREA	0.50
IMPERVIOUS AREA BEFORE PROJECT	0.32
IMPERVIOUS AREA AT COMPLETION	0.33
PERVIOUS AREA AT COMPLETION	0.17

LEGEND	
SITE FEATURES	
	PROPERTY LINE
	RIGHT OF WAY LINE
	PROPOSED LIMITS OF DISTURBANCE
	EXISTING CONTOUR ELEVATIONS
	STORM DRAIN
	DIRECTION OF OVERLAND FLOW
	SOIL BOUNDARY



SEQUENCE OF CONSTRUCTION

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 - INSTALL INLET PROTECTIONS AND PERIMETER BMP'S ON THE SITE.
 - OVER-EXCAVATE FOR BUILDING PAD.
 - BEGIN GRADING THE SITE.
- PHASE II**
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 - TEMPORARILY SEED/STABILIZE DENUDEED AREAS.
 - INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
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EROSION DETAILS

- CEP CONSTRUCTION EXIT ON PAVEMENT
- CW CONCRETE WASHOUT
- EE EROSION EELS
- SF TEMPORARY SILT FENCE
- SS SWPP INFORMATION SIGN
- WW WHEEL WASHOUT
- MSLA MATERIAL LAYDOWN AND STORAGE AREA
- RR RIP-RAP
- FS FILTER SACK

EROSION NOTES

- PS PERMANENT SEEDING/SOD
- GR LANDSCAPE GRAVEL

BENCHMARK INFORMATION

TEMPORARY BENCHMARK NO. 1 - FOUND IRON ROD ELEVATION=757.15'
 TEMPORARY BENCHMARK NO. 2 - MAG NAIL ELEVATION=748.43'

DEVELOPER/OWNER:
 NLD ACQUISITIONS, LLC
 PO BOX 100843
 FORT WORTH, TX 76185

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

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 - CONTRACTOR SHALL MINIMIZE THE TIME BARE SOIL IS EXPOSED.
 - CONTRACTOR SHALL MINIMIZE SITE DISTURBANCE BY MINIMIZING THE EXTENT OF GRADING AND CLEARING TO EFFECTIVELY REDUCE SEDIMENT YIELD.

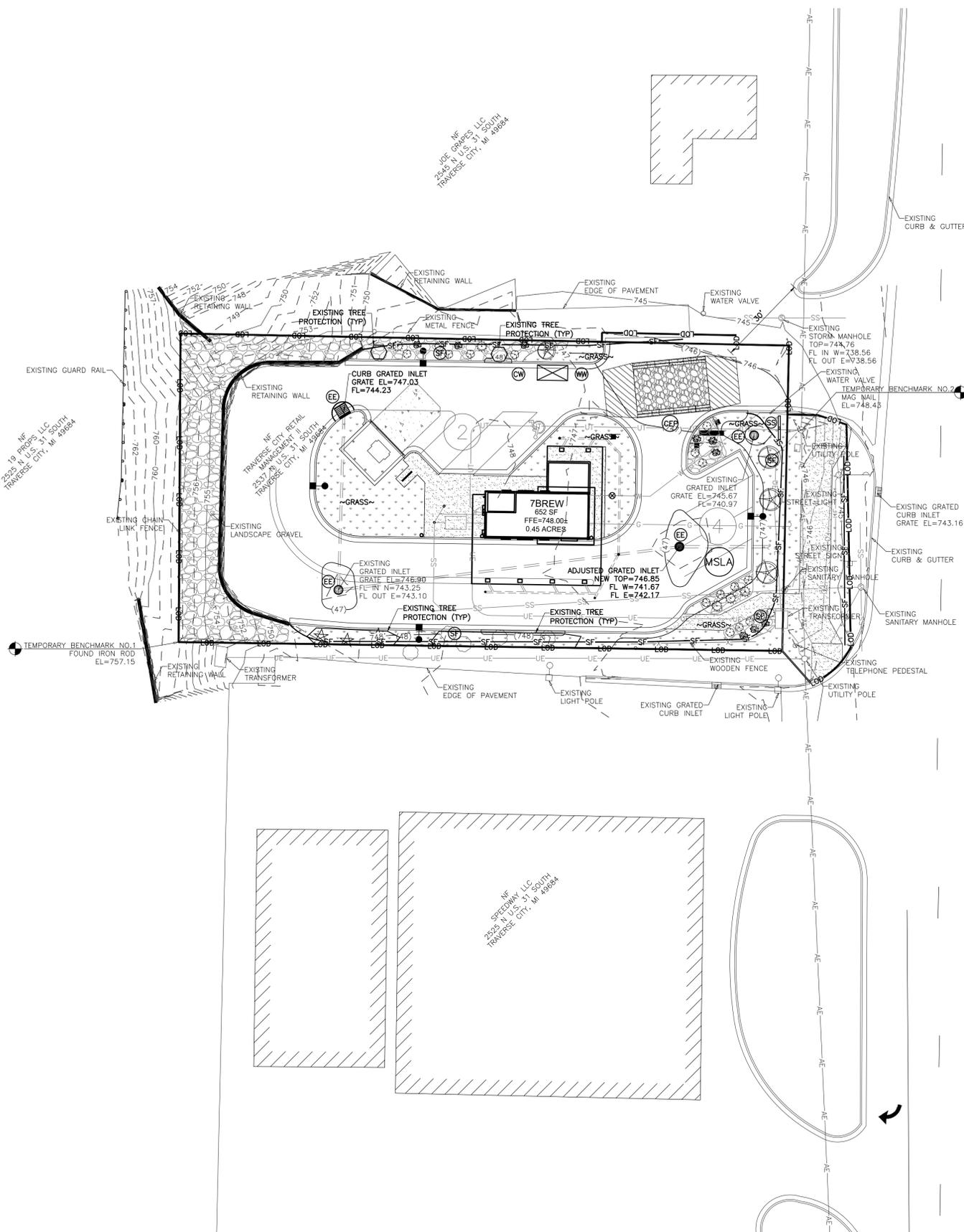
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NOTE:
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ESC PLAN LEGEND	
DESCRIPTION	EXISTING
AERIAL ELECTRIC	—AE—
UNDERGROUND ELECTRIC	—UE—
UNDERGROUND TELEPHONE	—UT—
GAS LINE	—G—
FIBER OPTIC LINE	—FO—
WATERLINE	—W—
SANITARY SEWER	—SS—
STORM SEWER	-----
EASEMENT	-----
PROPERTY LINE	-----
CONTOURS	---100---
UTILITY POLE	o
GUARD POST	o
SANITARY MANHOLE	o
WATER VALVE	o
FIRE HYDRANT	o
CLEANOUT	o



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NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

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1	By: _____ App: _____
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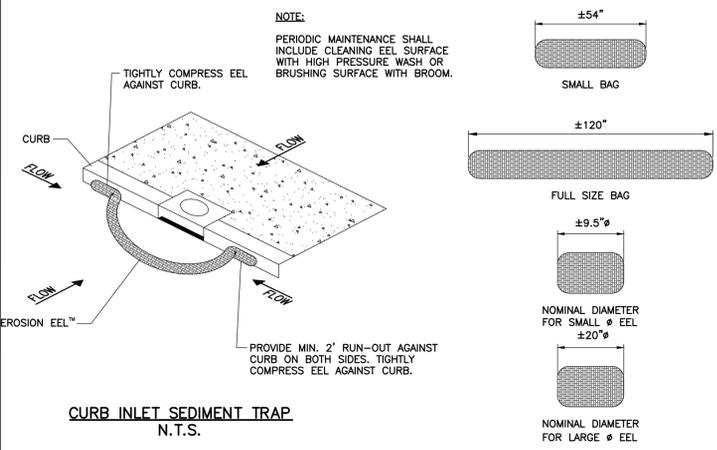
FOR REVIEW ONLY

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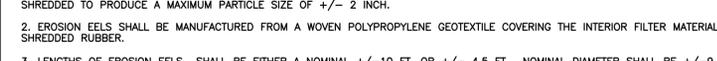
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ESC-2

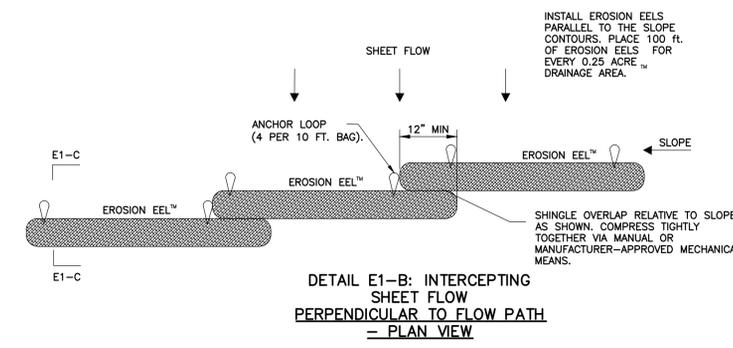


CURB INLET SEDIMENT TRAP
N.T.S.

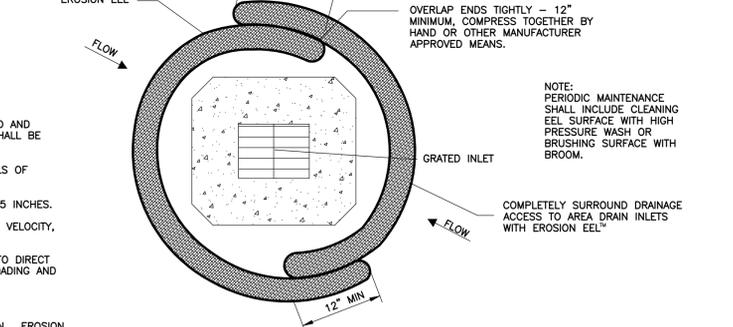
GENERAL NOTES:
1. MIXTURE SPECIFICATION A FILTER MIXTURE COMPRISED OF 100% SHREDDED RUBBER. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/- 2 INCH.
2. EROSION EELS SHALL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE GEOTEXTILE COVERING THE INTERIOR FILTER MATERIALS OF SHREDDED RUBBER.
3. LENGTHS OF EROSION EELS SHALL BE EITHER A NOMINAL +/-10 FT. OR +/- 4.5 FT. NOMINAL DIAMETER SHALL BE +/-9.5 INCHES.
4. EROSION EELS CAN BE PLACED AT THE TOP, ON THE FACE, OR AT THE TOE OF SLOPES TO INTERCEPT RUNOFF, REDUCE FLOW VELOCITY, RELEASE THE RUNOFF AS SHEET FLOW AND PROVIDE REMOVAL OF SEDIMENT FROM THE RUNOFF.
5. EROSION EELS SHALL BE INSTALLED ALONG THE GROUND CONTOUR, AT THE TOE OF SLOPES, AT AN ANGLE TO THE CONTOUR TO DIRECT FLOW AS A DIVERSION BERM, AROUND INLET STRUCTURES, IN A DITCH AS A CHECK DAM TO HELP REDUCE SUSPENDED SOLIDS LOADING AND RETAIN SEDIMENT, OR AS A GENERAL FILTER FOR ANY DISTURBED SOIL AREA.
6. NO TRENCHING IS REQUIRED FOR INSTALLATION OF EROSION EELS.
7. PREPARE BED FOR EEL INSTALLATION BY REMOVING ANY LARGE DEBRIS INCLUDING ROCKS, SOIL CLOUDS, AND WOODY VEGETATION. EROSION EELS CAN ALSO BE PLACED OVER PAVED SURFACES INCLUDING CONCRETE AND ASPHALT WITH NO SURFACE PREPARATION REQUIRED.
8. RAKE BED AREA WITH A HAND RAKE OR BY DRAG HARROW.
9. DO NOT PLACE EEL DIRECTLY OVER RILL AND GULLIES UNTIL AREA HAS BEEN HAND-EXCAVATED AND RAKED TO PROVIDE A LEVEL BEDDING SURFACE. ALL SURFACES SHALL BE UNIFORMLY COMPACTED FOR MAXIMUM SEATING OF EELS IN PLACE.
10. FOR LOCATIONS WHERE EELS WILL BE PLACED IN CONCENTRATED FLOWS (SUCH AS CHECK DAMS, INLET PROTECTION) AND FOR PERIMETER CONTROLS AT PRIMARY DISCHARGE LOCATIONS, BED THE EELS IN A FLOCMAT CRADLE.
11. FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE AREA SHALL BE 10 ACRES.
12. IF MORE THAN ONE EROSION EEL IS PLACED IN A ROW, THE EELS SHALL BE OVERLAPPED A MINIMUM OF 12 INCHES TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. COMPRESS THE TWO EELS OF THE OVERLAP TIGHTLY TOGETHER EITHER BY HAND OR MANUFACTURER-APPROVED MECHANIZED MEANS.
13. REMOVE SEDIMENT AND DEBRIS WHEN ACCUMULATION REACHES 50% OF THE STORAGE HEIGHT BEHIND THE SINGLE OF STACKED EEL ARRANGEMENT. DISPOSE OF SEDIMENT AND DEBRIS AT AN APPROVED SITE IN A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.
14. WHEN USED IN DITCHES AS A CHECK DAM, EROSION EELS SHALL BE INSTALLED PER MANUFACTURER'S DETAILS.
15. FOR CHECK DAM APPLICATIONS, EROSION EELS SHALL BE PLACED PERPENDICULAR TO THE FLOW OF THE WATER. EROSION EELS SHALL CONTINUE UP THE SIDES SLOPES A MINIMUM OF 3 FEET ABOVE THE DESIGN FLOW DEPTH.
16. EROSION EELS SHALL REMAIN IN PLACE UNTIL FULLY ESTABLISHED VEGETATION HAS COMPLETELY DEVELOPED OR UNTIL THE STORAGE CAPACITY/FUNCTIONAL LIFE OF THE EEL HAS BEEN EXHAUSTED (REQUIRING REPLACEMENT WITH NEW EELS).
17. ANCHORING POSTS FOR CHECK DAM APPLICATIONS SHALL HAVE A MINIMUM WEIGHT OF 1.25 LBS/FT STEEL T-POSTS (5 TO 7 FT. LENGTHS) ROLLED FROM HIGH CARBON STEEL. POSTS SHOULD BE HOT-DIP GALVANIZED OR COATED WITH A WEATHER-RESISTANT PAINT FOR STEEL APPLICATION. POSTS SHOULD BE EQUIPPED WITH A METAL ANCHOR PLATE. INSTALL PER DETAILS ON THIS SHEET.
18. PLACE T-POSTS THROUGH HANDLE OF BAGS. DO NOT DRIVE POSTS THROUGH EROSION EELS. T-POSTS ARE TO BE EMBEDDED A MINIMUM OF 2 FT INTO GROUND.



DETAIL E1-A: EROSION EELS
N.T.S.



DETAIL E1-B: INTERCEPTING SHEET FLOW PERPENDICULAR TO FLOW PATH - PLAN VIEW



GRATED INLET SEDIMENT TRAP
N.T.S.

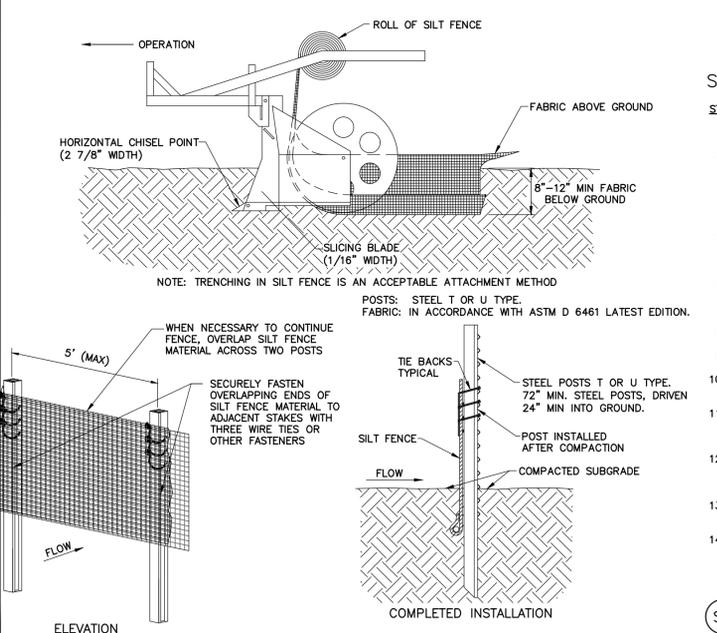
SPACING RECOMMENDATIONS FOR THE EROSION EEL™ FOR PERIMETER CONTROLS AND INTERCEPTING SHEET FLOW ON SLOPES

SLOPE(%)	SINGLE EEL SPACING(ft)	* STACKED DUAL EEL SPACING(ft)
0.5	300	N/A
1	200	N/A
2	150	N/A
3	80	N/A
4	50	N/A
5	40	N/A
6	35	N/A
8	30	N/A
10	25	N/A
15	+17	N/A
20	+12	+25
25	N/A	+15
33	N/A	+10
50	N/A	+6

* DUAL STACK REFERS TO TWO EELS STACKED ATOP ONE ANOTHER AND STABILIZED WITH T-POSTS.
+ PLACE STAKES BEHIND EELS @ 24" C/C SPACING.

EE EROSION EELS DETAIL
N.T.S.

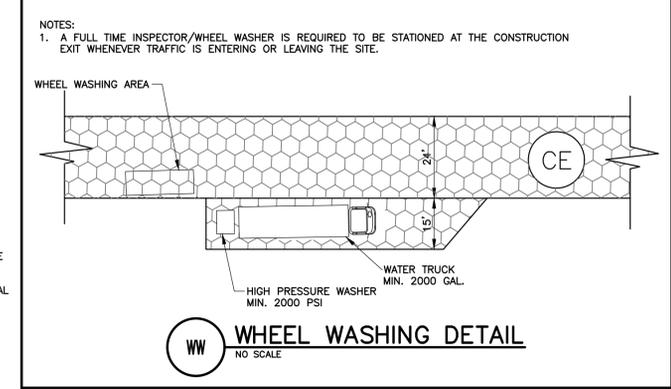
LAST REVISED: **BFA STANDARD DETAIL**
JULY 2014



SPECIFICATIONS FOR STATIC SLICING METHOD FOR SILT FENCE INSTALLATION

- STATIC SLICING SHALL BE USED TO ANCHOR SILT FENCE FABRIC IN ORDER TO NOT USE THE WIRE BACKING.
- SILT FENCE SHALL BE INSTALLED PER ASTM D-6462-03 LATEST EDITION.
 - INSTALL POSTS AT A MAXIMUM OF 5'-0" APART.
 - INSTALL POSTS AT A MINIMUM DEPTH OF 24" ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT UPSTREAM WATER PRESSURE ON THE FABRIC.
 - INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FENCE FABRIC.
 - ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1" VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
 - WRAP APPROXIMATELY 6" OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
 - WHEN NECESSARY TO CONTINUE FENCE, OVERLAP SILT FENCE MATERIAL ACROSS TWO POSTS.
 - NO MORE THAN 24" OF A 36" FABRIC IS ALLOWED ABOVE GROUND LEVEL.
 - DRIVE POST A MINIMUM OF 24" INTO THE GROUND.
 - THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION. USE A FLAT-BLADED SHOVEL TO TUCK FABRIC DEEPER INTO THE SLIT IF NECESSARY.
 - COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQ. INCH. COMPACT THE UPSTREAM SIDE FIRST. COMPACT EACH SIDE TWICE FOR A TOTAL OF FOUR TRIPS.
 - MAINTENANCE SHALL BE PERFORMED AS NOTED IN THE SWPPP. DEPTH OF ACCUMULATED SEDIMENTS MAY NOT EXCEED ONE-HALF THE HEIGHT OF THE FENCE. MAINTENANCE CLEANOUT MUST BE CONDUCTED REGULARLY TO PREVENT ACCUMULATED SEDIMENTS FROM REACHING ONE-HALF THE HEIGHT OF THE FENCE FABRIC ABOVE GRADE.
 - WHEN TWO SECTIONS OF SILT FENCE MATERIAL ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED A MINIMUM OF 60" ACROSS TWO POSTS, AS SHOWN.
 - ADD POST CAPS AS NEEDED BASED ON SITE CONDITIONS AND APPLICABLE AGENCY REQUIREMENTS.

SF NON-WIRE BACKED SLICING METHOD FOR SILT FENCE INSTALLATION
NO SCALE



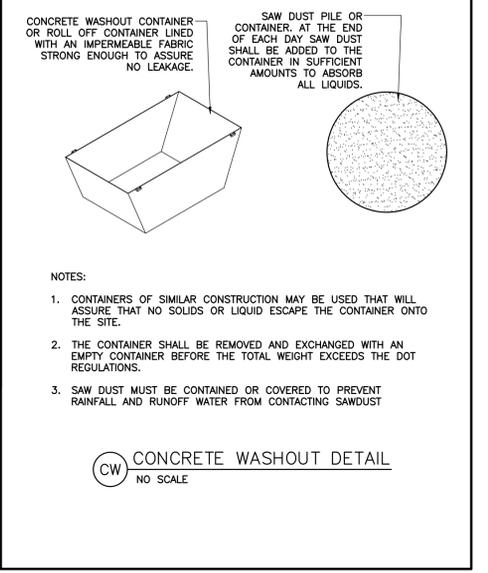
WHEEL WASHING DETAIL
NO SCALE

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

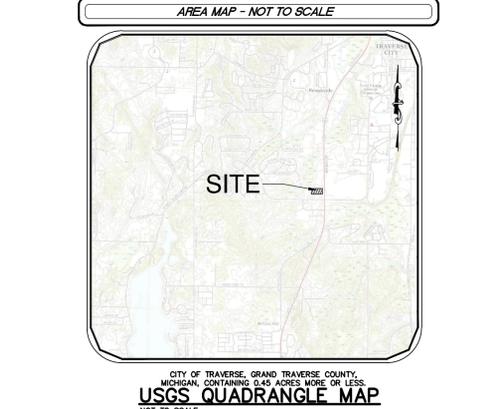
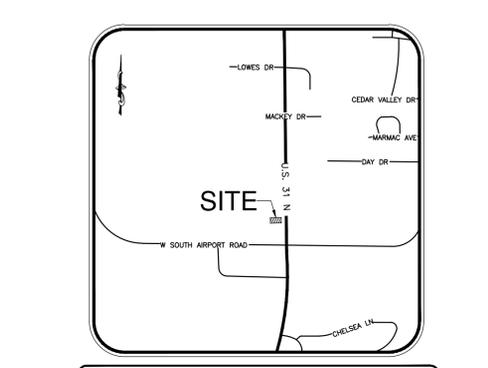
- CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THIS STORM WATER POLLUTION PREVENTION PLAN. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN ACCORDANCE WITH EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN, OR REQUIRED BY THE APPLICABLE GENERAL PERMIT.
- ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- DUST ON THE SITE SHALL BE MINIMIZED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- ALL DENUDE/BARE AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE, MUST BE STABILIZED IMMEDIATELY UPON COMPLETION OF MOST RECENT GRADING ACTIVITY WITH THE USE OF FAST-GERMINATION ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEED, SOODED, AND/OR VEGETATED IMMEDIATELY, AND NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
- IF THE ACTION OF VEHICLES TRAVELING OVER THE PAVED CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO PREVENT TRACKING OF DIRT, DUST OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATION AS PROVIDED.
- ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- ON-SITE AND OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
- SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND POLLUTANT DISCHARGE.
- GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE SITE MAPS, INSIDE OF THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.

BMP MAINTENANCE EROSION NOTES:

- ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
 - ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
 - SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
 - THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
 - THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
 - PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.



CONCRETE WASHOUT DETAIL
NO SCALE



CITY OF TRAVERSE, GRAND TRAVERSE COUNTY, MICHIGAN, CONTAINING 0.45 ACRES MORE OR LESS
USGS QUADRANGLE MAP
NOT TO SCALE

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

FOR REVIEW ONLY

Raymond H. Frankenberg II, P.E. #42538
State of Michigan
Registered Professional Engineer
for BFA, Inc.

09/06/22
Date

bfaeng.com TELEPHONE: (636) 239-4751

103 ELM STREET WASHINGTON, MISSOURI 63090

TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

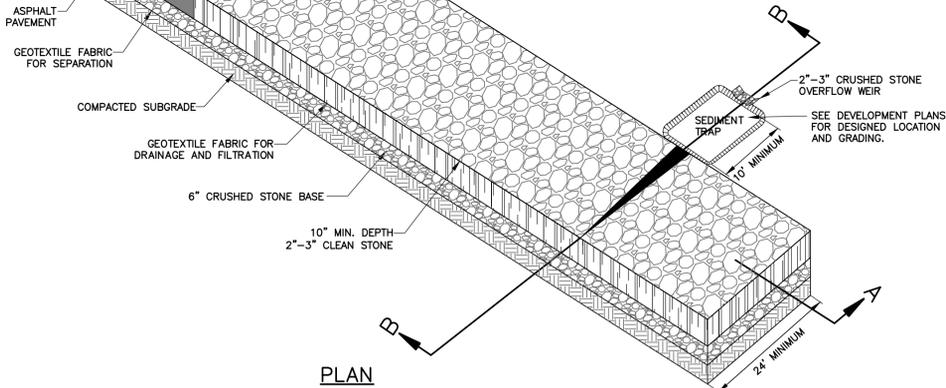
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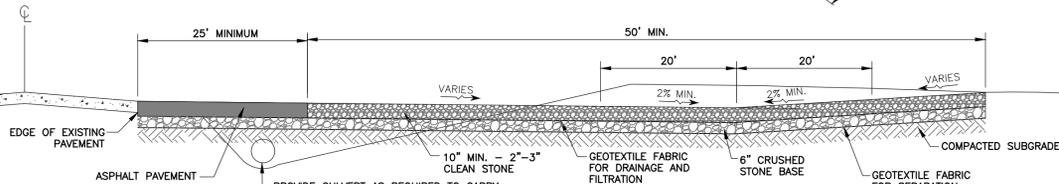
DRAWN B.L.F.
CHECKED J.B.S.
DATE 09/06/22
SCALE NONE
JOB No. 7146
SHEET NAME ESC DETAIL SHEET 1
ESC-3

1. PROVIDE SEDIMENT TRAP ON DOWN GRADIENT SIDE (OR BOTH SIDES) IF WHEEL WASHING IS REQUIRED.
2. FLUSH SURFACE STONE TOWARD SEDIMENT TRAP WITH HIGH VOLUME WATER FLOW AS NEEDED TO MAINTAIN CLEAN SURFACE STONE.
3. SEDIMENT TRAP SHALL BE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND AT A MINIMUM SETBACK DISTANCE AS REQUIRED PER LOCAL JURISDICTION.
4. SEE SWPPP PLANS FOR LOCATION OF SEDIMENT TRAP(S).
5. CONTRACTOR TO LOCATE TEMPORARY CONSTRUCTION FENCING, JERSEY BARRIERS, OR BOTH ALONG THE SIDES OF THE CONSTRUCTION EXIT TO PREVENT CONSTRUCTION TRAFFIC FROM SHORT CIRCUITING/BYPASSING THE EXIT.

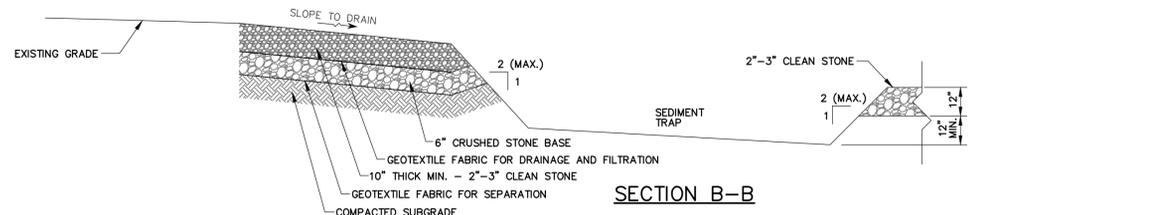
HARD SURFACE INTERSECTING ROAD



PLAN



SECTION A-A



SECTION B-B

CONSTRUCTION EXIT DETAIL

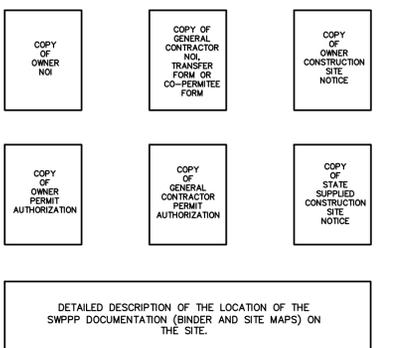
CE NO SCALE

- NOTES:
1. PERMANENT STABILIZATION SHALL BE ACCOMPLISHED IN ALL DISTURBED AREAS BY COVERING THE SOIL WITH PAVEMENT, BUILDING STRUCTURES, VEGETATION, OR OTHER FORMS OF SOIL STABILIZATION.
 2. THE GC IS REQUIRED TO INITIATE PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY UPON REACHING FINAL GRADE. FOR THOSE AREAS NOT AT FINAL GRADE THAT WILL NOT BE DISTURBED FOR GREATER THAN 14 DAYS, THE CONTRACTOR SHOULD INITIATE TEMPORARY STABILIZATION PER THE TEMPORARY SEEDING OR STABILIZATION DETAIL.
 3. THE GC HAS 7 DAYS FROM INITIATION OF STABILIZATION TO COMPLETE SOIL PREPARATION, SEEDING, MULCHING, AND ANY OTHER REQUIRED ACTIVITIES RELATED TO THE PLANTING AND ESTABLISHMENT OF VEGETATION. THE GC ALSO HAS 7 DAYS FROM INITIATION OF STABILIZATION TO COMPLETELY INSTALL NON-VEGETATED MEASURES, IF UTILIZED.
 4. SOILS MUST BE PREPARED BEFORE INSTALLATION OF SOD OR SEED.
 5. AT THE COMPLETION OF GROUND-DISTURBING ACTIVITIES, THE ENTIRE SITE MUST HAVE PERMANENT VEGETATIVE COVER MEETING VEGETATIVE DENSITY REQUIREMENTS IN THE GENERAL PERMIT, OR MULCH PER LANDSCAPE PLAN, IN ALL AREAS NOT COVERED BY HARDSCAPE (STONE, PAVEMENT, BUILDINGS, ETC.).
 6. SEEDING AREAS SHALL BE PROTECTED WITH STRAW MULCH, HYDRAULIC MULCH OR A ROLLED EROSION CONTROL PRODUCT. STRAW MULCH MUST BE TACKIFIED OR CRIMPED BY DISC OR OTHER MACHINERY, AND ROLLED EROSION CONTROL PRODUCTS MUST BE INSTALLED PER MANUFACTURER RECOMMENDATIONS. ONLY ROLLED EROSION CONTROL PRODUCTS ARE PERMITTED TO BE USED IN FLOW CONVEYANCES.
 7. ALL AREAS TO BE SEEDING MUST MEET TOPSOIL DEPTH, PH AND ORGANIC CONTENT REQUIREMENTS.
 8. FINAL SITE STABILIZATION IS ACHIEVED WHEN PERENNIAL VEGETATIVE COVER PROVIDES PERMANENT STABILIZATION WITH A UNIFORM DENSITY GREATER THAN 70 PERCENT OVER THE ENTIRE AREA TO BE STABILIZED BY VEGETATIVE COVER. THIS AREA IS EXCLUSIVE OF AREAS THAT ARE COVERED WITH ROCK (CRUSHED GRANITE, GRAVEL, ETC.) OR LANDSCAPE MULCH, PAVED OR HAVE A BUILDING OR OTHER PERMANENT STRUCTURE ON THEM.

SD PS PERMANENT SEEDING, SOD OR MULCHING

"SWPPP INFORMATION" MUST BE DISPLAYED PROMINENTLY ACROSS THE TOP OF THE SIGN, AS SHOWN IN THE DETAIL.

SWPPP INFORMATION



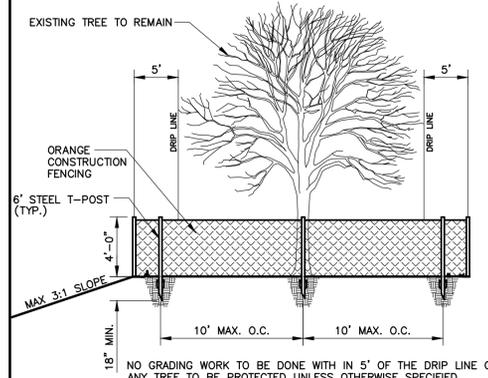
SIGN TO BE CONSTRUCTED OF A RIGID MATERIAL, SUCH AS PLYWOOD OR OUTDOOR SIGN BOARD. SIGN MUST BE CONSTRUCTED IN A MANNER TO PROTECT DOCUMENTS FROM DAMAGE DUE TO WEATHER (WIND, SUN, MOISTURE, ETC.).

- NOTES:
1. THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
 2. ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
 3. CONTRACTOR SHALL POST OTHER STORMWATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
 4. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
 5. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

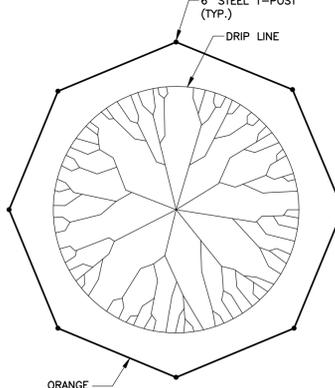
SWPPP INFORMATION SIGN DETAIL

NO SCALE

SS



NO GRADING WORK TO BE DONE WITH IN 5' OF THE DRIP LINE OF ANY TREE TO BE PROTECTED UNLESS OTHERWISE SPECIFIED.



PLAN VIEW

TREE PROTECTION FENCE DETAIL

NO SCALE (TO BE REMOVED AT END OF CONSTRUCTION)

TRAVERSE CITY, MICHIGAN
 NLD ACQUISITIONS LLC
 PO BOX 100843
 Fort Worth, TX 76185

REVISIONS

1	By:	App:
2	By:	App:
3	By:	App:
4	By:	App:

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

FOR REVIEW ONLY

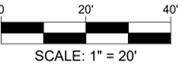
Raymond H. Frankenberg II, P.E. #42538 09/06/22 Date
 State of Michigan
 Registered Professional Engineer
 for BFA, Inc.

bfaeng.com TELEPHONE: (636) 239-4751

103 ELM STREET WASHINGTON, MISSOURI 63090

DRAWN B.L.F.
 CHECKED J.B.S.
 DATE 09/06/22
 SCALE NONE
 JOB No. 7146
 SHEET NAME ESC DETAIL SHEET 2
 ESC-4

GRADING PLAN



GRADING NOTES:

- Contractor shall verify elevation of temporary benchmarks based on the elevation of the primary benchmark, prior to the start of construction. Contractor shall notify engineer if elevations differ from those shown on these plans.
 Primary Benchmark - Bearings and elevation information is based on information provided by Terra Pointe Consultants, Inc. Bearings referenced to Grid North of the Michigan Coordinate System, Central zone and elevations referenced to NAD83 (2011) (INTERNATIONAL FOOT).
 Temporary Benchmark No. 1 - Found Iron Rod South West corner
 Northing = 515655.877
 Easting = 19352258.934
 Elevation = 757.15
 Temporary Benchmark No. 2 - Mag Nail in utility pole located on south side of the north entrance to the site.
 Northing = 515725.424
 Easting = 19352463.482
 Elevation = 748.43
- This site scales within Zone X, Defined as areas of determined to be outside the 0.2% annual chance floodplain, as shown on the Flood Insurance Rate Map prepared by the Federal Emergency Management Agency for the City of Traverse, Grand Traverse County, Michigan, Map Number 26055C0207C dated, August 28, 2018.
- The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The Contractor must call the appropriate utility company to request exact field location of utilities. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on plans.
- All trenches under paved areas shall be backfilled with granular material and compacted to meet compaction requirements for the parking lot. Granular material shall be placed and compacted to a level equal to the trench depth at the time of the utility installations.
- All unsurfaced areas are to receive four inches of topsoil. Contractor to seed, mulch, fertilize, water, and maintain all areas outside of paved areas that were disturbed during construction until an acceptable stand of grass is established. Contractor shall be responsible to take whatever means necessary to establish permanent soil stabilization.
- The earthwork for all building foundations and slabs shall be in accordance with Building Plans & Specifications, unless otherwise noted.
- The contractor is responsible for keeping storm water run-off and sediment under control during construction. All contractors shall refer to the Erosion and Sediment Control Plan throughout construction.
- The Contractor shall maintain the site in a well-drained manner in order to assure the shortest possible drying time after each rainfall. This will mean that pumping of standing water in low areas on the site will most likely be required during construction. Also pumping of ground water in utility trenches and deep excavations will be required during construction.
- The sitework for this project shall meet or exceed applicable AHJ Specifications, permit requirements, and/or manufacturer specifications.
- Contractor shall refer to architectural plans for exact locations and dimensions of entrances, exit doors, downspouts, roof drains, precise building dimensions, and exact building utility entrance locations.
- Layers of pavement shall be placed perpendicular to each other with the final layer perpendicular to the finished contours on parking lot.
- All survey monuments disturbed during construction shall be replaced by a surveyor licensed in the state, in which this project is located, at the Contractors expense.
- The Contractor shall verify and/or perform all necessary inspections and/or certifications required by codes and/or utility companies prior to the announced building possession date and the final connections of utility services. All fees shall be paid by the contractor.
- Prior to placement of the base rock within the parking lot, the entire area shall be proof rolled with a loaded tandem axle dump truck, having no more than 3 axles and weighing a minimum of 40,000 pounds.
- Due to seasonal variations in rainfall and the groundwater level, the Contractor may be required to use light earth moving equipment to minimize pumping.
- The Contractor shall grade all areas to drain in order to prevent ponding water. The minimum allowable slope on all paved surfaces shall be 1 percent.
- The minimum depth of cover for waterlines on this site is 72 inches. Actual depths of waterlines may vary.
- Unless indicated otherwise, all waterline and sanitary sewer crossings shall have a minimum 18 inch vertical separation and 10 feet horizontal separation. The Contractor shall note that the depths of existing utilities have been plotted from information provided by various utility companies and is to be considered approximate. If the minimum separations cannot be constructed as shown the Contractor shall notify the BFA and appropriate modifications will be issued.
- All landscaping, paving, curbing, utilities, etc. adjacent to public right-of-way disturbed by construction activities (grading, utilities, sidewalk, etc.) shall be improved to new condition.
- All ramps and sidewalks shall meet jurisdiction and ADA Rules/Regulations. Handrails shall be required on all ramps (sidewalk routes exceeding 1'v:2' h shall be constructed as ramps) that have a vertical change greater than 6 inches. Cross slopes on all sidewalks shall not exceed 2 percent.
- All landscapes/planter areas adjacent to the building shall allow for proper stormwater/irrigation drainage. Where storm structures or storm pipes are readily available, the contractor shall install 4" diameter drain tile and connect to the storm sewer. 2" diameter PVC weep holes shall also be provided in adjacent curb @ 48" O.C. to release at pavement grade.

SOIL PREPARATION AND COMPACTION

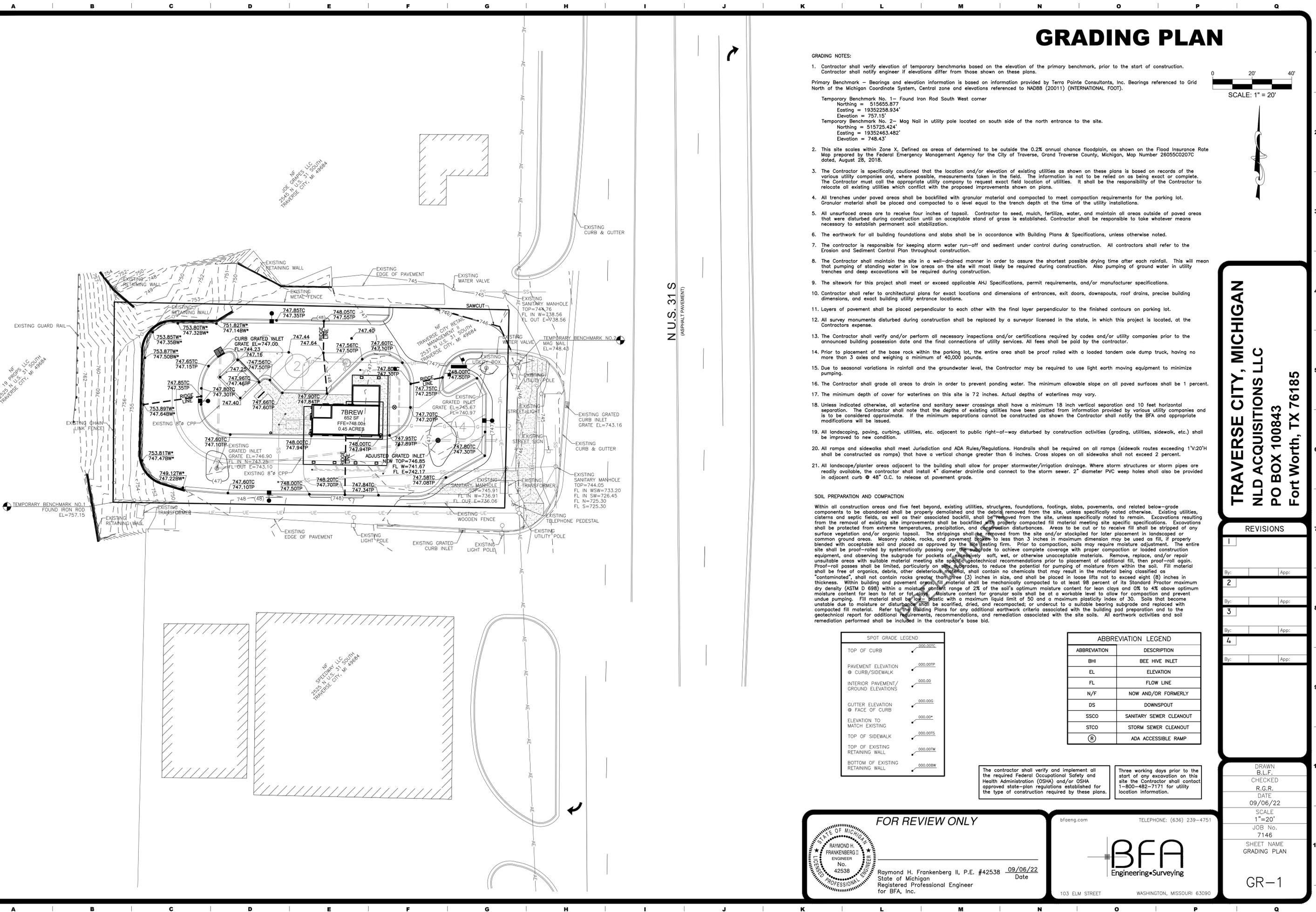
Within all construction areas and five feet beyond, existing utilities, structures, foundations, footings, slabs, pavements, and related below-grade components to be abandoned shall be properly demolished and the debris removed from the site, unless specifically noted otherwise. Existing utilities, cisterns and septic fields, as well as their associated backfill, shall be removed from the site, unless specifically noted to remain. Excavations resulting from the removal of existing site improvements shall be backfilled with properly compacted fill material meeting site specific specifications. Excavations shall be protected from extreme temperatures, precipitation, and construction disturbances. Areas to be cut or to receive fill shall be striped of any surface vegetation and/or organic topsoil. The stripings shall be removed from the site and/or stockpiled for later placement in landscape or common ground areas. Masonry rubble, rocks, and pavement broken to less than 3 inches in maximum dimension may be used as fill, if properly blended with acceptable soil and placed as approved by the site testing firm. Prior to compaction, soils may require moisture adjustment. The entire site shall be proof-rolled by systematically passing over the subgrade to achieve complete coverage with proper compaction or loaded construction equipment, and observing the subgrade for pockets of excessively soft, wet, or otherwise unacceptable materials. Remove, replace, and/or repair unsuitable areas with suitable material meeting site specific geotechnical recommendations prior to placement of additional fill, then proof-roll again. Proof-roll passes shall be limited, particularly on silty subgrades, to reduce the potential for pumping of moisture from within the soil. Fill material shall be free of organics, debris, other deleterious material, shall contain no chemicals that may result in the material being classified as "contaminated", shall not contain rocks greater than three (3) inches in size, and shall be placed in loose lifts not to exceed eight (8) inches in thickness. Within building and pavement areas, fill material shall be mechanically compacted to at least 98 percent of its Standard Proctor maximum dry density (ASTM D 698) within a moisture content range of 2% of the soil's optimum moisture content for lean clays and 0% to 4% above optimum moisture content for lean to fat or fat clays. Moisture content for granular soils shall be at a workable level to allow for compaction and prevent undue pumping. Fill material shall be plastic with a maximum liquid limit of 50 and a maximum plasticity index of 30. Soils that become unstable due to moisture or disturbance shall be scarified, dried, and recompacted; or undercut to a suitable bearing subgrade and replaced with compacted fill material. Refer to the Building Plans for any additional earthwork criteria associated with the building pad preparation and to the geotechnical report for additional requirements, recommendations, and remediation associated with the site soils. All earthwork activities and soil remediation performed shall be included in the contractor's base bid.

TOP OF CURB	000.00TC
PAVEMENT ELEVATION @ CURB/SIDEWALK	000.00TP
INTERIOR PAVEMENT/GROUND ELEVATIONS	000.00
GUTTER ELEVATION @ FACE OF CURB	000.00G
ELEVATION TO MATCH EXISTING	000.00*
TOP OF SIDEWALK	000.00TS
TOP OF EXISTING RETAINING WALL	000.00TW
BOTTOM OF EXISTING RETAINING WALL	000.00BW

ABBREVIATION	DESCRIPTION
BHI	BEE HIVE INLET
EL	ELEVATION
FL	FLOW LINE
N/F	NOW AND/OR FORMERLY
DS	DOWNSPOUT
SSCO	SANITARY SEWER CLEANOUT
STCO	STORM SEWER CLEANOUT
(R)	ADA ACCESSIBLE RAMP

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.



TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

No.	By:	App:
1		
2		
3		
4		

DRAWN B.L.F.
 CHECKED R.G.R.
 DATE 09/06/22
 SCALE 1"=20'
 JOB No. 7146
 SHEET NAME GRADING PLAN

GR-1

FOR REVIEW ONLY

STATE OF MICHIGAN
 RAYMOND H. FRANKENBERG II
 ENGINEER
 No. 42538

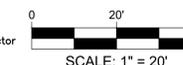
Raymond H. Frankenberg II, P.E. #42538 09/06/22
 State of Michigan Registered Professional Engineer for BFA, Inc. Date

bfaeng.com TELEPHONE: (636) 239-4751

BFA
Engineering-Surveying

103 ELM STREET WASHINGTON, MISSOURI 63090

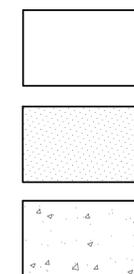
SITE PLAN



SITE NOTES:

- The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The Contractor must call the appropriate utility company to request exact field location of utilities. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on plans.
- Contractor shall verify elevation of temporary benchmarks based on the elevation of the primary benchmark, prior to the start of construction. Contractor shall notify engineer if elevations differ from those shown on these plans.
Primary Benchmark - Bearings and elevation information is based on information provided by Terra Pointe Consultants, Inc. Bearings referenced to Grid North of the Michigan Coordinate System, Central zone and elevations referenced to NAD83 (2011) (INTERNATIONAL FOOT).
Temporary Benchmark No. 1 - Found Iron Rod South West corner
Northing = 515655.877
Easting = 19352258.934
Elevation = 757.15
Temporary Benchmark No. 2 - Mag Nail in utility pole located on south side of the north entrance to the site.
Northing = 515725.424
Easting = 19352463.482
Elevation = 748.43
- This site scales within Zone X, Defined as areas determined to be outside the 0.2% annual chance floodplain, as shown on the Flood Insurance Rate Map prepared by the Federal Emergency Management Agency for the City of Traverse, Grand Traverse County, Michigan, Map Number 26055C0207C, dated August 28, 2018.
- All trenches under paved areas shall be backfilled with granular material and compacted to meet compaction requirements for the parking lot. Granular material shall be placed and compacted to a level equal to the trench depth at the time of the utility installations.
- Contractor to contact telephone, electric, gas, and water companies to have underground utilities located on this site and adjacent to this site prior to doing any excavating.
- The contractor is responsible for keeping storm water run-off and sedimentation under control during construction.
- All survey monuments disturbed during construction shall be replaced by a surveyor licensed in the state, in which this project is located, at the contractors expense.
- The sitework for this project shall meet or exceed industry standards and manufacturers specifications for each improvement feature.
- The Contractor shall verify and/or perform all necessary inspections and/or certifications required by codes and/or utility companies prior to the announced building possession date and the final connections of utility services. All fees shall be paid by the Contractor.
- All dimensions and radii are to the face of curb, unless otherwise shown.
- Contractor shall be responsible for all removals of and/or relocations, including but not limited to, utilities, storm drainage, signs, traffic signals and poles, etc as required. All work shall be done in accordance with governing authorities specifications and shall be approved by such. All costs shall be included in base bid.
- The edges of all pavement and curb sections to be removed and/or that will have new pavement/curb sections abutting them, shall be sawcut. Remaining pavement and curb sections shall have smooth, clean edges. This means additional sawcuts may be necessary depending on Contractor's Means and methods.
- This site is zoned C-G General Commercial District per Garfield Township, MI Zoning Code.
Building setback lines as per Garfield Township, MI Zoning Code:
Front Yard= 40' (60' W/ Drive Thru use)
Side Yard= 10% of lot width, not less than 10'
Rear Yard= 10% of lot width, not less than 10'
- All ramps and sidewalks shall meet Jurisdiction and ADA Rules/Regulations. Handrails shall be required on all ramps (sidewalk routes exceeding 1'x20'H shall be constructed as ramps) that have a vertical change greater than 6 inches. Cross slopes on all sidewalks shall not exceed 2 percent.
- Pavement striping and/or markings shall be applied using two coats of the color specified on a clean surface, at manufacturer's recommended rate, without addition of thinner, with maximum of 100 square feet per gallon or as required to provide a minimum wet film thickness of 15 mils and dry film thickness of 7 1/2 mils per coat. Paint shall be applied for a total dry film thickness of 15 mils. Apply with mechanical equipment to produce uniform straight edges. At sidewalk curbs and crosswalks, use straightedge to ensure uniform, clean, and straight stripes.
- Signs are subject to sign permit review by Garfield Township.

PAVEMENT LEGEND



STANDARD DUTY PAVEMENT (SDP)

HEAVY DUTY PAVEMENT (HDP)

CONCRETE PAVEMENT



**SNOW STORAGE AREA
(1,275 SF PROVIDED BASED ON
10,390 SF OF PARKING AREA)**

ABBREVIATION LEGEND	
ABBREVIATION	DESCRIPTION
BHI	BEE HIVE INLET
EL	ELEVATION
FL	FLOW LINE
N/F	NOW AND/OR FORMERLY
DS	DOWNSPOUT
SSCO	SANITARY SEWER CLEANOUT
STCO	STORM SEWER CLEANOUT
(R)	ADA ACCESSIBLE RAMP

NOTE:
EXISTING FIELD DATA SHOWN HEREON WAS GATHERED BY TERRA PONTI CONSULTANTS, INC. ON 05-02-22

SITE PLAN LEGEND		
DESCRIPTION	PROPOSED	EXISTING
AERIAL ELECTRIC	—AE—	—AE—
UTILITY POLE	•	•
GUARD POST	•	•
SANITARY MANHOLE	•	•
CATCH BASIN	■	■
JUNCTION BOX	•	•
FLARED END SECTION	▢	▢
CLEANOUT	•	•
GRATED INLET	■	■
GUARD RAIL	—	—
CHAINLINK/WOODEN FENCE	—	—
WATER VALVE	•	•
FIRE HYDRANT	•	•
EASEMENT	---	---
PROPERTY LINE	---	---

SITE PLAN LEGEND

- STRIPED AREA PAINTED SINGLE YELLOW SOLID LINE/ 4" AT 45° AT 2'-0" O.C.
- ENCLOSED DUMPSTER (SEE DETAILS BY OTHERS)
- HEAVY DUTY CONCRETE PAD FOR ENCLOSED DUMPSTER (ORIENT FOR TRUCK LOADING)
- ACCESSIBLE PARKING SPACE (TYP). SEE DETAIL SHEET FOR ACCESSIBLE PARKING SPACE SIZE, SIGN, SYMBOL AND STRIPING.
- PAINTED TRAFFIC ARROW (TYP).
- 24" CURB AND GUTTER (TYP). SEE DETAIL.
- STOP BAR
- EXISTING ELECTRIC TRANSFORMER FOR ELECTRICAL SERVICE. CONTRACTOR TO COORDINATE WITH LOCAL POWER COMPANY FOR DETAILS.
- LIGHT POLE (TYP)
- DOWNSPOUT FOR ROOF DRAIN (TO CONNECT TO STORM SEWER) (REF ARCH FOR EXACT LOCATIONS)
- PYLON SIGN (REF SIGNAGE BY OTHERS) (SIGNS ARE SUBJECT TO SIGN PERMIT REVIEW)
- 4'x6' CONCRETE PAD AND INVERTED "U" BIKE RACK (GLOBAL INDUSTRIES U-RACK, BLACK 2-BIKE FLANGE MOUNT OR EQUAL)
- 6" PIPE BOLLARD (TYPICAL, UNLESS NOTED OTHERWISE). SEE DETAIL. CONTRACTOR SHALL COORDINATE BOLLARD INSTALLATION WITH FOOTING, EXTERIOR FINISHES, ETC.

PARKING DATA

PROPOSED BUILDING: COFFEE SHOP 652 S.F.

TOWNSHIP REQUIRED PARKING:

RESTAURANT, DRIVE-THROUGH ONLY:
1 FOR EACH EMPLOYEE ON THE LARGEST WORKING SHIFT, PLUS 1 FOR EACH OUTDOOR TABLE (ASSUME 5 EMPLOYEES, 1 OUTDOOR TABLE)

TOTAL REQUIRED: 6 SPACES

PROVIDED STANDARD SPACES 5 SPACES
PROVIDED H.C. ACCESSIBLE SPACES 1 SPACES
PROVIDED TOTAL PARKING 6 SPACES

PROVIDED OVERALL PARKING RATIO: 9.20/1,000 S.F.

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

FOR REVIEW ONLY

Raymond H. Frankenberg II, P.E. #42538 09/06/22
State of Michigan
Registered Professional Engineer
for BFA, Inc.

bfaeng.com TELEPHONE: (636) 239-4751

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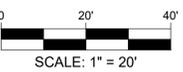
REVISIONS

NO.	DATE	BY	APP.
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DRAWN
B.L.F., J.D.S.
CHECKED
J.B.S.
DATE
09/06/22
SCALE
1"=20'
JOB No.
7146
SHEET NAME
SITE PLAN

SP-1

UTILITY PLAN



UTILITY NOTES:

- The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The Contractor must call the appropriate utility company to request exact field location of utilities. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on plans.
 - Contractor shall verify elevation of temporary benchmarks based on the elevation of the primary benchmark, prior to the start of construction. Contractor shall notify engineer if elevations differ from those shown on these plans.
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 - All trenches under paved areas shall be backfilled with granular material and compacted to meet compaction requirements for the parking lot. Granular material shall be placed and compacted to a level equal to the trench depth at the time of the utility installation.
 - Contractor to contact telephone, electric, gas, cable, and water companies to have underground utilities located on this site and adjacent to this site prior to doing any excavating.
 - The Contractor is responsible for keeping storm water run-off and sediment under control during construction. All contractors shall refer to Erosion and Sediment Control Plans throughout construction.
 - All survey monuments disturbed during construction shall be replaced at the Contractor's expense, by a surveyor licensed in the state in which this project is located, at the Contractor's expense.
 - The Contractor shall verify and/or perform all necessary inspections and/or certifications required by codes and/or utility companies prior to the announced building possession date and the final connections of utility services. All fees shall be paid by the contractor.
 - Contractor shall notify utility authorities inspectors at least 72 hours before connecting to any existing line. Underground utilities shall be installed, inspected and approved prior to backfilling.
 - Sanitary sewer pipe shall be PVC SDR 35.
 - Waterline: Unless otherwise required by local codes, waterlines that are for installation below grade and outside the building shall comply as follows: Pipe sizes 3-inch and smaller shall be Type K Copper, meeting ASTM D 2241, with ASTM D 1784 material classification. Pipe sizes 4 to 16 inches shall be PVC, AWWA C900, rated DR 18 (class 150). Waterlines shall have a minimum of 72 inches of cover below finish grade, unless otherwise indicated on plans. PVC pipe and fittings shall be installed in accordance with AWWA C605. Ductile iron pipe and fittings shall be installed in accordance with AWWA C600.
 - Contractor shall provide all waterline tees, valves, bends, tapping sleeves, meters, meter pits, fire hydrants, etc. necessary to construct the waterlines as shown on these plans. Thrust blocking shall be provided at all tees, bends and fire hydrants.
 - All flared end sections shall be RCP or CMP. Flared end sections that are CPP will not be allowed. Connections must be soil tight.
 - Contractor shall obtain and follow installation requirements for storm sewer from pipe manufactures for each type of piping material.
 - Contractor shall coordinate adjustments to existing utilities with appropriate utility company as work progresses. All costs shall be paid by the Contractor.
 - Utility Contractor shall be responsible for all taping and tie-in fees, as well as cost of service connections. Utility Contractor shall coordinate and schedule site inspections for all utility infrastructure improvements with authorities having jurisdiction prior to construction commencement and again prior to backfill placement. All required inspections shall be the responsibility of the contractor.
 - Unless indicated otherwise, all waterline and sanitary sewer crossings shall have a minimum 18 inch vertical separation and 10 feet horizontal separation. The Contractor shall note that the depths of existing utilities have been plotted from information provided by various utility companies and is to be considered approximate. If the minimum separations cannot be constructed as shown the Contractor shall notify BFA and appropriate modifications will be issued.
 - Verify location of all existing utilities to be crossed and identify potential conflicts prior to starting construction.
 - Location of site utilities shall be verified by General Contractor the proper utility company providing service.
 - General Contractor shall provide 2"x2"x8" thick concrete apron at all cleanouts, valves and meters. See Detail.
 - General Contractor will be responsible for all tap and tie on fees required, as well as cost of underground service connections to the building.
 - Contractor will be responsible for installing all 4" underground conduit from the electrical connection to the pad mounted transformer. Top of conduit shall be a minimum of 48" below finished grade, have a pull cord installed, and have no more than three (3) 90° bends. Contractor is also responsible for the wire from the pad mounted transformer to the building. Electric service connection shall be coordinated with Consumers Energy.
 - Thrust blocks shall be provided at all bends, tees, and fire hydrants.
 - Dimensions shown are to centerline of pipe or fitting.
 - All fire hydrants shall be provided with an approved gate valve a maximum of 5'-0" from hydrant.
 - All trenching, pipe laying, and backfilling shall be in accordance with federal OSHA Regulations.
 - General Contractor shall have approval of all governing agencies having jurisdiction over utility infrastructure systems prior to installation.
 - All parking lot lighting poles and fixtures with lamps and paint will be provided by owner and installed by the Electrical Contractor. The Electrical Contractor shall provide owner a one-year warranty certificate. All incurred costs for receiving, storage, liability and warranty labor shall be included in the installation and contract price. Refer to architectural plans for location and layout of conduit and wiring.
 - Contractor is cautioned of existing underground and above ground utilities that will be crossed and/or that are in the vicinity of proposed improvements shown hereon. Contractor shall locate all existing utilities and shall provide temporary support for them, as needed, for the construction of the proposed site and utility infrastructure improvements.
 - The Contractor shall provide a line item cost for irrigation to landscaping and lawn in their Design Build pricing. Contractor shall verify with the Developer prior to construction to confirm installation. The Contractor shall coordinate with water service provider for separate water meter for landscape/irrigation.
 - Contractor shall coordinate Gas Service Connection with Gas Company.

UTILITY PLAN LEGEND

1	WATER VALVE
2	EXISTING WATER METER/VALVE (COORDINATE METER SIZE, LOCATION, AND REQUIREMENTS W/ PROVIDER)
3	1" DOMESTIC WATERLINE W/ TRACER WIRE
4	GREASE INTERCEPTOR (REF MEP)
5	(2) SETS OF 4" PVC CONDUITS FOR ELECTRIC WITH PULL ROPE
6	EXISTING ELECTRIC TRANSFORMER (COORDINATE CONNECTION W/ LOCAL POWER COMPANY)
7	DOWNSPOUTS (TO CONNECT TO STORM SEWER)
8	(2) 3" CONDUITS FOR TELEPHONE/INTERNET SERVICE
9	LIGHT POLE (TYP)

LEGEND

DESCRIPTION	PROPOSED	EXISTING
AERIAL ELECTRIC	—AE—	—AE—
UNDERGROUND ELECTRIC	—UE—	—UE—
UNDERGROUND TELEPHONE	—UT—	—UT—
GAS LINE	—G—	—G—
WATERLINE	—W—	—W—
SANITARY SEWER	—SS—	—SS—
STORM SEWER	=====	=====
EASEMENT	-----	-----
PROPERTY LINE	-----	-----
CHAINLINK FENCE	—○—	—○—
UTILITY POLE	•	•
GUARD POST	GP	GP
SANITARY MANHOLE	●	○
WATER VALVE	+	+
FIRE HYDRANT	+	+
CATCH BASIN	■	■
JUNCTION BOX	●	○
FLARED END SECTION	⊠	⊠
CLEANOUT	•	•
GRATED INLET	■	■
DRAINTILE	—DT—	—DT—

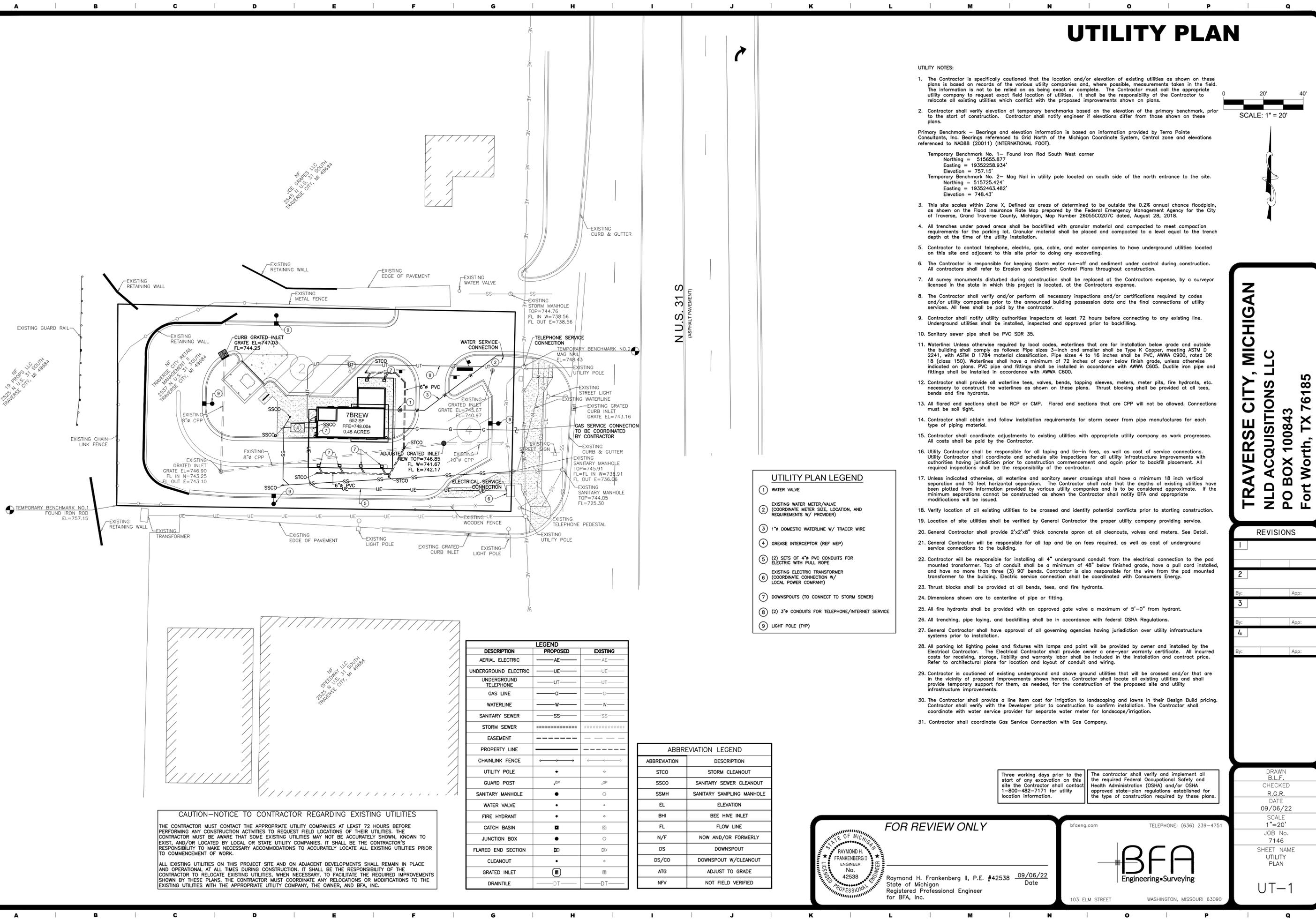
ABBREVIATION LEGEND

ABBREVIATION	DESCRIPTION
STCO	STORM CLEANOUT
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SAMPLING MANHOLE
EL	ELEVATION
BHI	BEE HIVE INLET
FL	FLOW LINE
N/F	NOW AND/OR FORMERLY
DS	DOWNSPOUT
DS/CO	DOWNSPOUT W/CLEANOUT
ATG	ADJUST TO GRADE
NFV	NOT FIELD VERIFIED

CAUTION—NOTICE TO CONTRACTOR REGARDING EXISTING UTILITIES

THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE PERFORMING ANY CONSTRUCTION ACTIVITIES TO REQUEST FIELD LOCATIONS OF THEIR UTILITIES. THE CONTRACTOR MUST BE AWARE THAT SOME EXISTING UTILITIES MAY NOT BE ACCURATELY SHOWN, KNOWN TO EXIST, AND/OR LOCATED BY LOCAL OR STATE UTILITY COMPANIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE NECESSARY ACCOMMODATIONS TO ACCURATELY LOCATE ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK.

ALL EXISTING UTILITIES ON THIS PROJECT SITE AND ON ADJACENT DEVELOPMENTS SHALL REMAIN IN PLACE AND OPERATIONAL AT ALL TIMES DURING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE EXISTING UTILITIES, WHEN NECESSARY, TO FACILITATE THE REQUIRED IMPROVEMENTS SHOWN BY THESE PLANS. THE CONTRACTOR MUST COORDINATE ANY RELOCATIONS OR MODIFICATIONS TO THE EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANY, THE OWNER, AND BFA, INC.



TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
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REVISIONS

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DRAWN
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 UTILITY PLAN
 UT-1

FOR REVIEW ONLY

RAYMOND H. FRANKENBERG II
 ENGINEER
 No. 42538
 State of Michigan
 Registered Professional Engineer
 for BFA, Inc.

09/06/22
 Date

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.

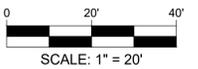
The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

bfaeng.com TELEPHONE: (636) 239-4751

BFA
 Engineering-Surveying

103 ELM STREET WASHINGTON, MISSOURI 63090

LANDSCAPE PLAN



LANDSCAPE NOTES:

- Contractor shall place sod in all grass/turf areas as shown, and all other disturbed areas.
- After a stand of grass is established and no more erosion and sediment is expected, concrete swales shall be cleaned out.
- The site work for this project shall meet or exceed Industry Standards and Manufacturer's Specification for each improvement feature.
- The Contractor shall provide owner a two-year maintenance contract for all landscaping and the irrigation system.
- The planter areas shall have a weed barrier and be covered with landscape gravel of 3" minimum depth. A steel edging shall be used on all landscaped areas within grass areas.
- The Contractor is specifically cautioned that the locations and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The Contractor must call the appropriate utility company to request exact field location of utilities. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on plans.
- All unsurfaced areas are to receive four inches of topsoil. Contractor to seed, mulch, fertilize, water, and maintain all areas outside of paved areas that were disturbed during construction until an acceptable stand of grass is established. Contractor shall be responsible to take whatever means necessary to establish permanent soil stabilization.
- Sod shall be well-rooted and be completely free from noxious weeds and reasonably free from other objectionable grasses, weeds, and stones. Sodding and seeding shall be done in accordance with this landscape plan.
- All plants must be healthy, vigorous material, free of pest and disease.
- All plants must be container grown or balled and burlapped as indicated in the plant list.
- All trees must be straight trunked and full headed and meet all requirements specified.
- All plants are subject to the approval of the owner before, during and after installation.
- Prior to construction, the Contractor shall be responsible for locating all underground utilities and shall avoid damage to all utilities during the course of the work. The Contractor is responsible for repairing any and all damage to utilities, structures, site appurtenances, etc which occurs as a result of the landscape and irrigation construction.
- Contractor is responsible for verifying all quantities shown on these plans before pricing the work.
- All planter islands and planter areas shall be bermed with a 3H:1V slope and seeded to meet the seeding specifications, unless otherwise indicated on these plans.
- All landscape material must be provided by a local nursery or tree farm within a 100 radius of site.
- Contractor to adjust plantings accordingly, notify BFA and Owner of any major changes.
- Proposed plant material is to be selected by the contractor and approved by the Owner prior to Construction.
- Tree locations and planting bed to be located by the contractor and approved by the owner prior to installation.
- Planting shall not prohibit site distance requirements.
- Contractor shall coordinate with owner and water provider prior to construction to determine if a separate irrigation water meter is needed.
- The Contractor shall provide a line item cost for irrigation to landscaping and lawns in their Design Build pricing. Drip irrigation shall be provided for all shrubs/trees, and spray irrigation for all sod areas. Drip irrigation shall be installed below the weed barrier. Contractor shall verify with the Developer prior to construction to confirm installation.

LANDSCAPE REQUIREMENTS

NORTH: TYPE "B" BUFFER

- REQUIRED: 3 LARGE TREES, 2 MEDIUM/SMALL TREES, 8 SHRUBS (BASED ON 165 LF OF GREENSPACE AREA)
- PROVIDED: 2 EXISTING MEDIUM/SMALL TREES (4 CREDITS), 1 NEW MEDIUM/SMALL TREE, 10 SHRUBS

EAST: TYPE "D" BUFFER

- REQUIRED: 3 LARGE TREES, 2 MEDIUM/SMALL TREES, 2 EVERGREEN/CONIFEROUS TREES (BASED ON 75 LF OF GREENSPACE AREA)
- PROVIDED: 3 MEDIUM/SMALL TREES, 13 SHRUBS (LIMITED OPTIONS DUE TO UTILITIES)

SOUTH: TYPE "B" BUFFER

- REQUIRED: 4 LARGE TREES, 2 MEDIUM/SMALL TREES, 8 SHRUBS (BASED ON 200 LF OF GREENSPACE AREA)
- PROVIDED: 4 EXISTING LARGE TREES (16 CREDITS), 4 EXISTING MEDIUM/SMALL TREES (8 CREDITS), 8 SHRUBS

WEST: TYPE "B" BUFFER

- REQUIRED: 2 LARGE TREES, 1 MEDIUM/SMALL TREE, 4 SHRUBS (BASED ON 100 LF OF GREENSPACE AREA)
- PROVIDED: NONE PROVIDED DUE TO EXISTING RETAINING WALL. PROPOSED PLANTINGS AND IRRIGATION COULD NEGATIVELY IMPACT THE RETAINING WALL.

PLANTING LEGEND

COMMON NAME (PLANT LABEL)	SYMBOL	BOTANICAL NAME	PLANT SIZE	QUANTITY
SHADBLOW SERVICEBERRY		AMELANCHIER ARBOREA	6" HEIGHT	4
WINTERGREEN		GAULTHERIA PROCUMBENS	5 GAL	6
YEW		TAXUS CANADENSIS	5 GAL	9
SNOWBERRY		SYMPHORICARPOS ALBUS	5 GAL	16
TURF-SOD		TURF TYPE FESCUE		
LANDSCAPE GRAVEL		1.5"-2" GRANITE LANDSCAPE GRAVEL		

NOTE: ALL QUANTITIES HAVE BEEN PROVIDED FOR CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL QUANTITIES.

N.U.S. 315
(ASPHALT PAVEMENT)

SITE PLAN LEGEND

DESCRIPTION	PROPOSED	EXISTING
AERIAL ELECTRIC	—AE—	—AE—
UTILITY POLE	•	•
GUARD POST	GP	GP
SANITARY MANHOLE	●	○
CATCH BASIN	■	■
JUNCTION BOX	●	○
FLARED END SECTION	▢	▢
CLEANOUT	•	•
GRATED INLET	■	■
GUARD RAIL	—	—
CHAINLINK/WOODEN FENCE	—	—
WATER VALVE	•	•
FIRE HYDRANT	•	•
EASEMENT	---	---
PROPERTY LINE	---	---

NOTE:
EXISTING FIELD DATA SHOWN HEREON WAS GATHERED
BY TERRA POINTE CONSULTANTS, INC. ON 05-02-22

FOR REVIEW ONLY



Raymond H. Frankenberg II, P.E. #42538
State of Michigan
Registered Professional Engineer
for BFA, Inc.

Three working days prior to the start of any excavation on this site the Contractor shall contact 1-800-482-7171 for utility location information.

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

bfaeng.com TELEPHONE: (636) 239-4751

BFA
Engineering-Surveying

103 ELM STREET WASHINGTON, MISSOURI 63090

TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

REVISIONS

NO.	DATE	BY	APP.
1			
2			
3			
4			

DRAWN

B.L.F.

CHECKED

J.B.S.

DATE

09/06/22

SCALE

1"=20'

JOB No.

7146

SHEET NAME

LANDSCAPE PLAN

LP-1

PRE DEVELOPED DRAINAGE AREAS



PRE RE-DEVELOPED DRAINAGE LEGEND	EXISTING
AERIAL ELECTRIC	— AE —
UNDERGROUND ELECTRIC	— UE —
UNDERGROUND TELEPHONE	— UT —
GAS LINE	— G —
FIBER OPTIC LINE	— FO —
WATERLINE	— W —
SANITARY SEWER	— SS —
STORM SEWER	-----
EASEMENT	— — — — —
PROPERTY LINE	— · — · — ·
CHAINLINK FENCE	— ◊ — ◊ — ◊
CONTOURS	— 100 —
UTILITY POLE	○
SANITARY MANHOLE	○
WATER VALVE	○
FIRE HYDRANT	○
CATCH BASIN/AREA INLET	◻
JUNCTION BOX	○
GRATED INLET	◻
SOIL BORING	⊗

TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

REVISIONS	
1	By: _____ App: _____
2	By: _____ App: _____
3	By: _____ App: _____
4	By: _____ App: _____

PRE-REDEVELOPMENT	
IN ACRES	
IMPERVIOUS AREA	0.32±
PERVIOUS AREA	0.13±
TOTAL SITE	0.45±

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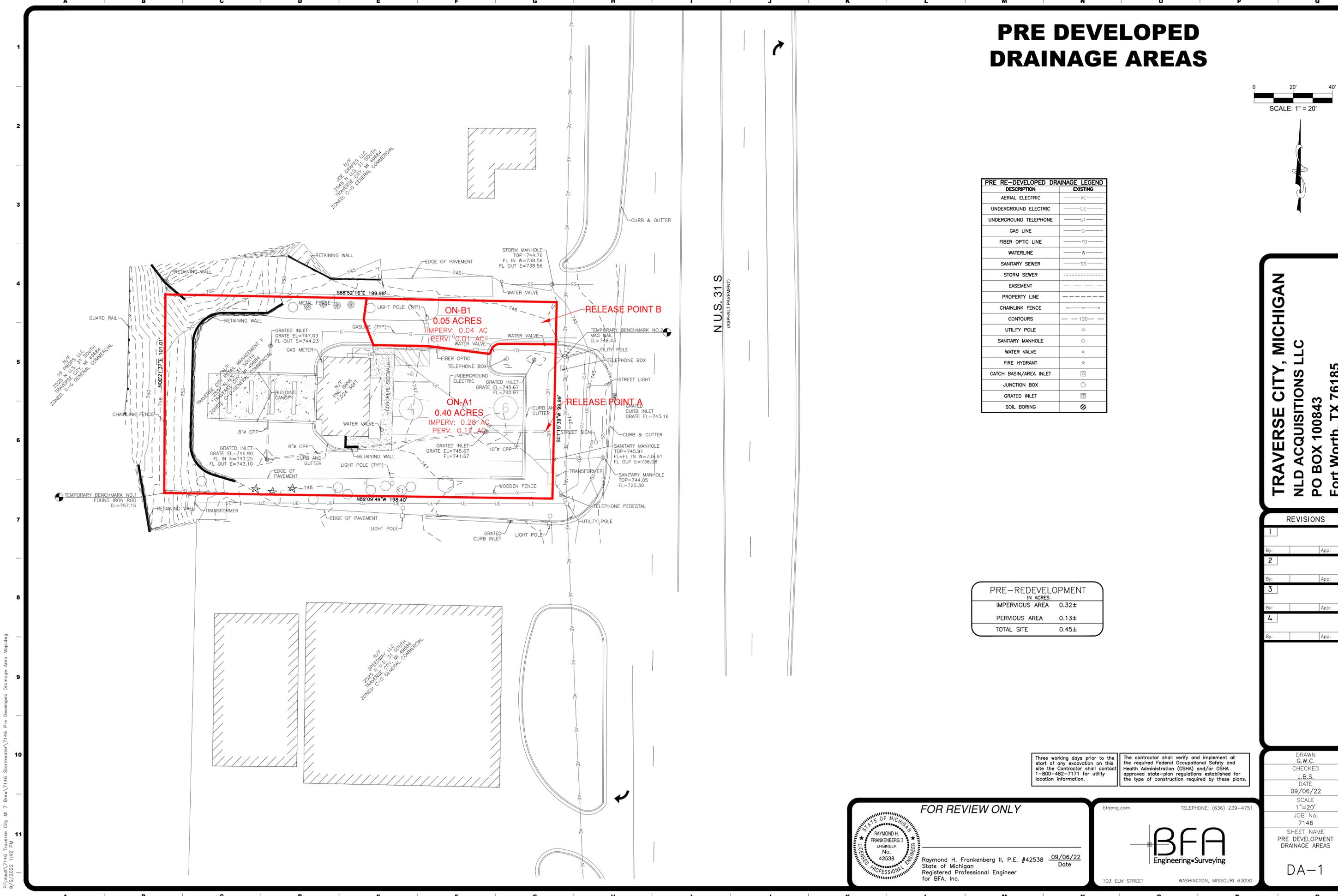
FOR REVIEW ONLY

Raymond H. Frankenberg II, P.E. #42538 09/06/22
 State of Michigan Date
 Registered Professional Engineer
 for BFA, Inc.

bfaeng.com TELEPHONE: (636) 239-4751

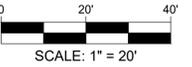
103 ELM STREET WASHINGTON, MISSOURI 63090

DRAWN G.W.C.
 CHECKED J.B.S.
 DATE 09/06/22
 SCALE 1"=20'
 JOB No. 7146
 SHEET NAME PRE DEVELOPMENT DRAINAGE AREAS
DA-1



P:\Vault\7146 Traverse City MI 7 Brea\7146 Stormwater\7146 Pre Developed Drainage Area Map.dwg 9/6/2022 1:42 PM

POST DEVELOPED DRAINAGE AREAS



POST RE-DEVELOPED DRAINAGE LEGEND	EXISTING
AERIAL ELECTRIC	— AE —
UNDERGROUND ELECTRIC	— UE —
UNDERGROUND TELEPHONE	— UT —
GAS LINE	— G —
FIBER OPTIC LINE	— FO —
WATERLINE	— W —
SANITARY SEWER	— SS —
STORM SEWER	-----
EASEMENT	--- 100 ---
PROPERTY LINE	-----
CHAINLINK FENCE	—●—●—
CONTOURS	--- 100 ---
UTILITY POLE	○
SANITARY MANHOLE	○
WATER VALVE	○
FIRE HYDRANT	○
CATCH BASIN/AREA INLET	⊠
JUNCTION BOX	○
GRATED INLET	⊠
SOIL BORING	⊗

TRAVERSE CITY, MICHIGAN
NLD ACQUISITIONS LLC
PO BOX 100843
Fort Worth, TX 76185

REVISIONS

NO.	DATE	BY	APP.
1			
2			
3			
4			

POST-REDEVELOPMENT	
IN ACRES	
IMPERVIOUS AREA	0.32±
PERVIOUS AREA	0.13±
TOTAL SITE	0.45±

The contractor shall verify and implement all the required Federal Occupational Safety and Health Administration (OSHA) and/or OSHA approved state-plan regulations established for the type of construction required by these plans.

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FOR REVIEW ONLY

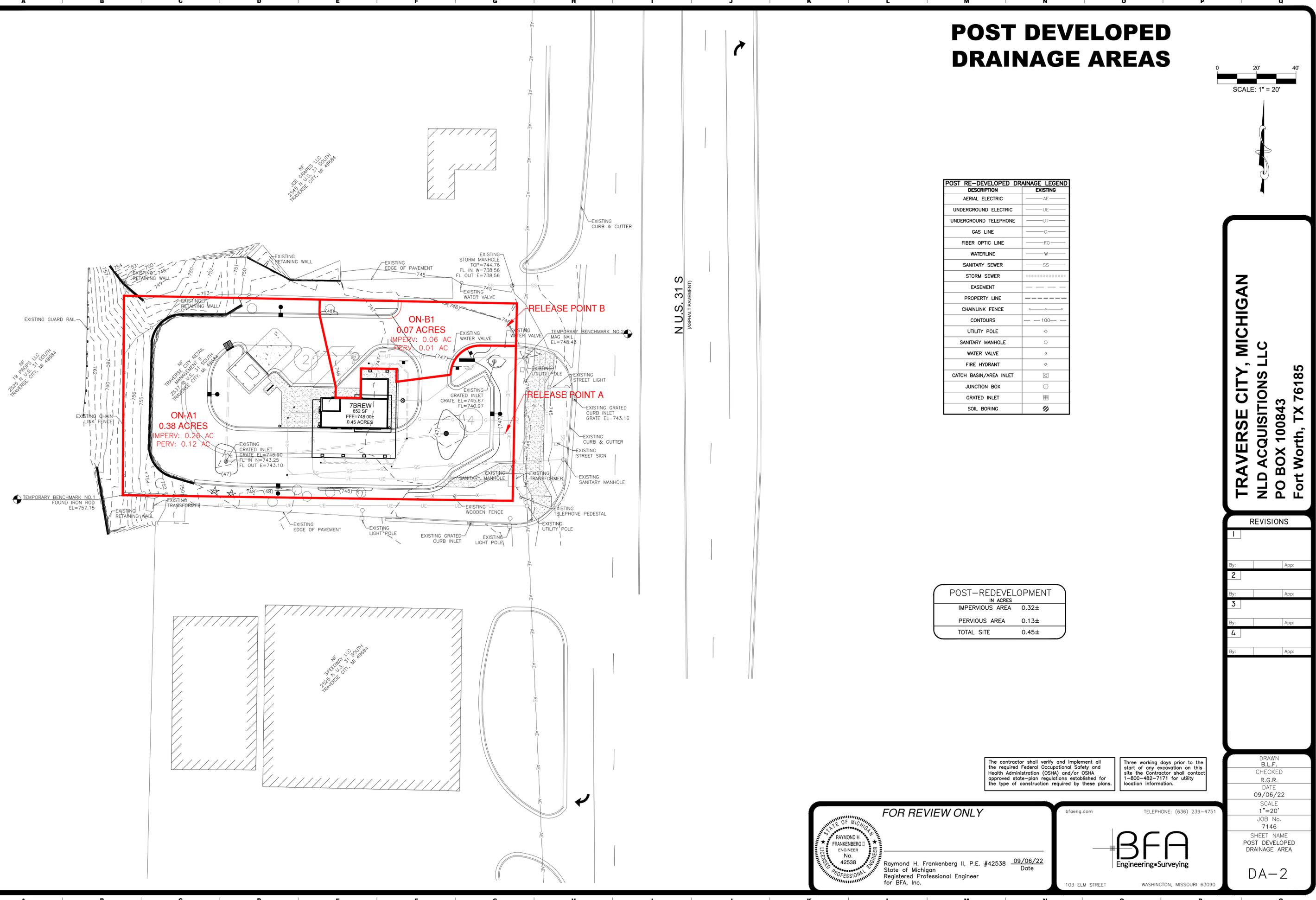
Raymond H. Frankenberg II, P.E. #42538 09/06/22
 State of Michigan Date
 Registered Professional Engineer
 for BFA, Inc.

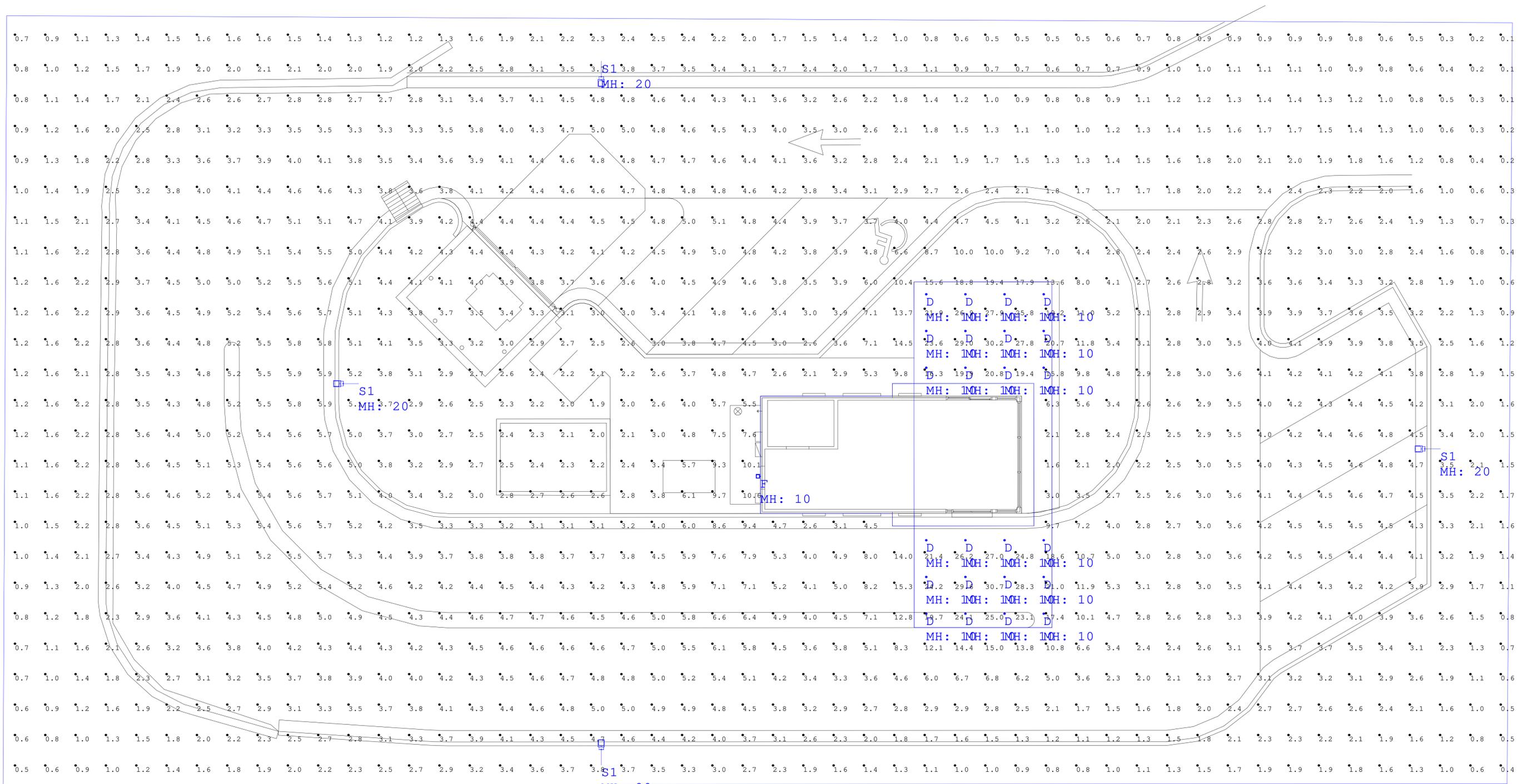
bfaeng.com TELEPHONE: (636) 239-4751

103 ELM STREET WASHINGTON, MISSOURI 63090

DRAWN B.L.F.
 CHECKED R.G.R.
 DATE 09/06/22
 SCALE 1"=20'
 JOB No. 7146
 SHEET NAME POST DEVELOPED DRAINAGE AREA
DA-2

P:\Vault\7146_Traverse City MI 7 Brew\7146 Stormwater\7146 Post_Developed Drainage Area Map.dwg 9/6/2022 1:33 PM





Symbol	Qty	Label	Description	Tag	LLF	Luminaire Lumens	Total Watts	BUG Rating
□	1	WSQ_LED_P3_SR2_35K_MVOLT	WSQ LED P3 SR2 35K MVOLT		0.880	4799	39.31	B2-U0-G1
□	4	SAS-15L-U-35-T3	SAS-15L-U-35-T3	S1	0.900	16982	442	B2-U0-G3
⊕	24	S11810	Satco S11810	D	0.880	1109	327.85	B1-U1-G0

Light Fixture Pricing Information
Contact Information
 FOR SITE LIGHTING PRICING, CONTACT RYAN DENNEY WITH CED NATIONAL ACCOUNTS AT 281-733-8884

Calculation Summary					
Label	CalcType	Units	Avg	Max	Min
7Brew Site_Planar	Illuminance	Fc	3.90	30.7	0.1
			Avg/Min		Max/Min
			39.00		307.00

#	Date	Comments

Revisions

Drawn By: Ben Kerstiens, LC
 Checked By:
 Date: 6/27/2022
 Scale:

7Brew
 Traverse City, MI