CHARTER TOWNSHIP OF GARFIELD
PLANNING COMMISSION MEETING

Wednesday, June 14, 2023 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** – May 24, 2023

4. **Correspondence**

5. **Reports**
   a. Township Board
   b. Planning Commissioners
      i. Zoning Board of Appeals
      ii. Parks and Recreation Commission
      iii. Joint Planning Commission
   c. Staff Report
      i. PD 2023-64 – Planning Department Monthly Report – June 2023

6. **Unfinished Business**
   a. PD 2023-65 – Birmley Meadows Site Condominium – Public Hearing
   b. PD 2023-66 – Ridge45 Phase I-III and Phase IV SUP Amendments – Public Hearing
   c. PD 2023-67 – Oleson PUD Major Amendment – Findings of Fact

7. **New Business**
   a. PD 2023-68 – Village at Garfield Special Use Permit – Introduction
   b. PD 2023-69 – 716 Boon Street Special Use Permit – Introduction
   c. PD 2023-70 – 1202 N US 31 South – Conceptual Review

8. **Public Comment**

9. **Other Business**

10. **Items for Next Agenda – June 28, 2023**
    a. Master Plan – Housing, Economic Development, and Public Safety
    b. Master Plan – Community Engagement 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
May 24, 2023

Call Meeting to Order: Chair Racine called the May 24, 2023 Planning Commission meeting to order at 7:00pm at the Garfield Township Hall.

Pledge of Allegiance
The Pledge of Allegiance was recited by all in attendance.

Roll Call of Commission Members:
Present: Molly Agostinelli, Pat Cline, Joe McManus, Chris DeGood, Joe Robertson, John Racine and Robert Fudge

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

1. **Public Comment (7:01)**
   None

2. **Review and Approval of the Agenda – Conflict of Interest (7:01)**
   Fudge moved and Agostinelli seconded to approve the agenda as presented

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

3. **Minutes (7:02)**
   a. **May 10, 2023 Regular Meeting**
      McManus moved and Cline seconded to approve the May 10, 2023 Regular Meeting minutes as presented.

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

4. **Correspondence (7:02)**
   Correspondence included a staff response to the Watershed Center and a notice of a zoning change from Green Lake Township.

5. **Reports (7:03)**
   Township Board Report
   Agostinelli stated that the Township Board is researching water system updates and will apply for funding from Michigan's Drinking Water State Revolving Fund (DWSRF) program.

   Planning Commissioners
   i. **Zoning Board of Appeals**
      Fudge had no report.

ii. Parks and Recreation Commission
DeGood had no report

iii. Joint Planning Commission
McManus had no report

Staff Report

Sych reviewed U.S. Census Bureau population estimates with Commissioners. He pointed out a 3% population growth in Garfield Township from 2020 to 2022.

6. Unfinished Business (7:07)
None

7. New Business

a. PD 2023-59 Master Plan Update –Transportation and Infrastructure (7:07)

Sych reviewed the types of transportation modes provided in the Township. He stated that the Master Plan would focus on roads and pathways. Sych also reviewed the two main infrastructures in the township which are the water system and the sanitary sewer system. Commissioners reviewed the goals and objectives pertaining to streets and roads, parking and sidewalks, water and sanitary sewer and stormwater. Commissioners discussed the road system and access management plans, especially as it relates to South Airport Road. Future non-motorized plans were also discussed.

b. PD 2023-60 – Master Plan Update – Community Engagement and Outreach (8:12)

At its study session last month, the Planning Commission provided feedback on the concept of conducting some “pop-up” style events. Commissioners disused the locations of the pop-up events and suggested schools in addition to the dog park and other suggestions made by staff. Staff said that visual preference surveys were excellent tools for feedback. Publicity of the community engagement for the Master Plan will be through the July edition of the Township newsletter, Township website, and media press releases.

8. Public Comment (8:28
None

9. Other Business (8:28)
None

10. Items for Next Agenda – June 14, 2023 (8:28)

a. Birmley Meadows Site Condominium – Public Hearing
b. Ridge 45 Phase I-III Ridge 45 Phase IV (South 22) SUP Amendments – Public Hearing
c. Oleson PUD Major Amendment – Findings of Fact
d. 716 Boon Street Special Use Permit - Introduction
e. Village at Garfield Special Use Permit – Introduction
f. 1202 N. US 31 South – Conceptual Review

11. Adjournment

Fudge moved to adjourn the meeting at 8:32pm.

_____

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

Steve Hannon

From: Shirley Woodruff <swoodruff@reendersinc.com>
Sent: Monday, June 5, 2023 1:40 PM
To: John Sych; Steve Hannon
Cc: Mackie Woodruff
Subject: Special Use Permit Amendment - South22 and Ridge45

Importance: High

To: Garfield Township Planning Commission and Planning Department
Re: South22 and Ridge45 multi-family residential development

I urge you to withhold your approval of the amendment to the South 22 and Ridge45 Special Use Permits currently before you until Ridge45 completes the modifications to their existing boulevard entrance at Ridge Boulevard as previously committed to.

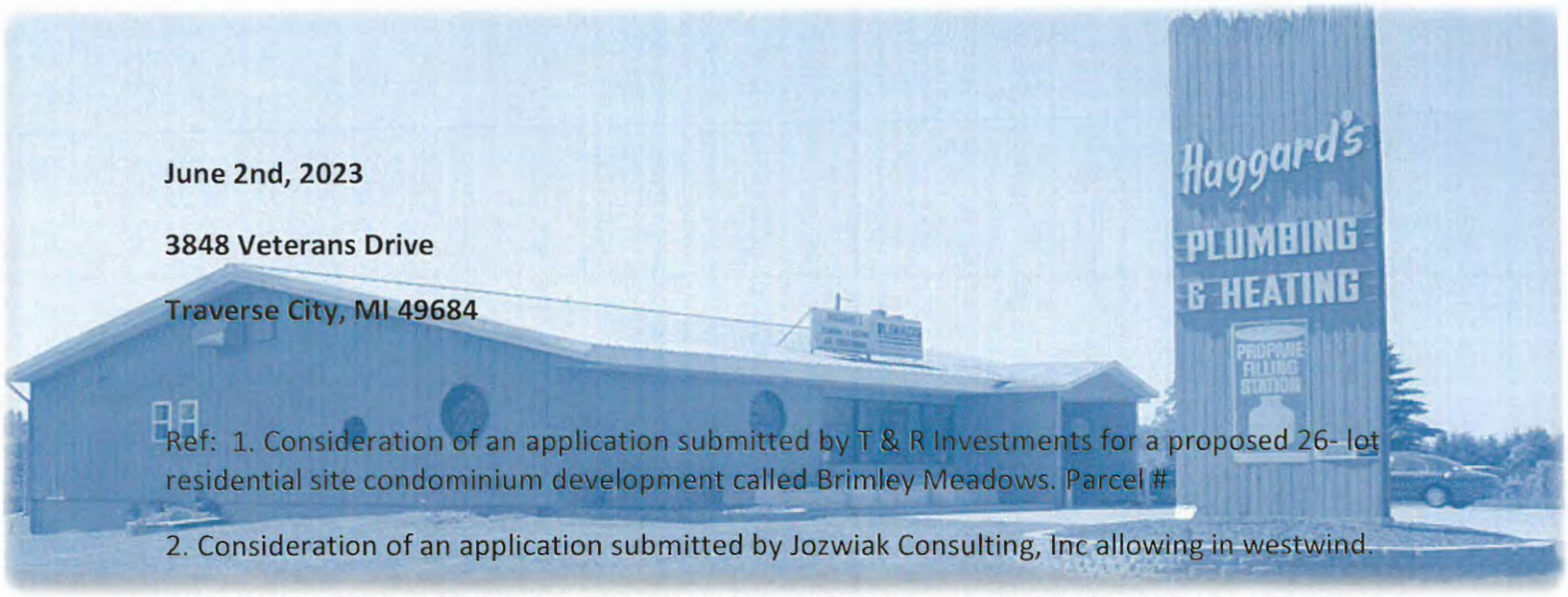
The PUD approval for the Village at LaFranier Woods included a boulevard entrance to align with the entrance into Ridge45 as approved by the Grand Traverse County Road Commission and the Township. During the design phase of the LaFranier Woods development it was determined that the existing Ridge45 boulevard had not been constructed in accordance with what was approved by the Township and the Road Commission, and we were assured that the required corrections would be made.

Despite the letter of intent from Ridge45 to the Road Commission to revise their entrance prior to the opening of the Village for the safety of the residents (dated 2020) this has not been done. The Village at LaFranier Woods is now officially open and no action has been taken to date by Ridge45 to do so. They have had ample time to make the corrections and have failed to do so.

Please take all actions necessary to ensure that Ridge45/Midwest MFD LLC/Westwind Development make the required changes as soon as possible.

Sincerely,
Shirley Woodruff

Village at LaFranier Woods LLC
Reenders, Inc.
Heritage Property Management
950 Taylor Avenue
Grand Haven, MI 49417
616-842-2425



June 2nd, 2023

3848 Veterans Drive

Traverse City, MI 49684

Ref: 1. Consideration of an application submitted by T & R Investments for a proposed 26- lot residential site condominium development called Brimley Meadows. Parcel #

2. Consideration of an application submitted by Jozwiak Consulting, Inc allowing in westwind.

Parcel # 05-023-020-33, 05-023-025-60, and 05-023-026-45 to alter their previously approved south22 project at the northwest corner of LaFranier and Hammond Roads.

To Whom It May Concern,

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

Charter Township of Garfield
Planning Department Report No. 2023-64

Prepared:	May 30, 2023	Pages:	2
Meeting:	June 13, 2023 Township Board	Attachments:	☐
Subject:	Planning Department Monthly Report – June 2023		

PURPOSE:
Staff provides a monthly report to the Township Board on activities of the Planning Department and the Planning Commission. The presentation of this report also provides a venue for the Township Board to have a 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:

Oleson's Food Store – Planned Unit Development Amendment
- *Location*: 3850 North Long Lake Road, at intersection of North Long Lake and Cedar Run Roads
- *Development Description*: Proposed amendment to permit six apartments
- *Status*: A public hearing was held at the 5/10/2023 Planning Commission meeting. Findings of Fact will be considered at the 6/14/2023 Planning Commission meeting.

Hickory Forest / Hickory Meadows – Zoning Map Amendment (Rezoning)
- *Location*: Portions on Barney Road, East Traverse Highway (M-72), and Randolph Street
- *Development Description*: Proposed rezoning of properties to P-R Park-Recreation zoning district
- *Status*: The Planning Commission approved Findings of Fact at their 5/10/2023 meeting and recommended approval of the application to the Township Board. The Township Board introduced the application at their 5/23/2023 meeting and scheduled a public hearing for their 6/13/2023 meeting.

Pine Grove Homes – Special Use Permit
- *Location*: 4030 Meadow Lane Drive, at intersection of Meadow Lane Drive and US 31 South
- *Development Description*: Proposed site for mobile home sales (sale of prefabricated structures)
- *Status*: The Planning Commission approved Findings of Fact and approved the application with conditions at their 5/10/2023 meeting.

Ligon Bed and Breakfast – Special Use Permit Amendment
- *Location*: 5876 Hainey Lane, near the intersection of Gray Road and Cedar Run Road
- *Development Description*: Proposed expansion of existing bed and breakfast operation
- *Status*: The Planning Commission approved Findings of Fact and approved the application with conditions at their 5/10/2023 meeting.

Church of the Living God / Traverse City Christian School ELC – Special Use Permit
- *Location*: 1514 Birmley Road, north side of Birmley Road
- *Development Description*: Proposed childcare center in existing church building
- *Status*: The application was introduced at the Planning Commission meeting on 12/14/2022 and a public hearing was scheduled for 1/11/2023. However, the applicant indicated they encountered some challenges with costs and that they may not be going forward with the project at this location, and the application was tabled. Per Section 404 of the Zoning Ordinance, if an applicant has failed to proceed meaningfully towards application completion for 120 consecutive days, the application shall be considered expired. The Planning Commission acknowledged at their meeting on 5/10/2023 that this application is considered expired as of 5/11/2023.

Birmley Meadows – Site Condominium

- *Location*: North of existing Birmley Hills Estates subdivision, south of Birmley Road
- *Development Description*: Proposed 26-lot single-family residential site condominium
- *Status*: The Planning Commission held an introduction for the application at their 5/10/2023 meeting and scheduled a public hearing for their 6/14/2023 meeting.

Ridge45 – Phase I-III Multi-Family Housing Special Use Permit Amendment and
Ridge45 – Phase IV (South 22) Multi-Family Housing Special Use Permit Amendment

- *Location*: Northwest corner of LaFranier and Hammond Roads
- *Development Description*: Developer is seeking to combine previously approved Ridge45 Phases I-III (400 units) with a revised new plan for Ridge45 Phase IV (196 units) for a total of 596 multi-family housing units. The two existing Special Use Permits will be combined into one Special Use Permit for the entire site, covering all four phases.
- *Status*: The Planning Commission held an introduction for the application at their 5/10/2023 meeting and scheduled a public hearing for their 6/14/2023 meeting.

Nicolet Bank Landscaping – Site Plan Review

- *Location*: 3530 North Country Drive, west side of US 31, south of South Airport Road intersection
- *Development Description*: Previous natural landscaping buffer was improperly removed in 2022. Applicant proposed replacement landscaping to meet current Township landscaping standards in the affected area.
- *Status*: The Planning Commission approved the proposed landscaping plan with conditions at their 5/10/2023 meeting.

Village at Garfield – Special Use Permit

- *Location*: 2051 North Garfield Road, north of Hammond Road
- *Development Description*: Proposed 80-unit apartment complex
- *Status*: The application will be introduced at the 6/14/2023 Planning Commission meeting.

Professional Photography Studio at 716 Boon Street – Special Use Permit

- *Location*: 716 Boon Street, between Woodmere Avenue and Barlow Street
- *Development Description*: Proposed professional photography studio in existing multi-tenant building
- *Status*: The application will be introduced at the 6/14/2023 Planning Commission meeting.

1202 N US 31 South – Conceptual Review

- *Location*: 1202 N US 31 South, east side of US 31 north of Blue Star Blvd. (former scenic overlook)
- *Development Description*: Applicant would like the Planning Commission to consider rezoning the subject property from C-O Office Commercial to R-2 Two-Family Residential
- *Status*: The Planning Commission will consider this conceptual review at their 6/14/2023 meeting.

PLANNING:

Other Planning Department activities include the following:

- For their May study session, the Planning Commission focused on reviewing draft goals and objectives for Transportation and Infrastructure to be included in the new Master Plan. Commissioners also continued discussion on proposed the community engagement and outreach for the Master Plan in 2023. For the June study session, the Planning Commission will review draft goals and objectives for Housing, Economic Development, and Public Safety.

- Staff continue to help facilitate the mountain biking subcommittee of the Parks and Recreation Commission to help guide implementation of the mountain biking portion of the Commons Natural Area Design Plan. A volunteer work bee was conducted on 5/7/2023 to improve the safety of the existing trails and remove conflicts between hiking and biking areas. Planning Staff is working on a process with the Northern Michigan Mountain Bike Association to facilitate fundraising for the construction of mountain biking features in accordance with the Design Plan.

- Recent data from the U.S. Census Bureau indicates that the estimated population of Garfield Township was 20,111 in July, 2022, an increase of 612 since April, 2020. Based on this estimate, the Township received half of the population growth in Grand Traverse County over the last two years and is the ninth ranked municipality in Michigan based on population count increases.

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
Planning Department Report No. 2023-65

Prepared:	June 7, 2023	Pages:	5
Meeting:	June 14, 2023 Planning Commission	Attachments:	☒
Subject:	SPR 2023-04 Birmley Meadows Site Condominium – Public Hearing		
File No.	SPR 2023-04	Parcel No. 05-026-020-33	
Owner:	T&R Investments, Steve Zakrajsek		
Agent:	Boyne Engineering and Design		

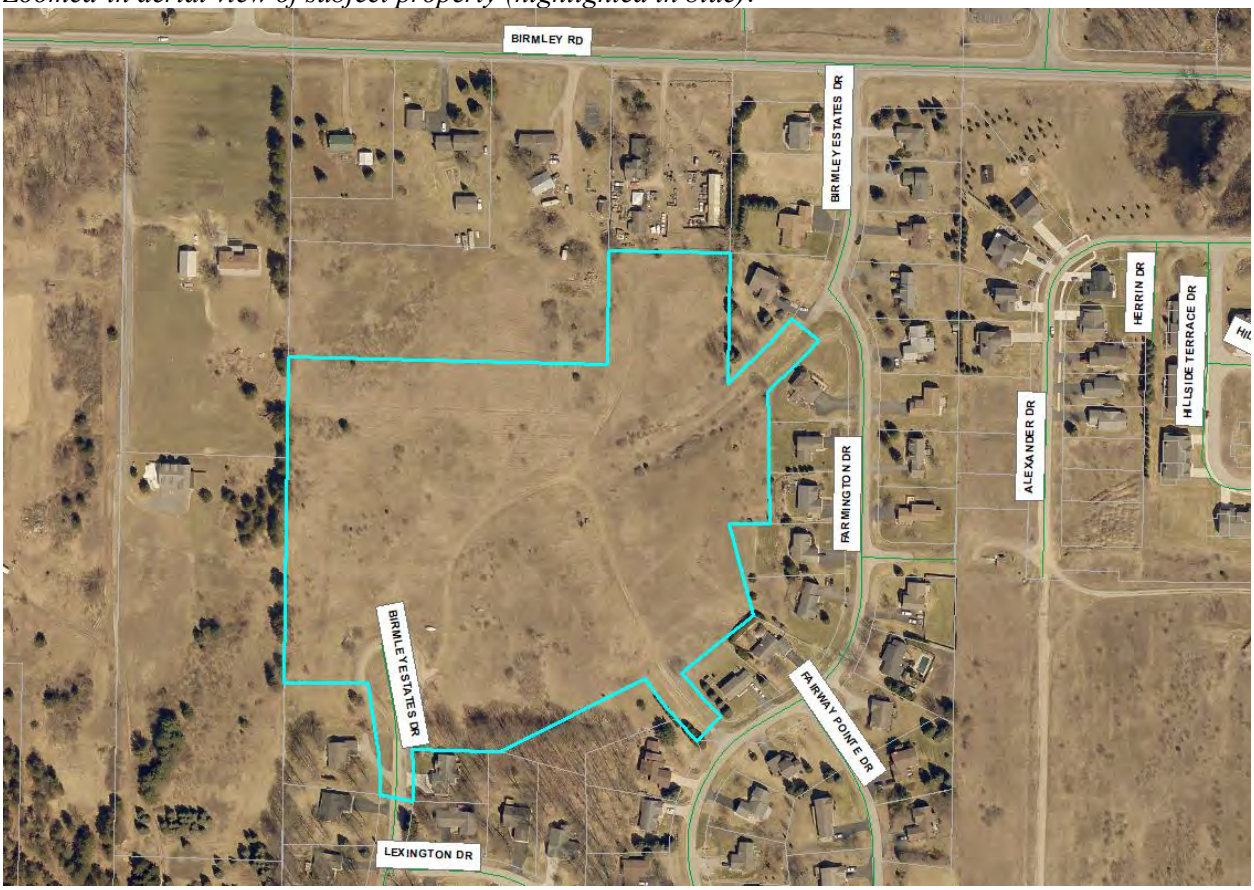
BACKGROUND:
Birmley Meadows is a proposed 26-lot residential site condominium development immediately adjacent to the north of the existing Birmley Hills Estates subdivision. The site is directly accessed from Birmley Estates Drive and Farmington Drive, which both provide access from Birmley Road. The site is about 16 acres and zoned R-1 One-Family Residential.

PURPOSE OF APPLICATION:
This application is for a site condominium development of 26 single-family residential lots. According to the application, the lots will be between 15,000 and 40,000 square feet, the development will be served by municipal water and sewer, and all utilities will be underground.

Zoomed-out aerial view of the subject property (highlighted in blue):



Zoomed-in aerial view of subject property (highlighted in blue):



APPLICATION HISTORY:
This application was introduced at the Planning Commission meeting on May 10, 2023. A public hearing was scheduled for the June 14, 2023 Planning Commission meeting.

During the introduction, the applicant was asked to provide information on all lot widths, including those for lots along the curve of a road, to determine if minimum lot width requirements are met. The applicant has provided this information, which is included as an attachment to this report.

SITE CONDOMINIUM REVIEW CONSIDERATIONS:
Consultation
Section 429 B. of the Zoning Ordinance allows for the Planning Commission to consider input from the Township Attorney and Township Engineer as needed in its review of a condominium development plan, especially the master deed, deed restrictions, utility systems and streets, subdivision layout and design, and compliance with the Condominium Act. Other agencies will also review the plan as needed.

The Township Engineer will review storm water and private roads for the application and has provided an estimated amount for escrow for plan review, construction oversight, and project close-out for the water main and sanitary sewer extension. An initial escrow amount has been provided by the applicant and the engineering review is ongoing. Metro Fire has also conducted a site plan review, and their comments are provided as an attachment to this report.

Review Criteria
Section 429 G. of the Zoning Ordinance described the review criteria for site condominium subdivisions: "For purposes of making a decision to approve, approve with conditions or to deny a site condominium subdivision plan, the Township shall consider and make findings with respect to the following criteria:"

(1) That each condominium lot in a site condominium subdivision shall be considered as a single lot and shall comply with all regulations of the zoning district in which it is located. In a condominium development containing single-family detached dwelling units, not more than one (1) dwelling unit shall be located on a condominium lot, nor shall a dwelling unit be located on a condominium lot with any other principal structure or use. Required yards shall be measured from boundaries of a condominium lot. These requirements shall be made part of the bylaws and recorded as part of the master deed

The application proposes 26 single-family lots on a site with R-1 One-Family Residential zoning. For lots in R-1 with public sewer, the minimum lot area is 15,000 square feet and the minimum lot width is 100 feet. Along the curve of a road, lot width is measured from the front setback line instead of the front lot line.

The site plan shows lots ranging from 15,001 square feet to 39,588 square feet, thus the minimum lot size appears to be met. The applicant has provided a sheet with all lot widths, including those for lots along the curve of a road, and the minimum lot width of 100 feet appears to be met for all proposed lots.

(2) That there is a proper relationship between the existing streets and highways within the vicinity, and proposed deceleration lanes, service drives, entrance and exit driveways, and parking areas to assure the safety and convenience of pedestrian and vehicular traffic, and that the proposed streets and access plan conform to any street or access plan adopted by the Township or the County Road Commission

The two proposed roads are Birmley Estates Drive, which would connect the two non-contiguous existing sections of Birmley Estates Drive, and a new road named Springfield Drive. Both roads are proposed as private roads. These roads, along with the existing roads in Birmley Estates and the previously proposed roads in Birmley Hills will form a connected street system and appear to be a logical extension of the street pattern for this area. The street system for this area connects to Birmley Road, serving all three developments. Stub road and utility connections are provided for the parcel to the west, to facilitate future development of this parcel. This stub is separate from a stub which will be provided in the Birmley Hills site condominium and will connect to a different parcel than the one in Birmley Hills.

The proposed private roads are subject to review by the Township Engineer and other agencies, and road names are to be reviewed and approved by Grand Traverse County Equalization and the Township Board.

(3) That as many natural features of the landscape shall be retained as possible, particularly where they furnish a barrier or buffer between the project and adjoining properties used for dissimilar purposes, and where they assist in preserving the general appearance of the neighborhood or help control erosion or the discharge of storm waters

The site plan does not indicate any contiguous common open space. The Impact Statement in the application states that the "project will not significantly disturb the existing forested areas of the property outside of homesites. It would not negatively affect wildlife habitats in those areas.

Some tree clearing will be required to construct the improvements and create buildable lots but will be minimized to the extent possible." The proposed use and surrounding uses are generally single-family homes of similar scale.

(4) That any adverse effect of the proposed development and activities emanating therefrom upon adjoining residents or owners shall be minimized by appropriate screening, fencing or walls, or landscaping

The proposed development consists of single-family homes, which are compatible with existing single-family homes in the area. To the north and west are several single-family homes on larger lots. No major adverse effects are anticipated from this project.

(5) That all provisions of this ordinance are complied with

Development standards such as fences, lighting, landscaping, and parking are handled as part of the design for each individual condominium lot. The site plan notes no site lighting is proposed for this development, and that parking will be located on individual lots and no additional parking areas are proposed. Details for a proposed Birmley Meadows entrance sign are shown on Sheet C6.0. Signs require sign permit review and are not approved under the site plan review process.

(6) That all site condominium lots shall be provided access by either public or private roads in conformance with the requirements of this ordinance. All site condominium units shall be accessible to emergency vehicles

All lots are proposed to be accessed by either of the two proposed private roads: Birmley Estates Drive (extension of the existing road) or Springfield Drive. Stub road and utility connections are provided for the parcel to the west. Emergency vehicle access should reflect any comments from the relevant agencies; comments from Metro Fire are attached to this report.

(7) That a plan for erosion control and storm water discharge has been approved by the appropriate public agency; and

Review of erosion control and storm water will be handled by the Grand Traverse County Soil Erosion and Sedimentation and the Township Engineer, respectively. Storm water retention areas are shown on the north side of the property between Lot 4 and Lot 5, and along Springfield Drive in front of Lot 21. An initial escrow amount has been provided, and the engineering review of the proposed storm water management system is ongoing.

(8) That the plan as approved is consistent with the intent and purpose of zoning to promote public health, safety and general welfare; to encourage the use of lands in accordance with their character and adaptability to avoid the overcrowding of population; to lessen congestion on the public roads and streets; to reduce hazards to life and property; to facilitate adequate provisions for a system of transportation, sewage disposal, safe and adequate water supply, education, recreation and other public requirements; and to conserve the expenditure of funds for public improvements and services to conform with the most advantageous uses of land, resources and properties; to preserve property values and natural resources; and to give reasonable consideration to character of a particular area, its suitability for particular uses and the general appropriate trend and character of land, building, and population development and is otherwise in compliance with law.

The proposed development is consistent with the current zoning of R-1 One-Family Residential and the Future Land Use Map designation of Low Density Residential and is consistent with the intent to promote the public health, safety, and welfare and with the provisions of this standard.

PROCESS:

Site condominiums are reviewed by both the Planning Commission and Township Board. The Planning Commission shall hold a public hearing on the application and make a recommendation on the application to the Township Board. The Township Board conducts final review of the application but is not required to hold its own public hearing.

ACTION REQUESTED:

The purpose of this agenda item is to hold a public hearing on the application. If, following the applicant presentation and subsequent discussion, Commissioners are prepared to direct Staff to prepare Findings of Fact for the proposed Site Condominium, then the following motion is offered for consideration:

> MOTION TO direct staff to prepare Findings of Fact for application SPR-2023-04, submitted by T&R Investments, for a proposed site condominium development to be known as Birmley Meadows at Parcel No. 05-026-020-33, subject to the following items being addressed by the applicant:
>
> 1. The site plan is subject to review by others, including but not limited to the Township Engineer, Metro Fire, and Grand Traverse County Equalization.

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

***Attachments*:**

1. Application for Site Condominium Subdivision review dated April 5, 2023.
2. Statement of Proposed Use, Impact Statement, and Stormwater Control Plan dated April 5, 2023.
3. Birmley Meadows Site Condominium Site Plan Set dated April 5, 2023.
4. Sheet C.20A, Lot Width at Setbacks dated May 30, 2023.
5. Metro Fire Site Plan Review dated May 12, 2023.

Charter Township of Garfield

Grand Traverse County

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

SITE CONDOMINIUM SUBDIVISION (SCSP) 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

☒ Site Condominium Subdivision Plan Review

PROJECT / DEVELOPMENT NAME: BIRMLEY MEADOWS

APPLICANT INFORMATION

Name:	T & R INVESTMENTS
Address:	841 ASHLAND AVE, TC MI 49696
Phone Number:	(231) 883-3766
Email:	zakrajseksteve@gmail.com

AGENT INFORMATION

Name:	BOYNE ENGINEERING AND DESIGN, PLLC.
Address:	PO BOX 94, BOYNE CITY, MI 49712
Phone Number:	(231) 499-8361
Email:	boyneeng@torchlake.com

OWNER INFORMATION

Name:	T&R
Address:	
Phone Number:	
Email:	

CONTACT PERSON

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

☒ Applicant:	STEVE ZAKRAJSEK
☒ Agent:	CARRIE MAY, P.E.
☐ Owner:	

PROPERTY INFORMATION

Property Address:	TBD
Property Identification Number:	05-026-020-33
Legal Description:	SEE PLANS SHEET C0.0
Zoning District:	R1
Master Plan Future Land Use Desigation:	
Area of Property (acres or square feet)	

SITE CONDOMINIUM SUBDIVISION PLAN

The site condominium subdivision plan shall indicate specific unit dimensions with front, rear and side site condominium lot lines allocated to each condominium unit. Parcels shall be referred to as site condominium lots. The description, size, location, and arrangement of the site condominium lots shall conform to the requirements of the Zoning Ordinance. All site condominium subdivision lots shall be deeded as limited common elements for the exclusive use of the owners of the condominium subdivision units. Each condominium dwelling unit shall be located within a condominium lot.

1. Name of the project, name and address of preparer, and date. ✓
2. The plan shall be of a scale not less than one inch (1") equals fifty feet (50'). ✓
3. All plans are to be accurately sealed. ✓
4. Layout and dimensions of all condominium lots. ✓
5. Layout and dimensions of all roadways and pedestrian pathways. ✓
6. Adequate drainage of surface water, stormwater disposal methods. ✓
7. Distribution of telephone, electric, television, and other similar services by underground wire or cable. ✓
8. First floor elevation of buildings (if applicable).
9. Location of gas lines. ✓
10. Location of water lines, and hydrants or other appurtenances. ✓
11. Location of sanitary sewer lines including the location and size of the proposed service. ✓
12. Location of existing and proposed fencing, landscaping, screening, or other buffers required. ✓
13. Location of streetlights and light fixture details. ✓

REQUIRED SUBMITTAL ITEMS

A complete application for a Site Condominium Subdivision Plan 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 $1,780

Site Condominium Subdivision Plan:

☒ Ten complete stapled 11"x17" paper sets

☒ Two complete bound 24"x36" paper sets

☒ One digital set (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.

REVIEW PROCEDURE

Subject to the standards of § 429.G of the Zoning Ordinance, a proposed Site Condominium Subdivision shall be reviewed in accordance with § 429.H and generally summarized as follows:

1. Agency Submittal: The applicant shall provide copies of the proposed site condominium subdivision plan to the following Grand Traverse County Agencies: Health Department (or Department of Public Works if proposed on municipal water and/or sanitary sewer), Drain Commissioner (or Township designee), Soil Erosion-Sedimentation Control Director (or Township designee), Road Commission (or Michigan Department of Transportation if proposed on a state highway), and the Metro Fire Department.
2. Independent Review: An independent engineer or other consultant may be hired, at the applicant's expense, to review the project and make recommendations to the Township.
3. Public Hearing: The Planning Commission shall hold a public hearing on the proposed site condominium subdivision plan, for the purpose of reviewing and making a recommendation of approval, approval with conditions, or denial to the Township Board.
4. Planning Commission Determination: If the Planning Commission determines that the proposed plan meets all requirements of this ordinance and the Condominium Act, the Planning Commission shall recommend approval or approval with conditions of the site condominium subdivision plan and shall send notice of action taken with comments to the Township Board. If the Planning Commission determines that the site condominium subdivision plan does not meet all requirements, the Planning Commission shall state its reason in its official minutes, shall forward same to the Township Board, and shall recommend disapproval of the plan by the Township Board until the objections causing disapproval have been changed to meet the requirements of this ordinance and the Condominium Act.
5. Township Board Determination: The Township Board shall approve the site condominium subdivision plan, with or without conditions, reject the plan and give its reasons, table the proceedings pending further review or pending changes to the plan to make it acceptable to the Board, or refer that application back to the Planning Commission for further review and report.

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.

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: 4-5-23

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 T d R Investments am/are the registered owner(s) of the lands that is the subject of this application for a site condominium subdivision.

Owner Signature:

Date: 4-5-23

I/We CARRIE MAY 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.

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: 4-5-23

Applicant Signature:

Date:

BOYNE ENGINEERING AND DESIGN, PLLC.
PO BOX 94 Boyne City, MI 49712 (231) 499-8361 boyneeng@torchlake.com

BIRMLEY MEADOWS
A SITE CONDOMINIUM PROPOSAL

April 5, 2023

Applicant / Owner: T & R Investments
841 Ashland Drive
Traverse City, MI 49696

Steve Zakrajsek (231) 883-3766

Meeting Date: May 10, 2023

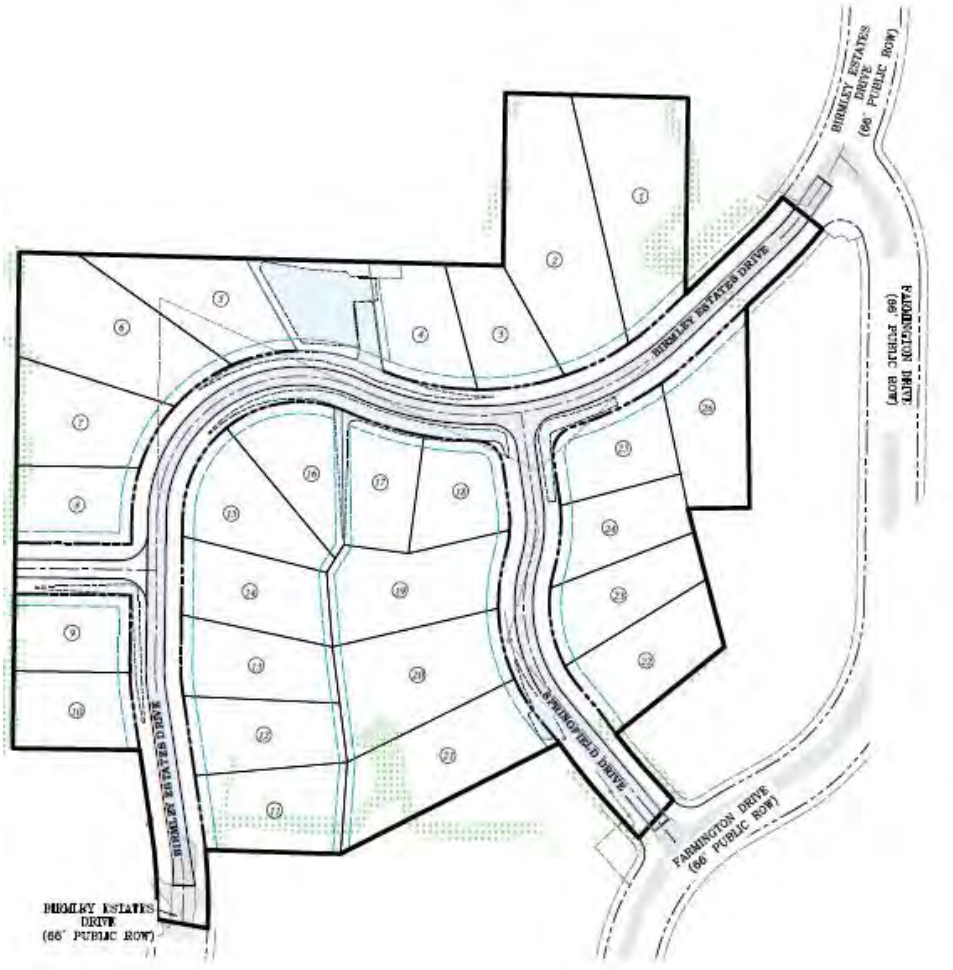
Package Contents:
1. Statement of Proposed Use
2. Impact Statement & Traffic Assessment
3. Stormwater Control Plan
4. Engineered Plans 11 Sheets
   Dated 04/05/2023

STATEMENT OF PROPOSED USE

Birmley Meadows is a proposed 26 lot residential site condominium development on 16.02 acres located in Garfield Township's R-1 Residential zoning district. The Tax ID for the property is 05-026-020-33.

The property is part of the Southeast ¼ of Section 26, Township 27 North, Range 11 West and is located between two existing road stubs where Birmley Estates Drive (public) is discontinuous. This proposed development completes that thoroughfare via a new private section of Birmley Estates Drive and connects as originally planned to an existing road stub off Farmington Drive (public) via a new private road - Springfield Drive. The proposed private section of Birmley Estates Drive is approximately 1,616 feet long and the proposed Springfield Drive is approximately 595 feet long. An additional stub road section is provided to the west property line, as required by Garfield Township, which is approximately 183 feet long. All proposed roads in the development are within 66' road easements with additional 15' utility easements on both sides.

The lots in this proposed development are between 15,000 sf and 40,000 sf. The proposed development will be served by municipal water and sewer. All utilities will be underground. A monument sign is proposed for the entry at the northernmost end of Birmley Estates Drive.



IMPACT STATEMENT

T & R Investments
841 Ashland Drive
Traverse City, MI 49696

Contact: Steve Zakrajsek (231) 883-3766

Proposed Birmley Meadows 26 Lot Residential Site Condominium

Tax ID: 05-026-020-33

1.) PROJECT DESCRIPTION:

Birmley Meadows is a proposed 26 lot residential site condominium development located on 16.02 acres in Garfield Township's R-1 Residential zoning district.

The property is part of the Southeast ¼ of Section 26, Township 27 North, Range 11 West and is located between two existing road stubs where Birmley Estates Drive (public) is discontinuous. This proposed development completes that thoroughfare via a new private section of Birmley Estates Drive and connects as originally planned to an existing road stub off Farmington Drive (public) via a new private road - Springfield Drive. The Tax ID for the property is 05-026-020-30.

The lots in this proposed development are between 15,000 sf and 40,000 sf. The development will include 2 new 24' wide private roads which intersect and connect to Birmley Estates Drive and Farmington Drive as described. Both existing roads have partial extensions (stubs) where additional roads have previously been planned. The proposed private section of Birmley Estates Drive is approximately 1,616 ft long and the proposed Springfield Drive is approximately 595 ft long. The proposed development will be served by municipal water and sewer also extending from the same Birmley Estates roads. There is a Garfield Township elevated water storage tank in close uphill proximity to this proposed development. All utilities will be underground. The private road right-of-way easement is 66 feet wide with an additional 15-foot utility easement on each side. Garfield township and Grand Traverse County will have access to both easements as well as all other stormwater easements. There is a monument sign proposed for the entry at the northernmost end of the private section of Birmley Estates Drive. The road grades in this development range between 1.0% and 7.1%. The plans includes a stub road with water and sewer line stubs connecting to the adjacent westerly property line between proposed lots 8 and 9. Homes in the development are expected to average 1,800 square feet with some larger homes. There are a limited number of trees on the existing land, most of which is unmaintained grass. Stormwater will be handled with open ditches along the roadways and basins near the natural discharge locations in keeping with the character of the adjacent development. There is a break in the direction of the stormwater watershed midway through the property. A stormwater control plan has been engineered to meet Garfield Township stormwater regulations which includes detention and infiltration basins with sediment forebays.

2.) DEMAND ON COMMUNITY SERVICES:

A.) The development will be served by municipal sewer which is expected to have capacity for these homes. The plans will be reviewed by the Grand Traverse County Department of Public Works

B.) The development will be served by municipal water which is also expected to have capacity for these homes. There is an elevated storage tank feeding the system nearby and uphill from the development. The plans will be reviewed by the Grand Traverse County Department of Public Works.

C.) According to the Institute of Transportation Engineers (ITE) publication for Trip Generation, 10th Edition, a Single-Family Detached home generates an Average Daily Traffic rate of 9.44 trips per day. This would amount to approximately 246 daily trips for the development. The Peak Hour traffic for this use would occur typically between the hours of 7:00am and 9:00 am with a rate of 0.74 trips per hour per household or 20 trips overall for the development, and between the hours of 4:00pm and 6:00 pm with a rate of 0.99 trips per hour per household or 26 trips overall for the development. These rates include inbound and outbound traffic with outbound traffic accounting for 75% of the morning trips (15 trips) and inbound traffic accounting for 63% of the evening trips (16 trips). Although these trips would be split between the three exit points of the development, all outbound and inbound traffic would use the portion of Birmley Estates Drive between the development and the intersection at Birmley Road. It is unlikely that a formal traffic study would find that this relatively small number of additional trips would reduce the Level of Service on the adjoining public roads. The plans will be reviewed by the Grand Traverse County Road Commission.

D.) According to 2000 census data, this development may house approximately 65 people and add approximately 8 children to local schools.

E.) The Grand Traverse Metro Fire Department will review the plans for this relatively simple residential development. Appropriate home spacing, road grades, paving, access routes, turning radii and fire hydrants are included in the design.

1.) ENVIRONMENTAL IMPACTS:

A.) The Engineered Site Plan includes proposed grading and soil erosion control measures.

B.) The Engineered Site Plan includes a Stormwater Runoff Control Plan which addresses stormwater runoff and control according to the Garfield Township requirements. A soil erosion and sediment control permit will be required for construction of the project.

C.) This project does not border on the shoreline and there are no wetlands in the vicinity of the proposed development.

D.) This project will not significantly disturb the existing forested areas of the property outside of homesites. It would not negatively affect wildlife habitats in those areas. Some tree clearing will be required to construct the improvements and create buildable lots but will be minimized to the extent possible.

E.) This project will not significantly contribute to air pollution due to the fact that it is not a commercial type use and is replacing the same residential uses elsewhere.

F.) It is not anticipated that water pollution will result from this development. Increased runoff due to impervious surfaces is mitigated according to the Stormwater Control Plan and infiltration is planned in what are mostly well draining sandy soils.

G.) The proposed development can be expected to generate noise typical of a residential development which is not considered a harmful noise producing use.

This completes the impact statement for this project. If there are any questions regarding this statement or the project, please contact:
Boyne Engineering and Design - Ms. Carrie May, P.E. at (231) 499-8361.

BOYNE ENGINEERING AND DESIGN, PLLC.
PO BOX 94 Boyne City, MI 49712 (231) 499-8361 boyneeng@torchlake.com

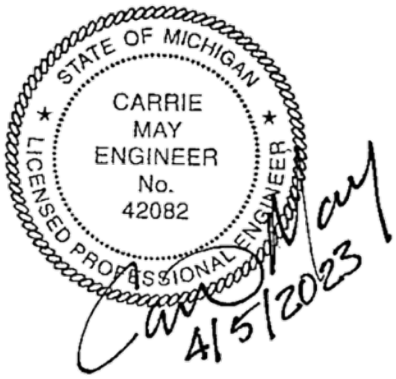
SUMMARY OF
STORMWATER RUNOFF CONTROL PLAN
FOR

BIRMLEY MEADOWS A SITE CONDOMINIUM

GARFIELD TOWNSIP, MI

BED PROJECT NO: 22033

April 5, 2023



STORMWATER CONTROL PLAN

DESCRIPTION

Birmley Hills is a proposed 26 lot residential site condominium development located in Garfield Township's R-1 Residential zoning district.

The property is part of Southeast ¼ of Section 26, Township 27 North, Range 11 West and is located between two existing road stubs where Birmley Estates Drive (public) is discontinuous. The Tax ID for the property is 05-026-020-33.

Hydrology modeling and runoff calculations were performed by Boyne Engineering and Design using SCS TR-20 Method and Hydrocad software. Detailed model calculations are attached which correspond to the stormwater summary and watershed maps included on the engineered plans (See Sheet C2.1). The following parameters describe the site conditions and modeling assumptions.

WATERSHED

The overall watershed containing this 16.02 acre development is approximately 33 acres and contains three sub-watersheds draining to the north, south and east respectively. Much of the north sub-watershed (approximately 15 acres) is made up of existing upstream farmsteads. Runoff from those areas follows a natural course which passes through this proposed development. This pass-through runoff currently combines with runoff from the largest portion of the land in this development and follows a natural watercourse north towards the system of ditches and culverts running along and crossing under Birmley Road. This natural watercourse is maintained with the proposed development and retention/infiltration has been conservatively sized due to the residential nature of the surrounding land. The sub-watersheds draining to the south and east are confined within the proposed development. Runoff from these watersheds will be directed towards the existing system of retention/infiltration basins and ditches within the existing Birmley Estates subdivision which were originally designed to accommodate that flow. Additional retention/infiltration basins are also provided where feasible. There is no evidence of downstream flooding in the existing development and existing proximate finish floor elevations are above stormwater control facility high water elevations. The proposed developed areas are modeled as 1/3 ac residential, 1/2 ac residential and impervious paved surfaces according to the plan details.

SOILS AND TERRAIN

The USDA Soil Conservation maps of this area show that the soils can be expected to be sandy with the exception of an area shown on the watershed maps which may have a stratified layer of loamy sand. The design plans note that if this material is found in the location of the retention/infiltration basins, it is to be removed and replaced with sandy soil. Soil evaluations and infiltration tests were conducted by Boyne Engineering and GFA in various locations approximate to this development in 2022 and soils were found to be sandy loam and loamy sand with an infiltration

rate of 11.34 in/hr. The slopes on the site vary between 1% and 12% with limited steeper areas in locations which have previously been graded. The proposed drives have been profiled to follow the existing contours to the extent possible and to balance earthwork.

SOIL EROSION

The engineered Grading and Drainage plan (See Sheet C2.1) specifies temporary and permanent soil erosion measures including construction entrances, silt fence, minimum earth disturbance requirements, slope stabilization requirements, 3:1 and 4:1 maximum ditch and basin side slopes, stabilized overflows and level spreader outlets, and seeding requirements.

STORMWATER

REQUIREMENTS:

The following summarizes the stormwater control requirements of Garfield Township and the design components which satisfy those requirements (See the attached detailed calculations and Sheet C2.1 of the engineered plans for more information).

- Runoff generated from site improvements is retained on site in retention/infiltration basins designed to limit outflow from developed areas to less than 0.13 CFS per developed acre for a 25 year, 24 hr storm event.
- The storage volume provided exceeds the requirements which are calculated as the volume of runoff from the developed area for the 25 year, 24 hr storm event minus the volume of runoff from the existing area for the 2 year, 24 hr storm event minus the volume of infiltration over 24 hours in the designed basins for the 25 year, 24 hr storm event.
- Runoff from uncontrolled areas totaling 0.61 acres flows to existing stormwater basins designed to accommodate tht flow.
- Basin slopes do not exceed 3:1.
- Snow storage is indicated on the plans.
- Erosion control measures such as check dams and outlet protection are included where anticipated flows exceed 4 fps and erosion control measures are specified for slopes and watercourses.
- The stormwater facilities are designed to safely pass a 100 year, 24 hr storm event without increasing downstream flooding.
- Basins are designed to drain through infiltration within 72 hours.

CALCULATIONS:

The following summarizes the stormwater calculations found in the attached Hydrocad reports.

SUMMARY OF STORMWATER CONTROL:

WATERSHED (33.06 AC)	ACREAGE	PASS-THROUGH AREA OR AREA CONTROLLED BY EXISTING SYSTEMS	DEVELOPED & CONTROLLED AREA	25 YEAR, 24 HR STORM ALLOWABLE OUTFLOW: 0.13 X DEV ACREAGE PLUS 25 YEAR, 24 HR STORM RUNOFF FROM PASS-THROUGH AREA	25 YR, 24 HR STORM DESIGNED OUTFLOW	REQUIRED STORAGE: 25YR DEV RUNOFF - 2 YR EX RUNOFF - 25 YR INFILTRATED RUNOFF	STORAGE PROVIDED
	AC	AC	AC	CFS	CFS	AF	AF
NORTH	28.57	14.66	13.91	1.81 + 9.72 = 11.53	5.93	*1.01	1.29
EAST	2.85	0.39	2.46	0.32	0.00	0 (100% INFILT)	0.06
SOUTH	1.64	0.22	1.42	0.18	0.16	0.01	0.09
TOTAL	33.06	15.27	17.79	12.03	6.09	1.02	1.44

* REDUCTION FOR INFILTRATION NOT TAKEN

ATTACHMENTS

1. NRCS soil report
2. Watershed maps
3. Hydrocad modeling and runoff calculations
4. Engineered Site Plans

GENERAL NOTES

1. THIS CONSTRUCTION PROJECT SHALL AT ALL TIMES AND IN ALL SITUATIONS PROCEED IN A MANNER CONSISTENT WITH THE REQUIREMENTS OF THE GARFIELD TOWNSHIP ZONING ORDINANCE, PART 91 - SOIL EROSION AND SEDIMENTATION CONTROL OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, 1994 PA 451, THE CURRENT GRAND TRAVERSE COUNTY CONSTRUCTION STANDARDS, AND ALL OTHER APPLICABLE RULES, REGULATIONS AND LAWS OF ANY OTHER AUTHORITY WITH JURISDICTION TO GOVERN SUCH CONSTRUCTION. THE CONTRACTOR SHALL KEEP A COPY OF THOSE REQUIREMENTS AND ALL CONSTRUCTION DOCUMENTS RELATED TO THIS PROJECT ON THE PROJECT AT ALL TIME AND REFERENCE SHALL BE MADE TO THEM FOR PROPER MATERIALS, METHODS, ETC. REGARDING CONSTRUCTION IMPROVEMENTS.
2. THE CONTRACTOR SHALL CHECK THESE PLANS AND FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING WORK ON ANY SEGMENT OF THE PROJECT. IF THE CONTRACTOR HAS ANY QUESTIONS OR SUSPECTS THERE IS AN ERROR OR OMISSION WITHIN THE PLANS OR THE CONSTRUCTION STAKES, HE OR SHE SHALL NOT PROCEED UNTIL THE ENGINEER OR HIS OR HER REPRESENTATIVE HAS BEEN FULLY NOTIFIED, HAS RESPONDED, AND HAS SPECIFICALLY STATED THE CONTRACTOR MAY PROCEED.
3. EXISTING PUBLIC UTILITIES AND UNDERGROUND STRUCTURES SUCH AS PIPE LINES, ELECTRIC CONDUITS, SEWER AND WATER ARE IDENTIFIED BY THE BEST KNOWLEDGE OF THE SURVEYOR, HOWEVER, NEITHER THE CORRECTNESS NOR THE COMPLETENESS OF SUCH INFORMATION IS GUARANTEED. PRIOR TO THE START OF ANY WORK ON THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AND MISS DIG:(800) 482-7171. THE CONTRACTOR SHALL ENSURE THAT THE LOCATIONS OF ALL UTILITIES WITHIN THE VICINITY OF THE PROJECT ARE STAKED AND IDENTIFIED PRIOR TO PROCEEDING WITH WORK IN ANY AREA OF THE PROJECT. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OR RELOCATION OF EXISTING UTILITIES AND STRUCTURES AND SHALL SAVE THOSE UTILITIES AND STRUCTURES HARMLESS FROM DAMAGE, WHETHER PUBLICLY OR PRIVATELY OWNED. THE CONTRACTOR SHALL REPAIR, AT HIS OR HER COST, ANY DAMAGE TO THOSE UTILITIES AND STRUCTURES. UTILITY POLES, ANCHORING CABLES AND UTILITY FOUNDATIONS SHALL NOT BE DISTURBED OR UNDERMINED. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY AND PROVIDE PROPER SUPPORT OF SUCH UTILITIES IN THE VICINITY OF THE WORK, AND IF NECESSARY, INSTALL TEMPORARY SHEETING OR TRENCH BOXES TO MINIMIZE EXCAVATION LIMITS.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE CAUSED TO THIS OR ADJACENT PROPERTY, AND FOR INJURY TO ANY PERSON, OCCURRING DURING OR AS A RESULT OF THE CONSTRUCTION PROCESS, WHETHER SUCH DAMAGE OR INJURY RESULTS FROM ANY ACTION OR LACK OF ACTION BY PRINCIPALS OF THE COMPANY, EMPLOYEES, SUBCONTRACTORS, OR SUPPLIERS. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING CONSTRUCTION SAFETY. THE CONTRACTOR SHALL ALSO FURNISH AND INSTALL ALL NECESSARY TEMPORARY SAFETY DEVICES, SAFEGUARDS, AND PROTECTIVE EQUIPMENT AND FOLLOW ALL ADVISABLE SAFETY PRACTICES NECESSARY TO PROTECT THE LIFE AND HEALTH OF EMPLOYEES AND THE PUBLIC DURING THE CONSTRUCTION PROCESS. NEITHER THE OWNER OR THE ENGINEER ASSUME ANY LIABILITY FOR MATTERS RELATING TO SAFETY AT THE CONSTRUCTION SITE.
5. ANY DAMAGE TO IMPROVEMENTS NOT CAUSED BY THE OWNER, PRIOR TO FINAL PROJECT ACCEPTANCE BY THE ZONING ADMINISTRATOR AND THE OWNER, SHALL BE REPAIRED OR REPLACED AS NECESSARY TO CONFORM WITH THE DESIGN AT THE EXPENSE OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL NOTIFY THE GRAND TRAVERSE COUNTY CONSTRUCTION SUPERVISOR 3 DAYS PRIOR TO STARTING WORK AND SHALL FIRST PROVIDE ALL NECESSARY NOTICES, OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES ASSOCIATED WITH SUCCESSFULLY COMPLETING THE CONSTRUCTION PROCESS, INCLUDING ALL PUBLIC INSPECTION FEES.
7. ALL STUMPS, LARGE ROCKS, CONCRETE, SCRAP MATERIALS, TRASH AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
8. DURING CONSTRUCTION EXPOSE THE MINIMUM AREA OF SOIL FOR THE MINIMUM TIME POSSIBLE. SEE SOIL EROSION AND STORMWATER CONTROL NOTES.
9. THROUGH TRAFFIC ON ADJACENT ROADWAYS SHALL NOT BE INTERRUPTED WITHOUT EXPLICIT PERMISSION FROM, AND COORDINATION WITH THE GRAND TRAVERSE COUNTY ROAD COMMISSION. ALL WORK WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE COUNTY ROAD COMMISSION CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS. PAVEMENT CUTS ARE TO BE MADE WITH A SAW, IMMEDIATELY PRIOR TO PAVING.
10. ALL WORK IS TO BE PERFORMED WITHIN THE PROPERTY, WITHIN THE PUBLIC RIGHT-OF-WAY, OR WITHIN ESTABLISHED EASEMENTS. ALL WORK WITHIN EASEMENTS SHALL BE COORDINATED WITH THE EASEMENT HOLDER AND BE IN ACCORDANCE WITH THE LIMITATIONS AND RESTRICTIONS OF THOSE EASEMENTS. ANY WORK OUTSIDE OF THESE LIMITS SHALL BE COORDINATED AND APPROVED BY THE PROPERTY OWNER AFFECTED. DOCUMENTATION OF THIS ARRANGEMENT SHALL BE PROVIDED TO THE ZONING AUTHORITY. ANY DISRUPTION CAUSED TO ADJACENT PROPERTIES OR TO THE PUBLIC RIGHT-OF WAY SHALL BE PROPERLY RESTORED INCLUDING LAWNS, SIDEWALKS, DRIVEWAYS, PLANTINGS, SIGNS, MAILBOXES, ETC., AT NO ADDITIONAL COST TO THE OWNER.
11. THE CONTRACTOR SHALL PROVIDE ADEQUATE ON-SITE SUPERVISION OF THE WORK AT ALL TIMES DURING THE CONSTRUCTION PROCESS. THERE SHALL BE ONE DESIGNATED ON-SITE SUPERVISOR AVAILABLE WHENEVER CONSTRUCTION IS UNDERWAY WHO HAS THE AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR.

** ALL ELEVATIONS ARE BASED ON:
NAVD 88 DATUM REFERENCED TO THE TRAVERSE CITY CORS

PLANS FOR:

BIRMLEY MEADOWS SITE CONDOMINIUM

PART OF THE SOUTH EAST 1/4 OF SECTION 26, TOWNSHIP 27 NORTH, RANGE 11 WEST, GARFIELD TOWNSHIP, GRAND TRAVERSE COUNTY MICHIGAN



LOCATION MAP
NOT TO SCALE

LEGAL DESCRIPTION

PT SE1/4 SEC 26 T27N R11W COM E1/4 COR TH N 89DEG 39'W 1772.02' TH S 00DEG 28'58"E 368.51' TO POB TH S 00 DEG 28'58"E 253.84' TH N 45DEG 10'45"E 119.53' TH 58.01' ALG CRV L (R=407' CHD=N 41DEG 05'46"E) TH S 52DEG 59'12"E 66' TH 67.41' ALG CRV RT (R=473' CHD=S 41DEG 05'46"W) TH S 45DEG 10'45"W 73' TH S 02DEG 05'30"E 260.42' TH S 88DEG 05'45"W 80' TH S 16DEG 00'09"E 185' TH S 49DEG 57'49"W 180' TH 59' ALG CRV L (R=667' CHD= S 41DEG 02'29"E) TH S 43DEG 34'32E 53.88' TH S 40DEG 51'11"W 66.31' TH N 43DEG 34'32"W 60.32' TH 100.08' ALG CRV RT (R=733' CHD=N 39DEG 39'51"W) TH S 61DEG 55'17"W 317.28' TH S 89DEG 31'02"W 25' TH N 89DEG 22'41"W 149.88' TH 101.68' ALG CRV RT (R=687.94' CHD=S 02DEG 54'20"E) TH N 81DEG 07'20"W 66.64' TH 119.01' ALG CRV L (R=621.94' CHD=N 04DEG 57'36"W) TH N 09DEG 39'43"W 101.3' TH S 89DEG 31'02"W 164.23' TH N 00DEG 28'58"W 641.52' TH S 89DEG 39'E 626.42' TH N 00DEG 28'58"W 223.38' TH S 89DEG 39'E 236.41' TO POB BOUNDARY ADJ ON 01/06/2020 FROM 05-026-020-31, 05-026-020-60;

INDEX OF DRAWINGS:

C0.0	COVER
C1.0	EXISTING CONDITIONS SURVEY
C2.0	OVERALL SITE ARRANGEMENT PLAN
C2.1	OVERALL SITE GRADING AND DRAINAGE PLAN
C3.0	SITE UTILITY PLAN
C4.0	BIRMLEY ESTATES DRIVE NE PLAN AND PROFILE
C4.1	BIRMLEY ESTATES DRIVE SW PLAN AND PROFILE
C4.2	SPRINGFIELD DRIVE PLAN AND PROFILE
C6.0	SITE DETAILS
C6.1	UTILITY DETAILS *(BY GRAND TRAVERSE COUNTY DPW)

PUBLIC AUTHORITIES

GARFIELD TOWNSHIP
3848 VETERANS DRIVE
TRAVERSE CITY, MI 49684
Telephone: (231) 941-1620

GRAND TRAVERSE COUNTY D.P.W.
2650 LAFRANIER ROAD
TRAVERSE CITY, MI 49686
Telephone: (231) 995-6039

GRAND TRAVERSE COUNTY ROAD COMMISSION
1881 LAFRANIER ROAD
TRAVERSE CITY, MI 49684
Telephone: (231) 922.4848

GRAND TRAVERSE COUNTY DRAIN COMMISSIONER
2650 LAFRANIER ROAD
TRAVERSE CITY, MI 49686
Telephone: (231) 922.4807

GRAND TRAVERSE COUNTY SOIL EROSION & SEDIMENTATION CONTROL
2650 LAFRANIER ROAD
TRAVERSE CITY, MI 49686
Telephone: (231) 995-6051

GRAND TRAVERSE COUNTY ENVIRONMENTAL HEALTH DEPARTMENT
2650 LAFRANIER ROAD
TRAVERSE CITY, MI
Telephone: (231) 995-6051

EGLE - CADILLAC
120 W CHAPIN STREET
CADILLAC, MI 49601
Telephone: (231) 775-3960

UTILITY AGENCIES

CONSUMERS ENERGY ELECTRIC
Telephone: (231) 929-6242

DTE ENERGY NATURAL GAS
Telephone: (231) 932-2823

CHARTER COMMUNICATIONS CABLE
Telephone: (231) 929-7012

AT&T MICHIGAN TELEPHONE
Telephone: (231) 941-2707

EMERGENCY SERVICES

EMERGENCY CALLS

AMBULANCE SERVICE / POLICE / FIRE: 911

GRAND TRAVERSE METRO FIRE DEPARTMENT: 231.947-3000

GRAND TRAVERSE COUNTY SHERIFF: 231.995-5000

MISS DIG: 1.800.482.7171

811 Know what's below. Call before you dig.

OWNER / APPLICANT

T&R INVESTMENTS
841 ASHLAND DRIVE
TRAVERSE CITY, MI 49696

STEVE ZAKRAJSEK
(231) 883-3766

ENGINEER

BOYNE ENGINEERING AND DESIGN
PO BOX 94
BOYNE CITY, MI 49712
CONTACT CARRIE MAY, P.E.
PRINCIPAL ENGINEER
PHONE: (231) 499-8361

SURVEYOR

GOURDIE-FRASER
123 W FRONT ST
TRAVERSE CITY, MI 49684
PHONE: (231) 946-5874

STATE OF MICHIGAN
CARRIE MAY
ENGINEER
No. 42082
LICENSED PROFESSIONAL ENGINEER
4/5/2023

PLAN APPROVAL

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED AND APPROVED BY THE GARFIELD TOWNSHIP WITH THE EXCEPTIONS, CONDITIONS AND MODIFICATIONS INDICATED BY ME ON THIS PLAN SET

GARFIELD TOWNSHIP PLANNER OR ZONING ADMINISTRATOR — DATE

BOYNE ENGINEERING AND DESIGN
P.O. Box 94
Boyne City, MI 49727
(231) 499-8361
boyneengineering.com

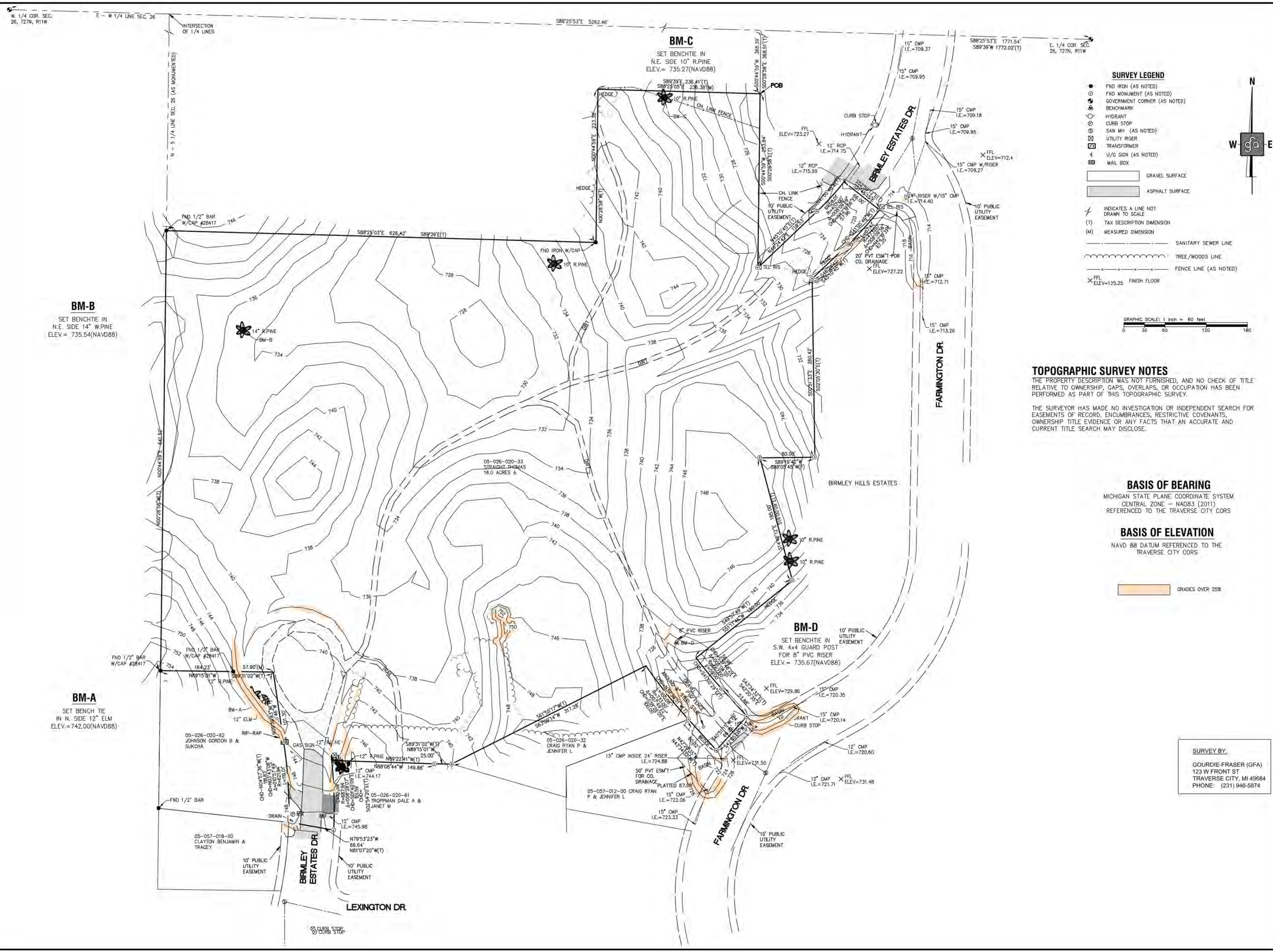
BIRMLEY MEADOWS SITE CONDOMINIUM
PREPARED FOR:
T&R INVESTMENTS
841 Ashland Drive Traverse City, MI

REVISIONS			
NO:	DATE	APP'D	ISSUE / REVISION DESCRIPTION

COVER

ORIGINAL ISSUE DATE: 04/05/2023
SCALE:
BED JOB NO. 22033
DRAWING NUMBER
C0.0

C:\USERS\CARRIE MAY\DOCUMENTS\BOYNE ENGINEERING\2022 JOBS\22033 BIRMLEY ESTATES\DRAWINGS\PNG CAD - COPY\T 22033 BIRMLEY MEADOWS S.DWG 04/05/23 5:56 AM CARRIE MAY



TOPOGRAPHIC SURVEY NOTES

THE PROPERTY DESCRIPTION WAS NOT FURNISHED, AND NO CHECK OF TITLE RELATIVE TO OWNERSHIP, GAPS, OVERLAPS, OR OCCUPATION HAS BEEN PERFORMED AS PART OF THIS TOPOGRAPHIC SURVEY.

THE SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

BASIS OF BEARING

MICHIGAN STATE PLANE COORDINATE SYSTEM
CENTRAL ZONE – NAD83 (2011)
REFERENCED TO THE TRAVERSE CITY CORS

BASIS OF ELEVATION

NAVD 88 DATUM REFERENCED TO THE TRAVERSE CITY CORS

GRADES OVER 25%

SURVEY BY:

GOURDIE-FRASER (GFA)
123 W FRONT ST
TRAVERSE CITY, MI 49684
PHONE: (231) 946-5874

BOYNE ENGINEERING AND DESIGN
P.O. Box 94
Boyne City, MI 49727
(231) 499-8361
boyneengineering.com

BIRMLEY MEADOWS SITE CONDOMINIUM

PREPARED FOR:
T&R INVESTMENTS
841 Ashland Drive
Traverse City, MI

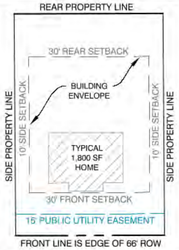
REVISIONS

NO:	DATE	APP'D	ISSUE / REVISION DESCRIPTION

EXISTING CONDITIONS

ORIGINAL ISSUE DATE: 04/05/2023
SCALE: 1"=50'
BED JOB NO. 22033
DRAWING NUMBER
C1.0

C:\USERS\CHASE.MAY\DOCUMENTS\BOYNE ENGINEERING\2022\JOBS\22033 BIRMLEY MEADOWS\DESIGN\DRAWINGS\CAD - CURRENT\22033 BIRMLEY MEADOWS SITE PLAN V6 BARRIER (5-15-23) 12-21 ENG CHANGE 1.dwg



REPRESENTATIVE LOT CONFIGURATION

INDIVIDUAL SITE CONFIGURATIONS VARY
MINIMUM AREA = 1,500 SF
SCALE: 1"=50'

COVERAGE AREAS

SITE ELEMENT	AREA	UNIT	% OF COVERAGE	NOTES
OVERALL SITE	16.02 697,621	AC SF		GROSS AREA (SEE CALCULATION THIS SHEET)
EX BUILDINGS	0	SF		VACANT
NEW BUILDINGS	0	SF		
PAVEMENT	52,098	SF	7.5%	

ZONING

GARFIELD TOWNSHIP ZONING INFORMATION
CHARTER TOWNSHIP OF GARFIELD ORDINANCE 68 AMMENDED THROUGH 9/26/21

ZONING DISTRICT	MIN LOT PER UNIT	MAX HEIGHT/ STORIES	YARD SETBACKS (FT) FRONT	SIDE	REAR	MAX BUILDING COVERAGE
R-1 ONE FAMILY RESIDENTIAL	*15,000 SF	2-1/2 / 35'	30'	10'	30'	30%

* WITH PUBLIC SEWER

PARCEL

05-026-020-33

GROSS/NET AREA

GROSS AREA:	16.02 AC
PUBLIC EASEMENTS:	- 1.82 AC
RIGHT-OF-WAYS:	- 3.44 AC
NET AREA:	10.76 AC

GRAPHIC SCALE: 1 inch = 50 feet
0 25 50 100 150

N

LEGEND

- PROPERTY LINE
- LOT LINE
- SETBACK
- EASEMENT
- EXISTING EASEMENT
- RIGHT OF WAY
- PROP ROADWAY CENTER
- EDGE OF PAVEMENT
- STORMWATER FLOW
- TREE LINE
- EX PAVING / GRAVEL
- STORMWATER BASIN
- TH-1 SOIL BORING
- BENCHMARK
- HYDRANT ASSEMBLY
- GATE VALVE
- BLOW OFF
- SANITARY MANHOLE

SOILS

SOILS ON THIS PROPERTY HAVE BEEN OBSERVED TO BE SANDY – CONSISTENT WITH NRCS SOIL SURVEY MAPPING

SEE SHEET C2.1

LIGHTING

NO SITE LIGHTING IS PROPOSED FOR THIS DEVELOPMENT

PARKING

PARKING FOR THIS DEVELOPMENT WILL BE LOCATED ON INDIVIDUAL LOTS. NO ADDITIONAL PARKING AREAS ARE PROPOSED

BIRMLEY ESTATES DRIVE PVT				
Number	Radius	Length	Line/Chord Direction	Start Station
L1		60.34	S34° 59' 02.50"W	0+30.00
C1	200.00	59.42	S44° 37' 48.03"W	0+59.34
L2		183.83	S46° 16' 33.56"W	0+89.76
C2	315.00	446.55	S80° 23' 22.84"W	2+73.61
C3	185.00	367.09	S57° 37' 35.53"W	7+20.16
L3		100.36	S0° 44' 59.34"W	10+87.48
C4	230.98	40.05	S3° 50' 23.16"E	12+77.81
L4		217.00	S8° 25' 45.66"E	13+17.89
C5	200.00	35.89	S3° 19' 02.84"E	15+34.06
L5		45.02	S1° 47' 39.09"W	15+70.54

SPRINGFIELD DRIVE				
Number	Radius	Length	Line/Chord Direction	Start Station
L17		149.82	S8° 13' 07.42"E	0+33.00
C16	185.00	78.43	S3° 55' 37.12"W	1+16.82
C16	200.00	185.37	S11° 51' 42.53"E	1+85.25
L18		232.00	S39° 53' 48.68"E	3+50.62

Parcel Area Table

Parcel #	SQ FT	ACRES
1	33582.61	0.77
2	39587.84	0.91
3	15192.93	0.35
4	16803.37	0.39
5	20458.03	0.47
6	31327.12	0.72
7	20498.39	0.47
8	15138.25	0.35
9	15000.74	0.34
10	15639.59	0.36
11	19880.57	0.46
12	17943.29	0.41
13	17745.55	0.41
14	18734.41	0.43
15	18497.80	0.42
16	17359.67	0.40
17	15511.58	0.36
18	15065.51	0.35
19	23562.10	0.54
20	27192.50	0.62
21	27971.32	0.64
22	19255.50	0.44
23	17111.13	0.39
24	15310.56	0.35
25	15871.32	0.36
26	20828.58	0.48

Parcel Line and Curve Table			
Line #/Curve #	Length	Bearing/Delta	Radius
C6	58.01	9.17	407.00
C7	67.41	8.17	473.00
C8	59.70	8.38	408.00
C9	55.51	9.30	342.00
C10	92.72	18.53	286.63
C11	129.29	18.18	408.00
C12	63.90	10.55	342.00
C13	49.58	81.17	35.00
C14	51.63	8.95	342.00
C21	124.54	20.72	344.41
C22	87.12	22.00	218.00
C23	91.70	24.10	218.00
C24	92.21	24.23	218.00
C25	96.88	25.46	218.00
C26	17.08	0.01	144749.28
C28	64.90	17.06	218.00
C29	10.78	2.18	283.00
C30	34.19	6.92	283.00
C31	39.18	3.29	682.88
C32	34.76	9.18	217.00
C33	133.45	50.30	152.00
C34	158.19	59.49	152.36
C35	112.19	14.87	432.41
C36	66.05	9.56	403.00
C37	89.58	81.17	35.00
C38	32.21	11.22	164.56
C39	32.22	12.18	152.00
C40	70.72	17.27	233.00
C41	94.50	23.24	233.00
C42	62.86	15.46	232.00
C43	33.19	11.38	167.00
C44	104.69	35.89	167.00
C45	25.35	8.70	167.00
C46	82.37	21.65	218.00
C48	10.08	2.64	218.00

Parcel Line and Curve Table			
Line #/Curve #	Length	Bearing/Delta	Radius
C53	119.01	10.86	621.84
C58	101.88	8.47	687.94
C57	59.00	5.03	867.00
C58	100.08	7.82	733.00
L6	119.53	S46° 24' 42.34"W	
L7	73.03	N46° 24' 42.34"E	
L8	88.65	N46° 24' 58.92"E	
L9	42.12	S46° 24' 42.34"W	
L10	54.07	S8° 13' 07.40"E	
L11	54.07	N8° 13' 07.40"W	
L12	58.57	S39° 53' 48.68"E	
L13	58.57	N39° 53' 48.68"W	
L14	38.28	N38° 06' 52.44"W	
L15	53.88	N42° 20' 34.66"W	
L16	66.32	S42° 20' 34.66"E	
L23	38.14	S0° 44' 59.34"W	
L24	23.67	N9° 44' 59.34"E	
L25	44.29	N9° 44' 59.34"E	
L26	57.11	N9° 44' 59.34"E	
L27	66.11	N0° 44' 59.34"E	
L28	89.22	S0° 44' 59.34"W	
L29	5.64	N8° 25' 45.66"W	
L30	66.86	S8° 25' 44.01"E	
L31	164.16	N8° 25' 45.66"W	
L32	101.30	N8° 25' 45.66"W	
L33	37.41	N8° 25' 45.66"W	
L34	8.65	N79° 53' 23.66"W	
L35	25.27	N79° 53' 22.66"W	
L43	20.93	S31° 51' 50.84"W	
L44	20.99	S31° 51' 50.84"W	
L45	33.00	N0° 44' 59.34"E	
L46	33.00	N0° 44' 59.34"E	
L47	31.53	S14° 46' 11.68"E	
L48	46.85	S11° 54' 11.20"E	

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BIRMLEY MEADOWS SITE CONDOMINIUM

PREPARED FOR:
T&R INVESTMENTS
841 Ashland Drive
Traverse City, MI

REVISIONS			
NO:	DATE	APP'D	ISSUE / REVISION DESCRIPTION

OVERALL SITE ARRANGEMENT PLAN

ORIGINAL ISSUE DATE: 04/05/2023
SCALE: 1"=50'
BED JOB NO. 22033
DRAWING NUMBER
C2.0

72 HOURS BEFORE YOU DIG CALL MISS DIG 800-482-7171 TOLL FREE

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SOIL EROSION AND STORM WATER CONTROL NOTES

1. THE CONTRACTOR IS ADVISED THAT ALL SOIL EROSION MEASURES AND STORMWATER FACILITIES SHALL BE CONSTRUCTED AT THE EARLIEST FEASIBLE SCHEDULE. NO OTHER CONSTRUCTION ACTIVITIES SHALL PROCEED WHICH DO NOT PHYSICALLY DRAIN TO THESE FACILITIES UNLESS ADDITIONAL TEMPORARY FACILITIES ARE INSTALLED. PRIOR TO ACCEPTANCE OF THE PROJECT AS COMPLETE, ALL PERMANENT STORMWATER FACILITIES USED DURING CONSTRUCTION SHALL BE RESTORED TO OPERATE IN THEIR DESIGNED CONDITION AT NO ADDITIONAL COST TO THE PROJECT.
2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY SOIL EROSION CONTROL MEASURES PER P.A. 451 AS AMENDED. WITH THE USE OF SILT FENCE AND OTHER TEMPORARY MEASURES THE CONTRACTOR SHALL PROTECT THE ADJACENT AREA FROM ACCELERATED EROSION AND SEDIMENTATION FLOWS RESULTING FROM CONSTRUCTION. THE CONTRACTOR SHALL INSTALL ADDITIONAL TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES, IF DIRECTED BY THE ENGINEER OR SOIL EROSION CONTROL OFFICER, AT NO ADDITIONAL COST TO THE PROJECT.
3. SHOULD ADDITIONAL SOIL EROSION CONTROL MEASURES BE DETERMINED TO BE NECESSARY BY EITHER THE SOIL EROSION CONTROL OFFICER OR THE OWNER'S ENGINEER THEY SHALL BE IN PLACE NO LATER THAN 24 HOURS FROM THE TIME OF NOTIFICATION TO THE GENERAL CONTRACTOR FOR THE PROJECT. IF NOT PLACED IN 24 HOURS OR LESS ALL ON SITE CONSTRUCTION WILL BE HALTED UNTIL SUCH MEASURES ARE INSTALLED AND APPROVED BY EITHER THE SOIL EROSION CONTROL OFFICER OR THE OWNER'S ENGINEER.
4. ALL DISTURBED NON-HARD SURFACE AREAS TO BE STABILIZED WITH TOPSOIL, SEEDED, FERTILIZED AND MULCHED. DISTURBED AREAS SHALL BE TOPSOILED TO A DEPTH NOT LESS THAN FOUR (4) INCHES. SLOPES WHICH ARE BETWEEN 3:1 AND 2:1 GRADE SHALL BE SODDED AND STAKED OR RECEIVE SEEDING IN COMBINATION WITH DOUBLE NET, BIODEGRADABLE EROSION CONTROL BLANKET (EXCEL GC-4 OR EQUAL). IN NO CASE SHALL CONSTRUCTED SLOPES IN EXCESS OF 2:1 BE ALLOWED ON THE PROJECT. ALL SLOPES GREATER THAN 3:1 GRADE AND SUBJECT TO CONCENTRATED FLOWS SHALL RECEIVE PERMANENT TURF REINFORCING MATTING (EXCEL PP5-10 OR EQUAL). INSTALLATION OF EROSION CONTROL BLANKETS AND TURF REINFORCING MATS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. STORMWATER CHANNELS AND BASINS SHALL BE TREATED ACCORDING TO THE DESIGNATION ON THE PLANS AND DETAILS.
5. CONTRACTOR SHALL STABILIZE DISTURBED EARTH IMMEDIATELY UPON ESTABLISHMENT OF FINAL GRADE AND SHALL BE SOLELY RESPONSIBLE FOR ESTABLISHMENT OF A HEALTHY STAND OF GRASS PRIOR TO THE ONSET OF COLD WEATHER. ALL PERMANENT SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE WITHIN 5 DAYS OF COMPLETION OF EARTH CHANGES
6. ALL NEW STORM DRAINAGE PIPE SHALL BE CORRUGATED GALVANIZED STEEL PIPE, SMOOTH LINED CORRUGATED HDPE (CPE) OR APPROVED EQUAL. A MINIMUM OF TWO (2) FEET OF COVER FROM FINISHED ELEVATIONS SHALL BE MAINTAINED OVER ALL STORM DRAIN PIPES.
7. ALL DRAINAGE PIPES THAT OUTLET AT GROUND SURFACE SHALL INCLUDE END SECTIONS.
8. ALL EXISTING STORM DRAINS WITHIN THE CONSTRUCTION ZONE TO BE INSTALLED/MONITORED WITH SILT SACKS. SACKS TO BE PULLED AS NEEDED TO KEEP SEDIMENT OUT.
10. EXISTING STORM DRAINAGE DITCHES SHALL BE REBUILT IF FILLED IN OR REMOVED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO REPAIR OR REPLACE, AS REQUIRED, ALL DRAINAGE CULVERTS DAMAGED DURING CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
11. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT OR SOILS THAT HAVE BEEN DROPPED, WASHED ONTO OR TRACKED OUT ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE ROADS AT THE END OF EACH WORKING DAY OR AFTER EACH RAIN EVENT ON NON-WORK DAYS.
12. ALL REMOVED TOPSOIL WILL BE STOCKPILED WITHIN THE PROJECT AREA. IF ADDITIONAL TOPSOIL IS AVAILABLE AFTER TOPSOILING THE CONSTRUCTION AREA, IT WILL BE STOCKPILED WITHIN 1000 FEET OF THE CONSTRUCTION AREA AS DIRECTED BY THE OWNER OR ENGINEER.
13. THE CONTRACTOR SHALL REPAIR ALL WASHOUTS AND EROSION DURING THE GUARANTEE PERIOD OF ONE (1) YEAR AT NO ADDITIONAL COST TO THE OWNER.
14. IF REQUESTED BY THE ENGINEER OR SOIL EROSION CONTROL OFFICER, A WATER TRUCK SHALL BE KEPT ON STAND-BY ON SITE DURING THE CONSTRUCTION PHASE OF THE PROJECT. THE WATER TRUCK SHALL BE USED AS DIRECTED BY THE ENGINEER OR SOIL EROSION CONTROL OFFICER TO CONTROL DUST AND WIND EROSION.

BASIN B1A
SEDIMENT FOREBAY

TOP OF BASIN:	EL = 731.25
BOTTOM OF BASIN:	EL= 727.00
40'L X 2'W OVERFLOW WEIR:	EL = 729.52
100 YEAR HW ELEV:	EL = 730.58
VOLUME PROVIDED:	7,768 CF

BASIN B1B
RETENTION/INFILTRATION

TOP OF BASIN:	EL = 731.25
BOTTOM OF BASIN:	EL= 726.50
10'L X 2'W LEVEL STABILIZED OVERFLOW WEIR:	EL = 730.00
20 LF OF 15" O CPE OUTLET @ 2% - END SECTION 1 SIDE TO RADIAL ENERGY DISSAPATING DAM/LEVEL SPREADER (SEE DETAIL SHEET C6.0)	
100 YEAR HW ELEV:	EL = 730.58
VOLUME PROVIDED:	34,619 CF

BASIN B2
RETENTION/INFILTRATION

TOP OF BASIN:	EL = 735.00
BOTTOM OF BASIN:	EL = 731.25
80 LF OF 12" O CPE OUTLET @ 6.25% END SECTIONS 2 SIDES	
100 YEAR HW ELEV:	EL = 732.48
VOLUME PROVIDED:	2,785 CF

INFILTRATION BASINS I1, I26, I22
RETENTION/INFILTRATION

3 EA 70' LONG X 2' DEEP INFILTRATION TRENCHES W/ 2' WIDE FLAT BOTTOM AND 3:1 OR SHALLOWER SIDE SLOPES
VOLUME PROVIDED: 1,240 CF EA = 3,720 CF

STORMWATER CONTROL:

A STORM WATER DRAINAGE STUDY OF THE EXISTING AND PROPOSED DEVELOPED CONDITIONS FOR THIS SITE HAS BEEN PERFORMED USING THE SCS TR-20 METHOD AND HYDROCAD VERSION 10. STORM WATER CONTROL FACILITIES HAVE BEEN DESIGNED TO MEET THE GARFIELD TOWNSHIP STORM WATER CONTROL ORDINANCE – PER THAT CODE.

- 3 DEVELOPED WATERSHEDS ARE EVALUATED: NORTH, EAST AND SOUTH (SEE TABLE OF VALUES BELOW)
- RUNOFF GENERATED FROM SITE IMPROVEMENTS IS RETAINED ON SITE IN RETENTION/INFILTRATION BASINS DESIGNED TO LIMIT OUTFLOW FROM DEVELOPED AREAS TO LESS THAN 0.13 CFS PER DEVELOPED ACRE FOR A 25 YEAR, 24HR STORM EVENT.
- THE STORAGE VOLUME PROVIDED EXCEEDS REQUIREMENTS (*INFILTRATION DEDUCTION NOT TAKEN ON NORTH WATERSHED)
- RUNOFF FROM UNCONTROLLED AREAS TOTALING 0.61 AC FLOWS TO EXISTING STORMWATER BASINS DESIGNED TO ACCOMMODATE THAT FLOW
- THERE IS NO EVIDENCE OF DOWNSTREAM FLOODING IN THE EXISTING DEVELOPMENT AND EXISTING PROXIMATE FINISH FLOOR ELEVATIONS ARE ABOVE STORMWATER CONTROL FACILITY HIGH WATER ELEVATIONS.
- BASIN SLOPES DO NOT EXCEED 3:1, NO SLOPES EXCEEDING 2:1
- SNOW STORAGE AREAS ARE INDICATED ON PLAN
- CHECK DAMS ARE PROVIDED AT DITCH LOCATIONS WITH ANTICIPATED FLOWS > 4FT/S AND EROSION CONTROL ON BASINS AND SLOPES IS SPECIFIED
- THE STORMWATER FACILITIES ARE DESIGNED TO SAFELY PASS A 100 YEAR, 24HR STORM EVENT WITHOUT INCREASING DOWNSTREAM FLOODING
- BASINS ARE DESIGNED TO DRAIN THROUGH INFILTRATION WITHIN 72 HOURS

SUMMARY OF STORMWATER CONTROL:

WATERSHED (33.06 AC)	ACREAGE	PASS-THROUGH AREA OR AREA CONTROLLED BY EXISTING SYSTEMS	DEVELOPED & CONTROLLED AREA	25 YEAR, 24 HR STORM ALLOWABLE OUTFLOW 0.13 X DEV ACREAGE PLUS 25 YEAR, 24 HR STORM RUNOFF FROM PASS-THROUGH AREA	25 YR, 24 HR STORM DESIGNED OUTFLOW	REQUIRED STORAGE. 25YR DEV RUNOFF - 2 YR EX RUNOFF - 25 YR INFILTRATED RUNOFF	STORAGE PROVIDED
	AC	AC	AC	CFS	CFS	AF	AF
NORTH	28.57	14.66	13.91	1.81 + 9.72 = 11.53	5.93	*1.01	1.29
EAST	2.85	0.39	2.46	0.32	0.00	0 (100% INFILT)	0.06
SOUTH	1.64	0.22	1.42	0.18	0.16	0.01	0.09
TOTAL	33.06	15.27	17.79	12.03	6.09	1.02	1.44

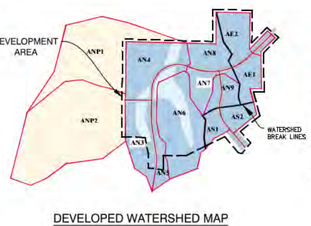
* REDUCTION FOR INFILTRATION NOT TAKEN

ROAD CONSTRUCTION NOTES

1. ALL WORK PERFORMED AND ALL MATERIALS SUPPLIED SHALL BE IN ACCORDANCE WITH THE CURRENT M.D.O.T. STANDARD SPECIFICATIONS AND CURRENT GRAND TRAVERSE COUNTY ROAD COMMISSION STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE INDICATED ON THE PLANS AND CONTRACT DOCUMENTS. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF/HERSELF WITH THESE SPECIFICATIONS.
2. THE ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO BITUMINOUS PAVING.
3. THE PREPARED SUBBASE MUST BE TESTED AND APPROVED PRIOR TO PLACEMENT OF BASE.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE GRAVEL TO BE USED ON THIS PROJECT IS APPROVED PRIOR TO PLACEMENT.
5. THE PREPARED GRAVEL WIDTH, DEPTH, AND COMPACTION MUST BE REVIEWED AND APPROVED BY THE OWNERS ENGINEER PRIOR TO BITUMINOUS PAVING.
6. ALL CONSTRUCTION SIGNING SHALL MEET M.M.U.T.C.D. STANDARDS.
7. THROUGH TRAFFIC ON CONNECTING ROADS MUST BE MAINTAINED AT ALL TIMES. ANY LANE CLOSURE MUST BE APPROVED BY THE GRAND TRAVERSE COUNTY ROAD COMMISSION AT NO ADDITIONAL COST TO THE PROJECT.
9. ALL PAVEMENT CUTS ARE TO BE MADE WITH SAW, IMMEDIATELY PRIOR TO PAVING.
10. THE CONTRACTOR SHALL NOTIFY RESIDENTS 24 HOURS (EXCLUDING SATURDAYS AND SUNDAYS) IN ADVANCE OF DISRUPTION TO SERVICE, SUCH AS DRIVEWAY CLOSING.
12. PAVEMENT MARKING SHALL MEET M.D.O.T. SPECIFICATION AND STANDARDS.



EXISTING WATERSHED MAP
SCALE: 1"=600'



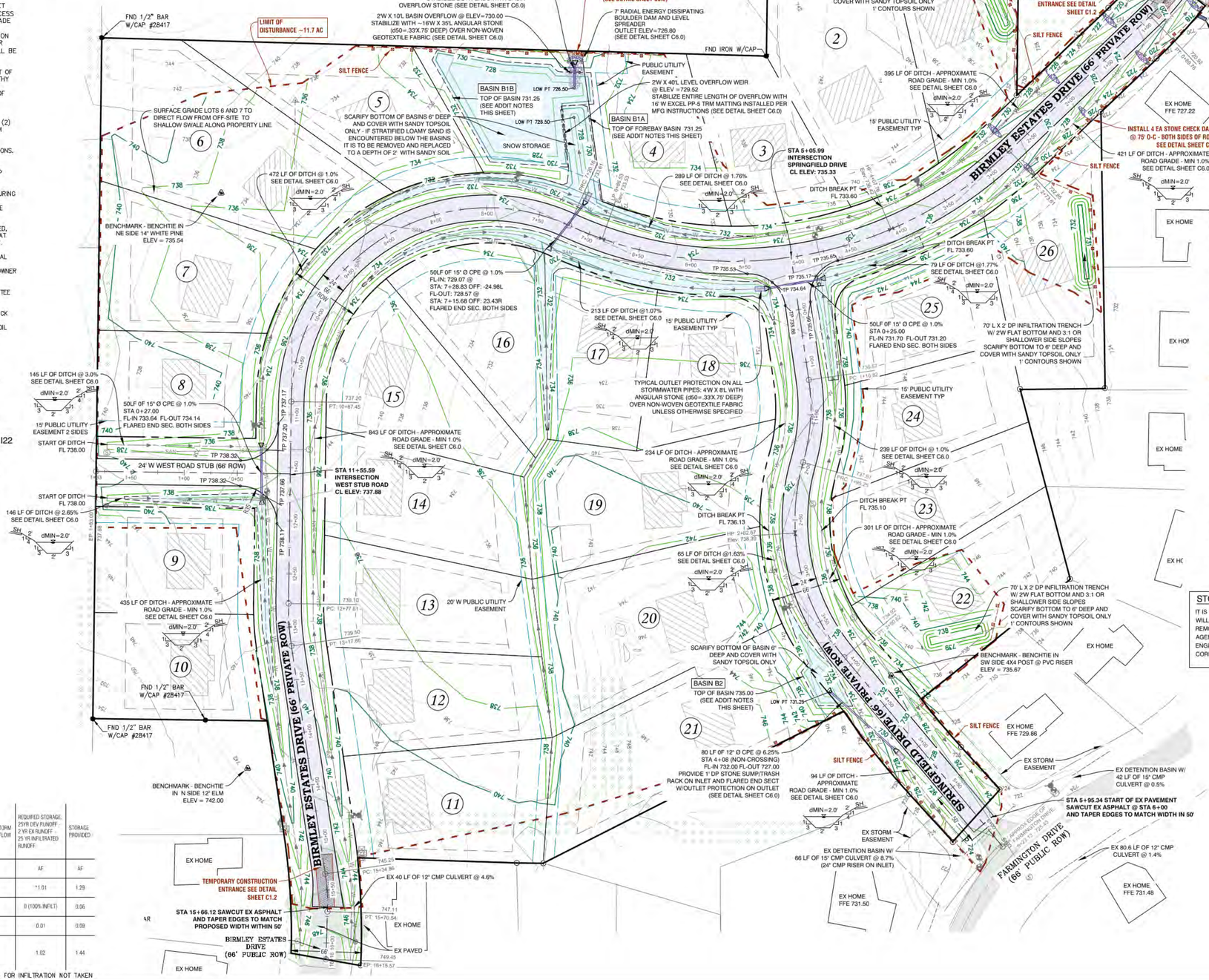
DEVELOPED WATERSHED MAP
SCALE: 1"=500'

KEY

- BLUES: RESIDENTIAL SOIL A/ RESIDENTIAL SOIL B/D
- GREENS: MEADOW SOIL A/ MEADOW SOIL B/D
- TANS: EX FARMSTEAD SOIL A/ NA
- GRAYS: PAVED/GRAVEL

* DETAILED STORM WATER CALCULATIONS ARE PROVIDED SEPARATELY AND REFERENCE WATERSHED MAPS AND AREA NUMBERS SHOWN ON THIS SHEET

GRAPHIC SCALE: 1 inch = 50 feet
0 25 50 100 150



LEGEND

- PROPERTY LINE
- LOT LINE
- SETBACK
- EASEMENT
- RIGHT OF WAY
- PROP. ROADWAY CENTER
- EDGE OF PAVEMENT
- STORMWATER FLOW
- EXIST. 10' CONTOUR LINE
- EXIST. 2' CONTOUR LINE
- PROP. 10' CONTOUR LINE
- PROP. 2' CONTOUR LINE
- TREE LINE
- LIMIT OF DISTURBANCE
- EXIST. PAVING / GRAVEL
- SILT FENCING
- STORMWATER BASIN
- TH-1 SOIL BORING
- BENCHMARK
- HYDRANT ASSEMBLY
- GATE VALVE
- BLOW OFF
- SANITARY MANHOLE

SOILS

SOIL EVALUATIONS AND INFILTRATION TESTS WERE CONDUCTED BY BOYNE ENGINEERING AND DESIGN AND GFA IN VARIOUS LOCATIONS APPROXIMATE TO THIS DEVELOPMENT IN 2022 AND SOILS WERE FOUND TO BE SANDY LOAM AND LOAMY SAND. THE TESTED INFILTRATION RATE WAS 11.34 IN/HR.

STORMWATER FACILITY MAINTENANCE NOTE:

IT IS UNDERSTOOD BY ALL PARTIES INVOLVED THAT THE DETENTION BASINS WILL BE MAINTAINED BY THE PROPERTY OWNER (MOWED, SEDIMENT REMOVAL, ETC..) AND WILL BE SUBJECT TO REVIEW BY GOVERNING AGENCIES. NO ALTERATION MAY BE PERFORMED ON THE BASINS WITHOUT ENGINEERING APPROVAL ONCE THE BASIN HAS BEEN ACCEPTED AS CORRECTLY BUILT BY THE DESIGN ENGINEER.

EARTH STABILIZATION

SEED AND STRAW REQUIRED AS FOLLOWS:
STRAW: 75 LBS PER 1,000 SQ. FT.
10-10-10 FERTILIZER: 200 LBS PER ACRE
SEED MIX: 220 LBS PER ACRE
SEED MIX BY %:
60% KENTUCKY BLUEGRASS
20% PERENNIAL RYEGRASS
20% CREEPING RED FESCUE

72 HOURS BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE)

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OVERALL SITE GRADING AND DRAINAGE PLAN

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SCALE: 1"=50'
BED JOB NO. 22033
DRAWING NUMBER
C2.1

C:\USERS\CARRIE.MAY\DOCUMENTS\BOYNE ENGINEERING\2022_2023\22033 BIRMLEY MEADOWS S.DWG (04/05/23 11:42 AM) CARRIE.MAY

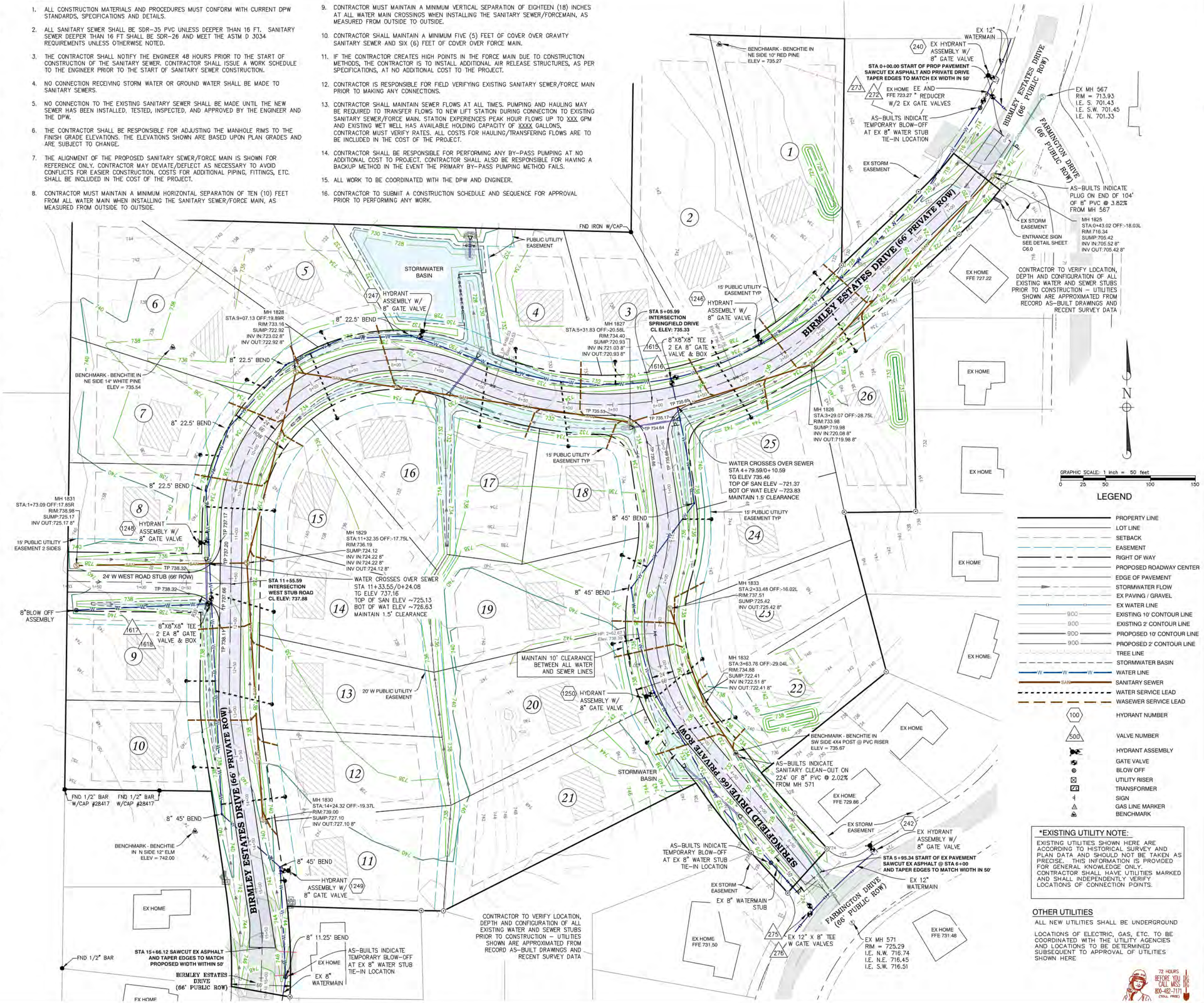
WATERMAIN NOTES

1. ALL CONSTRUCTION MATERIALS AND PROCEDURES MUST CONFORM WITH CURRENT DPW STANDARDS, SPECIFICATIONS AND DETAILS.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO THE START OF CONSTRUCTION OF THE WATER MAIN. CONTRACTOR SHALL ISSUE A WORK SCHEDULE TO THE ENGINEER PRIOR TO THE START OF WATER MAIN CONSTRUCTION.
3. ALL WATER MAIN SHALL BE DR 18 C900 PVC METTING CURRENT AWWA STANDARDS.
4. WATER MAIN SHALL HAVE A MINIMUM OF SIX (6) FEET OF COVER BELOW EXISTING OR PROPOSED GRADE, UNLESS NOTED OTHERWISE ON THE PLANS.
5. THE ALIGNMENT OF THE PROPOSED WATER MAIN IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR MAY DEVIATE/DEFLECT AS NECESSARY TO AVOID CONFLICTS FOR EASIER CONSTRUCTION. COST FOR ADDITIONAL PIPE, FITTINGS, ETC. ARE INCLUDED IN THE COST OF THE PROJECT.
6. LENGTH OF WATER MAIN SHALL BE DETERMINED ON A CASE BY CASE BASIS IN ORDER TO CONSTRUCT ACCORDING TO THE PLANS AND SPECIFICATIONS. COSTS FOR THE MAIN ARE INCLUDED IN THE COSTS OF THE PROJECT.
7. RETAINER GLANDS SHALL BE USED ON ALL MECHANICAL JOINT FITTINGS.
8. BURLAP, PLASTIC OR POLY (20 MILLS) OR APPROVED EQUAL SHALL BE PLACED BETWEEN THE CONCRETE THRUST BLOCK AND DEAD-END MAINS OR DEAD-END PLUGS, TEES, HYDRANTS AND CROSSES TO FACILITATE THE REMOVAL OF THE THRUST BLOCK FOR FUTURE EXTENSION AND MAINTENANCE.
9. A PHYSICAL GAP SHALL BE MAINTAINED BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING WATER MAIN UNTIL ALL WATER MAIN TESTING HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER AND THE DPW.
10. THE CONTRACTOR SHALL COORDINATE THE CONNECTION TO THE EXISTING WATER MAIN WITH THE DPW AND THE ENGINEER. THE DPW SHALL BE GIVEN A MINIMUM OF 24 HOURS NOTICE PRIOR TO ANY CONNECTIONS.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN WATER FOR FLUSHING AND TESTING PURPOSES. CONTRACTOR SHALL COORDINATE WITH THE DPW, IF WATER IS OBTAINED FROM THE CITY/VILLAGE/TOWNSHIP WATER SYSTEM, THE DPW SHALL BE GIVEN 24 HOURS NOTICE PRIOR TO USING ANY WATER FROM THE TOWNSHIP WATER SYSTEM.
12. TO FACILITATE WATER SAMPLING, THE CONTRACTOR MAY INSTALL TWO (2) INCH CORPORATION STOPS AND TYPE K COPPER TUBE FROM THE TWO (2) INCH CORPORATION TO APPROXIMATELY FOUR (4) FEET ABOVE THE FINISH GRADE IN LOCATIONS APPROVED BY THE FIELD ENGINEER. AFTER THE WATER MAIN HAS BEEN FLUSHED AND SATISFACTORY BACTERIOLOGICAL ANALYSIS TESTS HAVE PASSED, THE TYPE 'K' COPPER TUBE SHALL BE REMOVED AND THE TWO (2) INCH CORPORATION WILL BE CLOSED. CONTRACTOR WILL INFORM THE FIELD REPRESENTATIVE/CONSTRUCTION REPRESENTATIVE TO ALLOW HIM TO WITNESS THE REMOVING OF THE COPPER TUBING AND THE CLOSING OF THE CORPORATION.
13. PRIOR TO PIGGING AND FLUSHING ALL LINES SHALL BE CHARGED WITH WATER.
14. ALL PERMANENT BLOW-OFF ASSEMBLIES SHALL BE CUT OFF BELOW GRADE AFTER TESTING IS COMPLETE. THE STANDING WATER WITHIN THE BLOW-OFF SHALL BE PUMPED OUT OF THE RISER CAPPED, BOLTED AND BURIED.
15. CONTRACTOR SHALL PROPERLY DISPOSE OF CHLORINATED WATER USED IN TESTING OPERATIONS.
16. ACTUAL WATER MAIN, HYDRANT AND GATE VALVE LOCATIONS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE FIRE HYDRANTS AND VALVE BOXES TO THE FINISHED GRADE.
18. THE CONTRACTOR MUST OBTAIN APPROVAL BEFORE DIRECTING ANY FLUSHING AND TESTING WATERS TO ANY COUNTY STORM WATER DRAINAGE DITCH SYSTEM. CONTRACTOR SHALL PROTECT THE DITCH FROM EROSION WHICH MAY REQUIRE THE USE AN ENERGY DISSIPATER ON THE DISCHARGE OF THE FLUSHING VALVE. ALL FLUSHING WATERS SHALL BE CONTAINED WITHIN THE DITCH AND SHALL NOT IMPACT THE ROADWAY OR ADJACENT LANDOWNERS. IF NOT APPROVED, AN ALTERNATE METHOD MUST BE DETERMINED AND APPROVED. ALL COSTS ASSOCIATED WITH FLUSHING, TESTING, AND DISCHARGING ARE INCLUDED IN THE COST OF THE PROJECT.
19. WATER SERVICE LEADS SHOWN ARE FOR REFERENCE ONLY. ACTUAL LOCATIONS SHALL BE DETERMINED BY THE DPW AND ENGINEER PRIOR TO PLACEMENT, IF APPLICABLE.
20. CONTRACTOR MUST MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET FROM ALL SANITARY SEWER AND STORM SEWER WHEN INSTALLING THE WATER MAIN, AS MEASURED FROM OUTSIDE TO OUTSIDE.
21. CONTRACTOR MUST MAINTAIN A MINIMUM VERTICAL SEPARATION OF EIGHTEEN (18) INCHES AT ALL SANITARY SEWER AND STORM SEWER CROSSINGS WHEN INSTALLING THE WATER MAIN, AS MEASURED FROM OUTSIDE TO OUTSIDE.
22. IT WILL BE REQUIRED THAT THE CONTRACTOR INSTALL ALL NEW WATER MAIN BELOW EXISTING WATER MAIN WHEN A CROSSING IS ENCOUNTERED. MAINTAIN A MINIMUM SIX (6) INCH SEPARATION FROM EXISTING WATER MAIN WITH PROPER BACKFILL/COMPACTION.
23. FIRE HYDRANT ASSEMBLY SHALL CONSIST OF:

    1-8"X6" TEE OR 1-8"X6" REDUCER
    1-6" GATE VALVE
    1-FIRE HYDRANT
24. CONTRACTOR TO MAINTAIN WATER SERVICE TO CUSTOMERS AT ALL TIME WITH THE EXCEPTION OF LEAD TRANSFERS, IF APPLICABLE.
25. CONTRACTOR TO PROTECT EXISTING WATER MAIN AND SERVICES DURING THE INSTALLATION OF THE PROPOSED WATER MAIN. IF EXISTING WATER MAIN IS DAMAGED, CONTRACTOR IS TO REPAIR TO MAINTAIN SERVICE TO RESIDENCE. ALL COST FOR THIS ARE INCLUDED IN THE COST OF THE PROJECT.
26. ALL OPERATIONS OF EXISTING EQUIPMENT, VALVES, ETC. TO BE PERFORMED BY THE DPW STAFF ONLY.
27. CONTRACTOR TO SUBMIT A CONSTRUCTION SCHEDULE AND SEQUENCE FOR APPROVAL PRIOR TO PERFORMING ANY WORK.

SANITARY SEWER/FORCE MAIN NOTES

1. ALL CONSTRUCTION MATERIALS AND PROCEDURES MUST CONFORM WITH CURRENT DPW STANDARDS, SPECIFICATIONS AND DETAILS.
2. ALL SANITARY SEWER SHALL BE SDR-35 PVC UNLESS DEEPER THAN 16 FT. SANITARY SEWER DEEPER THAN 16 FT SHALL BE SDR-26 AND MEET THE ASTM D 3034 REQUIREMENTS UNLESS OTHERWISE NOTED.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO THE START OF CONSTRUCTION OF THE SANITARY SEWER. CONTRACTOR SHALL ISSUE A WORK SCHEDULE TO THE ENGINEER PRIOR TO THE START OF SANITARY SEWER CONSTRUCTION.
4. NO CONNECTION RECEIVING STORM WATER OR GROUND WATER SHALL BE MADE TO SANITARY SEWERS.
5. NO CONNECTION TO THE EXISTING SANITARY SEWER SHALL BE MADE UNTIL THE NEW SEWER HAS BEEN INSTALLED, TESTED, INSPECTED, AND APPROVED BY THE ENGINEER AND THE DPW.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE MANHOLE RIMS TO THE FINISH GRADE ELEVATIONS. THE ELEVATIONS SHOWN ARE BASED UPON PLAN GRADES AND ARE SUBJECT TO CHANGE.
7. THE ALIGNMENT OF THE PROPOSED SANITARY SEWER/FORCE MAIN IS SHOWN FOR REFERENCE ONLY. CONTRACTOR MAY DEVIATE/DEFLECT AS NECESSARY TO AVOID CONFLICTS FOR EASIER CONSTRUCTION. COSTS FOR ADDITIONAL PIPING, FITTINGS, ETC. SHALL BE INCLUDED IN THE COST OF THE PROJECT.
8. CONTRACTOR MUST MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET FROM ALL WATER MAIN WHEN INSTALLING THE SANITARY SEWER/FORCE MAIN, AS MEASURED FROM OUTSIDE TO OUTSIDE.
9. CONTRACTOR MUST MAINTAIN A MINIMUM VERTICAL SEPARATION OF EIGHTEEN (18) INCHES AT ALL WATER MAIN CROSSINGS WHEN INSTALLING THE SANITARY SEWER/FORCEMAIN, AS MEASURED FROM OUTSIDE TO OUTSIDE.
10. CONTRACTOR SHALL MAINTAIN A MINIMUM FIVE (5) FEET OF COVER OVER GRAVITY SANITARY SEWER AND SIX (6) FEET OF COVER OVER FORCE MAIN.
11. IF THE CONTRACTOR CREATES HIGH POINTS IN THE FORCE MAIN DUE TO CONSTRUCTION METHODS, THE CONTRACTOR IS TO INSTALL ADDITIONAL AIR RELEASE STRUCTURES, AS PER SPECIFICATIONS, AT NO ADDITIONAL COST TO THE PROJECT.
12. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING SANITARY SEWER/FORCE MAIN PRIOR TO MAKING ANY CONNECTIONS.
13. CONTRACTOR SHALL MAINTAIN SEWER FLOWS AT ALL TIMES. PUMPING AND HAULING MAY BE REQUIRED TO TRANSFER FLOWS TO NEW LIFT STATION DURING CONNECTION TO EXISTING SANITARY SEWER/FORCE MAIN. STATION EXPERIENCES PEAK HOUR FLOWS UP TO XXX GPM AND EXISTING WET WELL HAS AVAILABLE HOLDING CAPACITY OF XXXX GALLONS, CONTRACTOR MUST VERIFY RATES. ALL COSTS FOR HAULING/TRANSFERING FLOWS ARE TO BE INCLUDED IN THE COST OF THE PROJECT.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ANY BY-PASS PUMPING AT NO ADDITIONAL COST TO PROJECT. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR HAVING A BACKUP METHOD IN THE EVENT THE PRIMARY BY-PASS PUMPING METHOD FAILS.
15. ALL WORK TO BE COORDINATED WITH THE DPW AND ENGINEER.
16. CONTRACTOR TO SUBMIT A CONSTRUCTION SCHEDULE AND SEQUENCE FOR APPROVAL PRIOR TO PERFORMING ANY WORK.


BIRMLEY ESTATES DRIVE (66' PRIVATE ROW)
SPRINGFIELD DRIVE (66' PRIVATE ROW)
BIRMLEY ESTATES DRIVE (66' PUBLIC ROW)
FARMINGTON DRIVE (66' PUBLIC ROW)
24' W WEST ROAD STUB (66' ROW)
STORMWATER BASIN
STORMWATER BASIN
EX HOME
EX HOME
EX HOME

***EXISTING UTILITY NOTE:**

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ADDITIONAL NOTES:

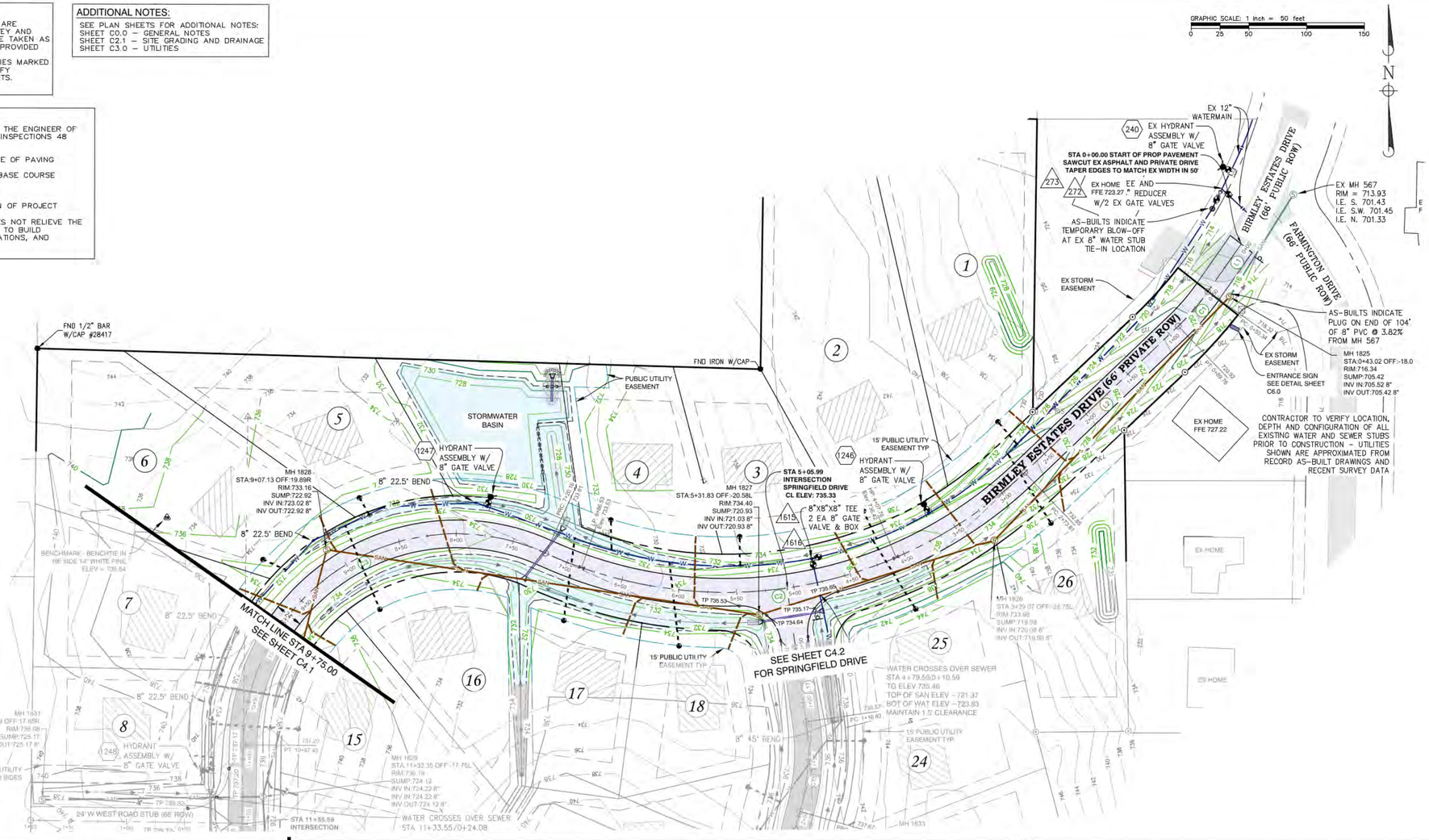
SEE PLAN SHEETS FOR ADDITIONAL NOTES:
SHEET C0.0 – GENERAL NOTES
SHEET C2.1 – SITE GRADING AND DRAINAGE
SHEET C3.0 – UTILITIES

PAVING INSPECTION NOTE:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF READINESS FOR THE FOLLOWING INSPECTIONS 48 HOURS IN ADVANCE:

1. EXCAVATION TO SUBGRADE OF PAVING
2. COMPLETION OF PAVING BASE COURSE
3. COMPLETION OF PAVING
4. SUBSTANTIAL COMPLETION OF PROJECT

THE ENGINEER'S INSPECTION DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO BUILD ACCORDING TO PLANS, SPECIFICATIONS, AND REGULATORY REQUIREMENTS.



BIRMLEY ESTATES DRIVE PVT				
Number	Radius	Length	Line/Chord Direction	Start Station
L1		50.34	S34° 59' 02.50"W	0+00.00
C1	200.00	59.42	S40° 37' 48.03"W	0+50.34
L2		183.85	S46° 16' 33.56"W	0+89.76
C2	175.00	446.55	S80° 23' 22.64"W	2+73.61
C3	165.00	367.29	S57° 37' 35.53"W	7+20.16
L3		180.36	S0° 44' 58.34"W	10+87.45
C4	250.00	40.05	S3° 50' 23.16"E	12+77.81
L4		217.69	S8° 25' 45.66"E	13+17.86
C5	200.00	85.88	S3° 19' 02.84"E	15+34.86
L5		45.02	S1° 47' 29.99"W	15+70.54

BIRMLEY ESTATES DRIVE PROFILE (STA 0+00.00 TO 9+75.00)
HORIZ: 1" = 50' VERT: 1" = 10'

72 HOURS BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE)

BOYNE ENGINEERING AND DESIGN
P.O. Box 94
Boyne City, MI 49727
(231) 499-8361
boyneengineering.com

BIRMLEY MEADOWS SITE CONDOMINIUM
PREPARED FOR:
T&R INVESTMENTS
841 Ashland Drive Traverse City, MI

REVISIONS			
NO:	DATE	APP'D	ISSUE / REVISION DESCRIPTION

BIRMLEY ESTATES DRIVE (NE) PLAN & PROFILE

ORIGINAL ISSUE DATE: 04/05/2023
SCALE: 1"=50'
BED JOB NO. 22033
DRAWING NUMBER
C4.0

C:\USERS\CJOHNE.MAYO\DOCUMENTS\BOYNE ENGINEERING\2022 JOBS\22033 BIRMLEY ESTATES\DWG\WORKING CAD - CURRENT\22033 BIRMLEY MEADOWS SITE (04/05/23 11:36 AM) JOHNE.MAYO

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SHEET C2.1 – SITE GRADING AND DRAINAGE
SHEET C3.0 – UTILITIES

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2. COMPLETION OF PAVING BASE COURSE
3. COMPLETION OF PAVING
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BIRMLEY ESTATES DRIVE PVT

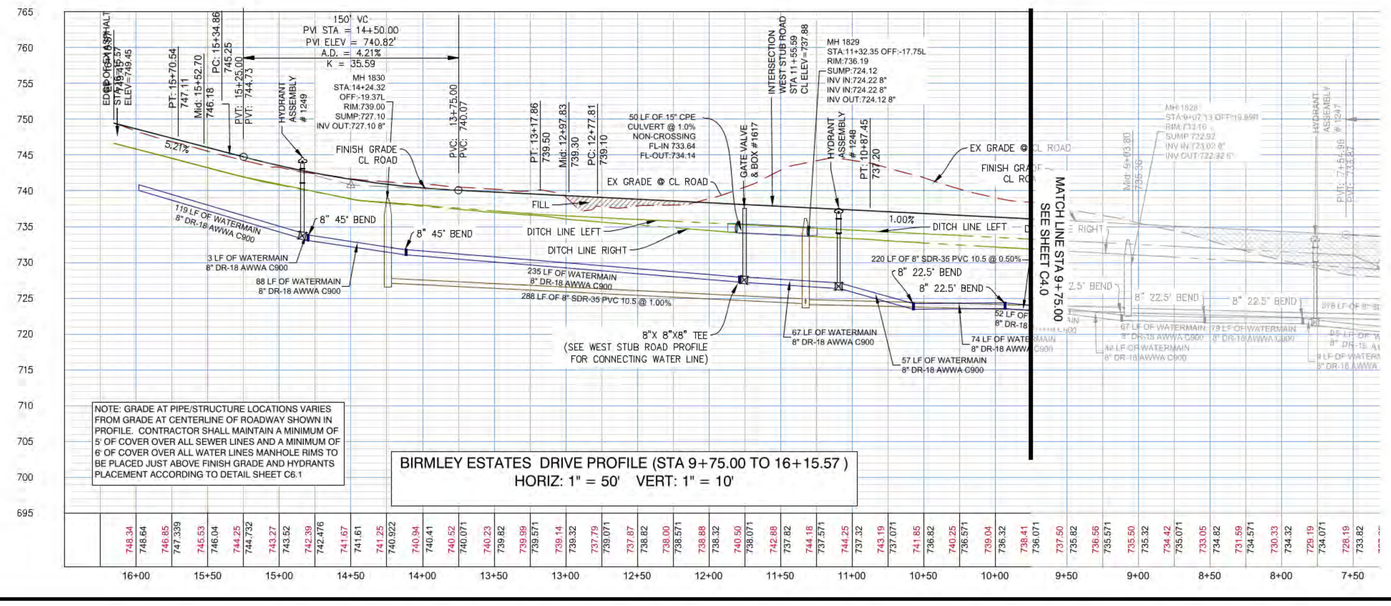
Number	Radius	Length	Line/Chord Direction	Start Station
L1		80.34	S34° 59' 02.50"W	-0+30.00
C1	200.00	39.42	S46° 37' 48.03"W	0+50.34
L2		183.88	S46° 16' 33.58"W	0+89.76
C2	275.00	448.55	S85° 23' 22.64"W	2+73.61
C3	185.00	367.29	S5° 7' 37" 35.33"W	7+20.16
L3		190.38	S9° 44' 59.34"W	10+87.45
C4	250.00	40.05	S3° 50' 23.16"E	12+77.83
L4		217.00	S8° 25' 45.69"E	13+17.86
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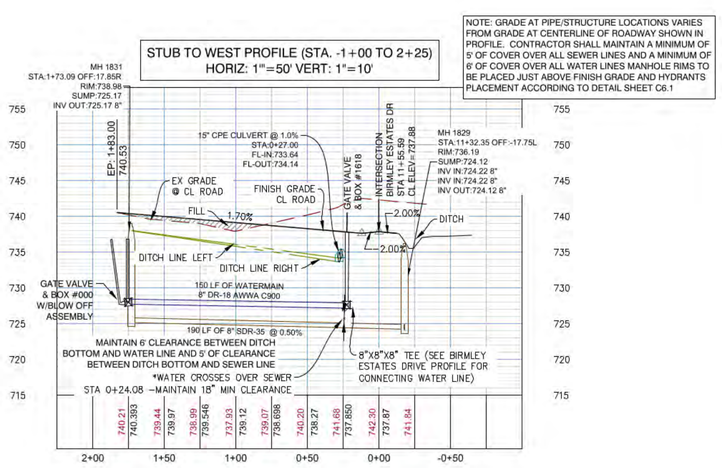


LEGEND

- PROPERTY LINE
- LOT LINE
- SETBACK
- EASEMENT
- RIGHT OF WAY
- PROPOSED ROADWAY CENTER
- EDGE OF PAVEMENT
- STORMWATER FLOW
- EX PAVING / GRAVEL
- EX WATER LINE
- EXISTING 10' CONTOUR LINE
- EXISTING 2' CONTOUR LINE
- PROPOSED 10' CONTOUR LINE
- PROPOSED 2' CONTOUR LINE
- TREE LINE
- STORMWATER BASIN
- WATER LINE
- SANITARY SEWER
- WATER SERVICE LEAD
- WASEWER SERVICE LEAD
- HYDRANT NUMBER
- VALVE NUMBER
- HYDRANT ASSEMBLY
- GATE VALVE
- BLOW OFF
- UTILITY RISER
- TRANSFORMER
- SIGN
- GAS LINE MARKER
- BENCHMARK

72 HOURS BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE)





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BIRMLEY MEADOWS SITE CONDOMINIUM
PREPARED FOR:
T&R INVESTMENTS
841 Ashland Drive
Traverse City, MI

NO:	DATE	APP'D	ISSUE / REVISION DESCRIPTION

REVISIONS

BIRMLEY ESTATES DRIVE (SW) PLAN & PROFILE

ORIGINAL ISSUE DATE: 04/05/2023
SCALE: 1"=50'
BED JOB NO. 22033
DRAWING NUMBER
C4.1

C:\USERS\CLARKE.MAY\DOCUMENTS\BOYNE ENGINEERING\2022 JOBS\22033 BIRMLEY II\DESIGN\WORKING CAD - CURRENT\22033 BIRMLEY II DESIGNS 5.DWG (MAY/25/23 11:38 AM) CLARKE.MAY

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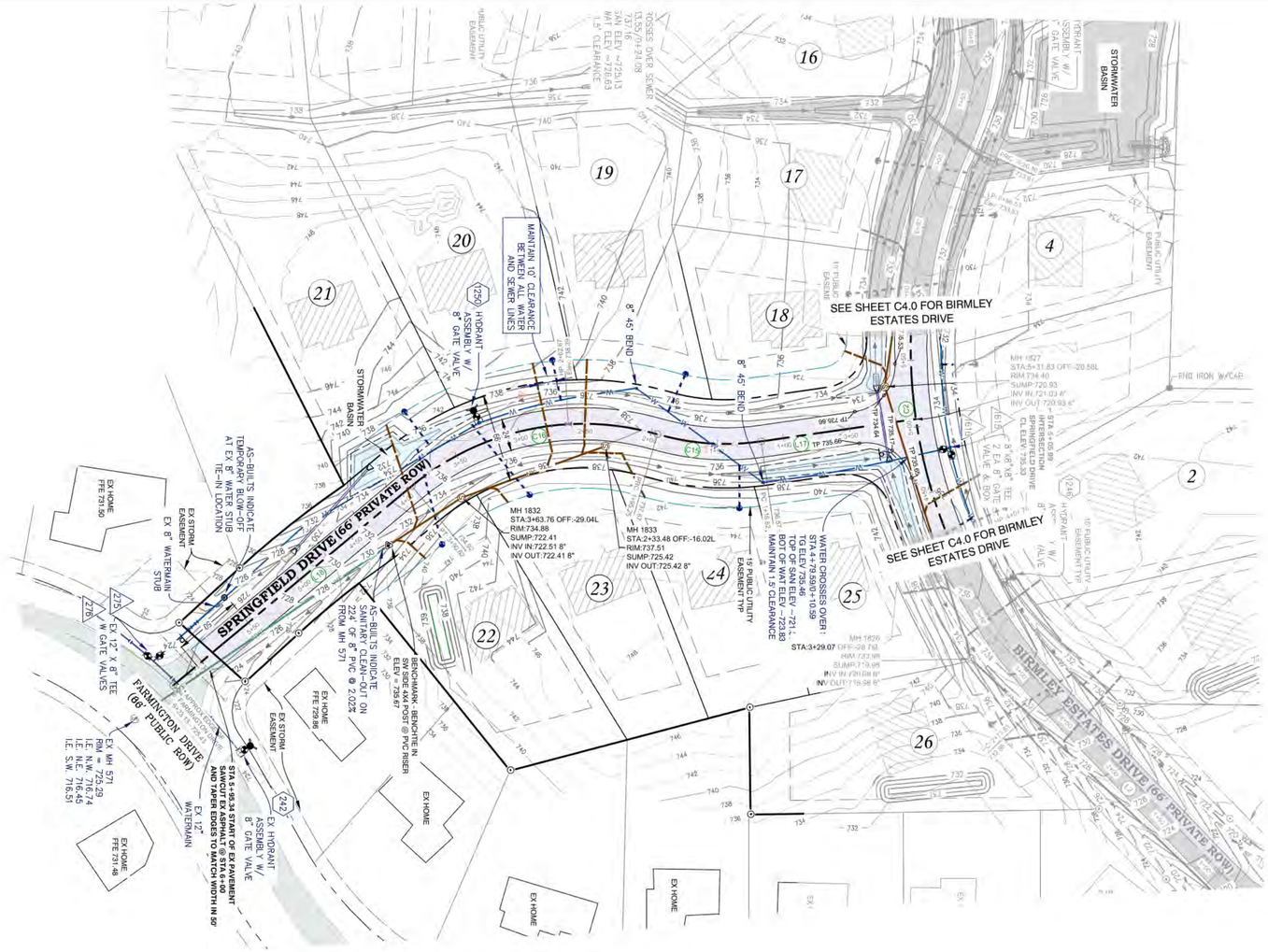
SEE PLAN SHEETS FOR ADDITIONAL NOTES:
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SHEET C2.1 – SITE GRADING AND DRAINAGE
SHEET C3.0 – UTILITIES

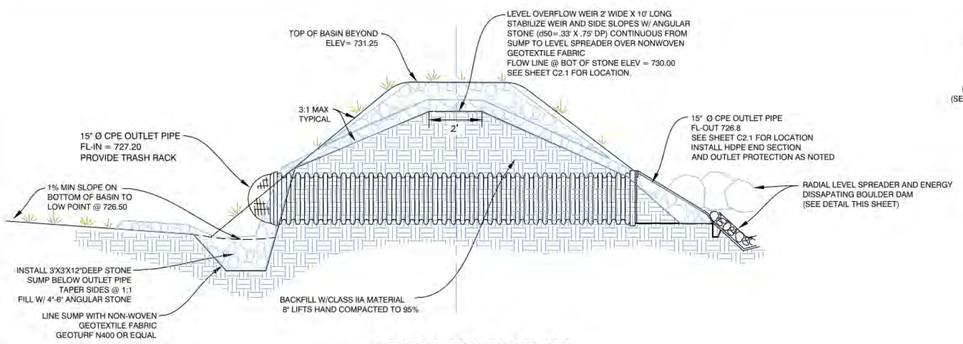
PAVING INSPECTION NOTE:

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1. EXCAVATION TO SUBGRADE OF PAVING
2. COMPLETION OF PAVING BASE COURSE
3. COMPLETION OF PAVING
4. SUBSTANTIAL COMPLETION OF PROJECT

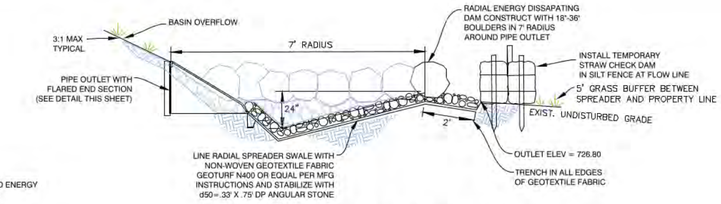
THE ENGINEER'S INSPECTION DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO BUILD ACCORDING TO PLANS, SPECIFICATIONS, AND REGULATORY REQUIREMENTS.


SPRINGFIELD DRIVE (66' PRIVATE ROW)
FARMINGTON DRIVE (66' PUBLIC ROW)
BIRMLEY ESTATES DRIVE (66' PRIVATE ROW)
SEE SHEET C4.0 FOR BIRMLEY ESTATES DRIVE
SEE SHEET C4.0 FOR BIRMLEY ESTATES DRIVE
STORMWATER BASIN
STORMWATER BASIN
MAINTAIN 10' CLEARANCE BETWEEN ALL WATER AND SEWER LINES
HYDRANT ASSEMBLY W/ 8" GATE VALVE #250
8" 45° BEND
8" 45° BEND
MH 1832
STA:3+63.76 OFF:-29.04L
RIM:734.86
SUMP:722.41
INV IN:722.51 8"
INV OUT:722.41 8"
MH 1833
STA:2+33.48 OFF:-16.02L
RIM:737.51
SUMP:725.42
INV OUT:725.42 8"
MH 1826
STA:3+29.07 OFF:-28.78
RIM:733.98
SUMP:719.98
INV IN:720.08 8"
INV OUT:719.98 8"
WATER CROSSES OVER SEWER STA 4+79.59/0+10.59
TOP OF WAT ELEV.=723.83
BOT OF WAT ELEV.=721.33
MAINTAIN 1.5' CLEARANCE
TP 736.66
TP 734.64
TP 735.64
TP 736.99
TP 736.41
TP 736.17
TP 736.17
TP 736.17



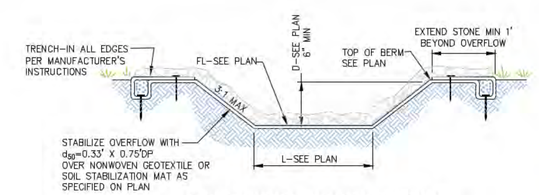
OUTLET DETAIL BASIN B2B

NO SCALE



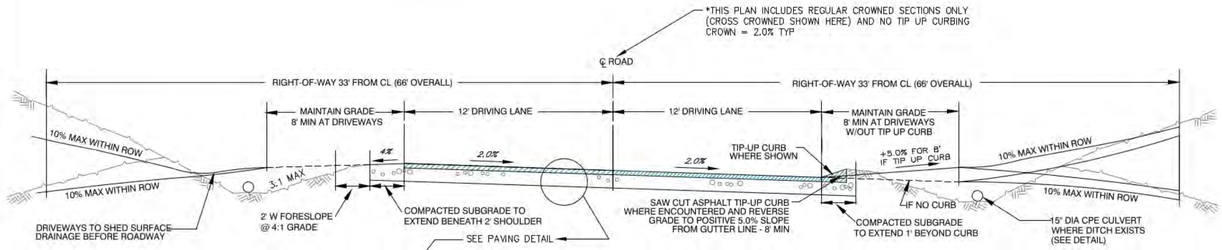
RADIAL LEVEL SPREADER DETAIL

NOT TO SCALE



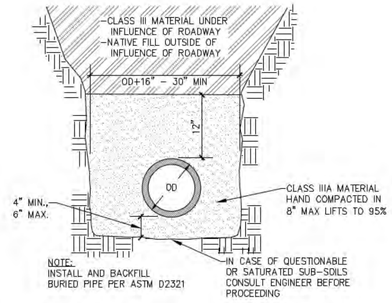
LEVEL OVERFLOW WEIR SECTION

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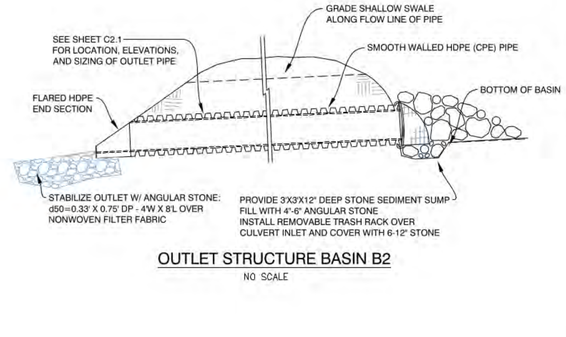
ROAD AND FUTURE DRIVEWAY CROSS SECTION

NO SCALE



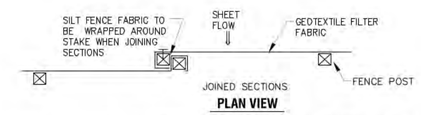
CULVERT BEDDING DETAIL

SMOOTH LINED CORRUGATED HDPE (CPE)
NO SCALE

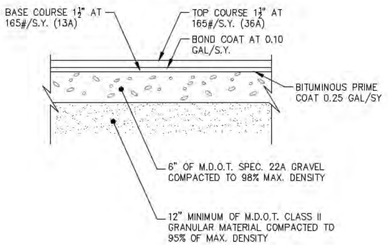


OUTLET STRUCTURE BASIN B2

NO SCALE

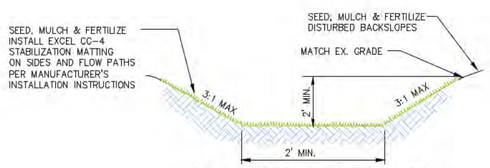


PLAN VIEW



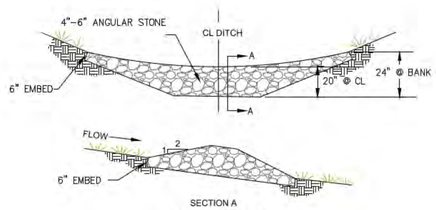
PAVING DETAIL

NOT TO SCALE



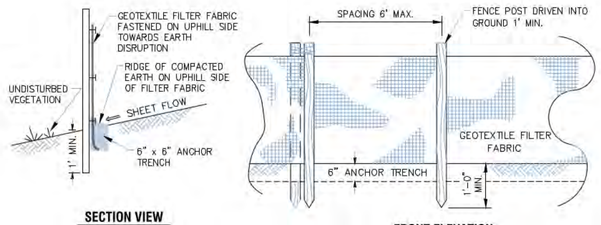
DETENTION BASIN/DITCH DETAIL

NO SCALE



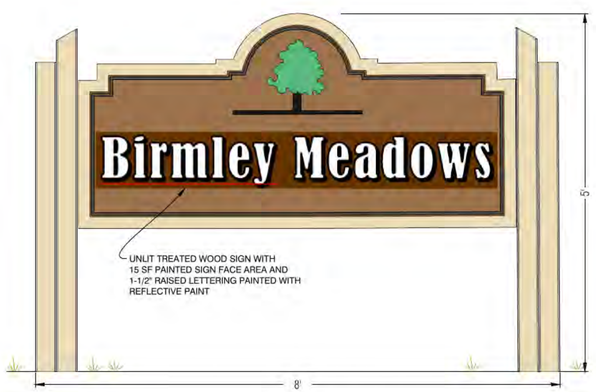
CHECK DAM

NO SCALE



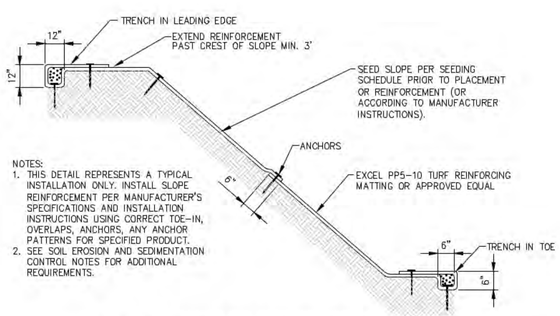
SILT FENCE DETAIL

NO SCALE



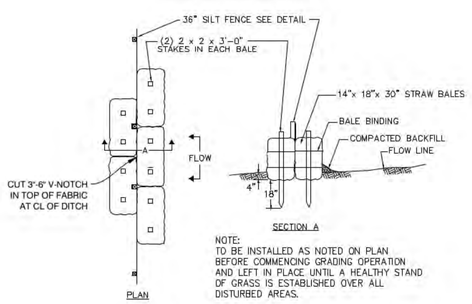
ENTRANCE SIGN

NO SCALE



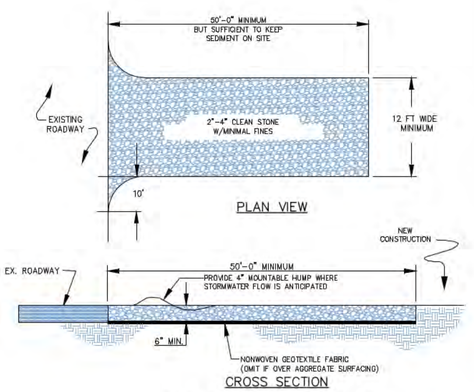
REINFORCEMENT ON CONSTRUCTED 2:1 SLOPES

NO SCALE



STRAW BALE DITCH CHECK

NO SCALE



CONSTRUCTION ENTRANCE

NO SCALE

BOYNE ENGINEERING AND DESIGN
P.O. Box 94
Boyne City, MI 49727
(231) 499-8361
boyneengineering.com

BIRMLEY MEADOWS SITE CONDOMINIUM
PREPARED FOR:
T&R INVESTMENTS
841 Ashland Drive Traverse City, MI

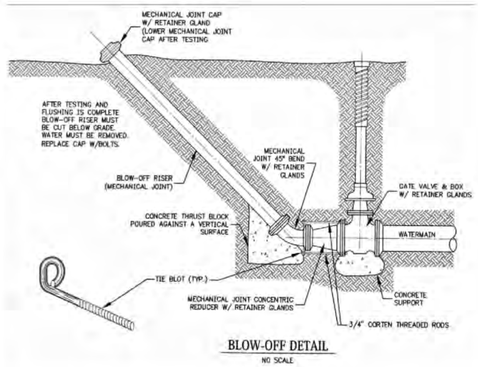
NO:	DATE	APP'D	ISSUE / REVISION DESCRIPTION

REVISIONS

SITE DETAILS

ORIGINAL ISSUE DATE: 04/05/23
SCALE:
BED JOB NO. 22033
DRAWING NUMBER
C6.0

C:\USERS\CARRIE.MAY\DOCUMENTS\BOYNE ENGINEERING\2022_JOBS\22033 BIRMLEY R\USERS\WORKING\C6D - CURRENT\22033 BIRMLEY MEADOWS.DWG, (04/05/23 12:17:PM) CARRIE.MAY

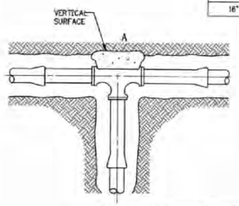


BLOW-OFF DETAIL

NO SCALE

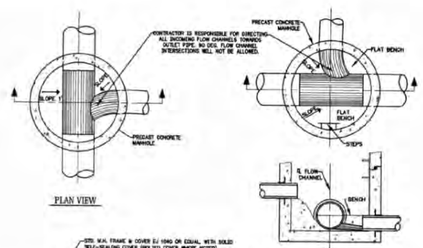
PIPE SIZE	MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THRUST BLOCKS
	SURFACE A
4"	1'-5"x 1'-0" = 2.3 SQ. FT.
6"	1'-9"x 1'-9" = 3.1 SQ. FT.
8"	2'-4"x 2'-4" = 5.4 SQ. FT.
10"	2'-8"x 2'-8" = 7.1 SQ. FT.
12"	3'-0"x 3'-0" = 9.0 SQ. FT.
16"	4'-5"x 4'-5" = 19.5 SQ. FT.

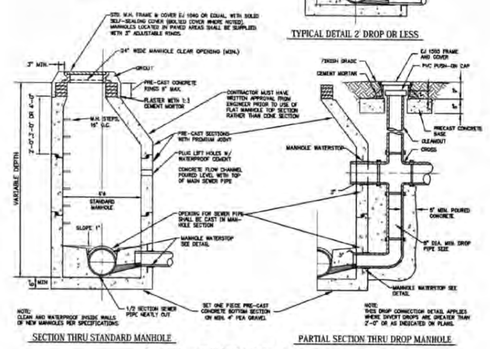
ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS



TYPICAL TEE CONNECTION DETAIL

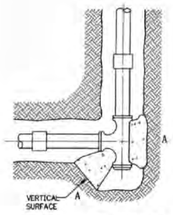
NO SCALE





DETAIL - STANDARD MANHOLE

NO SCALE

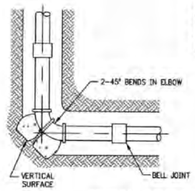


TYPICAL TEE AND PLUG DETAIL

NO SCALE

PIPE SIZE	MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THRUST BLOCKS
	SURFACE A
4"	1'-4"x 0'-8" = 0.9 SQ. FT.
6"	1'-8"x 1'-4" = 2.2 SQ. FT.
8"	2'-0"x 1'-9" = 3.5 SQ. FT.
10"	2'-4"x 2'-4" = 5.4 SQ. FT.
12"	2'-8"x 2'-8" = 7.1 SQ. FT.
16"	3'-8"x 3'-8" = 13.5 SQ. FT.

ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS

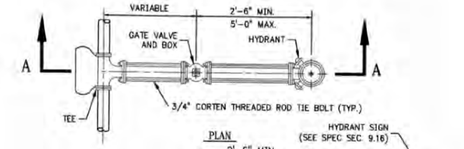


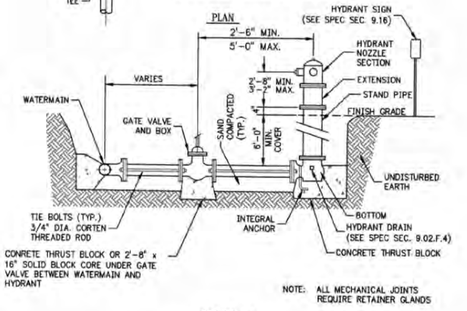
TYPICAL BEND DETAIL

NO SCALE

PIPE SIZE	MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THRUST BLOCKS
	SURFACE A
4"	1'-9"x 1'-4" = 2.3 SQ.FT.
6"	2'-3"x 2'-0" = 4.5 SQ.FT.
8"	2'-8"x 2'-8" = 7.1 SQ.FT.
10"	3'-0"x 3'-0" = 9.0 SQ.FT.
12"	3'-9"x 3'-8" = 13.5 SQ.FT.
16"	5'-0"x 5'-0" = 25 SQ.FT.

ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS





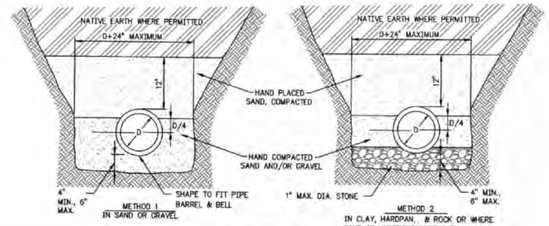
HYDRANT ASSEMBLY DETAIL

NO SCALE

*THIS DETAIL ALSO APPLIES TO SEWER PIPE

NOTE:
ALL BACKFILL MATERIAL SHALL CONFORM TO AWWA C600 OR C605 AS APPROPRIATE.

NOTE:
WATERMAIN TRENCHES NEED TO PROVIDE A MINIMUM WIDTH OF PIPE DIAMETER PLUS 16 INCHES FOR 8 INCH TO 18 INCH DIAMETER PLASTIC/FLEXIBLE PIPE MATERIALS. FOR 18 INCH AND LARGER PIPE DIAMETERS, THE MINIMUM TRENCH WIDTH IS 1.25 TIMES THE PIPE DIAMETER PLUS 12 INCHES FOR PLASTIC/FLEXIBLE PIPE MATERIALS.



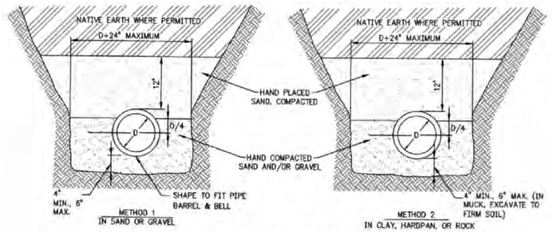
PIPE BEDDING DETAIL

(CLASS B) NO SCALE

*THIS DETAIL ALSO APPLIES TO SEWER PIPE

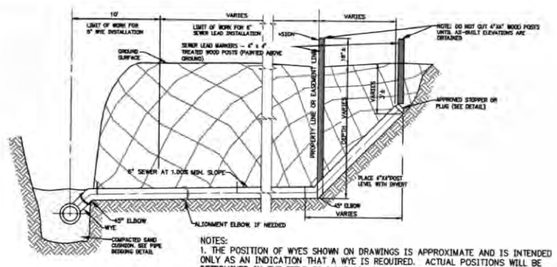
NOTE:
ALL BACKFILL MATERIAL SHALL CONFORM TO AWWA C600 OR C605 AS APPROPRIATE.

NOTE:
WATERMAIN TRENCHES NEED TO PROVIDE A MINIMUM WIDTH OF PIPE DIAMETER PLUS 16 INCHES FOR 8 INCH TO 18 INCH DIAMETER PLASTIC/FLEXIBLE PIPE MATERIALS. FOR 18 INCH AND LARGER PIPE DIAMETERS, THE MINIMUM TRENCH WIDTH IS 1.25 TIMES THE PIPE DIAMETER PLUS 12 INCHES FOR PLASTIC/FLEXIBLE PIPE MATERIALS.



PIPE BEDDING DETAIL

(CLASS A) NO SCALE



NOTES:
1. THE POSITION OF WYES SHOWN ON DRAWINGS IS APPROXIMATE AND IS INTENDED ONLY AS AN INDICATION THAT A WYE IS REQUIRED. ACTUAL POSITIONS WILL BE DETERMINED IN THE FIELD TO MOST CONVENIENTLY SERVE THE PROPERTY INTENDED AND WILL BE RECORDED ON A SET OF AS-BUILT DRAWINGS.

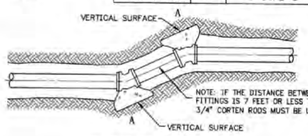
2. WHEN SEWER LEAD ENDS BENEATH DRIVEWAY, PARKING LOT, ETC., (GRAVEL, CONCRETE, ASPHALT) TOP OF SEWER LEAD MARKER POST SHALL BE 6" BELOW SURFACE. FASTEN 3 – 1/2"x 1/4" STEEL PLATE ON TOP OF POST SO IT CAN BE LOCATED WITH A METAL DETECTOR.

WYE AND SEWER LEAD INSTALLATION DETAIL

NO SCALE

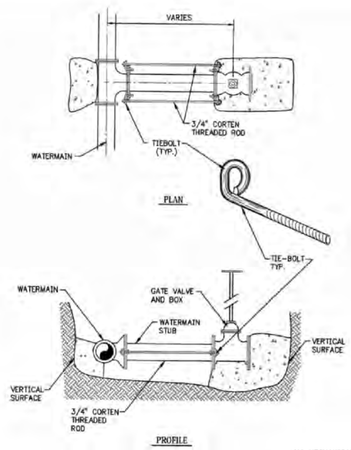
DEGREE OF BEND IN ELBOW	PIPE SIZE	MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THRUST BLOCKS
		SURFACE A
45°	4"	1'-4"x 1'-0" = 1.3 SQ. FT.
45°	6"	1'-8"x 1'-4" = 2.2 SQ. FT.
45°	8"	2'-0"x 2'-0" = 4.0 SQ. FT.
45°	10"	2'-4"x 2'-4" = 5.4 SQ. FT.
45°	12"	2'-8"x 2'-8" = 7.1 SQ. FT.
45°	16"	3'-8"x 3'-8" = 13.5 SQ. FT.
22.5° OR 11.25°	4"	1'-0"x 0'-8" = 0.7 SQ. FT.
22.5° OR 11.25°	6"	1'-4"x 1'-0" = 1.3 SQ. FT.
22.5° OR 11.25°	8"	1'-8"x 1'-4" = 2.2 SQ. FT.
22.5° OR 11.25°	10"	1'-8"x 1'-8" = 2.8 SQ. FT.
22.5° OR 11.25°	12"	1'-10"x 1'-10" = 3.4 SQ. FT.
22.5° OR 11.25°	16"	2'-8"x 2'-8" = 7.1 SQ. FT.

ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS



TYPICAL OFFSET DETAIL

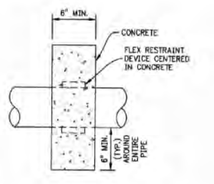
NO SCALE



ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS

THRUST RESTRAINT DETAIL FOR ALL VALVES ON STUBBED LINES

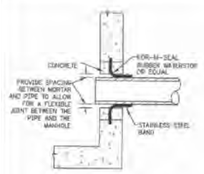
NO SCALE



NOTE:
TO BE PLACED AT EACH SERVICE LEAD AND WHERE SPECIFIED BY FIELD ENGINEER, AS SUPPLIED BY CENTRAL PLASTICS, OR EQUAL, PER PIPE MANUFACTURER'S SPECIFICATIONS.

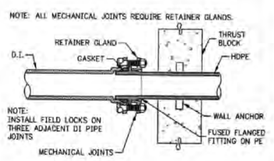
SERVICE LEAD THRUST RESTRAINT DETAIL

(APPLICABLE FOR HDPE/PVC WATERMAIN ONLY)
NO SCALE



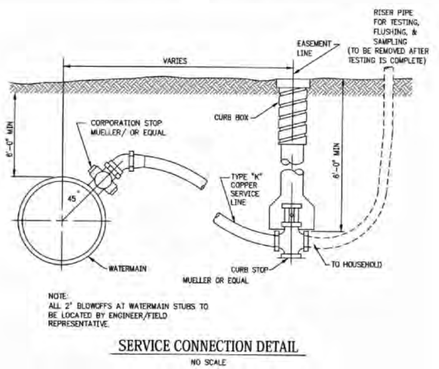
MANHOLE/WETWELL WATERSTOP DETAIL

NO SCALE



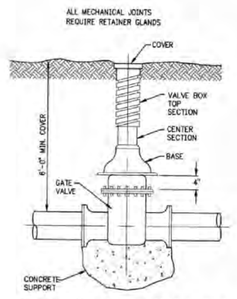
HDPE TO DI (MJ) ADAPTER DETAIL

NO SCALE



SERVICE CONNECTION DETAIL

NO SCALE



VALVE BOX INSTALLATION DETAIL

NO SCALE

*DETAILS AND SPECIFICATIONS ON THIS SHEET ARE STANDARD DETAILS FROM THE GRAND TRAVERSE COUNTY DEPARTMENT OF PUBLIC WORKS

BOYNE ENGINEERING AND DESIGN
P.O. Box 94
Boyne City, MI 49727
(231) 499-8361
boyneengineering.com

BIRMLEY MEADOWS SITE CONDOMINIUM

PREPARED FOR:

T&R INVESTMENTS

841 Ashland Drive Traverse City, MI

NO:	DATE	APP'D	ISSUE / REVISION DESCRIPTION

REVISIONS

UTILITY DETAILS

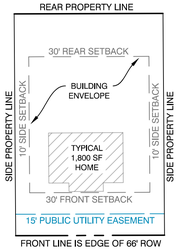
ORIGINAL ISSUE DATE: 04/05/2023

SCALE:

BED JOB NO. 22033

DRAWING NUMBER

C6.1



REPRESENTATIVE LOT CONFIGURATION

INDIVIDUAL SITE CONFIGURATIONS VARY
MINIMUM AREA = 1,500 SF
SCALE: 1"=50'

COVERAGE AREAS

SITE ELEMENT	AREA	UNIT	% OF COVERAGE	NOTES
OVERALL SITE	16.02 697,621	AC SF		GROSS AREA (SEE CALCULATION THIS SHEET)
EX BUILDINGS	0	SF		VACANT
NEW BUILDINGS	0	SF		
PAVEMENT	52,098	SF	7.5%	

ZONING

GARFIELD TOWNSHIP ZONING INFORMATION
CHARTER TOWNSHIP OF GARFIELD ORDINANCE 68 AMMENDED THROUGH 9/26/21

ZONING DISTRICT	MIN LOT PER UNIT	MAX HEIGHT/ STORIES	YARD SETBACKS (FT) FRONT	SIDE	REAR	MAX BUILDING COVERAGE
R-1 ONE FAMILY RESIDENTIAL	*15,000 SF	2-1/2 / 35'	30'	10'	30'	30%

* WITH PUBLIC SEWER

PARCEL

05-026-020-33

GROSS/NET AREA

GROSS AREA:	16.02 AC
PUBLIC EASEMENTS:	- 1.82 AC
RIGHT-OF-WAYS:	- 3.44 AC
NET AREA:	10.76 AC

GRAPHIC SCALE: 1 inch = 50 feet
0 25 50 100 150

N

LEGEND

- PROPERTY LINE
- LOT LINE
- SETBACK
- EASEMENT
- EXISTING EASEMENT
- RIGHT OF WAY
- PROP ROADWAY CENTER
- EDGE OF PAVEMENT
- STORMWATER FLOW
- TREE LINE
- EX PAVING / GRAVEL
- STORMWATER BASIN
- TH–1 SOIL BORING
- BENCHMARK
- HYDRANT ASSEMBLY
- GATE VALVE
- BLOW OFF
- SANITARY MANHOLE
- 122.93' LOT WIDTH @ SETBACK

SOILS

SOILS ON THIS PROPERTY HAVE BEEN OBSERVED TO BE SANDY – CONSISTENT WITH NRCS SOIL SURVEY MAPPING

SEE SHEET C2.1

LIGHTING

NO SITE LIGHTING IS PROPOSED FOR THIS DEVELOPMENT

PARKING

PARKING FOR THIS DEVELOPMENT WILL BE LOCATED ON INDIVIDUAL LOTS. NO ADDITIONAL PARKING AREAS ARE PROPOSED

BIRMLEY ESTATES DRIVE PVT

Number	Radius	Length	Line/Chord Direction	Start Station
L1		80.34	S34° 59' 02.50"W	0+30.00
C1	200.00	39.42	S40° 37' 48.03"W	0+50.34
L2		183.85	S46° 16' 33.56"W	0+89.76
C2	375.00	446.55	S80° 23' 22.64"W	2+73.61
C3	185.00	367.29	S57° 37' 35.53"W	7+20.16
L3		190.36	S0° 44' 59.34"W	10+87.45
C4	250.00	40.05	S3° 50' 23.16"E	12+77.81
L4		217.00	S8° 25' 45.66"E	13+17.86
C5	200.00	35.69	S3° 19' 02.84"E	15+34.86
L5		45.02	S1° 47' 39.99"W	15+70.54

SPRINGFIELD DRIVE

Number	Radius	Length	Line/Chord Direction	Start Station
L17		149.82	S8° 13' 07.40"E	0+33.00
C15	185.00	78.43	S3° 55' 37.12"W	1+16.82
C16	200.00	195.37	S11° 54' 42.53"E	1+95.25
L18		232.50	S39° 53' 46.68"E	3+90.62

Parcel Line and Curve Table

Line #/Curve #	Length	Bearing/Delta	Radius
C6	58.01	8.17	407.00
C7	67.41	8.17	473.00
C8	59.70	8.38	408.00
C9	55.51	9.30	342.00
C10	92.72	18.33	289.83
C11	129.29	18.16	408.00
C12	63.00	10.55	342.00
C13	49.58	81.17	35.00
C14	51.63	8.65	342.00
C21	124.54	20.72	344.41
C22	87.12	22.90	218.00
C23	91.70	24.10	218.00
C24	92.21	24.23	218.00
C25	96.88	25.46	218.00
C26	17.08	0.01	144749.26
C28	64.90	17.06	218.00
C29	10.78	2.18	283.00
C30	34.19	6.92	283.00
C31	39.18	3.29	682.89
C32	34.76	9.18	217.00
C33	133.45	50.30	152.00
C34	158.19	59.49	152.36
C35	112.19	14.87	432.41
C36	68.05	9.56	408.00
C37	49.58	81.17	35.00
C38	32.21	11.22	164.56
C39	32.22	12.15	152.00
C40	70.22	17.27	233.00
C41	94.50	23.24	233.00
C42	62.89	15.46	233.00
C43	33.19	11.39	167.00
C44	104.60	35.89	167.00
C45	25.35	8.70	167.00
C46	82.37	21.65	218.00
C48	10.05	2.64	218.00

Parcel Line and Curve Table

Line #/Curve #	Length	Bearing/Delta	Radius
C53	119.01	10.96	621.94
C56	101.68	8.47	687.94
C57	59.00	5.07	667.00
C58	100.08	7.82	733.00
L6	119.53	S46° 24' 42.34"W	
L7	73.00	N46° 24' 42.34"E	
L8	88.65	N46° 24' 58.92"E	
L9	42.12	S46° 24' 42.34"W	
L10	54.07	S8° 13' 07.40"E	
L11	54.07	N8° 13' 07.40"W	
L12	38.57	S39° 53' 46.68"E	
L13	38.57	N39° 53' 46.68"W	
L14	38.26	N36° 06' 52.44"W	
L15	53.88	N42° 20' 34.66"W	
L16	60.32	S42° 20' 34.66"E	
L23	35.14	S0° 44' 59.34"W	
L24	23.87	N0° 44' 59.34"E	
L25	44.26	N0° 44' 59.34"E	
L26	57.11	N0° 44' 59.34"E	
L27	65.11	N0° 44' 59.34"E	
L28	89.22	S0° 44' 59.34"W	
L29	5.64	N8° 25' 45.66"W	
L30	66.86	S8° 25' 44.91"E	
L31	104.30	N8° 25' 45.66"W	
L32	101.30	N8° 25' 45.66"W	
L33	57.41	N8° 25' 45.66"W	
L34	8.05	N79° 53' 22.66"W	
L35	25.27	N79° 53' 22.66"W	
L43	20.99	S31° 51' 50.84"W	
L44	20.99	S31° 51' 50.84"W	
L45	33.00	N0° 44' 59.34"E	
L46	33.00	N0° 44' 59.34"E	
L47	31.53	S14° 46' 11.66"E	
L48	45.95	S11° 54' 11.20"E	

Parcel Area Table

Parcel #	SQ FT	ACRES
1	33582.61	0.77
2	39587.84	0.91
3	15192.93	0.35
4	16803.37	0.39
5	20458.03	0.47
6	31327.12	0.72
7	20498.39	0.47
8	15138.25	0.35
9	15000.74	0.34
10	15639.59	0.36
11	19880.57	0.46
12	17943.29	0.41
13	17745.55	0.41
14	18734.41	0.43
15	18497.80	0.42
16	17359.67	0.40
17	15511.58	0.36
18	15065.51	0.35
19	23562.10	0.54
20	27192.50	0.62
21	27971.32	0.64
22	19255.50	0.44
23	17111.13	0.39
24	15310.56	0.35
25	15871.32	0.36
26	20828.58	0.48

BOYNE ENGINEERING AND DESIGN
P.O. Box 94
Boyne City, MI 49727
(231) 499-8361
boyneengineering.com

BIRMLEY MEADOWS SITE CONDOMINIUM

PREPARED FOR:
T&R INVESTMENTS
841 Ashland Drive
Traverse City, MI

REVISIONS

NO:	DATE	APP'D	ISSUE / REVISION DESCRIPTION

LOT WIDTH AT SETBACKS ARRANGEMENT PLAN

ORIGINAL ISSUE DATE: 5/30/2023
SCALE: 1"=50'
BED JOB NO. 22033
DRAWING NUMBER
C2.0A

72 HOURS BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE)

C:\USERS\CJHRR MAY\DOCUMENTS\BOYNE ENGINEERING\2022 JOBS\22033 BIRMLEY MEADOWS S REV01.DWG (05/30/23 3:02 PM) CARRIE MAY

GRAND TRAVERSE METRO FIRE DEPARTMENT
FIRE PREVENTION BUREAU

897 Parsons Road ~ Traverse City, MI 49686
Phone: (231) 922-2077 Fax: (231) 922-4918 ~ Website: www.gtfire.org Email: Info@gtfire.org

SITE PLAN REVIEW RECORD

ID # M7400 DATE: 5/12/2023

PROJECT NAME: Birmley Meadows Site Condo

PROJECT ADDRESS: 841 Ashland Dr.

TOWNSHIP: Garfield

APPLICANT NAME: Carrie May

APPLICANT COMPANY: Boyne Engineering & Design

APPLICANT ADDRESS:

APPLICANT CITY: STATE: ZIP:

APPLICANT PHONE: 231-499-8361 FAX #

REVIEW FEE: $75.00

Reviewed By: Kathy Fordyce, Plan Reviewer

This review is based solely on the materials submitted for review and does not encompass any outstanding information. Compliance with all applicable code provisions is required and is the responsibility of the permit holder. Items not listed on the review do not negate any requirements of the code nor the compliance with same. Inspection requests must be made a minimum of 48 hours prior to needed inspection. This plan review is based on the 2015 International Fire Code, as adopted.

GRAND TRAVERSE METRO FIRE DEPARTMENT
FIRE PREVENTION BUREAU

897 Parsons Road ~ Traverse City, MI 49686
Phone: (231) 922-2077 Fax: (231) 922-4918 ~ Website: www.gtfire.org Email: Info@gtfire.org

SITE PLAN REVIEW

ID # M7400 DATE: 5/12/2023

1. **505.1 Address identification.**

New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

2. **505.2 Street or road signs.**

Streets and roads shall be identified with approved signs. Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and be maintained until replaced by permanent signs.

3. **503.4 Obstruction of fire apparatus access roads.**

Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Sections 503.2.1 and 503.2.2 shall be maintained at all times.

Project may proceed with township approval process.

Charter Township of Garfield
Planning Department Report No. 2023-66

Prepared:	June 7, 2023	Pages:	7
Meeting:	June 14, 2023 Planning Commission	Attachments:	☒
Subject:	Ridge 45 Phase I-III and Phase IV SUP Amendments – Public Hearing		
File Nos.	SUP-2021-02-B and SUP 2015-01-E		
Parcel Nos.	05-023-026-55, 05-023-025-60, and 05-023-026-45		
Applicant:	Hammond Investment Properties, LLC		
Agent:	Scott Jozwiak/Jozwiak Consulting, Inc.		
Owner:	Hammond Investment Properties, LLC		

BRIEF OVERVIEW:

Phase I-III

- Location: 1555 Ridge Boulevard, west off LaFranier Road
- Parcel area: 37.8 acres
- Existing land use: multi-family housing
- Existing zoning: R-3 Multi Family Residential
- Existing development: 16 multi-family residential buildings with a total of 400 dwelling units

Phase IV

- Location: 1532 West Hammond Road, west of LaFranier Road, north of Hammond Road
- Parcel area: 21.85 acres
- Existing land use: undeveloped land
- Existing zoning: R-3 Multi Family Residential
- Proposed development: 7 multi-family residential buildings with a total of 196 dwelling units

PURPOSE OF APPLICATION:

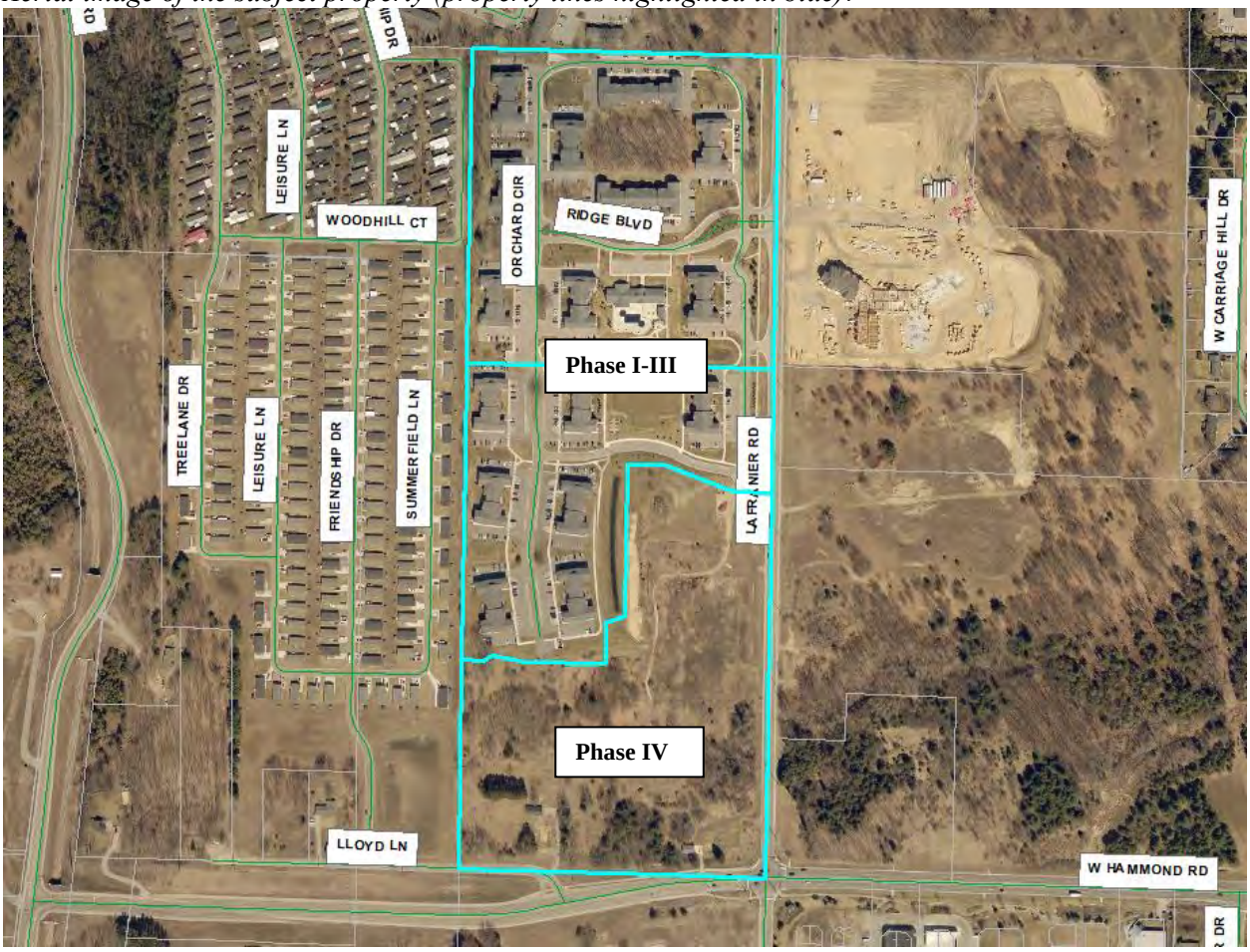
Ridge45 Phase I-IV were developed/approved as follows:

Ridge45 Multi-family Housing Development Phases I-IV			
Phase	***Year Approved by Planning Commission***	***Total Number of Apartment Buildings***	***Total Number of Apartment Units***
I	2015	9	232
II	2017	3	72
III	2018	4	96
IV	2021/2022*	12	204
	Total	**28**	**604**
*Approved as South22 by the Planning Commission in 2021. An Administrative Amendment to South22 was approved in 2022. Project has not been constructed.			

In 2021, the South22 Special Use Permit (now Phase IV) was approved by the Planning Commission for a 216-unit multi-family housing development. In 2022, an administrative amendment to the Special Use Permit was approved. As part of the amendment, the number of multi-family units was reduced to 204 based on internal reconfiguration of the floor plans for the three proposed apartment buildings. Initial site preparation has been underway. The developer wants to combine Phase I-III with Phase IV into one continuous development. Township Attorney, Scott Howard, determined that combining the two Special Use Permits into one Special Use Permit is permissible.

The new application for Ridge45 Phase IV proposes seven apartment buildings containing 28 units each for a total of 196 dwelling units. Final approval would merge all phases into one Report and Decision Order.

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 COMMENTS FOR PHASE IV:
Staff offers the following comments regarding site design and compliance with the Zoning Ordinance:

Building Density
The proposed multi-family housing development consists of 196 dwelling units on 21.85 acres of land resulting in 8.97 units per acre.

Building Types
The proposed buildings are as follows:

Ridge45 Multi-family Housing Development Phase IV					
Building Type	***Number of Units***	***Number of Buildings***	***Square Feet Footprint Each***	***Total Number of Units***	***Total Square Feet***
3-story apartment building	28 each	7	11,600	196	81,200
Maintenance building	n/a	1	4,000	n/a	4,000
			Total	**196**	**85,200**

Building façade elevations have been provided. Maximum building height in the R-3 District is 3 stories or 40 feet. Dimensions should be noted, or other documentation provided to ensure that the buildings are in conformance. As presented, proposed buildings appear to meet all height requirements.

Maximum lot coverage or the percentage of the lot occupied by a building, including accessory buildings, is 35%. At 21.85 acres or 951,786 square feet, proposed lot coverage is 9%.

Proposed new amenities include a dog park and sidewalks. By incorporating this development as Phase IV of Ridge45, residents will have access to the existing clubhouse and pool in Ridge45. The Phase IV site plan identifies an area that states, “Community space and future area for amenities such as a second community building, pool, playground or other needs derived from future capacity constraints at existing facilities.”

Setbacks
The front setback is 25 feet in the R-3 District. Side and rear yards in the R-3 District shall be 20 feet. The proposed buildings and structures meet all setback requirements.

Ingress and Egress
Ingress and egress for the site will be provided from the existing Lloyd Lane to the south and from the existing Parkside Boulevard in the Ridge45 development to the north. Lloyd Lane provides access to Hammond Road, and Parkside Boulevard provides access to LaFranier Road.

Traffic Impact Report
A traffic impact report shall be required for any major development, special use permit, or site plan under the following described conditions:

(1) A proposed rezoning that could generate 150 or more directional trips during the peak hour or at least 1,000 more trips per day than the most intensive use that could be developed under existing zoning;
(2) A proposed development that will generate 150 or more directional trips during the peak hour or at least 500 trips per day; or
(3) A proposed development for a 5-acre or larger site; or

(4) Upon determination by the Director of Planning, or by the Planning Commission, that a report is necessary to determine needed road improvements or to determine that unsafe or hazardous conditions will not be created by the development as proposed.

The requirements for a traffic impact report may be waived in whole or in part by the Director of Planning, or by the Planning Commission, upon a determination that such report is not necessary to determine needed road improvements or that no unsafe or hazardous conditions will be created by the development as proposed.

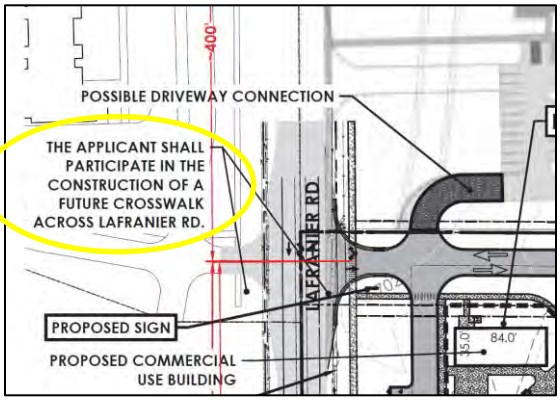
The proposed development exceeds 5 acres and is a development expected to generate more than 500 trips per day. While a new driveway will be proposed on Lloyd Lane, no new driveways are proposed for Hammond or LaFranier Roads. Considering this driveway configuration and design, Staff recommends waiving the requirement for a traffic impact report.

Parking and Bicycle Racks
Parking areas for multiple family dwellings have a minimum parking requirement of 1.5 spaces per dwelling unit to a maximum of 2.0 spaces per dwelling unit. With 196 proposed units, a minimum of 294 parking spaces is required and a maximum of 392 parking spaces are permitted. 385 parking spaces are proposed. An additional four parking spaces are provided for the proposed maintenance building for a total of 389 parking spaces onsite. Of the proposed multi-family parking spaces, 273 are outdoor surface spaces and 112 are indoor garage spaces.

Wherever off-street parking is required, a minimum of two bicycle parking spaces are required. For parking areas with greater than twenty-five (25) motor vehicle spaces, bicycle parking shall be provided on a basis of two spaces per twenty-five motor vehicle parking spaces. Two bicycle racks are proposed at each of the seven apartment buildings for a total of 14 racks. Typical details on the racks should be provided.

Sidewalks
Sidewalks are proposed on the site. Dimensions and type of construction materials must be provided in compliance with Township requirements.

A crosswalk connection to the BATA/TCHC Transit-Oriented Mixed-Use Planned Unit Development located on the east side of LaFranier Road is required. Construction of the crosswalk would be shared by the applicant and BATA/TCHC. The crosswalk will provide access to the new BATA transfer station planned on the east side of LaFranier Road.



Wetlands
Approximately 0.12 acres of wetlands located near LaFranier Road have been delineated and verified by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). A 25-foot buffer has been provided as required by the Township.

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

Greenspace (Length)	***Buffer Planting Requirement***	***Amount Required***	***Amount Provided***
East (1,100 ft.)	Type "D" Buffer – 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, and a minimum width of 20 feet.	44 large trees 33 med/small trees 33 evergreens 20 ft. min width	-- large trees -- existing large trees -- med/small trees -- existing small trees -- evergreens -- existing evergreens 20 ft. min width shown
South (900 ft.)		36 large trees 27 med/small trees 27 evergreens 20 ft. min width	-- large trees -- existing large trees -- med/small trees -- existing small trees -- evergreens -- existing evergreens 20 ft. min width shown
West (600 ft.)	Type "C" Buffer – ground cover as specified in Section 530.J, plus 3 large trees, 3 medium or small tree, and 1 evergreen or coniferous per 100 linear feet of greenspace area, and a minimum width of 10 feet.	18 large trees 18 med/small trees 6 evergreens 10 ft. min width	-- large trees -- existing large trees -- med/small trees -- existing med/small trees -- evergreens -- existing evergreens 10 ft. min width shown

A north buffer is not required since the proposed development is a continuation of the Ridge45 development. A complete landscaping plan shall be provided in accordance with the Zoning Ordinance. Credit is given for existing vegetation.

Lighting
A photometric site plan shall be included with the site plan. The lighting standards of Section 517 of the Zoning Ordinance are described by the following:

Zoning Ordinance Lighting Standard	***Subject Site***
A. Applicability – 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.	Proposed lighting along Lloyd Lane provides lighting for the public street and is exempt. Approval from the Road Commission may be required for the proposed fixture within the right-of-way.

Zoning Ordinance Lighting Standard	***Subject Site***
B. Shielding and Filtration – 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.	A notation regarding shielding shall be provided on the plan.
C. Illumination – Average illumination levels shall not exceed 3.0 foot-candles for the main parking area, 2.0 foot-candles for the peripheral parking area, 5.0 foot-candles for the main drive areas, and 20.0 foot-candles directly below the lighting fixture. Illumination shall also not exceed 1.0 foot-candles adjoining another nonresidential zoning district along a local street or property line. Average lighting values ranging from 0.5 to 1.5 foot-candles are recommended.	Illumination levels exceed for three proposed fixtures along Lloyd Lane. However, these lights provide public street illumination including the driveway entrance, the proposed sidewalk, and Lloyd Lane, and are therefore exempt as noted above.
D. Color Temperature – All proposed lamps shall emit light measuring 3,500 K or warmer on the Kelvin scale.	The proposed lamps do not indicate the color temperature. This information shall be provided on the plan.
E. Prohibitions – 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.	No prohibited lights are proposed.
F. Pole Height – All pole-mounted lighting shall not exceed the maximum permitted height of the zoning district.	Based on the plan, the proposed fixture lighting does not exceed the maximum height in the R-3 District.

Snow Storage
Snow storage is to be provided at the ratio of ten (10) square feet per one hundred (100) square feet of parking area. Snow storage areas have been identified and meet the minimum requirements.

Dumpster Enclosures
Two dumpster enclosures are proposed. One proposed enclosure is located adjacent to the proposed Maintenance Building. The other proposed enclosure is located on Orchard Circle where an existing enclosure is located 75 feet to the north. Staff recommends that the proposed enclosure on Orchard Circle be consolidated with the existing enclosure. Details of the construction of the enclosures noted on the site plan meet the requirements.

Other Reviews
The application is subject to additional reviews, including but not limited to the Township Engineer, Grand Traverse County Road Commission, and Metro Fire. Sewer and water utility improvements and stormwater improvements will be reviewed by the Township Engineer. Escrow for these reviews is needed as determined by the Township Engineer. Signs are reviewed by the Township Zoning Administrator.

STAFF COMMENTS FOR PHASE I-III:
Staff offers the following comments regarding site design and compliance with the Zoning Ordinance:

Changes
No changes are proposed to the Ridge45 Phases I-III multi-family housing development. However, the previously required landscaping buffer along the southern parcel line will no longer be required. Also, a new Report and Decision Order will be required to acknowledge the merged developments.

Ridge Boulevard Entrance
Ridge Boulevard, the primary entrance to Ridge45 Phases I-III needs to be corrected to meet Road Commission standards and match the entrance to the Village of LaFranier Woods on the east side of LaFranier Road. An approved plan and Road Commission permit has been obtained by the applicant. Any amendment to the Ridge45 Phases I-III will include the condition that the Ridge Boulevard entry will be completed.

ACTION REQUESTED:
The purpose of this agenda item is to hold a public hearing on the application. If, following the applicant presentation and Planning Commission discussion, the Commission is prepared to direct Staff to prepare Findings of Fact, then the following motion is offered for consideration:

> MOTION TO direct staff to prepare Findings of Fact for applications SUP-2021-02-B and SUP-2015-01-E, submitted by Jozwiak Consulting, Inc., for a combined Special Use Permit for a multi-family housing complex at Parcel 05-023-026-50, 05-023-025-60, and 05-023-026-45 and that the applicant shall submit the following items prior to consideration of the Findings of Fact:
>
> 1. A complete landscaping plan shall be provided in accordance with the Zoning Ordinance.
> 2. An amended lighting plan shall be provided in accordance with the Zoning Ordinance.

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

***Attachments*:**
1. Ridge45 Phases I-III Application dated April 10, 2023
2. Ridge45 Phase IV (South22) Application dated April 10, 2023
3. Ridge45 Phases I-III and Phase IV Narrative dated April 11, 2023
4. Ridge45 Phase IV (South22) Written Impact Statement dated April 23, 2023
5. Ridge45 Phase IV (South22) Site Plan set dated April 24, 2023
6. Ridge45 Phase IV (South22) Site Lighting and Photometric Plan dated May 3, 2023
7. Ridge45 Phases I-IV Site Plan dated April 24, 2023

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

Ridge45 Multi-Family Apartment Community (Ridge 45 Phases 1 - 3)

APPLICANT INFORMATION

Name:	Midwest MFD - South, LLC
Address:	1435 Fulton, 2nd Floor, Grand Haven, MI 49417
Phone Number:	616-842-2030
Email:	scott@westwind.build

AGENT INFORMATION

Name:	Scott Jozwiak, Jozwiak Consulting
Address:	13300 S. West Bay Shore Dr, Traverse City, MI 49684
Phone Number:	231-218-1201
Email:	scott@jozwiakconsulting.com

OWNER INFORMATION

Name:	Midwest MFD - South, LLC
Address:	1435 Fulton, 2nd Floor, Grand Haven, MI 49417
Phone Number:	616-842-2030
Email:	scott@westwind.build

CONTACT PERSON

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

Applicant:	
Agent:	Scott Jozwiak
Owner:	

PROPERTY INFORMATION

Property Address:	1555 Ridge Blvd
Property Identification Number:	05-023-026-40
Legal Description:	see attached
Zoning District:	R1-M
Master Plan Future Land Use Designation:	
Area of Property (acres or square feet):	15.012 acres

Existing Use(s):	Multi-Family
Proposed Use(s):	(minor amendment request to allow privacy fence in lieu of some req'd plantings

PROJECT TIMELINE

Estimated Start Date:	N/A
Estimated Completion Date:	November, 2021

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 demonstates that:ecial 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:

	Yes	No	Not Applicable
A. Sanitary Sewer Service			
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. Water Service			
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. Public utility easements required?	☐	☐	☑
If yes, show on plan.			
D. Stormwater Review/Soil Erosion			
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. Roads and Circulation

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

- 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: 4-11-2023

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 MIDWEST MFD 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: [signature]

Date: 4-10-2023

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: [signature]

Date: 4-10-2023

Applicant Signature: [signature]

Date: 4-10-2023

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 **Required only for habitable construction within the floodplain on site diagrams and administrative site plans.*	☐ *	☐
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 of 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		☐

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

Ridge45 - Phase 4 (formerly South22)

APPLICANT INFORMATION

Name:	Hammond Investment Properties, LLC
Address:	1435 Fulton St., 2nd Floor, Grand Haven, MI 49417
Phone Number:	616-842-2030
Email:	pete@westwind.build

AGENT INFORMATION

Name:	Scott Jozwiak, PE of Jozwiak Consulting, Inc.
Address:	PO Box 5342, Traverse City, MI 49696
Phone Number:	231-218-1201
Email:	scott@jozwiakconsulting.com

OWNER INFORMATION

Name:	Hammond Investment Properties, LLC
Address:	1435 Fulton St., 2nd Floor, Grand Haven, MI 49417
Phone Number:	616-842-2030
Email:	pete@westwind.build

CONTACT PERSON

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

Applicant:	Pete Oleszczuk
Agent:	
Owner:	Pete Oleszczuk

PROPERTY INFORMATION

Property Address:	1532 W Hammond Rd., Traverse City, MI 49686
Property Identification Number:	28-05-023-026-50
Legal Description:	See attached site plan C0
Zoning District:	R-3 Multi Family Residential
Master Plan Future Land Use Designation:	High Density Residential
Area of Property (acres or square feet):	19.5 ac. (net)

Existing Use(s):	vacant residences
Proposed Use(s):	Multi-family Development

PROJECT TIMELINE

Estimated Start Date:	July. 2023
Estimated Completion Date:	Nov./Dec., 2026

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 demonstates that:ecial 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:

	Yes	No	Not Applicable
A. Sanitary Sewer Service			
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. Water Service			
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. Public utility easements required?	☑	☐	☐
If yes, show on plan.			
D. Stormwater Review/Soil Erosion			
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. Roads and Circulation

1. Are interior public streets proposed?	☐	☑	☐
If yes, has Road Commission approved (attach letter)?	☐	☐	☐
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4. Will private drives connect to adjoining properties service roads?	☑	☐	☐
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Agent Signature:

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I/We HAMMOND INVESTMENTS 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.

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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		☐
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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 **Required only for habitable construction within the floodplain on site diagrams and administrative site plans.*	☐ *	☐
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 of 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		☐

Ridge45, Phases 1-3

Midwest MFD, LLC and Midwest MFD - South, LLC dba Ridge45 built a 16-building, 400-unit multifamily housing development on 40 acres of land with a vison of expansion to meet housing needs in the area. The owners and operators have completed Phases 1-3 and are the same principles as the developers and owners of the Phase 4 housing project to the south on approximately 22 acres.

Ridge45 is applying for a special use amendment to remove the landscaping along the south property line where Phase 4 joins it. The aim is to connect sidewalks and roadways, create a sense of community among the residents, create visual cohesion between the properties, and serve the practical purpose of connecting amenities for all residents to enjoy (i.e. community center, fitness center, playground, dog park, maintenance buildings, offices, etc.). Residents of Ridge45 Phase 1-3 will be able to walk to Phase 4 on sidewalks, which is right across the street from the future BATA transit station, making public transportation all the more readily available. The joined properties in theory/plan, will now be joined physically.

Ridge 45, Phase 4

Hammond Investment Properties, LLC, "Hammond Investment Properties," was formed in December 2018 to develop roughly 22 acres of land in Garfield Township. Hammond Investment Properties is owned and operated by the same principals as the developers and owners of the Ridge45 Phase 1-3 project located just north of the subject property. Sidewalks, roadways, and amenities will connect between all Ridge45 phases, cultivating a sense of community and visual cohesion between the properties. Planned features in Phase 4 support and enhance Ridge45 Phase 1-3 with a spacious maintenance building and dog park. Additionally, Phase 4 will provide expansion opportunities for Ridge45 amenities – such as multi-sport courts, pool additions, and a community gardens expansion.

On the acreage, seven new multifamily housing structures are being constructed, which will be under the same Ridge45 name. In total, this new development will provide 196 housing units, including various studio, 1-bedroom, 2-bedroom, and 3-bedroom layouts.

Hammond Investment Properties is requesting a special use major amendment for the updated layout to join Ridge45 Phase 4 with Phases 1-3.

Received by Garfield Twp - April 11, 2023

SOUTH22 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;

- *Both current Zoning Map and Future Land Use Map indicate this area as a multi-family/high density zoning designation. Currently the R-3 District allows for Multi-family residential, allowing 1 unit / 4,000 sf. The Master Plan (Future Land Use Map) allows for High Density Residential, 6-10 units per acre.*

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;

- *This proposed development is compatible to all the surrounding uses and characteristics of this area and is allowed by Special Land Use. Surrounding neighborhoods include mobile home park, multi-family developments, and proposed BATA transfer station with additional multi-family house proposed. Further, this development will now be combined with Ridge45. Although it will be under separate special use permits, Ridge45 and South22 will operate as a single entity.*

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;

- *South22, a multi-family housing development will not create any detrimental impacts. Traffic is handled by internal private drives and entrances onto public rights-of-way are limited to reduce congestion.*

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 development's intent is to operate in conjunction with Ridge45 and continue to create a community that includes amenities, parking and landscaping to create the sense of neighborhood. This layout benefits the area by eliminating adverse effects to adjacent properties. Landscaping and screening create a buffer*

around the development.

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 parcel is generally vacant, open land. The south end of the property has some established vegetations (both deciduous and coniferous trees) and a regulated wetland as identified and delineated by Environment, Great Lake and Energy (EGLE). The proposed layout maintains the wetlands, and maintains a 25' setback from said wetlands. Some vegetation will be necessary to be removed but the layout has addressed keeping as much as possible to provide the scenery and buffering.*

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;

- *Permits were acquired for the previous layout. The proposed amendment will result in a slightly lower apartment unit density and therefore result in less impact to all items in this section. Both sewer and water utilities have the capacity for the proposed use. Drainage will be contained on site.*

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;

- *South22 is not detrimental or an endangerment but rather provides the community with much needed multi-family housing in an area that has been designated for such a development.*

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 continual growth of the Grand Traverse region requires housing of all types, with a high demand in multi-family housing options. South22 provides 196 dwelling units that are similar to Ridge45. A mix of unit sizes are included to offer choices to clients. This use supports the public interest and welfare greatly.*

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;

- *South22 has direct connection to Ridge45, with shared internal drives. This network allows for sharing the main entrances that are already constructed on LaFranier. The south end of the development fronts on Lloyd Lane (public) where a new curb cut is designed to service not only South22 but will provide access to Ridge45.*

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

- *Vehicular drives are interconnected with Ridge45, sized for the amount of traffic and configured to calm traffic within the development. The pedestrian flow follows the same principle- providing connectivity between developments and with the sidewalk along the public roads for use to surrounding areas, providing safe passage for all users in, through and around the area.*

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

- *South22 completes the zoning district with creating a safe multi-family housing community that helps meet the needs of the area AND fulfils the intent of the zoning district.*

IMPACT ASSESSMENT

South22, a proposed multi-family housing development located in Garfield Township is comprised 7 multi-family apartment buildings containing a mx of unit sizes. All buildings are three stories. Each building will have 28 units for a total of 196 dwelling units. This equates to 10.05 units per acre density (using 19.50 acres net). This site is adjacent to the Ridge 45 apartment complex which includes amenities such as a community building, workout facility, pool and playground.

Hammond Investment Properties, LLC, "Hammond Investment Properties," was formed in December 2018 to develop roughly 22 acres of land in Garfield Township. Hammond Investment Properties is owned and operated by the same principals as the developers and owners of the Ridge45 (Midwest MFD, LLC) project located just north of the subject property. Sidewalks, roadways, and amenities will connect all Ridge45 phases and the proposed South22 development, cultivating a sense of community and visual cohesion between the properties. Planned features in South22 support and enhance Ridge45 with a spacious maintenance building and dog park.

Additionally, South22 will provide expansion opportunities for more amenities to be constructed – such as multi-sport courts, pool additions, and a community gardens expansion as needs arise. The continued evolution of the apartment industry require us to be able to provide amenities in order to remain competitive with other communities and thus we have set aside substantial areas to adapt to these requests. While apartment communities are necessary, they are a competitive business whereby clients seek out certain amenities. Our desire to lead in this market requires us to be constantly looking forward to identifying new or expanded amenity options. Use of existing amenities in Ridge45 are under capacity and therefore can support the additional capacity from South22. Having adequate green space in the South22 development affords the opportunity to adapt to changing needs. Ideas of pickleball courts, additional playground equipment or even the need to construct a second community building and pool are all plausible.

Due to the financial implications, committing to the construction of such amenities should come on a "need" basis so as not to incur expenses which are passed through to the customer. Carrying costs for underutilized facilities have to be absorbed somewhere and that is contradictory to keeping rent as low as possible. We wish to work with township staff as future amenities are decided on.

Hammond Investment Properties is requesting a special use major amendment for the updated layout to South22 and to join Ridge45 into a common community that shares amenities and operates as a single entity.

The plan is for a one phase development, with construction to continue Summer of 2023 with site grading followed by utilities and vertical construction commencing upon final permitting.

The southeast corner of the site has a regulated wetland as identified and delineated by Environment, Great Lake and Energy (EGLE). Site work will necessitate removing some of the vegetation to perform site grading but no work is proposed in or near the regulated wetlands.

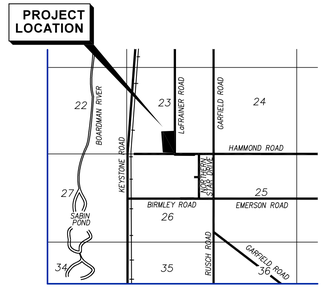
Working with Garfield Township Engineers, it has been determined that the public sanitary sewer and water system have capacity for the proposed development as is evident by the previous layout being permitted for both utilities.

SPECIAL USE PERMIT AMENDMENT FOR **SOUTH 22**

MULTI-FAMILY HOUSING DEVELOPMENT

		SF Footprint	Length	Width	Eave Height	Stories	Units	Parking Req'd	Parking Prov'd	Surface Pkg	Indoor Pkg
South22	Building Q	11600	105	164	30	3	28	56	55	39	16
	Building R	11600	105	164	30	3	28	56	55	39	16
	Building S	11600	105	164	30	3	28	56	55	39	16
	Building T	11600	105	164	30	3	28	56	55	39	16
	Building U	11600	105	164	30	3	28	56	55	39	16
	Building V	11600	105	164	30	3	28	56	55	39	16
	Building W	11600	105	164	30	3	28	56	55	39	16
	Maintenance Building	4000	100	40	16	1	0	4	4	4	
						196 Dwelling Units		396	389		
						19.5 Acres 10.05 Units/Acre					

BUILDING SYNOPSIS



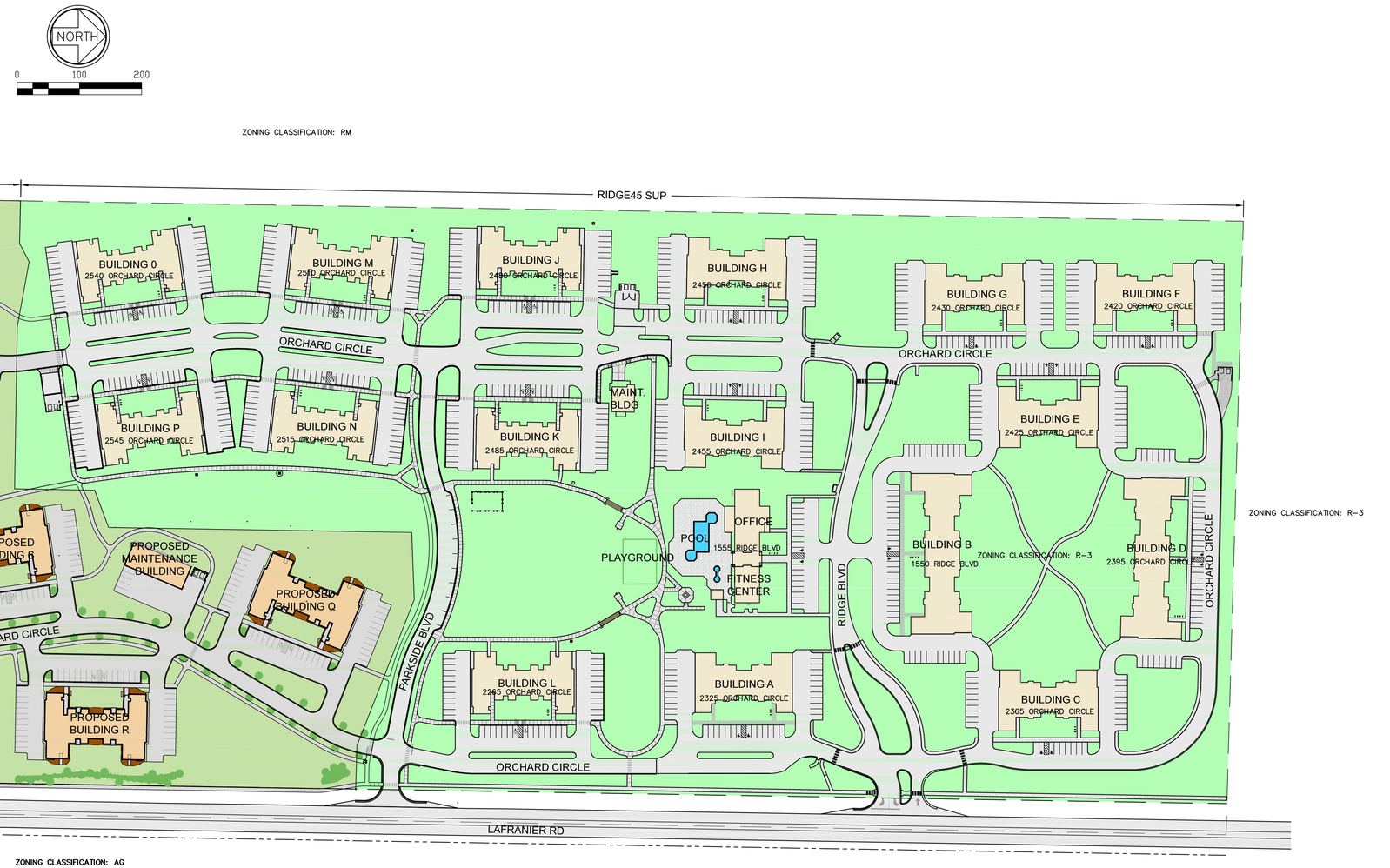
PROJECT LOCATION MAP

APPLICANT
Hammond Investment Properties, LLC
1435 Fulton St., 2nd Floor
Grand Haven, MI 49417
616-842-2030
Peter Oleszcsuk

SITE:
Parcel ID: 28-05-023-026-50
Address: 1532 W. Hammond Rd.

Current Zoning: R-1M

SITE DATA



OVERALL DEVELOPMENT MAP

jozwiak consulting
p.o. box 5342 : traverse city, mi 49696 : 231-218-1201
www.jozwiakconsulting.com

PLAN DATE:
4-24-2023 SUP MAJOR AMENDMENT INTRODUCTION SUBMITTAL

PROJECT:
SOUTH22
AMENDMENT TO SPECIAL USE PERMIT

LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP,
GRAND TRAVERSE COUNTY, MICHIGAN

CLIENT:
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

PROJECT NO.:
2016-161_2

GENERAL PLAN INFORMATION

C100



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1435 FULTON ST.
GRAND HAVEN, MI 49417

LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP,
GRAND TRAVERSE COUNTY, MICHIGAN

PROJECT NO.:
2016-161_2

OVERALL SITE PLAN

C102

NORTH

0' 50' 100'

PROPOSED BUILDING V

PROPOSED BUILDING U

PROPOSED BUILDING W

PROPOSED BUILDING T

PROPOSED BUILDING S

PROPOSED MAINTENANCE BLDG 4,000 SF (FOOTPRINT)

PROPOSED BUILDING Q

PROPOSED BUILDING R

ORCHARD CIRCLE

1585 8" GATE VALVE

2

1212 HYDRANT ASSEMBLY

PROPOSED 8" WATERMAIN

MH-1809

PROPOSED 8" SANITARY

8" PVC SANITARY MAIN

1211 HYDRANT ASSEMBLY

MH-1808

8" WATER MAIN

GATE VALVES

CURB STOP

4" FIRE SERVICE

2" WATER SERVICE

PIV

MH-1807

HYDRANT ASSEMBLY

8" PVC SANITARY MAIN

CURB STOP

2" WATER SERVICE

4" FIRE SERVICE

HYDRANT ASSEMBLY

MH-1806

8" PVC SANITARY MAIN

CONNECT TO EX. WATERMAIN STUB

EX. GATE VALVE 407

EX. 8" WATERMAIN

4

EX. HYDRANT 1077

HYDRANT ASSEMBLY

CURB STOP

2" WATER SERVICE

PIV

MH-1805

SANITARY SERVICE (TYP)

8" WATER MAIN

8" PVC SANITARY MAIN

MH-1804

8" PVC SANITARY MAIN

1" WATER SERVICE STUB FOR FUTURE

CURB STOP

HYDRANT ASSEMBLY

GATE VALVES

SANITARY SEWER MAIN = 2,430 LF

MH-1802

8" PVC SANITARY MAIN

MH-1803

1" WATER SERVICE

4" FIRE SERVICE

2" WATER SERVICE

PIV

HYDRANT ASSEMBLY

CURB STOP

8" PVC SANITARY MAIN

WATERMAIN = 2,733 LF

EX. 18" WATERMAIN

1582 8" GATE VALVE

PROPOSED HYDRANT ASSEMBLY

EX. 12" WATERMAIN

8" WATER MAIN

TAP EX. 12" WATER MAIN

1205 HYDRANT ASSEMBLY

MH-1801

PROPOSED 8" SANITARY

BORE AND JACK PER GT COUNTY SPECIFICATIONS

SANITARY MANHOLE TO BE SUPPLIED UNDER BATA SEWER PROJECT

MH-1787 (INSTALLED FOR BATA PROJECT)

CONNECT SEWER TO EX. MANHOLE STUB

EX. MH-1817

REMOVE PRIVATE LIFT STATION

CONNECT TO EX. 8" WATERMAIN STUB

PROPOSED HYDRANT ASSEMBLY

EX. GATE VALVE 1386

3

EX. 3" FORCEMAIN

1042 EX. HYDRANT

EX. 8" WATERMAIN

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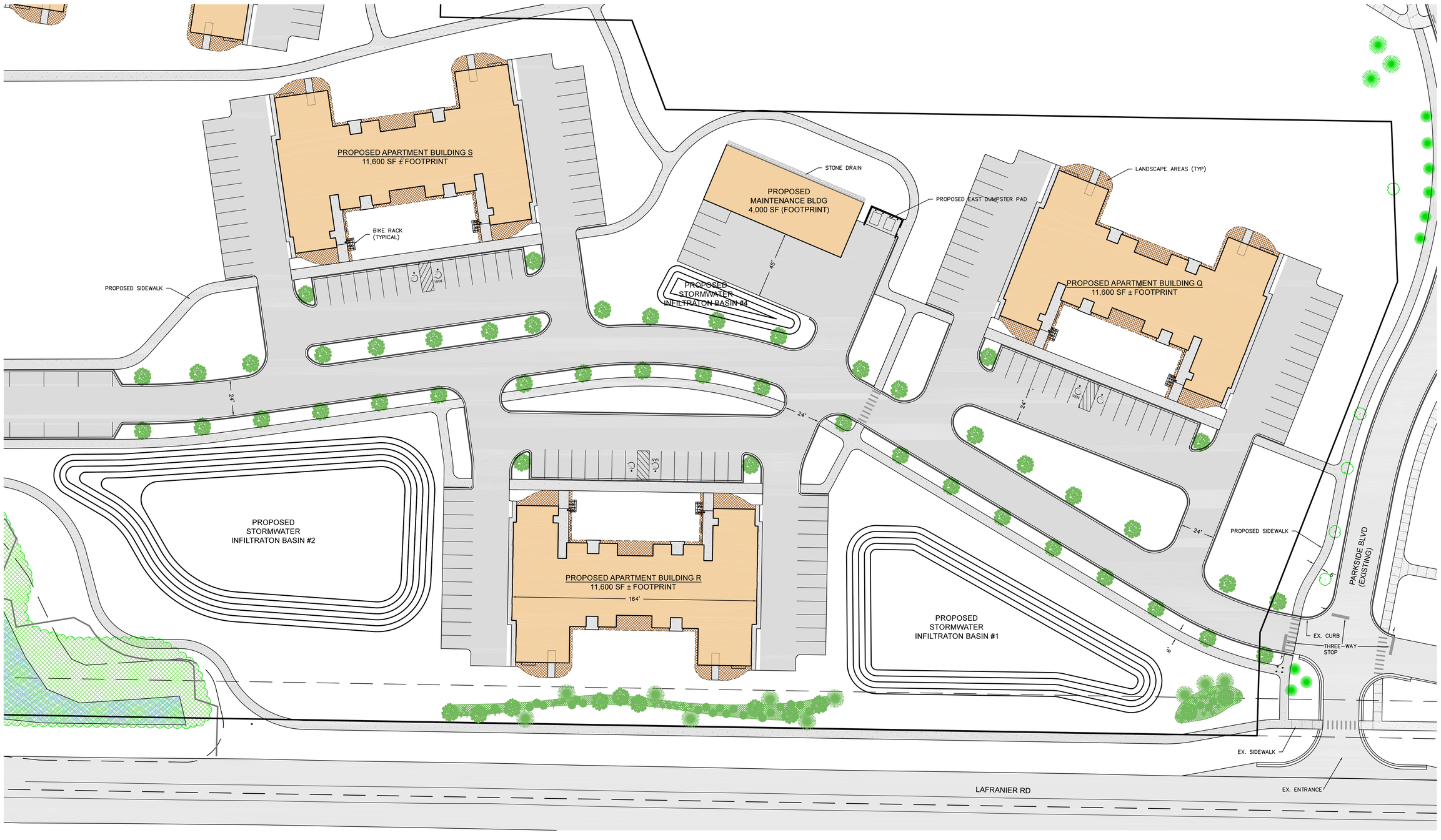
LOCATION:
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GRAND TRAVERSE COUNTY, MICHIGAN

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PROJECT NO.:
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UTILITY PLAN

C104



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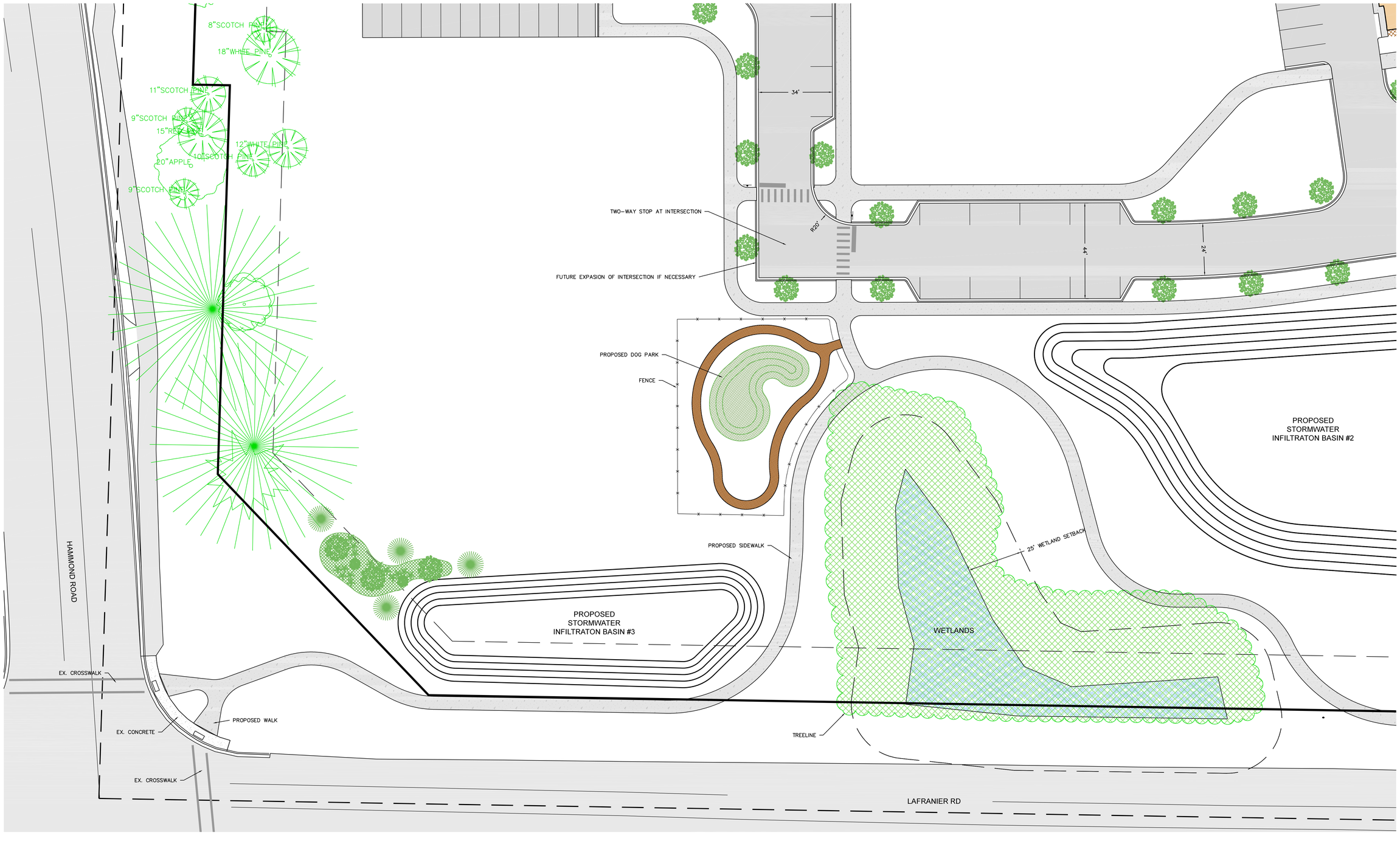
LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP,
GRAND TRAVERSE COUNTY, MICHIGAN

CLIENT:
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

PROJECT NO.:
2016-161_2

SITE PLAN
DETAIL
NORTHEAST

C301



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PROJECT:
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AMENDMENT TO SPECIAL USE PERMIT

CLIENT:
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP,
GRAND TRAVERSE COUNTY, MICHIGAN

PROJECT NO.:
2016-161_2

SITE PLAN
DETAIL
SOUTHEAST

C302

PROPOSED SIDEWALK

LLOYD LANE

SEE SHEET C402 FOR DRIVEWAY CURB CUT DETAIL

CROSSWALK

TYPE M CURB CUT

EX. CURB

EX. CURB

RIGHT OF WAY

FRONT SETBACK

25'

120'

STOP SIGN

STOP BAR

PROPOSED SIDEWALK

RIGHT OF WAY

HAMMOND ROAD

EX. ASPHALT WALKWAY

20' SIDE SETBACK

55'

40'

PROPOSED APARTMENT BUILDING V
11,600 SF ± FOOTPRINT
26 UNITS

164'

105'

BIKE RACK
(TYP)

PROPOSED APARTMENT BUILDING U
11,600 SF ± FOOTPRINT
26 UNITS

24'

24'

6'

24'

43'

23'

PROPOSED WEST DUMPSTER PAD

PROPOSED APARTMENT BUILDING T
11,600 SF ± FOOTPRINT
26 UNITS

16"WALNUT

24"RED PINE

15"WALNUT

24"RED PINE

24"RED PINE

24"WALNUT

20"WALNUT

12"WALNUT

12"WALNUT

62.2'

23'

14"WALNUT

54"WALNUT

PROPOSED APARTMENT BUILDING W
11,600 SF ± FOOTPRINT
26 UNITS

43'

12"WALNUT

12"WALNUT

8"WALNUT

8"WALNUT

15"WALNUT

17"ASH

8"RED PINE

17"WALNUT

8"SCOTCH PINE

18"WHITE PINE

PROPOSED APARTMENT BUILDING S
11,600 SF ± FOOTPRINT
26 UNITS

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PLAN DATE:
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PROJECT:
SOUTH22
AMENDMENT TO SPECIAL USE PERMIT

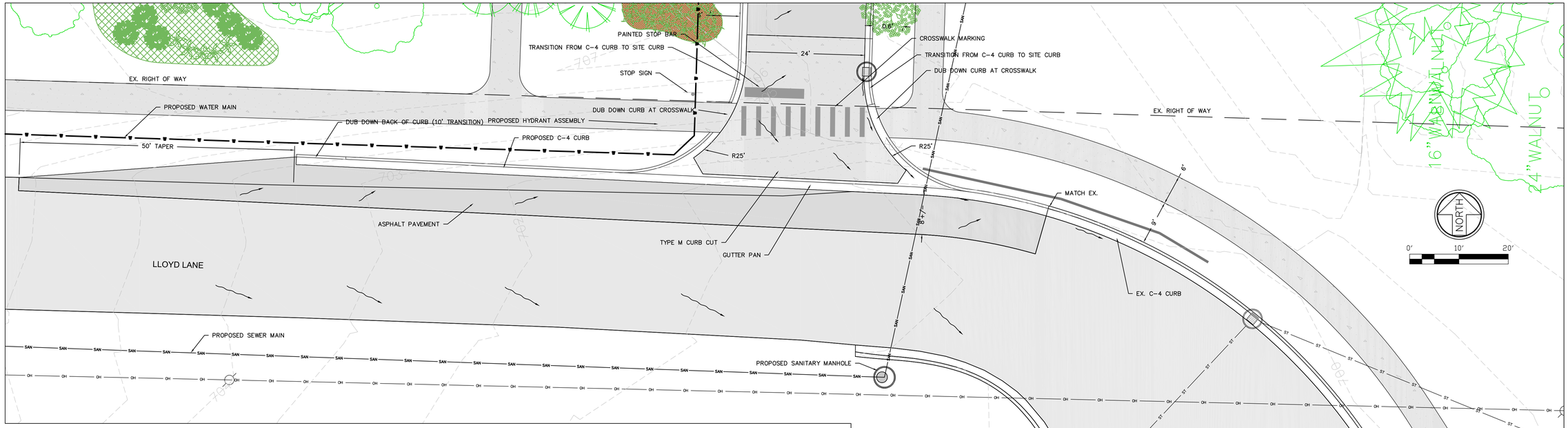
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GRAND TRAVERSE COUNTY, MICHIGAN

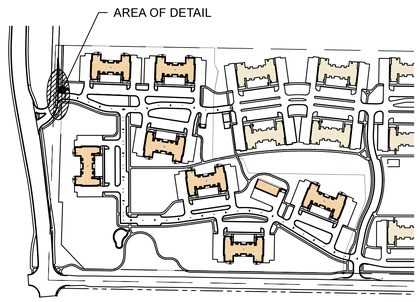
CLIENT:
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

PROJECT NO.:
2016-161_2

SITE PLAN
DETAIL
SOUTHWEST

C303





MDOT GENERAL NOTES:
All facilities, including drainage facilities, shall be located prior to excavation in the Road Commission right-of-way.

Road Commission facilities are not located through the Miss Dig system. A 72 hours advance written notice is required to have freeway lighting staked or MITS-Freeway Ops facilities located.

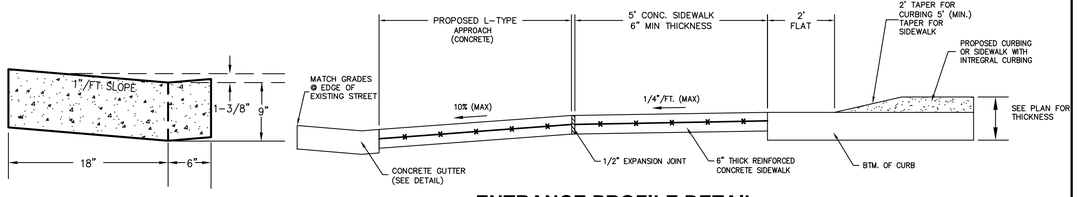
No parking or storage of material or equipment will be allowed within the Road Commission right-of-way.

Saw cut the existing concrete curb and gutter and approach full depth and remove them prior to placing the driveway approach.

All traffic control devices shall be MMUTCD compliant. Traffic control devices are inclusive of signs, barricades, vertical panels, drums, warning lights, arrow boards, changeable message signs, cones, tubular markers, pavement tape, and paint and pavement markers.

Pavement areas and curb lengths adjacent to the proposed pavement repairs shall be removed when the adjacent pavement area or curb length is less than six (6) feet in length or within six (6) feet of an existing joint. The removal shall be performed as specified in Section 603 of the MDOT 2012 Standard Specifications for Construction.

ROAD COMMISSION NOTES

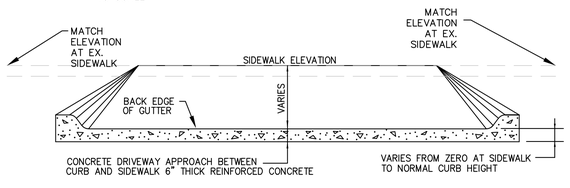


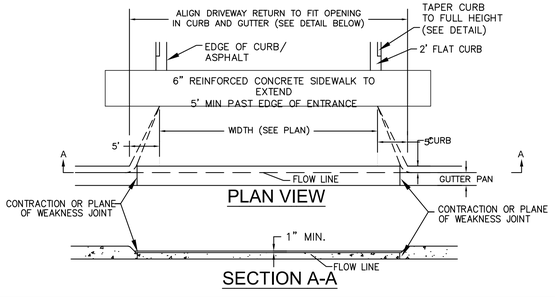
ENTRANCE PROFILE DETAIL

NO SCALE

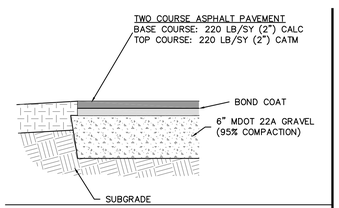
CONCRETE GUTTER

NO SCALE

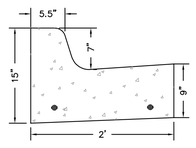




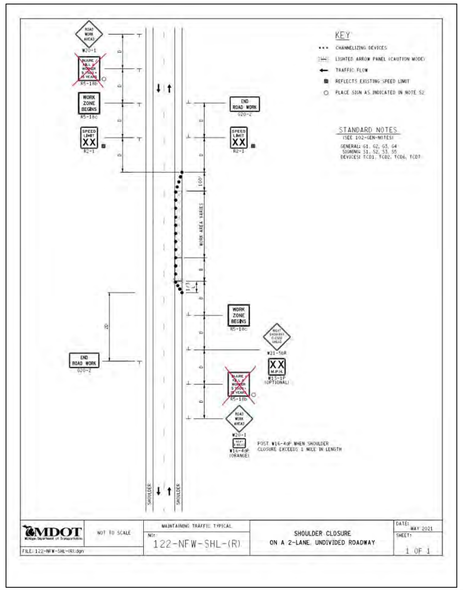
SOUTH AIRPORT ENTRANCE DETAIL



PAVING DETAIL



C-4 CURB DETAIL



TEMPORARY TRAFFIC CONTROL FOR SHOULDER CLOSURE

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PLAN DATE:
4-24-2023 SUP MAJOR AMENDMENT INTRODUCTION SUBMITTAL

PROJECT:
SOUTH22
AMENDMENT TO SPECIAL USE PERMIT

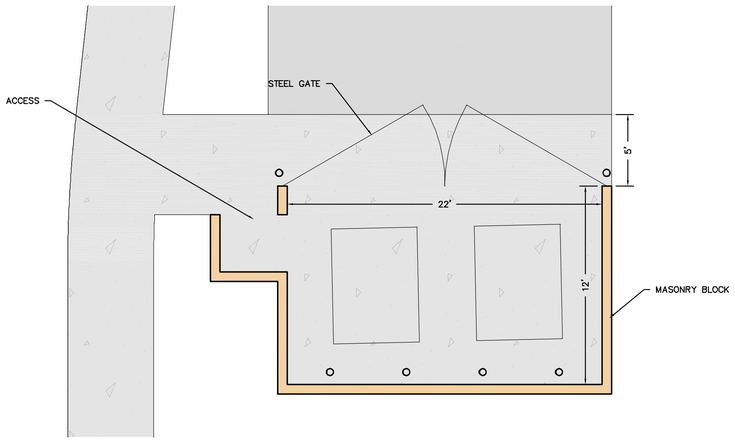
LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP.
GRAND TRAVERSE COUNTY, MICHIGAN

CLIENT:
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

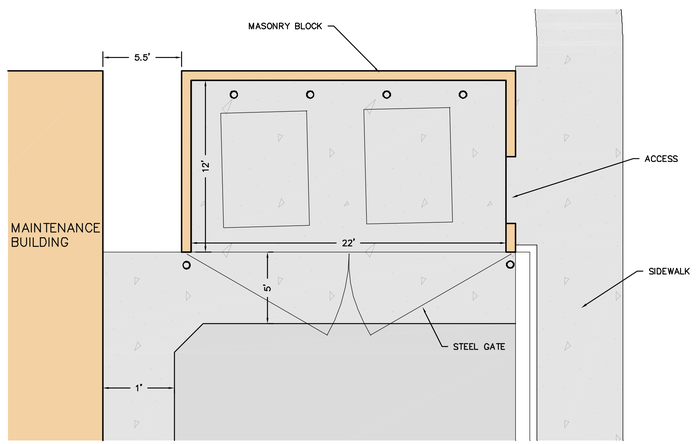
PROJECT NO.:
2016-161_2

LLOYD LANE
ENTRANCE
DETAIL

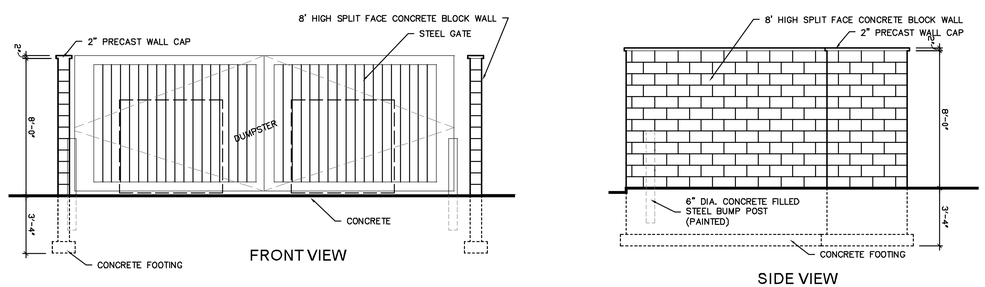
C401



WEST DUMPSTER PAD ENLARGED VIEW



EAST DUMPSTER PAD ENLARGED VIEW



DUMPSTER PAD DETAIL

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PLAN DATE:
1-24-2023 SUP MAJOR AMENDMENT INTRODUCTION SUBMITTAL

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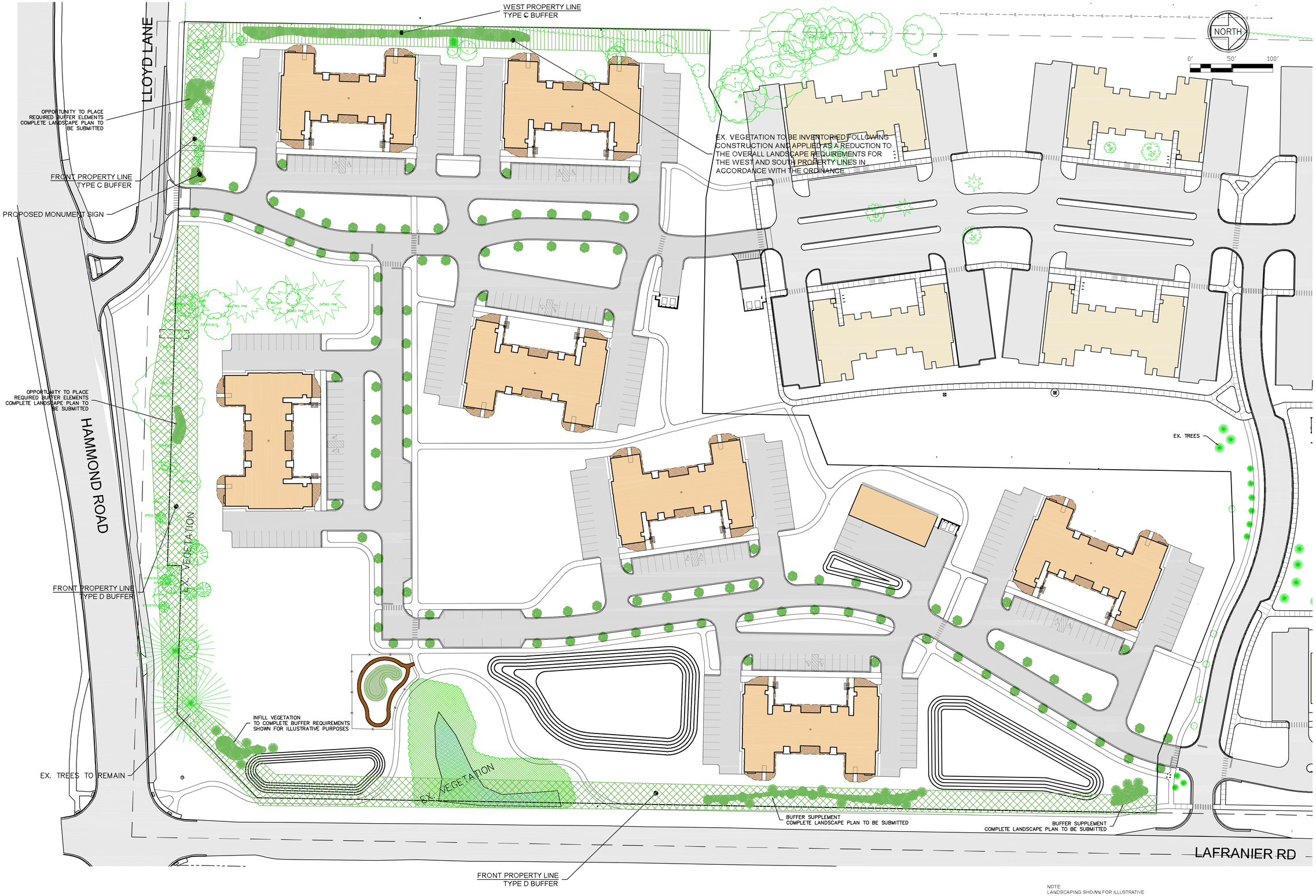
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CLIENT:
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1435 FULTON ST.
GRAND HAVEN, MI 49417

PROJECT NO.:
2016-161_2

DUMPSTER
PAD DETAILS

C501



NOTE:
LANDSCAPING SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
EXISTING LANDSCAPE INVENTORY TO BE TAKEN FOLLOWING SITE WORK AND LANDSCAPE PLAN WILL MEET RESPECTIVE BUFFER REQUIREMENTS.

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PROJECT
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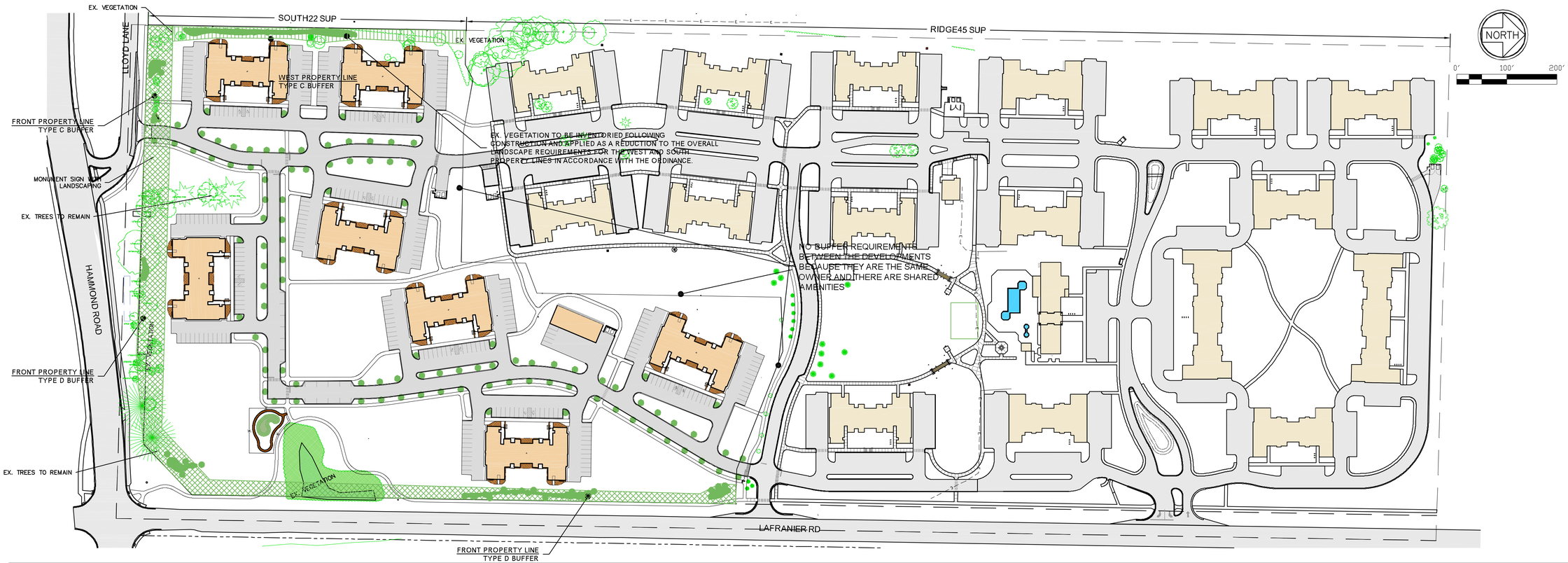
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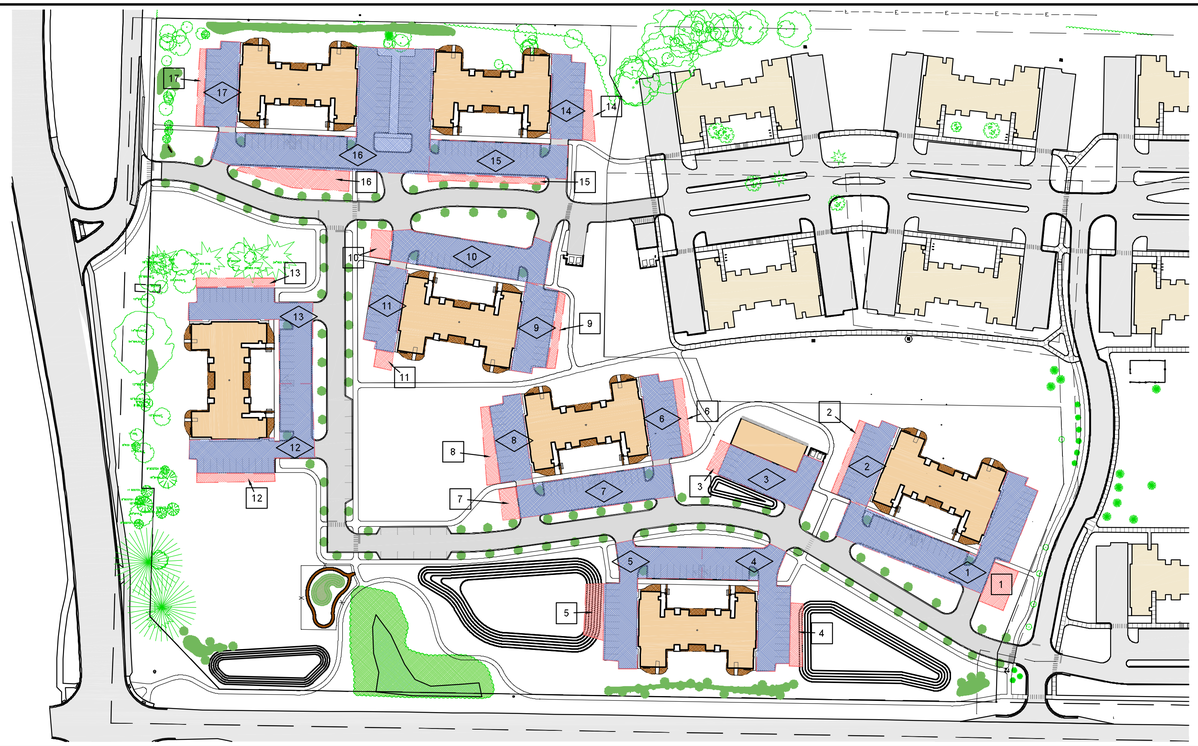
PROJECT NO.:
2016-161_2

LANDSCAPE COMPLIANCE PLAN

C701



LANDSCAPE COMPLIANCE PLAN



SNOW STORAGE COMPLIANCE PLAN

Area ID	Parking area (sf)	Snow Storage Required (sf)	Snow Storage Provided (sf)
1	16400	1640	2080
2	5000	500	950
3	6600	660	700
4	10400	1040	1500
5	10500	1050	1900
6	5150	515	1300
7	9950	995	1030
8	5200	520	1650
9	5690	569	1050
10	10400	1040	1070
11	5100	510	600
12	10500	1050	1300
13	10500	1050	1300
14	5300	530	900
15	9000	900	1300
16	27400	2740	3280
17	5400	540	1000

MAIN DRIVES WILL BE PLOWED REGULARLY AND SNOW WINDROWED ALONG CURB LINE. PERIODICALLY, SNOW WILL BE MOVED TO MAIN STORMWATER BASIN.

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PLAN DATE
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GRAND TRAVERSE COUNTY, MICHIGAN

CLIENT
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

PROJECT NO.:
2016-161_2

ZONING COMPLIANCE

C701



NORTH

POST–CONSTRUCTION STORM WATER CONTROL MAINTENANCE INFORMATION

THE FOLLOWING LIST DESCRIBES STANDARD INSPECTIONS AND MAINTENANCE THAT ARE REQUIRED FOR MOST STORM WATER SYSTEMS. THE OWNER IS RESPONSIBLE FOR MAINTAINING THE STORM WATER SYSTEM. THIS LIST IS A STARTING POINT AND SHOULD BE ADDED TO BY THE OWNER:

INSPECT ALL CATCH BASINS FOR SEDIMENT LEVELS IN THE SUMPS. IF THE SEDIMENT IS DETERMINED TO BE WITHIN 8" OF THE DOWN–TURNED ELBOW, THE OWNER SHALL HAVE THE CATCH BASIN(S) CLEANED.

INSPECT ALL INFILTRATION BASINS WITHIN THE PROJECT. IF SEDIMENT LEVELS ARE NOTICABLE AND/OR THERE IS A NOTICABLE DECREASE IN THE PERMEABILITY OF THE BASIN BOTTOM, CLEAN THE BASINS.

REMOVE ANY DEBRIS OR FLOATABLES FROM THE INFILTRATION AND ON THE PROPERTY. CLEANING SILT FROM THE PARKING LOTS AND STREETS IS ADVISABLE TO REDUCE THE AMOUNT THAT ENTERS THE STORM SYSTEM.

INSPECT THE GROUNDS FOR EROSION. REPAIR AS NECESSARY.

MOW THE INFILTRATION BASINS AT LEAST TWICE PER YEAR TO PREVENT WOODY VEGETATION FROM TAKING HOLD.

CLEAN OR REPLACE STONE AT THE PIPE ENDS IN THE INFILTRATION BASIN AS NECESSARY.

IN THE EVENT OF ON–GOING PROBLEMS THAT RECUR, CONTACT A PROFESSIONAL ENGINEER FOR GUIDANCE.

POST-CONSTRUCTION MAINTENANCE PLAN

jozwiak consulting
p.o. box 5342 | traverse city, mi 49696 | 231-218-1201
www.jozwiakconsulting.com

PLAN DATE:
4-24-2023 SUP MAJOR AMENDMENT INTRODUCTION SUBMITTAL

PROJECT:
SOUTH22
AMENDMENT TO SPECIAL USE PERMIT

CLIENT:
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP,
GRAND TRAVERSE COUNTY, MICHIGAN

PROJECT NO.:
2016-161_2

STORMWATER MANAGEMENT PLAN

C702



BOUNDARY LINE AND DENSITY EXHIBIT

Part of the Southwest 1/4 of Section 23, Town 27 North, Range 11 West, Garfield Township, Grand Traverse County, Michigan, more fully described as:

BEGINNING at said South 1/4 corner of said Section 23; thence N 88°13'15" W, 986.41 feet; thence N 00°57'43" E, 668.25 feet; thence S 88°39'16" E, 68.63 feet; thence N 62°30'13" E, 33.30 feet; thence S 79°41'00" E, 105.90 feet; thence S 89°02'29" E, 280.84 feet; thence N 00°57'31" E, 128.56 feet; thence N 89°26'22" E, 63.87 feet; thence N 00°57'31" E, 487.12 feet; thence N 87°49'46" E, 107.67 feet; thence S 68°36'08" E, 252.66 feet; thence S 88°18'05" E, 119.56 feet; thence S 00°57'31" W, 1235.77 feet to the POINT OF BEGINNING.

Containing 21.85 acres, more or less.

Subject to and together with agreements, covenants, easements, and restrictions of record.

LEGAL DESCRIPTION (SOUTH22)

SOUTH22 BOUNDARY
196 DWELLING UNITS PROPOSED

EXISTING
GROSS AREA =21.58 ACRES
NET AREA = 19.07 ACRES

PROPOSED
AFTER LOT LINE ADJUSTMENT AND ROW REMOVAL
GROSS AREA = 21.85 ACRES
NET AREA = 19.50 ACRES (AFTER RIGHT OF WAY CONVEYANCE ALONG LAFRANIER)
UNIT DENSITY = 10.05 UNITS PER NET ACRE

RIDGE45 BOUNDARY
400 DWELLING UNITS

EXISTING
GROSS AREA = 38.65
NET AREA = 37.59 ACRES
UNIT DENSITY = 10.64 UNITS PER NET ACRE

PROPOSED
AFTER LOT LINE ADJUSTMENT
GROSS AREA = 37.8 ACRES
NET AREA = 36.74 ACRES
UNIT DENSITY = 10.89 UNITS PER NET ACRE

NOTE: NET AREA DOES NOT INCLUDE THE REDUCTION OF THE 17' RIGHT OF WAY THAT WAS CONVEYED TO THE ROAD COMMISSION AT THE TIME OF DEVELOPMENT. THIS ACCOUNTS FOR A REDUCTION OF 0.55 ACRES.

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www.jozwiakconsulting.com

PLAN DATE
4-24-2023 SUP MAJOR AMENDMENT INTRODUCTION SUBMITTAL

PROJECT
SOUTH22
AMENDMENT TO SPECIAL USE PERMIT

CLIENT
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

LOCATION
SECTION 23, T27N - R11W, GARFIELD TWP,
GRAND TRAVERSE COUNTY, MICHIGAN

PROJECT NO.:
2016-161_2

PROPERTY BOUNDARY EXHIBIT

C704



APPLIED AT % SITEWORK COMPLETE	KEY	DETAIL	CHARACTERISTICS
20%	2	Selective Grading & Shaping	Water can be diverted to minimize erosion Flatter slopes ease erosion problems
10-50%	6	Seeding with Mulch Blanket and/or Matting	Facilitates establishment of vegetative cover Effective for drainageways with low velocity Easily placed in small quantities by inexperienced personnel Should include prepared topsoil bed
20%	14	Anti-Tracking Pad	Stabilizes surface, thus minimizing erosion Permits construction traffic in adverse weather May be used as part of permanent base construction of paved areas
80-100%	15	Paving	Protects areas which cannot otherwise be protected, but increases runoff volume and velocity Irregular surface will help slow velocity
90-100%	16	Curb & Gutter	Keeps high velocity runoff on paved areas from leaving paved surface Collects and conducts runoff to enclosed drainage system or prepared drainageway
90-100%	35	Storm Sewer	System removes collected runoff from site, particularly from paved areas Can accept large concentrations of runoff Conducts runoff to municipal sewer system or stabilized outfall location Use catch basins to collect sediment
40-100%	36	Catch Basin, Drain Inlet	Collects high velocity concentrated runoff Use filter cloth over inlet
0-100%	38	Silt Fence Straw Bale Filter	Filters and detains runoff Inexpensive and easy to construct Can be located as necessary to collect sediment May be used in conjunction with snow fence for added stability
1%	54	Silt Fence	Filters and detains runoff

DISTURBANCE LIMITS = 18.56 ACRES

SOILS: SOILS ARE PREDOMINANTLY SAND AND ARE SUITABLE FOR SUBGRADE. IT IS INTENDED THAT THE SITE WILL BALANCE AND THAT THE ONLY EXPORT OF MATERIALS WILL BE EXCESS TOPSOIL

NEAREST WATERBODY: BOARDMAN RIVER IS LOCATED 2,210 FEET WEST OF THE PROJECT.

jozwiak consulting
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PLAN DATE:
4-24-2023 SUP MAJOR AMENDMENT INTRODUCTION SUBMITTAL

PROJECT:
SOUTH22
AMENDMENT TO SPECIAL USE PERMIT

LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP,
GRAND TRAVERSE COUNTY, MICHIGAN

CLIENT:
HAMMOND INVESTMENT PROPERTIES, LLC
1435 FULTON ST.
GRAND HAVEN, MI 49417

PROJECT NO.:
2016-161_2

SOIL EROSION AND SEDIMENT CONTROL PLAN

C705



FRONT PERSPECTIVE VIEW
SCALE:



REAR PERSPECTIVE VIEW
SCALE:

Ridge 45 - 28 Unit Type 1 Building

Phase 4 Address TBD Traverse City, Michigan

WESTWIND

04/21/23 Progress Set date

0823 commission

T1.1 sheet

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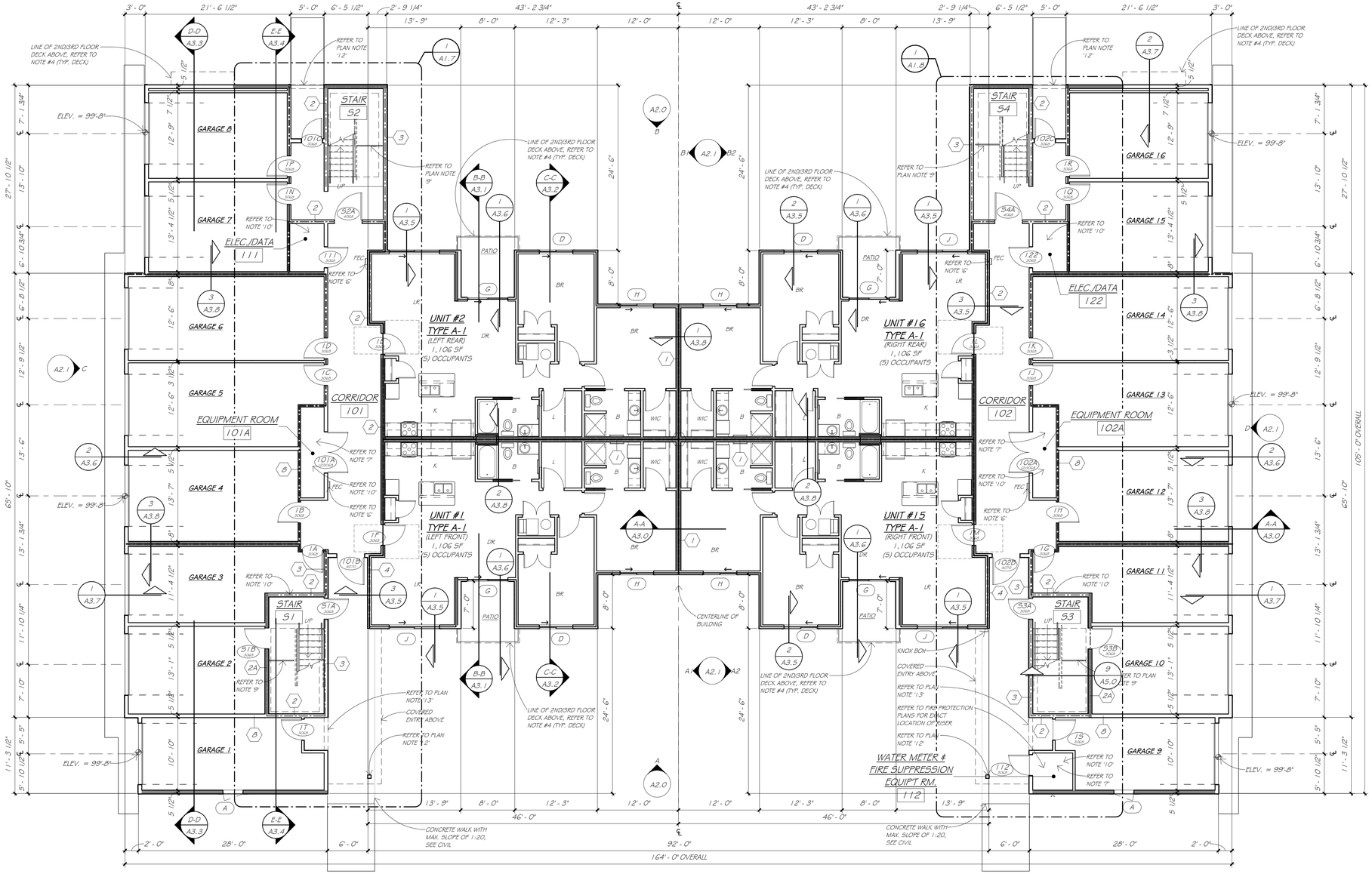
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49417

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Mark A. Oppenhuizen AIA

2023-04-21 8:45:15 AM



OVERALL BUILDING - FIRST FLOOR PLAN (28 UNIT BUILDING)

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

PLAN

OVERALL FIRST FLOOR PLAN NOTES

1.) UNIT MIX AT THIS FLOOR
UNIT A (TYPE 'B' ADAPTABLE) - 2BR/1B (4) TYPE 'B' UNITS
TOTAL FOUR (4) UNITS

2.) BUILDING AREA THIS FLOOR
TOTAL DWELLING UNIT AREA = 4,388 S.F.
TOTAL PUBLIC CORRIDOR AREA = 2,134 S.F.
TOTAL GARAGE AREA = 5,002 S.F.
TOTAL BUILDING AREA = 11,524 S.F.

3.) REFER TO ENLARGED UNIT FLOOR PLANS ON DRAWINGS A1.2-A1.6 FOR UNIT DETAILS, WINDOW/DOOR TYPES AND LOCATIONS.

4.) ALL DIMENSIONS TO FRAMING UNLESS NOTED OTHERWISE

5.) = = = DOTTED LINE INDICATES APPROXIMATE PROFILE OF BULKHEAD ABOVE BELOW CEILING. REFER TO STRUCTURAL FOR BEAM SIZE. MINIMUM HEAD CLEARANCE 7'-6" A.F.F.

6.) AT ENTRY CORRIDOR AND STAIR WALLS THAT ARE COMMON TO RESIDENTIAL UNITS PROVIDE A ONE-HOUR RATED WALL ASSEMBLY THAT COMPLIES WITH UL U344. REFER TO WALL SCHEDULE AND SECTION MATERIAL KEY ON A1.9

7.) FIRE EXTINGUISHER AND CABINET NOTED AS 'FEC' - PROVIDE A LARSON CABINET MODEL #2409-SM WITH AN AMEREX 10 LB ABC, 4A:80B:C FIRE EXTINGUISHER, MODEL #B456

8.) SPACE TO BE HEATED W/ ELECTRIC CABINET TYPE-HEATERS - REFER TO ELECTRICAL PLANS.

9.) THE A-1 UNITS ARE TYPE 'B' ACCESSIBLE DWELLING UNIT AS REQUIRED BY SECTION 1107 OF THE 2015 MBC. ON CERTAIN BUILDINGS THE A-1 UNIT IS REPLACED WITH THE A-2 UNIT, THIS IS NOTED ON THE APPLICABLE PLAN SET. THE A-2 UNITS ARE TYPE 'A' ACCESSIBLE DWELLING UNITS AS REQUIRED BY SECTION 1107 OF 2015 MBC.

10.) PROVIDE A 27" HIGH SINGLE LINE GUARDRAIL AT 80" MIN. CLEAR HEIGHT LOCATION.

11.) INSULATE ALL PERIMETERS WALLS W/ R-13 KRAFT FACED BATT INSULATION.

12.) REFER TO FOUNDATION S1.0 AND ENLARGED CORRIDOR PLANS A1.7 AND A1.8 FOR COLUMN LOCATION DIMENSIONS.

13.) BULKHEAD. BOTTOM OF BULKHEAD AT 7'-0" A.F.F. PROVIDE 2x6 KNEE-WALL TYPE FRAMING BELOW STRUCTURAL BEAM DOWN TO SPECIFIED HEIGHT.

WALL KEY

1.) INDICATES FIRE BARRIER WALL LOCATION.

2.) INDICATES FIRE SEPARATED WALL LOCATION.

3.) INDICATES SHEAR WALL LOCATION. - SEE STRUCTURAL DRAWINGS FOR DETAILS.

WALL SCHEDULE

1.) (#) INDICATS WALL TYPE, REFER TO DRAWING A1.9 FOR WALL TYPE DETAILS

NOTE: ARCHITECTURAL FINISHED FLOOR ELEV. = 100'-0". THIS IS NOT NECESSARILY TIED TO THE SITE FINISHED FLOOR ELEVATION.

Ridge 45 - 28 Unit Type 1 Building

Phase 4 Address TBD Traverse City, Michigan

WESTWIND

04/21/23 Progress Set date

0823 commission

A1.0 sheet

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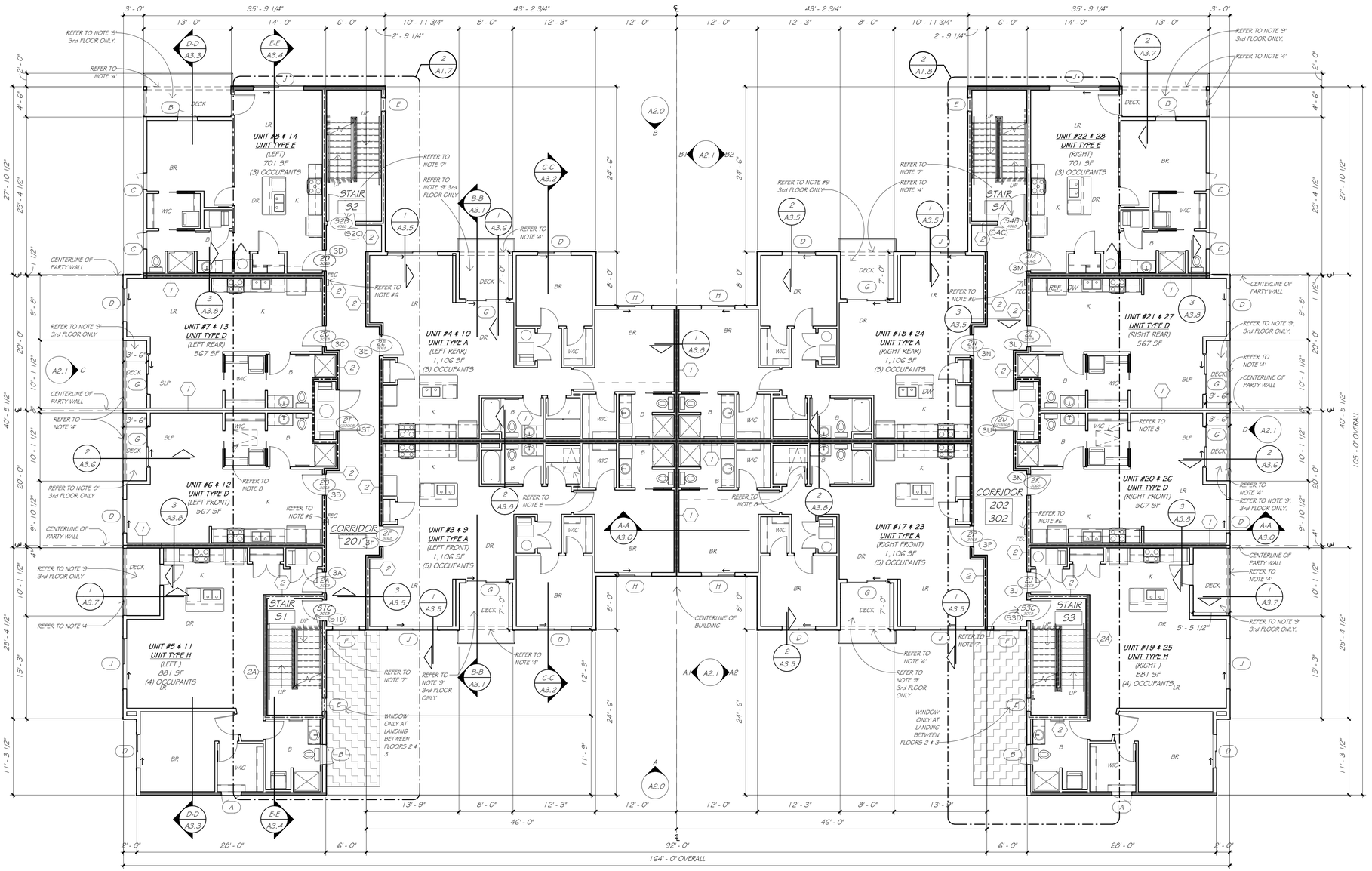
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OVERALL BUILDING - SECOND & THIRD FLOOR PLAN (28 UNIT BUILDING)

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

N
PLAN

OVERALL SECOND AND THIRD FLOOR PLAN NOTES

1.) UNIT MIX AT THIS FLOOR
- UNIT A - 2BR/1B (4) UNITS
- UNIT H - 1BR/1B (2) UNITS
- UNIT D - STUDIO UNITS
- UNIT E - 1BR/1B (2) UNITS
- TOTAL TWELVE (12) UNITS

2.) BUILDING AREA THIS FLOOR
- TOTAL DWELLING UNIT AREA = 9,939 S.F.
- TOTAL PUBLIC CORRIDOR AREA = 1,616 S.F.
- TOTAL DWELLING UNIT DECK AREA = 782 S.F.
- TOTAL BUILDING AREA = 12,101 S.F. 2ND / 3RD

3.) REFER TO ENLARGED UNIT FLOOR PLANS ON DRAWINGS A1.2- A1.6 FOR UNIT DETAILS, WINDOW/DOOR TYPES AND LOCATIONS.

4.) ALL DIMENSIONS TO FRAMING UNLESS NOTED OTHERWISE

5.) = = = DOTTED LINE INDICATES APPROXIMATE PROFILE OF BULKHEAD/DROPPED BEAM, ABOVE BELOW CEILING. REFER TO STRUCTURAL FOR BEAM SIZE. MINIMUM HEAD CLEARANCE 7'-6" A.F.F.

6.) AT ENTRY CORRIDOR AND STAIR WALLS THAT ARE COMMON TO RESIDENTIAL UNITS PROVIDE A ONE-HOUR RATED WALL ASSEMBLY THAT COMPLIES WITH UL U344. REFER TO WALL SCHEDULE AND SECTION MATERIAL KEY ON A1.9

7.) FIRE EXTINGUISHER AND CABINET NOTED AS "FEC" - PROVIDE A LARSON CABINET MODEL #2409-SM WITH AN AMEREX 10 LB ABC, 4A:80B:C FIRE EXTINGUISHER, MODEL #B456

8.) PROVIDE THIS DOOR AT BOTH THE SECOND AND THIRD FLOOR. REFER TO ENLARGED STAIR PLANS ON DRAWINGS A1.7 AND A1.8 AND THE DOOR SCHEDULE FOR ADDITIONAL DETAIL.

9.) ● INDICATES LOCATION OF 22"x30" ONE-HOUR RATED ATTIC ACCESS HATCH. MILCOR-UFR OR EQUAL ACCESS PANEL IN CEILING OF THIRD FLOOR (ONLY) UNITS, SEE LOCATIONS ABOVE.

10.) MAINTAIN ONE-HOUR RATED CEILING AT THIRD FLOOR TRUSSES PER DETAIL 1/A3.1 AT THIRD FLOOR BALCONIES OF UNITS A, D, AND E.

WALL KEY

1.) INDICATES FIRE BARRIER WALL LOCATION.

2.) INDICATES FIRE SEPARATED WALL LOCATION.

3.) INDICATES SHEAR WALL LOCATION. - SEE STRUCTURAL DRAWINGS FOR DETAILS.

WALL SCHEDULE

1.) (#) INDICATS WALL TYPE, REFER TO DRAWING A1.9 FOR WALL TYPE DETAILS

Ridge 45 - 28 Unit Type 1 Building

Phase 4 Address TBD Traverse City, Michigan

WESTWIND

04/21/23 Progress Set date

0823 commission

A1.1 sheet

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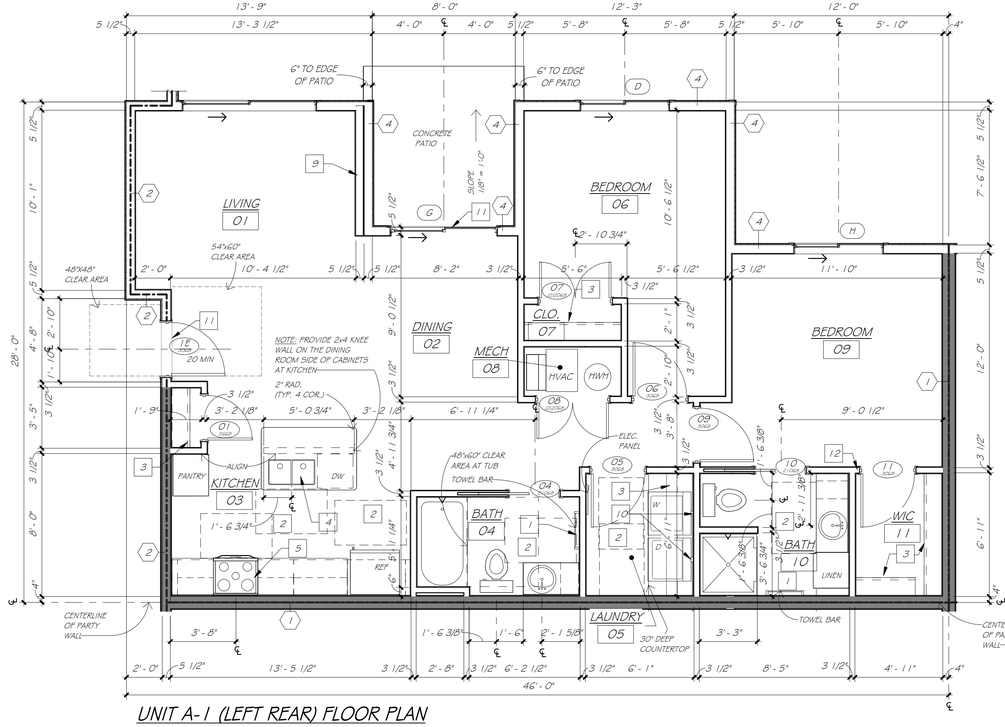
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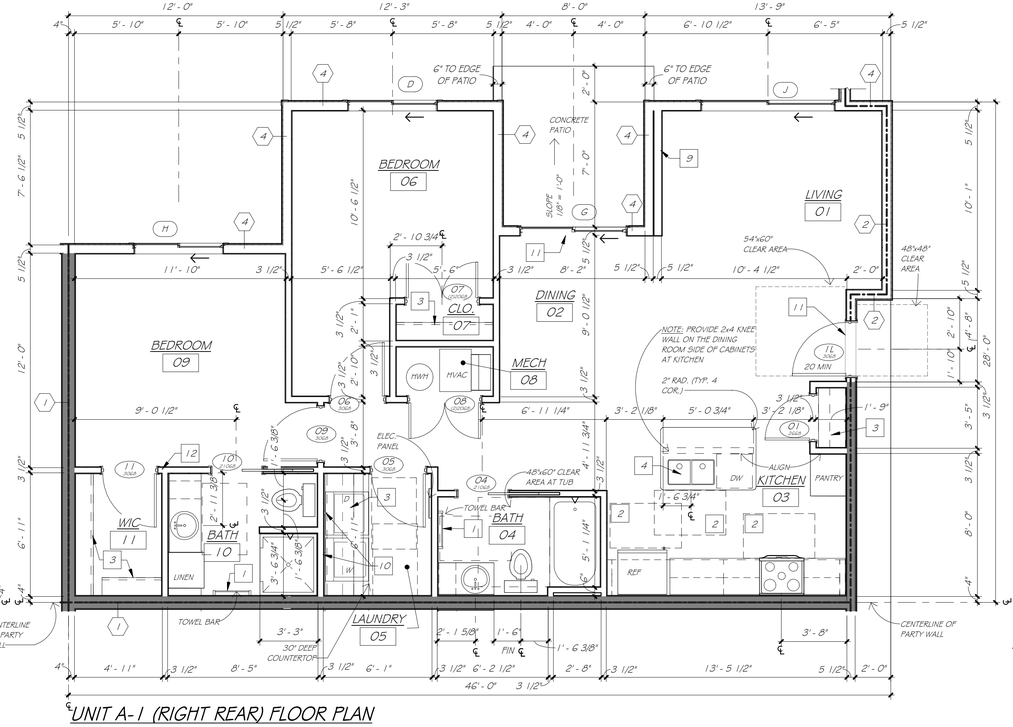
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UNIT A-1 (LEFT REAR) FLOOR PLAN

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

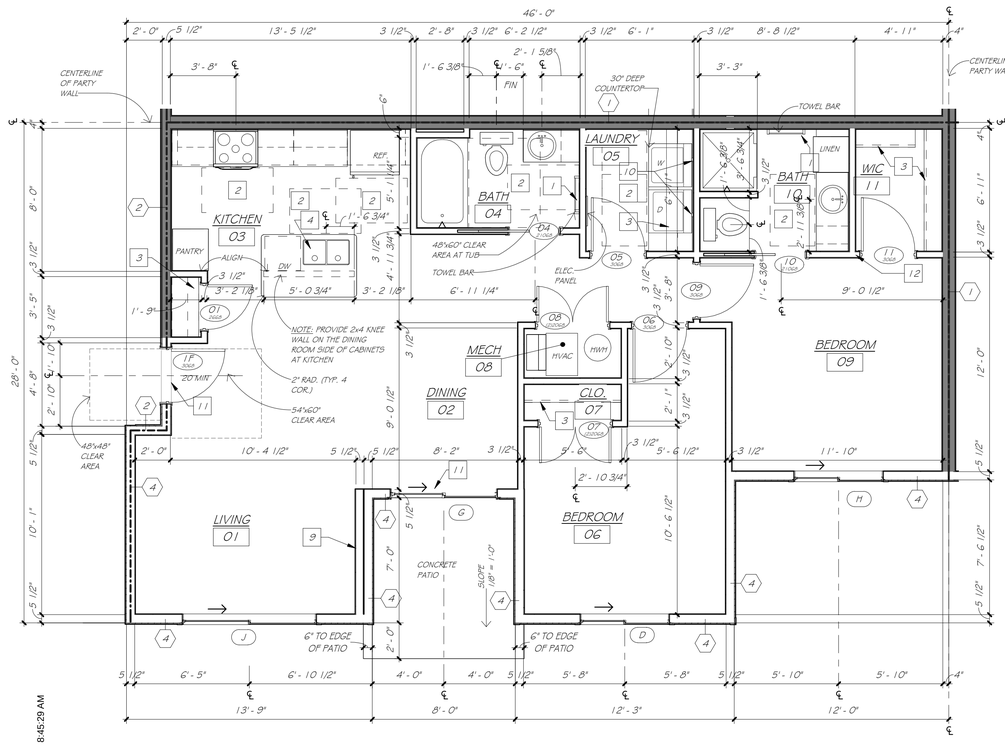
LIVING AREA = 1,106 SQ. FT.
PATIO AREA = 73 SQ. FT.



UNIT A-1 (RIGHT REAR) FLOOR PLAN

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

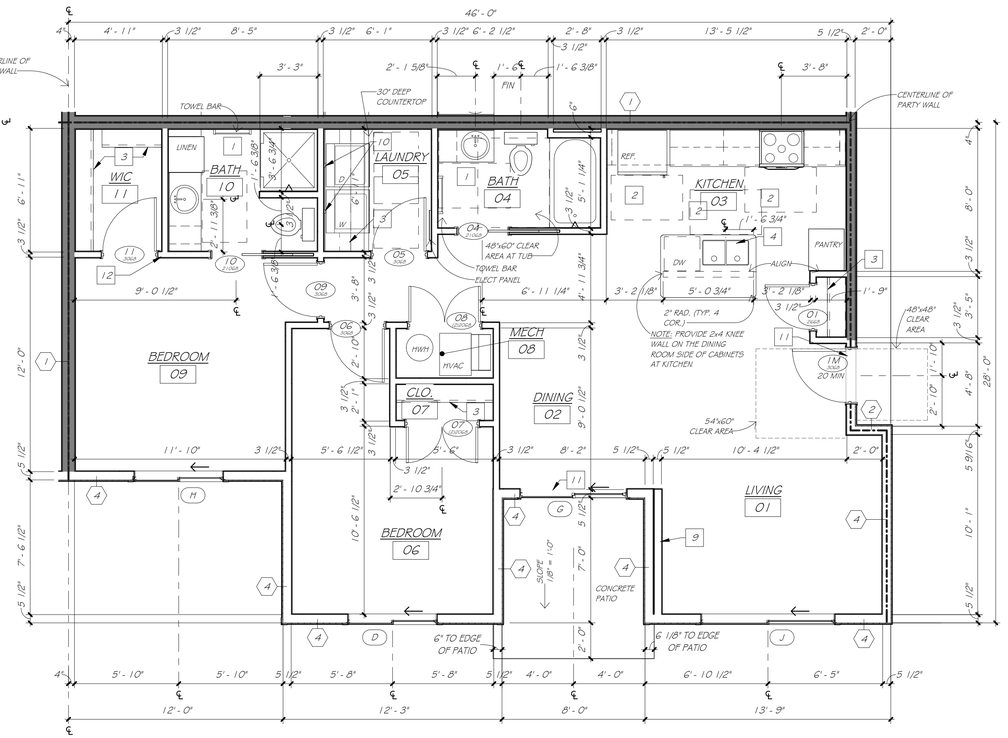
LIVING AREA = 1,106 SQ. FT.
PATIO AREA = 73 SQ. FT.



UNIT A-1 (LEFT FRONT) FLOOR PLAN

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

LIVING AREA = 1,106 SQ. FT.
PATIO AREA = 73 SQ. FT.



UNIT A-1 (RIGHT FRONT) FLOOR PLAN

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

LIVING AREA = 1,106 SQ. FT.
PATIO AREA = 73 SQ. FT.

2023-04-21 8:45:29 AM

UNIT FLOOR PLAN - KEY NOTES

DESIGNATED WITH A (#) SYMBOL AND CORRELATING NUMBER:

1. PROVIDE SOLID 2x WOOD BLOCKING FOR ALL BATHROOM ACCESSORIES AND AT DOOR KNOB INTERSECTIONS WITH WALL LOCATIONS. CENTER TOWEL BAR ON WALL OPENINGS
2. TYPICAL CODE REQUIERED CLEAR AREA SHOWN AS REFERENCE (TYP.) CENTER 30"x48" ON EACH FIXTURE / APPLIANCE PER BARRIER FREE CODE REQUIREMENTS.
3. SHELF TYPE, SUPPORTS, AND CLOSET ROD SYSTEM AS SELECTED BY OWNER. PROVIDE 2x BLOCKING IN WALL AS REQUIRED FOR CLOSET SYSTEM INSTALLATION.
4. UNDERMOUNT DOUBLE BOWL STAINLESS STEEL SINK WITH GOOSENECK FAUCET, SEE PLUMBING.
5. MICROWAVE OVEN WITH HOOD/VENT MOUNTED AT UPPER CABINET ABOVE RANGE.
9. 2x6 STUD FRAMING WITH 1/2" GYPSUM BOARD TO MATCH LENGTH OF WALL TO CONCEAL FIRE PROTECTION PIPING.
10. RECESSED WASHER CONNECTION BOX AND RECESSED DRYER VENT BOX
11. PROVIDE ADA COMPLIANT LOW PROFILE THRESHOLD, 1/2" MAX HEIGHT.
12. DOORS POSITIONED AT CORNERS SHOULD BE A MINIMUM OF 3" FROM CORNER. (STUD + LAP STUD DIM.)

WALL KEY

1. ——·——·—— INDICATES FIRE BARRIER WALL LOCATION.
2. ——·—— INDICATES FIRE SEPARATED WALL LOCATION.
3. ▭ INDICATES SHEAR WALL LOCATION. - SEE STRUCTURAL DRAWINGS FOR DETAILS.

WALL SCHEDULE

1. (#) INDICATS WALL TYPE, REFER TO DRAWING A1.9 FOR WALL TYPE DETAILS

Ridge 45 - 28 Unit Type 1 Building

Phase 4 Address TBD Traverse City, Michigan

WESTWIND

04/21/23 Progress Set date

0823 commission

A1.2 sheet

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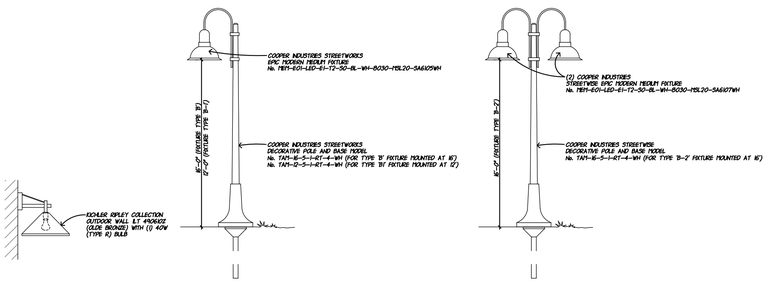
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FIXTURE TYPE 'SL-A' | FIXTURE TYPE 'SL-B' AND 'SL-B1' | FIXTURE TYPE 'SL-B2'

LIGHT FIXTURE DETAILS

NO SCALE

TYPE 'SL-A' | TYPE 'SL-B1' | TYPE 'SL-B' | TYPE 'SL-B2'

STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Site Calcs #	+	2.2 fc	8.9 fc	0.0 fc	N/A	N/A

LIGHT FIXTURE LEGEND

NO SCALE

N SITE LIGHTING & PHOTOMETRIC
SCALE: 1"=50'

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Wednesday, May 03, 2023 at 12:03pm E:\4322 Ridge45 phase 3&4\Phase 4 Site Lighting\Phase 4 Site Lighting.dwg Rhoades Engineering

REVIEW SET NOT FOR CONSTRUCTION

4803 Henry St.
Muskegon, MI 49441
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Rhoades Engineering
Consulting Engineers
Mechanical - Electrical
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PROJECT TITLE:
SOUTH 22 MULTI-FAMILY HOUSING DEVELOPMENT
TRAVERSE CITY, MI

SEAL & SIGNATURE

STATE OF MICHIGAN
RANDALL J. RHOADES
ENGINEER
6201
PROFESSIONAL ENGINEER
5-3-23

DATE:	ISSUED FOR:
2023.05.03	PHASE 4 SITE LIGHTING & PHOTOMETRIC

PROJECT No.
REC #4322

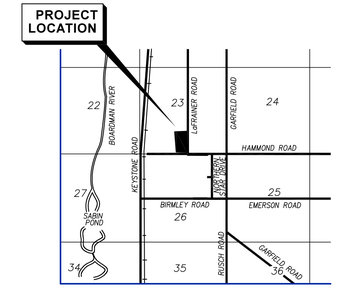
DRAWING TITLE:
SITE LIGHTING AND PHOTOMETRIC

SHEET No.
ES101

SPECIAL USE PERMIT AMENDMENT
FOR
ridge45
MULTI-FAMILY HOUSING DEVELOPMENT

AMENDMENT REQUEST:
THE DEVELOPER OF SOUTH22 IS COMMON TO THE OWNER OF RIDGE45.
THE DEVELOPER IS COMBINING THE DEVELOPMENTS TO ALLOW AMENITIES TO BE SHARED BETWEEN THE TWO DEVELOPMENTS.

THE AMENDMENT IS TO ALLOW THE JOINING AND SHARING OF THE TWO DEVELOPMENTS AND TO ALSO REMOVE THE TYPE C BUFFER REQUIREMENTS THAT IS ALONG THE SHARED PARCEL LINE.



PROJECT LOCATION MAP

PROPERTY OWNER/SITE DATA
Midwest MFD, LLC
1435 Fulton St.
Grand Haven, MI 49417

SITE:
LaFranier Rd.
Parcel ID: 05-023-025-50

Zoning: R-1M

SITE DATA



OVERALL DEVELOPMENT MAP

jozwiak consulting
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PLAN DATE:
6-25-18 PER FROM SEWER ERROR CORRECTION
6-25-18 FF RAISED FOR GARAGE SLOPE
7-16-18 STORM DRAIN UPDATES
7-25-18 MULTIPLE PLAN UPDATES
8-23-18 INCREASE FF AMENITY BUILDING
9-25-18 SIDEWALK UPDATE
9-26-18 PEDESTRIAN BRIDGE PLAN
5-24-19 SIGNAL FROM BLDG A AND L
7-22-19 SESC UPDATE
7-16-20 SESC UPDATE
11-16-21 ADMINISTRATIVE REVIEW AND C OF O COMPLIANCE
12-14-21 WEST PROPERTY LINE LANDSCAPE AMENDMENT
4-24-23 WEST PROPERTY LINE LANDSCAPE AMENDMENT

PROJECT:
ridge45
AMENDMENT TO SPECIAL USE PERMIT

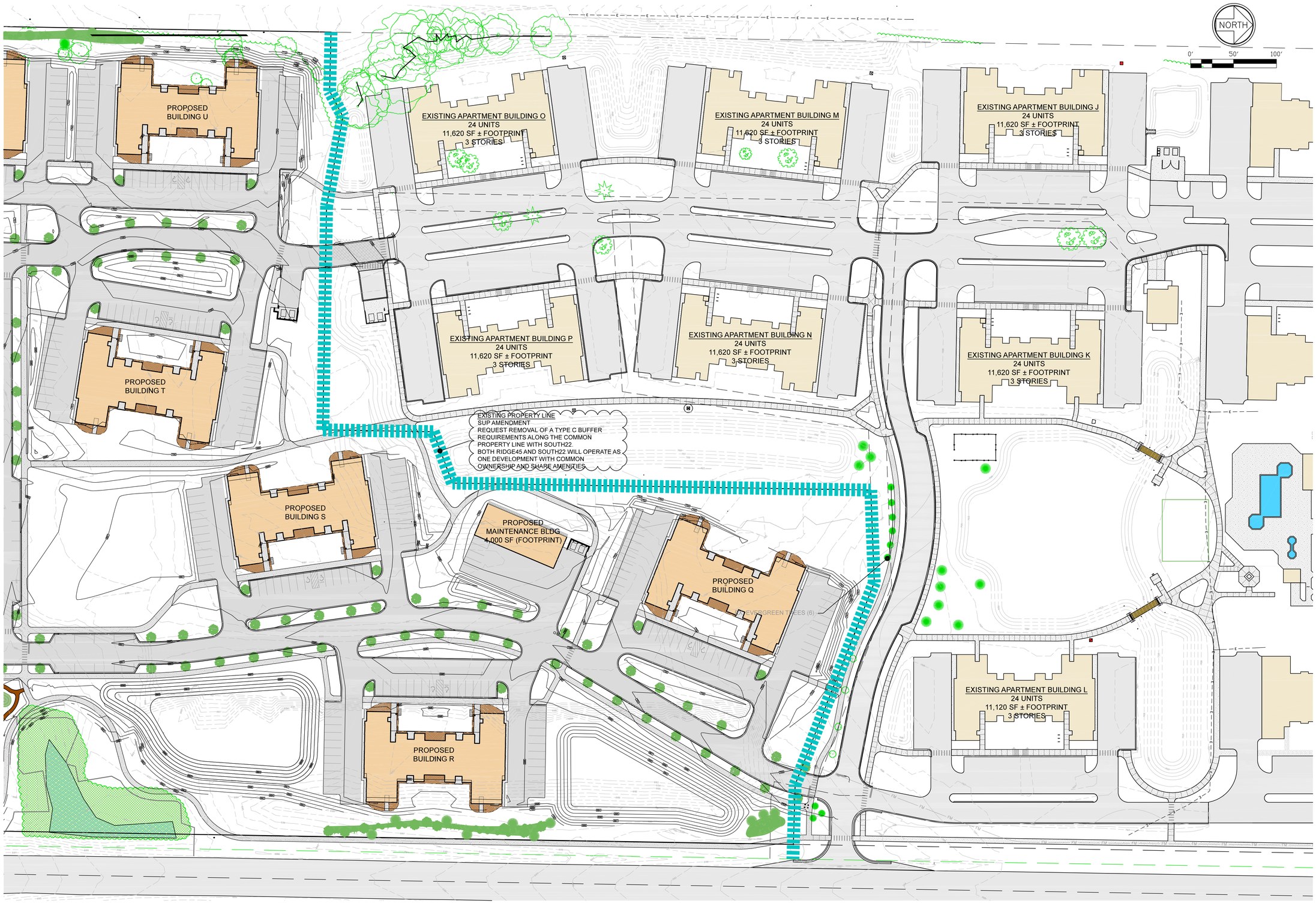
LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP.
GRAND TRAVERSE COUNTY, MICHIGAN

CLIENT:
MIDWEST MFD, LLC.
1435 FULTON ST.
GRAND HAVEN, MI 49417

PROJECT NO.:
2016-161

GENERAL PLAN INFORMATION

C100



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PLAN DATE:
6-11-18 STORM SEWER ERROR CORRECTION
6-25-18 FF ELEVATIONS, ROAD SLOPE
7-16-18 STORM DRAIN UPDATES
7-26-18 MULTIPLE PLAN UPDATES
8-13-18 BUILDING MAINTENANCE BUILDING
9-25-18 SIDEWALK UPDATE
9-28-18 PEDESTRIAN BRIDGE PLAN
10-29-19 SESC UPDATES
7-22-19 SESC UPDATE
7-16-20 SESC UPDATE
10-14-21 ADDITIONAL REVIEW AND C OF O COMPLIANCE
10-14-21 WEST PROPERTY LINE LANDSCAPE AMENDMENT
4-24-23 WEST PROPERTY LINE LANDSCAPE AMENDMENT

PROJECT:
ridge45
AMENDMENT TO SPECIAL USE PERMIT

LOCATION:
SECTION 23, T27N - R11W, GARFIELD TWP.
GRAND TRAVERSE COUNTY, MICHIGAN

CLIENT:
MIDWEST MFD, LLC.
1435 FULTON ST.
GRAND HAVEN, MI 49417

PROJECT NO.:
2016-161

2023
AMENDMENT
EXHIBIT

C704

Charter Township of Garfield
Planning Department Report No. 2023-67

Prepared:	June 7, 2023	Pages:	5
Meeting:	June 14, 2023 Planning Commission	Attachments:	☒
Subject:	Oleson PUD Major Amendment – Findings of Fact		
Applicant:	Brad Oleson, Oleson's Food Stores		
Owner:	G.D.O. Investments		
Agent:	Brad Oleson, Oleson's Food Stores		
File No.	SUP-1997-06-F		
Parcel No.	05-009-001-00		

PURPOSE OF APPLICATION:

Approved in 1997, the Oleson Planned Unit Development (PUD) is a commercial development, including a grocery store, offices, restaurant, service establishments, and a car wash. A request to amend the PUD is being considered according to Section 423.G of the Zoning Ordinance. By incorporating a residential use, Staff has determined that this amendment constitutes a major amendment which requires a public hearing, Planning Commission review and recommendation, and Township Board approval. The applicant proposes converting 6,960 square feet of second-floor office space into six apartments. There are to be five two-bedroom units and one three-bedroom unit.

SUBJECT PROPERTY:

The PUD is located at the corner of North Long Lake and Cedar Run Roads and comprises 21.15 acres of land.

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



Enlarged portion of aerial image of the subject property:



SITE DESIGN AND ZONING COMPLIANCE OVERVIEW:
Since the proposed amendment is a conversion of an office into multi-family residential and no building construction will be occurring, most requirements are currently met by the current development. However, staff does offer the following comments regarding site design and compliance with the Zoning Ordinance related to the new residential use:

Written Consent:
With an application to amend an approved PUD, the application shall include written consent to the application by the owner(s) of at least sixty (60) percent of approved development sites or land area within the planned development. In this case, there is only one owner, and it is the owner making the application. Therefore, written consent is not applicable.

Useable Open Space
By incorporating in residential uses, the review criteria for a PUD requires useable open space. Section 426.A(4) of the Zoning Ordinance states that a "Planned Unit Development shall be designed to incorporate a minimum of 20% useable open space to supplement the residents of the PUD and/or Garfield Township. These areas are anticipated to provide recreational opportunities such as parks, trails, playgrounds, and other similar opportunities." To meet this requirement, the applicant is proposing several sidewalk and trail improvements to create access to the open space on the subject site.

Vehicular Parking:
Based on the following analysis, the demand for parking and the required parking will be less with the conversion from office to multi-family residential.

- Current use: Office
  - Minimum required spaces: 1 for each two hundred (200) square feet of floor area
  - Maximum required spaces: 1 for each one hundred (150) square feet of floor area
  - 6,960 square feet of office requires a minimum of 35 spaces and a maximum 46 spaces

- Proposed use: Multi-family dwellings
  - Minimum required spaces: 1.5 per dwelling unit
  - Maximum required spaces: 2.0 per dwelling unit
  - Six proposed dwelling units requires a minimum of 9 spaces and a maximum of 12 spaces

FINDINGS OF FACT:

1) An application has been received to convert existing office space into multi-family dwellings in an existing PUD on 21.15 acres at the corner of North Long Lake Road and Cedar Run Road.
2) The proposed development will convert 6,960 square feet of second-floor office space into six apartments. There are to be five two-bedroom units and one three-bedroom unit.

Section 426.E(4) Criteria

(a) The uses will be compatible with the natural environment, and with adjacent and surrounding land uses and properties, and will not have an adverse economic, social or environmental impact on adjacent and surrounding land uses and properties;

- Finding: The Planning Commission finds that this standard HAS BEEN MET because the application proposes new multi-family residential units in an existing commercial development resulting in less intense use. An existing forested area of the site possesses approximately 7 acres or 33% of the total parcel. Access to this area will be improved with new sidewalks and pathways for future residents as well as visitors to the site. Collectively, these uses and improvements create a mixed-use development with business and residential uses with a dedicated natural area. Since its construction over 20 years ago, this development has not had any adverse impact on surrounding land uses and properties.

(b) The uses will be compatible with the capacity of existing public services and facilities, or of planned and feasible future public services and facilities, and such use is consistent with the public health, safety and welfare of the Township residents;

- Finding: The Planning Commission finds that the standard HAS BEEN MET. The proposed conversion is in an existing commercial PUD. The proposed use does not create any additional demand than what was previously approved for this location.

(c) The uses and development are warranted by the design of additional amenities made possible with, and incorporated by, the development proposal;

- Finding: The Planning Commission finds that this standard HAS BEEN MET. The use is part of a developed PUD. Additional sidewalks and pathways will be installed to complement the PUD and provide additional amenities.

(d) Insofar as practicable, the landscape shall be preserved in its natural state by minimizing tree and soil disturbance and removal;

- Finding: The Planning Commission finds that this standard HAS BEEN MET because the proposed development does not alter any of the exterior areas. Existing landscaping is in place on the site and will be preserved.

(e) Existing important natural, historical and architectural features within the development shall be preserved;

- Finding: The Planning Commission finds that the standard HAS BEEN MET because the proposed development does not alter any of the exterior areas. Wetlands on the site will not be disturbed. There are no known historical or architectural features on the site.

(f) Proposed buildings shall be sited harmoniously to the terrain and to other buildings in the vicinity that have a visual relationship to the proposed buildings;

- Finding: The Planning Commission finds that the standard HAS BEEN MET because the proposed development does not alter any of the exterior areas.

(g) With respect to vehicular and pedestrian circulation and parking, special attention shall be given to the location and number of access points to public streets, minimizing potential motorized/non-motorized conflict points, width of interior drives and access points, general interior circulation, separation of pedestrian and vehicular traffic, and the arrangement of parking areas that are safe and convenient and, insofar as is practicable, do not detract from the design of proposed structures and neighboring properties;

- Finding: The Planning Commission finds that the standard HAS BEEN MET because the existing roadways and drives are laid out in a cohesive manner, including safe and separate areas for pedestrians and vehicles. New sidewalks and pathways will be provided to improve access to the natural area on the site and to other neighboring locations such as Munson Medical Center.

(h) Landscaping is provided to ensure that proposed uses will be adequately buffered from one another and from surrounding public and private property and, where applicable, to create a pleasant pedestrian scale outdoor environment;

- Finding: The Planning Commission finds that the standard HAS BEEN MET because the proposed development does not alter any of the exterior areas. Existing landscaping is in place on the site and will be preserved.

(i) The development consolidates and maximizes useable open space;

- Finding: The Planning Commission finds that the standard HAS BEEN MET because access to the natural area on site will be improved with new sidewalks and pathways for future residents as well as visitors to the site.

(j) The benefits of the development are not achievable under any single zoning classification; and

- Finding: The Planning Commission finds that the standard HAS BEEN MET because the application requests an amendment to an existing, mixed-use development which is not achievable under any single zoning district.

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

- Finding: The Planning Commission finds that the standard HAS BEEN MET because the amended development plan remains consistent with the Master Plan designation for this area as commercial. The proposed use is suited for this designation as currently the Zoning Ordinance permits residential dwellings above commercial businesses.

ACTION REQUESTED:

The purpose of this agenda item is to consider Findings of Fact for the application. Following consideration and Commissioner discussion, the following motion is offered for consideration:

> MOTION THAT the Finding of Fact for Application SUP-1997-06-F, submitted by Brad Oleson of Oleson's Food Stores for an amendment to the Oleson Planned Unit Development, BE ADOPTED.

The following motion is recommended to approve the project subject to conditions which are routinely added to all approvals:

> MOTION THAT Application SUP-1997-06-F, submitted by Brad Oleson of Oleson's Food Stores for an amendment to the Oleson Planned Unit Development, BE RECOMMENDED FOR APPROVAL TO THE TOWNSHIP BOARD.

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

***Attachments*:**

1. Project narrative received February 9, 2023
2. 11" X 17" floor plan provided by applicant dated May 12, 2023
3. 11" X 17" site plan provided by applicant dated May 22, 2023

Proposed buildout from office space to apartments

Site: 3850 N. Long lake road, suite B,C,D,E.

Dear John,

As you know with covid behind us and more people working from home the demand for office space is very low. We are seeing many office spaces vacant and no one to fill them. On the other hand, apartments are in extremely high demand and with close proximity to town, grocery stores and restaurants we feel this would be a great addition.

G.D.O. Investments is proposing Renovating 6960 square feet of office space over to 6 apartments. Five will be 1106 Square foot 3 bedroom, and one 900 square foot 2 bedroom. All will have two bathrooms.

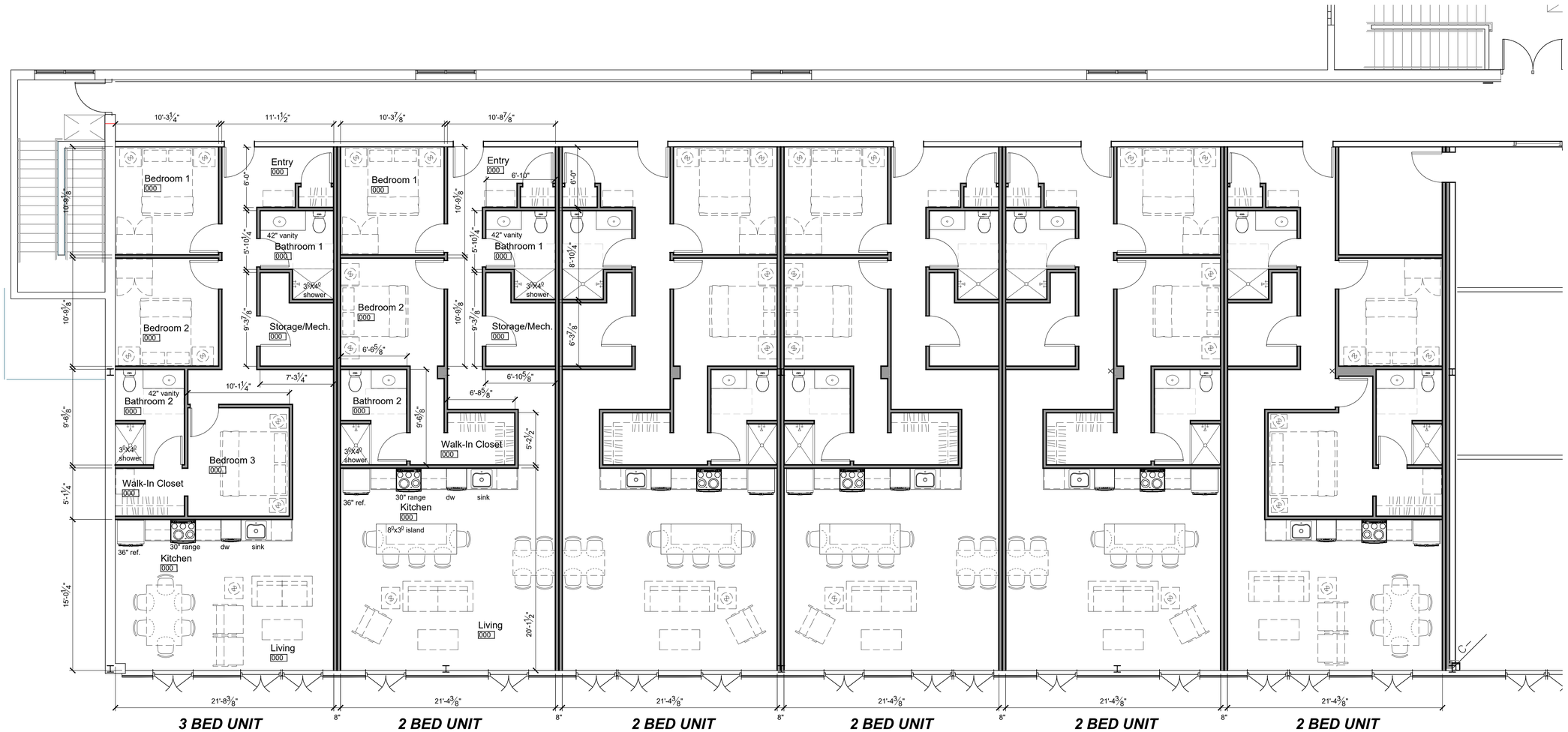
This transition will not affect any exterior of the building, neighbors and minimal to downstairs commercial renters. We have ample parking, with two entrances to the apartments and all is ADA with and elevator at one end.

Sincerely,

Brad Oleson

Brad Oleson
G.D.O. Investments,

Business Office
P.O. Box 72•Traverse City, MI 49685-0072•(231)-947-6091• FAX (231)-947-6548
Visit us at www.olesonsfoods.com
E-mail: bradoleson@olesonsfoods.com



Partial Overall Second Floor Plan

SCALE: 3/16" = 1'-0"

ISSUES:

DATE:	DESCRIPTION:
5-12-23	Preliminary
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5/12/23

PRELIMINARY

NOT FOR CONSTRUCTION

May. 12, 23

Addition / Renovations

23-03

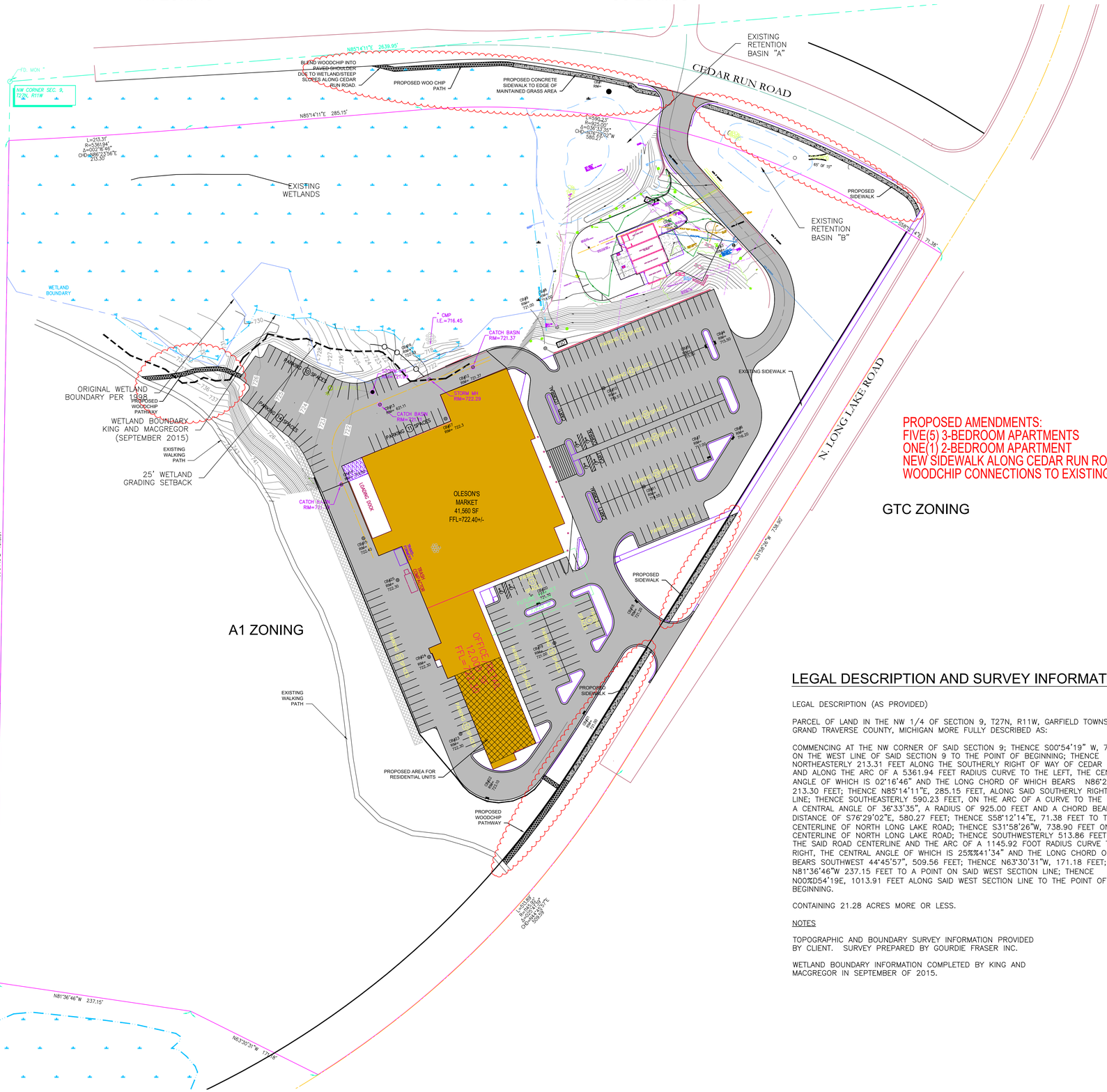
3850 N.Long Lake Rd.
Traverse City, MI
49684

environmentarchitects
call 231 946 1234
fax 231 421 5772
10241 w cherry bend road
traverse city mi 49684
env-arch.com

Floor Plan

A3.1

EXISTING PUD



N

Crain Engineering, LLC

0 60 120 180

SCALE: 1" = 60 FEET

LEGAL DESCRIPTION AND SURVEY INFORMATION

LEGAL DESCRIPTION (AS PROVIDED)

PARCEL OF LAND IN THE NW 1/4 OF SECTION 9, T27N, R11W, GARFIELD TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN MORE FULLY DESCRIBED AS:

COMMENCING AT THE NW CORNER OF SAID SECTION 9; THENCE S00°54'19" W, 70.95 FEET ON THE WEST LINE OF SAID SECTION 9 TO THE POINT OF BEGINNING; THENCE NORTHEASTERLY 213.31 FEET ALONG THE SOUTHERLY RIGHT OF WAY OF CEDAR RUN ROAD AND ALONG THE ARC OF A 5361.94 FEET RADIUS CURVE TO THE LEFT, THE CENTRAL ANGLE OF WHICH IS 02°16'46" AND THE LONG CHORD OF WHICH BEARS N86°23'56"E, 213.30 FEET; THENCE N85°14'11"E, 285.15 FEET, ALONG SAID SOUTHERLY RIGHT OF WAY LINE; THENCE SOUTHEASTERLY 590.23 FEET, ON THE ARC OF A CURVE TO THE RIGHT WITH A CENTRAL ANGLE OF 36°33'35", A RADIUS OF 925.00 FEET AND A CHORD BEARING AND DISTANCE OF S76°29'02"E, 580.27 FEET; THENCE S58°12'14"E, 71.38 FEET TO THE CENTERLINE OF NORTH LONG LAKE ROAD; THENCE S31°58'26"W, 738.90 FEET ON THE CENTERLINE OF NORTH LONG LAKE ROAD; THENCE SOUTHWESTERLY 513.86 FEET ALONG THE SAID ROAD CENTERLINE AND THE ARC OF A 1145.92 FOOT RADIUS CURVE TO THE RIGHT, THE CENTRAL ANGLE OF WHICH IS 25%%41'34" AND THE LONG CHORD OF WHICH BEARS SOUTHWEST 44°45'57", 509.56 FEET; THENCE N63°30'31"W, 171.18 FEET; THENCE N81°36'46"W 237.15 FEET TO A POINT ON SAID WEST SECTION LINE; THENCE N00%D54'19E, 1013.91 FEET ALONG SAID WEST SECTION LINE TO THE POINT OF BEGINNING.

CONTAINING 21.28 ACRES MORE OR LESS.

NOTES

TOPOGRAPHIC AND BOUNDARY SURVEY INFORMATION PROVIDED BY CLIENT. SURVEY PREPARED BY GOURDIE FRASER INC.

WETLAND BOUNDARY INFORMATION COMPLETED BY KING AND MACGREGOR IN SEPTEMBER OF 2015.

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Member utilities are required to locate their facilities at no charge to the caller.

Crain Engineering, LLC
Engineering, Consulting, & Design
7622 Bott Road
Buckley, MI 49620
Phone: (231) 947-7255
Cell: (231) 632-4207
email:crainengineeringllc@gmail.com

DRWN BY: WLC
DSGN BY: WLC
DATE: 03-29-2023
REV DATE:
5-22-2023 PATHWAYS

G.D.O. INVESTMENTS, INC.
PUD AMENDMENT
SECTION 9, T27N, R11W, GARFIELD TOWNSHIP
GARFIELD TWP. GRAND TRAVERSE COUNTY, MICHIGAN

JOB NUMBER: 196923

SHEET 2

EXISTING PUD

Charter Township of Garfield
Planning Department Report No. 2023-68

Prepared:	June 7, 2023	Pages:	7
Meeting:	June 14, 2023 Planning Commission	Attachments:	☒
Subject:	Village at Garfield Special Use Permit-Introduction		
File No.	SUP-2023-03	Parcel No. 05-023-042-01	
Applicant:	Brian Stadler/Outlook Development, LLC		
Agent:	Andrew Purvis, P.E./Gosling Czubak Engineering Services, Inc.		
Owner:	Brian Stadler/Hammond LDHA LP		

BRIEF OVERVIEW:

- Location: 2051 North Garfield Road, north of Hammond Road
- Parcel area: 13.21 acres
- Existing land use: Undeveloped land
- Existing zoning: R-3 Multi Family Residential

PURPOSE OF APPLICATION:

This application requests approval of a Special Use Permit for a proposed 80-unit multi-family housing development. Multiple family dwellings are permitted via Special Use Permit in the R-3 Multi Family Residential District.

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:

Application Form

The application form submitted was for a Site Plan Review. The correct form for a Special Use Permit must be submitted. Furthermore, pursuant to Section 955, a written impact statement is required to address conformance with the Approval Criteria in Section 421.E.

Density

With 80 units, the proposed density is 6 units per acre, which exceeds the minimum lot area density of 4,000 square feet per multi-family unit.

Buildings/Structures

The proposed buildings and structures are as follows:

Building/Structure Type	Number of Units	Number of Buildings/ Structures	Square Feet Each	Total Number of Units	Total Square Feet
2-story apartment building	16 each	5	10,510	80	52,550
Community building/office	n/a	1	4,000	n/a	4,000
Pavilion	n/a	1	1,271	n/a	1,271
			Total	**80**	**57,820**

Building elevations have been provided that illustrate building height and façade. Maximum building height in the R-3 District is 3 stories or 40 feet. As presented, proposed buildings meet all height requirements.

Maximum lot coverage or the part of percent of the lot occupied by a building, including accessory buildings is 35%. Proposed lot coverage is 8.9%.

Amenities proposed include a community building, two tot lots, and sidewalks.

Setbacks
The front setback is 25 feet in the R-3 District. Side and rear yards in the R-3 District shall be 20 feet. The proposed buildings and structures meet setback requirements.

Ingress and Egress
Ingress and egress for the site will be provided from Garfield Road with two driveways. No access to Hammond Road is proposed. Deceleration and acceleration lanes are provided for both driveways. The deceleration lane and acceleration lane are combined between the north and south driveways.

Traffic Impact Report
Pursuant to Section 618, a traffic impact report shall be required for any major development, special use permit, or site plan under the following described conditions:

(1) A proposed rezoning that could generate 150 or more directional trips during the peak hour or at least 1,000 more trips per day than the most intensive use that could be developed under existing zoning;
(2) A proposed development that will generate 150 or more directional trips during the peak hour or at least 500 trips per day; or
(3) A proposed development for a 5-acre or larger site; or
(4) Upon determination by the Director of Planning, or by the Planning Commission, that a report is necessary to determine needed road improvements or to determine that unsafe or hazardous conditions will not be created by the development as proposed.

The requirements for a traffic impact report may be waived in whole or in part by the Director of Planning, or by the Planning Commission, upon a determination that such report is not necessary to determine needed road improvements or that no unsafe or hazardous conditions will be created by the development as proposed.

The proposed development exceeds 5 acres and is a development expected to generate more than 500 trips per day. An 80-unit apartment complex can expect to generate roughly 560 trips on a weekday. However, the proposed development has access from an existing five-lane roadway and deceleration/acceleration lanes are being constructed for both driveways. No other pavement improvements would be expected to mitigate traffic impacts. The likelihood of this location warranting a traffic signal would be low.

Considering this information, Staff recommends waiving the traffic impact report requirement.

Parking and Drives
Parking areas for multiple family dwellings have a minimum parking requirement of 1.5 spaces per dwelling unit to a maximum of 2.0 spaces per dwelling unit. A minimum of 120 parking spaces is required and a maximum of 160 parking spaces are permitted. 160 parking spaces are proposed.

Wherever off-street parking is required, a minimum of two bicycle parking spaces are required. For parking areas with greater than twenty-five (25) motor vehicle spaces, bicycle parking shall be provided on a basis of two spaces per twenty-five motor vehicle parking spaces. 13 bicycle parking spaces are required. The site plan proposes 16 bicycle parking spaces.

Sidewalks
Proposed 6-foot-wide concrete sidewalks within the site and along Garfield Road meet Township requirements. Pursuant to Section 522.A, a 10-foot-wide asphalt bike path is required for the frontage on Hammond Road. Furthermore, pursuant to Section 522.B, a sidewalk between the Hammond Road bike path and the multi-family residential buildings on site is required. Staff recommends that dimensions and type of construction materials match the other proposed sidewalks. These sidewalks and bike paths will

ultimately provide pedestrian access to the BATA/Housing Commission development at the corner of LaFranier and Hammond and the local commercial node at the corner of Hammond and Garfield.

Wetlands/Environmental Assessment
Wetlands are located along the north side of the development. A 25-foot buffer has been provided as required by the Township. A delineation of the wetlands verified by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) needs to be provided.

The applicant has prepared a Phase I and Phase II Environmental Site Assessment (ESA) for the site. Based on AKT Peerless' June 15, 2022, Phase I ESA, the following environmental concerns were identified in connection with the subject property:

- The northeastern portion of the subject property and the northern adjoining property historically operated as an orchard.
- The presence of multiple stored automobiles and automotive repair on the subject property from at least 1974 to at least 1998.
- Two empty unlabeled 55-gallon drums, automotive tires, general refuse, soil mounds, and concrete debris.

Based on the results of AKT Peerless' October 15, 2022, Phase II ESA, no evidence of the presence of contamination was identified. Therefore, no further environmental assessment is currently recommended.

A Soils Report for the site was prepared by Snyder & Staley Engineering, PLC in 2022. The Soils Report concludes that, "We do not anticipate any significant geotechnical problems associated with constructing shallow spread footing foundations for the proposed building as described herein."

Landscaping - Buffers
Landscaped buffer requirements are addressed as follows:

Greenspace (Length)	***Buffer Planting Requirement***	***Amount Required***	***Amount Provided***
East (726 ft. along Garfield Road)	Type "C" Buffer – ground cover as specified in Section 530.J, plus 3 large trees, 3 medium or small tree, and 1 evergreen or coniferous per 100 linear feet of greenspace area, and a minimum width of 10 feet.	22 large trees 22 med/small trees 33 evergreens 10 ft. min width	22 large trees 22 med/small trees 8 evergreens Greater than 10 ft. min width shown
South (495 ft. along commercial property)	Type "C" Buffer – ground cover as specified in Section 530.J, plus 3 large trees, 3 medium or small tree, and 1 evergreen or coniferous per 100 linear feet of greenspace area, and a minimum width of 10 feet.	15 large trees 15 med/small trees 5 evergreens 10 ft. min width	15 large trees 15 med/small trees 5 evergreens Greater than 10 ft. min width shown
The site plan notes existing vegetation for the remaining south, west, and north buffers. Section 530.L does permit credit for existing vegetation. Inventory of the existing vegetation shall be identified in accordance with Section 530 so that it is protected.			

Landscaping – Parking Areas
Landscaped parking area requirements are addressed as follows:

Standard	***Required***	***Provided***
All parking areas with two (2) or more parking aisles shall require interior landscaped areas of at least ten (10) square feet for each parking space.	For 160 spaces, 1,600 square feet	1,845 square feet
Each interior landscape area shall include one (1) or more canopy trees per 100 square feet of interior landscaping area.	For 1,600 square feet, 16 trees	16 trees

Lighting
A photometric site plan shall be included with the site plan. The lighting standards are described by the following:

Zoning Ordinance Lighting Standard	***Proposed***
A. Applicability – 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 are expected to apply to this site, so all lighting for this site is subject to the requirements of this section.
B. Shielding and Filtration – 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.	The fixtures as proposed meet this requirement.
C. Illumination – Average illumination levels shall not exceed 3.0 foot-candles for the main parking area, 2.0 foot-candles for the peripheral parking area, 5.0 foot-candles for the main drive areas, and 20.0 foot-candles directly below the lighting fixture. Illumination shall also not exceed 1.0 foot-candles adjoining another nonresidential zoning district along a local street or property line. Average lighting values ranging from 0.5 to 1.5 foot-candles are recommended.	The fixtures as proposed meet this requirement.
D. Color Temperature – All proposed lamps shall emit light measuring 3,500 K or warmer on the Kelvin scale.	The fixtures as proposed are 4,000 K and need to be adjusted to meet this requirement.

Zoning Ordinance Lighting Standard	***Proposed***
E. Prohibitions – 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.	None of these prohibitions apply to this site.
F. Pole Height – All pole-mounted lighting shall not exceed the maximum permitted height of the zoning district.	Fixtures are proposed to be mounted at 23 feet in height which conform to the maximum permitted height of 40 feet in the R-3 district

Snow Storage
Snow storage is to be provided at the ratio of ten (10) square feet per one hundred (100) square feet of parking area. Snow storage areas have been identified and meet the minimum requirements. However, all snow storage is concentrated in one location. Several snow storage locations dispersed around a site are typically what is proposed in site plans. Dispersed locations are more convenient and efficient for plowing and should be considered for the site.

Dumpster Enclosures
Two centralized dumpster enclosures are proposed. Details of the construction of the enclosures have been provided and meet Zoning Ordinance requirements.

Signs
Please indicate on the site plan that "Signs are subject to Sign Permit Review." Also, please note that all signs shall meet the standards of Section 630 of the Zoning Ordinance.

Other Reviews
The application is subject to additional reviews, including but not limited to the Township Engineer, Grand Traverse County Road Commission, and Metro Fire. Sewer and water utility improvements and stormwater improvements will be reviewed by the Township Engineer. Escrow for these reviews is needed as determined by the Township Engineer. Signs are reviewed by the Township Zoning Administrator.

ACTION REQUESTED:
The purpose of the introductory meeting is to accept the application and to identify any concerns that should be addressed prior to holding a public hearing on the application. As such, following an opportunity for applicant presentation and Commissioner discussion, the following motion is offered for consideration:

> MOTION THAT application SUP-2023-03, submitted by Gosling Czubak Engineering Services, Inc., for a Special Use Permit for an apartment complex at Parcel 05-023-042-01, BE ACCEPTED, and BE SCHEDULED for a public hearing for the July 12, 2023 Regular Planning Commission meeting, subject to the following additional information being provided by the applicant:
>
> 1. Submit the correct form for a Special Use Permit with a written impact statement in conformance with the Approval Criteria in Section 421.E.
> 2. Waive the requirement for a traffic impact report based on proposed improvements.
> 3. Install a 10-foot-wide asphalt bike path along the frontage of Hammond Road and a 6-foot-wide concrete sidewalk between the Hammond Road bike path and the multi-family residential buildings on site.
> 4. Provide a delineation of the wetlands verified by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

5. Provide landscape buffers for the remaining south, west, and north property lines or note existing vegetation in accordance with Section 530.
6. Adjust the fixtures to meet color temperatures in accordance with Section 517.
7. Consider dispersed locations for snow storage.
8. Note on the site plan that "Signs are subject to Sign Permit Review."
9. The site plan shall be subject to other reviews, including but not limited to the Township Engineer, Grand Traverse County Road Commission, and Metro Fire.

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

***Attachments*:**

1. Application and Narrative dated May 11, 2023
2. Site Plan Set dated May 10, 2023

Charter Township of Garfield

Grand Traverse County

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

SITE PLAN REVIEW (SPR) 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

- ☐ Site Diagram Review
- ☐ Administrative Site Plan Review
- ☑ Site Development Plan Review

PROJECT / DEVELOPMENT NAME

The Village at Garfield

APPLICANT INFORMATION

Name:	Brian Stadler, Outlook Development, LLC
Address:	4835 TOWNE CENTRE ROAD SUITE 203, SAGINAW, MI 48604
Phone Number:	989.233.4656
Email:	brian@wolgast.com

AGENT INFORMATION

Name:	Andrew J. Purvis, PE, Gosling Czubak Engineering Sciences, Inc.
Address:	1280 Business Park Drive, Traverse City, MI 49686
Phone Number:	231.946.9191
Email:	ajpurvis@goslingczubak.com

OWNER INFORMATION

Name:	Brian Stadler, Hammond LDHA LP
Address:	7551 Geddes Road, Saginaw, MI 48609
Phone Number:	989.233.4656
Email:	brian@wolgast.com

CONTACT PERSON

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

Applicant:	Brian Stadler, brian@wolgast.com
Agent:	Andrew Purvis, ajpurvis@goslingczubak.com
Owner:	Brian Stadler, brian@wolgast.com

PROPERTY INFORMATION

Property Address:	2051 N Garfield, Traverse City, MI 49686
Property Identification Number:	05-023-042-01
Legal Description:	Provided on Site Plans
Zoning District:	R-3
Master Plan Future Land Use Designation:	High Density Residential (6-10)
Area of Property (acres or square feet):	14.69 AC (Gross)

Existing Use(s):	Vacant Land
Proposed Use(s):	Multi-Family Residential (MSHDA Housing Project)

PROJECT TIMELINE

Estimated Start Date:	2/1/24
Estimated Completion Date:	8/1/25

REQUIRED SUBMITTAL ITEMS

A complete application for a Site Plan 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

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 Diagram Review:

- ☐ Two complete stapled 11"x17" paper sets
- ☐ One digital set (PDF only)

Administrative Site Plan:

- ☐ Two complete stapled 11"x17" paper sets
- ☐ Two complete bound 24"x36" paper sets
- ☐ One digital set (PDF only)

Site Development Plan:

- ☑ Ten complete stapled 11"x17" paper sets
- ☑ Two complete bound 24"x36" paper sets
- ☑ One digital set (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 Zoning Administrator in the case of a Site Diagram, or the Director of Planning in the case of an Administrative Site Plan or a Site Development Plan, the requirement to submit a Site Diagram, an Administrative Site Plan or 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:

1. The Zoning Administrator may waive a particular element of information or data otherwise required for a Site Diagram upon a finding that the information is not necessary to determine compliance with this ordinance.
2. 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 Diagram (SD), Administrative Site Plan (ASP), or Site Development Plan (SDP). Please use the Required Site Plan Elements Checklist below.

APPROVAL CRITERIA

An administrative site plan or site development plan shall conform to all provisions of the Zoning Ordinance and to the following site development standards which shall be reflected on the plan:

1. Required Information. All required information shall be provided.
2. Outside Agencies. All applicable standards of outside agencies shall be met and all required permits and approvals from outside agencies shall be secured, or be made a condition of approval.
3. Essential Facilities and Services. Adequate essential facilities and services, including highways, streets, police, fire protection, drainage structures, refuse disposal, water and sewage facilities, and schools, shall be available.
4. Natural Features. Sensitive natural features, or existing natural features that provide a buffer between adjoining properties, or assist in preserving the general appearance of the neighborhood, or help control soil erosion or stormwater, shall be preserved to the greatest extent possible.
5. Site Design. All buildings and structures shall be designed, situated, constructed, operated and maintained so as to be harmonious, compatible, and appropriate in appearance, with the existing or intended character of the general vicinity. Site design shall minimize adverse effects upon owners and occupants of adjacent properties and the neighborhood.
6. Orientation. Primary buildings or structures shall be oriented so that their main entrance faces the street upon which the lot fronts. If the development is on a corner lot, the main entrance may be oriented to either street or to the corner.
7. Vehicle and Pedestrian Systems. The development, where possible, shall provide vehicular and pedestrian circulation systems which reflect and extend the pattern of streets, pedestrian and bicycle ways in the area. A proper relationship between existing and proposed roadways and parking areas shall be demonstrated, and the safety and convenience of pedestrian and vehicular traffic shall be assured. Travelways which connect and serve adjacent development shall be designed appropriately to carry the projected traffic.
8. Shared Drives. Where the opportunity exists, developments shall use shared drives. Unnecessary curb cuts shall not be permitted.
9. Impervious Surfaces. The amount of impervious surface has been limited on the site to the extent practical.
10. Master Plan. The proposal is not in conflict with the land use policies, goals and objectives of the Township Master Plan.

ADDITIONAL INFORMATION

If applicable, provide the following further information:

A. Sanitary Sewer Service	Yes	No	Not Applicable
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. Water Service

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. Public utility easements required?	☑	☐	☐
If yes, show on plan.			
D. Stormwater Review/Soil Erosion			
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. Roads and Circulation			
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

- 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 may approve, approve with conditions, or deny 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: 05/11/23

Date: 5/11/23

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.

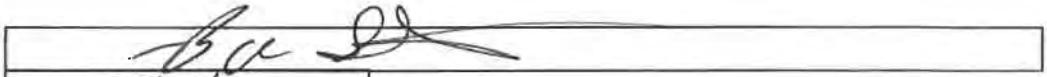
I/We Brian Stadler - Outlook Development, LLC authorize to make this application on my/our behalf and to provide any of my/our personal information necessary for the processing of this application. Moreover, this shall be your good and sufficient authorization for so doing.

Owner Signature: 

Date: 5/11/23

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: 5/11/23

Applicant Signature: 

Date: 5/11/23

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 **Required only for habitable construction within the floodplain on site diagrams and administrative site plans.*	☐ *	☑
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 of 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		☐

The Village at Garfield: Project Narrative Description

The Village at Garfield (the Project) will be an affordable housing development which will be located on Garfield Road just north of the intersection of Hammond Road in Garfield Township, Michigan. Garfield Road is a public street which will offer direct access to the proposed development site with two access points to satisfy fire codes. No access is planned on Hammond Road due to traffic concerns that are shared by the Township. The parcel the Project resides on was recently rezoned to R-3 (High Density Residential, 6 - 10 units per acre). The Project is proposed at less than 6 units per acre.

The Project will utilize the existing public water and sewer infrastructure by extensions into the site. The Project will support nearby services and employment opportunities. The development team is working with the Township and Grand Traverse County Department of Public Works (DPW) to ensure the public water and sewer systems are designed to meet their requirements.

The development team is working with the Township and Grand Traverse County Road Commission (GTCRC) to ensure that access to the Project satisfies the GTCRC's planned improvements to the Hammond and Garfield Road intersection.

According to the Phase I and II Environmental Site Assessments (ESA) completed by AKT Peerless (AKT) the Project site contained an orchard from sometime prior to 1938 until sometime prior to 1964. A Phase II ESA was conducted by AKT to determine if contamination from the historic orchard use of the site and storage of multiple automobiles was found on the site. AKT concluded that no targeted compounds were present in the assessed areas above the applicable Michigan Department of Environmental, Great Lakes, and Energy (EGLE) Residential Cleanup Criteria (RCC).

The site layout and grading plan has been prepared by Gosling Czubak Engineering Sciences Inc (GCES) to meet applicable Township and MSHDA requirements. The grading plan preserves the land within the Township's required wetland setbacks. The Project's storm water control measures have been designed in accordance with the Township's Ordinance #49. The drainage plan takes advantage of the site's sandy soils and lack of groundwater table on-site using infiltration/retention basins with high water overflows to the on-site wetlands.

The new development will consist of 80 apartment units with a mix of two- and three-bedroom units. The buildings will be designed as two-story, wood frame structures with brick and fiber cement siding. Design features will include energy efficient windows and doors, high R-value insulation, along with many family friendly features including central heated and air-conditioned living areas, ceiling fans, dishwasher, and micro-wave appliances. High quality construction techniques and energy efficient materials will result in a product that meets sustainable building standards. Additionally, all other MSHDA Architectural and building sustainability requirements will be met. or exceeded. Development amenities will include on-site professional management, a community building/room, on-site laundry, fully equipped playground, and an outdoor covered gathering area.

Our development team has developed and operates similar properties in Michigan and other states. All our properties enjoy high occupancy levels due to superior facility design and excellent property management performance. The Grand Traverse County area has a significant lack of affordable housing stock and has a growing need for additional affordable housing. Occupancy levels for existing housing in the area are near 100% and most affordable housing has significant waiting lists.

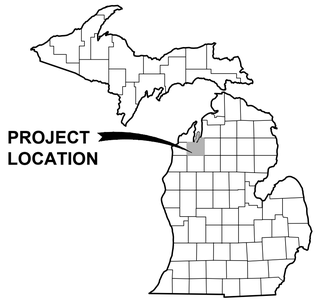
We appreciate the Township's support of this project through the rezoning process and the granting of the Pilot and entering the MSA Agreement to make the project possible. We especially appreciate the professionalism of the staff as we try to make this project a reality to serve the community.

SITE PLANS

FOR

THE VILLAGE AT GARFIELD

GARFIELD TOWNSHIP,GRAND TRAVERSE COUNTY, MICHIGAN



VICINITY MAP
SCALE

OWNER

HAMMOND LDHA LP
7551 GEDDES ROAD,
SAGINAW, MICHIGAN 48609
CONTACT: BRIAN STADLER
Brian@wolgast.com

DEVELOPER / APPLICANT

OUTLOOK DEVELOPMENT LLC
BRIAN STADLER
4835 TOWNE CENTRE ROAD SUITE 203,
SAGINAW, MI 48604
brian@wolgast.com

ARCHITECT

ARCHITETTURA INC.
FRANK POLLACIA, AIA, NCARB
808 18TH STREET
PLANO, TEXAS 75074
TEL. 972-509-0088
pollacia@architettura-inc.com

SURVEYOR

BOB MITCHELL & ASSOCIATES
JESSE MITCHELL, P.S.
404 WEST MAIN STREET
PO BOX 306
KINGSLEY, MI 49649

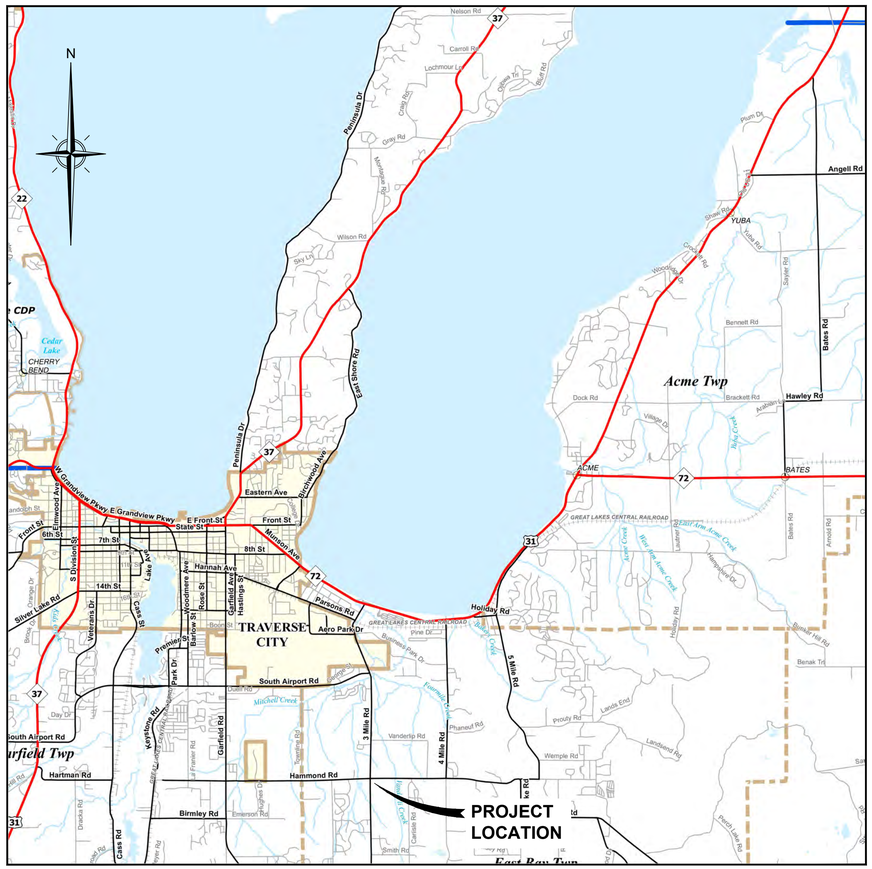
ENGINEER

GOSLING CZUBAK ENGINEERING SCIENCES, INC.
1280 BUSINESS PARK DRIVE
TRAVERSE CITY, MICHIGAN, 49686-8607
231.946.9191 - 800.968.1062
www.goslingczubak.com info@goslingczubak.com

UTILITY CONTACTS

NAME OF OWNER	TYPE OF UTILITY
DTE ENERGY GAS CO. LARRY BOURKE ENGINEERING & CONSTRUCTION PLANNING 231-592-3244 lawrence.bourke@dteenergy.com	GAS
CONSUMER'S ENERGY BLAKE WILSON 231-499-9792 BLAKE.WILSON@cmsenergy.com	ELECTRIC
CHARTER COMMUNICATIONS ASHLEY M. MARCOLETTE ashley.marcolette@ccisystems.com	CABLE TV
AT&T C. ANIKA ESTES DESIGN SPECIALIST CE3239@ATT.COM	TELEPHONE
GRAND TRAVERSE COUNTY DEPARTMENT OF PUBLIC WORKS LINDA McCLEARY 231-995-6077 mccleary@gtcountymi.gov	SEWER & WATER

811
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LOCATION MAP
NOT TO SCALE

SHEET INDEX

SHEET #	SHEET TITLE
C000	COVER SHEET
C001	GENERAL NOTES
S1 OF 2	ALTA NSPS LAND TITLE SURVEY (BY OTHERS)
S2 OF 2	ALTA NSPS LAND TITLE SURVEY (BY OTHERS)
C100	EXISTING CONDITIONS & DEMOLITION PLAN
C200	OVERALL SITE PLAN
C300	OVERALL GRADING & DRAINAGE PLAN
C400	OVERALL UTILITY PLAN
C401	DETAILED UTILITY PLAN
C402	SOIL EROSION & SEDIMENTATION CONTROL PLAN
C500	LANDSCAPE PLAN
C600	SITE DETAILS
C601	SITE DETAILS
C602	STANDARD WATER MAIN DETAILS
C603	STANDARD SANITARY SEWER DETAILS
E100	PRELIMINARY SITE LIGHTING PLAN (BY OTHERS)
E102	LIGHTING SCHEDULES (BY OTHERS)
E103	LIGHTING CUT SHEETS (BY OTHERS)
A2.01b	FIRST FLOOR PLAN BLDG I (BY OTHERS)
A4.02	ELEVATIONS BLDG TYPE I (BY OTHERS)
A8.02	1ST FLOOR LEASING OFFICE (BY OTHERS)
A8.04	LEASING OFFICE ELEVATIONS (BY OTHERS)
A8.05	LEASING OFFICE ELEVATIONS (BY OTHERS)
A9.01	DOUBLE DUMPSTER ENCLOSURE DETAILS (BY OTHERS)
A9.03	PAVILION DETAILS (BY OTHERS)

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231-946-9191 800-968-1062
www.goslingczubak.com info@goslingczubak.com

VILLAGE AT GARFIELD

Issue Date
05/10/2023

Project No.
2022410001

Sheet
C000

STATE OF MICHIGAN
ANDREW JOHN PURVIS
ENGINEER
No. 620106361
LICENSED PROFESSIONAL ENGINEER

P:\2022\410001\DRAWINGS\2022410001 PS-COVER.dwg, Lay: COVER SHEET, Saved by: gjarvis 5/10/2023 3:43 PM, Plotted by: Andy Purvis, P.E. 5/11/2023 1:03 PM

CIVIL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION IS IN COMPLIANCE WITH THE CHARTER TOWNSHIP OF GARFIELD AND MSHDA STANDARDS, ORDINANCES AND REGULATIONS, AND ALL OTHER AGENCIES HAVING JURISDICTION AND UTILITY PROVIDER REQUIREMENTS ARE MET.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY EXISTING IMPROVEMENTS OR UNDERGROUND FACILITIES THAT ARE DAMAGED.
3. THE CONTRACTOR SHALL LEAVE AN EMERGENCY PHONE NUMBER WITH THE POLICE AND FIRE DEPARTMENTS AND KEEP THEM INFORMED OF CONSTRUCTION ACTIVITIES AND OF ANY DETOURS.
4. CONTRACTOR SHALL POST EMERGENCY PHONE NUMBERS AT THE SITE FOR THE PUBLIC WORKS, AMBULANCE, POLICE, FIRE DEPARTMENT, AND UTILITY LOCATE COMPANIES AT ALL TIMES.
5. THE CONTRACTOR SHALL CONDUCT THEIR WORK SO AS NOT TO INTERFERE WITH OR HINDER THE PROGRESS OF THE COMPLETION OF WORK BEING PERFORMED BY OTHER CONTRACTORS.
6. THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED IN THE PROJECT, SHALL ASSUME LIABILITY, FINANCIAL OR OTHERWISE, IN CONNECTION WITH THEIR CONTRACT AND SHALL PROTECT AND HOLD HARMLESS THE ENGINEER AND THE ENGINEER'S REPRESENTATIVES FROM ANY AND ALL DAMAGES OR CLAIMS THAT MAY ARISE BECAUSE OF INCONVENIENCE, DELAYS, OR LOSS EXPERIENCED BECAUSE OF THE PRESENCE AND OPERATIONS OF OTHER CONTRACTORS OR CONSULTANTS WORKING ADJACENT TO OR WITHIN THE LIMITS OF THE PROJECT.
7. CONTRACTOR SHALL REPAIR ANY DAMAGE TO PROPERTY DURING CONSTRUCTION. DAMAGED PROPERTY SHALL BE RETURNED TO THE EXISTING CONDITIONS AT A MINIMUM.
8. PUBLIC SAFETY AND TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) STANDARDS AND SPECIFICATIONS AND AS DIRECTED BY MDOT AND THE TOWNSHIP. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AROUND THE SITE AT ALL TIMES. ALL DETOURS/LANE CLOSURES MUST BE HANDLED USING TRAFFIC CONTROL DEVICES CONFORMING TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION, AND MUST BE APPROVED BY MDOT AND THE TOWNSHIP.
9. ADEQUATE TEMPORARY OFF STREET PARKING FOR CONSTRUCTION WORKERS SHALL BE PROVIDED. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION, WHEREBY MUD FROM CONSTRUCTION AND/OR WORKER'S VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
10. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE FEATURES AND UTILITIES, AND REPORT ALL FINDINGS AND DISCREPANCIES TO THE ENGINEER.

PAVEMENT, SUB-GRADE, AND TRAFFIC CONTROL NOTES:

1. MATERIALS AND CONSTRUCTION TECHNIQUES SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION PUBLISHED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT).
2. ALL GRADING SHALL BE DONE IN ACCORDANCE WITH THE CHARTER TOWNSHIP OF GARFIELD REQUIREMENTS AND THE REQUIREMENTS PRESENTED IN THE CURRENT BUILDING CODE. COMPACTION TESTING OF THE SUB-GRADE WILL BE PERFORMED BY THE CONTRACTOR AND WITNESSED BY THE OWNER'S ENGINEER.
3. ENTRANCE WORK AND UTILITY WORK SHALL BE COORDINATED WITH THE TOWNSHIP AND MDOT PRIOR TO CONSTRUCTION PROCEEDING.
4. ALL TRAFFIC CONTROL (INCLUDING, BUT NOT LIMITED TO WORK ZONE, TEMPORARY, OR PERMANENT) SHALL BE FURNISHED, INSTALLED, MAINTAINED, RELOCATED, AND/OR REMOVED ACCORDING TO THE LATEST EDITION OF THE MDOT STANDARD SPECIFICATIONS.
5. CONTRACTOR TO REMOVE ALL EXISTING ITEMS (CONCRETE WALK, POSTS, PAVEMENT, SHRUBS, LIGHT POLES AND BASES, ETC.) THAT INTERFERE WITH NEW CONSTRUCTION, COST TO BE INCLUDED IN BID ESTIMATE FOR THE CONTRACT.
6. THE CONTRACTOR MUST SUBMIT A MAINTENANCE OF TRAFFIC PLAN AT LEAST FIVE (5) WORKING DAYS PRIOR TO RESTRICTION OR CLOSURE OF ANY STREET.

GRADING. EARTHWORK, AND BACKFILL NOTES:

1. FILL AREAS IN PAVEMENT AND BUILDING AREAS SHALL BE PLACED TO AT LEAST 95% OF THE MATERIALS STANDARD PROCTER MAXIMUM DRY DENSITY (ASTM D698). THE UPPER 9 INCHES OF NATIVE SUBGRADE IN FILL AREAS AND DETENTION BASIN FILL AREAS SHALL BE RECOMPACTED TO AT LEAST 95% OF THE MATERIAL'S STANDARD PROCTER MAXIMUM DRY DENSITY (ASTM D698).
2. COMPACTION TESTS ARE REQUIRED FOR EACH FILL LIFT. NO LIFT TO EXCEED 12 INCHES IN DEPTH. CONTRACTOR IS RESPONSIBLE FOR ALL PROCTOR AND COMPACTION TEST ON MATERIALS.
3. ALL DUST SHALL BE CONTROLLED BY WATERING WHEN NECESSARY.
4. THE CONTRACTOR SHALL REMOVE ALL VEGETATION AND DEBRIS PRIOR TO ANY GRADING.
5. THE SUB-GRADE OF ALL FOUNDATION AREAS SHALL BE OBSERVED BY AN EXPERIENCED LICENSED GEOTECHNICAL ENGINEER OR THEIR FIELD REPRESENTATIVE PRIOR TO THE PLACEMENT OF ANY CONCRETE OR FILL MATERIAL.
6. ALL GRADES SHALL BE TO WITHIN +/- 1 INCH OF THOSE SHOWN ON THE GRADING PLAN WHILE MAINTAINING POSITIVE DRAINAGE.

CHARTER TOWNSHIP OF GARFIELD & MDOT CONSTRUCTION NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE VILLAGE AND/OR MDOT AT LEAST 48 HOURS PRIOR TO POURING CONCRETE, INSTALLING STORM SEWER, INSTALLING WATER LINE SERVICE AND SANITARY SEWER SERVICE, OR OTHERWISE PROVIDING SUCH ADVANCE NOTICE AS MAY BE REQUIRED BY THESE JURISDICTIONS.
2. ALL WORK, MATERIALS, AND INSTALLATION SHALL NOT BE DEEMED SATISFACTORY UNTIL SUCH TIME AS ALL APPROVALS ARE OBTAINED FROM THE JURISDICTIONAL AUTHORITY.
3. THE CONTRACTOR SHALL PROCEED AT THEIR OWN RISK IN PERFORMING ANY WORK PRIOR TO VERIFYING OR RECEIVING ALL NECESSARY PERMITS FOR THE WORK TO BE COMPLETED.
4. CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE ANY SIGNS THAT NEED TO BE MOVED TO COMPLETE THE WORK. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
5. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES.
6. ANY SIDEWALKS, CURB AND GUTTER, OR STREET ROADWAY PAVEMENT DAMAGED IN THE COURSE OF CONSTRUCTION ACTIVITY ON ADJACENT PRIVATE PROPERTY MUST BE REPLACED IN KIND.
7. ALL DISTURBED AREAS WITHIN VILLAGE OF KINGSLEY, GRAND TRAVERSE COUNTY, AND MDOT RIGHT-OF-WAY SHALL BE RESTORED PER THEIR REQUIREMENTS.

SANITARY SEWER NOTES:

1. SANITARY SEWER SYSTEM CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS SPECIFICATIONS OF THE GRAND TRAVERSE COUNTY DEPARTMENT OF PUBLIC WORKS (DPW).
2. SANITARY SEWER LEADS SHALL BE SCHEDULE 40 POLYVINYL CHLORIDE (PVC) WITH SOLVENT WELDED JOINTS AS DEFINED IN ASTM D – 2672 OR EXTRA STRENGTH SOLID WALL, SDR 23.5 ABS AS DEFINED IN ASTM D–1788. SEWER WYE FITTINGS SHALL BE OF THE SAME MATERIAL AS THE PIPE, UNLESS OTHERWISE APPROVED BY THE TOWNSHIP ENGINEER.
3. FOUNDATION DRAINS, IF INSTALLED, SHALL NOT CONNECT TO THE SANITARY SEWER.
4. SIX (6) INCH WYE FITTINGS WITH SIX (6) INCH LATERALS SHALL BE CONSTRUCTED FROM THE SANITARY SEWER MAIN TO THE BUILDING LINE AT THE ELEVATION INDICATED. EACH LATERAL SHALL EXTEND AT A 45 DEGREE ANGLE TO THE SEWER MAIN AND EXTEND UPWARD TO APPROXIMATELY ONE (1) FOOT FROM THE SANITARY MAIN FLOWLINE TO THE LATERAL FLOWLINE. LATERALS SHALL BE EXTENDED AT 1% AND TERMINATED THREE (3) FEET ABOVE GRADE.

WATERMAIN NOTES:

1. ALL WATER MAIN CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE GRAND TRAVERSE COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS AND SPECIFICATIONS.
2. WATER MAIN SERVICES SHALL HAVE A MINIMUM COVER 72" FROM FINISHED GRADE TO TOP OF PIPE.
3. ALL DOMESTIC WATER SERVICE LINES 2" AND SMALLER SHALL BE FLEXIBLE TYPE "K" COPPER.
4. ALL WORK PERFORMED ON ANY WATER LINES AND/OR APPURTENANCES THAT ARE OWNED OR ANTICIPATED TO BE OWNED BY THE CHARTER TOWNSHIP OF GARFIELD BE COMPLETED UNDER THE DIRECTION OF THE VILLAGE AND THE ENGINEER, ADHERING TO AN ACCEPTABLE PLAN APPROVED BY CHARTER TOWNSHIP OF GARFIELD. A MINIMUM 24 HOURS NOTICE SHALL BE GIVEN TO THE WATER COMPANY BY THE CONTRACTOR PRIOR TO THE START OF WATER LINE WORK. ONE SET OF APPROVED PLANS SHALL BE ON THE JOB SITE DURING CONSTRUCTION. WATER LINE CONSTRUCTION WILL NOT BE PERMITTED TO START UNTIL ALL APPROVALS ARE RECEIVED. THERE SHALL BE NO DEVIATION FROM THE APPROVED PLANS WITHOUT WRITTEN APPROVAL FROM THE WATER DEPARTMENT.

SOIL EROSION & SEDIMENTATION NOTES:

1. ALL SOIL AND EROSION MEASURES SHALL CONFORM TO AND BE IN COMPLIANCE WITH CHARTER TOWNSHIP OF GARFIELD, GRAND TRAVERSE COUNTY ENVIRONMENTAL HEALTH DEPARTMENT.
2. ALL WATER POLLUTION CONTROL BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THESE PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL DETERMINE ACTUAL LOCATIONS THAT ARE APPROPRIATE FOR EACH PHASE OF CONSTRUCTION.
3. ALL SOIL AND EROSION CONTROL MEASURES SHALL CONFORM TO CHARTER TOWNSHIP OF GARFIELD, GRAND TRAVERSE COUNTY ENVIRONMENTAL HEALTH DEPARTMENT STANDARDS.
4. ALL PERIMETER SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING.
5. EROSION CONTROL MEASURES SHOULD BE CONSIDERED ALONG THE FACE OF EACH SLOPE. EROSION CONTROL MEASURES TYPICALLY EMPLOYED WOULD INCLUDE, SILT FENCES, INLET PROTECTION, DITCH CHECKS AND TIMELY SEEDING OR SODDING.
6. ALL REMOVABLE PROTECTIVE EROSION CONTROL DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY.
7. AFTER A RAINFALL EVENT, ALL SILT AND DEBRIS SHALL BE REMOVED FROM ALL BMP'S.
8. GRADED AREAS AROUND THE PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
9. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE PRECAUTION TO ENSURE THAT SEDIMENTATION DAMAGE WILL NOT OCCUR. THE CONTRACTOR SHALL RESTRICT THE AMOUNT OF LAND AREA GRADED AT ANY ONE TIME TO A MINIMUM. IT IS RECOMMENDED DURING AND AFTER GRADING, THAT A TEMPORARY VEGETATIVE COVER BE ESTABLISHED TO PROTECT THE BARE SOIL SURFACE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
11. THE ENGINEER RESERVES THE RIGHT TO MAKE CHANGES OR MODIFICATIONS TO THE EROSION AND SEDIMENT CONTROL PLAN AS DEEMED NECESSARY.
12. TEMPORARY EROSION PROTECTION IS REQUIRED FOR MANUFACTURED SLOPES PRIOR TO PERMANENT PLANTING.
13. AREAS SHALL BE MAINTAINED IN SUCH A STATE FOR FIRE ACCESS AT ALL TIMES (INCLUDING ACCESS TO NEIGHBORING PROPERTIES).
14. NO OBSTRUCTURES BECOME DAMAGED, THE CONTRACTOR SHALL PROVIDE SUFFICIENT MEASURES TO REPAIR, REPLACE, OR INSTALL EROSION CONTROL STRUCTURES TO ENSURE OFF-SITE DAMAGE DOES NOT OCCUR. ANY SEDIMENT OR EROSION DAMAGE WHICH OCCURS OFF-SITE SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
15. THE CONTRACTOR SHALL CONDUCT THEIR OPERATIONS IN SUCH A MANNER THAT STORM RUNOFF WILL BE CONTAINED WITHIN THE PROJECT OR CHANNELED INTO THE STORM DRAINAGE SYSTEM WHICH SERVES THE RUNOFF AREA. STORM RUNOFF FROM ONE AREA SHALL NOT BE ALLOWED TO DIVERT TO ANOTHER RUNOFF AREA.
16. ANY EROSION AND SEDIMENT CONTROL PLAN CONTAINED IN THE PROJECT PLANS SHOULD BE CONSIDERED A GENERAL GUIDELINE TO BE UTILIZED FOR EROSION CONTROL PREVENTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL EROSION AND DISPLACED SEDIMENT DOES NOT MIGRATE OFF SITE. IF UNEXPECTED EROSION OR SEDIMENTATION OCCURS, OR IF THE EROSION PLAN PROVES INEFFECTIVE FOR CONTROL PURPOSES, THE CONTRACTOR SHALL PROVIDE SUFFICIENT MEASURES TO REPAIR, REPLACE, OR INSTALL EROSION CONTROL STRUCTURES TO ENSURE OFF-SITE DAMAGE DOES NOT OCCUR. ANY SEDIMENT OR EROSION DAMAGE WHICH OCCURS OFF-SITE SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
17. CONFORMANCE WITH THE REQUIREMENTS OF THESE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITIES TO THE SITE AND ADJACENT PROPERTIES. TEMPORARY EROSION CONTROL SHALL CONSIST OF, BUT NOT LIMITED TO, CONSTRUCTING SUCH FACILITIES AND TAKING SUCH MEASURES AS ARE NECESSARY TO PREVENT, CONTROL AND ABATE WATER, MUD, AND EROSION DAMAGE TO PUBLIC AND PRIVATE PROPERTY AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT.
18. FILL AREAS, WHILE BEING BROUGHT UP TO GRADE AND DURING PERIODS OF COMPLETION PRIOR TO FINAL GRADE, SHALL BE PROTECTED BY VARIOUS MEASURES TO ELIMINATE EROSION AND THE SILTATION OF DOWNSTREAM FACILITIES AND ADJACENT AREAS. THESE MEASURES MAY INCLUDE, BUT SHALL NOT BE LIMITED TO: TEMPORARY DOWNDRAINS, EITHER IN THE FORM OF PIPES OR PAVED DITCHES WITH PROTECTED OUTFALL AREAS; GRADED BERMS AROUND AREAS TO ELIMINATE EROSION OF FILL SLOPES BE SURFACE RUNOFF; CONFINED PONDING AREAS TO DESILT RUNOFF; TEMPORARY CHECK DAMS IN THE TOE SLOPE DITCHES TO DESILT RUNOFF; PROTECTION SUCH AS SAND BAGS AROUND INLETS WHICH HAVE NOT BEEN BROUGHT UP TO GRADE; AND EARTH BERMS AND APPROPRIATE GRADING TO DIRECT DRAINAGE AWAY FROM THE EDGE OF THE TOP OF SLOPES SHALL BE CONSTRUCTED AND MAINTAINED ON FILL AREAS WHERE EARTHWORK OPERATIONS AREA NOT IN PROGRESS.
19. CLEARING AND GRUBBING SHOULD BE LIMITED TO AREAS THAT WILL RECEIVE IMMEDIATE GRADING. EROSION CONTROL MEASURES WILL BE REQUIRED TO PROTECT AREAS THAT HAVE BEEN CLEARED AND GRUBBED PRIOR TO GRADING OPERATIONS. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO: GRADED DITCHES; BRUSH BARRIERS; AND SILT FENCES. CARE SHALL BE EXERCISED TO PRESERVE VEGETATION BEYOND THE LIMITS OF GRADING.
20. PAVED SURFACES WITH ACCUMULATED MATERIALS SHALL BE WASHED AND SWEPT WITH MECHANICAL EQUIPMENT AFTER PAVEMENT IS CONSTRUCTED, BUT PRIOR TO FINAL ACCEPTANCE.
21. THE CONTRACTOR SHALL PLACE FILTER FABRIC AROUND ALL INLETS. BARRIERS AROUND INLETS IN STREETS OR PAVED AREAS SHALL BE REMOVED PRIOR TO FINAL ACCEPTANCE OF PUBLIC IMPROVEMENTS.
22. TOWNSHIP APPROVAL OF THESE PLANS DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS AND OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE ENGINEER FOR APPROVAL.

STORM & DRAINAGE NOTES:

1. STORM AND DRAINAGE SYSTEM CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH MDOT STANDARD SPECIFICATIONS AND STANDARD DRAWINGS, LATEST EDITION.
2. STORMWATER AND ALL OTHER UNPOLLUTED DRAINAGE SHALL BE DISCHARGED INTO SUCH SEWERS AS ARE SPECIFICALLY DESIGNED AS STORM SEWER OR TO A NATURAL OUTLET.
3. ALL STORM SEWER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
4. ALL STORM SEWER STRUCTURES AND BEDDING REQUIRED FOR STORM SEWER PIPE SHALL BE CONSTRUCTED IN ACCORDANCE WITH EAST BAY TOWNSHIP STANDARDS, LASTEST EDITION.
5. ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVED AREAS SHALL BE BACKFILLED AND PLACED IN ACCORDANCE WITH EAST BAY TOWNSHIP STANDARDS.
6. ALL TRENCH BACKFILL UNDER PAVEMENT WITHIN PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL. TRENCH BACKFILL UNDER PAVED AREAS AND OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF EARTH BACKFILL COMPACTED TO 90% OF THE MODIFIED ASSHTO T-180 COMPACTION TEST ASTM D-1557.
7. JETTING IS NOT AN ACCEPTABLE METHOD OF ACHIEVING BACKFILL BACKFILL COMPACTION. ALL BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED TO AT LEAST 95% OF THE MATERIALS STANDARD PROCTOR MAXIMUM DRY DENSITY.
8. MINIMUM COVER OVER PVC PIPE SHALL BE ONE FOOT FROM THE TOP OF RIGID ROADWAY SURFACES OR THE BOTTOM OF FLEXIBLE ROADWAY SURFACES. AT SHALLOW DEPTHS OF COVER (1 FOOT TO 3 FOOT), CLASS 1 OR CLASS II MATERIAL PER ASTM D2321 WITH A MINIMUM OF 95% PROCTOR DENSITY.

ACCESSIBILITY NOTES:

1. ALL WORK SHALL BE IN CONFORMANCE WITH THE CURRENT VERSION OF THE LOCAL ACCESSIBILITY CODE (BOTH TOWNSHIP AND STATE), MSHDA AND WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT (ADA).
2. ALL RAMPS SHALL NOT BE EXCEED A RUNNING SLOPE OF 1:12 OR 8.33%.
3. RAMPS ARE DEFINED AS ANY WALKWAY BETWEEN SLOPES 1:20 OR 5.00% AND 1:12 OR 8.33% AND SHALL HAVE A MINIMUM CLEAR WIDTH OF 3 FEET AND A MAXIMUM CROSS-SLOPE OF 1:50 OR 2.00%. RAMPS EXCEEDING 30 INCHES OF VERTICAL CHANGE SHALL HAVE INTERMEDIATE (2.00% MAXIMUM SLOPE) LANDINGS HAVING A MINIMUM LENGTH IN DIRECTION OF TRAVEL OF 60 INCHES. BOTTOM LANDINGS SHALL HAVE A MINIMUM LENGTH OF 60 INCHES IN THE DIRECTION OF TRAVEL. LANDINGS SHALL BE AT LEAST THE WIDTH AS THE WIDEST RAMP RUN LEADING TO THE LANDING. LANDINGS AT RAMP DIRECTION CHANGES SHALL HAVE A MINIMUM WIDTH AND LENGTH OF 60 INCHES.
4. THE MAXIMUM CROSS-SLOPE ON ANY WALK OR RAMP SHALL BE 2.00%. ALL ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL HAVE A MAXIMUM SLOPE OF 2.00% IN ALL DIRECTIONS.
5. ALL ACCESSIBLE ROUTES OF TRAVEL SHALL HAVE A MINIMUM OF THREE (3) FOOT CLEAR WIDTH FOR ACCESSIBLE CONFORMANCE, UNLESS OTHERWISE NOTED PER THE PLANS.
6. TRUNCATED DOMES AS DETECTABLE WARNINGS MAY BE REQUIRED ON WALKS THAT CROSS OR ADJOIN A VEHICULAR WAY WITHOUT A VERTICAL SEPARATION BETWEEN THE WALKWAY AND VEHICULAR WAY.

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CIVIL ENGINEERING
SURVEYING
ENVIRONMENTAL SERVICES
GEOTECHNICAL
CONSTRUCTION SERVICES
DRILLING
LANDSCAPE ARCHITECTURE

No.	Date	Revision	By

GENERAL NOTES
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

Date Issued:	05/10/2023
Date Surveyed:	----
Designed By:	AJP
Drawn By:	AJP
Checked By:	WCB
Scale:	AS NOTED

Original sheet size is 24x36

Location:
PART OF SECTION 23
T27N, R11W
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY,
MICHIGAN

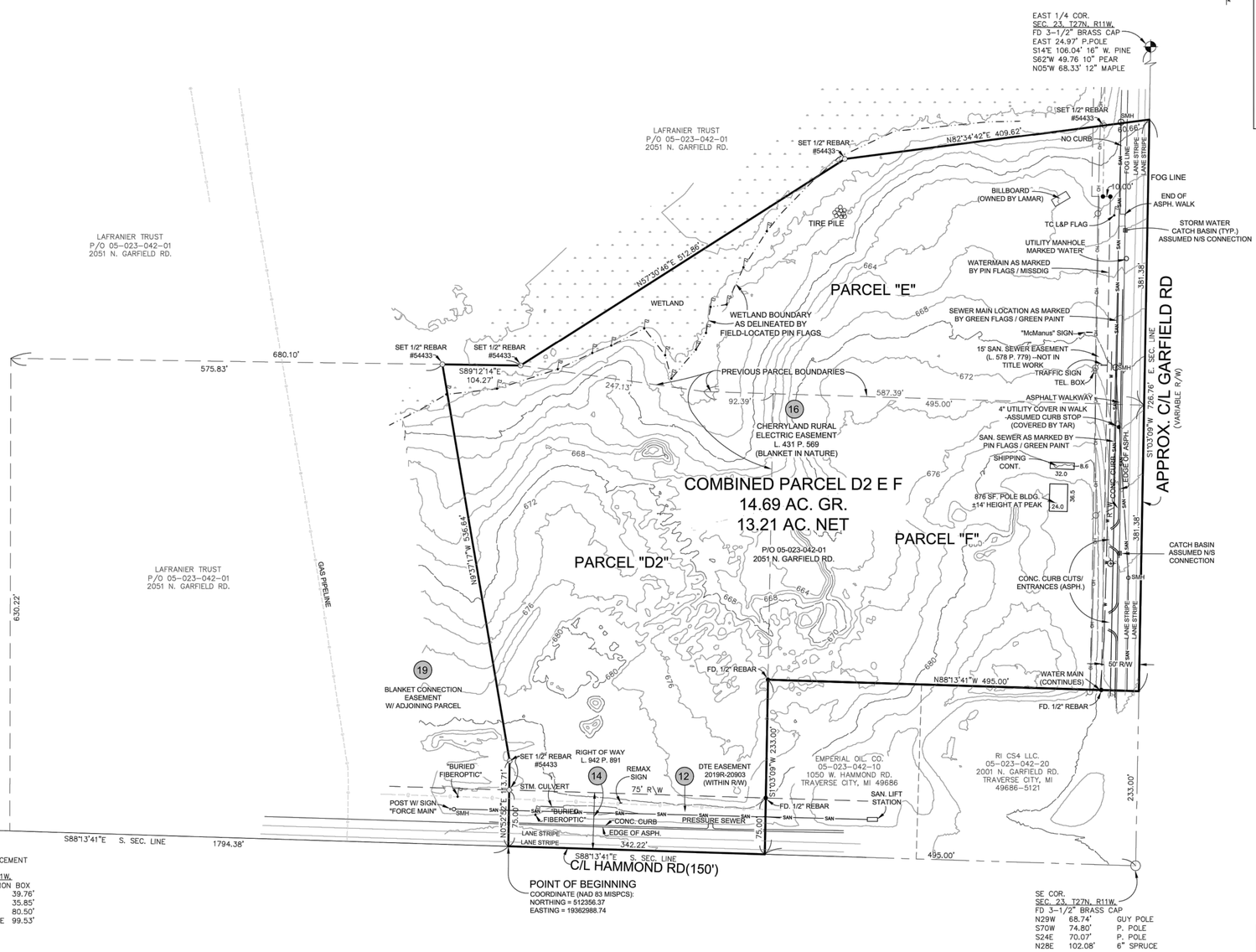
Project Number:
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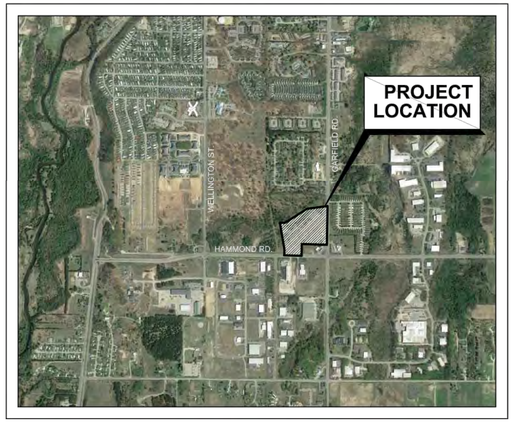
Sheet:
C001

P:\2022\410001\DOCADO\Dwg\C.3D\2022410001_PS_SHT_ES_FALS.dwg Tab: C001 GENERAL NOTES Saved by: ajpurvis 5/5/2023 3:21 PM Plotted by: Andy Purvis, P.E. 5/10/2023 12:26 PM

ALTA / NSPS LAND TITLE SURVEY

SECTION 23, TOWN 27 NORTH, RANGE 11 WEST,
GARFIELD TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN





VICINITY MAP
(NOT TO SCALE)

0' 80' 160'

PLAN LEGEND

EXISTING

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT
- OVERHEAD ELECTRIC
- ELECTRIC LINE
- FENCE LINE
- WATER WELL
- GUY WIRE
- ELECTRIC BOX
- TELEPHONE RISER
- CATCH BASIN
- SMH SAN. MANHOLE
- MISC. UTILITY FLAG
- SET ½" REROD #54433
- FD SURVEOR'S MARKER

LEGAL DESCRIPTION

First American Title Insurance Company
Commitment Number: STS-6000 REV NO. 1
Commitment Date: April 20, 2022 (No time of day published)
(AS FURNISHED):

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

Parcel "D-2":
Part of the South one-half of the Southeast One-Quarter of Section 23, Town 27 North, Range 11 West, more fully described as: Commencing at the South one-quarter corner of said Section 23; thence South 88°13'41" East, along the South line of said Section 23, 1794.38 feet, to the Point of Beginning; thence North 00°52'52" East, 113.71 feet; thence North 09°37'17" West, 536.64 feet; thence South 89°12'14" East, 104.27 feet; thence South 81°54'14" East, 247.13 feet; thence South 88°13'49" East, 92.39 feet; thence South 01°03'09" West 614.36 feet, to the South line of said Section; thence North 88°13'41" West, along said South section line, 342.22 feet, to the Point of Beginning.

Parcel "E":
Part of the South one-half of the Southeast One-Quarter of Section 23, Town 27 North, Range 11 West, more fully described as: Commencing at the South one-quarter corner of said Section 23; thence South 88°13'41" East, along the South line of said Section 23, 1129.00 feet; thence North 00°07'20" East, 630.22 feet; thence South 89°12'14" East, 680.10 feet, to the Point of Beginning; thence North 57°30'46" East, 512.86 feet; thence North 82°34'42" East, 409.62 feet, to the East line of said section; thence South 01°03'09" West, along said East Section line, 381.38 feet; thence North 88°13'49" West, 587.39 feet; thence North 81°54'14" West, 247.13 feet, to the Point of Beginning

Parcel F:
Part of the South one-half of the Southeast One-Quarter of Section 23, Town 27 North, Range 11 West, more fully described as: Commencing at the South one-quarter corner of said Section 23; thence South 88°13'41" East, along the South line of said Section 23, 2136.60 feet; thence North 01°03'09" East, 233.00 feet, to the Point of Beginning; thence North 01°03'09" East, 381.36 feet; thence South 88°13'49" East, 495.00 feet, to the East line of said Section; thence South 01°03'09" West, along said East Section line, 381.38 feet; thence North 88°13'41" West, 495.00 feet, to the Point of Beginning

Combined Parcel "D-2 E F" (Combined For Zoning Purposes):

Part of the South one-half of the Southeast One-Quarter of Section 23, Town 27 North, Range 11 West, more fully described as: Commencing at the South one-quarter corner of said Section 23; thence South 88°13'41" East, along the South line of said Section 23, 1794.38 feet, to the Point of Beginning; thence North 00°52'52" East, 113.71 feet; thence North 09°37'17" West, 536.64 feet; thence South 89°12'14" East, 104.27 feet; thence North 57°30'46" East, 512.86 feet; thence North 82°34'42" East, 409.62 feet, to the East line of said section; thence South 01°03'09" West, along said East section line, 762.76 feet; thence North 88°13'41" West, 495.00 feet; thence South 01°03'09" West, 233.00 feet, to the South line of said section; thence North 88°13'41" West, along said South section line, 342.22 feet, to the Point of Beginning. Said parcel contains 14.69 acres, more or less.

SUBJECT TO AND TOGETHER WITH blanket road and utility connection easements as required by township, during Siteplan approval. Said easement agreements are to be recorded in the R.O.D. post Siteplan approval prior to construction of infrastructure.

SUBJECT TO all agreements, covenants, easements, right-of-ways, reservations and restrictions of record, if any.

SURVEYOR CERTIFICATION

To (i) Outlook Development, LLC, A Michigan LLC; (ii) MSHDA; (iii) FIRST AMERICAN TITLE INSURANCE COMPANY:

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 1-4, 13, 14, 16-21, of Table A thereof.
The field work was completed on 11-1-2021 thru 9-26-2022.

Date of Plat or Map: 9/26/2022

(SIGNED) _____
JESSE E. MITCHELL
Registration No. 4001054433
EMAIL: jesse@mapcivilsurvey.com

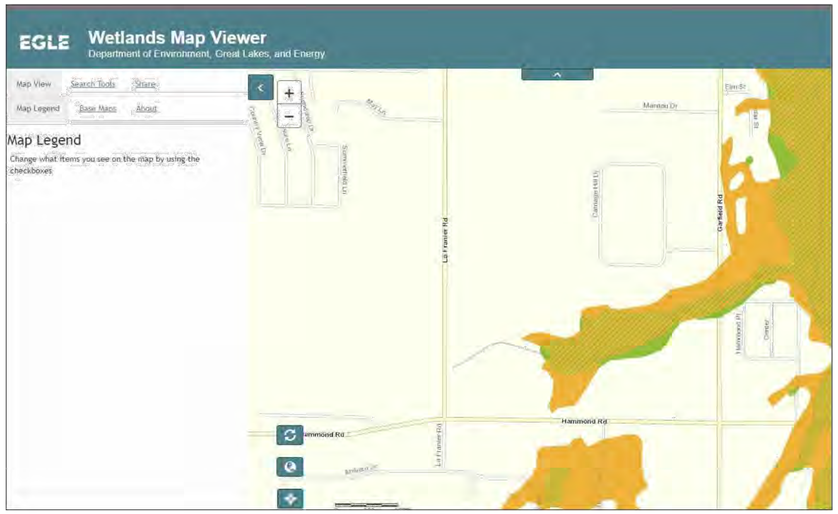
STATE OF MICHIGAN
JESSE E. MITCHELL
License No. 4001054433
LICENSED PROFESSIONAL SURVEYOR

BOB MITCHELL & ASSOCIATES
ENGINEERING · SURVEYING · MANAGEMENT
PLANNING
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FAX (231) 263-7321
Central Michigan
426 North 1st Street, Ste. 105
Box 852
Harrison, MI 48625
(989) 539-6878
Toll Free 1-800-533-6627
Email: WM@mapcivilsurvey.com

20210403 ALTA MJC
DATE DRAWN: 9/26/2022
DRAWN BY: MJC
FIELD CHECK:
REVIEWED BY: J. E. MITCHELL
PROJECT MANAGER:
JESSE E. MITCHELL

ALTA / NSPS LAND TITLE SURVEY
SECTION 23, TOWN 27 NORTH, RANGE 11 WEST,
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY, MICHIGAN

JOB NO.:
20210403



EGLE WIP COVERAGE MAP

TABLE A OPTIONAL SURVEY RESPONSIBILITIES

- As pertaining to Item 1 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, monumentation at all major land corners are as shown on the survey.
- As pertaining to Item 2 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, the address of the subject parcel is as shown on the survey.
- As pertaining to Item 3 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, the subject parcel DOES NOT fall within a special flood hazard zone according to the Flood Insurance Rate Map published by the Federal Emergency Management Agency (FEMA) for the Garfield Township, State of Michigan, Grand Traverse County, Community Panel Number – 26055C0228C, an Effective Date of August 28, 2018. As noted in said document, the scaled location of the subject property is in "OTHER AREAS" Zone.
- As pertaining to Item 4 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, the gross land area of of the subject parcel is 14.69 acres, as shown on the survey.
- As pertaining to Item 5 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, the Vertical relief is shown. Contours shown on Survey are result of lIDAR data. Spot elevations were measured at 100' intervals to verify lIDAR data accuracy.
- As pertaining to Item 6 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, a zoning report or letter was not provided by the client; the subject parcel was zoned "Agricultural" prior to 2022. An application for zoning map amendment was accepted and approved by Garfield Township in 2022, rezoning the parcel to R3 (Multi-family).
- As pertaining to Items 7.(a) of the Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys Table A requirements, the exterior dimensions of all buildings are shown on this survey; (b) the square footage is shown on survey for pole building; (c) the measured height of pole building is shown on Survey.
- As pertaining to Item 8., of Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys Table A requirements substantial features observed in the process of conducting the fieldwork are shown on this Survey.
- As pertaining to Item 9., of the Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys Table A requirements, parking space type and striping is non-applicable, as none exist on subject parcel.
- As pertaining to Item 10 of the Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys Table A requirements, no party walls exist with respect to adjoining properties and is non-applicable for this Survey.
- As pertaining to Item 11, of the Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys Table A requirements the location of utilities on or serving the surveyed property was determined by visible evidence, by evidence of MISS DIG paint markings, and labeled pin flags.
- As pertaining to Item 13 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, the names of adjoining owners are shown on Survey according to current tax records.
- As pertaining to Item 14 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, the distance(s) to the nearest intersecting street (Hammond Rd. & Garfield Rd.), are shown on Survey.
- As pertaining to Item 16 of the Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys Table A requirements, evidence of earthwork along the Northern boundary as indicated by half-buried silt fence was observed. Historic activity on site appears to show borrow-pits, as well as areas filled, as evidenced by dump truck mounds.
- As pertaining to Item 17 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, no proposed changes to the right-of-way of either Hammond Rd. or Garfield Rd. were observed, nor were any recent construction or repairs to features within the right-of-ways.
- As pertaining to Item 18 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, offsite easements have been included in this survey and are as-shown on map.
- As pertaining to Item 19 of the Minimum Standard Detail requirements for ALTA/NSPS Land Title Surveys Table A requirements, the surveyor maintains Professional Liability Insurance in the amount of $1,000,000.
- As pertaining to an additional Item 20, of the Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys Table A requirements, weathered (pink) wetland markers labeled 'Wetland' were observed and located while conducting survey and are shown on this map.

SURVEYOR'S NOTES

- Bearing Basis: NAD(83) MSPCS – Central Zone (2112), 2011 adj – International Feet.

  DISTANCES ARE SHOWN IN NAD 83 MICHIGAN CENTRAL STATE PLANE GRID IN INTERNATIONAL FEET.
  1 INTERNATIONAL FOOT=0.3048 METERS. COMBINED GRID FACTOR FOR THE PROJECT
  = 0.9999220713

  GRID DISTANCE / COMBINED GRID FACTOR =GROUND DISTANCE
- Date of Survey: November 2021 and completed on 9-26-2022
- Datum of Elevations: North American Vertical Datum of 1988 (NAVD 88) – GPS Derived.
- Dimensions on this survey are expressed in International Feet and decimal parts thereof unless otherwise noted.
- ITEMS NOT DISCLOSED IN TITLE POLICY:

  -- L. 578, P. 779: 15 FOOT EASEMENT FOR SANITARY SEWER ALONG WESTERLY RIGHT-OF-WAY OF GARFIELD RD.
  -- EXPANDED RIGHT-OF-WAY ALONG GARFIELD RD.
  -- BILLBOARD OWNED BY LAMAR ADVERTISING FOR ADVERTISEMENT ALONG GARFIELD RD.
  -- PHONE LINE ALONG EAST BOUNDARY OF SUBJECT PARCEL

SCHEDULE B - SECTION II EXCEPTIONS

PART ONE: GENERAL EXCEPTIONS:

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met. --Not a matter of Survey.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or by making inquiry of persons in possession of the Land. --None ascertained or observed at time of Survey
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records. --None ascertained or observed at time of Survey
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title including discrepancies, conflicts in boundary lines, shortage in area, or any other facts that would be disclosed by an accurate and complete land survey of the Land, and that are not shown in the Public Records. --None ascertained or observed at time of Survey.
5. Any lien or right to lien for services, labor or material imposed by law and not shown by the Public Records. --Not a matter of Survey
6. Taxes and assessments which become due and payable after the date of Commitment, including taxes and assessments which may be added to the tax rolls or tax bill after the date of Commitment as a result of the taxing authority disallowing or revising an allowance of a Principal Residence Exemption. The Company assumes no liability for tax increases occasioned by retroactive revaluation or changes in the Land usage or loss of any homestead exemption status for the insured premises. --Not a matter of Survey
7. Interest of others in oil, gas and mineral rights, if any, whether or not recorded in the Public Records. --Not a matter of Survey
8. Interest, if any, of the United States, State of Michigan, or any political subdivision thereof, in the oil, gas and minerals in and under and that may be produced from the captioned Land. --Not a matter of Survey
9. Any claim based on the failure to comply with the provisions of Governmental Laws and Regulations regarding the division of the land. --Not a matter of Survey
10. Any rights, title, interest or claim thereof to that portion of the land taken, used or granted for streets, roads or highways.
11. Rights of tenants, if any, under any unrecorded leases. --Not a matter of Survey

PART TWO: SPECIFIC EXCEPTIONS:

12. Easement in favor of DTE Gas Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Document 2019R-20903. --Plotted
13. Terms, Conditions and provisions contained in Certificate of Approval (with conditions) - Land Division Application as disclosed by instrument recorded in 2019R-09025.---Not a matter of survey.
14. Release of Right of Way in favor of Board of County Road Commissioners of the County of Grand Traverse and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 942, Page 891.--Plotted.
15. Drainage Easement in favor of Board of County Road Commissioners of the County of Grand Traverse and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 942, Page 890.--Off-site / NA
16. Right-of-Way Easement in favor of Cherryland Rural Electric Co-Operative Association and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 431, Page 569. --Labeled - Blanket in Nature.
17. Right-of-Way Agreement in favor Michigan Consolidated Gas Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 210, Page 413 and Modification of Right of Way contained in instrument recorded in Liber 778, Page 124. --Off-site / Plotted for isolation purposes.
18. Taxes are based on parent parcel and no split information is available. --Not a matter of survey.
19. Terms, Conditions and provisions contained in Certificate of Approval - Boundary Adjustment Application as disclosed by instrument recorded in 2022R-06789. --As shown on Survey - Blanket Connection Easement

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20210403 ALTA MJC
DATE DRAWN: 9/26/2022
DRAWN BY: MJC
FIELD CHECK:
REVIEWED BY: J. E. MITCHELL
PROJECT MANAGER: JESSE E. MITCHELL

ALTA / NSPS LAND TITLE SURVEY

SECTION 23, TOWN 27 NORTH, RANGE 11 WEST,
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY, MICHIGAN

JOB NO.: **20210403**



EXISTING CONDITIONS PLAN NOTES

1. THIS EXISTING CONDITIONS PLAN IS BASED ON MITCHELL & ASSOCIATES ALTA SURVEY, DATED XX/XX/XXX AND ADDITIONAL SUPPLEMENTAL SURVEY INFORMATION BY GCES.
2. THE BEARING BASE AND COORDINATES OF THIS DRAWING ARE BASED UPON THE MICHIGAN STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83, INTERNATIONAL FEET, 2011 ADJUSTMENT. CONTROL WAS ESTABLISHED BY GPS OBSERVATION USING THE AVAILABLE MDOT CONTINUOUSLY OPERATING STATIONS (CORS).
3. THE VERTICAL DATUM OF THIS SURVEY IS BASED UPON NAVD 88. CONTROL WAS ESTABLISHED BY GPS OBSERVATION USING THE AVAILABLE MDOT CONTINUOUSLY OPERATING STATIONS (CORS).
4. THE UTILITY INFORMATION SHOWN ON THIS EXISTING CONDITIONS PLAN IS SHOWN BASED UPON A COMBINATION OF THE ALTA SURVEY, SUPPLEMENTAL SURVEY, AND MISS DIG DESIGN TICKET INFORMATION. GCES DOES NOT GUARANTEE THAT ALL UNDERGROUND UTILITIES ARE SHOWN AND/OR POSITIONED PROPERLY ON THIS DRAWING DUE TO AMBIGUOUS PLANS AND RECORDS PROVIDED TO US. THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED TO BE USED AS A GUIDE FOR POSSIBLE UNDERGROUND UTILITY CONFLICTS. IT IS THE RESPONSIBILITY OF OTHERS TO RESOLVE THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITY THROUGH THE MISS DIG FIELD VERIFICATION SYSTEM PRIOR TO ANY SITE EXCAVATION. CALL 811 OR 800-482-7171.

EXISTING CONDITIONS LEGEND

- BENCHMARK
- CHISELED "X" FOUND
- CHISELED "X" SET
- GPS MONUMENT
- HUB FOUND
- HUB SET
- IRON FOUND
- IRON SET
- LATH FOUND
- LATH SET
- MONUMENT FOUND
- MONUMENT SET
- PK NAIL FOUND
- PK NAIL SET
- SECTION CORNER
- EXISTING CABLE TV PEDESTAL
- EXISTING CLEAN OUT
- EXISTING UTILITY POLE
- EXISTING ELECTRIC HAND HOLE
- EXISTING MANHOLE (AS NOTED)
- EXISTING ELECTRIC METER
- EXISTING ELECTRIC PEDESTAL
- EXISTING ELECTRIC TRANSFORMER
- EXISTING GUY ANCHOR
- EXISTING GUY POLE
- EXISTING LIGHT POLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING SOIL BORING
- EXISTING GAS METER
- EXISTING GAS VALVE
- EXISTING CATCH BASIN – ROUND
- EXISTING CATCH BASIN – SQUARE
- EXISTING FLARED END SECTION
- EXISTING BILLBOARD
- EXISTING POST
- EXISTING ROCK
- EXISTING SATELLITE DISH
- EXISTING SIGN
- EXISTING UNDERGROUND MARKER
- EXISTING CURB STOP BOX
- EXISTING FIRE HYDRANT
- EXISTING GATE VALVE
- EXISTING GATE WELL (MANHOLE)
- EXISTING WATER WELL
- EXISTING CONIFEROUS SHRUB
- EXISTING CONIFEROUS TREE
- EXISTING DECIDUOUS SHRUB
- EXISTING DECIDUOUS TREE
- EXISTING BUILDING
- EXISTING FENCE
- EXISTING CABLE TV – OVERHEAD
- EXISTING CABLE TV – UNDERGROUND
- EXISTING ELECTRIC – OVERHEAD
- EXISTING ELECTRIC – UNDERGROUND
- EXISTING FIBER OPTIC – UNDERGROUND
- EXISTING GAS
- EXISTING OIL
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING SANITARY SEWER FORCE MAIN
- EXISTING TELEPHONE – OVERHEAD
- EXISTING TELEPHONE – UNDERGROUND
- EXISTING WATERMAIN
- EXISTING ROAD RIGHT-OF-WAY

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No.	Date	Revision	By

EXISTING CONDITIONS & DEMOLITION PLAN
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

Date Issued:	05/10/2023
Date Surveyed:	----
Designed By:	----
Drawn By:	----
Checked By:	WCB
Scale:	AS NOTED

Original sheet size is 24x36

Location:
PART OF SECTION 23
T27N, R11W
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY,
MICHIGAN

Project Number:
2022410001

Sheet:
C100

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SITE DATA TABLE

PARCEL NUMBER	05-023-042-01
PARCEL ADDRESS	2051 N GARFIELD RD
PARCEL AREA (GROSS)	14.69 AC
PARCEL AREA (NET)	13.21 AC
DEVELOPER/APPLICANT	OUTLOOK DEVELOPMENT LLC BRIAN STADLER 4835 TOWNE CENTRE ROAD SUITE 203, SAGINAW, MI 48604 brian@wolgast.com
LAND OWNER INFORMATION	HAMMOND LDHA LP 4835 TOWNE CENTRE ROAD SUITE 203, SAGINAW, MI 48604 brian@wolgast.com
EXISTING LAND USE	VACANT LAND
PROPOSED LAND USE	MULTI-FAMILY RESIDENTIAL
ZONING DISTRICT	R-3

	REQUIRED	PROPOSED
MIN. LOT AREA OR LAND USE DIMENSIONS PER DWELLING UNIT (DU) 4,000 SF FOR EACH DU)	320,000 SF (7.35 AC)	639,896 SF (14.69 AC)
MIN. LOT WIDTH OR LAND USE DIMENSIONS PER DWELLING UNIT	250 FT	342.22 FT
MAXIMUM HEIGHT OF STRUCTURE (STORIES)	3	2
MAXIMUM HEIGHT OF STRUCTURE (FT)	40	36'-11" APARTMENTS/ 23'-10" OFFICE
FRONT SETBACK (FT)	25	25
SIDE SETBACK (FT)	20	20
REAR SETBACK (FT)	20	20
MAXIMUM LOT COVERAGE (%)	35	8.92
MINIMUM BUILDING CROSS SECTION (FT)	24	

SITE PLAN REVIEW DATA (PER TABLE 956)

	REQUIRED	PROPOSED
PARKING REQUIREMENTS	MIN.= 1.5 SPACES/UNIT= 120 SPACES MAX.= 2.0 SPACES/UNIT= 160 SPACES	160 SPACES
MSHDA ADA PARKING REQUIREMENTS	5% OF SPACES = 8 ADA SPACES	8 SPACES
GARFIELD TWP BICYCLE PARKING REQUIREMENTS	1 BIYCYLE SPACE/25 VEHICLE SPACES = 13 SPACES	16 SPACES
SNOW STORAGE REQUIREMENTS (PROVIDE MIN. 10 SF OF SNOW STORAGE/100 SF OF PARKING AREA)	89,872 SF PARKING X 10 SF SNOW STORAGE/100 SF PARKING = 8,987 SF	10,056 SF
FRONT SETBACK (FT)	25	25
SIDE SETBACK (FT)	20	20
REAR SETBACK (FT)	20	20
MAXIMUM LOT COVERAGE (%)	35	8.92
MINIMUM BUILDING CROSS SECTION (FT)	24	

CONSTRUCTION KEYED NOTES

1. ASPHALT PAVEMENT
2. MDOT F4 CURB & GUTTER
3. MDOT E2 CURB
4. INTEGRAL CURB & SIDEWALK
5. ADA RAMP
6. CONCRETE SIDEWALK
7. CONCRETE SLAB & DUMPSTER ENCLOSURE
8. STORM WATER BASIN
9. SNOW STORAGE
10. BIKE PARKING RACK
11. DEPRESSED INTEGRAL CURB & SIDEWALK
12. FREESTANDING SIGN MEETING TWP REQ'S
13. SINGLE LIGHT & POLE
14. DOUBLE LIGHT & POLE
15. TOT LOT

SITE PLAN LEGEND

- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE
- GRAVEL SHOULDER
- STORM WATER BASIN
- BOTTOM OF SLOPE
- PROPOSED DISTURBANCE LIMITS
- PROPOSED STORM SEWER
- PROPOSED STORM CATCH BASIN
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION

N

SCALE 1" = 50'
0' 50' 100'

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VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

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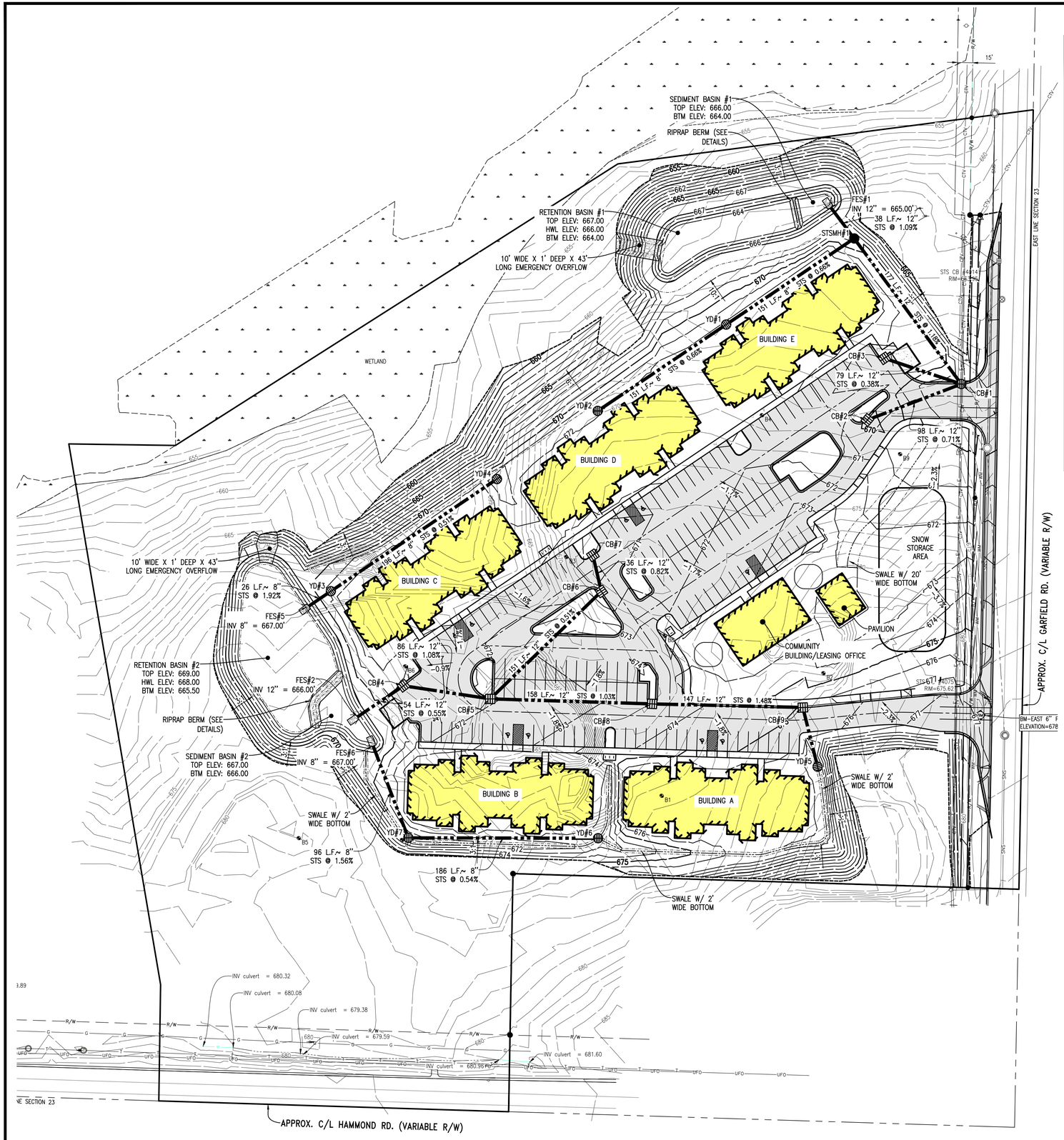
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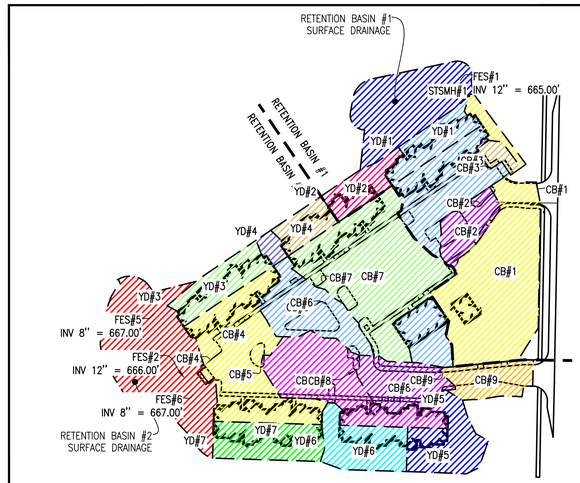
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GRAND TRAVERSE COUNTY,
MICHIGAN

Project Number:
2022410001

Sheet:
C200

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STORM WATER NOTES:
STORM WATER SUMMARY AND CALCULATIONS PROVIDED IN STAND ALONG STORM WATER MEMO.

N

SCALE 1" = 50'
0' 50' 100'

WATERSHED MAP
SCALE: 1" = 120'

GRADING PLAN LEGEND

- TC:1014.57 / EM:1014.57 — PROPOSED TOP OF CONCRETE GRADE / PROPOSED TOP OF ASPHALT GRADE
- FFE:1014.25 — PROPOSED FINISHED FLOOR ELEVATION
- 1015.75 — PROPOSED FINISHED GRADE
- +661.67 — MATCH EXISTING GRADE
- PROPOSED RIDGE/VALLEY
- 660 — PROPOSED MAJOR CONTOUR
- 661 — PROPOSED MINOR CONTOUR
- 1.5% — PROPOSED SLOPE (%)
- 3:1 — PROPOSED SLOPE (H:V)
- 660 — PROPOSED MAJOR CONTOUR
- 661 — PROPOSED MINOR CONTOUR
- SEEDING W/ MULCH RESTORATION
- SEEDING W/ EROSION CONTROL BLANKET
- STORM WATER BASIN
- TOP OF SLOPE
- BOTTOM OF SLOPE
- PROPOSED DISTURBANCE LIMITS
- PROPOSED STORM SEWER
- PROPOSED STORM CATCH BASIN
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION

GRADING PLANS NOTES

1. CONTRACTOR RESPONSIBLE FOR CONSTRUCTION ALL WORK COMPLETED IN CONFORMANCE WITH CURRENT ADA STANDARDS.
2. PROPOSED CONTOUR LINES AND SPOT ELEVATIONS REFLECT FINISH GRADES. HOLD DOWN SUBGRADE ELEVATIONS ACCORDINGLY. ADJUST RIM ELEVATIONS OR ALL UTILITIES AFFECTED BY WORK IN THIS CONTRACT. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ON THE SITE. ANY AREA THAT APPEARS TO NOT PROPERLY DRAIN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT/ ENGINEER FOR RESOLUTION.
3. SPOT GRADES ARE FINISHED HARD SURFACE. SLOPE GRASS PAVEMENT TO MATCH DIRECTION OF ADJOINING CONCRETE SURFACE.

STORM STRUCTURE SCHEDULE

STRUCTURE NUMBER	STRUCTURE DIAMETER	STRUCTURE TYPE	CASTING	RIM ELEV	CONNECTED PIPE INV ELEV
CB#1	60"	CONCRETE	EJ7045/M1/7050/T1	669.44	12" W: 667.50 12" W: 667.50 12" NW: 667.50
CB#2	24"	CONCRETE	EJ7045/M1/7050/T1	672.14	12" E: 668.20
CB#3	24"	CONCRETE	EJ7045/M1/7050/T1	670.59	12" E: 667.80
CB#4	48"	CONCRETE	EJ7045/M1/7050/T1	670.46	12" E: 666.30 12" SW: 666.30
CB#5	48"	CONCRETE	EJ7045/M1/7050/T1	671.90	12" E: 667.33 12" NE: 667.23 12" W: 667.23
CB#6	48"	CONCRETE	EJ7045/M1/7050/T1	671.27	12" N: 668.00 12" SW: 668.00
CB#7	24"	CONCRETE	EJ7045/M1/7050/T1	672.24	12" S: 668.30
CB#8	48"	CONCRETE	EJ7045/M1/7050/T1	673.20	12" E: 669.06 12" W: 668.96
CB#9	24"	CONCRETE	EJ7045/M1/7050/T1	675.12	12" W: 671.24 8" S: 671.24
STSMH#1	48"	CONCRETE	EJ1040A	667.52	8" SW: 667.50 12" SE: 665.41 12" NW: 665.41
YD#1	15"	NYLOBASIN	STANDARD	672.06	8" SW: 668.50 8" NE: 668.50
YD#2	15"	NYLOBASIN	STANDARD	671.86	8" NE: 669.50
YD#3	15"	NYLOBASIN	STANDARD	671.42	8" NE: 667.50 8" SW: 667.50
YD#4	15"	NYLOBASIN	STANDARD	670.00	8" SW: 668.50
YD#5	15"	NYLOBASIN	STANDARD	675.00	8" N: 673.50
YD#6	15"	NYLOBASIN	STANDARD	672.25	8" W: 669.50
YD#7	15"	NYLOBASIN	STANDARD	670.35	8" E: 668.50 8" N: 668.50

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No.	Date	Revision	By

OVERALL GRADING & DRAINAGE PLAN
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

Date Issued: 05/10/2023
Date Surveyed: ----
Designed By: ----
Drawn By: ----
Checked By: WCB
Scale: AS NOTED

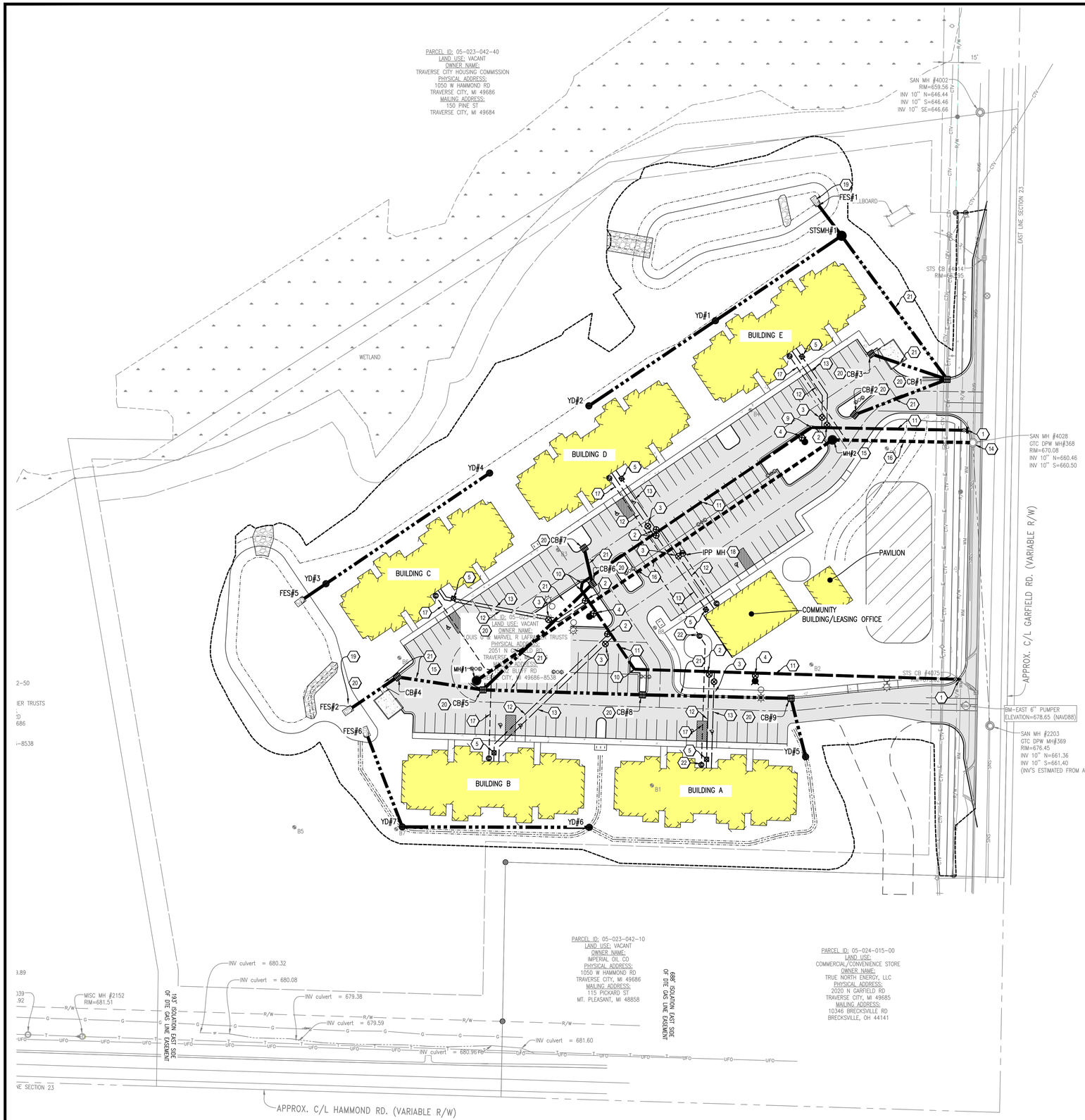
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T27N, R11W
GARFIELD TOWNSHIP,
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MICHIGAN

Project Number:
2022410001

Sheet:
C300

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UTILITY PLAN KEYED NOTES

	DESCRIPTION	DETAIL #/SHEET
1	TAPPING SLEEVE & VALVE	C602
2	8"x4" TEE & VALVE FOR FIRE PROTECTION SERVICE TO BLDG	C602
3	CURB STOP & 2" DOMESTIC SERVICE	C602
4	8"X6" TEE & 6" FIRE HYDRANT ASSEMBLY	C602
5	POST INDICATOR VALVE (PIV)	
9	22.5° WATER MAIN BEND	C602
10	45° WATER MAIN BEND	C602
11	PROPOSED 8" WATER MAIN	C602
12	2" DOMESTIC WATER SERVICE	C602
13	4" FIRE SUPPRESSION LINE	C602
14	CONNECT TO EXISTING SANITARY MANHOLE	C602
15	PROPOSED 48" DIAMETER SANITARY MANHOLE	C603
16	PROPOSED 8" SANITARY SEWER MAIN	C603
17	PROPOSED 6" SANITARY SEWER LEAD	C603
18	PROPOSED IPP MANHOLE	C603
19	PROPOSED STORM SEWER FLARED END SECTION & OUTLET DISSIPATION	C601
20	PROPOSED STORM CATCH BASIN (SEE STRUCTURE SCHEDULE FOR SIZE)	C601
21	PROPOSED STORM SEWER	C601
22	PROPOSED SANITARY SEWER LEAD CLEANOUT	C603

N

SCALE 1" = 50'
0' 50' 100'

UTILITY PLAN LEGEND

- UE — PROPOSED UNDERGROUND ELECTRIC SERVICE
- E — PROPOSED ELECTRIC METER
- G — PROPOSED UNDERGROUND GAS SERVICE
- G — PROPOSED GAS METER
- PROPOSED WATER MAIN
- PROPOSED WATER SERVICE/ FIRE SUPPRESSION LINE
- PROPOSED POST INDICATOR VALVE
- PROPOSED CURB STOP
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY FORCE MAIN
- PROPOSED SANITARY CLEAN OUT
- PROPOSED SANITARY MANHOLE
- PROPOSED IPP MANHOLE
- PROPOSED STORM SEWER
- PROPOSED STORM CLEAN OUT/ROOF DRAIN CONNECTION
- PROPOSED STORM CATCH BASIN
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION

WATER MAIN & SEWER UTILITY NOTES

1. WATER MAIN CONSTRUCTION SHALL CONFORM TO CURRENT GARFIELD TOWNSHIP AND GRAND TRAVERSE COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) STANDARD DETAILS AND SPECIFICATIONS. WORK SHALL BE COORDINATED WITH THE TOWNSHIP AND DPW AND PROVIDE THEM WITH 48 HOURS NOTICE PRIOR TO BEGINNING OF CONSTRUCTION.
2. WATER MAIN TO MAINTAIN MIN. 18" VERTICAL AND 10' HORIZONTAL SEPARATION FROM ALL SANITARY AND STORM SEWERS AND STRUCTURES.
3. ALL ON SITE WATER AND SEWER LEADS SHALL MAINTAIN MIN. 18" VERTICAL AND 5' HORIZONTAL SEPARATION FROM EACH OTHER AND RESPECTIVE STORM WATER PIPING, FRENCH DRAINS, ETC. IN COMPLIANCE WITH LOCAL CODES.
5. WATER MAIN SHALL BE RIGID POLYVINYL CHLORIDE BELL AND SPIGOT TYPE PRESSURE PIPE AND FITTINGS SHALL BE DUCTILE IRON PIPE SIZE (DIPS), CONFORM TO AWWA C900/C905 STANDARDS, PRESSURE CLASS 235 PSI, AND DR 18 IN CONFORMANCE WITH THE VILLAGE OF KINGSLEY STANDARD SPECIFICATIONS.
6. PLAN ELEVATIONS BASED ON NAVD88 DATUM.
7. ADDITIONAL WATER MAIN SPECIFICATIONS ARE LOCATED IN THE PROJECT SPECIFICATIONS.

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OVERALL UTILITY PLAN
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

Date Issued: 05/10/2023
Date Surveyed: ----
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Checked By: WCB
Scale: AS NOTED

Original sheet size is 24x36

Location:
PART OF SECTION 23
T27N, R11W
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY,
MICHIGAN

Project Number:
2022410001

Sheet:
C400

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STORM STRUCTURE SCHEDULE

STRUCTURE NUMBER	STRUCTURE DIAMETER	STRUCTURE TYPE	CASTING	RIM ELEV	CONNECTED PIPE INV ELEV
CB#1	60"	CONCRETE	EJ7045/M1/7050/T1	669.44	12" W: 667.50 12" W: 667.50 12" NW: 667.50
CB#2	24"	CONCRETE	EJ7045/M1/7050/T1	672.14	12" E: 668.20
CB#3	24"	CONCRETE	EJ7045/M1/7050/T1	670.59	12" E: 667.80
CB#4	48"	CONCRETE	EJ7045/M1/7050/T1	670.46	12" E: 666.30 12" SW: 666.30
CB#5	48"	CONCRETE	EJ7045/M1/7050/T1	671.90	12" E: 667.33 12" NE: 667.23 12" W: 667.23
CB#6	48"	CONCRETE	EJ7045/M1/7050/T1	671.27	12" N: 668.00 12" SW: 668.00
CB#7	24"	CONCRETE	EJ7045/M1/7050/T1	672.24	12" S: 668.30
CB#8	48"	CONCRETE	EJ7045/M1/7050/T1	673.20	12" E: 669.06 12" W: 668.96
CB#9	24"	CONCRETE	EJ7045/M1/7050/T1	675.12	12" W: 671.24 8" S: 671.24

WATER MAIN & SEWER UTILITY NOTES

1. WATER MAIN CONSTRUCTION SHALL CONFORM TO CURRENT GARFIELD TOWNSHIP AND GRAND TRAVERSE COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) STANDARD DETAILS AND SPECIFICATIONS. WORK SHALL BE COORDINATED WITH THE TOWNSHIP AND DPW AND PROVIDE THEM WITH 48 HOURS NOTICE PRIOR TO BEGINNING OF CONSTRUCTION.
2. WATER MAIN TO MAINTAIN MIN. 18" VERTICAL AND 10' HORIZONTAL SEPARATION FROM ALL SANITARY AND STORM SEWERS AND STRUCTURES.
3. ALL ON SITE WATER AND SEWER LEADS SHALL MAINTAIN MIN. 18" VERTICAL AND 5' HORIZONTAL SEPARATION FROM EACH OTHER AND RESPECTIVE STORM WATER PIPING, FRENCH DRAINS, ETC. IN COMPLIANCE WITH LOCAL CODES.
5. WATER MAIN SHALL BE RIGID POLYVINYL CHLORIDE BELL AND SPIGOT TYPE PRESSURE PIPE AND FITTINGS SHALL BE DUCTILE IRON PIPE SIZE (DIPS), CONFORM TO AWWA C900/C905 STANDARDS, PRESSURE CLASS 235 PSI, AND DR 18 IN CONFORMANCE WITH THE VILLAGE OF KINGSLEY STANDARD SPECIFICATIONS.
6. PLAN ELEVATIONS BASED ON NAVD88 DATUM.
7. ADDITIONAL WATER MAIN SPECIFICATIONS ARE LOCATED IN THE PROJECT SPECIFICATIONS.

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No.	Date	Revision	By

DETAILED UTILITY PLAN
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

Date Issued:	05/10/2023
Date Surveyed:	----
Designed By:	----
Drawn By:	----
Checked By:	WCB
Scale:	AS NOTED

Original sheet size is 24x36

Location:
PART OF SECTION 23
T27N, R11W
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY,
MICHIGAN

Project Number:
2022410001

Sheet:
C401

P:\2022\2022410001\ACAD\Land Dev\2022410001-PS_SITEUTIL.dwg, 11x17, C401 SITE&UTILITY PLAN, Saved by gjarvis 5/11/2023 12:43:19 PM, Plotted by Andy Dunn, P.E. 5/11/2023 12:58 PM



N

SCALE 1" = 50'

0' 50' 100'

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No.	Date	Revision	By

SOIL EROSION & SEDIMENTATION CONTROL PLAN
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

SESC KEY

E5	DUST CONTROL		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.
E6	MULCH		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
E9	MULCH BLANKETS		On exposed slopes, newly seeded areas, new ditch bottoms, or areas subject to erosion.
S51	SILT FENCE		Used at every point where construction traffic enters or leaves a construction site.
S53	STABILIZED CONSTRUCTION ACCESS		Use at stormwater inlets, especially at construction sites.
S58	INLET PROTECTION FABRIC DROP		Used at every point where construction traffic enters or leaves a construction site.

SURFACE RESTORATION LEGEND

- STORMWATER BASIN SEED MIX
- NO-MOW SEED MIX
- MAINTAINED LAWN AREA
- PLANTED AND MULCHED LANDSCAPE AREA

GRADING PLAN LEGEND

- x — PROPOSED SILT FENCE
- PROPOSED RIDGE/VALLEY
- 660 — PROPOSED MAJOR CONTOUR
- 661 — PROPOSED MINOR CONTOUR
- 1.5% — PROPOSED SLOPE (%)
- 3:1 — PROPOSED SLOPE (H:V)
- 660 — PROPOSED MAJOR CONTOUR
- 661 — PROPOSED MINOR CONTOUR

DENOTES PERMANENT MEASURE

DENOTES TEMPORARY MEASURE

STEEP SLOPES:
ALL SLOPES 3H:1V OR STEEPER TO BE DRESSED WITH EROSION CONTROL BLANKET

ESTIMATED CONSTRUCTION SCHEDULE

CONSTRUCTION TASK	APR	MAY	JUN	JUL
TEMPORARY SESC MEASURES	XX			
SITE GRADING, CONC., & ASPHALT	XX	XXXX	XXX	XX
RESTORATION			X	XX
REMOVE TEMPORARY MEASURES (AS ALLOWED AFTER SITE STABILIZED)				XX

TO BE DETERMINED

AREA OF DISTURBANCE: ±8.50 AC.

WATER BODY/WETLAND STATEMENT:
NEAREST BODY OF WATER OR WETLANDS APPEARS ON-SITE. NO GRADING IS PROPOSED WITHIN 25' OF THE WETLANDS.

SESC PLAN NOTES

1. SOIL EROSION AND SEDIMENTATION CONTROL NOTES ARE LOCATED ON SHEET C001.
2. EROSION CONTROL BLANKET SHALL BE WESTERN EXCELSIOR EXCEL SS-2 OR ENGINEER'S APPROVED EQUAL.
3. EROSION CONTROL BLANKET PLACEMENTS SHOWN ON THE PLAN ARE THE MINIMUM AREAS THAT SHOULD RECEIVE THIS TYPE OF RESTORATION. CONTRACTOR SHOULD EVALUATE ACTUAL CONSTRUCTED CONDITION TO DETERMINE IF EROSION CONTROL BLANKET IS NEEDED ELSEWHERE ONSITE.

Date Issued:	05/10/2023
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Drawn By:	AJP
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Scale:	AS NOTED

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MICHIGAN

Project Number:
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Sheet:
C402

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LANDSCAPE LEGEND

- UNDISTURBED NATURAL LANDSCAPE/BUFFERING
- STORMWATER BASIN SEED MIX
- NO-MOW SEED MIX
- MAINTAINED LAWN AREA
- PLANTED AND MULCHED LANDSCAPE AREA

LARGE DECIDUOUS TREES Red Maple, River Birch, Red Oak, Amer. Beech, Honey Locust	QTY. TOTAL:	
EVERGREEN TREES White pine, Black Spruce, Hemlock	QTY. TOTAL:	
MEDIUM AND SMALL TREES Serviceberry, Hawthorne, Dogwood, Ironwood, Birch	QTY. TOTAL:	
INTERIOR PARKING LANDSCAPE AREAS	QTY. TOTAL: AS NEEDED TO FILL LANDSCAPE BED	
DECIDUOUS SHRUBS Red Twig Dogwood, Viburnum, Spirera,		
PERENNIALS Ornamental Grasses, Daylillies		

N

SCALE 1" = 50'

0' 50' 100'

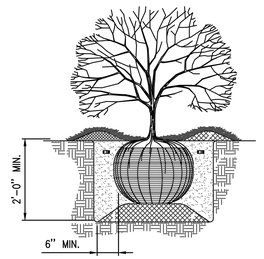
LANDSCAPE PLANTING REQUIREMENTS

			Large Trees (3 EA/100 LF)		Med/Small Trees (3 EA/100 LF)		Ever./Conif. Tree (1 EA/100 LF)	
Frontage Area	Buffer Type	Frontage (LF)	Required	Provided	Required	Provided	Required	Provided
1 - East (Garfield)	C	726	21.78	22	21.78	22	7.26	8
2 - South (Private Parcel)	C	495	14.85	15	14.85	15	4.95	5
3 - East (Private Parcel)	Provided by Existing Vegetation							
4 - South (Hammond)	Provided by Existing Vegetation							
5 - West (Private Parcel)	Provided by Existing Vegetation							
6 - North (Private Parcel)	Provided by Existing Vegetation							

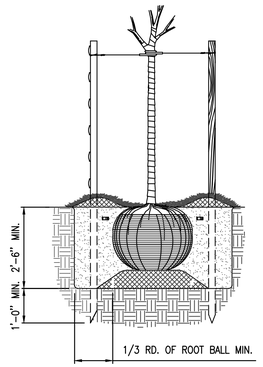
	Landscape Area (10 SF/Space)		Canopy Tree (1 EA/100 SF)	
Parking Spaces	Required	Provided	Required	Provided
160	1600	1845	16	16

LANDSCAPE NOTES

1. PROPOSED LANDSCAPING VEGETATION TO CONFORM WITH "RECOMMENDED PLANTING GUIDELINES FOR GARFIELD TOWNSHIP". SELECTED VEGETATION WILL BE NATIVE SPECIES.
2. VEGETATIVE BUFFER SCHEDULE PER THE GARFIELD TOWNSHIP ZONING ORDINANCE
3. IF ANY PROTECTED TREES ARE INADVERTENTLY DAMAGED, REPLACEMENT TREES OF THE SAME SPECIES WILL BE PROVIDED AT A SIZE EQUAL TO WHAT IS PROPOSED FOR THAT SPECIES ON THE LANDSCAPE PLANTING PLAN.
4. ALL BUILDING FRONT AND REAR YARDS, COMMON AREAS, AND VEGETATIVE BUFFER STRIPS TO HAVE IN-GROUND TURF IRRIGATION FOR LAWNS, AND TRICKLE IRRIGATION FOR PLANTING BEDS AND TREE INSTALLATIONS.
5. THE PLANT MATERIAL INTERNAL TO THE SITE THAT IS NOT PART OF THE ZONING ORDINANCE (MINIMUM) BUFFER REQUIREMENTS IS INDICATIVE OF THE APPLICANTS 'DESIGN INTENT', HOWEVER THE APPLICANT RESERVES THE RIGHT TO MAKE SUBSTITUTIONS OR DELETIONS AT THEIR SOLE DISCRETION. INTERNAL SITE SELECTED VEGETATION ALSO TO BE NATIVE SPECIES.



SHRUB INSTALLATION DETAIL
NOT TO SCALE



TREE INSTALLATION DETAIL
NOT TO SCALE

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LANDSCAPE PLAN
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

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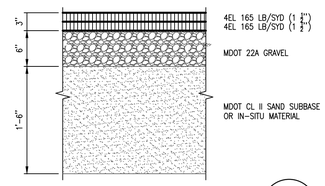
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Location:
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MICHIGAN

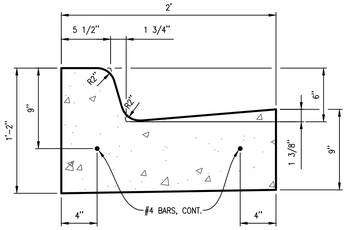
Project Number:
2022410001

Sheet:
C500

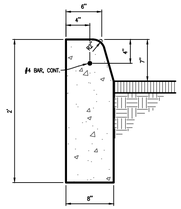
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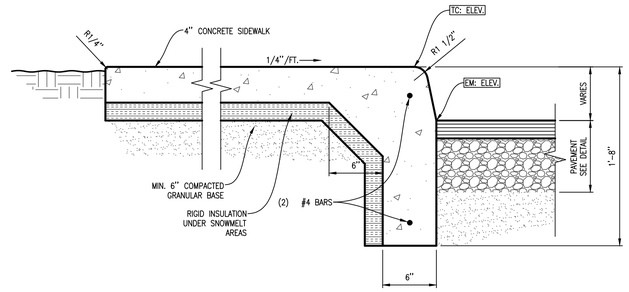
TYPICAL PAVEMENT DETAIL 1 / C600
NOT TO SCALE



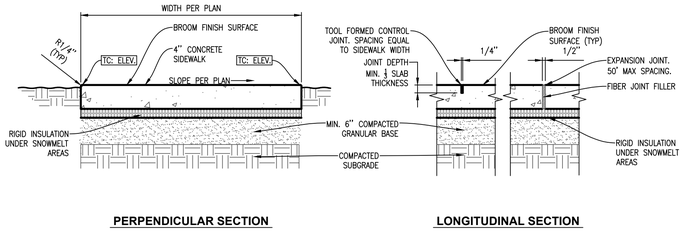
STANDARD M.D.O.T. "F4" CONCRETE CURB & GUTTER DETAIL 2 / C600
NOT TO SCALE



STANDARD M.D.O.T. "E2" CONCRETE CURB & GUTTER DETAIL 3 / C600
NOT TO SCALE

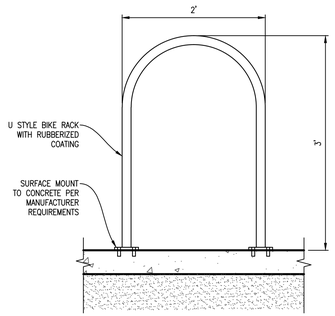


INTEGRAL SIDEWALK AND CURB DETAIL 4 / C600
NOT TO SCALE

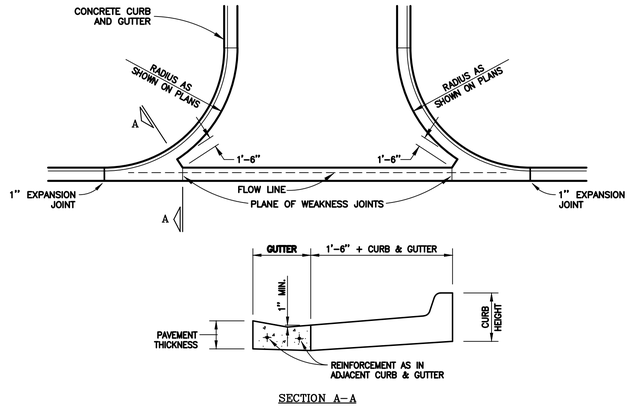


PERPENDICULAR SECTION **LONGITUDINAL SECTION**

CONCRETE SIDEWALK DETAIL 5 / C600
NOT TO SCALE

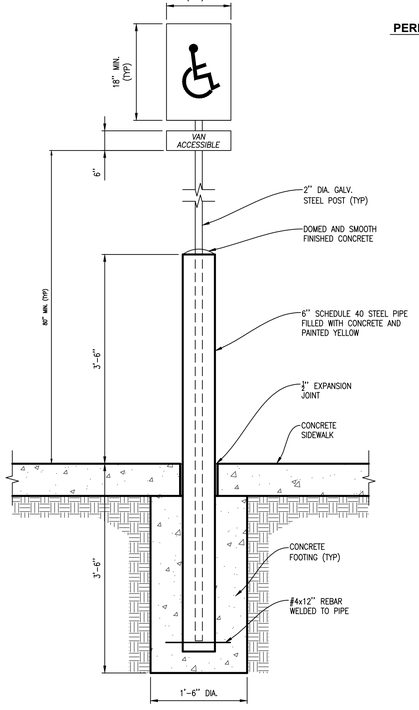


TYPICAL BIKE RACK DETAIL 6 / C600
NOT TO SCALE



SECTION A-A

MDOT DETAIL 'M' DRIVE OPENING 7 / C600
NOT TO SCALE



HANDICAP SIGN DETAIL 8 / C600
NOT TO SCALE

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No.	Date	Revision	By
2	09/20/22	ROAD ALIGNMENT REVISIONS & ADD'L TWP COMMENTS	AJP
1	09/09/22	REVIEW COMMENTS REVISIONS	AJP

SITE DETAILS
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

Date Issued:	05/10/2023
Date Surveyed:	----
Designed By:	----
Drawn By:	----
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Scale:	AS NOTED

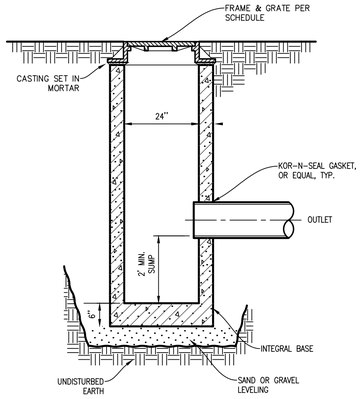
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Location:
PART OF SECTION 23
T27N, R11W
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY,
MICHIGAN

Project Number:
2022410001

Sheet:
C600

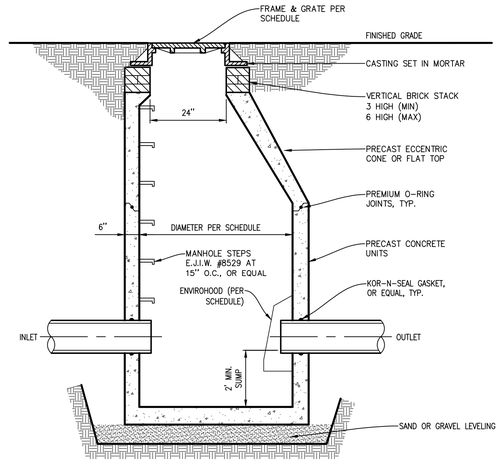
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2' DIA. CATCH BASIN DETAIL

NOT TO SCALE

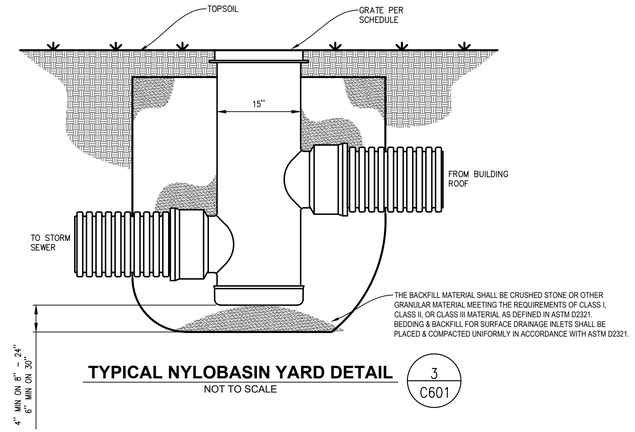
1 / C601



CATCH BASIN / MANHOLE DETAIL

NOT TO SCALE

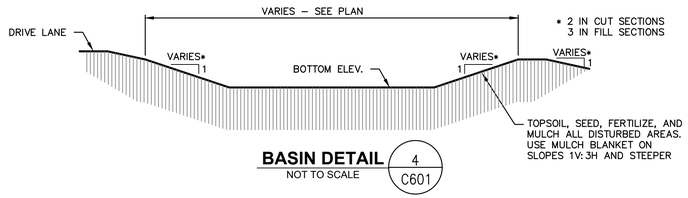
2 / C601



TYPICAL NYLOBASIN YARD DETAIL

NOT TO SCALE

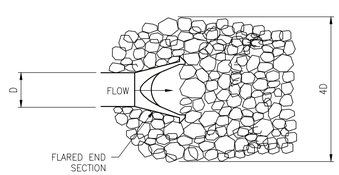
3 / C601

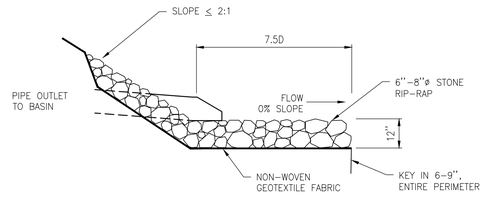


BASIN DETAIL

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4 / C601

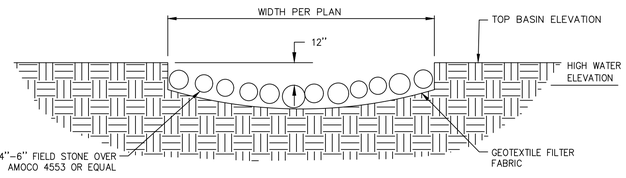




OUTLET PIPE RIP-RAP DISSIPATER DETAIL

NO SCALE

5 / C601



EMERGENCY OVERFLOW DETAIL

NOT TO SCALE

6 / C601

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SITE DETAILS
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

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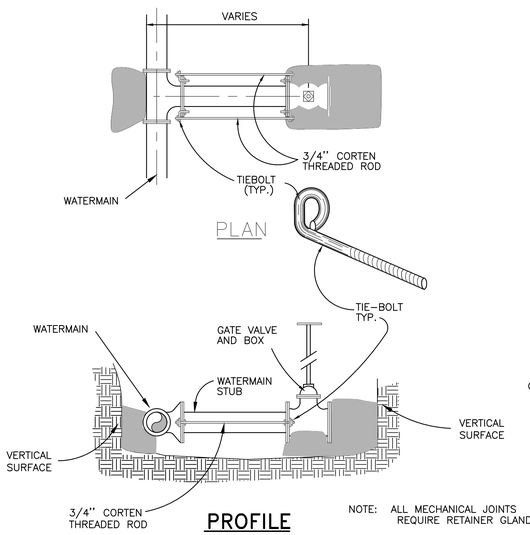
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Location:
PART OF SECTION 23
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MICHIGAN

Project Number:
2022410001

Sheet:
C601

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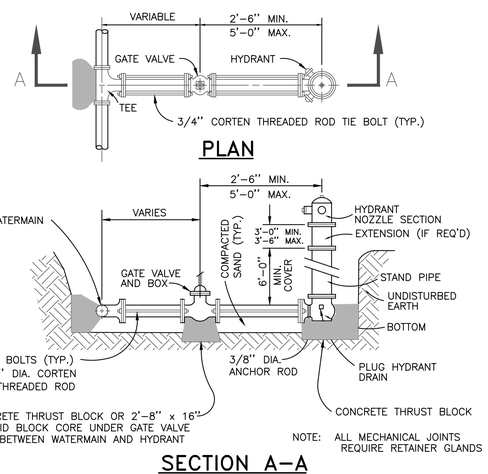


PROFILE

NOTE: ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS

THRUST RESTRAINT DETAIL FOR ALL VALVES ON STUBBED LINES

NO SCALE



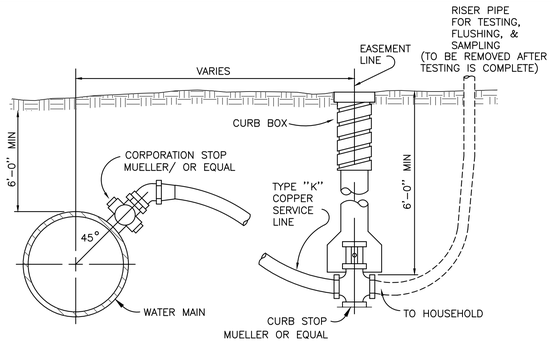
PLAN

SECTION A–A

NOTE: ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS

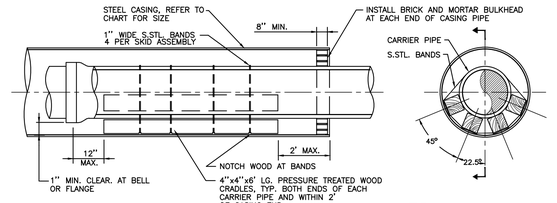
HYDRANT ASSEMBLY DETAIL

NO SCALE



SERVICE CONNECTION DETAIL

NO SCALE



Section

WATER MAIN

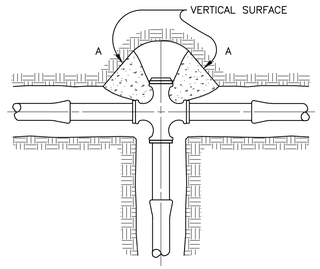
CARRIER PIPE NOMINAL SIZE	CASING PIPE SIZE–ROAD MIN. O.D.	MIN. WALL THK.
6"	16"	0.250"
8"	16"	0.250"
10"	20"	0.250"
12"	22"	0.250"
15"	24"	0.250"

Notes

1. 14" AND LARGER CARRIER PIPES REQUIRE 4–4"x4" WOOD SKIDS PER SET, SPACED AS SHOWN ABOVE.
2. 12" AND SMALLER CARRIER PIPES REQUIRE ONLY 2–4"x4" WOOD SKIDS PER SET, SPACED 30" AWAY FROM THE BOTTOM OF THE CARRIER.
3. SKID SIZES MAY VARY WITH LARGER SIZE CARRIER PIPES.
4. MINIMUM CASING SIZE BASED ON STANDARD PUSH–ON JOINT PIPE. CONTRACTOR SHALL VERIFY MINIMUM CLEARANCE REQUIREMENTS FOR THE TYPE OF CARRIER PIPE SPECIFIED AND INSTALL LARGER THAN MINIMUM CASING SIZE FOR REQUIRED CLEARANCE, AT NO ADDITIONAL COST.

CASING/CARRIER PIPE DETAIL

NO SCALE

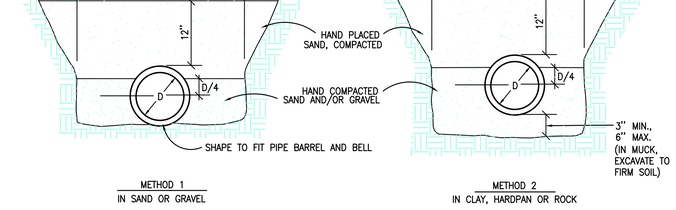


PIPE SIZE	MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THRUST BLOCKS
	SURFACE A
4"	1'–0"x 1'–0" = 1.0 SQ.FT.
6"	1'–4"x 1'–0" = 1.8 SQ.FT.
8"	2'–0"x 1'–4" = 2.7 SQ.FT.
10"	1'–10"x 1'–10" = 3.4 SQ.FT.
12"	2'–4"x 2'–4" = 5.4 SQ.FT.
16"	2'–10"x 2'–10" = 8.0 SQ.FT.

ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS

TYPICAL CROSS AND PLUG DETAIL

NO SCALE



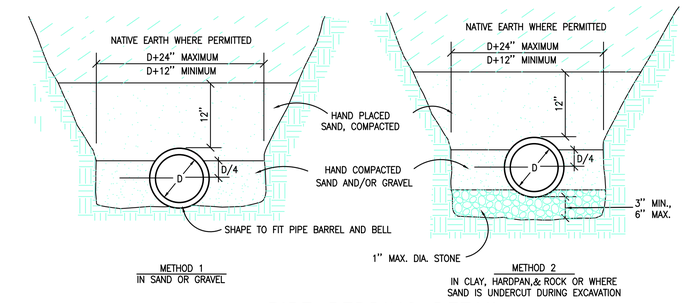
METHOD 1 IN SAND OR GRAVEL

METHOD 2 IN CLAY, HARDPAN OR ROCK

PIPE BEDDING DETAIL

NO SCALE

DEGREE OF BEND IN ELBOW	PIPE SIZE	MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THRUST BLOCKS
		SURFACE A
45°	4"	1'–4"x 1'–0" = 1.3 SQ. FT.
45°	6"	1'–8"x 1'–4" = 2.2 SQ. FT.
45°	8"	2'–0"x 2'–0" = 4.0 SQ. FT.
45°	10"	2'–4"x 2'–4" = 5.4 SQ. FT.
45°	12"	2'–8"x 2'–8" = 7.1 SQ. FT.
45°	16"	3'–8"x 3'–8" = 13.5 SQ. FT.
22.5° OR 11.25°	2"	
22.5° OR 11.25°	4"	1'–0"x 0'–8" = 0.7 SQ. FT.
22.5° OR 11.25°	6"	1'–4"x 1'–0" = 1.3 SQ. FT.
22.5° OR 11.25°	8"	1'–8"x 1'–4" = 2.2 SQ. FT.
22.5° OR 11.25°	10"	1'–8"x 1'–8" = 2.8 SQ. FT.
22.5° OR 11.25°	12"	1'–10"x 1'–10" = 3.4 SQ. FT.
22.5° OR 11.25°	16"	2'–8"x 2'–8" = 7.1 SQ. FT.

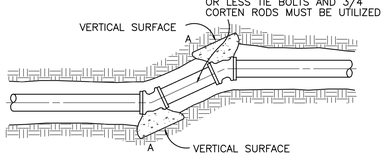


METHOD 1 IN SAND OR GRAVEL

METHOD 2 IN CLAY, HARDPAN,& ROCK OR WHERE SAND IS UNDERCUT DURING EXCAVATION

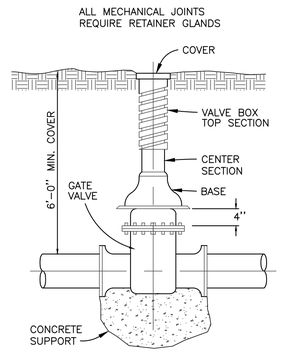
PIPE BEDDING DETAIL

(CLASS B) NO SCALE



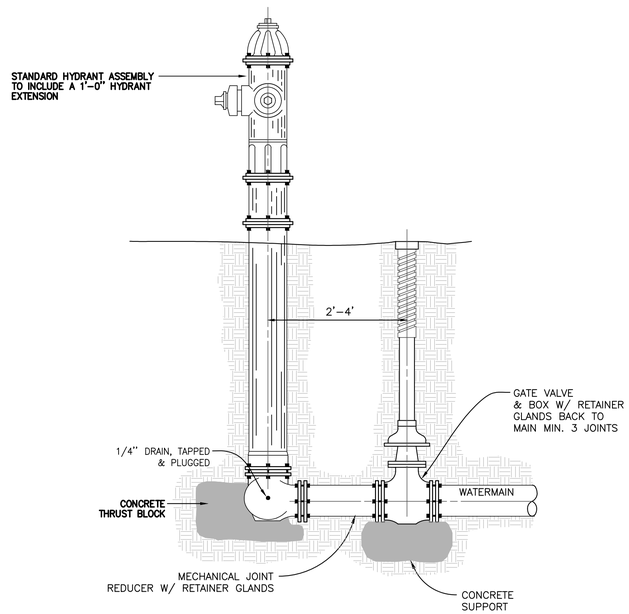
TYPICAL OFFSET DETAIL

NO SCALE



VALVE BOX INSTALLATION DETAIL

NO SCALE



BLOW–OFF DETAIL

NO SCALE

GoslingCzubak
engineering sciences, inc.
1280 Business Park Dr.
Traverse City, Michigan
231-946-9191 phone
info@goslingczubak.com
www.goslingczubak.com

CIVIL ENGINEERING
SURVEYING
ENVIRONMENTAL SERVICES
GEOTECHNICAL
CONSTRUCTION SERVICES
DRILLING
LANDSCAPE ARCHITECTURE

No.	Date	Revision	By

STANDARD WATER MAIN DETAILS
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

Date Issued: 05/10/2023
Date Surveyed: ----
Designed By: ----
Drawn By: ----
Checked By: WCB
Scale: AS NOTED

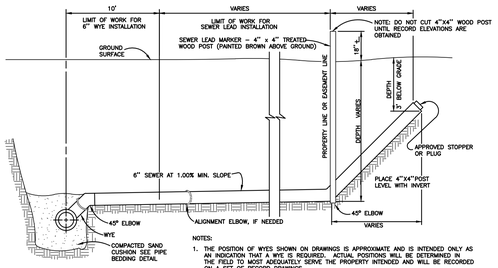
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Location:
PART OF SECTION 23
T27N, R11W
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY,
MICHIGAN

Project Number:
2022410001

Sheet:
C602

E:\2022\410001\DWG\ACAD Data\C3D\2022410001_PS_STD DETAILS.dwg, Tab: C602 STANDARD WATER MAIN DETAILS, Saved by: sgarvin 5/5/2023 3:21 PM, Plotted by: Andy Poole, PE, 5/11/2023 12:57 PM

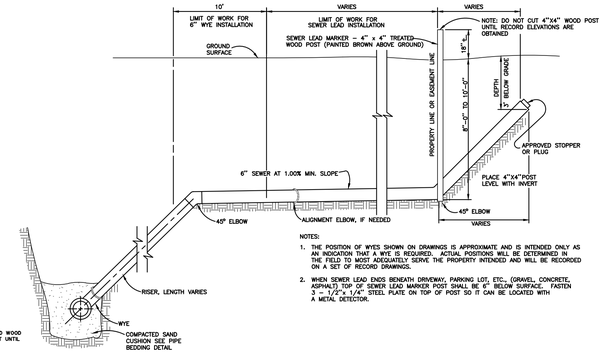


NOTES:

1. THE POSITION OF WYES SHOWN ON DRAWINGS IS APPROXIMATE AND IS INTENDED ONLY AS AN INDICATION THAT A WYE IS REQUIRED. ACTUAL POSITIONS WILL BE DETERMINED IN THE FIELD TO MOST ADEQUATELY SERVE THE PROPERTY INTENDED AND WILL BE RECORDED ON A SET OF RECORD DRAWINGS.
2. WHEN SEWER LEAD ENDS BENEATH DRIVEWAY, PARKING LOT, ETC., (GRAVEL, CONCRETE, ASPHALT) TOP OF SEWER LEAD MARKER POST SHALL BE 6" BELOW SURFACE. FASTEN 3 – 1/2"x 1/4" STEEL PLATE ON TOP OF POST SO IT CAN BE LOCATED WITH A METAL DETECTOR.

WYE AND SEWER LEAD INSTALLATION DETAIL

NO SCALE

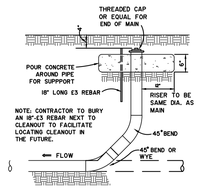


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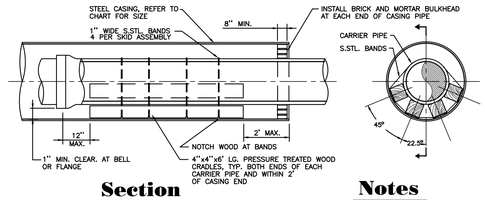
DEEP SEWER
WYE AND SEWER LEAD INSTALLATION DETAIL

NO SCALE



6'' OR 8'' CLEANOUT DETAIL

NO SCALE



Section

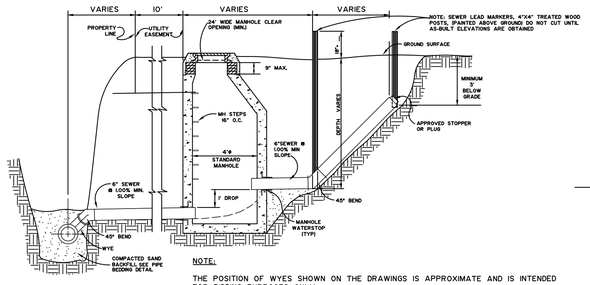
CARRIER PIPE NOMINAL SIZE	FORCE MAIN CASING PIPE SIZE–ROAD MIN. O.D.	FORCE MAIN CASING PIPE SIZE–ROAD MIN. WALL THK.	⚠ GRAVITY SEWER CASING PIPE SIZE–ROAD MIN. O.D.	GRAVITY SEWER CASING PIPE SIZE–ROAD MIN. WALL THK.
6"	16"	0.250"	20"	0.250"
8"	16"	0.250"	22"	0.250"
10"	20"	0.250"	26"	0.312"
12"	22"	0.250"	28"	0.312"
15"	24"	0.250"	30"	0.312"

CASING/CARRIER PIPE DETAIL

NO SCALE

Notes

1. 14" AND LARGER CARRIER PIPES REQUIRE 4–4"x4" WOOD SKIDS PER SET, SPACED AS SHOWN ABOVE.
2. 12" AND SMALLER CARRIER PIPES REQUIRE ONLY 2–4"x4" WOOD SKIDS PER SET, SPACED 30" AWAY FROM THE BOTTOM OF THE CARRIER.
3. SKID SIZES MAY VARY WITH LARGER SIZE CARRIER PIPES.
4. MINIMUM CASING SIZE BASED ON STANDARD PUSH-ON JOINT PIPE. CONTRACTOR SHALL VERIFY MINIMUM CLEARANCE REQUIREMENTS FOR THE TYPE OF CARRIER PIPE SPECIFIED AND INSTALL LARGER THAN MINIMUM CASING SIZE FOR REQUIRED CLEARANCE, AT NO ADDITIONAL COST.



NOTE:

THE POSITION OF WYES SHOWN ON THE DRAWINGS IS APPROXIMATE AND IS INTENDED FOR BIDDING PURPOSES ONLY.

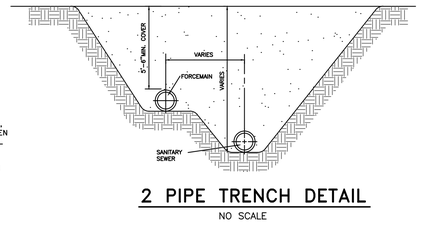
WHEN SEWER LEAD ENDS BENEATH DRIVEWAY, PARKING LOT, ETC., (GRAVEL, CONCRETE, ASPHALT) TOP OF SEWER LEAD MARKER POST SHALL BE 6" BELOW SURFACE. FASTEN 3 - 1/2"x 1/4" STEEL PLATE ON TOP OF POST SO IT CAN BE LOCATED WITH A METAL DETECTOR.

ALL COMMERCIAL AND INDUSTRIAL PROPERTIES SHALL HAVE THIS TYPE OF INSPECTION MANHOLE ON ANY BUILDING LEADS WHICH CONNECT TO THE PUBLIC SEWER SYSTEM.

INCLUDE FLOW CHANNEL IN ALL IPP MANHOLES.

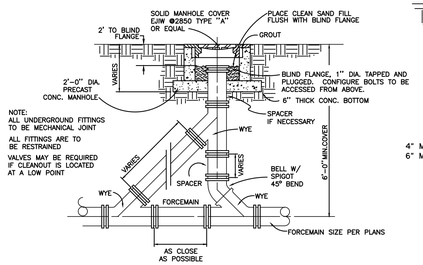
INDUSTRIAL/COMMERCIAL IPP SURVEILLANCE MANHOLE DETAIL

NO SCALE



2 PIPE TRENCH DETAIL

NO SCALE



TWO WAY DUCTILE IRON PIPE FORCEMAIN CLEANOUT DETAIL

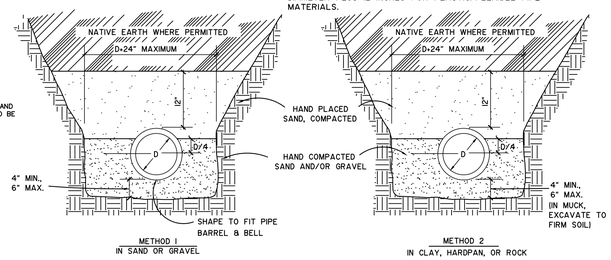
NO SCALE

NOTE:

ALL BACKFILL MATERIAL SHALL CONFORM TO ASTM D2321 (FLEXIBLE PIPE) OR ASTMCI2 (RIGID PIPE) STANDARDS

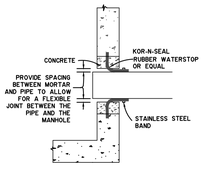
NOTE:

SANITARY SEWER TRENCHES NEED TO PROVIDE A MINIMUM WIDTH OF PIPE DIAMETER PLUS 16 INCHES FOR 8 INCH TO 18 INCH DIAMETER PLASTIC/FLEXIBLE PIPE MATERIALS. FOR 18 INCH AND LARGER PIPE DIAMETERS, THE MINIMUM TRENCH WIDTH IS 1.25 TIMES THE PIPE DIAMETER PLUS 12 INCHES FOR PLASTIC/FLEXIBLE PIPE MATERIALS.



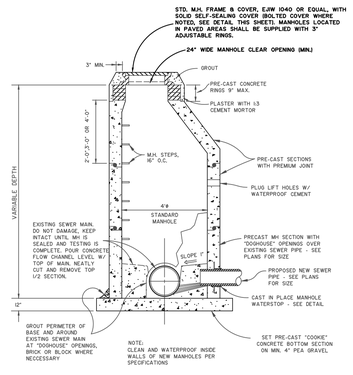
PIPE BEDDING DETAIL

(CLASS A) NO SCALE



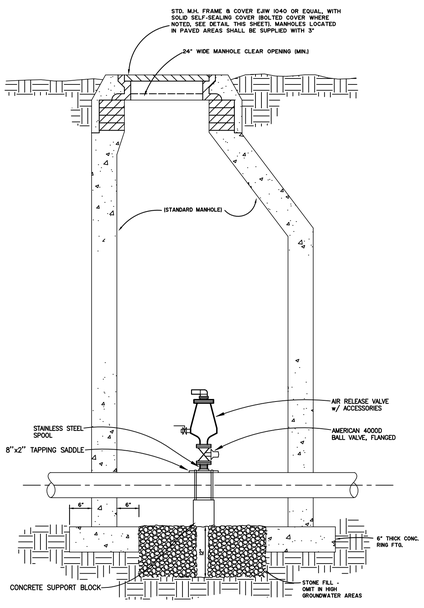
MANHOLE/WETWELL WATERSTOP DETAIL

NO SCALE



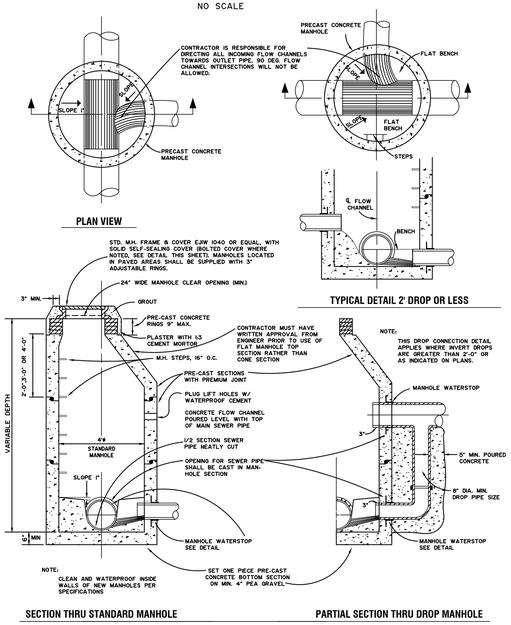
MANHOLE OVER EXISTING SEWER DETAIL

NO SCALE



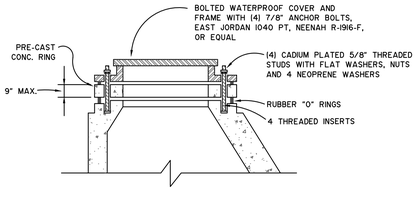
FORCEMAIN AIRVALVE DETAIL

NO SCALE



DETAIL – STANDARD MANHOLE

NO SCALE



DETAIL – BOLTED MANHOLE COVER

NO SCALE

GoslingCzubak
engineering sciences, inc.
1280 Business Park Dr.
Traverse City, Michigan
231-946-9191 phone
info@goslingczubak.com
www.goslingczubak.com
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LANDSCAPE ARCHITECTURE

No.	Date	Revision	By

STANDARD SANITARY SEWER DETAILS
VILLAGE AT GARFIELD
OUTLOOK DEVELOPMENT LLC

Date Issued:	05/10/2023
Date Surveyed:	----
Designed By:	----
Drawn By:	----
Checked By:	WCB
Scale:	AS NOTED

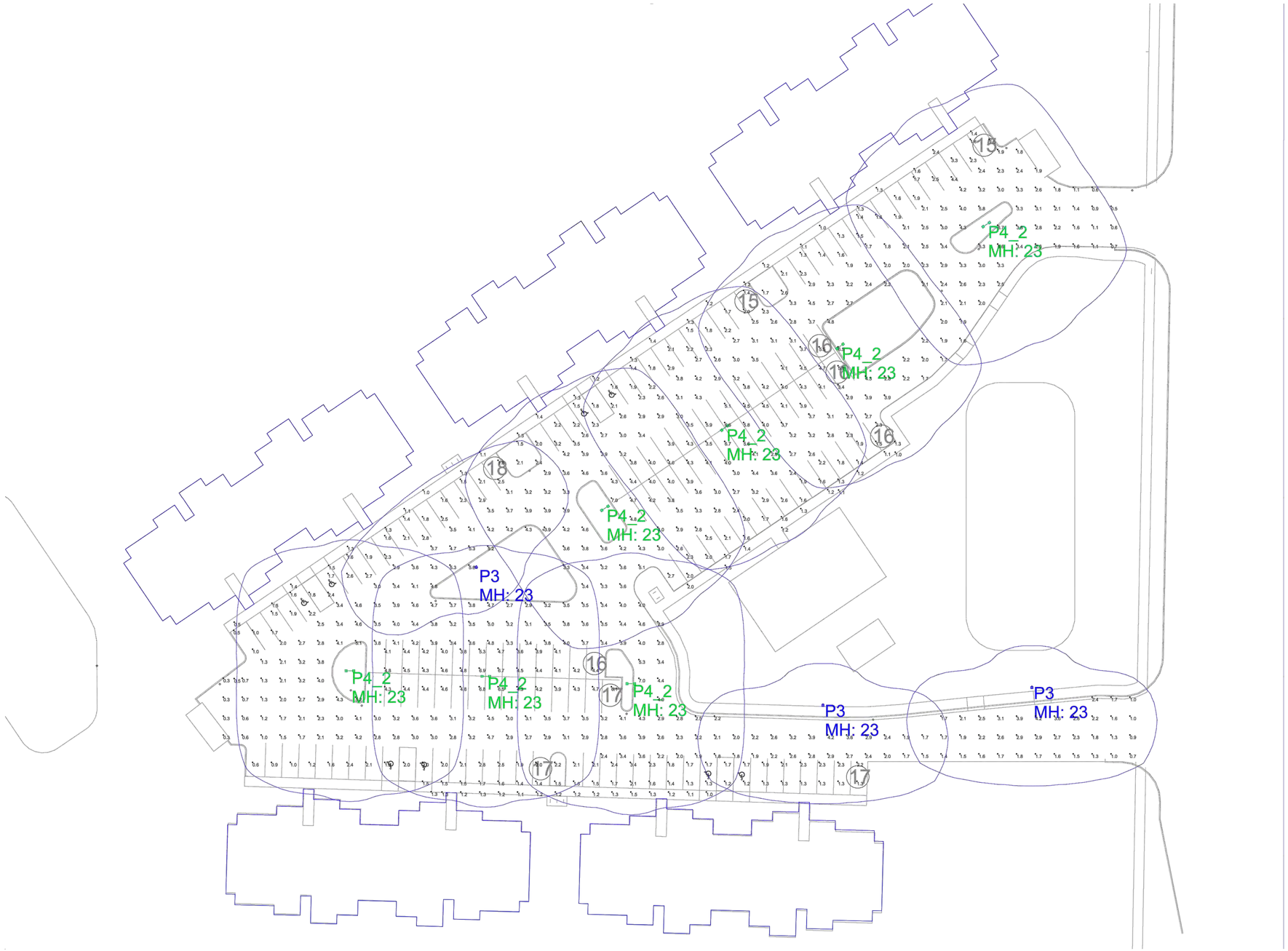
Original sheet size is 24x36

Location:
PART OF SECTION 23
T27N, R11W
GARFIELD TOWNSHIP,
GRAND TRAVERSE COUNTY,
MICHIGAN

Project Number:
2022410001

Sheet:
C603

P:\2022\2022410001\LOCAL\Civil\2022410001_PS_SEL_DETAILS.dwg, tab: C603 STANDARD SANITARY SEWER DETAILS, Saved by: bjurek 5/9/2023 1:21 PM, Plotted by: Andy Pyrek, P.E. 5/10/2023 12:57 PM



PHOTOMETRIC PLAN

SCALE: NTS

Filename: S:\GRAND RAPIDS\Layouts\David VanTol\VILLAGE AT GARFIELD\SITE LIGHTING.AGI

Crites, Tidey, & Assoc., Inc
908C West River Center Dr
Comstock Park MI 49321
PH: 616-647-2400
www.critestidey.com

PHOTOMETRIC EVALUATION
NOT FOR CONSTRUCTION
Based on the information provided, all dimensions and luminaire locations represent a recommended application. The engineer and/or architect must determine the applicability of the layout regarding existing or future field conditions.

This lighting layout represents illumination levels calculated using laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved method. Actual performance of a manufacturer's luminaires may very due to changes in electrical voltage, tolerance in LEDs, and other field conditions. Calculations may not include obstructions such as buildings, curbs, landscaping, or other architectural elements. Fixture nomenclature may not include mounting hardware or poles. This layout is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

DESIGNED FOR:

STANDARD ELECTRIC COMPANY

VILLAGE AT GARFIELD

ADDRESS

SALES
D VANTOL

DATE
5.2.2023

DESIGNER
JEN YONKERS

REVISIONS

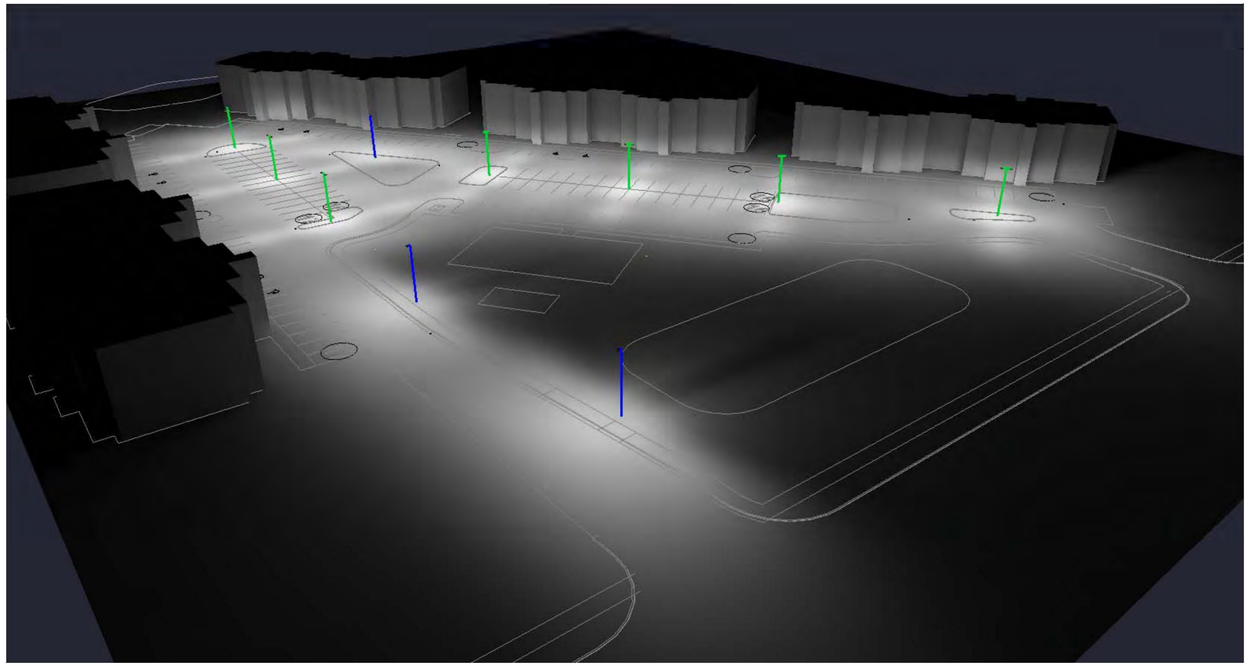
DATE	NAME
XX	XX

SHEET
1

Luminaire Schedule											
Scene: GEN											
Symbol	Qty	Label	Arrangement	LLD	LDD	BF	[MANUFAC]	Description	MNT HEIGHT	MNT TYPE	Ttl Watts
	3	P3	Single	0.980	0.940	1.000	COOPER - McGRAW-EDISON	GLEON-SA3B-740-U-T3	23	POLE	372
	7	P4_2	Back-Back	0.980	0.940	1.000	COOPER - McGRAW-EDISON	GLEON-SA3B-740-U-T4W	23	POLE	1736

Calculation Summary							
Scene: GEN							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
DRIVE	Illuminance	Fc	2.94	7.0	0.3	9.80	23.33
PARKING AREA	Illuminance	Fc	2.80	7.0	0.5	5.60	14.00
SIDEWALK	Illuminance	Fc	1.26	2.4	0.5	2.52	4.80

NOTES:
- CALC AT GRADE
- ALL FIXTURES ARE FULL CUT-OFF
- ALL FIXTURES HAVE PHOTOCELL/TIMER CONTROL



SCHEDULES

SCALE: NTS

Filename: S:\GRAND RAPIDS\Layouts\David VanTol\VILLAGE AT GARFIELD\SITE LIGHTING.AGI

Crites, Tidey, & Assoc., Inc
908C West River Center Dr
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DESIGNED FOR:
STANDARD ELECTRIC COMPANY

VILLAGE AT GARFIELD
ADDRESS

SALES
D VANTOL

DATE
5.2.2023

DESIGNER
JEN YONKERS

REVISIONS

DATE	NAME
XX	XX

SHEET
2

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

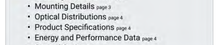
GLEON Galleon

Area / Site Luminaire

Product Features



Product Certifications



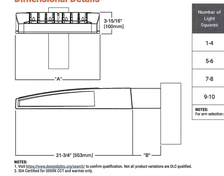
Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt
- Options to meet Buy American and other domestic preference requirements

Dimensional Details



Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length	"B" QM Arm Length	"B" QML Length	"B" QMEA Length
1-4	15-1/2"	7"	10"	10-5/8"	–	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	–	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	10-5/16"	–
9-10	33-3/4"	7"	16"	–	10-5/16"	–

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. GA Certified for 5000K CCT and warmer only.

Ordering Information

SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

Product Family [1]	Light Engine: Configuration	Light Engine: Drive Current	Color Temperature	Voltage	Distribution	Mounting	Finish
GLEON–Galleon	**SA1**=1 Square	**A**=400mA	**727**=727K, 2700K	**U**=120V-277V	**T2**=Type II	**Blank**=Arm for Round or Square Pole	**AP**=Grey
SAA-GLEON–Galleon, Buy American Act Compliant	**SA2**=2 Square **SA3**=3 Square	**B**=530mA **D**=1000mA	**730**=730K, 3000K **735**=735K, 3500K	**H**=347V **4**=277V	**T3**=Type III **T4FT**=Type IV Forward Throw	**EA**=Extended Arm** **MA**=Mast Arm Adapter *	**BZ**=Bronze **BK**=Black
SAA-GLEON-GL–Galleon, Trade Agreements Act Compliant *	**SA4**=4 Square **SA5**=5 Square **SA6**=6 Square **SA7**=7 Square * **SA8**=8 Square * **SA9**=9 Square * **SA10**=10 Square *		**740**=740K, 4000K **750**=750K, 5000K **760**=760K, 6000K **AMB**=Amber, 590nm**	**J**=240V **2**=208V **3**=277V **R**=480V * * **9**=347V *	**T4W**=Type IV Wide **SNQ**=Type V Square Narrow **SNQ**=Type V Square Medium **SWQ**=Type V Square Wide **SLL**=Type III Low Profile **SLR**=Type III Super Low Profile **RW**=Type I Roadway **AFL**=Automotive Frontline	**WM**=White Metallic **WH**=White **BALXX**=Custom Color

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)**
DIM=External 0-10V Dimming Leads **	**DPC**=Button Type Photocontrol	**GA/AA1516**=NEMA Photocontrol Multi-Tap 105-285V
DIMH=External 0-10V Dimming Leads (High Voltage) **	**DPCR**=Button Type Photocontrol, Receptacle	**GA/AA1517**=NEMA Photocontrol - 120V
FF=Double Fuse (208, 240 or 480V Specify Voltage)	**PE7**=NEMA 7-Pin Photocontrol Receptacle*	**GA/AA1518**=NEMA Photocontrol - 347V
SPD=Series 20kV (L, 1449 Surge Protective Device (ka, Two Circuit) **	**DPE2**=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting **	**GA/AA1613**=Photocontrol Shorting Cap
AA=-30°C High Ambient	**DPEA**=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting **	**GA/AA1614**=120V Photocontrol
SBKT=Single Mounting Side Shield **	**MS-LOS**=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height **	**GA/AA2201**=1kV Surge Module Replacement
SBKBK=Side Mounting Shield, Black **	**MS/DIM-LOS**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height **	**GA/AA2202**=2kV Surge Module Replacement
SBKBR=Side Mounting Shield, Bronze **	**MS/X-LOS**=Bi-Level Motion Sensor, 9' - 20' Mounting Height **	**GA/AA2203**=2.5kV Surge Module Replacement
SBKWH=Side Mounting Shield, White **	**MS/X-LOS-HL**=Bi-Level Motion Sensor, 21' - 40' Mounting Height **	**MA1119T-XX**=@180° Tenon Adapter for 2-3/8" O.D. Tenon
SBKGM=Side Mounting Shield, Grey, Painted to Match Housing **	**MS/X-LOS-HL**=Bi-Level Motion Sensor, 21' - 40' Mounting Height **	**MA1119T-2X**=@180° Tenon Adapter for 2-3/8" O.D. Tenon
MT=Internal Mesh Top	**MS/DIM-LOS-HL**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height **	**MA1119T-3X**=@180° Tenon Adapter for 2-3/8" O.D. Tenon
TH=Tool-less Door Hardware	**MS/DIM-LASN**=Motion Sensor for Dimming Operation, 8' - 40' Mounting Height **	**MA1119T-4X**=@180° Tenon Adapter for 2-3/8" O.D. Tenon
HS=Houseside Shield (Specify Quantity) *	**ZW**=WaveLinx-enabled 4-PIN Twistlock Receptacle	**MA1119T-5X**=@180° Tenon Adapter for 2-3/8" O.D. Tenon
L50=Option Rotated 50° Left	**ZR-SD**=Driver-enabled 4-PIN Twistlock Receptacle	**MA1183-XX**=@90° Tenon Adapter for 2-3/8" O.D. Tenon
R50=Option Rotated 50° Right	**ZW-WGEXX**=WaveLinx Lite, Dimming Motion and Daylight, Bluetooth Programmable, 8' - 20' Mounting **	**MA1183-X2**=@90° Tenon Adapter for 2-1/2" O.D. Tenon
CC=3,940 lm/W	**ZW-WGFXX**=WaveLinx Lite, Dimming Motion and Daylight, Bluetooth Programmable, 21' - 40' Mounting **	**MA1183-X3**=@90° Tenon Adapter for 3-1/2" O.D. Tenon
AHD1=4K Hours Dim, 3 Hours**	**ZW-WGEXX-Wired**=WaveLinx Lite, 0/1-10 Driver, Dimming Motion and Daylight, Bluetooth Programmable, 8' - 20' Mounting **	**MA1183-X4**=@90° Tenon Adapter for 3-1/2" O.D. Tenon
AHD2=4K Hours Dim, 2 Hours**	**ZW-WGFXX-Wired**=WaveLinx Lite, 0/1-10 Driver, Dimming Motion and Daylight, Bluetooth Programmable, 21' - 40' Mounting **	**MA1183-X5**=@90° Tenon Adapter for 3-1/2" O.D. Tenon
AHD3=4K Hours Dim, 1 Hours**	**ZW-SWPXXSX**=WaveLinx Pro, Dimming Motion and Daylight, WAC Programmable, 8' - 20' Mounting **	**FSDB-100**=Wireless Configuration Tool for Occupancy Sensor **
AHD4=4K Hours Dim, 0 Hours**	**ZW-SWPXXSX**=WaveLinx Pro, Dimming Motion and Daylight, WAC Programmable, 21' - 40' Mounting **	**GLEON-MT1**=Field Installed Mesh Top for 1-4 Light Squares
DALI=DALI Drivers	**ZW-SWPXXSX-Wired**=WaveLinx Pro, 0/1-10 Driver, Dimming Motion and Daylight, WAC Programmable, 8' - 20' Mounting **	**GLEON-MT2**=Field Installed Mesh Top for 5-6 Light Squares
	ZW-SWPXXSX-Wired=WaveLinx Pro, 0/1-10 Driver, Dimming Motion and Daylight, WAC Programmable, 21' - 40' Mounting **	**GLEON-MT3**=Field Installed Mesh Top for 7-8 Light Squares
	ZW-SWPXXSX=WaveLinx Pro, Bluetooth Dimming Motion and Daylight, WAC Programmable, 8' - 20' Mounting **	**GLEON-MT4**=Field Installed Mesh Top for 9-10 Light Squares
	ZW-SWPXXSX=WaveLinx Pro, Bluetooth Dimming Motion and Daylight, WAC Programmable, 21' - 40' Mounting **	**GLEON-QM**=Quick Mount Arm Kit **
	LSNXX=WaveLinx Sensor, Dimming Motion and Daylight, WAC Programmable, 8' - 20' Mounting **	**GLEON-QMEA**=Quick Mount Extended Arm Kit **
	LSNXX-Wired=WaveLinx Sensor, 0/1-10 Driver, Dimming Motion and Daylight, WAC Programmable, 8' - 20' Mounting **	**LSNXX-Pole**=WaveLinx Pro Sensor, Dimming Motion and Daylight, Bluetooth Programmable, 8' - 20' Mounting **
	LSNXX-Wired-Pole=WaveLinx Pro Sensor, 0/1-10 Driver, Dimming Motion and Daylight, Bluetooth Programmable, 8' - 20' Mounting **	**LSXPD**=Photocontrol Shield, Black **
	LMB-LA=Enlighted Sensor, 8'-16' Mounting Height **	**SWPXX-WG**=WaveLinx Wireless Control Module ** **
	LMB-LB=Enlighted Sensor, 16'-40' Mounting Height **	**WGX-XX**=WaveLinx Lite Sensor, Dimming Motion and Daylight, Bluetooth Programmable, 8' - 20' Mounting **
	DMG-LOS=Synapse Occupancy Sensor (8'-20' Mounting) **	**SWPXX-XX**=WaveLinx Sensor, Dimming Motion and Daylight, WAC Programmable, 8' - 20' Mounting **
	DMG-LAS=Synapse Occupancy Sensor (21'-40' Mounting) **	**SWPXX-X3**=WaveLinx Sensor, Dimming Motion and Daylight, WAC Programmable, 21' - 40' Mounting **

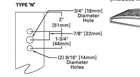
NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our engineering guidelines for pole/luminaire compatibility.
2. Not compatible with Quadrant Dimming Ballast. Not to be used under Family Hoods for dimming.
3. Single-piece construction finish will spray tested to over 5,000 hours per ASTM B117, with a scribe rating of 9 per ASTM D1654 in accordance with TM atlas.
4. Not compatible with MVA LED or MDV LED drivers.
5. Not compatible with standard pole mount arm (QM) or extended quick mount arm (QMEA).
6. Not compatible with standard pole mount arm (QM) or extended quick mount arm (QMEA).
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with 480V input voltage. Not available with 347V input voltage when combined with sensor options.
8. 480V must utilize the system only. Per NEC, not for use with ungrounded systems, impedance grounded systems, or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Center Tapped Delta configurations).
9. May be required when two or more luminaires are oriented as a 180° or 120° aiming pattern. Refer to arm mounting requirements below.
10. Not available in Textured Dark Bronze.
11. Maximum 5 light squares.
12. Not available with 480V input voltage.
13. Requires 2% or 2D receptacle.
14. Luminaire finish is optimized for wildlife and observatories use. Choose drive current A, supplied at 350mA drive current only. Available with SWQ, SNQ, SLQ, SLS and SLA distributions. Can be used with HSS option.
15. Set of 4 pcs. One set required per Light Square.
16. Not available with T4FT distribution.
17. SL is not available with MS, MS/X or MS/DIM at 347V or 480V. SLQ through SLR requires a larger housing, normally used for SLA or SAA. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
18. Not available with Enlighted wireless sensors.
19. Can be used with HSS and SPD options.
20. Can be used with HSS and Light Level 3 or 5 module fixture.
21. Not available if any "MS" sensor is selected. Motion sensor has an integral photocell.
22. Not available with MS/DIM-LOS-HL, MS/DIM-LASN or the PE7 or PE photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
23. Not for use with T4FT, T4W or SLA optics. See ED Bats for details.
24. Not for use with Enlighted sensors. Includes factory installed aging hub and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
25. Replace X with number of Light Squares operating in low output mode.
26. Not for use with wireless sensors are factory installed only requiring network components (WP-DW-1, LMP-DW-1 and LMP-PoE) in appropriate quantities.
27. Not available with house side shield (HSS).
28. Not available with SWQ, SNQ, SLQ optics. A blank trim plate is used when HSS is selected.
29. CE is not available with the LMS, MS, MS/X, MS/DIM, BYC, PE or PEC options. Available in 120-277V only.
30. Use required for each Light Square.
31. Not for use with T4W.
32. Replace XX with sensor color (BZ or BK).
33. Not available with Bluetooth. Requires hand-held programmer. Order WG and WPXX-100 (10 for 2nd injector) power supply if needed.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Not available with Bluetooth. Requires hand-held programmer. Order WG and WPXX-100 (10 for 2nd injector) and WPXX-ANT or WPXX-ANT-RA (10 pack), respectively. Please refer to [GARRISON PREFERENCES] website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. Not for use with wireless sensors. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
37. Available for 7 - 10 squares.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

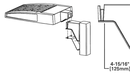
Product Family	Camera Type	Data Backhaul
L=LumenSafe Technology	**S**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **B**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Network w/ Omni-Directional Antenna **E**=Ethernet Networking

Mounting Details

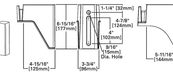
Standard Arm (Drilling Pattern)



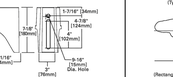
Quick Mount Arm (Includes fixture adapter)



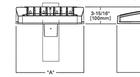
QM and QMEA Pole Mount (1 - 8 squares)



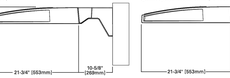
QML Pole Mount (7 - 10 squares)



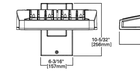
QM Quick Mount Arm (Standard, 1-8 squares)



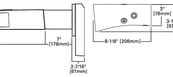
QMEA Quick Mount Arm (Extended, 1 - 6 squares)



Standard Wall Mount

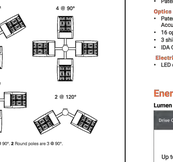


Mast Arm Mount



Arm Mounting Requirements

Number of Light Squares	Gleonbrel Arm @ 90° Apart	Standard Arm @ 120° Apart	Quick Mount Arm @ 90° Apart	Quick Mount Arm @ 120° Apart
1	Standard	Standard	QM Extended	Quick Mount
2	Standard	Standard	QM Extended	Quick Mount
3	Standard	Standard	QM Extended	Quick Mount
4	Standard	Standard	QM Extended	Quick Mount
5	Extended	Extended	QM Extended	Quick Mount
6	Extended	Extended	QM Extended	Quick Mount
7	Extended	Extended	–	Quick Mount
8	Extended	Extended	–	Quick Mount
9	Extended	Extended	–	–
10	Extended	Extended	–	–



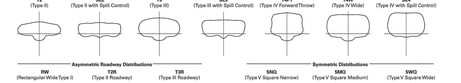
NOTES: 1 Round poles are 3 @ 120°. Square poles are 2 @ 90°. 2 Round poles are 3 @ 90°.
* Shown with 4 mast arms configuration.

Fixture Weights and EPAs

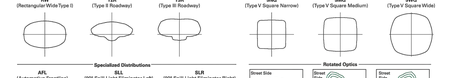
Number of Light Squares	Weight with Standard and Extended Arm (lbs)	EPA with Standard and Extended Arm (Sq. Ft.)	Weight with QM Arm (lbs.)	EPA with QM Arm (Sq. Ft.)	Weight with QML (lbs.)	EPA with QML (Sq. Ft.)	Weight with QMEA (lbs.)	EPA with QMEA (Sq. Ft.)
1-4	33	0.96	35	1.11	–	–	38	1.11
5-6	44	1.00	46	1.11	–	–	49	1.11
7-8	54	1.07	56	1.11	58	1.11	–	–
9-10	63	1.12	–	–	67	1.11	–	–

Optical Distributions

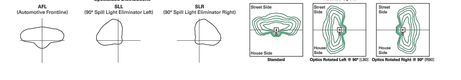
Asymmetric Area Distributions



Asymmetric Roadway Distributions



Symmetric Distributions



Specialized Distributions



Rotated Optics



Product Specifications

Construction
- Extruded aluminum driver enclosure
- Heavy-wall, die-cast aluminum end caps
- Die-cast aluminum heat sinks
- Patent pending interlocking housing and heat sink

Optics
- Patented, high-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions
- 3 shielding options including HSS, GR3 and IP65
- IDA Certified (3000K CCT and warmer only)

Electrical
- LED drivers are mounted to removable tray assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting
- Standard extruded arm includes internal bolt guides and round pole adapter
- Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table
- Mast arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMEA) includes pole adapter and factory installed fixture mount for fast installation to square or round poles

Finish
- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty
- Five year warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
1.2A	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values based on standard estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-16, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

View GLEON IES files

Nominal Power Lumens (1.2A) — Supplemental Performance Guide*

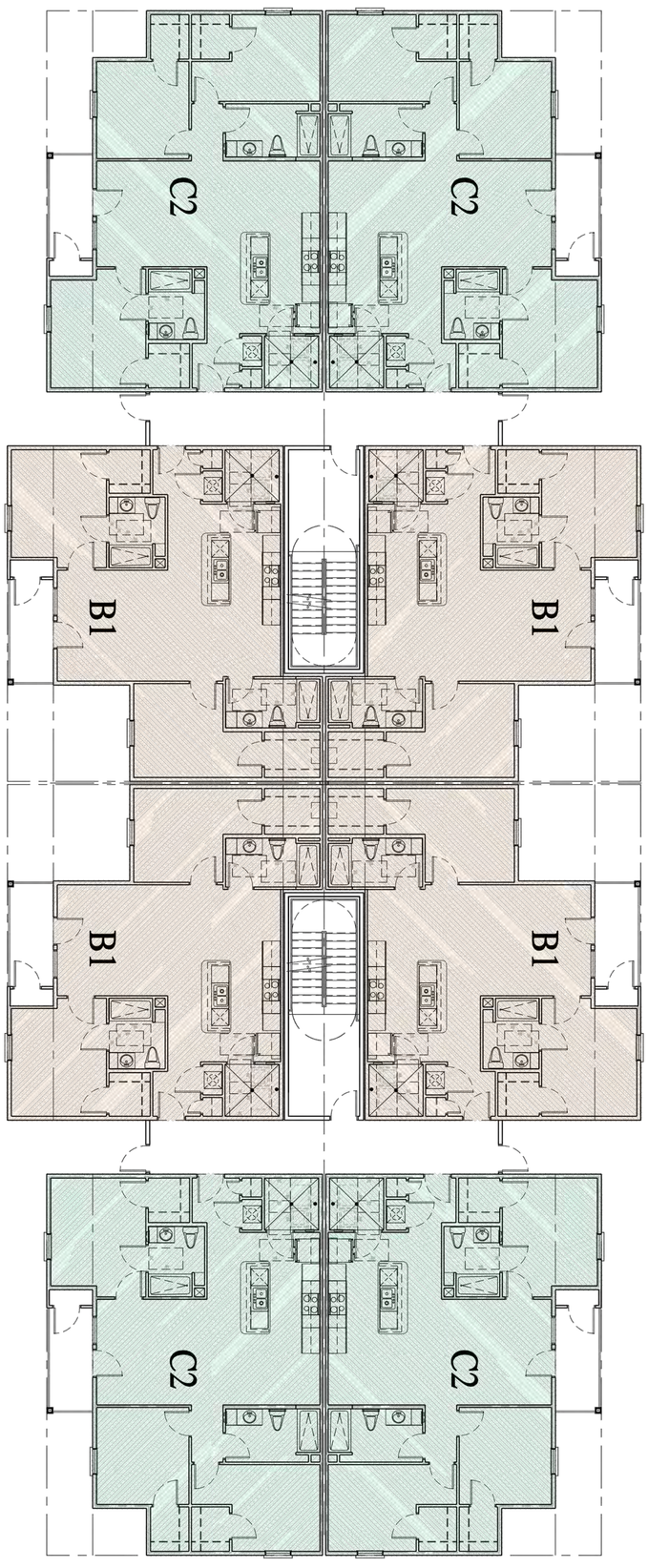
Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.52	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K Lumens	7,972	15,880	23,845	30,714	38,056	45,541	53,857	61,024	68,072	75,366
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	122	119	119	119	120	119	118	118
T2R	4000K Lumens	8,462	16,509	24,660	32,609	40,401	48,348	57,176	64,780	72,266	80,018
	BUG Rating	B1-U0-G3	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	129	126	126	127	128	127	126	125
T3	4000K Lumens	8,125	15,679	23,693	31,307	38,787	46,417	54,893	62,197	69,381	76,818
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
T3R	4000K Lumens	8,306	16,232	24,330	32,051	39,601	47,447	56,114	63,580	70,924	78,553
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123
T4FT	4000K Lumens	8,173	15,970	23,831	31,488	39,014	46,686	55,212	62,558	69,783	77,261
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	122	124	125	122	122	122	123	122	121	121
T4W	4000K Lumens	8,067	15,764	23,532	31,080	38,510	46,082	54,499	61,701	68,881	76,263
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	120	122	123	120	120	121	122	121	120	119
SL2	4000K Lumens	7,958	15,582	23,206	30,642	37,989	45,462	53,743	60,920	67,992	75,235
	BUG Rating	B1-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	121	119	119	119	120	119	118	118
SL3	4000K Lumens	8,134	15,877	23,690	31,302	38,784	46,410	54,885	62,189	69,373	76,855
	BUG Rating	B1-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
SL4	4000K Lumens	7,719	15,065	22,510	29,741	36,850	44,097	52,148	59,089	65,913	72,977
	BUG Rating	B1-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	115	117	118	115	115	116	116	116	114	114
SNQ	4000K Lumens	8,380	16,375	24,436	32,287	40,003	47,870	56,610	64,144	71,552	79,221
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	125	127	128	125	125	126	126	126	124	124
SMQ	4000K Lumens	8,334	16,676	24,885	32,881	40,739	48,752	57,653	65,326	72,868	80,679
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	127	129	130	127	127	128	129	128	127	126
SWQ	4000K Lumens	8,066	16,133	24,551	32,366	40,047	48,021	56,733	64,301	71,693	79,414
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	123	125	126	123	123	124	125	124	123	122
SLL/ SLA	4000K Lumens	7,140	13,951	20,817	27,506	34,061	40,763	48,231	54,649	60,959	67,492
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	107	108	109	107	107	107	108	107	106	105
SLR	4000K Lumens	8,304	16,238	24,215	31,994	39,641	47,437	56,100	63,566	70,907	78,504
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
RW	4000K Lumens	8,205	16,057	24,063	32,110	39,794	47,615	56,303	63,796	71,165	78,847
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	125	126	127	125	125	126	126	125	124	123
AFL	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5	
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Nominal Power Lumens (1A) — Supplemental Performance Guide*

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.60	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	0.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K Lumens	7,267	14,301	21,190	28,000	34,892	41,315	49,096	55,627	62,053	68,703
	BUG Rating	B1-U0-G2	B2-U0-

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01 First Floor Plan Bldg Type I
SCALE: 1/8" = 1'-0"

Sheet Title: First Floor Plan Bldg I

Drawing No. A2.01b

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Issue Drawing Log
4 May 2023 Review

Project No. 220915

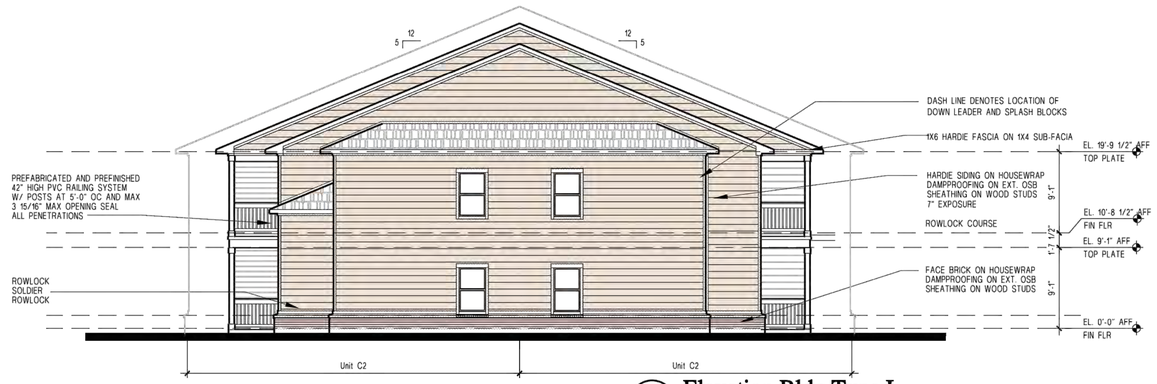
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Village at Garfield
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09 **Elevation Bldg Type I**
SCALE: 1/8" = 1'-0" \ACAD\BUILDING\BL-01



05 **Elevation Bldg Type I**
SCALE: 1/8" = 1'-0" F:\JOBS\2022\220208\ACAD\BUILDING\BL-02



01 **Elevation Bldg Type I**
SCALE: 1/8" = 1'-0" \ACAD\BUILDING\BL-01

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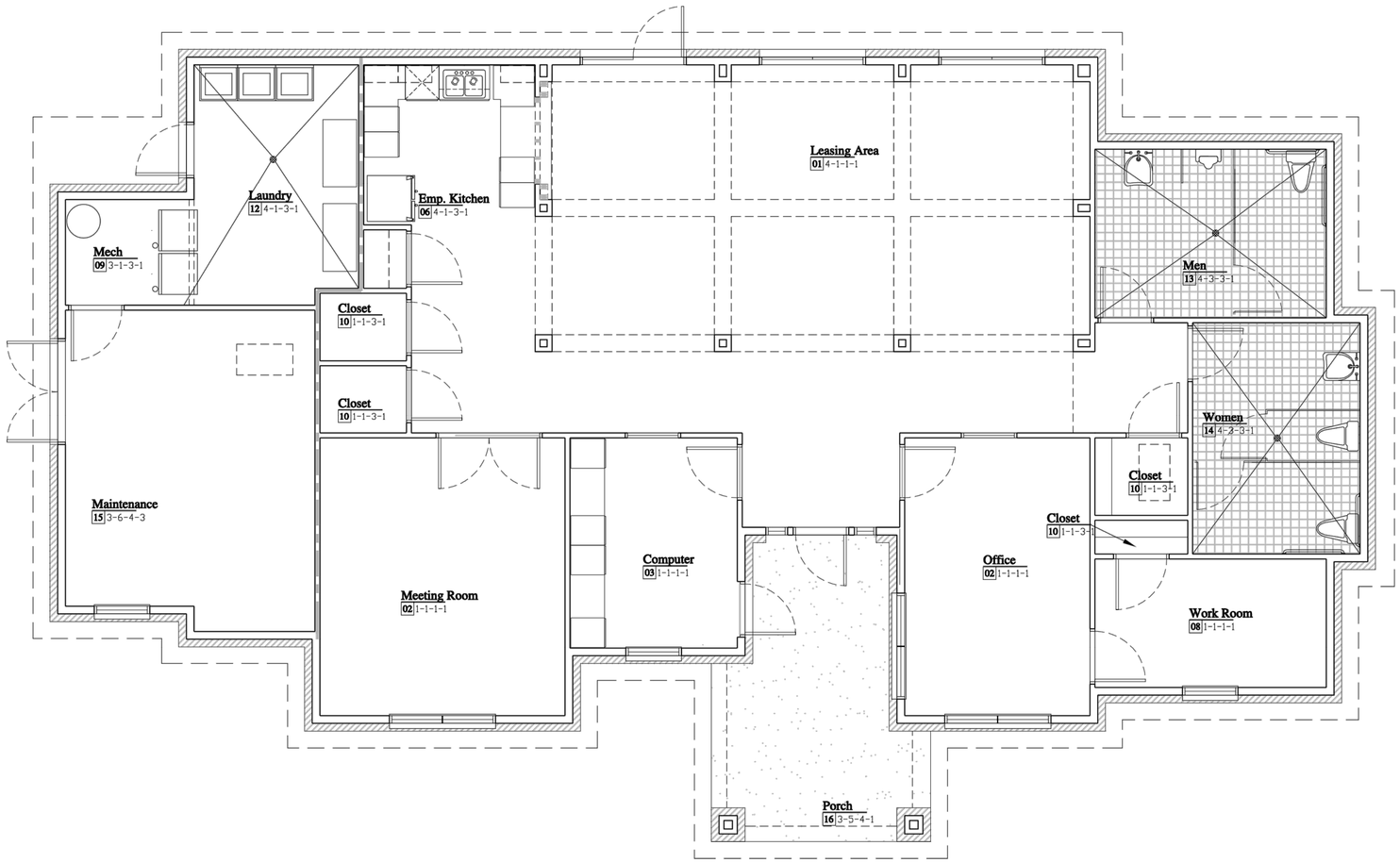
Issue Drawing Log

4 May 2023	Review

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Sheet Title:
First Floor Plan Bldg I

Drawing No.
A2.01b



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Project No. 220915

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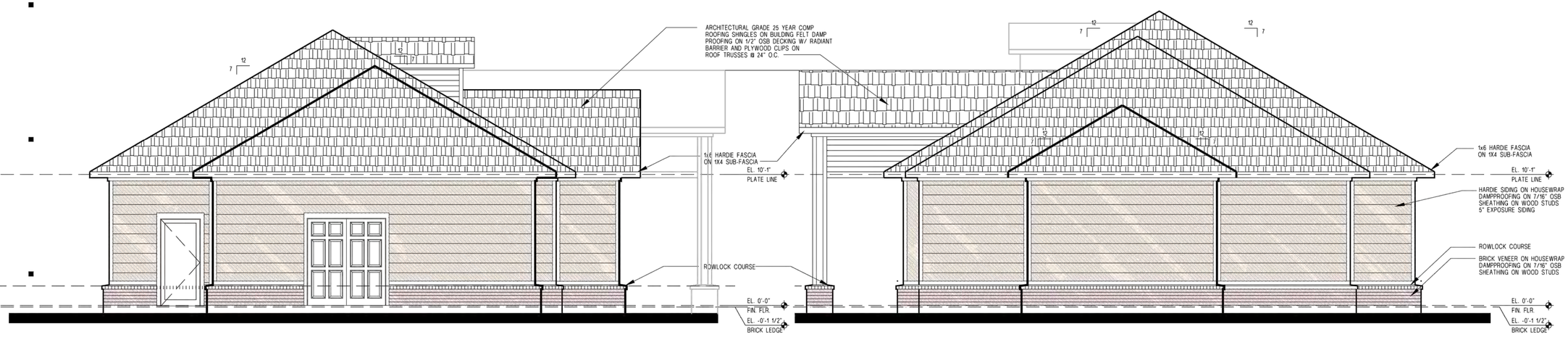
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Sheet Title:
1st Floor Leasing Office

Drawing No.
A8.02

Xref ..\ACAD\job-data\CL-NOTE2.dwg



11 **Leasing Office Side Elevation**
SCALE: 1/4" : 1'-0"
V:\ARCH\CUSTOM ARCHITETTURA\FILE\MASTERSHTS\CLUBGRID

09 **Leasing Office Side Elevation**
SCALE: 1/4" : 1'-0"
V:\ARCH\CUSTOM ARCHITETTURA\FILE\MASTERSHTS\CLUBGRID



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Sheet Title:
Elevation Leasing Office

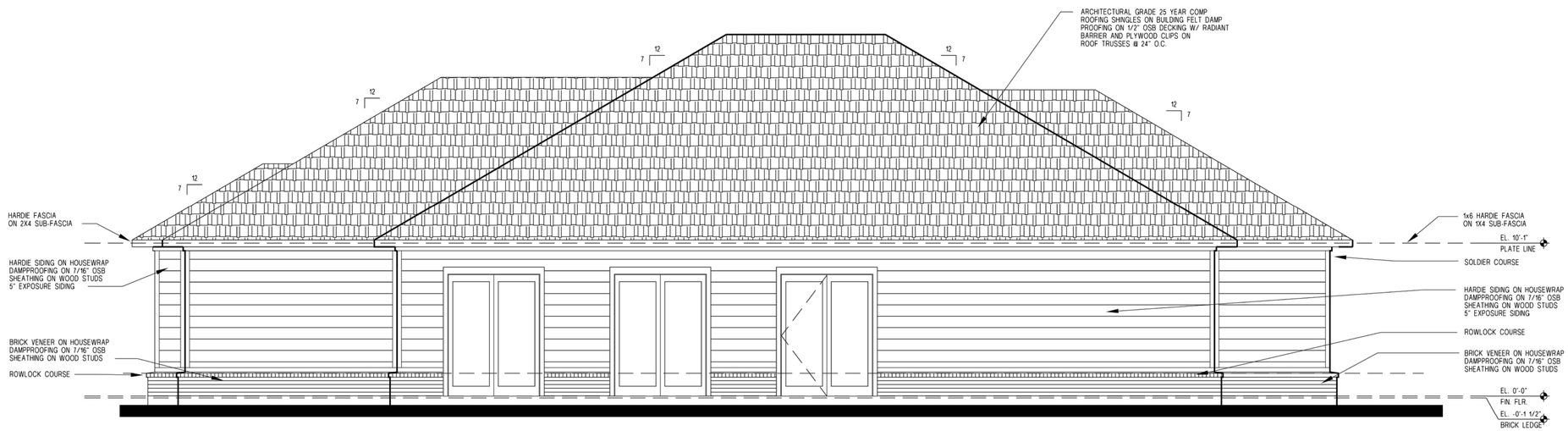
Drawing No.
A8.04

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01 **Leasing Office Rear Elevation**
SCALE: 1/4" = 1'-0"
V:\ARCH\CUSTOM ARCHITETTURA\FILE\MASTERSHTS\CLUBGRID

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Project No. **220915**

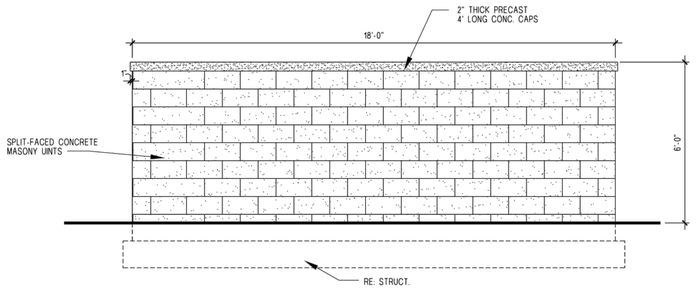
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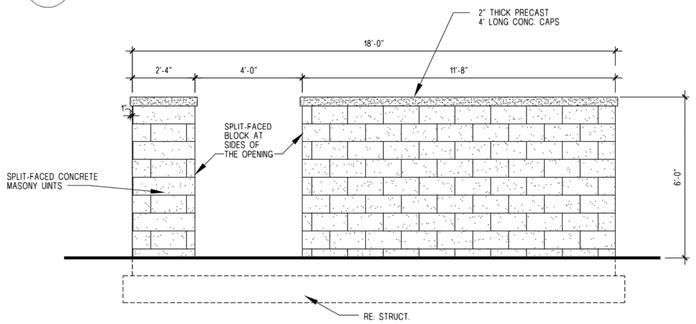
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Elevation Leasing Office

Drawing No.
A8.05



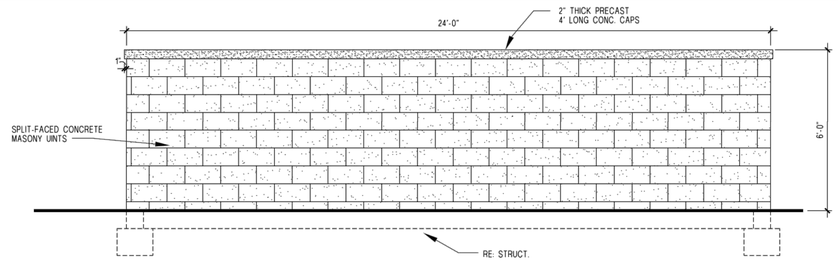
11 Side Elevation

SCALE: 3/8" = 1'-0"



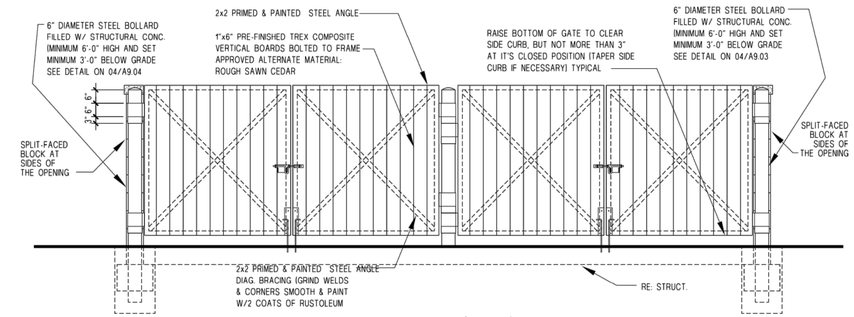
07 Side Elevation

SCALE: 3/8" = 1'-0"



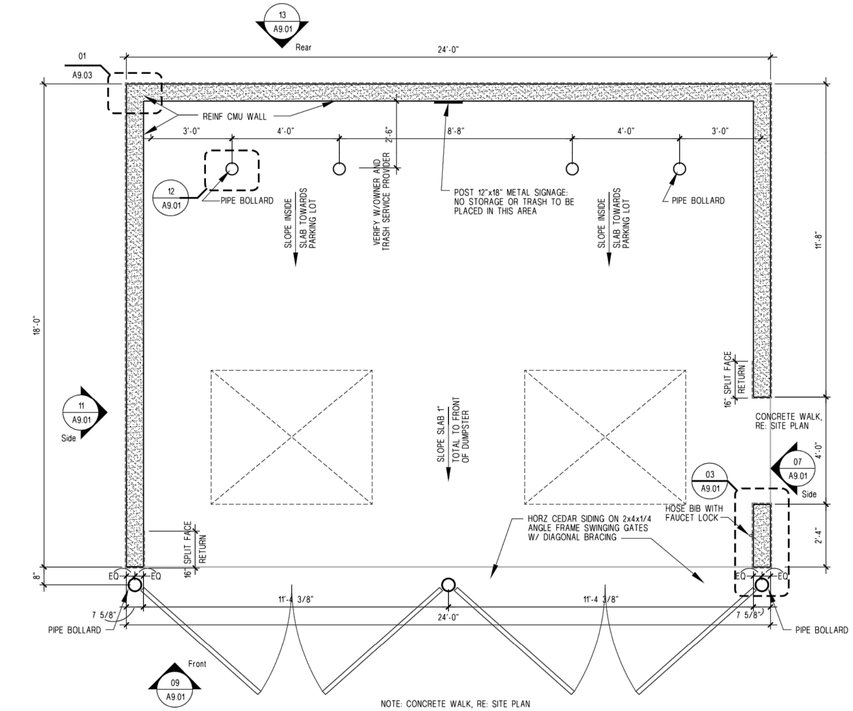
13 Rear Elevation

SCALE: 3/8" = 1'-0"



09 Front Elevation

SCALE: 3/8" = 1'-0"



01 Double Dumpster Enclosure Plan

SCALE: 3/8" = 1'-0"

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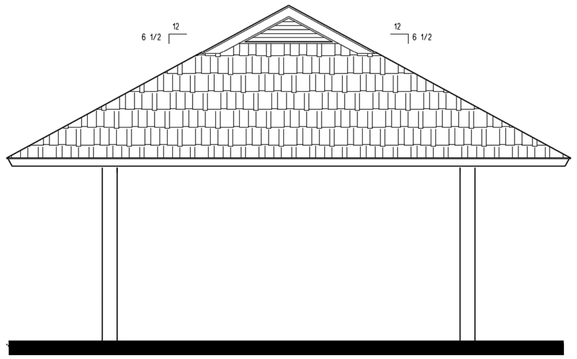
Issue Drawing Log

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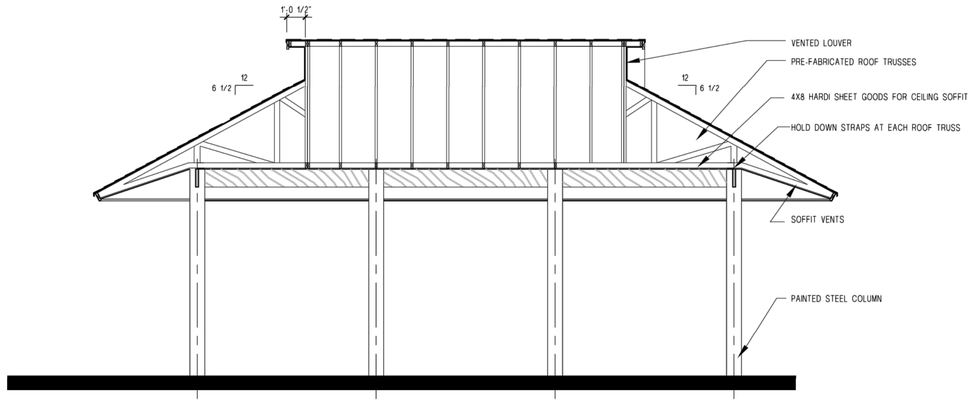
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Sheet Title:
Trash

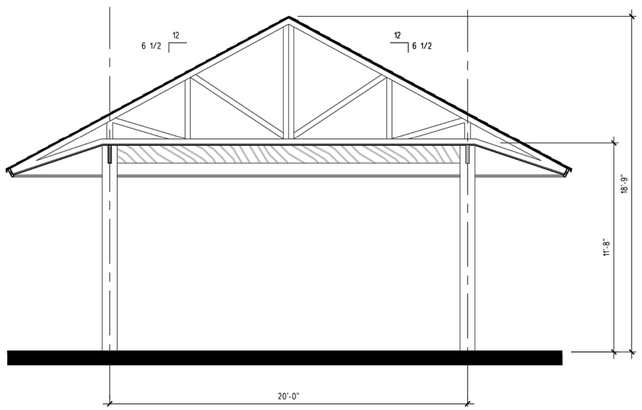
Drawing No.
A9.01



04 **Elevation**
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03 **Elevation**
SCALE: 1/4" = 1'-0"
F:\JOBS\2003\030405\ACAD\CLUBVBL-PA



02 **Section**
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01 **First Floor Plan**
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Directory: F:\Jobs\2014\140310\ACAD\ File: A9.03.dwg Date: April 28, 2015 12:57 p.m. SCALE: 1/4" = 1'-0" By: WeiT.01 Xref's: I"2436TB" "BL-PA"I

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Project No. **220915**

Issue Drawing Log

4 May 2023 Review

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Sheet Title:
Pavillion

Drawing No.
A9.03

Charter Township of Garfield
Planning Department Report No. 2023-69

Prepared:	June 7, 2023	Pages:	7
Meeting:	June 14, 2023 Planning Commission	Attachments:	☒
Subject:	716 Boon Street Special Use Permit – Introduction		
File No.	SUP-2023-02	Parcel No. 05-135-008-00	
Applicant:	Jamie Kirschner and Nicole Martin		
Owner:	Leasewell, Inc.		
Agent:	Ryan A. Cox, PE		

BRIEF OVERVIEW:

Location: 716 Boon Street, southeast corner of Boon Street and Woodmere Avenue
Parcel area: 0.45 acres
Existing land use: Vacant tenant space (commercial kitchen elsewhere in building)
Existing zoning: I-G – General Industrial

PURPOSE OF APPLICATION:

This application proposes a new photography studio in an existing multi-tenant building at 716 Boon Street. The use is described as a "Professional Studio" within the Zoning Ordinance and may be permitted via the Special Use Permit process in the I-G General Industrial zoning district.

Zoomed-out aerial image of the subject property (property lines highlighted in blue):



Zoomed-in 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 COMMENTS:

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

Background

Staff have researched the previous approvals for this site. The approval for the building was granted by the Garfield Township Zoning Board of Appeals on February 21, 1984. The existing building includes three tenant spaces; the proposed photography studio would occupy the unit at 716 Boon Street. Other uses as

indicated on the site plan include Center City Kitchen at 700 Boon Street and Factory Man Roasting Co. at 708 Boon Street. The existing uses are listed as commercial kitchens on the site plan; a commercial kitchen is described as a "Catering Establishment" within the Zoning Ordinance definitions.

Dumpster Enclosure
All dumpster 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," according to Section 516 of the Zoning Ordinance, and shall include an "opaque gate constructed of wood or similar material."

The site plan indicates a "screened dumpster enclosure on concrete slab" on the east side of the building. Details on materials for the dumpster enclosure and gate need to be provided.

Lighting
Lighting standards are described in Section 517 of the Zoning Ordinance. The site plan shows eight total existing light fixtures, two pole-mounted and six wall-mounted. It appears that no new light fixtures are proposed, however, all lighting shall comply with the requirements of Section 517 of the Zoning Ordinance, including the following:

Zoning Ordinance Lighting Standard	***Subject Site***
A. Applicability – 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.
B. Shielding and Filtration – 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.	The existing fixtures are all listed on the site plan as downward shielded. No photometric plan was provided, nor were any cut sheets for the lighting fixtures.
C. Illumination – 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.	No photometric plan was provided.
D. Color Temperature – All proposed lamps shall emit light measuring 3,500 K or warmer.	No information was provided regarding the color temperature of the existing light fixtures.

Zoning Ordinance Lighting Standard	***Subject Site***
E. Prohibitions – 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.	Based on the information provided, no prohibited lighting elements are proposed.
F. Pole Height – All pole-mounted lighting shall not exceed the maximum zoning district height.	The heights of the existing light poles were not indicated on the site plan.

Landscaping
Landscaping requirements are described below for each length of greenspace area (e.g., without including the ingress and egress drives) for each lot line. As part of the original site plan review from 1984, the ZBA did an interpretation of a section of the Zoning Ordinance in place at that time, as described in the minutes:

> *"The Zoning Ordinance requires a 10 foot green area on side lot lines. In this case, this is a corner lot (Boon and Woodmere Streets). There is already going to be a green area on the property and he does not see a need for an additional 10 feet of green area on the side lot line."*

The motion for approval acknowledged the interpretation to remove the requirement for the green area on the side lot line. Based on the available information and the existing green area along Woodmere, the side lot line is understood to be the side facing Boon Street. The decision runs with the land, therefore there is no requirement for a green space or no-build buffer along the Boon Street lot line. The other landscaping requirements are as follows:

Parcel Line (Length) & Adjacent Land Use	***Buffer Planting Requirement***	***Amount Required***	***Amount Provided***
East (98 ft.) Single-family residential (I-G zoning)	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 * Minimum width: 20 feet	4 large trees 3 med./small trees 3 evergreen trees 20-foot width	1 existing oak tree 1 large tree (sugar maple) 0 med./small trees 0 evergreen trees 4 shrubs (burning bush, planting prohibited) 15-foot width
South (208 ft.) Single-family residential (I-G zoning)		9 large trees 7 med./small trees 7 evergreen trees 20-foot width	6 existing oak trees 1 existing cherry tree 0 large trees 0 med./small trees 1 evergreen (black spruce) 10-foot width
West (80 ft.) Primary Road (Woodmere Avenue, Major Collector)	Type "C" * Ground cover as specified in Section 530.J, plus * 3 large trees, 3 medium or small trees, and 1 evergreen or coniferous trees per 100 linear feet of greenspace * Minimum width: 10 feet	3 large trees 3 med./small trees 1 evergreen tree 10-foot width	2 existing oak trees 2 large trees (sugar maple) 0 med./small trees 1 evergreen (black spruce) 30-foot width +

Section 530.L allows for existing landscaping to be credited towards landscaping requirements, including greater credit for larger trees. All existing oak trees are listed as greater than 12" caliper, which allows for credit at a 1:5 ratio.

Section 530.H states that the "Planning Director in the case of a site diagram or administrative site plan, or the approval authority in all other cases may waive or adjust any requirement of this section in whole or in part provided that one or more of the following conditions exist upon the site:"

(1) Existing conditions such as topography or vegetation provide an established screen or buffer which is equal to or superior in its ability to meet the Purpose of this Section. For the purposes of this subsection, vegetation requirements may be adjusted either in terms of the quantity of plantings otherwise required or in terms of the physical location of plantings otherwise required.
(2) Decorative walls or fencing will be provided in lieu of all or some required plantings to provide an equal or superior buffer to meet the Purpose of this Section.
(3) Natural features such as steep slopes or other topographical features make full compliance impractical or impossible.
(4) Space limitations on the site or prevailing development patterns in the surrounding neighborhood justify alternative compliance.
(5) Safety considerations warrant flexibility upon the site.
(6) No practicable alternative in the placement of a building, structure, street or utility construction, access drives, stormwater management facilities, trails or pathways, or other site improvements is available.
(7) In the instance of a waiver being requested, a modification request shall only be approved upon a determination that the existing site conditions or developed form of a property are such that the requirements of this section cannot reasonably be completed, that an alternative landscaping plan cannot be reasonably be substituted, and that the requested modification is the minimum modification necessary resulting from such site conditions or developed form.

Based on the existing landscaping, proposed additional landscaping, and existing site layout, Staff is of the opinion that waivers may be granted for landscaping requirements on the west and south sides, so long as the existing landscaping is maintained, and the proposed additional plantings are included. Along the east side, Staff is of the opinion that landscaping requirements can be met with changes to the landscaping plan.

The proposed species of shrub, *Euonymus alatas*, is listed as prohibited in the ISN Planting Guidelines. All plant species on the landscaping plan need to comply with Section 530.F and the ISN Planting Guidelines. Also, shrubs are not part of this specific landscaping requirement.

Parking, Loading, and Snow Storage
Proposed and existing uses include Professional Studio and Catering Establishment. Neither of these uses are specifically listed in Table 5-47 Required Parking Standards. With two existing industrial uses in the commercial kitchens, and with a proposed studio which may be permitted in this district via the special use permit process, the closest use in Table 5-47 may be "Industrial or manufacturing establishments, research testing laboratories, low volume retail and related accessory offices." This has the parking requirement of 5 spaces plus 1 for every 1.5 employees in the largest working shift. The existing parking lot is shown as having 15 total spaces on the site plan for all three tenant spaces. Clarification on the number of employees in the largest working shift needs to be provided on the site plan to determine if the parking is sufficient.

There has been double-parking on this site, as shown in the (Google Maps) street view image below. The parking lot shall be striped for single-row parking only as depicted on the site plan. There shall also be no parking in areas not shown as parking lots on the site plan, including the east and west sides of the building.



Bicycle parking shall be provided at the rate of 2 bicycle spaces per 25 motor vehicle spaces; a bicycle rack is proposed near the west end of the building. Details for the bicycle rack shall be provided.

The building is shown as 5,233 square feet. Based on this building's size, one small loading space shall be provided which is at least 10 feet wide by 20 feet long. A loading space needs to be shown on the site plan.

As required by Section 551 of the Ordinance, a ratio of 10 square feet of snow storage is required per 100 square feet of parking area and that snow storage shall be located to prevent damage to landscaping required by this Ordinance. Snow storage areas need to be indicated on the site plan.

Sidewalk
Section 522.B indicates that for "safety purposes, sidewalks shall be constructed within the interior of the development to link buildings with other destinations, such as, but not limited to, parking, adjoining streets, mailboxes, trash disposal, adjoining sidewalks or greenways, and on-site amenities…" Thus, a sidewalk is required from the existing sidewalk on Woodmere Avenue to the existing sidewalk along the building.

Signage
A note needs to be added to the site plan indicating "Signs are subject to sign permit review. All signs to meet the standards of Section 630 of the Zoning Ordinance."

Agency Reviews
The application is subject to additional reviews from other outside agencies including but not limited to the Township Engineer, Metro Fire, Grand Traverse County Department of Public Works, and Grand Traverse County Soil Erosion and Sedimentation Control. An escrow application, including the escrow amount of $500 for stormwater review, was submitted.

ACTION REQUESTED:
The purpose of the introductory meeting is to accept the application and to identify any concerns that should be addressed prior to holding a public hearing on the application. There are several items which need to be addressed on the site plan, as described below. If, following an opportunity for applicant presentation and discussion, the Planning Commission is prepared to schedule the public hearing, then the following motion is suggested:

MOTION THAT application SUP-2023-02, submitted by Jamie Kirschner and Nicole Marin for a Special Use Permit for a professional studio at 716 Boon Street, Parcel #05-135-008-00, BE ACCEPTED, and BE SCHEDULED for a public hearing for the Planning Commission's regular meeting on July 12, 2023, subject to the applicant providing the following additional information:

1. Details on materials for the dumpster enclosure and gate need to be provided.
2. All lighting shall comply with the requirements of Section 517 of the Zoning Ordinance.
3. Landscaping requirements need to be met unless a waiver is specifically granted by the Planning Commission.
4. All plant species on the landscaping plan need to comply with Section 530.F and the ISN Planting Guidelines.
5. Clarification on the number of employees in the largest working shift needs to be provided on the site plan to determine if the parking is sufficient.
6. The parking lot shall be striped for single-row parking only as depicted on the site plan. There shall also be no parking in areas not shown as parking lots on the site plan, including the east and west sides of the building.
7. Details for the bicycle rack shall be provided.
8. A loading space needs to be shown on the site plan.
9. Snow storage areas need to be indicated on the site plan.
10. A sidewalk is required from the existing sidewalk on Woodmere Avenue to the existing sidewalk along the building.
11. A note needs to be added to the site plan indicating "Signs are subject to sign permit review. All signs to meet the standards of Section 630 of the Zoning Ordinance."
12. The application is subject to additional reviews from other outside agencies including but not limited to the Township Engineer, Metro Fire, Grand Traverse County Department of Public Works, and Grand Traverse County Soil Erosion and Sedimentation Control.

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

***Attachments*:**

1. Special Use Permit Application (dated May 10, 2023), Approval Criteria, and Impact Assessment.
2. Site Plan (dated June 4, 2023) and Vicinity Map.

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

Professional Photography Studio at 716 Boon St

APPLICANT INFORMATION

Name:	Jamie Kirschner and Nicole Martin
Address:	1450 W Outer Dr, Traverse City MI and 11149 E Meadow View Drive, Suttons Bay MI
Phone Number:	405-406-2734, 231-432-0211
Email:	jamiek@crackerjackphotography.com hello@nmartinphoto.com

AGENT INFORMATION

Name:	
Address:	
Phone Number:	
Email:	

OWNER INFORMATION

Name:	Ryan Wells
Address:	P.O. Box 452, Traverse City MI 49685
Phone Number:	231-218-9584
Email:	ryanwells147@gmail.com

CONTACT PERSON

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

Applicant:	Jamie Kirschner
Agent:	
Owner:	

PROPERTY INFORMATION

Property Address:	716 Boon St., Traverse City MI 49686
Property Identification Number:	05-135-008-00
Legal Description:	The south 103 ft of the north 148 ft of Lot 33 except the east 200 feet thereof
Zoning District:	General Mixed-Use Industrial Business
Master Plan Future Land Use Designation:	Industrial
Area of Property (acres or square feet):	0.45 acres

Existing Use(s):	716 Boon St. is currently unoccupied
Proposed Use(s):	Professional Photography Studio

PROJECT TIMELINE

Estimated Start Date:	ASAP as approved by township (May-August 2023)
Estimated Completion Date:	no construction project proposed

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 demonstates that:ecial 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:

	Yes	No	Not Applicable
A. Sanitary Sewer Service			
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. Water Service			
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. Public utility easements required?	☐	☑	☐
If yes, show on plan.			
D. Stormwater Review/Soil Erosion			
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. Review to take place after application submission per engineer.			
If no, are alternate measures shown?	☐	☐	☐

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

E. Roads and Circulation

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

- 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:	Doug D. Wells - Agent for Leasewell, Inc.
Applicant Signature:	Jamie L Kuschner
Agent Signature:	
Date:	5/10/23

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 Ryan D. Wells, Leasewell, Inc. 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: D. D. Wells - Agent for Leasewell, Inc

Date: 5/10/23

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: D. D. Wells - Agent for Leasewell, Inc

Date:

Applicant Signature: Jamie L Kuisenne

Date: 5/10/23

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 **Required only for habitable construction within the floodplain on site diagrams and administrative site plans.*		
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 of 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		

Special Use Permit Application - 716 Boon St., Traverse City MI, 49686
Proposed Use: Professional Photography Studio

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.

  This business is a non-industrial use that is complementary to existing uses of the 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

  No exterior design changes or construction are proposed, therefore the use will remain harmonious with the surrounding properties.

- 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;

  Traffic will be limited and by appointment only and no noise, dust, gas, smoke, etc. will be produced at the studio.

- 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;

  Adequate parking is provided in the 15 spaces located on the north side of the building. No changes to the existing building placement, structures or entrances are proposed.

- 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;

  No changes to natural features of the property are proposed.

- 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;

  We do not foresee any negative impact on 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;

  We do not anticipate any adverse effects on the public.

- 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;

  Ingress and egress to the property has been previously considered and discussed with Garfield Township Staff. Piggyback parking will be removed so that there is one row of parking spaces along the north side of the building. In 1984 the Garfield Township Zoning Board of Appeals waived the required 10-foot-wide green belt along the north side of the building. See attached documentation.

- 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;

  See above regarding parking. A paved access exists that connects the sidewalk along Woodmere to the sidewalk adjacent to the building.

- 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 have no impact on development and improvement of the surrounding properties.

Special Use Permit Application - 716 Boon St., Traverse City MI, 49686
Proposed Use: Professional Photography Studio

IMPACT ASSESSMENT

Upon approval, we will open a professional photography studio at 716 Boon St. The studio will house two businesses, Nicole Martin Photography and Crackerjack Photography Studio owned by Nicole Martin and Jamie Kirschner respectively. We will use the studio for sales consultations and portrait photography sessions with clients including families, high school seniors, newborns, headshots, etc. The studio will also be available to rent for other photographers for similar use. All business conducted will be by appointment only. Typically we will serve clients in groups of five or less.

The current site is a 0.45 acre lot with one building occupying the majority of the property. There is a grassy area on the west side of the property between the building and Woodmere Ave with four mature trees. On the east side of the building there is a gravel surface with five mature trees lining the border with the neighboring residential property.

The new business will not create any kind of excessive traffic, noise, dust, gas, smoke, vibration, odor, glare, visual clutter, electrical or electromagnetic interference. All of the photography we do in the studio is digital and there will be no dark room or photographic chemicals in the building.

We do not plan to make any changes to the structure of the building or the property outside of the leased space. Existing natural features will remain in place. There will be no increase in impervious surface area, additional off-street parking, site access, or other changes to external site characteristics that violate the zoning ordinance. The property is served by the City of Traverse City for water and sewer and no changes will be made.

Drainage from the site is currently managed by a concrete ribbon feeding an existing storm drain. This will be reviewed by the township engineer after submission of this application per their instruction.

Exterior lighting at 716 Boon Street currently consists of one barn light rated for a max of 300W above the front entrance and one above the east entrance, both which point toward the ground. No changes shall be made to the current lighting.

Our intention is to provide a professional workspace for ourselves and other creatives where we can create, serve our clients and build community. This is in alignment with other businesses located nearby, including Tru-Fit Trouser and the live-work space, Work Centre on Centre Street. In addition, our intended use of the space fits within the suggestions of Article 3, Section 323 that states non-industrial uses are “complementary to existing and future industrial uses of the districts.”

Responsible parties:

Jamie Kirschner
1450 W Outer Dr
Traverse City MI, 49685

Nicole Martin
11149 E Meadow View Drive
Suttons Bay, MI 49682

Ryan Wells
PO Box 452
Traverse City, MI 49685

PROJECT INFORMATION

APPLICANT INFORMATION

JAMIE KIRSCHNER
CRACKERJACK PHOTOGRAPHY STUDIO, LLC
1450 W. OUTER DRIVE
TRAVERSE CITY, MI 49685

NICOLE MARTIN
NICOLE MARTIN PHOTOGRAPHY, LLC
11149 E. MEADOW VIEW DR.
TRAVERSE CITY MI 49685

PROPERTY OWNER

LEASEWELL, INC
525 CASS STREET
TRAVERSE CITY, MI 49684
CONTACT: RYAN WELLS, PROPERTY MANAGER
(231)-218-9584

PLAN PREPARER

RYAN A. COX, PE
3147 LOGAN VALLEY ROAD
TRAVERSE CITY, MI 49684
(231)-218-0590

ZONING INFORMATION

PARCEL ZONING: I-G (GENERAL INDUSTRIAL)
PROPERTY USES: EX. COMMERCIAL KITCHEN AND NEW PHOTOGRAPHY STUDIO
PARCEL ADDRESS: 700, 708, 716 BOONE ST.
PROPERTY TAX ID: 28-05-135-006-00

SETBACKS:
-FRONT: 40 FEET
-SIDE: 15 FEET
-REAR: 20 FEET

IMPERVIOUS COVERAGE: NO LIMITATION

LEGAL DESCRIPTION

DESCRIPTION PER GT COUNTY GIS INFORMATION:

THE SOUTH 103 FEET OF THE NORTH 148 FEET OF LOT 33 EXCEPT THE EAST 200 FEET AND THE NORTH 8 FEET THEREOF, HANNAH LAY & COMPANY'S 15TH ADDITION TO THE CITY OF TRAVERSE CITY

GENERAL NOTES

1. THE PROJECT INVOLVES INTERIOR WORK FOR A CHANGE IN USE. NO EXTERIOR UPDATES ARE PROPOSED WITH EXCPTION OF LANDSCAPING UPDATES. ALL LIGHTING AND EXTERIOR SIGNAGE IS EXISTING.

2. ALL CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL CONFORM WITH ALL CURRENT APPLICABLE LOCAL, COUNTY, STATE OR FEDERAL SPECIFICATIONS AND DETAILS.

3. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING THE FURNISHING AND USE OF SAFEGUARDS, SAFETY DEVICES AND PROTECTION EQUIPMENT. THE CONTRACTOR SHALL TAKE ANY NECESSARY PRECAUTIONS TO PROTECT THE LIFE AND HEALTH OF EMPLOYEES AND THE PUBLIC IN THE PERFORMANCE OF THE WORK.

4. THE OWNER AND OR CONTRACTOR ARE RESPONSIBLE TO APPLY FOR AND RECEIVE ALL NECESSARY PERMITS FOR THIS PROJECT.

DRAWING INFORMATION

1. INFORMATION SHOWN ON SITE PLAN IS PER OWNER PROVIDED INFORMATION AND OTHER AVAILABLE COUNTY AND TOWNSHIP DOCUMENTS AND IMAGERY.

2. THIS IS NOT A BOUNDARY OR TOPOGRAPHIC SURVEY. ACCURACY OF ALL DIMENSIONS SHOWN IS NOT GUARANTEED.

3. THERE ARE NO MAJOR EXTERIOR BUILDING ALTERATIONS OR ADDITIONS THAT ARE PROPOSE.MINOR IMPROVEMENTS SUCH AS PAINTING OR GROUNDS MAINTENANCE MAY OCCUR.

LANDSCAPING REQUIREMENTS

LANDSCAPE BUFFER TYPE REQUIRED
NORTH – N/A
EAST AND SOUTH – INDUSTRIAL ZONING: TYPE B
WEST – PRIMARY OR LOCAL ROAD: TYPE C
CANOPY TREES – 2" MIN. CAL.
EVERGREEN = 6 FEET HEIGHT
FLOWERING TREES 1–1/2" CAL.
SHRUBS 5 Gal.

Type "B" buffer

(1) Planting requirement. Ground cover as specified in Section 530.J, plus two large trees, one
medium or small tree, and four shrubs per one hundred (100) linear feet of greenspace area.
(2) Minimum width requirement. The Type "B" Buffer area shall be a minimum width of ten (10)
feet.

Type "C" buffer
(1) Planting requirement. Ground cover as specified in Section 530.J, plus three large trees, three
medium or small trees, one evergreen or coniferous tree per one hundred (100) linear feet of
greenspace area.
(2) Minimum width requirement. The Type "C" Buffer area shall be a minimum width of ten (10)
feet.

EAST SIDE – 103 FEET (BUFFER TYPE B)
-GROUND COVER PER 530.J
-2 LARGE TREES – EXISTING 30" OAK, NONE REQUIRED
-1 MEDIUM OR SMALL TREES
-4 SHRUBS

SOUTH SIDE – 208 FEET (BUFFER TYPE B)
-GROUND COVER PER 530.J
-2 LARGE TREES, MULTIPLE MATURE CANOPY TREES, (NONE REQUIRED)
-1 MEDIUM OR SMALL TREES (NONE REQUIRED)
-4 SHRUBS (MULTIPLE EXISTING SHRUBS)

WEST SIDE – 103 FEET (BUFFER TYPE C)
-GROUND COVER PER 530.J
-3 LARGE TREES – MULTIPLE EXISTING OAKS, (NONE REQUIRED)
-3 MEDIUM OR SMALL TREES, MULTIPLE TREES (2 PROPOSED)
-1 EVERGREEN OR CONIFEROUS PER 100 FEET (2 REQUIRED)
-4 SHRUBS (4 PROPOSED)

IRRIGATION SYSTEM

IRRIGATION SYSTEM TO COMPLY WITH THE REQUIREMENTS OF THE GARFIELD TOWNSHIP ZONING ORDINANCE.

IRRIGATION CONTRACTOR SHALL INSTALL A PROPERLY SIZED BACK FLOW PREVENTOR THAT IS APPROVED BY THE GRAND TRAVERSE BAND EAST BAY WATER UTILITIES DEPARTMENT.

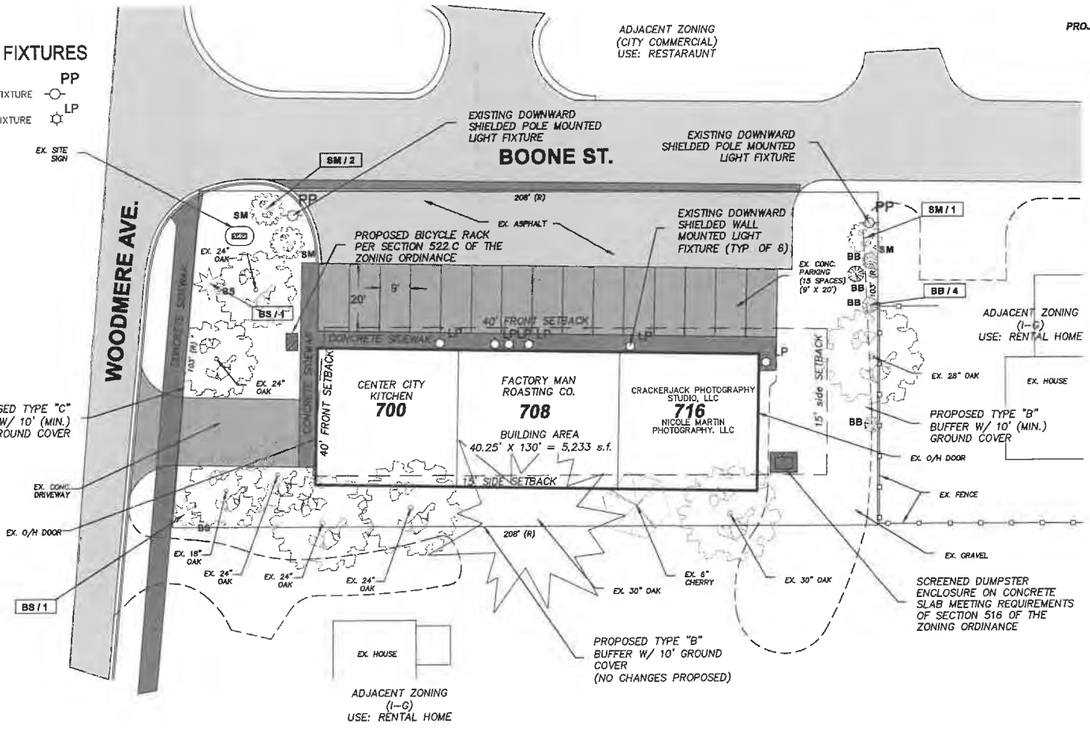
PROVIDE EVERYTHING NECESSARY TO INSTALL AN IRRIGATION SYSTEM TO PROPERLY WATER THE PROPOSED LANDSCAPING AREAS. COORDINATE WORK WITH OTHER TRADES. PROVIDE DESIGN FOR A COMPLETE LAWN IRRIGATION SYSTEM TO SPRINKLE THE LANDSCAPE AREAS INCLUDING ALL PLANTER BEDS.

SUBMIT SHOP DRAWINGS ALONG WITH PRODUCT DATA AND DESIGN CALCULATIONS FOR THE SYSTEM. CONTRACTOR SHALL PROVIDE OWNER WITH AN O&M MANUAL FOR ALL EQUIPMENT AND A RECORD DRAWING OF SYSTEM LAYOUT AND INSTALLATION.

IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, INSPECTIONS AND TESTING OF THE SYSTEM.

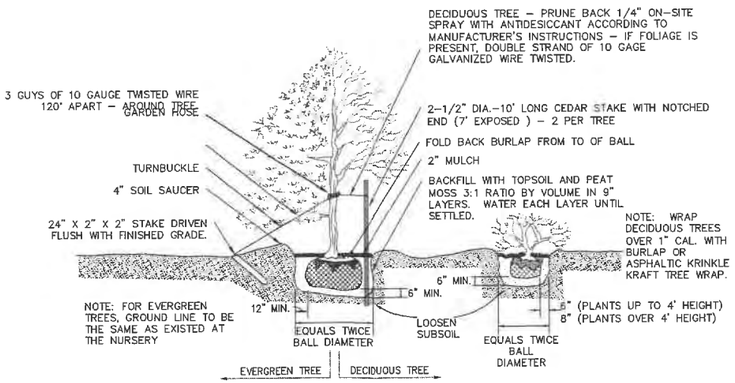
EXISTING LIGHT FIXTURES

POWER POLE WITH LIGHT FIXTURE — PP
WALL MOUNTED LIGHT FIXTURE — LP



PLANT SCHEDULE

KEY	SCIENTIFIC NAME	COMMON NAME	SIZE	NUMBER
SM	ACER SACCHARUM	SUGAR MAPLE	B&B - 2" Cal.	2 EA.
BS	PICEA MARIANA	BLACK SPRUCE	B&B - 6'	2 EA.
BB	EUONYMUS ALATAS	BURNING BUSH	5 Gal.	4 EA.



PLANTING DETAIL - TREES AND SHRUBS

NO SCALE

GTEC
GRAND TRAVERSE ENGINEERING & CONSTRUCTION
A Subsidiary Of Grand Traverse Economic Development

Revisions:
REVISION
REVISION
REVISION
REVISION
REVISION

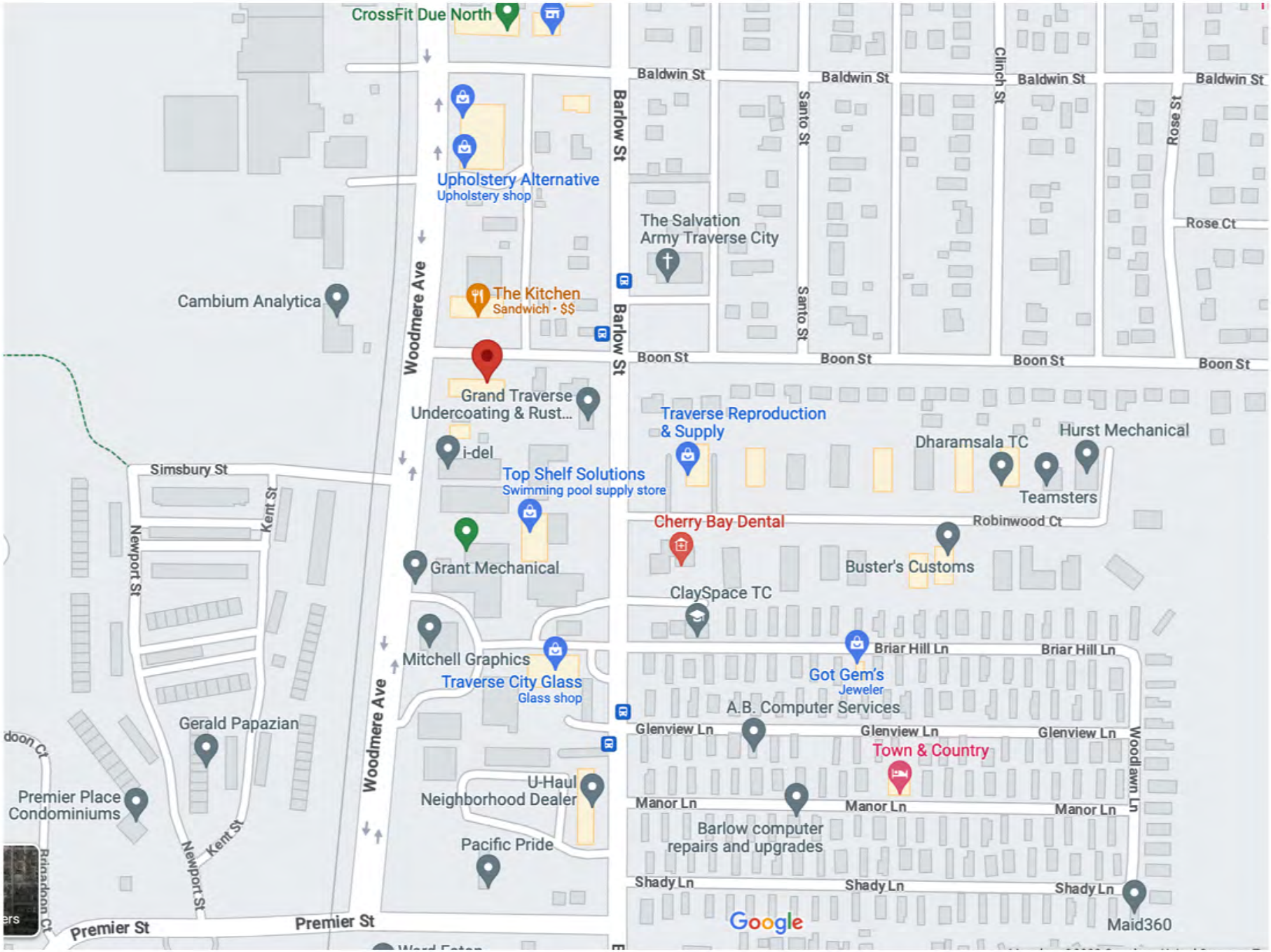
Date: 6-04-2023
Scale: 1" = 20'
Drawn By: RAC
Checked By:

Client:
LEASEWELL, INC.
525 CASS STREET
TRAVERSE CITY, MI 49684

Sheet Title: SITE PLAN FOR SPECIAL USE PERMIT
Project: PROFESSIONAL PHOTOGRAPHY STUDIO
716 BOON STREET
GARFIELD TOWNSHIP, GRAND TRAVERSE COUNTY, MI

Project No. 2023–15
Sheet 1.0

Vicinity Map



Charter Township of Garfield
Planning Department Report No. 2023-70

Prepared:	June 7, 2023	Pages:	3
Meeting:	June 14, 2023 Planning Commission	Attachments:	☒
Subject:	1202 N US 31 South – Conceptual Review		
Parcel No.	05-028-014-00		
Applicant:	Dennis T. Spillane, DDS/Bantry Bay Development LLC		

BACKGROUND:
The subject property is 0.85 acres and located at 1202 N. US-31 South, south of Silver Pines Road. As seen in the aerial imagery provided below, the property is essentially vacant aside from a paved parking area and turnaround. The property was formerly a scenic overlook.

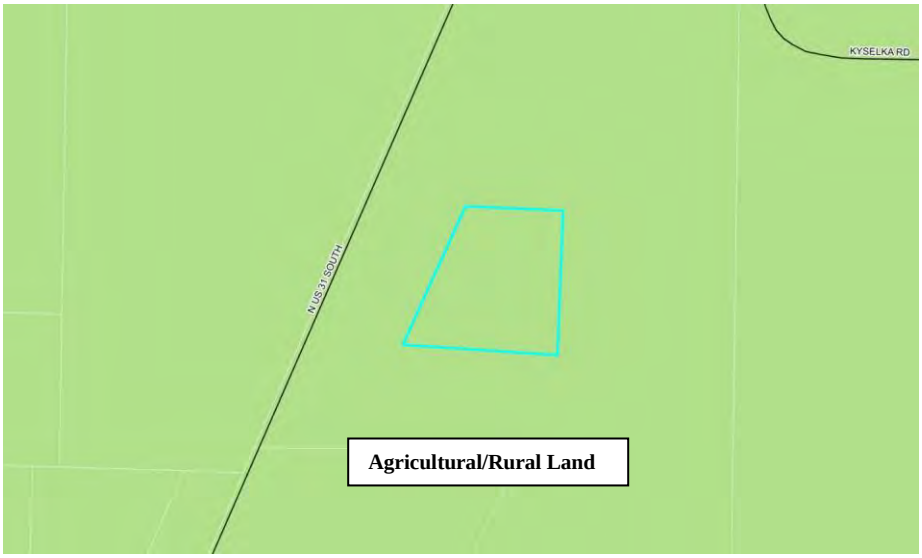
The applicant would like the Planning Commission to consider rezoning the subject property from C-O Office Commercial to R-2 Two-Family Residential. Such rezoning would result in the subject property being the same zoning as the surrounding property already zoned R-2. The proposed zoning would allow consistent development of both parcels.

Aerial photo of subject property (highlighted in blue):

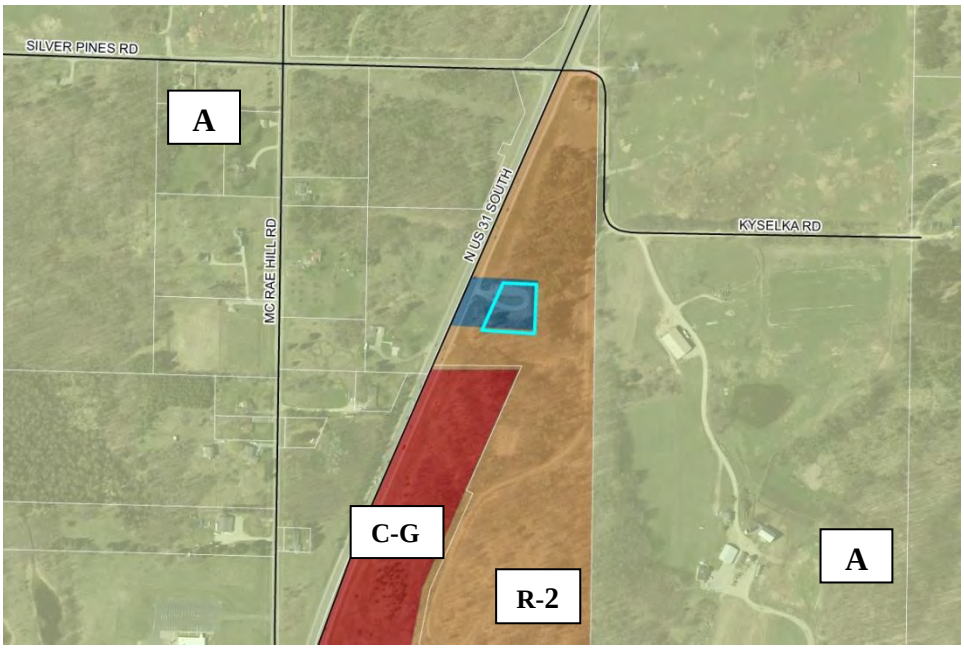


EXISTING LAND USE:
The subject property is currently vacant and adjoins vacant land to the north, east, and south; and low-density residential uses (large lot residential) on the west side of US-31.

MASTER PLAN:
The Master Plan designates the subject property at "Agriculture/Rural Land (≥ 1 Units Per Acre)" (indicated in light green). According to the Zoning Plan in the Master Plan, "Agriculture/Rural Land" is most consistent with the A – Agricultural zoning district and identifies the R-R Rural Residential and R-1 One-Family Residential districts as potentially compatible districts.



ZONING:
The subject property is zoned C-O Office Commercial (indicated in blue) and adjoins R-2 Two-Family Residential along the north, east, and south property lines. The subject property also adjoins A Agricultural zoning across the US-31 right-of-way. A stretch of C-G General Commercial is located further south along the frontage of US-31.



STAFF COMMENTS:

1. The request is considered a "downzoning" for the property resulting in a less intense land use.
2. While the proposed zoning is not in strict accordance with the Future Land Use map, the proposed rezoning is in greater conformance to the Agricultural designation.
3. The rezoning would match the zoning for the adjacent property and provide better opportunity for consistent development.

ACTION REQUESTED:

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 May 15, 2023

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.

- [x] Conceptual Review with no public notice
- [ ] Conceptual Review with direct mail notice only
- [ ] Conceptual Review with full public notice

PROJECT / DEVELOPMENT NAME: BANTRY BAY Developement LLC
DENNIS T. SPILLANE DDS

APPLICANT INFORMATION

Name:	BANTRY BAY Developement LLC
Address:	130 W. BURNSIDE P.O BOX 111 CARO MI 48723
Phone Number:	313-530-1811
Email:	spillanedennis@yahoo.com

AGENT INFORMATION

Name:	DENNIS T. SPILLANE DDS
Address:	
Phone Number:	SAME
Email:	

OWNER INFORMATION

Name:	Bantry Bay Developement LLC / Dennis Spillane DDS
Address:	
Phone Number:	SAME
Email:	

CONTACT PERSON

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

Applicant:	Dennis T. Spillane DDS
Agent:	"
Owner:	"

LOCATION OF THE PROPOSED PROJECT

Property Address:	1202 N. US-31 South
Property Identification Number:	05-028-014-00
Legal Description:	
Zoning District:	Office Commercial
Master Plan Future Land Use Designation:	
Area of Property (acres or square feet):	.84 ACRES 36,660 SQ FT
Existing Use(s):	C-O
Proposed Use(s):	R-2

REQUIRED SUBMITTAL ITEMS

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

Application Form:

- [x] 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.

- [x] Fee $100

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: Dennis T. Spillane DDS
Applicant Signature: Dennis T Spillane DDS
Agent Signature: Dennis T Spillane DDS
Date: 5-15-23

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 Dennis T. Spillane DDS 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: Dennis T Spillane DDS pres. Bantry Bay Development LLC
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: Dennis T Spillane DDS pres. Bantry Bay Development LLC
Date: 5-15-23
Applicant Signature: Dennis T Spillane DDS
Date: 5-15-23

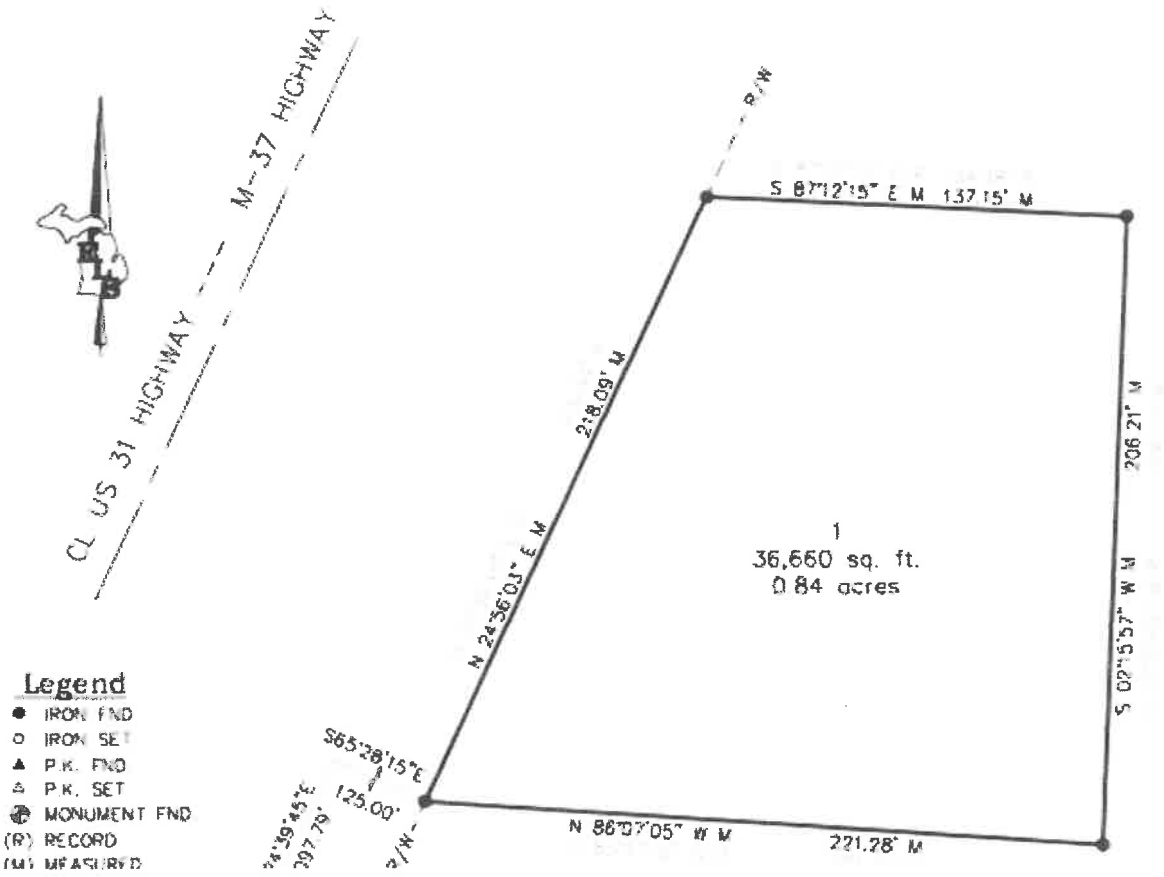
From: Dennis Spillane spillanedennis@yahoo.com
Subject: Fwd: 2019-159 Model (1)SPILLANE.pdf
Date: Apr 8, 2023 at 5:35:37 PM
To: nitrowraps@yahoo.com

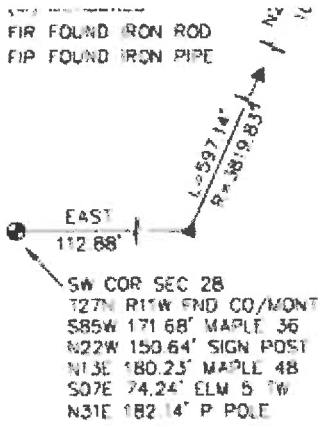
Sent from my iPhone

Begin forwarded message:

From: Dental Health Care <dentalhealthc@yahoo.com>
Date: April 8, 2023 at 5:24:52 PM EDT
To: Dennis Spillane <spillanedennis@yahoo.com>
Subject: 2019-159 Model (1)SPILLANE.pdf

Certificate of Survey





DESCRIPTION AS FURNISHED:

That part of the West 1/2 of the Southwest 1/4 of Section 28, Town 27 North, Range 11 West, Garfield Township, Grand Traverse County, Michigan, described as:

Commencing at the Section corner common to Sections 28, 29, 32, and 33 of said Town 27 North, Range 11 West; thence East along the Section line common to Sections 28 and 33, a distance of 112.88 feet, more or less, to the centerline of Highway US-31, as surveyed prior to June 1948; thence Northeasterly along the centerline of said highway on a curve to the right having a radius of 3819.83 feet, 597.14 feet; thence North 24°39'45" East along the centerline of said highway 1097.79; thence South 65°28'15" East 125 feet to the point of beginning of parcel being conveyed; thence North 24°39'45" East along the East right-of-way lines of said highway 216.94 feet; thence South 87°12'15" East 139.48 feet; thence South 02°30'45" West 206.10 feet; thence North 85°37'15" West 221.41 feet to the point of beginning.

Scale: 1" = 50'

0' 25' 50' 100'

I, NEIL L. WAY, a Licensed Professional Surveyor in the State of Michigan, do hereby certify that I have surveyed and mapped the hereon described parcel(s) of land; that the ratio of closure of the unadjusted field observations is within the accepted limits; and that I have fully complied with the requirements of P.A. 132 of 1970, as amended. All corners shown have a Relative Positional Precision of 0.07' + 50 ppm, unless noted otherwise.

Ratio of Closure: 1/10,000
Basis of Bearing: Assumed

NEIL L. WAY
Licensed Surveyor Number: 28432

EAGLE LAND SURVEYING, Inc.
(231) 264-9110
FAX: 264-9311
eaglelandsurvey@aol.com
7164 EAGLE'S WAY LANE
KEWADIN, MI 49648

For: BANTRY BAY DEVELOPMENT, LLC

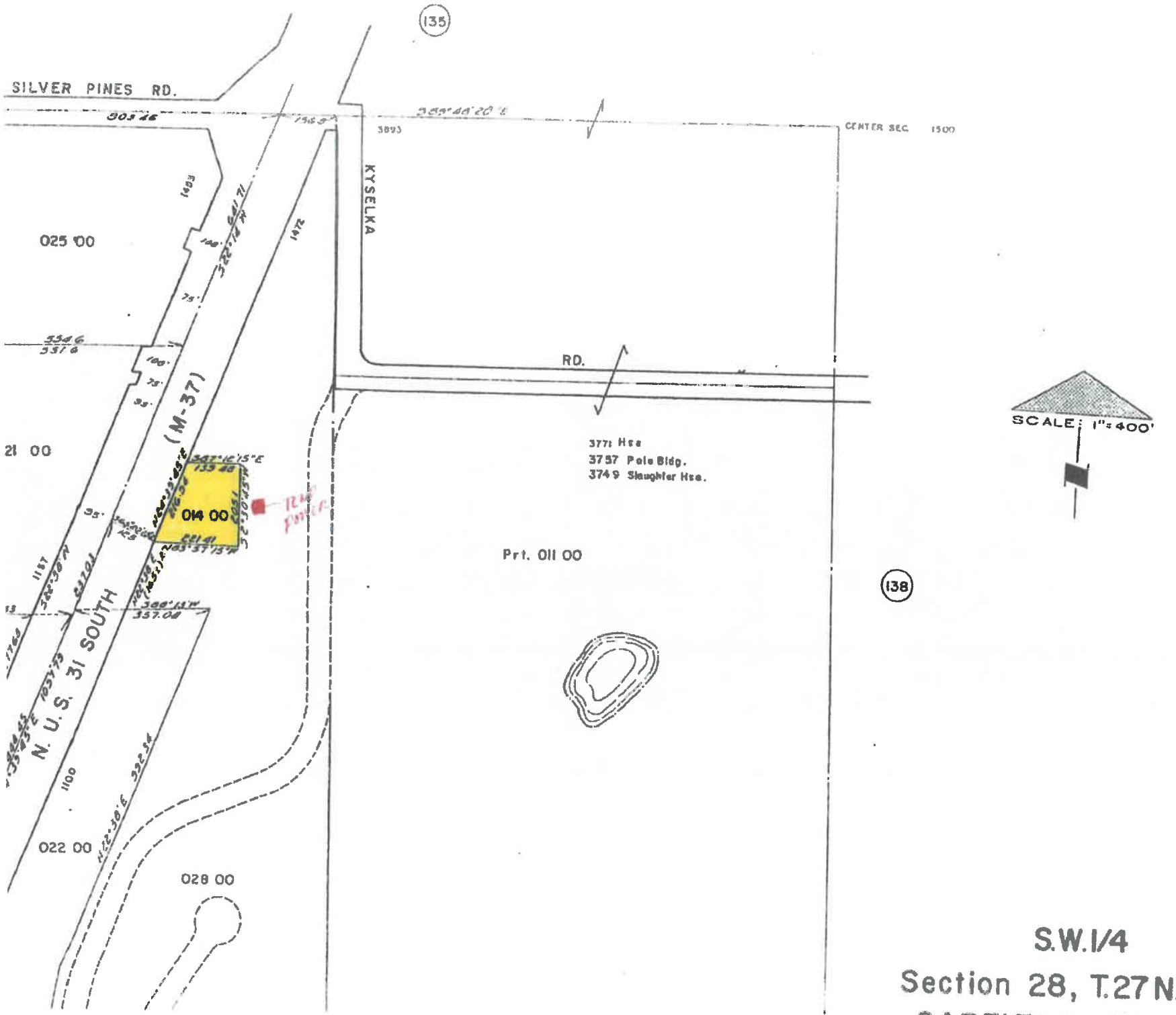
Part of W 1/2 of SW 1/4 Sec. 28, T27N, R11W, Garfield Twp., Grand Traverse County, Michigan.

Date: Oct 4, 2019 | File No: 2019-159

FB/PG: 100/9 | Drafted By: NLW | Sheet 1 of 1

Dwg File: 2019-159

Sent from my iPhone



S.W.1/4
Section 28, T.27N., R.11W.
CADILLAC TOWNSHIP

EASEMENT FOR ELECTRIC FACILITIES

Master Tract# ROW000916059407
SAP# 1049825172
Design# 11083091
Agreement# MI00000047202

BANTRY BAY DEVELOPMENT LLC, a Michigan limited liability company, whose address is 638 Willow Drive, Bellaire, Michigan 49615 (hereinafter "Owner")

for $1.00 and other good and valuable consideration [*exempt from real estate transfer tax pursuant to MCLA 207.505(f) and from State real estate transfer tax pursuant to MCLA 207.526(f)*] grants and warrants to

CONSUMERS ENERGY COMPANY, a Michigan corporation, One Energy Plaza, Jackson, Michigan 49201 (hereinafter "Consumers")

a permanent easement to enter Owner's land (hereinafter "Owner's Land") located in the Township of Garfield, County of Grand Traverse, and State of Michigan as more particularly described in the attached Exhibit A to construct, operate, maintain, inspect (including aerial patrol), survey, replace, reconstruct, improve, remove, relocate, change the size of, enlarge, and protect a line or lines of electric facilities in, on, over, under, across, and through a portion of Owner's Land (hereinafter "Easement Area") as more fully described in the attached Exhibit B, together with any pole structures, poles, or any combination of same, wires, cables, conduits, crossarms, braces, guys, anchors, transformers, electric control circuits and devices, location markers and signs, communication systems, utility lines, protective apparatus and all other equipment, appurtenances, associated fixtures, and facilities, whether above or below grade, useful or incidental to or for the operation or protection thereof, and to conduct such other activities as may be convenient in connection therewith as determined by Consumers for the purpose of transmitting and distributing electricity. Consumers may attach additional lines outside the Easement Area, running laterally from a line within the Easement Area to the West edge of Owner's Land, in which event the Easement Area shall include a 12 foot-wide strip of land, being 6 feet on each side of each such lateral line.

Additional Work Space: In addition to the Easement rights granted herein, Owner further grants to Consumers, during initial construction and installation only, the right to temporarily use such additional work space reasonably required to construct said lines. Said temporary work space shall abut the Easement Area, on either side, as required by construction.

Access: Consumers shall have the right to unimpaired access to said line or lines, and the right of ingress and egress on, over, and through Owner's Land for any and all purposes necessary, convenient, or incidental to the exercise by Consumers of the rights granted hereunder.

Trees and Other Vegetation: Owner shall not plant any trees within the Easement Area. Consumers shall have the right from time to time hereafter to enter Owner's Land to trim, cut down, and otherwise remove and control any trees, brush, roots, and other vegetation within the Easement Area. Consumers shall have the right from time to time hereafter to enter Owner's Land to trim, cut down, and otherwise remove and control any trees, brush, or other vegetation located outside of the Easement Area which are of such a height or are of such a species whose mature height that in falling directly to the ground could come into contact with or land directly above Consumers' facilities.

Buildings/Structures: Owner agrees not to build, create, construct, or permit to be built, created, or constructed, any obstruction, building, septic system, drain field, fuel tank, pond, swimming pool, lake, pit, well, foundation, engineering works, installation or

any other type of structure over, under, or on said Easement Area, whether temporary or permanent, natural or man-made, without a prior written agreement executed by Consumers' Real Estate Department expressly allowing the aforementioned.

Ground Elevation: Owner shall not materially alter the ground elevation within the Easement Area without a prior written agreement executed by Consumers Real Estate Department allowing said alteration.

Exercise of Easement: Consumers' nonuse or limited use of this Easement shall not preclude Consumers' later use of this Easement to its full extent.

Ownership: Owner covenants with Consumers that they are the lawful fee simple owner of the aforesaid lands, and that they have the right and authority to make this grant, and that they will forever warrant and defend the title thereto against all claims whatsoever.

Successors: This Easement shall bind and benefit Owner's and Consumers' respective heirs, successors, lessees, licensees, and assigns.

Counterparts: This Easement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. It is not necessary that all parties execute any single counterpart if each party executes at least one counterpart.

Date: _____

Owner: BANTRY BAY DEVELOPMENT LLC, a Michigan Imited liability company

_____

By: Dennis T. Spillane
Its: Manager

Acknowledgment

The foregoing instrument was acknowledged before me in _____ County, Michigan,

on _____ by Dennis T. Spillane, Manager of Bantry Bay Development LLC, a Michigan limited
Date

liability company, on behalf of the company.

_____

Notary Public

_____ County, Michigan

Acting in _____ County

My Commission expires: _____

PROPERTY OWNERS MAIL SIGNED EASEMENT TO:

Brandon McDowell
Consumers Energy Company
821 Hastings Street
Traverse City MI 49686

Prepared By:
Cristi Banks 11/7/2019
Consumers Energy Company
One Energy Plaza
Jackson, MI 49201

REGISTER OF DEEDS OFFICE USE ONLY

Return recorded instrument to:
Carrie J. Main, EP7-287
Consumers Energy Company
One Energy Plaza
Jackson, MI 49201

EXHIBIT A

Owner's Land

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

That part of the West 1/2 of the Southwest 1/4 of Section 28, Town 27 North, Range 11 West, described as: Commencing at the said section corner common to Sections 28, 29, 32, and 33 of said Town 27 North, Range 11 West; thence East along the said section line common to Sections 28 and 33, a distance of 112.88 feet, more or less, to the centerline of Highway US-31, as surveyed prior to June 1948; thence Northeasterly along the centerline of said highway on a curve to the right having a radius of 3819.83 feet, 597.14 feet; thence North 24 degrees 39 minutes 45 seconds East along the centerline of said highway 1097.79 feet; thence South 65 degrees 28 minutes 15 seconds East 125.00 feet to the Point of Beginning of parcel being conveyed; thence North 24 degrees 39 minutes 45 seconds East along the East right of way lines of said highway 216.94 feet; thence South 87 degrees 12 minutes 15 seconds East 139.48 feet; thence South 02 degrees 30 minutes 45 seconds West 206.10 feet; thence North 85 degrees 37 minutes 15 seconds West 221.41 feet to the Point of Beginning.

Parcel ID: 05-028-014-00

Also known as 1202 North US 31 South, Traverse City, Michigan 49685

EXHIBIT B

ELECTRIC EASEMENT

Easement Area

A 12.00 foot-wide strip of land, being 6.00 feet on each side of the centerline of the line constructed on Owner's Land, the centerline to be located approximately as shown in the attached drawing.

