

**CHARTER TOWNSHIP OF GARFIELD
PLANNING COMMISSION MEETING**

Thursday, November 12, 2020 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 – October 28, 2020

4. Correspondence

5. Reports

- a. Township Board
- b. Planning Commissioners
- c. Staff Report

6. Unfinished Business

- a. PD 2020-154 – Carter Lumber I-G Rezoning – Public Hearing
- b. PD 2020-155 – Solar Energy Systems Zoning Ord Text Amendment – Public Hearing
- c. PD 2020-153 – Oakleaf Village PUD – Final

7. New Business

- a. PD 2020-151 – Child Care Centers, Major Thoroughfares ZO Text Amend – Intro
- b. PD 2020-150 – Signs in Planned Unit Developments and the C-P District #2

8. Public Comment

9. Other Business

10. Items for Next Agenda – December 9, 2020

- a. Carter Lumber I-G Rezoning – Findings of Fact
- b. Child Care Centers, Major Thoroughfares ZO Text Amendment – Public Hearing
- c. Ligon Bed and Breakfast – SUP Introduction

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, or TDD #922-4412.

**CHARTER TOWNSHIP OF GARFIELD
PLANNING COMMISSION MEETING
October 28, 2020**

Call Meeting to Order: Chair Racine called the October 28, 2020 Planning Commission meeting to order at 7:00pm.

Pledge of Allegiance

The Pledge of Allegiance was recited by all in attendance.

Roll Call of Commission Members:

Present: Joe McManus, Steve Duell, Pat Cline, Joe Robertson, Robert Fudge, Chris DeGood, and John Racine

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)
Planner John Sych asked commissioners to add item 9a, Ashland Park Storage Units.

Duell moved and Fudge seconded to approve the agenda as amended adding item 9a – Ashland Park Storage Units.

*Yeas: Duell, Fudge, Robertson, McManus, DeGood, Cline, Racine
Nays: None*

3. Minutes (7:01)

a. October 14, 2020

DeGood moved and Cline seconded to adopt the minutes of October 14, 2020 as presented.

*Yeas: DeGood, Cline, Robertson, Fudge, McManus, Duell, Racine
Nays: None*

4. Correspondence (7:03)

a. PD 2020-146 Legislative Update on Sand and Gravel Mining

Planner Sych said that this was included in packets for commissioner information.

b. PD 2020-147 Recap of Michigan Association of Planning Annual Conference

A report was included in commissioner packets.

5. Reports (7:05)**Township Board Report**

Duell reported that the board approved Ordinance #37 and Ordinance #75 for a public hearing on November 10th.

Planning Commissioners

No Report

Staff Report

No Report

6. Unfinished Business

None

7. New Business**a. Zoning Ordinance Use Chart Project – Definitions Discussion #3 and Next Steps (7:14)**

Commissioners finished their review of definitions for the Zoning Ordinance Use Chart Project. Planning staff hopes to bring these definitions back for final review and approval in January.

b. PD – 2020-141 Signs in Planned Unit Developments and the C-P District (7:46)

Deputy Planner Steve Hannon said that he identified two issues with the current zoning ordinance as it relates to signage. One issue is that the township has historically treated a new sign in place of an old sign as a replacement sign, rather than a new sign. The second issue is the signage for PUD's often refers to underlying zoning districts and the township has several PUD's with underlying zoning which does not match the land use. He went on to say that the Planning Commission has discretion in the PUD's and the C-P district. Planning Commissioners discussed the new proposed language intended to streamline the process. Commissioners wanted to retain the latitude to allow for more square footage for signage based on wall size and the latitude to make a decision based on scale, bulk and location relative to the site and surrounding area. A few minor language changes were suggested. Staff will revise based on commissioner feedback and bring back for further review as soon as possible.

c. PD-2020-148 ZO Amendment Discussion – Child Care Centers, Major Thoroughfares (8:18)

Planner Sych said that the township recently received an application for the building of Prince of Peace Lutheran Church to be located on the east side of LaFranier Road. Churches are permitted in the A- Agricultural District by Special Use Permit. Staff has identified two issues with the proposed uses. Section 753, Institutional Uses, requires that one property

line be located on a major thoroughfare as defined in the ordinance. LaFranier is classified by the National Functional Classification as a “minor collector” and not a major arterial. There are several existing land uses in the township which are located on Major or Minor collector roads. To remedy the situation and bring all existing land uses into compliance, staff recommends adopting some newer more detailed definitions of roads which include definitions of the road and not the road names. A second issue with the application is that a child care use is not currently allowed in the A- Agricultural zoning district. Staff proposes an amendment to allow the use by special permit. Commissioners were in favor of the amendment. Staff will introduce in November and prepare for a public hearing shortly thereafter.

d. PD 2020-144 – Redevelopment Ready Communities Update (8:36)

Deputy Planner Hannon provided the Redevelopment Ready Communities baseline report, and gave background on the process up to now. He added that Pablo Majano, the Michigan Economic Development Corporation representative, presented the Baseline Report to the township board and gave an overview of the program and the board passed a resolution to proceed. Staff has already identified potential starting projects which include a Master Plan Implementation Schedule, the CIP Program, Development Review Forms and Township Website Updates.

8. Public Comment (8:42)

None

9. Other Business (8:42)

a. Ashland Park Storage Units

Planner Sych said that the Ashland Park developer originally included some storage units on the plan and wants to replace the area originally meant for office use for expansion to allow for more storage units. Commissioners gave feedback on the possible major amendment and had concerns with the lack of enough existing residential housing in the PUD to offset the added storage units and the addition of another possible access point to the development.

10. Items for Next Agenda – November 12, 2020 (8:53)

a. Public Hearing – Carter Lumber I-G Rezoning

b. Public Hearing – Solar Energy Systems Zoning Ordinance Text Amendment

c. M Brothers Northern – SUP Intro Will not be on the agenda.


d. Oakleaf Village PUD – Final

Staff added that there may be an introduction on the proposed ordinance amendments stemming from the Prince of Peace project.

11. **Adjournment**

Fudge moved and Cline seconded to adjourn the meeting at 8:57pm.

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

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|---|---|--------------|-------------------------------------|
|  Charter Township of Garfield Planning Department Report No. 2020-154 | | | |
| Prepared: | November 3, 2020 | Pages: | 7 |
| Meeting: | November 12, 2020 Planning Commission | Attachments: | <input checked="" type="checkbox"/> |
| Subject: | Carter Lumber I-G Rezoning – Public Hearing | | |
| File No. | Z-2020-05 | Parcel No. | 05-025-014-00 |
| Owner: | Hammond Development Group | | |
| Applicant: | Carter-Jones Companies, Inc. | | |

PURPOSE OF APPLICATION:

This application requests the rezoning of one parcel at the southeast corner of Garfield Road and Hammond Road, totaling 36.50 acres, from the A Agricultural zoning district to the I-G General Mixed-Use Industrial Business zoning district via the zoning Map Amendment process, without restriction.

SUBJECT PROPERTY:

The subject property is currently undeveloped. The site has approximately 21.7 acres of upland and approximately 14.8 acres of wetlands. Most of the wetlands are on the east side of the property. The upland located at the west and south portions of the property is divided by a branch of Mitchell Creek traversing diagonally across the parcel. The site has approximately 1,300 feet of frontage on Hammond Road and 600 feet of frontage on Garfield Road. The Garfield Heidbreder Industrial Park abuts the subject property on the eastern and southern boundaries.

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



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

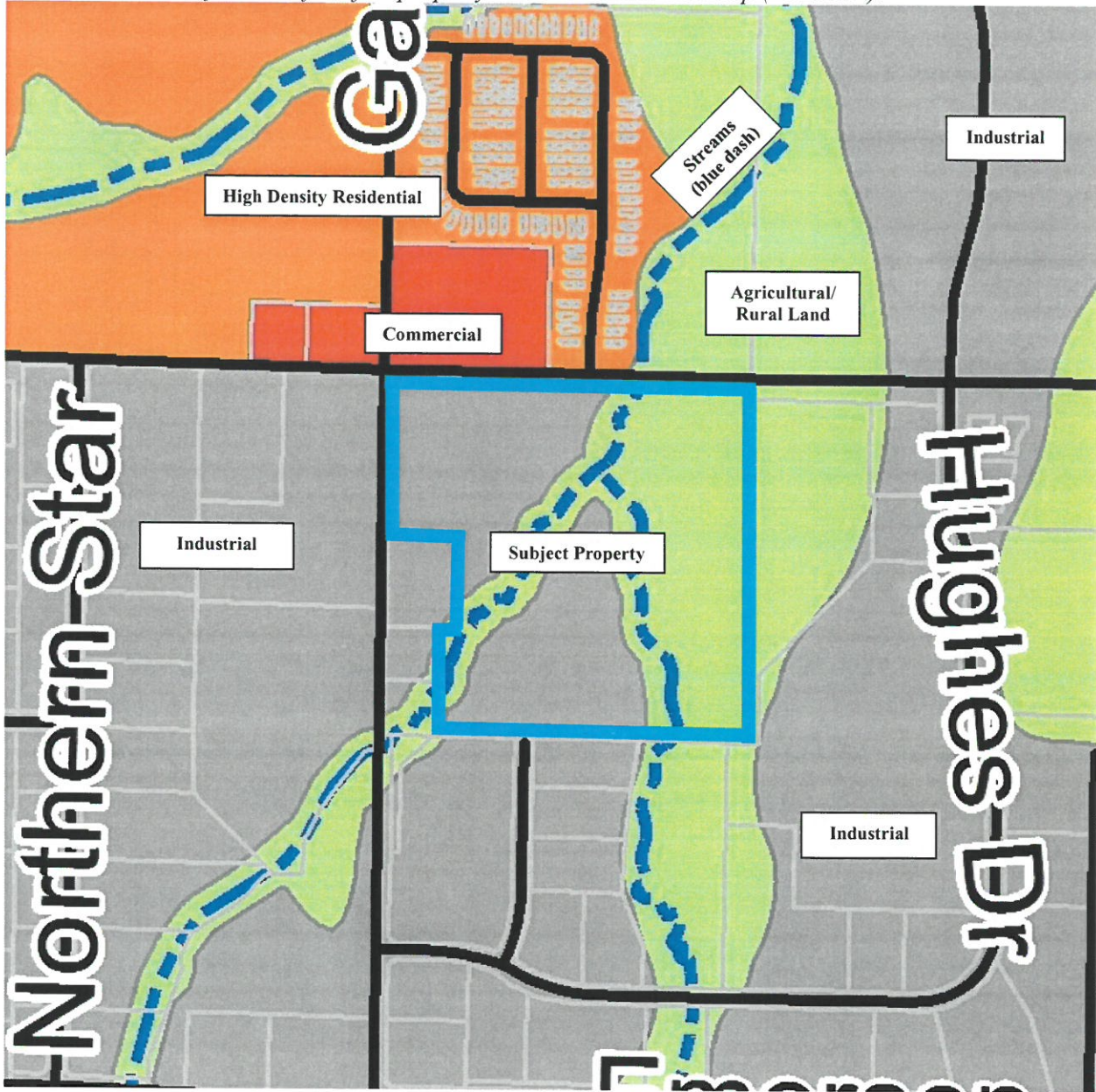


MASTER PLAN CONSIDERATIONS:

A key factor in considering rezoning requests is whether the request is consistent with the Master Plan. In this case, the Master Plan shows the subject parcel with an “Industrial” designation on the Future Land Use Map. This future land use designation is intended to “remain primarily industrial in nature while allowing a limited number of non-industrial uses that are envisioned as accessory or complimentary to existing and future industrial uses of the districts.” When reviewing the Hammond Road corridor, “Industrial” is the most common Future Land Use designation for the properties along the south side of Hammond Road, east and west of Garfield Road. The wetland areas in this area are designated as “Agricultural/Rural Land” due to their limitations for development.

The most compatible zoning districts for the “Industrial” designation are I-G General Mixed-Use Industrial Business and I-L Limited Mixed-Use Industrial Business. R-M Mobile Home Residential is a potentially compatible zoning district. The proposed zoning of I-G would be compatible with the Future Land Use on the subject site and with other sites along the Hammond corridor and the surrounding Garfield Heidbreder Industrial Park. An excerpt from the Zoning Plan for the I-G zoning designation is provided below.

Location and classification of subject property on Future Land Use Map (“FLUM”):



Excerpt from Zoning Plan for subject property’s FLUM classification:

| | |
|---|---|
| Master Plan Designation | Industrial |
| [Requested] Zoning | I-G General Mixed-Use Industrial Business |
| Zoning Ordinance District Intent | The intent of the General Mixed-Use Industrial Business (I-G) District is to remain primarily industrial in nature while allowing a limited number of non-industrial uses that are envisioned as accessory or complimentary to existing and future industrial uses of the districts. Non-industrial uses of property within these districts are subject to industrial impacts from adjacent parcels including, but not limited to, noise, dust, and vibrations. |
| Potentially Compatible District | R-M Mobile Home Residential/I-L Limited Mixed-Use Industrial Business |

| | |
|--|--|
| <p>Considerations for Downzoning (Less Density)</p> | <p>The R-M district may be deemed compatible in various areas of the Township. These areas could provide workforce housing in close proximity to manufacturing opportunities. Nuisance issues should be considered for future residents when considering a change in zoning to allow for residential uses. Generally, the I-G and I-L districts should remain as employment hubs and not changed to a commercial zoning.</p> |
| <p>Considerations for Upzoning (More Density)</p> | <p>In areas adjacent to I-L, consideration could be given to rezoning an area to a more intense zoning classification. The I-L district allows far more intense uses so consideration to surrounding areas should be carefully scrutinized.</p> |

SUBJECT SITE AND SURROUNDING PROPERTY ZONING:

The subject property is currently zoned A Agricultural, shown in green. Surrounding zoning is as follows:

- North: C-L Local Commercial and R-3 Multiple Family Residential
- Northeast: I – Industrial (City of Traverse City Zoning)
- East: I-L Limited Mixed-Use Industrial Business
- South: I-L Limited Mixed-Use Industrial Business
- Southwest: A Agricultural
- West: I-G General Mixed-Use Industrial Business

Zoning classifications for subject site and surrounding sites



USES OF SUBJECT SITE AND SURROUNDING SITES:

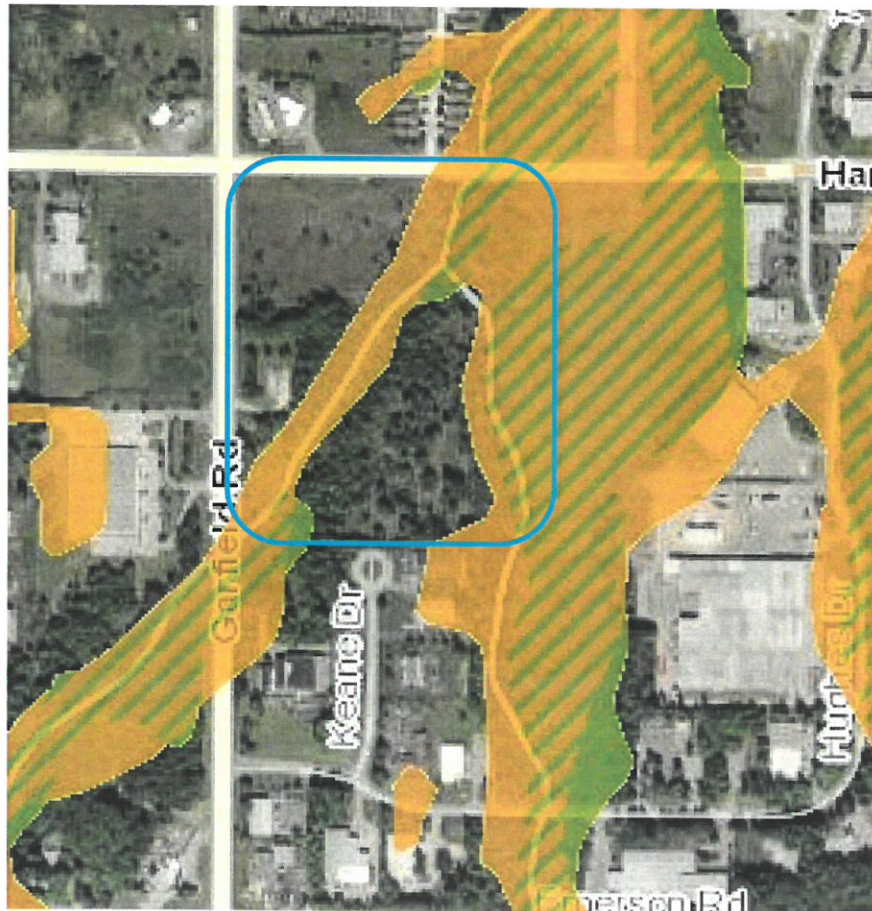
The subject site is currently undeveloped. Uses of the surrounding sites are as follows:

- North: Shell Gasoline Station and Hammond Place Condominiums
- Northeast: Traversefield Industrial Park (City of Traverse City)
- East: Wetlands/woodland, American Waste facility, and other industrial businesses
- South: Record Eagle facility, other industrial businesses, and wetlands/open space
- Southwest: Wetlands/woodland
- West: Consumers Energy substation, two single family homes, undeveloped parcels, light industrial businesses, and United States Postal Service facility across Garfield Road

STAFF COMMENT:

Upon preliminary review of the Master Plan and Future Land Use designation for the subject site, context of zoning and future land uses of the surrounding neighborhood, and other factors, Staff is of the opinion that this Map Amendment is justifiable. The Amendment is consistent with the Master Plan and generally compatible with the adjoining zoning and land uses. The proposed zoning would match that of the parcels immediately west across Garfield Road and is compatible with parcels to the east and south. The subject parcel meets the minimum lot size and lot width dimensional requirements in the I-G district.

The primary concern for this site will be the development of the site and its relation to the existing wetlands and streams. From the State of Michigan Department of Environment, Great Lakes, and Energy Wetland Map Viewer, the following excerpt notes wetlands in green, soil areas which include wetland soils in yellow, and wetlands and soil areas which include wetland soils are striped.



PRELIMINARY APPROVAL CRITERIA DISCUSSION:

To focus the discussion on the factors relevant to approving a Map Amendment, the following approval criteria are included below for reference:

Section 421.E Approval Criteria of Zoning Map Amendment

In its review of an application for rezoning, the Township should consider, but is not necessarily limited to, the criteria as defined in § 421.E (1) Master Plan Consistency through § 421.E (8) Other Factors. No single factor is controlling; instead, each must be weighed in relation to the other standards.

The applicant shall have the burden of justifying the amendment, including identifying specific reasons warranting the amendment, and providing any supporting data and information to address the following:

Master Plan Consistency

The Master Plan designation of the site is mainly Industrial with wetland areas on the site designated as Rural/Agricultural. Either of the industrial zoning districts (I-G or I-L) are potentially compatible with this designation. Generally, the I-G and I-L districts should remain as employment hubs and not changed to a commercial zoning. The site is surrounded by other parcels which have a Master Plan designation of Industrial and serve as employment hubs, including the adjacent Garfield Heidbreder Industrial Park.

The Master Plan further states that R-M Mobile Home Residential may be deemed compatible in various areas of the Township planned for Industrial. These areas could provide workforce housing in close proximity to manufacturing opportunities.

Adverse Impacts on Neighboring Lands

The Township shall consider the nature and degree of an adverse impact upon neighboring lands. The proposed rezoning is generally consistent with the uses of the surrounding area which include a significant area for industrial type uses along with a developed industrial park. There are two adjacent single-family homes that front on Garfield Road. Buffering between any non-residential development and these homes is required by the Zoning Ordinance.

Suitability as Presently Zoned

The subject site is currently zoned A Agricultural and is currently undeveloped. None of the site and adjacent parcels are used for agricultural purposes.

Changed Conditions

Any changes in conditions since the adoption of the zoning ordinance shall be considered as part of this rezoning request. There has been no change in conditions regarding this rezoning request.

Health, Safety, and Welfare

Commissioners shall consider the application as it relates to the public health, safety, and general welfare, and how the proposal may affect any nearby historical and cultural places and areas. Due to the onsite creek and wetlands, stormwater management (including required setbacks, natural buffers, and stormwater systems) for any development will be essential in protecting the water quality of the creek and wetlands. There appear to be no nearby historical or cultural places or areas.

Public Policy

Certain public policies in favor of the rezoning may be considered. Hammond Road is an essential east-west transportation corridor. Non-commercial uses within the Hammond Road corridor allow

for needed development space while not drawing increased traffic typically found with commercial uses. Other measures, such as access management, will help reduce the impact on traffic flows.

Size of Tract

The size, shape, and characteristics of the tract shall be considered in relation to the affected neighboring lands. The subject site is 36.5 acres with approximately 1,300 feet of frontage on Hammond Road and 600 feet of frontage on Garfield Road. The lot meets the minimum dimensional standards for the proposed I-G district. Of the total acreage, approximately 21.7 acres of the parcel or 60% of the total parcel area is upland and useable for development.

Other Factors

Any other factors relevant to the application under state law may be considered by Commissioners as part of this rezoning request.

ACTION REQUESTED:

The item is placed on tonight's agenda to hold a public hearing on the rezoning application. If, following the public hearing, the Planning Commission is prepared to direct Staff to draft Findings of Fact for the application, then the following motion is suggested:

MOTION TO direct Staff to draft Findings of Fact for application Z-2020-05.

Attachments:

1. Permitted uses in A zoning district
2. Permitted uses in I-G zoning district

SECTION 325 A (AGRICULTURAL)

PURPOSE The A (Agricultural) districts provide areas for agricultural operations and low intensity land uses. These districts are composed primarily of unsubdivided lands that are vacant or are in agricultural use with some dwellings and accessory uses. The A districts are suitable for large tracts of open space, agricultural areas, woodlands and fields. They are designed to promote the protection of the existing natural environment and to preserve, enhance and stabilize the essential characteristics and economical value of these areas as agricultural lands. The A districts may be used to encourage development in and near the core areas of the township by limiting the development densities of parcels less suited for intensive development. The A districts may also be used to protect natural resources and environmentally sensitive areas by preserving these areas for low intensity land uses.

A. USES PERMITTED BY RIGHT:

- (1) Agricultural Operations
- (2) Cemeteries
- (3) Dwelling, Single Family
- (4) Home Industry
- (5) Home Occupations
- (6) Pet Grooming Establishment
- (7) Roadside Stands
- (8) (Reserved)
- (9) Publicly Owned and Operated Parks
- (10) Raising and keeping small animals such as poultry, rabbits, and goats
- (11) Raising and keeping livestock, such as cattle, hogs, horses, ponies, sheep and similar livestock upon a lot having an area not less than ten (10) acres, except feeder lots

B. USES PERMITTED BY SPECIAL CONDITIONS:

- (1) Adult Foster Care, Family Home (<7) subject to §707
- (2) Child Care, Family Home (<7) subject to §718
- (3) Child Care, Small Group Home (7-12) subject to §719
- (4) Farm Market subject to § 741
- (5) Keeping of horses subject to § 752
- (6) Medical Marijuana Residential Cultivation subject to § 758
- (7) Stormwater containment on split-zoned properties to support non-agricultural uses provided Low Impact Development standards are used to the satisfaction of the Planning Commission and Township Engineer
- (8) Tenant house for full-time farm employees associated with the principal use of the property as an agricultural operation
- (9) Personal Energy Conversion System subject to § 770

C. USES PERMITTED BY SPECIAL USE PERMIT:

- (1) Adult Foster Care, Small Group Home (7-12)
- (2) Adult Foster Care, Large Group Home (13-20)
- (3) Airports and Airfields
- (4) Bed & Breakfast– See § 714
- (5) (Reserved)
- (6) Campgrounds
- (7) (Reserved)
- (8) Drive-In Theaters– See § 736
- (9) Game or Hunting Preserves operated for profit
- (10) Golf Courses and Country Clubs, not including stand-alone golf-driving ranges and miniature golf courses, subject to § 749
- (11) Greenhouses and nurseries selling at retail on the premises
- (12) Incinerators
- (13) Institutional Uses and Structures– See § 753
- (14) Kennels– See § 756
- (15) Livestock Auction Yards
- (16) Essential Service Facilities – See § 737
- (17) Raising of Fur Bearing Animals for profit
- (18) Reserved
- (19) Recreational Field Complex– See § 772
- (20) Reserved
- (21) Sand or Gravel Pits, Quarries– See § 774
- (22) Sawmills
- (23) Veterinary hospitals
- (24) Wireless Communication Facilities – See § 792
- (25) Wind Energy Conversion System (WECS) – See § 780

SECTION 323 I-G (GENERAL MIXED USE INDUSTRIAL BUSINESS)

PURPOSE The intent of the General Mixed Use Industrial Business (I-G) District is to remain primarily industrial in nature while allowing a limited number of non-industrial uses that are envisioned as accessory or complimentary to existing and future industrial uses of the districts. Non-industrial uses of property within these districts are subject to industrial impacts from adjacent parcels including, but not limited to, noise, dust, and vibrations.

A. USES PERMITTED BY RIGHT:


- (1) Accessory Uses, including retail sales of products warehoused or produced on the premises
- (2) Animal Kennels (indoor/outdoor)
- (3) Auto Service, including:
 - (a) Mechanics
 - (b) Body Shops
 - (c) Detailing
 - (d) Tire Sales and Service
- (4) Catering Establishment
- (5) Contractor's Establishment
- (6) Data Centers and Computer Operations
- (7) Indoor Entertainment Center
- (8) Manufacturing (Light)
- (9) Reserved
- (10) Passenger Terminal
- (11) Pet Grooming Establishment
- (12) Photographic reproduction, blueprinting, or related trades and arts
- (13) Printing and publishing (i.e. newspaper)
- (14) Public Utility Structures
- (15) Public Areas, Public Parks, and Public and Private Conservation Areas
- (16) Recreational Facility
- (17) Sawmill and Lumber Processing (indoor)
- (18) Taxi Terminal and Dispatch Center
- (19) Veterinary Hospitals
- (20) Warehouses, including but not limited to:
 - (a) Storage facilities for sand, gravel, stone, and contractor's equipment
 - (b) Small warehousing establishments, with totally enclosed storage
 - (c) Wholesale Operations
 - (d) Distribution Centers
- (21) Reserved

B. USES PERMITTED BY SPECIAL CONDITIONS:

- (1) Automobile showroom (indoor sales and display only)
- (2) Central Dry Cleaning Plant provided there is no retail customer contact
- (3) Limited Residential - See § 616
- (4) Medical Marihuana Cultivation Facility subject to § 757
- (5) Outdoor storage as principal use provided that the use is within a fenced and properly screened area
- (6) Research and Design, provided there is no use of materials having high toxicity, radioactivity, or explosive properties, including but not limited to:
 - (a) Engineering
 - (b) High Tech Research
 - (c) Trade or Industrial Schools
 - (d) Business Colleges
 - (e) Industrial, Research, or Business Park
- (7) Accessory automobile sales related to principal mechanic and body shop uses, provided that no additional signage for the sale of the vehicles is permitted and that no more than three vehicles are permitted to be displayed for sale at any point.

C. USES PERMITTED BY SPECIAL USE PERMIT:

- | | |
|---|--|
| <ol style="list-style-type: none">(1) Auto Service, including:<ol style="list-style-type: none">(a) Automobile Laundries - See § 712(b) Gasoline Service Stations - See § 748(c) Oil Change Facilities(2) Institutional Uses and Structures - See § 753(3) Limited Residential - See § 616(4) Mortuary- See § 764(5) Mechanical Amusement Arcades(6) Offices(7) Parking Facility (i.e. ramp; accessory to principal use)(8) Processing Operations not otherwise identified in § 323(A) or (B)(9) Professional Studios | <ol style="list-style-type: none">(10) Retail, including:<ol style="list-style-type: none">(a) Building Supply/Equipment Store(b) Equipment Sales and Service See § 740(c) Furniture Store(d) Low-Volume Retail(e) Reserved(f) Pet Shop(g) Retail Dry Cleaning Operation (including direct retail customer pickup)(h) Automobile Dealerships(11) Truck or Rail Freight Terminal(12) WECS - See § 780(13) Wireless Communication Facilities See § 792 |
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|  | | Charter Township of Garfield | |
| | | Planning Department Report No. 2020-155 | |
| Prepared: | November 4, 2020 | Pages: | 1 |
| Meeting: | November 12, 2020 Planning Commission | Attachments: | <input checked="" type="checkbox"/> |
| Subject: | Requirements for Siting Solar Energy Systems – Public Hearing | | |

STAFF COMMENT:

The Planning Commission discussed proposed regulations for solar energy systems at their June, July, and August study sessions in response to increased interest in solar energy systems, particularly solar arrays, in the region. The proposed Zoning Ordinance amendment was introduced at the October 14, 2020 meeting. Commissioners were mostly comfortable with the proposed amendment with a minor change in language. The proposed amendment would add new regulations for solar energy systems and include new additional language for essential service facilities.

For clarification, Staff removed the third item from the definitions for “Solar Energy System, Accessory” (The footprint of the system does not exceed one acre) and “Solar Energy System, Primary” (The footprint of the system exceeds one acre). The remaining language adequately distinguishes between the two types of solar energy systems based on their function rather than size.

The affected sections of the Zoning Ordinance, including proposed changes, are attached to this report.

ACTION REQUESTED:

Following discussion and the public hearing, if the Commissioners feel that the proposed amendment to the Zoning Ordinance, as attached to this report, is appropriate, then the following motions are offered for your consideration:

MOTION THAT the proposed amendment to the Garfield Township Zoning Ordinance, as attached to Planning Department Report 2020-155, BE ADOPTED, and

MOTION THAT the proposed amendment to the Garfield Township Zoning Ordinance, as attached to Planning Department Report 2020-155, BE RECOMMENDED FOR ADOPTION by the Township Board.

Attachments:

1. Proposed amendment to the Garfield Township Zoning Ordinance, including proposed changes.

SECTION 201 GENERAL DEFINITIONS

For the purpose of this Ordinance, certain terms or words used herein shall be interpreted or defined as follows:

Solar Collector Surface: Any part of a solar energy system that absorbs solar energy for use in the system's transformation process. The collector surface does not include frames, supports, and mounting hardware.

Solar Energy: Radiant energy received from the sun that can be collected in the form of heat or light by a solar energy system.

Solar Energy System: A system (including solar collectors and ancillary equipment) either affixed to a permanent principal or accessory building or functioning as a freestanding structure, that collects, stores, and distributes solar energy for heating or cooling, generating electricity, or heating water. Solar energy systems include, but are not limited to, photovoltaic (PV) power systems and solar thermal systems. Solar energy systems shall not be considered essential services. Solar energy systems do not include a panel or panel array less than 10 square feet.

Solar Energy System, Accessory: A solar energy system that meets the following:

- (1) The system is an accessory use of the property.
- (2) The system is primarily used for generating electricity for on-site use.

Solar Energy System, Primary: A solar energy system that meets the following:

- (1) The system is the primary use of the property.
- (2) The system is primarily used for generating electricity for sale and distribution off-site.

Solar Equipment, Ancillary: Any accessory part or device of a solar energy system that does not require direct access to sunlight, such as but not limited to batteries, electric meters, converters, or water heater tanks.

This Section is intended to permit the installation of Essential Service Facilities in any zoning district subject to conformance with this zoning ordinance, township ordinance, and/or State law, and in such a manner that the health, safety and welfare of the Township will not be adversely affected. Essential services should also be installed in cognizance of existing and projected demands for such services.

A. MINOR ESSENTIAL SERVICES

- (1) Minor Essential services shall be permitted by right within the Township, subject to regulation as provided by law of the State of Michigan, and/or in any ordinance of the Township.
- (2) Except as otherwise restricted by this ordinance, the following are considered Minor Essential Service Facilities and are permitted in all zoning districts:
 - (a) Underground or aboveground utility facilities such as water mains, sewer mains and lift stations, electrical, gas, cable television and broadband distribution lines and transformers, switches, utility boxes and other equipment associated with the services provided that are designed to serve primarily Garfield Township and any adjacent community and provided the height above grade of any facility does not exceed fifty (50) feet.
 - (b) Any other facilities similar in scale and scope to the above, as determined by the Director of Planning, shall be considered a Minor Essential Service Facility.
 - (c) Essential Service Facilities other than those described above shall be considered Major Essential Service Facilities.

B. MAJOR ESSENTIAL SERVICES

- (1) Major Essential Service Facilities are public service facilities which, because of their size or nature, are more likely to have an adverse impact on surrounding properties or the community as a whole. Major Essential Service Facilities may be permitted by special use permit in any zoning district provided it is demonstrated that the requirements of this section and all other applicable sections of this ordinance are satisfied.
- (2) In considering applications for the placement of any Major Essential Service Facilities the Township shall consider the effects of the proposed project upon the health, safety and welfare of the Township, as existing and anticipated; and the effect of the proposed project upon the Master Plan. In addition, the following specific standards shall be reviewed as they may apply to the application:
 - (a) An applicant proposing a Major Essential Service Facility in a residential district shall demonstrate that there are no other feasible and prudent alternatives than to locate the Major Essential Service Facility in the proposed location. Furthermore, the applicant shall show that all reasonable efforts to locate the Major Essential Service Facility in an adjacent zoning jurisdiction have proven impracticable or an incompatible land use as determined by the Planning Commission.
 - (b) All above ground major essential service facilities shall be located in conformance with the yard, lot width and lot area standards of this ordinance.
 - (c) With the exception of elevated water storage facilities and electrical transmission towers

and poles, major essential service facilities shall not exceed the maximum height requirements of the zoning district in which they are located.

- (d) Major essential service facilities located out-of-doors shall to the extent possible be screened from view from adjoining properties and from road rights-of-way.
 - (e) Equipment buildings intended to house major essential service facilities, such as well houses, pump buildings or equipment shelters, shall be constructed of face brick, decorative masonry, cement board or wood lap siding designed to resemble nearby structures. Provided, that a side of such equipment building that is not visible from a public right-of-way, may be constructed of common cement block or metal panels, if further screened with evergreen landscaping.
 - (f) Any above ground Major Essential Service Facility shall be fully secured from unauthorized entry either by construction of the facility itself or through fencing which meets the requirements of this ordinance.
 - (g) Compliance with the Township Non-Motorized Plan is required.
 - (h) A Major Essential Service Facility located on a vacant parcel shall be considered the principal use of that parcel.
 - (i) An above ground Major Essential Service Facility which is fenced or which is housed in an equipment building shall include a sign placard of not more than two square feet which shall indicate the owner or operator's name, address and emergency contact information. In addition, such facilities shall include any required hazard warning signage.
- (3) Any Major Essential Service Facility which has reached the end of its useful life or has been abandoned consistent with this Section of this Ordinance shall be removed and parcel owners shall be required to restore the site.
- (a) Absent a notice of a proposed date of decommissioning or written notice of extenuating circumstances, a Major Essential Service Facility shall be considered abandoned when it fails to operate continuously for more than one year. The property owner shall physically remove the installation no more than one-hundred and eighty (180) days after the date of discontinued operations.
 - (b) The property owner shall notify the Township and the Planning Commission by certified mail of the proposed date of discontinued operations and plans for removal.
 - (c) If the property owner fails to remove the installation within 180 days of abandonment or the proposed date of decommissioning, the Township is permitted to enter the property and physically remove the installation.
 - (d) Any decommissioning of a Major Essential Service Facility shall include at minimum:
 - (i) Physical removal of all Major Essential Service Facility equipment, structures, buildings, security barriers, and transmission lines from the site.
 - (i) Disposal of all solid and hazardous waste in accordance with local, state and federal waste disposal regulations.
 - (ii) Stabilization and re-vegetation of the site as necessary to minimize erosion.

It is the intent of this Section to permit solar energy systems by regulating their siting, design, and installation to protect public health, safety, and welfare, to ensure compatibility with adjacent land uses, and to protect active farmland, prime soils, and forested properties.

A. ACCESSORY SOLAR ENERGY SYSTEMS


- (1) Accessory solar energy systems shall be permitted by right in any zoning district for on-site use.
- (2) Ground mounted solar energy systems shall only be in a side or rear yard and shall meet or exceed required yard setbacks. Placement of ground mounted solar energy systems is not permitted within the required front yard.
- (3) Roof mounted solar energy equipment shall be located so as not to increase the total height of the structure above the maximum allowable height of the structure on which it is located, in accordance with the applicable zoning district height regulations.
- (4) Ground mounted solar energy systems shall not exceed 10 feet in height and shall be securely anchored into the ground.
- (5) Solar panels shall be placed and arranged such that reflected solar radiation or glare shall not be directed onto adjacent buildings, properties or roadways.

B. PRIMARY SOLAR ENERGY SYSTEMS

- (1) Primary solar energy systems may be permitted by special use permit in any zoning district provided it is demonstrated that the requirements of this section and all other applicable sections of this Ordinance are satisfied.
- (2) All structures and equipment for a primary solar energy system shall be 100 feet from any front property line and 50 feet from any side or rear property line.
- (3) Ground mounted solar energy systems shall not exceed 15 feet in height and shall be securely anchored into the ground.
- (4) Solar panels shall be placed and arranged such that reflected solar radiation or glare shall not be directed onto adjacent buildings, properties or roadways.
- (5) Primary solar energy systems shall not include any image except to identify the manufacturer or operator of the solar energy system. All signage shall conform to the requirements of this Ordinance.
- (6) All utility collection lines from the primary solar energy system shall be placed underground.
- (7) Primary solar energy systems shall provide a Type "D" buffer for all adjacent land uses as required in Section 531.G of this Ordinance.
- (8) The primary solar energy system operator shall maintain the facility in good condition, including but not limited to structural repairs and integrity of security measures and maintaining site access to a level acceptable to local emergency response personnel.
- (9) The applicant for a primary solar energy system shall provide a form of surety, either through escrow account, bond, or otherwise, to cover the cost of removal of the system in the event the Township removes the installation as authorized in this section. The applicant shall submit a

fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation. The amount and form of financial surety is to be determined by the Planning Commission, but in no event to exceed more than 125 percent of the cost of removal and compliance with the additional requirements set forth herein. The amount of financial surety shall be reviewed by the Planning Commission every 10 years and may be adjusted by the Planning Commission to reflect increased cost of removal and compliance with the additional requirements set forth herein.

- (10) Any primary solar energy system which has reached the end of its useful life or has been abandoned consistent with this Section of this Ordinance shall be removed and parcel owners shall be required to restore the site.
- (a) Absent a notice of a proposed date of decommissioning or written notice of extenuating circumstances, a primary solar energy system shall be considered abandoned when it fails to operate continuously for more than one year. The property owner shall physically remove the installation no more than one-hundred and eighty (180) days after the date of discontinued operations.
 - (b) The property owner shall notify the Township and the Planning Commission by certified mail of the proposed date of discontinued operations and plans for removal.
 - (c) If the property owner fails to remove the installation within 180 days of abandonment or the proposed date of decommissioning, the Township is permitted to enter the property and physically remove the installation.
 - (d) Any decommissioning of a primary solar energy system shall include at minimum:
 - (i) Physical removal of all aboveground primary solar energy systems and ancillary solar equipment, structures, equipment, security barriers, and transmission lines from the site.
 - (ii) Disposal of all solid and hazardous waste in accordance with local, state and federal waste disposal regulations. Any hazardous material in the solar panels, electronics and parts are required to provide proper disposal and profiling and documentation of the disposal.
 - (iii) Stabilization and re-vegetation of the site as necessary to minimize erosion.

| | | | |
|---|---|--------------|-------------------------------------|
|  Charter Township of Garfield Planning Department Report No. 2020-153 | | | |
| Prepared: | November 5, 2020 | Pages: | 5 |
| Meeting: | November 12, 2020 Planning Commission | Attachments: | <input checked="" type="checkbox"/> |
| Subject: | Oakleaf Village of Garfield Township PUD – Final Review | | |
| Applicant: | Wallick Communities | | |
| Owner: | OTTO, LLC | | |
| File No. | PUD 2020-01 | | |
| Parcel No. | 05-018-013-00 | | |

SUBJECT PROPERTY:

- 5143 North Long Lake Road, west of Zimmerman Road
- 52.56 acres in area
- Currently undeveloped open land
- A-Agricultural zoning

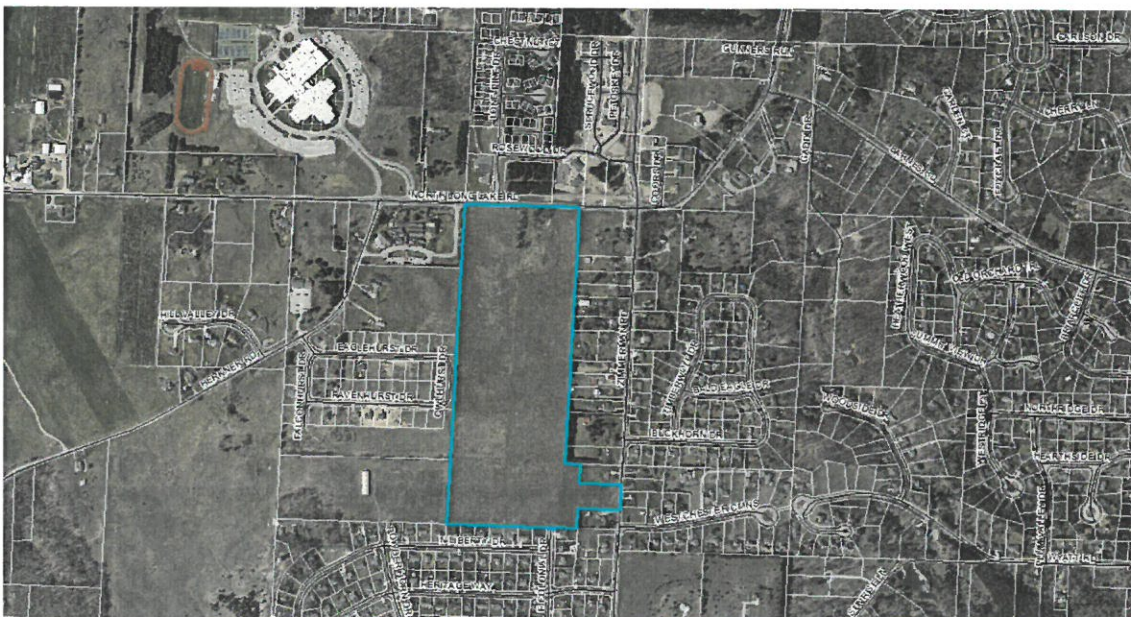
PURPOSE OF APPLICATION:

The application proposes a Planned Unit Development (PUD) for senior living campus including the following:

- Phase 1 – 154 units
 - 155,000 square-foot one-story and two-story licensed Adult Care Facility (50 Independent Living Apartments, 60 Assisted Living, and 24 Memory Care units)
 - 20 Independent Living detached villas
 - 1,800 square-foot maintenance building
- Phase 2 – 75 units
 - 33 detached single-family homes
 - Addition to Adult Care Facility (30 Assisted Living and 12 Memory Care units)

Based on this configuration, 229 total units are proposed.

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



PROCEDURE:

PUD applications are reviewed in a two-step process. Preliminary Approval for the Oakleaf Village PUD was granted by the Township Board on July 14, 2020. The applicant is now returning for Final Approval of the PUD application. The Planning Commission will be conducting a final review and making a recommendation at this meeting. Upon receipt of the Planning Commission's recommendation, the Township Board will hold a public hearing before consideration of approval at its meeting on December 8, 2020.

AGENCY REVIEWS:

The following agency reviews have been conducted:

- Township Engineer – Water and Sewer Review
- Township Engineer – Stormwater Review
- Grand Traverse County Road Commission
- Grand Traverse County Metro Fire Department
- Grand Traverse County Soil Erosion & Sedimentation Control

FINDINGS OF FACT:

- 1) An application has been received to develop a 229-unit Planned Unit Development (PUD) for senior living (including an adult care facility and detached villas) and single-family residential dwellings.
- 2) The proposed development will be comprised of the following two phases:
 - a. Phase 1 – 154 units containing a 155,000 square-foot one-story and two-story licensed Adult Care Facility (50 Independent Living Apartments, 60 Assisted Living, and 24 Memory Care units), 20 Independent Living detached villas, and an 1,800 square-foot maintenance building
 - b. Phase 2 – 75 units containing 33 detached single-family homes and an Addition to Adult Care Facility (30 Assisted Living and 12 Memory Care units)
- 3) The subject parcel is 52.56 acres located at 5143 North Long Lake Road.

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 a variety of senior living and single family residential housing units which are compatible with surrounding institutional, multi-family, and single-family residential uses; are located on a large parcel which will provide open space and landscaping between uses; and will not have an adverse impact on adjacent or surrounding 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 this standard HAS BEEN MET. The proposed development is located in an area with a variety of existing institutional, office, and residential uses and will be adequately served by existing available services,

including water and sewer services. Other agency reviews have been conducted to ensure that road design and emergency service requirements have been met.

- (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 proposed development includes outdoor amenities such as a multi-use path, pocket neighborhood parks, outdoor patio, gazebos, pickleball courts and water features. The development will include many indoor amenities for residents including 24-hour care and security, state of the art dining and exercise facilities, multi-purpose room used for movie nights and large group activities, bistros and pubs, classes, planned indoor and outdoor activities, beauty salon and barbershop, and large living rooms to gather with friends and family.
- (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. The proposed development has an extensive landscaping plan that utilizes existing trees where possible, provides landscaped buffers with adjacent properties and creates an attractive visual aesthetic for the site.
- (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 applicant has made reasonable efforts to provide open space on the property. The previous use of the site was farmland with no identifiable features.
- (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 building setbacks are compatible and create a residential campus setting for all the uses. Building architecture, street layouts, signs, park features, and landscaping create a unified look for the development.
- (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 proposed roadways, drives, sidewalks, and walking paths are laid out in a cohesive manner, including safe and separate areas for pedestrians and vehicles. Two previous issues have been resolved:

- i. The Road Commission approved a public street connection in Phase II between the two adjacent neighborhoods, Heritage Estates and Eaglehurst Estates.
 - ii. The applicant prepared a Traffic Impact Report. Based on the Report and as required by the Road Commission, the applicant designed the appropriate improvements along North Long Lake Road for Phase I. A two-way left-turn lane will be constructed along Long Lake Road from Lone Pine Drive to Zimmerman Road to provide a continuous center lane from the high school driveway to Zimmerman Road. However, for Phase II, the Road Commission would like an evaluation performed for the project impact on Zimmerman Road prior to construction.
- (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 consistent landscaping is proposed that is attractive and serves to provide buffers where needed.
- (i) The development consolidates and maximizes useable open space;
- Finding: The Planning Commission finds that the standard HAS BEEN MET because the development plan provides approximately 12.6 acres of open space. Common areas and activities have also been identified, including a multi-use path, pocket neighborhood parks, outdoor patio, gazebos, pickleball courts and water features.
- (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 development plan presents a 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 development plan remains generally consistent with the Master Plan and surrounding existing land uses. The planned density for the PUD is approximately 4.4 units per acre. Planned unit developments in the vicinity have densities ranging from 3.4 to 4.8 units per acre.

ACTION REQUESTED:

The following motion is offered for consideration:

MOTION THAT the Findings of Fact for application PUD 2020-01, as presented in Planning Department Report 2020-153, BE ADOPTED.

The following motion is recommended to grant *final* approval for the project in accordance with Section 426 of the Zoning Ordinance.

MOTION THAT Application PUD 2020-01, submitted by Wallick Communities for the Oakleaf Village of Garfield Township PUD, BE RECOMMENDED FOR FINAL APPROVAL by the TOWNSHIP BOARD subject to the following condition:

1. An updated traffic analysis will be required for Phase II of the PUD prior to its construction to determine needed improvements for the Zimmerman Road entrance.

Attachments:

1. Township Engineer (GFA) – Water and Sewer Review – November 3, 2020
2. Township Engineer (GFA) – Stormwater Review – November 5, 2020
3. Township Engineer (GFA) – Private Road Review – November 5, 2020
4. Grand Traverse County Road Commission Permit – November 5, 2020
5. Grand Traverse Metro Fire Department – October 21, 2020
6. Grand Traverse County Soil Erosion & Sedimentation Control – October 14, 2020
7. Conclusions and Recommendations from Traffic Impact Study prepared by Progressive AE – August, 2020
8. Oakleaf Village of Garfield Township PUD Plan Set – October 30, 2020



Engineering
Surveying
Testing &
Operations

123 West Front Street
Traverse City, Michigan 49684
231.946.5874 
231.946.3703 

November 3, 2020

Charter Township of Garfield
Attn: Chuck Korn, Supervisor
3848 Veterans Drive
Traverse City, Michigan 49684

RE: Oakleaf Village- Phase I
Water Main and Sanitary Sewer Extension
GFA No. 20231

Dear Mr. Korn,

We have reviewed the plans for the proposed water and sewer system improvements associated with the above referenced project. The review was based on the current standards adopted by Garfield Township in conjunction with the Grand Traverse County Department of Public Works as well as Michigan Department of Environmental Quality requirements, Ten State Standards and accepted engineering practice for this area. The plans were prepared by Landtech and dated 10-19-20.

A preliminary review was conducted by GFA with comments and revisions submitted via email. A revised set of plans were submitted to our office dated 10-30-2020. The revised plans are found to be acceptable and the following general comments are to be acknowledged with a letter of understanding.

DESCRIPTION OF THE PROPOSED PROJECT

The project consists of approximately 3,800 linear feet and 350 linear feet of 8-inch water main and 6-inch water main (respectively), hydrants and service leads and 2,530 linear feet of 8-inch sanitary sewer main including manholes and service leads. Infrastructure is to connect to available existing infrastructure and provide extension to extension to service an independent and assisted living facility complex located along North Long Lake Road just east of Zimmerman Road. Phase I includes construction of twenty (20) villas and one (1) main building providing 60 assisted living units, 50 independent living units and 24 memory care units.

IMPACT ON THE EXISTING SYSTEM

SANITARY SEWER SYSTEM

The Garfield Township sanitary sewer collection system is divided up into eight (8) distinct service areas, designated by name according to the primary trunkline running along the respective road. In this case the proposed development would be immediately serviced by the Wyatt Road Service District. The extension proposes to connect to the existing sanitary sewer system at one (1) location, Manhole No. 951 located in the Eaglehurst Development. From this location, the flow will follow the 8-inch diameter gravity sewer system flowing south through the Heritage Estates development, transition to a 12-inch diameter flowing east along Wyatt Road, then northeast to Franke Road, then east to US-31 and north along US-31 to the political boundary of the City of Traverse City. This flow then discharges directly into



the Traverse City Front Street Lift Station (No. 1), located along Front Street west of the Wellington Street intersection. Review of the downstream capacity, the immediate 8" sanitary sewer and siphon on M37 both have a remaining available capacity of approximately 200 GPM. A preliminary evaluation of the sanitary systems capacity, with respect to the demands required to serve the extension that are projected to be around 60 GPM support the ability for the Township to accept and process the sanitary sewer flows. A further review will be completed and submitted to EGLE for acceptance and permitting of the development at a later date at which time GFA will complete a more in depth analysis of the sewer capacity.

WATER SYSTEM

The Garfield Township water distribution system is divided up into five (5) distinct service districts with the limits defined by the existing infrastructure that services the users. In this case the proposed developed would be immediately serviced by the Heritage District. The Development proposed to connect to the existing 12" watermain along North Long Lake Road and the existing 8" watermain in Eaglehurst.

The proposed development will be directly served by the newly constructed ground storage tank, sized at 1,000,000 gallons (1.0 MG), located off Cedar Run Road. The tank maintains water pressure (minimum 40 psi) to the system users but is restricted to surface elevation of 1005 and less. This zone provides domestic and fire suppression to the users it serves. The storage facility for this district is a 2.25 million gallon underground tank located off McRae Hill Road, just south of Silver Pines Road, which supplies the new Tank via Garfield Booster Station No. 3, located along Silver Pines Road (west of McRae Hill Road). The overall capacity of this service district is limited by the firm capacity of Garfield Booster Station No. 3 rated at 2,300 gpm (3.31 MGD). The current Maximum Day Usage for the district is 2.21 MGD. Hydrant testing results recently completed for the area indicated available flows of 1,500 GPM with static and working pressures of 75 and 45 psi respectively.

A preliminary evaluation of the water system capacity, with respect to the demands required to serve the extension that are projected to be around 0.0435 MGD and support the ability for the Township to accept and provide adequate water service. It should be noted the Township is in the process of reorganizing pressure districts on this side of town and there is potential that a portion of this development will need to be serviced by the upper pressure district (station no. 5). There was limited information available to the number of stories and required fire flow for the development and once received modifications to the service may be necessary. A further review will be completed and submitted to EGLE for acceptance and permitting of the development at a later date at which time GFA will complete a more in-depth analysis.

General Comments

1. All design standards shall comply with the Current Standards adopted by Grand Traverse County Sewer and Water Systems. Copies may be obtained from the Grand Traverse County Department of Public Works.
2. All construction standards shall comply with the Current Grand Traverse County Specifications and Details for Sewer and Water System. Copies may be obtained from the Grand Traverse County Department of Public Works.



3. Please ensure all local regulatory permits including Soil Erosion and EGLE NPDES Permits are obtained. Please ensure Township receives copies of issued permits.
4. Please ensure all easements have been obtained and recorded with the Township prior to final acceptance of the utilities.
5. Please ensure the Grand Traverse County DPW and Fire Department has reviewed the proposed plans and accepted.
6. Please note per the Grand Traverse County BPW requirements:

“Any water main and sewer main meeting requirements applicable to public water mains and sewer mains which services two or more separate buildings or dwellings shall be deemed a public water main unless the buildings are part of a singly-owned industrial or commercial complex or a public complex where future division of ownership is not anticipated, and the extension of the system will not be required by the Township”

Please clarify if the buildings are to be owned by one common entity and the intentions for installation of water meters for each of the buildings.

7. The installation of watermain, sewer main, hydrants, valves, and manholes shall not be installed within proposed sidewalk, and/or asphalt that would inhibit access by the DPW. Please ensure that there are no obstructions that would prohibit access. If this cannot be complied with, please note the DPW is not responsible for any costs associated with replacement of such infrastructure such as the parking lot, dumpster pad and access drives. It appears some of the hydrants are in close proximity to the proposed sidewalk.
8. Please also note the following: In order for a developer to obtain their building permit and begin site work all permits must be issued including benefit fee payment to the DPW. However, the DPW cannot accept this payment unless the infrastructure is either in place (water / sewer main) or a bond is provided by the developer equivalent to 100% of the cost of the utility. Please contact the DPW if you need further clarification, etc.
9. Two (2) Benchmarks must be provided on each plan sheet.
10. Please note per the BPW design standards all utilities are to be extended to the limits of the property if topography permits. Per notes identified on the plans, with the succession of Phase II, the applicant agrees to extend applicable sanitary sewer and watermain to the limits of their property.
11. Proposed easements shall be shown on the drawings for the utilities. Please note that a 20' minimum are to be provided to facilitate access for the DPW centered over each pipe. This includes, hydrants, leads, etc. Final easements upon completion of project shall be surveyed, sealed and recorded prior to acceptance of the utility.
12. This review does not evaluate the ability to provide basement and/or second story service for either water or sewer. Our review is limited to review to ensure adequate finish floor service is sufficient to meet 10 State Standards. The applicant is responsible to ensure sufficient pressures and capacity are sufficient for both basement and second story in compliance with Michigan Plumbing Code.

At this time GFA finds the application and proposed plans acceptable and recommend approval by both the Township Planning Commission and Township Board. It is requested the applicant provide a formal



acknowledgement letter of the above items along with submission of five (5) copies of signed and sealed plans and specifications and one (1) pdf copy respectively.

We appreciate the opportunity to assist the Township during the approval of this project. If you have any questions, please don't hesitate to contact me at (231) 946-5874.

Sincerely,

Jennifer Hodges, P.E.
Project Manager

Mark Maguire, P.E.
Project Engineer

CC:

Mr. John Sych, Garfield Township
Mr. John Urbain, PE – Landtech
Mr. Jeff Black, Rembrandt Construction



November 5, 2020

Mr. Michael Green, Zoning Administrator
Charter Township of Garfield
3848 Veterans Drive
Traverse City, MI 49684

RE: Oakleaf Village- Phase I
Storm Water Review
GFA No. 20321

Dear Mr. Green,

The following summarizes of GFA's storm water review of the of the plans for the Oakleaf Village - Phase I. Revised plans and storm water management summary were prepared by Landtech and dated 10-30-30 and 10-29-30, respectively. The submitted items were in response to GFA's initial storm water review dated 10-27-20. We have reviewed the plans for their accordance to Garfield Township's Storm Water Control Ordinance Number 49, hereinafter referred to the Ordinance. A summary of our review is as follows.

EXISTING CONDITIONS

Site & Storm Water Conditions

1. The existing terrain is undulating with and drainage sheds south from North Long Lake road. The parcel is approximately 52.5-ac of undeveloped land.
2. The undulating land forms localized natural depressions in the south part of the property where existing runoff can be stored and seep into the ground.
3. No apparent outlet is available for the site.
4. A geotechnical report and soil borings were completed for this project and indicate granular soils and no ground water was encountered in the study.

PROPOSED SITE PLAN

The proposed plan shows phased development of the site. Phase I is currently proposed and develops the north half of the property which consists of 29.9 ac. The phase includes twenty (20) cottages and one larger multi-use building (congregate building). A network of paved private drives and parking is shown throughout. Primary access to the site is with a divided commercial drive off North Long Lake Road. Emergency access is provided off N. Long Lake Rd east of the main entrance. Drainage of the access drives shed on-site. A storm water management plan is proposed that consists of a series of piping and catchbasins that collect stormwater to convey to an onsite centrally located storm water retention basin.



Determination of Surface Runoff

1. Storm water is managed on-site with a system of paved roads, storm sewer, and one retention basin. The storm sewer collects drainage and routes all drainage from the proposed phase to the retention basin located in the south-middle of the property.
2. The hydrology method used is the CN method (SCS)
3. A HydroCAD Model was used to calculate the surface runoff volumes. The design rainfall and depths used appear acceptable. Back to back 100-year events were evaluated for the proposed retention basin.
4. Drainage areas are clearly shown on the plans and show management of the entire developed area.
5. Some minor off-site drainage is included in the calculations as well.

Conveyance system

1. Storm sewer calculations were provided.
2. The calculations show the system meeting ordinance requirements to convey the 10-year and indicate no adverse effects from the 25-year flows.
3. Storm sewer pipe is ADS N-12 pipe and is an MDOT approved smooth lined plastic pipe.
4. Pipe sized, roughness, and slopes meet Ordinance criteria.
5. The plans do not depict how the stormwater is collected and managed from the building roofs or if footing drains are to be installed. It is recommended the applicant address this comment and consider incorporating gutters and downspouts to connect into the proposed storm network.
6. Approval for the driveway shall be obtained by the GTCRC which may require a cross culvert to be installed at the entrance. Applicant responsible to coordinate and provide if required in addition to permit to Township for their files.

Storm Water Facilities

Retention Basin:

1. The retention basin is shown with sufficient storage for the back-to-back 100 year event.
2. The design high water level is shown and is well below the adjacent buildings.
3. It's noted that 6-in/hr infiltration rate is modeled at the pond. This is reasonable for the soils for the area and supported by the testing results.
4. Per the ordinance, the applicant checked the condition where infiltration is zero. A flooded area was shown in the southerly PH II part of the property. An existing sanitary manhole and some low-lying neighboring properties are within this zone. No adverse change from existing conditions are expected.
5. The proposed forebays to the retention basin exceed the required volume.
6. The retention pond water depth is less than five feet deep. Therefore, no additional safety measures area required.
7. It is noted the provided calculations apply for Phase I only. Connections during future phases will require additional analysis and be evaluated at the time of submittal for consideration.



Erosion Control

8. Sufficient measures for erosion control are present on the plans. It is recommended the Design Engineer should provide provisions in the Plans to address slopes graded in excess of 3:1 (three feet of horizontal to one feet of vertical change). It is suggested the use of Turf Reinforcement Matting (TRM) in the event that mulch blanketing is not adequate to stabilize grading slopes.
9. The applicant is responsible to obtain SESC and NPDES NOC permit and provide copies to the Township for their files.

Maintenance

10. A Site Maintenance Plan and Budget was included and appears to be acceptable. Document to be recorded and copy provided to the Township.
11. Please clarify the plan for maintenance of the central pond. Are there means to prevent stagnation and mosquito breeding such as a fountain?
12. Snow storage shows adequate management. No storage is planned within the proposed basin.

RECOMMENDATION

The plans are considered approved as submitted subject to the applicant provided corrective revisions to the plans and /or clarification to address our comments noted above.. At this point it is requested the Applicant submit a final signed and sealed copy of the revised plans with corrections (as applicable) to the Township.

We appreciate the opportunity to assist the Township during the approval of this project. If you have any questions, please don't hesitate to contact me at (231) 946-5874.

Sincerely,

GFA

Handwritten signature of Jennifer Hodges in black ink.

Jennifer Hodges, P.E.
Project Manager

Handwritten signature of Mark Maguire in black ink.

Mark Maguire, P.E.
Project Engineer

CC:

- Mr. John Sych, Garfield Township
- Mr. John Urbain, PE – Landtech
- Mr. Jeff Black, Rembrandt Construction



November 5, 2020

Mr. Michael Green, Zoning Administrator
Charter Township of Garfield
3848 Veterans Drive
Traverse City, MI 49684

RE: Oakleaf Village – Phase I Private Road Review
Garfield Township, Grand Traverse County, Michigan
Job # 20321

Dear Mr. Green,

We have reviewed the road plans for Phase I of the Oakleaf Village development in Garfield Township. The plans reviewed were prepared by Landtech and dated 10-30-20. Garfield Township Article 5 Development Standards section 521 Street Design and Transportations was referenced in this review. Based upon our review on behalf of Garfield Township with respect to the private roads, we offer the following comments.

Proposed

1. The plans for Phase I propose the construction of a network roads for circulation to service to the large multi-use building, parking areas, and twenty single-unit cottages. The roads also provide a means of circulation or fire apparatus. They are detailed as follows.
 - Minimum paved width shown is 24' and meet or exceed table 5-10 requirements. A majority of these roads have a 26' paved width thus complying with the Ordinance
 - It's noted the access road to assisted living overflow parking lot is 22' wide. This area is considered exempt from table 5-10 width regulations as it's not part of the circulation route nor considered a road.
 - Access is provided with a divided commercial drive entrance off North Long Lake Road along with a gated emergency access drive located east of this entrance. A dead-end is provided at the south limits of Phase I to accommodate future extension to Phase II
 - The Private roads need to be constructed within private easements for ingress / egress a minimum of 48'. The plans shall be updated to reflect these easements. The easements upon completion of the project are to be recorded with copies provided to the Township.
2. The plans show Phase II as future and proposes, a traditional residential development is proposed. Thirty-three 33 units (lots) are shown with network of roads. A preliminary review is as follows
 - 24' paved width and 66' easements are planned and meet table 5-10 requirements.
 - Two points of access are provided off Zimmerman road and PH I road networks.
 - Future connections to the Eaglehurst Estates and Heritage Estate are shown as well promoting connectivity as required in the ordinance.
 - A further more indepth review of Phase II will be completed upon time of application. Preliminarily it appears to comply with the ordinance.



3. Driveway entrances will need to meet GTCRC review. Site distance does not appear to have been evaluated and is subject to approval by GTCRC. Copies of permits shall be provided to the Township for their files
4. The proposed cross-section appears to comply with the Township and GTCRC requirements.
 - The light duty pavement section is comprised of a six-inch 22A compacted gravel base beneath a 13A leveling and top course placed at 165 pounds per square yard each. 18" MDOT CL II sand is indicate as underlying the gravel base. Consideration to modify pavement to LVSP is suggested as it is more industry standard and GTCRC approved.
 - The heavy duty pavement section is comprised of a eight-inch 22A compacted gravel base beneath a 13A leveling and top course placed at 220 and 165 pounds per square yard each. 18" MDOT CL II sand is indicate as underlying the gravel base. Consideration to modify pavement to LVSP is suggested as it is more industry standard and GTCRC approved.
5. The road profile is graded to accommodate the existing terrain and ranges from 0.5% to 8.00% slopes. A maximum slope of 8.93% is shown at the drive entrance to North Long Lake Road although steep it does comply and is less than the ordinance requirements of 9%.
6. The plans do not indicate the proposed design speed. The road profile was reviewed and found not compliant with AASHTO at 25 MPH for vertical curves K values at some points. It's reasonable to assume that a lower design value can be considered however unclear and needs to be clarified.

Maintenance

The Ordinance requires that private roads be maintained by adjoining property owners or users who shall enter into and record an agreement for the joint maintenance of the road in a reasonably safe condition. The developer shall provide appropriate documents to the Township prior issuance of a land use permits.

Certification

The developer shall provide a written certification, signed and sealed by their engineer, certifying the design, construction and installation is compliant with the ordinance prior to issuance of a land use permit.

Connectivity

Cross-access agreements may become necessary for future connections to Eaglehurst Estates and Heritage Estates.

Summary

We find the proposed private road meets the ordinance and recommend approval subject to receiving GTCRC communications, bond, and copies of final signed and sealed plans addressing the above comments.

Please do not hesitate to contact our office with any questions regarding this letter or if you need additional information.

Respectfully Submitted,

GFA



A handwritten signature in black ink that reads "Jennifer Hodges".

Jennifer Hodges, P.E.
Project Manager

A handwritten signature in black ink that reads "Mark Maguire".

Mark Maguire, P.E.
Project Engineer

CC:

Mr. John Sych, Garfield Township
Mr. John Urbain, PE – Landtech
Mr. Jeff Black, Rembrandt Construction



**APPLICATION AND PERMIT TO CONSTRUCT, OPERATE, USE AND/OR MAINTAIN
 WITHIN THE RIGHT-OF-WAY OF; OR TO CLOSE, A COUNTY ROAD
 APPLICATION**

An applicant is defined as an owner of property adjacent to the right-of-way, the property owner's authorized representative; or an authorized representative of a private or public utility who applies for a permit to construct, operate, use, and/or maintain a facility within the right-of-way for the purpose outlined within the application. A contractor who makes application on behalf of a property owner or utility must provide documentation of authority to apply for a permit.

| | | | |
|------------------|---|-------------------|-----|
| APPLICANT | OTTC, LLC - Oakleaf Village 5161 Silver Pines Rd Traverse City, MI 49685-0000 Phone(s): 740-632-8373 - - - Email: mdicarantonio@wallick.com | CONTRACTOR | TBD |
|------------------|---|-------------------|-----|

Applicant/Contractor request a permit for the following work within the right of way of a county road:
 Commercial - Commercial Drive

LOCATION: County Road North Long Lake Between Herkner And Zimmerman

Township Garfield Section _____ Side of Road South Property ID 28-05-018-013-00

DATE: Work to begin on 11/03/2020 Work to be completed by 11/03/2021

I certify and acknowledge that (1) the information contained in this application is true and correct, (2) the commencement of the work described in this application shall constitute acceptance of the permit as issued, including all terms and conditions thereof and, (3) if this permit is for commercial or residential driveway work, I am the legal owner of the property that this driveway will serve, or I am the authorized representative.

Applicant's Signature: On File
 Title: _____ Date: _____

Contractor's Signature: _____
 Title: _____ Date: _____

PERMIT

The term "Permit Holder" in the terms and conditions set forth on the reverse side hereof, refers to the applicant and the contractor, where applicable. By performing work under this permit, the Permit Holder acknowledges and agrees that this permit is subject to all the rules, regulations, terms and conditions set forth herein, including on the reverse side hereof. Failure to comply with any of said rules,

| REQUIREMENTS | FEE TYPE | AMOUNT | RECEIPT NO | DATE | | | |
|--------------|---------------|--------|------------|------|---|----------------------------|---------------------------------------|
| | Commercial RC | 300.00 | | | Letter of Credit _____ | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| | | | | | Surety Bond _____ | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| | | | | | Retainer Letter _____ | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| | | | | | Approved Plans on File _____ | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| | | | | | Certificate of Insurance _____ | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| | | | | | Attachments/Supplemental Specifications _____ | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |

OTHER REQUIREMENTS: Oakleaf Village

Permit to install 2 commercial drives per GTCRC standards as per submitted plans 10/23/2020. Permit valid upon GTCRC approved contractor.

Proper signage and traffic control to comply with MMUTCD standards. No work allowed in County Road ROW during a snow/ice event. Work with in the ROW from Nov.1 thru March 31, requires daily verbal permission from the Road Commission. Erosion control to be established which may include top soil, grass seed, and mulch blanket. Prior approval from the GTCRC is required for a shoulder or lane closure. Temporary lane closure must comply with MMUTCD standards. GTCRC is to be notified 48hrs in advance of the start of work.

GTCRC must be notified and approve the start of any construction on N. Long Lake Rd.

Permit for Phase one. Phase two to be reassessed by the GTCRC at the time development is proposed. Phase 2 entrance off Zimmerman Rd may require a left turn lane with future build out.

Referring to the TIS 88270001, page 15, a two-way left-turn lane is to be constructed along N. Long Lake Rd from Lone Pine Dr to

CRA 100 (03/2005)

Grand Traverse County Road Commission
1881 LaFranier Road
Traverse City, MI 49696-0000
Phone: 231-922-4848
Fax: 231-929-1836

Application No. 13007
Permit No. 2020-000536
Issue Date 11/03/2020

Zimmerman Rd to provide a continuous center turn lane from the High School driveway to Zimmerman Rd. Refer to Plan page C-3.4.

Before work starts within the road ROW, developer to provide legal Release-of-Right-of-way records to the GTCRC.

Recommended for Issuance By:



Title: Traffic Services Supervisor Date: 11/03/2020

Approved By:

Title: _____ Date: _____



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

Site Plan Review # 2

ID # P-1249-M6858

DATE: 10/21/2020

PROJECT NAME: Oakleaf Village of Garfield Township

PROJECT ADDRESS: 5143 N. Long Lake Rd.

TOWNSHIP: Garfield

APPLICANT NAME: Michael DiCarlantonio

APPLICANT COMPANY: Wallick Communities

APPLICANT ADDRESS: 160 W. Main, Ste 200

APPLICANT CITY: New Albany STATE: OH ZIP: 43054

APPLICANT PHONE: 740-632-8373

FAX #

REVIEW FEE:

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

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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 FOR PHASE I OF OAKLEAF VILLAGE

ID # P-1249-M6858

DATE: 10/21/2020

1. 3310.1 Required access.

Approved vehicle access for fire fighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet (30 480 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

- Approved vehicle access for fire fighting shall be provided before combustible material arrives on site and construction begins.

2. 3312.1 Water supply when required.

An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site.

- Approved water supply for fire protection shall be made available before combustible material arrives on site and construction begins.

3. 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.

-Provide address on the street side of buildings under construction as well as permanently post construction.

4. 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.



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

5. 503.3 Marking.

Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING—FIRE LANE shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

- Placement of NO PARKING-FIRE LANE signs shall be determined prior to occupancy.

6. 503.6 Security gates.

The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

7. 103.5 Fire apparatus access road gates.

Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. Where a single gate is provided, the gate width shall be not less than 20 feet (6096 mm). Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet (3658 mm).
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Methods of locking shall be submitted for approval by the fire code official.
7. Electric gate operators, where provided, shall be listed in accordance with UL 325.
8. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

- Locking method for the gate shall be determined prior to final inspection.

Project may proceed with township approval process.

Sarah@northview22.com

GRAND TRAVERSE COUNTY ENVIRONMENTAL HEALTH
SOIL EROSION AND SEDIMENTATION CONTROL
SITE DETERMINATION FORM

PART 91, SOIL EROSION & SEDIMENTATION CONTROL, ACT 451 OF 1994,
AS AMENDED & GTCHD SOIL EROSION SEDIIMENTATION CONTROL ORDINANCE

RECEIVED
OCT 13 2020
Environmental Health

| |
|------------------------|
| Office Use Only |
| Amount: \$ 25.00 |
| Receipt #: 51558 |
| Received By: <i>jm</i> |

Project Type: Residential Multi-Family Commercial

Project Address: 5143 N Long Lake Rd City, Zip: Traverse City, MI 49685

Tax #: 28-05-018-013-00 Twp: Garfield Section: 18 Town: 27 Range: 11

Subdivision: _____ Lot: _____

Size of Earth Change: 30 acres Start Date: 5-2021 Completion Date: 10-2024

Name & Distance to Nearest Surface Water, Wetland or Drain: estimated 6,500' to S Twin Lake/pond

Describe Project: Senior Living Development: Independent, Assisted and Memory Care, Independent Cottages

*** DETERMINATIONS MUST BE SUBMITTED WITH AN ACCURATE SITE PLAN OF PROPOSED WORK***

Owner's Name: OTTC, LLC

Owner's Mailing Address: 5161 Silver Pines Rd City, State, Zip: TC, MI 49685

Owner's Phone: _____ Owner's email: _____

Owner (Seller) signatures: [Signature] Date: 10-8-2020

Applicant (if other than owner): Wallick Communities

Address: 160 W Main St., Ste 200 City, State, Zip: New Albany, OH 40354

Phone: 740-632-8373 Email: mdicarantonio@wallick.com

**Signature: _____ Date: _____

-----DEPARTMENT USE ONLY: COMPLETED BY SANITARIAN-----

THE FOLLOWING CRITERIA DO NOT APPLY:

- | | |
|--|--|
| <input checked="" type="checkbox"/> SOM PA 451, PART 91 REQUIREMENTS | <input checked="" type="checkbox"/> GTCHD SESC REQUIREMENTS |
| <input checked="" type="checkbox"/> Within 500' of Lake or Stream | <input checked="" type="checkbox"/> Within 500' of Regulated Wetland |
| <input type="checkbox"/> Disturb 1 acre or more | <input checked="" type="checkbox"/> Within 500' of a County Drain |
| | <input checked="" type="checkbox"/> Slopes of 20% or greater |
| | <input type="checkbox"/> Group D Hydrologic Soils |

Comments: Nearest lake/stream 2300' East Euphrat stream, 6000' to nearest wetland west, 71 ac, Emmet Gravelly loam 0 -> 18% Slope, no county drains

OFFICE REVIEW FIELD REVIEW

Based on information provided by the Land Owner, the requirement for a Soil Erosion/Sedimentation Control (SESC) Permit has been reviewed in accordance with Part 91, Act 451 of 1994 and the Grand Traverse County Soil Erosion and Sedimentation Control Ordinance, as amended. Grand Traverse County Health Department, County Enforcing Agency, has determined that a SESC Permit is:

NOT REQUIRED REQUIRED

Sanitarian Reviewer: *[Signature]* Date: 10/14/20

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

The chapter summarizes the results of the analyses performed as part of the study. Recommendations to improve the surrounding roadway network are also presented.

Conclusions

Based on the analyses performed as part of this study, the development of the Oakleaf Village site will have little to no impact to the surrounding roadway network. The findings of this study are as follows:

Existing Conditions

The existing conditions capacity analyses show the signalized intersections within the study area are currently operating at an overall LoS "C" or better during the morning and afternoon peak-hours. All individual movements at the signalized and unsignalized intersections currently operate at LoS "D" or better during the morning and afternoon peak-hours, except for the following movements.

- The southbound left-turn movement at the high school exit driveway currently operates at LoS "E" during the morning and afternoon peak-hours. This would be considered acceptable and is attributed to the 120-second cycle length and the signal timing favoring east-west traffic along Long Lake Road.
- The southbound approach movements at the Long Lake Road/Zimmerman Road intersection currently operate at LoS "E" and LoS "F" during the morning and afternoon peak-hours. This would be considered acceptable as these are low volume movements and the signal timing favors the east-west movements along Long Lake Road and the northbound left-turn movement from Zimmerman Road.

Future (2023) and Future (2028) Conditions

The future (2023) and future (2028) conditions capacity analyses show all signalized intersections are anticipated to continue to operate at an overall LoS "C" or better during the morning and afternoon peak-hours. All individual movements at the signalized and unsignalized intersections are anticipated to continue to operate at LoS "D" or better during the morning and afternoon peak-hours, except for the same movements as existing conditions shown above.

The application of MDOT's turn lane warrant guidelines show an eastbound right-turn lane would not be warranted at the proposed driveway to Long Lake Road after the completion of Phase I or Phase II. Similarly, neither a northbound left-turn lane nor a southbound right-turn lane would be warranted at the proposed Phase II driveway to Zimmerman Road.

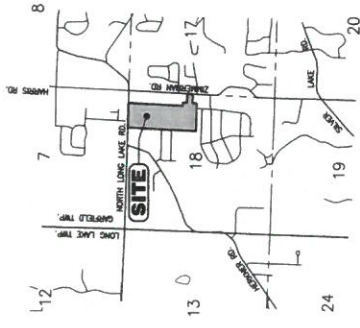
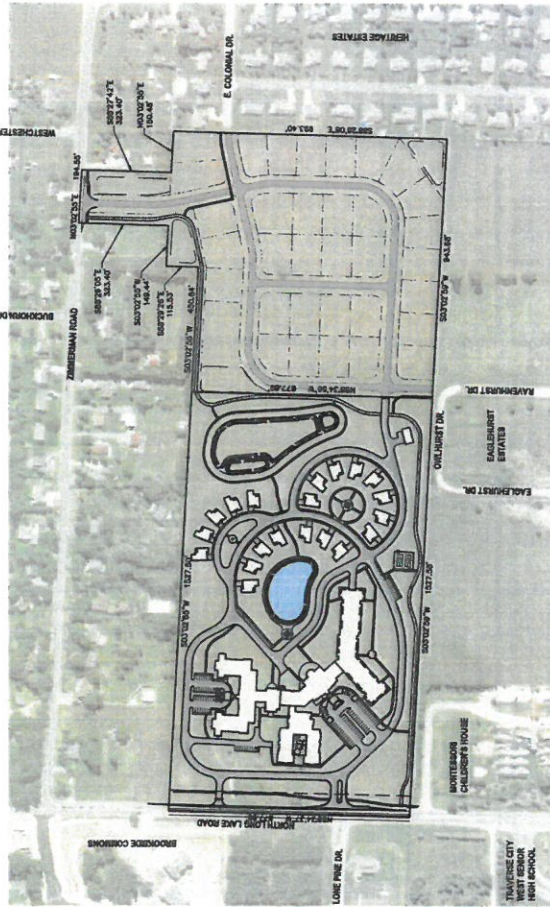
Recommendations

The following is a list of recommendations to mitigate the impact of the Oakleaf Village development and improve operations within the study area:

- As proposed, a two-way left-turn lane should be constructed along Long Lake Road from Lone Pine Drive to Zimmerman Road to provide a continuous center lane from the high school driveway to Zimmerman Road.
- No additional improvements would be recommended to mitigate the impacts of the proposed development.

OAKLEAF VILLAGE OF GARFIELD TOWNSHIP

PLANNED UNIT DEVELOPMENT
 NE 1/4, SECTION 16, T27N-R11W
 GARFIELD CHARTER TOWNSHIP
 GRAND TRAVERSE COUNTY, MICHIGAN



SITE LOCATION MAP
 NOT TO SCALE

| Sheet Number | Sheet Title |
|--------------|--|
| C7.0 | Existing Conditions and Orientation Plan |
| C8.0 | Site Location and Submittal Control Plan |
| C9.0 | Site Layout Plan (Phase 1) |
| C10.0 | Site Layout Plan (Phase 2) |
| C11.0 | Site Layout Plan (Phase 3) |
| C12.0 | Site Layout Plan (Phase 4) |
| C13.0 | Site Layout Plan (Phase 5) |
| C14.0 | Site Layout Plan (Phase 6) |
| C15.0 | Site Layout Plan (Phase 7) |
| C16.0 | Site Layout Plan (Phase 8) |
| C17.0 | Site Layout Plan (Phase 9) |
| C18.0 | Site Layout Plan (Phase 10) |
| C19.0 | Site Layout Plan (Phase 11) |
| C20.0 | Overall Grading Plan |
| C21.0 | Grading Detail Sheet 1 |
| C22.0 | Grading Detail Sheet 2 |
| C23.0 | Plan and Profile Sheet 1 |
| C24.0 | Plan and Profile Sheet 2 |
| C25.0 | Plan and Profile Sheet 3 |
| C26.0 | Plan and Profile Sheet 4 |
| C27.0 | Plan and Profile Sheet 5 |
| C28.0 | Plan and Profile Sheet 6 |
| C29.0 | Plan and Profile Sheet 7 |
| C30.0 | Plan and Profile Sheet 8 |
| C31.0 | Plan and Profile Sheet 9 |
| C32.0 | Plan and Profile Sheet 10 |
| C33.0 | Plan and Profile Sheet 11 |
| C34.0 | Overall Utility Plan |
| C35.0 | Utility Plan and Profile Sheet 1 |
| C36.0 | Utility Plan and Profile Sheet 2 |
| C37.0 | Utility Plan and Profile Sheet 3 |
| C38.0 | Utility Plan and Profile Sheet 4 |
| C39.0 | Utility Plan and Profile Sheet 5 |
| C40.0 | Utility Plan and Profile Sheet 6 |
| C41.0 | Utility Plan and Profile Sheet 7 |
| C42.0 | Utility Plan and Profile Sheet 8 |
| C43.0 | Utility Plan and Profile Sheet 9 |
| C44.0 | Utility Plan and Profile Sheet 10 |
| C45.0 | Utility Plan and Profile Sheet 11 |
| C46.0 | Site Plan and Profile Sheet 1 |
| C47.0 | Site Plan and Profile Sheet 2 |
| C48.0 | Site Plan and Profile Sheet 3 |
| C49.0 | Site Plan and Profile Sheet 4 |
| C50.0 | Site Plan and Profile Sheet 5 |
| C51.0 | Site Plan and Profile Sheet 6 |
| C52.0 | Site Plan and Profile Sheet 7 |
| C53.0 | Site Plan and Profile Sheet 8 |
| C54.0 | Site Plan and Profile Sheet 9 |
| C55.0 | Site Plan and Profile Sheet 10 |
| C56.0 | Site Plan and Profile Sheet 11 |
| C57.0 | Water Main Standards Details |

DEVELOPER
WALLOX
 160 West Main Street
 Suite 200
 Grand Traverse, MI 49735
 231.933.5664
 wallox.com

ARCHITECT
RDL
 ARCHITECTS
 15132 Chicago Blvd.
 Shaker Heights, OH 44120
 216.424.4400
 RDLarchitects.com

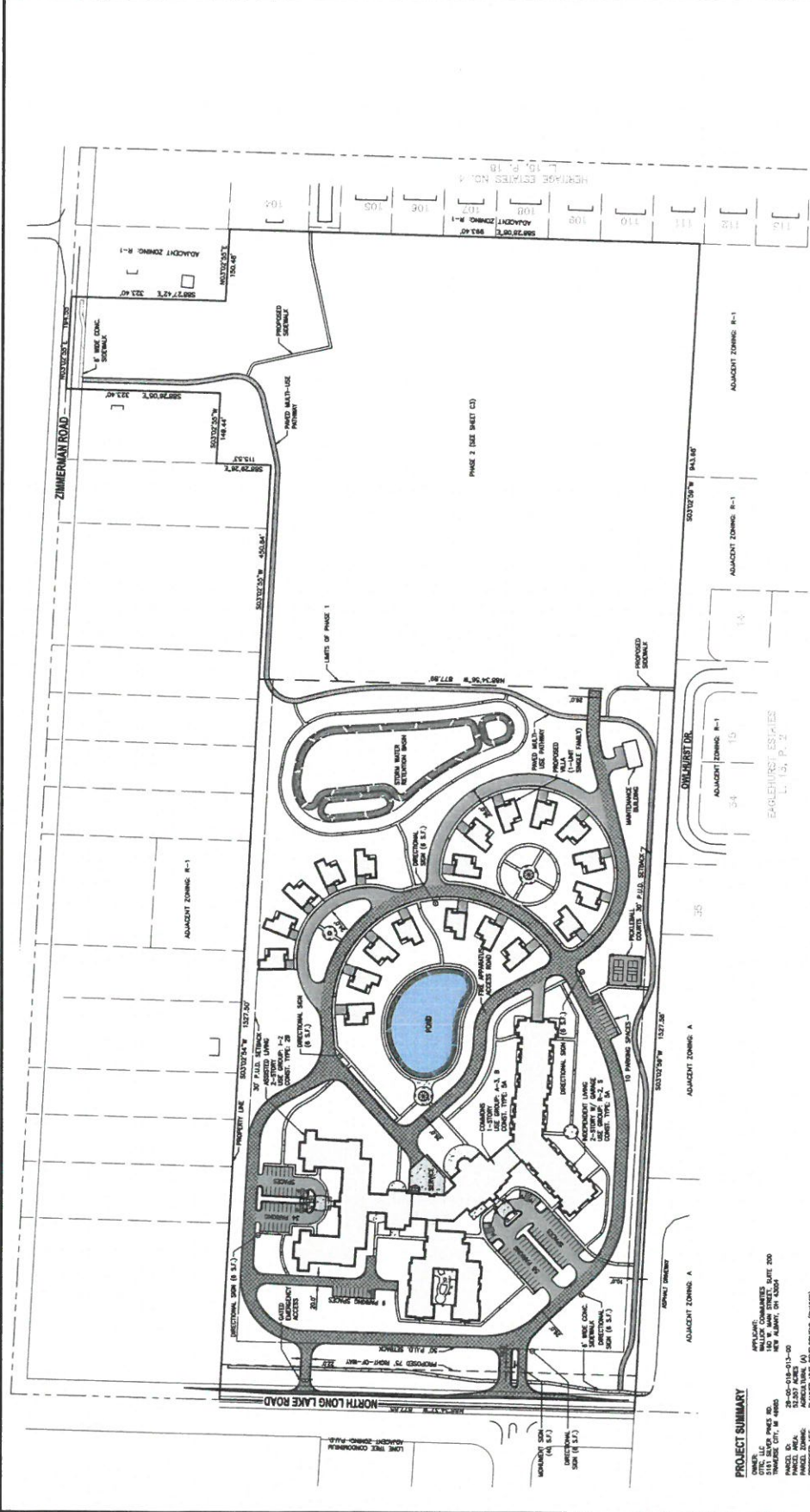
CIVIL ENGINEER

LANDTECH
 Professional Services & Engineering
 P.O. BOX 183
 1271 MAGNOLIA WAY
 GRAND TRAVERSE, MI 49735
 231.941.6000
 www.landtech.com

Checked by: **Joseph Rain**
 Date: **2020.11.02**
 1042440-0500

LANDSCAPE ARCHITECT
ANITA SILVERMAN
 325 W. 7th Street
 Traverse City, MI 49784
 231.941.6000
 anitasilverman.com

| REV | DATE | DESCRIPTION |
|-----|------------|-----------------------------|
| 1 | 06.18.2009 | PREP REVIEW |
| 2 | 08.28.2009 | PLANNING COMMISSION REVIEW |
| 3 | 09.18.2009 | REVISED FOR REVIEW |
| 4 | 10.30.2009 | ENGINEERING REVIEW COMMENTS |



LEGEND

| | |
|----------|-----------------------------|
| [Symbol] | APRIL PAVEMENT (HEAVY DUTY) |
| [Symbol] | APRIL PAVEMENT (LIGHT DUTY) |
| [Symbol] | CONCRETE PAVEMENT |
| [Symbol] | CONCRETE SIDEWALK |

FIRE PROTECTION NOTES

- ALL EXISTING ACCESS GATES SHALL MEET OHIO STRUCTURES, 14-07
- ALL EXISTING ACCESS GATES SHALL MEET OHIO SPECIFICATIONS, 14-07

POND NOTES

- MINIMUM DEPTH: 4 FEET
- MINIMUM WIDTH: 10 FEET
- MINIMUM LENGTH: 10 FEET
- MINIMUM AREA: 1000 SQ. FT.
- MINIMUM PERIMETER: 100 FEET
- MINIMUM DISTANCE FROM BUILDING: 10 FEET
- MINIMUM DISTANCE FROM DRIVE: 10 FEET
- MINIMUM DISTANCE FROM PROPERTY LINE: 10 FEET
- MINIMUM DISTANCE FROM ADJACENT PROPERTY: 10 FEET
- MINIMUM DISTANCE FROM POWER LINES: 10 FEET
- MINIMUM DISTANCE FROM TELEPHONE LINES: 10 FEET
- MINIMUM DISTANCE FROM FENCE: 10 FEET
- MINIMUM DISTANCE FROM SIGN: 10 FEET
- MINIMUM DISTANCE FROM LIGHT FIXTURE: 10 FEET
- MINIMUM DISTANCE FROM TRASH ENCLOSURE: 10 FEET
- MINIMUM DISTANCE FROM STORAGE AREA: 10 FEET
- MINIMUM DISTANCE FROM SERVICE AREA: 10 FEET
- MINIMUM DISTANCE FROM OFFICE: 10 FEET
- MINIMUM DISTANCE FROM RESTROOM: 10 FEET
- MINIMUM DISTANCE FROM KITCHEN: 10 FEET
- MINIMUM DISTANCE FROM BREAK ROOM: 10 FEET
- MINIMUM DISTANCE FROM CONFERENCE ROOM: 10 FEET
- MINIMUM DISTANCE FROM STORAGE ROOM: 10 FEET
- MINIMUM DISTANCE FROM MEETING ROOM: 10 FEET
- MINIMUM DISTANCE FROM WAITING AREA: 10 FEET
- MINIMUM DISTANCE FROM LOBBY: 10 FEET
- MINIMUM DISTANCE FROM RECEPTION AREA: 10 FEET
- MINIMUM DISTANCE FROM FRONT ENTRANCE: 10 FEET
- MINIMUM DISTANCE FROM BACK ENTRANCE: 10 FEET
- MINIMUM DISTANCE FROM SIDE ENTRANCE: 10 FEET
- MINIMUM DISTANCE FROM STAIRWELL: 10 FEET
- MINIMUM DISTANCE FROM ELEVATOR: 10 FEET
- MINIMUM DISTANCE FROM MECHANICAL ROOM: 10 FEET
- MINIMUM DISTANCE FROM ELECTRICAL ROOM: 10 FEET
- MINIMUM DISTANCE FROM TELECOMMUNICATIONS ROOM: 10 FEET
- MINIMUM DISTANCE FROM SECURITY ROOM: 10 FEET
- MINIMUM DISTANCE FROM JANETRY: 10 FEET
- MINIMUM DISTANCE FROM STORAGE AREA: 10 FEET
- MINIMUM DISTANCE FROM SERVICE AREA: 10 FEET
- MINIMUM DISTANCE FROM OFFICE: 10 FEET
- MINIMUM DISTANCE FROM RESTROOM: 10 FEET
- MINIMUM DISTANCE FROM KITCHEN: 10 FEET
- MINIMUM DISTANCE FROM BREAK ROOM: 10 FEET
- MINIMUM DISTANCE FROM CONFERENCE ROOM: 10 FEET
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- MINIMUM DISTANCE FROM ELECTRICAL ROOM: 10 FEET
- MINIMUM DISTANCE FROM TELECOMMUNICATIONS ROOM: 10 FEET
- MINIMUM DISTANCE FROM SECURITY ROOM: 10 FEET
- MINIMUM DISTANCE FROM JANETRY: 10 FEET

PARKING SUMMARY

| USE | MINIMUM PARKING REQUIRED | MINIMUM PARKING PROVIDED |
|-----------------------|--------------------------|--------------------------|
| OFFICE | 1.5 PER SHELLING UNIT | 2.0 PER SHELLING UNIT |
| RETAIL | 1 PER SHELLING UNIT | 2.0 PER SHELLING UNIT |
| PROVIDED PARKING | | |
| PHASE 1 | | |
| OFFICE | 50 | 50 |
| RETAIL | 80 | 80 |
| ASSISTED LIVING | 24 | 24 |
| MARKET GATE | 154 | 154 |
| (1 SPACE PER 4 UNITS) | | |
| STAFF/VISITOR | 48 | 48 |
| TOTAL | 154 | 154 |

NOTE: PARKING FOR ALIENS NOT INCLUDED IN PARKING CALCULATION.
 MINIMUM PARKING FOR ALIENS SHALL BE 1.5 PER SHELLING UNIT.
 STORAGE AREA, ASSISTED LIVING APPROX. LOT (25000 S.F.) SHOP FOR BUNK STORAGE LOCATION.

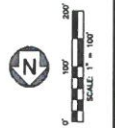
BUILDING AREA

| BUILDING AREA | AREA (SQUARE FEET) |
|-------------------------|--------------------|
| 1-STORY COMMERCIAL | 17,000 |
| 1-STORY RESIDENTIAL | 18,722 |
| 2-STORY RESIDENTIAL | 92,877 |
| 3-STORY ASSISTED LIVING | 21,208 |
| MARKETPLACE | 2,200 |

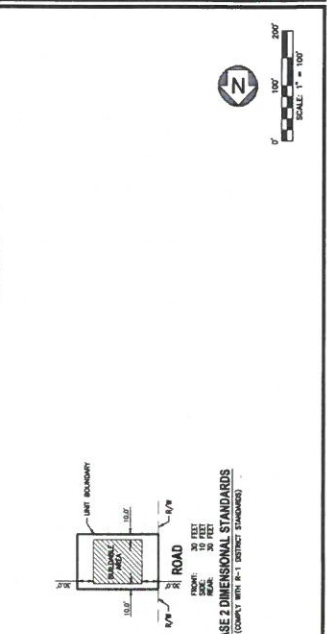
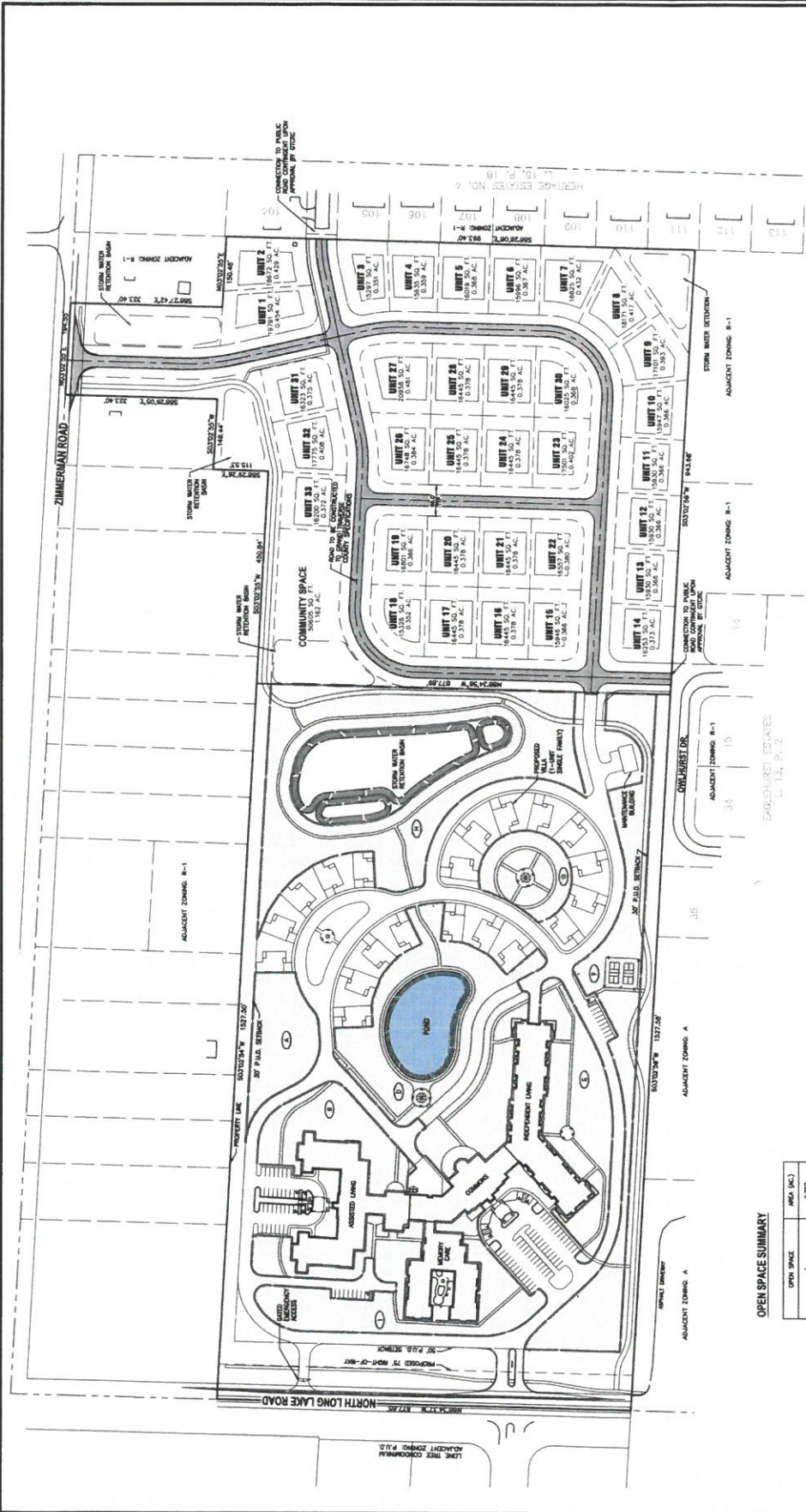
PROJECT SUMMARY

| USE | PHASE 1 | PHASE 2 | TOTAL |
|-----------------|---------|---------|-------|
| OFFICE | 50 | --- | 50 |
| RETAIL | 80 | --- | 80 |
| ASSISTED LIVING | 24 | --- | 24 |
| MARKET GATE | 154 | --- | 154 |
| STAFF/VISITOR | 48 | --- | 48 |
| TOTAL | 356 | --- | 356 |

NOTE: OFFICE SPACE PROVISIONS ARE FULFILLED IN PHASE 1 AND IS INTENDED TO BE AN ADDITIONAL PHASE FOR THE MARKET GATE THROUGH THE DEVELOPMENT TO MARKET GATE AS NOTED ON THE PLAN. NEED TO BE SET ASL FOR BUNK SPACE CALCULATION.



| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| A | PRELIMINARY REVIEW | 06.18.2009 | AJ |
| B | PLANNING COMMISSION REVIEW | 06.25.2009 | AJ |
| C | FINAL REVIEW | 08.19.2009 | AJ |
| D | ENGINEERING REVIEW COMMENTS | 01.21.2010 | AJ |



PARKING SUMMARY

| USE | MINIMUM PARKING REQUIRED | MINIMUM PARKING PROVIDED |
|-----------------------------|--------------------------|--------------------------|
| RESIDENTIAL - SINGLE/FAMILY | 1.5 PER DWELLING UNIT | 2.0 PER DWELLING UNIT |
| HOUSING FOR THE ELDERLY | 1 PER DWELLING UNIT | 2.0 PER DWELLING UNIT |

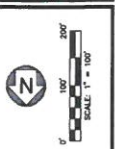
PROVIDED PARKING:

| LINE | UNITS | PARKING SPACES |
|--------------|------------|---------------------|
| 1 | 50 | 50 SPACES (GARAGE) |
| 2 | 60 | 25 SPACES (SURFACE) |
| 3 | 24 | 8 SPACES |
| 4 | 48 | 48 SPACES |
| TOTAL | 184 | 136 SPACES |

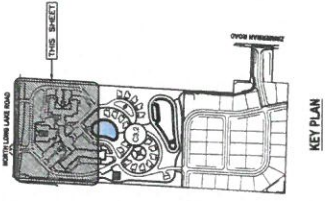
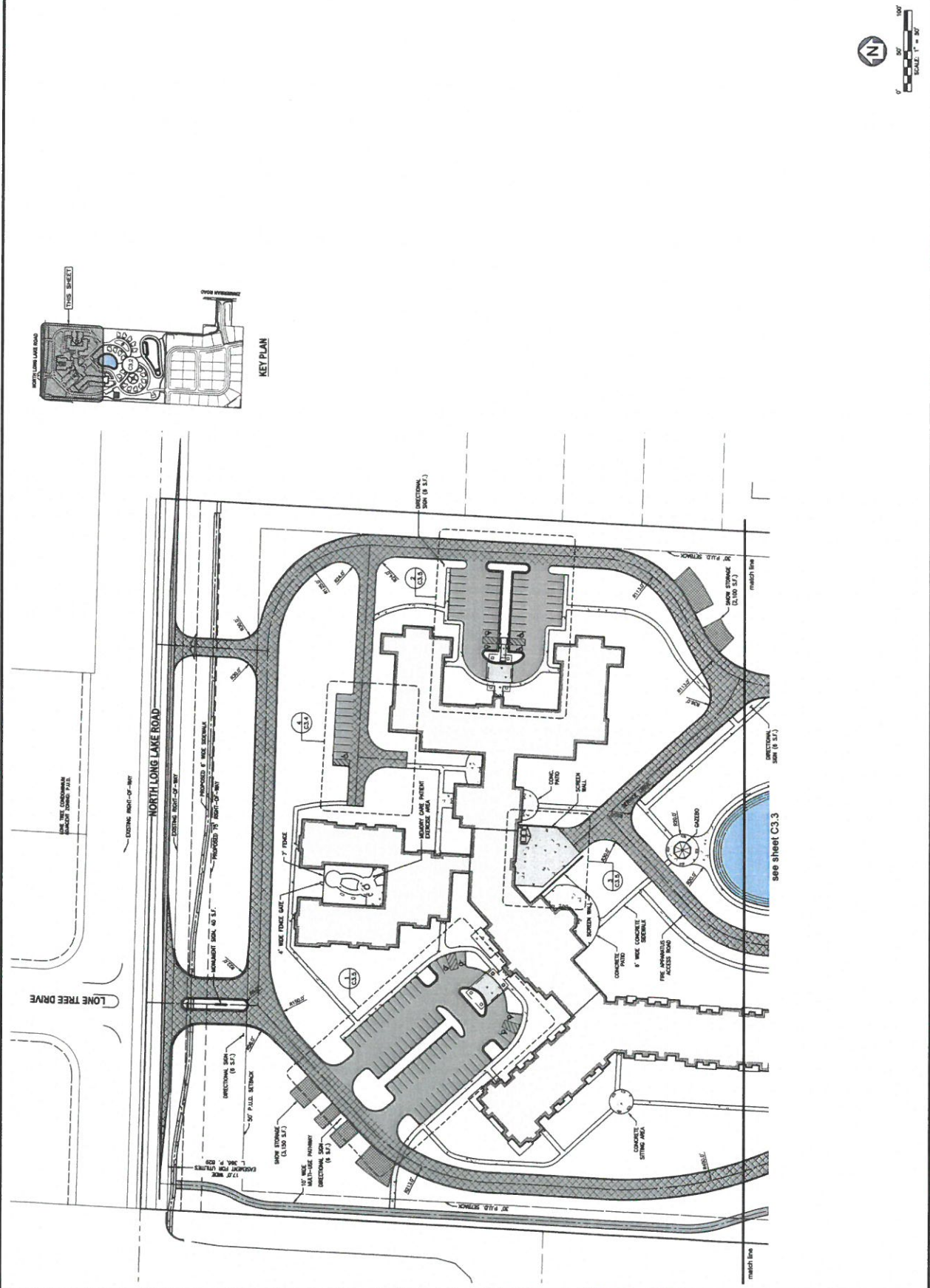
NOTE: PARKING FOR VALUE NOT INCLUDED IN PARKING CALCULATION.
 MINIMUM PARKING FOR 25 UNITS (PHASE 1) REQUIRES 4000 S.F. MORE STORAGE AREA. ADJUSTED LIVING AREA FOR 15,000 S.F. STORAGE AREA. ADJUSTED LIVING AREA FOR 15,000 S.F. STORAGE AREA. ADJUSTED LIVING AREA. REFER TO SHEET C1.4 FOR BULK STORAGE LOCATIONS.

OPEN SPACE SUMMARY

| OPEN SPACE | AREA (A.C.) |
|----------------------------|---------------|
| A | 0.257 |
| B | 0.839 |
| C | (LIMITED) |
| D | 3.215 |
| E | 1.284 |
| F | 2.028 |
| G | 0.829 |
| H | 3.271 |
| I | 1.720 |
| PROVIDED OPEN SPACE | 13.778 |

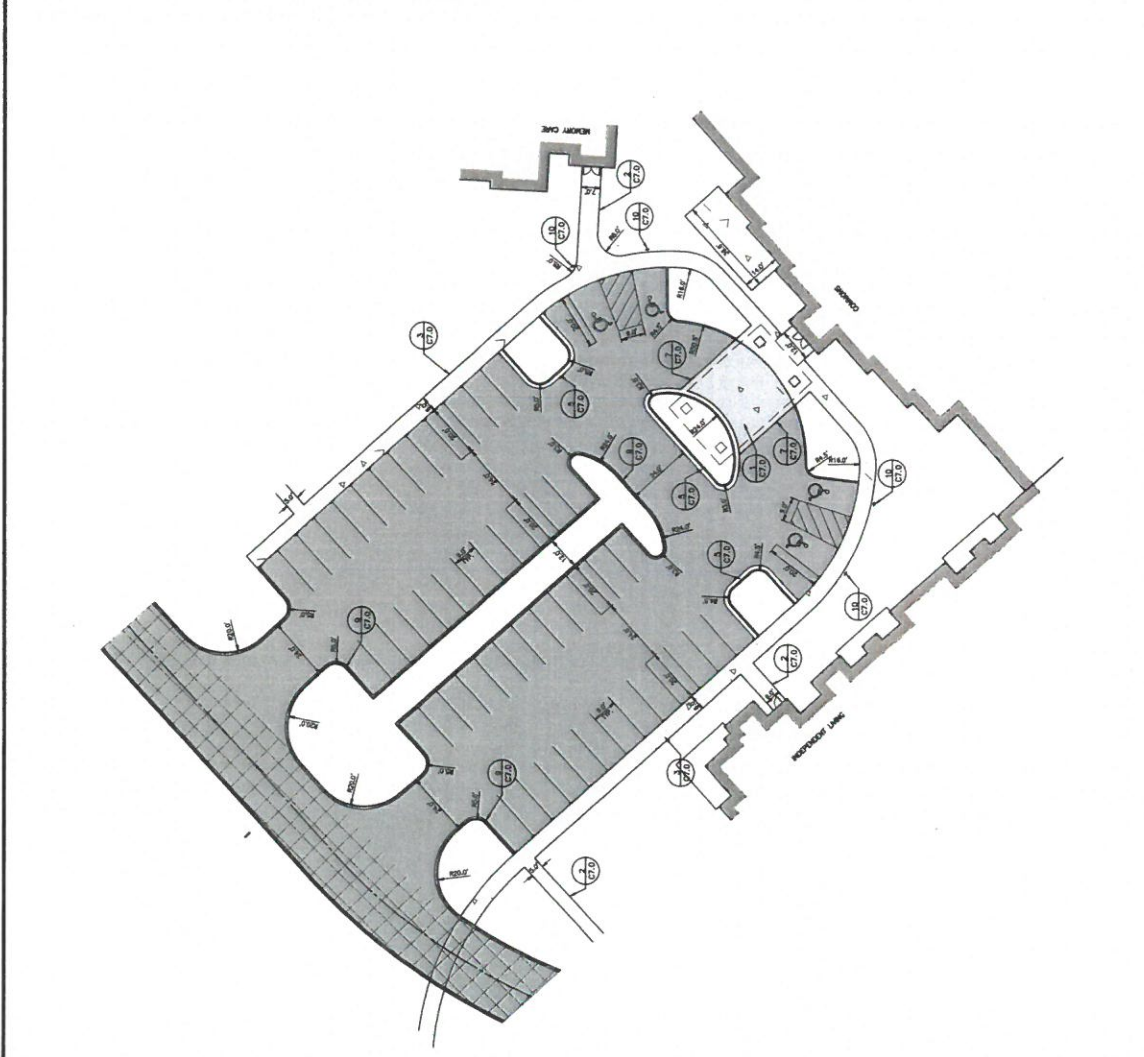
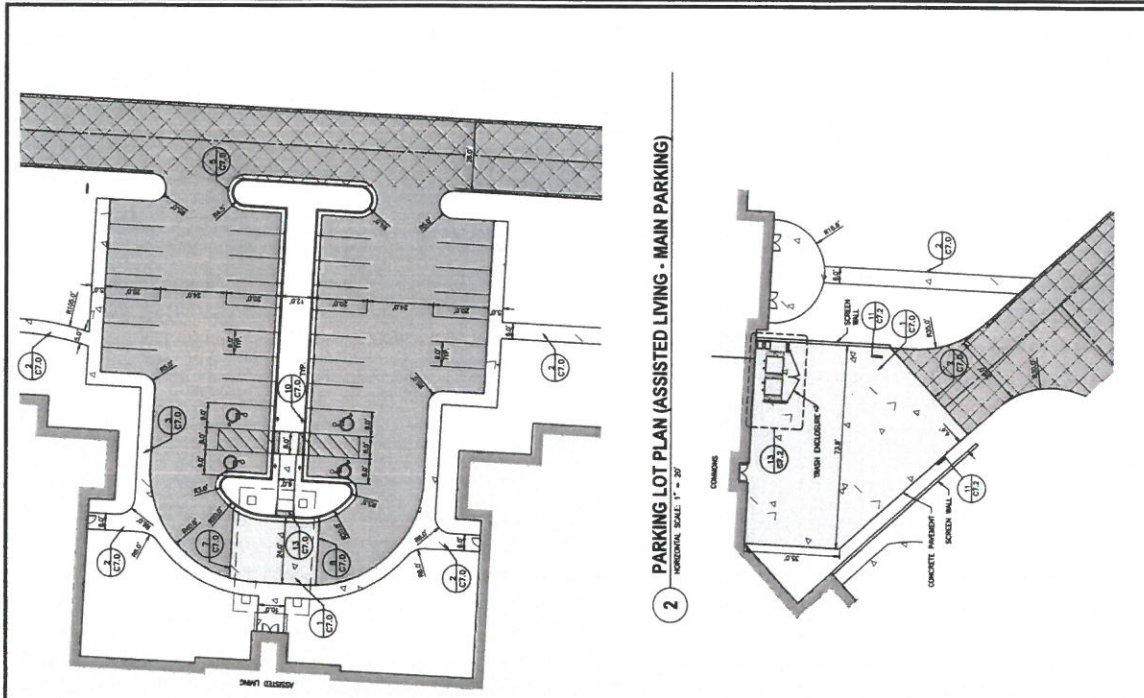


| REV | DATE | DESCRIPTION |
|-----|------------|---------------------------|
| B7 | 08/18/2009 | ISSUE FOR REVIEW |
| B6 | 08/18/2009 | ISSUE FOR REVIEW |
| B5 | 08/18/2009 | ISSUE FOR REVIEW |
| B4 | 08/18/2009 | ISSUE FOR REVIEW |
| B3 | 08/18/2009 | ISSUE FOR REVIEW |
| B2 | 08/18/2009 | ISSUE FOR REVIEW |
| B1 | 08/18/2009 | ISSUE FOR REVIEW |
| A1 | 10/30/2009 | EMERGENCY REVIEW COMMENTS |
| A2 | 10/30/2009 | EMERGENCY REVIEW COMMENTS |



| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| A | PROJECT | 04-18-2020 | JL |
| B | PLANNING COMMISSION REVIEW | 04-23-2020 | JL |
| C | ISSUED FOR PERMIT | 04-23-2020 | JL |
| D | ENGINEERING REVIEW COMMENTS | 04-23-2020 | JL |

PROJECT: **Oakeaf Village - Garfield Township**
 SHEET TITLE: **Detail Sheet 2**
 DESIGN: Garfield Township, Grand Township, County, Maryland
 DESIGN: 15 Township 27 North Range 1 West
 PROJECT NO.: 2006000
 DATE DRAWN: 04/13/2020
 DRAWN BY: JL
 CHECKED BY: JL
 SHEET NUMBER: **C3.5**



3 SERVICE AREA DETAIL
 HORIZONTAL SCALE: 1" = 20'

1 PARKING LOT PLAN (INDEPENDENT LIVING/COMMONS)
 HORIZONTAL SCALE: 1" = 20'

2 PARKING LOT PLAN (ASSISTED LIVING - MAIN PARKING)
 HORIZONTAL SCALE: 1" = 20'

Scale: 1" = 20'

North Arrow

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

ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS
 BASED ON RECORDS. THEY SHOULD NOT BE ASSUMED TO BE
 THE ONLY UTILITIES IN THE AREA.

STORM SEWER NOTES
 ALL STORM SEWER CONSTRUCTION SHALL CONFORM TO MOST STANDARD SPECIFICATIONS FOR
 CONSTRUCTION.
 STORM SEWER BENCH MARKS SHALL BE BENCH MARK, COMBINATION NEPTUNE, LAMP-38-12
 OR EQUAL.

STORM SEWER NOTES
 ALL STORM SEWER CONSTRUCTION SHALL CONFORM TO MOST STANDARD SPECIFICATIONS FOR
 CONSTRUCTION.
 STORM SEWER BENCH MARKS SHALL BE BENCH MARK, COMBINATION NEPTUNE, LAMP-38-12
 OR EQUAL.

STORM SEWER NOTES
 ALL STORM SEWER CONSTRUCTION SHALL CONFORM TO MOST STANDARD SPECIFICATIONS FOR
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 STORM SEWER BENCH MARKS SHALL BE BENCH MARK, COMBINATION NEPTUNE, LAMP-38-12
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 OR EQUAL.

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 CONSTRUCTION.
 STORM SEWER BENCH MARKS SHALL BE BENCH MARK, COMBINATION NEPTUNE, LAMP-38-12
 OR EQUAL.

PHASE 1

PHASE 2

PHASE 3

PHASE 4

PHASE 5

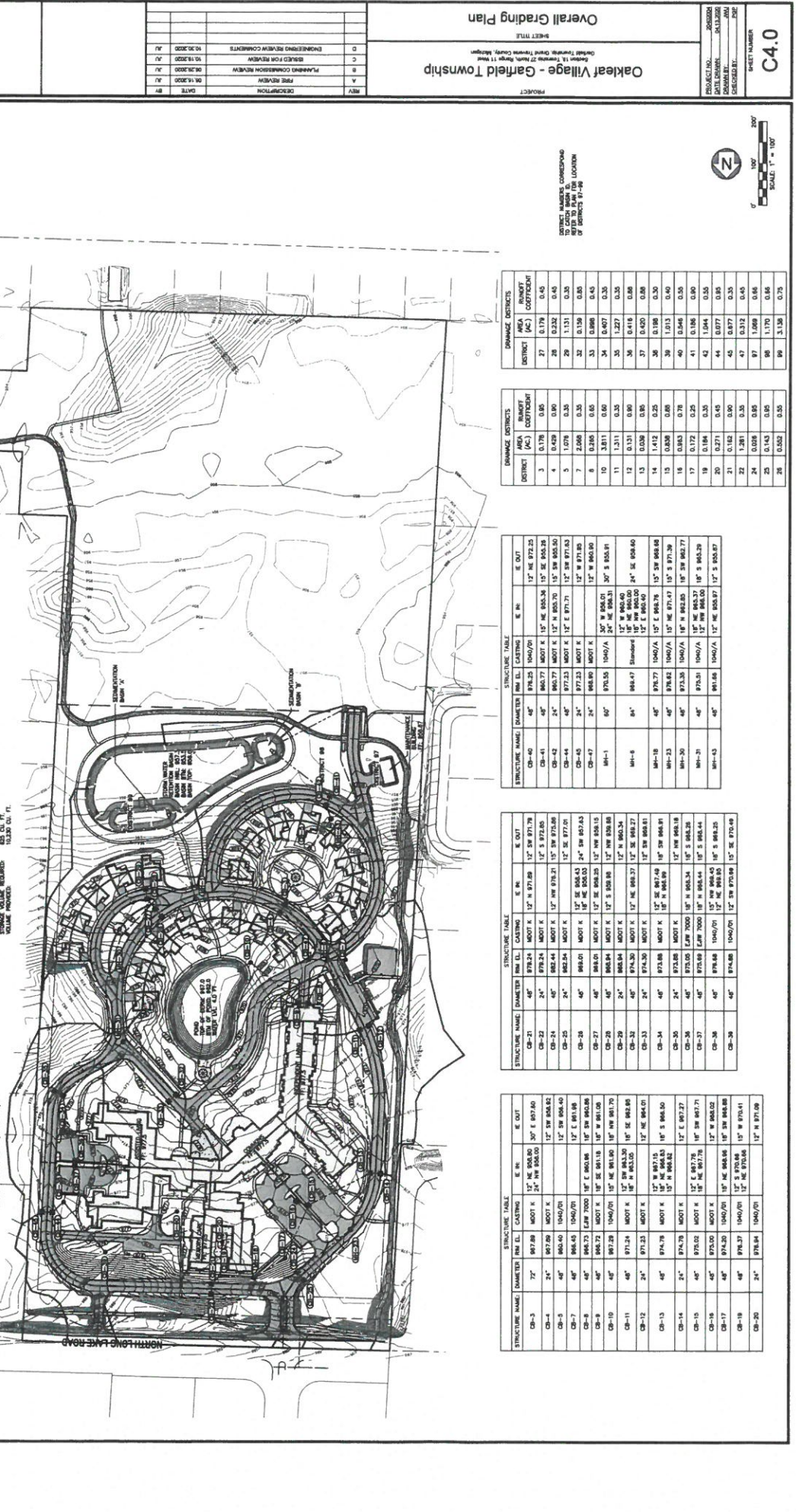
PHASE 6

PHASE 7

PHASE 8

PHASE 9

PHASE 10



| NO. | DATE | DESCRIPTION |
|-----|------------|-------------|
| REV | 04/18/2024 | DATE |
| REV | 04/18/2024 | DESCRIPTION |
| REV | 04/18/2024 | DATE |
| REV | 04/18/2024 | DESCRIPTION |
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| REV | 04/18/2024 | DESCRIPTION |

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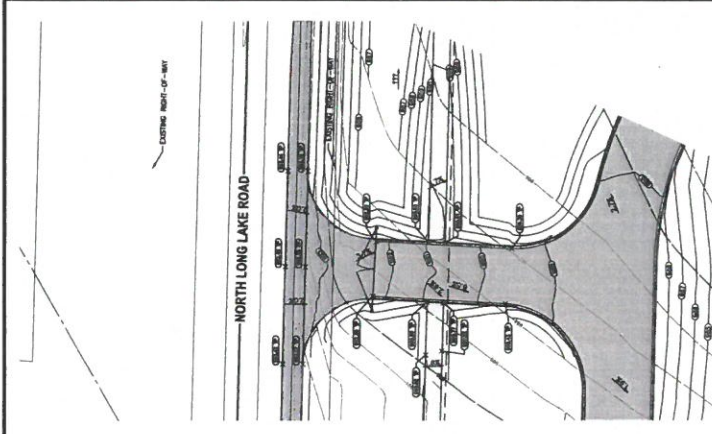
PHASE 6


LANDTECH
 Professional Surveying & Engineering
 1775 JACKSON HWY
 GREENSBORO, NC 27407
 336.733.1000
 www.landtech.com

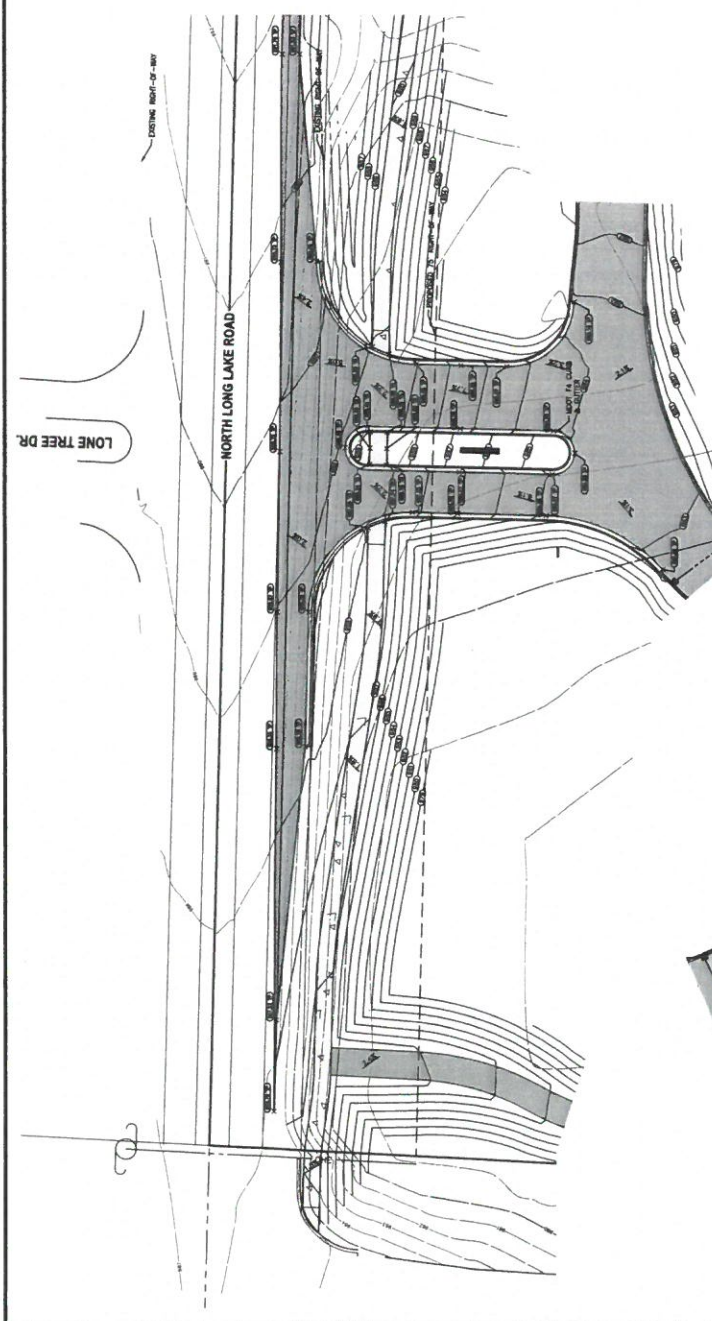
| REV | DATE | BY | DESCRIPTION |
|-----|------------|----|-----------------------------|
| A | 04.26.2020 | JL | FINAL REVIEW |
| B | 04.29.2020 | JL | PLANNING COMMISSION REVIEW |
| C | 04.29.2020 | JL | ISSUED FOR REVIEW |
| D | 04.30.2020 | JL | ENGINEERING REVIEW COMMENTS |

Grading Detail Sheet 1
 SHEET TITLE
 Oakleaf Village - Garfield Township
 Station 16, Township 27 North, Range 11 West
 Garfield Township, Grand Traverse County, Michigan
 PROJECT

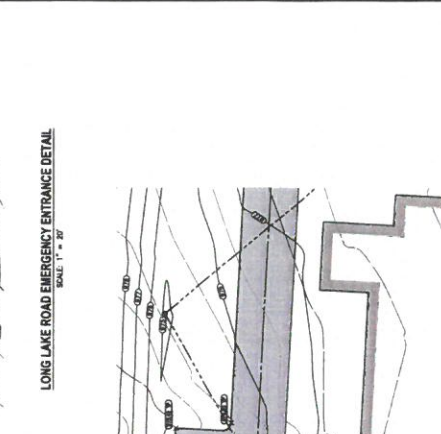
SHEET NUMBER
C4.1



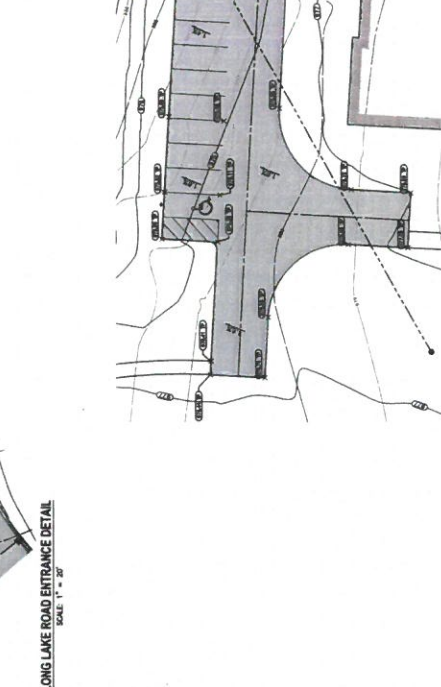
LONG LAKE ROAD EMERGENCY ENTRANCE DETAIL
SCALE: 1" = 20'



LONG LAKE ROAD ENTRANCE DETAIL
SCALE: 1" = 20'



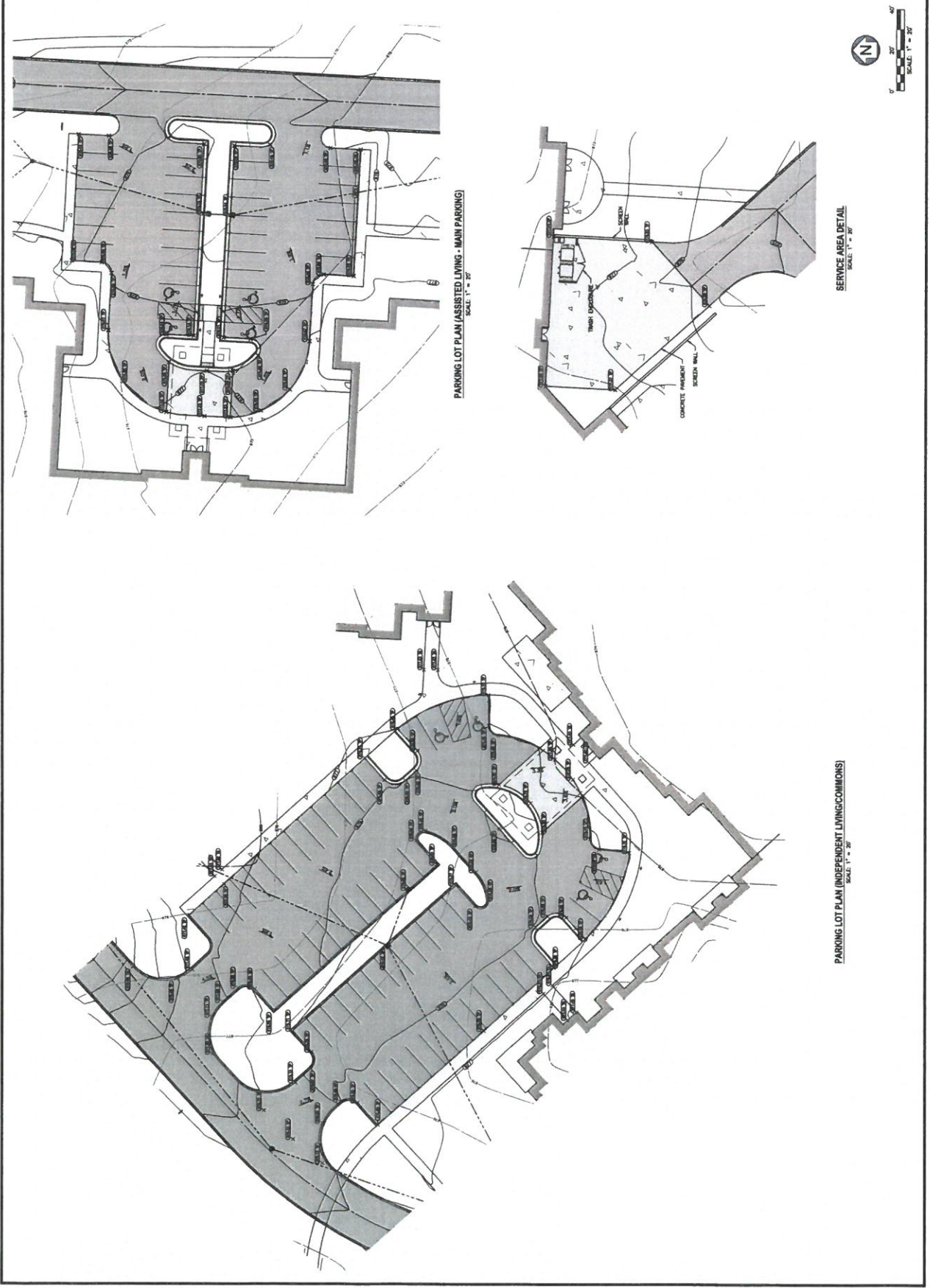
PARKING LOT PLAN (ASSISTED LIVING - OVERFLOW PARKING)
SCALE: 1" = 20'



PARKING LOT PLAN (PICKLEBALL COURT)
SCALE: 1" = 20'

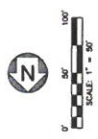
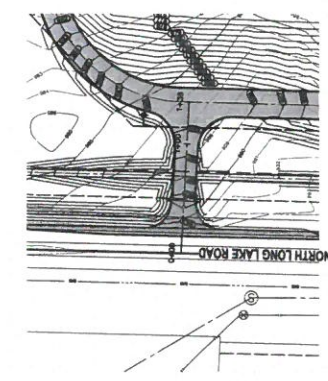

 SCALE: 1" = 20'
 0 20 40

| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| A | FINAL REVIEW | 04.26.2020 | AL |
| B | PLANNING COMMISSION REVIEW | 04.26.2020 | AL |
| C | ISSUED FOR REVIEW | 04.26.2020 | AL |
| D | ENGINEERING REVIEW COMMENTS | 04.26.2020 | AL |

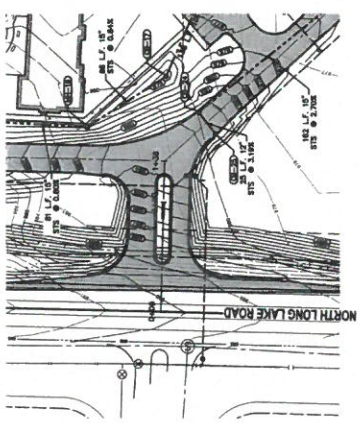


| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| 1 | ISSUE REVIEW | 04.26.2023 | JL |
| 2 | PLANNING COMMISSION REVIEW | 04.26.2023 | JL |
| 3 | TABLED FOR REVIEW | 10.19.2023 | JL |
| 4 | ENGINEERING REVIEW COMMENTS | 10.30.2023 | JL |

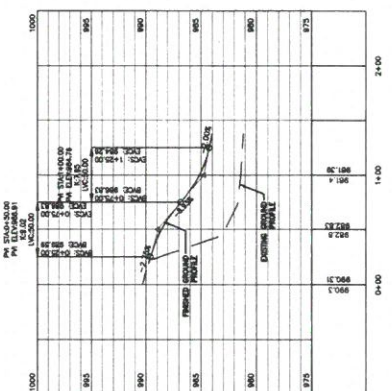
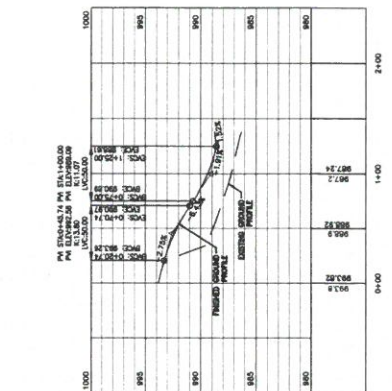
| SHEET TITLE | |
|--|--|
| Oakleaf Village - Garfield Township | |
| Section 18, Township 27 North, Range 11 West | |
| Garfield Township, Grand Traverse County, Michigan | |



2 N. LONG LAKE ROAD EMERGENCY ENTRANCE
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'



1 N. LONG LAKE ROAD DRIVEWAY ENTRANCE
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'



| | |
|---------------|------------|
| PROJECT NO. | 2008006 |
| DATE DRAWN | 04.13.2008 |
| DATE REVISION | 05.02.2008 |
| DESIGNED BY | JK |

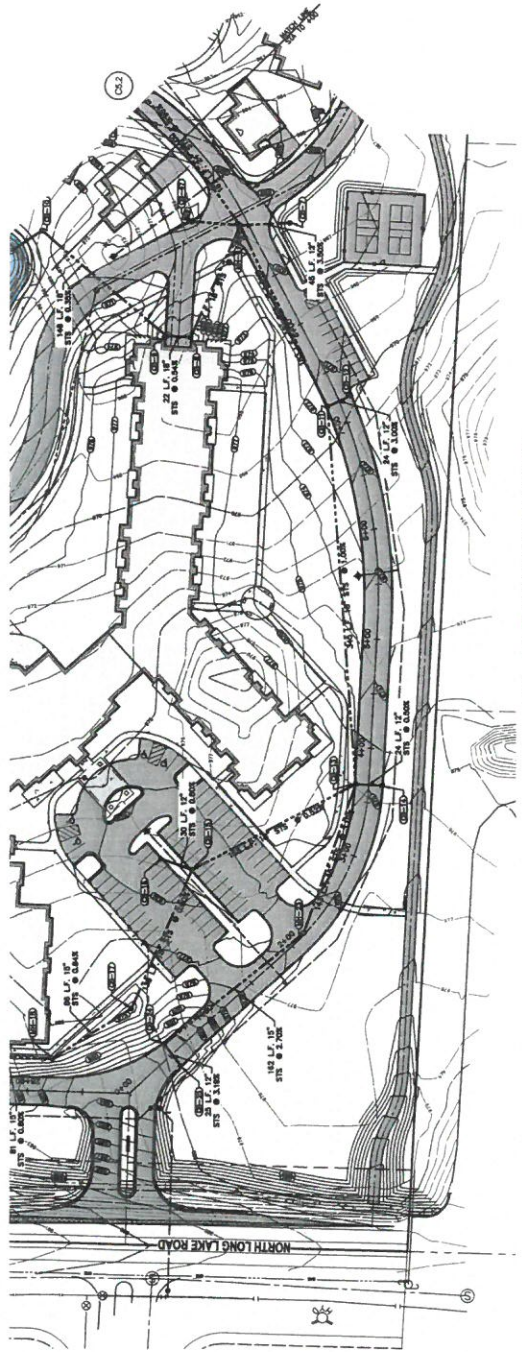
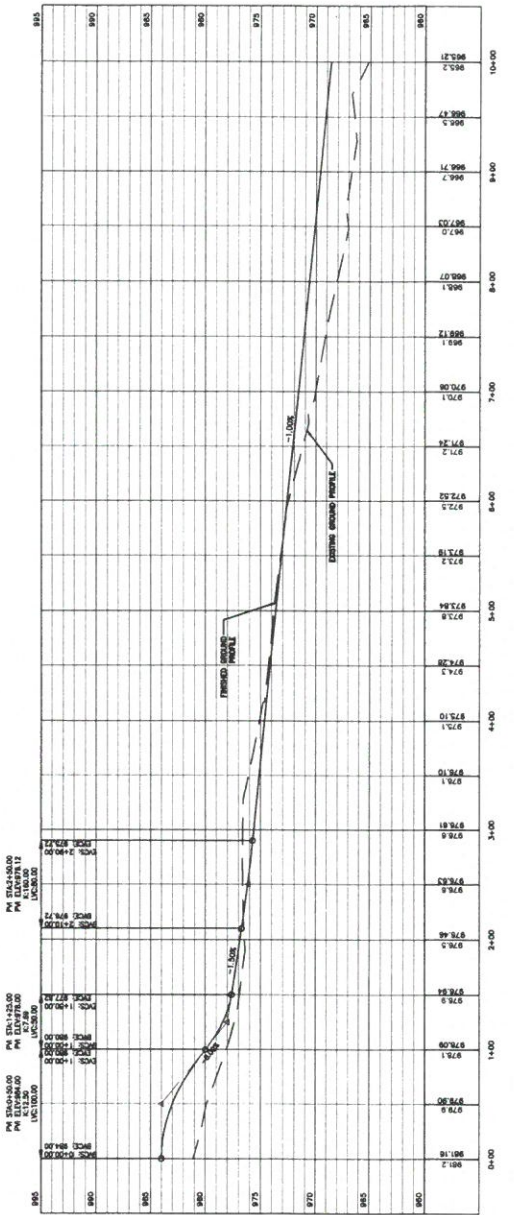
Oakleaf Village - Garfield Township
 Oakleaf Township, Garfield Township, Michigan
 11 West
 SHEET TITLE
Plan and Profile Sheet 2

| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| A | PERMITS FOR REVIEW | 04.16.2008 | JK |
| B | PLANNING COMMISSION REVIEW | 04.16.2008 | JK |
| C | SEALED FOR REVIEW | 04.16.2008 | JK |
| D | ENGINEERING REVIEW COMMENTS | 04.16.2008 | JK |

PLANS PREPARED BY:



LANDTECH
 Professional Surveying & Engineering
 P.O. BOX 187
 GARFIELD, MI 49627
 www.landtechinc.com



| | |
|-------------|---------|
| PROJECT NO. | 2008006 |
| DRAWN BY | ML/2008 |
| CHECKED BY | JDK |

Oakleaf Village - Garfield Township
 Division 15 Township 27 North Range 11 West
 Garfield Township, Grand Traverse County, Michigan

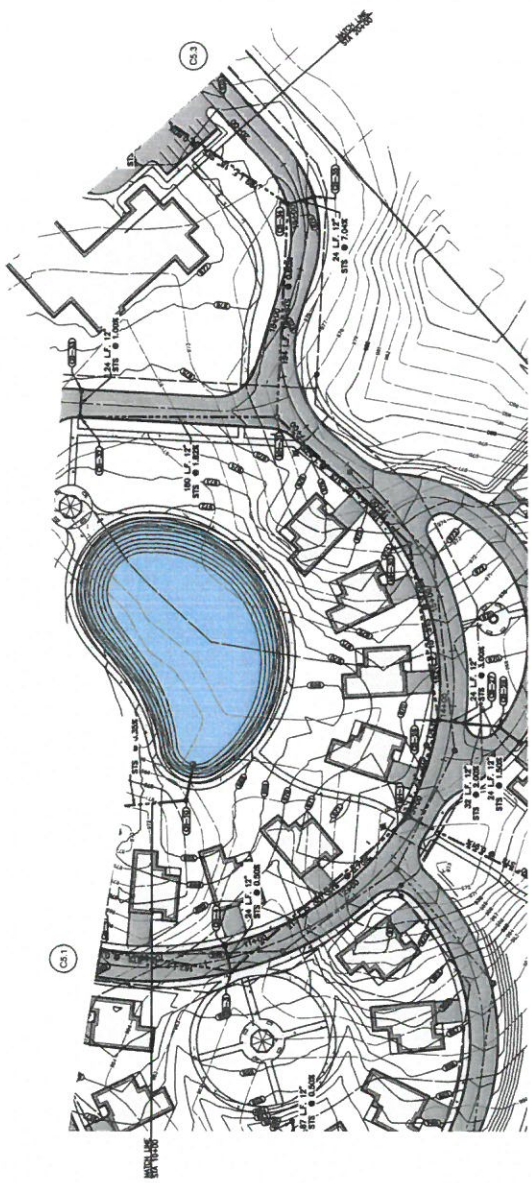
Plan and Profile Sheet 3

| REV | DATE | BY | DESCRIPTION |
|-----|------------|-----|-----------------------------|
| A | 06.18.2008 | JDK | PLANING COMMISSION REVIEW |
| B | 08.18.2008 | JDK | PLANNING COMMISSION REVIEW |
| C | 08.18.2008 | JDK | ENGINEERING REVIEW COMMENTS |
| D | 10.28.2008 | JDK | ENGINEERING REVIEW COMMENTS |

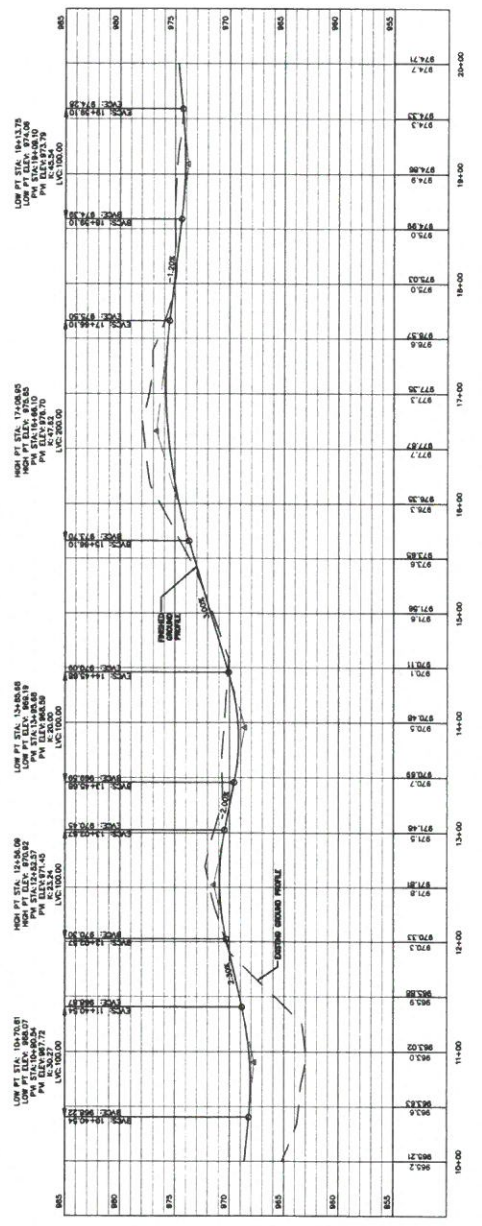
PLANS PROVIDED BY



LANDTECH
 Professional Surveying & Engineering
 P.O. Box 188
 12500 W. 10th Street
 Grand Haven, MI 49427
 www.landtechinc.com



1 MAIN DRIVE (10+00 TO 20+00)
 HORIZONTAL SCALE 1" = 40'
 VERTICAL SCALE 1" = 10'



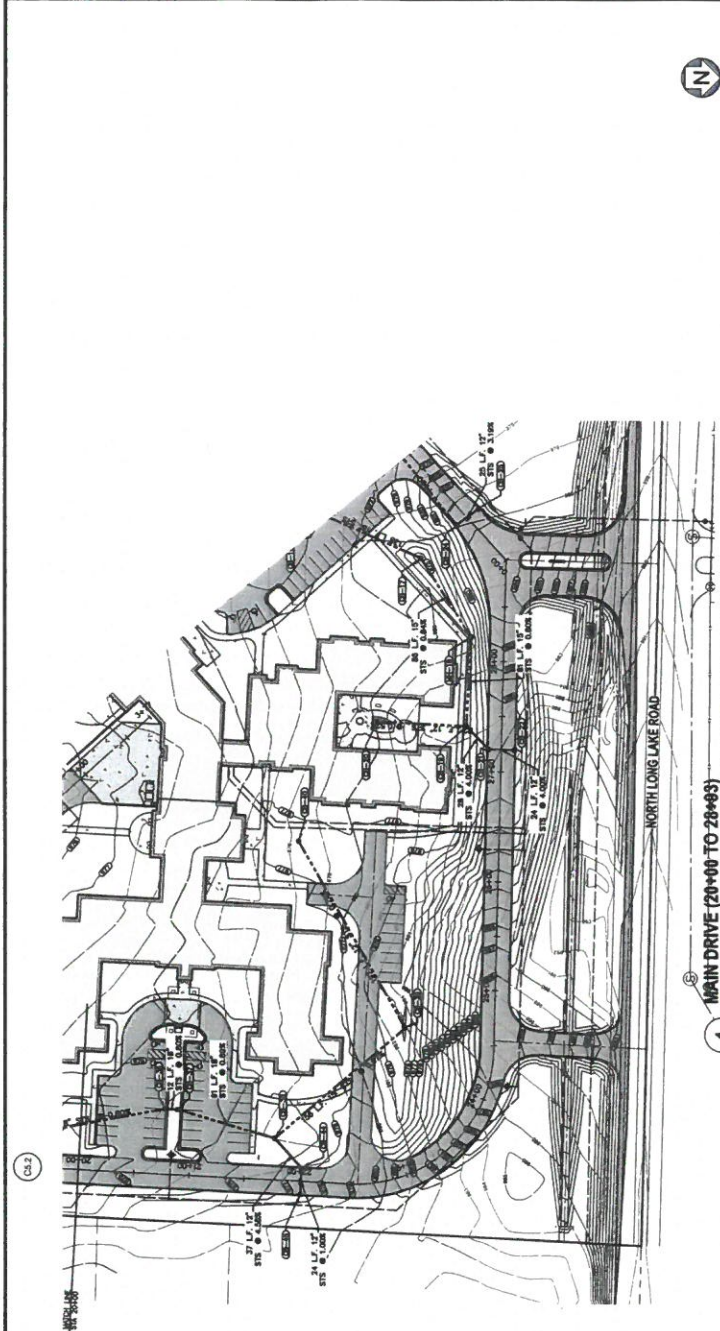
| | |
|-------------|------------|
| PROJECT NO. | 2008002 |
| DATE DRAWN | 04.13.2008 |
| DESIGNED BY | WJ |
| CHECKED BY | WJ |

Oakleaf Village - Garfield Township
 Station 18+00 to 27+00, Range 11 West
 Garfield Township, Grand Traverse County, Michigan

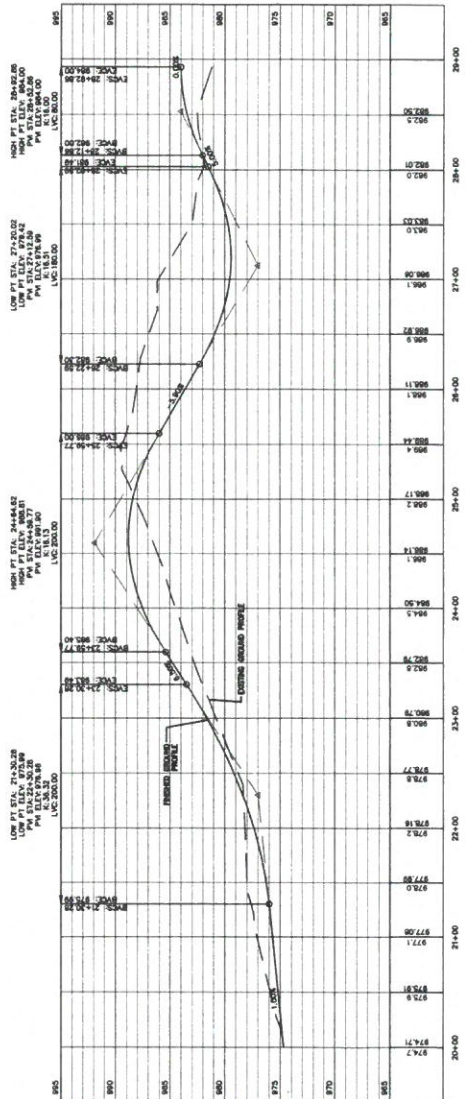
PROJECT SHEET TITLE
 Plan and Profile Sheet 3

| REV | DATE | DESCRIPTION |
|-----|------------|-----------------------------|
| 1 | 04.18.2008 | PLANNING COMMISSION REVIEW |
| 2 | 04.18.2008 | FINAL REVIEW |
| 3 | 04.18.2008 | ENGINEERING REVIEW COMMENTS |

PLANNED PROFESSIONAL ENGINEER
LANDTECH
 Professional Surveying & Engineering
 1100 SOUTH MAIN
 GARFIELD, MI 49827
 www.landtechinc.com



1 MAIN DRIVE (20+00 TO 28+00)
 HORIZONTAL SCALE 1" = 50'
 VERTICAL SCALE 1" = 10'



Oakleaf Village - Garfield Township
 Section 18 Township 27 North, Range 11 West
 Garfield Township, Grand Traverse County, Michigan

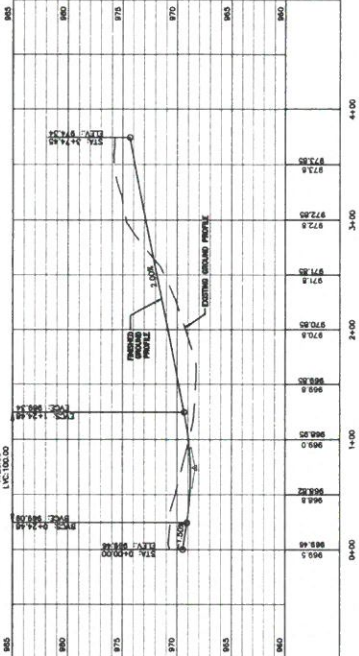
Plan and Profile Sheet 5

| REV | DATE | DESCRIPTION |
|-----|------------|-----------------------------|
| A | 08.14.2008 | FINAL REVIEW |
| B | 08.20.2008 | PLANNING COMMISSION REVIEW |
| C | 09.19.2008 | SELECTED FOR REVIEW |
| D | 09.20.2008 | ENGINEERING REVIEW COMMENTS |

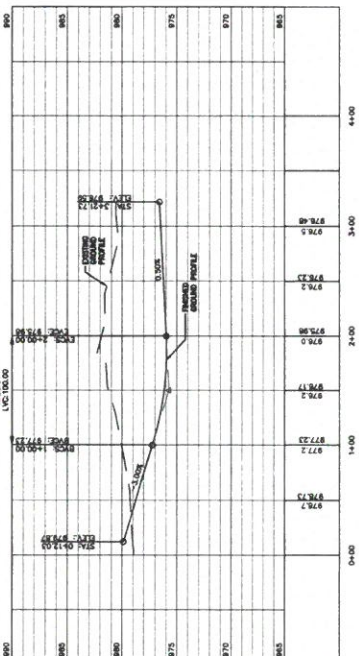
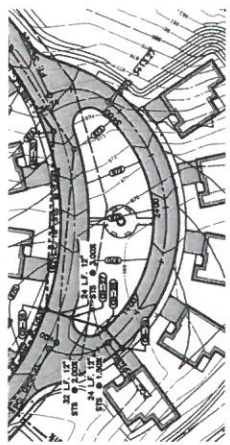
DESIGN PROVIDED BY:



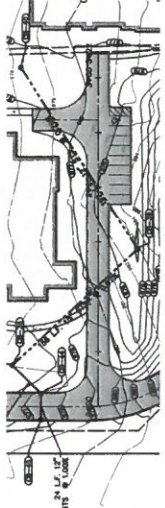
LANDTECH
 Professional Surveying & Engineering
 1775 AMSTERDAM WAY
 GRAND RAPIDS, MI 49507
 TEL: 616.782.2277
 WWW.LANDTECH.COM



2 COTTAGES - SOUTHEAST
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'



1 FIRE APPARATUS ACCESS ROAD (NORTH)
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'

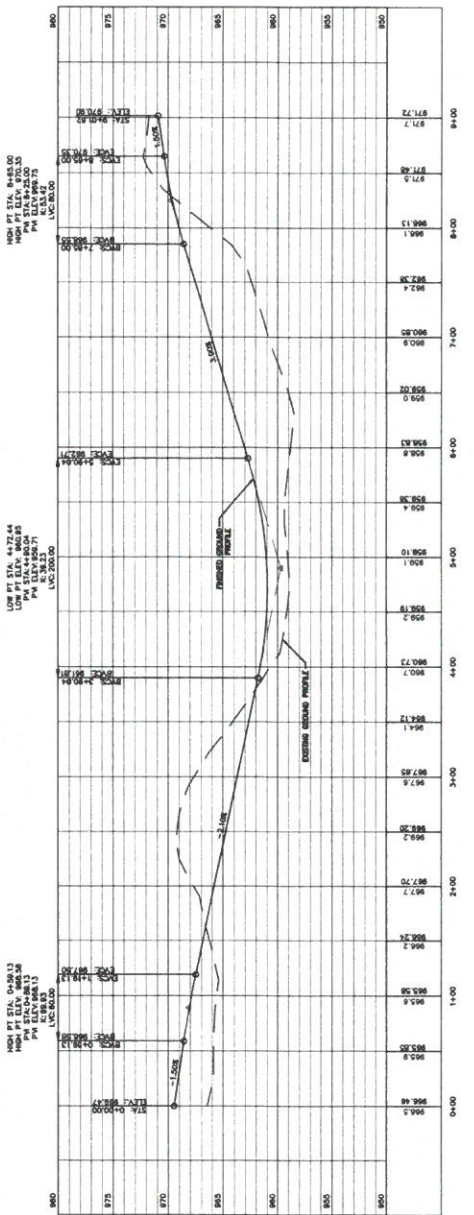
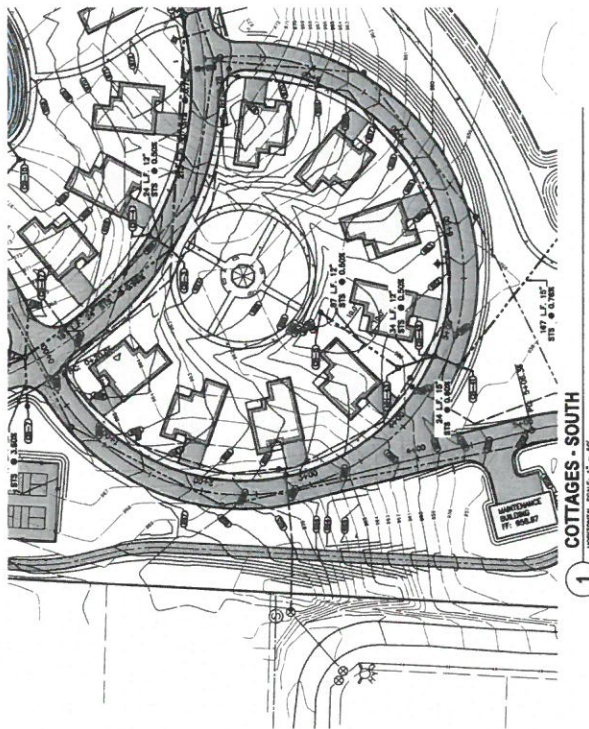


Oakleaf Village - Garfield Township
 Section 18, Township 27 North, Range 11 West
 Oakland Township, Crawford County, Michigan

PROJECT
 SHEET TITLE
 Plan and Profile Sheet 6

| REV | DATE | DESCRIPTION |
|-----|------------|-----------------------------|
| A | 04.18.2020 | FINAL REVIEW |
| B | 04.22.2020 | PLANNING COMMISSION REVIEW |
| C | 04.28.2020 | DESIGNED FOR REVIEW |
| D | 04.28.2020 | ENGINEERING REVIEW COMMENTS |

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HIGH PT STA. 4+72.44
 PVI STA. 4+40.00
 LOW PT STA. 4+72.44
 PVI STA. 4+40.00
 GRADE POINTS
 1. 4+72.44 950.00
 2. 4+72.44 950.00
 3. 4+72.44 950.00
 4. 4+72.44 950.00
 5. 4+72.44 950.00
 6. 4+72.44 950.00
 7. 4+72.44 950.00
 8. 4+72.44 950.00
 9. 4+72.44 950.00
 10. 4+72.44 950.00
 11. 4+72.44 950.00
 12. 4+72.44 950.00
 13. 4+72.44 950.00
 14. 4+72.44 950.00

PROJECT NO. 2008008
 DATE DRAWN: 04/11/2008
 DRAWN BY: J. W. BROWN
 CHECKED BY: J. W. BROWN

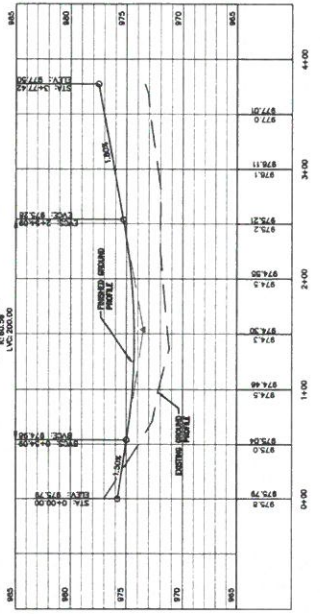
Oakleaf Village - Garfield Township
 Section 18, Township 27 North, Range 11 West
 Garfield Township, Grand Traverse County, Michigan

SHEET TITLE
 Plan and Profile Sheet 7

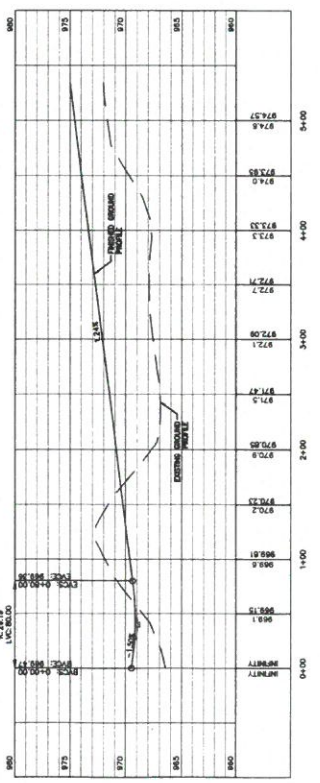
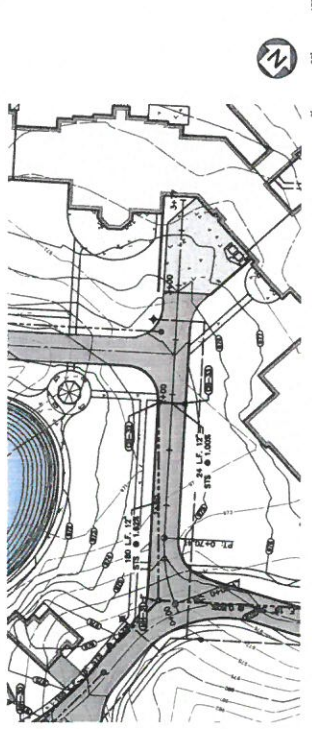
| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| A | PERMISSOR REVIEW | 04.18.2008 | JW |
| B | PLANNING COMMISSION REVIEW | 04.29.2008 | JW |
| C | MAILED FOR REVIEW | 04.18.2008 | JW |
| D | ENGINEERING REVIEW COMMENTS | 04.30.2008 | JW |

PLANS PREPARED BY:

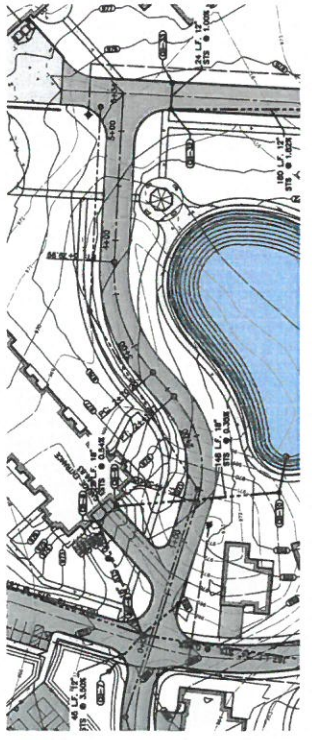
LANDTECH
 Professional Surveyors & Engineers
 P.O. BOX 108
 1200 W. BAYVIEW AVENUE
 GRAND RAPIDS, MI 49507
 www.landtech.com



2 SERVICE DRIVE
 HORIZONTAL SCALE: 1" = 10'
 VERTICAL SCALE: 1" = 5'



1 FIRE APPARATUS ACCESS ROAD
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 10'

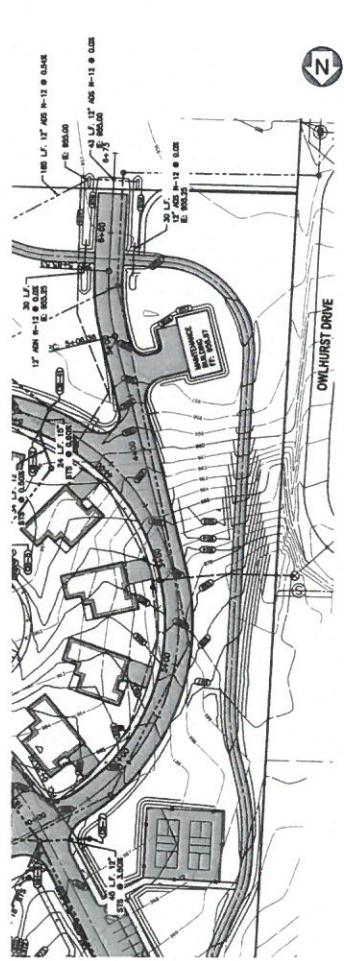


Oakleaf Village - Garfield Township
 Oakleaf Township, Oneid Township, Madison
 Section 16, Township 27 North, Range 11 West

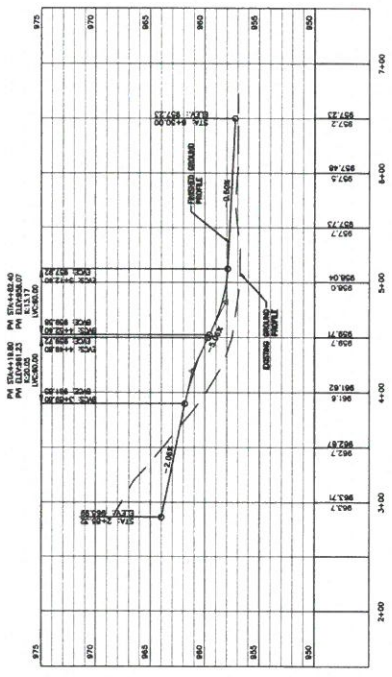
Plan and Profile Sheet 8

| REV | DATE | DESCRIPTION |
|-----|------------|-----------------------------|
| A | 06.16.2008 | FINAL REVIEW |
| B | 08.20.2008 | PLANNING COMMISSION REVIEW |
| C | 09.18.2008 | ISSUED FOR REVIEW |
| D | 09.20.2008 | ENGINEERING REVIEW COMMENTS |

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1 ACCESS DRIVE
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'



| | |
|---------------|------------|
| PROJECT NO. | 20050006 |
| DATE DRAWN | 04.11.2005 |
| DATE CHECKED | 05.05.05 |
| DATE APPROVED | 05.05.05 |

Oakleaf Village - Garfield Township
 District 15 Township 27 North Range 1 West
 Grand Township, Grand Traverse County, Michigan

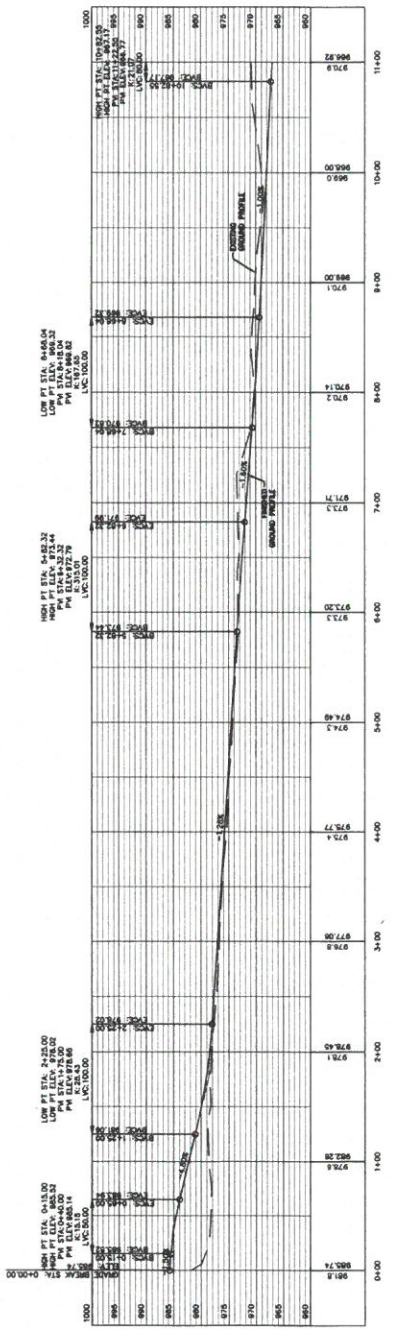
Plan and Profile Sheet 9

| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| A | FINAL DESIGN REVIEW | 04.16.2005 | JL |
| B | PLANNING COMMISSION REVIEW | 04.16.2005 | JL |
| C | ISSUED FOR PERMIT | 04.16.2005 | JL |
| D | ENGINEERING REVIEW COMMENTS | 04.16.2005 | JL |

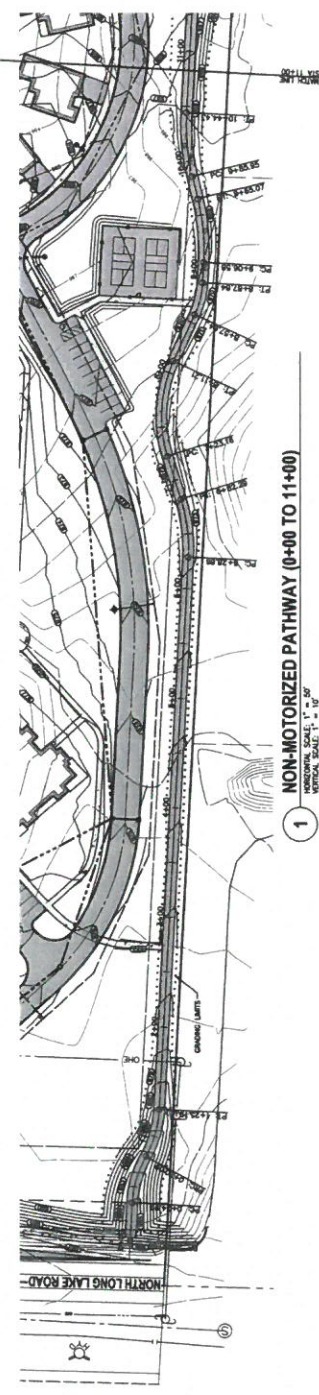
PLANS PREPARED BY:



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1 NON-MOTORIZED PATHWAY (0+00 TO 11+00)
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'



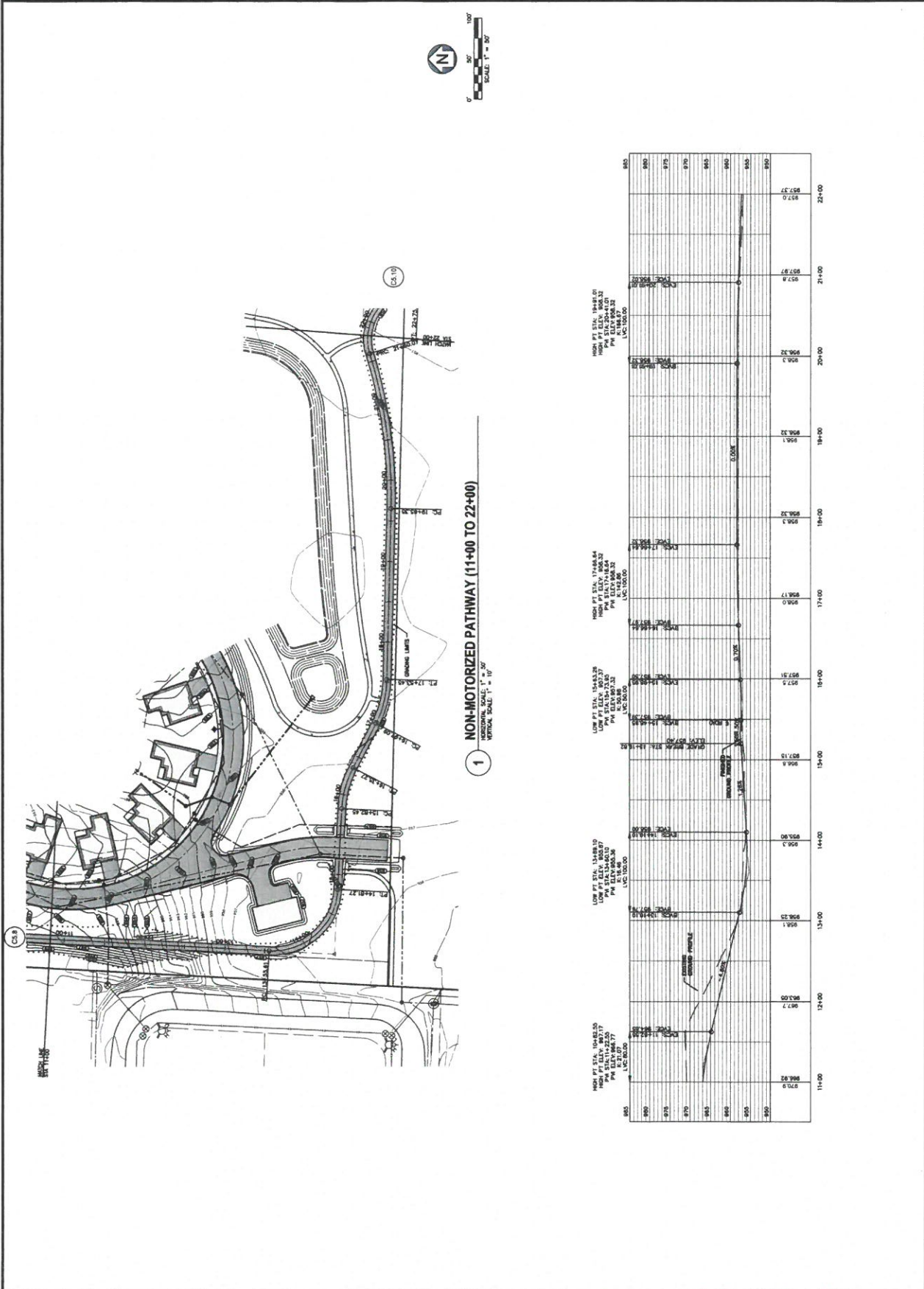
| | |
|-------------|----------|
| PROJECT NO. | 2008004 |
| DATE | 04/11/08 |
| DESIGNER | LANDTECH |
| CHECKER | ... |
| SCALE | ... |

Oakleaf Village - Garfield Township
 Section 18 Township 27 North, Range 11 West
 Garfield Township, Grand Traverse County, Michigan

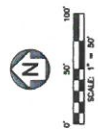
Plan and Profile Sheet 10

| NO. | DATE | DESCRIPTION |
|-----|------------|-----------------------------|
| A | 06/16/2007 | FINAL REVIEW |
| B | 08/28/2007 | PLANNING COMMISSION REVIEW |
| C | 04/16/2008 | ISSUED FOR REVIEW |
| D | 04/20/2008 | ENGINEERING REVIEW COMMENTS |

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1 NON-MOTORIZED PATHWAY (11+00 TO 22+00)



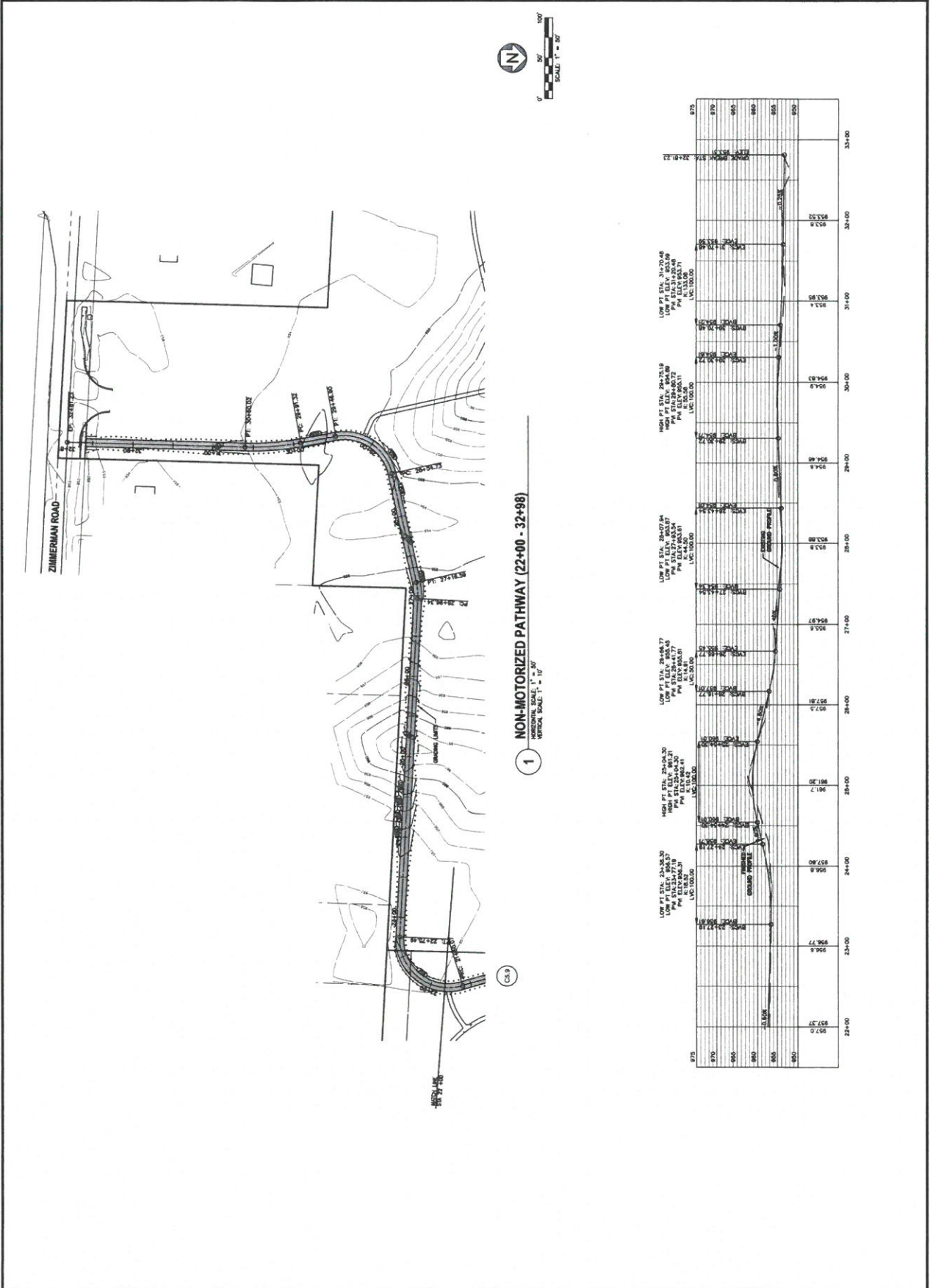
| | |
|--------------|-------------------|
| PROJECT NO. | 200808 |
| PROJECT NAME | GAFFIELD TOWNSHIP |
| DATE | 03/11/2009 |
| DESIGNER | LANDTECH |

Oakleaf Village - Garfield Township
 Station 16+00 to Station 32+00
 Garrett Township, Grant County, Michigan

Plan and Profile Sheet 11

| | | |
|-----|------------|-----------------------------|
| REV | DATE | DESCRIPTION |
| 1 | 03/11/2009 | FINAL DESIGN |
| 2 | 03/11/2009 | PLANNING COMMISSION REVIEW |
| 3 | 03/11/2009 | ISSUED FOR REVIEW |
| 4 | 03/11/2009 | ENGINEERING REVIEW COMMENTS |

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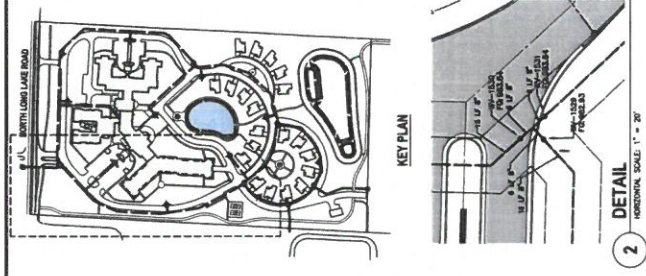
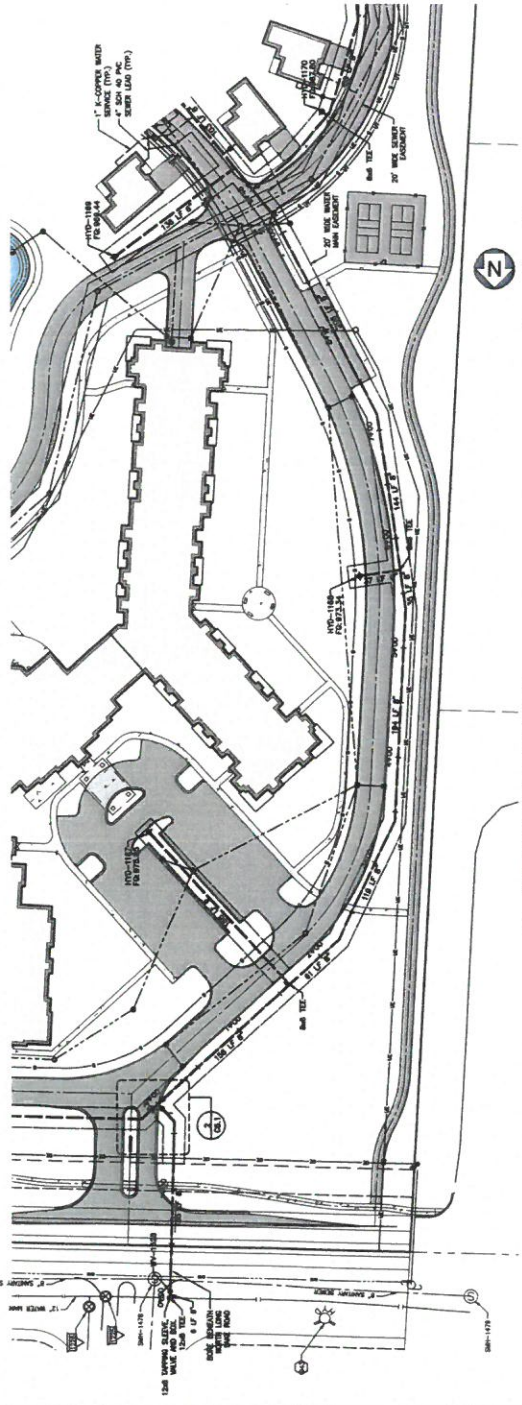
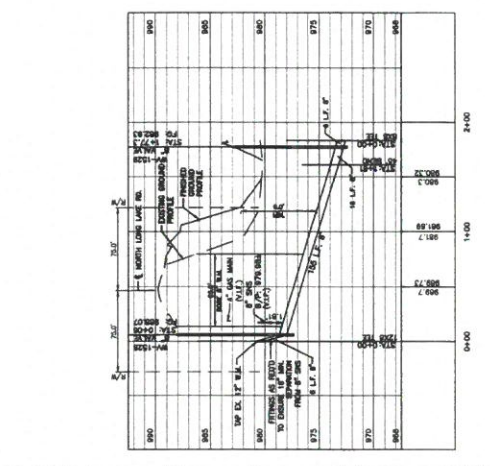
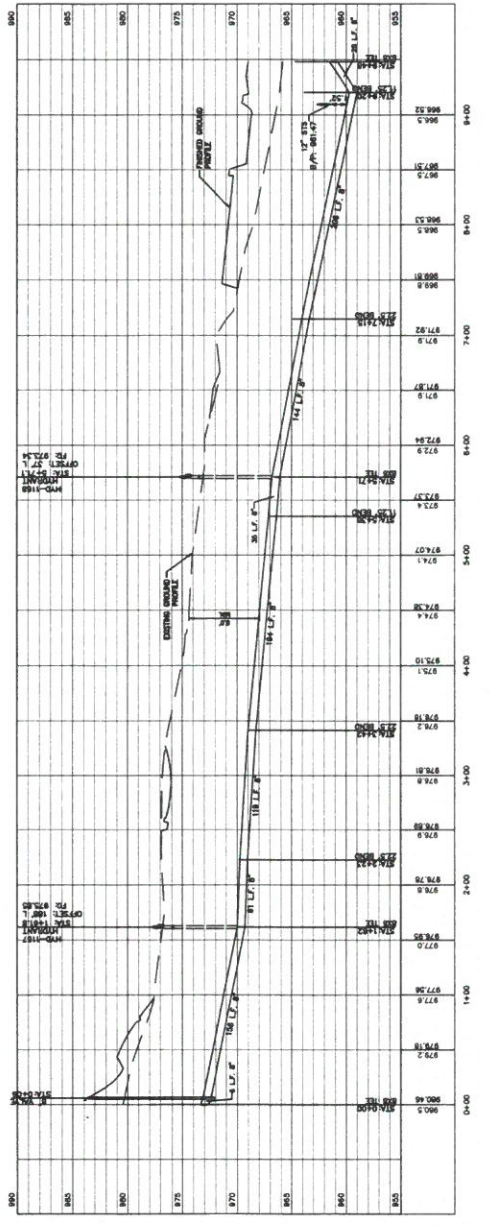
1 NON-MOTORIZED PATHWAY (22+00 - 32+00)
 HORIZONTAL SCALE: 1" = 80'
 VERTICAL SCALE: 1" = 10'

C5.9

Oakleaf Village - Garfield Township
 Utility Plan and Profile Sheet 1

| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| 1 | PRELIMINARY | 10.10.2009 | JL |
| 2 | PLANNING COMMISSION REVIEW | 10.19.2009 | JL |
| 3 | REDESIGNED FOR REVIEW | 10.19.2009 | JL |
| 4 | ENGINEERING REVIEW COMMENTS | 10.19.2009 | JL |

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1 WATER MAIN (0+00 TO 9+48)
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'

2 DETAIL
 HORIZONTAL SCALE: 1" = 20'

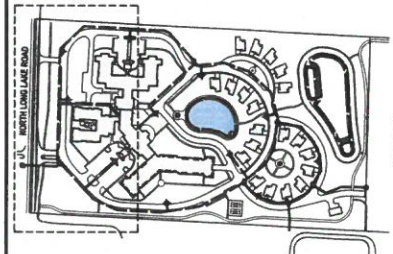
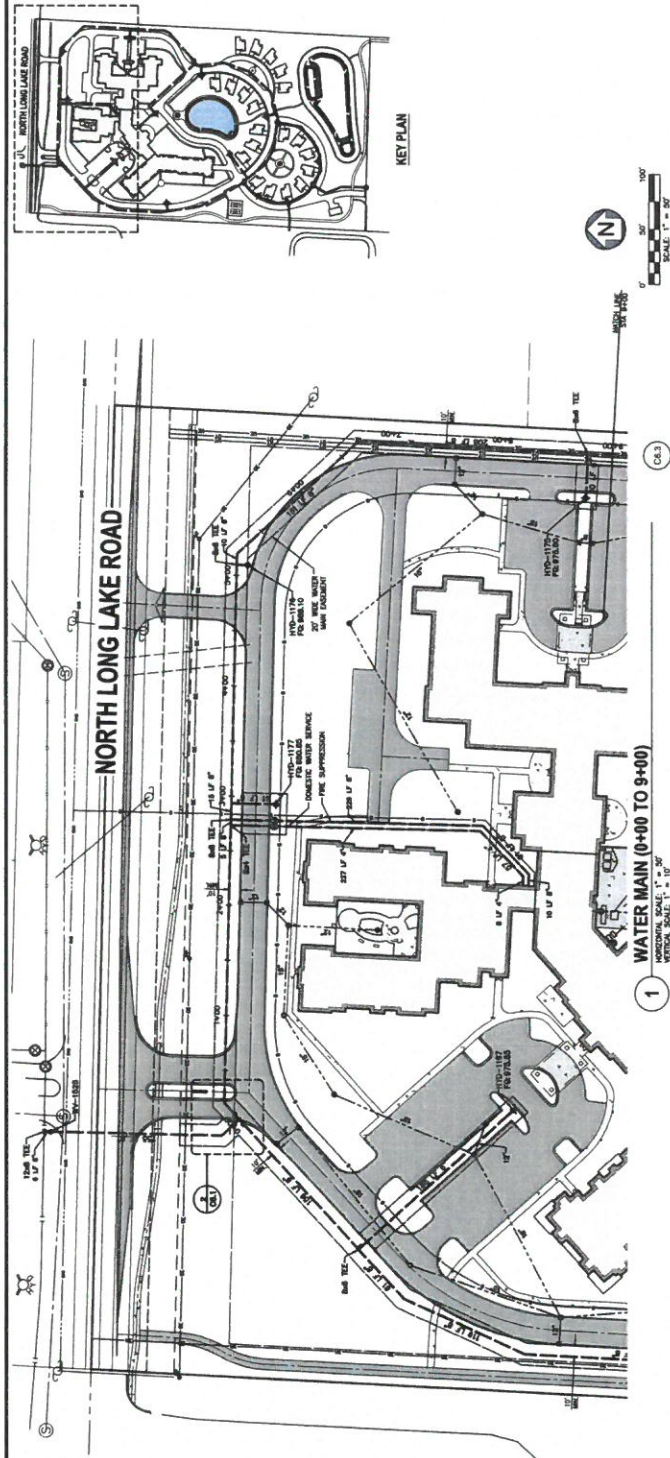
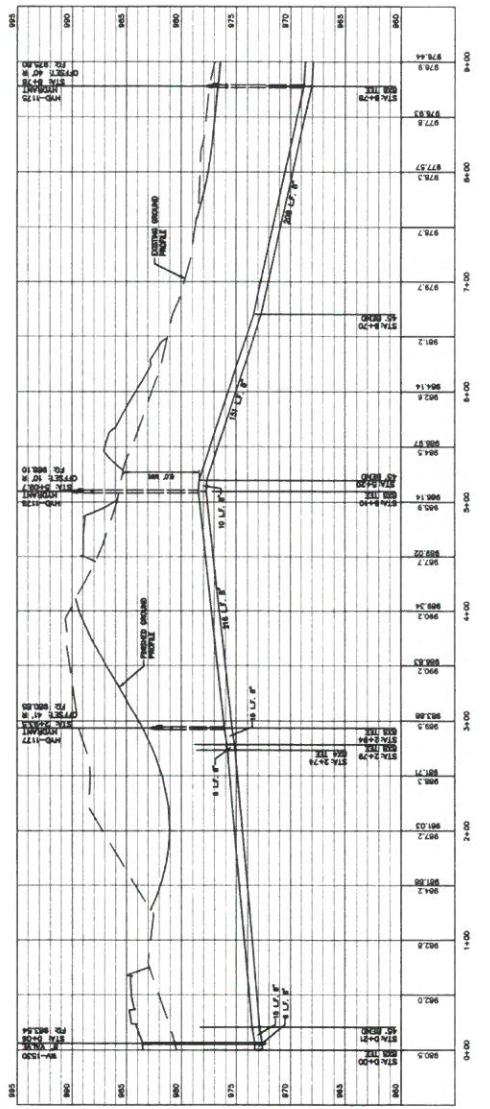
| | |
|-------------|------------|
| PROJECT NO. | 2000000 |
| DATE DRAWN | 04/11/2000 |
| DESIGNED BY | DL |
| CHECKED BY | DL |

Oakleaf Village - Garfield Township
 Division 15 Township 27 North Range 1 West
 Garfield Township, Grand Traverse County, Michigan

Utility Plan and Profile Sheet 2

| REV | DESCRIPTION | DATE | BY |
|--|-----------------------------|------------|----|
| A <td>FINAL REVIEW</td> <td>06.16.2000</td> <td>DL</td> | FINAL REVIEW | 06.16.2000 | DL |
| B <td>PLANNING COMMISSION REVIEW</td> <td>06.20.2000</td> <td>DL</td> | PLANNING COMMISSION REVIEW | 06.20.2000 | DL |
| C <td>ISSUED FOR PERMITS</td> <td>06.18.2000</td> <td>DL</td> | ISSUED FOR PERMITS | 06.18.2000 | DL |
| D <td>ENGINEERING REVIEW COMMENTS</td> <td>06.20.2000</td> <td>DL</td> | ENGINEERING REVIEW COMMENTS | 06.20.2000 | DL |

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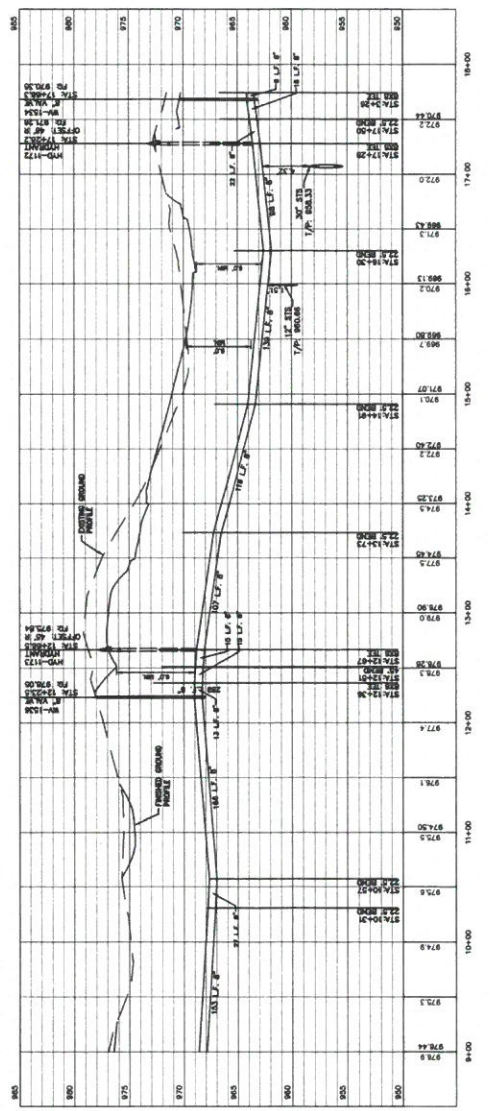


Oakleaf Village - Garfield Township
 Station 18+00 to 27+00, Design 11 feet
 Oakleaf Township, Grand Traverse County, Michigan

Utility Plan and Profile Sheet 3

| REV | DATE | DESCRIPTION |
|-----|----------|-----------------------------|
| A | 05.15.09 | ISSUED FOR REVIEW |
| B | 05.25.09 | PLANNING COMMISSION REVIEW |
| C | 05.25.09 | ISSUED FOR REVIEW |
| D | 10.26.09 | ENGINEERING REVIEW COMMENTS |
| JL | | |

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 Professional Surveying & Engineering
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 (616) 951-2227
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KEY PLAN

1/4" NORTH LONG LAKE ROAD

C6.3

Oakleaf Village - Garfield Township
 District 15, Township 27 North, Range 11 West
 Oakland County, Michigan

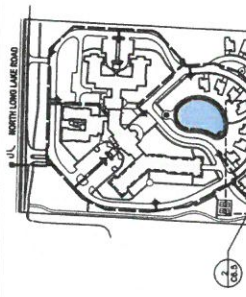
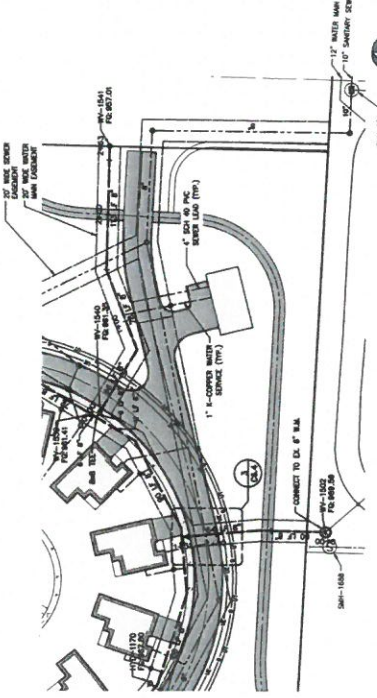
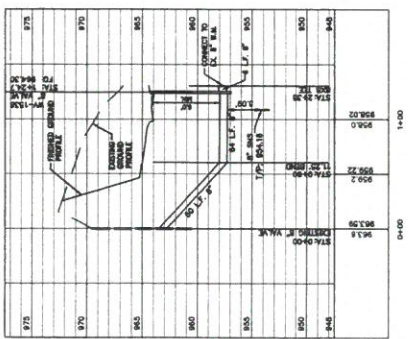
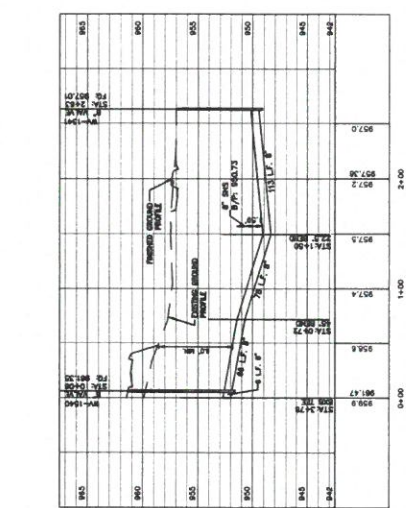
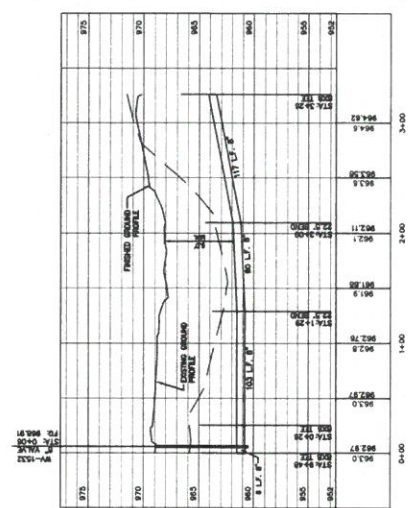
Utility Plan and Profile Sheet 5

| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| 1 | FINAL DESIGN | 04.12.2018 | JL |
| 2 | PLANNING COMMISSION REVIEW | 04.12.2018 | JL |
| 3 | REDESIGN FOR REVIEW | 04.12.2018 | JL |
| 4 | ENGINEERING REVIEW COMMENTS | 04.12.2018 | JL |

DESIGN PROVIDED BY



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2 WATER MAIN (0+00 TO 3+26)
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'

1 WATER MAIN - ACCESS DRIVE
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'

DESIGN PROVIDED BY



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 313.486.0007
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| | |
|-------------|------------|
| PROJECT NO. | 2010000 |
| DATE DRAWN | 03/12/2010 |
| DESIGNED BY | DFP |

Sanitary Sewer Plan and Profile Sheet 1

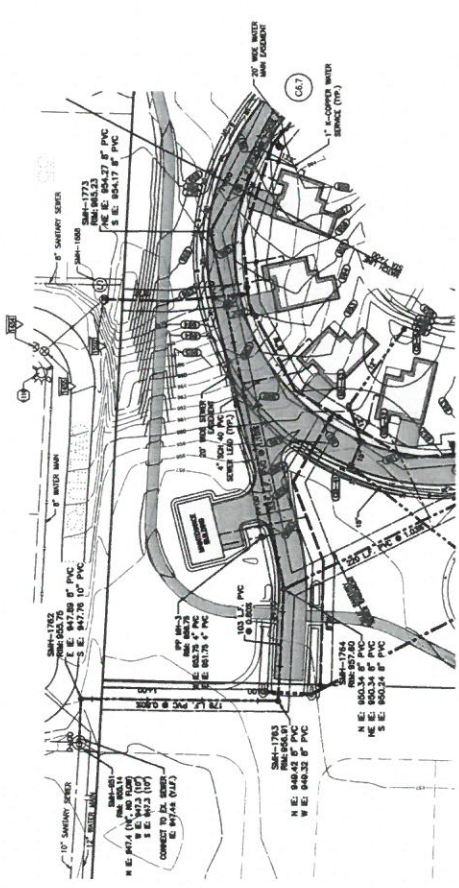
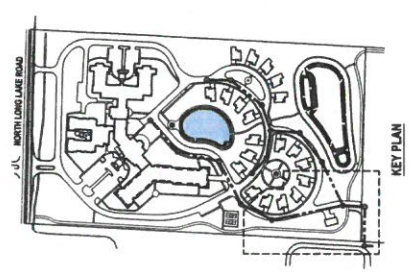
Oakleaf Village - Garfield Township
 Curedale Township, Crawford County, Michigan
 Station 15+00 to 27+00, Profile Page 11 of 11

| | | |
|-----|-----------------------------|------------|
| REV | DESCRIPTION | DATE |
| A | PLANNING COMMISSION REVIEW | 06/28/2009 |
| B | ENGINEERING REVIEW COMMENTS | 04/28/2009 |
| C | ISSUED FOR PERMIT | 04/28/2009 |
| D | ENGINEERING REVIEW COMMENTS | 04/28/2009 |

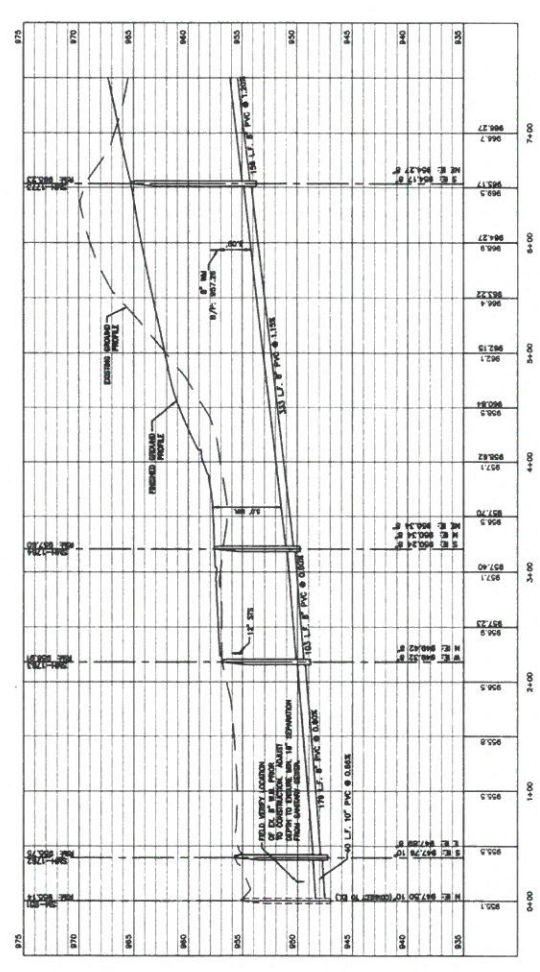
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LEGEND

- OPEN INLET
- CATCH BASIN
- STORM SEWER MANHOLE
- STORM SEWER STRUCTURE 6'
- STORM SEWER
- GATE VALVE
- INVERT MAN
- WALKER MAN
- SANITARY SEWER MANHOLE
- SANITARY SEWER
- SANITARY SEWER



1 SANITARY SEWER PROFILE - WEST LINE 0+00 TO 7+00



811 Know where you're digging. Call before you dig.

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS
 OBTAINED FROM PUBLIC RECORDS AND FIELD SURVEY.
 EXACT LOCATION AND DEPTH IS NOT GUARANTEED.
 CALL BEFORE YOU DIG.

| | |
|---------------|------------|
| PROJECT NO. | 2008002 |
| DATE ISSUED | 04.11.2008 |
| DATE REVISION | 05.03.2008 |
| DATE REVISION | 05.03.2008 |
| DATE REVISION | 05.03.2008 |

Sanitary Sewer Plan and Profile Sheet 3

Oakleaf Village - Garfield Township
 Located Township, Olive Township, Garfield County, Michigan
 Station 18+00 to Station 27+00, Range 11 West

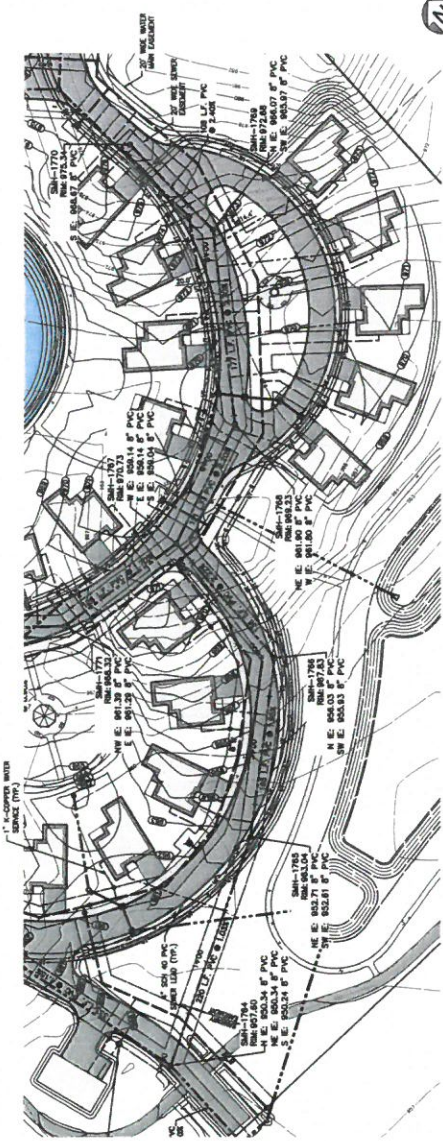
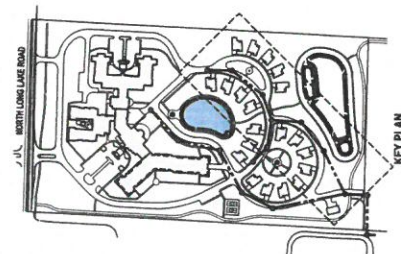
| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| 1 | ISSUED FOR REVIEW | 04.10.2008 | JL |
| 2 | PLANNING COMMISSION REVIEW | 04.10.2008 | JL |
| 3 | ENGINEERING REVIEW COMMENTS | 04.10.2008 | JL |

PLANS PREPARED BY:

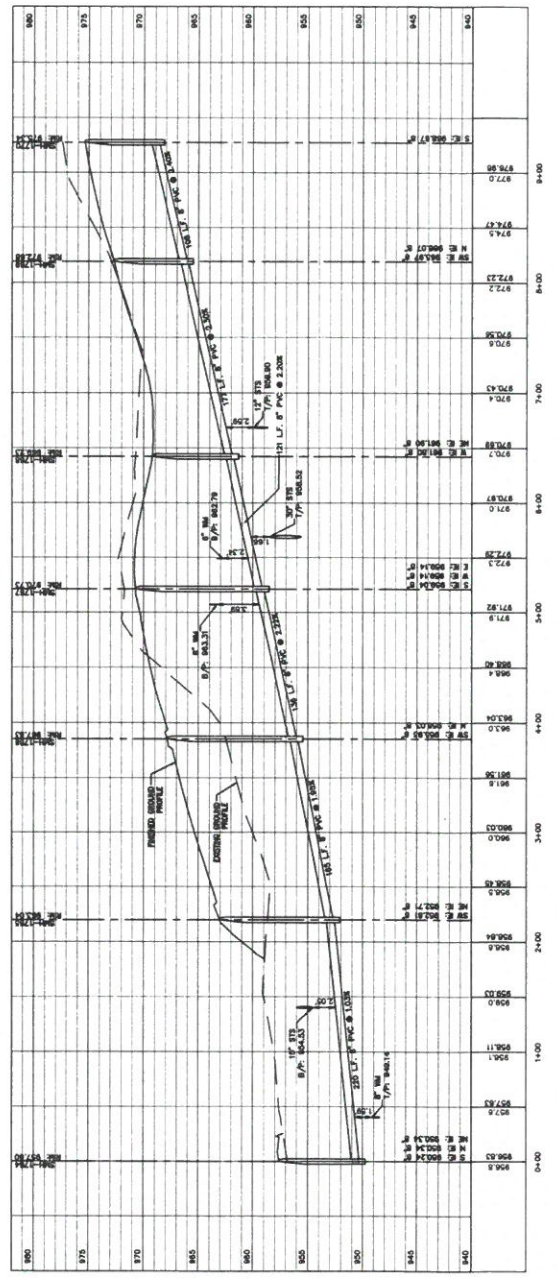


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- LEGEND**
- CLUMP INLET
 - CATCH BASIN
 - STORM SEWER MANHOLE
 - STORM SEWER STRUCTURE @
 - STORM SEWER
 - GATE VALVE
 - HYDRANT
 - WATER MAIN
 - SANITARY SEWER MANHOLE
 - SANITARY SEWER
 - SANITARY SEWER

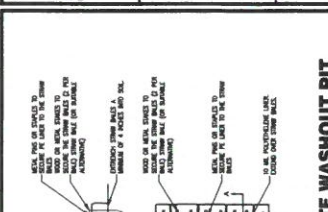


1 SANITARY SEWER PROFILE - EAST LINE 0+00 TO 9+27
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 10'

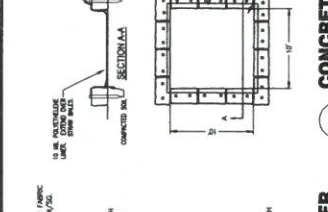


811
 Know what's Below.
 Call Before you Dig.

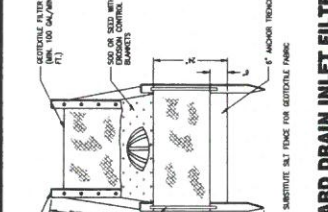
ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS
 BASED ON RECORD DRAWINGS AND FIELD SURVEY DATA.
 RECORDS MAY NOT BE AVAILABLE FOR ALL UTILITIES.
 THE USER SHALL VERIFY THE LOCATION AND DEPTH OF ALL
 UTILITIES BEFORE ANY CONSTRUCTION IS INITIATED.



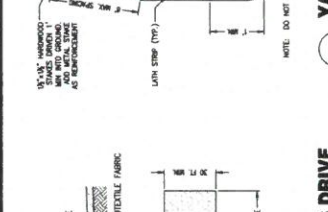
1 INLET PROTECTION
NOT TO SCALE



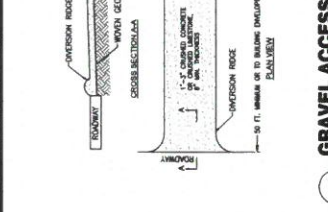
2 TREE PROTECTION
NOT TO SCALE



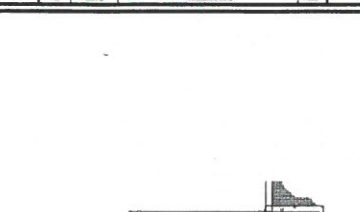
3 GRAVEL ACCESS DRIVE
NOT TO SCALE



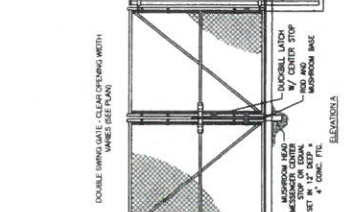
4 YARD DRAIN INLET FILTER
NOTE: DO NOT SUBSTITUTE 3/4\"/>



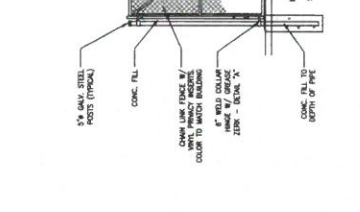
5 CONCRETE WASHOUT PIT
NOT TO SCALE



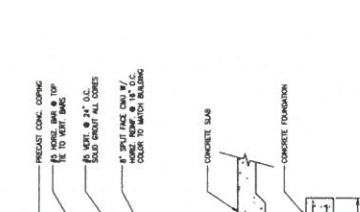
6 FENCE ELEVATION
NOT TO SCALE



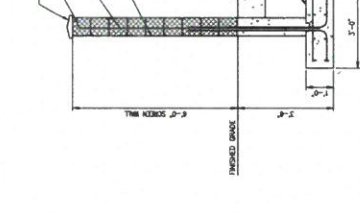
7 WALL SECTION
NOT TO SCALE



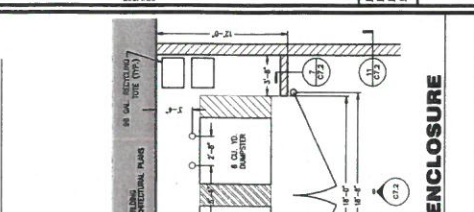
8 TRASH ENCLOSURE GATE
NOT TO SCALE



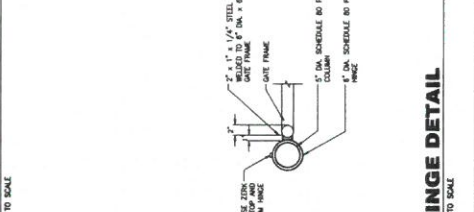
9 BOLLARD
NOT TO SCALE



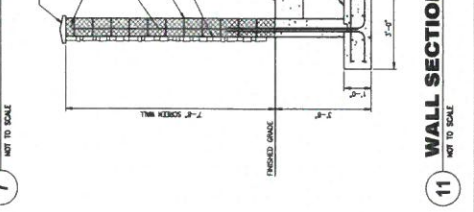
10 ACCESSIBLE PARKING SIGN
NOT TO SCALE



11 WALL SECTION
NOT TO SCALE



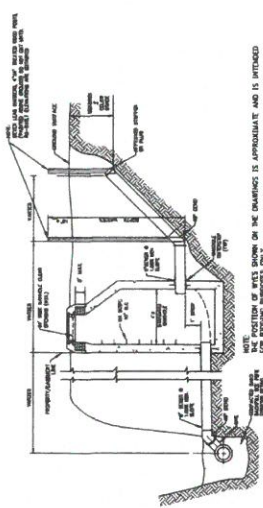
12 HINGE DETAIL
NOT TO SCALE



13 TRASH ENCLOSURE
SCALE: 1\"/>

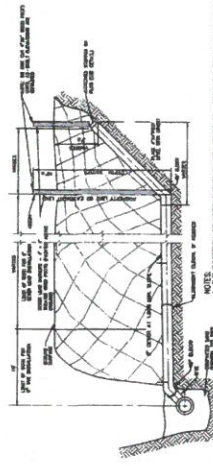
| REV | DESCRIPTION | DATE | BY |
|-----|-----------------------------|------------|----|
| 1 | ISSUED FOR REVIEW | 06/20/2005 | JL |
| 2 | PLANNING COMMISSION REVIEW | 06/20/2005 | JL |
| 3 | ENGINEERING REVIEW COMMENTS | 10/20/2005 | JL |

LAND PREPARED BY:
LANDTECH
Professional Surveying & Engineering
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Canton, OH 44705
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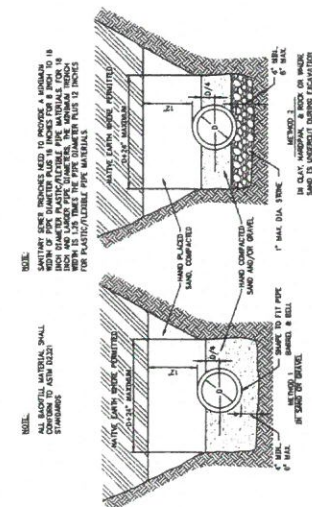


INDUSTRIAL/COMMERCIAL IPP SURVEILLANCE MANHOLE DETAIL
NO SCALE

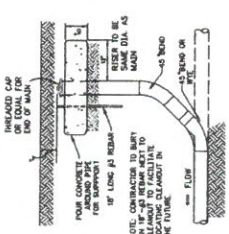
NOTE:
1. THE POSITION OF WATER STOP ON MANHOLE IS APPROXIMATE AND IS INTENDED TO BE LOCATED AT THE POINT OF ENTRY OF THE LEAD PIPE INTO THE MANHOLE.
2. THE POSITION OF WATER STOP ON MANHOLE IS APPROXIMATE AND IS INTENDED TO BE LOCATED IN THE FIELD TO MOST UNFAVORABLY SERVE THE PROPERTY INTEREST AND WILL BE RECORDED ON A SET OF AS-BUILT DRAWINGS.
3. THE POSITION OF WATER STOP ON MANHOLE IS APPROXIMATE AND IS INTENDED TO BE LOCATED IN THE FIELD TO MOST UNFAVORABLY SERVE THE PROPERTY INTEREST AND WILL BE RECORDED ON A SET OF AS-BUILT DRAWINGS.
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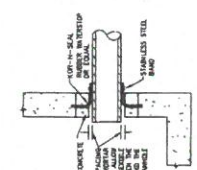
WYE AND SEWER LEAD INSTALLATION DETAIL
NO SCALE



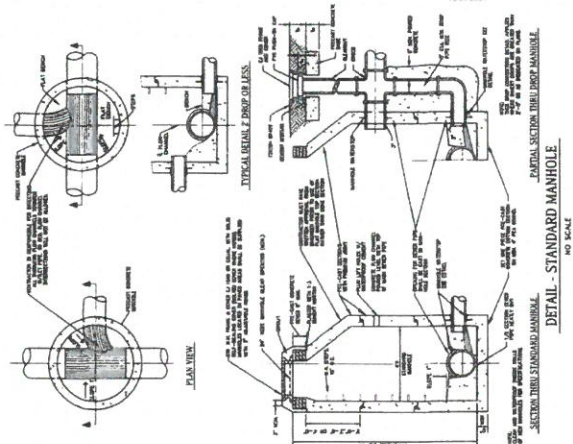
PIPE BEDDING DETAIL
CLASS B1 NO SCALE



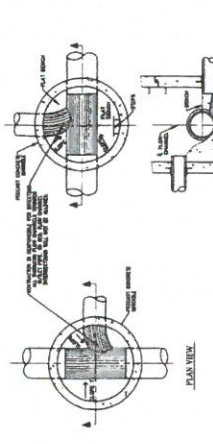
END CLEANOUT DETAIL
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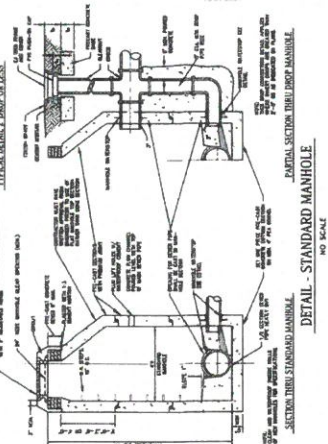
MANHOLE/MANWELL WATERSTOP DETAIL
NO SCALE



DETAIL - STANDARD MANHOLE
NO SCALE



TYPICAL DETAIL OF DROP OR JOKE



SECTION THROUGH STANDARD MANHOLE

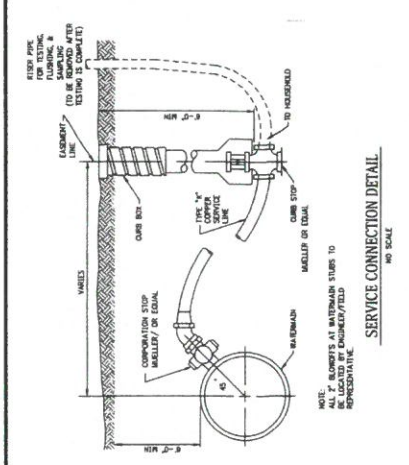
PLAN VIEW

TYPICAL DETAIL OF DROP OR JOKE

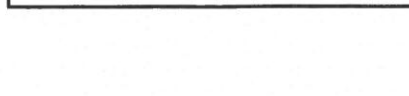
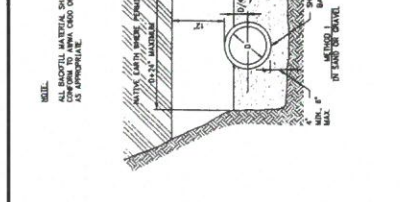
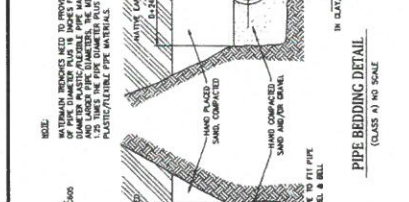
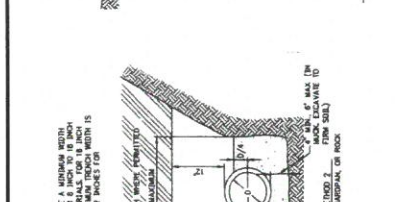
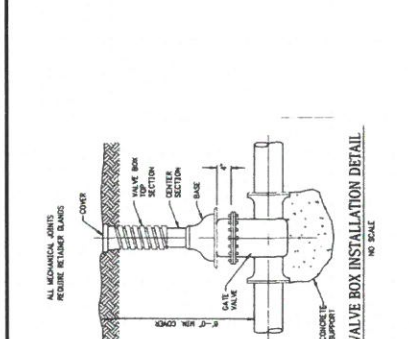
SECTION THROUGH STANDARD MANHOLE

DETAIL - STANDARD MANHOLE

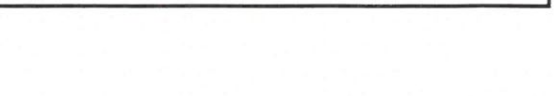
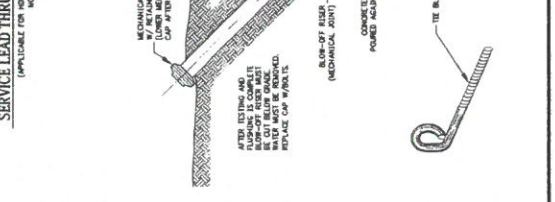
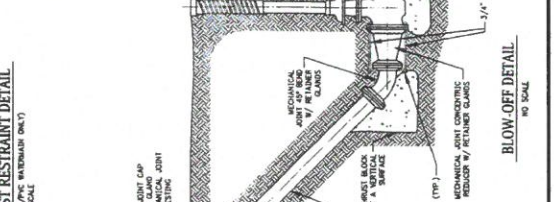
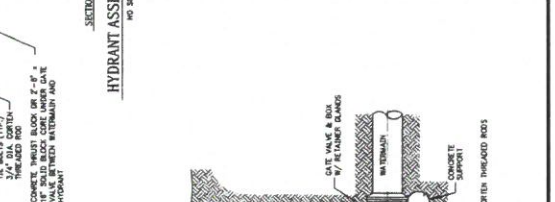
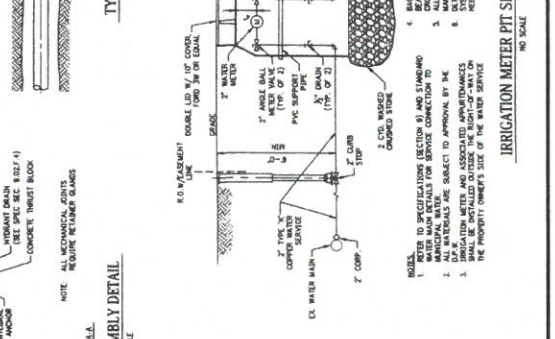
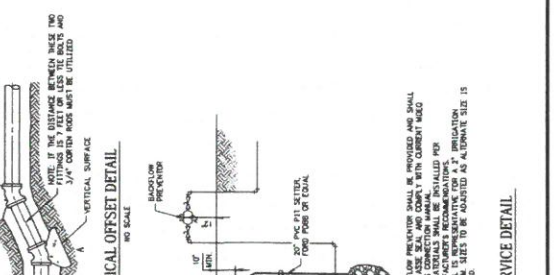
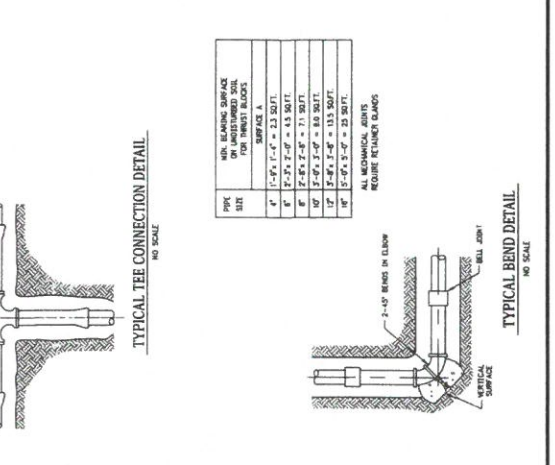
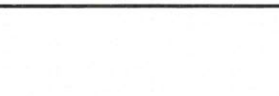
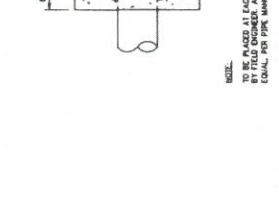
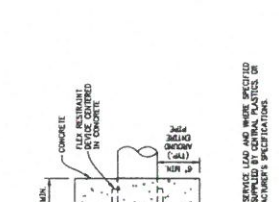
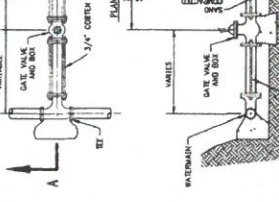
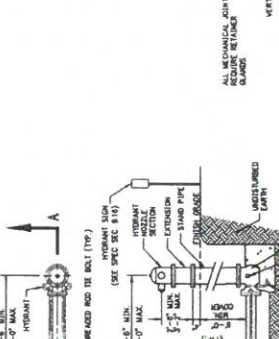
NO SCALE



| PIPE SIZE | MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THREAT BLOCKS SURFACE A |
|-----------|--|
| 4" | 1'-4" x 1'-0" = 13.50 FT. |
| 6" | 1'-8" x 1'-4" = 22.50 FT. |
| 8" | 2'-0" x 2'-0" = 4.00 FT. |
| 10" | 2'-4" x 2'-4" = 8.40 FT. |
| 12" | 2'-8" x 2'-8" = 7.10 FT. |
| 14" | 3'-0" x 3'-0" = 13.50 FT. |
| 16" | 3'-4" x 3'-4" = 13.50 FT. |
| 18" | 3'-8" x 3'-8" = 13.50 FT. |
| 20" | 4'-0" x 4'-0" = 13.50 FT. |
| 22" | 4'-4" x 4'-4" = 13.50 FT. |
| 24" | 4'-8" x 4'-8" = 13.50 FT. |
| 26" | 5'-0" x 5'-0" = 13.50 FT. |
| 28" | 5'-4" x 5'-4" = 13.50 FT. |
| 30" | 5'-8" x 5'-8" = 13.50 FT. |

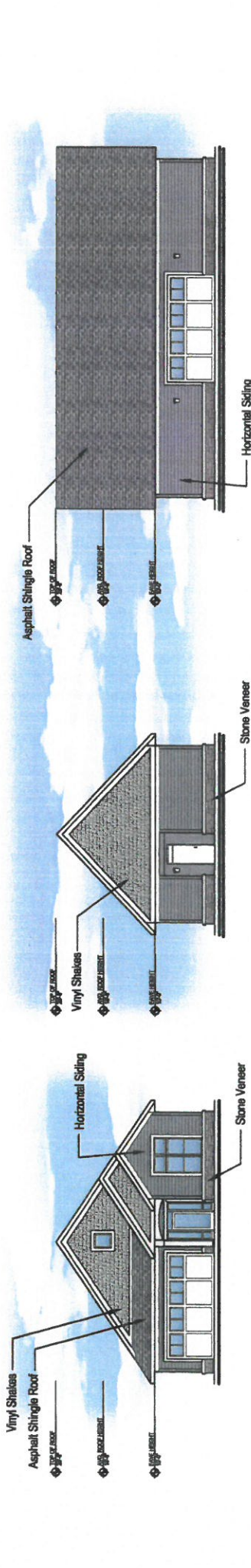


| DEGREE OF BEND IN ELBOW | PIPE SIZE | MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THREAT BLOCKS SURFACE A |
|-------------------------|-----------|--|
| 45° | 4" | 1'-4" x 1'-0" = 13.50 FT. |
| 45° | 6" | 1'-8" x 1'-4" = 22.50 FT. |
| 45° | 8" | 2'-0" x 2'-0" = 4.00 FT. |
| 45° | 10" | 2'-4" x 2'-4" = 8.40 FT. |
| 45° | 12" | 2'-8" x 2'-8" = 7.10 FT. |
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| 45° | 26" | 5'-0" x 5'-0" = 13.50 FT. |
| 45° | 28" | 5'-4" x 5'-4" = 13.50 FT. |
| 45° | 30" | 5'-8" x 5'-8" = 13.50 FT. |





C-ASSISTED LIVING ELEVATION



VILLA ELEVATION



MAINTENANCE BUILDING ELEVATIONS



D - DUMPSTER ENCLOSURE ELEVATIONS



OAKLEAF VILLAGE

TRAVERSE CITY, MICHIGAN

PRELIMINARY LANDSCAPE PLAN

APRIL 10, 2020

REVISED 06/26/20

REVISED 10/20/20

DRAWING INDEX:

SHEET NUMBER

COVER SHEET

GENERAL NOTES

LANDSCAPE NOTES, CALCULATIONS & PLANTING DETAILS

OVERALL LANDSCAPE SITE PLAN

NORTH WEST QUADRANT

SOUTH WEST QUADRANT

VILLAS

STORMWATER DETENTION & POND

SOUTH WEST QUADRANT
SHEET L-4

NORTH WEST QUADRANT
SHEET L-2

SHEET NUMBER

L-0

L-1

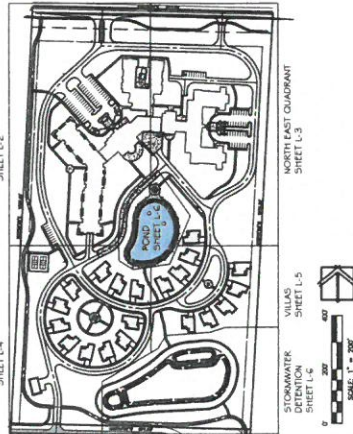
L-2

L-3

L-4

L-5

L-6



LANDSCAPE SPECIFICATIONS:

1. LANDSCAPE CONTRACTOR SHALL INCLUDE:
 - a. ALL MATERIALS TO BE INSTALLED SHALL BE OF THE HIGHEST QUALITY AND SHALL BE APPROVED BY THE ARCHITECT AND LANDSCAPE ARCHITECT.
 - b. ALL MATERIALS SHALL BE DELIVERED TO THE PROJECT SITE AND SHALL BE STORED PROPERLY TO PREVENT DAMAGE.
 - c. ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
 - d. ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS.
2. LANDSCAPE CONTRACTOR SHALL PROVIDE:
 - a. A DETAILED LANDSCAPE PLAN SHOWING THE LOCATION AND SPECIFICATIONS OF ALL MATERIALS TO BE INSTALLED.
 - b. A DETAILED LANDSCAPE PLAN SHOWING THE LOCATION AND SPECIFICATIONS OF ALL PLANTS TO BE INSTALLED.
 - c. A DETAILED LANDSCAPE PLAN SHOWING THE LOCATION AND SPECIFICATIONS OF ALL LIGHTING TO BE INSTALLED.
 - d. A DETAILED LANDSCAPE PLAN SHOWING THE LOCATION AND SPECIFICATIONS OF ALL FURNITURE TO BE INSTALLED.
3. LANDSCAPE CONTRACTOR SHALL MAINTAIN:
 - a. ALL MATERIALS TO BE INSTALLED SHALL BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.
 - b. ALL PLANTS TO BE INSTALLED SHALL BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.
 - c. ALL LIGHTING TO BE INSTALLED SHALL BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.
 - d. ALL FURNITURE TO BE INSTALLED SHALL BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.
4. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR:
 - a. OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.
 - b. OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LANDSCAPE ARCHITECT.
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LANDSCAPING CALCULATIONS:

- REQUIREMENTS FOR THE LANDSCAPING CONTRACTOR:
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ANTANILVERMAN
LANDSCAPE ARCHITECT
203 N. 25th
Traverse City, MI 49781
231.922.1205
antanalverman@gmail.com

| | | |
|-----|----------|----------------------------|
| NO. | DATE | DESCRIPTION |
| 1 | 04/10/20 | PRELIMINARY LANDSCAPE PLAN |
| 2 | 06/26/20 | REVISED |
| 3 | 10/20/20 | REVISED |

LANDSCAPE DEVELOPMENT PLAN
OAKLEAF VILLAGE - GARFIELD TOWNSHIP
NORTH LONG LAKE ROAD, TRAVERSE CITY, MICHIGAN
COVER SHEET
2007
SHEET L-0

LANDSCAPING CALCULATIONS:

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PERENNIAL PLANTING DETAIL



TREE PLANTING DETAIL



SHRUB PLANTING DETAIL



PERENNIAL PLANTING DETAIL

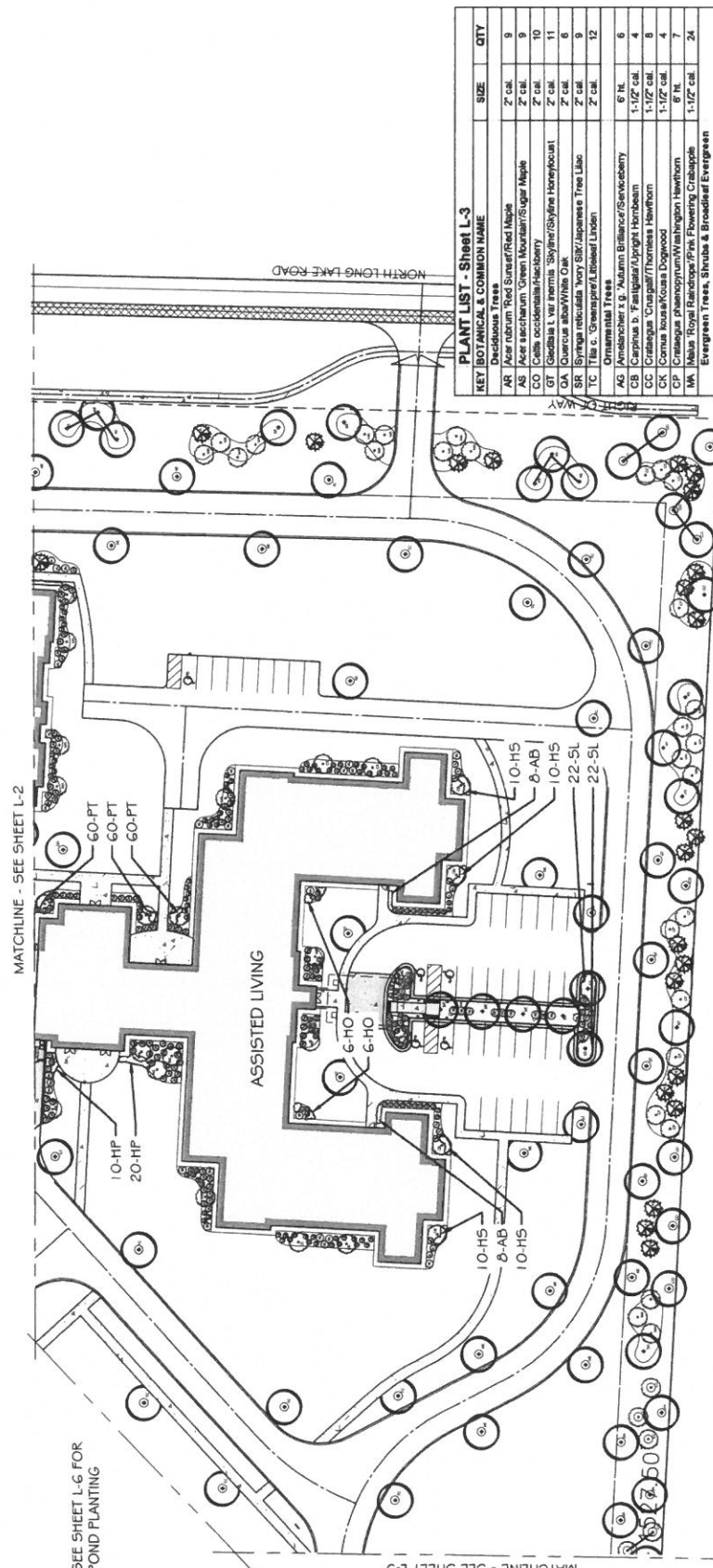


TREE PLANTING DETAIL



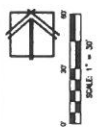
SHRUB PLANTING DETAIL

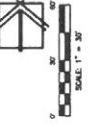




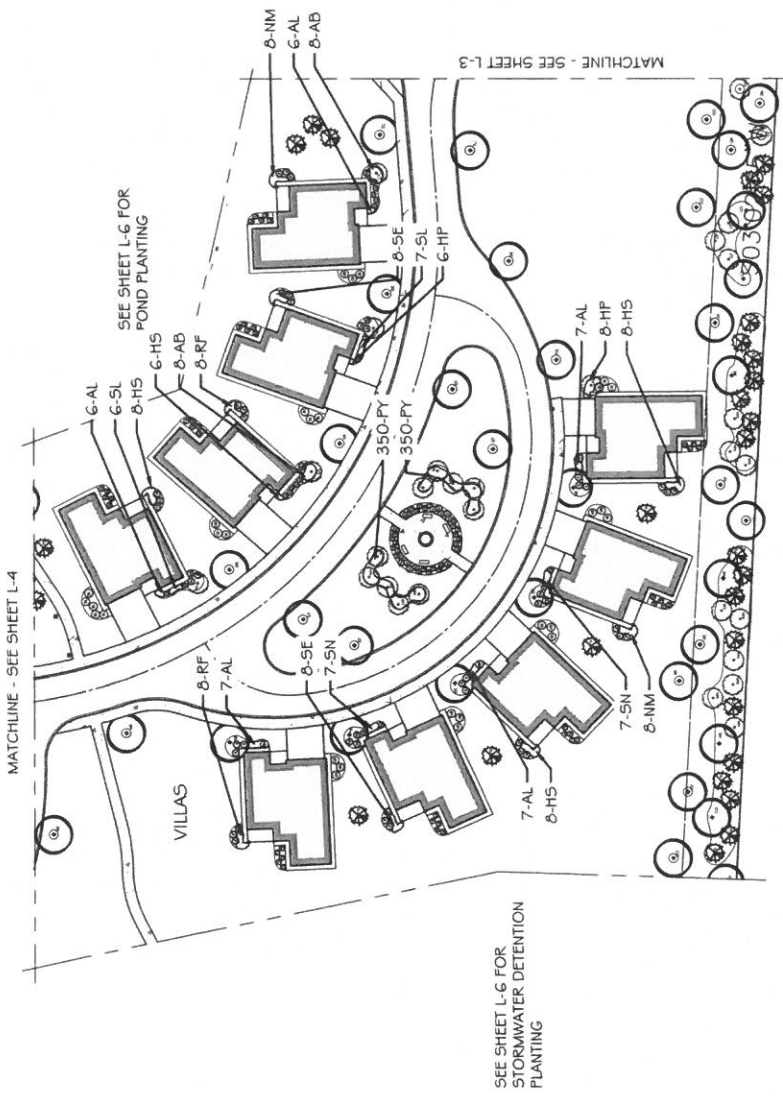
PLANT LIST - Sheet L-3

| KEY | BOTANICAL & COMMON NAME | SIZE | QTY |
|--|--|-------------|-----|
| Deciduous Trees | | | |
| AR | Acer rubrum Red Sunset/Red Maple | 2" cal. | 9 |
| AS | Acer saccharum Green Mountain/Sugar Maple | 2" cal. | 10 |
| CO | Celtis occidentalis Hackberry | 2" cal. | 11 |
| GT | Geothia l. var nemis Skyline/Skyline Honeylocust | 2" cal. | 6 |
| QA | Quercus alba/White Oak | 2" cal. | 9 |
| SR | Syringa villosa 'Ivy Silk'/Japanese Tree Lilac | 2" cal. | 9 |
| TC | Tilia c. 'Greenspire'/Blissful Linden | 2" cal. | 12 |
| Ornamental Trees | | | |
| AS | Amelanchier s.g. Autumn Balance/Seneciohy | 6" HL | 6 |
| CB | Carpinus b. Fastigiat/Upright Hornbeam | 1-1/2" cal. | 4 |
| CC | Crataegus crataegiflora/Horned Hawthorn | 1-1/2" cal. | 9 |
| CO | Cornus florida/Flowering Dogwood | 1-1/2" cal. | 7 |
| CIP | Cornus florida/Flowering Dogwood | 1-1/2" cal. | 7 |
| MA | Malus 'Royal Redcrop'/Pink Flowering Crabapple | 1-1/2" cal. | 24 |
| Evergreen Trees, Shrubs & Broadleaf Evergreen | | | |
| Shrubs | | | |
| BG | Buxus 'Green Velvet' | 5 gal. | 2 |
| L | Lex x m. 'Blue Princess'/Blue Princess Holly | 5 gal. | 6 |
| L | Lex x m. 'Blue Princess'/Blue Princess Holly | 5 gal. | 4 |
| JN | Juniperus h. Broadmoor/Low Juniper | 5 gal. | 76 |
| PA | Picea glauca/Norway Spruce | 6" HL | 14 |
| PG | Pinus strobus/White Pine | 6" HL | 3 |
| RH | Rhododendron c. 'Autumn White Rhododendron | 30" HL | 2 |
| TA | Taxus 'Lambert'/Lambert Yew | 5 gal. | 29 |
| TH | Thuja o. 'Sagardark Green Arborvitae | 6" HL | 3 |
| Perennials and Ornamental Grasses | | | |
| AN | Anemone s. 'Stacy's Blue'/Dwarf Anemone | 5 gal. | 18 |
| DG | Dracopis gracilis 'Nival' | 5 gal. | 25 |
| HA | Hydrangea s. 'Incrediball' | 5 gal. | 26 |
| HL | Hydrangea 'Limelight' | 5 gal. | 24 |
| HP | Hypericum 'Sunny Boulevard'/St. John's Wort | 5 gal. | 26 |
| SM | Syringa p. 'Miss Kim'/Dwarf Lilac | 5 gal. | 6 |
| KEY BOTANICAL & COMMON NAME | | | |
| AS | Arborescent | 1 gal. | 16 |
| HO | Holly | 1 gal. | 12 |
| HP | Heuchera 'Palace Purple'/Coral Bell | 1 gal. | 30 |
| HS | Hemerocallis 'Stella de Oro'/Daylily | 1 gal. | 40 |
| PT | Pachyrhizus terminalis | 3-1/4" cal. | 100 |
| SL | Sesuvia portulacastrum/Audumns Moor Grass | 1 gal. | 44 |





| KEY BOTANICAL & COMMON NAME | SIZE | QTY |
|--|-------------|-----|
| Deciduous Trees | | |
| AR Acer rubrum 'Red Sunburst' | 2" cal. | 6 |
| AS Acer saccharum 'Green Mountain' | 2" cal. | 2 |
| CO Carya occidentalis 'Hershey' | 2" cal. | 8 |
| GT Gleditsia triacanthos 'Skyline/Skyline Honeylocust' | 2" cal. | 4 |
| HA Hamamelis virginica 'Autumn Brilliance' | 2" cal. | 4 |
| PR Prunella serotina 'Chippewa' | 2" cal. | 10 |
| TC Tilia cordata 'Greenland' | 2" cal. | 2 |
| Ornamental Trees | | |
| AG Amelanchier x 6 'Autumn Brilliance/Serviceberry' | 6" H. | 3 |
| CC Crataegus 'Crataegus/Thornless Hawthorn' | 1-1/2" cal. | 2 |
| CK Cornus kousa 'Kousa Dogwood' | 1-1/2" cal. | 2 |
| CP Crataegus phenacanthum 'White Knight Hawthorn' | 6" H. | 3 |
| MA Malus 'Royal Raindrops/Pink Flowering Crabapple' | 1-1/2" cal. | 19 |
| Evergreen Trees, Shrubs & Broadleaf Evergreen | | |
| Shrubs | | |
| BO Buxus 'Green Velvet' | 5 gal. | 14 |
| IB Ilex x m. 'Blue Princess/Blue Princess Holly' | 5 gal. | 8 |
| IL Ilex x m. 'Blue Princess/Blue Princess Holly' | 5 gal. | 3 |
| JN Juniperus h. 'Broadmoor/Low Juniper' | 5 gal. | 6 |
| JP Juniperus s. 'Hazel Columnar/Green Columnar Juniper' | 6" H. | 21 |
| PA Picea abies 'Newey Spruce' | 6" H. | 11 |
| PG Picea glauca 'White Spruce' | 6" H. | 3 |
| PS Pines strobus/White Pine | 6" H. | 14 |
| RH Rhododendron c. 'Album/White Rhododendron' | 30" H. | 3 |
| TH Thuja 'Tidestrom/Tidestrom Yew' | 5 gal. | 6 |
| Deciduous Shrubs | | |
| AN Anemone m. 'Low Scope Mound/Dwarf Anemone' | 5 gal. | 10 |
| CB Cornus s. 'Farrow/Arctic Fire Red Twig Dogwood' | 5 gal. | 15 |
| DG Diervilla o. 'Nana' | 5 gal. | 10 |
| HA Hydrangea s. 'Nimbus' | 5 gal. | 14 |
| HP Hydrangea 'Sunny Boulevard/S.L. John's Wort' | 5 gal. | 34 |
| SI Salix s. 'Sagehen/Weeping Willow' | 5 gal. | 8 |
| SP Spirea l. 'Salem/Douglas Play Arisea Spirea' | 5 gal. | 4 |
| VB Viburnum s. 'Blue Muffin/Crowwood Viburnum' | 5 gal. | 6 |
| Perennials and Ornamental Grasses | | |
| AB Astilbe x 1 'Montgomery' | 1 gal. | 16 |
| AL Alchemilla mollis | 1 gal. | 33 |
| HP Heuchera 'Palace Purple' | 1 gal. | 14 |
| HS Heuchera 'Sails on Oro/Deeply' | 1 gal. | 30 |
| HW Heuchera x 1 'Wendy's Low/Carmel' | 1 gal. | 14 |
| PY Phlox s. l. 'Goddess/Black-eyed Susan' | 3-1/2" cal. | 100 |
| RF Rudbeckia l. 'Goldsturm/Black-eyed Susan' | 1 gal. | 16 |
| SE Sedum 'Baldier' | 1 gal. | 16 |
| SL Salix s. album/Alumina Moor Grass | 1 gal. | 13 |
| SN Salix s. may/Agri/Sage | 1 gal. | 14 |



SEE SHEET L-6 FOR STORMWATER DETENTION PLANTING

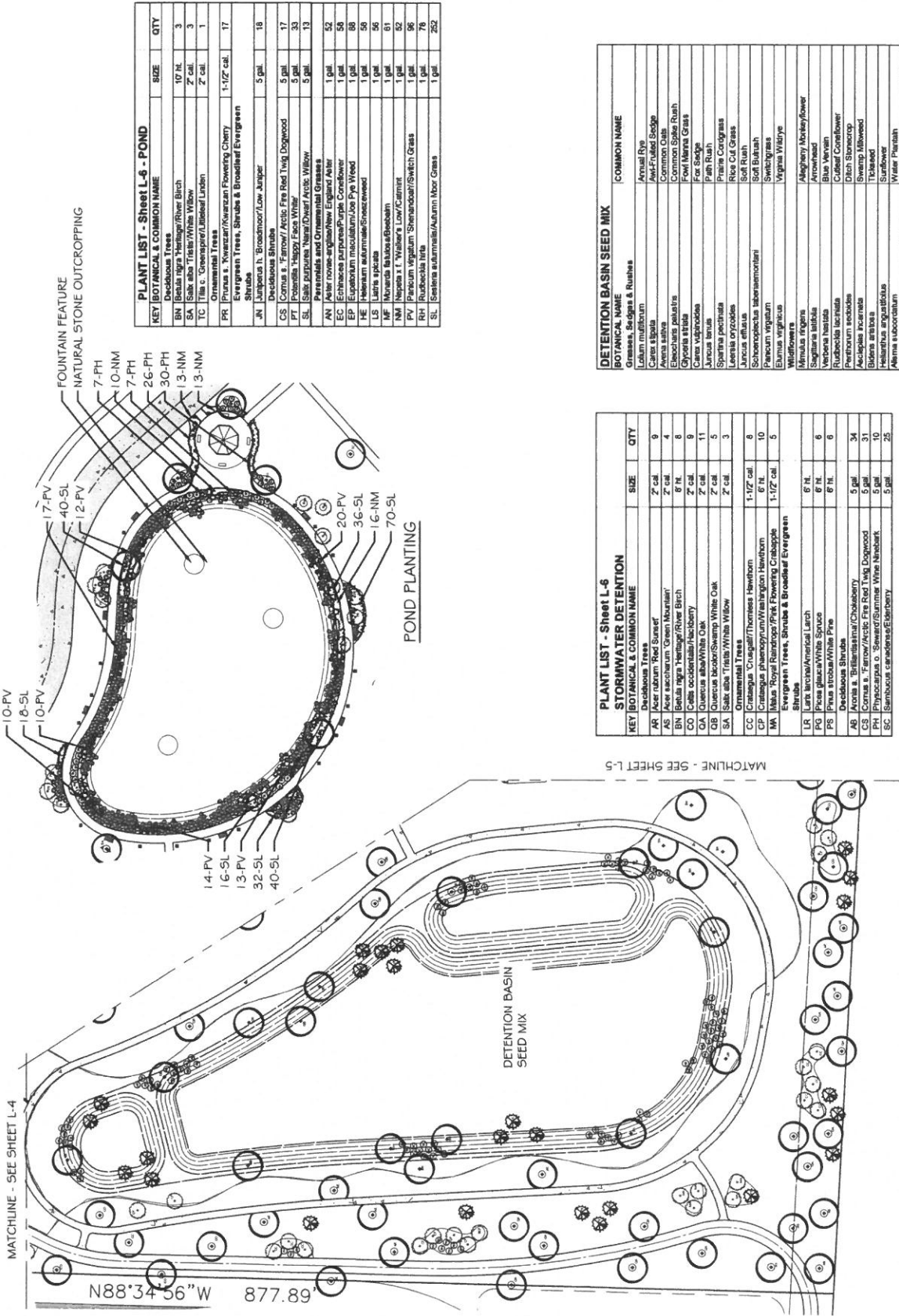
MATCHLINE - SEE SHEET L-4

SEE SHEET L-6 FOR POND PLANTING

MATCHLINE - SEE SHEET L-3

VILLAS

VILLAS



PLANT LIST - Sheet L-6 - POND

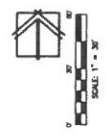
| KEY BOTANICAL & COMMON NAME | SIZE | QTY |
|---|-------------|-----|
| Deciduous Trees | | |
| BN Betula nigra 'Heritage'/River Birch | 10' Ht. | 3 |
| SA Salix alba 'Tidwell'/White Willow | 2' cal. | 3 |
| TC Tilia c. 'Greenspire'/Limeleaf Linden | 2' cal. | 1 |
| Ornamental Trees | | |
| FR Prunus s. 'Noveboracensis'/American Flowering Cherry | 1-1/2' cal. | 17 |
| Evergreen Trees, Shrubs & Broadleaf Evergreen | | |
| JN Juniperus h. 'Broadmoor'/Low Juniper | 5 gal. | 18 |
| Deciduous Shrubs | | |
| CS Cornus s. 'Farrow'/Acute Fire Red Twig Dogwood | 5 gal. | 17 |
| PT Potentilla 'Happy Face White' | 5 gal. | 33 |
| SL Salix purpurea 'Nana'/Dwarf Purple Willow | 5 gal. | 13 |
| Perennials and Ornamental Grasses | | |
| AN Aster novae-angliae/New England Aster | 1 gal. | 52 |
| EC Echinacea purpurea/Purple Coneflower | 1 gal. | 58 |
| EP Equisetum maculatum/Joe Pye Weed | 1 gal. | 88 |
| FE Felisodium autumnale/Goldcrested | 1 gal. | 58 |
| LE Liatris spicata | 1 gal. | 58 |
| HE Helianthus scaberrimus/Scaberrimus | 1 gal. | 58 |
| MA Monarda s. 'Walden's Low'/Carmine | 1 gal. | 52 |
| NY Nyctaginia virginiana/White Nightshade | 1 gal. | 52 |
| PV Panicum virgatum 'Shenandoah'/Switch Grass | 1 gal. | 56 |
| RH Rudbeckia hirta | 1 gal. | 76 |
| SL Setaria subulmaria/Autumn Moor Grass | 1 gal. | 252 |

**PLANT LIST - Sheet L-6
STORMWATER DETENTION**

| KEY BOTANICAL & COMMON NAME | SIZE | QTY |
|---|-------------|-----|
| Deciduous Trees | | |
| AR Acer rubrum 'Red Sunset' | 2' cal. | 9 |
| AS Acer saccharum 'Green Mountain' | 2' cal. | 4 |
| BN Betula nigra 'Heritage'/River Birch | 6' Ht. | 6 |
| CO Crataegus occidentalis/Hawthorn | 2' cal. | 9 |
| GA Quercus alba/White Oak | 2' cal. | 11 |
| OB Quercus bicolor/Swamp White Oak | 2' cal. | 5 |
| SA Salix alba 'Tidwell'/White Willow | 2' cal. | 3 |
| Evergreen Trees, Shrubs & Broadleaf Evergreen | | |
| CC Crataegus 'Coccinea'/Thornless Hawthorn | 1-1/2' cal. | 6 |
| CP Crataegus phaeocarpa/Washington Hawthorn | 6' Ht. | 10 |
| MA 'Royal Raindrops'/Pink Flowering Crabapple | 1-1/2' cal. | 5 |
| Shrubs | | |
| LR Liriodendron 'American' Larch | 6' Ht. | 6 |
| PG Picea glauca/White Spruce | 6' Ht. | 6 |
| PS Pinus strobus/White Pine | 6' Ht. | 6 |
| Deciduous Shrubs | | |
| AB Aronia s. 'Brimleyana'/Chokeberry | 5 gal. | 34 |
| CS Cornus s. 'Farrow'/Acute Fire Red Twig Dogwood | 5 gal. | 31 |
| FR Prunus s. 'Noveboracensis'/American Flowering Cherry | 5 gal. | 25 |
| SC Sambucus racemosa/Black Elderberry | 5 gal. | 25 |

DETENTION BASIN SEED MIX

| BOTANICAL NAME | COMMON NAME |
|---------------------------|---------------------|
| Grasses, Sedges & Rushes | |
| Lolium multiflorum | Annual Rye |
| Carex ligata | Arch-fruited Sedge |
| Common | Common |
| Elymus repens | Common Ryegrass |
| Glycyrrhiza lehrlii | Common Slender Rush |
| Festuca arvensis | Fowl Meadow Grass |
| Carex vaginifolia | Fox Sedge |
| Juncus tenuis | Path Rush |
| Spartina pectinata | Prairie Cordgrass |
| Leersia oryzoides | Rice Cut Grass |
| Juncus effusus | Soft Rush |
| Schoenoplectus americanus | Soft Rush |
| Panicum virgatum | Switchgrass |
| Elymus virginicus | Virginia Wildrye |
| Wildflowers | |
| Ranunculus repens | Albany Monkeyflower |
| Verbena stricta | Blueweed |
| Verbena hastata | Blueweed |
| Rudbeckia hirta | Cleaved Coneflower |
| Perforatus nodosus | Ditch Spinnaker |
| Asclepias incarnata | Swamp Milkweed |
| Galium aparine | Tansy |
| Helianthus angustifolius | Sunflower |
| Alnus subcordatum | Water Planetree |



STORMWATER DETENTION PLANTING



320 897 4953 | epic-eng.com
121115th Ave, Suite 200
Traverse City, MI 49783

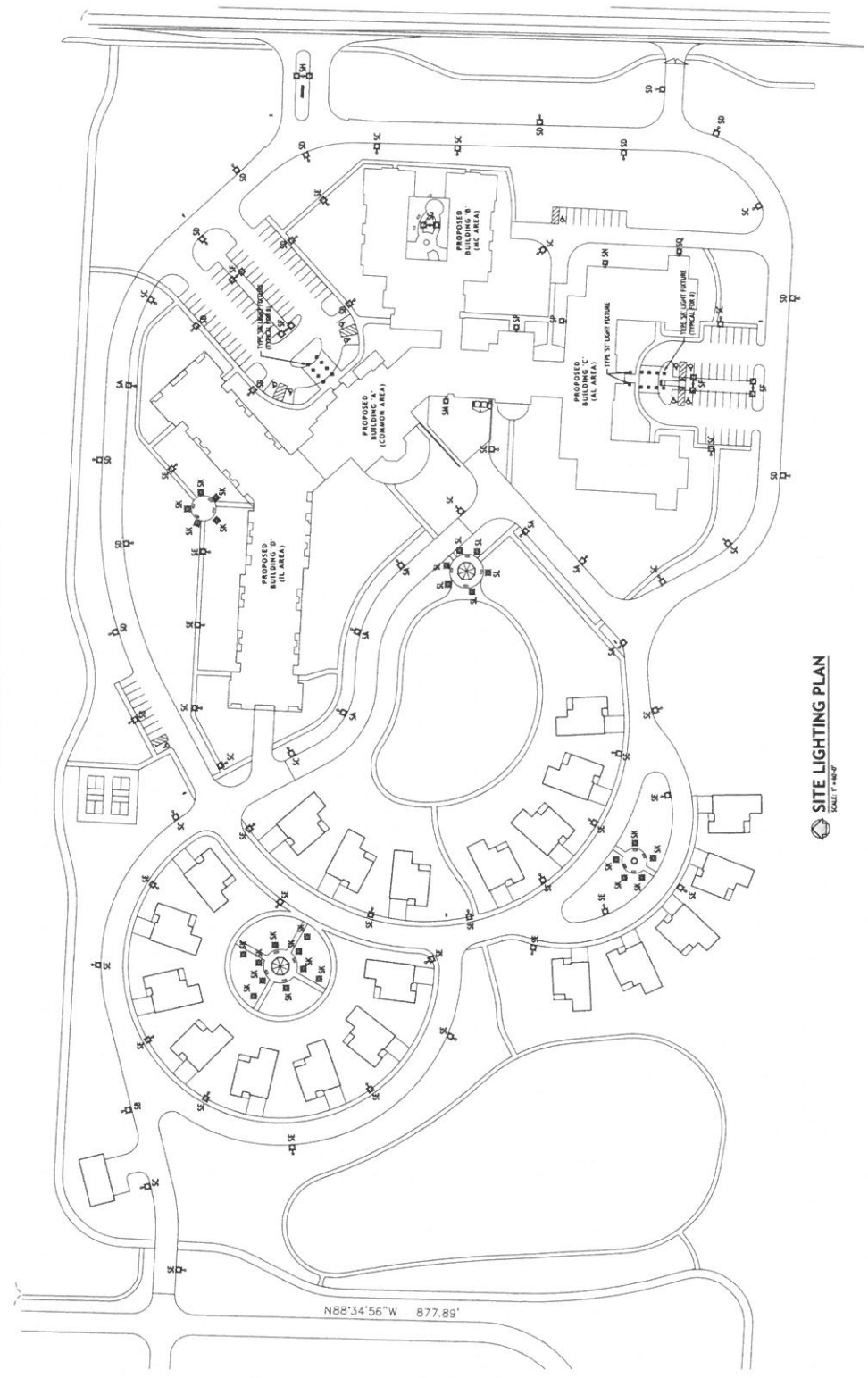
PROJECT TITLE
Oakleaf Village
Traverse City, Michigan

REVISION




SITE NOTES:

1. ALL POLE MOUNTED LIGHT FIXTURES SHALL BE MOUNTED 14' ABOVE GRADE, EXCEPT TYPES "3P" AND "3H" WHICH SHALL BE MOUNTED 20' HIGH ABOVE GRADE.
2. FIXTURES TYPES "3K" & "3L" ARE HOLLAND LIGHT FIXTURES WHICH ARE 4' HIGH.
3. COLOR TEMPERATURE FOR ALL LIGHT FIXTURES SHALL BE 3000°K.
4. ALL SITE LIGHT FIXTURES SHALL BE FULL CUTOFF TYPE AND DARK SKY COMPLIANT.



SITE LIGHTING PLAN
SCALE 1/8"=1'-0"

| | | |
|---|--|---------------------------------------|
|  Charter Township of Garfield Planning Department Report No. 2020-151 | | |
| Prepared: | November 4, 2020 | Pages: 3 |
| Meeting: | November 12, 2020 Planning Commission | Attachments: <input type="checkbox"/> |
| Subject: | Child Care Centers, Major Thoroughfares ZO Text Amendment – Introduction | |

BACKGROUND:

The Township recently received an application for the building of the Prince of Peace Lutheran Church for a site on the east side of LaFranier Road, located immediately south of the Village of LaFranier Woods Planned Unit Development. The site is zoned A-Agricultural. Churches are considered an Institutional Use and are permitted in the A-Agricultural District by Special Use Permit with conditions.

In addition to a church sanctuary and fellowship hall, the church is proposed to include a child development center. During its Completeness Review of the application, staff identified two issues with the proposed uses based on the current Zoning Ordinance requirements:

- A church, regulated as an Institutional Use, is required to be located on a major thoroughfare based on Section 753. A major thoroughfare is defined as an arterial route for through traffic which has been classified as such in the Master Plan. The Master Plan classifies LaFranier Road as a Minor Collector, not an arterial road, and so the proposed church would not be permitted.
- The Zoning Ordinance defines Child Care Center separately from Institutional Use and does not permit Child Care Centers in the A-Agricultural district.

Staff and the Planning Commission discussed these issues at the study session on October 28, 2020. Staff suggested updating the definitions so that major thoroughfares would include both “arterial” and “collector” roads and that the road definitions would be based on the National Functional Classification (NFC) system as used by the Michigan Department of Transportation (MDOT). Staff also suggested allowing Child Care Centers in the A-Agricultural zoning district via Special Use Permit.

The Planning Commission agreed to introduce the proposed changes at this meeting. The proposed Zoning Ordinance changes are described on the following pages and would impact Section 201 General Definitions and Section 325 A (Agricultural), subsection C. Uses Permitted by Special Use Permit.

For Section 201 General Definitions, make the following changes:

| Existing | Proposed |
|---|---|
| <u>Highway</u> : A street, defined herein, which is under the jurisdiction of the Michigan Department of Transportation. Highways may also be classified as freeways and interstates. | <u>Highway</u> : See “Road, Highway” |
| <u>Major Thoroughfare</u> : A public street, the principal use or function of which is to provide an arterial route for through traffic, with its secondary use or function being the provision of access to abutting property, and which has been classified as such in the Master Plan. | <u>Major Thoroughfare</u> : See “Road, Major Thoroughfare” |
| <u>Road, Arterial</u> : The following roads are Arterial Roads: Barlow; Cass; Garfield; Hammond; Keystone; LaFranier; N. Long Lake; N. Silver Lake; W. Silver Lake; W. South Airport | <u>Road, Arterial</u> : Any road designated as an “Other Principal Arterial” or “Minor Arterial” on the National Functional Classification (NFC) system as defined by the Michigan Department of Transportation (MDOT). |
| | <u>Road, Collector</u> : Any road designated as a “Major Collector” or “Minor Collector” on the National Functional Classification (NFC) system as defined by the Michigan Department of Transportation (MDOT). |
| | <u>Road, Highway</u> : Any road designated as an “Interstate” or “Other Freeway” on the National Functional Classification (NFC) system as defined by the Michigan Department of Transportation (MDOT). |
| <u>Road, Local</u> : Any road not considered a State Highway, Arterial Road or Primary Road | <u>Road, Local</u> : Any road designated as “Local” on the National Functional Classification (NFC) system as defined by the Michigan Department of Transportation (MDOT), including public and private roads. |
| | <u>Road, Major Thoroughfare</u> : Any road designated as either an arterial road or a collector road. |
| <u>Road, Primary</u> : The following roads are Primary Roads: Barnes; Birmley; Cedar Run; E. Silver Lake; Hartman; Park; Silver Pines; Rennie School; Townline; Zimmerman; | <u>Road, Primary</u> : See “Road, Collector” |

For Section 325 A (Agricultural), in subsection C. Uses Permitted by Special Use Permit, amend item (7) from (Reserved) to Child Care Center – § 720 as follows:


- (1) Adult Foster Care, Small Group Home (7-12)
- (2) Adult Foster Care, Large Group Home (13-20)
- (3) Airports and Airfields
- (4) Bed & Breakfast– See § 714
- (5) (Reserved)
- (6) Campgrounds
- (7) Child Care Center – § 720
- (8) Drive-In Theaters– See § 736
- (9) Game or Hunting Preserves operated for profit
- (10) Golf Courses and Country Clubs, not including stand-alone golf-driving ranges and miniature golf courses, subject to § 749
- (11) Greenhouses and nurseries selling at retail on the premises
- (12) Incinerators
- (13) Institutional Uses and Structures– See § 753
- (14) Kennels– See § 756
- (15) Livestock Auction Yards
- (16) Essential Service Facilities – See § 737
- (17) Raising of Fur Bearing Animals for profit
- (18) Reserved
- (19) Recreational Field Complex– See § 772
- (20) Reserved
- (21) Sand or Gravel Pits, Quarries– See § 774
- (22) Sawmills
- (23) Veterinary hospitals
- (24) Wireless Communication Facilities – See § 792
- (25) Wind Energy Conversion System (WECS) – See § 780

ACTION REQUESTED:

If, following Commissioner discussion, the Commission is prepared to schedule the draft changes to Section 201 and 325 of the Zoning Ordinance for public hearing, the following motion is suggested:

MOTION THAT the draft changes to Section 201 and 325 of the Zoning Ordinance, as included in Planning Department Report 2020-151, BE SCHEDULED for public hearing for the December 9, 2020 Planning Commission Regular Meeting.

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

| | | |
|---|--|---------------------------------------|
|  Charter Township of Garfield Planning Department Report No. 2020-150 | | |
| Prepared: | November 4, 2020 | Pages: 6 |
| Meeting: | November 12, 2020 Planning Commission | Attachments: <input type="checkbox"/> |
| Subject: | Signs in Planned Unit Developments and the C-P District #2 | |

BACKGROUND:

At the October 28, 2020 study session, the Planning Commission discussed potential changes to the sign regulations within Planned Unit Developments (PUDs) and in the Planned Shopping (C-P) zoning district. The impetus for these changes came from reviewing issues identified from several recent sign proposals and Staff review of sign regulations in the Zoning Ordinance and Township practices.

The Planning Commission indicated their desire to see a clear set of base regulations while providing the Commissioners a clear set of criteria for when they have discretion and how to weigh the different factors. The most recent sign review did not allow for much flexibility given the current set of criteria. Planning Commissioners wanted to allow for some flexibility based on the size of the building and wanted to clarify that the applicant should be responsible for making the case as to why the Planning Commission should use its discretion to waive sign requirements.

The following table describes the current PUD and C-P sign regulations in the Township and the proposed changes given the feedback from the Planning Commission:

| Section 630.G. – Signs Permitted in the C-P Planned Shopping Center Commercial Districts: | |
|--|---|
| Current | Proposed |
| In the C-P District the following signs shall be permitted: | In the C-P District the following signs shall be permitted: (1) Applicability. This section shall apply to all new signs, which shall include the following: (a) Removal and replacement of a sign structure. (b) Removal and replacement of wall sign channel letters. The following shall not be considered new signs: (a) Changing the sign face or the sign copy on a sign within an existing sign structure. (b) Repair of an existing sign. |
| (1) Signs permitted as of right. (a) One (1) wall sign is permitted per exterior storefront. Tenants occupying corner spaces may utilize one sign per elevation with a maximum of two signs. The maximum wall sign area shall be the lesser of 100 square feet or 20% of the area to which the sign is attached. (b) One (1) 100 square foot freestanding sign is permitted per public roadway for the specific development. | (2) Signs permitted by right. (a) Residential Uses. (i) Wall Signs. One (1) sign for a home occupation or professional service; no illumination of signs is permitted; maximum of 3 square feet per sign. (ii) Freestanding Signs. One (1) freestanding monument sign per roadway entrance to the development; maximum of 16 square feet per sign. Signs may be illuminated as regulated by Section 630.M.(7) of this Ordinance. The sign may be placed upon an architectural entrance feature provided the height of the entrance feature does not exceed 6 feet and is setback 15 feet from the property line. (b) Office Uses. (i) Wall Signs. One (1) sign per building; maximum of 40 square feet per sign. (ii) Freestanding Signs. One (1) sign per roadway entrance to the development; maximum of 40 square feet per sign. (c) Commercial Uses. (i) Wall Signs. One (1) sign per exterior storefront. The maximum area per sign shall be the lesser of 100 square feet or 20% of the area of the wall to which the sign is attached. Businesses occupying corner spaces are permitted one (1) sign on the additional exterior wall. (ii) Freestanding Signs. One (1) sign per roadway entrance to the development; maximum of 100 square feet per sign. |

| | |
|---|--|
| <p>(2) Signs which may be approved by the Planning Commission as a routine agenda item:</p> <p>(a) Internal directional signs of not more than six (6) square feet in sign face area. Such signs shall be located at logical locations such as service drive intersections or service drive / drive aisle intersections. The location and quantity of said signs shall be subject to Planning Commission approval and clearly indicated on an overall site plan.</p> <p>(3) Any proposed sign(s) not meeting the standards in Paragraph (1)(a) above may be approved by the Planning Commission if the Planning Commission determines that all of the following standards are met:</p> <p>(a) The proposed sign(s) shall be designed as an integral part of the development, with letter size and location proportional to the overall design.</p> <p>(b) The Planning Commission determines that the maximum sign standards of the C-P district do not provide for the reasonable use of the planned shopping center.</p> <p>(c) The proposed sign(s) is (are) appropriate for the site, compatible with surrounding land uses, and necessary for the reasonable use of the planned shopping center.</p> <p>(d) The permitted sign(s) is (are), in the determination of the Planning Commission, the minimum increase(s) necessary to ensure that the proposed sign(s) is appropriate in scale, bulk and location relative to the site and surrounding land uses.</p> <p>(e) All approved modifications from the required sign standards shall be specific to the sign(s) approved by the Planning Commission.</p> <p>(f) The requested increase in wall sign area shall not exceed fifty (50) percent over that allowed in Subsection (1)(a).</p> | <p>(3) Signs subject to Planning Commission approval.</p> <p>(a) Internal directional signs with a maximum of 6 square feet per sign. Such signs shall be placed at logical locations to facilitate traffic within the site. The location and quantity of internal directional signs shall be subject to Planning Commission approval and clearly indicated on an overall site plan.</p> <p>(b) The Planning Commission shall have the ability to modify any of the standards in Section 630.G.(2) provided all the following criteria are met. Any modification of these standards shall be applicable for only the lifespan of the sign in question and shall not be transferable to any other sign or lot, shall not be considered to be a variance, and shall not run with the land. The decision of the Planning Commission shall be applicable to only the specific application and shall not be considered to set precedent.</p> <p>(i) The proposed sign(s) shall be designed as an integral part of the development and compatible with the overall design.</p> <p>(ii) Any proposed sign shall be found by the Planning Commission to be appropriate in scale, bulk, and location relative to the site and shall be found to be compatible with surrounding land uses.</p> <p>(iii) The sign does not block the view of other nearby signs to the extent that it would harm the ability of other businesses in the surrounding neighborhood to operate.</p> <p>(iv) For a wall sign, the building is set back greater than two hundred (200) feet from the centerline of the nearest roadway, or the wall to which the sign is attached is greater than five hundred (500) square feet, and the requested increase in wall sign area is not fifty (50) percent greater than that allowed in Section 630.G.(2).</p> <p>(v) There are other unique circumstances or existing conditions on the site preventing the applicant from installing a sign that complies with this Section.</p> |
| <p>(4) The following signs are Prohibited in the C-P District (and may not be approved by the Planning Commission pursuant to paragraph (3) above):</p> <p>(a) All signs described in §630.P.</p> <p>(b) Cabinet signs.</p> <p>(c) Changeable copy signs and Billboard signs.</p> <p>(d) Signs with exposed neon or other exposed lighting source.</p> | <p>(4) The following signs are prohibited in the C-P district under any circumstances.</p> <p>(a) All signs described in §630.P</p> <p>(b) Cabinet signs.</p> <p>(c) Changeable copy signs and Billboard signs.</p> <p>(d) Signs with exposed neon or other exposed lighting source (excepting "gooseneck" style downward illumination of non-internally illuminated signs).</p> |

| Section 630.J. – Planned Development Signs | |
|--|--|
| Current | Proposed |
| <p>All proposed signs within a Planned Unit Development shall be submitted to the Planning Commission for final review and approval. Within such developments, the following signs may be permitted:</p> | <p>All proposed signs within a Planned Unit Development shall be submitted to the Planning Commission for final review and approval. Within such developments, the following signs may be permitted:</p> <p>(1) Applicability. This section shall apply to all new signs, which shall include the following:</p> <ul style="list-style-type: none"> (a) Removal and replacement of a sign structure. (b) Removal and replacement of wall sign channel letters. <p>The following shall not be considered new signs:</p> <ul style="list-style-type: none"> (a) Changing the sign face or the sign copy on a sign within an existing sign structure. (b) Repair of an existing sign. |
| <p>(1) Signs allowed as by right. The greater of:</p> <ul style="list-style-type: none"> (a) All signs permitted by the underlying zoning district, and subject to the same limitations thereof. (b) Freestanding signs. <ul style="list-style-type: none"> (i) One (1) development sign of not more than 40 (forty) square feet in sign face area per development entry. (c) Wall signs. One (1) primary forty (40) square foot wall sign for each approved non-residential structure, plus one (1) secondary twenty (20) square foot wall sign. | <p>(2) Signs permitted by right.</p> <ul style="list-style-type: none"> (a) Residential Uses. <ul style="list-style-type: none"> (i) Wall Signs. One (1) sign for a home occupation or professional service; no illumination of signs is permitted; maximum of 3 square feet per sign. (ii) Freestanding Signs. One (1) freestanding monument sign per roadway entrance to the development; maximum of 16 square feet per sign. Signs may be illuminated as regulated by Section 630.M.(7) of this Ordinance. The sign may be placed upon an architectural entrance feature provided the height of the entrance feature does not exceed 6 feet and is setback 15 feet from the property line. (b) Office Uses. <ul style="list-style-type: none"> (i) Wall Signs. One (1) sign per building; maximum of 40 square feet per sign. (ii) Freestanding Signs. One (1) sign per roadway entrance to the development; maximum of 40 square feet per sign. (c) Commercial and Industrial Uses. <ul style="list-style-type: none"> (i) Wall Signs. One (1) sign per exterior storefront. The maximum area per sign shall be the lesser of 100 square feet or 20% of the area of the wall to which the sign is attached. Businesses occupying corner spaces are permitted one (1) sign on the additional exterior wall. (ii) Freestanding Signs. One (1) sign per roadway entrance to the development; maximum of 100 square feet per sign. |

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| <p>(2) Signs which may be approved by the Planning Commission as a routine agenda item:</p> <ul style="list-style-type: none"> (a) Internal directional signs of not more than six (6) square feet in sign face area. Such signs shall be located at logical locations such as service drive intersections or service drive / drive aisle intersections. The location and quantity of said signs shall be subject to Planning Commission approval and clearly indicated on an overall site plan. <p>(3) Signs which may be allowed subject to Planning Commission approval following a public hearing: The Planning Commission shall have the authority to increase the maximum wall sign standards permitted under subsection (1), above, based upon appropriate findings of fact demonstrating that each of the following criteria are met:</p> <ul style="list-style-type: none"> (a) The maximum sign standards of subsection (1) do not provide for the reasonable use of the parcel as provided for within the planned unit development. (b) The proposed modification is appropriate for the site, compatible with surrounding land uses, and necessary for the reasonable use of the parcel as provided for within the planned unit development. (c) The increase in permitted sign standards are, in the determination of the Planning Commission, the minimum increase(s) necessary to ensure that the proposed sign(s) is appropriate in scale, bulk and location relative to the site and surrounding land uses. (d) All approved modifications from the required sign standards shall be specific to the sign(s) approved by the Planning Commission. (e) The requested increase in wall sign area shall not exceed fifty (50) percent over that allowed in Subsection (1) or the underlying zoning district, whichever is greater. | <p>(5) Signs subject to Planning Commission approval.</p> <ul style="list-style-type: none"> (a) Internal directional signs with a maximum of 6 square feet per sign. Such signs shall be placed at logical locations to facilitate traffic within the site. The location and quantity of internal directional signs shall be subject to Planning Commission approval and clearly indicated on an overall site plan. (b) The Planning Commission shall have the ability to modify any of the standards in Section 630.J.(2) provided all the following criteria are met. Any modification of these standards shall be applicable for only the lifespan of the sign in question and shall not be transferable to any other sign or lot, shall not be considered to be a variance, and shall not run with the land. The decision of the Planning Commission shall be applicable to only the specific application and shall not be considered to set precedent. <ul style="list-style-type: none"> (i) The proposed sign(s) shall be designed as an integral part of the development and compatible with the overall design. (ii) Any proposed sign shall be found by the Planning Commission to be appropriate in scale, bulk, and location relative to the site and shall be found to be compatible with surrounding land uses. (iii) The sign does not block the view of other nearby signs to the extent that it would harm the ability of other businesses in the surrounding neighborhood to operate. (iv) For a wall sign, the building is set back greater than two hundred (200) feet from the centerline of the nearest roadway, or the wall to which the sign is attached is greater than five hundred (500) square feet, and the requested increase in wall sign area is not fifty (50) percent greater than that allowed in Section 630.G.(2). (v) There are other unique circumstances or existing conditions on the site preventing the applicant from installing a sign that complies with this Section. |
| <p>(4) The following signs are Prohibited in Planned Developments (and may not be approved by the Planning Commission pursuant to paragraph (2) above):</p> <ul style="list-style-type: none"> (a) All signs described in §630.P. (b) Changeable copy signs and Billboard signs. (c) Signs with exposed neon or other exposed lighting source (excepting "gooseneck" style downward illumination of non-internally illuminated signs). | <p>(4) The following signs are prohibited in Planned Developments under any circumstances.</p> <ul style="list-style-type: none"> (a) All signs described in §630.P (b) Changeable copy signs and Billboard signs. (c) Signs with exposed neon or other exposed lighting source (excepting "gooseneck" style downward illumination of non-internally illuminated signs). |

ACTION REQUESTED:

At this point, this information is provided for further review and discussion by the Planning Commission. If the Planning Commission is generally comfortable with these proposed changes to the sign regulations, then Staff can prepare a proposed Zoning Ordinance amendment to incorporate those changes to introduce at the next Planning Commission meeting.