ALLENDALE CHARTER TOWNSHIP
PLANNING COMMISSION MEETING

June 7, 2021
7:00 p.m.
Allendale Township Public Meeting Room

1. Call the Meeting to Order

2. Roll Call

3. Received for Information:

4. Approval of the May 17, 2021 Planning Commission Minutes

5. Approval of the Agenda

6. Public Comments for *non-public hearing items*

7. Public Hearings:
    A. Allendale Christian School – Building Addition
    B. Kennedy Lake Site Condominium (Phase 2) & Private Road

8. Site Plan Review:

9. Old Business:
    A. Master Plan – Complete draft
        - Koster Classification Inquiry

10. New Business:
    A. Lighthouse Community Church – Building Addition
        - Minor v. Major Determination

11. Public Comments

12. Township Board Reports

13. Commissioner and Staff Comments

14. Adjourn

Next meeting June 21, 2021 at 7:00 p.m.

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ALLENDALE CHARTER TOWNSHIP

PLANNING COMMISSION MEETING

May 17, 2021

7:00 p.m.

Via Zoom Software

1) Meeting called to order
2) Roll Call
   Present: Adams, Zuniga, Schut, Kelley, Westerling, Longcore
   Absent: Zeinstra
   Staff Present: Greg Ransford
   Other Guests Present: Lynelle Berkenpas, Marcel VanderLaan, Lora Richmond, Kevin Yeomans
3) Received for information
4) Motion by Schut to approve the May 3, 2021 meeting minutes. Seconded by Kelley.
   Approved: 6-0
5) Motion by Longcore to approve the May 17, 2021 Planning Commission Agenda. Seconded by Adams.
   Approved: 6-0
6) Public Comments for *non-public hearing items:*
   Chairperson Longcore opened the public comment section for non-public hearing items. Kevin Yeomans facilitated the public comments beginning with callers, proceeding to participants using the web or app. No comments were made. Chairperson Longcore closed the public comment section.
7) Public Hearings
8) Site Plan Review:
   A. Allendale Christian School – Building Addition

   Planner Ransford summarized the request for minor versus major amendment for special use. The Commission had determined there was a major change. Since that time, the applicant has revised the plans for improvement for the dumpster, a buffer along the south and southeast property lines, and rooftop equipment on the gym. Upon Planning Commission approval, it would be scheduled for public hearing.

   Lynelle Berkenpas, with Holland Engineering provided an overview of the expansion plan and the impacts expected, including several existing conditions. She explained the school was originally constructed in 2007, with an addition in 2017. Both site plans were reviewed by the state at the township's direction and approved at that time—so some of what was seen on the site currently, may not have met the zoning ordinances at the time. The initial construction at 64th and Henry Street involved about 37,000 square feet, with a 2017 addition of 5,700 square feet. The current proposal was for an additional 12,000 to 13,000 square feet with four to five more classrooms. The current student body count was less than 400 students, and the plan would provide capacity for 500 students. No additional parking had been included, and there were no planned changes outside of the site itself. In addition, there had been moderate storm water improvements and preliminary feedback from the Water Resources Commission indicated that they would likely be approved.

Chairperson Longcore opened the session for Commissioners questions or comments.

Mr. Adams asked Planner Ransford for clarification about parking during athletic events and whether they occur during regular school operations. Marcel VanderLaan, with Lakewood Construction, explained athletic events historically occurred after school operations. Additional conversation led Mr. Longcore to ask a future project to be removed from the drawings, as it was not intended to be submitted by the applicant at this time.

The Commissioners agreed that they did not have any concerns with the proposed lighting plan, pending any concerns that may be raised by the public. They asked several clarifying questions about the storm water improvements. Ms. Berkenpas explained the plan further regarding the shallow depth of the retention areas and described the existing storm water ponds throughout the site.

Mr. Schut expressed that he was okay with the ground equipment as long as it was screened per the Ordinance. Commissioners found the dumpster enclosure as acceptable to remain, pending comments at the public hearing.

Mr. Longcore raised concerns about the current traffic issues and any applicable traffic studies. Ms. Berkenpas said that the school was considering a couple of things to reduce traffic at the site and has taken some steps to improve the amount of queuing.

It was suggested by Mr. Adams to consider an "incoming" direction from 64th Avenue and exiting onto Henry Street, allowing a more controllable circulation flow. Ms. Berkenpas somewhat disagreed due to the proximity to the intersection at Henry Street, across from the Family Fare exit, and crossing a left turn lane. She did however, state she was willing to investigate it further. Mr. Kelley also agreed with Ms. Berkenpas, that it was not a satisfactory solution.

Mr. Schut voiced concern about the growth of the school without additional parking. Ms. Berkenpas reiterated the school was aware that the issue would need to be addressed, and there were discussions about the potential options however, until the gymnasium expansion moved forward, those plans were in a holding phase, unless the ordinance required them. Mr. Schut responded that it would be helpful for the Commission to see those plans as it related to the current project and future expansion.

Regarding the traffic concerns, Mr. VanderLaan noted the potential for cars to turn into Henry Street, proceeding to the east lot to reverse the traffic flow there, allowing them to stack more cars for the carpool process. Because of the good relationship with Allendale Baptist Church, there had also been conversation for the potential of shared parking for special events.

Mr. Adams asked if there had been any conversations about relocating the existing driveway on 64th Avenue to make it a one-way street and make circulation clearer. Mr. VanderLaan responded there had not, and relocation would displace athletic fields, which were somewhat landlocked, unless there were a future land acquisition.

Mr. Schut and Mr. Longcore remarked about the parent drop-off and bus areas being swapped. Mr. VanderLaan expressed being open to suggestions.

The Commission agreed unanimously to allow Planner Ransford to schedule a public hearing for June 7, 2021.

9) Old Business

10) New Business

A. Work Program

Planner Ransford brought before the Commission the 2021 list of completed business, as well as upcoming business and requested the Commissioners to provide input for priority of future planning items.

The Commission reviewed the list, with comments regarding ground water quality and major developments connecting to sewer. Mr. Longcore also mentioned the non-motorized path. Kevin Yeomans, Project Coordinator for Allendale Township, spoke to the Commission regarding the non-motorized path. He mentioned that the project had been detained for another year, but he would work on gathering information to bring before the Commission.

The Commission agreed on three items for Planner Ransford to prepare for future business.

11) Public Comments
Chairperson Longcore opened the second public comment section for non-public hearing items. Kevin Yeomans facilitated the public comments beginning with callers, proceeding to participants using the web or app. No comments were made. Chairperson Longcore closed the public comment section.

12) Township Board Reports

13) Commissioner and Staff Comments

Mr. Longcore discussed the BP Station fencing. The requirement was to be a retaining wall and then additional fencing turning north to 48th Avenue. They had requested to use either chain link fence or ornamental fencing. The Commissioners discussed options as Planner Ransford shared the site plans. The consensus was a wood fencing option, with Planner Ransford agreeing to relay the decision.

Planner Ransford noted that the applicant for 5015 Warner Street Mining Site desired to screen the topsoil separating the stone from the sand. Planner Ransford had advised the applicant this request would possibly require re-application or an amendment to the recently issued special use permit. He asked the Commission whether they preferred to speak with the applicant first, or if it could be scheduled for public hearing as a major change. The Commissioners agreed, given the neighborhood concern and the change of special use, it would be best to speak with the applicant first before deciding whether re-application would be required, or a public hearing could be scheduled. Planner Ransford agreed to follow-up with the applicant.

Mr. Westerling asked the Commission regarding a question he had been asked about dividing a parcel of land. Kevin Yeomans stated he would follow-up to provide a definitive answer.

14) Adjourn – Chairperson Longcore adjourned the meeting at 8:26 p.m.

Next meeting Monday, June 7, 2021 at 7:00 p.m.

Planning Commission Minutes respectfully submitted by Lora Richmond

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MEMORANDUM

To: Allendale Charter Township Planning Commission
From: Gregory L. Ransford, MPA
Date: June 2, 2021
Re: Allendale Christian School – Special Use Major Amendment Final Plan

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Pursuant to your May 17, 2021 meeting, attached is a final site plan and related application for a special use permit from Allendale Christian School for a building addition of approximately 12,878 square feet for the purpose of classrooms, offices, and storage. The property is located at 11050 64th Avenue and is positioned within the R-1 Low Density One-Family Residential (R-1) District.

We reviewed the final site plan materials and do not have any additional observations or findings to provide since your preliminary plan review.

Planning Commission Direction

As you know, at your May 17, 2021 meeting you reached the certain conclusions and directed the applicant to perform the following:

- Screen the ground mounted mechanical equipment on the north side of the building
- Remove plan notes for "future building addition"
- The existing dumpster is satisfactory unless public comment compels the Planning Commission otherwise
- Existing and proposed exterior light fixtures are satisfactory
- Traffic circulation is pending discussion between the Township Engineer and the applicant

Deviation Requests

As previously discussed during your preliminary review of the materials, the applicant requests deviation from certain ACTZO requirements. Those requests remain unchanged from your preliminary review and include the following:

1. Dumpster Enclosure – While the dumpster enclosure contains masonry walls matching the principal building, it does not contain a gate, rear bollards, and is 12 feet deep rather than 13 feet deep. In addition, we are unable to discern whether enough width is provided around the dumpster, although the photo appears to show sufficient space (page 5 of 11 – Narrative Statement).
2. Roof Mounted Equipment – The applicant noted that existing rooftop equipment is located on the southeast corner of the gym and is shielded from view by landscaping and the roofline of the building (page 6 of 11 – Narrative Statement).
3. Landscaping (page 7 and 8 of 11 – Narrative Statement).
    a. Greenbelt – Given that the site abuts a residential zoning district to the south and southeast, the applicant shall provide a greenbelt pursuant to the ACTZO. The greenbelt shall be a minimum of 15 feet in width and shall contain one tree (mixture of evergreen, canopy, and ornamental trees) and two shrubs for every 20 linear feet. In lieu of the required greenbelt, the applicant proposes maintaining their existing, mature woods along those areas.

b. Front Yard – That portion of the site along the public right-of-ways require four (4) additional shrubs in total. In-lieu of those shrubs, the applicant identifies a natural area near the intersecting roads, which provides significant vegetation.
c. Henry Street Parking Lot Hedge – The parking spaces adjacent to Henry Street lacks the required hedge to screen the vehicles. In-lieu of said hedge, the applicant identifies a "native species" area.

Unless public comment compels the Planning Commission otherwise, your final approval of the deviation requests shall be in accordance with Section 24.11 of the ACTZO.

Section 24.11 – Expansion of Existing Use, Structure, or Building

As aforementioned, Section 24.11 – Expansion of Existing Use, Structure, or Building of the ACTZO, outlines situations in which your review standards could be applied to existing sites and the criteria to grant deviation. Below is a copy of said Section for your convenience.

> Sec. 24.11 EXPANSION OF EXISTING USE, STRUCTURE, OR BUILDING.
>
> It is recognized that land uses, buildings, and structures are existing which do not conform to the current regulations of this Ordinance and as such do not achieve the intended purposes of this Ordinance. When these uses, buildings, and structures are proposed to be expanded, enlarged, or increased in intensity so that a site plan review is required per Section 24.02 herein, the following regulations shall apply:
>
> A. The site development standards used in reviewing site plans shall be applied to existing uses, structures or buildings when they are affected by any expansions, enlargements or increases in intensity. These standards shall be applied if it is determined that as a result of such expansions, enlargements or increases in intensity, any of the following situations exist:
>
> 1. Existing stormwater drainage provisions on site are inadequate to protect nearby lakes, streams or creeks from runoff contaminants or to prevent drainage onto adjoining properties and do not substantially comply with the Ottawa County Stormwater Management Ordinance.
> 2. There is insufficient on-site parking to satisfy current Zoning Ordinance requirements and/or a hard surface parking area is needed to reduce dust, and to reduce gravel and soil runoff into the public stormwater drainage system.
> 3. Existing driveways may result in hazardous vehicle movements.
> 4. Additional plantings are needed in order to comply with the intent of Allendale Township landscape regulations or to replace trees and shrubs previously removed, or screening is needed in the form of fencing or landscaping to provide a buffer between uses, particularly to screen materials stored outside.
> 5. Access to adjoining properties is inadequate and can be improved by way of parking lot connections or installation of service drives to improve traffic circulation and reduce the number of turning movements onto the public street system.
> 6. Safety for pedestrians can be improved and better emergency vehicle access can be provided.
> 7. Better lighting conditions are needed to reduce or eliminate nuisance lighting situations for drivers and nearby properties.
> 8. Screening of dumpsters is needed to improve the appearance of a site and reduce the likelihood of windblown trash.
> 9. Sidewalks are needed to improve pedestrian safety.
>
> B. In determining how to apply the site plan review standards to address the above deficiencies found on a site, the Planning Commission shall be guided by the following criteria:

1. Whether compliance would ensue safer on site conditions, protect the natural environment, improve traffic circulation, achieve compatibility with adjacent land uses, promote the use of the land in a socially and economically desirable manner and generally accomplish the purposes of site plan review as described in this Section.
2. The practicality of requiring complete compliance with the applicable regulations of this Ordinance based on the existing design, layout, and operation of the existing use and size of the site or if only partial compliance would be more practical.
3. Whether or not requiring compliance would have a negative impact on the character, safety and welfare of the neighborhood or surrounding area.

Standards of Review

Special Use Standards

As you are aware, you must review the request in accordance with your standards provided for special use approval in Section 20.06 – Standards of the Allendale Charter Township Zoning Ordinance (ACTZO). In that regard, below is copy of said Standards as well as our response to each in italic font, in an effort to assist you with your review of the request.

Section 20.06 STANDARDS.

No special land use shall be approved by the Planning Commission unless the Commission finds:

A. That the establishment, maintenance, or operation of the special land use will not be detrimental to or endanger the public health, safety, or general welfare.

While we believe the Planning Commission tentatively concluded during its preliminary review that the special land use will not be detrimental, the related traffic analysis has yet to be completed between the Township Engineer and the applicant. That said, given that the final plan has not changed since the preliminary plan, except to address your direction, we do not expect the overall plan to be detrimental to the public health, safety, or general welfare. As a result, pending the traffic analysis, this standard may be met.

B. That the special land use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor shall it substantially diminish and impair property values in the neighborhood.

We do not believe the special land use will be injurious to the use and enjoyment of other property in the immediate vicinity, particularly given that the use already exists without concerns, to our knowledge. However, pending comment received during the public hearing, the Planning Commission may disagree with our conclusion.

C. That the establishment of the special land use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

We do not believe the special land use will impede the normal and orderly development and improvement of the surrounding property, pending the results of the traffic analysis. As a result, this standard may be met.

D. That adequate utilities, access roads, drainage, and necessary facilities have been or are being provided.

While we anticipate this standard will be met, comments from the Ottawa County Water Resources Commissioner's office are pending. Access to the site appears to be sufficient. As a result, this portion of the standard appears to be met.

E. That adequate measures have been or will be taken to provide ingress or egress so designed as to minimize traffic congestion in the public streets.

Pending the results of the traffic analysis, this standard may be met.

F. That the special land use shall, in all other respects, conform to the applicable regulations of the district in which it is located and to any additional conditions or procedures as specified in Article 23.

We believe the proposed special land use conforms to the applicable regulations of the district in which it is located if the requested deviations are granted. As a result, this standard appears to be met.

Site Plan Review Standards

In addition to your special land use standards provided by Section 20.06 of the ACTZO, as you are aware, Section 24.06 – Standards of Approval of the ACTZO provides your standards of review when deliberating regarding a site plan application. In that regard, below, in part, is a copy of said Standards for Approval as well as our response to each in italic font, in an effort to assist you with your review of the request. As you are further aware, each standard is very lengthy and provides guidance and authority to the Planning Commission. Rather than providing the entirety of each standard within this memorandum, we have included the subtitle and our comments in regard to our review of the provision. If you require the entirety of any standard, please let us know and we will provide it to you.

Section 24.06 STANDARDS FOR APPROVAL

Prior to approving a site plan, the Planning Commission shall require that the following standards and requirements be satisfied. If these standards and all other requirements of applicable Township Ordinances are met, the site plan shall be approved.

A. General Access Requirements

Given that the property abuts 64th Avenue and Henry Street, it appears this standard has been met.

B. Environmental Considerations

We are not aware of any environmental concerns within the property. As a result, this standard appears to have been met.

C. Sidewalks and Pedestrian Circulation

The property contains significant internal sidewalks and pathway along both 64th Avenue and Henry Street. As a result, it appears that this standard has been met.

D. Landscaping and Buffering

In the instance the Planning Commission grants the deviation request regarding landscaping and buffering, it appears that this standard has been met.

E. Lighting

As you know, during your preliminary plan review you concluded that the existing and proposed lighting is sufficient. As a result, it appears that this standard has been met.

F. Utility Service

All utilities are proposed to be installed underground. As a result, it appears that this standard has been met.

G. Outdoor Features

Pending your review of the proposed landscaping around ground mounted mechanical equipment, it appears this standard has been met.

H. Waste Disposal Facilities

In the instance the Planning Commission grants the deviation request regarding the dumpster, it appears that this standard has been met.

I. The location and dimensions of all existing and proposed structures on the subject property

The applicant has provided the location and dimensions of all proposed structures on the subject property. Given this, it appears this standard has been met.

J. Building Appearance

Given that this section does not apply to school buildings, it appears this standard has been met.

K. Site plans shall conform to all applicable requirements of County, State, and Federal statutes and approval may be conditioned on the applicant receiving necessary County, State, and Federal permits before final site plan or an occupancy permit is granted

It is appropriate for the Planning Commission to condition any approval on the receipt of required permits, where applicable, from the Ottawa County Road Commission, Ottawa County Water Resources Commission, Michigan Department of Transportation, and the Michigan Department of Environment, Great Lakes and Energy. Following, it appears this standard may be met.

L. Traffic Impact Study

Pending the traffic analysis from the Township Engineer and the applicant, this standard may be met.

Township Department Reviews

No further comments have been received from township staff since the preliminary plan review. In the instance we receive additional comments, we will transmit them to you.

Public Hearing

As you know, a public hearing is required for an amendment to a special use, which has been scheduled at your June 7, 2021 meeting.

Planning Commission Considerations

As the Planning Commission deliberates regarding this application, we believe the following warrant your review and consideration. They are listed in no particular order.

- Whether the requested deviations remain acceptable from the preliminary plan review
- Traffic analysis results
- Whether ground mounted mechanical equipment is adequately screened
- Section 20.06 – Standards (special use)
- Section 24.06 – Standards for Approval (site plan)

As aforementioned, the application has been scheduled for a public hearing at your June 7, 2021 meeting. We expect the applicant to be in attendance. If you have any questions, please let us know.

GLR
Planner

Attachment

cc: Adam Elenbaas, Supervisor
Lynnelle Berkenpas, Holland Engineering

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May 27, 2021

Bruce Pindzia, PE
Senior Project Engineer
Fleis and VandenBrink Engineering
2960 Lucerne Dr SE
Grand Rapids, MI 49546

Re: Site Plan and Special Use Review for
Allendale Christian School Expansion
11050 64th Avenue, Allendale, MI

Dear Mr. Pindzia:

We appreciate your review letter dated May 3, 2021 on the Allendale Christian School project. In response, we are providing additional information regarding the current school operations and future projections for needs on traffic circulation.

These concerns are addressed in the attached Allendale Christian Traffic Plan.

In addition to your comments, the Planning Commission noted the following concerns that may be better addressed by Fleis and VandenBrink as the Township Engineer.

- The most significant concerns were related to the following:
  - Traffic chooses to stop on 64th to allow buses out.
  - Traffic leaving the site tries to maneuver quickly through oncoming traffic, which the school has previously addressed by requesting that parents turn right out of the school to reduce conflict points.
  - The Allendale Public School bus garage is located south of Allendale Christian School.
  - There are two bus stops on 64th in the vicinity of the school that contribute to congestion during school hours.
- The Planning Commission suggested moving driveway locations, but there does not appear to be a better site location for school driveways that will not cause other traffic flow concerns on 64th and Henry.
- A suggestion from a prior study was to place a stop sign on 64th and Henry. We believe this will do more harm than good for traffic on 64th, although the school would certainly benefit for bus release.

Please feel free to contact our office with any questions or concerns.

Sincerely,

Lynnelle Berkenpas

Lynnelle E. Berkenpas, PE
Cc: Marcel VanderLaan (Lakewood)

Holland Engineering, Inc.
220 Hoover Boulevard
Holland, MI 49423

616-392-5938 **phone**
616-392-2116 **fax**
HollandEngineering.com

HOLLAND ENGINEERING

Allendale Christian School Traffic Plan

Allendale Charter Township has requested a traffic plan for Allendale Christian School as a condition of approval for a proposed expansion of the West wing of the school in 2021. The plan is provided below.

Existing Conditions

Allendale Christian School currently has 360 students, of which 270 students are in the young five to eighth grade age range that has the same morning pickup and afternoon drop-off times. Among these students who can ride the bus, 90 students (33%) currently ride the four buses that serve the school. Two of these buses are operated by Allendale Christian, one is specifically equipped for special needs students, and one is a shuttle bus provided by Allendale Public Schools.

Allendale Christian has developed an internal program where students riding the bus are dismissed before students who are picked up by parents. Approximately half of the students are dismissed to the West parking lot for parent pick-up and the other half are released to the North parking lot for pick-up in the afternoon hours.

In the North parking lot, there is 500 feet of available queuing space on the property for vehicles along the sidewalk in a single lane (22 vehicles). If the full length of the sidewalk is used after the buses depart, then all 22 vehicles could be unloading at one time and using the second bypass lane to depart. In the West parking lot, there is 586 feet of available queuing space on the property for vehicles, allowing up to 26 vehicles to queue along the sidewalk and inbound driveway. Up to 12 vehicles can be unloading at one time along 275 feet of sidewalk and using the second bypass lane to depart. This configuration allows drop off and pickup to occur quickly.

Currently, the method is as follows at the peak hours of the day:

Morning Drop-off

Allendale Christian collected data on morning drop-off rates on May 12 and May 13, 2021 as shown below in Table 1. All students in the Y5-8th grade range are dropped off at the West Lot in the mornings, with buses using the North Lot. On those days when data was collected, the maximum number of cars using the drop-off in the West lot was 125 vehicles. The peak drop-off time was between 8:00 and 8:19 on both days as shown below, with an average of 94 vehicles leaving the lot during that timeframe per day.

Table 1: Data Collection

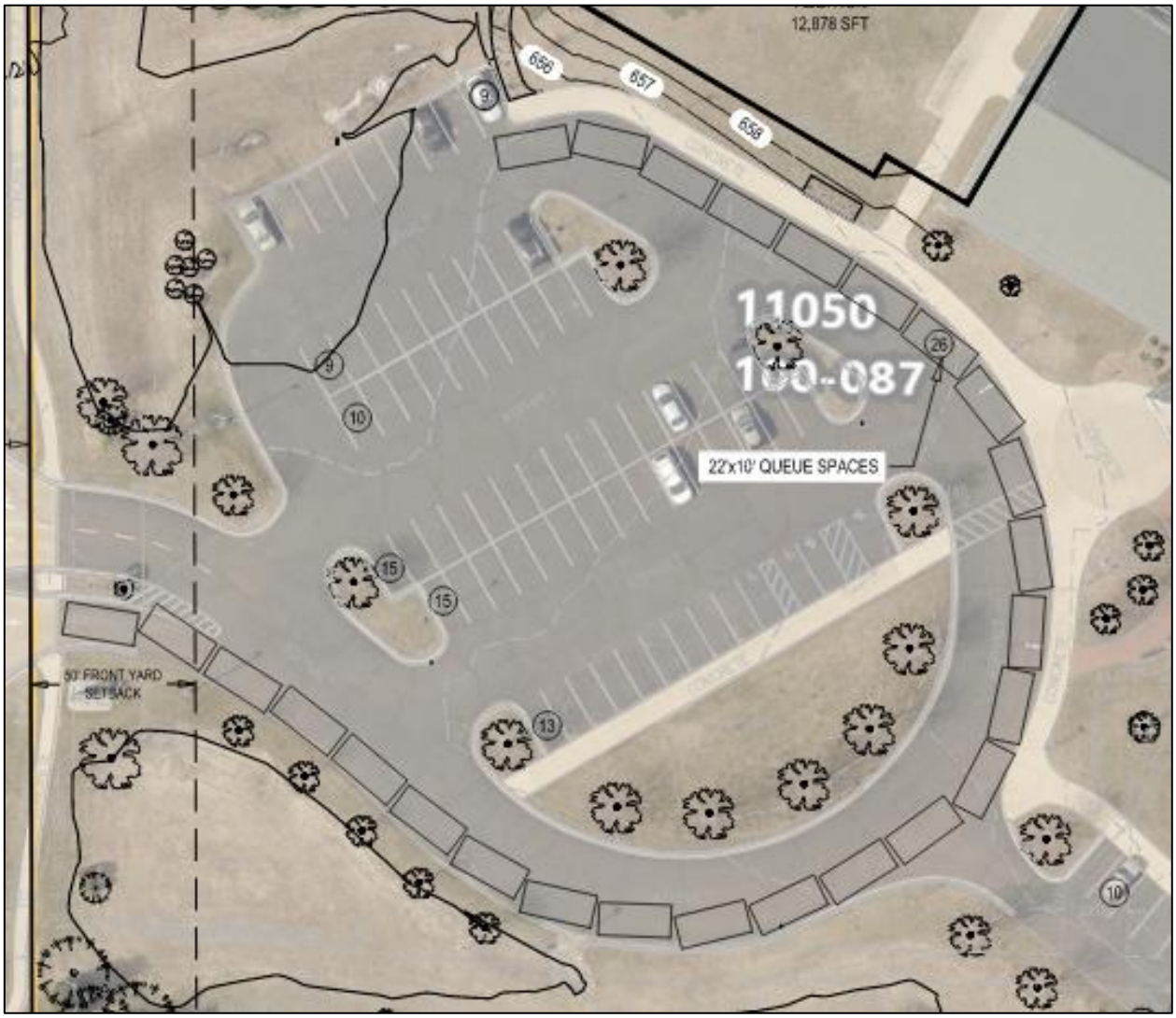
Date	7:40-7:44	7:45-7:49	7:50-7:54	7:55-7:59	8:00-8:04	8:05-8:09	8:10-8:14	8:15-8:19	8:20-8:24	**TOTAL**
12-May	0	4	8	12	13	26	36	22	4	**125**
13-May	0	1	3	12	18	28	31	14	7	**114**

Based on this information, vehicles are leaving the West Lot queue line at an average rate of one vehicle every 13 seconds during drop-off, as identified below in Table 2. The total queue length during this time is 24 vehicles, and there is room for up to 26 vehicles under existing conditions as shown in Figure 1.

Table 2: Existing Morning Vehicle Queuing

SCHOOL STACKING SPACE	
Number of Drop-Offs	125
Peak Period Time (minutes)	20
% Drop-Offs during peak period	80%
Time per Vehicle (s)	13
Vehicle Staking Length (FT)	22
TOTAL QUEUE	**24**

Figure 1: Existing Morning Vehicle Queuing Space



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Afternoon Pickup

For afternoon pick-up, Allendale Christian School also collected the following data in Table 3 during the dismissal time.

Table 3: Existing Afternoon Data Collection

North Lot (Bus Loop)

Date	Vehicles Leaving
12-May	40
13-May	39
14-May	33

West Parking Lot

Date	Vehicles Leaving
12-May	42
13-May	37
14-May	40

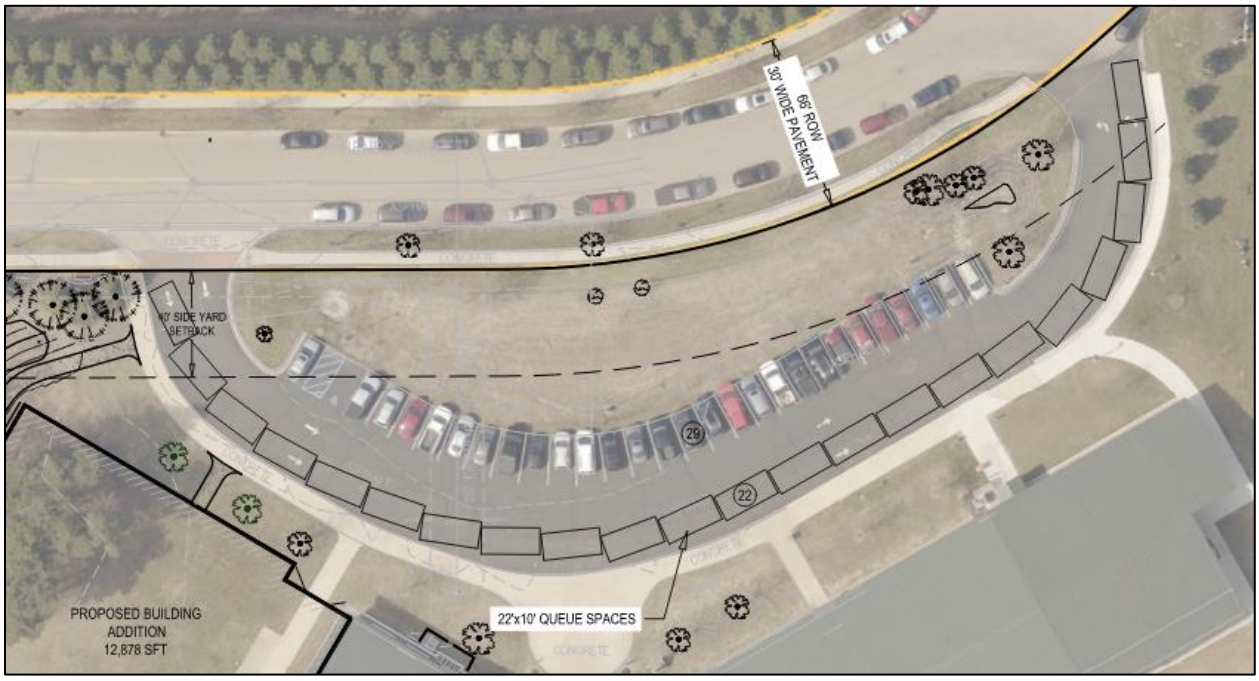
The school currently has both lots operate in a platoon method, where parents enter the pickup line and identify which children they are picking up. The staff sends the children to a pickup line in the order in which the parents arrive, and ten vehicles load up children at one time before exiting the lot as a group. This method is so efficient that Allendale Christian has been able to have nearly 40 vehicles at each lot collect their children and leave the site in a matter of six minutes on the North Lot and four minutes on the West Lot. The largest current queue occurs in the North Lot while parents wait for the buses to load and leave the site.

Vehicles are leaving the North Lot queue line at an average rate of one vehicle every 9 seconds during pick-up as identified below in Table 4. The total queue length during this time is 18 vehicles in the North Lot, where there is room for 22 vehicles in single file as shown in Figure 2.

Table 4: Existing Afternoon Vehicle Queuing at the North Lot

SCHOOL STACKING SPACE	
Number of Pick-Ups	40
Peak Period Time (minutes)	6
% Drop-Offs during peak period	80%
Time per Vehicle (s)	9
Vehicle Staking Length (FT)	22
TOTAL QUEUE	**18**

Figure 2: Existing Afternoon Vehicle Queuing Space at the North Lot after Buses Exit



*Note: The current queue method utilizes both lanes at the east end of the lot to form a platoon of 10 vehicles that load at one time.

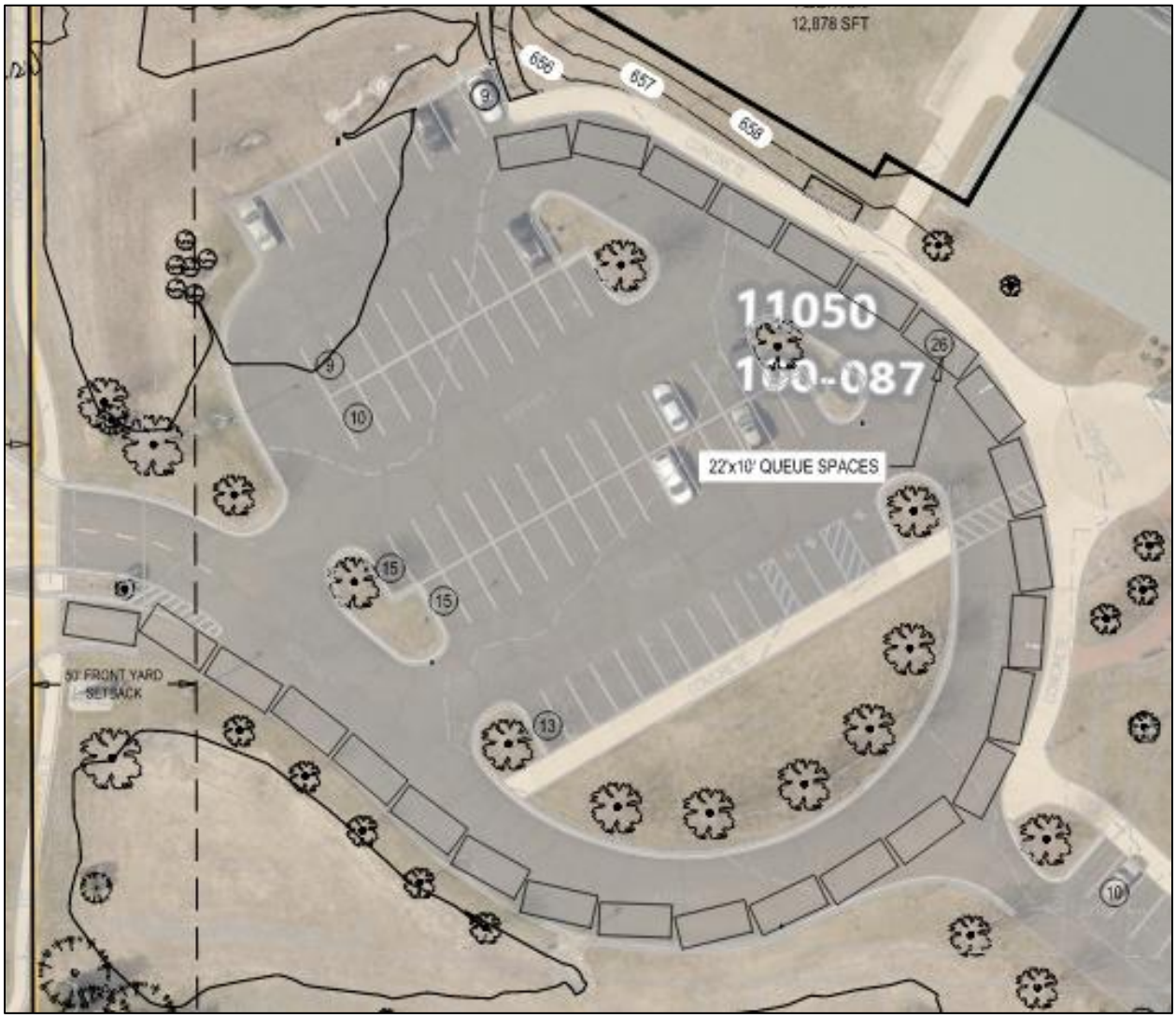
In the North Lot, cars must wait for the school buses to leave before they are fully able to enter the school lot, so there have been instances of cars backing up on Henry toward 64th. To improve on this, the school is planning to make some adjustments during pickup and drop-off as illustrated in the next section.

Vehicles at the West Lot are leaving the queue lines at an average rate of one vehicle every 6.5 seconds during pick-up as identified below in Table 5 using the current platoon method that was previously described for the North Lot. The total queue length is 18 vehicles in the West Lot where there is room for up to 26 vehicles in single file under existing conditions as shown in Table 5 and Figure 3 during the afternoon hours.

Table 5: Existing Afternoon Vehicle Queuing at the West Lot

SCHOOL STACKING SPACE	
Number of Pick-ups	37
Peak Period Time (minutes)	4
% Drop-Offs during peak period	80%
Time per Vehicle (s)	6.5
Vehicle Staking Length (FT)	22
TOTAL QUEUE	**18**

Figure 3: Existing Afternoon Vehicle Queuing Space at the West Lot



*Note: The current queue method utilizes both lanes at the north end of the lot to form a platoon of 10 vehicles that load at one time.

Proposed Conditions

Allendale Christian is proposing an expansion of the school that will allow it to expand its capacity by 25% to 500 total students, but this is equivalent to an increase of 39% on the current school population. If the mixture of full-time and part-time students remains the same, and bus use remains consistent as a percentage of students, the following increases are anticipated in traffic flow:

Morning Dropoff

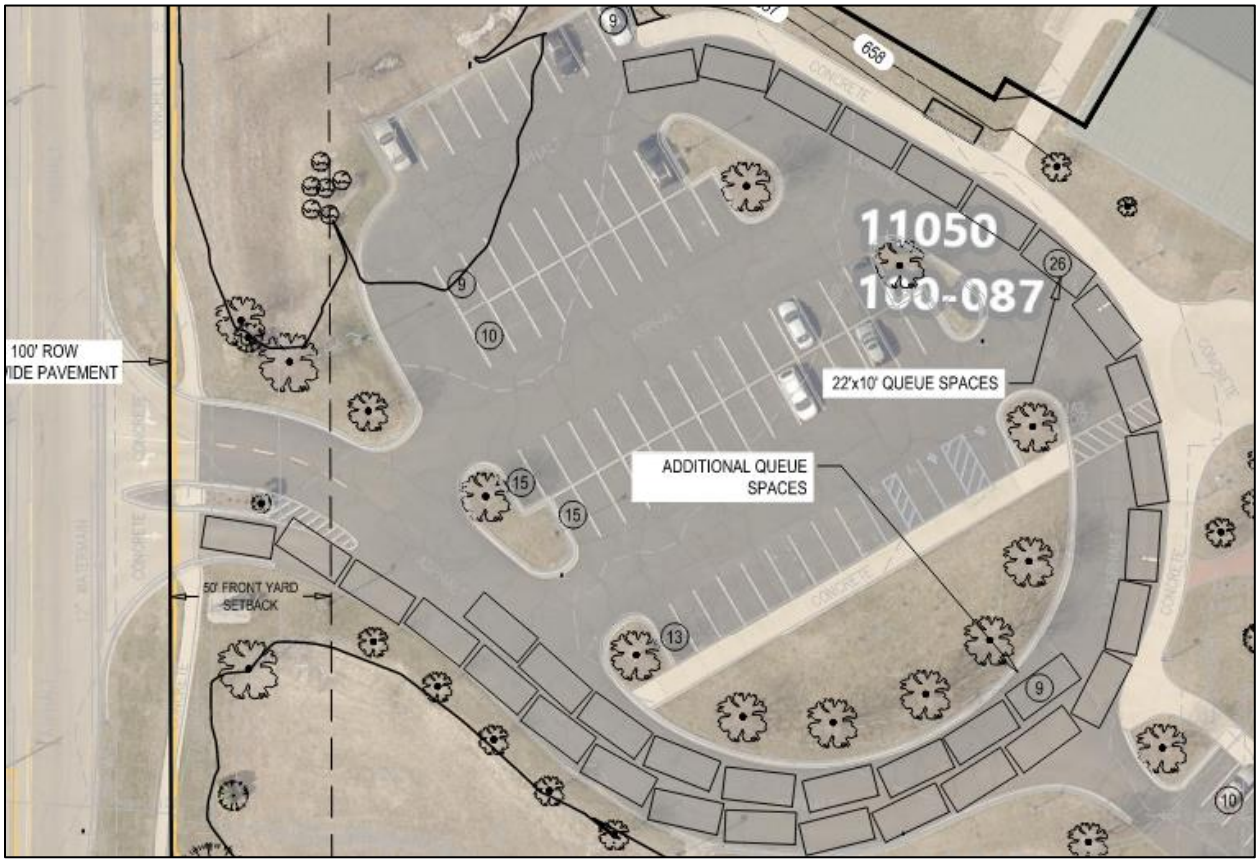
At morning drop-off, we recommend that buses continue to use the North Lot. This will allow parents to continue to drop-off at the West Lot. In this case, the existing queueing capacity of 26

vehicles in the single lane would be exceeded, so use of the second lane that is available for excess queuing could be utilized as well. This is illustrated in Table 6 below and Figure 4.

Table 6: Proposed Morning Vehicle Queuing at the West Lot

SCHOOL STACKING SPACE	
Number of Drop-Offs	174
Peak Period Time (minutes)	20
% Drop-Offs during peak period	80%
Time per Vehicle (s)	13
Vehicle Staking Length (FT)	22
TOTAL QUEUE	**33**

Figure 4: Proposed Morning Vehicle Queuing Space at the West Lot



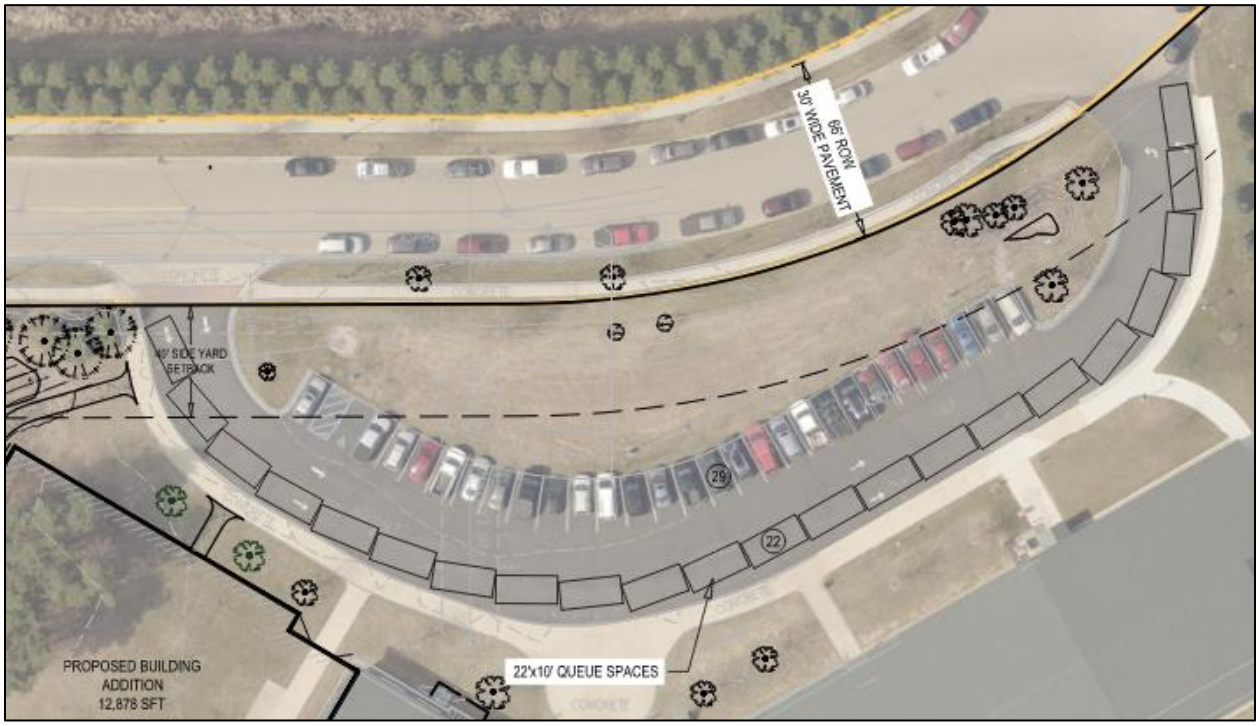
Afternoon Pickup

During afternoon pick-up, the school can continue to utilize both the North Lot and West Lot with an even distribution of students being dismissed to each parking lot. The existing queuing space is sufficient in both lots as illustrated below in Tables 7 and 8 and Figures 5 and 6 with minimal use of the second lane that is available at both lots.

Table 7: Proposed Afternoon Vehicle Queuing at the North Lot

SCHOOL STACKING SPACE	
Number of Pick-Ups	50
Peak Period Time (minutes)	6
% Drop-Offs during peak period	80%
Time per Vehicle (s)	9
Vehicle Staking Length (FT)	22
TOTAL QUEUE	**22**

Figure 5: Proposed Afternoon Vehicle Queuing Space at the North Lot

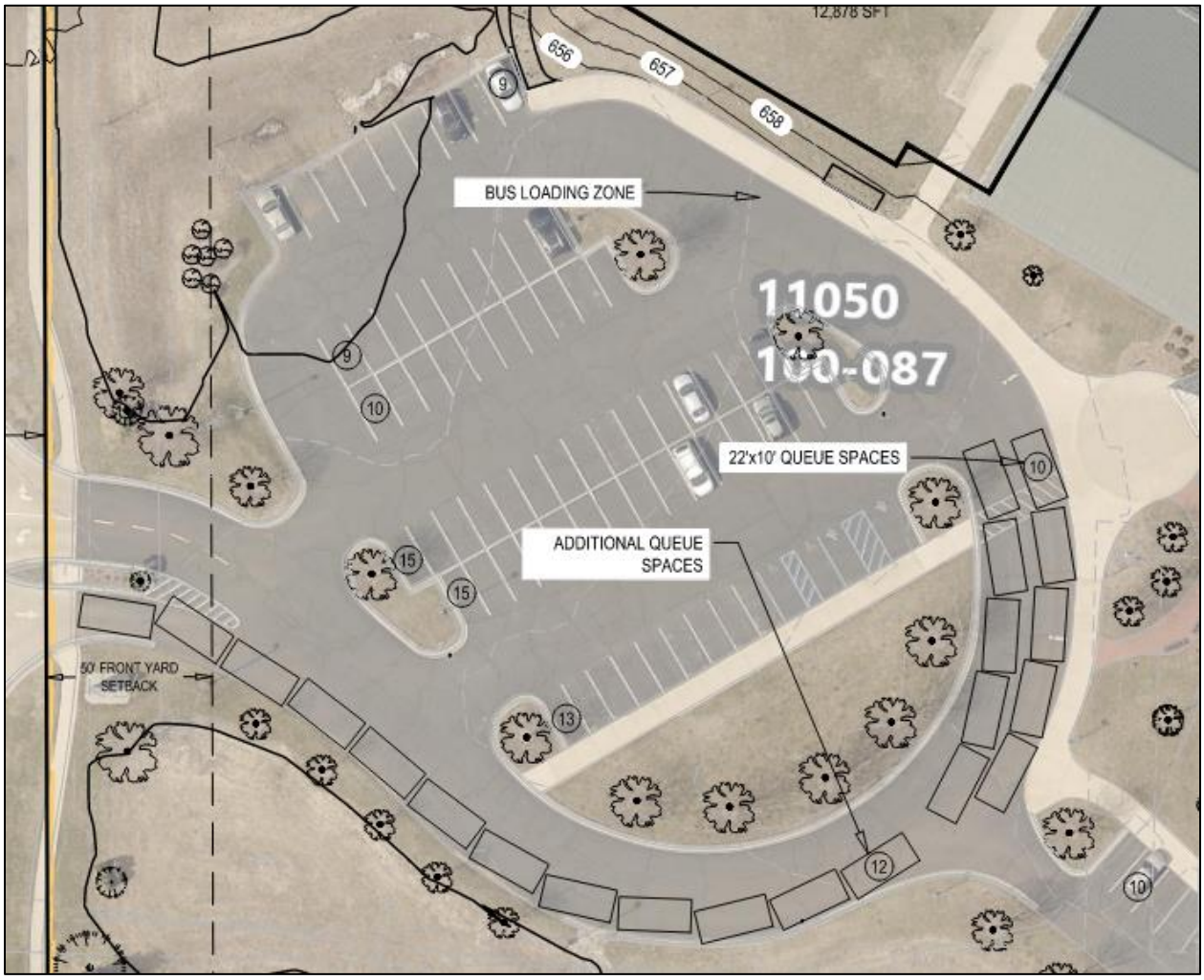


*Note: The existing queue method utilizes both lanes at the east end of the lot to form a platoon of 10 vehicles that load at one time. This could continue, or vehicles could line up along the length of the sidewalk in a single file as shown. Either method will see improved efficiency if buses move to the West Lot because the younger children load at the North Lot.

Table 8: Proposed Afternoon Vehicle Queuing at the West Lot

SCHOOL STACKING SPACE	
Number of Pick-Ups	47
Peak Period Time (minutes)	4
% Drop-Offs during peak period	80%
Time per Vehicle (s)	6.5
Vehicle Staking Length (FT)	22
TOTAL QUEUE	**22**

Figure 6: Proposed Afternoon Vehicle Queuing Space at the West Lot



As previously noted, the bus pickup in the North Lot has previously allowed traffic to back up onto Henry. To address this as the student population increases, we recommend moving the buses to the West Lot for afternoon pick-up. If the school continues to release students to the buses in advance of releasing students for parent pick-up, then the buses can park at an angle in the West Lot, while allowing parents to begin stacking for pickup. If needed, the two lanes of queueing space can be utilized for parents while the buses load and for the platoon method that is currently used.

Conclusions

Allendale Christian can support the required circulation needs for traffic on the site under existing conditions and with the projected increase in student population.

HOLLAND ENGINEERING

Serving the **Energy**, **Civil Infrastructure** and **Government** markets by providing engineering, project management, land survey, environmental and field services.

April 30, 2021

Gregory L. Ransford, MPA
950 Taylor Avenue, Ste 200
Grand Haven, MI 49417

Re: Site Plan and Special Use Review for
Allendale Christian School Expansion
11050 64th Avenue, Allendale, MI

Dear Mr. Ransford:

We appreciate your review letter dated April 26, 2021 on the Allendale Christian School project. Your comments are listed below, followed by our additional information in response:

General Comments

• Sheet C-101 – Surrounding zoning has been removed from the previous submission. Even though Sheet C-100 has a Zoning Map, some zoning districts are missing from adjacent parcels. Please revise accordingly.

Response: Additional zoning information has been added on sheets C-100 and C-101 for reference.

• Please provide documentation of existing exterior light fixtures and whether the light is directed downward (photograph of fixtures may be sufficient)

Response: Photos are added in the narrative.

• Please provide dimensions of existing parking (Section 21.09)

Response: Additional dimensions have been provided on Sheet CD-101.

Article 21-A – Landscaping Requirements

• Even though you have requested relief from landscaping pursuant to Section 24.11 of the Zoning Ordinance, we wanted to provide you our comprehensive list of required items. The first item below, however, I would suggest you attempt to address / illustrate if compliance exists because access has become an issue.
o Section 21A.02G – Access around fire hydrants
o Section 21A.04A3 and 4C – Greenbelt
o Section 21A.04F – Front yard landscaping
o Section 21A.04G2 – Henry Street parking lot hedge

Holland Engineering, Inc.
220 Hoover Boulevard
Holland, MI 49423

616-392-5938 **phone**
616-392-2116 **fax**
HollandEngineering.com

Response: Additional information has been added on Sheet L-101 to address these concerns.

Article 24 – Site Plan Review

Section 24.04D

o 1 – Provide

Response: Additional information has been added on Sheet C-100 to show the lot lines and dimensions for the entire site.

o 2 – Provide all uses within 100 feet of the site

Response: Additional information has been added on Sheet C-100 to show the specific uses and zoning on property's adjacent to the site.

o 8 – An excerpt of the zoning map has been historically accepted

Response: An excerpt of the zoning map has been added to the narrative.

Section 24.05D

o 2 – Provide

Response: The plans are signed and sealed.

o 3 – Same as 8 above

Response: An excerpt of the zoning map has been added to the narrative.

o 4 – Provide to scale

Response: A scale has been added to the map of the site location on Sheet G-100 for reference on the site location in the Township.

o 7 – Provide

Response: Additional information has been added on Sheet C-100 to show the lot lines and dimensions for the entire site, with specific setbacks noted in the area of improvements.

o 12 – Provide, as noted within the General Comments

Response: Additional zoning information has been added on sheets C-100 and C-101 for reference.

o 19 – Provide all details pursuant to Section 24.06H, to provide evidence of relief request

HOLLAND ENGINEERING

Response: Additional dimensional information has been added to Sheet CD-101 regarding the size and configuration of the existing dumpster enclosure. Additional information has also been added to the narrative.

Section 24.05F – Provide

Response: A more detailed, separate landscape plan is provided on Sheet L-101 for review and reference, relating to your previous comments on Article 21-A.

Section 24.06G – Is any ground mounted or roof mounted equipment exposed?

Response: We reviewed the site again and located one area where air conditioning units are exposed. This is addressed in the narrative and Sheet L-101. In terms of roof mounted equipment, we also located roof mounted equipment on the gym roof, and that is also addressed in the narrative. These are existing conditions on the site that were previously approved and were not otherwise planned to be modified in any way with this project.

Section 24.06H – See Section 24.05D19 above

Response: Additional dimensional information has been added to Sheet CD-101 regarding the size and configuration of the existing dumpster enclosure. Additional information has also been added to the narrative.

Please feel free to contact our office with any questions or concerns.

Sincerely,

Lynnelle E. Berkenpas, PE

Cc: Marcel Vander Laan (Lakewood Construction)

Allendale
CHARTER TOWNSHIP
"Where community is more than just a concept!"

Planning Commission
Site Plan Review Application

Submission Date: 4/29/2021

Application for Site Plan Review in conjunction with which of the following:

- ☐ Site Plan Review Only
- ☐ PUD Rezoning
- ☑ Special Use Application
- ☐ Other:_____

Property Owner:	Allendale Christian School		
Mailing Address:	11050 64th Ave., Allendale, MI, 49401		
Phone Number:	616-895-5108	Cell Phone:	
Email Address:	bkoetje@allendalechristian.org	Fax:	
Owner's Signature:			

Applicant Name: (if not owner)	Lakewood Construction / Marcel Vander Laan		
Mailing Address:	11253 James Street, Holland, MI 49424		
Phone Number:	616-392-6923	Cell Phone:	616-901-4329
Email Address:	mvanderlaan@lakewoodinc.com	Fax:	
Applicant's Signature:			

Who is the responsible party for future invoices? Check one: ☐ Property Owner | X | Applicant

Architect, Engineer, Attorney or other professionals associated with the project (attach additional sheets if necessary):

Contact:	Holland Engineering (Lynnelle Berkenpas)		
Mailing Address:	220 Hoover Blvd., Holland, MI 49423		
Phone Number:	616-392-5938	Cell Phone:	616-888-0348
Email Address:	lberkenpas@hollandengineering.com	Fax:	616-392-2116

6676 Lake Michigan Drive | P.O. Box 539 | Allendale MI 49401
Phone: 616-895-6295 Fax: 616-895-6670 or 616-895-6330
www.allendale-twp.org

Address of Property:	11050 64th Ave.
Permanent Parcel Number:	70 - 09 - 26 - 100 - 087
Legal Description of Property (or attach to the application):	
NW 1/4 OF NW 1/4 EXC THAT PART LYING N OF A LINE COM S 0D 38M 18S E 831.07 FT, N 89D 21M 42S E 33 FT & S 0D 38M 18S E 33 FT FROM NW SEC COR, TH N 89D 21M 42S E 400.54 FT ALG S LI OF HENERY ST, NE'LY 241.15 FT ALG A 333 FT RAD CURVE TO LEFT (CHD BEARS N 68D 36M 53S E 235.92 FT), N 47D 52M 05S E 135.64 FT, TH S 88D 36M 58S E 564.46 FT TO E LI OF NW 1/4 OF NW 1/4 AND END OF SD LINE. ALSO EXC W 50 FT FOR RD R/W, ALSO THAT PART OF NW COM S 0D 39M 58S E 1328.04 FT & S 88D 48M 06S E 871.76 FT FROM NW SEC COR, TH S 88D 48M 06S E 447 FT, S 0D 29M 43S E 329.96 FT, N 88D 48M 06S W 447 FT, TH N 0D 29M 43S W 329.96 FT TO BEG. SEC 26 T7N R14W	

Lot Area:	20.20 acres	Lot Depth:	995	Lot Width:	1260
Current Zoning of Parcel:	R-1	Current Use of Parcel:	School		
Proposed Use of Parcel:	Same use				
Name of Proposed Development (if applicable):	Allendale Christian School Expansion				
Name of Proposed Buildings to be constructed:	N/A				
Square feet of gross:	See site plan	Square feet of usable floor area:	See site plan		
Number of Permanent Employees (if applicable):	47				

- Please include 6 sets of the proposed Site Plan and 1 electronic copy for staff review along with your application and escrow fee. (When ready for submission to the Planning Commission, smaller than typical plans are allowed when they can be easily interpreted and are to scale.)
- Please see Resolution 2011-2 for our full escrow fee policy. If you would like a copy of this policy it is available online or by request at the Township office.
- If your escrow is not kept up to date, according to our policy, the Township reserves the right to withhold approval of your project, issue a stop work order, or withhold final occupancy until the escrow balance is made current.

For Office Use Only

Date Received:			
Amount Paid:		Check No:	
Notes:			

ALLENDALE CHARTER TOWNSHIP
6676 Lake Michigan Drive | P.O. Box 539 | Allendale MI 49401
Phone: 616-895-6295 Fax: 616-895-6670 or 616-895-6330
www.allendale-twp.org

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Planning Commission
Site Plan Review Checklist

- This checklist shall be completed and submitted as part of the submittal packet to the Planning Commission. This is the same checklist that will be used by staff and Planning Commissioners to verify that all requirements set forth in the zoning ordinance are met.

- Township staff reviews the plan for completeness with the site plan checklist. If complete the plan can be forwarded to the Planning Commission. If not, the applicant is notified and must revise the site plan to comply with the checklist.

- A site plan which is to be reviewed by the Planning Commission shall be submitted to the Township offices **no less than 31 days** before the next regularly scheduled Commission meeting.

- **Three separate plans are required:**
  1) **A site analysis plan**
  2) **A site plan**
  3) **A landscape plan**

  A checklist is provided for each plan on the following pages.

- Site plans shall be drawn at a scale of not more than 1"=20' if the site is less than two acres; 1"=40' if the site is less than six acres; and 1"=100' if the site is greater than six acres and shall contain the following information unless specifically waived by the Planning Commission.

- Either YES, NO or NA (Not Applicable) shall be marked next to each item. If NA is marked, please provide the reasoning for the NA notation.

- Before submitting a formal application for site plan review the applicant is encouraged to meet with the Township Planner or Zoning Administrator to review procedures and ask questions.

1. SITE ANALYSIS PLAN CHECKLIST

This is a separate site plan showing natural and man-made features and is used to determine how the existing features of a property will be changed by the proposed project.

❖

X Small-scale sketch of properties, streets and zoned uses of land within one-quarter mile of the site, sufficient to illustrate the existing character and development in the area of the site

X A sketch illustrating the location of the site within the Township Sheet G-100

X Existing buildings and structures Sheet CD-101

X Current zoning of site and all abutting properties Attached Zoning Map

X Current use of site Sheet CD-101

X Existing contour lines at two feet intervals on the subject property and to a distance of 50 feet outside the boundary lines of the site The impacted portion of the site is shown on CD-101

X Swales and existing drainage patterns Sheet CD-101

X Existing strands of trees, tree lines and individual large trees. Sheet CD-101

N/A Water bodies, streams, creeks and wetlands on the site and within 50' of subject property

N/A Base flood elevation data (if applicable) None noted

2. SITE PLAN CHECKLIST

See article 24 of Allendale Twp. Zoning Ordinance for actual language

❖

GENERAL INFORMATION

Sheet G-100

X Name of development

X Date on which the site plan was prepared

X North arrow and scale

X Architect, landscape architect, engineer, or professional surveyor who prepared the plan

X Name X Address X Professional seal

PROPERTY INFORMATION

X Legal description based upon the most current survey

X Small-scale sketch of properties, streets and zoned uses of land within one-quarter mile of the site, sufficient to illustrate the existing character and development in the area of the site

X A sketch illustrating the location of the site within the Township

X The size in acres and square feet of the subject property

X Property line dimensions and bearings

X Current zoning of site and all abutting properties The impacted portion of the site is shown

X Location and use of existing structures within 100 feet of the boundary of the subject property

X Proposed contour lines at not less than two feet intervals

X Percentage of site covered by impervious surface

BUILDINGS AND USES

X Location of existing and proposed buildings including: ___Use ___Length ___Width ___Height ___Square Footage

X Roof top equipment (Sec. 24.06.G.2)

X Setback of buildings from all property lines

X Architectural elevation drawings and exterior building materials (Sec. 24.06.J)

UTILITIES AND STORMWATER MANAGEMENT

Location, size and dimensions of the following:

X Utility easements

X Water lines

X Sanitary sewer lines

X Storm drainage lines

X Ditches and swales

X Retention and/or detention areas

X Fire hydrants

X Catch basins

N/A Septic tank and drain fields and water wells if applicable

X Transformers and above ground utilities

VEHICLE CIRCULATION

Location, size and dimensions including width of the following:

N/A Proposed streets
X Abutting streets
X Rights-of-way
X Service drives
X Driveways / curb cuts
X Curbs and gutters
X Access easements serving the site
X Driveways opposite the site and driveways and intersections within 100 feet on either side of the site
N/A Traffic control signs No new signs are proposed
N/A Master Plan streets which may cross the property

PEDESTRIAN CIRCULATION (Sec. 24.06.C)

X Location, dimensions and surface type of all sidewalks, bike paths and other walkways
X Internal walkways through the parking lot (Sec. 24.06.C.3)

PARKING (Article 21)

X Number and dimensions of spaces and aisles
X Computations to show number of spaces required
X Distance to nearest property line
X Barrier free parking spaces and sidewalk ramps
X Type of parking area surface
X Curbs and gutters
X Loading areas

LIGHTING (Article 24.06.E)

X Location of exterior lights including building lights
X Height
X Type of fixture

OTHER REQUIRED INFORMATION

X Waste disposal facilities (Sec. 24.06.H)
N/A Outdoor storage (Sec. 24.06.G)
N/A Signs (Article 22)
N/A For residential developments (Sec. 24.05.D.17) summary schedules and views should be affixed as applicable in residential development, which gives the following data:

_____ The net residential area which is the total size of the parcel minus any portion of the site within the road right-of-way expressed in acres and in square feet
_____ The number of dwelling units proposed (by type) and the number of bedrooms for each type
_____ Typical lot size dimensions if detached housing is contemplated
_____ Typical elevation views of the front and side and rear of each type of building
_____ Proposed density of the net residential site

X Proposed phasing

N/A Location and specifications for any existing or proposed above or below ground storage facilities for any chemicals, salts, flammable materials, or hazardous materials as well as any containment structures or clear zones required by this Ordinance or by State or Federal Agencies.

X The Planning Commission may require written statements relative to the effects on the existing traffic capacity of streets, and the proposed development's impact on public safety, existing utilities, the environment and natural features

X The Planning Commission may request additional studies, graphics or other written materials from the applicant in order to assist in determining the appropriateness of the site plan

3. LANDSCAPING PLAN CHECKLIST

This is a separate plan illustrating proposed landscaping

See Articles 21A and Sec. 24.06.F of the Zoning Ordinance for actual language

❖

- X Name, address and seal of landscape architect who prepared the plan
- X Number of plants, type, size, location and spacing for:
  - X greenbelts;
  - X front yard along all streets abutting property;
  - X Parking lots (Sec. 21A.04.G);
- X Computations for all required landscaping
- X Underground irrigation system (Sec. 21A.03.E) Public water supply and reduced sprinkling area
- N/A Berms, walls and fences
- N/A Landscaping for multi-family buildings see also Sec. 23.06.I
- N/A Open space and common areas

Please note that the number of plantings required by the Ordinance may be modified (increased or decreased) by the Planning Commission based on the criteria below. If a reduction in the required landscaping is proposed please provide the reasons for this reduction on the landscaping plan relative to the criteria.

Modification of Required Landscaping. For existing and proposed uses that require site plan approval to either expand or be built, landscaping shall be installed insofar as practical. The Planning Commission in its review of the site plan has the authority to increase, decrease or otherwise modify the landscaping and screening requirements of this article. In doing so, the Commission shall consider the following criteria:

1. The amount of space on the site available for landscaping.
2. Existing landscaping on the site and on adjacent properties.
3. The type of use on the site and size of the development.
4. Existing and proposed adjacent land uses.
5. The effect the required landscaping would have on the operation of the existing or proposed land use.
6. Whether additional landscaping is necessary to mitigate the adverse effects of adjoining land uses, to reduce headlight glare, reduce noise and to otherwise achieve the objectives of this Section.

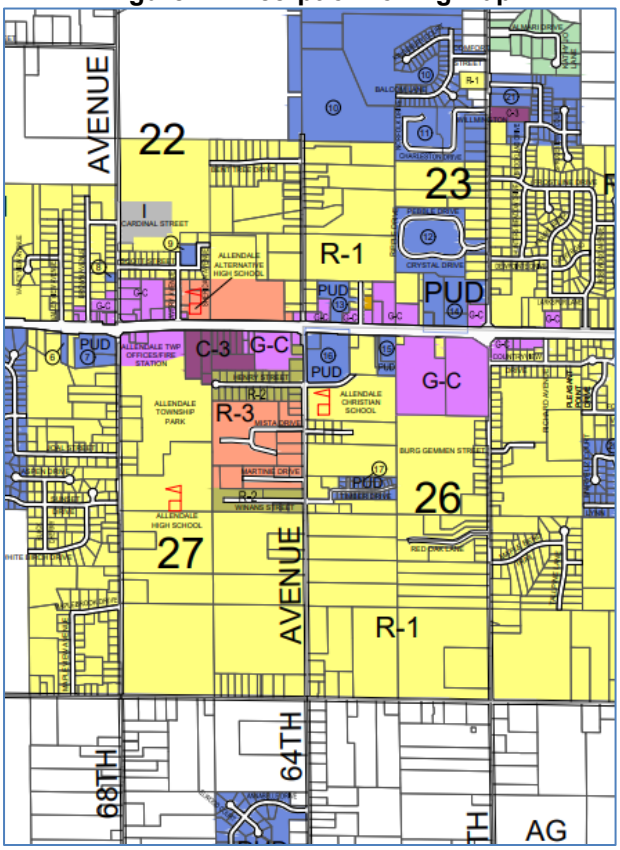
NARRATIVE STATEMENT

Current Site Layout

Allendale Christian School is located at the southeast corner of 64th Avenue and Henry Street in Allendale Township. The property is currently home to the school, which was originally constructed back in 2007 with 37,200 sft floorplan and expansions to the east and west wings of the school shown for future additions on the site plans. An expansion on the east wing in 2017 added approximately 5,700 square feet to the building. Prior site plans for the property were submitted and approved through the State site plan review process.

The property is zoned R-1 and is located in a primarily residential area, but also just south of Family Fare on 64th Avenue as shown below in the Township's zoning map.

Figure 1: Excerpt of Zoning Map



The enclosed plan sheet C-101 shows both the existing and proposed building layout on the property around the proposed improvements.

Prior construction plans for the 2007 and 2017 are available for reference.

Request

The property owner is requesting the approval of an extension of their special use and site plan review for an expansion of the west wing of the building that was shown in early master planning in 2007. This expansion will add 12,787 sft to the building on the west wing and will include a minor expansion of one of the stormwater ponds.

This building expansion will allow an increase in the student population of up to 500 total students, with approximately 25% of those students being part time. This would be an increase of approximately 100 students from the current student population. The floorplan and exterior architectural drawings are provided for reference on Sheets A003, A112, and A201.

In the future, the school is also planning to expand the gymnasium, and additional parking needs will be reassessed at that time.

Limited changes are needed to the site for this expansion, and the location of the expansion is behind the existing wooded corner at Henry and 64th. We are requesting consideration from the Planning Commission under Section 24.11.B for the site plan review to be limited to the portion of the site being altered by the project. Photo 1 is provided below of the area of the proposed expansion, looking toward the corner of 64th Avenue and Henry Street.

Photo 1: Location of Expansion, Looking Northwest

Additional information is provided below to outline the modest changes that are planned for the project.

Additional Information

Stormwater

The project plans have been submitted to the Ottawa County Water Resources for review and permit. It is anticipated that limited improvements and expansion of the stormwater ponds at 64th and Henry will be required to accommodate the building expansion based on the review that has been provided. The OCWRC has reviewed the plans, provided limited comments, and final permitting is in process.

Traffic Impact

Traffic

No significant changes are planned to the traffic flow routing into the site at this time. Allendale Christian is planning to finalize a traffic operation plan that will illustrate their ability to handle existing and future traffic on the site in advance of the public meeting. No off-site changes are anticipated to address traffic flow.

On 64th Avenue, there is a left turn lane available for incoming traffic into the south lot and an existing widening for right turning movements. The left turn lanes on 64th Avenue were installed with the original school construction.

Henry Street is a dead-end street that serves as the entry to the north lot and there is a left turn lane available to Henry Street. Current plans for this area conflict with an extension of Henry in the future and that land would need to be acquired from Allendale Christian or the neighboring Allendale Baptist Church if that connection were ever made.

Parking

Increased parking needs may include around five additional teachers. There are currently only 47 employees, and many are part-time or not always present at the same time. Approximately 40 cars are regularly parked on the site during school hours, and there are 110 available parking spaces. Parking calculations are on Sheet C-100, but no prior parking calculations could be located for this site. 500 total students are projected, and approximately 25% of the students are in part-time kindergarten. There are currently about 400 students enrolled with only 300 being full time.

Photos 2 and 3 depict parking at the site during normal school hours.

Photo 2: North Parking Lot with Staff Parking during School Hours

Photo 3: West Parking Lot during School Hours

It is anticipated that parking needs will be reassessed in a few years with a proposed expansion of the gymnasium, but the school's parking needs are limited at this time.

Irrigation

The property is currently served with public water and sewer, with irrigation provided with public water. The current expansion of the building will reduce yard space, and irrigation heads will be adjusted with the project as necessary.

Dumpster Enclosure

Photo 4 of the existing dumpster enclosure is provided below for reference. This enclosure was constructed and permitted with the original building and is located on the southeast corner of the gymnasium near the emergency access drive. This is a block structure that is consistent with the rest of the school on a concrete slab with adequate space for the needs of the school. While the enclosure does not currently include doors, it is in an area that is screened from surrounding properties. The school is requesting to leave the enclosure the way it is since work is not occurring in this area and the enclosure is sufficient for their needs.

The existing enclosure is 12' deep, 23' wide and 8' tall. It does not include bump guards at the back of the enclosure, but the enclosure is an existing condition that has been functioning for the school for over 15 years. Should the Planning Commission feel that doors should be provided at this time, we request an approval with the condition that the plans be adjusted for staff approval to include the doors.

Photo 4: Existing Dumpster Enclosure on the Southeast Corner of the Gym

Rooftop and Ground Mounted Equipment

Photos of the existing ground mounted equipment on the site are included below for review. In most locations, the equipment is shielded by existing chain link fence with slats as showns in the first photo, and additional chain link fencing is proposed in the landscaping plans on Sheet L-101 around the exposed air conditioning units on the north side of the building.

Existing rooftop equipment is located in the far southeast corner of the gym, but this equipment is shielded from view by surrounding landscaping and the roofline of the building. No work is planned on this equipment, and no additional equipment is being added in this area.

Photo 5: Existing Equipment Screening

Photo 6: Existing Equipment Where Screening will be Added per Sheet L-101

Landscaping
A landscape planting plan is attached on Sheet L-101.

South Landscape Buffer- At the time of construction and approvals in 2007, a 15' wide landscape buffer along the south property line was required and was shown on the approved site plan. At this time, the landscape buffer has matured, and a photo is shown below for reference. We believe the existing vegetation meets the intent of this requirement, so no changes are proposed at this time.

Photo 7: Existing South Buffer

Front Yard Landscaping-At the time of construction and approvals in 2007, front yard landscaping and a natural area were placed along 64th and Henry. Current photos are provided below for reference. We believe the existing vegetation meets the intent of this requirement, so no changes are proposed at this time.

Photo 8: Existing Buffer on Henry Street

Off Street Parking Landscaping- No changes are currently proposed to the parking lot, but seven island trees were originally proposed for the parking lot that was constructed in 2007, which exceeds current requirements. There is also significant additional landscaping around the parking lots. We believe the existing vegetation meets the intent of this requirement, so no changes are proposed at this time.

Photo 9: Existing Parking Lot Landscaping

Landscaping at Hydrants- No changes are currently proposed to the landscaping around hydrants on the site. The site hydrants are easily accessed from the existing drives.

Photo 10: Existing Hydrant Accessibility

We are requesting consideration from the Planning Commission under Section 24.11.A.4 and B.3 for limited landscaping improvements due to the location of the expansion behind a wooded area at the corner of Henry Street and 64th Avenue. Due to the limited scope of the changes and location of these changes, additional compliance is unlikely to improve the character, safety or welfare of the neighborhood.

Should the Planning Commission feel that additional landscaping is needed or information provided for the existing landscaping conditions, we request conditional approval with final staff approval of an updated landscaping plan. We would then complete a survey of existing vegetation for the area in question and update the landscape plan to meet the current zoning requirements.

Lighting

A lighting and photometric plan is provided for the addition of six (6) wallpack fixtures to the exterior of the building. Existing site lighting is planned to remain in place in this area. Example photos are provided below of the existing downward directed lighting in the parking areas and bollards at the building entries.

Photos 11-13: Existing Property Lighting

REVIEW OF CRITERIA FOR PARTIAL COMPLIANCE

Section 24.11.B: In determining how to apply the site plan review standards to address the above deficiencies found on a site, the Planning Commission shall be guided by the following criteria:

1. Whether compliance would ensue safer on-site conditions, protect the natural environment, improve traffic circulation, achieve compatibility with adjacent land uses, promote the use of the land in a socially and economically desirable manner and generally accomplish the purposes of site plan review as described in this Section.

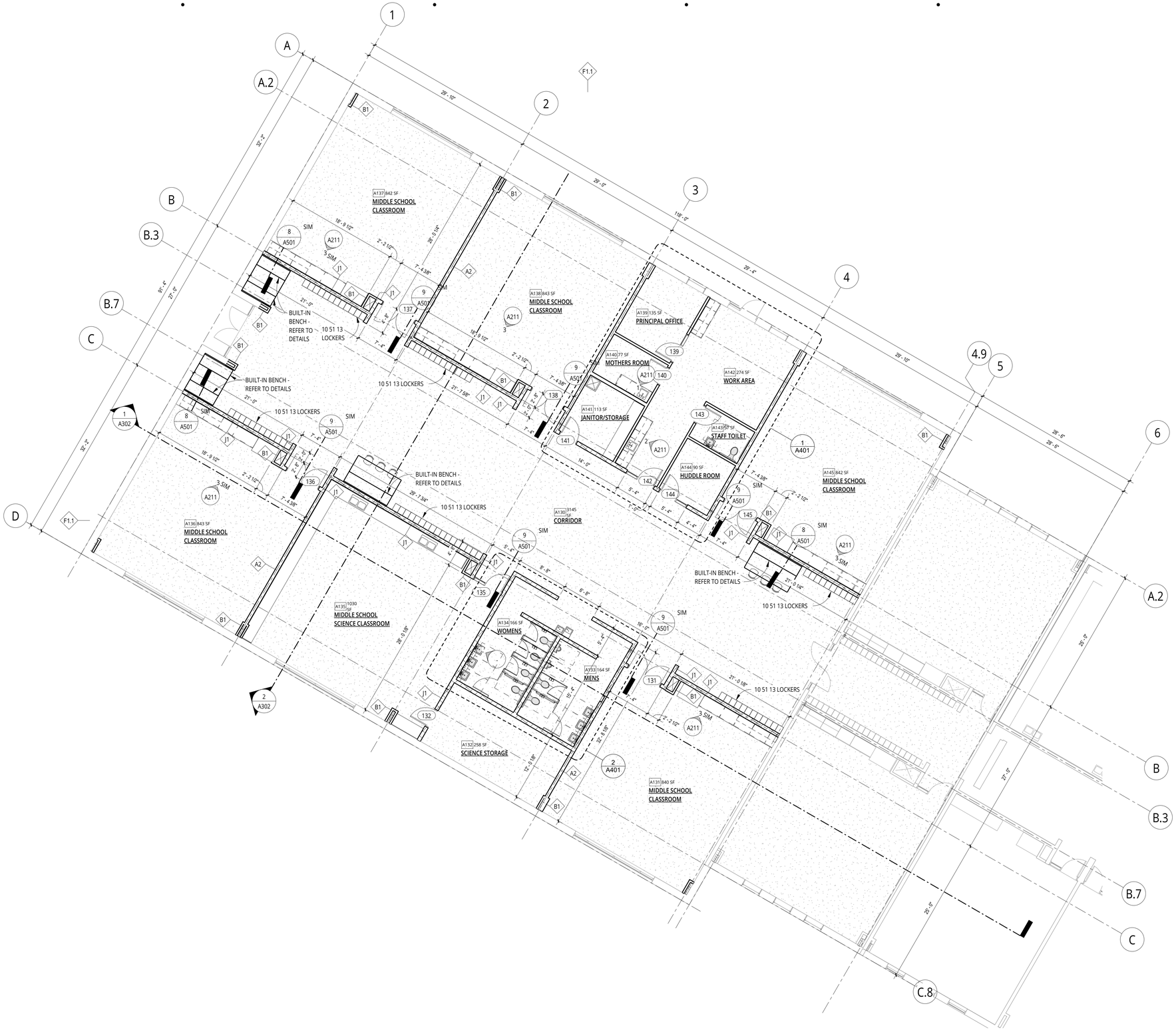
   Response: As noted above, the anticipated impact to the site and community are limited with this project.

2. The practicality of requiring complete compliance with the applicable regulations of this Ordinance based on the existing design, layout, and operation of the existing use and size of the site or if only partial compliance would be more practical.

   Response: In this case, we believe that partial compliance with the Ordinance achieves the intent of the ordinance as the school has been consistently improving the building and site over the years with site plan approvals occurring at the State level. With the location of the work and limited impact to the neighboring properties, the School is requesting consideration for making improvements in the immediate vicinity of the work.

3. Whether or not requiring compliance would have a negative impact on the character, safety and welfare of the neighborhood or surrounding area.

   Response: As previously outlined, the location of the site improvements and limited change in parking use limit the change that the surrounding community will see as a result of the expansion. Previous site plan work was previously approved at the State level.



ADDITION FLOOR PLAN - PHASE 2
1/8" = 1'-0"

FLOOR PLAN NOTES

1 ALL CONSTRUCTION TO MEET APPLICABLE LOCAL, STATE, AND NATIONAL CODES.

2 SUBCONTRACTORS TO REVIEW ALL CIVIL, STRUCTURAL, ARCHITECTURAL & DESIGN BUILD DRAWINGS TO COORDINATE THEIR WORK. NOTIFY ARCHITECT WITH ANY POTENTIAL CONFLICTS.

3 ALL DIMENSIONS ARE TO GRIDS, FINISH FACE OF DRYWALL OR FACE OF FOUNDATION AT EXTERIOR WALLS.

4 SUBCONTRACTOR TO USE CARE IN ALL AIRSEALING AND INSULATION DETAILS. SEE TYPICAL DETAILS FOR FURTHER INFORMATION.

5 SUBCONTRACTORS ARE TO VERIFY AND CHECK ALL DIMENSIONS BEFORE WORK IS STARTED.

6 SUBCONTRACTORS WHO FAIL TO VERIFY, REVIEW, AND COORDINATE WORK SHALL TAKE FULL RESPONSIBILITY OF ANY WORK IMPROPERLY CONSTRUCTED OR LOCATED.

7 SUBCONTRACTORS SHALL NOTIFY ARCHITECT IF DIMENSIONAL ERRORS OR STRUCTURAL CONFLICTS OCCUR; AND SHALL PROCEED UPON CLARIFICATION OR REVISION ISSUED BY ARCHITECT.

8 VERIFY ALL ELECTRICAL, MECHANICAL AND PLUMBING REQUIREMENTS BEFORE FRAMING.

9 ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS ARE DESIGN BUILD BY OTHERS.

10 ARCHITECT TO COORDINATE DESIGNS BY OTHERS WITH ARCHITECTURAL DRAWINGS.

11 SUBCONTRACTORS TO VERIFY ALL ROUGH OPENINGS WITH PRODUCT SUPPLIERS.

12 TRANSITION LINES OF DIFFERING FLOOR MATERIALS SHALL OCCUR AT CENTERLINE OF CLOSED DOOR.

13 UNLESS NOTED, ALL DOOR FRAMES TO BE 4" FROM ADJACENT FINISHED WALL AT HINGE, OR BE COORDINATED WITH DOOR FRAME SIZE.

14 PROVIDE CONTROL JOINTS IN GYP. WALLBOARD AS RECOMMENDED BY WALLBOARD MANUFACTURER. COORDINATE LOCATION WITH ARCHITECT (APPROX. 30').

15 SLOPE ALL EXTERIOR CONCRETE MIN. 1/8"/ FOOT AWAY FROM BUILDING.

16 FIELD VERIFY LOCATIONS OF ALL DOWNSPOUTS (INTERNAL OR EXTERNAL)

17 SUBCONTRACTOR TO PROVIDE 2X6 MINIMUM BLOCKING, BACKING, AND FRAMING FOR LIGHT FIXTURES, ELECTRICAL UNITS, MILLWORK, COAT HOOKS, MEDIA EQUIPMENT, HARDWARE, AND OTHER ITEMS AS REQUIRED. IF BLOCKING IS BURIED IN WALL FOR FUTURE USE, PHOTOGRAPHS AND DRAWINGS OF THE EXISTING CONDITIONS WILL BE GIVEN TO OWNER FOR FUTURE REFERENCE.

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ALLENDALE CHRISTIAN SCHOOL

MIDDLE SCHOOL ADDITION
11050 64TH AVE., ALLENDALE. MI 49401

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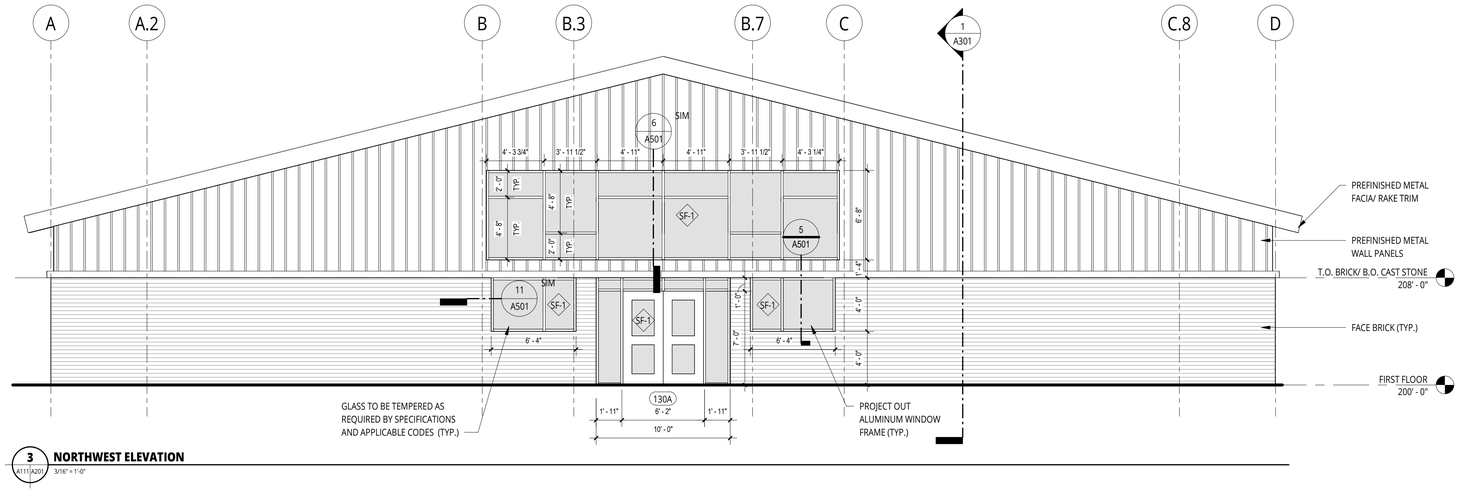
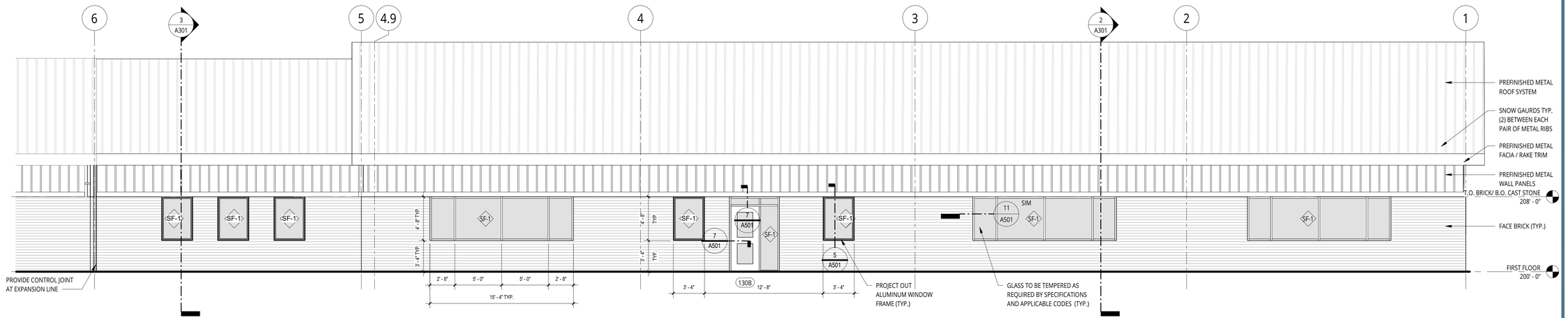
ISSUE DATE:
03.02.2021

REVISIONS:
03.02.2021 PERMIT SET

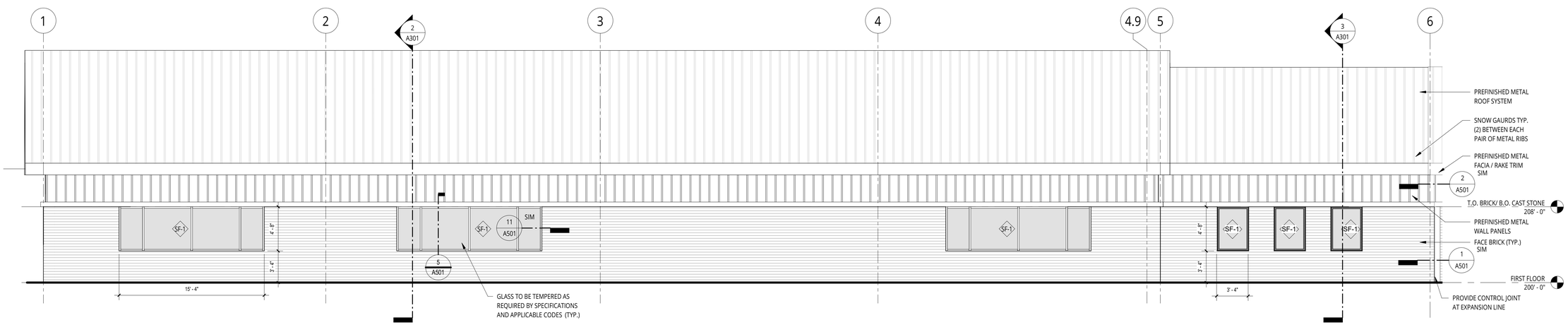
PROJECT NO: 19841
DRAWN BY: SH
REVIEWED BY: MN
SHEET NAME: FLOOR PLAN - PHASE 2
SHEET NO: A112



3 A111|A201 **NORTHWEST ELEVATION** 3/16" = 1'-0"



2 A111|A201 **NORTHEAST ELEVATION** 3/16" = 1'-0"



1 A111|A201 **SOUTHWEST ELEVATION** 3/16" = 1'-0"

ELEVATION NOTES

1 SUBCONTRATOR TO FIELD VERIFY BUILDING HEIGHTS AND ENVELOPE LIMITS. INFORM ARCHITECT OF ANY DISCREPANCIES.

2 ALL EXPOSED MECHANICAL AND PLUMBING VENT LOCATIONS TO BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION. COLOR TO MATCH ADJACENT MATERIALS, OR BE PAINTED TO MATCH. CONFIRM COLOR WITH ARCHITECT.

3 REFER TO EXTERIOR FINISH SCHEDULE AND PROJECT SPECIFICATIONS FOR ALL EXTERIOR INFORMATION.

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MIDDLE SCHOOL ADDITION
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PROJECT NO: 19841
DRAWN BY: SH
REVIEWED BY: MN
SHEET NAME: EXTERIOR ELEVATIONS
SHEET NO: A201

ALLENDALE CHRISTIAN SCHOOL EXPANSION

11050 64TH AVENUE
ALLENDALE, MI 49401

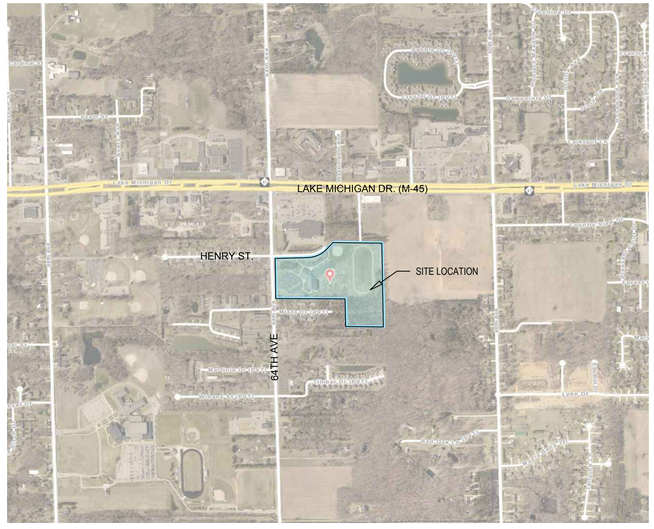
ZONING

R-1 (LOW DENSITY ONE -FAMILY RESIDENTIAL DISTRICT)

SETBACKS:	
FRONT YARD	50 FEET MIN.
SIDE YARD	25 FEET TOTAL (10 FT MIN)
REAR YARD	50 FEET MIN.
HEIGHT	30FEET MAX. (2 1/2 STORIES)

LEGAL DESCRIPTION

PART OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 26; EXCEPTING THAT PART LYING NORTH OF A LINE COMMENCING SOUTH 00 DEGREES 38 MINUTES 18 SECONDS EAST 831.07 FEET; THENCE NORTH 89 DEGREES 21 MINUTES 42 SECONDS EAST 33.00 FEET & SOUTH 00 DEGREES 38 MINUTES 18 SECONDS EAST 33.00 FEET FROM THE NORTHWEST SECTION CORNER; THENCE NORTH 89 DEGREES 21 MINUTES 42 SECONDS EAST 400.54 FEET ALONG the SOUTH LINE OF HENERY STREET; THENCE NORTHEASTERLY 241.15 FEET ALONG A 333.00 FOOT RADIUS CURVE TO THE LEFT, HAVING A CHORD THAT BEARS NORTH 68 DEGREES 36 MINUTES 53 SECONDS EAST 235.92 FEET; THENCE NORTH 47 DEGREES 52 MINUTES 05 SECONDS EAST 135.64 FEET; THENCE SOUTH 88 DEGREES 36 MINUTES 58 SECONDS EAST 564.46 FEET TO THE EAST LINE OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 AND THE END OF SAID LINE. ALSO EXCEPTING THE WEST 50.00 FEET FOR ROAD RIGHT-OF-WAY, ALSO THAT PART OF THE NORTHWEST 1/4 COMMENCING SOUTH 00 DEGREES 39 MINUTES 58 SECONDS EAST 1328.04 FEET & SOUTH 88 DEGREES 48 MINUTES 06 SECONDS EAST 871.76 FEET FROM THE NORTHWEST SECTION CORNER; THENCE SOUTH 88 DEGREES 48 MINUTES 06 SECONDS EAST 447.00 FEET; THENCE SOUTH 00 DEGREES 29 MINUTES 43 SECONDS EAST 329.96 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 06 SECONDS WEST 447.00 FEET; THENCE NORTH 00 DEGREES 29 MINUTES 43 SECONDS WEST 329.96 FEET TO THE POINT OF BEGINNING. BEING PART OF SECTION 26 T.7N.,R.14W.



LOCATION MAP
SCALE: 1" = 850'

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

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SHEET	C-100	OVERALL SITE LAYOUT
SHEET	C-101	SITE LAYOUT PLAN
SHEET	L-101	LANDSCAPE PLANTING PLAN

LEGEND

SECTION CORNER	UNDERGROUND GAS
SITE BENCHMARK	UNDERGROUND ELECTRIC
SOIL BORING	UNDERGROUND TELEPHONE
FOUND STEEL BAR	CHAIN LINK FENCE
FOUND IRON PIPE	MINOR CONTOUR
SET STEEL BAR	INDEX CONTOUR
MANHOLE	
CATCHBASIN	ASPHALT
HYDRANT	
WATER VALVE	CONCRETE
UTILITY POLE	
LIGHT POLE	GRAVEL
CLEANOUT	
DECIDUOUS TREE	

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LAKEWOOD CONSTRUCTION
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ALLENDALE, MICHIGAN 49401

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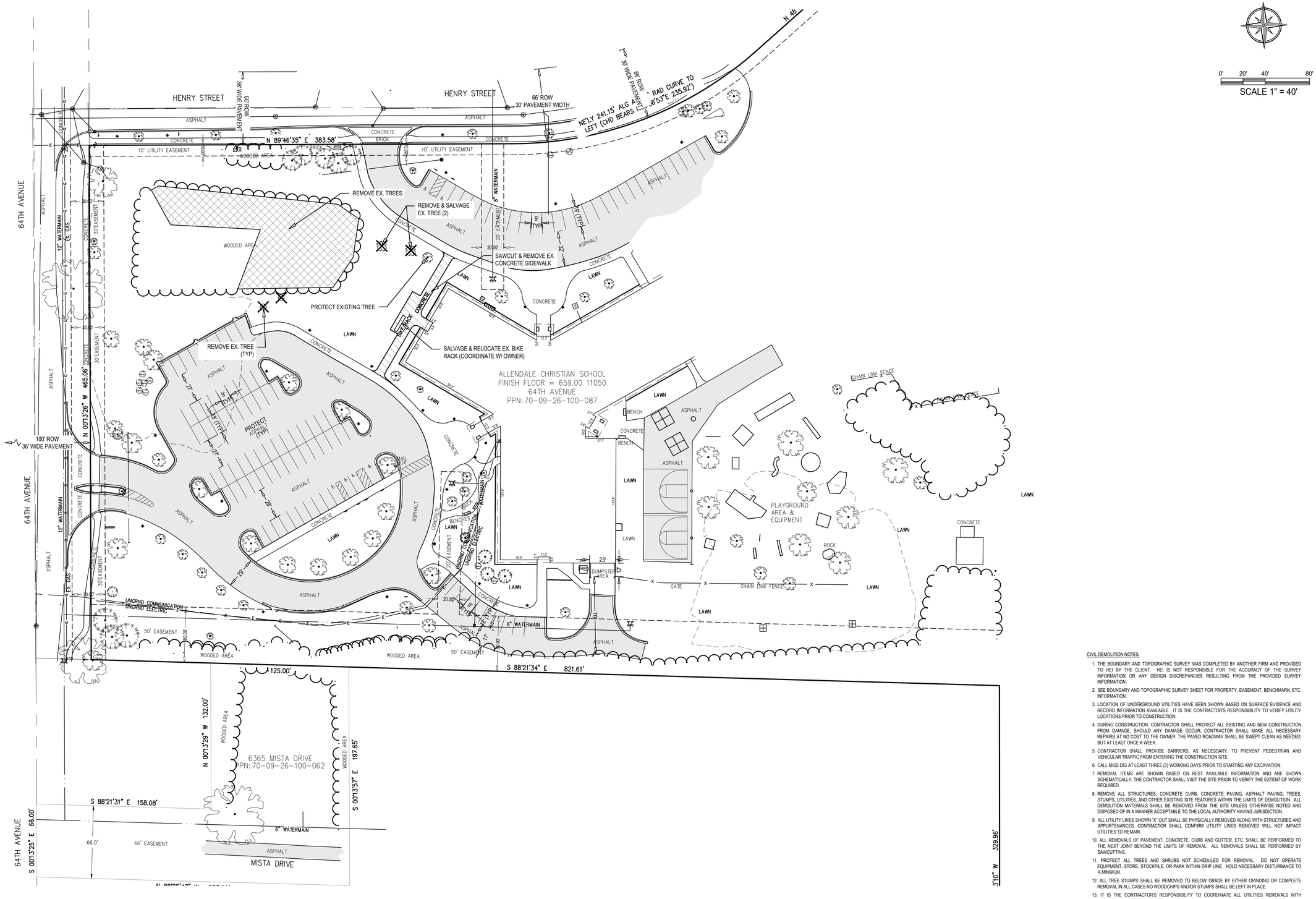
Project Manager: RYAN T. YSSELDYKE, PE
Vertical Datum: LOCAL | Horz. Datum: LOCAL
Drawn by: COLLIN DEPREKEL

Checked by	Date
Survey .	.
Civil .	.
Struc. .	.
L. A. .	.

HEI Project Number: 19-12-012

Sheet Title: COVER SHEET

Sheet No.: G-100



0' 20' 40' 80'

SCALE 1" = 40'

CIVIL DEMOLITION NOTES:

1. THE BOUNDARY AND TOPOGRAPHIC SURVEY WAS COMPLETED BY ANOTHER FIRM AND PROVIDED TO HEI BY THE CLIENT. HEI IS NOT RESPONSIBLE FOR THE ACCURACY OF THE SURVEY INFORMATION OR ANY DESIGN DISCREPANCIES RESULTING FROM THE PROVIDED SURVEY INFORMATION.
2. SEE BOUNDARY AND TOPOGRAPHIC SURVEY SHEET FOR PROPERTY, EASEMENT, BENCHMARK, ETC. INFORMATION.
3. LOCATION OF UNDERGROUND UTILITIES HAVE BEEN SHOWN BASED ON SURFACE EVIDENCE AND RECORD INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
4. DURING CONSTRUCTION, CONTRACTOR SHALL PROTECT ALL EXISTING AND NEW CONSTRUCTION FROM DAMAGE; SHOULD ANY DAMAGE OCCUR, CONTRACTOR SHALL MAKE ALL NECESSARY REPAIRS AT NO COST TO THE OWNER. THE PAVED ROADWAY SHALL BE SWEPT CLEAN AS NEEDED, BUT AT LEAST ONCE A WEEK.
5. CONTRACTOR SHALL PROVIDE BARRIERS, AS NECESSARY, TO PREVENT PEDESTRIAN AND VEHICULAR TRAFFIC FROM ENTERING THE CONSTRUCTION SITE.
6. CALL MISS DIG AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION.
7. REMOVAL ITEMS ARE SHOWN BASED ON BEST AVAILABLE INFORMATION AND ARE SHOWN SCHEMATICALLY. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO VERIFY THE EXTENT OF WORK REQUIRED.
8. REMOVE ALL STRUCTURES, CONCRETE CURB, CONCRETE PAVING, ASPHALT PAVING, TREES, STUMPS, UTILITIES, AND OTHER EXISTING SITE FEATURES WITHIN THE LIMITS OF DEMOLITION. ALL DEMOLITION MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE NOTED AND DISPOSED OF IN A MANNER ACCEPTABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION.
9. ALL UTILITY LINES SHOWN "X" OUT SHALL BE PHYSICALLY REMOVED ALONG WITH STRUCTURES AND APPURTENANCES. CONTRACTOR SHALL CONFIRM UTILITY LINES REMOVED WILL NOT IMPACT UTILITIES TO REMAIN.
10. ALL REMOVALS OF PAVEMENT, CONCRETE, CURB AND GUTTER, ETC. SHALL BE PERFORMED TO THE NEXT JOINT BEYOND THE LIMITS OF REMOVAL. ALL REMOVALS SHALL BE PERFORMED BY SAWCUTTING.
11. PROTECT ALL TREES AND SHRUBS NOT SCHEDULED FOR REMOVAL. DO NOT OPERATE EQUIPMENT, STORE, STOCKPILE, OR PARK WITHIN DRIP LINE. HOLD NECESSARY DISTURBANCE TO A MINIMUM.
12. ALL TREE STUMPS SHALL BE REMOVED TO BELOW GRADE BY EITHER GRINDING OR COMPLETE REMOVAL IN ALL CASES NO WOODCHIPS AND/OR STUMPS SHALL BE LEFT IN PLACE.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL UTILITIES REMOVALS WITH PROPERTY OWNER AND UTILITY PROVIDER.
14. ALL WORK IN ROAD RIGHTS OF WAY SHALL BE COMPLETED IN ACCORDANCE WITH OTTAWA COUNTY ROAD COMMISSION, AND ALLENDALE TOWNSHIP.
15. SEE OTHER SHEETS IN PLAN SET FOR MORE INFORMATION.

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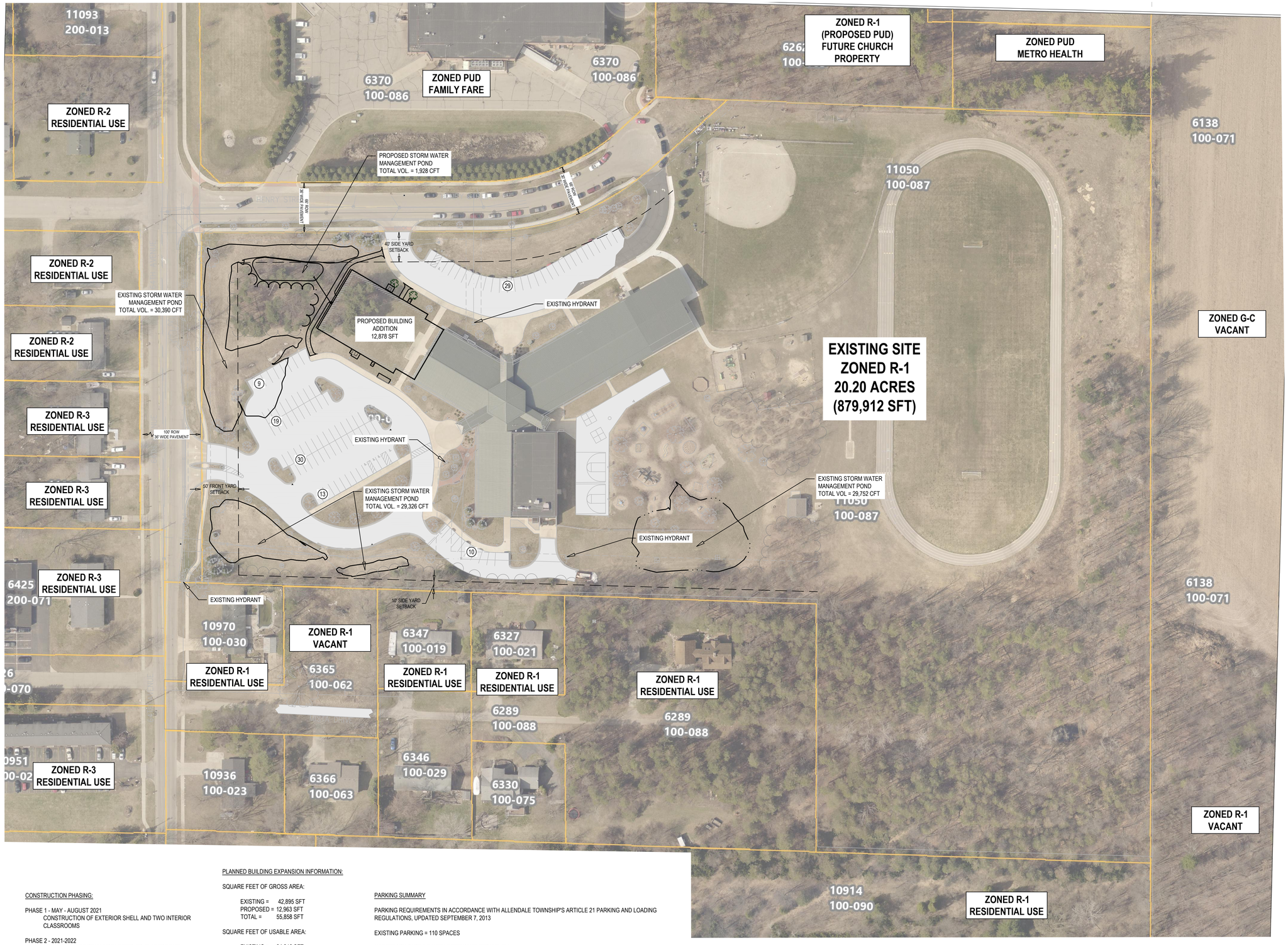
Drawn by
COLLIN DEPREKEL

Checked by		Date
Survey	.	.
Civil	.	.
Struc.	.	.
L. A.	.	.

HEI Project Number
19-12-012

Sheet Title
CIVIL DEMOLITION

Sheet No.
CD-101



CONSTRUCTION PHASING:

PHASE 1 - MAY - AUGUST 2021
CONSTRUCTION OF EXTERIOR SHELL AND TWO INTERIOR CLASSROOMS

PHASE 2 - 2021-2022
COMPLETION OF REMAINING INTERIOR CLASSROOMS

PLANNED BUILDING EXPANSION INFORMATION:

SQUARE FEET OF GROSS AREA:

EXISTING = 42,895 SFT
PROPOSED = 12,963 SFT
TOTAL = 55,858 SFT

SQUARE FEET OF USABLE AREA:

EXISTING = 34,316 SFT
PROPOSED = 10,371 SFT
TOTAL = 44,687 SFT

SQUARE FEET OF IMPERVIOUS AREAS:

EXISTING = 150,759 SFT
PROPOSED = 16,852 SFT
TOTAL = 167,611SFT

PARKING SUMMARY

PARKING REQUIREMENTS IN ACCORDANCE WITH ALLENDALE TOWNSHIP'S ARTICLE 21 PARKING AND LOADING REGULATIONS, UPDATED SEPTEMBER 7, 2013

EXISTING PARKING = 110 SPACES

NECESSARY PARKING WITH WEST WING EXPANSION:
EXISTING GYM (ASSEMBLY HALL) = 2 SPACES PER 5 SEATS ON THE BENCH = 197 SEATS / 5 SEATS / 2 SPACES = 79 SPACES
EXISTING EMPLOYEES = 47 EMPLOYEES (INCLUDING PART TIME) AT 1 SPACE PER 2 EMPLOYEES = 24 SPACES

TOTAL SPACES AVAILABLE = 110 SPACES
TOTAL SPACES REQUIRED = 103 SPACES

NOTE: SHARED PARKING ARRANGEMENTS WILL BE REVIEWED AS NECESSARY WITH THE FUTURE GYM EXPANSION.

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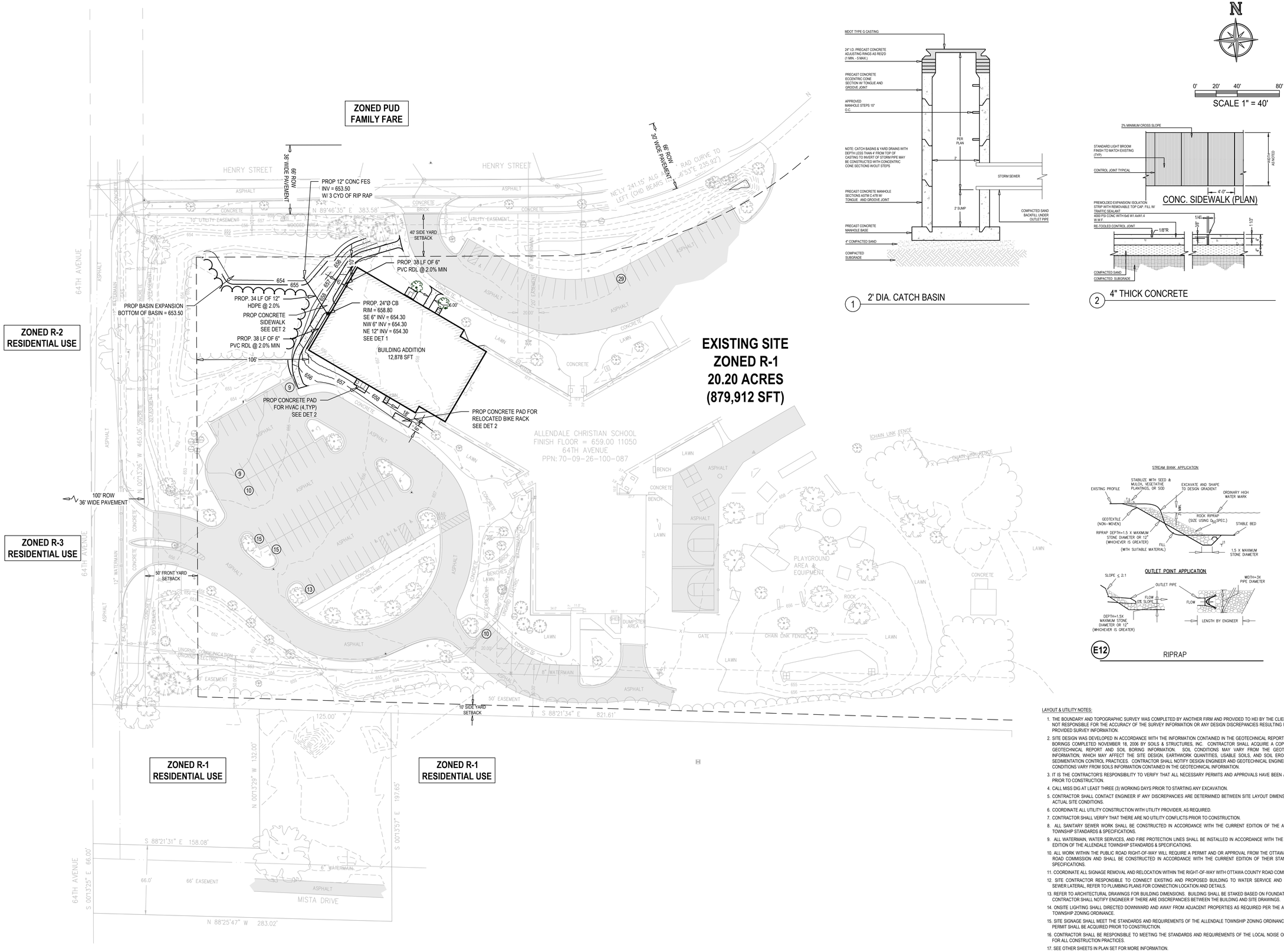
COLLIN DEPREKEL

Checked by		Date
Survey	.	.
Civil	.	.
Struc.	.	.
L. A.	.	.

HEI Project Number
19-12-012

Sheet Title
OVERALL SITE LAYOUT

Sheet No.
C-100



1 2' DIA. CATCH BASIN

2 4" THICK CONCRETE

E12 RIPRAP

0' 20' 40' 80'

SCALE 1" = 40'

LAYOUT & UTILITY NOTES:

1. THE BOUNDARY AND TOPOGRAPHIC SURVEY WAS COMPLETED BY ANOTHER FIRM AND PROVIDED TO HEI BY THE CLIENT. HEI IS NOT RESPONSIBLE FOR THE ACCURACY OF THE SURVEY INFORMATION OR ANY DESIGN DISCREPANCIES RESULTING FROM THE PROVIDED SURVEY INFORMATION.
2. SITE DESIGN WAS DEVELOPED IN ACCORDANCE WITH THE INFORMATION CONTAINED IN THE GEOTECHNICAL REPORT AND SOIL BORINGS COMPLETED NOVEMBER 18, 2006 BY SOILS & STRUCTURES, INC. CONTRACTOR SHALL ACQUIRE A COPY OF THE GEOTECHNICAL REPORT AND SOIL BORING INFORMATION. SOIL CONDITIONS MAY VARY FROM THE GEOTECHNICAL INFORMATION, WHICH MAY AFFECT THE SITE DESIGN, EARTHWORK QUANTITIES, USABLE SOILS, AND SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER AND GEOTECHNICAL ENGINEER IF SITE CONDITIONS VARY FROM SOILS INFORMATION CONTAINED IN THE GEOTECHNICAL INFORMATION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL NECESSARY PERMITS AND APPROVALS HAVE BEEN ACQUIRED PRIOR TO CONSTRUCTION.
4. CALL MISS DIG AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION.
5. CONTRACTOR SHALL CONTACT ENGINEER IF ANY DISCREPANCIES ARE DETERMINED BETWEEN SITE LAYOUT DIMENSIONS AND ACTUAL SITE CONDITIONS.
6. COORDINATE ALL UTILITY CONSTRUCTION WITH UTILITY PROVIDER, AS REQUIRED.
7. CONTRACTOR SHALL VERIFY THAT THERE ARE NO UTILITY CONFLICTS PRIOR TO CONSTRUCTION.
8. ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE ALLENDALE TOWNSHIP STANDARDS & SPECIFICATIONS.
9. ALL WATERMAIN, WATER SERVICES, AND FIRE PROTECTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT EDITION OF THE ALLENDALE TOWNSHIP STANDARDS & SPECIFICATIONS.
10. ALL WORK WITHIN THE PUBLIC ROAD RIGHT-OF-WAY WILL REQUIRE A PERMIT AND OR APPROVAL FROM THE OTTAWA COUNTY ROAD COMMISSION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THEIR STANDARDS & SPECIFICATIONS.
11. COORDINATE ALL SIGNAGE REMOVAL AND RELOCATION WITHIN THE RIGHT-OF-WAY WITH OTTAWA COUNTY ROAD COMMISSION
12. SITE CONTRACTOR RESPONSIBLE TO CONNECT EXISTING AND PROPOSED BUILDING TO WATER SERVICE AND SANITARY SEWER LATERAL, REFER TO PLUMBING PLANS FOR CONNECTION LOCATION AND DETAILS.
13. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS. BUILDING SHALL BE STAKED BASED ON FOUNDATION PLAN. CONTRACTOR SHALL NOTIFY ENGINEER IF THERE ARE DISCREPANCIES BETWEEN THE BUILDING AND SITE DRAWINGS.
14. ONSITE LIGHTING SHALL DIRECTED DOWNWARD AND AWAY FROM ADJACENT PROPERTIES AS REQUIRED PER THE ALLENDALE TOWNSHIP ZONING ORDINANCE.
15. SITE SIGNAGE SHALL MEET THE STANDARDS AND REQUIREMENTS OF THE ALLENDALE TOWNSHIP ZONING ORDINANCE. A SIGN PERMIT SHALL BE ACQUIRED PRIOR TO CONSTRUCTION.
16. CONTRACTOR SHALL BE RESPONSIBLE TO MEETING THE STANDARDS AND REQUIREMENTS OF THE LOCAL NOISE ORDINANCE FOR ALL CONSTRUCTION PRACTICES.
17. SEE OTHER SHEETS IN PLAN SET FOR MORE INFORMATION.

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Drawn by
COLLIN DEPREKEL

Checked by		Date
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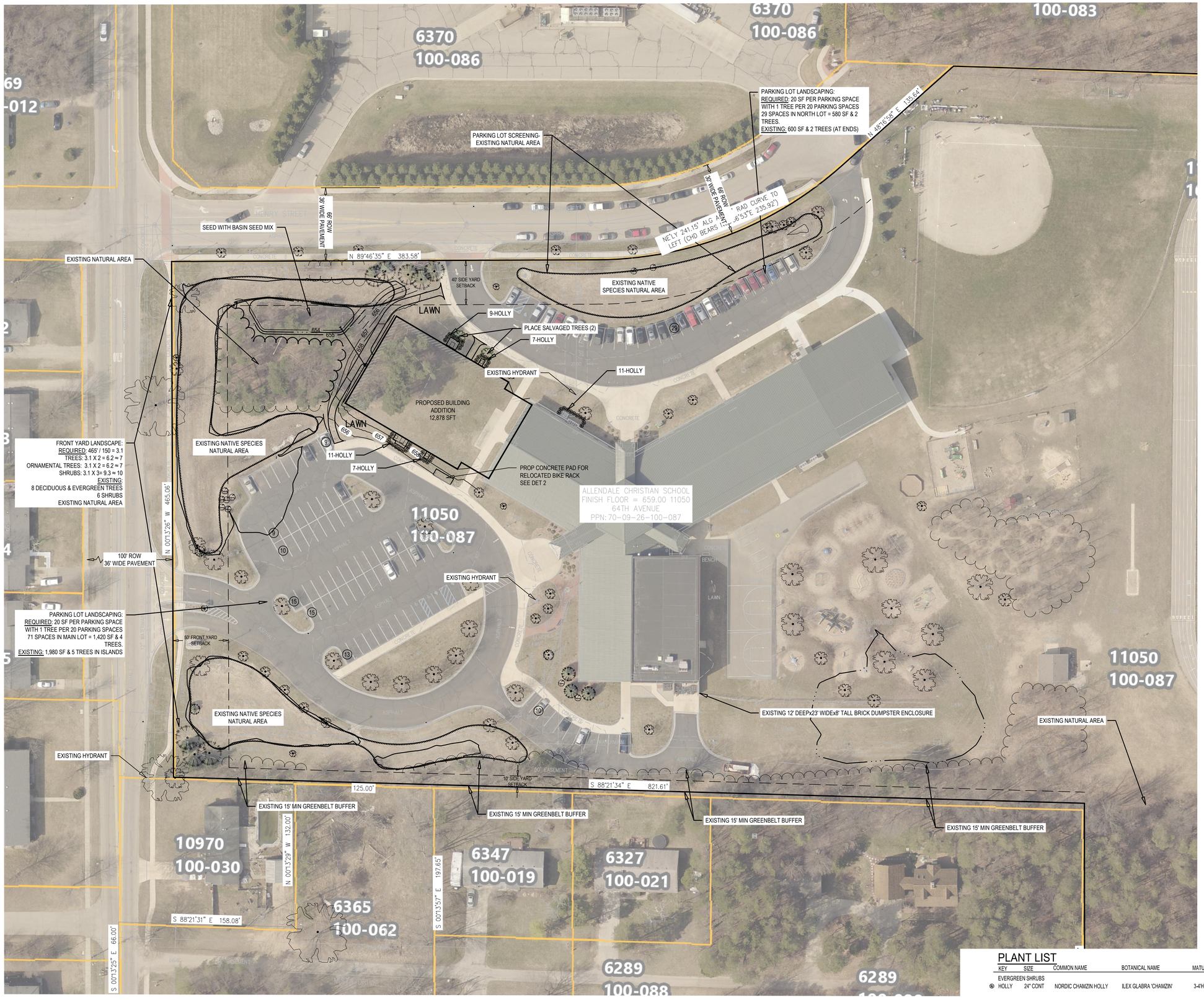
Civil	.	.
Struc.	.	.
L. A.	.	.

HEI Project Number
19-12-012

Sheet Title
SITE LAYOUT PLAN

Sheet No.
C-101



PLANTING NOTES:

1. ALL LAWN AND PLANTING AREAS SHALL BE IRRIGATED WITH UNDERGROUND IRRIGATION IN SUCH WAY TO MAINTAIN VEGETATION IN A HEALTHY AND GROWING MANNER. EXISTING SYSTEM TO BE MODIFIED AROUND BUILDING ADDITION(S).
2. ALL LANDSCAPE AREAS SHALL BE MAINTAINED BY OWNER. TREES AND OTHER VEGETATION THAT DIE SHALL BE PROMPTLY REPLACED WITH IN KIND VEGETATION.
3. CONTRACTOR SHALL PROVIDE SPECIFIED TREES, SHRUBS, GROUND COVERS AND OTHER PLANT MATERIAL THAT COMPLY WITH ALL RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK." PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS STOCK GROWN WITH GOOD HORTICULTURAL PRACTICE AND INSTALLED IN ACCORDANCE WITH METHODS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. SEED SHALL BE PLACED OVER 6" TOPSOIL IN ALL PROPOSED LAWN AREAS AND ALL AREAS DISTURBED BY CONSTRUCTION EXCEPT AS NOTED ON THE PLANS. SOD SHALL BE PLACED IN ALL AREAS AS SHOWN ON THE PLANS OVER 4" TOPSOIL.
5. PLANTING SOIL CONSISTING OF 1/3 TOPSOIL, 1/3 PEAT MOSS AND 1/3 SAND SHALL BE PLACED IN ALL GROUND COVER AND FLOWER BEDS. DEPTH SHALL BE NOT LESS THAN 8".
6. FOLLOWING CONSTRUCTION, RESTORE ALL DISTURBED AREAS WITH EARTH CARPET SPARTAN GRADE "A" SEED MIX, UNLESS OTHERWISE NOTED.
7. PLANT MATERIAL SUBSTITUTIONS SHALL BE APPROVED BY OWNER & LANDSCAPE ARCHITECT.
8. A CLEAR SPACE OF NOT LESS THAN FIVE (5) FEET SHALL BE PROVIDED IN FRONT OF AND COMPLETELY AROUND ALL FIRE HYDRANTS, MANHOLES, SERVICE BOXES, AND VALVE BOXES. THE CLEAR SPACE SHALL BE FREE OF ALL OBSTRUCTIONS SUCH AS PARKED CARS, LANDSCAPING AT MATURITY, UTILITIES, SERVICE VEHICLES, CONSTRUCTION WORK, SNOW AND SIMILAR ITEMS.

LAWN- SPARTAN GRADE A MIX

SPARTAN GRADE A MIXTURE by Earth Carpet
10% Cannon Kentucky Bluegrass
10% Gold Rush Kentucky Bluegrass
20% Ronde Kentucky Bluegrass
15% SR5100 Chewings Fescue
25% SR5210 Creeping Red Fescue
10% SR4500 Perennial Ryegrass
10% Manhattan 4 Perennial Ryegrass

SEEDING RATE: 5 LBS. PER 1,000 SQUARE FEET. HYDROSEED ALL AREAS WITH A SLURRY OF SEED, PULVERIZED MULCH, FERTILIZER AND WATER. PLACE IN ALL DISTURBED AREAS NOT LABELED AS DETENTION BASIN SEED MIX

BASIN SEED MIX

SEED STORM WATER BASIN AREAS WITH CARDNO SWALE SEED MIX @ 32 POUNDS/ACRE
PLACE EROSION CONTROL BLANKET ON ALL SLOPES GREATER THAN 1:3 AFTER SEEDING.

PLANT LIST

KEY	SIZE	COMMON NAME	BOTANICAL NAME	MATURE SIZE/COMMENTS
EVERGREEN SHRUBS				
HOLLY	24" CONT	NORDIC CHAMZIN HOLLY	ILEX GLABRA 'CHAMZIN'	3-4'Hx3-4'S; DENSE, COMPACT EVERGREEN; DEEP LUSTROUS GREEN LEAVES;

STATE OF MICHIGAN
BRUCE ZEINSTRA
LANDSCAPE ARCHITECT
No. 1311
REGISTERED LANDSCAPE ARCHITECT

HOLLAND ENGINEERING
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Holland, Michigan 49423-3766
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LAKEWOOD CONSTRUCTION

ATTN: MR. Marcel Vander Laan
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Holland, MI 49424

ACS EXPANSION

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ALLENDALE, MICHIGAN 49401

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Plans are preliminary & incomplete until ISSUED FOR CONSTRUCTION

Project Manager: RYAN T. YSSELDYKE, PE
Vertical Datum: LOCAL
Horz. Datum: LOCAL
Drawn by: COLLIN DEPREKEL
Checked by: Survey . Date .
Civil . .
Struc. . .
L. A. . .
HEI Project Number: 19-12-012

Sheet Title: LANDSCAPE PLANTING PLAN
Sheet No.: L-101

Performance Data

Electrical Load

Luminaire	Input Power (W)	120V	208V	240V	277V	347V
WPX1 LED P1	11W	0.09	0.05	0.05	0.04	0.03
WPX1 LED P2	24W	0.20	0.12	0.10	0.09	0.07
WPX2	47W	0.39	0.23	0.20	0.17	0.14
WPX3	69W	0.58	0.33	0.29	0.25	0.20

Projected LED Lumen Maintenance

Data references the extrapolated performance projections in a 25°C ambient, based on 6,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.94	>0.92	>0.90

Lumen Output

Luminaire	Color Temperature	Lumen Output
WPX1 LED P1	3000K	1,537
	4000K	1,568
	5000K	1,602
WPX1 LED P2	3000K	2,748
	4000K	2,912
	5000K	2,954
WPX2	3000K	5,719
	4000K	5,896
	5000K	6,201
WPX3	3000K	8,984
	4000K	9,269
	5000K	9,393

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

HID Replacement Guide

Luminaire	Equivalent HID Lamp	WPX Input Power
WPX1 LED P1	100W	11W
WPX1 LED P2	150W	24W
WPX2	250W	47W
WPX3	400W	69W

Emergency Egress Battery Packs

The emergency battery backup is integral to the luminaire — no external housing or back box is required. The emergency battery will power the luminaire for a minimum duration of 90 minutes and deliver minimum initial output of 550 lumens. Both battery pack options are CEC compliant.

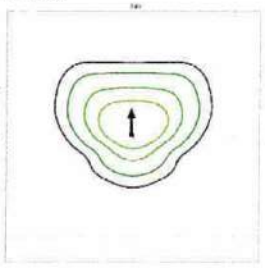
Battery Type	Minimum Temperature Rating	Power (Watts)	Controls Option	Ordering Example
Standard	0°C	4W	E4WH	WPX2 LED 40K MVOLT **E4WH** DDBXD
Cold Weather	-20°C	14W	E14WC	WPX2 LED 40K MVOLT **E14WC** DDBXD

Photometric Diagrams

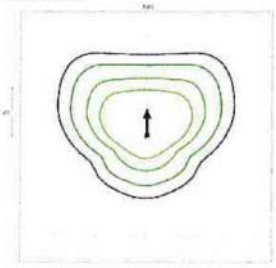
To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WPX LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards

LEGEND
- 0.1 fc
- 0.2 fc
- 0.5 fc
- 1.0 fc

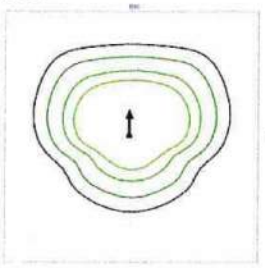
WPX1 LED P1



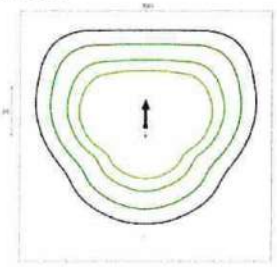
WPX1 LED P2



WPX2 LED



WPX3 LED



Mounting Height = 12 Feet.

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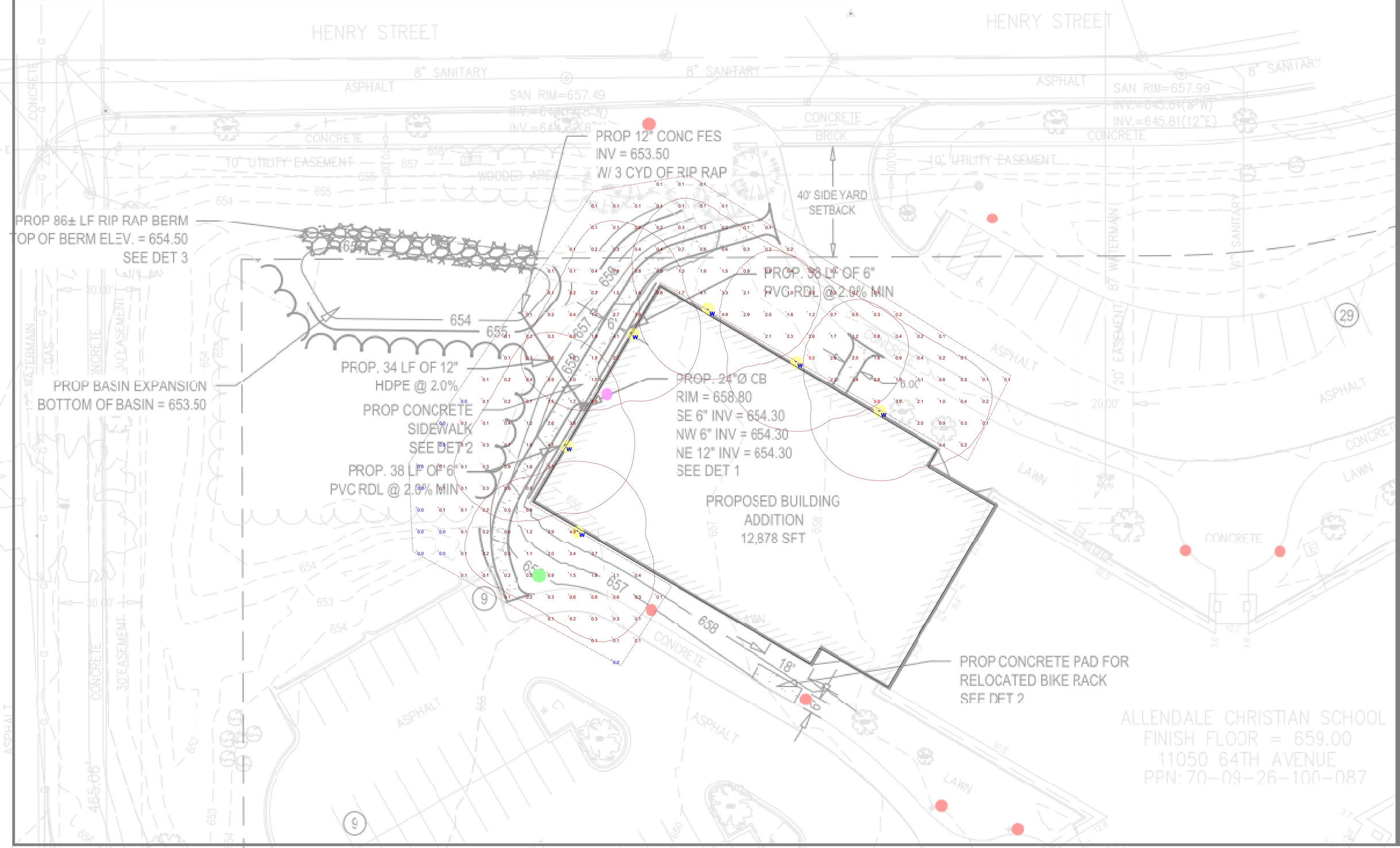
Schedule

Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Lumen Multiplier	Light Loss Factor	Wattage	Efficiency	Distribution	Plot	Notes
	W		6	Lithonia Lighting	WPX1 LED P2 40K Mvolt	WPX1 LED wallpack 3000lm 4000K color temperature 120-277 Volts		1	WPX1_LED_P2_40K_Mvolt.ies	2913	1	1	24.42	100%	TYPE III, SHORT, BUG RATING: B1 - U0 - G1	Max: 1302cd	

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.9 fc	5.0 fc	0.0 fc	N/A	N/A



Designer

Date
3/10/2021
Scale
Not to Scale
Drawing No.

Summary

ALLENDALE CHRISTIAN SCHOOL EXPANSION

11050 64TH AVENUE
ALLENDALE, MI 49401

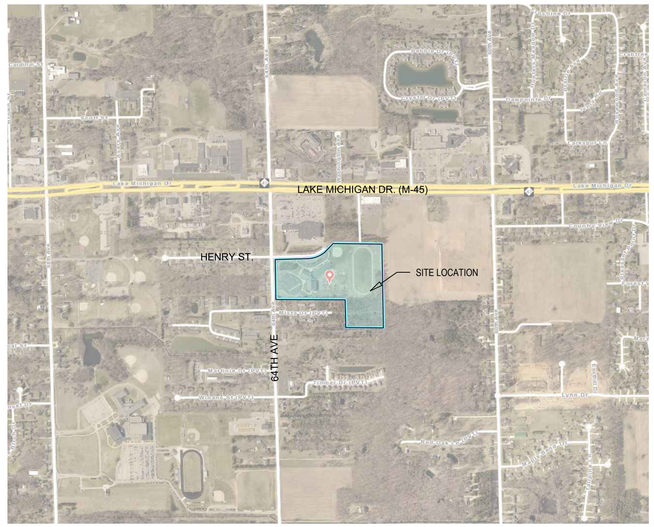
ZONING

R-1 (LOW DENSITY ONE -FAMILY RESIDENTIAL DISTRICT)

SETBACKS:	
FRONT YARD	50 FEET MIN.
SIDE YARD	25 FEET TOTAL (10 FT MIN)
REAR YARD	50 FEET MIN.
HEIGHT	30FEET MAX. (2 1/2 STORIES)

LEGAL DESCRIPTION

PART OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 26; EXCEPTING THAT PART LYING NORTH OF A LINE COMMENCING SOUTH 00 DEGREES 38 MINUTES 18 SECONDS EAST 831.07 FEET; THENCE NORTH 89 DEGREES 21 MINUTES 42 SECONDS EAST 33.00 FEET & SOUTH 00 DEGREES 38 MINUTES 18 SECONDS EAST 33.00 FEET FROM THE NORTHWEST SECTION CORNER; THENCE NORTH 89 DEGREES 21 MINUTES 42 SECONDS EAST 400.54 FEET ALONG the SOUTH LINE OF HENERY STREET; THENCE NORTHEASTERLY 241.15 FEET ALONG A 333.00 FOOT RADIUS CURVE TO THE LEFT, HAVING A CHORD THAT BEARS NORTH 68 DEGREES 36 MINUTES 53 SECONDS EAST 235.92 FEET; THENCE NORTH 47 DEGREES 52 MINUTES 05 SECONDS EAST 135.64 FEET; THENCE SOUTH 88 DEGREES 36 MINUTES 58 SECONDS EAST 564.46 FEET TO THE EAST LINE OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 AND THE END OF SAID LINE. ALSO EXCEPTING THE WEST 50.00 FEET FOR ROAD RIGHT-OF-WAY, ALSO THAT PART OF THE NORTHWEST 1/4 COMMENCING SOUTH 00 DEGREES 39 MINUTES 58 SECONDS EAST 1328.04 FEET & SOUTH 88 DEGREES 48 MINUTES 06 SECONDS EAST 871.76 FEET FROM THE NORTHWEST SECTION CORNER; THENCE SOUTH 88 DEGREES 48 MINUTES 06 SECONDS EAST 447.00 FEET; THENCE SOUTH 00 DEGREES 29 MINUTES 43 SECONDS EAST 329.96 FEET; THENCE NORTH 88 DEGREES 48 MINUTES 06 SECONDS WEST 447.00 FEET; THENCE NORTH 00 DEGREES 29 MINUTES 43 SECONDS WEST 329.96 FEET TO THE POINT OF BEGINNING. BEING PART OF SECTION 26 T.7N.,R.14W.



LOCATION MAP

SCALE: 1" = 850'

TABLE OF CONTENTS

SHEET	G-100	COVER SHEET
SHEET	CD-101	CIVIL DEMOLITION PLAN
SHEET	C-100	OVERALL SITE LAYOUT
SHEET	C-101	SITE LAYOUT PLAN
SHEET	L-101	LANDSCAPE PLANTING PLAN

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

LEGEND

- SECTION CORNER
- SITE BENCHMARK
- SOIL BORING
- FOUND STEEL BAR
- FOUND IRON PIPE
- SET STEEL BAR
- MANHOLE
- CATCHBASIN
- HYDRANT
- WATER VALVE
- UTILITY POLE
- LIGHT POLE
- CLEANOUT
- DECIDUOUS TREE
- UNDERGROUND GAS
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- CHAIN LINK FENCE
- MINOR CONTOUR
- INDEX CONTOUR
- ASPHALT
- CONCRETE
- GRAVEL

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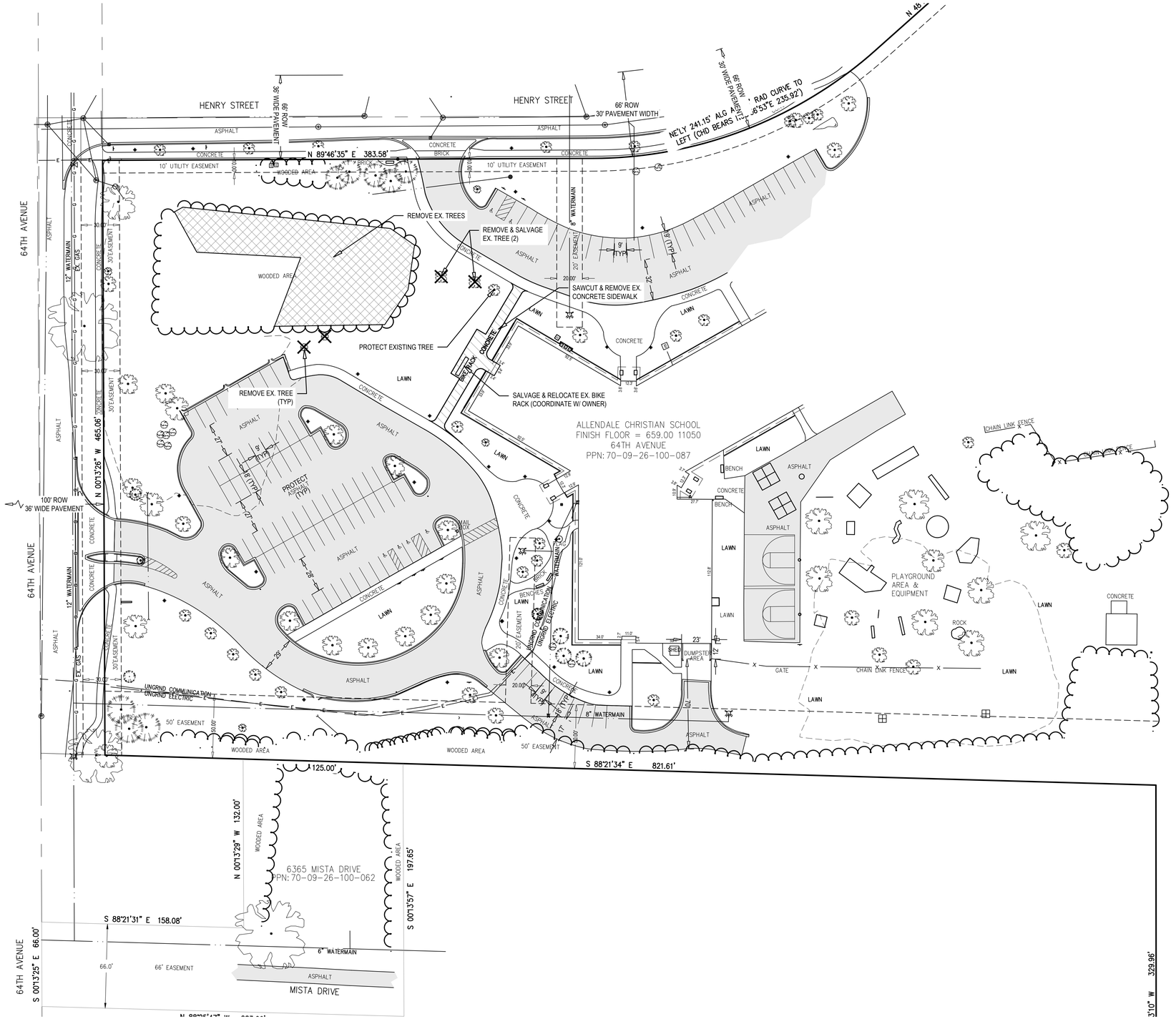
Drawn by: COLLIN DEPREKEL

Checked by		Date
Survey	.	.
Civil	.	.
Struc.	.	.
L. A.	.	.

HEI Project Number: 19-12-012

Sheet Title: COVER SHEET

Sheet No.: G-100



0' 20' 40' 80'

SCALE 1" = 40'

CIVIL DEMOLITION NOTES:

1. THE BOUNDARY AND TOPOGRAPHIC SURVEY WAS COMPLETED BY ANOTHER FIRM AND PROVIDED TO HEI BY THE CLIENT. HEI IS NOT RESPONSIBLE FOR THE ACCURACY OF THE SURVEY INFORMATION OR ANY DESIGN DISCREPANCIES RESULTING FROM THE PROVIDED SURVEY INFORMATION.
2. SEE BOUNDARY AND TOPOGRAPHIC SURVEY SHEET FOR PROPERTY, EASEMENT, BENCHMARK, ETC. INFORMATION.
3. LOCATION OF UNDERGROUND UTILITIES HAVE BEEN SHOWN BASED ON SURFACE EVIDENCE AND RECORD INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
4. DURING CONSTRUCTION, CONTRACTOR SHALL PROTECT ALL EXISTING AND NEW CONSTRUCTION FROM DAMAGE. SHOULD ANY DAMAGE OCCUR, CONTRACTOR SHALL MAKE ALL NECESSARY REPAIRS AT NO COST TO THE OWNER. THE PAVED ROADWAY SHALL BE SWEPT CLEAN AS NEEDED, BUT AT LEAST ONCE A WEEK.
5. CONTRACTOR SHALL PROVIDE BARRIERS, AS NECESSARY, TO PREVENT PEDESTRIAN AND VEHICULAR TRAFFIC FROM ENTERING THE CONSTRUCTION SITE.
6. CALL MISS DIG AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION.
7. REMOVAL ITEMS ARE SHOWN BASED ON BEST AVAILABLE INFORMATION AND ARE SHOWN SCHEMATICALLY. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO VERIFY THE EXTENT OF WORK REQUIRED.
8. REMOVE ALL STRUCTURES, CONCRETE CURB, CONCRETE PAVING, ASPHALT PAVING, TREES, STUMPS, UTILITIES, AND OTHER EXISTING SITE FEATURES WITHIN THE LIMITS OF DEMOLITION. ALL DEMOLITION MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE NOTED AND DISPOSED OF IN A MANNER ACCEPTABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION.
9. ALL UTILITY LINES SHOWN "X" OUT SHALL BE PHYSICALLY REMOVED ALONG WITH STRUCTURES AND APPURTENANCES. CONTRACTOR SHALL CONFIRM UTILITY LINES REMOVED WILL NOT IMPACT UTILITIES TO REMAIN.
10. ALL REMOVALS OF PAVEMENT, CONCRETE, CURB AND GUTTER, ETC. SHALL BE PERFORMED TO THE NEXT JOINT BEYOND THE LIMITS OF REMOVAL. ALL REMOVALS SHALL BE PERFORMED BY SAWCUTTING.
11. PROTECT ALL TREES AND SHRUBS NOT SCHEDULED FOR REMOVAL. DO NOT OPERATE EQUIPMENT, STORE, STOCKPILE, OR PARK WITHIN DRIP LINE. HOLD NECESSARY DISTURBANCE TO A MINIMUM.
12. ALL TREE STUMPS SHALL BE REMOVED TO BELOW GRADE BY EITHER GRINDING OR COMPLETE REMOVAL IN ALL CASES NO WOODCHIPS AND/OR STUMPS SHALL BE LEFT IN PLACE.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL UTILITIES REMOVALS WITH PROPERTY OWNER AND UTILITY PROVIDER.
14. ALL WORK IN ROAD RIGHTS OF WAY SHALL BE COMPLETED IN ACCORDANCE WITH OTTAWA COUNTY ROAD COMMISSION, AND ALLENDALE TOWNSHIP.
15. SEE OTHER SHEETS IN PLAN SET FOR MORE INFORMATION.

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Project Manager
RYAN T. YSSELDYKE, PE

Vertical Datum	Horz. Datum
LOCAL	LOCAL

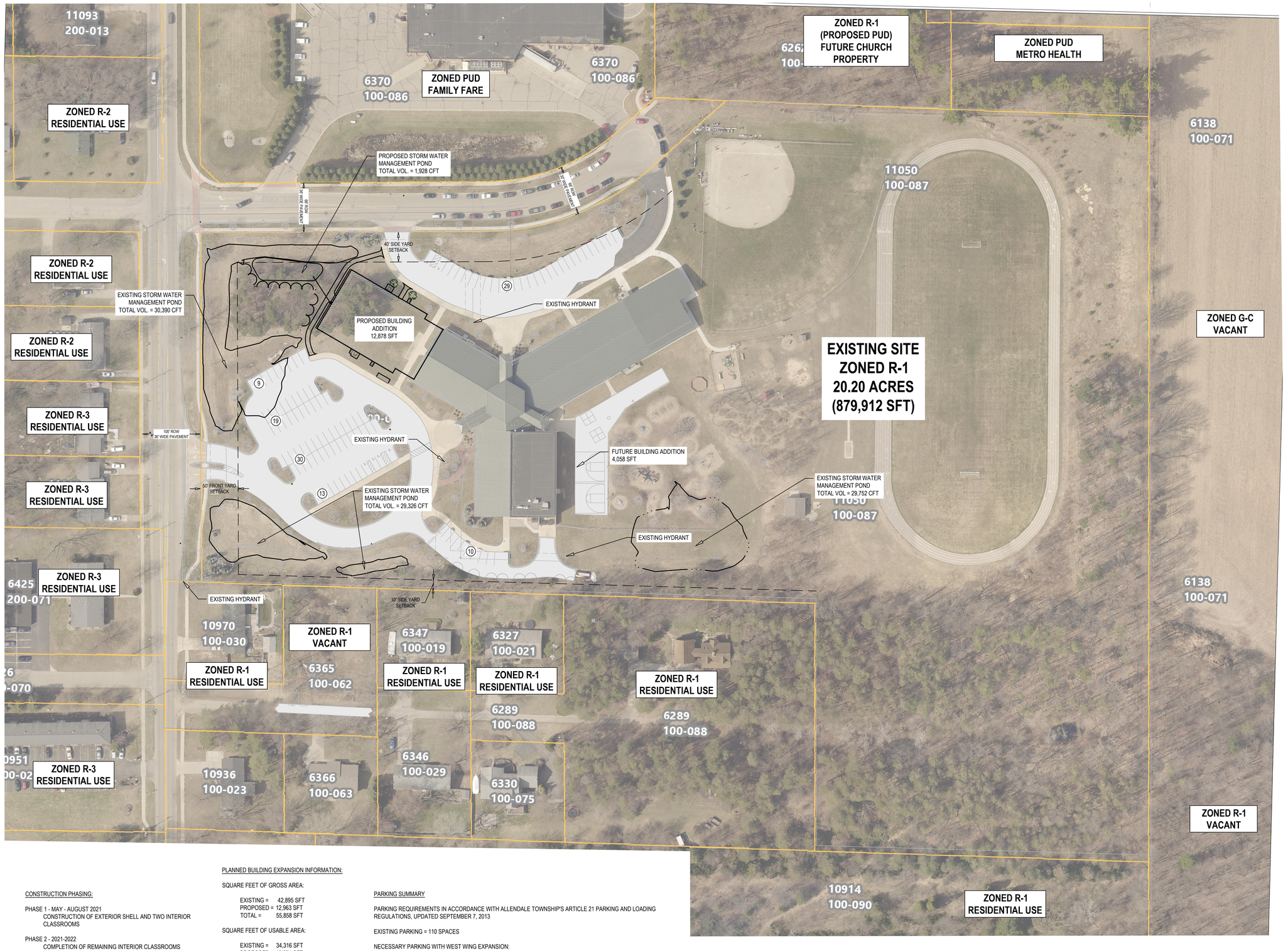
Drawn by
COLLIN DEPREKEL

Checked by	Date
Survey	. .
Civil	. .
Struc.	. .
L. A.	. .

HEI Project Number
19-12-012

Sheet Title
CIVIL DEMOLITION

Sheet No.
CD-101



CONSTRUCTION PHASING:

PHASE 1 - MAY - AUGUST 2021
CONSTRUCTION OF EXTERIOR SHELL AND TWO INTERIOR CLASSROOMS

PHASE 2 - 2021-2022
COMPLETION OF REMAINING INTERIOR CLASSROOMS

PLANNED BUILDING EXPANSION INFORMATION:

SQUARE FEET OF GROSS AREA:

EXISTING = 42,895 SFT
PROPOSED = 12,963 SFT
TOTAL = 55,858 SFT

SQUARE FEET OF USABLE AREA:

EXISTING = 34,316 SFT
PROPOSED = 10,371 SFT
TOTAL = 44,687 SFT

SQUARE FEET OF IMPERVIOUS AREAS:

EXISTING = 150,759 SFT
PROPOSED = 16,852 SFT
TOTAL = 167,611SFT

PARKING SUMMARY

PARKING REQUIREMENTS IN ACCORDANCE WITH ALLENDALE TOWNSHIP'S ARTICLE 21 PARKING AND LOADING REGULATIONS, UPDATED SEPTEMBER 7, 2013

EXISTING PARKING = 110 SPACES

NECESSARY PARKING WITH WEST WING EXPANSION:
EXISTING GYM (ASSEMBLY HALL) = 2 SPACES PER 5 SEATS ON THE BENCH = 197 SEATS / 5 SEATS / 2 SPACES = 79 SPACES
EXISTING EMPLOYEES = 47 EMPLOYEES (INCLUDING PART TIME) AT 1 SPACE PER 2 EMPLOYEES = 24 SPACES

TOTAL SPACES AVAILABLE = 110 SPACES
TOTAL SPACES REQUIRED = 103 SPACES

NOTE: SHARED PARKING ARRANGEMENTS WILL BE REVIEWED AS NECESSARY WITH THE FUTURE GYM EXPANSION.

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Drawn by: COLLIN DEPREKEL

Checked by	Date
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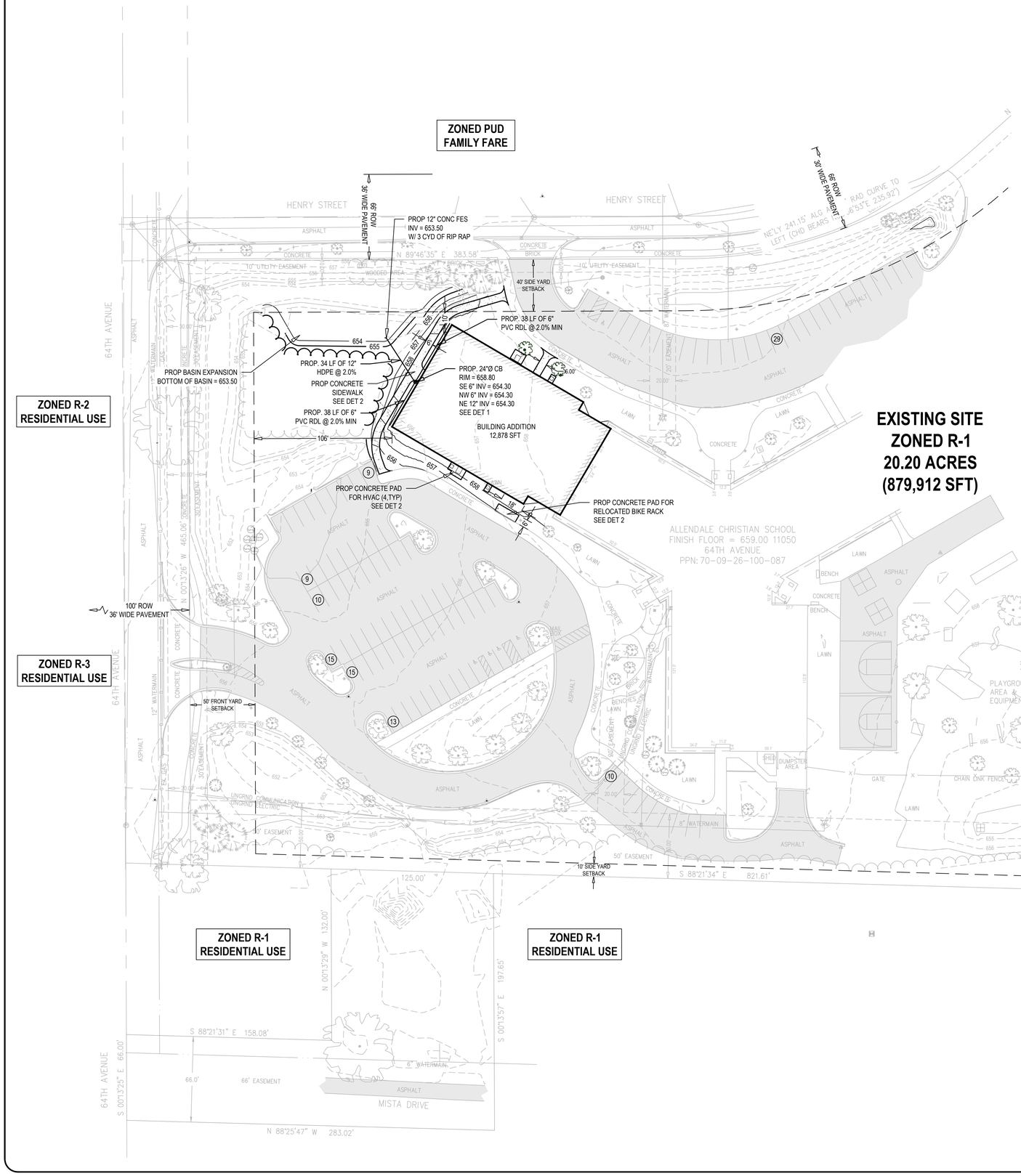
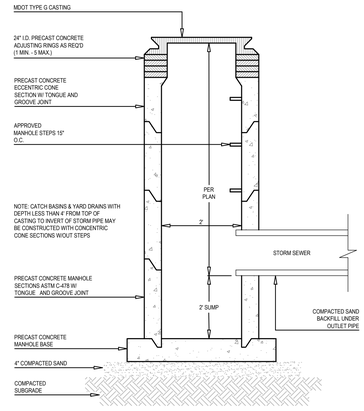
Civil .	.
Struc. .	.
L. A. .	.

HEI Project Number: 19-12-012

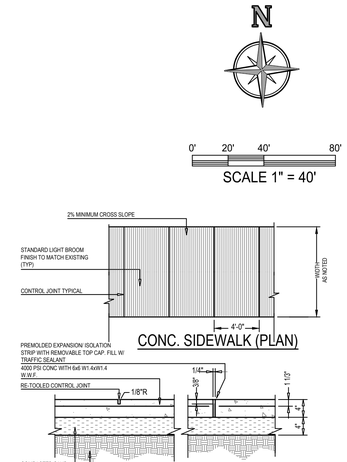
Sheet Title: OVERALL SITE LAYOUT

Sheet No.: C-100

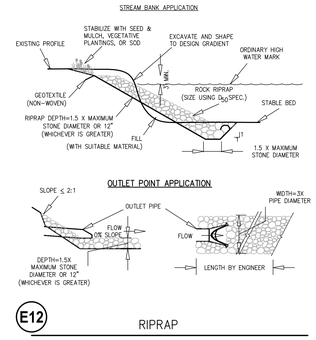




1 2' DIA. CATCH BASIN



2 4" THICK CONCRETE



E12 RIPRAP

LAYOUT & UTILITY NOTES:

1. THE BOUNDARY AND TOPOGRAPHIC SURVEY WAS COMPLETED BY ANOTHER FIRM AND PROVIDED TO HEI BY THE CLIENT. HEI IS NOT RESPONSIBLE FOR THE ACCURACY OF THE SURVEY INFORMATION OR ANY DESIGN DISCREPANCIES RESULTING FROM THE PROVIDED SURVEY INFORMATION.
2. SITE DESIGN WAS DEVELOPED IN ACCORDANCE WITH THE INFORMATION CONTAINED IN THE GEOTECHNICAL REPORT AND SOIL BORINGS COMPLETED NOVEMBER 18, 2006 BY SOILS & STRUCTURES, INC. CONTRACTOR SHALL ACQUIRE A COPY OF THE GEOTECHNICAL REPORT AND SOIL BORING INFORMATION. SOIL CONDITIONS MAY VARY FROM THE GEOTECHNICAL INFORMATION, WHICH MAY AFFECT THE SITE DESIGN, EARTHWORK QUANTITIES, USABLE SOILS, AND SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES. CONTRACTOR SHALL NOTIFY DESIGN ENGINEER AND GEOTECHNICAL ENGINEER IF SITE CONDITIONS VARY FROM SOILS INFORMATION CONTAINED IN THE GEOTECHNICAL INFORMATION.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL NECESSARY PERMITS AND APPROVALS HAVE BEEN ACQUIRED PRIOR TO CONSTRUCTION.
4. CALL MISS DIG AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION.
5. CONTRACTOR SHALL CONTACT ENGINEER IF ANY DISCREPANCIES ARE DETERMINED BETWEEN SITE LAYOUT DIMENSIONS AND ACTUAL SITE CONDITIONS.
6. COORDINATE ALL UTILITY CONSTRUCTION WITH UTILITY PROVIDER, AS REQUIRED.
7. CONTRACTOR SHALL VERIFY THAT THERE ARE NO UTILITY CONFLICTS PRIOR TO CONSTRUCTION.
8. ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE ALLENDALE TOWNSHIP STANDARDS & SPECIFICATIONS.
9. ALL WATERMAIN, WATER SERVICES, AND FIRE PROTECTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT EDITION OF THE ALLENDALE TOWNSHIP STANDARDS & SPECIFICATIONS.
10. ALL WORK WITHIN THE PUBLIC ROAD RIGHT-OF-WAY WILL REQUIRE A PERMIT AND OR APPROVAL FROM THE OTTAWA COUNTY ROAD COMMISSION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THEIR STANDARDS & SPECIFICATIONS.
11. COORDINATE ALL SIGNAGE REMOVAL AND RELOCATION WITHIN THE RIGHT-OF-WAY WITH OTTAWA COUNTY ROAD COMMISSION
12. SITE CONTRACTOR RESPONSIBLE TO CONNECT EXISTING AND PROPOSED BUILDING TO WATER SERVICE AND SANITARY SEWER LATERAL. REFER TO PLUMBING PLANS FOR CONNECTION LOCATION AND DETAILS.
13. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS. BUILDING SHALL BE STAKED BASED ON FOUNDATION PLAN. CONTRACTOR SHALL NOTIFY ENGINEER IF THERE ARE DISCREPANCIES BETWEEN THE BUILDING AND SITE DRAWINGS.
14. ONSITE LIGHTING SHALL DIRECTED DOWNWARD AND AWAY FROM ADJACENT PROPERTIES AS REQUIRED PER THE ALLENDALE TOWNSHIP ZONING ORDINANCE.
15. SITE SIGNAGE SHALL MEET THE STANDARDS AND REQUIREMENTS OF THE ALLENDALE TOWNSHIP ZONING ORDINANCE. A SIGN PERMIT SHALL BE ACQUIRED PRIOR TO CONSTRUCTION.
16. CONTRACTOR SHALL BE RESPONSIBLE TO MEETING THE STANDARDS AND REQUIREMENTS OF THE LOCAL NOISE ORDINANCE FOR ALL CONSTRUCTION PRACTICES.
17. SEE OTHER SHEETS IN PLAN SET FOR MORE INFORMATION.

N

0' 20' 40' 80'

SCALE 1" = 40'

HOLLAND ENGINEERING
220 Hoover Boulevard
Holland, Michigan 49423-2306
www.hollandengineering.com
T 616-392-5938 F 616-392-2116

The Surveyor's / Engineer's liability for any and all claims including but not limited to those arising out of the Surveyor's / Engineer's professional services, negligence, gross misconduct, warranties or representations shall not be deemed limited to an amount no greater than the service fee.

LAKEWOOD CONSTRUCTION

ATTN: MR. Marcel Vander Laan
11253 James Street
Holland, MI 49424

ACS EXPANSION
11050 64TH AVENUE
ALLENDALE, MICHIGAN 49401

PT. OF THE NW 1/4 SEC. 26 T7N, R14W
ALLENDALE TWP, OTTAWA CO., MI

Issued for:

No.	Description	Date
A	75% DESIGN REVIEW	02/05/2020
B	ISSUED FOR BID	12/18/2020
C	ISSUED FOR PERMITS	02/25/2021
D	ISSUED FOR TOWNSHIP APPROVAL	03/01/2021
E	REISSUED FOR TOWNSHIP APPROVAL	04/22/2021
F	REISSUED FOR TOWNSHIP APPROVAL	05/27/2021

Plans are preliminary & incomplete until ISSUED FOR CONSTRUCTION

Project Manager
RYAN T. YSSELDYKE, PE

Vertical Datum	Horz. Datum
LOCAL	LOCAL

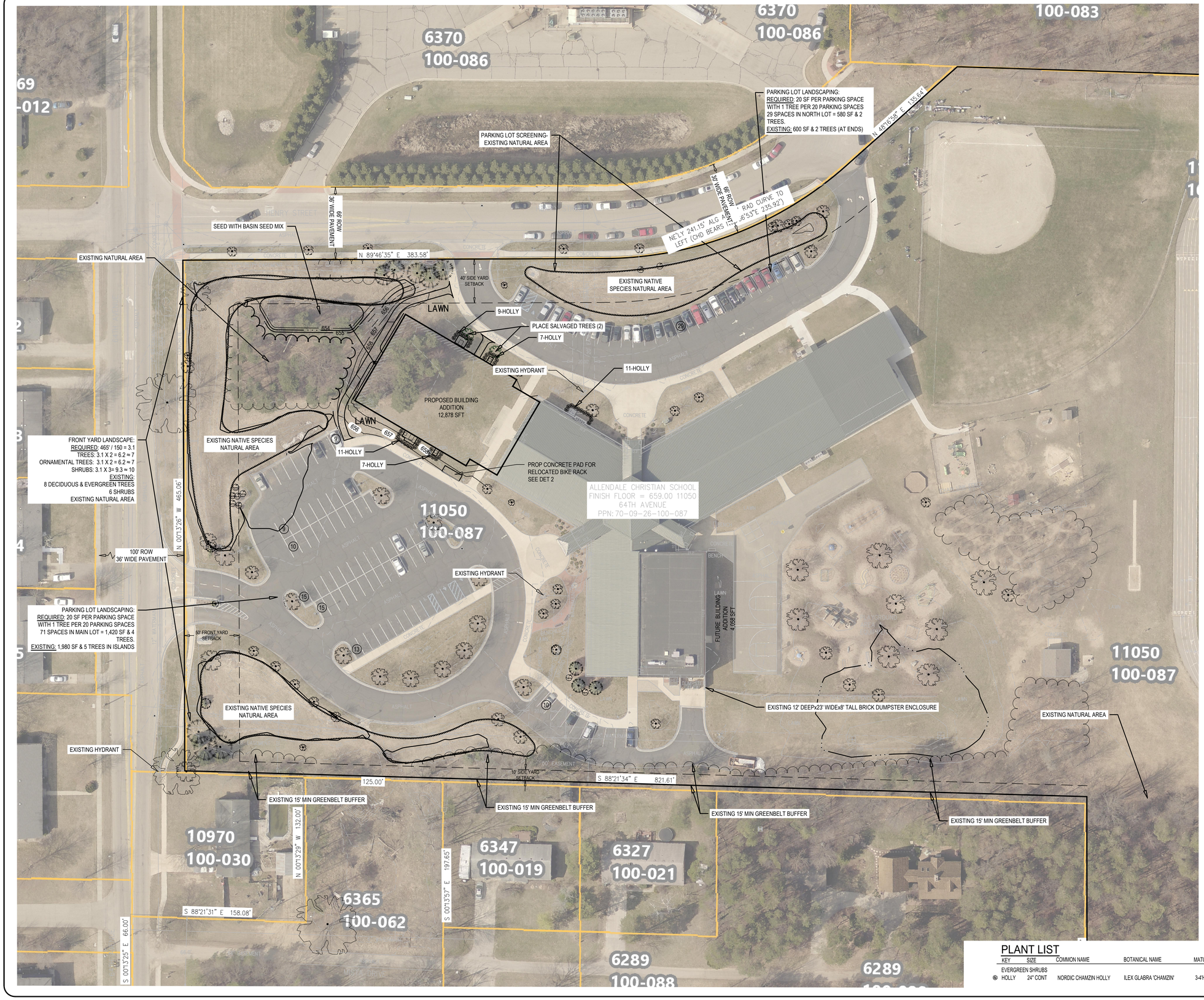
Drawn by
COLLIN DEPREKEL

Checked by	Date
Survey	. .
Civil	. .
Struc.	. .
L. A.	. .

HEI Project Number
19-12-012

Sheet Title
SITE
LAYOUT
PLAN

Sheet No.
C-101



PLANTING NOTES:

1. ALL LAWN AND PLANTING AREAS SHALL BE IRRIGATED WITH UNDERGROUND IRRIGATION IN SUCH WAY TO MAINTAIN VEGETATION IN A HEALTHY AND GROWING MANNER. EXISTING SYSTEM TO BE MODIFIED AROUND BUILDING ADDITION(S).
2. ALL LANDSCAPE AREAS SHALL BE MAINTAINED BY OWNER. TREES AND OTHER VEGETATION THAT DIE SHALL BE PROMPTLY REPLACED WITH IN KIND VEGETATION.
3. CONTRACTOR SHALL PROVIDE SPECIFIED TREES, SHRUBS, GROUND COVERS AND OTHER PLANT MATERIAL THAT COMPLY WITH ALL RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK." PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS STOCK GROWN WITH GOOD HORTICULTURAL PRACTICE AND INSTALLED IN ACCORDANCE WITH METHODS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. SEED SHALL BE PLACED OVER 6" TOPSOIL IN ALL PROPOSED LAWN AREAS AND ALL AREAS DISTURBED BY CONSTRUCTION EXCEPT AS NOTED ON THE PLANS. SOD SHALL BE PLACED IN ALL AREAS AS SHOWN ON THE PLANS OVER 4" TOPSOIL.
5. PLANTING SOIL CONSISTING OF 1/3 TOPSOIL, 1/3 PEAT MOSS AND 1/3 SAND SHALL BE PLACED IN ALL GROUND COVER AND FLOWER BEDS. DEPTH SHALL BE NOT LESS THAN 8".
6. FOLLOWING CONSTRUCTION, RESTORE ALL DISTURBED AREAS WITH EARTH CARPET SPARTAN GRADE "A" SEED MIX, UNLESS OTHERWISE NOTED.
7. PLANT MATERIAL SUBSTITUTIONS SHALL BE APPROVED BY OWNER & LANDSCAPE ARCHITECT.
8. A CLEAR SPACE OF NOT LESS THAN FIVE (5) FEET SHALL BE PROVIDED IN FRONT OF AND COMPLETELY AROUND ALL FIRE HYDRANTS, MANHOLES, SERVICE BOXES, AND VALVE BOXES. THE CLEAR SPACE SHALL BE FREE OF ALL OBSTRUCTIONS SUCH AS PARKED CARS, LANDSCAPING AT MATURITY, UTILITIES, SERVICE VEHICLES, CONSTRUCTION WORK, SNOW AND SIMILAR ITEMS.

LAWN- SPARTAN GRADE A MIX

SPARTAN GRADE A MIXTURE by Earth Carpet
10% Cannon Kentucky Bluegrass
10% Gold Rush Kentucky Bluegrass
20% Ronde Kentucky Bluegrass
15% SR5100 Chewings Fescue
25% SR5210 Creeping Red Fescue
10% SR4500 Perennial Ryegrass
10% Manhattan 4 Perennial Ryegrass

SEEDING RATE: 5 LBS. PER 1,000 SQUARE FEET. HYDROSEED ALL AREAS WITH A SLURRY OF SEED, PULVERIZED MULCH, FERTILIZER AND WATER. PLACE IN ALL DISTURBED AREAS NOT LABELED AS DETENTION BASIN SEED MIX

BASIN SEED MIX

SEED STORM WATER BASIN AREAS WITH CARDNO SWALE SEED MIX @ 32 POUNDS/ACRE
PLACE EROSION CONTROL BLANKET ON ALL SLOPES GREATER THAN 1:3 AFTER SEEDING.

PLANT LIST

KEY	SIZE	COMMON NAME	BOTANICAL NAME	MATURE SIZE/COMMENTS
EVERGREEN SHRUBS				
⊛ HOLLY	24" CONT	NORDIC CHAMZIN HOLLY	ILEX GLABRA 'CHAMZIN'	3-4'Hx3-4'S; DENSE, COMPACT EVERGREEN; DEEP LUSTROUS GREEN LEAVES;

HOLLAND ENGINEERING
220 Hoover Boulevard
Holland, Michigan 49423-2006
www.hollandengineering.com
T 616-392-5938 F 616-392-2116

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LAKEWOOD CONSTRUCTION
ATTN: MR. Marcel Vander Laan
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ALLENDALE TWP. OTTAWA CO., MI

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Plans are preliminary & incomplete until ISSUED FOR CONSTRUCTION

Project Manager: RYAN T. VSSELDYKE, PE
Vertical Datum: LOCAL | Horz. Datum: LOCAL
Drawn by: COLLIN DEPREKEL

Checked by		Date
Survey	.	.
Civil	.	.
Struc.	.	.
L. A.	.	.

HEI Project Number: 19-12-012

Sheet Title: LANDSCAPE PLANTING PLAN

Sheet No.: L-101

Fresh Coast Planning

950 Taylor Avenue, Ste 200
Grand Haven, MI 49417
www.freshcoastplanning.com

Gregory L. Ransford, MPA
616-638-1240
greg@freshcoastplanning.com

Julie Lovelace
616-914-0922
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Sara Moring-Hilt
586-850-8784
sara@freshcoastplanning.com

Hillary Taylor, MUP, MUD
248-545-2906
hillary@freshcoastplanning.com

Brian Werschem
231-206-4821
bwerschem@gmail.com

MEMORANDUM

To: Allendale Charter Township Planning Commission
From: Gregory L. Ransford, MPA
Date: June 2, 2021
Re: Kennedy Lake Site Condominium Phase 2 and Private Road Application – Final Review

---

Attached is a final Site Condominium and Private Road application from Andy Van Dyke on behalf of Kennedy Lake to modify Phase 2 of the previously approved Planned Unit Development (PUD), which contains public roads. As you will recall, the related PUD was approved in September of 2016. We understood from the applicant that, since the original approval, certain challenges existed with the Ottawa County Road Commission to complete the public road requirements and as a result, they desired to establish private roads instead. In 2017, you approved phase one of the PUD through a site condominium and private road application.

As you know, at your April 19, 2021 meeting, you performed a preliminary review and provided the applicant with direction for the public hearing and final submission. As a result of that direction, the applicant provided the attached.

We have reviewed the final site plan materials and do not have any additional observations or findings to provide since your preliminary plan review.

Planning Commission Direction

As you know, at your April 21, 2021 meeting you concluded the following:

- You allowed relief, as a minor change to the PUD, for the private road construction to match Phase 1 rather than the current private road requirements of the Allendale Charter Township Zoning Ordinance (ACTZO)
- No traffic concerns exist since the Ottawa County Road Commission approved the overall development in 2016
- No cul-de-sac is needed at the end of Molli Drive, unless the Allendale Charter Township Fire Department requires its construction
- The Master Deed and Covenants shall be submitted prior to Final Plan Review
- The Private Road Maintenance and Access Agreement shall be submitted prior to Final Plan review.

Standards of Review

Site Plan Review Standards

As you are aware, Section 24.06 – Standards for Approval of the Allendale Charter Township Zoning Ordinance (ACTZO) provides your standards of review when deliberating regarding a site plan application. In that regard, below, in part, is copy of said Standards for Approval as well as our response to each in italic font in an effort to assist you with your review of the request. As you are further aware, each standard is very lengthy and provides guidance and authority to the Planning Commission. Given this, rather than providing the entirety of each standard within this memorandum, we have included the subtitle and our comments for each. If you require the entirety of any standard, please let us know and we will provide it to you.

Section 24.06 STANDARDS FOR APPROVAL

Prior to approving a site plan, the Planning Commission shall require that the following standards and requirements be satisfied. If these standards and all other requirements of applicable Township ordinances are met, the site plan shall be approved.

A. General Access Requirements

Given that Planning Commission allowed the private road to be constructed to match Phase 1, it appears that this standard has been met.

B. Environmental Considerations

Given that the proposed private road is consistent with the previously approved public road and the related Planned Unit Development approval, the existing storm water management plans and any wetlands, ponds or other bodies of water remain unchanged. As a result, it appears that this standard has been met.

C. Sidewalks and Pedestrian Circulation

Given that the applicant has provided sidewalks along the private road and the public road with which it intersects, it appears that this standard has been met.

D. Landscaping and Buffering

Given that the proposed landscaping was approved during the Planned Unit Development process, it appears that this standard has been met.

E. Lighting

Given that the proposed lighting was approved during the Planned Unit Development process, it appears that this standard has been met.

F. Utility Service

While we presume that the Planned Unit Development required underground utility service, to ensure such is provided, the Planning Commission should require all utilities to be located underground for the project.

G. Outdoor Features

Given that this standard is specific to commercial, industrial or other types of business uses, this standard does not appear to be applicable.

H. Waste Disposal Facilities

Given that this standard is specific to commercial, industrial or other types of business uses, this standard does not appear to be applicable.

I. The location and dimensions of all existing and proposed structures on the subject property

Given that no structures are proposed to accompany the private road, this standard does not appear to be applicable.

J. Building Appearance

Given that this standard is specific to multi-family developments, this standard does not appear to be applicable.

K. Site plans shall conform to all applicable requirements of County, State and Federal statutes and approval may be conditioned on the applicant receiving necessary County, State and Federal permits before final site plan or an occupancy permit is granted

The applicant is aware of the related County, State or Federal permits that will be required of the proposed private road. As a result, it appears that this standard has been met.

L. Traffic Impact Study

Given your conclusion during your preliminary plan review that the Ottawa County Road Commission approved the overall development in 2016 and therefore no traffic concerns exist, it appears this standard has been met.

Special Use Standards

As you are aware, you must additionally review the request in accordance with your standards provided for special use approval in Section 20.06 – Standards of the ACTZO. In that regard, below is copy of said Standards as well as our response to each in italic font in an effort to assist you with your review of the request.

Section 20.06 STANDARDS.

No special land use shall be approved by the Planning Commission unless the Commission finds:

A. That the establishment, maintenance, or operation of the special land use will not be detrimental to or endanger the public health, safety, or general welfare.

Given that the special land use is the private road we do not believe that the road itself is a detriment to the public health, safety or general welfare. As a result, it appears that this standard has been met.

B. That the special land use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor shall it substantially diminish and impair property values in the neighborhood.

Again, given that the special land use is the private road, we do not believe that the request will be injurious to the use and enjoyment of other property in the immediate vicinity. In addition, we do not believe that it will substantially diminish and impair property values in the neighborhood. As a result, it appears that this standard has been met.

C. That the establishment of the special land use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

We do not believe that the establishment of the private road will impede the normal and orderly development and improvement of the surrounding property. As a result, it appears that this standard has been met. Nonetheless, comment received at the public hearing may compel the Planning Commission to conclude otherwise.

D. That adequate utilities, access roads, drainage, and necessary facilities have been or are being provided.

As a result of the satisfactory review of the township Engineer, the Fire Inspector and presumably the Ottawa County Road Commission during the Planned Unit Development approval, it appears that this standard has been met.

E. That adequate measures have been or will be taken to provide ingress or egress so designed as to minimize traffic congestion in the public streets.

Given the previous Planned Unit Development approval, we do not believe traffic congestion will change in any way. Moreover, the Planning Commission concluded that, given the 2016 approval from the Ottawa County Road Commission, no traffic issues are anticipated. As a result, it appears that this standard has been met.

F. That the special land use shall, in all other respects, conform to the applicable regulations of the district in which it is located and to any additional conditions or procedures as specified in Article 23.

We believe the proposed special land use conforms to the applicable regulations of the district in which it is located. As a result, this standard appears to be met.

Proposed Resolution

Consistent with previous PUD approval of Kennedy Lake in 2016 and Phase 1 in 2017, we have attached a proposed Resolution for your review and consideration. We will be prepared to modify the proposed resolution during the meeting, if you desire.

Planning Commission Considerations

As the Planning Commission deliberates regarding this application, we believe the following warrant your review and consideration. They are listed in no particular order:

- A condition to require that all related utilities shall be buried underground
- A condition that review and approval shall be performed by the Ottawa County Water Resources Commissioner
- The content of the proposed Resolution, which includes the above bullet points

The application has been scheduled for a public hearing at your June 7, 2021 meeting for both the private road and site condominium application. We expect the applicant to be in attendance. If you have any questions, please let us know.

GLR
Planner

Attachments

cc: Adam Elenbaas, Supervisor
Randy Feenstra, Feenstra & Associates

Allendale Charter Township Fire Department

FIRE
DEPARTMENT

FIRE CHIEF
MICHAEL KEEFE

DEPUTY CHIEF
RANDY BOSCH

CAPTAIN
BUSINESS
FIRE INSPECTOR
TONY DOLCE

LIEUTENANT
TRAINING OFFICER
SCOTT HARKES

LIEUTENANT
RENTAL INSPECTOR
KYLE GARLANGER

LIEUTENANTS
WILLIAM
O'DONNELL
BRUCE NAGELKIRK
DAVE MARSHALL
STEVE WOLBRINK

SERGEANTS
CHRIS HOLMES
NICK RICHARDS
DOUG ANDERSON
JOE FLAGSTADT
TROY TELLER
ERIC BUSSCHER

March 26, 2021

Gregory Ransford, Planner
Planning Commission
6676 Lake Michigan Drive

RE: Kennedy Lakes
Phase 2

Greg:

I have reviewed the plans for Kennedy lakes Phase 2. I have found two deficiencies that will need to be corrected for Fire Dept approval .

1) The cul-de-sac at the end of Nora Court is 80' and will need to be 96'. This can be found in the *2012 IFC Appendix D 103.4*

2) Hydrants on Nora Court can not be spaced more then 500' apart. This can be found in the *2012 IFC Appendix C Table C105.1*

Respectfully Submitted

Tony Dolce
Fire Inspector
Allendale Fire Department

6676 Lake Michigan Dr., P O Box 539, Allendale MI 49401-0539
Phone: 616-895-6295 Fax: 616-895-6295 ext. 1116 www.allendale-twp.org mikekeefe@allendale-twp.org

Allendale Public Utilities

Gregory L. Ransford, MPA
Principal
Fresh Coast Planning
950 Taylor Avenue, Ste. 200
Grand Haven, MI 49417

Project: Kennedy Lake 2

Date: March, 24, 2021

Mr. Ransford,

I have reviewed the plans for Kennedy Lake Phase 2. The following comments are proposed for the planning commission.

- The watermain leaving the cul-de-sac and going to Warner via a utility line easement will not be accepted.
- The street trees are shown next to and over top of our water services. All appurtenances require a ten (10) foot radial clearance from the center of the appurtenance. No trees should be planted in direct alignment with the water service and over the main where the service is tapped.

Thank You,

Chad E. Doornbos

Chad E. Doornbos
Superintendent of Public Utilities
Allendale Charter Township

miOttawa Department of
Public Health

Lisa Stefanovsky, M.Ed.
Health Officer

Paul Heidel, M.D., M.P.H.
Medical Director

August 2, 2016

Randy Feenstra
Feenstra and Associates, Inc
7482 Main St.
Jenison, MI 49428

RE: Kennedy Lake Estates Development, Section 14, Allendale Township, (PP# 70-09-14-100-029)

Dear Mr. Feenstra,

This letter is to acknowledge receipt of the application and associated information for a land use approval of the above development.

A review of the soil borings and logs demonstrates that the soils found at the site meet the criteria as set forth in the Administrative Rules for On-Site Water Supply and Sewage Disposal for Land Divisions and Subdivisions.

While additional soil work will be needed on Lots 22-24 during the preliminary approval phase to ensure suitable soils are located for a sewage disposal system, the site is approved for the intended use of a single family subdivision.

In order to receive preliminary and final approval of the specific plans and site development layout, a Notice of Intent submitted to the DEQ and a formal application submitted to this office along with the required site plans and information would be necessary.

If you have any questions, please feel free to contact me at 616-393-5365.

Sincerely,

Matthew Allen

Matthew Allen, REHS
On-Site Team Supervisor

Cc: Allendale Township

miOttawa Department of
Public Health

Lisa Stefanovsky, M.Ed.
Health Officer

Paul Heidel, M.D., M.P.H.
Medical Director

Proposed Kennedy Lake Subdivision Soil Borings
07/15/2016
Drew Shaw, Ottawa County Environmental Health

Lot 13
0 – 2' Loamy Sand, Brown
2 – 4' Fine to Medium Sand and Gravel, Pale Brown
4 – 4.5 Fine Sand, Light Brown, Mottled
4.5 – 5' Fine to Medium Sand and Gravel, Pale Brown
SHWT at 24" Water Not Observed

Lot 11/12
0 – 4' Medium to Coarse Sand and Gravel, Trace Fines
Mottling at 3"
Water at 4'
Appears to have soils stripped in this area

Lot 9/10
0 – 2' Fine to Medium Sand/Loamy Sand Topsoil Mix, Yellowish Brown to Dark Brown
2 – 5' Medium to Coarse Sand, Light Brown, Mottled
No water observed
Appears to have been somewhat stripped

Lot 7/8
0 – 8" Sandy Loam Topsoil, Very Dark Brown
8" – 5' Fine to Medium Sand, Light Brown
Light Mottle at 18"
Strong/Heavy Mottle at 30"
No water observed
Inconclusive on fill or if it was stripped.

Lot 29/30
0 – 8" Sandy Loam Topsoil, Dark Brown
8" – 4' Fine to Medium Sand and Gravel, Light Brown
Mottled at 12"
Water at 4'

Lot 27/28
0 – 6" Loamy Sand, Dark Gray
6" – 4' Fine to Medium Sand, Trace Gravel, Yellowish Brown
4' Clay, Hard, Reddish Brown
Mottled at 8"
Water Not Observed

Lot 25/26
0 – 3" Loamy Sand Topsoil, Dark Gray
3" – 3' Medium Sand, Light Brown
3 – 5' Coarse Sand and Gravel, Gray
Mottled at 3"
Water at 5'

miOttawa Department of
Public Health

Lisa Stefanovsky, M.Ed.
Health Officer

Paul Heidel, M.D., M.P.H.
Medical Director

Lot 24
0 – 10" Loam Topsoil, Black
10 – 22" Fine to Medium Sand, Light Brown, Mottled
22 – 34" Sandy Clay Loam, Coarse Sand, Trace Gravel, Reddish Brown
34 – 52" Medium Sand, Light Brown

Lot 22/23
0 – 10" Sandy Loam Topsoil, Black
10 – 30" Fine to Medium Sand, Yellowish Brown
30 – 42" Sandy Clay Loam, Coarse Sand, Gravel, Reddish Brown
42 – 48" Medium Sand, Yellowish Brown
Mottled at 10"

Lot 21/22
0 – 12" Sandy Loam Topsoil, Black
12 – 30" Medium Sand and Gravel Mix, Trace Silt/Clay, Brown to Reddish Brown
30 – 60" Medium Sand, Light Brown, Mottled
Mottled at 30"
Appears to be natural

Lot 19/20
0 – 12" Loamy Sand Topsoil, Black
12 – 36" Fine to Coarse Sand and Gravel, Compacted, Brown
36 – 60" Fine to Medium Sand, Light Brown
Mottled at 36"
Appears to be natural

Lot 17/18
0 – 12" Loamy Sand Topsoil, Dark Gray
12 – 36" Fine to Coarse Sand and Gravel, Compacted, Brown
36 – 60" Fine to Medium Sand, Light Brown
Mottled at 36"
Appears Natural

Lot 15/16
0 – 18" Loamy Sand Topsoil, Dark Brown
18 – 60" Fine to Medium Sand, :Yellowish Brown
Mottled at 48"
Appears Natural

Lot 6/14
0 – 10" Sandy Loam Topsoil, Dark Gray
10 – 60" Fine to Medium Sand, Yellowish Brown
No Mottling Observed
Appears to be Natural

12251 James Street • Holland, MI 49424-9661 • (616) 393-5645 • Fax (616) 393-5643

miOttawa Department of
Public Health

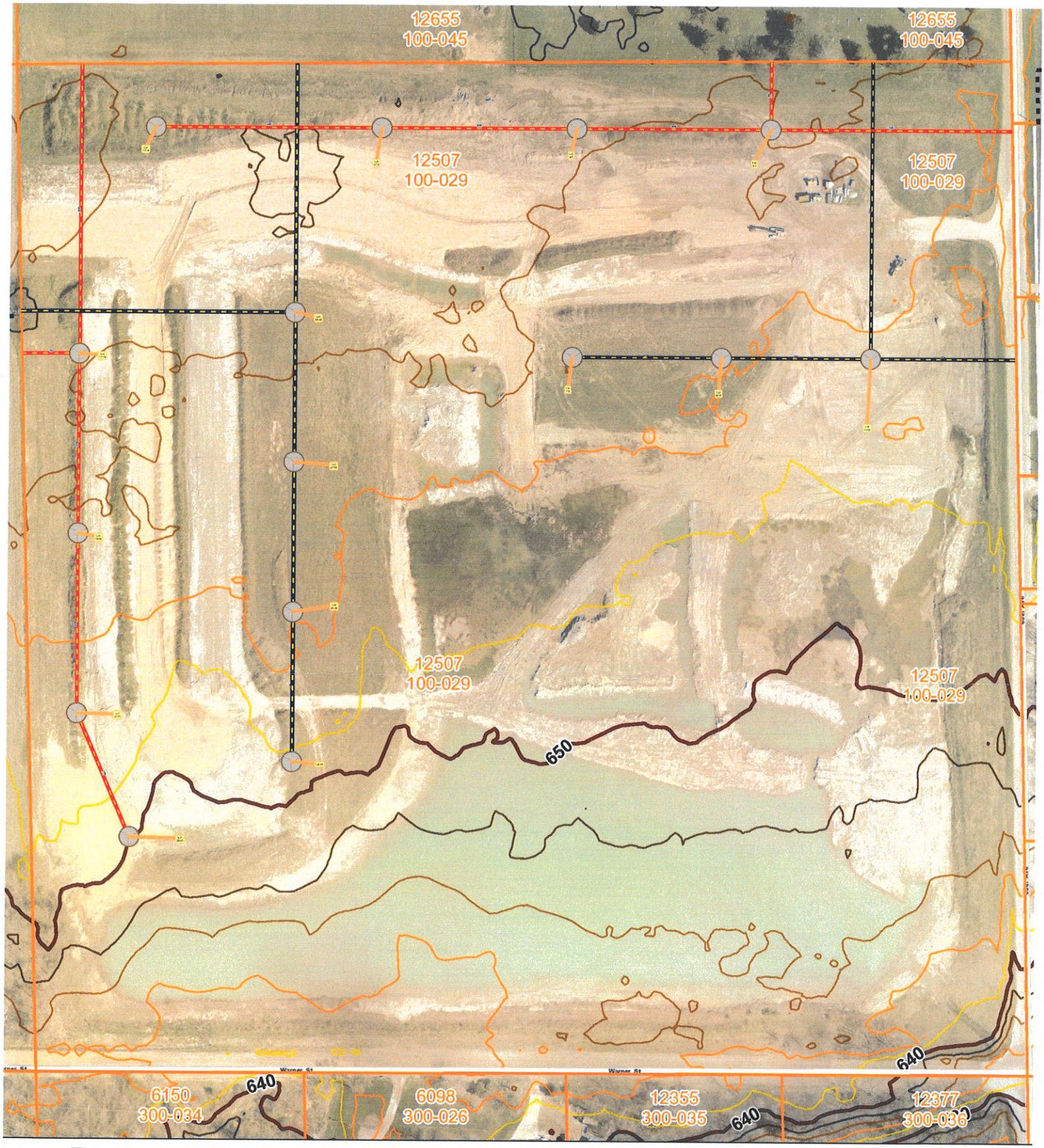
Lisa Stefanovsky, M.Ed.
Health Officer

Paul Heidel, M.D., M.P.H.
Medical Director

Lot 4/5
0 – 12" Sandy Loam Topsoil, Dark Gray
12 – 36" Fine to Medium Sand, Brown
36 – 48" Fine to Coarse Sand and Gravel, Compacted, Reddish Brown
48 – 60" Medium Sand, Light Brown
Mottled at 48"
Appears to be Natural

Lot 2/3
0 – 12" Sandy Loam Topsoil, Dark Gray
12 – 36" Fine to Medium Sand, Brown
36 – 48" Fine to Coarse Sand and Gravel, Compacted, Reddish Brown
48- 60" Medium Sand, Brown
Light Mottle at 48"
Appears to be natural.

12251 James Street • Holland, MI 49424-9661 • (616) 393-5645 • Fax (616) 393-5643



OTTAWA COUNTY HEALTH DEPARTMENT

Vacant Land Evaluation

Address: 12507 60th Ave
Parcel: 70-09-14-100-029
Date: 07/20/2016
EH Specialist: Drew Shaw

N

1: 2,760

1in. = 230 ft.

www.miOttawa.org

12251 James Street Holland, Michigan 49424 (616) 393-5645 Fax (616) 393-5643

8739428
Tx:4364783
12/12/2017 1:55:00 PM
2017-0046691
FILED/SEALED FOR RECORD IN
OTTAWA COUNTY, MI
JUSTIN F. ROEBUCK
COUNTY CLERK/REGISTER OF DEEDS
12/12/2017 AT 01:56 PM
MASTER DEED
30.00

MASTER DEED
OF
KENNEDY LAKE

(Act 59, Public Acts of 1978)
as amended

Ottawa County Condominium Subdivision Plan No. 634 containing:

(1) Master Deed establishing Kennedy Lakes, a residential site Condominium Project.

(2) Exhibit A to Master Deed: Condominium Bylaws of Kennedy Lake.

(3) Exhibit B to Master Deed: Condominium Subdivision Plan for Kennedy Lake.

No interest in real estate being conveyed hereby, no revenue stamps are required.

This Instrument Drafted By:

Donald A. Nicewander
NICEWANDER, BERENS & DeVRIES, P.L.L.C.
513 Baldwin Street
Jenison, Michigan 49428

Point "A"); thence N41°43'05"W 50.94 feet; thence N16°18'18"E 94.51 feet; thence N29°24'42"W 104.64 feet; thence N00°15'18"W 170.64 feet; thence N89°44'42"E 839.32 feet along the North line of the Southeast ¼ of the Northeast ¼ of said Section 14 to the Point of Beginning. This parcel contains 14.53 Acres.

part of 70-09-14-100-029

Expansion Property:

That part of the Southeast ¼ of the Northwest ¼ of Section 14, T7N, R14W, Allendale Township, Ottawa County, Michigan, described as: Commencing at the Northeast Corner of the Northwest ¼ of said Section 14; thence S01°25'46"E 1339.03 feet along the East line of the Northwest ¼; thence S89°44'42"W 839.32 feet along the North line of the Southeast ¼ of the Northwest ¼ of said Section 14 to the Point of Beginning; thence S89°44'42"W 489.05 feet along said North line; thence S01°23'31"W 1335.33 feet along the West line of the Southeast ¼ of the Northeast ¼ of said Section 14; thence N89°54'12"E 689.76 feet along the South line of the Northwest ¼ of said Section 14; thence N00°05'48"W 74.49 feet to Reference Point "A"; thence N00°05'48"W 17 feet more or less to the shore of Kennedy Lake; thence Easterly, Northerly, and Westerly along the shore of Kennedy Lake to a point that is S41°43'05"E 20 feet more or less from Reference Point "B" (said point being S89°53'46"E 480.00 feet; thence N41°08'11"E 82.01 feet; thence N00°07'32"W 73.93 feet; thence N57°12'31"W 147.94 feet; thence N01°25'46"W 150.00 feet; thence N18°41'00"E 372.15 feet; thence N81°43'27"W 101.12 feet; thence S89°44'42"W 200.00 feet; thence S78°19'09"W 204.04 feet; thence N29°13'27"W 206.47 feet; thence S89°44'42"W 93.58 feet from Reference Point "A"); thence N41°43'05"W 50.94 feet; thence N16°18'18"E 94.51 feet; thence N29°24'42"W 104.64 feet; thence N00°15'18"W 170.64 feet to the Point of Beginning. Parcel contains 26.25 Acres.

Part of 70-09-14-100-029

Section 3. DEFINITIONS

3.1 Definitions. Certain terms are utilized not only in this Master Deed but are or may be used in various other instruments such as, by way of example and not limitation, the Articles of Incorporation, Association By-laws, Condominiums Bylaws and Rules and Regulations of Condominium Association, Inc., a Michigan non-profit corporation, and deeds, mortgages, liens, land contracts, easements and other instruments affecting the establishment of, or transfer of, interests in the Project. As used in such documents, unless the context otherwise requires:

Ottawa County Treasurer's Office 12-12-17. The records in my office show no unpaid taxes or special assessments for the five tax years of, 2016 and prior involving lands in this instrument. This does not include taxes owed as a result of Board of Reviews, PRE Denials or Tax Tribunal Judgments.
Bradley J. Slagh, Treasurer KS

(a) "Act" means the Michigan Condominium Act, being Act 59 of the Public Act of 1978, as amended.

(b) "Administrator" means the department of consumer and industry services or an authorized designee.

(c) "Affiliate of developer" means any person who controls, is controlled by, or is under common control with a developer. A person is controlled by another person if the person is a general partner, officer, member, director, or employee of the person, directly or indirectly, individually or with 1 or more persons or subsidiaries owns, controls, or holds power to vote more than 20% of the person, controls in any manner the election of a majority of the directors of the person, or has contributed more that 20% of the capital of the person.

(d) "Arbitration association" means the American arbitration association or its successor.

(e) "Association" means the non-profit corporation organized under the laws of Michigan, of which all Co-owners shall be members, which corporation shall administer, operate, manage and maintain the Project. Any action required of or permitted to the Association shall be exercisable by its Board of Directors (including any Board of Directors acting prior to the Transitional Control Date) unless specifically reserved to its members by the Condominium Documents or the laws of the State of Michigan. The Co-owners may by a two-thirds (2/3) vote after the Development period has expired designate a different Michigan nonprofit corporation or unincorporated association as the "Association".

(f) "Association By-laws" means the corporate bylaws of the Association.

(g) "Association of co-owners" means the person designated in the condominium documents to administer the condominium project.

(h) "Business day" means a day of the year excluding a Saturday, Sunday, or legal holiday.

(2) A residential builder who acquires title to 1 or more condominium units for the purpose of residential construction on those condominium units and subsequent resale.

(3) Other persons exempted from this definition by rule or order of the administrator.

(r) "**Escrow Agent**" means a bank, savings and loan association, or title insurance company, licensed or authorized to do business in this state or a representative designated to administer escrow funds in the name, and on behalf, of the escrow agent.

(s) "**General Common Elements**" means those common elements of the Project described in Section 4.1 which are for the use and enjoyment of all Co-owners, subject to such charges as may be assessed to defray the cost of operation thereof.

(t) "**Limited Common Elements**" means those common elements of the Project described in Section 4.2 which are reserved for the exclusive use of the Co-owners of a specified Unit or Units.

(u) "**Master Deed**" means this instrument, together with the Exhibits attached hereto and all amendments thereof, by which the Project is submitted to condominium ownership.

(v) "**Percentage of Value**" means the percentage assigned to each Unit which is determinative of the value of a Co-owner's vote at meetings of the Association when voting by value or by number and value, and the proportionate share of each Co-owner in the common elements of the Project and the proceeds and expenses of administration.

(w) "**Project**" **or** "**Condominium**" means Kennedy Lake, an approved condominium development established in conformance with the provisions of the Act.

(x) "**Transitional Control Date**" means the date on which the Association's Board of Directors takes office pursuant to an election in which the votes that may be cast by eligible co-owners unaffiliated with the Developer exceeds the votes which may be cast by the Developer.

plantings not located within the boundaries of a condominium Unit. Those structures that are now or hereafter located within the boundaries of a Unit will be owned by the Co-owner of the Unit, unless otherwise expressly provided in the Condominium Documents.

(3) **Electrical and Gas.** The electrical transmission system and gas distribution system throughout the Project up to the point where it connects for service to each residence that now or hereafter is constructed within the boundaries of a Unit.

(4) **Storm Drainage.** The storm drainage and/or water retention systems through the Project.

(5) **Telephone and Telecommunications.** The telephone and telecommunications systems throughout the Project up to the point where it connects for service to each residence that now or hereafter is constructed within the boundaries of a Unit.

(6) **Project Entrance Improvements.** Any entry signage and other improvements located at or near the entrance to the Project; and

(7) **Miscellaneous.** All other Common Elements of the Project not herein designated as Limited Common Elements and not enclosed within the boundaries of a Condominium Unit, and which are intended for common use or are necessary to the existence, upkeep or safety of the Project.

(8) **Utility and Telecommunications Systems.** Some or all of the utility lines, equipment and systems (including mains and service leads), and telecommunications systems described above may be owned by the local public authority or by the company providing the pertinent service. Accordingly, such utility and/or telecommunication lines, equipment and systems shall be General Common Elements only to the extent of the Co-owners' interest in them, and the Developer makes no warranty whatsoever with respect to the nature or extent of such interest.

(9) **Kennedy Lake.** That portion of the private lake depicted as a General Common Element on the Condominium Subdivision Plan attached hereto as Exhibit B.

will at all times be subject to the approval of the Association, except the Association may not disapprove the appearance of an improvement so long as maintained as constructed by the Developer or constructed with the Developer's approval. If any Co-owner fails to maintain any improvement within the Co-owner's Unit which are visible from outside said Unit or fails to properly maintain the grounds and plantings within the reasonable standards established by the Association, the Association, after notice to the Co-owner, may undertake such maintenance as may be necessary to bring the improvements up to required standards and to charge the cost thereof to the Co-owner responsible for the cleaning, decoration and/or maintenance. The Association, however, will in no event be obligated to do so.

(2) **General Common Elements.** Except as provided above, the cost of maintaining, repairing and replacing all general common elements shall be borne by the Association, except to the extent of maintenance, repair or replacement due to the act or neglect of a co-owner or his agent, guest, invitee, family member or pet, for which such co-owner shall be wholly responsible. Except as otherwise provided herein or in the Condominium Bylaws, any damage caused to a unit or its contents by the maintenance or by repair activities of the Association or by the common elements shall be repaired at the expense of the Association.

(3) **Unit Improvements.** If any Unit owner shall elect to construct or install, with the approval of the Association, any improvements to his Unit or to the Common Elements appurtenant to his Unit which increase the costs of maintenance, repair or replacement for which the Association is responsible, such unusual costs or expenses, at the option of the Association, may be specially assessed against such Unit or Units. The costs of maintenance, repair and replacement for which the Association is responsible shall be paid by Association except to the extent of repair and replacement due to the act or neglect of a Co-owner or his agent, invitee, family member or pet.

A co-owner may make improvements or modifications to the co-owners' condominium unit, including improvements or modifications to common elements and to the route from the public way to the door of the co-owners condominium unit, at his or her expense, if the purpose of the improvement or modification is to facilitate access to or movement within the unit for persons with disabilities who reside in or

amount adequate to compensate for personal injuries caused by the exterior improvement or modification. The co-owner is not liable for acts or omissions of the association of co-owners with respect to the exterior improvement or modification and is not required to maintain liability insurance with respect to any common element. The association of co-owners is responsible for maintenance, repair, and replacement of the improvement or modification only to the extent of the cost currently incurred by the association of co-owners for maintenance, replacement, and repair of the common elements covered or replaced by the improvement or modification. All costs of maintenance, repair and replacement of the improvement or modification exceeding that currently incurred by the association of co-owners for maintenance, repair and replacement of the common elements covered or replaced by the improvement or modification shall be assessed to and paid by the co-owner or the unit serviced by the improvement or modification.

Before an improvement or modification allowed by this section is made, the co-owner shall submit plans and specifications for the improvements or modifications to the association of co-owners for review and approval. The association of co-owners shall determine whether the proposed improvement or modification substantially conforms to the requirements of this section and shall not deny a proposed improvement or modification without good cause. If the association of co-owners denies a proposed improvement or modification, the association of co-owners shall list, in writing, the changes needed to make the proposed improvement or modification conform to the requirements of this section and shall deliver that list to the co-owner. The association of co-owners shall approve or deny the proposed improvement or modification not later than 60 days after the plans and specifications are submitted by the co-owner proposing the improvement or modification to the association of co-owners does not approve or deny submitted plans and specifications within the 60-day period, the co-owner may make the proposed improvement or modification without the approval of the association of co-owners. A co-owner may bring an action against the association of co-owners and the officers and directors to compel those persons to comply with this section if the co-owner disagrees with a denial by the association of co-owners of the co-owner's proposed improvement or modification.

depth of twenty (20) feet and delineated with heavy outlines, together with all appurtenances thereto. The architectural plans and specifications for the Project will be filed with Allendale Township, Ottawa County, Michigan.

5.2 Determination and Assignment of Percentage. The total value of the Project is one hundred percent (100%). The percentage of value assigned to each Unit will be equal. The determination that percentages of value should be equal was made after reviewing the comparative characteristics of each Unit in the Project which would affect maintenance costs and value and concluding that there are no material differences among the Units insofar as the allocation of percentages of value is concerned. The percentages of value assigned to each Unit will be determinative of each Co-owner's respective share of the common elements of the Condominium Project, the proportionate share of each respective Co-owner in the proceeds and the expenses of administration and the value of such Co-owner's vote at meetings of the Association.

5.3 Unit Modification. The number, size, style and/or location of Units or of any Limited Common Element appurtenant to a Unit as described in Exhibit B hereof may be modified from time to time, in Developer's sole discretion, by amendment effectuated solely by the Developer or its successors, the consent of any other person not being required, so long as such modifications do not unreasonably impair or diminish the appearance of the Project or the view, privacy or other significant attribute or amenity of any Unit which adjoins or is proximate to the modified Unit or Limited Common Element. All Co-owners, mortgagees of Units and other persons interested or to become interested in the Project from time to time shall be deemed to have unanimously consented to any amendment or amendments necessary to effectuate the foregoing. All such interested persons irrevocably appoint Developer or its successors as agent and attorney for the purpose of executing such amendments to the Master Deed and all other Condominium Documents as may be necessary to effectuate the foregoing.

Section 6. EASEMENTS

6.1 Easements for Support, Maintenance and Repair. There are hereby created easements to and in favor of the Association, and its officers, directors, agents and designees, in, on and over all Units and Common elements in the Project, for access to the Units and exterior of each of the residences, that is constructed within the Project to permit any maintenance, repair and replacement to be performed by the Association as provided in Section 4. There also will exist easements to and in favor of the Association, and its officers, directors, agents and designees, in, on and

successors or assigns, thus utilizes, taps, ties into, extends or enlarges any utilities located on the Condominium Property it will be obligated to pay all of the expenses reasonably necessary to restore the Condominium Property to its state immediately prior to such utilization, tapping, tying in, extension or enlargement. The costs of maintenance, repair and replacement of all utilities shared by the Co-owners and the owner or owners of any land adjoining the Condominium Property will be borne by all such persons proportionately based upon the ratio of the number of residences located upon the adjoining land to the total number of residences sharing the utilities.

Developer reserves the right during the Development Period to grant easements for utilities over, under and across the Condominium Property to appropriate governmental agencies or public utility companies and to transfer title to state, county or local governments. Any such easement or transfer of title may be conveyed by Developer without the consent of any Co-owner, mortgagee, or other person and may be evidenced by either a separate easement or document transferring title or by an appropriate amendment to the Master Deed. All of the Co-owners and mortgagees of Units and other persons interested or to become interested in the Project from time to time by acceptance of a deed, mortgage, land contract or other conveyance do thereby irrevocably and unanimously consent to such amendment or amendments of this Master Deed to effectuate the foregoing easement or transfer of title.

Developer reserves for the benefit of itself, its agents, employees, guests, invitees, independent contractors, successors and assigns, a perpetual easement for the unrestricted use of all roads and walkways now or hereafter located in the Condominium Project for the purpose of ingress and egress from all or any portion of the Condominium Property in furtherance of any legitimate purpose, including development and operation of adjoining property.

Developer reserves to itself, and its successors and assigns, the right to terminate and revoke any utility or other easement granted in this Master Deed at such time as the particular easement has become unnecessary. This may occur, by way of example but not limitation, when water or sewer systems are connected to municipal systems or when a water or sewer system or other utility easement is relocated to coordinate further and future development of the Project or other development within the area of future development. No utility easement may be terminated or revoked unless and until all Units served by it are adequately served by an appropriate substitute or replacement utility on a shared maintenance basis. Any termination or revocation of any such easement will be effected by recording an appropriate amendment to this Master Deed.

interested parties, upon approval of the administrator and the consent of two-thirds of the votes of the Co-owners and mortgagees; provided, that a Co-owner's Unit dimensions or Limited Common Elements may not be modified without the written consent of the affected Co-owner. So long as the Developer continues to own or to offer for sale any Unit in the Project Co-owners and mortgagees of record shall be notified of proposed amendments under this sub-section before filing with the administrator. For purposes of this section, the affirmative vote of a 2/3 of co-owners is considered 2/3 of all co-owners entitled to vote as of the record date for such votes.

To the extent that an amendment to the condominium documents requires a vote of mortgagees of units, the following procedures apply:

(a) The date on which the proposed amendment is approved by the majority of co-owners is considered the "control date".

(b) Only those mortgagees who hold a duly recorded mortgage or a duly recorded assignment of a mortgage against 1 or more condominium units in the project on the control date is entitled to vote on the amendment. Each mortgagee entitled to vote shall have 1 vote for each unit that is subject to its mortgage or mortgages, without regard to how many mortgages the mortgagee may hold on a particular unit.

(c) The association of co-owners shall give a notice to each mortgagee entitled to vote containing all of the following:
   (1) A copy of the amendment(s) as passed by the co-owners;
   (2) A statement of the date that the amendment was approved by the majority of co-owners;
   (3) An envelope addressed to the entity authorized by the board of directors for tabulating mortgagee votes;
   (4) A statement containing language in substantially the form described in subsection (d) below;
   (5) A ballot providing spaces for approving or rejecting the amendment and a space for the signature of the mortgagee or an officer of the mortgagee;
   (6) A statement of the number of condominium units subject to the mortgage or mortgages of the mortgagee; and
   (7) The date by which the mortgagee must return its ballot.

(g) The Association shall maintain a copy of the notice, proofs of mailing of the notice, and the ballots returned by mortgagees for a period of 2 years after the control date.

(h) Notwithstanding any provision of the condominium documents to the contrary, mortgagees are entitled to vote on amendments to the condominium documents only under the following circumstances:

(1) Termination for the condominium project;
(2) A change in the method or formula used to determine the percentage of value assigned to a unit subject to the mortgagee's mortgage.
(3) A reallocation of responsibility for maintenance, repair, replacement or decoration for a condominium unit, its appurtenant limited common elements, or the general common elements from the association of co-owners to the condominium unit subject to the mortgagee's mortgage.
(4) Elimination of a requirement for the association of co-owners to maintain insurance on the project as a whole or a condominium unit subject to the mortgagee's mortgage or reallocation of responsibility for obtaining or maintaining, or both, insurance from the association of co-owners to the condominium unit subject to the mortgagee's mortgage.
(5) The modification or elimination of an easement benefiting the condominium unit subject to the mortgagee's mortgage.
(6) The partial or complete modification, imposition, or removal of leasing restrictions for condominium units in the condominium project.

(3) Costs of Amendments. A person causing or requesting an amendment to the Condominium Documents shall be responsible for costs and expenses of the amendment, except for amendments based upon a vote of the prescribed majority of Co-owners or based upon the Advisory Committee's decision, the costs of which are expenses of administration.

(4) Reserved Developer Rights. This Master Deed may not be modified during the Development Period without the written consent of the Developer.

8.3 Project Termination. If there is a Co-owner other than the Developer, the Project shall be terminated only by agreement of the Developer and unaffiliated Co-owners to which 80% of the votes of the Association appertain, as follows:

(1) **Termination Agreement.** Agreement of the required majority of Co-owners to termination of the Project shall be evidenced by their execution of the termination agreement or of ramifications thereof, and the termination shall become effective only when the agreement is so evidenced and recorded.

(2) **Real Property Ownership.** Upon recordation of an instrument terminating the Project, the property constituting the condominium shall be owned by the Co-owners as tenants in common in proportion to their respective undivided interests in the Common Elements immediately before recordation. As long as the tenancy in common lasts, each Co-owner or the heirs, successors, or assigns thereof shall have an exclusive right of occupancy of that portion of the property which formerly constituted the Condominium Unit.

(3) **Association Assets.** Upon recordation of an instrument terminating the Project, any rights the Co-owners may have to the assets of the Association shall be in proportion to their respective undivided interests in the Common Elements immediately before recordation, except that common profits shall be distributed in accordance with the Condominium Documents and the Act.

(4) **Notice to Interested Parties.** Notification of termination by first class mail shall be made to all parties interested in the Project, including escrow agents, land contract vendors, creditors, lien holders, and prospective purchasers who deposited funds. Proof of dissolution must be submitted to the administrator.

Section 9. MISCELLANEOUS PROVISIONS

9.1 Time for Completion. Notwithstanding anything to the contrary contained herein, if the developer has not completed development and construction of the entire condominium project, including proposed improvements whether identified as "must be built" or "need not be built", during a period ending 10 years from the date of commencement of construction by the developer of the project, the developer, it successors, or assigns have the right to withdraw from the project all undeveloped portions of the project without the prior consent of any co-owners, mortgagees of units in the project, or any other party having an interest in the project.

An easement/maintenance agreement shall be entered into between the Developer and/or the Association and the property owner to the West. The easement/maintenance agreement shall be subject to the approval of Allendale Charter Township, as shall also be the construction requirements for the extension of Molli Drive. However, the Developer, the Association or the property owner to the West shall be obligated to construct any extension to Molli Drive.

This Master Deed has been signed by the Developer as of the day and year first written above.

KENNEDY LAKE ESTATES LLC

By: Andrew Van Dyke
Andrew VanDyke
Its authorized member

Acknowledged before me on December 11, 2017, in Ottawa County, Michigan, by Andrew VanDyke, authorized member of Kennedy Lake Estates LLC.

Bonnie S. Buit
Notary Public

Prepared by:
Donald A. Nicewander
Nicewander, Berens & DeVries PLLC
513 Baldwin
Jenison, Michigan 49428
h:\condo\kennedylak\master deed\gli

BONNIE S. BUIT
Notary Public, State of Michigan
County Of Ottawa
My Commission Expires 09-27-2020
Acting in the County of Ottawa

membership nor the share of a member in the Association funds and assets shall be assigned, pledged or transferred in any manner, except as an appurtenance to a Condominium unit and any attempted assignment, pledge or transfer in violation of this provision shall be wholly void.

2.2 Voting Rights. Except as limited in the Master Deed and in these Bylaws, the members owning each unit shall be entitled to one vote for each Unit owned.

2.3 Persons Entitled to Vote and Designation. If one person owns a unit, he shall establish his membership in the Association and his right to vote by presenting evidence of his ownership. If a husband and wife own a unit jointly with rights of survivorship, or as tenants in the entirety, either of the two may exercise the unit's membership in the Association and cast the vote for the unit, unless the Association has been otherwise informed beforehand. If more than one person owns a unit, or the unit is leased, all of the record owners of the unit shall sign and file with the Secretary of the Association a certificate designating the person entitled to exercise the unit's membership in the Association, to cast the vote for the unit and to receive all notices and other communications from the Association. Such certificate shall state the name and address of the individual representative designated, the number or numbers of the unit or units owned, the name and address of the person or persons, firm, corporation, partnership, association, trust or other legal entity who is the co-owner thereof, and shall be signed and dated by all co-owners of record. All certificates shall be valid until revoked, until superseded by a subsequent certificate, or until a change occurs in the record ownership of the unit concerned. The Developer shall, at any meeting, be entitled to cast a vote on behalf of each unit he owns without submitting any proof of ownership. The Developer shall be entitled to vote only those units to which it still holds title prior to an initial sale or conveyance.

2.4 Proxies. Votes on a specific issue may be cast in person. In addition, any person entitled to vote at any meeting may also appear and vote (either specifically on an issue or by the general designation of a person to cast a vote) by written proxy. Proxies may be made by any person entitled to vote. They shall be valid only for the particular meeting designated, and any adjournment thereof, and must be filed with the Association before the appointed time of the meeting.

2.5 Majority. At any meeting of the members at which a quorum is present, fifty-one percent (51%) in value of the members voting, whether in person, by telecommunications or by proxy, on any particular matter, shall constitute a majority for the approval of such matter, except as otherwise required herein, by the Master Deed or by law.

at least ten (10) days prior to the date of such meeting. No business shall be transacted at a special meeting except as stated in the notice.

3.5 Quorum of Members. Unless otherwise provided herein, the presence, in person or by proxy, of fifty-one percent (51%) in number and value of the members entitled to vote shall constitute a quorum of members. If a quorum shall not be present at any meeting, the members present may adjourn the meeting for not more than thirty (30) days.

3.6 Conveyance of Title to Residential Builder. For purposes of calculating the timing of events described in this Section and Section 4 below, conveyance by a developer to a residential builder, even though not an affiliate of the developer, is not considered a sale to a nondeveloper co-owner until such time as the residential builder conveys that unit with a completed residence on it or until it contains a completed residence which is occupied.

SECTION 4

ADMINISTRATION

4.1 Board of Directors. The business, property and affairs of the Association shall be managed by a Board of Directors consisting of not less than three (3) nor more than nine (9) persons; provided, that until new directors are elected at the first meeting of members provided for in Section 3, hereof, the Directors designated in the Articles of Incorporation, or their successors, appointed as provided in the Association Bylaws, shall serve. The entire Board of Directors shall be elected at the first meeting of the Association, each annual meeting of the Association and at any special meeting of the Association called by the Board of Directors for the particular purpose of electing directors.

Within one hundred twenty (120) days after the conveyance of legal or equitable title to non-developer co-owners of 25% of the Condominium units that may be created, at least 1 director and not less than 25% of the board of directors of the association of co-owners shall be elected by non-developer co-owners. Not later than 120 days after conveyance of legal or equitable title to non-developer co-owners of 50% of the units that may be created, not less than 33 1/3% of the board of directors shall be elected by non-developer co-owners. Not later than 120 days after conveyance of legal or equitable title to non-developer co-owners of 75% of the units that may be created, and before conveyance of 90% of such units, the non-developer co-owners shall elect all directors on the board, except that the developer shall have

do all things which are not prohibited by law or the Condominium Documents or required thereby to be done by the members. The powers and duties to be exercised by the Board shall include, but shall not be limited to, the power and duty:

(a) To manage and administer the affairs of the Condominium, all appurtenances thereto, and the common elements, property and easements thereof;

(b) To levy and collect assessments against and from the members of the Association and to use the proceeds therefrom for the purposes of the Association, and to enforce assessments through liens and foreclosure proceedings where appropriate;

(c) To carry insurance and to collect and allocate the proceeds thereof;

(d) To restore, repair or rebuild the Condominium, or any portion thereof, after occurrence of casualty, and to negotiate on behalf of all of the members in connection with any taking of the Condominium, or any portion thereof, by eminent domain;

(e) To contract for and employ, and to discharge, persons or business entities to assist in the management, operation, maintenance and administration of the Condominium;

(f) To make reasonable rules and regulations governing the use and enjoyment of the Condominium by members and their tenants, guests, employees, and invitees, and to enforce such rules and regulations by all legal methods, including, without limitation, imposing fines and late payment charges, or instituting eviction or legal proceedings;

(g) To own, maintain and improve, and to buy, sell, convey, assign, transfer, mortgage or lease (as landlord or tenant), or otherwise deal in any real or personal property, including, but not limited to, any Condominium unit, easements, rights-of-way, licenses or any other real property, whether or not contiguous to the Condominium, to benefit the members of the Association and to further any of the purposes of the Association;

(h) To borrow money and issue evidences of indebtedness in furtherance of any and all of the purposes of the business of the Association, and to secure the same by mortgage, pledge or other lien on Association property; provided,

consented thereto. The granting of easements for public utilities or for other public purposes consistent with the intended use of the common elements by the Condominium, shall not be deemed a transfer for these purposes.

4.3 Managing Agent. The Board of Directors may contract with or employ, at a compensation established by it, a Managing Agent for the Condominium, who shall perform such duties and services as the Board shall authorize, including, but not limited to, the powers and duties set forth in herein. The Developer, or any related person or entity, may serve as Managing Agent if so appointed. In no event shall the Board be authorized to enter into a contract with a professional management agent, or a contract providing for services by the Developer or its affiliates, under which the maximum term is greater than three (3) years or which is not terminable by the Association upon the transitional control date, or within ninety (90) days thereafter and upon thirty (30) days' written notice for cause. Upon the transitional control date, or within ninety (90) days thereafter, the Board of Directors may terminate a service or management contract with the Developer or its affiliates. In addition, the Board of Directors may terminate any management contract which extends beyond one (1) year after the transitional control date by providing notice of termination to the management agent at least thirty (30) days before the expiration of the one (1) year.

4.4 Officers. The Association Bylaws shall provide for the designation, number, terms of office, qualifications, manner of election, duties, removal and replacement of the officers of the Association and may contain any other provisions pertinent to Association officers not inconsistent herewith. Officers may be compensated, but only upon the prior affirmative vote of two-thirds (2/3) of the members.

4.5 Actions Prior to Initial Meeting. Subject to the provisions of Section 4.3, all of the actions (including, without limitation, the adoption of these Bylaws, the Association Bylaws, any Rules and Regulations of the Association, and any undertakings or contracts entered into with others on behalf of the Association) of the Board of Directors of the Association named in its Articles of Incorporation, or their appointed successors, before the first meeting of members, shall be binding upon the Association in the same manner as though such actions had been authorized by a Board of Directors duly elected by the Association members at the first or any subsequent meeting of members so long as such actions are within the scope of the powers and duties which any Board of Directors may exercise, as provided in the Condominium Documents.

5.4 **Regular Annual Assessments.** The Board of Directors shall establish an annual budget in advance for each fiscal year for the Condominium, and such budget shall contain the Board's estimate of the funds required to defray the expenses of administration for the forthcoming year, as those items are defined by these Bylaws, and all other common expenses. The budget also shall allocate and assess all such common charges against all members in accordance with the percentage of value allocated to each unit by the Master Deed, without increase or decrease for the existence of any rights to the use of limited common elements appurtenant thereto. The common expenses shall consist, among other things, of such amounts as the Board may deem proper for the operation, management and maintenance of the Condominium property under the powers and duties delegated to it hereunder, and may include, without limitation, amounts to be set aside for working capital of the Condominium, for a general operating fund, for a reserve fund and for meeting any deficit in the common expense budget for any prior year. The budget shall establish an adequate reserve fund for maintenance, repair and replacement of the general and limited common elements, which fund shall be financed by regular monthly payments rather than by special assessments. The Board shall advise each member in writing of the amount of common charges payable by him and shall furnish copies of each budget on which such common charges are based to all members, although failure to deliver a copy of the budget to each member shall not affect any member's liability for any existing or future assessments. Should the Board of Directors at any time determine, in its sole discretion, that the assessments levied are or may prove to be insufficient: (a) to pay the operation and management costs of the Condominium (b) to provide for the maintenance, repair or replacement of existing common elements, (c) to provide additions to the common elements not exceeding $2,000 annually, or (d) to provide for emergencies, the Board may increase the general assessments or levy such additional assessment or assessments, and apportion them, as it deems necessary. Members shall pay all assessments levied in accordance with this Section 4 in equal monthly installments, commencing with acquisition of title to a unit by any means.

5.5 **Special Assessments.** Special assessments, in addition to those provided for in Section 4.4 above, may be levied by the Board of Directors from time to time, following approval by the members as hereinafter provided, to meet other needs, requirements or desires of the Association, including, but not limited to: (a) assessments for capital improvements or additions to the common elements at a cost exceeding $2,000 per year; (b) assessments for the purchase or lease of a unit in the Condominium pursuant to these By-laws; (c) assessments to purchase a unit upon foreclosure of a lien for assessments, as described in Section 6 hereof; or (d) to provide for emergencies, the Board may increase the general assessments or levy

the lien for nonpayment of assessments and a hearing on the same prior to the sale of the subject unit. Notwithstanding the foregoing, neither a judicial foreclosure action nor a suit at law for a money judgment shall be commenced, nor shall any notice of foreclosure by advertisement be published, until ten (10) days have expired after the mailing, by certified mail, return receipt requested and postage prepaid, addressed to the delinquent member at his last known address, of a written notice that an assessment, or any part thereof, levied against his unit is delinquent and that the Association may invoke any of its remedies hereunder if the default is not cured within ten (10) days after the date of mailing. A written affidavit of an authorized representative of the Association that sets forth (a) the affiant's capacity to make the affidavit, (b) the statutory and other authority for the lien, (c) the amount outstanding (exclusive of interest, costs, attorney fees and future assessments), (d) the legal description of the subject unit, and (e) the name of the member of record, shall accompany such written notice. Such affidavit shall be recorded in the Office of the Ottawa County Register of Deeds prior to the commencement of any foreclosure proceeding, but it need not have been recorded as of the date of mailing the notice. If the delinquency is not cured within the ten (10) day period, the Association may take such remedial action as may be available to it hereunder or under Michigan law. In the event the Association elects to foreclose the lien by advertisement, the Association shall so notify the representative of the delinquent member designated in Section 2.3, above, and shall inform such representative that he may request a judicial hearing by bringing suit against the Association. The expenses incurred in collecting unpaid assessments, including interest, costs, reasonable attorney's fees (not limited to statutory fees) and advances for taxes or other liens paid by the Association to protect its lien, shall be chargeable to the member in default and shall be secured by the lien on his unit. If any member defaults in the payment of any installment of the annual assessment levied against his unit, the Association shall have the right to declare all unpaid installments of the annual assessment for the pertinent fiscal year immediately due and payable. In a judicial foreclosure action, the court may appoint a receiver to collect a reasonable rental for the unit from the member owning it or any persons claiming under him, and each member hereby covenants to the appointment of such a receiver. The Association may also stop furnishing any services to a member in default upon seven (7) days' written notice to such member of its intent to do so. A member in default on the payment of any assessment shall not be entitled to vote at any meeting of the Association so long as such default continues.

If the holder of a first mortgage on a Condominium unit obtains title to the unit by foreclosing the mortgage, accepting a deed in lieu of foreclosure or similar remedy, or any other remedy provided in the mortgage, such person, and its successors and assigns, or other purchaser at a foreclosure sale shall not be liable for unpaid

resulting from negligent damage to or misuse of any of the common elements by him, his family, guests, agents or invitees, unless such damages or costs are actually reimbursed from insurance carried by the Association, in which case there shall be no such responsibility (if reimbursement to the Association is excluded by virtue of a deductible provision, the responsible member shall bear the expense to the extent of the deductible amount, anything else in these Bylaws to the contrary notwithstanding). Any costs or damages to the Association that are herein or elsewhere in the Condominium Documents assigned to the individual member may be assessed to and collected from the responsible member in the manner provided for regular assessments.

Unit 13 shall not share in the cost of any budgeted amount for the maintenance or repair of the private road.

The provisions of this Section shall be subject to those of Section 6, in the event of repair or replacement on account of a casualty loss.

5.9 Taxes. Subsequent to the year in which the condominium is established, all special assessments and property taxes shall be assessed against the individual units and not upon the total property of the Condominium or any part thereof. Taxes and special assessments which have become a lien against the property of the Condominium in the year of its establishment (as provided in Section 131 of the Act) shall be expenses of administration and shall be paid by the Association. Each unit shall be assessed a percentage of the total bill for such taxes and assessments equal to the percentage of value allocated to it in the Master Deed, and the members owning those units shall reimburse the Association for their unit's share of such bill within ten (10) days after they have been tendered a statement therefor.

5.10 Documents to Be Kept. The Association shall keep current copies of the approved Master Deed, all amendments thereto, and all other Condominium Documents available for inspection at reasonable hours by members, prospective purchasers and prospective mortgagees of Condominium units.

5.11 Reserve for Major Repairs and Replacement. The Association shall maintain a reserve fund for major repairs and replacement of common elements in an amount equal to at least ten percent (10%) of the Association's current annual budget on a noncumulative basis. Monies in the reserve fund shall be used only for major repairs and replacement of common elements. THE MINIMUM STANDARDS REQUIRED BY THIS SECTION MAY PROVE INADEQUATE FOR A PARTICULAR PROJECT. The Association of members should carefully analyze the Condominium

waive, each as to the other, any right of recovery for losses covered by insurance. The liability of carriers issuing insurance obtained by the Association shall not, unless otherwise required by law, be affected or diminished on account of any additional insurance carried by any member, and vice versa.

(b) All common elements of the Condominium shall be insured against fire and other perils covered by a standard extended coverage endorsement in an amount equal to the maximum insurable replacement value. Any improvements a member makes within his unit shall be covered by insurance obtained by him at his expense.

(c) Public liability insurance shall be carried in such limits as the Board may from time to time determine to be appropriate, and shall cover the Association, each member, director and officer thereof, and any managing agent.

(d) All premiums upon insurance policies purchased by the Association pursuant to these Bylaws shall be expenses of administration, except as otherwise provided in subsection (b) above.

(e) Proceeds of all insurance policies owned by the Association shall be received by the Association, held in a separate account and distributed to the Association, the members and their mortgagees as their interests may appear; provided, however, whenever 6.3 requires the repair or reconstruction of the Condominium, any insurance proceeds received by the Association as a result of any loss requiring repair or reconstruction shall be applied for such purpose. Hazard insurance proceeds shall never be used for any purpose other than for repair, replacement or reconstruction of the project unless all of the holders of mortgages on units in the Condominium have given their prior written approval.

(f) All insurance carried by the Association shall, to the extent possible, provide for crosscoverage of claims by one insured against another.

(g) Each Co-owner will be responsible for obtaining fire and extended coverage and vandalism and malicious mischief insurance with respect to his or her residence and all other improvements constructed or to be constructed within the boundaries of his or her Condominium Unit, together with all Limited Common Elements appurtenant to his or her Unit, whether located within or outside the boundaries of his or her Unit, and for his or her personal property

(c) The Association shall be responsible for the reconstruction and repair of the common elements. Immediately after a casualty occurs causing damage to property for which the Association has the responsibility of maintenance, repair and reconstruction, the Association shall obtain reliable and detailed estimates of the cost to return the damaged property to a condition as good as that existing before the damage.

(d) Any insurance proceeds received, whether by the Association or a member, shall be used for reconstruction or repair when reconstruction or repair is required by these Bylaws. If the insurance proceeds are not sufficient to pay the estimated costs of reconstruction or repair required to be performed by the Association, or if at any time during such reconstruction or repair, or upon completion of such reconstruction or repair, the funds for the payment of the costs thereof are insufficient, assessments shall be made against all members for the cost of reconstruction or repair of the damaged property in sufficient amounts to provide funds to pay the estimated or actual costs of repair. Such assessments shall be levied in the same manner as the regular annual assessment.

6.4 Eminent Domain. The following provisions shall control upon any taking by eminent domain:

(a) The Association, acting through its Board of Directors, may negotiate on behalf of all members for any taking of common elements. Any negotiated settlement shall be subject to the approval of two-thirds (2/3) or more of the members and mortgagees in number and two-thirds (2/3) of the members in value and shall thereupon be binding on all members.

(b) If an entire unit is taken by eminent domain, the award for such taking shall be paid to the Association for the benefit of the owner of such unit and the mortgagee thereof, as their interests may appear. After acceptance of such award by the member and his mortgagee, they shall be divested of all interest in the Condominium. The undivided interest in the common elements belonging to the member whose unit has been taken shall thereafter appertain proportionately to the remaining units, including those restored or reconstructed under the provisions of this Section.

(c) If any condemnation award shall become payable to any member whose unit is not wholly taken by eminent domain, then such award shall be paid by

provided in subsection (g) herein) by eminent domain shall thenceforth appertain to the remaining Condominium units, and shall be allocated to them in proportion to their relative voting strength by value in the Association.

6.5 Construction Liens. The following provisions shall control the circumstances under which construction liens may be applied against the Condominium or any unit thereof:

(a) Except as provided below, a construction lien for work performed on a Condominium unit or upon a limited common element may attach only to the unit upon or for the benefit of which the work was performed.

(b) A construction lien for work authorized by the developer, residential builder, or principal contractor and performed upon the common elements may attach only to units owned by the developer, residential builder, or principal contractor at the time of recording of the statement of account and lien.

(c) A construction lien for work authorized by the Association may attach to each unit only to the proportional extent that the member owning the unit is required to contribute to the expenses of administration as provided by the Condominium Documents.

(d) A construction lien may not arise or attach to a unit for work performed on the common elements not contracted for by the developer, residential builder, or principal contractor or by the association of co-owners.

(e) If a member is advised or otherwise learns of a purported construction lien contrary to the foregoing, he shall immediately notify the Board of Directors. Upon learning of the purported construction lien, the Board shall take appropriate measures to remove any cloud on the title of units improperly affected thereby.

6.6 Mortgagees. Nothing contained in the Condominium Documents shall be construed to give a Condominium unit owner, or any other party, priority over any rights of mortgagees of Condominium units pursuant to their mortgages in the case

7.3 **Common Areas.** The Common Elements shall be used only by the Co-owners of Units in the Condominium and by their agents, tenants, family members, invitees and licensees for access, ingress to and egress from the respective Units and for other purposes incidental to use of the Units; provided, that any parking areas, storage facilities or other common areas designed for a specific purpose shall be used only for the purposes approved by the Board. The use, maintenance and operation of the Common Elements shall not be obstructed, damaged or unreasonably interfered with by any Co-owner, and shall be subject to any lease or easement presently in existence or entered into by the Board at some future date which affects all or any part of the Common Elements.

7.4 **Use and Occupancy Restrictions.** In addition to the general requirements of Section 7.1 through 7.3, the use of the Project and its Common Elements by any Co-owner shall be subject to the following specific restrictions:

(a) **Delivery Boxes.** The Developer will determine the location, color, size, design, lettering and all other permitted particulars of all mail and paper delivery boxes, and standards and brackets and name signs for such boxes. Each Unit owner will either install his or her mailbox or pay the cost of the Co-owner's mailbox as reasonable determined by Developer.

(b) **Lighting.** No vapor lights, dusk to dawn lights or other lights regularly left on during the night may be installed or maintained on any Unit without the consent of the Developer during the Development Period, and thereafter from the Association.

(c) **Landscaping Plan.** A landscaping plan will be submitted to Developer in accordance with the appurtenant sections hereof. Any change in the physical appearance of the exterior of any residence as approved by the Developer for construction must have the prior written approval of the Developer during the Development Period and thereafter of the Association. This includes exterior colors of building and significant landscaping changes.

(d) **Satellite Dish.** Satellite dish installation and location must be approved in writing by the Developer prior to construction during the Development Period and thereafter by the Association.

(e) **Miscellaneous Improvements.** Except as provided in these Bylaws, other than a single family residence complying with this Article, no

(h) **Weapons.** No member shall use, or permit any occupant, agent, employee, invitee or guest to use, any firearms, air rifles, pellet guns, BB guns, bows and arrows or other similar dangerous weapons, projections or devices anywhere on or about the Condominium Premises.

(i) **Signs.** No signs or other advertising devices shall be displayed which are visible from the exterior of a commercial unit or on the common elements, including "For Sale" and "For Rent" signs, without written permission from the Association.

(j) **Pets and Animals.** No animals, birds or fowl may be kept or maintained on any Unit, except dogs, cats and pet birds which may be kept thereon in reasonable numbers as pets for the pleasure and use of the occupants. No animal may be kept or bred for any commercial purpose and all animals will have such care and restraint so as not to be obnoxious or offensive on account of noise, odor or unsanitary conditions. No savage or dangerous animal will be kept on any Unit. Owners will have full responsibility for any damage to persons or property caused by his or her pet. The owner is required to properly dispose of the waste the animal deposits on any property. No dog which barks and can be heard on any frequent or continuing basis will be kept on any Unit, including within any residence. The association may, without liability to the owner thereof, remove or cause to be removed any animal which it determines to be in violation of the restrictions imposed by this Section. The Association will have the right to require that any pets be registered with it and may adopt such additional reasonable rules and regulations with respect to animals as it may deem proper.

(k) **Recreational Property.** No recreational vehicles, house trailers, utility trailers, commercial vehicles, boat trailers, boats, campers, camping vehicles, camping trailers, snowmobiles, snowmobile trailers or vehicles other than automobiles or light trucks may be parked or stored upon the premises of the unit at any time, except while loading or unloading such vehicles, which shall not exceed forty-eight hours in duration, unless parked in a garage with the door closed or with the written consent of the Association. No snowmobile, motorcycles or all terrain vehicles will be used on any Unit or any part of the Condominium Property without the prior written approval of the Association.

(l) **Trash.** All trash, garbage and other waste is to be kept only in sanitary containers inside garages or otherwise within fully enclosed areas at all times and will not be permitted to remain elsewhere on the Unit, except for such short

(p) **Fertilization.** Only nonphosphate fertilizers shall be used on any of the lands within the Development. Oil, gasoline, other petroleum products, or other contaminating fluids or materials shall not be disposed of or discharged on or in any of the lands in the Development.

7.5 **Rules of Conduct.** Reasonable regulations consistent with the Act, the Master Deed and these Bylaws, concerning the use of the common elements may be made and amended from time to time by any Board of Directors of the Association, including the Board of Directors established in the Articles of Incorporation (and its successors). Copies of all such regulations and amendments thereto shall be furnished to all members and shall become effective ten (10) days after mailing or delivery thereof to the designated voting representative of each member. Any such regulation or amendment may be revoked at any time by the affirmative vote of more than fifty percent (50%) of all members at any duly convened meeting of the Association, except that the members may not revoke any regulation or amendment prior to the first meeting of the Association.

7.6 **Reserved Rights of Developer.** None of the restrictions contained in this Article shall apply to the commercial activities or signs or billboards, if any, of the Developer during the development and sales period as defined hereinafter, or of the Association in furtherance of its powers and purposes set forth herein and in its Articles of Incorporation and Bylaws as the same may be amended from time to time. For the purposes of this subsection, the development and sales period shall be deemed to continue so long as Developer owns any unit which he offered for sale or so long as any additional unit may be created in the Condominium. Until all units that may be created in the Condominium have been sold by Developer, Developer shall have the right to maintain a sales office, a business office, a construction office, storage areas, reasonable parking incident to the foregoing and such access to, from and over the project as may be reasonable to enable development and sale of the entire project by Developer. The Developer shall pay or be responsible to require a residential builder to pay all costs related to the condominium

7.7 **Enforcement.** Failure to comply with any of the terms of the Act, the Master Deed, these Condominium Bylaws, the Articles of Incorporation, Bylaws or Rules and Regulations of the Association, shall be grounds for relief, which may include, without limitation, an action to recover sums due for such damages (including actual attorney's fees), injunctive relief, and any other remedy that may be appropriate to the nature of the breach. The failure of the Association to enforce any right, provision, covenant or condition which may be granted by the Act, the Master Deed, these Bylaws, the Articles of Incorporation, Bylaws or Rules and Regulations of

8.4 **Miscellaneous Provisions.** The height of any building will not be more than two and one-half stories. If any portion of a level or floor within a residence is below grade, all of the level or floor shall be considered a basement level. No geodesic dome, berm house, pre-fabricated or modular home, mobile home, shack, barn, temporary building, outbuilding, or guest house will be erected on any of the Units without the prior written approval of the Developer during the Development Period and thereafter of the Association.

8.5 **Approval of Plans.** The Developer, in designing Kennedy Lake, including the location and contour of the private roads, has taken into consideration the following criteria:

(a) Kennedy Lake is designed for residential living on large residential sites in a suburban atmosphere;

(b) The existing contour of the land and the existing wooded vegetation should be preserved where practicable;

(c) The dwelling site on each of the Units should be located so as to preserve the existing contours and vegetation where practicable;

(d) The architecture of the dwelling and landscaping located on any Unit should be compatible with the criteria as established hereby and also should be compatible and harmonious to the external design and general quality of other dwellings constructed and to be constructed within Project; and

(e) The design and general quality of the construction shall be first class.

Consequently, the Developer reserves the right to control the buildings, structures and other improvements placed on each Unit, as well as to make such exceptions to these Bylaws as the Developer will deem necessary and proper. Each residence must include a garage for at least two vehicles. No building, wall, or other improvement or landscaping will be placed upon a Unit unless and until the plans and specifications therefor showing the nature, kind, shape, height, color, materials and location of the improvements (including floor plan and exterior colors) and the plot plan including elevations have the prior written approval of the Developer and no changes or deviations in or from such plans and specifications as approved will be made without the prior written consent of the Developer. Approved exterior materials include cedar, brick, vinyl, aluminum, field stone, drivit and any other material expressly approved by the Developer in writing. Flat roofs will be approved only in

8.6 Approved Contractor and Construction Process. All construction of all buildings and structures will be done only by residential home builders licensed by the State of Michigan and approved in writing by the Developer and shall be done in accordance with plans approved pursuant to this Section. When the construction of any building is once begun, work thereon must be diligently continued and must be completed within a reasonable time. In any event, all construction must be completed within twelve (12) months from the start thereof, provided that the Developer may extend such time when in Developer's opinion conditions warrant an extension. Construction of all other improvements including pools and landscaping will be done by contractors approved in writing by the Developer.

8.7 Damage to Private Road or Utilities. Any damage to any private road or utilities or any part of the Condominium Property by the Co-owner or the Co-owner's contractor or subcontractors in the course of the construction or alteration of any improvements or landscaping for a Unit shall be repaired, replaced or restored by such Co-owner at Co-owner's sole cost in a manner approved in writing by the Developer.

8.8 Walls and Fences. No wall or fence of any height will be constructed on any Unit within thirty (30) feet of the Unit boundaries until after the height, type, design and approximate location therefor will have been approved in writing by the Developer in its sole discretion during the Development Period and thereafter by the Association. The heights or elevations of any wall or fence will be measured from the existing elevations of the property at or along the applicable points or lines.

8.9 Occupancy. No building erected upon any Unit will be occupied in any manner while in the course of construction, nor at any time prior to its being fully completed. Nor will any residence, when completed, be in any manner occupied until made to comply with the approved plans and all of these Bylaws.

8.10 Elevations. No substantial changes in the elevations of the land will be made on a Unit without the prior written consent of the Developer during the Development Period and thereafter by the Association. Any change which materially affects the surface elevation or grade of the surrounding Units will be considered a substantial change.

8.11 Soil from Excavation. All soil to be removed from any of the Units either in grading or excavating will, at the option of the Developer, become the property of

8.14 Accessory Buildings. All accessory buildings shall be approved by the Developer during the Development Period and thereafter by the Association and shall comply with all requirements of the Allendale Charter Township Zoning Ordinances.

8.15 Electrical Utility Connection. Each Co-owner, at the time of completion of the construction of the residence upon the Co-owner's Unit, agrees to install conductors between the Unit and the Consumers Power terminal transformer, which conductor shall consist of three conductor cable for direct burial for single conductors and conduit with the installation of the type approved by the National Electric Code. This service shall be of a size and a capacity of not less than 200 amperes. Further, an entrance switch shall be installed in the residence having a capacity of not less than 200 amperes.

SECTION 9

SETBACKS AND BUILDING LINES

9.1 Buildings. For the purpose of this Article, building will mean the main residence, the garage, and related outbuildings and their projections such as eaves; bay, bow or oriel windows; exterior chimneys; covered porches; porticos; loggias; and the like, but will not include open pergolas; uncovered porches; open terraces; stoops; steps; or balustrades, the sides of which do not extend more than three feet above the level of the ground floor of the main building.

9.2 Setback Lines. No building will be erected on any other Unit nearer to the street line or to either side Unit boundary, or closer to the rear boundary than permitted by the setback requirements of the zoning ordinance of Allendale Township, Ottawa County, Michigan, which is in effect at the time of the contemplated construction of any building unless a variance for such setback is obtained from the Zoning Board of Appeals and further there is obtained a written consent thereto from the Developer during the Developer Period and thereafter from the Association. In the event that it is impracticable or would create a hardship to comply with these setbacks as to any corner Unit or odd shaped Unit, then the Developer may specify front yard, side yard and rear yard depths and widths less than is required by these setbacks. Where one and one-half, two or more Units are acquired as a single building site, the side Unit boundaries will refer only to the Unit boundary lines ordering the adjoining Co-owners.

action for money damages (in the same or in a separate action) against the Co-owner and tenant or non Co-owner occupant for breach of the conditions of the Condominium Documents. The relief provided for in this Section may be by summary proceeding. The Association may hold both the tenant and the Co-owner liable for any damages to the Common Elements caused by the Co-owner or tenant in connection with the Unit or the Condominium Project.

SECTION 11

MORTGAGES

11.1 Notice of Mortgage. A co-owner who mortgages a unit shall notify the Association of the name and address of his mortgagee, and the Association shall maintain such information in a book entitled "Mortgages of Units".

11.2 Notice of Default. The Association may, but shall not be required to, give the holder of any mortgage covering any unit in the project written notification of any default in the performance of the obligations of the member owning such unit that is not cured within sixty (60) days.

11.3 Notice of Insurance. The Association shall notify any mortgagee appearing in said book which so requests the name of each company insuring the Condominium against fire, perils covered by extended coverage, and vandalism and malicious mischief and the amounts of such coverage.

11.4 Notice of Meetings. Upon request submitted to the Association, any institutional holder of a mortgage lien on any unit in the Condominium shall be entitled to receive written notification of every meeting of the members of the Association and to designate a representative to attend such meeting.

11.5 Acquisition of Title by Mortgagee. Any first mortgagee who obtains title to a unit pursuant to the remedies provided in the mortgage, or a deed in lieu thereof, shall not be liable for such unit's unpaid assessments which accrue prior to acquisition of title by the first mortgagee.

expenses of considering, adopting, preparing and recording such amendment, if requested by the Board of Directors. The costs and expenses relating to all other amendments adopted pursuant hereto shall be expenses of administration.

12.8 Notice; Copies of Amendment. Members and mortgagees of record of Condominium units shall be notified of proposed amendments not less than ten (10) days before the amendment is recorded. A copy of each amendment to these Condominium Bylaws shall be furnished to every member after recording; provided, however, that any amendment to these Bylaws that is adopted in accordance with this Article or the Act shall be binding upon all persons who have an interest in the project irrespective of whether such persons actually receive a copy of the amendment.

SECTION THIRTEEN

DEFINITIONS

All terms used herein shall have the same meaning as set forth in the Act or as set forth in the Master Deed to which these Condominium Bylaws are attached as an exhibit.

SECTION FOURTEEN

REMEDIES FOR DEFAULT

14.1 Relief Available. Any default by a member shall entitle the Association or another member or members to the following relief:

(a) **Noncompliance.** Failure to comply with any of the terms or conditions of the Condominium Documents shall be grounds for relief, which may include, without limitation, an action to recover sums due for damages (including actual attorney's fees), for injunctive relief, for foreclosure of lien (if in default in payment of an assessment) or any combination thereof, and such relief may be sought by the Association, or, if appropriate, by an aggrieved member or members.

(b) **Costs of Enforcing Document.** Any and all costs, damages, expenses and/or attorney's fees incurred by the Association in enforcing any of the restrictions set forth in the Condominium Documents, and any expenses incurred as a result of the conduct of less than all those entitled to occupy the

SECTION 15

ARBITRATION

15.1 Submission to Arbitration. Any dispute, claim or grievance arising out of or relating to the interpretation or application of the Master Deed, Bylaws or other condominium documents, or to any disputes, claims or grievances arising among or between the members or between such members and the Association shall, upon the election and written consent of all the parties to any such dispute, claim or grievance, and written notice to the Association, be submitted to arbitration, and the parties thereto shall accept the Arbiter's decision as final and binding. The Commercial Arbitration Rules of the American Arbitration Association, as amended and in effect from time to time hereafter, shall be applicable to such arbitration.

The arbiter may be either an attorney acceptable to both parties or a panel of three (3) individuals, at least one (1) of whom shall be an attorney. The panel shall be composed of one (1) individual appointed by the member and one (1) individual appointed by the Board of Directors of the Association. These two panelists will then promptly agree on the third member of the panel. No member who is a natural person may appoint himself or a member of his household to the panel. No corporate member may appoint one of its directors, officers or employees to the panel. Neither may a member serve on behalf of the Board.

The arbitration costs shall be borne by the losing party to the arbitration. The arbiter may require a reasonable deposit to ensure payment of costs. Such deposit shall be placed in escrow in the name of the arbiter as trustee in the name of the matter at issue.

15.2 Effect of Election. Election by members or the Association to submit any such dispute, claim or grievance to arbitration shall preclude such parties from litigating such dispute, claim or grievance in the courts. Any appeal from an arbitration award shall be deemed a statutory appeal.

15.3 Preservation of Rights. No member shall be precluded from petitioning the Courts to resolve any dispute, claim or grievance in the absence of election to arbitrate.

guest, invitees, trades persons, emergency vehicles and others bound to or returning from any of the properties having a right to use the private road. The private road shall be constructed in a manner to provide effective storm water draining and to prevent run-off onto adjacent property and shall be approved by the Ottawa County Water Resources Commissioner.

SECTION EIGHTEEN

CONFLICTING PROVISIONS

In the event of a conflict between the provisions of the Act (or other laws of Allendale Township, Ottawa County, or the State of Michigan) and any Condominium Document, the Act (or other laws of the State of Michigan) shall govern. In the event of any conflict between the provisions of any one or more Condominium Documents, the following order of priority shall prevail and the provisions of the Condominium Document having the highest priority shall govern (in any event, nothing in and of these documents may be inconsistent with the Allendale Charter Township Zoning Ordinance or any conditions placed by Allendale Charter Township on the zoning approval given this Condominium Project):

(1) The Master Deed, including the Condominium Subdivision Plan;

(2) These Condominium Bylaws;

(3) The Articles of Incorporation of the Association;

(4) The Bylaws of the Association; and

(5) The Rules and Regulations of the Association.

DATED: DEC 11, 2017

KENNEDY LAKE ESTATES LLC

By: Andrew Van Dyke
Andrew VanDyke
Its authorized member

h:condo\kennedylake\condobylaws\gli

Ottawa County Condominium Subdivision Plan No. 634
Exhibit "B" to the Master Deed of:

KENNEDY LAKE

Part of the NW 1/4, Section 14, T7N, R14W,
Allendale Township, Ottawa County, Michigan

ATTENTION COUNTY REGISTER OF DEEDS:
THE CONDOMINIUM SUBDIVISION PLAN NUMBER MUST BE ASSIGNED IN CONSECUTIVE SEQUENCE. WHEN A NUMBER HAS BEEN ASSIGNED TO THIS PROJECT, IT MUST BE PROPERLY SHOWN IN THE TITLE ON THIS SHEET AND IN THE SURVEYOR'S CERTIFICATE ON SHEET NO. 2.

DEVELOPER:

Kennedy Lake Estates LLC
7263 Tory Drive
Hudsonville, MI 49426
CONTACT:
Andy VanDyke

ENGINEER / SURVEYOR:

Feenstra & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
7482 Main Street *Phone: 616.457.7050*
Jenison, MI 49428 *www.feenstrainc.com*

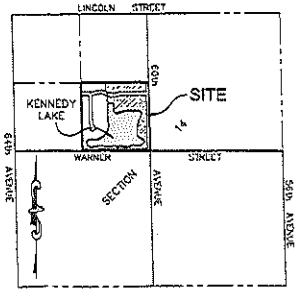
OVERALL PROPERTY DESCRIPTION:
The Southeast 1/4 of the Northwest 1/4 of Section 14, T7N, R14W, Allendale Township, Ottawa County, Michigan Contains 40.78 Acres (Including ROW)

PHASE 1 DESCRIPTION:
That part of the Southeast 1/4 of the Northwest 1/4 of Section 14, T7N, R14W, Allendale Township, Ottawa County, Michigan, described as: Commencing at the Northeast Corner of the Northwest 1/4 of said Section 14; thence S01°25'46"E 1339.03 feet along the East line of the Northwest 1/4 to the North line of the Southeast 1/4 of the Northwest 1/4 of said Section 14 and the Point of Beginning; thence S01°25'46"E 1339.03 feet along said East line; thence S89°54'12"W 639.56 feet along the South line of the Northwest 1/4 of said Section 14; thence N00°05'48"W 74.49 feet to Reference Point "A"; thence N00°05'48"W 17 feet more or less to the shore of Kennedy Lake; thence Easterly, Northerly, and Westerly along the shore of Kennedy Lake to a point that is S41°43'05"E 20 feet more or less from Reference Point "B" (said point being S89°53'46"E 480.00 feet; thence N41°08'11"E 82.01 feet; thence N00°07'32"W 73.93 feet; thence N57°12'31"W 147.94 feet; thence N01°25'46"W 150.00 feet; thence N18°41'00"E 372.15 feet; thence N81°43'27"W 101.12 feet; thence S89°44'42"W 200.00 feet; thence S78°19'09"W 204.04 feet; thence N29°13'27"W 206.47 feet; thence S89°44'42"W 93.58 feet from Reference Point "A"); thence N41°43'05"W 50.94 feet; thence N16°18'18"E 94.51 feet; thence N29°24'42"W 104.64 feet; thence N00°15'18"W 170.64 feet; thence N89°44'42"E 839.32 feet along the North line of the Southeast 1/4 of the Northeast 1/4 of said Section 14 to the Point of Beginning.
Parcel contains 14.53 Acres.

EXPANSION AREA DESCRIPTION:
That part of the Southeast 1/4 of the Northwest 1/4 of Section 14, T7N, R14W, Allendale Township, Ottawa County, Michigan, described as: Commencing at the Northeast Corner of the Northwest 1/4 of said Section 14; thence S01°25'46"E 1339.03 feet along the East line of the Northwest 1/4; thence S89°44'42"W 839.32 feet along the North line of the Southeast 1/4 of the Northwest 1/4 of said Section 14 to the Point of Beginning; thence S89°44'42"W 489.05 feet along said North line; thence S01°23'31"W 1335.33 feet along the West line of the Southeast 1/4 of the Northeast 1/4 of said Section 14; thence N89°54'12"E 689.76 feet along the South line of the Northwest 1/4 of said Section 14; thence N00°05'48"W 74.49 feet to Reference Point "A"; thence N00°05'48"W 17 feet more or less to the shore of Kennedy Lake; thence Easterly, Northerly, and Westerly along the shore of Kennedy Lake to a point that is S41°43'05"E 20 feet more or less from Reference Point "B" (said point being S89°53'46"E 480.00 feet; thence N41°08'11"E 82.01 feet; thence N00°07'32"W 73.93 feet; thence N57°12'31"W 147.94 feet; thence N01°25'46"W 150.00 feet; thence N18°41'00"E 372.15 feet; thence N81°43'27"W 101.12 feet; thence S89°44'42"W 200.00 feet; thence S78°19'09"W 204.04 feet; thence N29°13'27"W 206.47 feet; thence S89°44'42"W 93.58 feet from Reference Point "A"); thence N41°43'05"W 50.94 feet; thence N16°18'18"E 94.51 feet; thence N29°24'42"W 104.64 feet; thence N00°15'18"W 170.64 feet to the Point of Beginning.
Parcel contains 26.25 Acres.

SHEET INDEX

01	Cover Sheet
02	Survey and Site Plan A
03	Survey and Site Plan B
04	Utility Plan A
05	Utility Plan B
06	Easement Detail
07	Expansion Area Plan

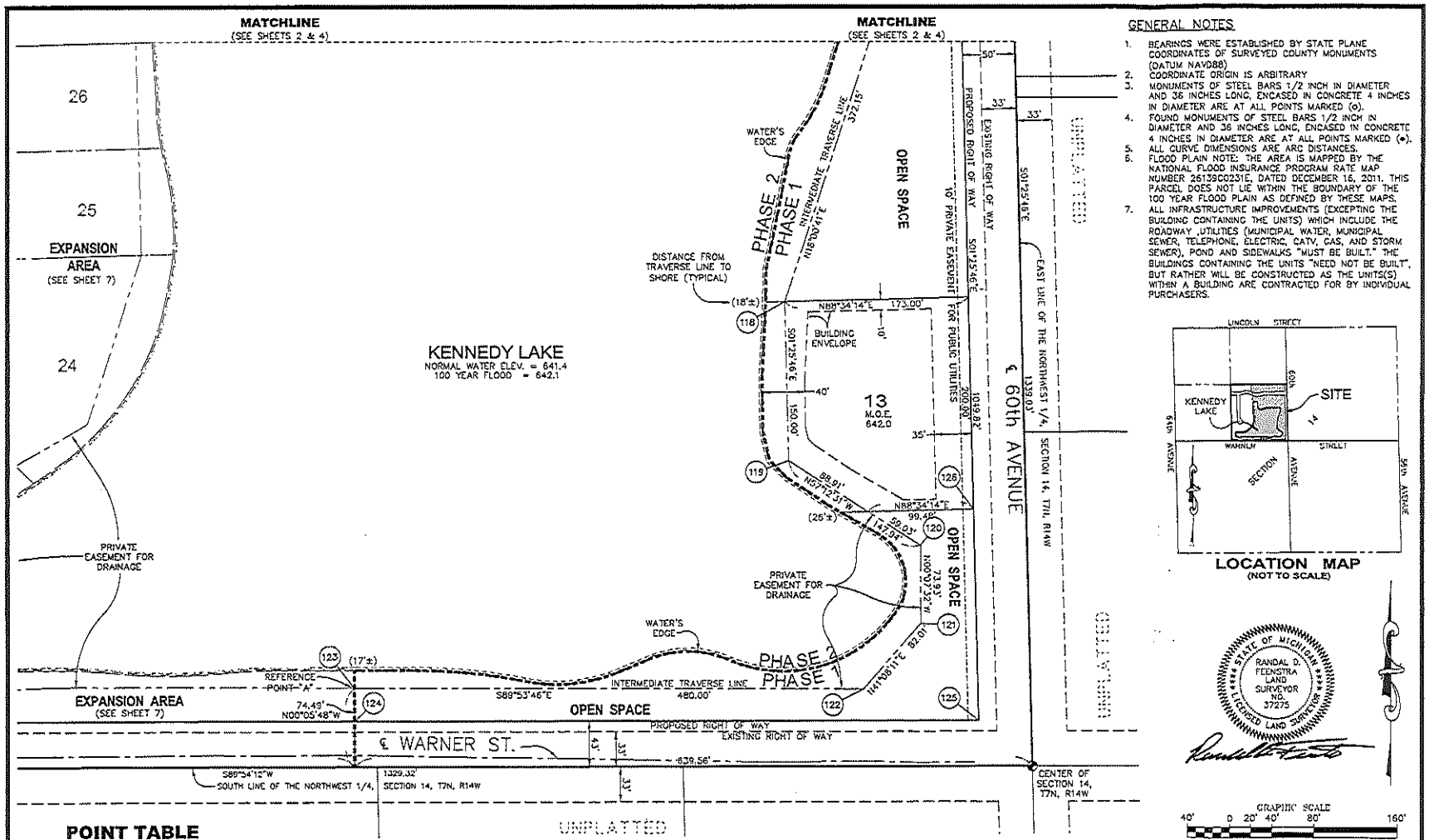


LOCATION MAP
(NOT TO SCALE)

STATE OF MICHIGAN
RANDAL D. FEENSTRA
LAND SURVEYOR
NO. 37275
LICENSED LAND SURVEYOR

RANDAL D. FEENSTRA
PROFESSIONAL SURVEYOR NO. 37275

12-7-17
PROPOSED DATED



GENERAL NOTES

1. BEARINGS WERE ESTABLISHED BY STATE PLANE COORDINATES OF SURVEYED COUNTY MONUMENTS (DATUM NAVD88)
2. COORDINATE ORIGIN IS ARBITRARY
3. MONUMENTS OF STEEL BARS 1/2 INCH IN DIAMETER AND 36 INCHES LONG, ENCASED IN CONCRETE 4 INCHES IN DIAMETER ARE AT ALL POINTS MARKED (o).
4. FOUND MONUMENTS OF STEEL BARS 1/2 INCH IN DIAMETER AND 36 INCHES LONG, ENCASED IN CONCRETE 4 INCHES IN DIAMETER ARE AT ALL POINTS MARKED (●).
5. ALL CURVE DIMENSIONS ARE ARC DISTANCES.
6. FLOOD PLAIN NOTE: THE AREA IS MAPPED BY THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAP NUMBER 26139C0231E, DATED DECEMBER 16, 2011. THIS PARCEL DOES NOT LIE WITHIN THE BOUNDARY OF THE 100 YEAR FLOOD PLAIN AS DEFINED BY THESE MAPS.
7. ALL INFRASTRUCTURE IMPROVEMENTS (EXCEPTING THE BUILDING CONTAINING THE UNITS) WHICH INCLUDE THE ROADWAY ,UTILITIES (MUNICIPAL WATER, MUNICIPAL SEWER, TELEPHONE, ELECTRIC, CATV, GAS, AND STORM SEWER), POND AND SIDEWALKS "MUST BE BUILT." THE BUILDINGS CONTAINING THE UNITS "NEED NOT BE BUILT", BUT RATHER WILL BE CONSTRUCTED AS THE UNITS(S) WITHIN A BUILDING ARE CONTRACTED FOR BY INDIVIDUAL PURCHASERS.

LOCATION MAP
(NOT TO SCALE)

STATE OF MICHIGAN
RANDAL D. FEENSTRA
LAND SURVEYOR
NO. 37275
LICENSED LAND SURVEYOR

GRAPHIC SCALE
40' 0 20' 40' 80' 160'
(IN FEET)
SCALE: 1" = 40'

POINT TABLE

NUMBER	NORTHING	EASTING
118	9131.3240	4638.9618
119	8981.3707	4642.7035
120	8901.2491	4767.0691
121	8827.3234	4787.2311
122	8765.5568	4713.2796
123	8766.4279	4233.2804
124	8734.9335	4233.3335
125	8735.9264	4821.8816
126	8935.7015	4816.8969

BENCHMARK – ELEVATION 632.61'
FLANGE BOLT UNDER "EAST" ON HYDRANT NORTHEAST CORNER OF INTERSECTION OF 60TH AVE AND WARNER STREET

BENCHMARK – ELEVATION 653.24'
FLANGE BOLT UNDER "EAST" ON HYDRANT ON EAST SIDE OF 60TH AVE 300' SOUTH OF MOLLI DRIVE (PRIVATE).

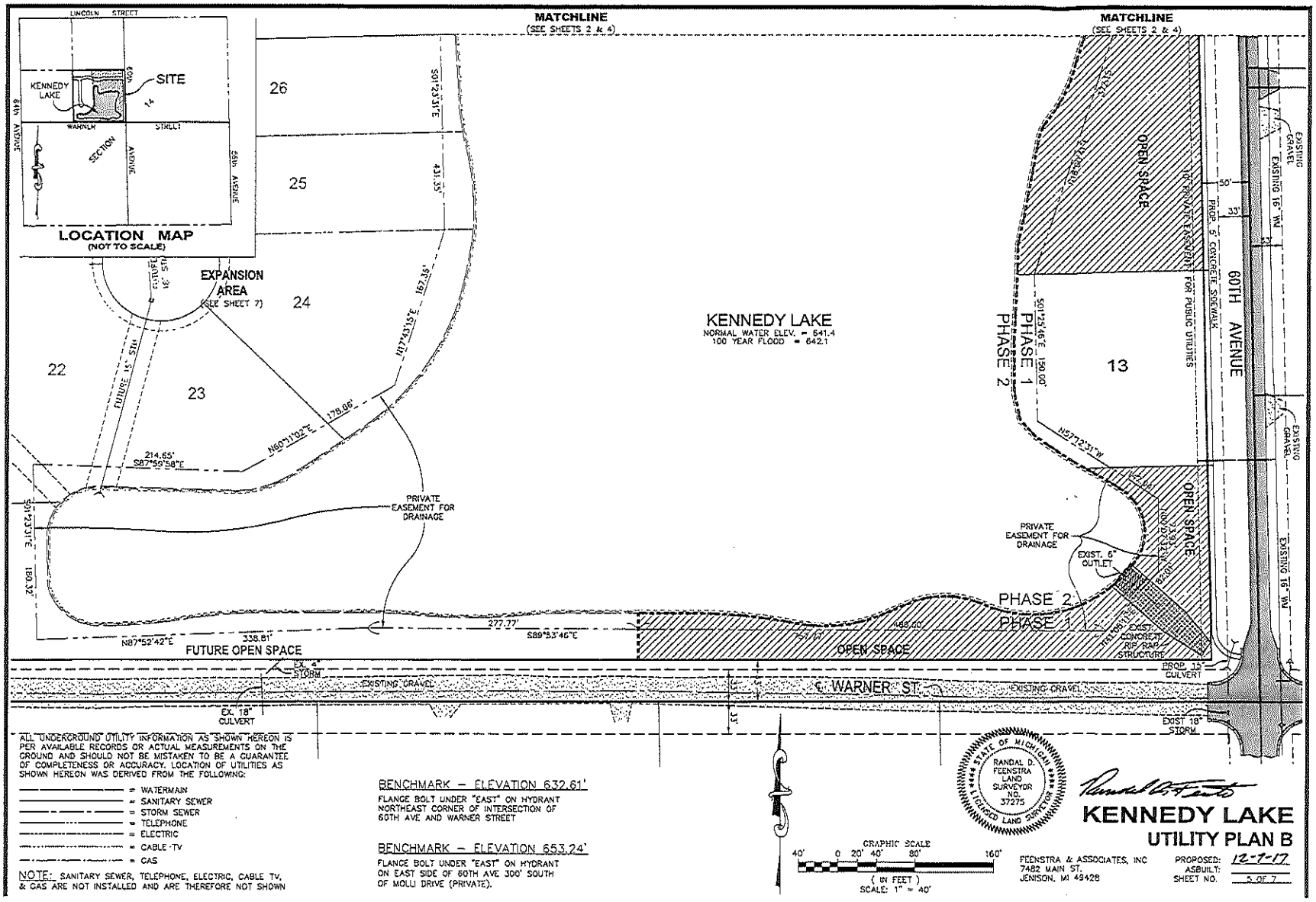
LEGEND

- ○ = CONCRETE MONUMENT
- ◆ = SECTION CORNER
- (000) = PROPERTY CORNER POINT NO.
- MOE = MIMIMUM OPENING ELEVATION

KENNEDY LAKE
SURVEY & SITE PLAN B

FEENSTRA & ASSOCIATES, INC
7482 MAIN ST.
JENISON, MI 49428

PROPOSED: 12-7-17
AS-BUILT:
SHEET NO. 3 OF 7



ALL UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS PER AVAILABLE RECORDS OR ACTUAL MEASUREMENTS ON THE GROUND AND SHOULD NOT BE MISTAKEN TO BE A GUARANTEE OF COMPLETENESS OR ACCURACY. LOCATION OF UTILITIES AS SHOWN HEREON WAS DERIVED FROM THE FOLLOWING:

- = WATERMAIN
- = SANITARY SEWER
- = STORM SEWER
- = TELEPHONE
- = ELECTRIC
- = CABLE TV
- = GAS

NOTE: SANITARY SEWER, TELEPHONE, ELECTRIC, CABLE TV, & GAS ARE NOT INSTALLED AND ARE THEREFORE NOT SHOWN

BENCHMARK – ELEVATION 632.61'

FLANGE BOLT UNDER "EAST" ON HYDRANT NORTHEAST CORNER OF INTERSECTION OF 60TH AVE AND WARNER STREET

BENCHMARK – ELEVATION 653.24'

FLANGE BOLT UNDER "EAST" ON HYDRANT ON EAST SIDE OF 60TH AVE 300' SOUTH OF MOLLI DRIVE (PRIVATE).

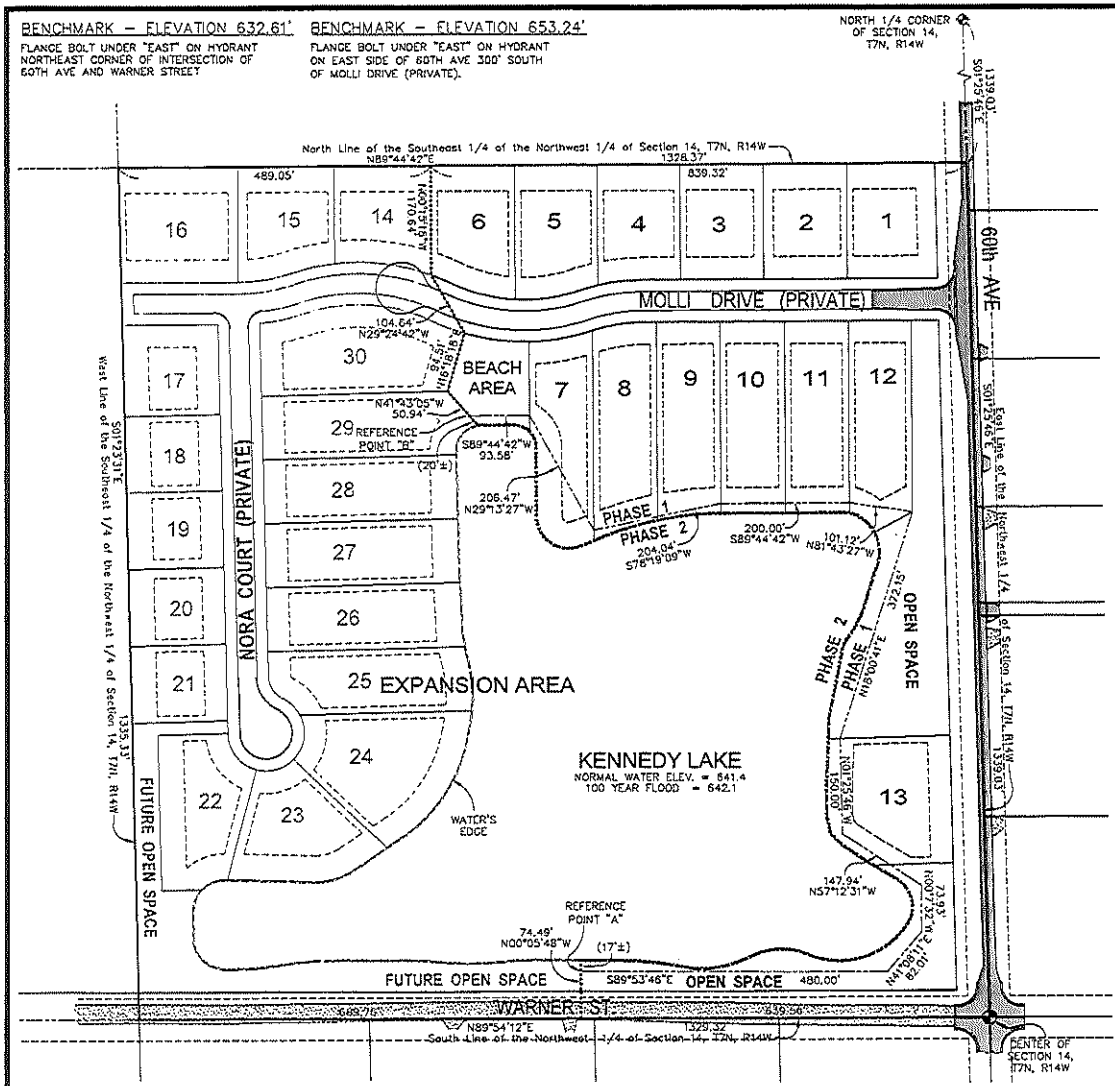
GRAPHIC SCALE
40' 0 20' 40' 80' 160'
(IN FEET)
SCALE: 1" = 40'

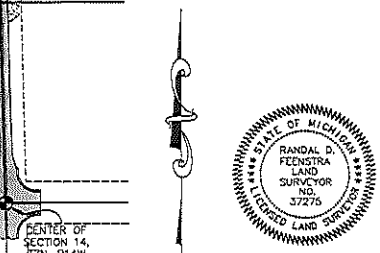
STATE OF MICHIGAN
RANDAL D. FEENSTRA
LAND SURVEYOR
NO. 37275
REGISTERED LAND SURVEYOR

KENNEDY LAKE
UTILITY PLAN B

FEENSTRA & ASSOCIATES, INC
7482 MAIN ST.
JENISON, MI 49428

PROPOSED: 12-7-17
ASBUILT:
SHEET NO. 5 OF 7





LOCATION MAP
(NOT TO SCALE)

PHASE 1 DESCRIPTION:

That part of the Southeast 1/4 of the Northwest 1/4 of Section 14, T7N, R14W, Allendale Township, Ottawa County, Michigan, described as: Commencing at the Northeast Corner of the Northwest 1/4 of said Section 14; thence S01°25'46"E 1339.03 feet along the East line of the Northwest 1/4 to the North line of the Southeast 1/4 of the Northwest 1/4 of said Section 14 and the Point of Beginning; thence S01°25'46"E 1339.03 feet along said East line; thence S89°54'12"W 639.56 feet along the South line of the Northwest 1/4 of said Section 14; thence N00°05'48"W 74.49 feet to Reference Point "A"; thence N00°05'48"W 17 feet more or less to the shore of Kennedy Lake; thence Easterly, Northerly, and Westerly along the shore of Kennedy Lake to a point that is S41°43'05"E 20 feet more or less from Reference Point "B" (said point being S89°53'46"E 480.00 feet; thence N41°08'11"E 82.01 feet; thence N00°07'32"W 73.93 feet; thence N57°12'31"W 147.94 feet; thence N01°25'46"W 150.00 feet; thence N18°41'00"E 372.15 feet; thence N81°43'27"W 101.12 feet; thence S89°44'42"E 200.00 feet; thence S78°19'09"W 204.04 feet; thence N29°13'27"W 206.47 feet; thence S89°44'42"W 93.58 feet from Reference Point "A"); thence N41°43'05"W 50.94 feet; thence N16°18'18"E 94.51 feet; thence N29°24'42"W 104.64 feet; thence N00°15'18"W 170.64 feet; thence N89°44'42"E 839.32 feet along the North line of the Southeast 1/4 of the Northeast 1/4 of said Section 14 to the Point of Beginning.

EXPANSION AREA DESCRIPTION:

That part of the Southeast 1/4 of the Northwest 1/4 of Section 14, T7N, R14W, Allendale Township, Ottawa County, Michigan, described as: Commencing at the Northeast Corner of the Northwest 1/4 of said Section 14; thence S01°25'46"E 1339.03 feet along the East line of the Northwest 1/4; thence S89°44'42"W 839.32 feet along the North line of the Southeast 1/4 of the Northwest 1/4 of said Section 14 to the Point of Beginning; thence S89°44'42"W 489.05 feet along said North line; thence S01°23'31"W 1335.33 feet along the West line of the Southeast 1/4 of the Northeast 1/4 of said Section 14; thence N89°54'12"E 689.76 feet along the South line of the Northwest 1/4 of said Section 14; thence N00°05'48"W 74.49 feet to Reference Point "A"; thence N00°05'48"W 17 feet more or less to the shore of Kennedy Lake; thence Easterly, Northerly, and Westerly along the shore of Kennedy Lake to a point that is S41°43'05"E 20 feet more or less from Reference Point "B" (said point being S89°53'46"E 480.00 feet; thence N41°08'11"E 82.01 feet; thence N00°07'32"W 73.93 feet; thence N57°12'31"W 147.94 feet; thence N01°25'46"W 150.00 feet; thence N18°41'00"E 372.15 feet; thence N81°43'27"W 101.12 feet; thence S89°44'42"E 200.00 feet; thence S78°19'09"W 204.04 feet; thence N29°13'27"W 206.47 feet; thence S89°44'42"W 93.58 feet from Reference Point "A"); thence N41°43'05"W 50.94 feet; thence N16°18'18"E 94.51 feet; thence N29°24'42"W 104.64 feet; thence N00°15'18"W 170.64 feet to the Point of Beginning.

RANDAL D. FEENSTRA LAND SURVEYOR NO. 37275
STATE OF MICHIGAN
LICENSED LAND SURVEYOR

GRAPHIC SCALE
40' 0 40' 80' 160' 320'
(IN FEET)
SCALE: 1" = 80'

KENNEDY LAKE
EXPANSION AREA PLAN

FEENSTRA & ASSOCIATES, INC
7482 MAIN ST.
JENISON, MI 49428

PROPOSED: 12-7-17
ASBUILT:
SHEET NO. 7 OF 7

FIRST AMENDMENT TO THE MASTER DEED OF

KENNEDY LAKE

THIS AMENDMENT, effective _____, 2021, hereby amends the Master Deed of Kennedy Lake recorded at 2017-0046691 at the Ottawa County Register of Deeds office, and is cited as the Ottawa County Subdivision Plan No. 634. It is being made and executed by the Developer of the project, Kennedy Lake Estates LLC, by and through its authorized member, Andrew VanDyke.

ARTICLE I

EXPANSION PROPERTY

Developer hereby exercises the expansion rights reserved in Section 7 of the Master Deed and hereby adds the following property to the project which will consist of seventeen (17) residential units:

> That part of the Southeast ¼ of the Northwest ¼ of Section 14, T7N, R14W, Allendale Township, Ottawa County, Michigan, described as: Commencing at the Northeast Corner of the Northwest ¼ of said Section 14; thence S01°25'46"E 1339.03 feet along the East line of the Northwest

¼; thence S89°44'42"W 839.32 feet along the North line of the Southeast ¼ of the Northwest ¼ of said Section 14 to the Point of Beginning; thence S89°44'42"W 489.05 feet along said North line; thence S01°23'31"W 1335.33 feet along the West line of the Southeast ¼ of the Northeast ¼ of said Section 14; thence N89°54'12"E 689.76 feet along the South line of the Northwest ¼ of said Section 14; thence N00°05'48"W 74.49 feet to Reference Point "A"; thence N00°05'48"W 17 feet more or less to the shore of Kennedy Lake; thence Easterly, Northerly, and Westerly along the shore of Kennedy Lake to a point that is S41°43'05"E 20 feet more or less from Reference Point "B" (said point being S89°53'46"E 480.00 feet; thence N41°08'11"E 82.01 feet; thence N00°07'32"W 73.93 feet; thence N57°12'31"W 147.94 feet; thence N01°25'46"W 150.00 feet; thence N18°41'00"E 372.15 feet; thence N81°43'27"W 101.12 feet; thence S89°44'42"E 200.00 feet; thence S78°19'09"W 204.04 feet; thence N29°13'27"W 206.47 feet; thence S89°44'42"W 93.58 feet from Reference Point "A"); thence N41°43'05"W 50.94 feet; thence N16°18'18"E 94.51 feet; thence N29°24'42"W 104.64 feet; thence N00°15'18"W 170.64 feet to the Point of Beginning. Parcel contains 26.25 Acres.

ARTICLE II

AMENDMENT TO EXHIBIT B TO THE MASTER DEED

Pages ____ through ____ of Exhibit B to the Master Deed of Kennedy Lake, recorded at 2017-0046691, are hereby deleted and are replaced by Pages ___ through ___ of the Exhibit B attached hereto and made a part hereof. These new pages show the additional seventeen (17) units on the expansion property.

ARTICLE III

REMAINING TERMS AND PROVISIONS

To the extent that the remaining terms and provisions of the Master Deed do not conflict with the provisions contained in this First Amendment to said Master Deed, the same are hereby ratified and affirmed in their entirety.

IN WITNESS WHEREOF, the undersigned has executed this amendment as of the date first written above.

KENNEDY LAKE ESTATES LLC

By:_____
Andrew VanDyke
Its authorized member

Acknowledged before me this _____ day of _____, 2021, by Andrew VanDyke, authorized member of Kennedy Lake Estates LLC.

_____
Notary Public

THIS INSTRUMENT PREPARED BY:
Terry L. Berens
NICEWANDER, BERENS & DE VRIES, PLLC
513 Baldwin Drive
Jenison, MI 49428
(616) 457-9290

h:\condo\kennedylake\\amendment1\gli

CHARTER TOWNSHIP OF ALLENDALE
COUNTY OF OTTAWA
STATE OF MICHIGAN

RESOLUTION #_____

At a regular meeting of the Planning Commission of the Charter Township of Allendale, Ottawa County, Michigan, held at the Allendale Charter Township Hall located at 6676 Lake Michigan Drive, Allendale Charter Township, Ottawa County, Michigan, on the 7th day of June, 2021 at 7:00 p.m. local time.

PRESENT: _____

ABSENT: _____

It was moved by member _____ and supported by member _____ that the following Resolution be adopted.

WHEREAS**,** Kennedy Lake Estates, LLC (the "Applicant"), a Michigan limited liability company, whose address is 7263 Tory Drive, Hudsonville Michigan, 49426 received Planned Unit Development approval for a residential development consisting of 30 single-family lots (the “Development”) from Allendale Charter Township (the “Township”) on September 12, 2016; and

WHEREAS, the Applicant received approval of the site condominium for Phase 1 of the Development as well as a Special Use Permit for a private road in Phase 1 of the Development on July 17, 2017; and

WHEREAS, the Applicant applied to the Township for approval of a site condominium for Phase 2 of the Development as well as a Special Use Permit for a private road in Phase 2 of the Development as shown in the site plan titled Site Condominium and Private Road Plan Kennedy Lake Phase 2 (Units 14-30), prepared by Feenstra and Associates, Incorporated,

dated 03/16/2021 with a revision date of 03/31/2021 (the “Plan”); and

WHEREAS, before taking any action to approve or deny a request for approval of the Plan, it is necessary that the Planning Commission hold a public hearing on the proposed site condominium and private road and give notice as required by Michigan Act 110 of 2006, as amended; and

WHEREAS, proper notice of the public hearing on the site condominium and private road having been given as is required by Michigan Act 110 of 2006, as amended, as is evidenced by the Affidavits of Publication and Mailing on file in the office of the Township Clerk, and the public hearing being held on June 7, 2021;and

WHEREAS, pursuant to the Allendale Charter Township Zoning Ordinance (the "Zoning Ordinance"), Section 3.14 – Condominium Project Approval and Section 23.12 – Private Roads and Streets, the Township Planning Commission desires to approve the Plan.

NOW, THEREFORE, BE IT RESOLVED THAT THE PLAN IS APRPOVED WITH THE FOLLOWING CONDITIONS:

1. Review and approval is required by the Ottawa County Water Resources Commissioner.
2. All utilities shall be buried underground.
3. The condominium project developer or proprietor shall furnish the Township with one (1) copy of the recorded Master Deed and one (1) copy of all restrictive covenants and two (2) copies of an “as built survey.”
4. This resolution shall supplement Kennedy Lake Resolution 2016-18.
5. These conditions shall be binding on the Applicant and all successor owners or parties in interest in the Project, or any portion of the Project.

6. Any violation of these conditions shall constitute a violation of the Zoning Ordinance and, in addition to the remedies provided therein, shall be cause for the Township Board to suspend or revoke any zoning or building permit applicable to the project.

YEAS: _____

NAYS: _____

RESOLUTION DECLARED _____.

_____
Tom Zuniga, Secretary
Allendale Charter Township
Planning Commission

Land Use: 210
Single-Family Detached Housing

Description

Any single family detached home on an individual lot is included in this land use category. A typical site surveyed is a suburban subdivision.

Additional Data

Information on transit trip ends is not available.

Information on person trip ends is not available.

Information on truck trips is not available.

Information on vehicle occupancy is not available.

Peak hours of the generator typically coincide with the peak hours of the adjacent street traffic.

Average development density:
3.5 dwelling units per acre
3.7 persons per dwelling unit

Average automobile ownership:
1.6 vehicles per dwelling unit

The studies were conducted at sites throughout the United States and Canada in the late 1960's through late 1980's.

Independent variables:
Although the number of vehicles and number of residents have high correlations with average weekday vehicle trip ends, these variables have limited use. This is because the number of vehicles and residents is difficult to obtain, many studies did not contain these data, and these data are difficult to predict. The number of dwelling units has a high correlation with average weekday vehicle trip ends, and is generally the independent variable of choice because it is contained in most studies, is easy to project, and convenient to use.

Adjustment factors:
This land use includes data from a wide variety of units with different sizes, price ranges, locations, and ages. Consequently, there is as wide a variation in trips generated within this category as there is between different residential land uses. As expected, dwelling units that were larger in size, more expensive, or farther away from the central business district (CBD) had a higher rate of trip generation per unit than those smaller in size, less expensive, or closer to the CBD. However, other factors, such as geographic location and type of adjacent and nearby development, also had an effect on the site trip generation.

Single-Family Detached Housing (< 300 Units)
(210)

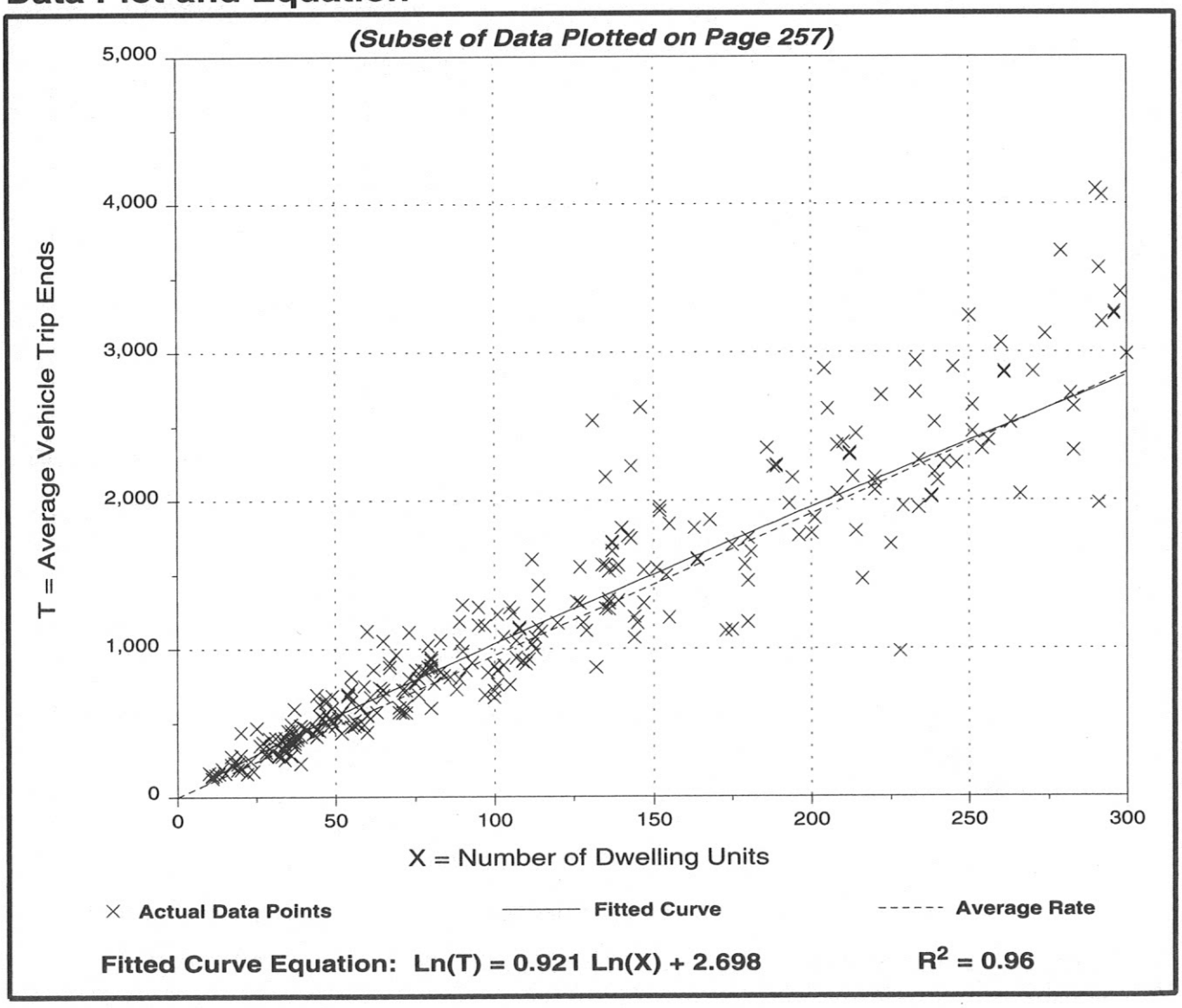
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Number of Studies: 348
Average Number of Dwelling Units: 206
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.55	4.31 - 21.85	3.66

Data Plot and Equation



Single-Family Detached Housing (< 750 Persons)
(210)

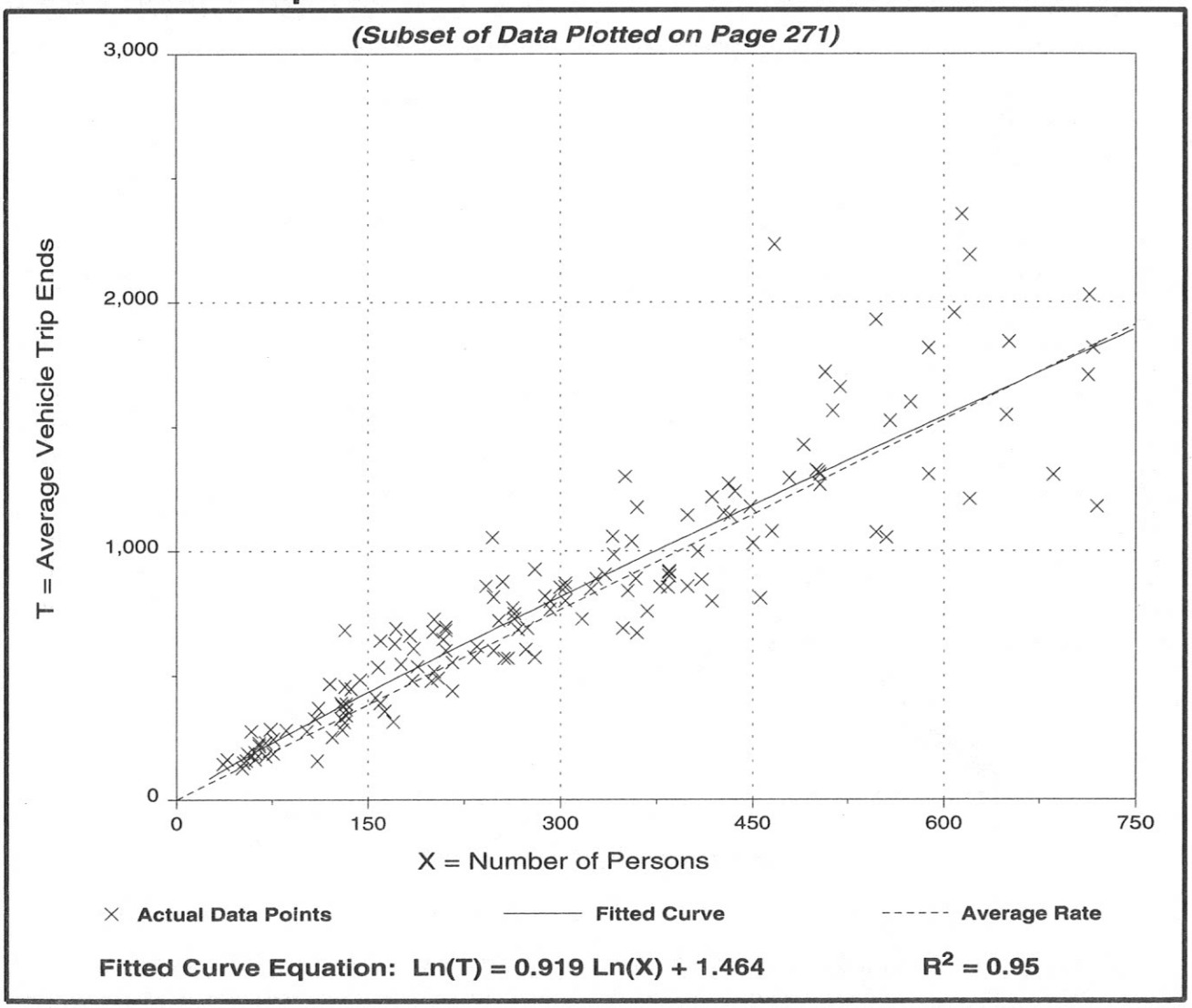
Average Vehicle Trip Ends vs: Persons
On a: Weekday

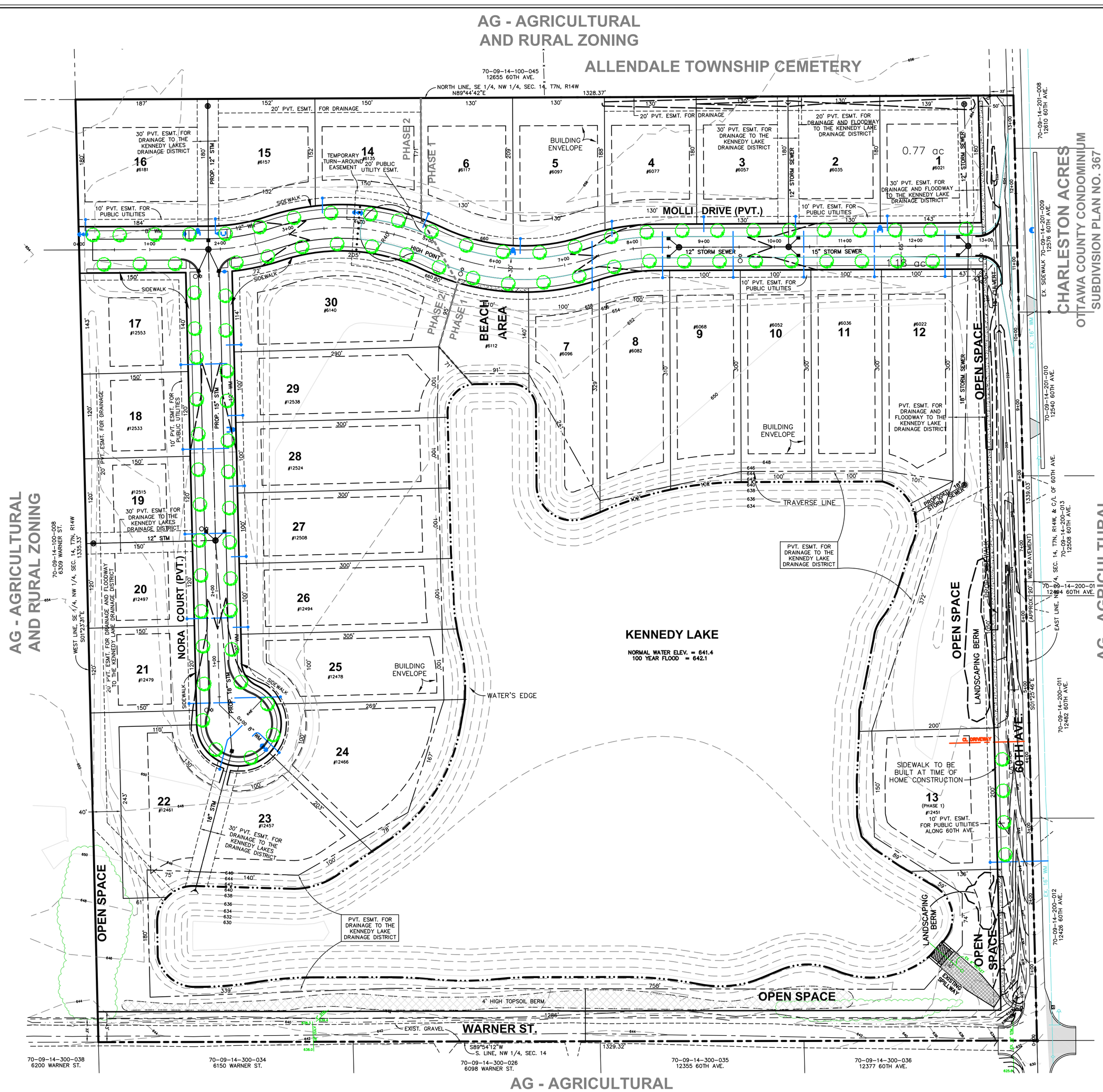
Number of Studies: 198
Average Number of Persons: 604
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Person

Average Rate	Range of Rates	Standard Deviation
2.55	1.16 - 5.17	1.68

Data Plot and Equation





GENERAL NOTES

1. PROPERTY DESCRIPTION:
THE SE 1/4 OF THE NW 1/4 OF SECTION 14, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN. EXCEPT KENNEDY LAKE.

PARCEL NO. 70-09-14-100-055
PARCEL ADDRESS: 12507 60TH AVE.

2. ZONING REQUIREMENTS "OS-PUD"
   a. Setbacks:
      front yard 35 feet
      side yard 10 feet
      rear yard 40 feet
   b. Lot Area & Width
      150' wide - 15,000 s.f.
      100' wide - 30,000 s.f.
   c. Maximum Density - 1 unit per net acre
   d. Primary Use - Residential Single Family
   A minimum of 80 feet shall be required between the center point of each residential unit.

3. SITE CONDO STATISTICS and CALCULATIONS PER SECTION 12
   Calculations (Article 12.06 B)
   Gross Site Area = 40.78 Acres
   Existing roads = -2.00 acres
   50% pond (11.64 acres) = -5.82 acres
   NET SITE AREA = 32.96 ACRES
   Max. Average density (1/acre) = 32 units

   Calculations (Article 12.06E)
   Open Space requirement - 38.78 acres x 20% = 7.76 acres
   Open Space provided:
   50% of Pond (11.64 acres) = 5.32 acres
   Upland open Space = 4.23 acres
   PROVIDED = 10.05 ACRES
   Average Unit Area = 27,888 SF
   Net density = 30/38.78 = 0.77 units/acre

4. PROPOSED IMPROVEMENTS
   a. All streets shall be private, 66 feet in width
   b. Streets shall be 30' Bituminous Aggregate Valley gutter Section per Ottawa County Public Road standards and specifications.
   c. This site condo shall be serviced with public water.
   d. Sewage disposal by individual drainfields.
   e. Drainage design shall conform to the Ottawa County Drain Commission and Allendale Township standards and specifications.
   f. Gasmains shall be installed within the street right-of-ways 26.5 feet north or east of centerline
   g. There shall be a 10 foot private easement for public utilities adjacent to all new street right of ways.
   h. The sidewalks within the 60th Avenue right of way have been installed as part of Phase 1. All other sidewalks proposed for the development will be built by the homeowners at the time of house construction.
   i. Six street lights are planned, three in each phase and as shown hereon.
   j. Signs shall be placed designating the access points to the open space areas and beach area.
   k. Street trees shall be planted at a minimum of 50 feet apart along the road frontage. They shall meet the tree type and size guidelines of Allendale Township and be placed in conjunction with the home construction.
   l. The maximum slope below from the shoreline shall be 1 on 6 to a depth of 5 feet. The overall depth of the lake is less than what is shown due to clay being encountered during lake construction.
   m. The beach will remain un-improved with just a sand beach until the homeowners association is established. The Association may add improvements according by-laws established for that purpose.
   n. An Open Space Preservation and Maintenance Agreement, meeting the criteria of Section 12.06E5, shall be provided along with the Master Deed prior to recording.
   o. This site condo shall be for single family residential homes.

Lot Number	Area (SF)	Area (Acres)	Lot Number	Area (SF)	Area (Acres)	Lot Number	Area (SF)	Area (Acres)	Lot Number	Area (SF)	Area (Acres)
1	25283	0.58	9	30335	0.70	17	23277	0.53	24	39368	0.90
2	23400	0.54	10	30000	0.69	18	22500	0.52	25	30228	0.69
3	23400	0.54	11	30000	0.69	19	22500	0.52	26	30066	0.69
4	23594	0.54	12	31389	0.72	20	22500	0.52	27	30000	0.69
5	26360	0.61	13	37234	0.85	21	22500	0.52	28	30000	0.69
6	25286	0.58	14	23321	0.54	22	31868	0.73	29	30954	0.71
7	30610	0.70	15	25455	0.58	23	30128	0.69	30	38286	0.88
8	32058	0.74	16	33386	0.77						

LOCATION MAP
SCALE
1 INCH = 800 FEET

AREA MAP

GRAPHIC SCALE
80 0 40 80 160 320
(IN FEET)
1 inch = 80 ft.
CONTOUR INTERVAL - 2'

RANDAL D. FEENSTRA
STATE OF MICHIGAN
ENGINEER NO. 35498
REGISTERED PROFESSIONAL ENGINEER

REVISIONS
03/31/2021
PLANNER COMMENTS

SITE CONDOMINIUM & PRIVATE ROAD PLAN
KENNEDY LAKE PHASE 2
(UNITS 14 - 30)

FOR: Kennedy Lake Estates LLC
7263 Tory Dr.
Hudsonville, MI 49426
CONTACT: Andy VanDyke
PHONE: (616) 299-1491

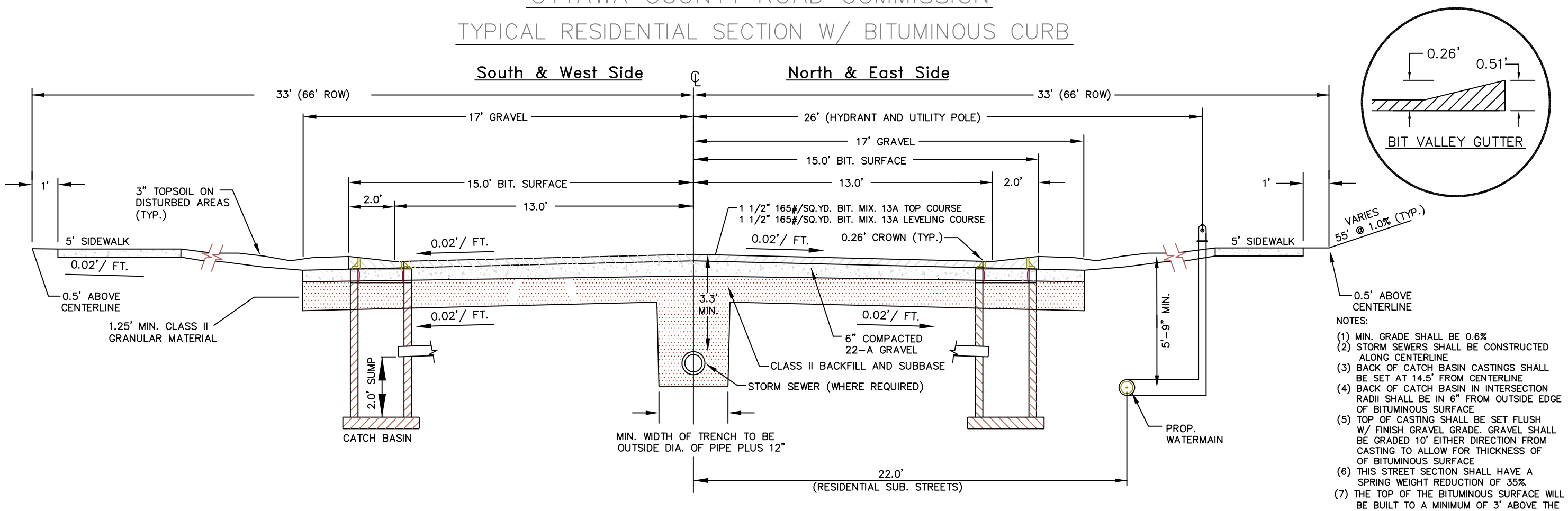
THE SE 1/4 OF THE NW 1/4 OF SECTION 14, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

Feenstra & Associates, Inc.
CIVIL ENGINEERS & SURVEYORS
7482 Main Street
Jenison, MI 49428
Phone: 616.457.7050
www.feenstrainc.com

File: Kennedy lake\ Street.dwg
Date: 03/16/2021

OTTAWA COUNTY ROAD COMMISSION

TYPICAL RESIDENTIAL SECTION W/ BITUMINOUS CURB



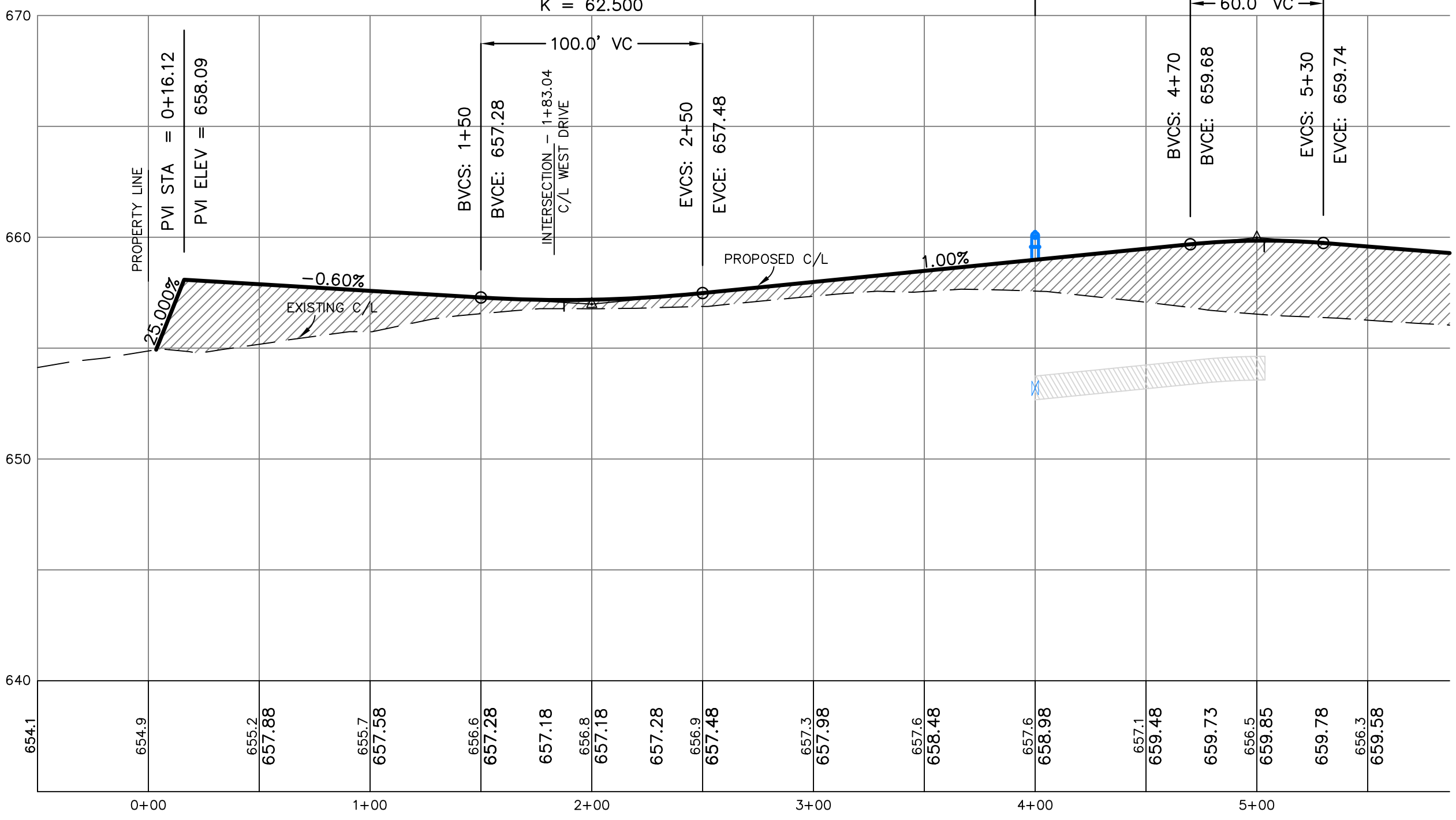
NOTES:

(1) MIN. GRADE SHALL BE 0.6%
(2) STORM SEWERS SHALL BE CONSTRUCTED ALONG CENTERLINE
(3) BACK OF CATCH BASIN CASTINGS SHALL BE SET AT 14.5' FROM CENTERLINE
(4) BACK OF CATCH BASIN IN INTERSECTION RADII SHALL BE IN 6" FROM OUTSIDE EDGE OF BITUMINOUS SURFACE
(5) TOP OF CASTING SHALL BE SET FLUSH W/ FINISH GRAVEL GRADE. GRAVEL SHALL BE GRADED 10' EITHER DIRECTION FROM CASTING TO ALLOW FOR THICKNESS OF OF BITUMINOUS SURFACE
(6) THIS STREET SECTION SHALL HAVE A SPRING WEIGHT REDUCTION OF 35%.
(7) THE TOP OF THE BITUMINOUS SURFACE WILL BE BUILT TO A MINIMUM OF 3' ABOVE THE HIGH WATER TABLE.

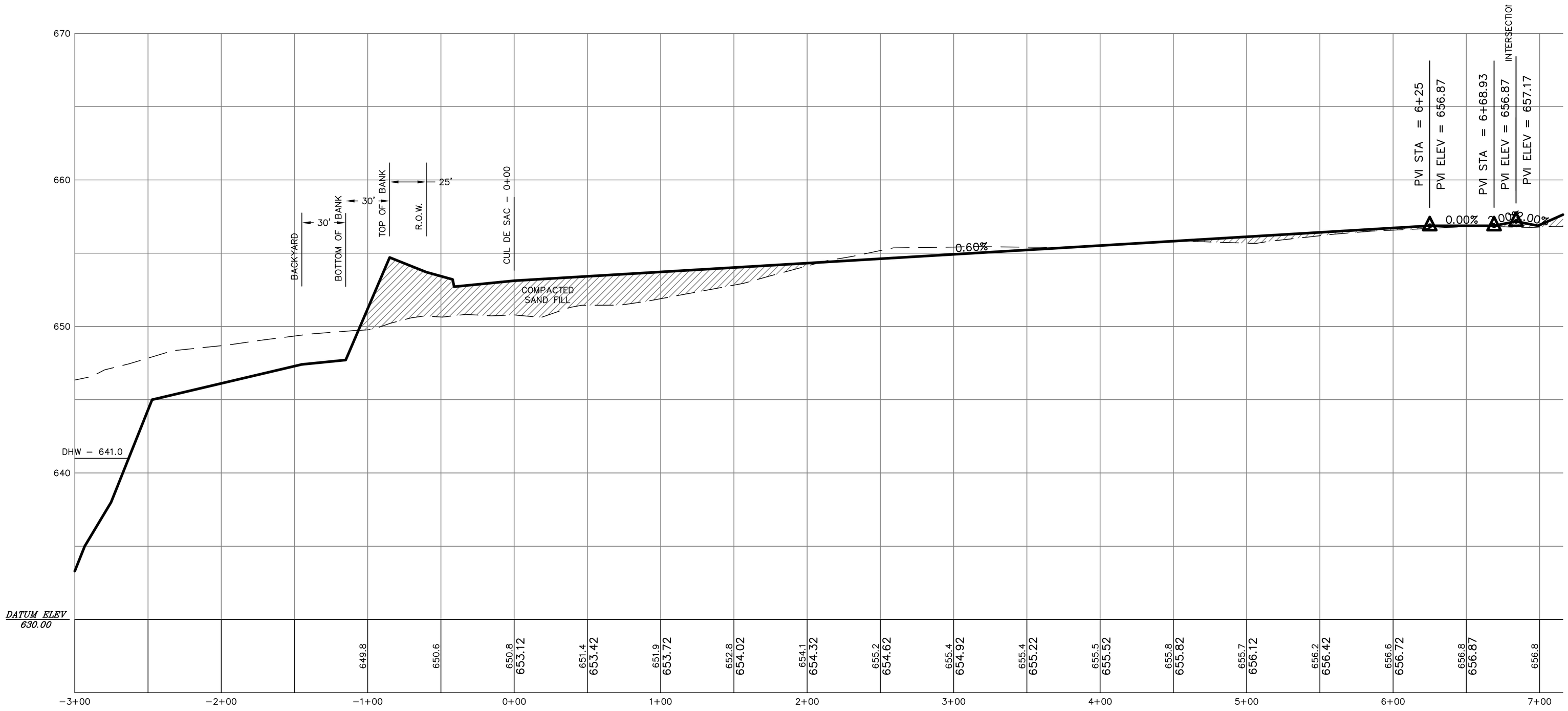
PHASE 2 | **PHASE 1**

LOW POINT ELEV = 657.17
LOW POINT STA = 1+87.50
PVI STA = 2+00
PVI ELEV = 656.98
A.D. = 1.600
K = 62.500

HIGH POINT ELEV = 659.85
HIGH POINT STA = 5+03.33
PVI STA = 5+00
PVI ELEV = 659.98
A.D. = −1.800
K = 33.333



MOLLI DRIVE



NORA COURT PROFILE

Fresh Coast Planning

950 Taylor Avenue, Ste 200
Grand Haven, MI 49417
www.freshcoastplanning.com

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greg@freshcoastplanning.com

Julie Lovelace
616-914-0922
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Sara Moring-Hilt
586-850-8784
sara@freshcoastplanning.com

Hillary Taylor, MUP, MUD
248-545-2906
hillary@freshcoastplanning.com

Brian Werschem
231-206-4821
bwerschem@gmail.com

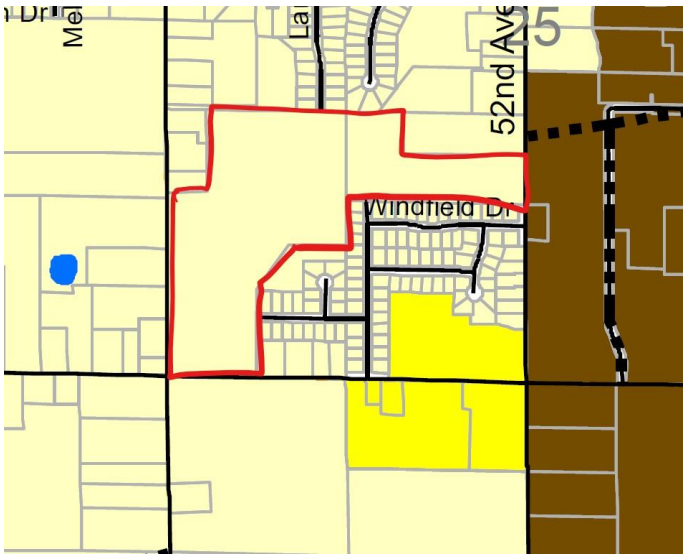
MEMORANDUM

To: Allendale Charter Township Planning Commission
From: Gregory L. Ransford, MPA
Date: June 2, 2021
Re: Draft Master Plan Map – Koster Inquiry – Moderate Density Residential

---

As you will recall, you finalized the Master Plan Map draft at your March 15, 2021 meeting. Subsequent to that meeting, the next step in the Master Plan Framework includes bundling all of the draft chapters, Master Plan Map, Appendix, and related maps into one complete document for your consideration. Following your March meeting and prior to bundling one complete document, Mr. Don De Groot inquired about a property owned by Mitch and Merwyn Koster and its potential inclusion within the Moderate Density Residential Classification. In particular, Mr. De Groot seeks to designate parcel numbers 70-09-25-300-060 and 70-09-25-300-050 within said Classification. Below is a snapshot of the subject properties outlined in red.

In addition, below is a snapshot of the draft Mater Plan Map of the same properties, also outlined in red. (Legend: Tan = LDR, Yellow = Medium Density Residential, Brown = HDR)



Attached is the subject properties as identified by the applicant in relationship to surrounding property densities. While we recommended and you agreed that densities should be removed from the Master Plan, as those are a function of the Zoning Ordinance, typically the density expectation within the Moderate Density Residential Classification is in between the Low Density Residential and Medium Density Residential Classifications. Currently, the Moderate Density Residential Classification is the equivalent of the R-2 Medium Density One and Two Family Residential Zoning District.

Additionally attached is a copy of the draft Master Plan Map as you created at your March 15, 2021 meeting. The Koster Inquiry is scheduled as an Old Business item within the Master Plan. We expect Mr. De Groot to be in attendance. If you have any questions, please let us know.

GLR
Planner

Attachments

cc: Adam Elenbaas, Supervisor

80 foot wide lots

possible future pond - amenity and source of fill for streets

Parcel owned by Valley United Methodist Church

80 foot wide lots

80 foot wide lots

MEADOW LAKE

DEWPOINTE EAST NO. 5

SPRINGFIELDS OF ALLENDALE

WINDFIELD DRIVE

52ND AVENUE

56TH AVENUE

SPRINGFIELD WEST

CAMFIELD

CAMFIELD DRIVE

CRESTFIELD LANE

RICHFIELD LANE

SW CORNER SECTION 25, T7N, R14W

PIERCE STREET

= UTILITY POLE & OVERHEAD WIRES

EXISTING CONTOURS AND PHOTO DERIVED FROM OTTAWA COUNTY GIS DATA DATED 2018.

0' 50' 100'

SCALE: 1" = 100'
2' CONTOUR INTERVAL

LAKE MICHIGAN DRIVE

45

SECTION 25

56TH AVENUE

52ND AVENUE

48TH AVENUE

SITE

PIERCE STREET

LOCATION MAP

BASEMAP – KOSTER EAST

10460 56TH AVENUE – PP#70-09-25-300-060

FOR: .
ATTN:
.
.

PART OF THE SW 1/4, SECTION 25, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

DATE	REVISION	BY
.	.	.

exxel engineering, inc.
planners · engineers · surveyors
5252 Clyde Park, S.W. • Grand Rapids, MI 49509
Phone: (616) 531-3660 www.exxelengineering.com

DRAWN BY: JDR	PROJ. ENG.: DDG	SHEET
APPROVED BY: DDG	PROJ. SURV.: .	1 of 1
FILE NO.: .	DATE: 09/24/2020	

P:\Projects\2020\20189\4\Drawings\20189\4-P.dwg, BASEMAP, 10/6/2020 2:53:04 PM, jnost

Allendale Charter Township
Future Land Use Map

DRAFT

Legend

- Future Streets

Classification

- Agriculture (AG)
- Rural Estate (RE)
- Low Density Residential (LDR)
- Moderate Density Residential (MOD)
- Medium Density Residential (MDR)
- High Density Residential (HDR)
- Office (O)
- General Commercial (GC)
- Service Commercial (SC)
- Industrial (I)

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Photography date: April 1999

GIS Department
12220 Fillmore Street, Suite 172
West Olive, Michigan 49460
Phone (616)-738-4600
Fax (616)-738-4604
www.gis.co.ottawa.mi.us

0 0.25 0.5 1 1.5 Miles

Allendale
CHARTER TOWNSHIP
"Where community is more than just a concept!"

Planning Commission

Site Plan Review Application

Submission Date: May 3, 2021

Application for Site Plan Review in conjunction with which of the following:

- ☒ Site Plan Review Only
- ☐ PUD Rezoning
- ☐ Special Use Application
- ☐ Other:_____

Property Owner:	Lighthouse Community Church		
Mailing Address:	7624 Lake Michigan Drive, Allendale, MI 49401		
Phone Number:	(616) 895-4349	Cell Phone:	
Email Address:		Fax:	
Owner's Signature:			

Applicant Name: (if not owner)	Lighthouse Community Church		
Mailing Address:	PO Box 130, Allendale, Michigan, 49401		
Phone Number:	(616)895-4349	Cell Phone:	(616)299-5750
Email Address:	cdemers@lighthouse-ministries.org	Fax:	(616)892-4349
Applicant's Signature:			

Who is the responsible party for future invoices? Check one:

X	Property Owner		Applicant

Architect, Engineer, Attorney or other professionals associated with the project (attach additional sheets if necessary):

Contact:	Nederveld, Inc. Attention: Steve Witte		
Mailing Address:	217 Grandville Avenue, SW; Suite 302; Grand Rapids, MI 49503		
Phone Number:	(616) 575-5190	Cell Phone:	(616) 292-5953
Email Address:	switte@nederveld.com	Fax:	(616) 575-6644

6676 Lake Michigan Drive | P.O. Box 539 | Allendale MI 49401
Phone: 616-895-6295 Fax: 616-895-6670 or 616-895-6330
www.allendale-twp.org

Address of Property:	7624 Lake Michigan Drive, Allendale, MI 49401				
Permanent Parcel Number:	70 - 09 - 28 - 100 - 003				
Legal Description of Property (or attach to the application):					
The Northeast 1/4 of the Northeast 1/4 of the Northwest 1/4 lying South of M-50, Section 28, Town 7 North, Range 14 West, Allendale Township, Ottawa County, Michigan.					
Lot Area:	+/-9.45 ac	Lot Depth:	+/- 666 ft	Lot Width:	+/- 669 ft
Current Zoning of Parcel:	AG	Current Use of Parcel:	Church		
Proposed Use of Parcel:	Will continue to be a church. This is a planned expansion of the use.				
Name of Proposed Development (if applicable):	Lighthouse Community Church - Phase 3				
Name of Proposed Buildings to be constructed:	Lighthouse Community Church - Phase 3				
Square feet of gross:	10,877 sf new	Square feet of usable floor area:	+/-8,700 sf		
Number of Permanent Employees (if applicable):	Approximately 5				

- Please include 6 sets of the proposed Site Plan and 1 electronic copy for staff review along with your application and escrow fee. (When ready for submission to the Planning Commission, smaller than typical plans are allowed when they can be easily interpreted and are to scale.)
- Please see Resolution 2011-2 for our full escrow fee policy. If you would like a copy of this policy it is available online or by request at the Township office.
- If your escrow is not kept up to date, according to our policy, the Township reserves the right to withhold approval of your project, issue a stop work order, or withhold final occupancy until the escrow balance is made current.

For Office Use Only

Date Received:			
Amount Paid:		Check No:	
Notes:			

ALLENDALE CHARTER TOWNSHIP
6676 Lake Michigan Drive | P.O. Box 539 | Allendale MI 49401
Phone: 616-895-6295 Fax: 616-895-6670 or 616-895-6330
www.allendale-twp.org

7624 Lake Michigan Drive

Parcel #70-09-28-100-003

Legal Description:

The Northeast 1/4 of the Northeast 1/4 of the Northwest 1/4 lying South of M-50, Section 28, Town 7 North, Range 14 West, Allendale Township, Ottawa County, Michigan.

ALLENDALE CHARTER TOWNSHIP

6676 Lake Michigan Dr. Allendale, MI 49401
Phone: 616-895-6295 Fax: 616-895-6330
www.allendale-twp.org

Planning Commission
Site Plan Review Checklist

- This checklist shall be completed and submitted as part of the submittal packet to the Planning Commission. This is the same checklist that will be used by staff and Planning Commissioners to verify that all requirements set forth in the zoning ordinance are met.

- Township staff reviews the plan for completeness with the site plan checklist. If complete the plan can be forwarded to the Planning Commission. If not, the applicant is notified and must revise the site plan to comply with the checklist.

- A site plan which is to be reviewed by the Planning Commission shall be submitted to the Township offices **no less than 31 days** before the next regularly scheduled Commission meeting.

- **Three separate plans are required:**
  1) **A site analysis plan**
  2) **A site plan**
  3) **A landscape plan**

  A checklist is provided for each plan on the following pages.

- Site plans shall be drawn at a scale of not more than 1"=20' if the site is less than two acres; 1"=40' if the site is less than six acres; and 1"=100' if the site is greater than six acres and shall contain the following information unless specifically waived by the Planning Commission.

- Either YES, NO or NA (Not Applicable) shall be marked next to each item. If NA is marked, please provide the reasoning for the NA notation.

- Before submitting a formal application for site plan review the applicant is encouraged to meet with the Township Planner or Zoning Administrator to review procedures and ask questions.

1. SITE ANALYSIS PLAN CHECKLIST

This is a separate site plan showing natural and man-made features and is used to determine how the existing features of a property will be changed by the proposed project.

❖

X	Small-scale sketch of properties, streets and zoned uses of land within one-quarter mile of the site, sufficient to illustrate the existing character and development in the area of the site
X	A sketch illustrating the location of the site within the Township
X	Existing buildings and structures
X	Current zoning of site and all abutting properties
X	Current use of site
X	Existing contour lines at two feet intervals on the subject property and to a distance of 50 feet outside the boundary lines of the site
X	Swales and existing drainage patterns
X	Existing strands of trees, tree lines and individual large trees.
X	Water bodies, streams, creeks and wetlands on the site and within 50' of subject property
X	Base flood elevation data (if applicable)

2. SITE PLAN CHECKLIST

See article 24 of Allendale Twp. Zoning Ordinance for actual language

❖

GENERAL INFORMATION

- X Name of development
- X Date on which the site plan was prepared
- X North arrow and scale
- X Architect, landscape architect, engineer, or professional surveyor who prepared the plan
  - X Name X Address X Professional seal

PROPERTY INFORMATION

- X Legal description based upon the most current survey
- X Small-scale sketch of properties, streets and zoned uses of land within one-quarter mile of the site, sufficient to illustrate the existing character and development in the area of the site
- X A sketch illustrating the location of the site within the Township
- X The size in acres and square feet of the subject property
- X Property line dimensions and bearings
- X Current zoning of site and all abutting properties
- X Location and use of existing structures within 100 feet of the boundary of the subject property
- X Proposed contour lines at not less than two feet intervals
- X Percentage of site covered by impervious surface

BUILDINGS AND USES

- X Location of existing and proposed buildings including: X Use X Length X Width X Height X Square Footage
- X Roof top equipment (Sec. 24.06.G.2)
- X Setback of buildings from all property lines
- X Architectural elevation drawings and exterior building materials (Sec. 24.06.J)

UTILITIES AND STORMWATER MANAGEMENT

Location, size and dimensions of the following:

- X Utility easements
- X Water lines
- X Sanitary sewer lines
- X Storm drainage lines
- X Ditches and swales
- X Retention and/or detention areas
- X Fire hydrants
- X Catch basins
- N.A. Septic tank and drain fields and water wells if applicable
- X Transformers and above ground utilities

VEHICLE CIRCULATION

Location, size and dimensions including width of the following:

N.A. Proposed streets
X Abutting streets
X Rights-of-way
X Service drives
X Driveways / curb cuts
X Curbs and gutters
X Access easements serving the site
X Driveways opposite the site and driveways and intersections within 100 feet on either side of the site
X Traffic control signs
N.A. Master Plan streets which may cross the property

PEDESTRIAN CIRCULATION (Sec. 24.06.C)

X Location, dimensions and surface type of all sidewalks, bike paths and other walkways
X Internal walkways through the parking lot (Sec. 24.06.C.3)

PARKING (Article 21)

X Number and dimensions of spaces and aisles
X Computations to show number of spaces required
X Distance to nearest property line
X Barrier free parking spaces and sidewalk ramps
X Type of parking area surface
X Curbs and gutters
N.A. Loading areas

LIGHTING (Article 24.06.E)

X Location of exterior lights including building lights
X Height
X Type of fixture

OTHER REQUIRED INFORMATION

X Waste disposal facilities (Sec. 24.06.H)
X Outdoor storage (Sec. 24.06.G)
X Signs (Article 22)
N.A. For residential developments (Sec. 24.05.D.17) summary schedules and views should be affixed as applicable in residential development, which gives the following data:
  - N.A. The net residential area which is the total size of the parcel minus any portion of the site within the road right-of-way expressed in acres and in square feet
  - N.A. The number of dwelling units proposed (by type) and the number of bedrooms for each type
  - N.A. Typical lot size dimensions if detached housing is contemplated
  - N.A. Typical elevation views of the front and side and rear of each type of building
  - N.A. Proposed density of the net residential site

X Proposed phasing

N.A. Location and specifications for any existing or proposed above or below ground storage facilities for any chemicals, salts, flammable materials, or hazardous materials as well as any containment structures or clear zones required by this Ordinance or by State or Federal Agencies.

N.A. The Planning Commission may require written statements relative to the effects on the existing traffic capacity of streets, and the proposed development's impact on public safety, existing utilities, the environment and natural features

N.A. The Planning Commission may request additional studies, graphics or other written materials from the applicant in order to assist in determining the appropriateness of the site plan

3. LANDSCAPING PLAN CHECKLIST

This is a separate plan illustrating proposed landscaping
See Articles 21A and Sec. 24.06.F of the Zoning Ordinance for actual language

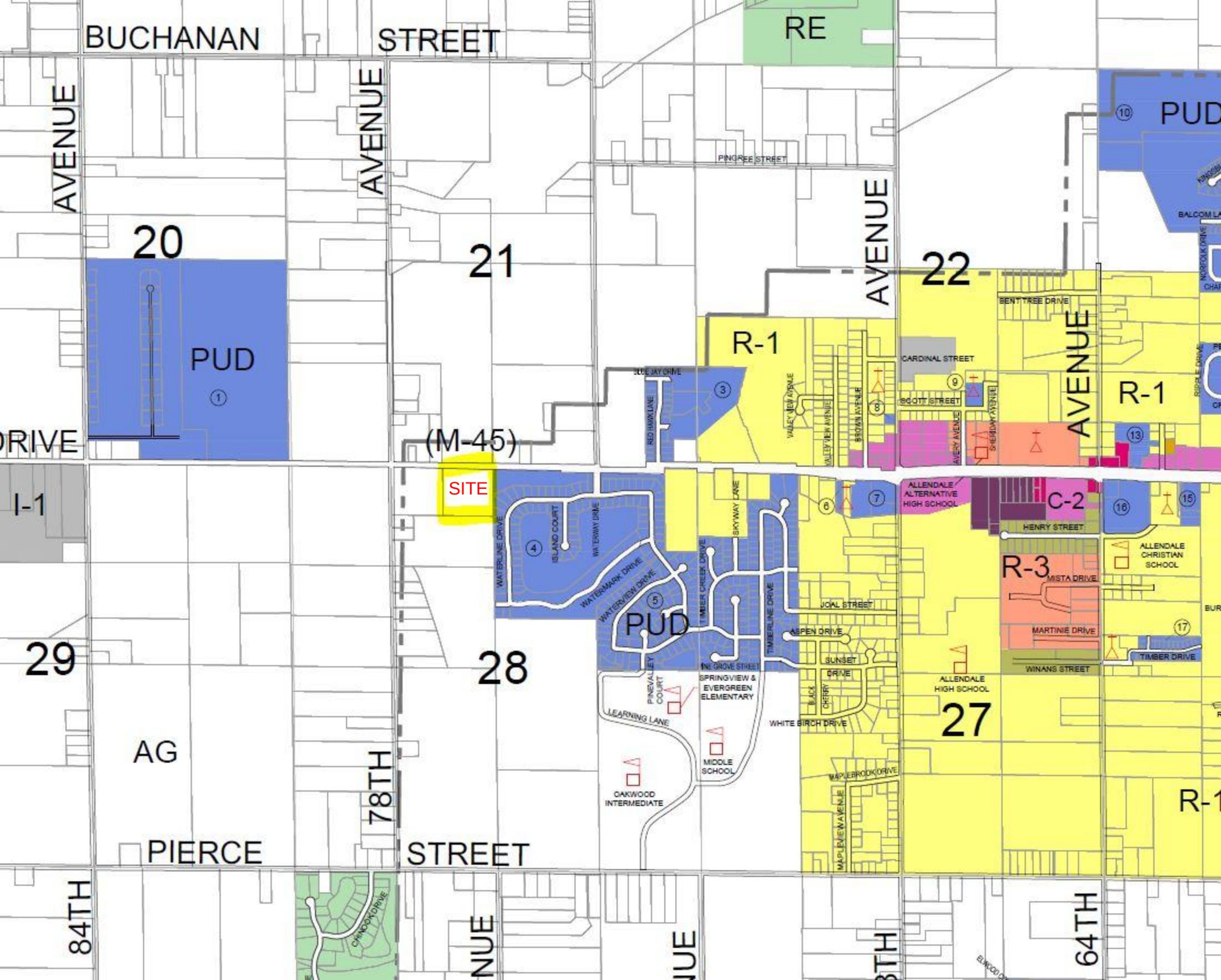
❖

- X Name, address and seal of landscape architect who prepared the plan
- X Number of plants, type, size, location and spacing for:
  - X greenbelts;
  - X front yard along all streets abutting property;
  - X Parking lots (Sec. 21A.04.G);
- X Computations for all required landscaping
- X Underground irrigation system (Sec. 21A.03.E)
- X Berms, walls and fences
- N.A. Landscaping for multi-family buildings see also Sec. 23.06.I
- N.A. Open space and common areas

Please note that the number of plantings required by the Ordinance may be modified (increased or decreased) by the Planning Commission based on the criteria below. If a reduction in the required landscaping is proposed please provide the reasons for this reduction on the landscaping plan relative to the criteria.

Modification of Required Landscaping. For existing and proposed uses that require site plan approval to either expand or be built, landscaping shall be installed insofar as practical. The Planning Commission in its review of the site plan has the authority to increase, decrease or otherwise modify the landscaping and screening requirements of this article. In doing so, the Commission shall consider the following criteria:

1. The amount of space on the site available for landscaping.
2. Existing landscaping on the site and on adjacent properties.
3. The type of use on the site and size of the development.
4. Existing and proposed adjacent land uses.
5. The effect the required landscaping would have on the operation of the existing or proposed land use.
6. Whether additional landscaping is necessary to mitigate the adverse effects of adjoining land uses, to reduce headlight glare, reduce noise and to otherwise achieve the objectives of this Section.


BUCHANAN STREET
AVENUE
AVENUE
AVENUE
AVENUE
RE
PINGREE STREET
20
21
22
PUD
R-1
R-1
CARDINAL STREET
BENT TREE DRIVE
SCOTT STREET
(M-45)
SITE
I-1
PUD
C-2
R-3
ALLENDALE ALTERNATIVE HIGH SCHOOL
HENRY STREET
ALLENDALE CHRISTIAN SCHOOL
MISTA DRIVE
MARTINIE DRIVE
WINANS STREET
TIMBER DRIVE
ALLENDALE HIGH SCHOOL
27
29
28
AG
78TH
PIERCE STREET
84TH
64TH
SPRINGVIEW & EVERGREEN ELEMENTARY
MIDDLE SCHOOL
OAKWOOD INTERMEDIATE
LEARNING LANE
WHITE BIRCH DRIVE
MAPLEBROOK DRIVE
JOAL STREET
ASPEN DRIVE
SUNSET DRIVE
PINE GROVE STREET
TIMBERLINE DRIVE
TIMBER CREEK DRIVE
SKYWAY LANE
WATERLINE DRIVE
ISLAND COURT
WATERWAY DRIVE
WATERMARK DRIVE
WATERVIEW DRIVE
BLUE JAY DRIVE
RED HAWK LANE
VALLEY VIEW AVENUE
BROWN AVENUE
AVERY AVENUE
SHERIDAN AVENUE
CHINOOK DRIVE

Land Use: 435
Multipurpose Recreational Facility

Description

A multipurpose recreational facility contains two or more of the following land uses combined at one site: miniature golf, batting cages, video arcade, bumper boats, go-carts, and golf driving range. Refreshment areas may also be provided. Golf course (Land Use 430), miniature golf course (Land Use 431), golf driving range (Land Use 432), batting cages (Land Use 433), rock climbing gym (Land Use 434), and trampoline park (Land Use 436) are related uses.

Additional Data

The sites were surveyed in the 1990s and the 2000s in Oregon.

Specialized Land Use Data

A survey conducted in Pennsylvania in 1998 was submitted for an indoor race track facility containing a go-cart racing track, arcade, laser tag, restaurant, and party function rooms. The trip generation rates for this facility differ considerably from those contained in this land use. The site gross floor area was 118,000 square feet. The counted vehicle trips were as follows:

- 235 on a weekday
- 28 during the weekday, AM peak hour of the generator
- 29 during the weekday, PM peak hour of the generator
- 20 during the weekday, PM peak hour of adjacent street traffic
- 277 on a Saturday
- 34 during the Saturday peak hour of the generator

Source Numbers

583, 611, 618

Multipurpose Recreational Facility
(435)

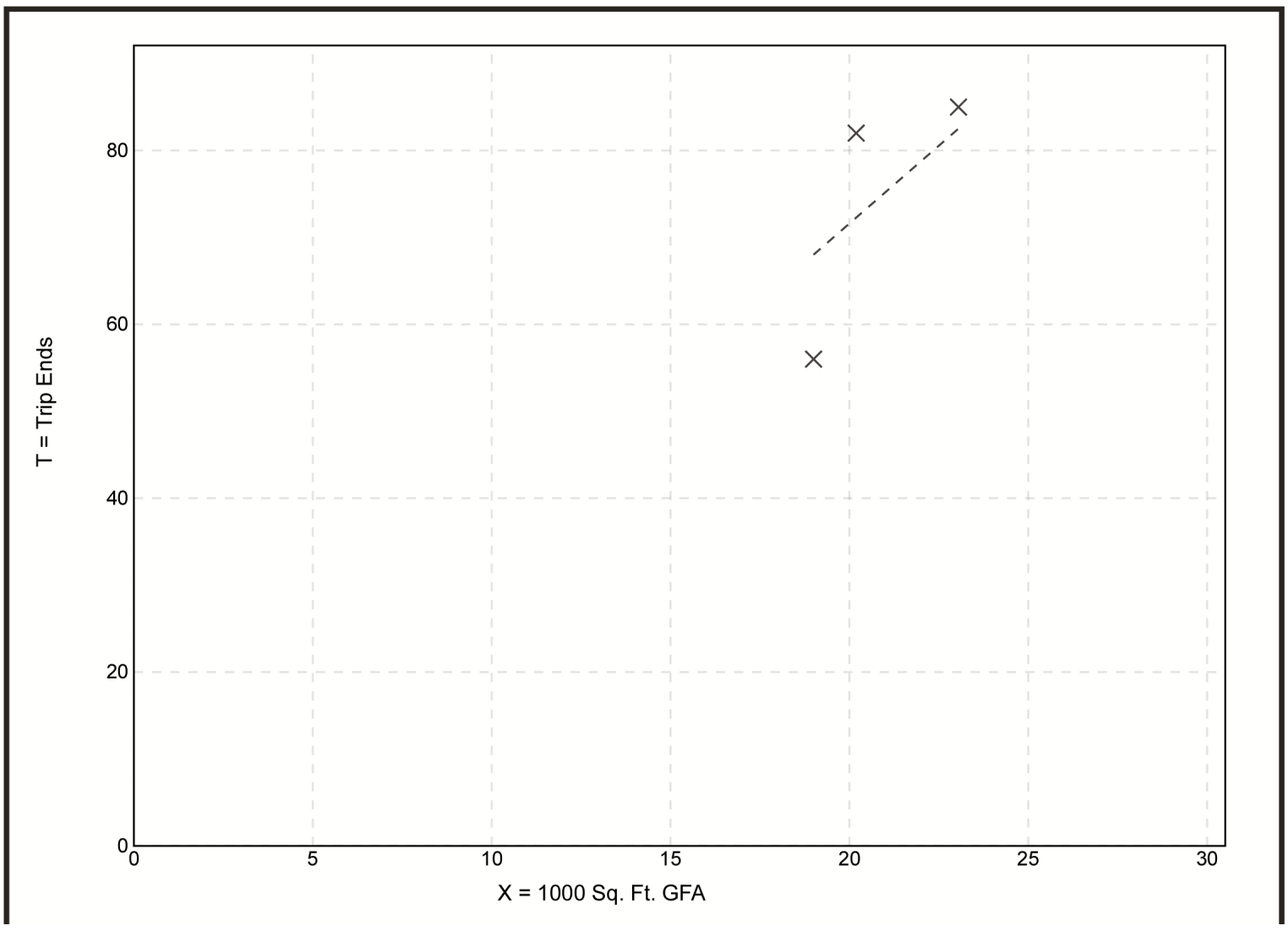
Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,** **Peak Hour of Adjacent Street Traffic,** **One Hour Between 4 and 6 p.m.**
Setting/Location:	**General Urban/Suburban**
Number of Studies:	3
1000 Sq. Ft. GFA:	21
Directional Distribution:	55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.58	2.95 - 4.06	4.40

Data Plot and Equation

Caution – Small Sample Size



NEDERVELD

Lighthouse Community Church

7624 Lake Michigan Drive

Allendale Township, Michigan

Trip Generation Analysis

The building and parking areas already exist for the church. The addition is simply the addition of a multi purpose room/gym. However, due to the township's requirement on an estimate of the traffic for the uses, the intent of this calculation is intended to just cover what a typical 'multipurpose facility' will be. This is not a 'good' match, but it is the closest use we could find that is not simply a church – which is based on seating capacity and which would not change with the proposed addition.

The above being said, per the Institute of Transportation Engineers Trip Generation Book, for 'Multipurpose Recreational Facility', there was very limited data available.

The average pm peak traffic is estimated to be 3.58 vehicles per hour per 1,000 sf. Therefore, the anticipated peak pm hour traffic would be as follows:

3.58 trips x 10,877 sf / 1,000 sf = **39 vehicle trips in pm peak hour**

Fresh Coast Planning

950 Taylor Avenue, Ste 200
Grand Haven, MI 49417
www.freshcoastplanning.com

Gregory L. Ransford, MPA
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greg@freshcoastplanning.com

Julie Lovelace
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Sara Moring-Hilt
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Hillary Taylor, MUP, MUD
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hillary@freshcoastplanning.com

Brian Werschem
231-206-4821
bwerschem@gmail.com

MEMORANDUM

To: Allendale Charter Township Planning Commission
From: Gregory L. Ransford, MPA
Date: June 3, 2021
Re: Lighthouse Community Church – Minor or Major Determination

---

Attached is a Site Plan Review application from Nederveld on behalf of Lighthouse Community Church to construct Phase 3 of their facility, which will mainly house the gymnasium, with a total of 10,877 square feet. The proposed addition will be attached to the existing sanctuary and offices for the church, located at 6261 Lake Michigan Drive, parcel number 70-09-28-100-003. The property is located in the Agricultural and Rural Zoning District. As you are aware, the applicant was approved to construct the offices, parking lot, landscaping and related infrastructure in 2015/2016. Most recently, in June of 2017, the Planning Commission authorized the construction of the sanctuary. The sanctuary was approved as a minor change.

For your convenience, attached is a copy of the most recent 2017 plan, which the applicant provided to show the difference between the original Phase 3 and the proposed Phase 3.

We have reviewed the application materials and offer the following findings and observations for your preliminary review. We have provided the same to the applicant with the intention that the plans would be updated, where applicable, prior to your review. Unfortunately, those revisions have not yet occurred. Nonetheless, we believe you are able to review the plans and conduct your analysis or a minor or major change.

Findings & Observations

- Gymnasium location and area – As you will note within the proposed site plan, Phase 3 is approximately half the square footage and has a greater setback from Lake Michigan Drive than the original plans.
- Front Yard Landscaping – Bushes were inadvertently removed from the plans along Lake Michigan Drive. In addition, ornamental trees must be added as a result of your text amendment to the Allendale Charter Township Zoning Ordinance (ACTZO) since their 2017 approval.
- Exterior lighting – We have requested specifications sheets from the applicant to verify illumination area
- Concrete Curbing – Similar to the front yard landscaping, the Township adopted requirements for concrete curbing within parking lots since the 2017 approval. The applicant seeks relief from this requirement pursuant to Section 24.11 – Expansion of Existing Use, Structure, or Building of the ACTZO, which we provide further below.
- Front Parking Lot – The parking lot adjacent to Lake Michigan Drive is not included as part of this application.

Minor vs. Major Change

Pursuant to Section 20.10 – Amendment to an Approved Special Land Use of the ACTZO, the Planning Commission shall determine if a proposed change or changes to a site plan are minor or major. In the event the Planning Commission determines the proposed is a minor amendment, only a final site plan review is necessary. In the event the Planning Commission determines the proposed is a major amendment, a public hearing is required along with the

final site plan review. For your convenience, below is a copy of Section 20.10, in part, which details examples of major changes

Section 20.10 – Amendment to an Approved Special Land Use

B. A major change is defined as a change in the conditions of approval or a change to the Special Land Use which would substantially alter the intensity of the use of the property so as to call into question compliance with the Special Land Use approval standards of Section 20.06 herein.

Examples of a major change may include but are not limited to a substantial increase in the hours of operation, a substantial expansion of the land area devoted to outdoor activity, a substantial increase in the number of items displayed or stored outdoors, an increase in the intensity of the use which would substantially increase traffic or a change in the conditions of approval which may result in a substantial adverse impact on nearby residents or property.

In addition, a major change would also include expanding the land area that was approved for the existing Special Land Use and expanding the building containing the use if such expansion would increase the intensity of the use.

<u>Section 24.11 – Expansion of Existing Use, Structure, or Building</u>

As aforementioned, Section 24.11 – Expansion of Existing Use, Structure, or Building of the ACTZO, outlines situations in which your review standards could be applied to existing sites and the criteria to grant deviation. Below is a copy of said Section for your convenience.

Sec. 24.11 EXPANSION OF EXISTING USE, STRUCTURE, OR BUILDING.

It is recognized that land uses, buildings, and structures are existing which do not conform to the current regulations of this Ordinance and as such do not achieve the intended purposes of this Ordinance. When these uses, buildings, and structures are proposed to be expanded, enlarged, or increased in intensity so that a site plan review is required per Section 24.02 herein, the following regulations shall apply:

A. The site development standards used in reviewing site plans shall be applied to existing uses, structures or buildings when they are affected by any expansions, enlargements or increases in intensity. These standards shall be applied if it is determined that as a result of such expansions, enlargements or increases in intensity, any of the following situations exist:

1. Existing stormwater drainage provisions on site are inadequate to protect nearby lakes, streams or creeks from runoff contaminants or to prevent drainage onto adjoining properties and do not substantially comply with the Ottawa County Stormwater Management Ordinance.
2. There is insufficient on-site parking to satisfy current Zoning Ordinance requirements and/or a hard surface parking area is needed to reduce dust, and to reduce gravel and soil runoff into the public stormwater drainage system.
3. Existing driveways may result in hazardous vehicle movements.
4. Additional plantings are needed in order to comply with the intent of Allendale Township landscape regulations or to replace trees and shrubs previously removed, or screening is needed in the form of fencing or landscaping to provide a buffer between uses, particularly to screen materials stored outside.

5. Access to adjoining properties is inadequate and can be improved by way of parking lot connections or installation of service drives to improve traffic circulation and reduce the number of turning movements onto the public street system.
6. Safety for pedestrians can be improved and better emergency vehicle access can be provided.
7. Better lighting conditions are needed to reduce or eliminate nuisance lighting situations for drivers and nearby properties.
8. Screening of dumpsters is needed to improve the appearance of a site and reduce the likelihood of windblown trash.
9. Sidewalks are needed to improve pedestrian safety.

B. In determining how to apply the site plan review standards to address the above deficiencies found on a site, the Planning Commission shall be guided by the following criteria:

1. Whether compliance would ensue safer on site conditions, protect the natural environment, improve traffic circulation, achieve compatibility with adjacent land uses, promote the use of the land in a socially and economically desirable manner and generally accomplish the purposes of site plan review as described in this Section.
2. The practicality of requiring complete compliance with the applicable regulations of this Ordinance based on the existing design, layout, and operation of the existing use and size of the site or if only partial compliance would be more practical.
3. Whether or not requiring compliance would have a negative impact on the character, safety and welfare of the neighborhood or surrounding area.

Department Reviews

All Township Departments are generally satisfied with the proposed plans.

Final Plan Review

As you know, we will provide a more detailed review in accordance with your site plan content and procedures requirements, standards for site plan approval, and special use standards. Further, in the event the Planning Commission determines the proposed is a major amendment, we will schedule the public hearing at your direction.

The application has been scheduled for review at your June 7, 2021 meeting. We expect the applicant to be in attendance. If you have any questions, please let us know.

GLR
Planner

Attachments

cc: Adam Elenbaas, Supervisor
Steve Witte, Nederveld

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

May 24, 2021

Gregory L. Ransford, MPA
523 Slayton Avenue
Grand Haven, Michigan 49417

RE: Lighthouse Community Church - Phase 3

Dear Mr. Ransford:

We have received and reviewed the plan submittal for the proposed Lighthouse Community Church – Phase 3. The following sheets from Nederveld were received and reviewed, all dated May 3rd, 2021:

- C-201 Existing Conditions and Demolition Plan
- C-205 Site Layout Plan
- C-300 Utility, Grading, SESC Plan
- L-201 Landscape Plan

In addition to the above, Sheet 1 (floor plan) and Sheet 2 (elevations) and renderings from The Architectural group, Inc. dated 05/03/21 were also received and reviewed. The following comments are made for your consideration:

C-300 Utility, Grading, and SESC Plan:

- Perforated SLCPP with sock is not a standard storm pipe material. Refer to ACT's standard construction requirements for approved pipe materials.
- Specify if storm drain will be extended around the proposed addition and where it will be located. "Extend storm sewer around building as necessary to pick up downspouts" is not clear.

Trip Generation Analysis

The applicant provided a trip generation analysis for the proposed multi-purpose room. The applicant used ITE Land Use Code (LUC) 435-Multi-Purpose Recreational Facility. This land use is characterized by ITE as a, " facility contains two or more of the following land uses combined at one site: miniature golf, batting cages, video arcade, bumper boats, go-carts, and golf driving range." Therefore, a more accurate land use code for the proposed facility is LUC 495-Recreational Community Center, which is a stand-alone public facility similar to and including YMCAs. The projected trip generation is summarized below and shows that the projected traffic volumes are below thresholds for further evaluation.

Land Use	ITE Code	Size	Unit	Weekday Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					In	Out	Total	In	Out	Total
Recreational Community Center	495	10,877	SF	317	13	6	19	12	13	25

Summary

The following items should be addressed by applicant:

- Provide photometric map from the added wall mounted light fixtures.

2960 Lucerne Drive SE
Grand Rapids, MI 49546
P: 616.977.1000
F: 616.977.1005
www.fveng.com

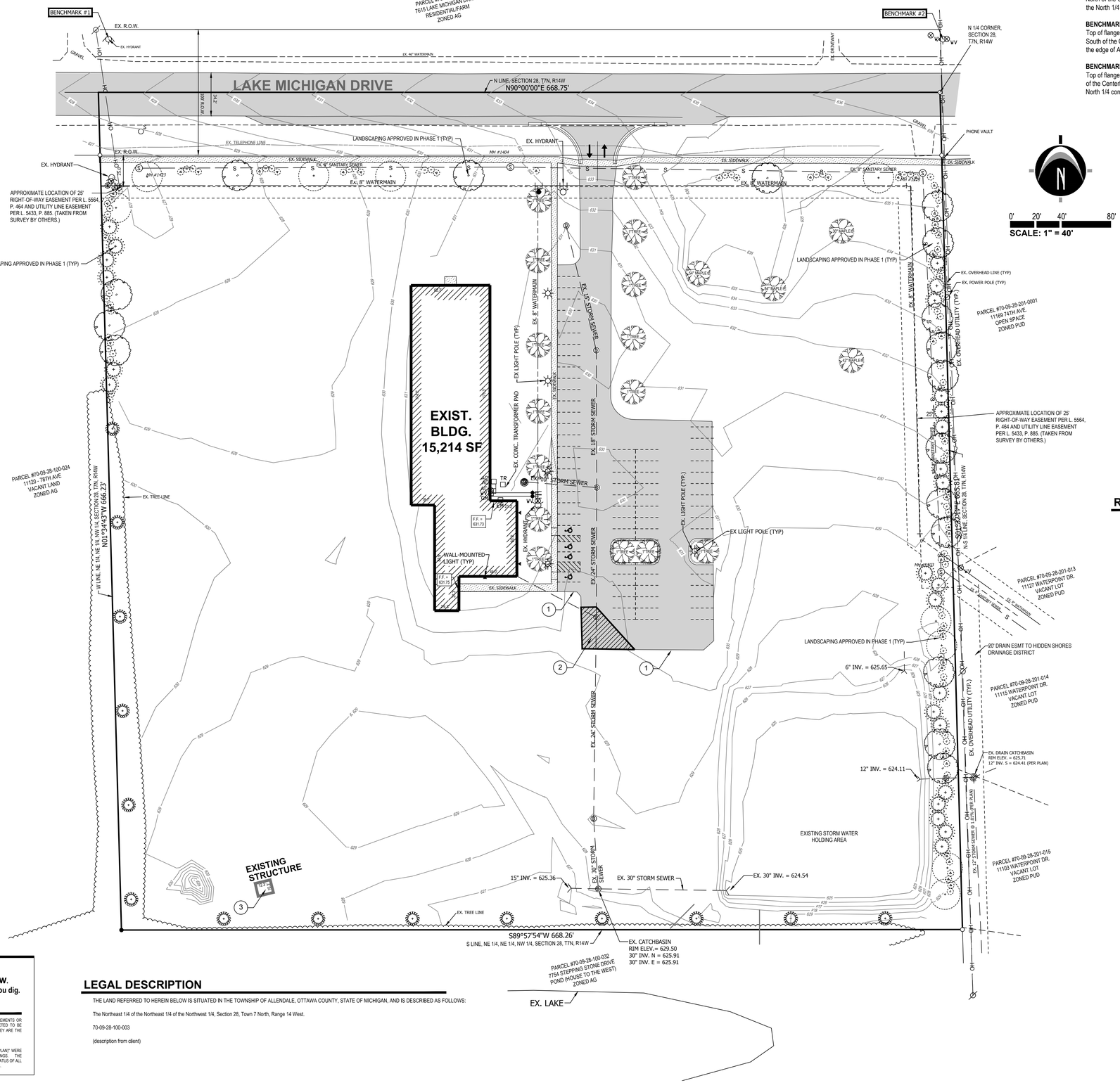
Should you have any questions or require clarifications, please advise. Thank you.

FLEIS & VANDENBRINK

Bruce Pindzia, P.E.
Sr. Project Engineer

Kyle Sutton
Municipal EIT

cc:



BENCHMARKS

BENCHMARK # 103 ELEV. = 636.78 (NAVD88)
Top of flange bolt under "E" in "East" on hydrant. Located 45'± North of the Centerline of Lake Michigan Drive & 4'± East of the North 1/4 corner of Section 28.

BENCHMARK # 110 ELEV. = 632.27 (NAVD88)
Top of flange bolt under "USA" on hydrant. Located 328'± South of the Centerline of Lake Michigan Drive & 16'± West of the edge of Asphalt of 7624 Lake Michigan Drive Parking Lot.

BENCHMARK # 1034 ELEV. = 628.38 (NAVD88)
Top of flange bolt under "USA" on hydrant. Located 43'± North of the Centerline of Lake Michigan Drive & 659'± West of the North 1/4 corner of Section 28.

LOCATION MAP
NOT TO SCALE

EXISTING CONDITION / DEMOLITION NOTES

1. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AT LEAST THREE WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS. THERE ARE EXISTING UNDERGROUND UTILITIES WHICH CROSS THE WORK AREAS. ALTHOUGH THEIR EXACT LOCATION CANNOT BE DETERMINED, IT IS KNOWN THESE UTILITIES ARE LOCATED WHERE DIGGING IS REQUIRED. THE CONTRACTOR SHALL CONDUCT THE REQUIRED EXCAVATION IN THESE AREAS WITH EXTREME CAUTION.
2. ALL EXISTING UTILITY INFORMATION SHOWN IS TAKEN FROM EXISTING RECORDS, AND FIELD VERIFIED WHERE ACCESSIBLE ONLY. INFORMATION OBTAINED FROM EXISTING RECORDS MAY NOT BE COMPLETE OR ACCURATE. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION AND CONDITION.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND SITE WORK.
4. ALL EXISTING UTILITIES, SEWERS AND WATER LINES ARE TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES, MUNICIPALITIES AND AGENCIES BEFORE COMMENCING ANY WORK.
5. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING POLES, OVERHEAD WIRES, UNDERGROUND UTILITIES, GUY WIRES, GAS LINES, ETC. ALL ADJUSTMENT OR RECONSTRUCTION WORK, EXCEPT FOR THOSE STRUCTURES OTHERWISE NOTED ON THE PLANS, SHALL BE PERFORMED BY THE CONTRACTOR. EXISTING APPURTENANCES SUCH AS UTILITY POLES AND VALVES BOX SHALL NOT BE DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.
7. ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY THE OWNER OR THEIR REPRESENTATIVES.
8. THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST TO ANYONE ELSE, INCLUDING THE TOWNSHIP OR OWNER.
9. ALL TREES WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.

REMOVAL / DEMOLITION NOTES

1. SAWCUT, REMOVE, REPLACE EXISTING EDGE OF PAVEMENT AS NECESSARY TO PROVIDE SMOOTH TRANSITION BETWEEN EX. AND NEW ASPHALT (TYP)
2. SAWCUT, REMOVE, REGRADE AND REPLACE EXISTING PAVEMENT AS NECESSARY TO PROVIDE MINIMUM 1.2% SLOPE TO THE NORTH TO THE EXISTING CATCHBASIN
3. REMOVE EXISTING STRUCTURE
4.
5.

EXISTING STRUCTURE TABLE

MH #1375 (SANITARY) RIM ELEVATION = 635.05 8" PVC (W) INV= 613.20 8" PVC (S) INV= 613.10	MH #1423 (SANITARY) RIM ELEVATION = 627.19 8" PVC (W) INV= 615.93 8" PVC (E) INV= 616.07
MH #1404 (SANITARY) RIM ELEVATION = 631.40 8" PVC (W) INV= 614.81 8" PVC (E) INV= 614.61	MH #1503 (SANITARY) RIM ELEVATION = 629.99 8" PVC (N) INV= 611.92 8" PVC (SSE) INV= 611.88

LEGEND

Catch Basin	Post
Culvert	Sign
Sanitary Sewer Manhole	Flag
AC Unit	Water Valve
Guy Wire	Water Well
Guy Pole	Hydrant
Electric Meter	Found Iron Stake
Light Pole	Set Iron Stake
Utility Pole	Overhead Utility Line
Miss Dig Flag - Phone	Ditch Line
Phone Riser	Sanitary Sewer Line
Coniferous Tree	Concrete
Deciduous Tree	Asphalt

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE TOWNSHIP OF ALLENDALE, OTTAWA COUNTY, STATE OF MICHIGAN, AND IS DESCRIBED AS FOLLOWS:

The Northeast 1/4 of the Northeast 1/4 of the Northwest 1/4, Section 28, Town 7 North, Range 14 West.

70-09-28-100-003

(description from client)

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

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

NOTE:
EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "(PLAN)" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

NEDERVELD
www.nederveld.com
800.222.1868
GRAND RAPIDS
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
Phone: 616.575.5190
ANN ARBOR
CHICAGO
COLUMBUS
HOLLAND
INDIANAPOLIS
ST. LOUIS

PREPARED FOR:
The Architectural Group
Attn: Tim VandeZande

3100 Prairie Street, SW
Grandville, MI 49418
Phone: 616.531.7040

REVISIONS:

Title: Site Plan Submittal		V. Date: 05/19/17
Drawn: SW	Checked: SW	S. Date: 05/19/17
Title: Site Plan Resubmittal		V. Date: 06/09/17
Drawn: SW	Checked: SW	S. Date: 06/09/17
Title: Site Plan Resubmittal		V. Date: 07/10/17
Drawn: SW	Checked: SW	S. Date: 07/10/17
Title: Site Plan Resubmittal		V. Date: 09/08/17
Drawn: SW	Checked: SW	S. Date: 09/08/17
Title: Bids and Construction		V. Date: 09/27/17
Drawn: SW	Checked: SW	S. Date: 09/27/17

LIGHTHOUSE COMMUNITY CHURCH

Existing Conditions & Demolition Plan

7624 Lake Michigan Drive
PART OF THE NW 1/4 OF SECTION 28, T7N, R14W,
ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

STAMP:
STATE OF MICHIGAN
STEVEN L. WITTE
ENGINEER
No. 46769
LICENSED PROFESSIONAL ENGINEER

PROJECT NO: 17200131

SHEET NO: C-201

SHEET: 1 OF 4

17200131CP1.dwg WS 9/28/2017 14:49

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

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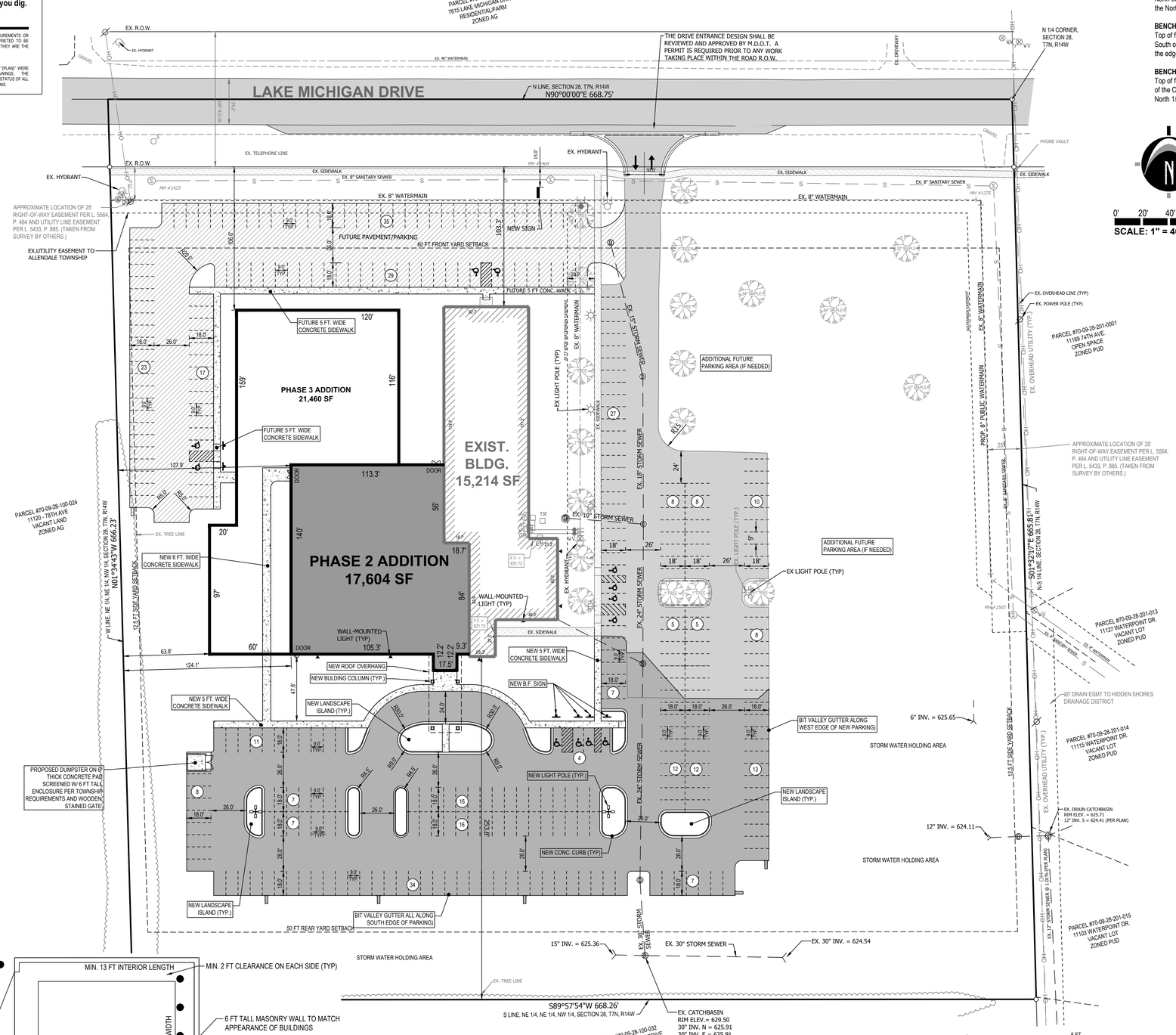

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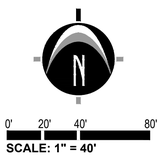


GENERAL NOTES

1) ZONING OF PROPERTY: AG - AGRICULTURAL AND RURAL DISTRICT
AG ZONING REQUIREMENTS
MINIMUM LOT AREA = 2 ACRES (FOR CHURCH)
MINIMUM LOT WIDTH = 200 FT
MAXIMUM BUILDING HEIGHT = 30 FT
MAXIMUM BUILDING LOT COVERAGE = NOT APPLICABLE
MINIMUM ALLOWED BUILDING SETBACKS:
FRONT YARD = 60 FT
SIDE YARD = 10 FT MINIMUM (25 FT TOTAL BOTH SIDES)
REAR YARD = 50 FT

2) SUMMARY OF LAND USE:
A) TOTAL ACREAGE = APPROXIMATELY 9.45 ACRES (411,678 SF) (EXCLUDING R.O.W.)
B) AREA OF EXISTING BUILDING = APPROXIMATELY 15,214 SF
C) AREA OF PROPOSED BUILDING ADDITION = APPROXIMATELY 17,435 SF
D) AREA OF FUTURE BUILDING ADDITION = APPROXIMATELY 21,460 SF
E) BUILDING HEIGHT APPROX. 30 FT
F) LOT COVERAGE = APPROXIMATELY 13.1% (54,109 SF TOTAL BUILDING)
G) EXISTING GROSS PAVEMENT AND CONCRETE AREA = APPROX. 34,480 SF
NEW GROSS PAVEMENT AND CONCRETE AREA = APPROX. 54,480 SF
FUTURE GROSS PAVEMENT AND CONCRETE AREA = APPROX. 33,860 SF
H) TOTAL HARD SURFACE AFTER ALL PHASES = APPROX. 176,929 SF (43.0%)
I) ZONING OF PARCELS TO THE NORTH, SOUTH, AND WEST = AG
ZONING OF PARCELS TO THE EAST = P.U.D.

3) PARKING REQUIREMENTS:
A) MINIMUM REQUIRED PARKING SPACE PER TOWNSHIP 9' x 18' (26 FT TWO-WAY AISLES)
B) TYPICAL BARRIER FREE SPACE = 8' x 18' (WITH 8 FT WIDE VAN ACCESSIBLE AISLE)
C) NUMBER OF SPACES REQUIRED = 180 (BASED ON 1 PER 4 SEATS)(APPROX. 720 SEATS)
D) NUMBER OF SPACES PROVIDED = 225 (71 EXISTING; 154 NEW)(DOES NOT INCLUDE 104 FUTURE)
E) A MAXIMUM OF 2 ROWS OF PARKING IS PERMITTED IN FRONT OF THE BUILDING.
F) PARKING SETBACKS:
ABUTTING RESIDENTIAL ZONE/USE = 30 FT SETBACK (15 FT GREENBELT)

4) THIS PROJECT IS NOT LOCATED IN THE 100 YEAR FLOOD PLAIN, BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAPS

5) BEST MANAGEMENT PRACTICES WILL BE UTILIZED DURING AND AFTER CONSTRUCTION OF THE PROJECT. MEASURES WILL INCLUDE THE USE OF SEEDING AND MULCHING, SEDIMENT INLET FILTERS, COMPACTION AND PAVING. THE OWNER OF THE SUBJECT PARCEL SHALL HAVE THE RESPONSIBILITY TO MAINTAIN THE PERMANENT SOIL EROSION PROTECTION MEASURES.

6) UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

7) THE PREVIOUSLY SHOWN/APPROVED SIGN IS PROPOSED TO BE CONSTRUCTED. THE LOCATION/DESIGN OF THE SIGN REVIEWED AND APPROVED BY THE TOWNSHIP DEPARTMENT OF PUBLIC WORKS TO ENSURE PROTECTION THE INTEGRITY OF THE EXISTING UTILITY SYSTEMS. WRITTEN CONFORMATION/ACCEPTANCE OF THE DPW IS REQUIRED PRIOR TO SIGN CONSTRUCTION.
FUTURE SIGNS SHALL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATIONS OF ARTICLE 22 OF THE ALLENDALE TOWNSHIP ZONING ORDINANCE.
GROUND OR PYLON SIGN:
MAXIMUM SIZE = 50 SF
MAXIMUM HEIGHT = 10 FT
MINIMUM SETBACK FROM ROAD R.O.W. = 10 FT IF GROUND SIGN; 15 IF PYLON SIGN
WALL SIGN:
MAXIMUM SIZE = 50 SF

8) ALL LIGHTING SHALL BE SHIELDED FROM ALL ADJACENT PROPERTIES AND SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE ALLENDALE TOWNSHIP ZONING ORDINANCE. PROPOSED LIGHTING SHALL CONSIST OF WALL-MOUNTED LIGHTS AND LIGHT POLES, BOTH FITTED WITH SHOEBOX TYPE FIXTURES.
THE MAXIMUM FIXTURE HEIGHT SHALL BE 20 FT ABOVE GRADEL.

9) THERE IS CURRENTLY A HOUSE AND POLE BUILDING ON THE PARCEL. THE EXISTING POLE BUILDING WILL BE DEMOLISHED AS PART OF THIS PROJECT. THE EXISTING HOUSE WILL BE DEMOLISHED IN PHASE 2, PER PLANNING COMMISSION APPROVAL.

10) THE STORM WATER GENERATED FROM THE SITE WILL BE COLLECTED AND DETAINED PER OTTAWA COUNTY STANDARDS AND SPECIFICATIONS.

11) THE SITE SOIL IS PRIMARILY LACOTA SILT LOAM AND GLADWIN SANDY LOAM ACCORDING TO THE SOIL SURVEY MAP.

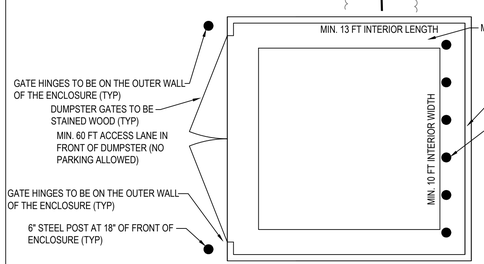
12) THE PROJECT WILL BE CONSTRUCTED IN PHASES AS SHOWN ON THE SITE PLAN. THE CURRENT PHASE WILL COMMENCE IN THE SUMMER OF 2017, PENDING PERMITS AND APPROVALS. THE FUTURE PHASE WILL BE CONSTRUCTED BASED ON DEMAND.

13) THE PROPOSED ADDITION WILL OBTAIN ITS SANITARY SEWER AND WATER SERVICES FROM THE EXISTING SERVICES TO THE EXISTING BUILDING.

14) LANDSCAPING SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE ALLENDALE TOWNSHIP ZONING ORDINANCE AND SHALL BE WHAT IS SHOWN ON THE LANDSCAPE PLAN.

15) THE PERMANENT PARCEL NUMBER FOR THE SITE IS 70-09-28-100-003. THE ADDRESS OF THE PROPERTY IS 7624 LAKE MICHIGAN DRIVE.

16) ROOFTOP UNITS WILL BE PRESENT ON THE BUILDING, BUT THE UNITS WILL BE SCREENED PER TOWNSHIP REQUIREMENTS AND APPROVED BY STAFF (PER PC APPROVAL).



TYPICAL DUMPSTER DETAIL
N.T.S.

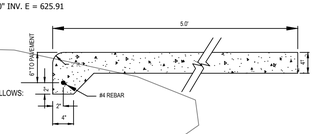
LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE TOWNSHIP OF ALLENDALE, OTTAWA COUNTY, STATE OF MICHIGAN, AND IS DESCRIBED AS FOLLOWS:

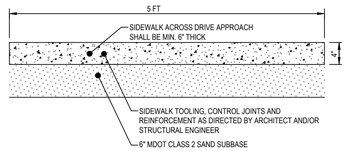
The Northeast 1/4 of the Northeast 1/4 of the Northwest 1/4, Section 28, Town 7 North, Range 14 West.

70-09-28-100-003

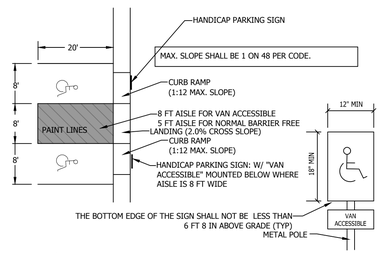
(description from client)



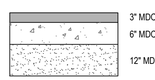
COMBINATION CURB AND WALK
N.T.S.



SIDEWALK DETAIL
N.T.S.



TYPICAL BARRIER FREE ACCESSIBLE PARKING SPACES
N.T.S.



3" MDOT BIT. PAVING (TWO COURSES)
6" MDOT CLASS 22A GRAVEL BASE
12" MDOT CLASS 2 SAND SUBBASE

NOTE: REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT DESIGN SPECIFICATION

REGULAR DUTY PAVEMENT CROSS SECTION
N.T.S.

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800.222.1868
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Grand Rapids, MI 49503
Phone: 616.575.5190
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ST. LOUIS

PREPARED FOR:
The Architectural Group
Attn: Tim VandeZande

3100 Prairie Street, SW
Grandville, MI 49418
Phone: 616.531.7040

REVISIONS:

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LIGHTHOUSE COMMUNITY CHURCH

Site Plan

7624 Lake Michigan Drive

PART OF THE NW 1/4 OF SECTION 28, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

STAMP:

STATE OF MICHIGAN
STEVEN L. WITTE
ENGINEER
No. 46769
LICENSED PROFESSIONAL ENGINEER

PROJECT NO: 17200131

SHEET NO: C-205

SHEET: 2 OF 4

17200131-CP1.dwg WS 9/28/2017 14:49

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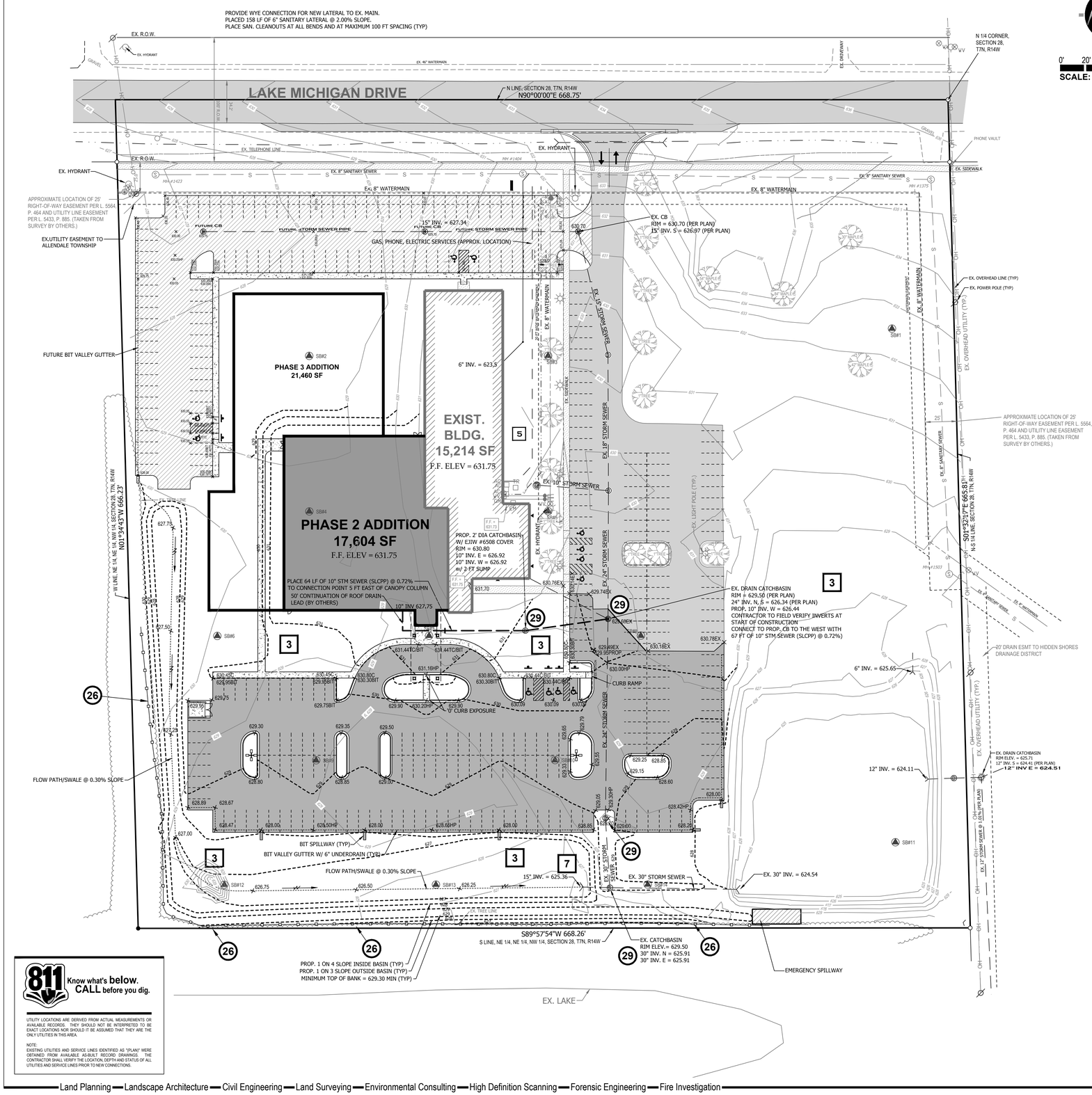

SCALE: 1" = 40'

BENCHMARKS

BENCHMARK # 103 ELEV. = 636.78 (NAVD88)
Top of flange bolt under "E" in "East" on hydrant. Located 45'± North of the Centerline of Lake Michigan Drive & 4'± East of the North 1/4 corner of Section 28.

BENCHMARK # 110 ELEV. = 632.27 (NAVD88)
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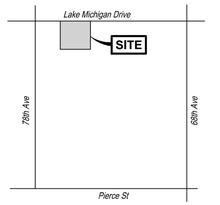
BENCHMARK # 1034 ELEV. = 628.38 (NAVD88)
Top of flange bolt under "USA" on hydrant. Located 43'± North of the Centerline of Lake Michigan Drive & 659'± West of the North 1/4 corner of Section 28.



LOCATION MAP

NOT TO SCALE

CONSTRUCTION STAKING AND LAYOUT SHALL BE PERFORMED BY NEDERVELD, INC.

LEGEND

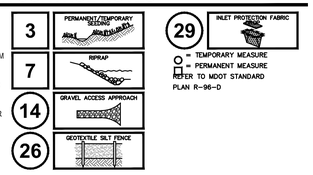
- EX. GRADE CONTOUR
- PROP. GRADE CONTOUR
- PROP. GRADE ELEV. (BLACKTOP)
- PROP. GRADE ELEV. (CONCRETE)
- PROP. GRADE ELEV. (GUTTER)
- PROP. GRADE ELEV. (HIGH POINT)
- EXISTING BITUMINOUS
- PROPOSED BITUMINOUS
- PROPOSED CONCRETE

STORM SEWER CONSTRUCTION

1. ALL CATCH BASINS SHOULD BE PROVIDED WITH A MINIMUM 2' SUMP.
2. ALL STORM SEWER SHALL BE SLCPP (MEETING AASHTO M252 AND M294) UNLESS OTHERWISE SPECIFIED.
3. 6" UNDERDRAIN SHALL BE PERFORATED PIPE WITH SOCK, MEETING THE REQUIREMENTS OF AASHTO M-252 AND THE GEOTEXTILE SHALL MEET AASHTO M-288 REQUIREMENTS

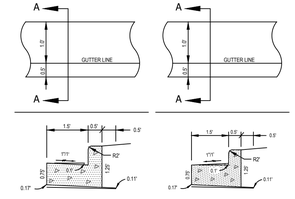
SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1) CONTRACTOR SHALL POSSESS THE SOIL EROSION AND SEDIMENTATION CONTROL PERMIT PRIOR TO START OF ANY EARTH WORK.
2) CONTRACTOR SHALL MODIFY THIS SOIL EROSION AND SEDIMENTATION CONTROL PLAN TO SHOW THE ADDITIONAL CONTROL MEASURES INTENDED TO BE USED DURING CONSTRUCTION. SUBMIT MODIFICATIONS TO THE CONTROLLING AGENCY, THE OWNER, AND THE ENGINEER.
3) EROSION PROTECTION SHALL BE PROVIDED AT ALL STORM SEWER INLETS AND OUTLETS. ALL BARE EARTH SHALL BE STABILIZED WITH SEEDING.
4) REFER TO THE M.D.O.T. "SOIL EROSION AND SEDIMENTATION CONTROL MANUAL" (APRIL 2006) FOR ADDITIONAL INFORMATION
5) THE ENTIRE STORM SEWER SYSTEM SHALL BE CLEANED AND FLUSHED FOLLOWING CONSTRUCTION AND PAID RECEIPT THEREOF PROVIDED TO THE ENGINEER AND COUNTY SESC AGENT PRIOR TO FINAL PAYMENT TO THE CONTRACTOR OR FINAL ACCEPTANCE OF THE CONSTRUCTION BY THE OWNER.



SOIL EROSION CONTROL SCHEDULE

SOIL EROSION CONTROL SCHEDULE	2017									2018		
	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
PLACE SILT FENCE												
STRIP & STOCKPILE TOPSOIL												
CONSTRUCT CONNECTION TO STORM SEWER												
ROUGH GRADE SITE												
CONSTRUCT BUILDING FOUNDATION AND BUILDING												
CONSTRUCT IMPROVEMENTS AROUND BUILDING												
CONSTRUCT UTILITY LINES TO BUILDING												
FINISH GRADE SITE												
PAVE SITE												
RESPREAD TOPSOIL/COMPACTION												
SEED DISTURBED AREAS												
SITE RESTORATION/CLEAN UP												



24" CONCRETE CURB AND GUTTER DETAIL (FLOW CURB)

24" CONCRETE CURB AND GUTTER DETAIL (SPILL CURB)

24" CONCRETE CURB AND GUTTER DETAIL

N.T.S.

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LIGHTHOUSE COMMUNITY CHURCH

Grading, Utility and S.E.S.C.

7624 Lake Michigan Drive

PART OF THE NW 1/4 OF SECTION 28, T7N, R14W,
ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

STAMP:

STATE OF MICHIGAN
STEVEN L. WITTE
ENGINEER
No. 46769
LICENSED PROFESSIONAL ENGINEER

PROJECT NO: 17200131

SHEET NO: C-300

SHEET: 3 OF 4

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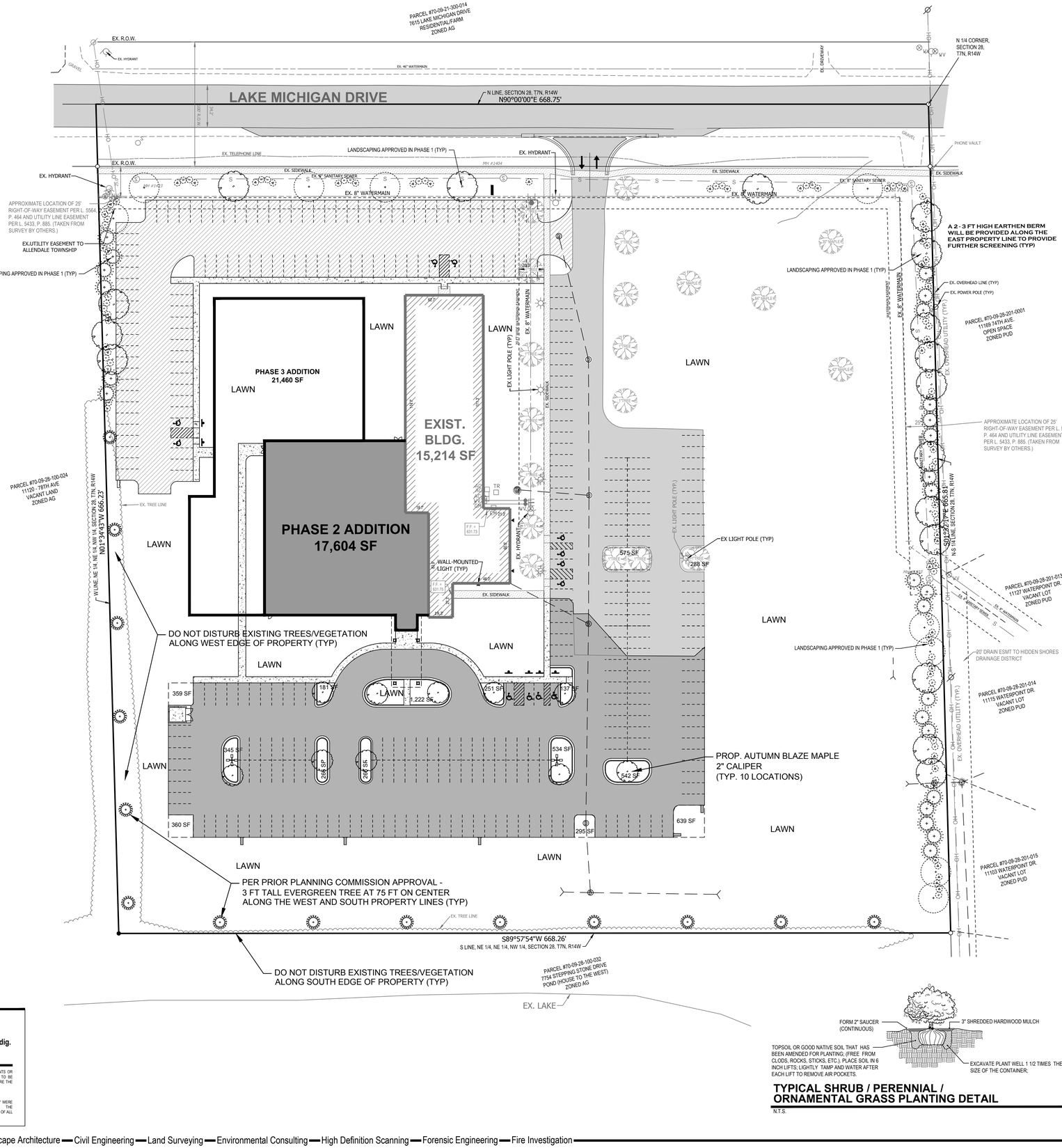
Experience . . . the Difference



LANDSCAPE NOTES

PLANTING NOTES:

1) ALL PLANT MATERIAL SHALL BE LOCALLAY NURSERY GROWN NO.1 GRADE AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. ALL PLANT MATERIALS SHALL MEET CURRENT AMERICAN ASSOCIATION OR NURSERYMEN STANDARDS. DO NOT PLANT MATERIALS UNTIL DIRECTED BY OWNER, LANDSCAPE ARCHITECT, AND/OR CONSTRUCTION MANAGER. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL, FOR ANY REASON BEFORE OR AFTER IT IS INSTALLED.
2) SIZES SPECIFIED ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE INSTALLED.
3) ANY PLANT SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
4) ALL TREES AND SHRUBS SHALL BE INSTALLED WITH A 3' DIAMETER LANDSCAPE EDGING RING TO BE FILLED WITH MULCH TO A DEPTH OF 3" MINIMUM.
5) MAINTENANCE OF LANDSCAPING ITEMS, TREES, AND PLANTS SHALL BE PERFORMED BY THE PROPERTY OWNER OR A QUALIFIED PROFESSIONAL. ALL LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE MUNICIPAL STANDARDS AND IN ACCORDANCE WITH CURRENT INDUSTRY STANDARDS IN A NEAT, HEALTHY AND WEED FREE CONDITION. ANY DEAD, DISEASED OR DAMAGED PLANT MATERIALS ARE TO BE REPLACED IMMEDIATELY AFTER NOTIFIED TO DO SO.
6) PLANT TREES AND SHRUBS IN ACCORDANCE WITH PLANTING DETAILS. DIG TREE PITS PER DETAILS. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE GROWN AT THE NURSERY. IF HEAVY CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER, APPROX. 1/4 OF THE ROOT BALL ABOVE GRADE, AND BACKFILL TO TOP OF ROOT BALL.
7) REMOVE ALL TWINE, WIRE, NURSERY TREE GUARDS, TAGS AND INORGANIC MATERIAL FROM ROOT BALLS. REMOVE THE TOP 1/3 OF BURLAP FROM EARTH BALLS AND REMOVE BURLAP FROM AROUND TRUNK.
8) FINELY SHREDDED HARDWARD BARK MULCH, NATURAL COLOR (NON-COLORED), IS REQUIRED FOR ALL PLANTINGS AND PLANTING BEDS. MULCH PER PLANTING DETAILS. MULCH IN PLANT BEDS SHALL BE 3" THICK AT TIME OF INSPECTION AND AFTER COMPACTED BY RAIN OR IRRIGATION. ALL PLANTING BEDS SHALL BE EDGED WITH 6" X 12 GAUGE STEEL LANDSCAPE EDGING.
9) LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES. IF A CONFLICT WITH UTILITIES EXIST, NOTIFY OWNER/CONSTRUCTION MANAGER PRIOR TO PLANTING.
10) PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER PLANTING AND ACCEPTANCE.
11) ALL LANDSCAPING SHALL BE COMPLETED BY THE OWNER.

TOPSOIL AND TURF NOTES:

1) WHEREVER GROUND IN ITS NATURAL STATE HAS BEEN DISTURBED, APPROVED LANDSCAPING OR GRASS SHALL BE FULLY INSTALLED, AND ESTABLISHED WITHIN A REASONABLE PERIOD OF TIME, BUT NO LONGER THAN ONE GROWING SEASON (UNLESS OTHERWISE NOTED AND APPROVED).
2) DURING EXCAVATION, GRADING, AND INSTALLATION OF REQUIRED LANDSCAPING, ALL SOIL EROSION AND SEDIMENTATION CONTROL REGULATIONS SHALL BE STRICTLY FOLLOWED AND COMPLIED WITH.
3) ALL LAWN AREAS SHALL RECEIVE SOD OR HYDROSEED. TURF SHALL BE INSTALLED ON TOPSOIL UNLESS APPROVED OTHERWISE. DO NOT PLANT UNTIL ACCEPTANCE OF FINISH GRADE.
3) SOD SHALL BE GROWN ON TOPSOIL UNLESS APPROVED OTHERWISE. SOD SHALL BE 2 YEARS OLD AND STRONGLY ROOTED. PLACE SOD TIGHTLY WITH NO GAPS AND WITH GRAIN IN SAME DIRECTION. SEAMS OF SOD SHALL BE STAGGERED IN A RUNNING BOND PATTERN. SOD SHALL BE WATERED IMMEDIATELY TO AVOID DRYING OUT. DO NOT INSTALL SOD UNTIL ACCEPTANCE OF FINISH GRADE AND IRRIGATION SYSTEM IS OPERATING PROPERLY UNLESS DIRECTED IN WRITING TO DO OTHERWISE. FINISH ROLL SOD WITH A WATER FILLED LAWN ROLLER, ROLL PERPENDICULAR TO LENGTH OF SOD.
4) TURF SHALL BE INSTALLED ON A MIN. OF 3"-4" OF LIGHTLY COMPACTED APPROVED TOPSOIL. TOPSOIL SHALL BE FERTILE, SCREENED, FRIABLE TOPSOIL FREE OF STONES 1/2" IN DIA. AND LARGER, ROOTS, STICKS, OR OTHER EXTRANEOUS MATERIAL INCLUDING NOXIOUS PLANTS. PH BETWEEN 6.0 AND 6.5, SALTS 500 PARTS PPM, ORGANIC CONTENT 3% MIN. DO NOT INSTALL TOPSOIL UNTIL APPROVED BY OWNER/C.M.. TOPSOIL SHALL BE FINE GRADED TO A SMOOTH FINISH, FREE OF LUMPS AND DEPRESSIONS.
5) ALL LANDSCAPE ISLANDS WITHIN PARKING LOTS SHALL BE BACK FILLED WITH TOPSOIL TO A DEPTH OF 18" MIN.
6) TOPSOIL SHALL BE RESPREAD BY THE SITE CONTRACTOR. SEEDING/SOD TO BE COMPLETED BY THE OWNER.

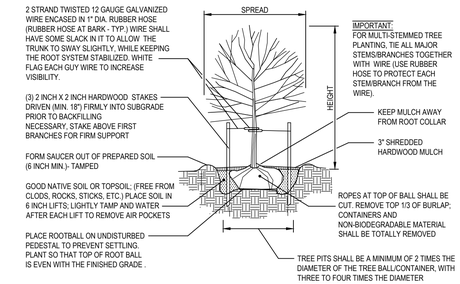
LANDSCAPE REQUIREMENT NOTES:

1) GREENBELT (ABUTTING RESIDENTIAL ZONES/USES):
   MINIMUM WIDTH 15 FT.
   1 TREE PER 20 FT. (MIXTURE OF EVERGREEN, CANOPY, AND ORNAMENTAL)
   1 SHRUB PER 10 FT.
2) GREENBELT PLANTINGS ALONG THE SOUTH AND WEST PROPERTY LINES HAVE BEEN REDUCED OR ELIMINATED WITH THE INTENT THAT EXISTING VEGETATION PRESENT SHALL BE SUFFICIENT TO PROVIDE THE NECESSARY BUFFERING/SCREENING EFFECTS OF THE SUBJECT PROPERTY. NOTE THAT DURING THE ORIGINAL APPROVAL OF THE PROJECT BY THE PLANNING COMMISSION, THE PLANNING COMMISSION ALLOWED 3 FT EVERGREEN TREES AT 75 FT ON CENTER ALONG THE SOUTH AND WEST EDGE OF THE PROPERTY. THE PLANNING COMMISSION RESERVED THE RIGHT TO REVISIT THIS REQUIREMENT DURING SUBSEQUENT SITE PLAN REVIEWS/APPROVALS AS THE CHURCH EXPANDS.
3) FRONT YARD LANDSCAPING:
   2 TREES AND 6 SHRUBS PER 150 FT. OF FRONTAGE
4) PARKING LOT LANDSCAPING REQUIREMENTS:
   20 SF OF INTERIOR AND PERIMETER LANDSCAPING FOR EACH PARKING SPACE.
   225 PARKING SPACES REQUIRES 4,500 SF PARKING LOT LANDSCAPE AREA.
   THERE IS A TOTAL OF APPROXIMATELY 6,260 SF OF INTERNAL ISLANDS PROVIDED (SEE PLAN VIEW)
   ONE CANOPY OR ORNAMENTAL TREE FOR EVERY 20 SPACES.
   FRONT YARD AND GREENBELT PLANTINGS CAN COUNT FOR 50% OF THE PARKING LOT LANDSCAPING.
   EACH LANDSCAPED ISLAND SHALL BE A MINIMUM OF 6 FT WIDE AND CONTAIN AT LEAST ONE CANOPY TREE.
   FRONT YARD PARKING SHALL BE SCREENED FROM ROADWAY WITH A LANDSCAPE HEDGE THAT IS A MINIMUM OF 2 FT TALL AT PLANTING AND 3 FT TALL AT MATURITY.

   NUMBER OF NEW/ADDED PARKING SPACES THIS PHASE = 154 SPACES.
   NUMBER OF NEW TREES REQUIRED = 154 SPACES / 20 = 8 TREES.
   NUMBER OF NEW TREES PROPOSED = 10 TREES.
5) AN UNDERGROUND IRRIGATION SYSTEM WILL BE PROVIDED TO IRRIGATE THE LANDSCAPED AREAS AND GRASSED AREAS.

TYPICAL SHRUB / PERENNIAL / ORNAMENTAL GRASS PLANTING DETAIL

N.T.S.



TYPICAL TREE PLANTING DETAIL

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LIGHTHOUSE COMMUNITY CHURCH

Landscape Plan

7624 Lake Michigan Drive

PART OF THE NW 1/4 OF SECTION 28, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

STAMP:

STATE OF MICHIGAN
JAMES C. WALTER, JR.
LANDSCAPE ARCHITECT
No. 1588
REGISTERED LANDSCAPE ARCHITECT

PROJECT NO: 17200131

SHEET NO: L-101

SHEET: 4 OF 4

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Land Planning — Landscape Architecture — Civil Engineering — Land Surveying — Environmental Consulting — High Definition Scanning — Forensic Engineering — Fire Investigation

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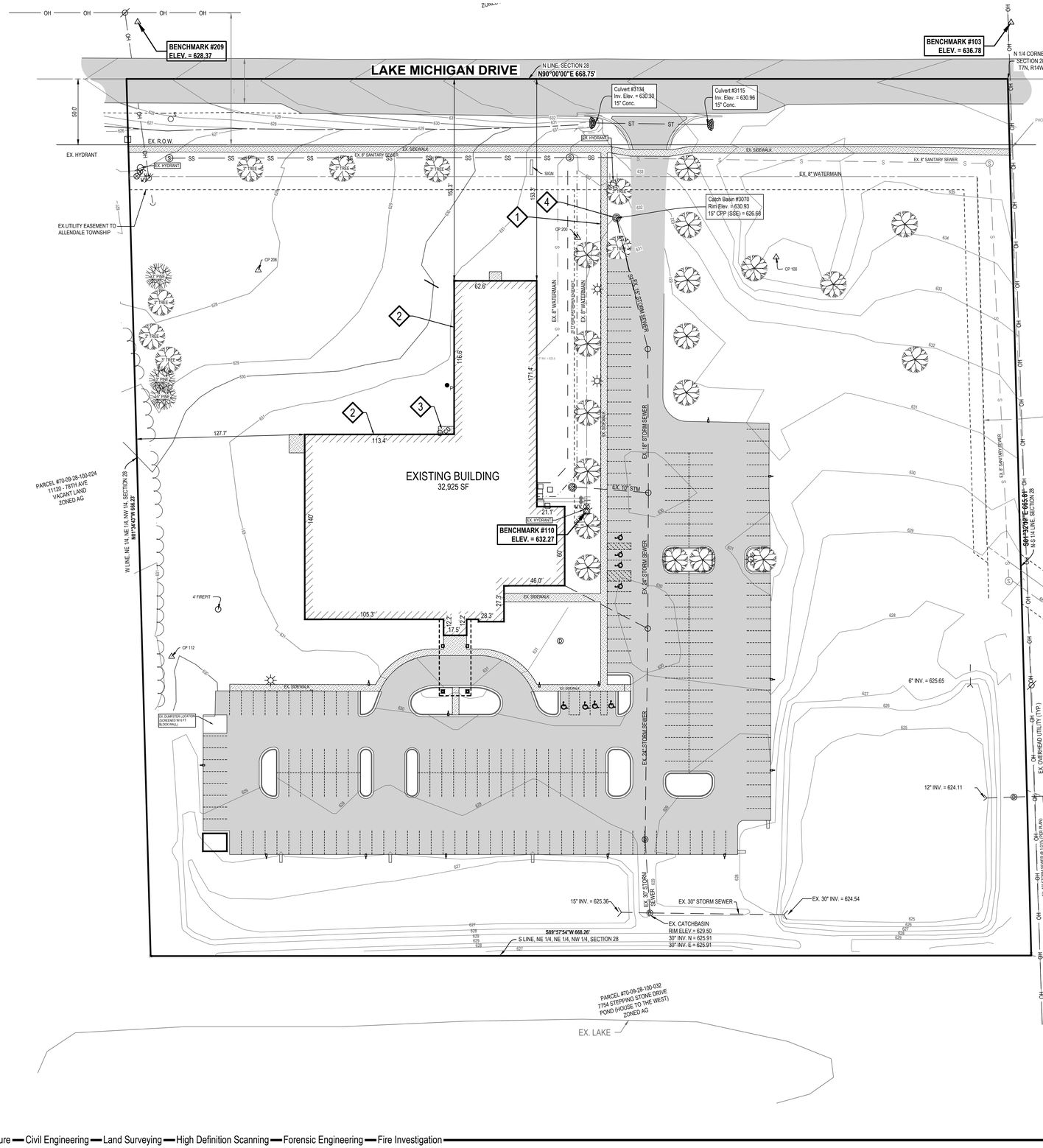

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LOCATION MAP

NOT TO SCALE

0' 20' 40' 80'

SCALE: 1" = 40'

LEGEND

Benchmark / Control Point		Sign	
Catch Basin - Round		Utility Pole	
Cleanout	CO	Water Valve	WV
Culvert		Overhead Utility	OH
Deciduous Tree		Sanitary	SS
Evergreen Tree		Storm	ST
Guy Anchor		Tree	
Hydrant		Asphalt	
Light Pole		Concrete	
Post	P	Existing Building	
Phone Riser	T		

REMOVAL / DEMOLITION NOTES

1) THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AT LEAST THREE WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS. THERE ARE EXISTING UNDERGROUND UTILITIES WHICH CROSS THE PROPOSED REPLACEMENT WORK AREAS. ALTHOUGH THEIR EXACT LOCATION CANNOT BE DETERMINED, IT IS KNOWN THESE UTILITIES ARE LOCATED WHERE DIGGING IS REQUIRED. THE CONTRACTOR SHALL CONDUCT THE REQUIRED EXCAVATION IN THESE AREAS WITH EXTREME CAUTION.
2) ALL EXISTING UTILITY INFORMATION SHOWN IS TAKEN FROM EXISTING RECORDS, AND FIELD VERIFIED WHERE ACCESSIBLE ONLY. INFORMATION OBTAINED FROM EXISTING RECORDS MAY NOT BE COMPLETE OR ACCURATE. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION AND CONDITION.
3) BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE TOWNSHIP AND BY THE OWNER, REPRESENTATIVES OF THE TOWNSHIP, THE OWNER AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING UTILITIES AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS AND EXISTING VIDEO TAPES. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE CONTRACTOR.
4) THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION WORK.
5) ALL EXISTING UTILITIES, SEWERS AND WATER LINES ARE TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES, MUNICIPALITIES AND AGENCIES BEFORE COMMENCING ANY WORK.
6) THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING POLES, OVERHEAD WIRES, UNDERGROUND UTILITIES, GUY WIRES, GAS LINES, ETC. ALL ADJUSTMENT OR RECONSTRUCTION WORK, EXCEPT FOR THOSE STRUCTURES OTHERWISE NOTED ON THE PLANS, SHALL BE PERFORMED BY THE CONTRACTOR. EXISTING APPURTENANCES SUCH AS UTILITY POLES AND VALVES BOX SHALL NOT BE DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION.
7) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.
8) ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY THE OWNER OR THEIR REPRESENTATIVES.
9) THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST TO ANYONE ELSE, INCLUDING THE CITY OR OWNER.
10) ASPHALT AREAS SHOWN TO BE SAWCUT AND REMOVED FULL DEPTH ARE ACTUAL FACE OF PROPOSED CURBS. IT WILL BE NECESSARY TO MAKE OFF-SET SAWCUTS TO PROVIDE CLEARANCE FOR PROPOSED CURBS. THE CONTRACTOR SHALL DETERMINE THE AMOUNT OF OFF-SET NECESSARY TO CONSTRUCT THE PROPOSED CURBS. ADDITIONAL CUTS MAY BE DESIRED TO FACILITATE THE REMOVAL OF THE EXISTING PAVEMENT, BUT THERE WILL BE NO EXTRA PAYMENT FOR ADDITIONAL CUTS. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE REMAINING PAVEMENT. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL FULL DEPTH SAWCUTS AND REMOVE THE DAMAGE AREAS AS NECESSARY.
11) ALL PAVEMENT REMOVAL AREAS SHALL BE FULL PAVEMENT CROSS-SECTION REMOVAL DOWN TO NATIVE SOIL LAYER IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
12) ALL TREES AND VEGETATION WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.

REMOVAL / DEMOLITION NOTES

1. SAWCUT, REMOVE AND REPLACE EX. SIDEWALK IF/AS NECESSARY FOR CONSTRUCTION OF STORM SEWER LEAD.
2. REMOVE, REPLACE, REPAIR EXISTING WALL OF BUILDING AS NECESSARY FOR CONSTRUCTION OF ADDITION.
3. REMOVE EX. CONCRETE PAD.
4. CORE INTO AND REPAIR EXISTING DRAIN CATCHBASIN AS NECESSARY FOR STORM SEWER CONNECTION

LEGAL DESCRIPTION

The Northeast 1/4 of the Northeast 1/4 of the Northwest 1/4 lying South of M-50, Section 28, Town 7 North, Range 14 West.

NEDERVELD
www.nederveld.com
800.222.1868
GRAND RAPIDS
217 Grandville Ave., Suite 302
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PREPARED FOR:

The Architectural Group, Inc.
Attention: Tim VandeZande

3100 Prairie Street SW
Grandville, MI 49418
Telephone: (616) 531 -7040

REVISIONS:

Title: Preliminary Site Plan		
Drawn: SW	Checked: SW	Date: 04/08/21
Title: Site Plan Submittal		
Drawn: SW	Checked: SW	Date: 05/03/21

Lighthouse Church Phase 3

Existing Conditions and Demolition Plan

7624 Lake Michigan Dr
PART OF THE NORTHWEST 1/4 OF SECTION 28, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

STAMP:

STATE OF MICHIGAN
STEVEN L. WITTE
ENGINEER
No. 46769
LICENSED PROFESSIONAL ENGINEER

PROJECT NO:
21200538

SHEET NO:
C-201

SHEET: 1 OF 4

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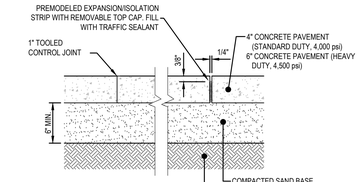
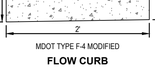


NOTE:
1. LIGHT BROOM FINISH
2. LOCATE CONTROL JOINTS AND EXPANSION JOINTS PER ACI STANDARDS
3. PANEL SIZE SHALL NOT EXCEED 8 FEET
4. PANELS SHALL BE KEPT AS SQUARE AS POSSIBLE WITH THE LENGTH NEVER EXCEEDING 1.25X THE WIDTH
5. 1.0#/CU.YD. FIBER REINFORCEMENT
6. AIR ENTRAINMENT - 6% ± 1%
7. SLUMP 4"±1"

CONCRETE PAVEMENT DETAIL

N.T.S.



NOTE:
1. REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT DESIGN SPECIFICATION
2. HMA MIXTURE TO BE TIER I OR TIER II
3. BINDER GRADE TO BE A MINIMUM OF PG 58-28

STANDARD DUTY BITUMINOUS PAVEMENT CROSS SECTION DETAIL

N.T.S.

TYPICAL 90° INTERNAL PARKING SPACE

TYPICAL 8'-0" WIDE HANDICAP VAN PARKING SPACE

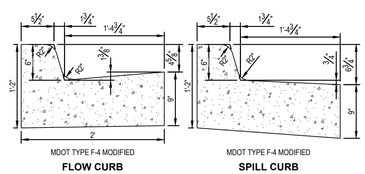
NOTE:
APPLY TWO COATS OF VOC COMPLIANT, M.D.O.T. APPROVED, UNDILUTED SOLVENT BASED, OR LATEX TRAFFIC PAINT TO ALL PAVEMENT MARKINGS. USE MANUFACTURERS RECOMMENDED APPLICATION RATE, WITHOUT ADDITION OF THINNER, WITH A MAXIMUM OF 100 SFT PER GALLON, OR MINIMUM 15 MILS WET FILM THICKNESS, AND 7.5 MILS DRY FILM THICKNESS PER COAT, WITH MINIMUM 30 DAYS BETWEEN APPLICATIONS. SECOND COAT MUST NOT BE APPLIED EARLIER THAN 7 DAYS BEFORE OCCUPANCY.

TYPICAL 90° PERIMETER PARKING SPACE

PARKING SPACE MARKING DETAILS

N.T.S.

GRADING NOTES:
1. ESTABLISH PERMANENT BENCH MARK ON-SITE PRIOR TO GRADING.
2. PROPOSED SPOT GRADES ARE TO EDGE OF METAL/TOP OF PAVEMENT UNLESS OTHERWISE NOTED. THE VERTICAL DIFFERENCE BETWEEN PAVEMENT GRADES AND TOP OF CURB GRADES VARY FOR FLOW AND SPILL CURB (SEE DETAIL THIS SHEET).
3. PROPOSED ADA ROUTE SHALL MEET THE STANDARDS SET FORTH IN THE MOST RECENT ADDITION OF ADA STANDARDS FOR ACCESSIBLE DESIGN - APPENDIX A TO PART 1191, AS AMENDED
4. SEE PLANS FOR LOCATION OF SPILL VS FLOW CURB.



MDOT TYPE F-4 MODIFIED
FLOW CURB

MDOT TYPE F-4 MODIFIED
SPILL CURB

24" CONCRETE CURB AND GUTTER DETAIL

N.T.S.

811 Know what's **below.** **CALL** before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

NOTE:
EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "PLAN" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

BENCHMARKS

BENCHMARK # 103 ELEV. = 636.78 (NAVD88)
Top of flange bolt under "E" in "East" on hydrant. Located 45'± North of the Centerline of Lake Michigan Drive & 4'± East of the North 1/4 corner of Section 28.

BENCHMARK # 110 ELEV. = 632.27 (NAVD88)
Top of flange bolt under "USA" on hydrant. Located 328'± South of the Centerline of Lake Michigan Drive & 16'± West of the edge of Asphalt of 7624 Lake Michigan Drive Parking Lot.

BENCHMARK # 209 ELEV. = 628.38 (NAVD88)
Top of flange bolt under "USA" on hydrant. Located 43'± North of the Centerline of Lake Michigan Drive & 659'± West of the North 1/4 corner of Section 28.

LOCATION MAP

NOT TO SCALE

LEGEND

- EXISTING BITUMINOUS
- EXISTING CONCRETE
- PROPOSED BITUMINOUS
- PROPOSED CONCRETE
- PROPOSED BUILDING

GENERAL NOTES

1) ZONING OF PROPERTY: AG - AGRICULTURAL AND RURAL DISTRICT
   AG ZONING REQUIREMENTS
   MINIMUM LOT AREA = 2 ACRES (FOR CHURCH)
   MINIMUM LOT WIDTH = 200 FT
   MAXIMUM BUILDING HEIGHT = 30 FT
   MAXIMUM BUILDING LOT COVERAGE = NOT APPLICABLE
   MINIMUM ALLOWED BUILDING SETBACKS:
   FRONT YARD = 60 FT
   SIDE YARD = 10 FT MINIMUM (25 FT TOTAL BOTH SIDES)
   REAR YARD = 50 FT
2) SUMMARY OF LAND USE:
   A) TOTAL ACREAGE = APPROXIMATELY 9.45 ACRES (411,678 SF) (EXCLUDING R.O.W.)
   B) AREA OF EXISTING BUILDING = APPROXIMATELY 32,925 SF
   C) AREA OF PROPOSED BUILDING ADDITION = APPROXIMATELY 10,877 SF
   D) AREA OF FUTURE BUILDING ADDITION = APPROXIMATELY 7,815 SF
   E) BUILDING HEIGHT = APPROXIMATELY 30 FT
   F) LOT COVERAGE = APPROXIMATELY 12.5% (51,617 SF TOTAL BUILDING)
   G) EXISTING GROSS PAVEMENT AND CONCRETE AREA = APPROXIMATELY 88,960 SF
      FUTURE GROSS PAVEMENT AND CONCRETE AREA = APPROXIMATELY 33,860 SF
   I) TOTAL HARD SURFACE AFTER ALL PHASES = APPROXIMATELY 174,437 SF (42.4%)
   J) ZONING OF PARCELS TO THE NORTH, SOUTH, AND WEST = AG
      ZONING OF PARCELS TO THE EAST = P.U.D.
3) PARKING REQUIREMENTS:
   A) MINIMUM REQUIRED PARKING SPACE PER TOWNSHIP 9' x 18' (26 FT TWO-WAY AISLES)
   B) TYPICAL BARRIER FREE SPACE = 8' x 18' (WITH 8 FT WIDE VAN ACCESSIBLE AISLE)
   C) NUMBER OF SPACES REQUIRED = 180 (BASED ON 1 PER 4 SEATS)(APPROX. 720 SEATS)
   D) NUMBER OF EXISTING SPACES PROVIDED = 226 (DOES NOT INCLUDE +/-104 FUTURE)
   E) A MAXIMUM OF 2 ROWS OF PARKING IS PERMITTED IN FRONT OF THE BUILDING.
   F) PARKING SETBACKS:
      ABUTTING RESIDENTIAL ZONE/USE = 30 FT SETBACK (15 FT GREENBELT)
4) THIS PROJECT IS NOT LOCATED IN THE 100 YEAR FLOOD PLAIN, BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAPS
5) BEST MANAGEMENT PRACTICES WILL BE UTILIZED DURING AND AFTER CONSTRUCTION OF THE PROJECT. MEASURES WILL INCLUDE THE USE OF SEEDING AND MULCHING, SEDIMENT INLET FILTERS, COMPACTION AND PAVING. THE OWNER OF THE SUBJECT PARCEL SHALL HAVE THE RESPONSIBILITY TO MAINTAIN THE PERMANENT SOIL EROSION PROTECTION MEASURES.
6) UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
7) NO NEW SIGNS ARE PROPOSED AT THIS TIME.
   ANY/ALL FUTURE SIGNS SHALL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATIONS OF ARTICLE 22 OF THE ALLENDALE TOWNSHIP ZONING ORDINANCE.
8) ALL LIGHTING SHALL BE SHIELDED FROM ALL ADJACENT PROPERTIES AND SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE ALLENDALE TOWNSHIP ZONING ORDINANCE. PROPOSED NEW LIGHTING SHALL CONSIST OF WALL-MOUNTED LIGHTS FITTED WITH SHOEBOX TYPE FIXTURES. THE MAXIMUM FIXTURE HEIGHT SHALL BE 20 FT ABOVE GRADEL.
9) THERE IS CURRENTLY A CHURCH BUILDING ON THE PROPERTY.
10) THE STORM WATER GENERATED FROM THE SITE WILL BE COLLECTED AND DETAINED PER OTTAWA COUNTY STANDARDS AND SPECIFICATIONS. A STORM WATER DETENTION BASIN WAS PREVIOUSLY DESIGNED AND APPROVED FOR THE ENTIRE PROJECT (EXISTING, PROPOSED, AND FUTURE EXPANSIONS).
11) THE SITE SOIL IS PRIMARILY LACOTA SILT LOAM AND GLADWIN SANDY LOAM ACCORDING TO THE SOIL SURVEY MAP.
12) THE PROJECT WILL BE CONSTRUCTED IN PHASES AS SHOWN ON THE SITE PLAN. THE CURRENT PHASE WILL COMMENCE IN THE SUMMER OF 2021, PENDING PERMITS AND APPROVALS. THE FUTURE PHASE WILL BE CONSTRUCTED BASED ON DEMAND.
13) THE PROPOSED ADDITION WILL OBTAIN ITS SANITARY SEWER AND WATER SERVICES FROM THE EXISTING SERVICES TO THE EXISTING BUILDING.
14) LANDSCAPING SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE ALLENDALE TOWNSHIP ZONING ORDINANCE AND SHALL BE WHAT IS SHOWN ON THE LANDSCAPE PLAN.
15) THE PERMANENT PARCEL NUMBER FOR THE SITE IS 70-09-28-100-003. THE ADDRESS OF THE PROPERTY IS 7624 LAKE MICHIGAN DRIVE.
16) ANY/ALL ROOFTOP UNITS WILL BE SCREENED PER TOWNSHIP REQUIREMENTS AND APPROVED BY STAFF (PER PREVIOUS PC APPROVAL).

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PREPARED FOR:
The Architectural Group, Inc.
Attention: Tim VandeZande
3100 Prairie Street SW
Grandville, MI 49418
Telephone: (616) 531 -7040

REVISIONS:

Title: Preliminary Site Plan		
Drawn: SW	Checked: SW	Date: 04/08/21
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Lighthouse Church Phase 3

Site Layout Plan

7624 Lake Michigan Dr
PART OF THE NORTHWEST 1/4 OF SECTION 28, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

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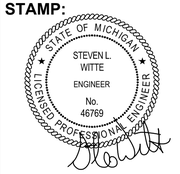

PROJECT NO:
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SHEET NO:
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SHEET: 2 OF 4

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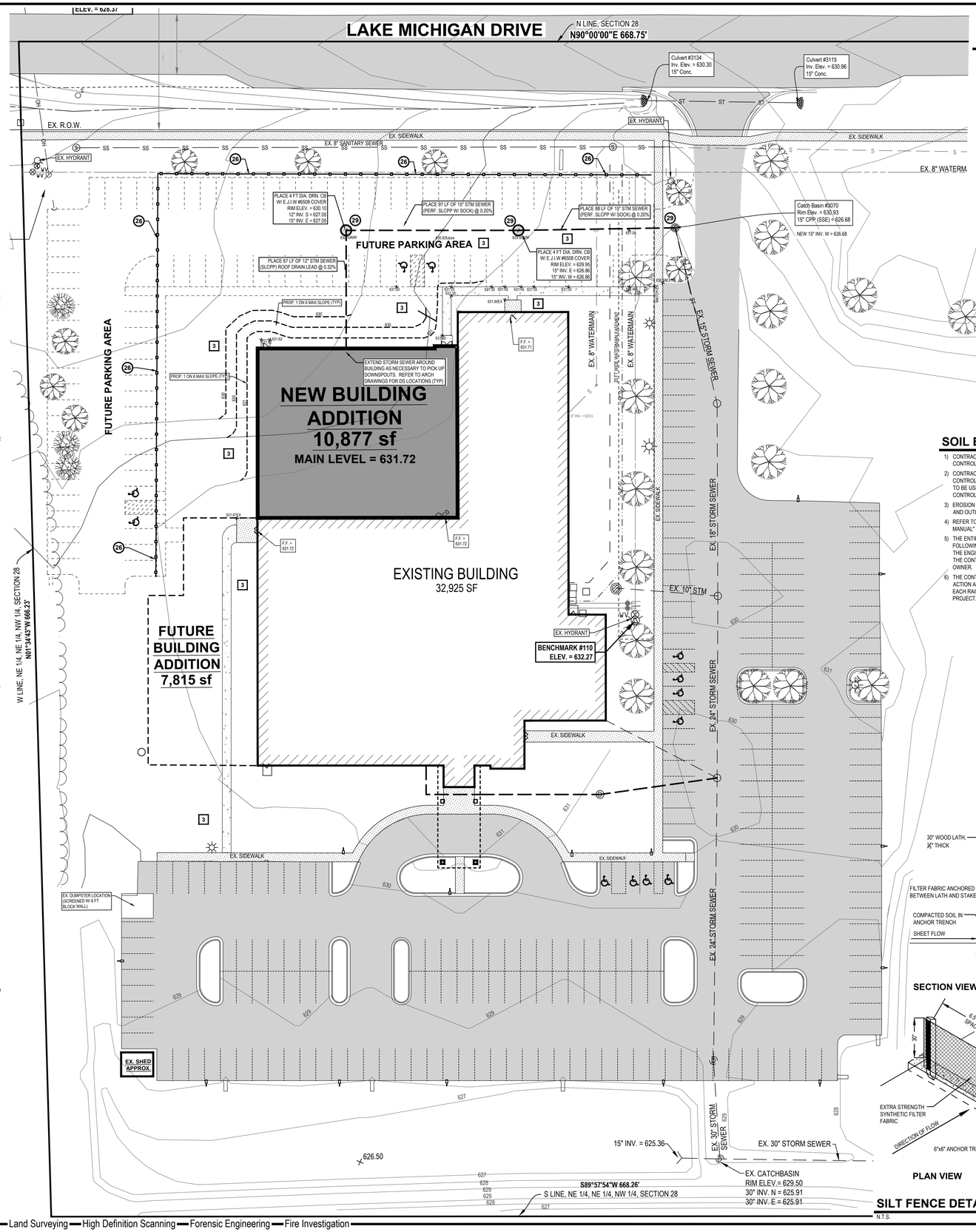

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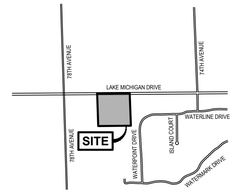
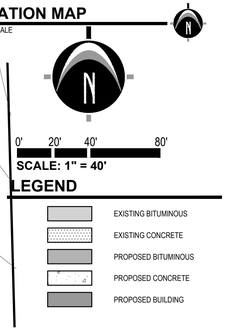


LOCATION MAP

NOT TO SCALE



SCALE: 1" = 40'

LEGEND

- EXISTING BITUMINOUS
- EXISTING CONCRETE
- PROPOSED BITUMINOUS
- PROPOSED CONCRETE
- PROPOSED BUILDING

CONSTRUCTION NOTES

STORM SEWER

1. ALL CATCH BASINS SHOULD BE PROVIDED WITH A MINIMUM 2' SUMP.
2. ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLCPP), WITH WATERTIGHT JOINTS MEETING THE REQUIREMENTS OF THE MICHIGAN PLUMBING CODE, AASHTO M-252 AND M-294, ASTM F-2306, F-2648, D-3212, F-477, F-2487, D-3350 AND F-1417, UNLESS OTHERWISE SPECIFIED. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND ASTM D-2321 OR CONCRETE PIPE MEETING THE REQUIREMENTS OF ASTM C-76-III UNLESS OTHERWISE NOTED
3. 6" UNDERDRAIN SHALL BE PERFORATED PIPE WITH SOCK, MEETING THE REQUIREMENTS OF AASHTO M-252 AND THE GEOTEXTILE SHALL MEET AASHTO M-288 REQUIREMENTS
4. ALL FLARED END SECTIONS SHALL BE CONCRETE.
5. ALL CATCH BASINS AND MANHOLES SHALL BE CONCRETE, CONFORMING TO ASTM C-478 WITH BUTYL RUBBER GASKETED JOINTS WITH BOOT TYPE PIPE CONNECTIONS CONFORMING TO ASTM C-923 FOR ALL PIPE CONNECTIONS 24" DIAMETER AND SMALLER.
6. ALL CATCH BASINS ARE DRAWN AND WILL BE STAKED AT CENTER OF CASTING.

SANITARY SEWER

1. ALL SANITARY SEWER AND APPURTENANT STRUCTURES SHALL BE CONSTRUCTED IN ACCORDINACE WITH THE REGULATIONS AND STANDARDS OF THE SPECIFICATION OF ALLENDALE CHARTER TOWNSHIP.
2. SEWER MAIN PIPE BETWEEN 0'-19' SHALL BE SDR-35 PVC. SEWER MAIN PIPE GREATER THAN 19' SHALL BE ASTM D-2241 SDR-26 PVC. SANITARY SEWER AND LATERALS SHALL BE BEDDED AND BACKFILLED WITH SAND COMPACTED TO 95%.
3. SANITARY SEWER MANHOLES SHALL BE WET CAST CONCRETE CONFORMING TO ASTM C-478 WITH BUTYL RUBBER GASKET JOINTS, AND BOOT TYPE PIPE JOINTS CONFORMING TO ASTM C-923. CASTINGS SHALL BE ALLENDALE CHARTER TOWNSHIP STANDARD INCLUDING CASE 1 IN PAVEMENT AREAS AND CASE II IN NON-PAVEMENT AREAS.
4. INSTALL AND MAINTAIN PLUGS IN MANHOLES TO PREVENT DEBRIS AND WATER FROM ENTERING EXISTING DOWNSTREAM SEWERS. PLUGS SHALL BE MAINTAINED UNTIL THE NEW SEWER IS INSPECTED AND APPROVED BY ALLENDALE CHARTER TOWNSHIP.
5. PERFORM LOW PRESSURE AIR TEST OF COMPLETED SEWER MAIN. TELEVISING OF SEWER MAIN TO BE PERFORMED 30 DAYS AFTER COMPLETION. TESTS SHALL BE WITNESSED BY INSPECTORS. NOTIFY AGENCIES AND INSPECTORS 48 HOURS PRIOR TO TESTING. TELEVISING SHALL BE PERFORMED AT THE COMPLETION OF SEWER CONSTRUCTION AND VIDEO FILES SHALL BE SUBMITTED TO THE TOWNSHIP.
6. INSTALL 6" SANITARY LATERAL AT 2% MIN. LATERAL SHALL BE SDR-35 OR SDR-26 AND BE LAID PERPENDICULAR TO THE MAINLINE SEWER. MARK END OF PIPE AND RECORD PER ALLENDALE CHARTER TOWNSHIP STANDARDS AND MEASURE HORIZONTAL LENGTH OF LATERAL FROM MAINLINE SEWER TO LATERAL END. SANITARY LATERALS SHALL BE BEDDED AND BACKFILLED WITH MDOT CLASS 2 SAND.
7. RECORD LOCATION OF SEWER WYE MEASURED FROM THE NEAREST DOWNSTREAM SANITARY MANHOLE. SUBMIT RECORDS TO OWNER'S ENGINEER FOR AS-BUILT DRAWINGS.
8. PROPERTY LINE RISERS SHALL BE CONSTRUCTED ON ALL SANITARY LATERAL PER ALLENDALE CHARTER TOWNSHIP STANDARD DETAIL. LATERAL CONSTRUCTED BEYOND THE R.O.W. SHALL BE PER BUILDING CODE SPECIFICATIONS.
9. ALL SANITARY LATERALS SHALL BE LOCATED 10' FROM THE LEFT LOT LINE WHEN FACING A LOT.
10. CONSTRUCTOR IS RESPONSIBLE TO PROVIDE (2) WITNESS MEASUREMENTS FROM PERMANENT SURFACE OBJECTS FOR ALL ENDS OF STUBS AND LATERALS.

WATERMAIN

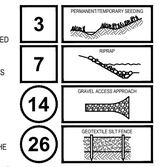
1. ALL WATERMAIN AND APPURTENANT STRUCTURES SHALL BE CONSTRUCTED IN ACCORDINACE WITH THE REGULATIONS AND STANDARDS OF THE SPECIFICATION OF ALLENDALE CHARTER TOWNSHIP.
2. WATERMAIN PIPE SHALL BE DUCTILE IRON, CLASS 52, CEMENT LINED, CONFORMING TO ANSI/AWWA C151/A.21.52 AND POLYWRAPPED IF CORROSIVE SOILS ARE ENCOUNTERED.
3. DEPTH OF WATERMAIN SHALL BE 5'-0" BELOW GRADE TO CENTERLINE OF PIPE.
4. ONLY ALLENDALE CHARTER TOWNSHIP WATER AND SEWER PERSONNEL SHALL OPERATE EXISTING VALVES.
5. COORDINATE TAPS OF EXISTING WATERMAIN WITH ALLENDALE CHARTER TOWNSHIP PUBLIC UTILITIES DEPARTMENT.
6. FIRE HYDRANTS, VALVES AND VALVE BOXES SHALL CONFORM TO ALLENDALE CHARTER TOWNSHIP STANDARDS. HYDRANTS SHALL BE EJIW 5BR. HYDRANT WEEP HOLES SHALL BE PLUGGED WHEN WATERMAIN IS BELOW THE WATER TABLE. HYDRANTS SHALL BE LOCATED 8.5' FROM THE R.O.W. SET HYDRANT 27" ABOVE C/L OF STREET OR 21" ABOVE FINISH GRADE, WHICHEVER IS HIGHER.
7. HYDRANTS AND VALVES SHALL OPEN RIGHT.
8. MEGA LUG RESTRAINTS SHALL BE USED AT ALL FITTINGS.
9. BRASS WEDGES SHALL BE INSTALLED AT ALL PIPE JOINTS, 3 PER JOINT.
10. INSTALL WATER SERVICES PER ALLENDALE CHARTER TOWNSHIP STANDARDS. PLACE CURB STOPS AT OUTSIDE EDGE OF EASEMENT OF R.O.W. AS SHOWN. PLACE AND MAINTAIN LOCATION MARKERS AT CURBSTOPS.
11. CHLORINATE COMPLETED WATERMAINS, PERFORM PRESSURE TEST AND BACTERIOLOGICAL TEST OF COMPLETED MAIN. TESTS SHALL BE WITNESSES BY INSPECTORS. NOTIFY AGENCY AND INSPECTORS 48 HOURS PRIOR TO TESTING. NO CONNETION TO EXISTING WATERMAIN WILL BE ALLOWED UNTIL AFTER ALL PROPOSED WATERMAIN TESTING IS COMPLETED AND APPROVED BY ALLENDALE CHARTER TOWNSHIP.
12. JOINT DEFLECTIONS SHALL NOT EXCEED THE VALUES FOUND IN THE TOWNSHIP SCR IN SECTION 3.02.B.6 OR AS RECOMMENDED BY PIPE MANUFACTURER.
13. MARK END OF SERVICE PIPE PER ALLENDALE CHARTER TOWNSHIP STANDARDS.
14. RECORD LOCATION OF SERVICE CONNECTION MEASURED FROM THE NEAREST VALVE TO SERVICE CONNECTION. SUBMIT RECORDS TO ENGINEER FOR AS-BUILT DRAWINGS.
15. WATER SERVICES SHALL BE 1" DIA. TYPE K COPPER, ANNEALED, SEAMLESS, ASTM-B-88 UNLESS OTHERWISE NOTED.
16. ALL WATER SERVICES SHALL BE LOCATED 10' FROM THE LEFT LOT LINE WHEN FACING THE LOT.
17. CONSTRUCTION IS RESPONSIBLE TO PROVIDE (2) WITNESS MEASUREMENTS FROM PERMANENT SURFACE OBJETS FOR ALL CURBSTOP BOXES, VALVE BOXES AND ENDS OF STUBS.

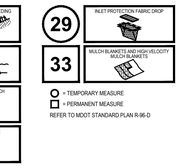
GENERAL

1. ALL CONSTRUCTION AND MATERIAL SPECIFICATIONS INCLUDED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE MDOT CONSTRUCTION AND MATERIALS SPECIFICATIONS (LATEST EDITION) AND THE ORDINANCES OF THE TOWNSHIP. WHERE CONFLICTS OCCUR IN THE ABOVE, THE TOWNSHIP SHALL BE THE GOVERNING AUTHORITY.
2. VARIATION IN EXISTING SOIL CONDITIONS MAY IMPACT THE EARTHWORK QUANTITIES IF UNUSABLE SOILS ARE ENCOUNTERED DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE EXISTING WATER AND SEWAGE SYSTEM RESULTING FROM NON-CONFORMANCE WITH THE APPLICABLE STANDARDS OR THROUGH GENERAL NEGLIGENCE.
4. ALL WORK, INCLUDING INSPECTIONS AND TESTING COST REQUIRED FOR REMOVAL, RELOCATION OR NEW CONSTRUCTION FOR PRIVATE OR PUBLIC UTILITIES, WILL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR AND INCLUDED IN THE BID PRICE FOR THE VARIOUS WORK ITEMS UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS FROM THE TOWNSHIP AND COUNTY AND ANY OTHER AGENCY FOR ALL WORK DONE BY THE CONTRACTOR.
5. ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP, SHALL BE REPLACED OR CORRECTED BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE TOWNSHIP OR OWNER WITHOUT ANY ADDITIONAL COST TO THE TOWNSHIP OR OWNER.
6. ALL LAWN AREAS REMOVED OR DISTURBED SHALL BE REPLACED WITH TOPSOIL AND SOD WHERE NEEDED AND SHALL BE RESEEDED AND MULCHED IF SATISFACTORY RE-ESTABLISHMENT OF LAWN DOES NOT OCCUR.
7. ALL PUNCH LIST AND DEFICIENCY WORK SHALL BE COMPLETED WITHIN 1 MONTH OF THE END OF CONSTRUCTION.
8. THE CONTRACTOR SHALL OBTAIN A STREET OPENING PERMIT FROM THE MDOT AND/OR THE COUNTY BEFORE BEGINNING WORK WITHIN ANY PUBLIC STREET RIGHT-OF-WAY.
9. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.
10. THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRONIC DATA ARE DISCOVERED.
11. THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE REQUIRED WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE SUCH ADDITIONAL TRAFFIC CONTROL DEVICES LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION AS ARE REQUIRED ON THOSE STREETS WHICH ARE USED AS DETOURS, INCLUDING "ROAD CLOSED" SIGNS AND BARRICADES AT THE POINT WHERE THE ROAD IS CLOSED TO THROUGH TRAFFIC.
12. THE CONTRACTOR SHALL PROTECT LOCATION OF ALL PROPERTY PINS AND BENCHMARKS.
13. ALL WORK CONTEMPLATED SHALL AT ALL TIMES BE SUBJECT TO THE DIRECT INSPECTION OF THE TOWNSHIP, OWNER AND THEIR REPRESENTATIVES. THE TOWNSHIP AND OWNER RESERVES THE RIGHT TO HALT ALL CONSTRUCTION ACTIVITY FOR NONCONFORMANCE OF PLANS, SPECIFICATIONS AND OTHER APPLICABLE STANDARDS OR REGULATIONS.
14. PRICES BID PER FOOT FOR ALL PIPES IS COMPACTED IN PLACE REGARDLESS OF SOIL OR ROCK CONDITIONS.
15. CONTRACTOR IS RESPONSIBLE FOR ALL SIGNS, BARRICADES AND SAFETY FENCES TO DETER PEOPLE FROM ENTERING THE WORK AREA AND FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE POLICE DEPARTMENT AND THE TOWNSHIP.
16. PRIOR TO ANY CONSTRUCTION OR GRADING, A PROTECTIVE BARRIER, FENCE, POST AND/OR SIGNS CLEARLY INDICATING LIMITS OF WORK/DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS, THE TOWNSHIP AND OWNER SHALL BE CONTACTED UPON DETERMINATION OF LIMITS IN THE FIELD.
17. ALL ROAD SURFACES, EASEMENTS OR RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE SATISFACTION OF THE COUNTY, MDOT AND THE OWNER.
18. NO PARKING OF CONTRACTOR OR CONTRACTOR EMPLOYEE'S VEHICLES ON ANY PUBLIC STREETS SHALL BE PERMITTED.
19. ALL DISTURBED SIGNS, GUARDRAILS, MAIL BOXES, AND DRIVEWAYS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE COUNTY, TOWNSHIP, AND THE OWNER.
20. DUST CONTROL: THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY SUCH AS CALCIUM CHLORIDE, WATER OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE TO MAINTAIN ALL ROADWAYS BEING USED FOR ACCESS TO THE CONSTRUCTION SITE AND SHALL ADHERE TO ALL ORDINANCES OF THE TOWNSHIP, COUNTY, EGLE OR ANY OTHER GOVERNING AUTHORITY.
21. ALL SEWERS, MANHOLES, JUNCTION CHAMBERS AND INLET BASINS MUST BE CLEANED BEFORE ACCEPTANCE BY THE TOWNSHIP AND OWNER.
22. IF MUD, SOIL OR OTHER DEBRIS IS DEPOSITED ON ADJACENT STREETS, ROADS OR OTHER PROPERTY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE WORK DAY.
23. ADJUST TO GRADE OR RECONSTRUCT TO GRADE WORK SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF ANY EXISTING CONCRETE BLOCKOUT PAVEMENT. DAMAGED PAVEMENT DOWELS OR OTHER SUCH LOAD TRANSFERS DEVICES SHALL BE REPLACED AS DIRECTED BY THE COUNTY AND THE ENGINEER.
24. ALL EXISTING CASTINGS FOR STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED TO GRADE SHALL BE FIELD CHECKED AT THE TIME OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED.
25. COMPACTED PREMIUM BACKFILL (MDOT CLASS II SAND) WILL BE REQUIRED AT ALL FILL AREAS OR ANY STREETS WHERE REMOVAL AND REPLACEMENT OF PAVEMENT IS REQUIRED AND FOR ALL UNDERGROUND CONSTRUCTION UNDER ANY DRIVEWAY OR PAVEMENT INCLUDING THE 45 DEGREE ANGLE OF INFLUENCE FROM THE OUTSIDE EDGE OF PAVEMENT OR TOP OF CURB. COMPACTION TESTS SHALL BE REQUIRED EVERY 50 FEET UNDER PAVEMENT. PAVEMENT INCLUDES, BUT NOT LIMITED TO, ROADWAY SURFACES, SIDEWALKS, BIKE WAYS, DRIVEWAYS, SHOULDERS, BUILDINGS, ETC.
26. NO BUILDING MATERIAL, EQUIPMENT, VEHICLES OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE LIMITS OF WORK/DISTURBANCE.
27. STORMWATER POLLUTION PREVENTION ITEMS SHALL BE IN PLACE PRIOR TO COMMENCING CLEARING OPERATIONS, EARTHWORK GRADING, OR ANY OTHER TYPE OF CONSTRUCTION ACTIVITY.
28. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
29. CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH MUNICIPAL CODE REQUIREMENTS.
30. ALL TREES AND VEGETATION WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.
31. CONTRACTOR TO FIELD VERIFY AND SCOPE EXISTING SANITARY SEWER LATERAL TO CONFIRM ELEVATION, SLOPE, CONDITION AND PHYSICAL CONNECTION TO PUBLIC SANITARY SEWER MAIN PRIOR TO CONNECTION OF NEW LATERAL SERVICE.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1) CONTRACTOR SHALL POSSESS THE SOIL EROSION AND SEDIMENTATION CONTROL PERMIT PRIOR TO START OF ANY EARTH WORK.
2) CONTRACTOR SHALL MODIFY THIS SOIL EROSION AND SEDIMENTATION CONTROL PLAN TO SHOW THE ADDITIONAL CONTROL MEASURES INTENDED TO BE USED DURING CONSTRUCTION. SUBMIT MODIFICATIONS TO THE CONTROLLING AGENCY, THE OWNER, AND THE ENGINEER.
3) EROSION PROTECTION SHALL BE PROVIDED AT ALL STORM SEWER INLETS AND OUTLETS. ALL BARE EARTH SHALL BE STABILIZED WITH SEEDING.
4) REFER TO THE M.D.O.T. "SOIL EROSION AND SEDIMENTATION CONTROL MANUAL" (APRIL 2006) FOR ADDITIONAL INFORMATION
5) THE ENTIRE STORM SEWER SYSTEM SHALL BE CLEANED AND FLUSHED FOLLOWING CONSTRUCTION AND PAID RECEIPT THEREOF PROVIDED TO THE ENGINEER AND COUNTY SESC AGENT PRIOR TO FINAL PAYMENT TO THE CONTRACTOR OR FINAL ACCEPTANCE OF THE CONSTRUCTION BY THE OWNER.
6) THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT, TAKE CORRECTIVE ACTION AND MAINTAIN ALL TEMPORARY SESC MEASURES DAILY AND AFTER EACH RAIN EVENT UNIT FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT.



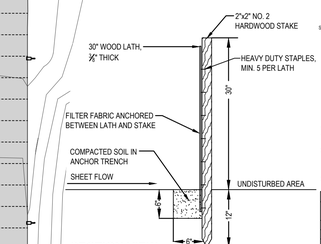


○ = TEMPORARY MEASURE
□ = PERMANENT MEASURE
REFER TO MDOT STANDARD PLAN R-96-D

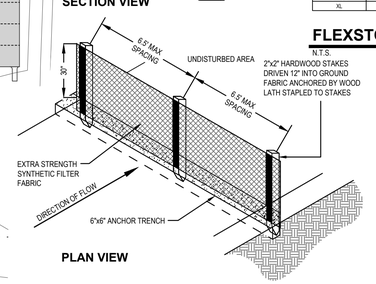
SOIL EROSION CONTROL SCHEDULE

2021

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PLACE SILT FENCE												
STRIP & STOCKPILE TOPSOIL												
CONSTRUCT CONNECTION TO STORM SEWER												
ROUGH GRADE SITE												
CONSTRUCT BUILDING FOUNDATION AND BUILDING												
CONSTRUCT IMPROVEMENTS AROUND BUILDING												
CONSTRUCT UTILITY LINES TO BUILDING												
FINISH GRADE SITE												
PAVE SITE												
RESPREAD TOPSOIL/COMPACTION												
SEED DISTURBED AREAS												
SITE RESTORATION/CLEAN UP												



SECTION VIEW



PLAN VIEW

SILT FENCE DETAIL

N.T.S.

NOTES:
1. ALL FRAMING IS CONSTRUCTED OF CORROSION RESISTANT STEEL (ZINC PLATED OR GALVANIZED) FOR 7 YEAR MINIMUM SERVICE LIFE.
2. UPON ORDERING CONFIRMATION OF THE DOT CALLOUT, PRECAST OR CASTING MAKE AND MODEL, OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED TO CONFIGURE AND ASSEMBLE A YOUR CUSTOMIZED FLEXSTORM INLET FILTER. PART NUMBER ALONE IS NOT SUFFICIENT.
3. FOR WRITTEN SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT WWW.INLETFILTERS.COM

SPECIFICATIONS FOR STANDARD BAGS BY NOMINAL SIZE			
NOMINAL BAG SIZE	SOLIDS STORAGE (CuFt)	FILTERED FLOW RATE AT 5WL MAX (CFS)	
		FX (WOVEN)	IL (NONWOVEN)
SMALL	16	12	0.90
MEDIUM	2.10	1.70	1.30
LARGE	3.80	2.70	1.90
XL	4.20	3.60	2.60

INSTALLATION:
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC A DIVISION OF FNC
WWW.INLETFILTERS.COM
(866) 287-8055 PH
(352) 383-8777 FX
INFO@INLETFILTERS.COM

FLEXSTORM INLET FILTER DETAIL

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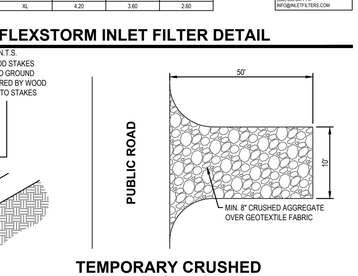

TEMPORARY CRUSHED ROCK TRACKING PAD

N.T.S.

Land Planning — Landscape Architecture — Civil Engineering — Land Surveying — High Definition Scanning — Forensic Engineering — Fire Investigation

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INDIANAPOLIS
ST. LOUIS

PREPARED FOR:

The Architectural Group, Inc.
Attention: Tim VandeZande

3100 Prairie Street SW
Grandville, MI 49418
Telephone: (616) 531 -7040

REVISIONS:

Title: Preliminary Site Plan		
Drawn: SW	Checked: SW	Date: 04/08/21
Title: Site Plan Submittal		
Drawn: SW	Checked: SW	Date: 05/03/21

Lighthouse Church Phase 3

Utility, Grading & S.E.S.C. Plan

7624 Lake Michigan Dr

PART OF THE NORTHWEST 1/4 OF SECTION 28, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

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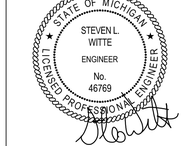

PROJECT NO:
21200538

SHEET NO:
C-300

SHEET: 3 OF 4

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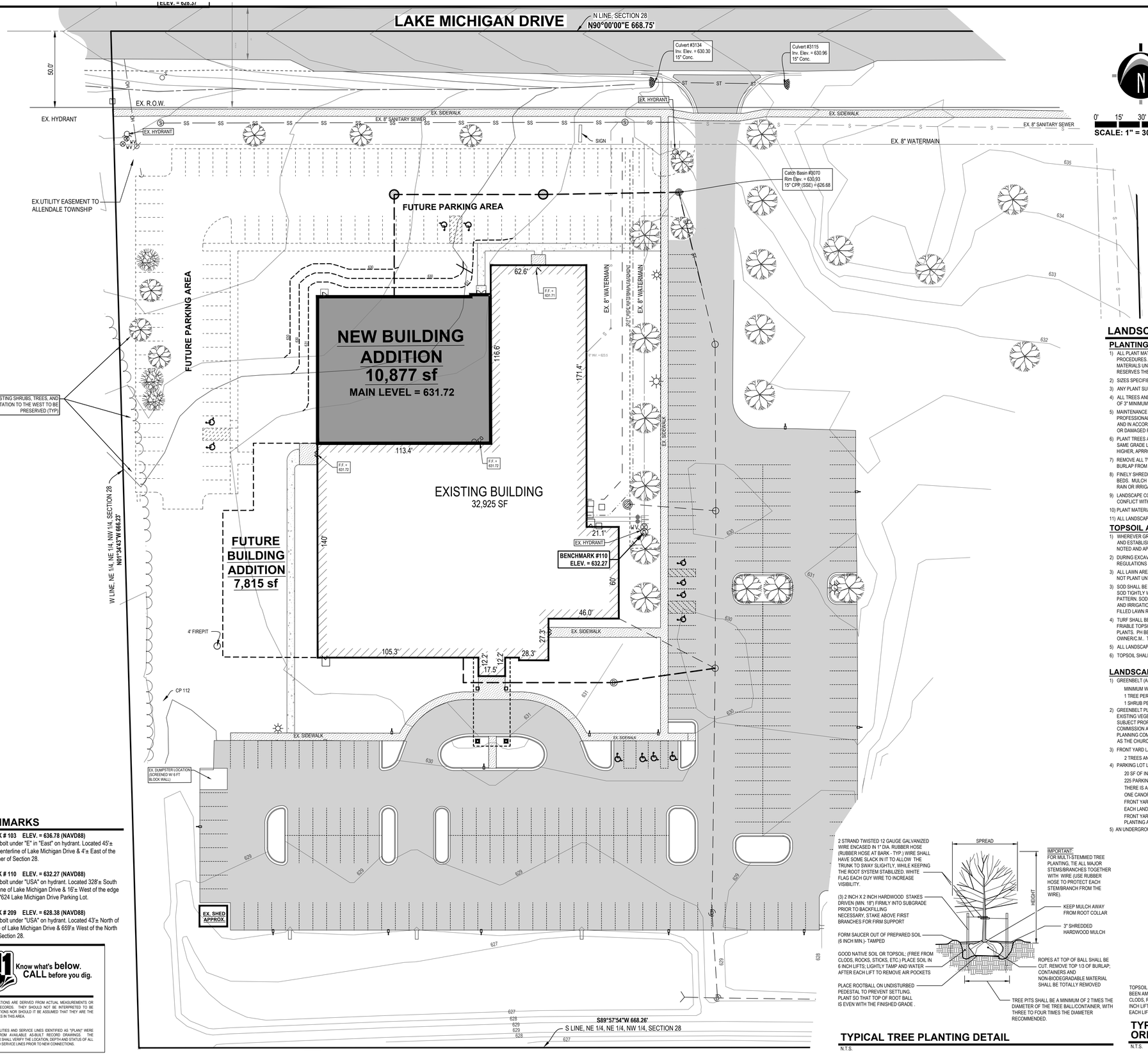

LOCATION MAP

NOT TO SCALE

LEGEND

- EXISTING BITUMINOUS
- EXISTING CONCRETE
- PROPOSED BITUMINOUS
- PROPOSED CONCRETE
- PROPOSED BUILDING

LANDSCAPE NOTES

PLANTING NOTES:

1) ALL PLANT MATERIAL SHALL BE LOCALLAY NURSERY GROWN NO.1 GRADE AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. ALL PLANT MATERIALS SHALL MEET CURRENT AMERICAN ASSOCIATION OR NURSERYMEN STANDARDS. DO NOT PLANT MATERIALS UNTIL DIRECTED BY OWNER, LANDSCAPE ARCHITECT, AND/OR CONSTRUCTION MANAGER. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL, FOR ANY REASON BEFORE OR AFTER IT IS INSTALLED.
2) SIZES SPECIFIED ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE INSTALLED.
3) ANY PLANT SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
4) ALL TREES AND SHRUBS SHALL BE INSTALLED WITH A 3' DIAMETER LANDSCAPE EDGING RING TO BE FILLED WITH MULCH TO A DEPTH OF 3" MINIMUM.
5) MAINTENANCE OF LANDSCAPING ITEMS, TREES, AND PLANTS SHALL BE PERFORMED BY THE PROPERTY OWNER OR A QUALIFIED PROFESSIONAL. ALL LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE MUNICIPAL STANDARDS AND IN ACCORDANCE WITH CURRENT INDUSTRY STANDARDS IN A NEAT, HEALTHY AND WEED FREE CONDITION. ANY DEAD, DISEASED OR DAMAGED PLANT MATERIALS ARE TO BE REPLACED IMMEDIATELY AFTER NOTIFIED TO DO SO.
6) PLANT TREES AND SHRUBS IN ACCORDANCE WITH PLANTING DETAILS. DIG TREE PITS PER DETAILS. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE GROWN AT THE NURSERY. IF HEAVY CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER, APPROX. 1/4 OF THE ROOT BALL ABOVE GRADE, AND BACKFILL TO TOP OF ROOT BALL.
7) REMOVE ALL TWINE, WIRE, NURSERY TREE GUARDS, TAGS AND INORGANIC MATERIAL FROM ROOT BALLS. REMOVE THE TOP 1/3 OF BURLAP FROM EARTH BALLS AND REMOVE BURLAP FROM AROUND TRUNK.
8) FINELY SHREDDED HARDWARD BARK MULCH, NATURAL COLOR (NON-COLORED), IS REQUIRED FOR ALL PLANTINGS AND PLANTING BEDS. MULCH PER PLANTING DETAILS. MULCH IN PLANT BEDS SHALL BE 3" THICK AT TIME OF INSPECTION AND AFTER COMPACTED BY RAIN OR IRRIGATION. ALL PLANTING BEDS SHALL BE EDGED WITH 6" X 12 GAUGE STEEL LANDSCAPE EDGING.
9) LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES. IF A CONFLICT WITH UTILITIES EXIST, NOTIFY OWNER/CONSTRUCTION MANAGER PRIOR TO PLANTING.
10) PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER PLANTING AND ACCEPTANCE.
11) ALL LANDSCAPING SHALL BE COMPLETED BY THE OWNER.

TOPSOIL AND TURF NOTES:

1) WHEREVER GROUND IN ITS NATURAL STATE HAS BEEN DISTURBED, APPROVED LANDSCAPING OR GRASS SHALL BE FULLY INSTALLED, AND ESTABLISHED WITHIN A REASONABLE PERIOD OF TIME, BUT NO LONGER THAN ONE GROWING SEASON (UNLESS OTHERWISE NOTED AND APPROVED).
2) DURING EXCAVATION, GRADING, AND INSTALLATION OF REQUIRED LANDSCAPING, ALL SOIL EROSION AND SEDIMENTATION CONTROL REGULATIONS SHALL BE STRICTLY FOLLOWED AND COMPLIED WITH.
3) ALL LAWN AREAS SHALL RECEIVE SOD OR HYDROSEED. TURF SHALL BE INSTALLED ON TOPSOIL UNLESS APPROVED OTHERWISE. DO NOT PLANT UNTIL ACCEPTANCE OF FINISH GRADE.
3) SOD SHALL BE GROWN ON TOPSOIL UNLESS APPROVED OTHERWISE. SOD SHALL BE 2 YEARS OLD AND STRONGLY ROOTED. PLACE SOD TIGHTLY WITH NO GAPS AND WITH GRAIN IN SAME DIRECTION. SEAMS OF SOD SHALL BE STAGGERED IN A RUNNING BOND PATTERN. SOD SHALL BE WATERED IMMEDIATELY TO AVOID DRYING OUT. DO NOT INSTALL SOD UNTIL ACCEPTANCE OF FINISH GRADE AND IRRIGATION SYSTEM IS OPERATING PROPERLY UNLESS DIRECTED IN WRITING TO DO OTHERWISE. FINISH ROLL SOD WITH A WATER FILLED LAWN ROLLER, ROLL PERPENDICULAR TO LENGTH OF SOD.
4) TURF SHALL BE INSTALLED ON A MIN. OF 3"-4" OF LIGHTLY COMPACTED APPROVED TOPSOIL. TOPSOIL SHALL BE FERTILE, SCREENED, FRIABLE TOPSOIL FREE OF STONES 1/2" IN DIA. AND LARGER, ROOTS, STICKS, OR OTHER EXTRANEOUS MATERIAL INCLUDING NOXIOUS PLANTS. PH BETWEEN 6.0 AND 6.5, SALTS 500 PARTS PPM, ORGANIC CONTENT 3% MIN. DO NOT INSTALL TOPSOIL UNTIL APPROVED BY OWNER/C.M.. TOPSOIL SHALL BE FINE GRADED TO A SMOOTH FINISH, FREE OF LUMPS AND DEPRESSIONS.
5) ALL LANDSCAPE ISLANDS WITHIN PARKING LOTS SHALL BE BACK FILLED WITH TOPSOIL TO A DEPTH OF 18" MIN.
6) TOPSOIL SHALL BE RESPREAD BY THE SITE CONTRACTOR. SEEDING/SOD TO BE COMPLETED BY THE OWNER.

LANDSCAPE REQUIREMENT NOTES:

1) GREENBELT (ABUTTING RESIDENTIAL ZONES/USES):
   MINIMUM WIDTH 15 FT.
   1 TREE PER 20 FT. (MIXTURE OF EVERGREEN, CANOPY, AND ORNAMENTAL)
   1 SHRUB PER 10 FT.
2) GREENBELT PLANTINGS ALONG THE SOUTH AND WEST PROPERTY LINES HAVE BEEN REDUCED OR ELIMINATED WITH THE INTENT THAT EXISTING VEGETATION PRESENT SHALL BE SUFFICIENT TO PROVIDE THE NECESSARY BUFFERING/SCREENING EFFECTS OF THE SUBJECT PROPERTY. NOTE THAT DURING THE ORIGINAL APPROVAL OF THE PROJECT BY THE PLANNING COMMISSION, THE PLANNING COMMISSION ALLOWED 3 FT EVERGREEN TREES AT 75 FT ON CENTER ALONG THE SOUTH AND WEST EDGE OF THE PROPERTY. THE PLANNING COMMISSION RESERVED THE RIGHT TO REVISIT THIS REQUIREMENT DURING SUBSEQUENT SITE PLAN REVIEWS/APPROVALS AS THE CHURCH EXPANDS.
3) FRONT YARD LANDSCAPING:
   2 TREES AND 6 SHRUBS PER 150 FT. OF FRONTAGE
4) PARKING LOT LANDSCAPING REQUIREMENTS:
   20 SF OF INTERIOR AND PERIMETER LANDSCAPING FOR EACH PARKING SPACE.
   225 PARKING SPACES REQUIRES 4,500 SF PARKING LOT LANDSCAPE AREA.
   THERE IS A TOTAL OF APPROXIMATELY 6,260 SF OF INTERNAL ISLANDS PROVIDED (SEE PLAN VIEW)
   ONE CANOPY OR ORNAMENTAL TREE FOR EVERY 20 SPACES.
   FRONT YARD AND GREENBELT PLANTINGS CAN COUNT FOR 50% OF THE PARKING LOT LANDSCAPING.
   EACH LANDSCAPED ISLAND SHALL BE A MINIMUM OF 6 FT WIDE AND CONTAIN AT LEAST ONE CANOPY TREE.
   FRONT YARD PARKING SHALL BE SCREENED FROM ROADWAY WITH A LANDSCAPE HEDGE THAT IS A MINIMUM OF 2 FT TALL AT PLANTING AND 3 FT TALL AT MATURITY.
5) AN UNDERGROUND IRRIGATION SYSTEM HAS BEEN PROVIDED TO IRRIGATE THE LANDSCAPED AREAS AND GRASSED AREAS.

BENCHMARKS

BENCHMARK # 103 ELEV. = 636.78 (NAVD88)
Top of flange bolt under "E" in "East" on hydrant. Located 45'± North of the Centerline of Lake Michigan Drive & 4'± East of the North 1/4 corner of Section 28.

BENCHMARK # 110 ELEV. = 632.27 (NAVD88)
Top of flange bolt under "USA" on hydrant. Located 328'± South of the Centerline of Lake Michigan Drive & 16'± West of the edge of Asphalt of 7624 Lake Michigan Drive Parking Lot.

BENCHMARK # 209 ELEV. = 628.38 (NAVD88)
Top of flange bolt under "USA" on hydrant. Located 43'± North of the Centerline of Lake Michigan Drive & 659'± West of the North 1/4 corner of Section 28.

811 Know what's **below.** **CALL** before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

NOTE:
EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "PLAN" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

TYPICAL TREE PLANTING DETAIL

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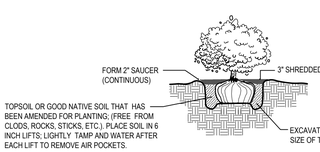

TYPICAL SHRUB / PERENNIAL / ORNAMENTAL GRASS PLANTING DETAIL

N.T.S.

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217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
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ST. LOUIS

PREPARED FOR:
The Architectural Group, Inc.
Attention: Tim VandeZande
3100 Prairie Street SW
Grandville, MI 49418
Telephone: (616) 531 -7040

REVISIONS:

Title: Preliminary Site Plan		
Drawn: SW	Checked: SW	Date: 04/08/21
Title: Site Plan Submittal		
Drawn: SW	Checked: SW	Date: 05/03/21

Lighthouse Church Phase 3

Landscape Plan

7624 Lake Michigan Dr
PART OF THE NORTHWEST 1/4 OF SECTION 28, T7N, R14W, ALLENDALE TOWNSHIP, OTTAWA COUNTY, MICHIGAN

STAMP:
STATE OF MICHIGAN
STEVEN L. WITTE
ENGINEER
No. 46769
LICENSED PROFESSIONAL ENGINEER

PROJECT NO:
21200538

SHEET NO:
L-201

SHEET: 4 OF 4

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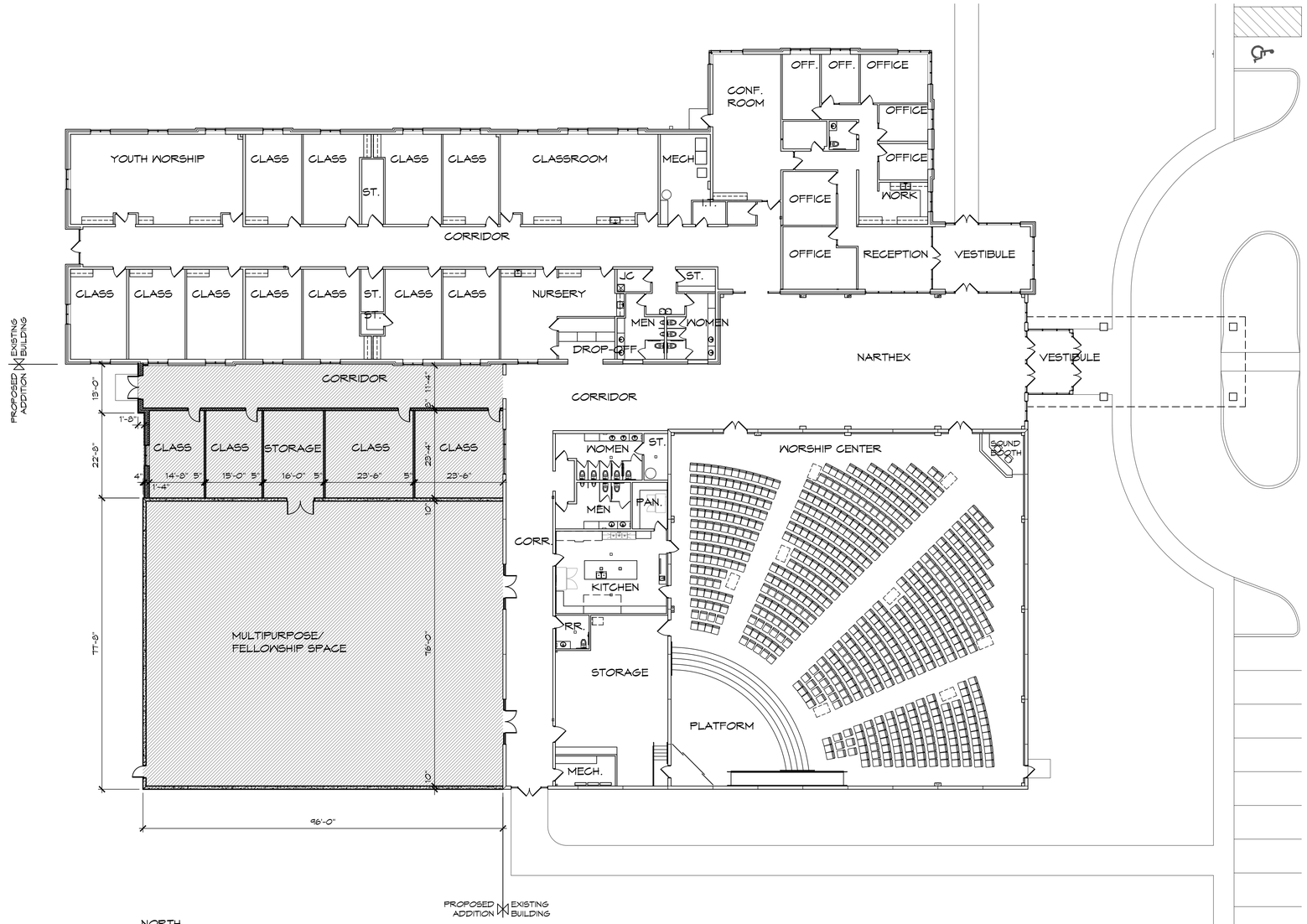

NORTH

FLOOR PLAN

0 8' 16' 32'

32,865 SF EXISTING
10,880 SF (GROSS) PROPOSED

TAG

The Architectural Group, Inc.

Architects
Planners

3100 Prairie S.W.
Grandville, MI 49418

Phone: 616.531.7040
Fax: 616.531.0221

www.TheArchitecturalGroup.com

Proposed Addition to:
Lighthouse Community Church
Allendale, Michigan

Dr. JLF
Ap. EVZ

Date	Issued For
5.3.2021	SITE PLAN APPRL.

File No. 2021-18

Drawing

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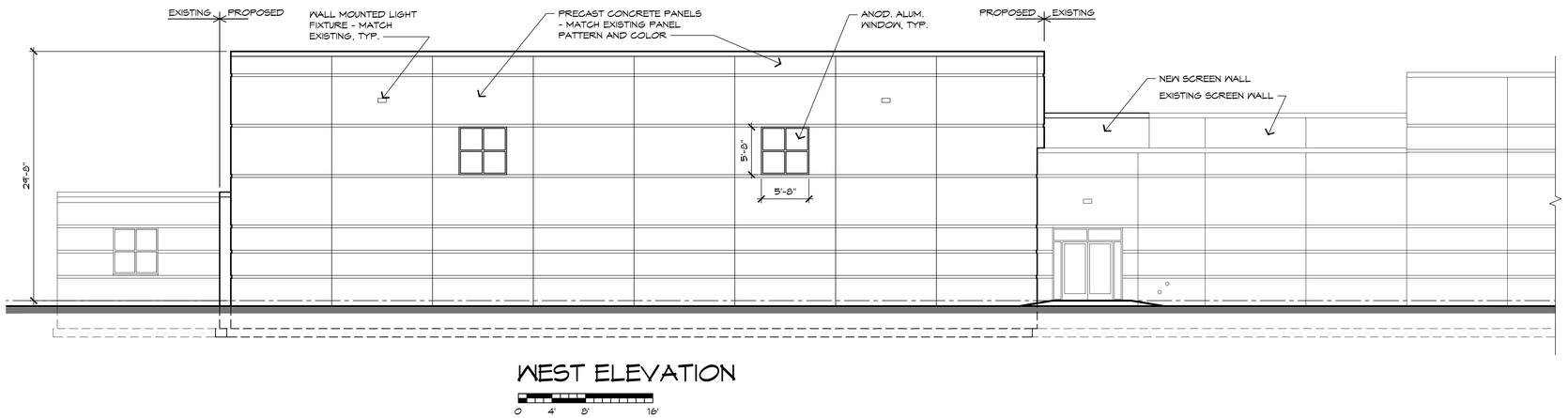
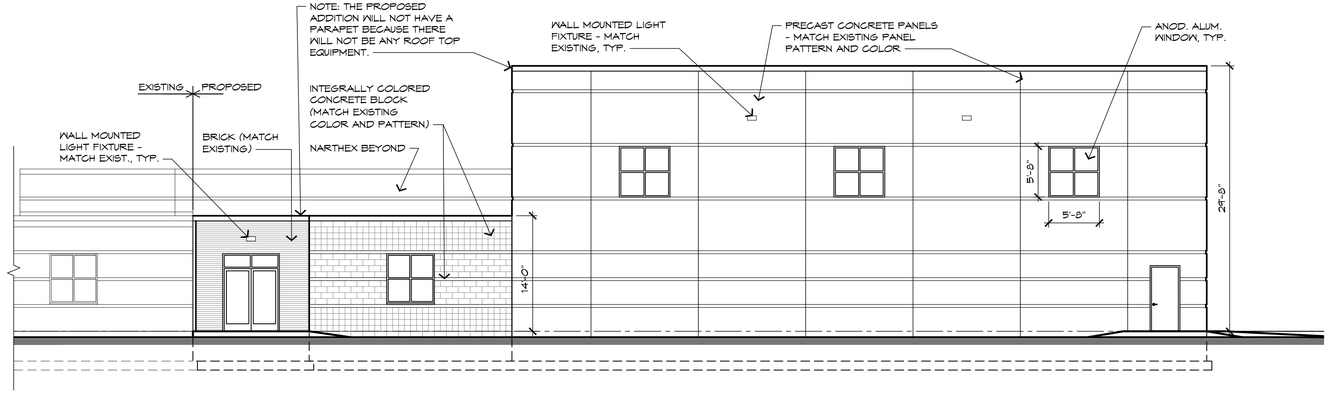


WEST ELEVATION

0 4' 8' 16'



NORTH ELEVATION

0 4' 8' 16'

TAG

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Proposed Addition to:
Lighthouse Community Church
Allendale, Michigan

Dr. JLF
Ap. EVZ

Date Issued For
5.3.2021 SITE PLAN APPRL.

File No. 2021-18

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NORTH EXTERIOR ELEVATION PERSPECTIVE

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Proposed Addition to:
Lighthouse Community Church

File No.: 2021-18 Date: 5.3.21

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Sketch No.

A

NORTH-WEST EXTERIOR ELEVATION PERSPECTIVE

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Proposed Addition to:
Lighthouse Community Church

File No.: 2021-18 Date: 5.3.21

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Sketch No.

B

Project		Catalog #		Type	
Prepared by		Notes		Date	

McGraw-Edison

GWC Galleon Wall

Wall Mount Luminaire

Typical Applications

Exterior Wall • Walkway

Interactive Menu

- Ordering Information page 2
- Product Specifications page 2
- Optical Configurations page 3
- Energy and Performance Data page 4
- Control Options page 6

Product Certifications

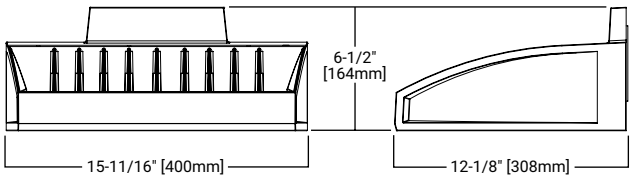
Quick Facts

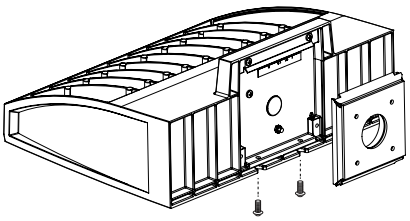
- Choice of thirteen high-efficiency, patented AccuLED Optics™
- Downward and inverted wall mounting configurations
- Eight lumen packages from 3,215 up to 17,056
- Efficacies up to 154 lumens per watt

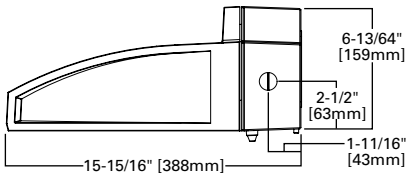
Connected Systems

- WaveLinx
- Enlighted

Dimensional Details







Ordering Information

SAMPLE NUMBER: **GWC-SA2C-740-U-T4FT-GM**

Product Family [1]	Light Engine		Color Temperature	Voltage	Distribution	Finish
	Configuration	Drive Current				
GWC=Galleon Wall	**SA1**=1 Square **SA2**=2 Squares [2]	**A**=615mA **B**=800mA **C**=1000mA **D**=1200mA [4]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [3, 4]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [6,7] **9**=347V [6]	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	**Controls and Systems Options** (Add as Suffix)	**Accessories** (Order Separately)
F=Single Fused (120, 277 or 347V. Must Specify Voltage) **FF**=Double Fused (208, 240 or 480V. Must Specify Voltage) **10K**=10kV Surge Module **20K**=Series 20kV UL 1449 Surge Protective Device **DIM**=External 0-10V Dimming Leads [9, 10] **CBP**=Battery Pack with Back Box, Cold Weather Rated [2, 4, 14, 33] **CBP-CEC**=Battery Pack with Back Box, Cold Weather Rated, CEC compliant [2, 4, 14] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **HSS**=Factory Installed House Side Shield [23] **GRSBK**=Factory Installed Glare Shield, BK [4, 27] **GRSWH**=Factory Installed Glare Shield, WH [4, 27] **UPL**=Uplight Housing [13] **HA**=50°C High Ambient [12] **LCF**=Light Square Trim Plate Painted to Match Housing [22] **MT**=Factory Installed Mesh Top **CC**=Coastal Construction finish [5] **CE**=CE Marking and Small Terminal Block [24] **AHD145**=After Hours Dim, 5 Hours [16] **AHD245**=After Hours Dim, 6 Hours [16] **AHD255**=After Hours Dim, 7 Hours [16] **AHD355**=After Hours Dim, 8 Hours [16] **DALI**=DALI Driver [11]	**BPC**=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) **PR**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [15] **SPB1**=Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting [19,34] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting [19,34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting [19,34] **MS-LXX**=Motion Sensor for On/Off Operation [17, 18, 19] **MS/DIM-LXX**=Motion Sensor for Dimming Operation [17, 18, 19] **ZW**=WaveLinx-enabled 4-PIN Twistlock Receptacle [29, 30] **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle [29, 30] **SWPD4XX**=WaveLinx Sensor Only, 7'-15' [31, 32] **SWPD5XX**=WaveLinx Sensor Only, 15'-40' [31, 32] **WOBXX**=WaveLinx Sensor with Bluetooth, 7'-15' [31, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15'-40' [31, 32] **LWR-LW**=Enlighted Wireless Sensor, Wide Lens for 8'-16' Mounting Height [19, 20, 21] **LWR-LN**=Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height [19, 20, 21]	**OA/RA1013**=Photocontrol Shorting Cap [28] **OA/RA1016**=NEMA Photocontrol - Multi-Tap 105-285V [28] **OA/RA1201**=NEMA Photocontrol - 347V [28] **OA/RA1027**=NEMA Photocontrol - 480V [28] **MA1252**=10kV Circuit Module Replacement **MA1059XX**=Thru-branch Back Box (Must Specify Color) **LS/HSS**=Field Installed House Side Shield [23, 25] **LS/GRSBK**=Glare Shield, Black [8, 25, 27] **LS/GRSWH**=Glare Shield, White [8, 25, 27] **LS/PFS**=Perimeter Shield, Black **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [17] **WOLC-7P-10A**=WaveLinx Outdoor Control Module (7-pin) [26, 29] **SWPD4-XX**=Wavelinx Wireless Sensor, 7' – 15' Mounting Height [29, 30, 31, 32] **SWPD5-XX**=Wavelinx Wireless Sensor, 15' – 40' Mounting Height [29, 30, 31, 32]

NOTES:

1. DesignLight Consortium® Qualified. Refer to www.designlights.org, Qualified Products List under Family Models for details.
2. Two light squares with CBP options limited to 25°C. Not available in combination with sensor options at 1200mA.
3. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
4. Not available with HA option.
5. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
6. Require the use of a step down transformer. Not available in combination with sensor options at 1200mA.
7. 480V must use Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
8. Reserved.
9. Cannot be used with other control options.
10. Low voltage control leads extended 18" from fixture.
11. Not available in 1200mA. When used with CBP or HA options, only available with single light square.
12. Not available in 1200mA, UPL or CBP options. Available with single light square.
13. Not available with SL2, SL3, SL4, HA, CBP, PR or PR7 options.
14. Operates a single light square only. Operates at -20°C to +40°C. Backbox is non-IP rated. Control option limited to BPC.
15. Compatible with standard 3-PIN photocontrols, 5-PIN or 7-PIN ANSI controls.
16. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
17. The FSIR-100 configuration tool is required to adjust parameters such as high and low modes, sensitivity, time delay and cutoff. Consult your lighting representative at Cooper Lighting Solutions for more information.
18. Replace LXX with L08 (<8' mounting), L20 (8'-20' mounting) or L40W (21'-40' mounting.)
19. Includes integral photosensor.
20. Enlighted wireless sensors are factory installed requiring network components in appropriate quantities.
21. White sensor shipped on all housing color options.
22. Not available with HSS or GRS options.
23. Not for use with 5NQ, 5MQ, 5WQ or RW optics. The light square trim plate is painted black when the HSS option is selected.
24. CE is not available with the 1200, DALI, LWR, MS, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
25. One required for each light square.
26. Requires PR7.
27. Not for use with T4FT, T4W or SL4 optics.
29. Cannot be used in conjunction with additional photocontrol or other controls systems (BPC, PR, PR7, MS, LWR).
30. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
31. Requires ZW or ZD receptacle.
32. Replace XX with sensor color (WH, BZ, or BK).
33. Specify 120V or 277V.
34. Smart device with mobile application required to change system defaults. See controls section for details.

Product Specifications

Construction

- Driver enclosure thermally isolated from optics for optimal thermal performance
- Die-cast aluminum heat sinks
- IP66 rated housing
- 1.5G vibration rated

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 13 optical distributions
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED driver assembly mounted for ease of maintenance
- Standard with 0-10V dimming
- Optional 10kV or 20kV surge module
- Suitable for operation in -40C to 40C ambient environments. Optional 50C high ambient (HA) configuration.

Mounting

- Gasketed and zinc plated rigid steel mounting attachment
- "Hook-N-Lock" mechanism for easy installation

Finish

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

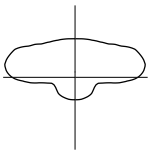
Warranty

- Five-year warranty

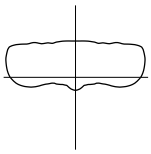
Optical Distributions

Asymmetric Area Distributions

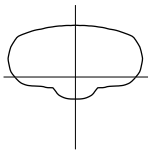
T2 (Type II)



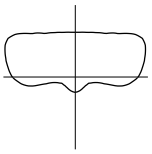
SL2 (Type II with Spill Control)



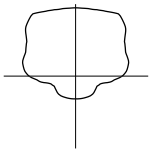
T3 (Type III)



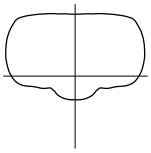
SL3 (Type III with Spill Control)



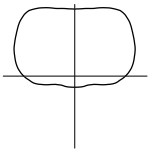
T4FT (Type IV Forward Throw)



T4W (Type IV Wide)

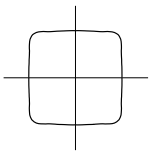


SL4 (Type IV with Spill Control)

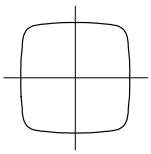


Symmetric Distributions

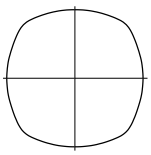
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

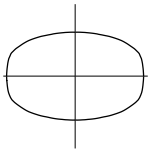


5WQ (Type V Square Wide)

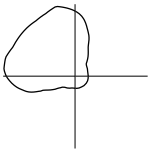


Specialized Distributions

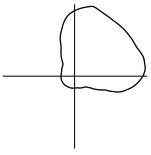
RW (Rectangular Wide Type I)



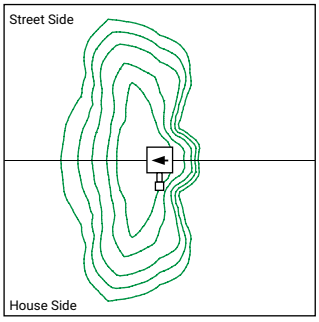
SLL (90° Spill Light Eliminator Left)



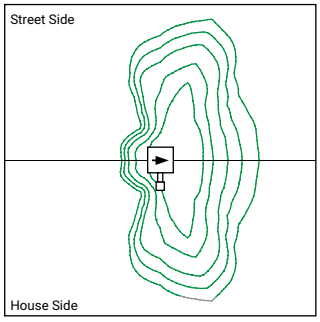
SLR (90° Spill Light Eliminator Right)



Optic Orientation



Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

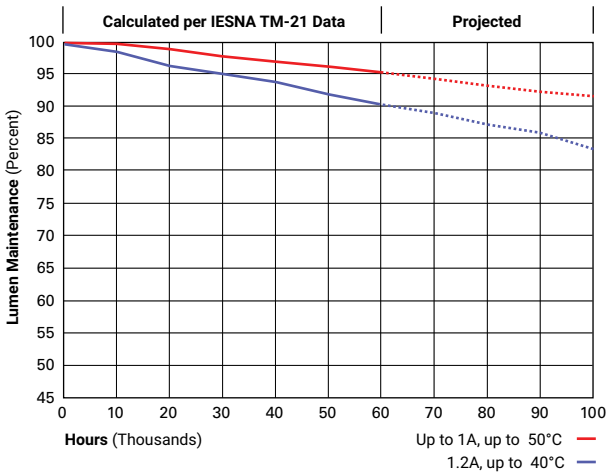
Energy and Performance Data

Lumen Multiplier

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

Lumen Maintenance

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
Up to 1A	Up to 50°C	> 95%	> 416,000
1.2A	Up to 40°C	> 90%	> 205,000



Energy and Performance Data

View GWC Galleon Wall IES files

4000K/5000K/6000K CCT, 70 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	Lumens	4,883	5,989	7,412	8,131	9,543	11,703	14,485	15,891
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	Lumens per Watt	144	136	126	121	145	136	128	123
T3	Lumens	4,978	6,105	7,556	8,288	9,729	11,929	14,764	16,196
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
T4FT	Lumens	5,008	6,140	7,599	8,337	9,783	11,998	14,850	16,290
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	147	140	129	124	148	140	131	126
T4W	Lumens	4,942	6,060	7,502	8,229	9,658	11,843	14,658	16,080
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
	Lumens per Watt	145	138	127	123	146	138	130	125
SL2	Lumens	4,874	5,979	7,399	8,117	9,528	11,684	14,461	15,863
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3
	Lumens per Watt	143	136	125	121	144	136	128	123
SL3	Lumens	4,976	6,104	7,555	8,287	9,727	11,927	14,763	16,194
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
SL4	Lumens	4,729	5,799	7,178	7,873	9,239	11,333	14,025	15,387
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4
	Lumens per Watt	139	132	122	118	140	132	124	119
5NQ	Lumens	5,134	6,296	7,793	8,547	10,033	12,303	15,226	16,704
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	151	143	132	128	152	143	135	129
5MQ	Lumens	5,228	6,412	7,935	8,705	10,216	12,529	15,508	17,011
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	134	130	155	146	137	132
5WQ	Lumens	5,242	6,428	7,956	8,728	10,244	12,563	15,548	17,056
	BUG Rating	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	135	130	155	146	138	132
SLL/SLR	Lumens	4,373	5,365	6,640	7,283	8,547	10,481	12,973	14,231
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	129	122	113	109	130	122	115	110
RW	Lumens	5,087	6,238	7,721	8,472	9,941	12,190	15,088	16,553
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	150	142	131	126	151	142	134	128

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

3000K CCT, 80 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	**Lumens**	3,880	4,759	5,890	6,461	7,583	9,300	11,510	12,628
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
T3	**Lumens**	3,956	4,851	6,004	6,586	7,731	9,479	11,732	12,870
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	Lumens per Watt	116	110	102	98	117	110	104	100
T4FT	**Lumens**	3,980	4,879	6,038	6,625	7,774	9,534	11,800	12,945
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	117	111	102	99	118	111	104	100
T4W	**Lumens**	3,927	4,816	5,961	6,539	7,675	9,411	11,648	12,778
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	116	109	101	98	116	109	103	99
SL2	**Lumens**	3,873	4,751	5,880	6,450	7,571	9,285	11,491	12,605
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
SL3	**Lumens**	3,954	4,851	6,004	6,585	7,729	9,478	11,731	12,868
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	116	110	102	98	117	110	104	100
SL4	**Lumens**	3,758	4,608	5,704	6,256	7,342	9,006	11,145	12,227
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3
	Lumens per Watt	111	105	97	93	111	105	99	95
5NQ	**Lumens**	4,080	5,003	6,193	6,792	7,973	9,776	12,099	13,274
	BUG Rating	B2-U0-G0	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
	Lumens per Watt	120	114	105	101	121	114	107	103
5MQ	**Lumens**	4,154	5,095	6,305	6,917	8,118	9,956	12,323	13,518
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	122	116	107	103	123	116	109	105
5WQ	**Lumens**	4,166	5,108	6,322	6,936	8,140	9,983	12,355	13,553
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	123	116	107	104	123	116	109	105
SLL/SLR	**Lumens**	3,475	4,263	5,276	5,787	6,792	8,329	10,309	11,309
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	102	97	89	86	103	97	91	88
RW	**Lumens**	4,042	4,957	6,135	6,732	7,900	9,687	11,990	13,154
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	119	113	104	100	120	113	106	102

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

Control Options

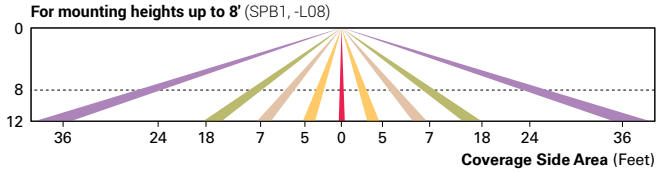
0-10V This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR, and PR7) Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

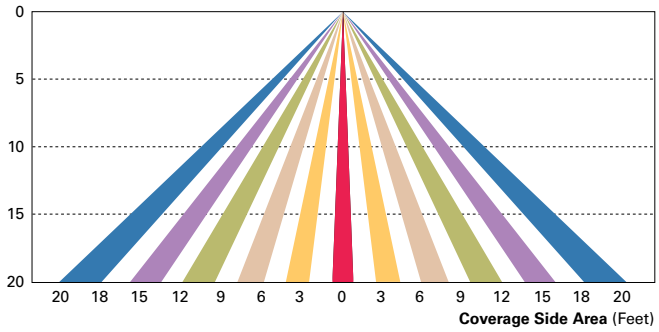
After Hours Dim (AHD) This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

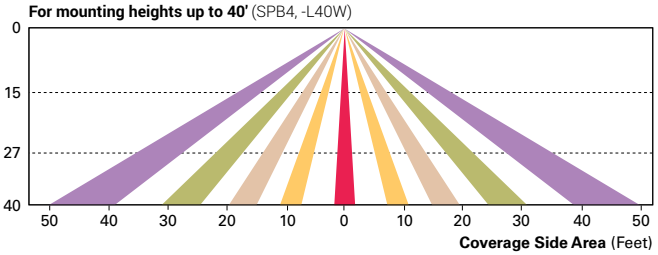
For mounting heights up to 8' (SPB1, -L08)



For mounting heights up to 20' (SPB2, -L20)

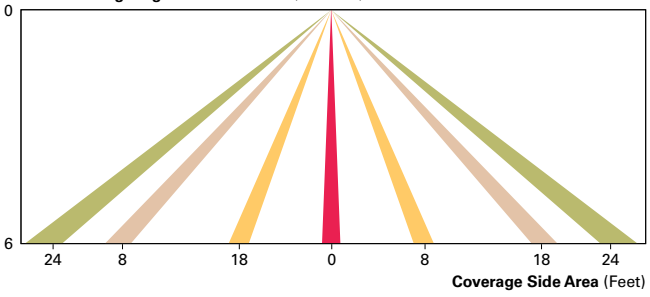


For mounting heights up to 40' (SPB4, -L40W)

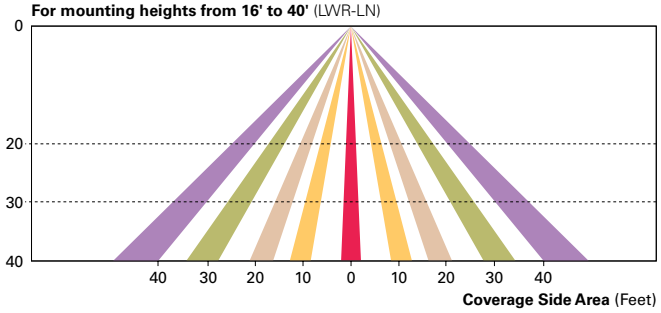


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted control system is a connected lighting solution, combining LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes while collecting valuable data about building performance and use. Software applications utilizing energy dashboards maximize data inputs to help optimize the use of other resources beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A) The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

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Specifications and dimensions
subject to change without notice.

D-Series Size 1
LED Wall Luminaire

Buy American

d-series

Catalog Number

Notes

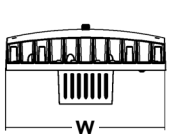
Type

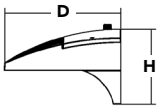
Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Luminaire

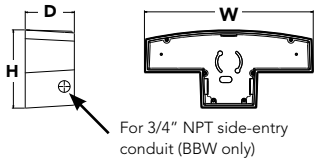
Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		





Back Box (BBW, ELCW)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**ELCW Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		



Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED

Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines) [1]	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) [1]	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium	MVOLT [2] 120 [3] 208 [3] 240 [3] 277 [3] 347 [3,4] 480 [3,4]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [5]	**Shipped installed** PE Photoelectric cell, button type [6] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) PIR 180° motion/ambient light sensor, <15' mtg ht [1,7] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [1,7] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [1,7] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [1,7] ELCW Emergency battery backup (includes external component enclosure), CA Title 20 Noncompliant [8,9]

Other Options

Shipped installed

SF	Single fuse (120, 277 or 347V) [3,10]
DF	Double fuse (208, 240 or 480V) [3,10]
HS	House-side shield [11]
SPD	Separate surge protection [12]

Shipped separately [11]

BSW	Bird-deterrent spikes
VG	Vandal guard
DDL	Diffused drop lens

Finish *(required)*

DDBXD	Dark bronze	DSSXD	Sandstone	DWHGXD	Textured white
DBLXD	Black	DDBTXD	Textured dark bronze	DSSTXD	Textured sandstone
DNAXD	Natural aluminum	DBLBXD	Textured black		
DWHXD	White	DNATXD	Textured natural aluminum		

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1VG U	Vandal guard accessory

NOTES

1. 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4. Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
5. Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6. Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
7. Reference Motion Sensor table on page 3.
8. Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
9. Not available with SPD.
10. Not available with ELCW.
11. Also available as a separate accessory; see Accessories information.
12. Not available with ELCW.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70CRI)					40K (4000 K, 70CRI)					50K (5000 K, 70CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	350mA	13W	T2S	1,415	0	0	1	109	1,520	0	0	1	117	1,530	0	0	1	118	894	0	0	1	69
			T2M	1,349	0	0	1	104	1,448	0	0	1	111	1,458	0	0	1	112	852	0	0	1	66
			T3S	1,399	0	0	1	108	1,503	0	0	1	116	1,512	0	0	1	116	884	0	0	1	68
			T3M	1,385	0	0	1	107	1,488	0	0	1	114	1,497	0	0	1	115	876	0	0	1	67
			T4M	1,357	0	0	1	104	1,458	0	0	1	112	1,467	0	0	1	113	858	0	0	1	66
			TFTM	1,411	0	0	1	109	1,515	0	0	1	117	1,525	0	0	1	117	892	0	0	1	69
	530 mA	19W	T2S	2,053	1	0	1	108	2,205	1	0	1	116	2,220	1	0	1	117	1,264	0	0	1	67
			T2M	1,957	1	0	1	103	2,102	1	0	1	111	2,115	1	0	1	111	1,205	0	0	1	63
			T3S	2,031	1	0	1	107	2,181	1	0	1	115	2,194	1	0	1	115	1,250	0	0	1	66
			T3M	2,010	1	0	1	106	2,159	1	0	1	114	2,172	1	0	1	114	1,237	0	0	1	65
			T4M	1,970	1	0	1	104	2,115	1	0	1	111	2,129	1	0	1	112	1,212	0	0	1	64
			TFTM	2,047	0	0	1	108	2,198	1	0	1	116	2,212	1	0	1	116	1,260	0	0	1	66
	700 mA	26W	T2S	2,623	1	0	1	101	2,816	1	0	1	108	2,834	1	0	1	109	1,544	0	0	1	59
			T2M	2,499	1	0	1	96	2,684	1	0	1	103	2,701	1	0	1	104	1,472	0	0	1	57
			T3S	2,593	1	0	1	100	2,785	1	0	1	107	2,802	1	0	1	108	1,527	0	0	1	59
			T3M	2,567	1	0	1	99	2,757	1	0	1	106	2,774	1	0	1	107	1,512	0	0	1	58
			T4M	2,515	1	0	1	97	2,701	1	0	1	104	2,718	1	0	1	105	1,481	0	0	1	57
			TFTM	2,614	1	0	1	101	2,808	1	0	1	108	2,825	1	0	1	109	1,539	0	0	1	59
	1000 mA	39W	T2S	3,685	1	0	1	94	3,957	1	0	1	101	3,982	1	0	1	102	2,235	1	0	1	57
			T2M	3,512	1	0	1	90	3,771	1	0	1	97	3,794	1	0	1	97	2,130	1	0	1	55
			T3S	3,644	1	0	1	93	3,913	1	0	1	100	3,938	1	0	1	101	2,210	1	0	1	57
			T3M	3,607	1	0	1	92	3,873	1	0	1	99	3,898	1	0	1	100	2,187	1	0	1	56
			T4M	3,534	1	0	2	91	3,796	1	0	2	97	3,819	1	0	2	98	2,143	1	0	1	55
			TFTM	3,673	1	0	1	94	3,945	1	0	1	101	3,969	1	0	1	102	2,228	1	0	1	57
20C (20 LEDs)	350mA	23W	T2S	2,820	1	0	1	123	3,028	1	0	1	132	3,047	1	0	1	132	1,777	1	0	1	77
			T2M	2,688	1	0	1	117	2,886	1	0	1	125	2,904	1	0	1	126	1,693	1	0	1	74
			T3S	2,789	1	0	1	121	2,994	1	0	1	130	3,014	1	0	1	131	1,757	0	0	1	76
			T3M	2,760	1	0	1	120	2,965	1	0	1	129	2,983	1	0	1	130	1,739	1	0	1	76
			T4M	2,704	1	0	1	118	2,905	1	0	1	126	2,922	1	0	1	127	1,704	1	0	1	74
			TFTM	2,811	1	0	1	122	3,019	1	0	1	131	3,038	1	0	1	132	1,771	0	0	1	77
	530 mA	35W	T2S	4,079	1	0	1	117	4,380	1	0	1	125	4,407	1	0	1	126	2,504	1	0	1	72
			T2M	3,887	1	0	1	111	4,174	1	0	1	119	4,201	1	0	1	120	2,387	1	0	1	68
			T3S	4,033	1	0	1	115	4,331	1	0	1	124	4,359	1	0	1	125	2,477	1	0	1	71
			T3M	3,993	1	0	2	114	4,288	1	0	2	123	4,315	1	0	2	123	2,451	1	0	1	70
			T4M	3,912	1	0	2	112	4,201	1	0	2	120	4,227	1	0	2	121	2,402	1	0	1	69
			TFTM	4,066	1	0	2	116	4,366	1	0	2	125	4,394	1	0	2	126	2,496	1	0	1	71
	700 mA	46W	T2S	5,188	1	0	1	113	5,572	1	0	1	121	5,607	1	0	1	122	3,065	1	0	1	67
			T2M	4,945	1	0	2	108	5,309	1	0	2	115	5,343	1	0	2	116	2,921	1	0	1	64
			T3S	5,131	1	0	2	112	5,510	1	0	2	120	5,544	1	0	2	121	3,031	1	0	1	66
			T3M	5,078	1	0	2	110	5,454	1	0	2	119	5,487	1	0	2	119	3,000	1	0	1	65
			T4M	4,975	1	0	2	108	5,343	1	0	2	116	5,376	1	0	2	117	2,939	1	0	1	64
			TFTM	5,172	1	0	2	112	5,554	1	0	2	121	5,589	1	0	2	122	3,055	1	0	1	66
	1000 mA	73W	T2S	7,204	1	0	2	99	7,736	2	0	2	106	7,784	2	0	2	107	4,429	1	0	1	61
			T2M	6,865	1	0	2	94	7,373	2	0	2	101	7,419	2	0	2	102	4,221	1	0	1	58
			T3S	7,125	1	0	2	98	7,651	1	0	2	105	7,698	1	0	2	105	4,380	1	0	1	60
			T3M	7,052	1	0	2	97	7,573	2	0	2	104	7,620	2	0	2	104	4,335	1	0	2	59
			T4M	6,909	1	0	2	95	7,420	1	0	2	102	7,466	1	0	2	102	4,248	1	0	2	58
			TFTM	7,182	1	0	2	98	7,712	1	0	2	106	7,761	1	0	2	106	4,415	1	0	2	60

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A) 120V	208V	240V	277V	347V	480V
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	24 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	74 W	0.69	0.40	0.35	0.30	0.23	0.17

Motion Sensor Default Settings

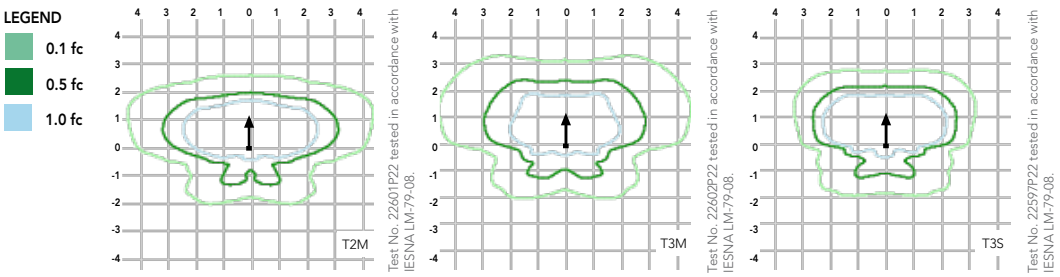
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*For use when motion sensor is used as dusk to dawn control

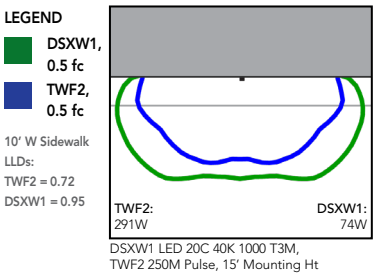
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

Options and Accessories

T3M (left)

HS - House-side shields

BSW - Bird-deterrent spikes

VG - Vandal guard

DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

BUY AMERICAN

This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY

Five-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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