AGENDA
Planning Commission
Monday, February 20, 2023 – 6:00 p.m.

I. Call to Order

II. Roll Call

III. Pledge to the Flag

IV. Approval of the February 06, 2023 Planning Commission Meeting Minutes

V. Correspondence

VI. Brief Public Comments & Questions (Limited to 3 minutes)

VII. Public Hearings:
   A. PUD – Blueberry Woods – Multifamily Apartment Complex

VIII. Old Business:
   A. PUD – Blueberry Woods – Multifamily Apartment Complex

IX. New Business
   A. Pre-Application – Christian Reformed Conference Grounds – Site Improvements

X. Reports
   A. Staff Report
   B. Commissioner Comments

XI. Extended Public Comments & Questions (Limited to 4 minutes)

XII. Adjournment

Persons wishing to speak at public hearings, on agenda items, or extended comments, must fill out a “Speakers Form” located on the counter. Completed forms must be submitted to Township Staff prior to the meeting.
I. CALL TO ORDER
Wilson called the meeting of the Grand Haven Charter Township Planning Commission to order at 6:00pm.

II. ROLL CALL
Members present: Wilson, Reenders, Frifeldt, Wagenmaker, and Taylor
Members absent: Cousins, Hesselsweet, Lemkuil, and Mesler
Also present: Senior Planner Thibault and Associate Planner Chaphalkar

Without objection, Wilson instructed Chaphalkar to record the minutes.

III. PLEDGE TO THE FLAG

IV. APPROVAL OF MINUTES
Motion by Wagenmaker, supported by Taylor, to amend the January 16 meeting minutes to amend the title of the New Business agenda item to “Rezoning – AG to RP – Sturm”

All in favor, motion passed.

V. CORRESPONDENCE - None

VI. PUBLIC COMMENTS – None

VII. NEW BUSINESS
A. Pre-Application – CMA Addition
Thibault provided an overview through a memorandum dated February 2.

Greg Oleszczuk of Westwind Construction provided the following information:
- Looking to expand existing building to store more equipment.
- Explained proposed reduction in parking due to the building’s use as a storage area.
  - Indicated deferred parking could be provided on site.
- Indicated the applicant is open to modifying the landscaping to comply with ordinance requirements.

The Planning Commission noted the following points of discussion:
- Discussed proposed parking reduction and directed applicant to provide information on a deferred parking area.
• Direction from commissioners to remove the existing Bradford Pear trees due to concerns regarding their nuisance status in adjacent states.

VIII. REPORTS
A. Staff Report
   Thibault provided an update on the status of the Blueberry Woods Development.
B. Commissioner Comments – None

IX. EXTENDED PUBLIC COMMENTS - None

X. ADJOURNMENT
   Without objection, the meeting adjourned at 6:24 p.m.

Respectfully submitted,

Cassandra Chaphalkar
Acting Recording Secretary
Community Development Memo

DATE: February 16, 2023

TO: Planning Commission

FROM: Rory Thibault – Senior Planner; Cassandra Hoisington - Associate Planner

RE: Formal Application – Blueberry Woods – Multifamily Apartment PUD

BACKGROUND

Recall, David Stebbins, representing Redstone Homes, is interested in developing a market-rate Residential PUD near the intersection of US-31 and M-45.

This property is comprised of 4 parcels totaling 99.86-acres. Intending to be developed in (2) phases, Phase 1 totals 56.82-acres, Phase 2 totals 43.04-acres. The parcels are currently zoned General Commercial (C-2), Rural Residential (RR), and Agricultural (AG). However, the parcels would be rezoned to PUD through the PUD process, and could utilize the density allowance of High Density Residential in establishing the parallel plan. The property is also located in the US-31 Overlay Zone.

PROPOSED DEVELOPMENT CONCEPT

Phase 1 of the development consists of 12 multi-unit-attached buildings consisting of 224 dwelling units, 42 two-attached dwelling units in 21 buildings (duplexes), and 10 lots for single-detached dwelling units (single-family homes) of which one is already existing. In total 276 dwelling units are proposed. Phase 2 is intended to be developed in the future as market demands. This will consist of a mix of multi-attached dwelling units (i.e. townhomes and quadplexes). All parcels are intended to be included in the PUD, however only Phase 1 will be reviewed at this time. When Phase 2 commences, the applicant will proceed through the Major Amendment process since the land included in Phase 2 of the PUD would have already been rezoned if approved. This allows the applicant to combine all the parcels upon approval of Phase 1.
Staff has reviewed the application for compliance. The following are noncompliant items and are expected to be resolved prior to final approval by the Township Board and/or conditionally approved and resolved prior to a Building permit or Certificate of Occupancy being issued. The applicant can request these to be considered as departures.

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<thead>
<tr>
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<tr>
<td>18.07.B</td>
<td>Information shall also be submitted indicating whether the site plan has been approved by any other person or agency that has authority to approve the site plan, including but not limited to the Ottawa County Road Commission, Ottawa County Water Resources Commissioner, and Ottawa County Health Department.</td>
<td>OCRC: provided conceptual approval. 168th Ave. to be recentered on ROW when paved. MDOT: provided conceptual approval for entrance onto M-45 EGLE: Conceptual approval not provided. Wetland boundaries were delineated by Barr Engineering. No structures are proposed in regulated wetlands. OCWRC: provided conceptual approval</td>
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<td>6.07</td>
<td>The average light level (total lumens divided by total square feet) in all areas of impervious surface (other than the Main Building) meet the following maximum requirements, in lumens per square foot. LZ-3 = 2.5 lumens/sf</td>
<td>Provide calculation of average level for sum of all impervious surface area</td>
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<td>7.04.E</td>
<td>Minimum mandatory open space for multi-family residential PUDs is 20% as defined… At least fifty percent (50%) of the dedicated open space must be continuous and contiguous natural space weaving throughout the PUD… Natural features of the land that are regulated by the State and/or Federal government shall be included within the designated open spaces… The following land within the boundaries of a PUD shall not be included as meeting the requirements for open space: (1) Any area which is used for roads, streets, alleys, right-of-way easements, etc. (2) The area of required stormwater ponds or retention/detention basins… (3) Any area devoted to a building lot, accessory use or building, vehicle parking, and any approved land improvement. (4) Any area with a smaller lot width than the smallest buildable lot in the development.</td>
<td>Need a clarified exhibit drawing, describing the following areas in order for the open space to be calculated correctly. 1) Area of regulated wetlands in Phase 1 2) Total area of contiguous greenspace that is at least 7500sf in area and 100-feet wide (smallest buildable lot) 3) Area of required stormwater detention/retention per OCWRC 4) Total area of Phase 1 not including public ROW easements</td>
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<td>7.10</td>
<td>Mechanical equipment and above-ground utility cabinets such as transformers shall be visually screened from adjacent properties, public roadways, or other public areas. Architectural designs for buildings shall include design features to contain and conceal all heating, ventilation, air conditioning units, trash enclosures, dumpsters, loading docks and service yards.</td>
<td>These locations have not been finalized. Applicant has expressed they will screen in a compliant fashion.</td>
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STAFF REVIEW SUMMARY
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<td>7.08.B.6.h</td>
<td>Landscape plantings that complement the design intent of the structure must be provided abutting the building for at least fifty percent (50%) of the wall length. Other walls shall incorporate landscaping for at least thirty percent (30%) of the wall length.</td>
<td>Typical apartment planting plan is insufficient (Plan North and South sides of the building) Typical duplex planting plan is insufficient (Plan East and West sides)</td>
<td></td>
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<tr>
<td>7.10.B.1</td>
<td>An open space area, with an area at least one (1) acre in size, must be located centrally within the PUD. The Central Gathering Place must have continuous road frontage along its entire width on at least one side, and must contain recreation-related amenities, such as playgrounds, sports fields, pavilion, dog park, community center, pool, garden, artwork, seating areas, cooling centers, etc.</td>
<td>Provide fence details for community garden</td>
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<td>4.02.A.4.a</td>
<td>A landscaped area must be at least ten (10) feet in width must surround parking lots on all sides. (ii) The landscape area must contain a continuous screen at least thirty-six (36) inches in height above the street grade, and can consist of shrubs, hedges, berm, wall, or combination thereof.</td>
<td>Landscape plan provided is insufficient. Must contain a continuous 36” screen at maturity and 10-feet deep. Minimum plant sizes applicable.</td>
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<td>4.02.B.9</td>
<td>Minimum Planting Sizes. All plantings must meet the following minimum size requirements at the time of planting: Deciduous Trees. 2½ inches in caliper, measured at twelve (12) inches above grade Evergreen Trees. Six (6) feet in height, measured from grade Shrubs. Thirty (30) inches in height, measured from grade.</td>
<td>Landscape schedule identifies shrubs and trees that do not meet the size requirements.</td>
<td></td>
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<td>5.05</td>
<td>Total Number of Parking Spaces provided in Lot: 401-500 Minimum number of Barrier-Free Spaces Required: 9 Number of Van-Accessible Barrier-Free Spaces Required: 2</td>
<td>9 spaces noted on drawing, however only 8 spaces shown.</td>
<td></td>
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<tr>
<td>2.08</td>
<td>Lot Dimensions: R-3 Minimum Width: 100-feet</td>
<td>Lot 4 has a noncompliant width of 50-feet</td>
<td></td>
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<td>2.08.M</td>
<td>Lots to be rectangular. Where a lot is accessed through an easement the lot line is to not create a “flag” lot.</td>
<td>Lot 10 needs access via private road with cul-de-sac from west</td>
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The following are items that require the Planning Commission’s discretion. Staff requests the Planning Commission to determine if these items are acceptable.

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<td>7.08.B.6.e</td>
<td>The predominant building materials [35%] shall be those that are characteristic of Grand Haven Township such as brick, wood, native stone and tinted/textured concrete masonry units and/or glass products.</td>
<td>Substitute wood requirement for wood-look Certainteed™ Board and Batten composite siding.</td>
<td>PC to determine if this is an acceptable alternative for now and in the future.</td>
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<td>7.08.B.7.a</td>
<td>Landscaping, natural features, open space, and other site amenities shall be located in a way that is convenient to the occupants or visitors to the PUD. The landscape plan must ensure: (a) Adequate shade trees along roadways and walkways,</td>
<td>Shade trees shown along road and walking paths</td>
<td>PC to determine if this is sufficient</td>
</tr>
<tr>
<td>8.11.C</td>
<td>(2) Multi-Family residential units shall be varied using color, arrangement and/or materials to emphasize facade elements and provide the look of multiple buildings built over time, rather than a single design repeated several times.</td>
<td>Elevations provided</td>
<td>PC to determine if this is sufficient</td>
</tr>
<tr>
<td>8.11.C</td>
<td>(3) The planes of exterior walls shall be varied in height, depth or direction. Long facades shall include sufficient relief and landscaping to reduce the dominance of the building.</td>
<td>Elevations provided</td>
<td>PC to determine if this is sufficient</td>
</tr>
<tr>
<td>8.11.C</td>
<td>(4) Rear elevations that face either US-31 or another residential use or district shall utilize materials and design details similar to the front facade.</td>
<td>Elevations provided</td>
<td>PC to determine if this is sufficient</td>
</tr>
<tr>
<td>10.01.C</td>
<td>Accessory buildings and structures may not be constructed, or if constructed may not remain, on a lot without a main building. The Zoning Administrator shall have the authority to grant a temporary exception to this prohibition, subject to reasonable conditions</td>
<td>The garage will remain on Lot 7 without a Main Building until the Main Building is built</td>
<td>Staff has discretion to grant this temporary exception. PC to determine the reasonable conditions (i.e. duration the garage can remain without having a main building)</td>
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**DEPARTURE REQUESTS**

The following are departure requests from the Developer. Such departures may be permitted only if they will result in a higher quality development than would have been possible. Deviations should benefit the community and the developer more or less equally. Images of these specific departures are provided in a separate document, attached.

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<td>4.02.B.1</td>
<td>Refuse containers, or other permitted outdoor storage areas shall be screened by a wood or masonry solid wall or live conifer landscape material… All wood or masonry enclosures must have an opaque gate constructed from metal or wood (chain link with obscuring fabric or slats shall be prohibited).</td>
<td>The ordinance requires dumpster enclosures to be constructed of wood, masonry, or live conifer material. We would like to propose 6-foot-high solid Vinyl Fence Panels for the dumpster enclosures.</td>
<td>PC to determine if this is an acceptable alternative</td>
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</table>
12.50.F  Site plan shall include a screened area for outdoor refuse container storage which uses quality building materials similar to the dwelling. Refer to Codified Ordinance No. 334, Section 40.0403.5 – Outside Storage of Trash Receptacles, for the specific regulations.  

**Roll-out trash bins are proposed for the duplex units. The development’s by-laws will require that the roll-out trash bins be stored in the garages.**

PC to determine if this is an acceptable alternative. Duplexes have historically been considered single-family dwellings for the purpose of refuse storage. Most duplexes in the Township have roll-out bins.

12.50.E  Any garage(s) serving a two-family dwelling shall be (1) placed to the rear of the dwelling with side or rear entry, or (2) recessed at least \(\frac{1}{4}\) of the depth of the garage.  

(1) For example, a 24’ wide x 30’ deep garage must be recessed at least 7½-feet from the front plane of the dwelling.  

**The proposed duplexes are a product that Redstone has used in other locations with great success. The duplexes will be for-sale (not rent) and Redstone is confident that the look of the units is something that they can easily market.**

PC to determine if this is an acceptable alternative.

4.02.A.3  Retention, detention and the overall stormwater system shall be designed to create the appearance of a natural pond or feature including gentle (5:1) or varying side slopes, irregular shapes, water tolerant grasses and seed mixes at the bottom of the pond/basin;  

**Pond slopes steeper than 1:5 in order to provide a more natural looking interface where the permanent water pool meets the adjacent grade. Flattening the grades to 1:5 will also require giving up some of the wet pond’s storage volume. We would prefer to follow Ottawa County Water Resources standards.**

PC to determine if this is an acceptable alternative. Staff have held other developments in the Township to this requirement. The area impacted is not heavily forested and therefore preserving trees in this location does not have an impact on the configuration of the stormwater facilities.

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**PC WAIVERS**

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<td>8.09.A</td>
<td>Access location and standards waivers from the PC provided MDOT and OCRC also grant waivers</td>
<td><em>Final approval outstanding, conceptual approval has been provided.</em></td>
<td>PC to determine if this is an acceptable alternative. (445.7-feet separation shown)</td>
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<td>4.02.A.4.D</td>
<td>The Township may allow paved parking lots to be designed without curbs to shed stormwater into landscape areas (including landscape islands), using the stormwater as irrigation and reducing runoff into storm sewers. The Township may also grant a waiver in order to allow more efficient snow removal.</td>
<td><em>Concrete wheel stops provided to allow water to flow through and into raingarden/detention system</em></td>
<td>PC to determine if this is acceptable.</td>
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If the Planning Commission finds the application meets the applicable standards, the following motion can be offered:

**Motion** to recommend the Township Board **conditionally approve** the proposed multi-family residential Blueberry Woods PUD application to construct 2 multi-unit-attached buildings consisting of 224 dwelling units, 42 two-attached dwelling units in 21 buildings (duplexes), and 10 lots for single-detached dwelling units (single-family homes) of which one is existing, with a total of 276 dwelling units in Phase 1 ranging from 621-sqft to 1413-sqft in floor area. This is based on the application meeting the requirements and standards set forth by the Grand Haven Charter Township Zoning Ordinance and Master Plan. The motion is subject to, and incorporates, the following report concerning the Planned Unit Development, including conditions of approval.

If the Planning Commission finds the applicant must make revisions, the following motion can be offered:

**Motion** to **postpone** the Blueberry Woods PUD application, and direct the applicant to make the following revisions:

1. The Developer shall come into compliance with respect to the outstanding items as described in the PC Review Memo dated 02/16/23, which is inclusive of the following Sections in the Zoning Ordinance:
   i. (18.07.B) Provide conceptual approval from EGLE
   ii. (6.07) Provide calculation of average level for sum of all impervious surface area
   iii. (7.04E, 7.10) Provide a clarified exhibit drawing, describing the following areas in order for the open space to be calculated correctly.
      1. Area of regulated wetlands in Phase 1
      2. Total area of contiguous greenspace that is at least 7500sf in area and 100-feet wide (smallest buildable lot)
      3. Area of required stormwater detention/retention per OCWRC
      4. Total area of Phase 1 not including public ROW easements
   iv. (7.08.B.6.b) Provide finalized locations and complaint screening.
   v. (7.06.B.6.h) Provide revised apartment and duplex planting plans
   vi. (7.10.B.1) Provide fence details for community garden, if applicable
   vii. (4.02.A.4.a) Provide revised landscape plan for parking lot areas
   viii. (4.02.B.9) Provide revised landscape schedule
   ix. (5.05) Provide revised site plan showing ADA spaces
   x. (2.08) Provide revised site plan with a complaint width for Lot 4
   xi. (2.08.M) Provide revised lot access for Lot 10
If the Planning Commission finds the application does not comply with the standards, the following motion can be offered:

**Motion** to recommend the Township Board **deny** the Lakeshore Flats Apartments East PUD application, and direct staff to draft a formal motion and report with those discussion points, which will be reflected in the meeting minutes. This will be reviewed and considered for adoption at the next meeting.

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**REPORT (TO BE USED WITH A MOTION TO APPROVE)**

Pursuant to the provisions of the Grand Haven Charter Township (the “Township”) Zoning Ordinance (the “Zoning Ordinance”), the following is the report of the Grand Haven Charter Township Planning Commission (the “Planning Commission”) concerning an application by Redstone Land Development, LLC (the “Developer”) for approval of a Blueberry Woods Planned Unit Development (the “Project” or the “PUD”).

The Project will consist of a multi-family apartment complex. This 99.86-acre Project will be developed in (2) phases, Phase 1 totals 56.82-acres, Phase 2 totals 43.04-acres. Phase 1 will consist of 12 multi-unit-attached (multi-family) three-story buildings consisting of 224 dwelling units, 42 two-attached dwelling units in 21 one-story buildings (duplexes), and 10 lots for single-detached dwelling units (single-family homes) of which one is existing. In total 276 dwelling units are proposed. The floor areas of the 276-units range from 621-sqft to 1413-sqft. It also includes 403-surface parking spaces. It will also include 17.49ac of designated open space. Phase 2 is intended to be developed in the future as market demands. This will consist of a mix of multi-attached dwelling units (i.e. townhomes and quadplexes). The Project as recommended for approval is shown on a final site plan (the “Master Site Layout & Removals”), last revised 02/03/2023, including landscaping (the “Landscaping Layout”) last revised 02/03/23 and elevation renderings (the “Exterior Elevations”), last revised 11/07/23; collectively referred to as the “Documentation,” presently on file with the Township.

The purpose of this report is to state the decision of the Planning Commission concerning the Project, the basis for the Planning Commission’s recommendation, and the Planning Commission’s decision that the Blueberry Woods PUD be approved as outlined in this motion. The Developer shall comply with all the Documentation submitted to the Township for this Project. In granting the approval of the proposed PUD application, the Planning Commission makes the following findings pursuant to Section 17.04.3 of the Zoning Ordinance.

1. **The Project meets the site plan review standards of Section 18.07 of the Zoning Ordinance.** Specifically, pursuant to Section 18.07.G, the Planning Commission finds as follows:
   A. The uses proposed will not adversely affect the public health, safety, or welfare. Uses and structures located on the site shall take into account topography, size of the property, the uses on adjoining property and the relationship and size of buildings to the site. The site shall be developed so as not to impede the normal and orderly development or improvement of surrounding property for uses permitted in this Ordinance.
   B. Safe, convenient, uncontested, and well-defined vehicular and pedestrian circulation shall be provided for ingress/egress points and within the site. Drives, streets and other
circulation routes shall be designed to promote safe and efficient traffic operations within
the site and at ingress/egress points.

C. The arrangement of public or private vehicular and pedestrian connections to existing or
planned street in the area shall be planned to provide a safe and efficient circulation
system for traffic within the Township.

D. Removal or alteration of significant natural features shall be restricted to those areas
which are reasonably necessary to develop the site in accordance with the requirements
of this Ordinance. The Planning Commission may require that landscaping, buffers,
and/or greenbelts be preserved and/or provided to ensure that proposed uses will be
adequately buffered from one another and from surrounding public and private property.

E. Areas of natural drainage such as swales, wetlands, ponds, or swamps shall be protected
and preserved insofar as practical in their natural state to provide areas for natural habitat,
preserve drainage patterns and maintain the natural characteristics of the land.

F. The site plan shall provide reasonable visual and sound privacy for all dwelling units
located therein and adjacent thereto. Fences, walls, barriers, and landscaping shall be
used, as appropriate, to accomplish these purposes.

G. All buildings and groups of buildings shall be arranged so as to permit necessary
emergency vehicle access as required by the Fire/Rescue Department.

H. All streets and driveways shall be developed in accordance with the Township
Subdivision Control Ordinance, the Ottawa County Road Commission, and/or Michigan
Department of Transportation specifications, as appropriate, unless developed as a
private road in accordance with the requirements for private roads in this Ordinance or
any other Township Ordinance. Except that the Planning Commission may impose more
stringent requirements than those for the Road Commission or Department of
Transportation with respect to driveway location and spacing.

I. Sidewalks or pathways shall be deemed to be required along all public and private
roadways unless the applicant provides compelling evidence, in the opinion of the
Planning Commission, that they are not necessary for pedestrian access or safety.
Sidewalks shall terminate in an appropriate fashion consistent with the needs and safety
of pedestrians. No sidewalk shall terminate into landscaping.

J. Appropriate measures shall be taken to ensure that removal of surface water will not
adversely affect neighboring properties of the public storm drainage system. Provisions
shall be made to accommodate storm water, prevent erosion and the formation of dust.
The use of detention/retention ponds may be required. Surface water on all paved areas
shall be collected at intervals so that it will not obstruct the flow of vehicular or pedestrian
traffic or create puddles in paved areas. Catch basins may be required to contain oil filters
or traps to prevent contaminants from being discharged to the natural drainage system.

K. Exterior lighting shall be arranged so that it is deflected away from adjacent properties
and so that it does not interfere with the vision of motorists along adjacent streets.
Lighting of buildings or structures shall be minimized to reduce light pollution and
preserve the rural character of the Township.

L. All loading and unloading areas and outside storage areas, including areas for the storage
of trash, which face or are visible from residential districts of public streets, shall be
screened by a vertical screen consisting of structural or plant materials no less than six (6)
feet in height.
M. Entrances and exits shall be provided at appropriate locations so as to maximize the convenience and safety for persons entering or leaving the site. The number of entrances to and exits must comply with this Ordinance and the requirements of the Ottawa County Road Commission and/or the Michigan Department of Transportation.

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

O. Appropriate fencing may be required by the Planning Commission around the boundaries of the development if deemed necessary to minimize or prevent trespassing or other adverse effects on adjacent lands.

P. The general purposes and spirit of this Ordinance and the Master Plan of the Township shall be maintained.

2. The Planning Commission finds the Project meets the intent for a PUD, as described in Section 7.01 of the Zoning Ordinance. By approving this Project as a PUD, the Township has been able to negotiate various amenities and design characteristics as well as additional restrictions with the Developer, as described in this report, which the Township would not have been able to negotiate if the PUD Chapter of the Zoning Ordinance was not used.

3. Section 7.01.E of the Zoning Ordinance, as well as Section 503 of the Michigan Zoning Enabling Act, allow for departures from Zoning Ordinance requirements; these provisions are intended to result in land use development that is substantially consistent with the goals and objectives of the Township Master Plan and the Zoning Ordinance, and consistent with sound planning principles. The Developer requests four departures. The Planning Commission makes the following findings.

A. Section 4.02.B.1 – allow a 6-foot-high solid vinyl fence panel for the dumpster enclosure

   i. The Planning Commission finds it acceptable to allow a change in the material from what is otherwise permitted because the material proposed is of a durable nature

B. Section 12.50.F – allow the duplex units proposed to utilize roll-out bins, which shall be stored in the unit garage when not in use, in lieu of a dumpster enclosure.

   i. The Planning Commission finds it acceptable to allow roll-out bins to be used considering that duplexes in the Township have historically used these in similar developments

C. Section 4.02.A.3 – allow the stormwater system to utilize side slopes which vary between 1:3 and 1:5

   i. The Planning Commission finds it acceptable to allow a steeper side slope than what would otherwise be allowed because the primary stormwater system is a retention basin (i.e. pond) and ponds are permitted to have a side slope of 1:3. Further, the overall stormwater system has been conceptually approved by OCWRC who have final permit authority

D. Section 12.50.E – allow the duplex units to have a reduced garage setback of less than ¼ the depth of the garage

   i. The Planning Commission finds it acceptable to allow a reduction in the recess distance for the garages because the overall building facade is varied enough to minimize a monolithic appearance.
4. Section 8.09 of the Zoning Ordinance allows for the Planning Commission to provide a waiver from the required access point separation distance if and only if MDOT and/or OCRC likewise grant a waiver from their standards. The Planning Commission recognizes that the proposed access connections, while not meeting the requirements of the Zoning Ordinance, are suitable and are prepared to waive this requirement pending final approval of the design by the authority who has jurisdiction.

5. Section 4.02.A.4.D of the Zoning Ordinance allows for the Planning Commission to provide a waiver from the parking lot curb requirements if the parking lot is designed to function with the stormwater system and/or allow efficient snow removal. The Planning Commission finds that the parking lot design is acceptable and the wheel stops are effective as to limit the vehicles from adversely impacting the stormwater system.

6. Compared to what could have been constructed by right, the Project has been designed to accomplish the following objectives from Section 7.01.D of the Zoning Ordinance.
   A. To encourage the use of land in accordance with its natural character and adaptability;
   B. To promote the conservation of natural features and resources;
   C. To encourage innovation in land use planning and development;
   D. To promote the enhancement of housing, commercial and industrial employment, traffic circulation, and recreational opportunities for area residents;
   E. To promote and ensure greater compatibility of design and better use between neighboring properties;
   F. To promote more economical and efficient use of the land while providing harmonious variety of housing choices and the integration of necessary commercial and community facilities; and
   G. To promote the preservation of open space for parks, recreation, or agriculture.

7. The Project meets the following qualification requirements of Section 7.02 of the Zoning Ordinance:
   A. The Project meets the minimum size of five acres of contiguous land.
   B. The proposed PUD is a “Large Scale Development” (see Section 14.01) that includes eight (8) or more dwelling units, which include multi-family apartment units.

8. The Planning Commission also finds the Project complies with the general PUD Design Considerations of Section 7.08 of the Zoning Ordinance.

9. The Planning Commission finds that the Project complies with the uses permitted for a residential planned unit development, as described in Section 7.04 of the Zoning Ordinance—Residential PUD.

10. The Planning Commission also finds the Project shall comply with the below additional conditions as allowed for in Section 18.08 of the Zoning Ordinance.
    A. The open space must be set aside by means of conveyance that satisfies the requirements of Section 7.10.F of the Zoning Ordinance. Said conveyance shall be submitted to the Township for review and approval by the Township Attorney and recorded with the Ottawa County Register of Deeds prior to obtaining an occupancy permit.
B. Must obtain permits from all applicable agencies including, the State of Michigan, the Ottawa County Road Commission, and Ottawa County Water Resources Commissioner. Permits shall be obtained before building permits are issued.

C. The Developer shall enter into a PUD Contract with the Township, which will be drafted by the Township Attorney and executed by the Township Board prior to receiving an occupancy permit.

D. The Developer shall come into compliance with respect to the outstanding items as described in the Staff Review Memo dated 02/16/23, which is inclusive of the following Sections in the Zoning Ordinance:

1. (18.07.B) Provide conceptual approval from EGLE
2. (6.07) Provide calculation of average level for sum of all impervious surface area
3. (7.04E, 7.10) Provide a clarified exhibit drawing, describing the following areas in order for the open space to be calculated correctly.
   i. Area of regulated wetlands in Phase 1
   ii. Total area of contiguous greenspace that is at least 7500sf in area and 100-feet wide (smallest buildable lot)
   iii. Area of required stormwater detention/retention per OCWRC
   iv. Total area of Phase 1 not including public ROW easements
4. (7.08.B.6.b) Provide finalized locations and complaint screening.
5. (7.06.B.6.h) Provide revised apartment and duplex planting plans
6. (7.10.B.1) Provide fence details for community garden, if applicable
7. (4.02.A.4.a) Provide revised landscape plan for parking lot areas
8. (4.02.B.9) Provide revised landscape schedule
9. (5.05) Provide revised site plan showing ADA spaces
10. (2.08) Provide revised site plan with a complaint width for Lot 4
11. (2.08.M) Provide revised lot access for Lot 10

E. This approval is also conditioned upon the Developer meeting all applicable Federal, State, County, and Township laws, rules, and ordinances.

F. The Developer shall comply with all the requirements of the Documentation, specifically including all the notes contained thereon, and all the representations made in the written submissions by the Developer to the Township for consideration of the Project.

G. In the event of a conflict between the Documentation and these conditions, these conditions shall control.
CONTROL POINTS

70-07-23-300-001
70-07-23-300-003
70-07-23-300-007
70-07-23-300-008
70-07-23-300-009
70-07-23-300-011
70-07-23-300-014
70-07-23-300-018
70-07-23-300-019
70-07-23-300-022
70-07-23-300-024
70-07-23-300-025
70-07-23-300-026
70-07-23-300-027
70-07-23-300-028
70-07-23-300-029
70-07-23-300-030
70-07-23-300-031
70-07-23-300-032
70-07-23-300-033
70-07-23-300-034
70-07-23-300-035
70-07-23-300-036
70-07-23-300-038
70-07-23-400-015
70-07-23-400-019
70-07-23-400-030
70-07-23-400-031
70-07-23-400-032
PLAN SCALE: 1" = 75'

LOCATION MAP

THE CURRENT COUNTERS TO STATE.#
REASONS: RMP = UPDATED TO 1/1.

PLAN REVISIONS
12-30-22 REVISED PER REVIEW COMMENTS
2-3-23 REVISED PER REVIEW COMMENTS

FOR
BLUEBERRY WOODS
GRAND HAVEN CHARTER TOWNSHIP,
OTTAWA COUNTY,
MICHIGAN

LOCATION MAP

PUBLIC AFFAIRS
BLUEBERRY WOODS

CALL
R
Moore
Ruggink
Consulting Engineers
2020 Monroe Ave.
Grand Rapids, MI 49505
(616) 363-9801    mailbox@mbce.com

PLAN DATE:
PROJECT NO.:
OF
SHEET NUMBER

ALERTS / DATE
DESIGN DRAWN BY:
DESIGNED BY:
CHECKED BY:
STORMWATER BASIN PLANTING PLAN

Scale = 1" = 30'

PROJECT NO.:

OF

SHEET NUMBER

DESIGN DRAWN BY:

CHECKED BY:

PLAN DATE:

PLAN SCALE: 1" = 30'

LANDSCAPING GENERAL NOTES:

1. All trees to be arborically treated with boom sprayer, with exception of Blueberry Woods.
2. All shrubs to be machine mowed, with exception of Blueberry Woods.
3. All ornamental grasses to be hand mowed.
4. All trees and shrubs to be hand pruned.
5. All ornamental grasses to be hand trimmed.
6. All ornamental grasses to be hand sprayed.
7. All ornamental grasses to be hand planted.
8. All ornamental grasses to be hand watered.
9. All ornamental grasses to be hand fertilized.
10. All ornamental grasses to be hand irrigated.
11. All ornamental grasses to be hand maintained.

SCALE = 1" = 30'
LANDSCAPING - GARDEN APARTMENTS
BLUEBERRY WOODS,
GRAND HAVEN CHARTER TOWNSHIP,
OTTAWA COUNTY, MICHIGAN

APARTMENT & RAIN GARDEN
PLANTING PLAN

Scale = 1" = 20'

2-3-23 REVISED PER REVIEW COMMENTS
Know what's below. Before you dig.

Moore + Buggink Consulting Engineers
2020 Monroe Ave.
Grand Rapids, MI 49505
(616) 363-9801 mailbox@mbce.com

PLAN SCALE: 1" = 10'

LANDSCAPING - ENTRYWAY
FOR BLUEBERRY WOODS
GRAND HAVEN CHARTER TOWNSHIP,
OTTAWA COUNTY, MICHIGAN

12-30-22 REVISED PER REVIEW COMMENTS

Scale = 1" = 10'

TYPICAL DUPLEX
PLANTING PLAN

Scale = 1" = 10'

TYPICAL APARTMENT
PLANTING PLAN

2-3-23 REVISED PER REVIEW COMMENTS
<table>
<thead>
<tr>
<th>Schedule</th>
<th>Symbol</th>
<th>Quantity</th>
<th>Manufacturer</th>
<th>Catalog Number</th>
<th>Description</th>
<th>Wattage</th>
</tr>
</thead>
</table>
|          | F      | 7        | Lithonia Lighting | 06-05-0450 LED 96 BK  
TFTM HVID WT 030 G1  
05/05 4C DRYVAC  
08/12 | OS02 LED 96 BK TFTM HVIDL  
WATT 14-030 G1  
05/05 4C DRYVAC  
08/12 | 268 |
|          | G      | 12       | Lithonia Lighting | 06-05-0450 LED 96 BK  
TFTM HVID WT 030 G1  
05/05 4C DRYVAC  
08/12 | OS02 LED 96 BK TFTM HVIDL  
WATT 14-030 G1  
05/05 4C DRYVAC  
08/12 | 134 |
|          | H      | 2        | Lithonia Lighting | 06-05-0450 LED 96 BK  
TFTM HVID WT 030 G1  
05/05 4C DRYVAC  
08/12 | OS02 LED 96 BK TFTM HVIDL  
WATT 14-030 G1  
05/05 4C DRYVAC  
08/12 | 134 |
|          | I      | 32       | SUN VALLEY LIGHTING | 06-05-0450 LED 96 BK  
TFTM HVID WT 030 G1  
05/05 4C DRYVAC  
08/12 | OS02 LED 96 BK TFTM HVIDL  
WATT 14-030 G1  
05/05 4C DRYVAC  
08/12 | 133 |
Blueberry Woods Apartments
Grand Haven, Michigan

Building 3
NOTE:
TOTAL ELEVATION AREA OF FOUR BUILDING SIDES: 2,469 S.F.
TOTAL VINYL: 773 S.F. = 31% OF TOTAL AREA
1 INTRODUCTION

This memorandum presents the results of the Traffic Impact Study (TIS) for the proposed Blueberry Woods residential development in Grand Haven Township, Michigan. The project site is located in the northeast quadrant of the US-31 & Lake Michigan Drive (M-45) intersection, as shown on the attached Figure 1. Site access is proposed via one (1) full-access driveway on Lake Michigan Drive (M-45) and one (1) full-access driveway on 156th Avenue. Lake Michigan Drive (M-45) is under the jurisdiction of the Michigan Department of Transportation (MDOT) and 156th Avenue is under the jurisdiction of the Ottawa County Road Commission (OCRC). The Township has required a TIS for this project as part of the site plan approval; additionally, MDOT and OCRC have required the TIS as part the driveway permitting process.

The scope of the study was developed based on Fleis & VandenBrink’s (F&V) understanding of the development program, accepted traffic engineering practice, MDOT requirements as outlined in Geometric Design Guidance Section 1.2.4, and professional experience. The study analyses were completed using Synchro/SimTraffic (Version 11). Sources of data for this study include F&V subconsultant Gewalt Hamilton Associates, INC. (GHA), information published by the Institute of Transportation Engineers (ITE), Grand Haven Township, OCRC, and MDOT.

2 BACKGROUND

2.1 EXISTING ROAD NETWORK

The lane uses and traffic control at the study intersections are shown on the attached Figure 2, and the study roadways are further described below. For the purposes of this study, site driveways and residential streets were assumed to have an operating speed of 25 miles per hour (mph) unless otherwise noted.

US-31 generally runs in the northwest and southeast directions, west of the project site. The study section of US-31 is classified as an Other Principal Arterial, is under the jurisdiction of MDOT, has a posted speed limit of 55 mph, and has an Average Annual Daily Traffic (AADT) volume of approximately 22,106 (MDOT 2022) vehicles per day. US-31 is a four-lane divided boulevard cross-section, with two (2) lanes in each direction and left-turns are facilitated via median U-turns (crossovers). At the intersection with Lake Michigan Drive (M-45), the roadway widens to provide exclusive right-turn lanes in both directions. Additionally, exclusive left-turn lanes are provided at the median U-turn intersections located north and south of M-45.
**Lake Michigan Drive (M-45)** runs in the east and west directions, adjacent to the south side of the project site. Lake Michigan Drive (M-45) is classified as an Other Principal Arterial and a Major Collector to the east and west of US-31, respectively. The study section of Lake Michigan Drive (M-45) is under the jurisdiction of MDOT, has a posted speed limit of 55 mph, and an AADT volume of approximately 6,364 (MDOT 2022) vehicles per day. Lake Michigan Drive (M-45) has a typical two-lane cross-section, with one (1) lane in each direction and widens at the intersection with US-31, to provide an exclusive right-turn lane in both directions.

**156th Avenue** runs in the north and south directions, adjacent to the east side of the project site. The roadway is classified as a Local Road under the jurisdiction of OCRG. The roadway is an unimproved gravel road with prima-facie speed limit of 55 mph. For purposes of this analysis a speed limit of 55 mph and a two-lane roadway was assumed in this analysis.

### 2.2 Existing Traffic Volumes

The study intersections are summarized below. F\&V subconsultant Gewalt Hamilton Associates, INC. (GHA) collected existing Turning Movement Count (TMC) data on Thursday November 17th, 2022, at Lake Michigan Drive (M-45) & 156th Avenue and collected additional TMC data on Thursday October 13th, 2022, at the following remaining study intersections:

- NB US-31 & SB-to-NB X/O, south of Lake Michigan Drive (M-45)
- NB/SB US-31 & bi-directional X/O, at 158th Avenue
- SB US-31 & NB-to-SB X/O, north of Lake Michigan Drive (M-45)

During collection of the turning movement counts, Peak Hour Factors (PHFs) and commercial truck percentages were recorded and used in the traffic analysis. The peak hour traffic volumes for each intersection were utilized for this study and the volumes were balanced upward through the study network and balanced through the proposed site driveways. Therefore, the raw traffic volumes shown in the data collection may not match the traffic volumes used in the analysis and on the attached traffic volume figures. The weekday AM and PM peak hours for the adjacent roadway network were observed to generally occur between 7:15 AM to 8:15 AM and 4:30 PM to 5:30 PM, respectively. F\&V collected an inventory of existing lane use and traffic controls, as shown on the attached Figure 2. Additionally, F\&V obtained the current signal timing permits for the signalized study intersection of US-31 & Lake Michigan Drive (M-45) from MDOT. The existing 2022 peak hour traffic volumes used in the analysis are shown on the attached Figure 3. All applicable background data referenced in this memorandum is attached.

### 3 Existing Conditions

Existing peak hour vehicle delays and Levels of Service (LOS) were calculated at the study intersections using Synchro/SimTraffic (Version 11) traffic analysis software. The study analyses were based on the existing lane use and traffic control shown on the attached Figure 2, the existing peak hour traffic volumes shown on the attached Figure 3, and the methodologies presented in the Highway Capacity Manual, 6th Edition (HCM6). The signalized study intersection of US-31 & Lake Michigan Drive (M-45) operates with a clustered signal controller, including the NB US-31 signal, the SB US-31 signal, and the railroad pre-signal. This clustered signal operation is not supported by HCM6; therefore, it was determined that the Highway Capacity Manual 2000 (HCM2000) would be more appropriate at this intersection.

Descriptions of LOS “A” through “F” as defined in the HCM6, are attached. Typically, LOS D is considered acceptable, with LOS A representing minimal delay, and LOS F indicating failing conditions. Additionally, SimTraffic network simulations were reviewed to evaluate network operations and vehicle queues. The results of the existing conditions analysis are attached and summarized in Table 1.

The result of the existing conditions analysis indicates that all approaches and movements at the study intersections are currently operating acceptably, at LOS D or better, during both the AM and PM peak periods. A review of SimTraffic network simulations also indicates acceptable operations throughout the study roadway network; the majority of vehicle queues at the signalized intersection were observed to be processed within each cycle length. Additionally, vehicles at the stop-controlled intersections and median U-turn (crossovers) were observed to find adequate gaps within the through traffic, without experiencing significant delays or excessive queueing. Occasional periods of vehicle queues were observed at the SB-to-NB crossover during the PM peak hour; however, these queues were observed to dissipate and were not present throughout the PM peak hour.
Table 1: Existing Intersection Operations

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control</th>
<th>Approach</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Delay (s/veh)</td>
<td>LOS</td>
</tr>
<tr>
<td>10 SB US-31 &amp; NB-to-SB X/O, N. of M-45</td>
<td>Stop (Minor)</td>
<td>WBL</td>
<td>16.1</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SB</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td>20 US-31 &amp; Lake Michigan Drive (M-45)</td>
<td>Signalized</td>
<td>EBT</td>
<td>21.3</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EBR</td>
<td>0.0</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WBT</td>
<td>18.6</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WBR</td>
<td>20.5</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NBT</td>
<td>21.3</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NBR</td>
<td>15.8</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SBT</td>
<td>27.4</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SBR</td>
<td>15.1</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overall</td>
<td>23.0</td>
<td>C</td>
</tr>
<tr>
<td>30 NB US-31 &amp; SB-to-NB X/O, S. of M-45</td>
<td>Stop (Minor)</td>
<td>EBL</td>
<td>12.1</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NB</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td>40 SB US-31 &amp; NB-to-SB X/O, N. of 158th Avenue</td>
<td>Stop (Minor)</td>
<td>WBL</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SB</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td>50 NB US-31 &amp; X/O at 158th Avenue</td>
<td>Stop (Minor)</td>
<td>EB</td>
<td>15.6</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WB</td>
<td>17.7</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NB</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td>51 SB US-31 &amp; X/O at 158th Avenue</td>
<td>Stop (Minor)</td>
<td>WBL</td>
<td>13.4</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SB</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td>60 Lake Michigan Drive (M-45) &amp; 156th Avenue</td>
<td>Stop (Minor)</td>
<td>EBL</td>
<td>7.9</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WB</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SB</td>
<td>10.1</td>
<td>B</td>
</tr>
</tbody>
</table>

4 Background Conditions (2025)

Population growth data was obtained for Grand Haven Township, to calculate a background growth rate for the 2022 peak hour traffic volumes, in order to calculate the 2025 site buildout year traffic volumes. Population data showed an average annual growth of 0.54%. Therefore, an annual background growth rate of 0.54% per year was applied to the existing peak hour traffic volumes, in order to forecast the background 2025 peak hour traffic volumes without the proposed development, as shown on the attached Figure 4. Additionally, it is important to account for developments and roadway improvements, within the study network, which will be constructed prior to the site buildout year of 2025. The following background development was identified:

- **KG-2619: Convenience Store with gas station – SE corner of US-31 & Lake Michigan Drive (M-45)**

Additionally, MDOT has programmed improvements to close the existing bi-directional crossover at US-31 & 158th Avenue and construct new directional crossovers both north and south of 158th Ave. The construction is planned to be completed prior to the site buildout year in 2025; therefore, these changes to the study roadway network were assumed as a baseline background condition.

The background peak hour vehicle delays and Levels of Service (LOS) were calculated at the study intersection based on the existing lane use and traffic control shown on the attached Figure 2, the background peak hour traffic volumes shown on the attached Figure 4, and the methodologies presented in the HCM 6th Edition. The results of the background conditions analysis are attached and summarized in Table 2.
Table 2: Background Intersection Operations

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control</th>
<th>Approach</th>
<th>Existing Conditions</th>
<th>Background Conditions</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
<td>AM Peak</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Delay (s/veh)</td>
<td>LOS</td>
<td>Delay (s/veh)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Delay (s/veh)</td>
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<td>Delay (s/veh)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Delay (s/veh)</td>
</tr>
</tbody>
</table>

The results of the background conditions analysis indicates that all study intersection approaches and movements are expected to continue operating acceptably, in a manner similar to existing conditions. Review of SimTraffic microsimulations also indicates operations similar to those observed during the existing conditions analysis, with occasional periods of long vehicle queues at the SB-to-NB crossover south of Lake Michigan Drive (M-45) intersection.

5 SITE TRIP GENERATION

The number of weekday peak hour (AM and PM) and daily vehicle trips that would be generated by the proposed development was forecast based on data published by ITE in the Trip Generation Manual, 11th Edition. The proposed development includes the construction of 224 low-rise apartments, 42 duplexes, and 10 single-family homes. The trip generation projections are summarized in Table 3.

Table 3: Trip Generation Summary

<table>
<thead>
<tr>
<th>Land Use</th>
<th>ITE Code</th>
<th>Amount</th>
<th>Units</th>
<th>Average Daily Traffic (vpd)</th>
<th>AM Peak Hour (vph)</th>
<th>PM Peak Hour (vph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Detached Housing</td>
<td>210</td>
<td>10</td>
<td>D.U.</td>
<td>121</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Single-Family Attached Housing</td>
<td>215</td>
<td>42</td>
<td>D.U.</td>
<td>270</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Multi-Family Home (Low-Rise)</td>
<td>220</td>
<td>224</td>
<td>D.U.</td>
<td>1,511</td>
<td>22</td>
<td>70</td>
</tr>
</tbody>
</table>
6 Site Trip Distribution

The vehicular trips that would be generated by the proposed development were assigned to the study roadway network based on the proposed site access plan and driveway configurations, the existing peak hour traffic patterns in the adjacent roadway network shown on the attached Figure 3, and the methodologies published by ITE. The ITE trip distribution methodology assumes that residential trips will leave the development and exit the network in the morning, then return to the network and reenter the development in the evening. The site trip distributions utilized in this analysis are summarized in Table 4.

<table>
<thead>
<tr>
<th>To/From</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>US-31</td>
<td>36%</td>
</tr>
<tr>
<td>South</td>
<td>US-31</td>
<td>49%</td>
</tr>
<tr>
<td>East</td>
<td>Lake Michigan Drive (M-45)</td>
<td>10%</td>
</tr>
<tr>
<td>West</td>
<td>Lake Michigan Drive (M-45)</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The vehicular traffic volumes shown in Table 3 were distributed to the roadway network according to the distribution shown in Table 4. The site-generated trips shown on the attached Figure 5, were added to the background peak hour traffic volumes shown on the attached Figure 4, in order to calculate the future peak hour traffic volumes, as shown on the attached Figure 6.

7 Future Conditions (2025)

The future peak hour vehicle delays and LOS, with the addition of the site-generated trips from the proposed development, were calculated at the study intersections using Synchro/SimTraffic (Version 11) traffic analysis software. This analysis was based on the proposed lane use and traffic control shown on the attached Figure 2, the proposed site access plan, the future peak hour traffic volumes shown on the attached Figure 6, and the methodologies presented in the HCM6. The results of the future conditions analysis are attached and summarized in Table 5.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control</th>
<th>Approach</th>
<th>Background Conditions AM Peak Delay (s/veh)</th>
<th>Background Conditions PM Peak Delay (s/veh)</th>
<th>Future Conditions AM Peak Delay (s/veh)</th>
<th>Future Conditions PM Peak Delay (s/veh)</th>
<th>Difference AM Peak Delay (s/veh)</th>
<th>Difference PM Peak Delay (s/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 SB US-31 &amp; NB-to-SB X/O, N. of M-45</td>
<td>Stop (Minor)</td>
<td>WBL</td>
<td>19.5 C</td>
<td>15.8 C</td>
<td>22.4 C</td>
<td>17.1 C</td>
<td>2.9</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>SB</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
</tr>
<tr>
<td>20 US-31 &amp; Lake Michigan Drive (M-45)</td>
<td>Signal</td>
<td>EBT</td>
<td>21.4 C</td>
<td>22.4 C</td>
<td>21.4 C</td>
<td>22.4 C</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>EBR</td>
<td>0.0 A</td>
<td>0.1 A</td>
<td>0.0 A</td>
<td>0.1 A</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WBT</td>
<td>18.7 B</td>
<td>19.3 B</td>
<td>18.8 B</td>
<td>19.4 B</td>
<td>0.1</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WBR</td>
<td>21.7 C</td>
<td>20.7 C</td>
<td>24.2 C</td>
<td>21.6 C</td>
<td>2.5</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NBT</td>
<td>22.1 C</td>
<td>32.3 C</td>
<td>22.1 C</td>
<td>32.3 C</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NBR</td>
<td>16.6 B</td>
<td>17.0 B</td>
<td>16.8 B</td>
<td>17.6 B</td>
<td>0.2</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBT</td>
<td>31.1 C</td>
<td>26.6 C</td>
<td>34.2 C</td>
<td>28.4 C</td>
<td>3.1</td>
<td>1.8</td>
<td></td>
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<tr>
<td></td>
<td>SBR</td>
<td>15.2 B</td>
<td>15.3 B</td>
<td>15.2 B</td>
<td>15.3 B</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>26.3 C</td>
<td>25.2 C</td>
<td>28.9 C</td>
<td>24.9 C</td>
<td>2.6</td>
<td>-0.3</td>
<td></td>
</tr>
<tr>
<td>30 NB US-31 &amp;</td>
<td>Stop (Minor)</td>
<td>EBL</td>
<td>14.2 B</td>
<td>28.1 D</td>
<td>14.6 B</td>
<td>37.8 E</td>
<td>0.4</td>
<td>9.7 D→E</td>
</tr>
</tbody>
</table>
The results of the future conditions analysis indicates that all study intersection approaches and movements will continue to operate acceptably, at LOS D or better during both peak periods, in a manner similar to background conditions, with the exception of the following:


During the PM Peak Hour: The eastbound left-turn movement is expected to operate at LOS E.

Although the Synchro intersection LOS indicates poor operations, review of SimTraffic network simulations indicates acceptable operations. Occasional periods of long queues were observed during the PM peak hour; however, these queues were observed to quickly dissipate and were not present throughout the PM peak hour.

Review of SimTraffic microsimulations throughout the remaining study network indicates acceptable operations, with minimal vehicle queuing observed.

Mitigation measures were investigated to improve the operations of the intersection. A signal warrant was run, and it does not meet the MDOT desired warrants. Additionally, the crossover does not suffer undue delay; therefore, it is recommended for MDOT to continue monitoring the intersection to determine if and when future improvements are needed.

### 8 Access Management

#### 8.1 Auxiliary LANES

The MDOT auxiliary turn lane treatment warrants were evaluated at the proposed site driveways; this analysis was based on the future peak hour traffic volumes shown on the attached Figure 6. The right-turn treatment was not evaluated for the proposed E. Site Drive, as no site-generated trips are expected to be generated to/from the north along 156th Avenue. The results of the analysis are shown on the attached MDOT warranting charts and summarized in Table 6.

<table>
<thead>
<tr>
<th>Site Driveway Intersection</th>
<th>Right-Turn Treatment</th>
<th>Left-Turn Treatment</th>
</tr>
</thead>
</table>

Table 6: Auxiliary Turn Lane Summary
The results of the MDOT auxiliary turn lane evaluation indicates that a left-turn treatment is warranted on eastbound Lake Michigan Drive (M-45) at the proposed W. Site Drive. No other auxiliary turn lane treatments are warranted or recommended at the proposed site driveways.

### 8.2 Driveway Spacing

The MDOT Geometric Design Guidance (Section 1.2.2) was utilized to evaluate the location of the proposed W. Site Drive, in relation to nearby intersections and driveways within close proximity to the project site. The AASHTO corner clearance and driveway spacing criteria were evaluated for the 55-mph section of Lake Michigan Drive (M-45). The distance of the proposed site driveway from nearby roadways and access points, and the warranting criteria are summarized in Table 7 and displayed in Exhibit 1.

#### Table 7: Desirable Corner Clearance Summary

<table>
<thead>
<tr>
<th>Adjacent Driveways &amp; Intersections</th>
<th>Distance</th>
<th>Criteria (55 mph)</th>
<th>Meets</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Site Drive To 158th Avenue</td>
<td>580 feet</td>
<td>230 feet</td>
<td>YES</td>
</tr>
<tr>
<td>W. Site Drive To Botello’s Party Store</td>
<td>460 feet</td>
<td>455 feet</td>
<td>YES</td>
</tr>
<tr>
<td>W. Site Drive To 156th Avenue</td>
<td>760 feet</td>
<td>230 feet</td>
<td>YES</td>
</tr>
</tbody>
</table>

The result of the analysis indicates that the proposed site driveway location meets MDOT spacing criteria.

#### Exhibit 1: Driveway Spacing
9 CONCLUSIONS

The conclusions of this TIS are as follows:

1. **Existing Conditions**
   - All approaches and movements at the study intersections are currently operating acceptably, at LOS D or better during both the AM and PM peak hours. Additionally, review of SimTraffic network simulations for the study roadway network intersections indicates acceptable operations, with minimal vehicle queueing observed during both peak periods.

2. **Background Conditions (2025)**
   - All approaches and movements at the study intersections are expected to continue operating in a manner similar to existing conditions analysis, with minor increases in delay. Occasional periods of long vehicle queues were observed at the SB-to-NB crossover during the PM peak hour; however, these queues were observed to dissipate and were not present throughout the PM peak hour.

3. **Future Conditions (2025)**
   - With the addition of the site-generated traffic, all approaches and movements at the study intersections and proposed site driveways are expected to continue operating acceptably, at LOS D or better during both peak periods, similar to the background conditions analysis, with the following exception:
     - **NB US-31 & SB-to-NB X/O S. of Lake Michigan Drive (M-45):** The eastbound left-turn (crossover) movement is expected to operate at LOS E during the PM peak hour.
       - Although the Synchro intersection LOS indicates poor operations, review of SimTraffic network simulations indicates acceptable operations. Occasional periods of long queues were observed during the PM peak hour; however, these queues were observed to quickly dissipate and were not present throughout the PM peak hour.
   - Review of SimTraffic network simulations for the remaining study roadway network also indicates acceptable operations, with minimal vehicle queueing observed.
   - Mitigation measures were investigated to improve the operations of the intersection. A signal warrant was run, and it does not meet the MDOT desired warrants. Additionally, the crossover does not suffer undue delay; therefore, it is recommended for MDOT to continue monitoring the intersection to determine if and when future improvements are needed.

4. **Auxiliary Turn Lane Evaluation**
   - The MDOT auxiliary turn lane warranting thresholds were evaluated at the proposed site driveways, based on the future traffic volumes. The results indicate that a left-turn treatment is warranted on eastbound Lake Michigan Drive (M-45) at the proposed W. Site Drive. No other auxiliary turn lane treatments are warranted or recommended at the proposed site driveways.

5. **Driveway Spacing**
   - The results of the driveway spacing evaluation indicates that the location of the proposed W. Site Driveway on Lake Michigan Drive (M-45) is expected to meet the desirable MDOT spacing criteria, in relation to nearby roadway intersections within close proximity to the project site.
10 RECOMMENDATIONS

The recommendations of this TIS are as follows:

<table>
<thead>
<tr>
<th>Intersection and Recommended Mitigation Measures</th>
<th>Existing</th>
<th>Background</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>70. Lake Michigan Drive (M-45) &amp; W. Site Drive</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Provide a left-turn treatment along eastbound Lake Michigan Drive (M-45) at the proposed W. Site Drive.

Any questions related to this memorandum, study, analysis, and results should be addressed to Fleis & VandenBrink.

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Michigan.

Attached:

- Figures 1-6
- Proposed Site/Concept Plan
- Traffic Volume Data
- Signal Timing Permit
- Synchro / SimTraffic Results
- MDOT Auxiliary Lane Charts
FIGURE 4
BACKGROUND TRAFFIC VOLUMES
FIGURE 6
FUTURE TRAFFIC VOLUMES

BLUEBERRY WOODS TIS - GRAND HAVEN TOWNSHIP, MI
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Label</th>
<th>Quantity</th>
<th>Manufacturer</th>
<th>Catalog Number</th>
<th>Description</th>
<th>Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>7</td>
<td>Lithonia Lighting</td>
<td>OS20 LED 96 SRK TFM HVST/240-277V/600V3W</td>
<td>OS20 LED 96 SRK TFM HVST/240-277V/600V3W</td>
<td>268</td>
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<tr>
<td></td>
<td>G</td>
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<td>OS20 LED 96 SRK TFM HVST/240-277V/600V3W</td>
<td>OS20 LED 96 SRK TFM HVST/240-277V/600V3W</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>H</td>
<td>2</td>
<td>Lithonia Lighting</td>
<td>OS20 LED 96 SRK TFM HVST/240-277V/600V3W</td>
<td>OS20 LED 96 SRK TFM HVST/240-277V/600V3W</td>
<td>134</td>
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<tr>
<td></td>
<td>I</td>
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<td>Sun Valley Lighting</td>
<td>OS223-3400-031-6400-60-36V1/277V</td>
<td>OS223-3400-031-6400-60-36V1/277V</td>
<td>133</td>
</tr>
</tbody>
</table>

**Diagram:***

The diagram is a plan view of a road network, specifically focusing on Lake Michigan Drive (Highway M-45). It includes various road intersections and traffic signals. The diagram is labeled with various road names, such as "Lincoln Park", "Dunwich", and "St. Joseph Road". The road network is marked with white lines and dotted lines indicating lanes and crosswalks. A sign for "Sunset Blvd" is visible, and there are indications of "Railroad" and "Railway" areas along the road. The map is oriented with North at the top, and the scale is marked with "SCALE 1:1200". The detailed layout and symbols suggest this is a plan for a transportation infrastructure project, possibly for a traffic management or a construction plan.
RE: [External] Grand Haven Township development

Kevin Kieft <KKieft@preinnewhof.com>

Mon 10/24/2022 2:12 PM
To: Zach Voogt <ZVoogt@mbce.com>
Cc: Alex DePoy <adepoy@mbce.com>

Zach,

I’ll check in with Dan Tlachac and review the layouts and have asked Rory Thibault (planner) on the paving of 156th but has typically been developer requirement.

Twp. has been holding things tight on our review until things make their way through PC with layouts of buildings/access/etc. I’ll see if I get similar response on this one. I haven’t heard where things are with PC preliminary review.

Kevin

---

Kevin Kieft, P.E.  
Prein&Newhof  
t. 231-798-0101 x.1204 c. 616-299-3823  
f. 231-798-0337  
Website | Blog | LinkedIn

---

From: Zach Voogt <ZVoogt@mbce.com>
Sent: Thursday, October 20, 2022 12:22 PM
To: Kevin Kieft <KKieft@preinnewhof.com>
Cc: Alex DePoy <adepoy@mbce.com>
Subject: [External] Grand Haven Township development

Hi Kevin,

I talked with you on the phone a while ago about this development at US31 and M45. Attached is what we have put together so far for preliminary water and sewer and I’d like to know if you have any initial comments.

I am also wondering if you can give me any guidance on paving 156th Street. Would the township participate in improvements to 156th or is that all on the developer? Any advice on how to approach that or who I should talk to?

Thanks

Zachary S. Voogt, P.E. | Project Engineer
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Total Control Panel

To: zvoogt@mbce.com

Remove this sender from my allow list

From: kkieft@preinnewhof.com

You received this message because the sender is on your allow list.
RE: New Residential Development in Grand Haven Township

Jerry Kuiper <jkuiper@ottawacorc.com>
Mon 1/30/2023 5:26 AM
To: Zach Voogt <ZVoogt@mbce.com>

Caution! This message was sent from outside your organization.

Zach,

The concept appears to be acceptable to us. Your previous communication indicated that 156th Avenue is going to be paved from M-45 north to this drive. As the road exists, there are issues with the 156th Avenue alignment, both horizontal and vertical. When the road is rebuilt and paved, it should be centered on the ROW, and sight distance is going to have to be addressed.

The drive onto M-45 will not be controlled by OCRC, since that is an MDOT road.

Let me know if you have any other questions.

Thanks,

Jerry Kuiper
Special Services
Ottawa County Road Commission
14110 Lakeshore Drive, Grand Haven, MI 49417
Ph: (616)850-7215
M: (616)638-3237

From: Zach Voogt <ZVoogt@mbce.com>
Sent: Thursday, January 26, 2023 4:33 PM
To: Jerry Kuiper <jkuiper@ottawacorc.com>
Subject: Re: New Residential Development in Grand Haven Township

[220136_M-45 US 31 - Blue Berry Woods.pdf]

Hi Jerry,
The township is asking for some sort of assurance that the driveway locations we show are not going to change dramatically. The link above is to an overall layout drawing to which I have added some dimensions. Would it be possible for you to comment on the proposed drive location - like it appears to be acceptable or something like that?

Appreciate it. Call my cell if you have any questions regarding my request.

Thanks

Zachary S. Voogt, P.E. | Project Engineer
From: Jerry Kuiper <jkuiper@ottawacrc.com>
Sent: Tuesday, December 20, 2022 9:43 AM
To: Zach Voogt <ZVoogt@mbce.com>
Subject: RE: New Residential Development in Grand Haven Township

Zach,

The intersection at M-45 would be controlled by MDOT, so you should get their input for that.

As far as the rest of the road, we would want to see 11’ lanes with 5’ gravel shoulders and ditches along the road. I think that there are very few issues with drainage in that area, so infiltration ditches with culverts under driveways would probably be adequate, rather than getting the whole thing to flow to the north. There is a drain to the east of the road that flows north, so the design may need to incorporate a cross culvert or two.

The entrance to the project from 156th should follow our normal specs, and the road will need to be paved at least to the north end of the tapers. You didn’t mention it, but the other entrance from the development onto M-45 again will have to be approved by MDOT.

Hope that answers your question. If you need more information, let me know.

Thanks,

Jerry Kuiper
Special Services
Ottawa County Road Commission
14110 Lakeshore Drive, Grand Haven, MI 49417
Ph: (616)850-7215
M: (616)638-3237

From: Zach Voogt <ZVoogt@mbce.com>
Sent: Wednesday, December 14, 2022 1:59 PM
To: Jerry Kuiper <jkuiper@ottawacrc.com>
Subject: Re: New Residential Development in Grand Haven Township

Hi Jerry,

We have completed the attached topo survey of 156th and would like to prepare a preliminary drawing for your review. Our goal is to resubmit to Grand Haven Township just after the new year with some type of head nod that we are heading in the right direction with our plans to pave a portion of 156th. Can you tell me what the pavement section needs to look like? Lane widths, shoulders, curbs at he intersection of M45 and 156th?
Please call if it would be easier to discuss by phone.

Thanks!

Zachary S. Voogt, P.E. | Project Engineer

Moore+Bruggink Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 468-7383 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
Website | LinkedIn

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From: Jerry Kuiper <jkuiper@ottawacorc.com>
Sent: Tuesday, September 20, 2022 11:21 AM
To: Zach Voogt <ZVoogt@mbce.com>
Subject: RE: New Residential Development in Grand Haven Township

Zach,

Regarding our conversation a little earlier, I believe you have two options with the paving of 156th Ave.

If the township is interested in working with you on that project, they would probably contract with the OCRC to design and build the road. I don’t know how long that process would take — as I said on the phone, that information would have to come from the township.

Another option would be to construct the road as part of the project under permit from the Road Commission. That would entail your topo and design.

Just a couple of thoughts... if you have any more questions, let me know.

Thanks,

Jerry Kuiper
Special Services
Ottawa County Road Commission
14110 Lakeshore Drive, Grand Haven, MI 49417
Ph: (616)850-7215
M: (616)638-3237

From: Zach Voogt <ZVoogt@mbce.com>
Sent: Tuesday, August 2, 2022 2:58 PM
To: Mulder, Suzanne (MDOT) <MulderS@michigan.gov>; Jerry Kuiper <jkuiper@ottawacorc.com>
Good afternoon,

Please see attached. We are beginning design work on a new development in Grand Haven Township along Lake Michigan Drive (M45) just east of US-31. We are reaching out to you early on to ask what we should expect to see for improvements needed to M45 for our proposed entrance. We will also have site access to 156th Avenue and will need to pave this road up to the driveway we have shown. At this time we are planning to have private roads within the development.

So again, just introducing you to the project and I want to make sure I am including all necessary folks who would have input, and to get an idea of what we should expect for required improvements to the public roads.

Thank you.

Zachary S. Voogt, P.E. | Project Engineer

Moore+Bruggink Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
Website | LinkedIn

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Dear Suzanne,

Thank you for your response regarding the M45 at US31 project. I appreciate your insight and the additional information provided.

We are resubmitting our project plans to the township today and are confident that our approach aligns with the MDOT guidelines. "MDOT generally accepts the proposed driveway location" is a positive assurance that our efforts are on track.

Thank you again for your time and consideration.

Sincerely,

Zachary S. Voogt, P.E. | Project Engineer

Moore + Bruggink Consulting Engineers
Hi Suzanne,
I left you a message a few days ago and wanted to ask if you have had a chance to review this traffic study. If you could respond with an update I would most appreciate it.

Thanks

Zachary S. Voogt, P.E. | Project Engineer

Moore+Bruggink
Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
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From: Love, Jordan (MDOT) <Love4@michigan.gov>
Sent: Wednesday, January 4, 2023 9:56 AM
To: Zach Voogt <ZVoogt@mbce.com>
Cc: ‘David Stibbins’ <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <Mulder5@michigan.gov>
Subject: RE: M45 AT US31 - REDSTONE

Morning Zach,

At our meeting in October, I do believe the proposed location works. If my memory serves me right, I mention working with our traffic and safety to see if that signed could get move do possible sight distance issues. With that being said others will be reviewing this permit once it is submitted. Please let me know if you need any else. Suzanne will review the traffic study.
Hello again, Jordan. We would still very much like to have email correspondence from you regarding our meeting in October when we looked at the proposed driveway location with you. We need to share this with the township to show that the proposed location is acceptable.

I am also attaching the draft traffic study that was recently completed for the proposed project.

Thank you.

Zachary S. Voogt, P.E. | Project Engineer

Moore + Bruggink Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
Webiste | LinkedIn

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Good morning Jordan and Suzanne,

I am looking for follow-up to our site meeting back in October and can’t seem to find anything. What I would like is an email just confirming that we met at the site and that MDOT is preliminarily OK with our proposed driveway as discussed. I would also like to confirm what the drive cut geometric detail needs to look like. Can you please send me that detail and also a confirmation email? We need this to submit to the township next week for preliminary site plan approval.

Thanks much!
Hi Jordan,
October 12th will work great. What do you think about 10:30AM?

Please let us know.

Thanks

Zachary S. Voogt, P.E.  |  Project Engineer
From: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Sent: Wednesday, September 28, 2022 2:04 PM
To: Zach Voogt <ZVoogt@mbce.com>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <MulderS@michigan.gov>
Subject: RE: M45 AT US31 - REDSTONE

Zach,

How does Wednesday the 12th sound?

From: Zach Voogt <ZVoogt@mbce.com>
Sent: Wednesday, September 28, 2022 1:33 PM
To: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <MulderS@michigan.gov>
Subject: Re: M45 AT US31 - REDSTONE

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Good afternoon, Jordan,

We would like to know when you are available to meet at this site for a pre-design discussion. Please let me know when that might be possible.

Thanks!

Zachary S. Voogt, P.E. | Project Engineer
Thank you, Jordan. Our plan is to have a full-movement driveway and it would be built following Ottawa County Road Commission detail RD-10 (attached).

Would it be possible to meet you out there to look at the location?

Zachary S. Voogt, P.E. | Project Engineer

Moore + Bruggink
Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
Website | LinkedIn

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Hi Jordan,

I had reached out to Suzanne Mulder a month or so ago regarding a new project but not sure she was the right contact. I understand you are the driveway permit person and I think I briefly met you on Ironwood Drive in Tallmadge Township a couple months ago.

Anyways, inquiring about a proposed new driveway on Lake Michigan Drive east of US31. Attached is a preliminary plan that is in for review at Grand Haven Township. I just want to introduce you to the project and get any preliminary thoughts/comments on what we are proposing. Part of the proposal is also to pave a portion of 156th Street, which means a new intersection there.

I would welcome any input you could provide on geometrics for the new private driveway into our site.

Thanks

Zachary S. Voogt, P.E. | Project Engineer

Moore+Bruggink Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
Website | LinkedIn

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To: zvoogt@mbce.com
From: lovej4@michigan.gov

You received this message because the sender is on your allow list.
December 28, 2022

David Stebbins  
Redstone Homes  
3330 Grand Ridge Dr. NE  
Grand Rapids, MI 49525

RE:  Blueberry Woods- Preliminary Plan Drainage Approval  
70-07-23-300-022  
Quarter SW, Section 23, Grand Haven Township

Dear Mr. Stebbins,

Upon recommendation of our reviewing engineer, OCWRC hereby grants Preliminary Plat Drainage Approval for Blueberry Woods as shown on the preliminary plan and stormwater calculations submitted by Zach Voogt P.E., Moore & Bruggink both dated November 22, 2022, respectively.

As conditions of approval, please reference the recommendations from our reviewing engineer, Mr. Dennis Chase, P.E. in his letter dated December 27, 2022 which was previously sent to you. Those recommendations should be incorporated into the design as you move forward with your construction plan submittal.

Construction plan approval shall not be issued until OCWRC has received and reviewed acceptable plans and storm water calculations, as well as the appropriate fees for this next step in the process. Construction plan review fees shall be calculated by the developer’s engineer per the current fee schedule at the time of submittal.

Final approval shall be granted only after receiving and reviewing all final documents, and payment of all applicable fees incurred.

If you have any questions, please contact me at (616) 994-4530.

Sincerely,

Joe Bush  
County of Ottawa  
Water Resources Commissioner

JB/jap

c:  Mr. Zach Voogt, P.E., Moore & Bruggink
Mr. Dennis Chase, P.E., LRE
Mr. John Gutierrez, P.E., OCRC
Mr. Mark Reenders, Supervisor, Grand Haven Charter Township
Community Development Memo

DATE: January 16, 2023

TO: Moore & Bruggink, Zach Voogt; cc. David Stebbins, Redstone

FROM: Rory Thibault – Senior Planner

RE: Blueberry Woods – PUD Review Staff Review Comments

As required by the Grand Haven Charter Township Zoning Ordinance, prior to the submission of the site plan to the Planning Commission the plans shall be reviewed by the Community Development Department, Fire/Rescue Department, and Public Services Department to determine whether the site plan complies with the requirements of all applicable state and federal laws and regulations, and with the requirements of all applicable Township Ordinances, resolutions, regulations and policies.

COMMUNITY DEVELOPMENT

Community Development does not approve the plans dated 10/13/2022, and offer the following comments:

Ordinance Regulations shown in black. Township Comments in red. Applicant Comments from 01/03/23 in blue. Moore & Bruggink comments to accompany revised plans in green.

Chapter 18: Site Plan Review

Section 18.07.A

☐ Submit the following information as required:

 o (2) A photometric plan and cut sheets of all proposed light fixtures.
  
    o 01/03: Cut sheets for the proposed street lights and pathway lights are included. A photometric plan will be provided for staff review and the proposed lighting levels will be in accordance with Zoning Ordinance Section 6.07 for the LZ-3 Zone.
     
      o Photometric Plan not provided
         A photometric plan has been generated and is included with this submittal.

 o (3) Species and planting size of all landscaping.
The developer envisions a substantial amount of new landscaping for the development while also saving as many existing mature trees as possible. There is an emphasis on a natural feel utilizing primarily (over 90%) native species. Evergreen trees will be placed in clusters with varying heights so as to appear natural. Minimum size requirements will be met on this project; 6' height for evergreen trees, 2.5” caliper deciduous trees, and for the shrubs a 30” minimum for spread or height. Manicured lawns will be held to a minimum with open areas seeded with native grasses. The final landscape design may be affected as we work through site stormwater management requirements. We would like this item to be considered as a condition of approval as well.

- Provide landscape plan indicating species and planting size.
  Detailed landscape plans are included.

(4) Information on all utilities, color coded by utility for ease of understanding the plan.
- Proposed public water mains and sanitary sewers are shown on the drawings and are color coded. Existing gas, electric, and communications located within easements across the site are shown on the Site Survey drawing. Private gas, electric, and communications utilities will be designed in coordination with the respective utility provider. All required utility services are available in the site area to adequately serve the development.
  - See Fire/Rescue and DPW comments.
  Response provided elsewhere

(5) Demolition Plan
- As the site is undeveloped, demolition will be very limited for the project. Items will be limited to a few random hunting stands and one dilapidated hunting blind.
  - Provide demolition plan
  A demolition plan is now provided.

(7) Details of Fences, Dumpster Enclosure, and other elements requiring significant specific information.
- There are no fences planned for the project. Dumpster locations for the apartments are shown and the enclosures will be constructed of materials appearing natural. Duplex units will have roll out dumpster carts.
  - Provide dumpster enclosure details. Duplex units shall not have roll out carts
  Dumpster enclosure details are shown on the revised site plans. We are requesting two departures regarding garbage.

(8) Circulation Plan
- Turning templates have been added to the plans to show circulation of fire and garbage size trucks throughout the site.
  - See Fire/Rescue and DPW comments
  Response elsewhere

(9) Size and location of all proposed signage.
A development sign will be located at each entrance to the development. Details for these signs have not been finalized, however the signs will be in accordance with Chapter 11 of the Zoning Ordinance. Directional signs including stop signs and speed limit signs will be located appropriately. A minimum number of small way-finding signs will also be included in the final design. Sign permits will be applied for as required.

- Provide signage details, size and location
  Details are included with this submittal

- (10) Architectural Renderings (of all unit types)
  These are included.
  - Club house/community center not provided
    Included with this submittal

- (11) Stormwater Management Plan
  Since the time of our previous submittal, we have walked the site with the Ottawa County Water Resources Commissioner to discuss stormwater management objectives. We then made an application for preliminary approval and have received this approval which is included for your reference.
  - Agreed. Building permits will be conditioned on final approval

Section 18.07.B

☐ Submit information indicating whether the site plan has been approved by any other person or agency that has authority to approve the site plan, including Ottawa County (Road Commission, Water Resources, Health) and the State of Michigan (EGLE)

- We have received preliminary approval from the Ottawa County Water Resources Commission as previously stated. We met with MDOT permits engineer, Jordan Love in October and reviewed the proposed driveway location. We were given a verbal okay at that site meeting but have been unable to obtain anything in writing after several attempts. We also have correspondence from the Ottawa County Road Commission regarding the requirements for improving 156th Street. Wetlands on the site were delineated by Barr Engineering in May 2022 and we have since designed the site layout so as not to impact any regulated wetlands. We intend to have a site meeting with EGLE permit staff when the growing season allows in Spring 2023.
  - Provide written letters of approval or conceptual approval from all outstanding reviewing agencies (OCRC, MDOT, EGLE). Building permits will be conditioned on final approval.

We’ve attached correspondence from OCRC and from MDOT.

Regarding MDOT, they have been provided with the Traffic Study that was performed and per the attached correspondence, they will review it.

Abigail Richmond at EGLE has not responded to us and we assume it is because EGLE is overloaded with work. However, the layout of the site intentionally avoids all regulated wetlands, with the exception of the sanitary sewer crossing. The sewer crossing will require a wetland construction permit but the impact of the work within the wetlands will be temporary and the area will be fully restored. If a permit can’t be obtained for some reason, the option to directionally drill the sewer under the wetlands would be explored, however this is difficult to do with sanitary sewer since maintaining the proper slope of
the pipe can be tricky.

Section 18.07.G

☐ Site plans which relate to all uses or structures (permitted and special land uses) shall not be approved unless the Planning Commission affirmatively determines that each of the following standards have been fulfilled:

  - Due to outstanding approvals from OCRC, MDOT, Fire/Rescue, DPW, and CD – the application is not ready for PC to affirm the standards of approval for a Site Plan Review. See 18.07.G.1, 2, 3, 7, 8, 9, 11, 12, 13, 14

    We have reviewed each of these standards. We would reiterate that the Road Commission and MDOT have provided favorable comments on the two driveway locations.

    Regarding Fire/Rescue comments - We have corrected the drawing scales and added additional dimensions. The proposed private roads are all designed to be 30-feet in width and will have concrete curb and gutter on both sides. The minimum parking lot aisle widths are 26' where serving the apartment buildings. Further responses are provided elsewhere herein.

☐ Revise sidewalk design and location to ensure all roads have a sidewalk along them. Sidewalks shall not terminate into landscaping.

  - Sidewalk alignments have been revised and improved.
    - Sidewalk to extend to 156th Ave.
      Sidewalk has been extended to 156th Ave
Chapter 7: Planned Unit Developments

Section 7.04.C.2.c

- Revise Parallel plan to show all buildable lots. Lot depths of newly created lots shall be no greater than four times the lot width, (i.e. 1W:1L – 1W:4L). Specify Building envelope and departure requests (i.e. required front, side, and rear yard setbacks)
  - The parallel plan now shows buildable areas within each lot. All lots are less than the 4 units deep to 1 unit wide ratio. No departure requests would be necessary for the parallel plan as presented.
    - Agreed.

Section 7.04.E

☐ Provide area of Open Space as defined and calculated in Phase 1 in order to establish Density Bonus
  - Open Space calculations are as shown on the project plans. As determined by the parallel plan, a density bonus does not appear to be required for Phase 1 of the project.
    - Calculations are provided, however area referenced is not explicitly described (outline, hatching, etc – and plans are not scaled correctly, therefore Staff is unable to verify total area). Open Space must be clearly described for the Open Space conveyance to be reviewed by the Township attorney and for Staff review.

We are providing an exhibit drawing with this submittal that is specific to open space.

Section 7.08.A.7

☐ Indicate locations of all street lighting
  - As previously stated, final site lighting will be designed in accordance with Township Ordinances. Proposed light fixtures are included for your reference.
    - Indicate locations and size of all street lighting. Further, building lighting not provided

The photometric plan shows the proposed site lighting. Building lighting will be limited to recessed lights under building entrance canopies. A cut sheet for the building lighting is provided in this submittal.

Section 7.08.B.3

☐ Exterior lighting shall be regulated in accordance with Chapter 6 in this Ordinance.
  - Specifications provided for pole lighting. Locations not provided nor other lighting details provided, nor photometric plan

The photometric plan provides these details.

Section 7.08.B.4

☐ No outside storage of materials shall be permitted unless screened as outlined in Section 4.02.A.5.
  - Provide dumpster enclosure details. Image provided is insufficient to review.

Details are provided on the revised plans.
Section 7.08.B.5

☐ A signage plan shall be included in the PUD submittal.
  o Provide signage plan

  Draft signage details are provided with this submittal.

Section 7.08.B.6.b

☐ Mechanical equipment and above-ground utility cabinets such as transformers shall be visually screened from adjacent properties, public roadways, or other public areas. Architectural designs for buildings shall include design features to contain and conceal all heating, ventilation, air conditioning units, trash enclosures, dumpsters, loading docks and service yards.
  o Provide locations if applicable

  Locations for required transformers and other such utilities have not been finalized. However, they will be screened similar to Figure 4-5 of the Zoning Ordinance.

Section 7.08.B.6.e

- Revise façade materials to include 35% or greater (by surface area) of brick, wood, native stone and tinted/textured concrete masonry units.
  o Building elevations have been revised to meet this requirement and are included for review.
    - Building elevations not provided for community center. Residential building elevations calculations show that the 35% requirement is not met. Vinyl Lap Siding and Vinyl Board & Batten shall not count toward the 35% requirement.

  Building elevations for the community center are now included.

Section 7.08.B.6.g

☐ On-site landscaping shall abut the walls so that the vegetation combined with the architectural features significantly reduce the visual impact of the building mass as viewed from the street.
  o Foundation planting for buildings not shown on plans

  Landscape details have been added to the plan set.

Section 7.08.B.6.h

☐ Landscaping Adjacent to the Walls. Landscape plantings that complement the design intent of the structure must be provided abutting the building for at least fifty percent (50%) of the wall length. Other walls shall incorporate landscaping for at least thirty percent (30%) of the wall length.
  o See comment above

  Landscape details have been added to the plan set.
Section 7.08.B.7.a

☐ Landscaping, natural features, open space, and other site amenities shall be located in a way that is convenient to the occupants or visitors to the PUD. The landscape plan must ensure:
Adequate shade trees along roadways and walkways
  o Shade trees not shown on all sidewalks along road and around apartments

These have been added

Section 7.08.D.4

- Roads must meet ... the standards of the Township Private Road and Driveways Ordinance (if private), unless all buildings within the development include fire suppression, in which case private roads may be narrowed to a width defined in the PUD Agreement, after review and consideration by the Fire/Rescue Department.
  o See Fire/Rescue comments

See responses elsewhere

Section 7.08.D.6

☐ Corner lots shall have a driveway only from the lesser traveled street frontage.
  o Show proposed driveway locations for Residential lots, and any associated easements for access

These have been added
Section 7.08.D.8

☐ Sidewalks or pathways shall be deemed to be required along all public and private roadways unless the applicant provides compelling evidence, in the opinion of the Planning Commission, that they are not necessary for pedestrian access or safety. Sidewalks shall terminate in an appropriate fashion consistent with the needs and safety of pedestrians. No sidewalk shall terminate into landscaping.

- Planning Commission to determine if sidewalk locations and terminus are adequate. Staff recommend extension to 156th Ave. to serve residential lots within development.

We have revised and extended the sidewalk to 156th

Section 7.08.D.9

☐ Sidewalk connections required to path network outside of development

- Sidewalk connections extend to the existing road right-of-ways. Sidewalks do not currently exist in either M-45 or 156th Street.
  - See comment above.

We have revised and extended the sidewalk to 156th

Section 7.10

☐ (A) Provide calculation of all open space, within Phase 1. Regulated wetlands can be included.

- Open Space calculations are as shown on the project plans.
  - See note 7.04.E above

We have included an exhibit showing open space

☐ (B.1) Clarify location of (1) acre minimum Central Gathering Place with amenities.

- A park area with amenities is shown at the intersection of the two main entry drives. In addition, a community building is shown as well as proposed pickleball courts.
  - Provide area calculations

  The park located at the main intersection is 1.2 acres.

☐ (B.2) Relocate Pocket Parks to demonstrate that open space is accessible to all residents. Area cannot be smaller than smallest buildable lot (i.e. smallest lot as determined by Parallel Plan). Clarify amenities provided.

- Pocket parks including those already mentioned will be accessible to all residents. Amenities include pickleball courts, fire rings, grill and gazebo.
  - Amenities not described in SE pocket park

  This area will no longer be considered a park. It will simply be a lawn area.

Section 7.10.F.

☐ Designated open space shall be set aside by means of a conveyance approved by the Township Attorney.

- Provide draft conveyance for review by Township attorney. This can be a condition of approval
  - So noted.
Section 7.11.C

☐ (1) A completed application form provided by the Township, and a letter signed by the applicant and owner(s) holding an equitable interest in the property, acknowledging that such property is under application for a PUD.
  - A completed application and a check for the required application fees was delivered on December 5, 2022.
    Agreed

☐ (2) A Site Plan prepared in accordance with Chapter 18 (Site Plan Review) of this Ordinance.
  - See review comments above
    Addressed elsewhere herein

☐ (3) A schedule of total land areas devoted to each type of use, usable floor areas, density calculations, number and types of units, building ground coverage, impervious surfaces and proposed open space calculations (if applicable).
  - This does not appear to be applicable. The type of use proposed is residential.
    - Show proposed floor plans of all units. Show proposed floor plan for community center. Density calculations were derived by Staff based on information presented in the drawings. However, it is the developer’s responsibility to calculate this for Staff to review. Area of building ground coverage, area of impervious and permeable surfaces required. Some of these calculations have been provided.
      Calculations have been updated with the open space exhibit.

☐ (4) Open space areas and significant natural features, indicating any proposed uses or improvements for such areas, and landscaping. A plan must be submitted showing the open space that meets the criteria to be counted as required open space, as described in Section 7.10, and noting any open space that is proposed, but does not meet the criteria. The plan must also clearly label the Central Gathering Place and Pocket Parks.
  - These items are included as previously described.
    - See note 7.04.E above
      We have included an exhibit showing open space

☐ (5) Architectural sketches showing building heights, external wall finishes, and locations of building entryways, lighting elements and other architectural features.
  - These features are shown on the architectural renderings.
    - Submit details for clubhouse
      Included in this submittal

☐ (6) Landscape planting plan in accordance with the landscaping requirements of this Ordinance
  - Detailed landscaping design has not yet been finalized. The general landscape plan for main areas of the site has been shown conceptually and will include native plant materials that are tolerant to drought. The final plan will include street trees and building foundation plantings that will meet or exceed township ordinances.
    - Detailed landscape design to be provided for review by Planning Commission
and Township Board.

Included in this submittal

☐ (8) General description of proposed development, including a timetable of construction and a list of departures from the Zoning Ordinance regulations which will be required.
  o The goal for the project is to begin construction in 2023 with full buildout of all units being completed in 2026.
    • Provided complete list of departures
    A summary of departure requests is attached.

☐ (10) Preliminary grading plan showing a minimum of five (5) foot contour intervals and specifying whether soil will need to be brought in or removed from the site in the general notes of the plan sheet.
  o Contours have been included as described along with mass grading quantities.
    • Agreed
Section 7.11.E

- The application shall not be considered complete and shall not be accepted by the Township unless all the above-referenced information is received, or unless any required information has been waived by the Township staff.
  - The application is not considered complete because information is still outstanding

Chapter 8: US-31 Character Overlay

Section 8.06

☐ (B) Submit evidence indicating the sight distance requirements of MDOT and/or OCRC, as applicable, are met. This may require profiles.
  - Correspondence with MDOT and the OCRC regarding the positioning of the entryways has been included.
    - Received

☐ (C) Show dimensions between proposed and existing drives, intersections, and US-31 median crossovers.
  - Dimensions showing proposed entry drives in relation to adjacent drives and intersections along M-45 have been included.
    - Agreed

☐ (E) Show dimensions for driveways (width, radii, throat length, length of any deceleration lanes or tapers) and all curb radii within the site.
  - Dimensions have been included on radii and entryways.
    - Agreed

☐ (H) Provide correspondence that the proposal has been submitted to MDOT or OCRC for their information. Any correspondence from either organization, shall be considered during the site plan review process.
  - Correspondence with MDOT and the OCRC regarding entryways has been included in addition to a draft traffic impact study.
    - Received

☐ (I) Submitted elevations for all sides of proposed structures. The elevations, colors and materials shall be considered part of the approved site plan.
  - Building elevations detailing proposed siding have been included.
    - (1) Color renderings of all buildings shall be submitted.
      - Clubhouse renderings not provided
      - Included with this submittal
    - (2) Proposed materials and colors shall be specified on the plan and color chips or samples shall also be provided at the time of site plan review.

☐ (L) Submit information on all proposed signs, including details on the base materials and sign materials and on landscaping around the base.
A development sign will be located at each entrance to the development. Details for these signs have not been finalized, however the signs will be in accordance with Chapter 11 of the Zoning Ordinance. Directional signs including stop signs and speed limit signs will be located appropriately. A minimum number of small way-finding signs will also be included in the final design. Sign permits will be applied for as required.

- Provide signage information for review
  - Included with this submittal

Section 8.07

☐ (B) If, Phase 1 is expected to generate one thousand (1,000) or more vehicle trips per day, based on a reliable estimate produced by a qualified professional and provided to the Township by the applicant - submit a traffic impact study.

- A draft traffic impact study has been included.
  - Received

Section 8.09

☐ (A.2) Access points shall provide at least four hundred fifty-five (455) feet of spacing from other access points along the same side of US-31 (and M-45) - measured from centerline to centerline. The Planning Commission may waive that standard if, and only if, MDOT grants a waiver from its equivalent standards.

- Correspondence with MDOT regarding the entryway positions has been included.
  - Written correspondence has not been received from MDOT
    - MDOT has provided an email confirming that the location of the M45 driveway is acceptable.

☐ (A.5) Access points along roads without a median shall be aligned with driveways on the opposite side of the street unless the Planning Commission determines that is not practical.

- Primary entrance not aligned with residential driveways across the street. PC may waive this requirement

☐ (B) Provide Parking Count and Parking Lot area calculations

- Parking calculations and totals have been included.
  - Received

☐ (B.2) Maximum. The maximum number of parking spaces for any use within the overlay shall be one hundred twenty percent (120%) of the minimum listed in Section 5.06 for the use in question. A site may be permitted to exceed the maximum number of parking spaces upon determination by the Planning Commission that the expanded parking lot is necessary for the efficient operation of the use.

- 336 spaces are required. This sets the maximum at 403 spaces. 410 spaces shown
  - Parking has been revised

☐ (B.3) Interior Landscape Islands. For parking lots over one hundred (100) spaces or thirty thousand (30,000) square feet the interior of the parking lot shall have one (1) square feet of landscaped area for each fifteen (15) square feet of paved area.

- Provide parking lot calculations

These are shown on the revised site plans
Section 8.10

☐ Provide Tree protection fencing on Site Demo Plan to ensure heavy equipment will not compact Critical Root Zones of existing trees to be preserved
  ○ Details for tree protection have been included on the site grading plan.
    ▪ Agreed

Section 8.11.C

• (1) Garage locations shall be varied and/or recessed to reduce the emphasis on the garages along the street edge. See also Two-Family Ordinance Requirements – applicable to Duplex Condos
  ○ The duplex footprints indicate garages to be recessed beyond the surrounding areas.
    ▪ Only 1 garage is recessed. 22-feet deep garage to be recessed at least 5-feet 6-inches.
      This item will be included in our request for departures.

☐ (2) Provided colored renderings of Multi-Family residential units. Units to be varied using color, arrangement and/or materials to emphasize facade elements and provide the look of multiple buildings built over time, rather than a single design repeated several times.
  ○ Renderings and elevations of proposed buildings are included.
    ▪ Planning Commission to determine if the proposed building elevations are varied enough to satisfy the requirement.

☐ (3) The planes of exterior walls shall be varied in height, depth or direction. Long facades shall include sufficient relief and landscaping to reduce the dominance of the building.
  ▪ Planning Commission to determine if the proposed building elevations have sufficient relief to satisfy the requirement.

Section 8.12

☐ (F) Provide detail of curbs
  ○ Details of proposed curbs have been included.
    ▪ Agreed

Chapter 14: General Regulations

Section 14.07

☐ Provide details on any entrance way structures including, but not limited to walls, columns, and gates
  ○ Walls, columns and gates are not included in the proposed entryways.
    ▪ Noted

Chapter 4: Landscaping & Low Impact Design
Provide detailed landscape plans with all species and sizes noted. See chapter for list of all requirements.
  o A preliminary landscape plan has been included.
    ▪ Provide detailed landscape plan as noted previously and in following provided with this submittal
  □ Provide cross-section of Stormwater Detention/Retention facilities. Side slope to be no greater than 1:5
    o A basin layout plan detailing proposed slopes has been included. The intended appearance of the stormwater pond is to have it look natural by the planting of native shrubs and flowers along the banks as well as water tolerant grass and seed mixes.
      ▪ Basin layout shows slopes in excess of 1:5. GHCT reserves the right to have higher standards for side slope than OCWRC, revise.
      ▪ We are seeking approval for a departure for this item

Section 4.02.A.1

□ The following landscaping shall be required in the Multiple Family, Commercial, and Industrial Districts, parking lots, refuse containers (for other than single- or two-family residential) as well as for non-residential uses in residential districts, except where uses or districts are specifically exempted. Encouraged Species. The species listed in Section 3.02.A should be prioritized. Xeriscape design is highly encouraged.
  o Species list not provided

         Provided in this submittal

Section 4.02.A.3

□ Stormwater System Landscaping. Retention, detention and the overall stormwater system shall be designed to create the appearance of a natural pond or feature including gentle (5:1) or varying side slopes, irregular shapes, water tolerant grasses and seed mixes at the bottom of the pond/basin; appropriate flowers, shrubs and grasses along the banks based on environment (wet, dry, sedimentation basin v. pond) to improve views, filter runoff and enhance wildlife habitat. The following species shall be used for plantings, although other species may be permitted by the Planning Commission.
  o Revise basin to meet requirement

         Seeking a departure for this item.

Section 4.02.A.4

□ (A) Perimeter. A landscaped area must be at least ten (10) feet in width must surround parking lots on all sides.
  o None shown

         Provided in this submittal

□ (A.i) Private internal walkways may be located between the parking lot and the required landscaping. (A.ii) The landscape area must contain a continuous screen at least thirty-six (36)
inches in height above the street grade, and can consist of shrubs, hedges, berm, wall, or combination thereof.

- Not shown
  Provided in this submittal

- The interior of the parking lot shall have parking lot island(s), which total at least one (1) square foot of landscaped area for each fifteen (15) square feet of the parking lot.
  - Calculations not provided
    Provided in this submittal

- Landscape islands must at least nine (9) feet wide in all dimensions and at least one hundred sixty (160) square feet in area.
  - Not all islands dimensioned
    Provided in this submittal

- All landscape islands must contain at least one tree OR be designed to function as a raingarden.
  - Species not shown
    Provided in this submittal

- Island ground cover must be mulch, stone, or local groundcover such as dune grass.
  - Species not shown
    Provided in this submittal

- At least 50% of the required landscaping must be within the parking lot, and not along the perimeter.
  - Provide area calculations
    Provided in this submittal

- Curbs Waiver. The Township may allow paved parking lots to be designed without curbs to shed stormwater into landscape areas (including landscape islands), using the stormwater as irrigation and reducing runoff into storm sewers. The Township may also grant a waiver in order to allow more efficient snow removal. Should this waiver be granted the applicant must demonstrate that additional measures are being used to prevent vehicles from parking on, and/or driving over, landscaped areas, walkways, right-of-way, adjacent property, etc. This can be accomplished using taller landscaping such as shrubs, a berm, retaining wall, etc.
  - Show details of parking measures in lots where curbs are not shown
    Provided in this submittal. Concrete wheel stops will be used in order to allow water to flow through.

Section 4.02.A.6
- Landscaping Adjacent to Buildings. All building walls visible from a public street or publicly-accessible area must have a ten (10) foot-wide landscape area adjacent to them for at least fifty
percent (50%) of their total width. Landscaping required in other sections of this Chapter (such as parking lot perimeter landscaping) may be used to count towards this requirement.

- Foundation planting plan not provided. Provided with this submittal.

Section 4.02.A.7

- Utility Cabinets and Mechanical Equipment. Transformers, mechanical equipment, and other above ground utility cabinets have to be screened with evergreen plantings at least one (1) foot taller than the height of the cabinet or equipment.
  
  - Locations, if applicable, not provided. Addressed elsewhere herein.

Section 4.02.B.1

- Other Landscaping Requirements. Refuse containers, or other permitted outdoor storage areas shall be screened by a wood or masonry solid wall or live conifer landscape material which is at least six (6) feet in height, or one (1) foot above the object which it is screening, whichever is greater. Live landscape materials shall be narrow evergreen trees planted no more than three (3) feet apart. All wood or masonry enclosures must have an opaque gate constructed from metal or wood (chain link with obscuring fabric or slats shall be prohibited).

  - Dumpster enclosure gate detail not provided. Enclosure exhibit that is provided is unclear on material, height. Addressed elsewhere herein.

Section 4.02.B.9

- (9) Minimum Planting Sizes. All plantings must meet the following minimum size requirements at the time of planting:
  
  - Planting sizes not provided on plans
    
    Addressed elsewhere herein.
Chapter 5: Parking & Impervious Surface

- Provide Parking Count and calculations per Ordinance requirements
  - Parking calculations and parking counts have been included.
    - Received

Section 5.05

- Each parking lot that serves a building, except single- and two-family dwelling units, shall have a number of parking spaces that meet the requirements for barrier free access in the Building Code. The number of barrier-free spaces required is as follows:
  - Barrier Free spaces not identified on plan. For 401-500 spaces — 9 are required with 2 being van-accessible. Added in revised plans.

Section 5.06.E

- For all Non-Residential Uses not listed in subsection E, F, or G below, the recommended minimum parking requirement shall be 1 space per three hundred (300) square feet of gross floor area.
  - Provided floor area for community center. Planning Commission to determine if additional parking for this use is appropriate. May be a departure request. Provided with this submittal.

Section 5.07.B

- Plans for the layout of off-street parking facilities shall be in accord with the following table, and are considered both minimum and maximum sizes (i.e. parking spaces must be exactly these sizes):
  - Drive aisle sizes not provided on plan. Added with this submittal. Standard parking spaces are 9’x18’. Accessible spaces are sized per ADA requirements.

Section 5.07.F

- Appropriate signage and striping must be included within the parking lot as well as designating the traffic flow at all entrances and exits (i.e., directional arrows).
  - Provide directional arrows on site plan. Provided with this submittal.

Site Plan Sheet: General Comments

Sheet 3/7: Phase 1 Aerial Layout

- Bike storage and mailboxes shown over sidewalk. There is an awning that overhangs the sidewalk.
- Rectangle to SW of community center not identified. This is now labeled.
- Dimensions not provided on single-family lots. Added.
- How is lot 10 accessed? Via easement as noted.
- Is the structure on Lot 6 staying? That structure is a house and is staying.
- Is the structure on Lot 7 staying? If this is a garage it cannot function as the main building on the property. The garage will remain and a home will be built on Lot 7.
□ Is the existing driveway serving lot 6 remaining? This would require a driveway to remain in place over the rear yard of 4 SFR lots. Refer to revised plans

□ Where is the 3rd dumpster pad location serving the SE cluster of apartments? Refer to revised plans

Note: the application is noncompliant at this time; as such, comments may not be exhaustive of all outstanding items

FIRE/RESCUE DEPARTMENT

Fire/Rescue does not approve the plans dated 10/13/2023, and offer the following comments:

- The provided scale on pages 2 of 7, and 3 of 7 are incorrect. It lists the scale as 1” = 40’, however the actual roads appear to be closer to a scale of 1” = 100’, as in the case of page 4 of 7 (utility plan).
  - Because of the incorrect scale, unable to determine the dimensions of all roads and parking areas on page 3 of 7, which only provides a road width of 30’ on the main road through phase 1, but does not clarify road widths in other areas, such as the southernmost loop or roads between parking areas by townhomes etc.
  - This will need to be clearly shown in further drawings
  
  As noted elsewhere, the scale issue has been corrected.

- Per the GHT private road ordinance 30.0404 Sec. 4, #3, C3, the minimum width of subbase and aggregate base shall be 30’ for the entire length of road in high density residential developments. As noted elsewhere, the private roads will be 30-feet wide.
  - Furthermore, the 2018 International Fire Code requires a minimum unobstructed width of 26’ where aerial apparatus may be required; such as building’s with a roofline that exceeds 30’ from ground level. Drive aisles accessing the apartment buildings are shown minimum 26-feet-wide.

□ The hydrants that are shown on the drawing are greater than the 400 ft distance that was specified in the last comments and as required by code, provided the buildings will not have a sprinkler system. If they are suppressed, the distance may increase to 600 ft. Currently, most distances appear to be around 500 – 600 feet apart. Hydrant spacing has been revised.

□ No hydrants are shown on 156th, which should occur with running water main down this road. These have been added.

PUBLIC SERVICES

Public Services does not approve the plans dated 10/13/2022, and offer the following comments:

□ Missing watermains; also appear to have dead ends. Revised

□ Missing sewer mains and laterals Revised
Blueberry Woods PUD  
Departure from Ordinance Requests  
February 3, 2023

Request #1: The ordinance requires dumpster enclosures to be constructed of wood, masonry, or live conifer material. We would like to propose 6-foot-high solid Vinyl Fence Panels for the dumpster enclosures.

Request #2: Roll-out trash bins are proposed for the duplex units. The development's by-laws will require that the roll-out trash bins be stored in the garages.

Request #3: Pond slopes steeper than 1:5 in order to provide a more natural looking interface where the permanent water pool meets the adjacent grade. Flattening the grades to 1:5 will also require giving up some of the wet pond's storage volume. We would prefer to follow Ottawa County Water Resources standards.

Request #4: Duplex footprints required to have garages recessed. The proposed duplexes are a product that Redstone has used in other locations with great success. The duplexes will be for-sale (not rent) and Redstone is confident that the look of the units is something that they can easily market.
RE: New Residential Development in Grand Haven Township

Jerry Kuiper <jkuiper@ottawacorc.com>
Mon 1/30/2023 5:26 AM
To: Zach Voogt <ZVoogt@mbce.com>

Caution! This message was sent from outside your organization.

Zach,

The concept appears to be acceptable to us. Your previous communication indicated that 156th Avenue is going to be paved from M-45 north to this drive. As the road exists, there are issues with the 156th Avenue alignment, both horizontal and vertical. When the road is rebuilt and paved, it should be centered on the ROW, and sight distance is going to have to be addressed.

The drive onto M-45 will not be controlled by OCRC, since that is an MDOT road.

Let me know if you have any other questions.

Thanks,

Jerry Kuiper
Special Services
Ottawa County Road Commission
14110 Lakeshore Drive, Grand Haven, MI 49417
Ph: (616)850-7215
M: (616)638-3237

Hi Jerry,

The township is asking for some sort of assurance that the driveway locations we show are not going to change dramatically. The link above is to an overall layout drawing to which I have added some dimensions. Would it be possible for you to comment on the proposed drive location - like it appears to be acceptable or something like that?

Appreciate it. Call my cell if you have any questions regarding my request.

Thanks

Zachary S. Voogt, P.E. | Project Engineer
From: Jerry Kuiper <jkuiper@ottawacorc.com>
Sent: Tuesday, December 20, 2022 9:43 AM
To: Zach Voogt <ZVoogt@mbce.com>
Subject: RE: New Residential Development in Grand Haven Township

Zach,

The intersection at M-45 would be controlled by MDOT, so you should get their input for that.

As far as the rest of the road, we would want to see 11’ lanes with 5’ gravel shoulders and ditches along the road. I think that there are very few issues with drainage in that area, so infiltration ditches with culverts under driveways would probably be adequate, rather than getting the whole thing to flow to the north. There is a drain to the east of the road that flows north, so the design may need to incorporate a cross culvert or two.

The entrance to the project from 156th should follow our normal specs, and the road will need to be paved at least to the north end of the tapers. You didn’t mention it, but the other entrance from the development onto M-45 again will have to be approved by MDOT.

Hope that answers your question. If you need more information, let me know.

Thanks,

Jerry Kuiper
Special Services
Ottawa County Road Commission
14110 Lakeshore Drive, Grand Haven, MI 49417
Ph: (616)850-7215
M: (616)638-3237

From: Zach Voogt <ZVoogt@mbce.com>
Sent: Wednesday, December 14, 2022 1:59 PM
To: Jerry Kuiper <jkuiper@ottawacorc.com>
Subject: Re: New Residential Development in Grand Haven Township

Hi Jerry,

We have completed the attached topo survey of 156th and would like to prepare a preliminary drawing for your review. Our goal is to resubmit to Grand Haven Township just after the new year with some type of head nod that we are heading in the right direction with our plans to pave a portion of 156th. Can you tell me what the pavement section needs to look like? Lane widths, shoulders, curbs at the intersection of M45 and 156th?
Please call if it would be easier to discuss by phone.

Thanks!

Zachary S. Voogt, P.E. | Project Engineer

Moore-Bruggink Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 468-7383 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
Website | LinkedIn

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From: Jerry Kuiper <jkuirper@ottawacorc.com>
Sent: Tuesday, September 20, 2022 11:21 AM
To: Zach Voogt <zvoogt@mbce.com>
Subject: RE: New Residential Development in Grand Haven Township

Zach,

Regarding our conversation a little earlier, I believe you have two options with the paving of 156th Ave.

If the township is interested in working with you on that project, they would probably contract with the OCRC to design and build the road. I don’t know how long that process would take — as I said on the phone, that information would have to come from the township.

Another option would be to construct the road as part of the project under permit from the Road Commission. That would entail your topo and design.

Just a couple of thoughts... if you have any more questions, let me know.

Thanks,

Jerry Kuiper
Special Services
Ottawa County Road Commission
14110 Lakeshore Drive, Grand Haven, MI 49417
Ph: (616)850-7215
M: (616)638-3237

From: Zach Voogt <zvoogt@mbce.com>
Sent: Tuesday, August 2, 2022 2:58 PM
To: Mulder, Suzanne (MDOT) <Mulders@michigan.gov>; Jerry Kuiper <jkuirper@ottawacorc.com>
Good afternoon,

Please see attached. We are beginning design work on a new development in Grand Haven Township along Lake Michigan Drive (M45) just east of US-31. We are reaching out to you early on to ask what we should expect to see for improvements needed to M45 for our proposed entrance. We will also have site access to 156th Avenue and will need to pave this road up to the driveway we have shown. At this time we are planning to have private roads within the development.

So again, just introducing you to the project and I want to make sure I am including all necessary folks who would have input, and to get an idea of what we should expect for required improvements to the public roads.

Thank you.

Zachary S. Voogt, P.E. | Project Engineer

Moore & Bruggink Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
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Yes, I would say that is accurate, we will mostly be looking at turn lanes and throat widths right now, we do not have an issue with the location.

Suzanne M. Mulder

Thank you. We are resubmitting our project plans to the township today and they are asking that we have language such as "MDOT generally accepts the proposed driveway location"

I appreciate it!

Zachary S. Voogt, P.E. | Project Engineer

Moore + Bruggink Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
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Hi Suzanne,
I left you a message a few days ago and wanted to ask if you have had a chance to review this traffic study. If you could respond with an update I would most appreciate it.

Thanks

Zachary S. Voogt, P.E. | Project Engineer

Moore+Bruggink
Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
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From: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Sent: Wednesday, January 4, 2023 9:56 AM
To: Zach Voogt <ZVoogt@mbce.com>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <MulderS@michigan.gov>
Subject: RE: M45 AT US31 - REDSTONE

Morning Zach,

At our meeting in October, I do believe the proposed location works. If my memory serves me right, I mention working with our traffic and safety to see if that signed could get move do possible sight distance issues. With that being said others will be reviewing this permit once it is submitted. Please let me know if you need any else. Suzanne will review the traffic study.
Hello again, Jordan. We would still very much like to have email correspondence from you regarding our meeting in October when we looked at the proposed driveway location with you. We need to share this with the township to show that the proposed location is acceptable.

I am also attaching the draft traffic study that was recently completed for the proposed project.

Thank you.

Zachary S. Voogt, P.E. | Project Engineer

Moore & Bruggink Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
Websites | LinkedIn

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From: Zach Voogt <ZVoogt@mbce.com>
Sent: Wednesday, December 21, 2022 9:43 AM
To: Love, Jordan (MDOT) <Love4@michigan.gov>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <MulderS@michigan.gov>
Subject: Re: M45 AT US31 - REDSTONE

Good morning Jordan and Suzanne,

I am looking for follow-up to our site meeting back in October and can't seem to find anything. What I would like is an email just confirming that we met at the site and that MDOT is preliminarily OK with our proposed driveway as discussed. I would also like to confirm what the drive cut geometric detail needs to look like. Can you please send me that detail and also a confirmation email? We need this to submit to the township next week for preliminary site plan approval.

Thanks much!
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From: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Sent: Wednesday, September 28, 2022 5:27 PM
To: Zach Voogt <ZVoogt@mbce.com>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <MulderS@michigan.gov>
Subject: RE: M45 AT US31 - REDSTONE

Yes, that works for me. Suzanne is off now but she should be able to confirm the time next week. I’ll let you know if that doesn’t work and can figure out another date.

From: Zach Voogt <ZVoogt@mbce.com>
Sent: Wednesday, September 28, 2022 4:36 PM
To: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <MulderS@michigan.gov>
Subject: Re: M45 AT US31 - REDSTONE

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Hi Jordan,

October 12th will work great. What do you think about 10:30AM?

Please let us know.

Thanks
From: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Sent: Wednesday, September 28, 2022 2:04 PM
To: Zach Voogt <zvoogt@mbce.com>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <mulderS@michigan.gov>
Subject: RE: M45 AT US31 - REDSTONE

Zach,

How does Wednesday the 12th sound?

From: Zach Voogt <zvoogt@mbce.com>
Sent: Wednesday, September 28, 2022 1:33 PM
To: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <mulderS@michigan.gov>
Subject: Re: M45 AT US31 - REDSTONE

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Good afternoon, Jordan,

We would like to know when you are available to meet at this site for a pre-design discussion. Please let me know when that might be possible.

Thanks!

Zachary S. Voogt, P.E. | Project Engineer

Moore+Bruggink
Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
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From: Zach Voogt <ZVoogt@mbce.com>
Sent: Wednesday, September 21, 2022 12:33 PM
To: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <MulderS@michigan.gov>
Subject: Re: M45 AT US31 - REDSTONE

Thank you, Jordan. Our plan is to have a full-movement driveway and it would be built following Ottawa County Road Commission detail RD-10 (attached).

Would it be possible to meet you out there to look at the location?

Zachary S. Voogt, P.E. | Project Engineer

Moore + Bruggink
Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
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From: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Sent: Wednesday, September 21, 2022 9:22 AM
To: Zach Voogt <ZVoogt@mbce.com>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>; Mulder, Suzanne (MDOT) <MulderS@michigan.gov>
Subject: RE: M45 AT US31 - REDSTONE

Morning Zach,

Do you plan on limiting the left turns at the driveway? I am looking at the island there and that was my first thought. This would have to go through our hydraulic review in Lansing because of the stormwater basin.

From: Zach Voogt <ZVoogt@mbce.com>
Sent: Tuesday, September 20, 2022 1:22 PM
To: Love, Jordan (MDOT) <LoveJ4@michigan.gov>
Cc: 'David Stebbins' <david@redstone-group.com>; Alex DePoy <adepoy@mbce.com>
Subject: M45 AT US31 - REDSTONE

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov
Hi Jordan,

I had reached out to Suzanne Mulder a month or so ago regarding a new project but not sure she was the right contact. I understand you are the driveway permit person and I think I briefly met you on Ironwood Drive in Tallmadge Township a couple months ago.

Anyways, inquiring about a proposed new driveway on Lake Michigan Drive east of US31. Attached is a preliminary plan that is in for review at Grand Haven Township. I just want to introduce you to the project and get any preliminary thoughts/comments on what we are proposing. Part of the proposal is also to pave a portion of 156th Street, which means a new intersection there.

I would welcome any input you could provide on geometrics for the new private driveway into our site.

Thanks

Zachary S. Voogt, P.E. | Project Engineer

Moore + Bruggink
Consulting Engineers

2020 Monroe Avenue | Grand Rapids, MI 49505
Office: (616) 363-9801 | Direct: (616) 466-7393 | Cell: (616) 437-1187 | Fax: (616) 363-2480 | zvoogt@mbce.com
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**DIVERSE | FLUSH MOUNT**

57612 / 57613 / 57614 / 57631 / 57633 / 57636 / 57640 / 57641 / 57644

57647 / 57651 / 57652 / 57654

- Die Cast Aluminum
- Fully dimmable with CL-Trac Dimmers
- High powered LEDs create a brighter shine
- Approved for use in closets and storage spaces
- Reduces energy consumption and operating costs by up to 80% over incandescent downlights
- Easy to install: fits all standard 3” or 4” J-box
- Suitable for wet locations
- Innovative design runs cooler to maximize energy efficiency
- High-powered LED output creates brighter shine
- Energy Star Certified, CRI 90+
- ETL/cETL IP65

**PRODUCT DESCRIPTION**

This very compact LED flush mount easily installs on any 3.25” octagon box and gives the look of a recessed trim. Constructed of Die Cast Aluminum, the Diverse luminaire is dimmable and also approved for wet locations so it can be used in virtually any ceiling application, including showers.

**MEASUREMENTS**

**MODEL DIMENSION**

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**LAMPING**

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<td>4000</td>
<td>1200</td>
<td>950</td>
<td>Triac</td>
</tr>
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**WIRE LENGTH**

8' L

**FINISHES OPTION**

- Bronze
- Satin Nickel
- White
- Black

Available in White (WT) finish only. Contact a representative for special requests (MOQ may apply).

**GLASS**

White WT

**MATERIAL**

Polycarbonate, Die Cast Aluminum

**RATINGS**

cETLus

Wet Location

Energy Star

**ADDITIONAL**

Rated Life: 50000 Hours

Operating Temperature: -20°C (-4°F), 40°C (104°F)

Always consult a qualified electrician before installing any lighting product.

**MAXIM®**

**LIGHTING**

WESTERN DISTRIBUTION CENTER (HEADQUARTER)
253 NORTH VINELAND AVE | CITY OF INDUSTRY, CA 91746

EASTERN DISTRIBUTION CENTER
4200 SHIRLEY DR. | ATLANTA, GA 30336

P. 626.956.4200 | F. 626.956.4225 | maximilighting.com
Blueberry Woods PUD
Departure from Ordinance Requests
February 3, 2023

Request #1: The ordinance requires dumpster enclosures to be constructed of wood, masonry, or live conifer material. We would like to propose 6-foot-high solid Vinyl Fence Panels for the dumpster enclosures.

Request #2: Roll-out trash bins are proposed for the duplex units. The development's by-laws will require that the roll-out trash bins be stored in the garages.

Request #3: Pond slopes steeper than 1:5 in order to provide a more natural looking interface where the permanent water pool meets the adjacent grade. Flattening the grades to 1:5 will also require giving up some of the wet pond’s storage volume. We would prefer to follow Ottawa County Water Resources standards.

Request #4: Duplex footprints required to have garages recessed. The proposed duplexes are a product that Redstone has used in other locations with great success. The duplexes will be for-sale (not rent) and Redstone is confident that the look of the units is something that they can easily market.
General Project Description
This proposed PUD provides multiple residential unit types to create a diverse community of residence, along with a significant amount of common element open space. A large boulevard-style entrance directly off of Lake Michigan Drive will provide a “grand entrance” into the development and there will be plenty of sidewalks and walking paths throughout the site which will connect each of the neighborhoods and open spaces.

The streets will be private, and the site will be served by public sanitary sewer, public watermain, private storm sewer and buried electric, cable TV, natural gas, and telecommunication lines. The stormwater management plan will be subject to review by the Ottawa County Water Resource Commissioner’s Office.

The property is somewhat unique due to the amount of forested wetland areas present. Layout of the site takes into account the forested wetlands and works to preserve these amenities for use of the residents. The wetlands are accessible and usable most time of the year for the enjoyment of the residents and are typically only wet during spring and fall. The property also has many mature trees that will be preserved to the greatest extent possible.

Open Space
The Phase 1 area totals 63.99 acres. Regulated wetlands within Phase 1 total 12.73 acres. The proposed park area and community building and related parking for each of these amenities totals 1.76 acres. This equates to 14.49 acres of open space, or 22.6%.

Development Schedule
Construction of the project will begin following all approvals and permitting. The goal is to begin construction in 2023 and the Phase 1 work will continue uninterrupted until it is complete.

Parallel Plan
A parallel plan has been developed for the property and includes 46 sites of varying size. Each site is 100-feet wide per the Township’s R-3 zoning requirements. All sites are less than the allowable 4:1 depth-to-width ratio. A spreadsheet showing the area of each site and the calculated density is shown on the following page. The calculated density is based on 3,250 square feet per residence.

The parallel plan includes an area designated for storm water management and does not encroach the existing regulated wetlands. A proposed road right-of-way 66-feet wide is also included per OCRC standards for public roads. Based on the parallel plan, 379 residences would be possible for Phase 1 of the development. The proposed density for Phase 1 totals 271 units.
## Parallel Plan Density Calculations

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<th>Number</th>
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<th>Possible Units Rounded Down</th>
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**Total**: 379.0
Community Development Memo

DATE: February 16, 2023
TO: Planning Commission
FROM: Cassandra Chaphalkar – Associate Planner
Rory Thibault – Senior Planner
RE: Pre-Application Presentation – Christian Reformed Conference Grounds

BACKGROUND

Christian Reformed Conference Grounds (CRCG) has been operating in the Township since 1950, and as a result has seen a number of site changes throughout the years.

Notably, in 1982 the Township conditionally approved what now equates to a Special Land Use to expand a non-conforming use (being the campground). The conditions of approval were later appealed to the Circuit Court, which resulted in a 1984 Court Order that nullified two of the conditions. The first condition to be invalidated limited the total number of family units to 119 units. The other condition of approval to be nullified had limited a retreat center building with dormitory lodging to limited occupancy that was not to exceed 140 people and required the removal of 46 campsites, with the understanding they provided an equivalent number of occupants.

In 1991 the court issued a consent judgment which outlined the stipulations of the case, also at this time, an inventory of all buildings and their respective occupancies was completed and agreed upon by the Township and CRCG. As part of the consent judgement, a condition that all future improvements be reviewed as an amendment to the formerly approved site plan, which is now processed as an amendment to a Special Land Use.

Following the consent judgement, the following improvements were submitted and approved:

- 2001 – Site Plan Review – Approved
  - Multi-use building consisting of conference area and staff and family lodging;
  - Multi use building for youth activities and maintenance garage
  - Expansion of existing auditorium
  - Bathroom expansion.
• 2005 – Site Plan Review - Approved
  o Approval to add a gazebo
• 2009 – Site Plan Review – Conditionally Approved
  o New buildings for staff occupancy.
  o Add a lower level basement to two cottages.
  o Move RV dump station.
  o Mini golf course – Not approved, PC required a revised site plan without the golf course present as they determined it was beyond the scope of the original plan.
• 2014 – Site Plan Review – Conditionally Approved, Except for Mini Golf Course
  o Modify lodging building.
  o Replace bathhouse.
  o Build new worship center.
  o Modify staff cottage
  o Add covered picnic pavilion.
  o Add mini golf course and service building – denied by Planning Commission.
• 2015 – Site Plan Approval – Conditionally Approved
  o Relocate staff cottage outside of required utility easement.
  o Install gaga ball court.
  o Relocate retreat center outside of easement.

It’s important to understand while multiple buildings were approved throughout the years, they did not all come to fruition. In reviewing the site plans throughout the years, it was common that certain buildings were never constructed in lieu of another option in the following years (e.g. Building #18 which was to act as lodging for staff and guests). Because of the consent judgement, proposed improvements are compared to the formerly approved master plans, rather than looked at separately as new construction which would be standard practice for another site.

**CURRENT PROPOSAL**

Staff met with Michael Perton, Executive Director for CRCG regarding proposed site improvements, which are provided below:

• Remove four campsites and replace with two 1600 sqft cottage buildings, which result in the same occupancy (16 people total). (#26 & #27)
• Reconfigure the existing tennis courts to add pickleball courts. (#4)
• Construct a new 9,160sqft ministry center, which will replace the existing store, kitchen, registration and meeting center. (#8)
• Construct a 20,000sqft “Cottage Suites” building which will provide 24 residential suites and meeting rooms for guests. (#25)
• Construct previously approved bathhouse expansion.

The provided site plan shows location of the buildings, but setbacks are not provided at this time.
Consent Judgement Impact on Review

Because of the consent judgement, site plan review is done as an amendment to the previously approved master plan and must be consistent with the consent judgement. In reviewing the proposed improvements, staff came to the understanding that the pickleball courts, new cottages, bathhouse expansion, and ministry center would likely be found to be considered consistent with the consent judgement.

However, during the internal pre-application meeting it was brought to the applicant’s attention that per the Zoning Ordinance, Hotels (the proposed Cottage Suites) are considered a separate use from Campgrounds. Staff review of prior approvals found that a lodge had previously been approved in 2001, but it never came to fruition. Because of the consent judgement, staff have reached out to the Township Attorney for clarification as to whether the proposed lodging is considered consistent with the consent judgement and prior master plan. If the use is not considered consistent, the Cottage Suites will require the applicant to pursue the PUD process.

Other Considerations

The property is encumbered by Critical Dune Area, but only the proposed bathhouse expansion appears to be within the regulated area. An EGLE permit would be required prior to a building permit being issued for that structure.

There are no proposed changes to the existing parking. Because the occupancy is not increasing it is not expected to require additional parking, but the use of the buildings will be reviewed to determine if the existing parking is sufficient.
The proposed Cottage Suites and ministry center are located over existing utility easements, which will need to be addressed as part of the formal submittal. The Department of Public Works is aware of the waterline location and have also had conversations regarding the on-site sanitary sewer system.

**PURPOSE OF THE PRE-APPLICATION MEETING**

At a pre-application presentation, the Planning Commission and applicant shall have an opportunity to exchange information and provide guidance that will assist in the preparation of materials. Also, it is noted that **no formal action will be taken, nor will statements made be considered legally binding commitments.**

Please contact staff if this raises questions.
On the Shores of Beautiful Lake Michigan

February 2, 2023

Rory Thibault – Senior Planner
Grand Haven Township
13300 168th Avenue
Grand Haven, MI 49417

Cassandra Hoisington, MCAO – Associate Planner
Grand Haven Township
13300 168th Avenue
Grand Haven, MI 49417

RE: Request to change the CRCG January 4, 2016 approved site plan

The Christian Reformed Conference Grounds is requesting the following changes to our January 4, 2016 approved site plan:

Site Plan Revisions:

1. Building number 18 is eliminated with the 4,000 square feet designated to build two new cottages buildings #26 and #27.

2. Building #8 is divided into two separate buildings: #8, #25
   A. Building #8 would be our new ministry center replacing our current store, kitchen, registration, and meeting center. Building #8 would be a one story 9,120 square foot building using the current square footage of 5,100 plus an additional 4,020 square feet.
   B. Building #25 is for cottage suite housing for up to 96 people and meeting space with square footage not to exceed 20,000 square feet in a 3 level structure. Each level would be approximately 6,670 square feet or less and have 8 cottage suites with a capacity of 4 people per unit plus a meeting area.
   C. 2016 approved plan had a two story building with total square footage of 31,600 feet (5,100 square feet - current building plus 26,500 square feet addition), and housing for 104 people. New plan would lower our square footage by 2,440 square feet (2016 plan – 31,600 square feet 2023 plan 29,160 square feet) and people density by 8 (104 down to 96).

3. Remove four campsites, B1 to B4.

4. Build two new cottages buildings #26, #27 approximately (1,600 square feet per cottage), where campsites B1 to B-4 were located with a people density of 8 people per cottage. Trading the 4 campsite people density of 16 people to the two proposed cottages.

5. Reconfigure our two tennis courts to have one tennis court and 4 pickleball courts.
The changes will have following impact on our CRCG site plan.

Square footage:

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<thead>
<tr>
<th>2016 approved Site Plan:</th>
<th>2023 Proposed Site Plan:</th>
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<tbody>
<tr>
<td>1. Building #18</td>
<td>1. Building #18</td>
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<td>Eliminated</td>
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<tr>
<td>2. Current building #8</td>
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<td>9,160 sq. ft.</td>
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<td>3. Addition to building #8</td>
<td>3. Building #25 (new)</td>
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<tr>
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<td>20,000 sq. ft.</td>
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<td>4. Cottages #26 &amp; #27</td>
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<td>3,200 sq. ft.</td>
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<td>Total</td>
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<tr>
<td>35,600 sq. ft.</td>
<td>32,360 sq. ft.</td>
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1. People density will drop by 8 from our current approved site plan of 104 to 96 – (Building #25).
2. Vehicle parking spaces will not change.

Building Number 25: Proposed Cottage Suites

Cottage suite building is a 3 level structure with a total of 24 residential suites with 8 suites on each floor, a meeting room, and common areas. The 8 residential suites on each floor cover approximately 4,500 square feet with the remaining 2,170 square feet being a meeting room and common areas. Each suite will have one bedroom, bathroom, mini kitchen/dining, and living room area with a small balcony.

The use of this building is to host church retreats (men, woman, youth, family), church leadership retreats, mission groups, pastor families, missionary families on furlough, and woman’s and men’s groups that we host during our non-summer season, Labor Day weekend to Memorial Day weekend. During the summer season they would be rented to families and family groups on a weekly basis to enjoy all our summer ministry programming that takes place.

We are planning on building #8 to be the first construction phase (fall-2024) and building #25 to be the second phase with construction timeframe to be determined. There will be walkways and green spaces around all the buildings.

Thank you for your consideration to allow the Christian Reformed Conference Grounds make these improvement to our family focused ministry facilities.

Sincerely,

Mike Perton
Director CRCG Ministries