MEMORANDUM

City of Saugatuck Planning Commission

Memo Date:	**September 12, 2025**	**Meeting Date:**	**September 18, 2025**
Request:	**Site Plan Review**	**Applicant:**	**Zahn Builders, Inc.**
Address:	**195 Dunegrass Ridge Dr.**	**Project Name:**	**Karpf-Owen Residence**
Parcel:	**03-57-077-004-01**	**Plan Date:**	**July 8, 2025**
Acreage:	**1.52**	**Zoning District:**	**PUD/CRC**
Complete:	**Yes**	**Recommendation:**	**Conditional Approval**
City Staff:	**Grayson Moore**	**Consultant:**	**David M. Jirousek, AICP**

Overview

The applicant has applied to construct a single-family residential dwelling within a previously approved Planned Unit Development (PUD). The dwelling is proposed to be two stories with a front pool and attached garage. This memo provides a compliance review related to all applicable zoning standards and requirements in accordance with the resolution and the overall PUD plan.

Background

While it is not common for the Planning Commission to review a site plan for a single-family dwelling, it is required per Resolution No. 150610-A (Resolution Approving a Planned Unit Development for the Property Commonly Known as 631 Perryman). In accordance with the PUD approval, development review is subject to specified PUD modifications and conditions, Conservation, Recreation and Camp District (CRC) requirements, as applicable, and general zoning requirements.

Zoning Commentary

PUD Requirements: The table below outlines the dimensional requirements for the subject PUD.

Regulation	Requirement	Review Comment
Front Setback	20 feet (PUD modification)	Complies
Side Setback	5 feet (PUD modification)	Complies
Rear Setback	10 feet (PUD modification)	Complies
Maximum Height	30 feet* (PUD modification)	Complies. The total height between the top of the driveway and the highest point of the roof appears to be 26'9", although the application states 27'10'. In either case, it is compliant and Fire Department approval was secured.
Maximum Lot Coverage	5%	Complies. The 1.52-acre lot is 66,615 square feet, and the building footprint is 3,262 square feet (4.9%).
* The PUD plan states that "no building shall have a building height exceeding 30 feet as measured from the highest level fire department vehicle access and the eave of the pitched roof." The applicant has proposed a flat roof, which was not contemplated in the PUD plan. The height requirement was based on Section D105.1 of the International Fire Code (IFC), which states that flat roof measurements are taken at the "top of parapet walls."		

Pool: Section 154.022 (G)(12) prohibits pools in front yards. However, that does not necessarily mean that they cannot be forward of a portion of the dwelling. A front yard is defined in Section 154.005 as "[t]he open space extending the full width of the lot, the depth of which is the minimum horizontal distance between the front lot line and the nearest point of the foundation." The applicant must confirm that the nearest point of the building's foundation to the front lot line is less than the nearest point of the pool to the front lot line. Because of the curvilinear front lot line, this measurement is not entirely clear.

Site and Vegetation Restoration: Section 154.027 (F)(5-6) of the Zoning Ordinance outlines restoration requirements but does not include a specific replanting requirement. The vegetation assurance plan approved by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) states that 41 trees greater than 3" DBH will be removed. Revegetation efforts will involve planting 82 trees on the east side of the lot. Further, the property will be restored and stabilized with native vegetation along the driveway and surrounding the dwelling.

The Planning Commission may require amendments or impose additional conditions. Restoration must take place within 60 days of the normal planting season after the final building inspection.

Front Fence/Trash Enclosure: The trash enclosure on sheet A001 is surrounded by a four-foot screening fence. Section 154.143 (E)(5) limits fences in front yards to three feet in height. As such, the enclosure will need to be adjusted in height. Alternatively, it can be covered and considered an accessory structure, which would then not be subject to the four-foot height maximum.

Other General Zoning Requirements: The proposal complies with other single-family dwelling requirements, including those related to minimum area, driveways, setback encroachments, and parking.

Site Plan Standards of Approval

Applications: The submittal is sufficiently complete for review in accordance with Section 154.061, however, exterior lighting specifications must be provided. The applicant has provided copies of approvals from EGLE (NREPA and restoration), Allegan County Health Department (septic and SESC), and the Fire Department. Public water connection and engineering approvals remain outstanding.

Standards for Formal Site Plan Approval: The following standards for site plan review and approval apply to the project per Section 154.063. Comments related to each standard are provided for the Planning Commission's consideration.

A. *All elements of the site plan shall be harmoniously and efficiently organized in relation to topography, the size and type of lot, the character of adjoining property and the type and size of the buildings. The site will be so developed as not to impede the normal and orderly development or improvement of surrounding property for uses permitted in this chapter.*

   Comment: The overall development plan blends into the landscape and is consistent with the intended character of the PUD. Development will not impact adjacent and nearby properties.

B. *The landscape shall be preserved in its natural state, insofar as practical, by removing only those areas of vegetation or making those alterations to the topography which are reasonably necessary to develop the site in accordance with the requirements of this chapter.*

   Comment: The proposed area of disturbance appears to limit the overall impact of site work. Alterations to the topography appear to be the minimum necessary to provide the most appropriate building site. The vegetation assurance plan states that 41 trees greater than three inches (DBH) will be removed. Revegetation efforts will involve planting 82 trees on the east side of the lot. Further, the property will be restored and stabilized with native vegetation along the driveway and surrounding the dwelling.

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

   Comment: Existing vegetation and hilly topography outside of the limits of disturbance will provide visual screening. No additional screening is recommended.

D. *All buildings or groups of buildings shall be arranged so as to permit necessary emergency vehicle access as required by the Fire Department.*

Comment: The Fire Department approved the plans on May 7, 2025.

E. *There shall be provided a pedestrian circulation system which is separated from the vehicular circulation system. In order to ensure public safety, special pedestrian measures, such as crosswalks, crossing signals and other such facilities may be required in the vicinity of schools, playgrounds, local shopping areas and other uses which generate a considerable amount of pedestrian traffic. All federal, state, and local barrier free requirements shall be met.*

Comment: The PUD plan indicates trails throughout the development. Sidewalks or pathways are not required along the lot frontage.

F. *The arrangement of public or common ways for vehicular and pedestrian circulation shall be connected to existing or planned streets and pedestrian or bicycle pathways in the area. Streets and drives which are part of an existing or planned street pattern serving adjacent development shall be of a width appropriate to the traffic volume they will carry and shall have a dedicated right-of-way equal to that specified in the City's land use plan.*

Comment: The street already exists, and as stated earlier, sidewalks or pathways are not required along the lot frontage.

G. *All streets shall be developed in accordance with city specifications, unless developed as a private road.*

Comment: The street has already been constructed.

H. *Appropriate measures shall be taken to ensure that removal of surface waters will not adversely affect neighboring properties or 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, create puddles in paved areas or create erosion problems.*

Comment: The City's engineering consultation has stated that the proposed four-foot diameter leach basin is adequate for stormwater from the home. However, due to the steep driveway, additional measures are needed to prevent runoff from the driveway and guest parking area from flowing onto Dunegrass Ridge Drive. Asphalt curbing or similar controls should be installed to direct runoff to at least two additional leach basins, with one potentially replacing the existing catch basin near the road. All engineering comments must be addressed prior to development.

I. *All loading and unloading areas and outside storage areas, including areas for the storage of trash, which face or are visible from residential districts or public thoroughfares, shall be screened by an opaque wall or landscaped screen not less than six feet in height. (See §§ 154.142 through 154.144).*

Comment: This standard applies to non-residential development. Earlier comments address residential trash bin screening and fence height.

J. Exterior lighting shall be arranged so that it is deflected away from adjacent properties and so that it does not impede the vision of traffic along adjacent streets. Flashing or intermittent lights shall not be permitted.

Comment: Outdoor light fixture specifications were not provided.

K. In approving the site plan, the Planning Commission may recommend that a bond or other financial guarantee of ample sum be furnished by the developer to ensure compliance for such requirements as drives, walks, utilities, parking, landscaping and the like (see § 154.173).

Comment: Not applicable.

Recommendation

We recommend conditional approval based on compliance with the majority of zoning requirements and the satisfaction of most of the site plan review standards. Approval is recommended with the following conditions to ensure compliance with all requirements:

1. Reduce the front yard trash bin screening fence to three feet in height.
2. Confirm compliance with pool location requirements (no front yard placement).
3. Satisfy all engineering review comments.
4. Secure public water service approval.
5. Provide compliant exterior light fixture specifications.

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Complete:	**Yes**	**Recommendation:**	**Conditional Approval**
City Staff:	**Grayson Moore**	**Consultant:**	**David M. Jirousek, AICP**

Overview

The applicant has applied to construct a single-family residential dwelling within a previously approved Planned Unit Development (PUD). The dwelling is proposed to be two stories with a front pool and attached garage. This memo provides a compliance review related to all applicable zoning standards and requirements in accordance with all applicable resolutions and the overall PUD plan (sheet C-102A).

Background

The subject lot originally fell within an area designated as "Undeveloped Property" on a site plan associated with a 2013 special land use application, which was approved for eight single-family lots on a portion of the property. The original development was authorized under Resolution No. 131203-A, A Resolution Approving a Special Land Use and Site Plan for the Former Presbyterian Camp Property (i.e., the Barker Application 13-013) to be Developed for Single-Family Residential Homes and to Attach Reasonable Conditions to Such Development. Under "Conditions and Requirements/Statement of Conditions" within the resolution, it states the following:

> *The Undeveloped Property shall remain undeveloped and no residences or buildings shall be built thereon (with the exception of the improvements specified herein) until and unless the Developer applies for and obtains a formal amendment to both the Approved Site Plan and the special land use approval contained in this Resolution or as part of a*

new zoning application or review.

A development plan for additional homes was considered as a new zoning application and reviewed in 2015 as part of an amendment to the overall development plan. Resolution No. 150610-A was approved for additional homes within the previously classified Undeveloped Property (Resolution Approving a Planned Unit Development for the Property Commonly Known as 631 Perryman). As a part of Resolution No. 150610-A, site plan review of all single-family dwellings is required.

In accordance with the PUD approval, development review is subject to specified PUD modifications and conditions, Conservation, Recreation and Camp District (CRC) requirements, as applicable, and general zoning requirements. Additionally, the review also considers all applicable conditions and requirements of Resolution No. 131203-A (also confirmed in a related 9-24-15 consent judgment), although much of what is applicable to the Undeveloped Property in Resolution No. 131203-A is covered by Resolution No. 150610-A and other existing zoning requirements.

Zoning Commentary

This section includes a general review of the requirements referenced in Resolution No. 150610-A and the Zoning Ordinance.

PUD Requirements: The table below outlines the dimensional requirements for the subject PUD.

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The height requirement was based on Section D105.1 of the International Fire Code (IFC), which states that flat roof measurements are taken at the "top of parapet walls."

Pool: Section 154.022 (G)(12) prohibits pools in front yards. However, that does not necessarily mean that they cannot be forward of a portion of the dwelling. A front yard is defined in Section 154.005 as "[t]he open space extending the full width of the lot, the depth of which is the minimum horizontal distance between the front lot line and the nearest point of the foundation." The applicant must confirm that the nearest point of the building's foundation to the front lot line is less than the nearest point of the pool to the front lot line. Because of the curvilinear front lot line, this measurement is not entirely clear.

Site and Vegetation Restoration: Resolution No. 150610-A references compliance with Section 154.027 (F)(5-6) of the Zoning Ordinance, which outlines restoration requirements but does not include a specific replanting requirement. The vegetation assurance plan approved by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) states that 41 trees greater than 3" DBH will be removed. Revegetation efforts will involve planting 82 trees on the east side of the lot. Further, the property will be restored and stabilized with native vegetation along the driveway and surrounding the dwelling.

The Planning Commission must approve the vegetative removal plan and vegetation assurance plan and may require amendments or impose additional conditions. Restoration must take place within 60 days of the normal planting season after the final building inspection.

Front Fence/Trash Enclosure: The trash enclosure on sheet A001 is surrounded by a four-foot screening fence. Section 154.143 (E)(5) limits fences in front yards to three feet in height. As such, the enclosure will need to be adjusted in height. Alternatively, it can be covered and considered an accessory structure, which would then not be subject to the four-foot height maximum.

Other General Zoning Requirements: The proposal complies with other single-family dwelling requirements, including those related to minimum area, driveways, setback encroachments, and parking.

Resolution No. 131203-A

The requirements of Resolution No. 131203-A are primarily related to the "Residential Property" as opposed to the "Undeveloped Property." Additionally, the resolution acknowledges that no zoning approvals were issued for the Undeveloped Property. However, paragraph e under Conditions and Requirements/Statement of Conditions applies several conditions related to motorized vehicle use, outdoor lighting, vegetation replanting after structure removal, and the removal of trees and other vegetation.

Resolution No. 150610-A and the Zoning Ordinance cover these issues with more specificity, and no compliance issues with Resolution No. 131203-A are evident. Further, the current site plan also complies with the conditions previously applied to individual lots within the "Residential Property" designated area, which is covered by the special land use approval (outside of the PUD boundary). Most notable is the vegetative removal plan, which is also covered by the Resolution No. 150610-A and Section 154.027 (F)(5-6) of the Zoning Ordinance.

Site Plan Standards of Approval

Applications: The submittal is sufficiently complete for review in accordance with Section 154.061, however, exterior lighting specifications must be provided. The applicant has provided copies of approvals from EGLE (NREPA and restoration), Allegan County Health Department (septic and SESC), and the Fire Department. Public water connection and engineering approvals remain outstanding.

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Comment: This standard applies to non-residential development. Earlier comments address residential trash bin screening and fence height.

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Comment: Outdoor light fixture specifications were not provided.

K. *In approving the site plan, the Planning Commission may recommend that a bond or other financial guarantee of ample sum be furnished by the developer to ensure compliance for such requirements as drives, walks, utilities, parking, landscaping and the like (see § 154.173).*

Comment: Not applicable.

Recommendation

We recommend conditional approval of the site plan, vegetative removal plan, and vegetation assurance plan based on compliance with the majority of zoning requirements and the satisfaction of most of the site plan review standards. Approval is recommended with the following conditions to ensure compliance with the remaining standards and requirements:

1. Reduce the front yard trash bin screening fence to three feet in height.
2. Confirm compliance with pool location requirements (no front yard placement).
3. Satisfy all engineering review comments.
4. Secure public water service approval.
5. Provide compliant residential exterior light fixture specifications.

ZONING PERMIT APPLICATION

Failure to answer all pertinent questions and to supply all of the requested information will delay processing of this application.

FEES
Fence Only: $75.00
Deck, Patio, Shed, Pool or Hot Tub Only (per item): $125
New Dwelling (Single or Two Family) or Bed and Breakfast: $500
All Others: $250
Escrow Deposit: Zoning Administrator Discretion

City of Saugatuck Zoning Code: https://codelibrary.amlegal.com/codes/saugatuck/latest/saugatuck_mi/0-0-0-4355

PROPERTY ADDRESS 195 Dunegrass Ridge Dr

PARCEL NUMBER 03-57-077-004-01

PROPERTY OWNER Karpf-Owen Family Trust

ADDRESS [redacted]

EMAIL [redacted]

PHONE [redacted]

[redacted] hereby authorize the applicant listed below to make this application for proposed work as my agent. I agree the statements made in this application and submitted plans are true, and if found not to be true, any zoning permit that may be issued may be void. Further, I agree to comply with the conditions and regulations provided with any permit that may be issued. Further, I agree the permit that may be issued is with the understanding all applicable sections of the City of Saugatuck Zoning Ordinance and all other applicable laws, ordinances and regulations will be complied with. I additionally grant City of Saugatuck staff or authorized representatives thereof access to the property to inspect conditions, before, during, and after the proposed work is completed. Finally, I understand this is a zoning permit application (not a permit) and that a zoning permit, if issued, does not include any representation or conveyance of rights in any other statute, building code, fire code, deed restriction or other property rights.

OWNER SIGNATURE _____ **Date** _____

APPLICANT Zahn Builders, Inc - Corey Judson

ADDRESS / PO BOX [redacted]

EMAIL [redacted]

PHONE [redacted]

I agree the statements made in this application and submitted plans are true, and if found not to be true, any zoning permit that may be issued may be void. Further, I agree to comply with the conditions and regulations provided with any permit that may be issued. I understand that this application will not be processed until it is deemed complete and the required fees and escrow deposit (if applicable) are paid. Further, I agree the permit that may be issued is with the understanding all applicable sections of the City of Saugatuck Zoning Ordinance and all other applicable laws, ordinances and regulations will be complied with. Finally, I understand this is a zoning permit application (not a permit) and that a zoning permit, if issued, does not include any representation or conveyance of rights in any other statute, building code, fire code, deed restriction or other property rights.

APPLICANT SIGNATURE Corey Judson Date 7/10/2025

PROJECT DESCRIPTION Construction of new SFD with attached garage

PROPOSED AREA/ DIMENSIONS

LOT AREA (SQ FT) 66,615 LOT COVERAGE (%) <5 HEIGHT 27' 10"

TOTAL FLOOR AREA 3,262 FLOOR AREA RATIO _____

CHECKLIST

- ☐ SURVEY
- ☐ CURRENT SITE IMPROVEMENTS (include structures, sidewalks, decks, streets, fences, etc)
- ☐ PROPOSED IMPROVEMENTS, DISTANCES FROM OTHER IMPROVEMENTS/PROPERTY LINES, DIMENSIONS
- ☐ LOCATION OF FLOOD PLAINS, WATERSHED, WETLANDS, EASEMENTS, CRITICAL DUNES
- ☐ DESCRIPTION OF PROPOSED USE INCLUDING ACTIVITIES

Construction of new SFD with attached garage

ZONING PERMIT APPLICATION

Failure to answer all pertinent questions and to supply all of the requested information will delay processing of this application.

FEES

Fence Only: $75.00

Deck, Patio, Shed, Pool or Hot Tub Only (per item): $125

New Dwelling (Single or Two Family) or Bed and Breakfast: $500

All Others: $250

Escrow Deposit: Zoning Administrator Discretion

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PARCEL NUMBER 03-57-077-004-01

PROPERTY OWNER Karpf-Owen Family Trust

ADDRESS / PO BOX [redacted]

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I hereby authorize the applicant listed below to make this application for proposed work as my agent. I agree the statements made in this application and submitted plans are true, and if found not to be true, any zoning permit that may be issued may be void. Further, I agree to comply with the conditions and regulations provided with any permit that may be issued. Further, I agree the permit that may be issued is with the understanding all applicable sections of the City of Saugatuck Zoning Ordinance and all other applicable laws, ordinances and regulations will be complied with. I additionally grant City of Saugatuck staff or authorized representatives thereof access to the property to inspect conditions, before, during, and after the proposed work is completed. Finally, I understand this is a zoning permit application (not a permit) and that a zoning permit, if issued, does not include any representation or conveyance of rights in any other statute, building code, fire code, deed restriction or other property rights.

OWNER SIGNATURE _____ **Date** 7/10/25

DUNEGRASS RESIDENCE

ISSUE FOR PERMIT 07.08.25

ZONING DATA

	CHAPTER / ARTICLE	ALLOWED / REQUIRED	EXISTING	PROPOSED	REMARKS
ZONING CLASS	PUD SITE PLAN - GENERAL NOTES #2	SINGLE FAMILY RESIDENTIAL PUD	SINGLE FAMILY RESIDENTIAL PUD	SINGLE FAMILY RESIDENTIAL PUD	
LOT AREA COVERAGE	PUD SITE PLAN - GENERAL NOTES #2	PUD AVG. = 1.6 ACRES	1.53 ACRES	1.53 ACRES (66,646.8 SF)	Lot coverage 5% x 66,646.8 = 3,332.34 SF
MAX FLOOR AREA	PUD SITE PLAN - GENERAL NOTES #2	-	-		
MIN FLOOR AREA	PUD SITE PLAN - GENERAL NOTES #2	-	-		
MIN LOT WIDTH	PUD SITE PLAN - GENERAL NOTES #2	100 FT	149'-9"	149'-9"	
MIN BUILDING WIDTH	PUD SITE PLAN - GENERAL NOTES #2	-	-		
BUILDING HEIGHT	PUD SITE PLAN - GENERAL NOTES #2	30 FT MAX (MEASURED FROM GROUND AT HIGHEST LEVEL FIRE DEPT VEHICLE ACCESS TO INTERSECTION OF ROOF TO THE EXTERIOR WALL)	-	27'-10"	30 FT LIMIT MEASURED FROM TOP OF PROPOSED DRIVEWAY (+679'-2") PER COORDINATION WITH SAUGATUCK TWP FIRE DEPT
FRONT SETBACK	PUD SITE PLAN - GENERAL NOTES #2	20 FT	-	20 FT	
REAR SETBACK	PUD SITE PLAN - GENERAL NOTES #2	10 FT	-	10 FT	
SIDE SETBACKS	PUD SITE PLAN - GENERAL NOTES #2	5 FT	-	5 FT	
FENCE/WALL HEIGHT LIMIT	154.143				
- IN SIDE OR REAR YARD	154.143 (D)	6FT			
- IN FRONT YARD	154.143 (D)	3FT			
SWIMMING POOLS					

BUILDING & EXIT REQUIREMENTS

	CHAPTER / ARTICLE	ALLOWED / REQUIRED	EXISTING	PROPOSED	REMARKS
OCCUPANCY CLASS	-	SINGLE-FAMILY RESIDENCE	-	SINGLE-FAMILY RESIDENCE	
BASIS OF CONSTRUCTION SYSTEM	R301.1.2	WOOD-FRAMED PLATFORM CONSTRUCTION	-	WOOD-FRAMED PLATFORM CONSTRUCTION	
REQ'S HOURS OF FIRE RESISTANCE	R301.1		-		
- EXTERIOR WALLS	TABLE R302.1(1)	0 HR	0 HR	0 HR	MIN. FIRE SEPARATION DIST. OF 5 FT
- EXTERIOR WALL PROJECTIONS	TABLE R302.1(1)	0 HR	0 HR	0 HR	MIN. FIRE SEPARATION DIST. OF 5 FT
- EXTERIOR WALL OPENINGS	TABLE R302.1(1)	0 HR	0 HR	0 HR	MIN. FIRE SEPARATION DIST. OF 5 FT
- EXTERIOR WALL PENETRATIONS	TABLE R302.1(1)	NONE REQUIRED	-	0 HR	MIN. FIRE SEPARATION DIST. OF 5 FT
DWELLING / GARAGE SEPARATION					
- FLOOR ABOVE GARAGE	TABLE 302.6	1/2" GYP BD ON GARAGE SIDE	-	-	
- HABITABLE ABOVE GARAGE	TABLE 302.6	5/8" TYPE "X" GYP BD	-	-	
- BEARING WALL	TABLE 302.6	1/2" GYP BD	-		REF A500
- WALL SEPARATION	TABLE 302.6	1/2" GYP BD	-		REF A500
- DOOR SEPARATION	TABLE 302.5	SOLID WD DOOR 1-3/8" THICK	-	1-1/2" THK SOLID WD DOOR	REF A 701
FIRE RESISTIVE REQUIREMENTS					
- INT WALLS & CEILING FINISHES	R302.9	FLAME SPREAD INDEX < 200	-	FLAME SPREAD INDEX < 200	
- INSULATION	R302.10	FLAME SPREAD INDEX < 25	-	FLAME SPREAD INDEX < 25	
- SMOKE DEVELOPE INDEX	R302.9.2	FLAME SPREAD INDEX < 450	-	FLAME SPREAD INDEX < 450	
MEANS OF EGRESS					
- MIN NUMBER OF EXITS	R311.1	1 EGRESS DOOR	-		EXCLUDES EGRESS THROUGH GARAGE
- MIN WIDTH OF EXITS	R311.2	MIN. 36 INCHES	-	VARIES (36 INCHES MIN)	
- CORRIDOR WIDTH	R311.6	MIN. 36 INCHES	-	VARIES (36 INCHES MIN)	
- DOOR WIDTH	R311.2	MIN. 36 INCHES	-	VARIES (36 INCHES MIN)	
- STAIRWAY WIDTH	R311.7.1	MIN. 36 INCHES	-		
- STAIRWAY VERTICAL RISE	R311.7.3	MIN. 147 INCHES	-		
- STAIRWAY HEADROOM	R311.7.2	MIN. 80 INCHES	-		
- STAIR RISER HEIGHT	R311.7.5.1	MAX. 8-1/4 INCHES	-		
- STAIR TREAD DEPTH	R311.7.5.2	MIN. 9 INCHES	-		
- HANDRAIL HEIGHT	R311.7.8.1	MIN. 34 INCHES / MAX. 38 INCHES	-		
- GUARDRAIL HEIGHT	R312.1	MIN. 36 INCHES	-		
LIGHT AND VENTILATION					
- NATURAL VENT LIGHT	R303.1	MIN. 8% FLOOR AREA OF ROOM	-	SEE SCHEDULE ON A702	
- NATURAL VENT	R303.1	MIN. 4% FLOOR AREA OF ROOM	-	SEE SCHEDULE ON A702	

ENERGY CODE REQUIREMENTS

	CHAPTER / ARTICLE	ALLOWED / REQUIRED	EXISTING	PROPOSED	REMARKS
CLIMATE ZONE - 5A					
WNDOWS & SKYLIGHTS					
- FENESTRATION (U-FACTOR)	TABLE N1102.1.2	0.30	N/A	0.28 (U-FACTOR)	
- SKYLIGHT (U-FACTOR)	TABLE N1102.1.2	0.55	N/A	0.49 (U-FACTOR)	
- SHGC FOR FENESTRATION	TABLE N1102.1.2	0.40	N/A	0.31 (SHGC)	
INSULATION / ENVELOPE					
- CEILING / ROOF (R-VALUE)	TABLE N1102.1.3	60	N/A	R-60	
- WOOD FRAME (R-VALUE)	TABLE N1102.1.3	30 or 20&5ci or 13&10ci or 0&20ci	N/A	R-30	
- MASS WALL (R-VALUE)	TABLE N1102.1.3	13 / 17	N/A	N/A	
- FLOOR (R-VALUE)	TABLE N1102.1.3	30	N/A	R-30	
- BASEMENT WALL (R-VALUE)	TABLE N1102.1.3	15ci or 19 or 13&5ci	N/A	R-19	
- SLAB (R-VALUE & DEPTH)	TABLE N1102.1.3	10ci, 4ft	N/A	R-10ci	
- CRAWL SPACE WALL (R-VALUE)	TABLE N1102.1.3	15ci or 19 or 13&5ci	N/A	N/A	

PROJECT DESCRIPTION / SCOPE OF WORK

NEW 2-STORY SINGLE-FAMILY RESIDENCE IN SAUGATUCK, MICHIGAN

HOUSE:
- NEW 3-BEDROOM, 3.5-BATHROOM HOME WITH ATTACHED 2-CAR GARAGE (NO BASEMENT)
- LOWER LEVEL CONCRETE SLAB ON GRADE WITH RADIANT HEATING
- LOWER LEVEL CONCRETE RETAINING WALLS AND FOUNDATIONS
- INTERIOR & EXTERIOR WALL PARTITIONS, UPPER FLOOR AND ROOF CONSIST OF WOOD FRAME CONSTRUCTION W/ SOME STEEL ELEMENTS.
- INTERIOR GAS FIREPLACE
- 2-STOP RESIDENTIAL ELEVATOR
- EMERGENCY GENERATOR

SITE:
- PROTECT EXISTING TREES TO REMAIN ADJACENT TO AREAS OF WORK
- NEW CONCRETE DRIVECOURT
- NEW ASPHALT DRIVEWAY
- NEW GEO-WEB RETAINING WALLS ALONG DRIVEWAY
- CONNECT TO UTILITY SERVICES AT STREET
- NEW IN-GROUND POOL, PATIO, EXTERIOR HARDSCAPE, AND ASSOCIATED RETAINING WALLS
- NEW LANDSCAPE WORK

*NOTE:
RENDERINGS ARE FOR REFERENCE ONLY. ARCHITECTURAL SHEETS SUPERSEDE ALL DESIGN ELEMENTS / INTENT SHOWN HERE. GC TO NOTIFY ARCHITECT OF CONFLICTS

BUILDING AREA (GROSS):

UPPER LEVEL -	2,419 SF
LOWER LEVEL -	1,946 SF
TOTAL FINISHED SPACE -	4,365 SF

NOTE: AREA ABOVE EXCLUDES 2-CAR GARAGE (593 SF), PATIOS, AND TERRACES

LOT AREA & COVERAGE:

LOT AREA -	66,615 SF
MAX LOT COVERAGE -	3,331 SF
LOT COVERAGE (PROPOSED) -	3,262 SF

NOTE: SEE SHEET A001 FOR A DIAGRAM OF THE LOT COVERAGE

PROJECT RENDERING



LOCATION MAP



GENERAL COMPLIANCE

APPLICABLE CODES:
- 2015 MICHIGAN RESIDENTIAL CODE (MRC)
- 2015 MICHIGAN ELECTRICAL CODE (MEC)
- 2015 MICHIGAN MECHANICAL CODE (MMC)
- 2015 MICHIGAN PLUMBING CODE (MPC)
- 2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- SAUGATUCK TOWNSHIP FIRE DISTRICT REQUIREMENTS
- CITY OF SAUGATUCK ZONING ORDINACE
- ALLEGAN COUNTY HEALTH DEPARTMENT (SEPTIC & SEWAGE SYSTEMS)
- ALLEGAN COUNTY DRAIN COMMISSION (STORMAWATER & EROSION MANAGEMENT)
- MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES AND ENERGY (EGLE)

EGRESS:
- ALL EXIT DOORS SHALL BE OPERABLE WITHOUT A KEY OR SPECIAL KNOWLEDGE
- ALL INTERIOR WALLS AND CEILINGS SHALL HAVE A CLASS 1 FLAME SPREAD RATING
- WHERE REQUIRED - GLASS DOORS, PANELS AND SKYLIGHTS SHALL BE GLAZED WITH TEMPERED, WIRE, OR LAMINATED GLASS OR OTHER APPROVED SAFETY GLAZING.

DRAWING LIST

TAG	SCALE	SHEET DESCRIPTION	ISSUE FOR PERMIT
G001		DRAWING LIST & SCOPE OF WORK	X
G002		GENERAL NOTES	X
G003		SYMBOLS AND ABBREVIATIONS	X
A001		ARCHITECTURAL SITE PLAN	X
A002		FIRE DEPARTMENT APPROVAL	X
A101		LOWER LEVEL FLOOR PLAN	X
A102		UPPER LEVEL FLOOR PLAN	X
A103		ROOF PLAN	X
A201		EXTERIOR ELEVATIONS	X
A202		EXTERIOR ELEVATIONS	X
A301		LOWER LEVEL RCP	X
A302		UPPER LEVEL RCP	X
A500		ASSEMBLIES	X
A501		BUILDING SECTIONS	X
A603		EXTERIOR DOOR & WINDOW DETAILS	
A604		EXTERIOR DOOR & WINDOW DETAILS	
A605		EXTERIOR DOOR & WINDOW DETAILS	
A700		FINISH & EQUIPMENT SCHEDULE	X
A701		DOOR SCHEDULE	X
A702		WINDOW SCHEDULE	X
A703		LIGHTING & PLUMBING SCHEDULES	X
S0.0		GENERAL NOTES	X
S1.0		FOUNDATION & LOWER LEVEL FRAMING PLAN	X
S1.0A		T/ WALL PLAN	X
S1.1		UPPER LEVEL FRAMING PLAN	X
S1.2		ROOF FRAMING PLAN	X
S2.0		BUILDING SECTIONS	X
S3.0		CONCRETE DETAILS	X
S3.1		STEEL & WOOD DETAILS	X
F001		LOWER LEVEL FIRE ALARM & SECURITY PLAN	X
F002		UPPER LEVEL FIRE ALARM & SECURITY PLAN	X
F101		LOWER LEVEL FIRE SPRINKLER PLAN	X
F102		UPPER LEVEL FIRE SPRINKLER PLAN	X

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07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

DRAWING LIST & SCOPE OF WORK

G001

GENERAL NOTES

1 Included as part of these documents is the general conditions for construction, AIA document A-201, article 1-14 inclusive.
2 These drawings indicate the general scope of the project in terms of the architectural design concept, dimension, major elements and materials. These drawings do not then necessarily indicate or describe all work required for the full completion of the project. The general contractor / builder and his subcontractors shall furnish all of those items and labor required for the full completion of this project in a first-class workmanship-like manner.
3 All work is to be performed from final construction documents only and a copy of the approved permit set must be located on the site at all times. The contractor's subcontractors shall be given full sets of final construction documents with no sheets excluded.
4 The contractor shall inspect and verify all dimensions at the job site and report to the architect any discrepancies from the drawings.
5 DO NOT SCALE DRAWINGS. Written dimensions hold priority over apparent scale.
6 All dimensions are taken from the face of finish to finish face or gridline unless noted otherwise.
7 Ceiling heights noted are taken from finish floor to finish ceiling.
8 The dimensions on the drawings are reasonably accurate for the purpose of figuring; however, in execution of work on the job, the contractor is to verify all dimensions with actual conditions. Any discrepancies should be brought to the attention of the architect in writing.
9 The contractor and his subcontractors are to obtain all necessary building permits prior to construction and all required inspections must be completed in compliance with the local code.
10 The contractor shall be held responsible for the adherence and compliance to all applicable city, state and national codes and ordinances, including but not limited to those of the local code. Any discrepancies should be brought to the attention of the architect in writing.
11 The Contractor shall be responsible for the coordination of all the incoming and outgoing utilities.
12 The Contractor shall stake site and building corners and confirm building location on site relative to propoerty lines and Zoning setback requirements as described in the survey and the contract documents prior to start of construction
13 The Contractor shall send photos of the jobsite twice a week to Owner and Architect.
14 The Contractor shall submit Owner-Architect-Contractor meeting agendas & schedule updates once a week.
15 The Contractor shall provide a full-time superintendent approved by the Owner and Architect.
16 All work shall be coordinated with all other trades in order to avoid interferences, conflicts and omissions. The General Contractor's Subcontractors shall completely connect and hook-up all equipment and furnish all necessary accessories. All completed systems shall be fully operational. Acceptance by the Owner shall be a condition of the contract.
17 The Contractor shall chalk all wall partition layouts with Architect before construction.
18 All studs shall be spaced to avoid interference with plumbing work, electrical work, ductwork and the like, but in no case shall be spaced further than 16" on center unless noted otherwise.
19 All new interior walls shall be constructed with one layer of 5/8" gypsum wallboard, both faces unless noted otherwise.
20 All new walls and ceilings shall be ready to receive paint or wall covering, unless noted otherwise.
21 All changes in floor material shall be at the same finished level.
22 Door knobs and pulls shall be installed at a height of 3'-0" above finish floor, UNO.
23 Provide headers, blocking, and/or framing as required for support of all electrical fixtures, shelving, duct registers and millwork and as indicated on door schedule.
24 All floors, ceilings and walls are to be patched and level/plumb (as required) before installing ceramic tile, marble tile, marble slabs, wood flooring and/or casework.
25 Refer to electrical plan and reflected ceiling plan for electrical notes, symbols, schedules, power, and recessed fixture locations. Any discrepancies should be brought to the attention of the architect in writing.
26 Refer to architectural drawings for mechanical locations of wall and ceiling HVAC registers and grilles.
27 All bathroom stud walls shall receive spray foam insulation.
28 If required, provide wire basket around all recessed downlight fixtures to keep insulation minimum 3" away from fixture as required, coordinate with manufacturer's installation requirements.
29 Electrical lighting locations take precedence over mechanical duct and plumbing piping runs.
30 All studs and ceiling structure shall be spaced so as not to interfere with HVAC grille and register locations and electrical lighting locations as shown on drawings.
31 All interior wall and ceiling finishes shall not be less resistant to flame spread than class 1.
32 Provide fire-stopping as required.
33 All doors to remain keyless in the direction of egress per the Michigan Residential Code.
34 All glass to comply with the Michigan Residential Code
35 All smoke detectors to be 120v hardwired.
36 Provide fire extinguisher on premises at all times.
37 The project shall be entirely cleaned by the General Contractor before Owner occupation including all window glass, mirrors, floors, wall tiles and electrical plates.
38 The premises shall be kept in broom-swept finish condition. All Contractors and Subcontractors shall be responsible for cleaning up and disposing of their litter and left-over materials on a regular basis and be responsible for leaving the project in a broom swept finish conditions upon completion of their portion of the project and subject to building review.
39 The General Contractor shall remain responsible for compliance with the provisions of the Occupational Safety and Health Act (OSHA), latest edition; he shall also be responsible for all site safety measures including temporary barricades and fencing around site as required to protect the public, and protection and barricades around all floor and roof openings that might present a hazard to workers on the job.
40 The General Contractor shall maintain throughout the construction period an insurance for all liabilities with a hold harmless clause protecting the Owner and the Architect and provide the Owner with a Certificate of Insurance.
41 All work shall be guaranteed for one year after submittal of certificate of substantial completion. All work shall be guaranteed to be free from defects. Any defective materials or workmanship, as well as damage to the work of all trades resulting from same, shall be replaced or repaired as directed for the duration of stipulated guarantee period.
42 The Contractor is responsible for the timely removal of all demolition debris and protection of existing area which are not affected by the scope of work. Any damage to the premises shall be brought back to original condition at the cost of the General Contractor or Subcontractor inflicting the damage.
43 The Plumbing, Electrical and HVAC Contractors shall verify all mechanical chases and equipment location and report any discrepancies or conflicts to the Owner and Architect prior to his submitting his/her bid. Unless the Owner and the Architect are notified in writing of the conflicts or additional space requirements before the start of construction, all corrective measures will be made by the Subcontractor at no additional cost to the Owner.
44 The Contractor shall coordinate the location of the floor structure w/ plumbing fixtures and plumbing lines to eliminate conflicts.
45 The General Contractor and his Subcontractors are to obtain all necessary permits to perform work.
46 The General Contractor is responsible for protecting wall, ceiling and floor finishes during construction.
47 The Owner's written authorization must be obtained prior to the ordering of any material, awarding of any contracts or the execution of any work which involves extra cost.
48 All specified products are to be installed per manufacturer's instructions (UNO)
49 Exterior metal fascia to be minimum 14 gauge & exterior metal cladding to be minimum 18 gauge (UNO) - No oil-canning allowed.
50 General Contractor and Cabinet Maker to ensure that specified appliances are allowed sufficient clearance for proper function.
51 All substitutions to be reviewed and approved in writing by the Architect.
52 Shop drawings shall be provided for Architect's review and approval. See sheet G004 for required submittals.
53 Closet systems by others, GC to coordinate.
54 Provide blocking at all bathroom locations and locate in the field w/ Architect.
55 Glass Tile: Always use anti-crack membrane when installing glass tile.
56 Exterior walls and structure to comply with the Michigan Residential Code.
57 All finish flooring to extend under cabinetry, millwork, plumbing fixtures, and into closets.
58 All mirrors to be 1/4" plate glass with ground edges. Unless noted otherwise. All mirrors to be mounted with gum grip mastic and impact tape, mirror dimensions per elevation. Verify in field before installing. Provide a submittal to architect for approval of all hardware for mirrors & glass.

CONCRETE NOTES

1 Standards: All concrete work shall be in accordance with; "American Concrete Institute Building Code" ACI 318-89 for reinforced concrete" and "Recommended Practice for Concrete Floor and Slab Construction", ACI 302.
2 Reinforcement: Unless otherwise shown or noted, all concrete work shall contain minimum reinforcement as required by ACI 318. Reinforcing bars shall conform to ASTM A615, Grade 60. All welded wire fabric shall conform to ASTM A185.
3 Reinforcement Detailing: Detail bar reinforcement according to ACI 315 - Detailing Manual, latest edition. Detail welded wire fabric in accordance with the Welded Wire Fabric Manual of Standard Practice (WRI Manual MP-100), latest edition. Place (2) #5 bars (one each face) with 2'-0" projection around all openings in structural concrete slabs or walls. If not dimensioned on drawings, provide corner bars matching all horizontal bars at all wall and grade beam corners and intersections. All laps for rebar, when not dimensioned on drawings, shall be 40 bar diameters. Laps for welded wire fabric shall be 8" for 4" cross-bar spacing, 10" for 6" spacing. Unless noted otherwise, in addition to horizontal rebar, provide (1) #5 rebar vertically at 24" O.C. for all foundation walls below grade.
4 Strength: Ultimate compressive strength of Portland cement concrete, standard weight, at 28 days, shall be 3000 psi for foundations as at foundation walls, and 4000 psi for slabs on ground and sidewalks, six (6) bags mix, air entrained.
5 Slabs on Grade: Unless noted otherwise, all slabs on grade shall be reinforced with at least one (1) layer of 6 x 6 - 1.4 x1.4 W.W.F., conforming to ASTM A 185. Place all slabs on grade with an approved pattern and sequence of construction and control joints to minimize shrinkage cracks.
6 Accessories: Provide all accessories necessary to support reinforcement at positions shown on the plans and details. Plastic coated accessories shall be used in all exposed concrete work. No aluminum of any type shall be allowed in the concrete work, unless coated to prevent aluminum/concrete reaction. This includes plumbing and electrical piping.
7 Finish: Unless noted otherwise, interior concrete for exposed finish shall have a smooth troweled finish, exposed exterior walks and slabs shall have a light broom finish.
8 Wall Joints: construction joints in wall foundation walls shall not be farther apart than 40 feet in any direction. All wall construction joints shall be wire brushed and cleaned immediately prior to placing new concrete.
9 Joints: Construction joints in all exterior walls and slabs to be saw cut - coordinate locations with Architect.
10 Ambient Conditions: Concrete contractor shall not pour any concrete in adverse weather conditions or when such are forecast for the time period following the pour, unless proper curing and protection is provided continuously until concrete develops it design strength.
11 Water Stops: Provide flexible water stops inset at joint between footing and foundation wall at all basement conditions. Provide pre-molded joint filler at all intersections of slabs and walls or existing concrete to new.
12 Formwork: Architect to review and approve formwork for all visible concrete before forms are locked/set & concrete is poured - GC to coordinate this approval process.
13 Anchor Bolts: Provide anchor bolts 1/2" ø x 10" long with nuts and washers at 4'-0" O.C. max. and 1'-0" from building corners.

FOUNDATION NOTES

14 All excavation and foundations to be coordinated per the most recent soil boring report.
15 Soil Bearing: Reference most recent soil boring report for information regarding all soil supported footings.
16 Frost Warning 1: No mud slabs, footings or slabs shall be placed into or against sub-grade containing free water, frost or ice. Should water or frost enter a footing excavation after sub-grade approval, the sub-grade shall be re-inspected by the Owner's soil testing laboratory after removal of water or frost.
17 Frost Warning II: The Contractor shall provide all necessary measures to prevent any frost or ice from penetrating any footing or slab sub-grade before and after placing of concrete and until such sub-grades are fully protected by the permanent building structure.
18 Slab Vapor Barriers: All slabs on grade shall be placed over a vapor barrier over a minimum of 4" compacted granular material including and topping over a compacted soil sub-grade.
19 Mechanical Piping: Mechanical piping, if any, located under slabs on ground shall be encased in a minimum of 4" of concrete, or, if approved by the soils consultant, may be placed in soil compacted as per engineer.
20 Foundation Damp proofing (U.N.O): Seal concrete foundation walls below grade with polymer modified asphalt liquid applied damp proofing for vertical applications. Prepare surface and apply material per manufacturer's directions. Manufacturer to be Grace, Koch, Karnak, Sonneborn or Thoro, or architect approved equal.
21 Drain Tile: Contractor is to install perforated drain tile around perimeter of building as detailed on drawings. Drain tile to be wrapped with filter fabric and set in gravel.

ELECTRICAL NOTES

1 The Contractor shall supply all equipment, labor and services and materials required for the complete installation of the electrical system shown on the drawings and herein specified.
2 The Electrical Contractor shall install all work in accordance with all applicable state, local and national codes and ordinances.
3 The Electrical Contractor shall provide copper wire throughout.
4 The electrical contractor is responsible for sizing all service requirements, providing any load calculations & circuit diagrams for proper operation of the units to the satisfaction of the owner's represented
5 The Electrical Contractor shall provide GFCI protected receptacles in crawl spaces, outdoors, unfinished basements, garages, bathrooms, counter tops, kitchens, and showers. The Electrical Contractor shall provide AFCI protected receptacles in all bedrooms.
6 The Electrical Contractor shall provide disconnecting means as required by code for fixed appliances.
7 Smoke and heat detectors shall be U.L. approved with a warning device.
8 Closet Lights: The Electrical Contractor shall provide a wall mounted fixture with lens cover in all closet areas unless noted otherwise. The fixture should extend the maximum wall width possible for maximum light output. All closet fixtures to be located with a minimum of 18 inches horizontal clearance from combustible materials that may be stored in.
9 Unless otherwise specified, all switches to be Lutron SUNNATA for RadioRA3. Switches, outlets and plates shall be Lutron screwless designer series, Snow White Matte finish (REF A702). Confirm final color & dimmer style w/ Architect before ordering.
10 Provide arc-branch circuit interrupter protection for all bedroom receptacles.
11 Outdoor Receptacles to be GFCI, weatherproof w/ in-use covers (REF A702).
12 Confirm CAT-6 communication line runs and termination locations with AV Contractor and Owner/Architect.
13 Confirm locations of switched outlets with Owner/Architect.

ELECTRICAL SPECIFICATIONS

14 Materials to be new, unused best of their respective kind and free from defects as indicated on the drawings. Basis of quality shall be latest standards of ASTM, ASA, Federal specifications or other acceptable standards. Materials shall bear the underwriters laboratory label where required.
15 All work shall be installed readily accessible for operation, maintenance and repairs.
16 All cutting and patching shall be done by the contractor where necessary to modify rough in finish work due to error of omissions the contractor shall bear the cost.
17 The Contractor shall pay all fees, file all notices, file all necessary drawings and obtain all permits and certificates of approval required in connection with all work under this contract.
18 Before submitting a proposal, the electrical contractor shall visit the site of the work and become thoroughly familiar with all conditions and limitations. The submission of a proposal will be construed as evidence that such an examination has been made, and later claims for difficulties encountered which could have been foreseen will not be recognized.
19 Electrical Subcontractor shall verify all measurements at the site and be responsible for correctness of same.

INTERPRETATIONS OF DRAWINGS

20 Drawings are diagrammatic and indicate general arrangement of work. Certain details appear on the drawings for electrical work which are specific with regard to the dimensioning and positioning of the work.
21 Location of lighting fixtures are diagrammatic. Coordinate exact locations and dimensions with architectural reflected ceiling plans, electrical and mechanical equipment. The Electrical Contractor shall spray paint full downlight fixture layout of any conflicts in the field for coordination & review w/ the Architect during the next site meeting.
22 Outlet locations are diagrammatic, exact locations and mounting heights shall be coordinated with the Owner and Architect. Owner and architect to review all locations in the field with electrician contractor & general contractor prior to final connections.Tack-up ALL Switch & Outlet box locations for owner & architect preview prior to any piping or wiring begins
23 Information as to general construction shall be derived from architectural drawings and specifications only.

CLEANING

24 Remove from entire installation or work of this section all protective materials and all dirt, dust, smears, stains, paint spots, and the like and leave in a clean condition. Clean and remove all stickers, packaging, smudges, fingerprints, from lighting fixtures, switches, receptacles, after installation.

RUBBISH REMOVAL

25 The electrical contractor shall at the conclusion of each day's work clean up and stockpile on the site at locations designated by the Owner all rubbish debris and trash which may have been accumulated during the day. Periodically the electrical contractor shall remove all accumulated debris from the site.

INDEMNIFICATION

26 The Electrical Contractor shall agree to indemnify and save harmless the Owner against loss or expense by reason for the liability imposed by law upon such party for damages because of bodily injuries, including death at any time resulting there from, accidentally sustained by any person or persons or on account of damage to property arising out of or in consequence of the performance of this contract, whether such injuries to persons or damage to property are due or claimed to be due to any negligence of the Electrical Contractor the Owner or their employees or agents or any other person.
27 The Electrical Contractor shall carry all the insurance necessary to support the above agreement, and shall submit copies of the insurance certificates attesting to the fact he is properly covered.

TEMPORARY LIGHTING AND POWER

28 The Contractor shall provide a system of temporary lighting and power outlets as required by the scope of the work. The installation of the temporary system shall comply with the requirements of the national electrical code, ASHA and all local authorities. All temporary light and power systems shall be completely removed before completion of the project.

BRANCH CIRCUITING AND RACEWAYS

29 In general, all interior concealed branch circuiting for general purpose lighting, receptacles and miscellaneous equipment shall consist of non-metallic sheathed cable, or Romex. Where wiring is exposed, it shall be encased in EMT conduit.
30 All exterior above grade raceways shall be rigid aluminum. Raceways installed in concrete walls and floor slabs shall be rigid steel.
31 Flexible steel conduit shall be used for all final connections equipment requiring flexible connections and where required by code. Liquid tight flexible steel conduit shall be used for final connections to exterior mounted AC equipment supply and exhaust fans, to pump sets in all locations, to all equipment in damp or wet locations, or wherever else required by code.

BOXES

32 Outlet boxes in dry locations shall be galvanized stamped steel type 4" square in partitions and 4" octagonal in hung ceilings. Boxes in dry wall partitions shall have plaster ring cover with one or two gang openings as required. Outlet boxes in damp and wet locations shall be NEMA cast aluminum type with gasketed covers and threaded hubs. Each box shall be of the size and style required for the number of wires and the device contained within.

CONDUCTORS

33 Branch circuit and feeder wires in conduit shall be type THWN copper and type THHN copper in armored cable except where noted on plans. Minimum wire size shall be #12 AWG. Wiring for final connections to all lighting fixtures and for branch circuit wiring running through fixture housings shall be type THHN, 90 degrees copper minimum size #14 AWG.

SERVICE AND DISTRIBUTION

34 Service: 400 AMP (ELECTRICIAN TO VERIFY CAPACITY)
35 Branch circuit panels shall be surface or recessed mounted as shown on the drawings. Panels shall be factory painted with copper busses, hinged door, combination latch and lock, and directory card mounted under heavy duty non-yellowing plastic. Circuit breakers shall be thermal magnetic, bolt on type, of the size and kinds noted in the schedules. Breakers of two and three poles shall have a common trip handle. Minimum breaker interrupting ratings shall be 10,000 amperes. Where circuit breakers are to be used as switches for lighting circuits, breakers shall be U.L. approved and shall be marked SWD.
36 All circuit numbers shown on the plans are for indication purposes only. The Contractor shall arrange all the circuits on the panel so as to balance all the loads on all phases. A typed directory card shall be provided in each panel to indicate the loads as actually installed.
37 Electrical contractor shall size, furnish and install circuit breaker distribution panelboards as required for new loads.
38 Panels and breakers shall be clearly labeled indicating device name/location, use, voltage and phase. Spares shall have blank nameplate.
39 The Contractor shall make all the final connections to the equipment provided by others, and shall supply and install any required safety disconnect switches when not provided with the equipment.

LIGHTING FIXTURES

40 All new lighting fixtures shall be furnished and installed by the Contractor. Fixture locations are indicated on the ceiling plans. Fixtures shall be as specified on the ceiling plan and fixture schedule. Installation shall include providing all ballasts, lamps, stems and miscellaneous hardware that may be required.

WIRING DEVICES

41 All wiring devices shall be provided as indicated on the plans and as identified in the symbol list. All devices shall be specification grade, back and side wired as manufactured by Hubbell or equal. Receptacles shall have separate green grounding screws.

PLUMBING NOTES

1 The Plumbing Contractor shall include all necessary service, labor, materials and equipment required for a complete and operable installation of all water and sewage systems.
2 All systems and equipment shall conform to applicable local, state and national codes and be installed per code.
New plumbing piping shall be leak tested before closing the partitions.
3 New toilets to be gravity-fed and no more than 1.6 gallons/flush. Power assisted toilets are not allowed.
Provide a 12" air chamber at every fixture and a 24" air chamber at top of risers.
4 Provide chrome-plated fixture supplies and stops for every fixture connection: All exposed brass trimmings, including faucets, flush valves, traps, waste, strainers stop valves, escutcheons, supplies shall be chrome plated. All fixtures installed by the contractor shall be provided with individual stop valves on hot and cold water supplies. All cold water valves shall be to the right and hot water valves to the left of fixtures.
5 Provide clean-outs in waste and soil line for each change of direction greater than 45 degrees and at bottom of each stack.
All water pipes to fixtures to be valved per code requirements.
6 All fixtures to have vacuum breakers as required by code.
7 Maintain 1/4" per foot pitch at all horizontal sections.
8 All water supply piping to be copper type "L" above grade, and type "K" below grade.
9 Plumbing Contractor to make final hookups for all fixtures.

SCOPE OF WORK

10 Domestic water and gas piping including valves and fittings.
11 Soil, vent and waste piping.
12 Hangers and supports.
13 Cutting and patching.
14 Sterilization.
15 Testing.
16 Insulation.
17 Plumbing fixtures and trim.

CODES

18 Give notices, obtain permits, perform test and pay all fees or costs in connection with the plumbing work. File plans and obtain approvals of authorities having jurisdiction over this work, per building rules and regulations.

INTERIOR PIPING MATERIAL

19 All waste and vent pipes and fittings to conform with the Michigan Plumbing Code.
Provide Mineral wool insulation at all vertical stacks to eliminate noise pollution.

VALVES

20 Valves as shown and or required for the proper control of piping and functions of equipment shall be Apollo ball valves.

HANGERS AND SUPPORTS

21 All horizontal cast iron pipe shall be supported every 5' and at each hub and or no-hub clamping assemble. When a concentration of fittings occur, additional support shall be installed consistent with good trade practices.
22 Assume the responsibility for the proper transfer of the loads of the piping system to the structure. No additional cost to the owner should be expected for any corrective work during construction. All other horizontal runs of piping shall be firmly supported in place with approved clevis or trap hangers and supported in maximum intervals as follows:

CUTTING AND PATCHING

23 The Contractor shall, as part of his contract, do all cutting, patching and fitting that may be required for the installation of his work. Cutting of concrete structural members will not be permitted.
24 All cutting and patching shall be done to the approval and satisfaction of the owner and Architect. All surfaces damages by the installation shall be refinished or repainted to restore them to their original condition.

INSULATION

25 Insulation shall be in accordance with the Michigan Plumbing Code. Fitting and valves: Zeston 25/50 rated - 20 mil. PVC covers over fiberglass insulation.
26 Insulation values to meet all state and local codes, GC verify all requirements have been met and coordinate w/ Architect.
27 GC to verify that all insulation is installed per manufacturer's requirements

TESTING

28 Domestic water piping: Isolate the new hot and cold water piping from the existing. Upon completion of the roughing in and before setting fixtures, the entire new hot and cold water piping systems shall be tested at a hydrostatic pressure of not less than one hundred twenty five pounds per square inch gauge and proved tight at this pressure for not less than two hours.
29 Drainage and vent piping: The piping of the drainage and venting systems shall be tested with water before installing fixtures.
30 All openings in the piping shall be tightly closed except the highest opening and the system shall be filled with water to the point of overflow. The water shall be kept in the system, for at least thirty minutes before the inspection starts: The system shall then be tight at all joints.
31 Do not cover up or enclose work until it has been properly and completely inspected and approved by authorities having jurisdiction over this work. Should any of the work be covered up or enclosed prior to all inspections and approvals, uncover the work and make all repairs and replacements with such materials and workmanship as are necessary at no additional cost to the owner.

MISCELLANEOUS

32 All drains as specified in drawings. Non-specified drains shall be cast iron body, flashing collar, square nickel chrome top and funnel attached to grate, similar or equal to Zum MFG, Architect to review and approve all drains.

ESCUTCHEONS

33 The Contractor shall provide escutcheons on all exposed pipe wherever they pass through floors, ceilings, walls or partitions.
34 Escutcheons for pipes passing through interior walls partitions and ceilings shall be solid cast brass chromium plated type secured to pipe with set screws.

VACUUM BREAKERS

35 Provide vacuum breakers on water supply piping to each fixture and equipment with submerged inlets, and on faucets and outlets, within the building, to which hose can be or is attached, forming a submerged inlet. Set vacuum breakers in exposed readily accessible locations and at least 6'-6" above finished floor. Vacuum breakers shall be chrome plated brass.

HEATING & VENTILATION NOTES

1 Sheet metal ducts shall be sized, designed and constructed in accordance with ASHRAE guide and requirements.
2 Class "C" vents to have a minimum 1" clearance to all combustibles and be firestopped at floors.
3 All ductwork to be heavy gauge sheet metal.
4 Comply with the latest edition of applicable local, state, and national building codes.
5 The contractor shall furnish all labor, material, equipment, services, filing forms and perform all work in connection with the mechanical systems as shown on the contract drawings and as specified herein.
6 The contractor shall be responsible for compliance with all applicable ordinances and shall hold the owner harmless from any damage or expenses arising from a violation thereof.
7 New best equipment of their respective kinds free from defects, basis of quality shall be latest standards of ASTM, ASA, Federal specification or other acceptable standards.
8 The contractor shall be held to have examined the site and understands the scope and intent of the described work before having submitted his proposal. Submit all discrepancies to the owner for qualification before proceeding with work. Where necessary, equipment may be shipped in sections for moving through tight spaces.
9 Mechanical contractor shall coordinate his work with architectural reflected ceiling plans, floor plans and all other trades. No additional compensation will be allowed for conditions caused by avoidance of above, during the course of the contract.
10 No un-specified mechanical soffits will be allowed.
11 Cutting and patching in connection with this work shall be the responsibility of this trade.
12 Equipment intended for permanent installation shall not be operated for temporary purposes. Install all work in such a manner so as to be readily accessible for operation, maintenance and repairs.
13 Every effort shall be made to minimize vibration and noise through careful fabrication and erection of ductwork and equipment.
14 All work, ducts, and equipment shall be cleaned to the satisfaction of owner before being turned over to owner.
15 All work and equipment to be fully guaranteed for one year from the date of final payment and acceptance. Compressors to be warranted for five years.

MAKE-UP AIR

16 Kitchen exhaust hood systems capable of exhausting in excess of 400 cfm shall be provided with makeup air at a rate approximately equal to the exhaust rate. Such makeup air systems shall be equipped with a means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system.

DUCTWORK

17 Sheet metal ducts shall be sized, designed and constructed in accordance with ASHRAE guide and requirements: Install ductwork in conformance with latest ASHRAE guide and local codes.
18 Coordinate installation of volume dampers with duct mounted access doors with General Contractor and Architect approval. Install access doors in ductwork for service of dampers, coils sensors and other duct mounted devices. Provide lock-type dampers.
19 Where ductwork is exposed the construction shall be flat seam and the installation shall be neat, maintaining the duct parallel or perpendicular to columns and walls.
20 Strap hangers shall not be less than 1" by 1/8" attached to side of duct with sheet metal screws.
21 Flexible duct connections shall be neoprene of glass cloth. Unclamped section shall be four feet in length.
22 Turning vanes shall be double thickness, airfoil-type.

DIFFUSERS

23 All diffusers as specified on drawings. Diffusers and returns at drywall areas to be baked enamel, finish color to be white (UNO). Diffusers at stone or tile flooring to be anodized aluminum (UNO). Diffusers at hardwood floor areas to be matching wood grill with adjustable blade damper inserts (UNO).
24 All duct interiors to be painted matte black if metal ducts are visible through diffusers.
25 Provide register & diffuser submittals for Architecture review & approvals.

AIR BALANCING

26 Test, balance and submit an air balance report showing air quantities at air outlets shall be within 5% of those specified. Submit three copies of test readings with pressures, temperatures velocities and flow quantities.

OPERATING MANUALS

27 Upon completion and acceptance of all work, furnish to the owner two copies of complete and separately bound operating and maintenance manual. Properly labeled including equipment cuts and installation sheets. Instuctions shall be type written, fully describing equipment. Detail the complete operation and control sequencing.

AUTOMATIC CONTROLS

28 The Contractor shall furnish and install all required conduit, wire, and thermostats as required. Room thermostats, where indicated, shall be electric or electronic, key adjustable type with thermometer. The contractor shall coordinate thermostats with Architect, Owner, and Owner's A/V contractor for approval.

CONDENSATION

29 The Contractor shall size equipment and locate diffusers to prevent condensation from forming on all exterior glazing and windows.

THERMAL & MOISTURE AIR SEALING

1 Air Sealing: Air leakage rate shall be no more than 0.3 cfm/square foot of building envelope area at 50 Pa as measured with a blower door. GENERAL CONTRACTOR SHALL CONDUCT A BLOWER TEST TO VERIFY AIR LEAKAGE RATES. General Contractor shall denote a specific person to be responsible for air sealing the project. Specific air sealing locations are listed below:
2 Blower Door Test: Contractor shall contract for blower door testing from a Michigan certified home rater. Testing service shall consist of an initial blower door test, written report of initial test, secondary test and final written report. Test not to exceed .25 cubic feet per minute, at 50 pascals of pressure difference, per square foot of building envelope area. Provide report of blower door test to Owner and Architect
3 Roof: Seal around all plumbing stacks with caulk or expanding foam. Seal top of interior partition walls in a similar fashion as necessary. Caulk or foam around conduit penetrations in attic Air-seal all other miscellaneous openings that penetrate through roof.
4 Windows and Doors: Low expanding latex insulating foam sealant (water based) shall be used to seal joint between window unit and rough opening in addition.
5 Exterior Doors: Exterior doors shall be insulated with door sweeps and weather-stripping.
6 Plumbing: Seal around kitchen sink drain and hot and cold water supply pipes, including corner bends in piping. Seal around bathroom sink drain and hot and cold water pipes. Seal around gas line to stove. Seal recessed medicine cabinet and exhaust fan housings to wall and ceilings.
7 Electrical: Electrical junction boxes located on exterior walls shall be caulked to wall finish.
8 Drywall: Provide a continuous bead of drywall adhesive shall be applied to corner studs, top and bottom plates, rough opening members and corners of interior partition studs on exterior walls to seal drywall to framing. "Spot" gluing is not acceptable.
9 HVAC: Seal duct register boots to drywall with caulk. Boots located in the floor shall be sealed to the floor with adhesive backed foil tape. Seal all HVAC duct connections with liquid mastic.
10 Basement Slab: Seal control joints and other joints in concrete basement slab with urethane caulk.
11 At openings around vents, pipes, ducts, cables, and wires at ceiling and floor level, seal with an approved material to resist the free passage of flame and products of combustion.

INSULATION NOTES

1 Insulation values to meet all state and local codes. GC to verify that all requirements have been met and coordinate with the Architect.
2 GC to verify that all insulation is installed per manufacturer's requirements.
3 Provide mineral wool acoustical batt insulation at all floor cavities, bedrooms, bathrooms, laundry and utility spaces (unless otherwise noted).

SOIL NOTES

1 Reference latest Geotechnical report for recommendations regarding subsurface conditions and backfill requirements.

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07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

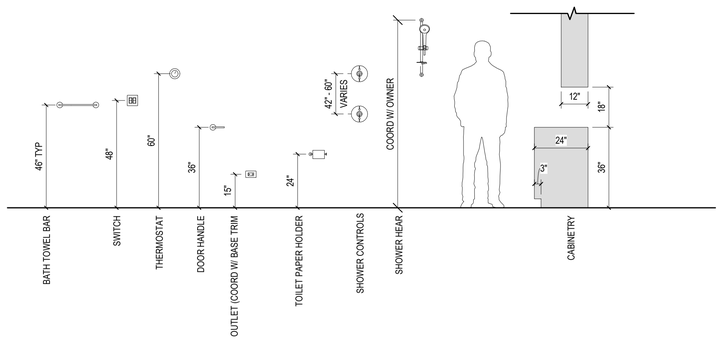
GENERAL NOTES

G002

ABBREVIATIONS

ABV ABOVE
AFF ABOVE FINISH FLOOR
AC ACCESSORIES
ACF ACCESS FLOORING
AP ACCESS PANEL
ACT ACOUSTIC TILE
AWT ACOUSTICAL WALL TREATMENT
ADJ ADJUSTABLE
AFCI ARC-FAULT CIRCUIT INTERPRETER
A/CAIR CONDITIONING
AHU AIR HANDLING UNIT
ALT ALTERNATE
ALUM ALUMINUM
ANOD ANODIZED
L ANGLE
APPROX APPROXIMATE
ARCH ARCHITECT(URE)(URAL)
ATTCH ATTACHMENT
@ AT
A/VAUDIOVISUAL
AUTO AUTOMATIC
AUX AUXILIARY
AVG AVERAGE
BQ BANQUETTE
BHND BEHIND
BN BENCH
BLW BELOW
BTW BETWEEN
BVL BEVELED
BYND BEYOND
BLK(G)BLOCK(ING)
BD BOARD
BC BOOKCASE
BS BOTH SIDES
BOT BOTTOM
BRKT BRACKET
BLDG BUILDING
B/ BOTTOM OF
CAB/C CABINET
CPT CARPET
CLG CEILING
CL CENTER LINE
C/C CENTER TO CENTER
CT CERAMIC TILE
CH CHAIR
CLR CLEAR
CLST CLOSET
CWCOLD WATER
CWS COLD WATER SUPPLY
COL COLUMN
COMB COMBINATION
COMPR COMPRESSION/COMPRESSIBLE
CONC CONCRETE/CONCEALED
CMU CONCRETE MASONRY UNIT
CONN CONNECTION
CJ CONSTRUCTION JOINT
CONTROL JOINT
CONT CONTINUOUS
CONTR CONTRACTOR
CONST CONSTRUCTION
COORD COORDINATE
CORRD CORRIDOR
CTR COUNTER
CR CREDENZA
D DEPTH
DK DESK
DTL DETAIL
DIAG DIAGONAL
DIADIAMETER
DIM DIMENSION
DWDISHWASHER
DISP DISPENSER
DISTR DISTRIBUTION
DIVDIVISION
DR DOOR
DN DOWN
DWG DRAWING
DF DRINKING FOUNTAIN
EA EACH
E EAST
EDF ELECTRIC DRINKING FOUNTAIN
ELEC ELECTRIC(AL)
EWC ELECTRIC WATER COOLER
EL ELEVATION
ELEV ELEVATOR
ENCL ENCLOSURE
EQ EQUAL/EQUIPMENT
EQUIP EQUIPMENT
EXH EXHAUST
EX EXISTING
EJ EXPANSION JOINT
EXP EXPOSED
EXT EXTERIOR
EXT'D EXTRUDED
FA FABRIC
FAB FABRICATION
FTP FABRIC TRACK PANEL
FWC FABRIC WALL COVERING
FT FEET/FOOT
FPHB FROST PROTECT HOSE BIB
FINFINISH(ED)
FF FINISHED FLOOR
FE FIRE EXTINGUISHER
FHV FIRE HOSE VALVE
FP FIRE PROOF(ING)
FIXT FIXTURE
FL FLOOR
FD FLOOR DRAIN
FLMTDFLOOR MOUNTED
FLOURFLUORESCENT
FS FULL SIZE
FUT FUTURE
FDTN FOUNDATION
GA GAGE/GAUGE
GALV GALVANIZED
GC GENERAL CONTRACTOR
GL GLASS
GR GRAPHICS
GND GROUND
GRT GROUT
GYP BD GYP BOARD
HCP HANDICAPPED
HDW HARDWARE
HDWD HARDWOOD
HVAC HEATING, VENTILATION & AIR CONDITIONING
HT/H HEIGHT
HEX HEXAGONAL
HM HOLLOW METAL
HORIZ HORIZONTAL
HR HOUR
HC HOLLOW CORE
HWHOT WATER
INCAND INCANDESCENT
INCL INCLUDE(D)(ING)
INFO INFORMATION
ID INSIDE DIAMETER
INSIDE DIMENSION
INSUL INSULATION
INTINTERIOR
JAN JANITOR
JT JOINT
J-BOX JUNCTION BOX
KPL KICK PLATE
KIT KITCHEN
KO KNOCKOUT
LBL LABEL
LAM LAMINATE(D)
LA LAMP
LAV LAVATORY
LQ LACQUER
LE LEATHER
LH LEFT HAND
LS LIBRARY SHELVING
LT(G) LIGHT(ING)
LTWT LIGHTWEIGHT
LF LINEAR FOOT
LK LOCKER
LG/L LONG/LENGTH
LP LAM LOW PRESSURE LAMINATE
MFR MANUFACTURER
MAS MASONRY
ML MATCH LINE
MATL MATERIAL
MAX MAXIMUM
MECH MECHANICAL
MTL METAL
MID MIDDLE
MW MILLWORK
MIN MINIMUM
MISC MISCELLANEOUS
MRB MARBLE
MOD MODULE
MLDG MOULDING
MTD MOUNTED
MTG MOUNTING
MUL MULLION
MP MOVEABLE PARTITION
NRC NOISE REDUCTION COEFFICIENT
NOM NOMINAL
N NORTH
NA NOT APPLICABLE
NIC NOT IN CONTRACT
NTS NOT TO SCALE
NO NUMBER
OFF OFFICE
OC ON CENTER
OPNG OPENING
OPP OPPOSITE
OPND OPENING
OD OUTSIDE DIAMETER
OF OUTSIDE FACE
OA OVERALL
OVHD OVERHEAD
PA/PNT PAINT
PTD PAINTED
PNL PANEL
PTR PRINTER
PTN PARTITION
PED PEDESTAL/STAND
PL PLANT/PLANTER
PLAS PLASTER
PLAM PLASTIC LAMINATE
PLYWD PLYWOOD
POL POLISHED
LB(S) POUND(S)
PVC POLY VINYL CHLORIDE
PSIPOUND PER SQUARE INCH
QTY QUANTITY
QT QUARRY TILE
R RADIUS/RISER(S)
RTD RATED
RCVG RECEIVING
RECPTRECEPTACLE
RECEP RECEPTION
REF REFER/REFERENCE
REFL REFLECTED
RA RETURNED AIR
REINF REINFORCE(D)(ING)
REQD REQUIRED
RT RESILIENT TILE
RB RESILIENT BASE
REV REVISION
RH RIGHT HAND
RM ROOM
RO ROUGH OPENING
RND ROUND
RU RUG
RUB RUBBER
RESD RECESSES
SCHED SCHEDULE(D)
STG SEATING
SECT SECTION
SERV SERVICE
SHT SHEET
SIM SIMILAR
SD SMOKE DAMPER/SMOKE DETECTOR
SC SOLID CORE
STC SOUND TRANSMISSION CLASS
S SOUTH
SPEC SPECIFICATION/SPECIAL
SQ SQUARE
SS STAINLESS STEEL
STD STANDARD
SNT SEALANT
STL STEEL
SO SOFA
ST STONE
STOR STORAGE
STRUCT STRUCTURE/STRUCTURAL
SUP SUPPORT
SURF SURFACE
SUSP SUSPENDED
SW SWITCH
SYM SYMMETRICAL
TA TABLE
TB TACKBOARD
TEL TELEPHONE
TEMP TEMPERED
THK THICK(NESS)
THRESTHRESHOLD
T&G LOUNGE AND GROOVE
T/ TOP OF
T TREAD(S)
TYP TYPICAL
UC UNDERCUT
UL UNDERWRITER'S LABORATORY
UNFN UNFINISHED
UNIF UNIFORM
UNO UNLESS NOTED OTHERWISE
UTIL UTILITY
VB VAPOR BARRIER
VAR VARIE(S)(D)
VNR VENEER
VERT VERTICAL
VAT VINYL ASBESTOS TILE
VCT VINYL COMPOSITION TILE
VWC VINYL WALL COVERING
VEST VESTIBULE
WTW WALL TO WALL
WCWATER CLOSET
WHWATER HEATER
WP WATER PROOF
WGT/WT WEIGHT
W WIDTH/WEST
WIC WALK IN CLOSET.
WIND WINDOW
WW WINDOW WALL
WT WINDOW TREATMENT
W/ WITH
W/O WITHOUT
WDWOOD/WOOD VENEER
WDB WORK STATION BASE
YD YARD

2 ABBREVIATIONS
12" = 1'-0"



3 STANDARD MOUNTING HEIGHTS
3/8" = 1'-0"

DRAWING SYMBOLS

BUILDING / SITE SECTION
1 / A501 — DRAWING NUMBER, TYP; SHEET NUMBER, TYP

WALL / DETAIL SECTION
1 / A601 — DRAWING NUMBER, TYP; SHEET NUMBER, TYP

EXTERIOR ELEVATION
1 / A201 — DRAWING NUMBER, TYP; SHEET NUMBER, TYP

INTERIOR ELEVATION
1 / A401 / 1 — DRAWING NUMBER, TYP; SHEET NUMBER, TYP

ENLARGED DRAWING
1 / A601 — DRAWING NUMBER, TYP; SHEET NUMBER, TYP

AREA OF ENLARGEMENT

MISC SYMBOLS

NOMINAL LUMBER
NON-STANDARD LUMBER
BATT INSULATION
ENTRY — MAIN ENTRY ARROW

ANNOTATION SYMBOLS

CENTERLINE
PROPERTY LINE
A — WALL / FLOOR / ROOF TAG
101 — DOOR TAG
A — WINDOW TAG
1 / DATE — ADDENDUM (PRE SIGNED CONTRACT)
A / DATE — REVISION (POST SIGNED CONTRACT)
T/LOWER LEVEL — ELEVATION TAG
ROOM NAME / 101 — ROOM TAG

WALL	BASE
FLOOR	CLG

FINISH SCHEDULE

MECH & PLUMBING SYMBOLS

SD — SMOKE DETECTOR
CO — CO DETECTOR
SA — SUPPLY AIR GRILLE
RA — RETURN AIR GRILLE
SHOWER HEAD
SHOWER CONTROL
HB — HOSE BIB

ELECTRICAL SYMBOLS

SD — SWITCHING ZONE
S — LIGHT SWITCH
F# — LIGHT FIXTURE TAG
ZO — SWITCHING ZONE
SINGLE OUTLET
WALL OUTLET - DUPLEX
WALL OUTLET - QUAD
DUPLEX OUTLET & SWITCH
SPECIAL POWER OUTLET
FLOOR OUTLET - DUPLEX
FLOOR OUTLET - QUAD
DATA OUTLET
J-BOX
THERMOSTAT
INTERCOM
SECURITY CAMERA
SPEAKER
TV — TV
DB — DOORBELL
HANDING PENDANT LIGHT
WALL MNTD SCONCE

HATCH PATTERNS

ACOUSTIC PANEL
BRICK
CEMENT BOARD
CONCRETE
CMU
EARTH
GRASS
GRAVEL
GYP BOARD
INSULATION - BLOWN IN
INSULATION - RIGID
INSULATION - SPRAY FOAM
METAL - ALLUMINUM
METAL - BRONZE
METAL - STEEL
MORTAR
PLASTIC
PLYWOOD
SAND
TILE
WATER
WOOD

1 SYMBOLS
12" = 1'-0"

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07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

SYMBOLS AND ABBREVIATIONS

G003

GEOWEB RETAINING REFERENCE



PRESTO GEOSYSTEMS - GEOWEB RETAINING WALL SYSTEM

DRAIN REFERENCE



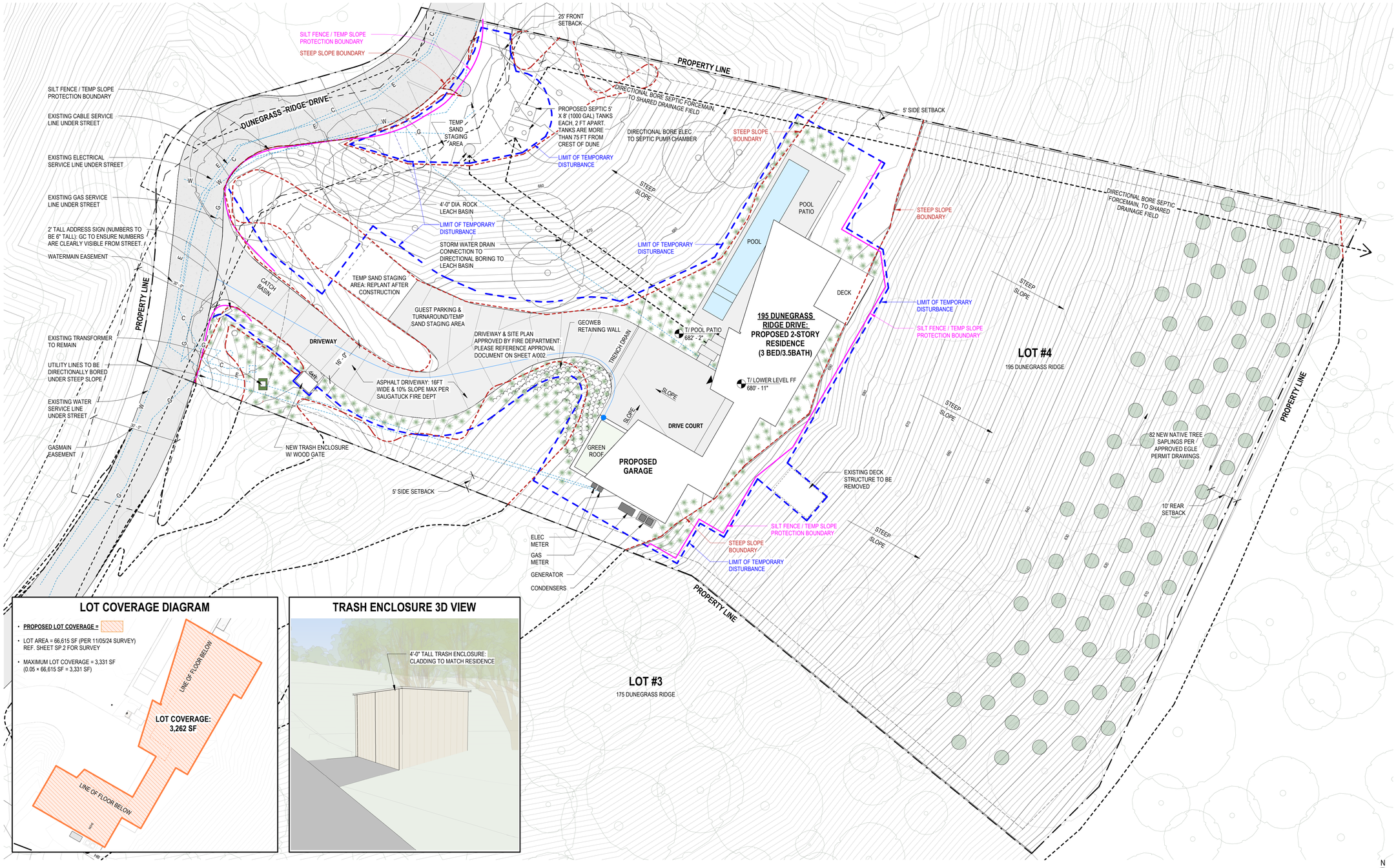
STAINLESS STEEL GRATE TRENCH DRAIN (VEHICULAR GRADE)

PLANTING LEGEND

- NEW DUNE GRASS
- NEW TREE SAPLING
- EXISTING TREE TO REMAIN

GENERAL SITE NOTES

1. **DO NOT SCALE DRAWINGS.** WRITTEN DIMENSIONS HOLD PRIORITY OVER APPARENT SCALE.
2. ALL DIMENSIONS ARE TAKEN FROM THE FACE OF FINISH OR GRIDLINE UNLESS NOTED OTHERWISE.
3. GC TO VERIFY ALL DIMENSIONS & CLEARANCES - NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. REF A703 FOR LIGHT FIXTURE SCHEDULE
5. REF STRUCTURE DRAWINGS FOR STRUCTURAL DETAILS.
6. REF ARCHITECTURAL FLOOR PLAN FOR ADDITIONAL BUILDING INFO.



LOT COVERAGE DIAGRAM

- **PROPOSED LOT COVERAGE =**
- LOT AREA = 66,615 SF (PER 11/05/24 SURVEY) REF. SHEET SP.2 FOR SURVEY
- MAXIMUM LOT COVERAGE = 3,331 SF (0.05 × 66,615 SF = 3,331 SF)

TRASH ENCLOSURE 3D VIEW

1 ARCHITECTURAL SITE PLAN
1/16" = 1'-0"

N

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LICENSED ARCHITECT KEVIN A. TOUKOUMIDIS 001-020032 STATE OF ILLINOIS

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PROJECT NUMBER: 0244.01
SCALE: AS NOTED

ARCHITECTURAL SITE PLAN

A001

3342 Blue Star Highway
Saugatuck, MI 49453
269 857-3000 / Fax: 269 857-1228
E-mail: info@saugatuckfire.org

May 7th, 2025

dSpace Studio LTD.
c/o Kevin Toukoumidis
2920 N. Lincoln Ave.
Chicago, IL 60657

Re: 195 Dunegrass Ridge Dr., Saugatuck, MI – New Residence – Site Plan Review #1 – dSpace Studio LTD, Project #0244.01, drawings dated 04.09.25.

Dear Mr. Toukoumidis,

We are in receipt of the site plan for 195 Dunegrass Ridge Dr., received 4/11/2025. We reviewed the plans using the International Fire Code (IFC) 2015 edition. Please see the result of the fire department review listed ***below***.

1. Dead end driveways and access roads in excess of 150 feet in length shall be provided with an approved area for turning around with fire apparatus (IFC 503.2.5) ***Not applicable, driveway length is shown as +/- 165 feet and due to the suppression and alarm systems has been increased within 10% as allowed by the FCO.***
2. "No Parking Fire Lane" signage shall be installed at the dead end of the turnaround. (IFC 503.3) ***Not applicable.***
3. No parking shall be allowed within the turnaround. The area must be clear and unobstructed for turnaround at all times. (IFC 503.4)
4. Fire apparatus access roads and driveways shall have an unobstructed width of not less than 20 feet, exclusive of shoulders. This may be reduced to 16 feet when the drive serves one-single family dwelling. (IFC 503.2.1) ***Approved, width is shown as 16 feet minimum.***
5. Minimum clear height shall be 13'6" across the entire 20ft width of driveway. (IFC 503.2.1) ***Approved, height clearance is noted as 13'6" in plans provided.***
6. Road shall not exceed the 10% maximum grade. (IFC 503.2.7) ***Approved, grade is noted as 10% max slope in plans provided.***
7. The driveway shall be installed with asphalt, concrete, or other approved driving surfaces capable of supporting the 80,000-pound imposed load of our heaviest apparatus and be installed to provide emergency access prior to commencement of building construction. (IFC 503.2.3) ***Approved, weight capacity is noted as supporting 80,000lbs.***
8. The road shall be maintained free of snow and ice to provide all weather driving capabilities. (IFC 503.2.3)
9. Fire department access roads shall be constructed and maintained for all construction sites. (IFC 3310.1) ***Please ensure the driveway, apparatus access road, and/or turnaround are installed prior to construction material being delivered to the site.***
10. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates

and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200. (IFC 503.6) ***No gate is listed in the plans provided, however if it is installed in the future, a Knox Key switch is required for emergency access and activation***

11. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. (IFC 505.1) ***Address signage must be posted prior to commencement of construction. Green reflective address signs are preferred and are available free of charge to Fire District properties at https://www.saugatuckfire.org/address-sign-order-form.html***
12. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire code official. (IFC 506.1). ***A Knox Key Box is required and shall be installed adjacent to the main front door at 60" AFF. Minimum accepted box is Model #3261. Surface mount or recessed options are available at www.knoxbox.com***.
13. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into or within the jurisdiction. (IFC 507.1) ***Approved, existing.***
14. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official, or approved documentation of the test shall be provided to the fire code official prior to final approval of the water supply system. (IFC 507.4). ***Not applicable, Dunegrass watermain is existing.***
15. A hydrant is required within 400 ft. of any exterior portion of a non-sprinklered building or 600 ft. for an R-3 occupancy or sprinklered building. (IFC 507.5.1) ***Approved, proposed residence is within 400 feet from the existing hydrant.***
16. An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site. (IFC 3312.1) ***Approved, existing.***
17. Upon completion of construction, physical testing with apparatus will be required. If the apparatus is unable to navigate the completed road and driveway in a safe and efficient manner, modifications may be required.
18. Anything omitted in this plan review is subject to field inspection. (IFC 105.4.4)

Per the terms of the Dunegrass PUD, the dwelling will be equipped with the following required systems. The Fire District will review plans for these systems and conduct subsequent required inspections of the fire protection and fire alarm systems in accordance with the current applicable fee schedule.

1. ***Fire Suppression System in accordance with NFPA 13D, to include all bathrooms, closets, and garages and to include a single 2.5" NHT Fire Department Connection (FDC) in a location approved by the fire code official.***
2. ***Fire Alarm System in accordance with NFPA 72 capable of 24/7/365 monitoring of the Fire Suppression System and***
3. ***Knox Key Box as outlined above.***

You have site plan approval from the fire department to begin construction 195 Dunegrass Ridge Drive in Saugatuck City if you are in agreement with the above-mentioned items. Please ensure you receive the appropriate permits from Michigan Township Services prior to commencement of construction. Please let us know if you have any questions.

Sincerely,

Chris Mantels
Deputy Chief / Fire Inspector

Cc: Greg Janik – Fire Chief (via email)
Luke Thompson – Zoning Administrator (via email)
Dan Poll – Building Official (via email)

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PHONE: 616.738.9246

LICENSED ARCHITECT
KEVIN A. TOUKOUMIDIS
001-020032
STATE OF ILLINOIS

07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

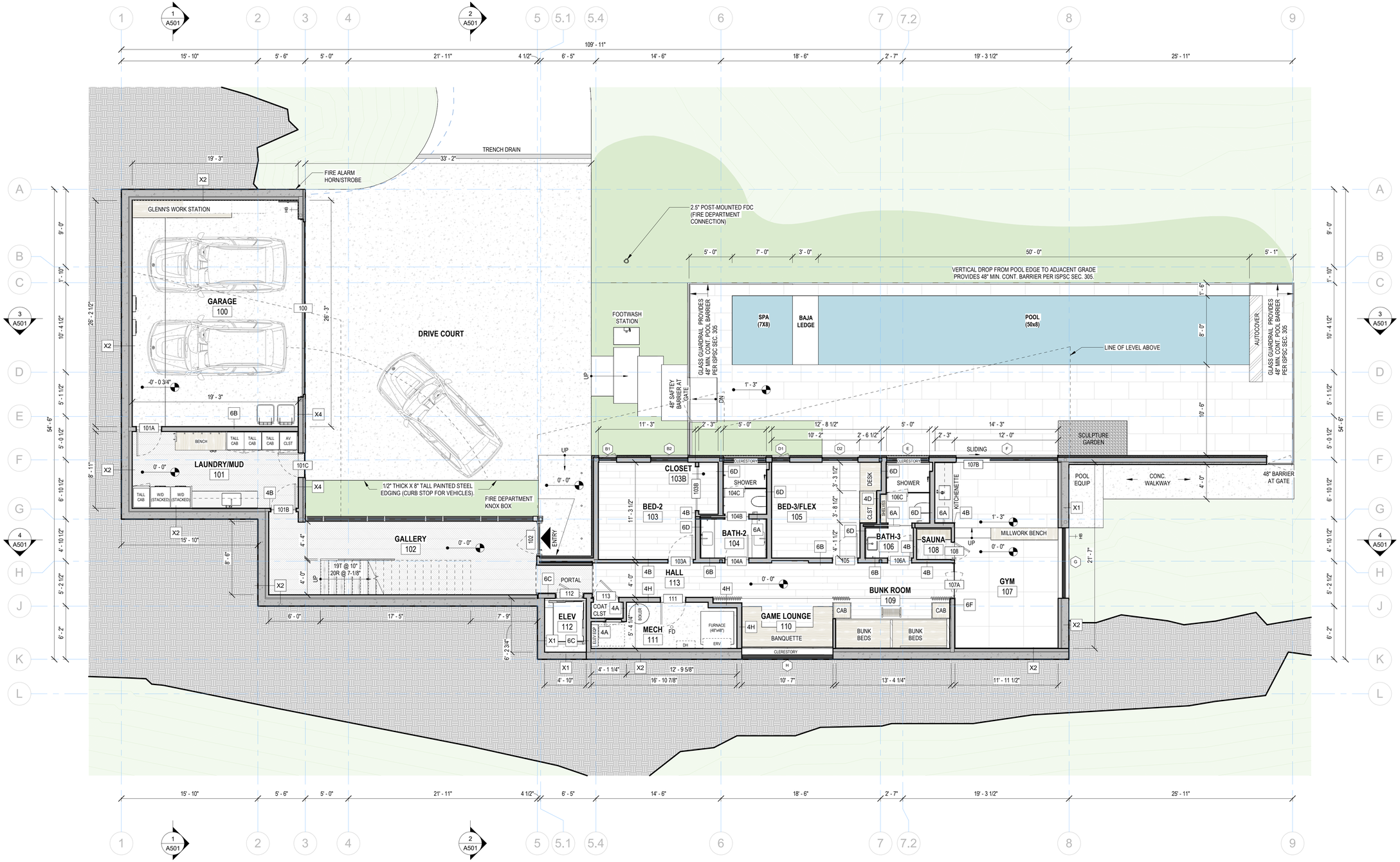
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

FIRE DEPARTMENT APPROVAL

A002

GENERAL PLAN NOTES

1. **DO NOT SCALE DRAWINGS.** WRITTEN DIMENSIONS HOLD PRIORITY OVER APPARENT SCALE.
2. ALL DIMENSIONS ARE TAKEN FROM THE FACE OF FINISH OR GRIDLINE UNLESS NOTED OTHERWISE.
3. GC TO VERIFY ALL DIMENSIONS & CLEARANCES - NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. GC TO MARK WALL LOCATIONS ON FLOOR PRIOR TO ERECTING INTERIOR WALLS FOR OWNER / ARCHITECT REVIEW.
5. GC TO COORD FRAMING & STRUCTURAL LAYOUT WITH PLUMBING, HVAC & ELEC TO AVOID CONFLICTS.
6. REF A700 FOR FINISH SCHEDULE
7. REF STRUCTURAL DRAWINGS FOR STRUCTURAL DETAILS.
8. REF MEP DRAWINGS FOR ADDITIONAL MEP INFO
9. REF ARCHITECTURAL SITE PLAN FOR ADDITIONAL SITE INFO.



1 LOWER LEVEL FLOOR PLAN
3/16" = 1'-0"

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LICENSED ARCHITECT KEVIN A. TOUKOUMIDIS 001-020032 STATE OF ILLINOIS

07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

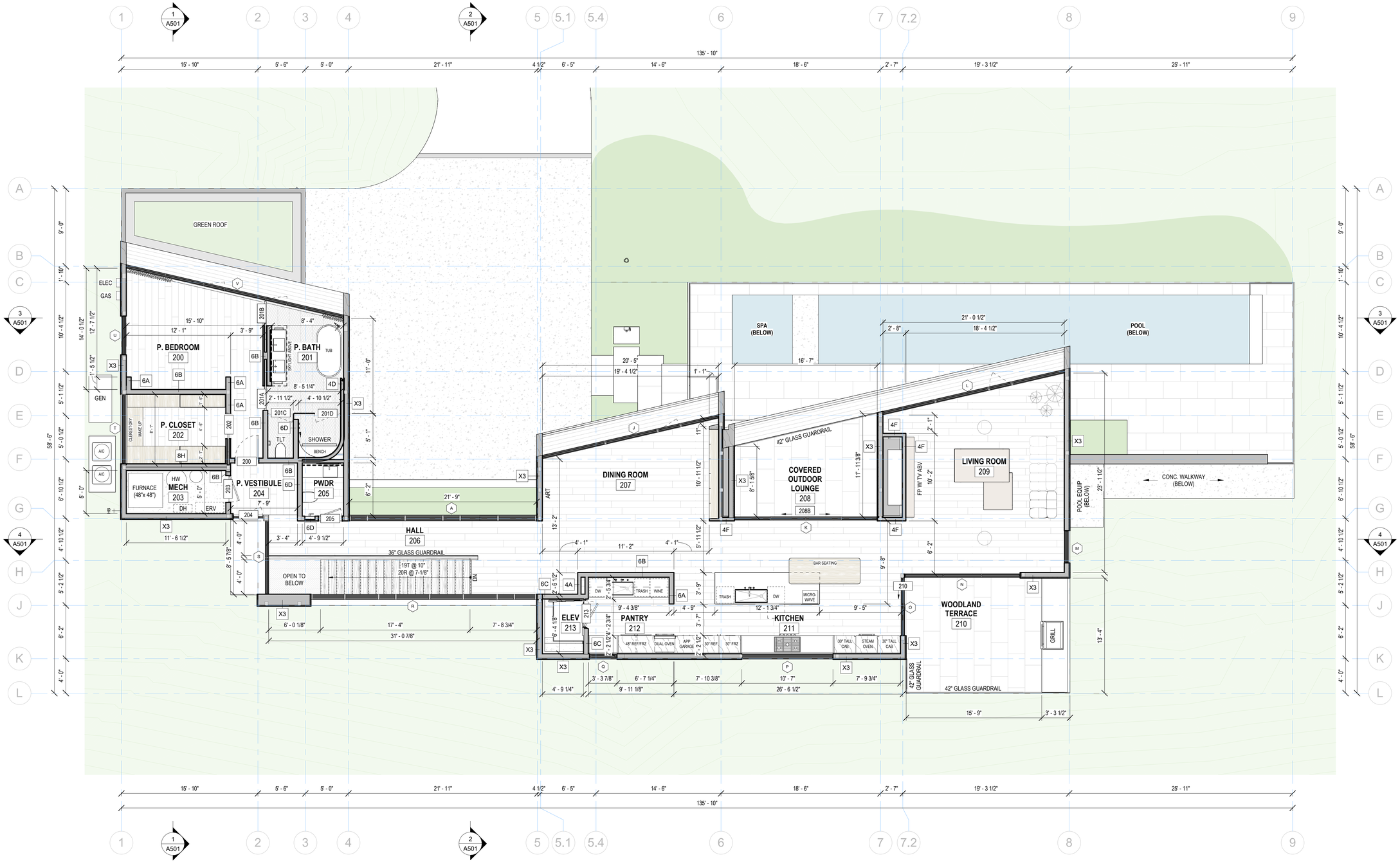
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

LOWER LEVEL FLOOR PLAN

A101

GENERAL PLAN NOTES

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1 UPPER LEVEL FLOOR PLAN
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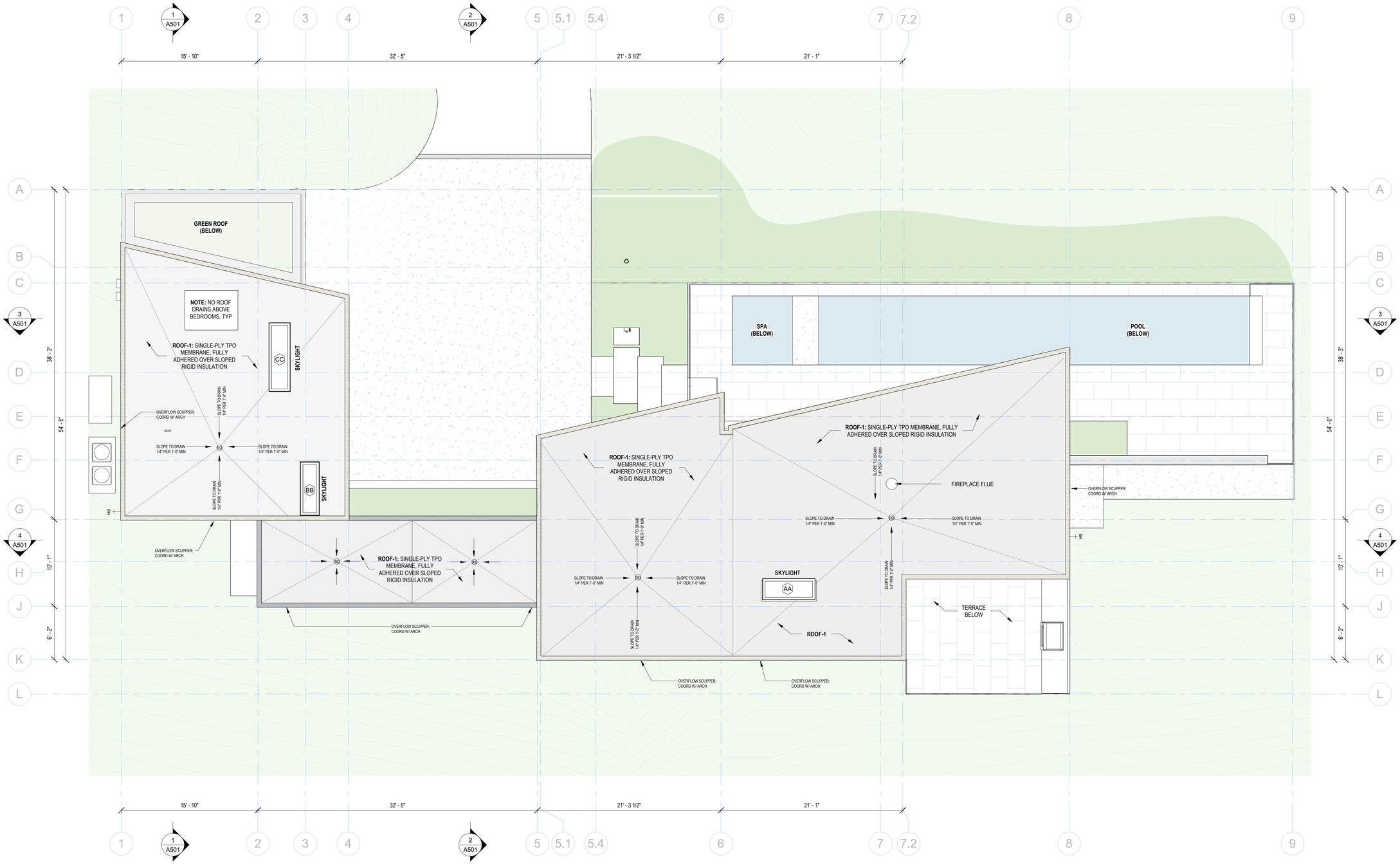
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

UPPER LEVEL FLOOR PLAN

A102

GENERAL PLAN NOTES

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1 ROOF PLAN
3/16" = 1'-0"

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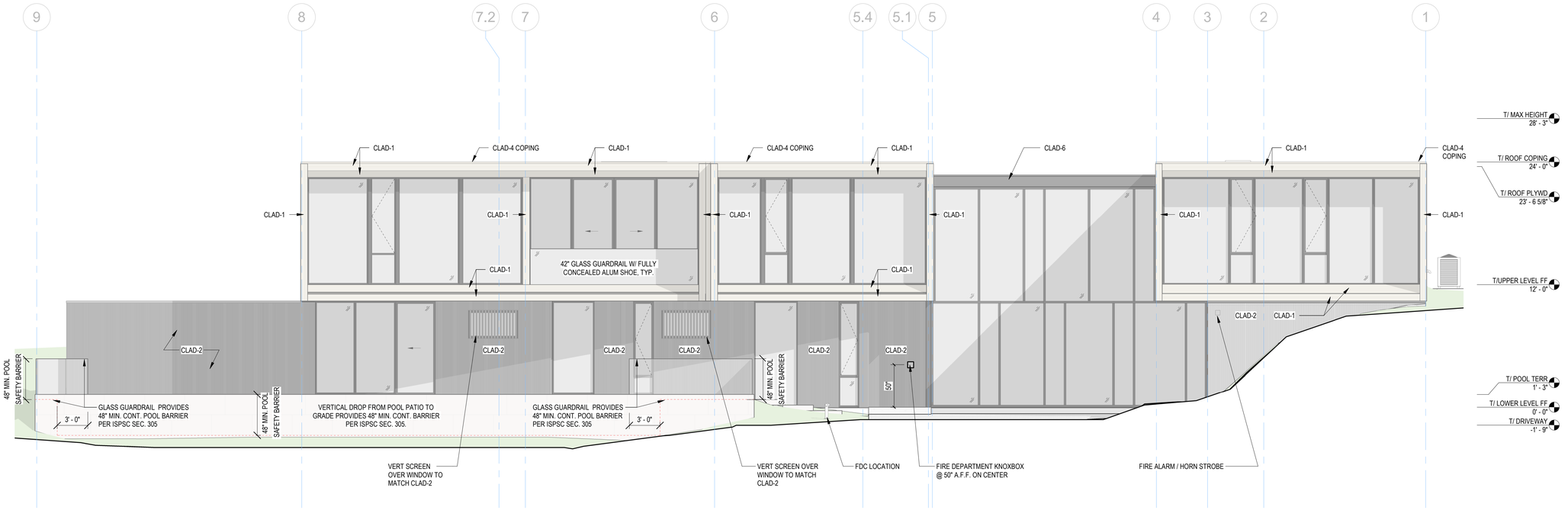
DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

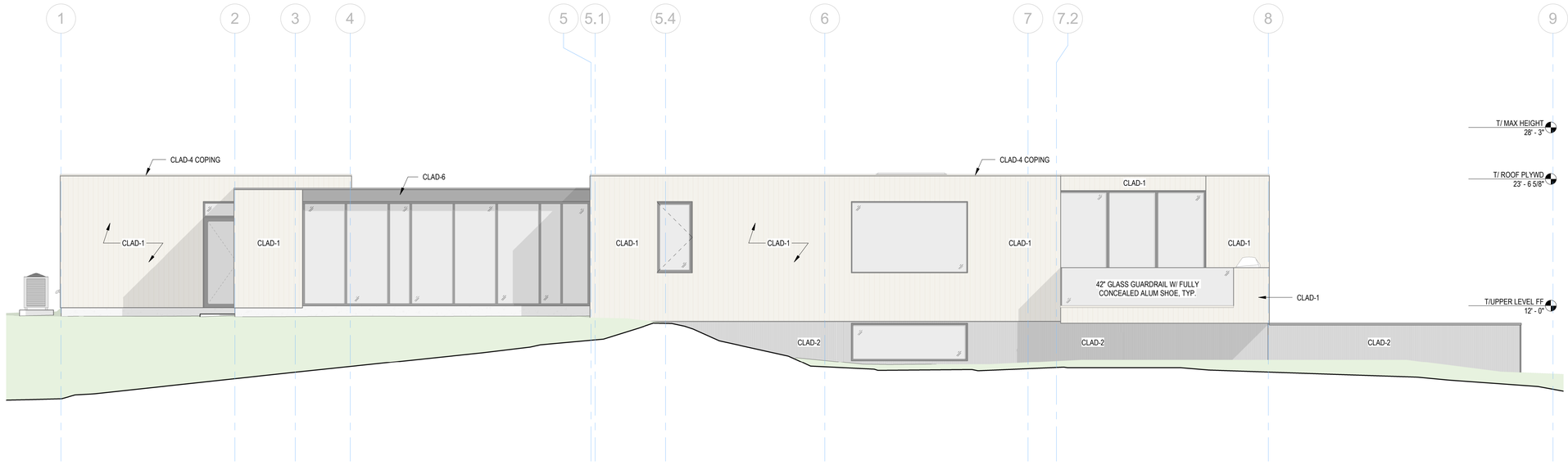
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

ROOF PLAN

A103



2 EXTERIOR ELEVATION - LOOKING EAST
3/16" = 1'-0"



1 EXTERIOR ELEVATION - LOOKING WEST
3/16" = 1'-0"

KNOX
When seconds matter

KNOXBOX® 3200

The Knoxbox 3200 is the number one high-security key lock box trusted by first responders and property owners. Store up to 10 keys to quickly gain rapid access to commercial properties.



Available in 3 colors: Black, Aluminum, Bronze

FEATURES
- Stores maximum 10 keys. Access cards and small accessories may also fit in interior compartment but will reduce key quantity
- Built Knox-Rugged and secure: UL 1037, UL 1610, UL 1053, UL 437
- Finished with Knox-Coat® to protect four times better than standard powder coat
- Weather-resistant door gasket
- Hinged door

BENEFITS
- Allows rapid property access
- Reduces property damage
- Prevents forced entry into buildings
- Minimizes first responder injury
- Compliant to National Fire Code (NFPA, IFC, IBC)

OPTIONS
- Knox Tamper Alert connects to building's alarm system for extra security
- Mount types: Recessed and Surface

WEIGHT: Surface Mount - 8 lb. Recessed Mount - 9 lb.

DIMENSIONS: Surface Mount Body - 4"H x 5"W x 3-7/8"D. Recessed Mount Flange - 7"H x 7"W

ELEVATION NOTES

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2. GC TO VERIFY ALL DIMENSIONS & CLEARANCES - NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
3. METAL SURFACE PREPARATION -ALL EXISTING EXTERIOR METAL
4. SLOPE GRADE AWAY FROM HOUSE, TYPICAL
5. GC & HVAC SUB TO COORDINATE ALL EXTERIOR WALL VENT LOCATIONS AND PRODUCT SPECS W/ ARCHITECT PRIOR TO INSTALLATION OF MASONRY.

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001-020032
STATE OF ILLINOIS

07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

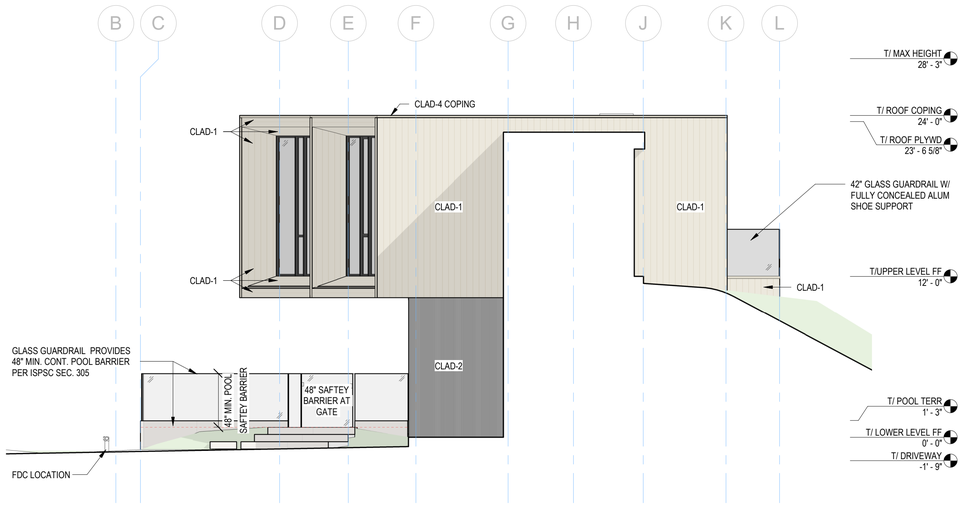
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

EXTERIOR ELEVATIONS

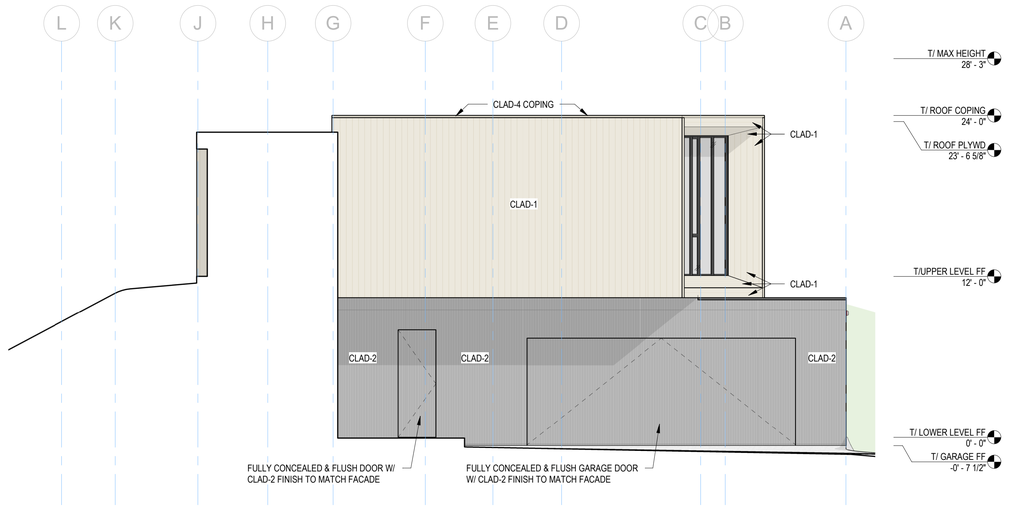
A201

ELEVATION NOTES

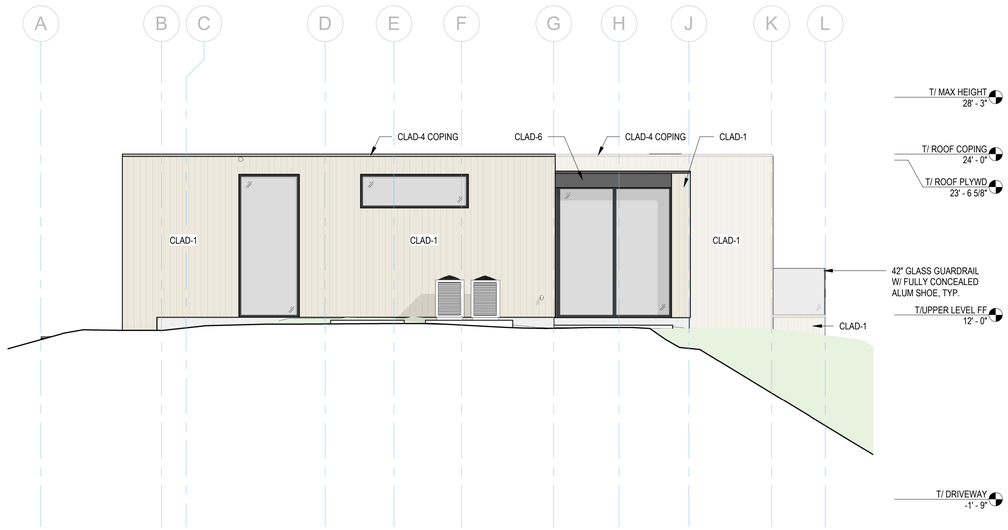
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4. SLOPE GRADE AWAY FROM HOUSE, TYPICAL.
5. GC & HVAC SUB TO COORDINATE ALL EXTERIOR WALL VENT LOCATIONS AND PRODUCT SPECS W/ ARCHITECT PRIOR TO INSTALLATION OF MASONRY.



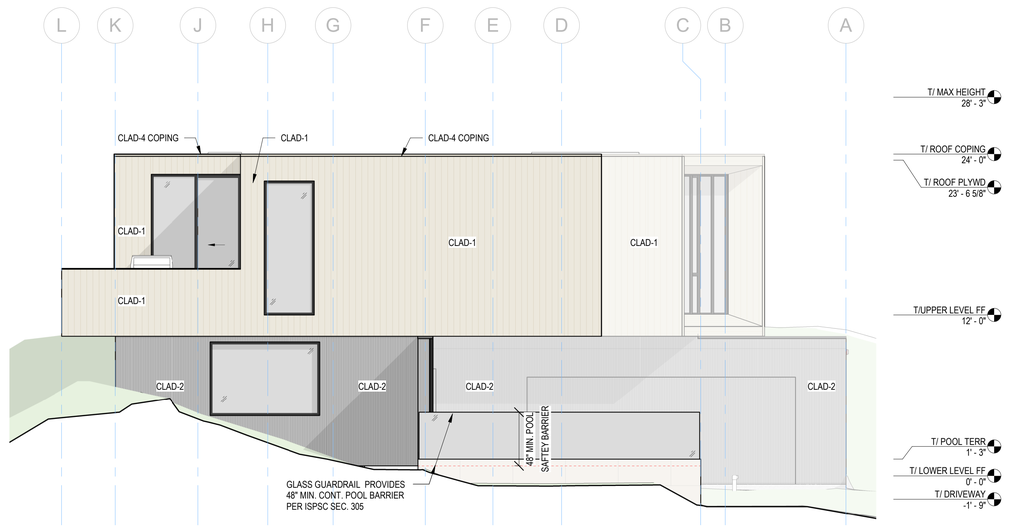
4 EXTERIOR ELEVATION - LOOKING NORTH @ POOL DECK
3/16" = 1'-0"



3 EXTERIOR ELEVATION - LOOKING SOUTH @ GARAGE
3/16" = 1'-0"



2 EXTERIOR ELEVATION - LOOKING NORTH
3/16" = 1'-0"



1 EXTERIOR ELEVATION - LOOKING SOUTH
3/16" = 1'-0"

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STATE OF ILLINOIS

07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
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PROJECT NUMBER: 0244.01
SCALE: AS NOTED

EXTERIOR ELEVATIONS

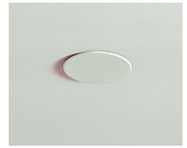
A202

WINDOW TREATMENTS

- MANUAL SOLAR SHADES
- MOTORIZED SOLAR SHADES
- MANUAL BLACKOUT SHADES
- MOTORIZED BLACKOUT SHADES
- MANUAL DRAPERY
- MOTORIZED DRAPERY

GENERAL FIRE DEPT. NOTES

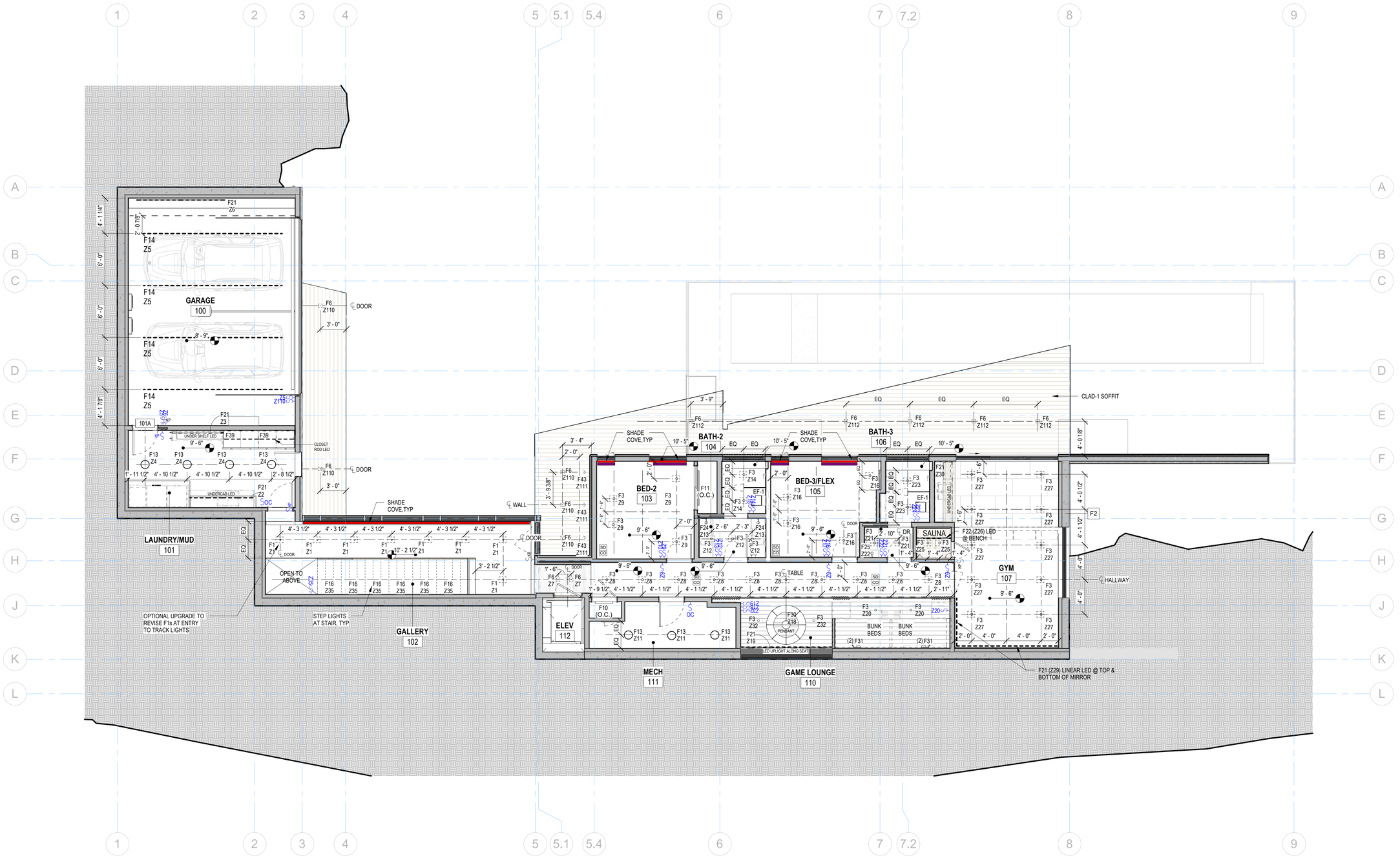
1. PROVIDE A COMPLETE TYPE NFPA 13D FIRE SPRINKLER SYSTEM FOR THE ENTIRE HOUSE.
2. PROVIDE FULLY MONITERED FIRE ALARM SYSTEM TO COMPLY WITH SAUGATUK FIRE DEPT REQUIREMENTS.
3. PROVIDE 2-1/2" FIRE DEPARTMENT CONNECTION ON THE HOUSE
5. ALL FIRESPRINKLERS TO BE CONCEALED, FLANGE - STYLE PER THE ADJACENT IMAGE
6. ALL SPRINKLER PIPES TO RUN WITHIN CEILING, NO EXPOSED PIPING AND NO ADDITIONAL SOFFITS WILL BE PERMITTED.
7. REFER TO RCPS SHEETS AND PLUMBING DRAWINGS FOR ADDITIONAL INFO



TYPICAL CONCEALED SPRINKLER HEAD

LIGHTING & RCP NOTES

1. REF A703 FOR LIGHT FIXTURE SCHEDULES.
2. PROVIDE BUDGET ALLOWANCE FOR ALL LANDSCAPE LIGHTING.
3. REF ELECTRICAL DWGS FOR ADDITIONAL ELECTRICAL INFO.
4. GC & EC TO COORDINATE LIGHT FIXTURES WITH MECHANICAL , PLUMBING & RELATED EQUIPMENT IN THE CEILING.
5. THE ELECTRICAL CONTRACTOR SHALL SPRAY PAINT FULL DOWNLIGHT FIXTURE LAYOUT ON CEILING OR FLOOR & IDENTIFY ANY CONFLICTS IN THE FIELD FOR COORDINATION & REVIEW W/ THE ARCHITECT & CLIENT ON SITE, PRIOR TO INSTALLATION.
6. NO ADDITIONAL SOFFITS WILL BE PERMITTED.
7. REFER TO ELECTRICAL SHEETS AND INTERIOR ELEVATIONS FOR RECEPTACLE LOCATIONS



1 LOWER LEVEL RCP
3/16" = 1'-0"

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001-020032
STATE OF ILLINOIS

01.13.25 1 SHADE & DRAPE SCOPE UPDATES
07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

LOWER LEVEL RCP

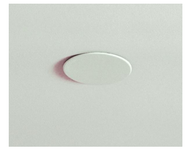
A301

WINDOW TREATMENTS

- MANUAL SOLAR SHADES
- MOTORIZED SOLAR SHADES
- MANUAL BLACKOUT SHADES
- MOTORIZED BLACKOUT SHADES
- MANUAL DRAPERY
- MOTORIZED DRAPERY

GENERAL FIRE DEPT. NOTES

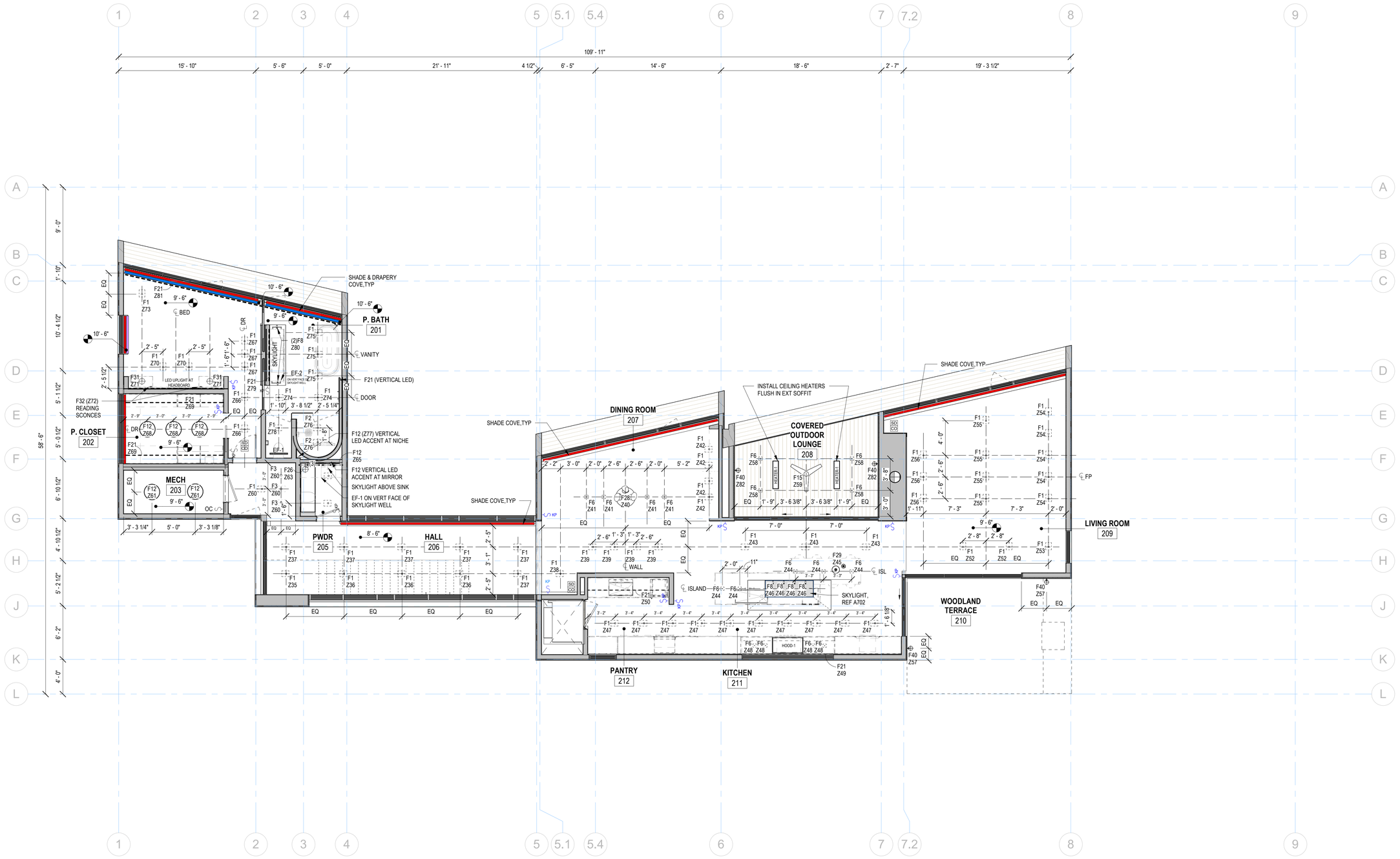
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TYPICAL CONCEALED SPRINKLER HEAD

LIGHTING & RCP NOTES

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3. REF ELECTRICAL DWGS FOR ADDITIONAL ELECTRICAL INFO.
4. GC & EC TO COORDINATE LIGHT FIXTURES WITH MECHANICAL , PLUMBING & RELATED EQUIPMENT IN THE CEILING.
5. THE ELECTRICAL CONTRACTOR SHALL SPRAY PAINT FULL DOWNLIGHT FIXTURE LAYOUT ON CEILING OR FLOOR & IDENTIFY ANY CONFLICTS IN THE FIELD FOR COORDINATION & REVIEW W/ THE ARCHITECT & CLIENT ON SITE, PRIOR TO INSTALLATION.
6. NO ADDITIONAL SOFFITS WILL BE PERMITTED.
7. REFER TO ELECTRICAL SHEETS AND INTERIOR ELEVATIONS FOR RECEPTACLE LOCATIONS



1 UPPER LEVEL RCP
3/16" = 1'-0"

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KEVIN A. TOUKOUMIDIS
001-020032
STATE OF ILLINOIS

01.13.25	1	SHADE & DRAPE SCOPE UPDATES
07.08.25		ISSUE FOR PERMIT

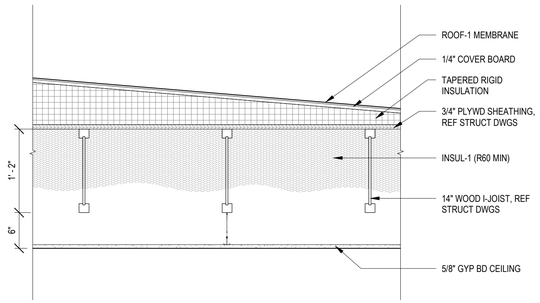
DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

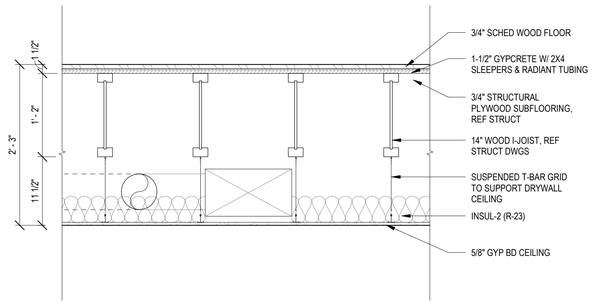
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

UPPER LEVEL RCP

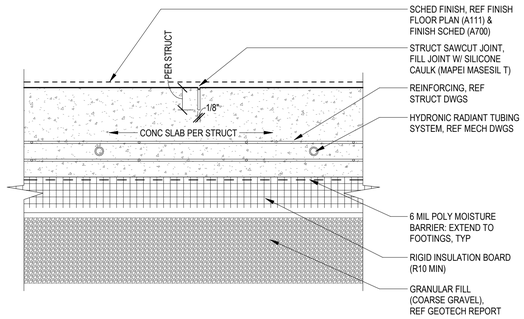
A302



R1 TYP ROOF ASSEMBLY
1" = 1'-0"



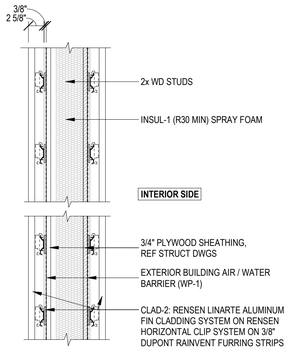
F2 TYP FLOOR ASSEMBLY
1" = 1'-0"



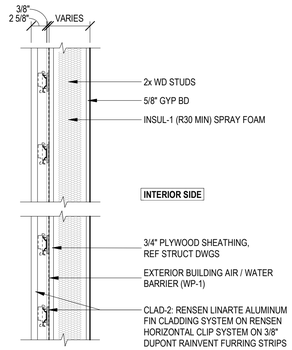
F1 TYP SLAB ON GRADE
3" = 1'-0"

WALL TYPE NOTES

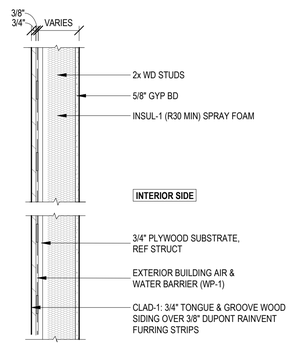
1. COORDINATE FINAL WALL FINISH W/ INTERIOR ELEVATIONS & FINISH SCHEDULE, TYP
2. ALL WALL ASSEMBLIES TO COMPLY WITH LOCAL BUILDING CODES
3. VERIFY ALL TILLE / MILLWORK ASSEMBLIES AND INSTALLATION METHODS W/ MANUFACTURER PRIOR TO INSTALLATION, COORD ANY DISCREPANCIES W/ ARCHITECT
4. AT ALL BATHROOMS AND LAUNDRY ROOMS: PROVIDE 5/8" TYPE "X" MOISTURE RESISTANT GYP BD IN LIEU OF STANDARD GYP BD ON ALL WALLS AND CEILINGS
5. AT ALL SHOWERS & WET APPLICATIONS: PROVIDE 1/2" CEMENT BOARD W/ CONTINOUS WATERPROOFINGAS SPECIFIED, REF FINISH SCHEDULE (A700)
6. AT ALL TILE LOCATIONS: PROVIDE 1/2" CEMENT BD BACKER



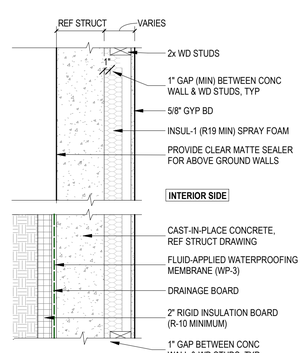
X5 DOUBLE SIDED - EXTERIOR - CLAD-2
1" = 1'-0"



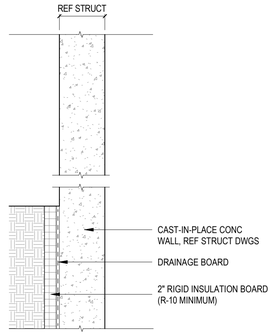
X4 EXTERIOR - CLAD-2
1" = 1'-0"



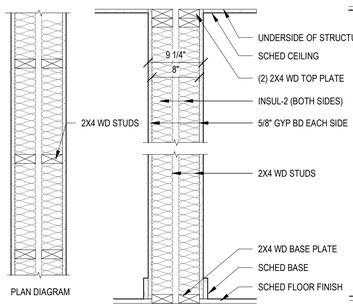
X3 EXTERIOR - CLAD-1
1" = 1'-0"



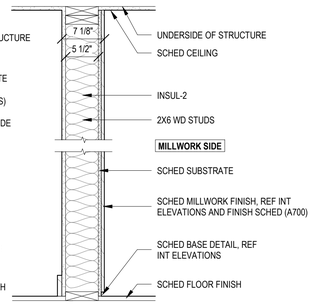
X2 EXTERIOR - CONC / FND WALL
1" = 1'-0"



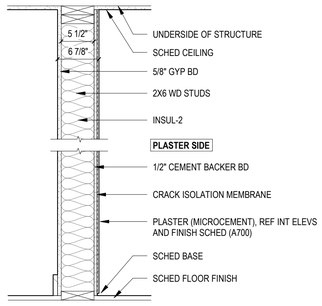
X1 EXTERIOR - CONC RET WALL
1" = 1'-0"



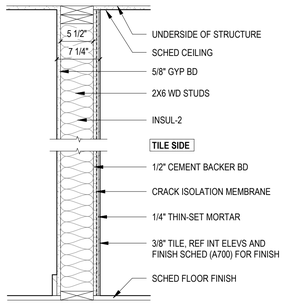
8H 2X4 INTERIOR DOUBLE STUD WALL
1" = 1'-0"



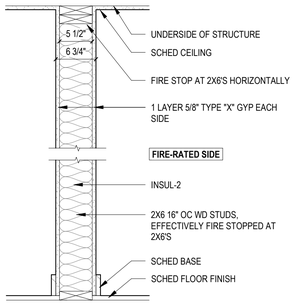
6F 2x6 INTERIOR WALL (MILLWORK)
1" = 1'-0"



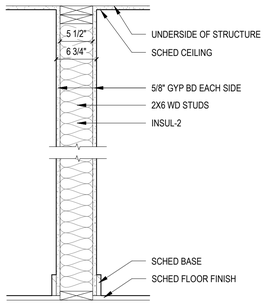
6E 2x6 INTERIOR WALL (WET WALL: PLASTER)
1" = 1'-0"



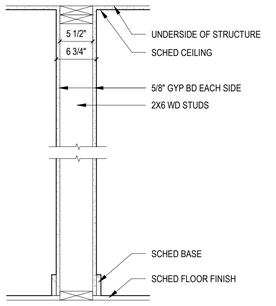
6D 2x6 INTERIOR WALL (WET WALL: TILE)
1" = 1'-0"



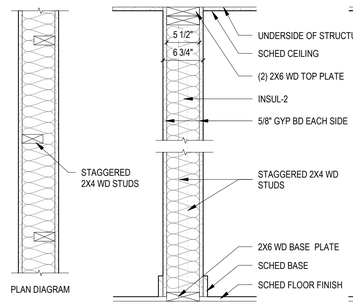
6C 2x6 INTERIOR WALL (1HR FIRE RATED)
1" = 1'-0" UL #U305



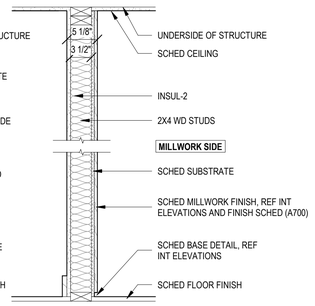
6B 2x6 INTERIOR WALL (ACOUSTIC)
1" = 1'-0"



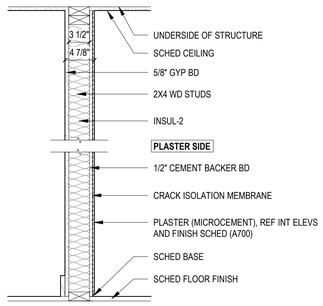
6A 2x6 INTERIOR WALL
1" = 1'-0"



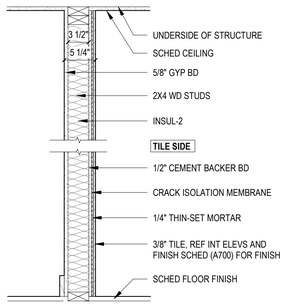
4H 2X4 INTERIOR STAGGERED STUD
1" = 1'-0"



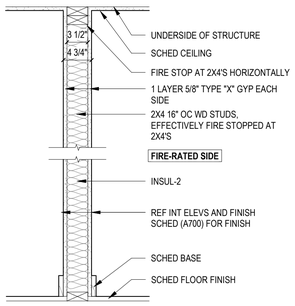
4F 2x4 INTERIOR WALL (MILLWORK)
1" = 1'-0"



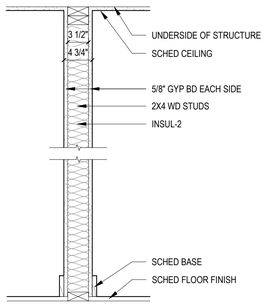
4E 2x4 INTERIOR WALL (WET WALL: TILE)
1" = 1'-0"



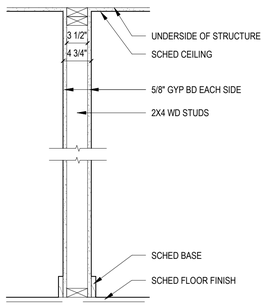
4D 2x4 INTERIOR WALL (WET WALL: TILE)
1" = 1'-0"



4C 2x4 INTERIOR WALL (1HR FIRE RATED)
1" = 1'-0" UL #U305



4B 2x4 INTERIOR WALL (ACOUSTIC)
1" = 1'-0"



4A 2x4 INTERIOR WALL
1" = 1'-0"

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001-020032
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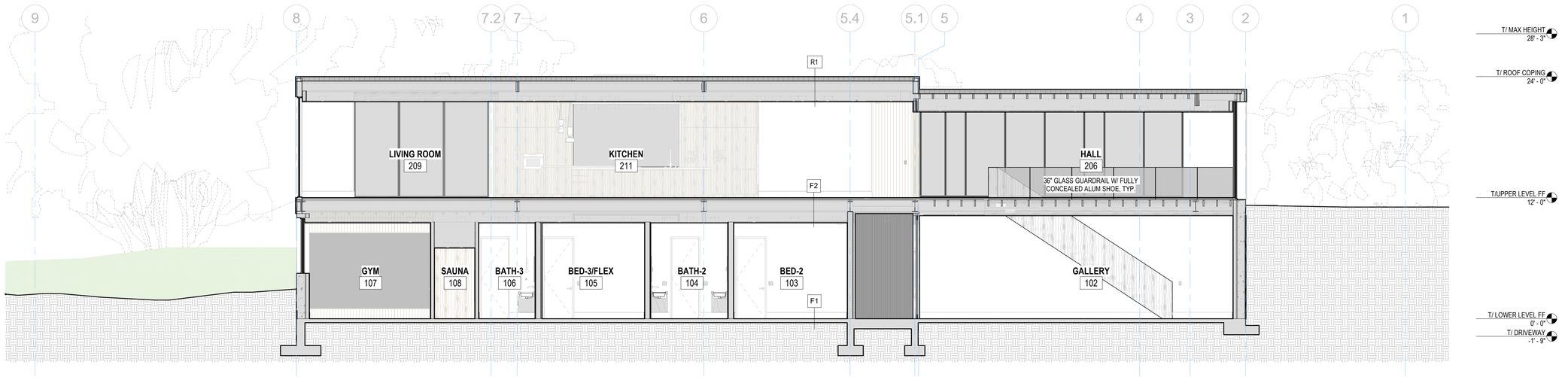
DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

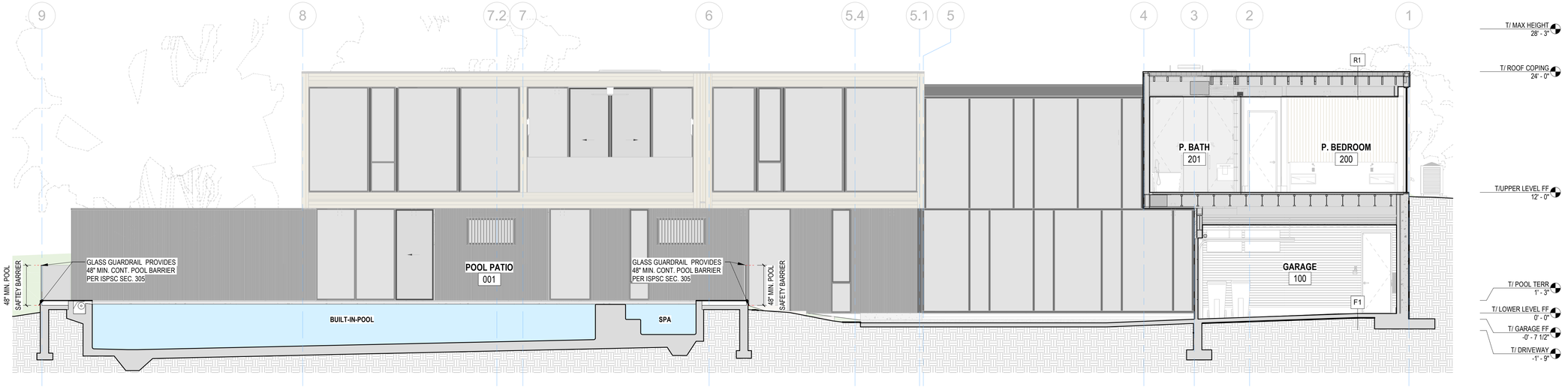
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

ASSEMBLIES

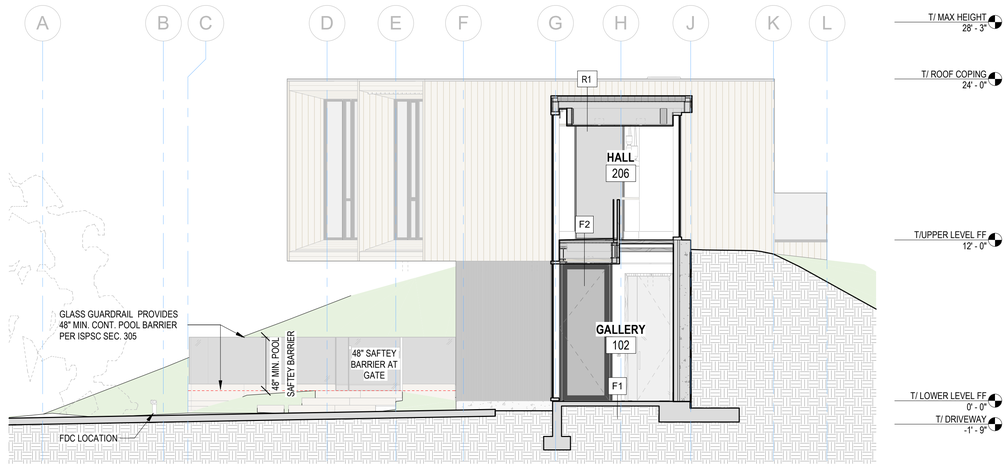
A500



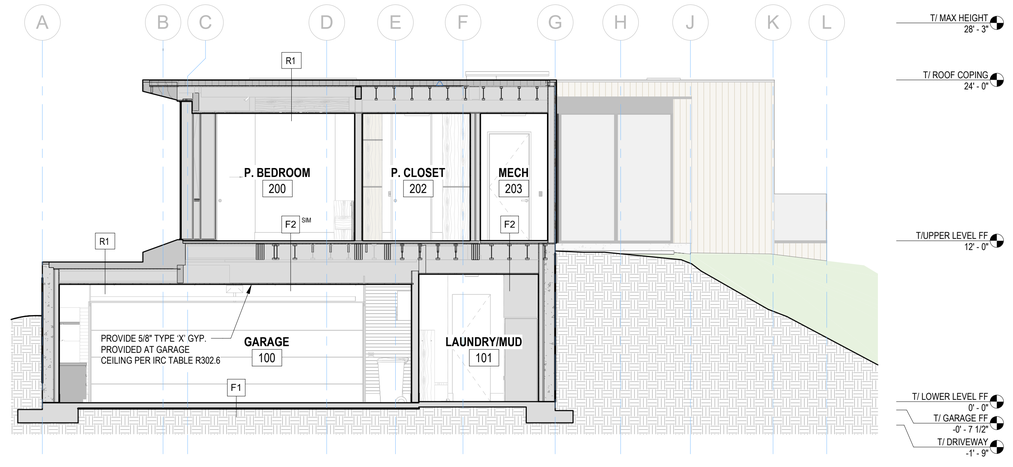
4 N/S BUILDING SECTION THROUGH KITCHEN
3/16" = 1'-0"



3 N/S BUILDING SECTION THROUGH POOL
3/16" = 1'-0"



2 E/W BUILDING SECTION THROUGH ENTRY
3/16" = 1'-0"



1 E/W BUILDING SECTION THROUGH GARAGE
3/16" = 1'-0"

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LICENSED ARCHITECT
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001-020032
STATE OF ILLINOIS

07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

BUILDING SECTIONS

A501

MECHANICAL NOTES:

1. TYPICAL SUPPLY / RETURN / EXHAUST VENTS OUTLINED BELOW. GC & HVAC CONTRACTOR TO PROVIDE PRODUCT SHEET & SAMPLES OF ALL GRILLE PRODUCTS, FINISHES AND REQUIRED ACCESSORIES FOR REVIEW & APPROVAL PRIOR TO PURCHASE.
2. SEE FINISH FLOOR PLANS, RCPS, INTERIOR ELEVATIONS & MECH DRAWINGS FOR GRILLE LOCATIONS, ALIGNMENTS, SIZES & CFM NOTES.
3. PROVIDE GRILLES AND TRIMS W/ CONCEALED FASTENERS U.N.O.
4. PROVIDE 'SMART' WIFI THERMOSTATS FULLY COMPATIBLE W/ HVAC EQUIPMENT, SEE INTERIOR ELEVATIONS & COORD W/ MECH DRAWINGS
5. PROVIDE NEST "PROTECT" CARBON MONOXIDE DETECTOR AND SMOKE ALARM, SEE RCPS & A703



CARRIER: ECOBEE SMART THERMOSTAT



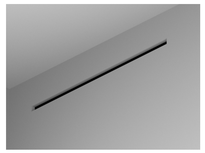
SA-1 / RA-1
TYPICAL SUPPLY @ WOOD FLOORS:
-**FLUSH WOOD FLOOR GRILLE**, FINISH TO MATCH FLOOR



SA-2 / RA-2
MUD-IN J-BEAD SUPPLY / RETURN AIR LINEAR BAR GRILLE:
ADVANCED ARCHITECTURAL GRILLES.
-SEE RCPS & INTERIOR ELEVATIONS FOR LOCATION AND ALIGNMENTS.
-SEE MECHANICAL DRAWINGS FOR SIZES & CFM REQUIREMENTS.
-CONFIRM FINISH & SPECS W/ ARCH PRIOR TO ORDERING



SA-3 / RA-3
TYPICAL SUPPLY / RETURN GRILLES IN DRYWALL CEILING & WALLS:
HART & COOLEY LF SERIES:
-FULLY CONCEALED FASTENERS
-SEE RCPS & INTERIOR ELEVATIONS FOR LOCATION AND ALIGNMENTS.
-SEE MECHANICAL DRAWINGS FOR SIZES & CFM REQUIREMENTS.
-CONFIRM FINISH & SPECS W/ ARCH PRIOR TO ORDERING



SA-4 / RA-4 / EF-1
TYPICAL MUD-IN 1" LINEAR SLOT DIFFUSER SUPPLY / RETURN AIR

INVIAIR
-SEE RCPS & INTERIOR ELEVATIONS FOR LOCATION AND ALIGNMENTS.
-SEE MECHANICAL DRAWINGS FOR SIZES & CFM REQUIREMENTS.
-CONFIRM FINISH & SPECS W/ ARCH PRIOR TO ORDERING



SA-5 / RA-5
TYPICAL FLUSH / TRIMLESS SUPPLY @ TILE FLOOR:

ADVANCED ARCHITECTURAL GRILLES - SATIN #4 (BRUSHED) ALUM AG100 A FRAME - LINEAR BAR SUPPLY GRILLE WITH "A FRAME" W/ CONCEALED MOUNTING HOLES. TOP OF FRAME TO BE FLUSH WITH FINISH FLOOR TILE.
-CONFIRM SPECS W/ ARCH PRIOR TO ORDERING



DISTRIBUTION PLENUM FOR LINEAR SUPPLY AIR GRILLES
HART & COOLEY DP SERIES
SILVER ANNODIZED, REF FINISH FLOOR
PLANS/SCHEDULES FOR SIZES AND ENLARGED DETAIL
CONFIRM SPECS W/ ARCH PRIOR TO ORDERING

FINISH SCHEDULE

TAG	DESCRIPTION	CONTACT	MANUFACTURER	MODEL NO / STLYE / COLOR	INSTALL	REMARKS
TILE						
TILE-1	FLOOR TILE	MATTEO CALISESI / 931.401.6764	FLORIM	SENSITERRE - 24" X 48" X 20MM THICK TILE, COLOR: COTONE GRANA, FINISH: GRIP - R11 PTV. INSTALL PER MFR RECOMMENDATIONS	CFCI	LOCATION: LOWER LEVEL KITCHENETTE & GYM, POOL PAVERS, & UPPER LEVEL EXTERIOR TERRACES
TILE-2	FLOOR TILE (HERRINGBONE PATTERN)	MATTEO CALISESI / 931.401.6764	FLORIM	SENSITERRE - (SIZING TBD), COLOR: MATTONE GRANA, FINISH: GRIP - R11 PTV. INSTALL PER MFR RECOMMENDATIONS	CFCI	LOCATION: GALLERY, MUDROOM, & LAUNDRY FLOORS
TILE-3	FLOOR TILE	NIKKI GRIECO / 312.506.2880	ELM SURFACES	SENSAZIONE - 24" X 48" X (THICKNESS TBD) TILE, COLOR: WHITE LITHOS, FINISH: NATURAL. INSTALL PER MFR RECOMMENDATIONS	CFCI	LOCATION: LOWER LEVEL BATHROOM FLOORS
TILE-4	LAUNDRY TILE (DECORATIVE)	NIKKI GRIECO / 312.506.2880	FLORIM	SENSITERRE - 24" X 48" X 9MM THICK TILE, COLOR: SABBIA CANNETTATO, FINISH: CANNETTATO - R10. INSTALL PER MFR RECOMMENDATIONS	CFCI	LOCATION: LAUNDRY ROOM BACKSPLASH
TILE-5	BATHROOM WALL TILE	NIKKI GRIECO / 312.506.2880	ELM SURFACES	CASALE - 12" X 18" X 9MM TILE. COLOR: BRUSH BIANCO, FINISH: MATTE. INSTALL PER MFR RECOMMENDATIONS. COORD PATTERN W/ ARCHITECT	CFCI	LOCATION: BATH 02-03 WALLS. GC AND INSTALLER TO COORD EMBOSSED EDGE CONDITION & DETAILED LAYOUT W/ ARCHITECT PRIOR TO INSTALL
TILE-6	BATHROOM WALL TILE	NIKKI GRIECO / 312.506.2880	ELM SURFACES	CASALE - 12" X 18" X 9MM TILE. COLOR: LINES BIANCO, FINISH: MATTE. INSTALL PER MFR RECOMMENDATIONS. COORD PATTERN W/ ARCHITECT	CFCI	LOCATION: BATH 02-03 WALLS.GC AND INSTALLER TO COORD EMBOSSED EDGE CONDITION & DETAILED LAYOUT W/ ARCHITECT PRIOR TO INSTALL
TILE-7	KITCHENETTE TILE (DECORATIVE)	TBD	ANN SACKS	MODERN - 3" X 9" X 0.649" THICK TILE, COLOR: COTTON, FINISH: MATTE. INSTALL PER MFR RECOMMENDATIONS	CFCI	LOCATION: KITCHENETTE BACKSPLASH
TILE-8	FLOOR TILE (CHEVRON PATTERN)	IRIS ROBINSON / 312.909.6215	STONE SOURCE	MUTINA MEWS - 2" X 16" X 9MM THICK TILE, COLOR: FOG, FINISH: MATTE. INSTALL PER MFR RECOMMENDATIONS. COORD PATTERN W/ ARCHITECT	CFCI	LOCATION: PRIMARY BATHROOM FLOOR
TILE-9	WALL TILE (STACKED PATTERN)	IRIS ROBINSON / 312.909.6215	STONE SOURCE	MUTINA MEWS - 2" X 16" X 9MM THICK TILE, COLOR: FOG, FINISH: MATTE. INSTALL PER MFR RECOMMENDATIONS. COORD PATTERN W/ ARCHITECT		LOCATION: PRIMARY BATHROOM VANITY BACKSPLASH
SURFACES						
SURF-1	PORCELAIN SLAB (MARBLE-LOOK)	CAMILLE WESTMOLAND / 773.339.1277	ICG ITALIA GALLERY	SAPIENSTONE 12MM – LARGE FORMAT 63CM X126CM, 12MM THICK, COLOR: CALACATTA MACCHIA VECCHIA, FINISH: SILKY. INSTALL PER MFR RECOMMENDATIONS.	CFCI	LOCATION: KITCHEN COUNTERS, ISLAND & BACKSPLASH, PANTRY COUNTER & BACKSPLASH
SURF-2	PORCELAIN SLAB	MATTEO CALISESI / 931.401.6764	FLORIM	COLOR - LARGE FORMAT 63" X 126", 12MM THICK, COLOR: COLOR WHITE, FINISH: LEATHER, EDGE: NATURAL. INSTALL PER MFR RECOMMENDATIONS	CFCI	LOCATION: LAUNDRY ROOM COUNTERTOP
SURF-3	(NOT USED)					
SURF-4	PORCELAIN SLAB	MATTEO CALISESI / 931.401.6764	FLORIM	SENSITERRE - LARGE FORMAT 45" X 95", 6MM THICK, COLOR: COLOR COTONE GRANA, FINISH: NATURALE - R10, INSTALL PER MFR RECOMMENDATIONS	CFCI	LOCATION: KITCHENETTE COUNTERTOP
SURF-5	PORCELAIN SLAB (MARBLE-LOOK)	CAMILLE WESTMOLAND / 773.339.1277	ICG ITALIA GALLERY	MARMI MAXIMUN - LARGE FORMAT 60" X 120", 0,60CM THICKNESS, COLOR: BRECCIA MIRABILE, FINISH: NATURAL HONED. INSTALL PER MFR RECOMMENDATIONS	CFCI	LOCATION: PRIMARY BATH VANITY
SURF-6	MARBLE	TBD	TERRAZZO & MARBLE	CALACATTA VINTAGE - 57" X 115", 2CM THICK, FINISH: POLISHED		LOCATION: POWDER ROOM
METAL						
MTL-1	BLACKENED STEEL - AT FIREPLACE			NATURAL MILLED FINISH STEEL W/ NON-FLAMMABLE LOW-SHEEN CLEAR COAT FINISH	CFCI	LOCATION: FIREPLACE AND LOCATIONS NOTED ON DRAWINGS. USE ONLY CLEAN SHEET/PLATE (NO BAR STOCK UNLESS NOTED OTHERWISE) NO VISIBLE WELDS, SCORING OR FASTENERS. PROVIDE ARCHITECT WITH WELDED/FINISHED SAMPLE FOR APPROVAL PRIOR TO PROCUREMENT.
MTL-2	WEATHERED STEEL			ARCHITECTURAL GRADE, PRE-WEATHERED COR-TEN STEEL PLATE TO MATCH ARCHITECT'S SAMPLE, MIN 3/8" THICKNESS	CFCI	LOCATION: EXTERIOR PLANTERS
FLOORING						
CONC-1	CONCRETE FLOOR (GARAGE & MECH) W/ EPOXY COATING			STANDARD CONCRETE W/ EPOXY FINISH, GC TO PROVIDE UP TO 4 SAMPLES FOR APPROVAL 1/8" SAWCUT JOINTS TYPICAL, COORD JOINT LAYOUT WITH ARCHITECT.	CFCI	1/8" SAWCUTS JOINTS TYPICAL; COORDINATE JOINT LOCATIONS WITH ARCHITECT PRIOR TO EXECUTION.
RB-1	RUBBER FLOORING (GYM)		NORTHWEST RUBBER	39.5" X 39.5" X 18MM THICK NWR SPORTFLOOR "REACTIO" SLIP-RESISTANT RUBBER FLOOR COLOR: 675 PUTTY - COORD W/ ARCH FOR FINAL SELECTION	CFCI	GC TO COORDINATE TILE/JOINT LAYOUT W/ ARCHITECT PRIOR TO PROCUREMENT.
WF-1	ENGINEERED WOOD FLOORING	ALEXANDRA ANDERSON / 312.810.1406	CARLISLE WIDE PLANK FLOORS	ESSENTIALS - 3/4" THICK x 9" WIDE PLANK ENGINEERED FLOOR. FLATSAWN WHITE OAK, BRUSHED SURFACE, HEIRLOOM GRADE, ENGINEERED, ENDMATCHED, MICROBEVELED EDGES, *(3 FT - 12 FT LENGTHS) FINISH: PEARL. INSTALL PER MFR RECOMMENDATIONS.	CFCI	PROVIDE FINISH SAMPLE FOR ARCHITECT REVIEW & APPROVAL. LOCATE FLOORING TO ELIMINATE SMALL NARROW STRIPS OF FLOORING. GC TO PROVDIE WOOD FLOOR VENTS TO MATCH ADJACENT FLOORING.
WF-2	WOOD STAIR TREADS	ALEXANDRA ANDERSON / 312.810.1406	CARLISLE WIDE PLANK FLOORS	ESSENTIALS BOX TREADS, FINISHED TO MATCH WF-1. ROUTE BOTTOM OF TREAD FOR STEEL STRINGER SUPPORT	CFCI	PROVIDE FINISH SAMPLE FOR ARCHITECT REIVEW & APPROVAL.
BASE						
BASE-1	APPLIED WOOD BASE			1/2" THICK WOOD (POPLAR), W/ 3-COAT PRIMER. FINISH: PAINTED. REF A600	CFCI	PROFILE: NO BEVEL OR CHAMFER EDGE; PAINT FINISH: COLOR TO MATCH WALL, UNO.
BASE-2	FLUSH WOOD BASE			1/2" THICK WOOD (POPLAR), 7.5" TALL W/ 3/8" REVEAL. 3-COAT PRIMER. FINISH: PAINTED. REF A600	CFCI	PROFILE: NO BEVEL OR CHAMFER EDGE; PAINT FINISH: COLOR TO MATCH WALL, UNO.
PAINT						
PNT-1	LATEX PAINT		BENJAMIN MOORE	CEILINGS: REGAL, FLAT FINISH, WALLS: REGAL, EGGSHELL FINISH, TRIM: REGAL, SATIN FINISH	CFCI	COLOR TO MATCH APPROVED SAMPLE
PNT-2	LATEX PAINT (BATHROOMS)		BENJAMIN MOORE	BATHROOM CEILINGS: AURA BATH & SPA WATERBORNE, FLAT FINISH, BATHROOM WALLS & TRIM: AURA BATH & SPA WATERBORNE, SATIN FINISH	CFCI	COLOR TO MATCH APPROVED SAMPLE
PLASTER						
CEM-1	MICROCEMENT PLASTER (INDOORS WET LOCATIONS)		SAN MARCO	MICROCEMENT FINISH - SAN MARCO CONTINUO. TO MATCH ARCHITECTS SAMPLE. FINAL COLOR TO BE CONFIRMED BY ARCHITECT AND OWNER	CFCI	PROVIDE (4) 2 FOOT SQUARE MOCK-UPS FOR ARCHITECT AND OWNER REVIEW PRIOR TO PROCUREMENT
PLSTR-1	DECORATIVE PLASTER FINISH (INDOORS)		SAN MARCO	SMOOTH PLASTER FINISH - SAN MARCO MARMORINO CLASSICO, MATTE FINISH TO MATCH ARCHITECTS SAMPLE, FINAL COLOR TO BE CONFIRMED BY ARCHITECT AND OWNER	CFCI	PROVIDE (4) 2 FOOT SQUARE MOCK-UPS FOR ARCHITECT AND OWNER REVIEW PRIOR TO PROCUREMENT
MILLWORK						
WD-1	OAK VENEER CABINETRY	TBD	TBD	PLAIN SAWN WHITE OAK VENEER MILLWORK TO MATCH ARCHITECT'S SAMPLE VERTICAL GRAIN ORIENTATION AND MATTE FINISH (MATCH WF-1)	CFCI	LOCATION: KITCHEN, PANTRY. PROVIDE SAMPLE AND MOCK-UP FOR OWNER AND ARCHITECT APPROVAL.
WD-2	WHITE LACQUER CABINETRY	TBD	TBD	MATTE LACQUER, WALL HUNG, W/ INTEGRATED HANDLES, COLOR TO MATCH SELECTED PAINT FINISH (FINAL COLOR SELECTION PENDING OWNER APPROVAL)	CFCI	LOCATION: LAUNDRY/MUDROOM. PROVIDE SAMPLE AND MOCK-UP FOR OWNER AND ARCHITECT APPROVAL.
WD-3	WOOD MILLWORK PANEL (TV & FIREPLACE)	TBD	TBD	TBD	CFCI	LOCATION: LIVING ROOM / TV & FIREPLACE. PROVIDE SAMPLE AND MOCK-UP FOR OWNER AND ARCHITECT APPROVAL.
CEILING						
CLG-1	PAINTED GYPSUM BOARD			LEVEL 5 FINISH, 5/8" THICK TYPE 'X' GYPSUM BOARD – INSTALL ON SUSPENDED T-BAR GRID AT LOWER LEVEL & ON RC-1 CHANNEL TO FRAMING AT UPPER LEVEL (SHIM AS REQ'D)	CFCI	LOCATION: THROUGHOUT
GLASS						
GL-1	SHOWER GLASS (CLEAR)			1/2" THICK TEMPERED & LAMINATED LOW-IRON GLASS	CFCI	POLISHED EDGES
GL-2	SHOWER GLASS (FROSTED)			1/2" THICK TEMPERED & LAMINATED LOW-IRON GLASS, FROSTED INNER LAYER (FOR PRIVACY)	CFCI	POLISHED EDGES
GL-3	MIRROR			1/4" CLEAR MIRROR GLASS - FULLY ADHERED TO CONCEAL PLYWOOD SUBSTRATE	CFCI	POLISHED EDGES
GL-4	GLASS GUARDRAIL			1/2" CLEAR, TEMPERED LAMINATED SAFETY GLASS W/ POLISHED EDGES	CFCI	GLASS SUPPORTED BY CRL DRY-GLAZED TAPER-LOCK SYSTEM WITH FULLY CONCEALED SHOE / U-CHANNEL
EXTERIOR						
CLAD-1	STAINED & TREATED WOOD SIDING	BRANDON WHITEHEAD / 512.385.1812	DELTA MILLWORKS	ACCOYA 5.5" (VISIBLE) BARNWOOD TONGUE & GROOVE PLANK, FINISH: LIGHT IVORY. INSTALL OVER FURRING STRIPS TO CREATE RAINSCREEN SYSTEM WITH DRAINAGE PLANE BEHIND. SEE DRAWINGS FOR JOINT LAYOUT AND ALIGNMENTS	CFCI	GC TO COORD ALL REQUIRED TRIM AND ACCESSORIES. PROVIDE MOCK-UP FOR REVIEW AND APPROVAL, INTERGRAL COLOR TO BE SELECTECTED BY ARCHITECT. PROVIDE LAYOUT OF ALL CONTROL JOINTS FOR REVIEW AND APPROVAL.
CLAD-2	METAL FIN CLADDING	JURGEN SKODA / 310.746.6069	RENSON LINARTE	RENSON LINARTE - EVEN 30 METAL PROFILE RAINSCREEN SYSTEM: 1.5" X 1.5" METAL FIN (VERTICAL ORIENTATION, FINISH: POWDER COATED RAL TEXTURED (COLOR TBD). INSTALL ON ANNODIZED ALUMINUM BLADE SUPPORT SYSTEM, PER MFR RECOMMENDATIONS	CFCI	VERTICAL ORIENTATION PER ELEVATIONS, INCLUDE CONCEALED FASTENERS. PROVIDE MOCK-UP FOR APPROVAL.
CLAD-4	METAL COPING / TRIM			PREFINISHED HIGH-PERFORMANCE KYNAR PAINTED STEEL. 18 GAUGE OR THICKER, TO AVOID OIL-CANNING. GC TO PROVIDE SAMPLE FOR APPROVAL. MATTE FINISH TO MATCH CLAD-1	CFCI	PROVIDE LAYOUT OF JOINT LOCATIONS FOR ARCHITECTS APPROVAL PRIOR TO INSTALLATION. MAXIMIZE PANEL LENGTHS. FASTENERS TO BE INSTALLED FLUSH AND IN UNIFORM PATTERNS, TYP.
CLAD-6	PAINTED COMPOSITE FASCIA BOARD		BORAL	BORAL TRUEXTERIOR TRIM,GC TO COORD SIZE AND THICKNESS PER DRAWINGS	CFCI	ATTACHMENT PER MFR SPECS. SAND AND PAINT TO CONCEAL ALL VISIBLE JOINTS, SEAMS, AND FASTENERS
CONC-2	EXT CONCRETE PAVING			SMOOTH TROWELED ARCHITECTURAL-GRADE FINISH CONCRETE, W/ LIGHT BROOM FINISH. GC TO PROVIDE UP TO 4 CONCRETE SAMPLES FOR APPROVAL	CFCI	1/8" SAWCUTS JOINTS TYPICAL; LOCATE JOINTS & BROOM FINISH ORIENTATION IN FIELD WITH ARCHITECT
CONC-3	EXT CONCRETE WALLS (STANDARD)			ARCHITECTURAL GRADE CAST-IN-PLACE CONCRETE; PROVIDE A SMOOTH, UNIFORM TEXTURE & FINISH. PROVIDE CLEAR PENETRATING SEALANT (MATTE FINISH). PROVIDE UP TO 4 SAMPLES FOR APPROVAL.	CFCI	PROVIDE ARCHITECTURAL GRADE FORMWORK TO ACHIEVE JOINT LAYOUT PER ARCHITECTS APPROVAL PRIOR TO INSTALLATION.
PAV-1	PORCELAIN PAVERS (OUTDOOR TERRACES)	NIKKI GRIECO / 312.506.2880	ELM SURFACES	ARIOSTEA CM2 OUTDOOR - 48" X 24" X 20MM THICK PAVERS, COLOR: ASTRA ICE, FINISH: ANTI-SLIP. INSTALL ON PEDESTAL SYSTEM PER MFR RECOMMENDATIONS	CFCI	LOCATION: POOL TERRACE, UPPER LEVEL TERRACES
THERMAL / MOISTURE						
GR-1	GREEN ROOF TRAY SYSTEM	MIKE SELLECK / 616.935.1981	LIVE ROOF	LIVEROOF 'STANDARD' GREEN ROOF MODULAR TRAY SYSTEM W/ 4" THCIK SOIL DEPTH. PROVIDE SLIP SHEET, DRAIN COVER, EDGE TRIM & ALL OTHER REQUIRED ACCESSORIES. PLANT MEDIA SELECTION TO BE CONFIRMED W/ OWNER & ARCHITECT PRIOR TO PROCUREMENT.	CFCI	INSTALL PER MANUFACTURERS RECOMMENDATIONS. PROVIDE ALL REQUIRED ACCESSORIES FOR A COMPLETE SYSTEM. PROVIDE PLANT MEDIA SAMPL FOR REVIEW PRIOR TO PURCHASE.
INSUL-1	SPRAY FOAM INSULATION (WALL & ROOF)		BASF	3.5" (R-23) / 5.5" (R-36) / 10" (R-60) BASF SPRAYTITE 158 CLOSED-CELL SPRAY FOAM.	CFCI	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
INSUL-2	MINERAL WOOL BATT INSULATION		ROCKWOOL	3.5" (R-15) / 5.5" (R23) COMFORTBATT SEMI-RIGID STONE-WOOL BATT INSULATION	CFCI	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
INSUL-3	(NOT USED)		BASF		CFCI	INSTALLATION W/ PNEUMATIC EQUIPMENT AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS
INSUL-4	RIGID FOAM INSULATION (ROOF)		OWENS CORNING	FORMULAR 250 (OR EQUAL) RIGID EXTRUDED POLYSTYRENE (XPS) FOAM INSULATION (R-5 / INCH)	CFCI	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
ROOF-1	ROOF MEMBRANE (SINGLE-PLY)		FIRESTONE	FIRESTONE 60 MIL UILTRAPLY THERMOPLASTIC POLYOLEFIN (TPO) MEMBRANE, FULLY ADHERED, OVER 1/4" GLASS-FIEBER FACED GYPSUM COVER BOARD (DENSDECK OR EQUAL). WHITE FINISH W/ 25 YR WARRANTY	CFCI	INSTALL PER MANUFACTURER'S RECOMMENDATIONS, PROVIDE ALL ACCESSORIES AND COMPONENTS FOR A COMPLETE, WEATHER-TIGHT SYSTEM.
WP-1	HOUSE WRAP / WEATHER BARRIER		VAPROSHIELD	REVEALSHIELD SA, SELF-ADHERED AIR AND WATER BARRIER, UV STABLE, BLACK FINISH. USE COORESPONDING VAPROSHIELD FLUID-APPLIED FLASHING COMPONENTS AT WINDOWS AND PENETRATION PER MFR RECOMMENDATION FOR A COMPLETE SYSTEM.	CFCI	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
WP-2	LIQUID-APPLIED FLASHING		VAPROSHIELD	VAPRO LIQUI-FLASH FLUID-APPLIED FLASHING SYSTEM FOR WINDOWS, WALL OPENINGS AND PENETRATIONS	CFCI	INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL ACCESSORIES AND COMPONENTS FOR A COMPLETE, WEATHER-TIGHT SYSTEM.
WP-3	FOUNDATION WATERPROOFING		DECO PRODUCTS	DECO 20 SEAL FLUID-APPLIED WATERPROOFING MEMBRANE, GRAY FINISH	CFCI	INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE TOP OF WATERPROOFING TERMINATION W/ ARCH PRIOR TO INSTALLATION.

EQUIPMENT SCHEDULE

TAG	ROOM	FIXTURE	MANUFACTURER	MODEL / STYLE NO	FINISH / COLOR	INSTALL	REMARKS
FP-1	LIVING RM	GAS FIREPLACE	ORTAL	200H SERIES GAS FIREPLACE			CFCI
REF-1	KITCHEN	30" BUILT-IN REFRIDGERATOR	SUB-ZERO WOLF	DEC3050R	PANEL READY	RIGHT HINGE	CFCI
FRZ-1	KITCHEN	30" BUILT-IN FREEZER	SUB-ZERO WOLF	DEC3050FI	PANEL READY	LEFT HINGE	CFCI
CT-1	KITCHEN	36" GAS COOKTOP - 5 BURNERS	SUB-ZERO WOLF	CG365C/S			CFCI
HOOD-1	KITCHEN	36" CEILING MOUNTED HOOD	SUB-ZERO WOLF	VC36S			CFCI
OVEN-2	KITCHEN	24" STEAM OVEN	SUB-ZERO WOLF	CSO2450TE/S/T			CFCI
DW-1	KITCHEN	24" DISHWASHER	MIELE	G 7166 SCVi XXL	PANEL READY		CFCI
MW-1	KITCHEN	24" MICROWAVE DRAWER	SUB-ZERO WOLF	MD24TE/S			CFCI
REF/FRZ	PANTRY	48" FRENCH DOOR REFRIDGERATOR/FREEZER	SUB-ZERO WOLF	CL4850UFD/O	PANEL READY		CFCI
OVEN-1	PANTRY	30" BUILT-IN DOUBLE OVEN	SUB-ZERO WOLF	DO3050PM/S/P			CFCI
DW-2	PANTRY	24" DISHWASHER	MIELE	G 7166 SCVi XXL	PANEL READY		CFCI
WINE-1	PANTRY	24" UNDERCAB WINE	SUB-ZERO WOLF	DEU2450W/ADA	PANEL READY		CFCI
WASHER/DRYER-1	LAUNDRY/MUD	5.0 CU FT FRONT LOAD WASHER & 7.4 CU FT ELECTRIC DRYER COMBO TOWER	LG SIGNATURE	WKEX300HBA	BLACK STEEL	STACKED	CFCI - QTY (2)
HEATER-1	COVERED LOUNGE	OUTDOOR HEATER	INFRATEC	CD4024SS: 39" Dual Element 4000W - 240V S/S Heater WITH W-39 FLUSH MOUNT FRAME			CFCI - QTY (2)
BEV-1	HANG OUT	24" BEVERAGE CENTER	SUB-ZERO WOLF	DEU2450BG/ADA			CFCI
EF-1	SEE PLANS	EXHAUST FAN	PANASONIC/FITTES	WHISPERFIT FV-11VF2 LOW PROFILE CEILING FAN; 110 CFM; FITTES MUD-IN TRIM			CFCI
EF-2	SEE PLANS	LINEAR EXHAUST FAN	INVIAIR	INVIAIR MUD-IN 1" LINEAR SLOT DIFFUSER, PAINT INSIDE FACE BLACK. COORD REQ'D ACCESS PANEL LOCATIONS W/ ARCHITECT PRIOR TO INSTALL			CFCI

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LICENSED ARCHITECT
KEVIN A. TOUKOUMIDIS
001-020032
STATE OF ILLINOIS

07.08.25 ISSUE FOR PERMIT

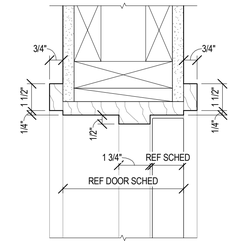
DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

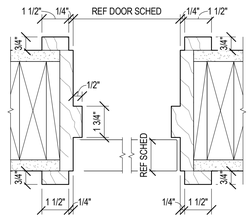
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

FINISH & EQUIPMENT SCHEDULE

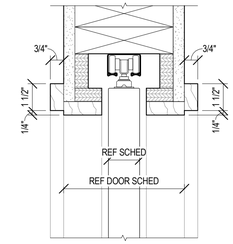
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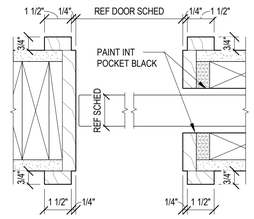
T1 SWING DOOR HEAD
3" = 1'-0"



T1 SWING DOOR JAMB
3" = 1'-0"



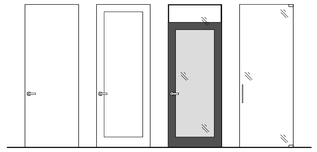
T1 POCKET DOOR HEAD
3" = 1'-0"



T1 POCKET DOOR JAMB
3" = 1'-0"

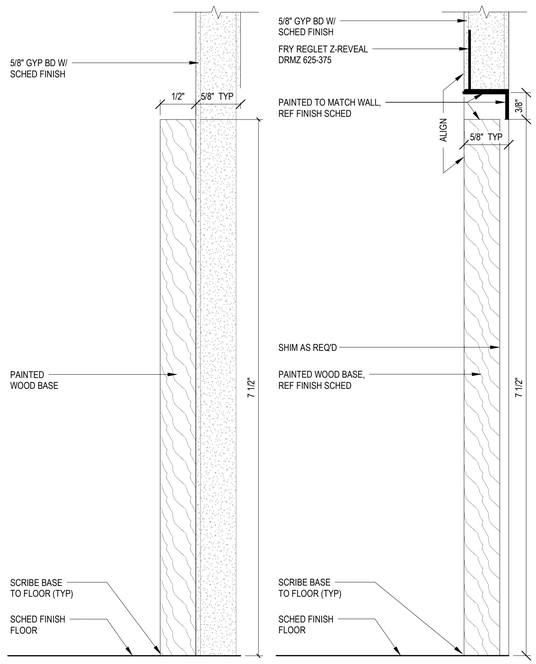
INTERIOR DOOR SCHEDULE

TAG	DOOR TYPE			NOMINAL SIZE			DOOR		FRAME		MFR	CONTACT	REMARKS
	DOOR	PANEL	TRIM	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	MATERIAL	FINISH			
101A	D1	P1	T1	2' - 10"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	DOOR TO BE SOLID WOOD, 1-3/8" MIN. THICKNESS, PER IRC R302.5.1
101B	D1	P1	T1	2' - 10"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
103A	D1	P1	T1	2' - 10"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
103B	D5	P1	T1	5' - 0"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
104A	D1	P1	T1	2' - 8"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
104B	D3	P1	T1	2' - 8"	8' - 0"	0' - 1 3/4"	WOOD				TBD	TBD	
104C	D1	P4	-	2' - 6"	8' - 0"	0' - 0 1/2"	WOOD				TBD	TBD	
105	D1	P1	T1	2' - 10"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
106A	D1	P1	T1	2' - 8"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
106B	D3	P1	T1	2' - 8"	8' - 0"	0' - 1 3/4"	WOOD				TBD	TBD	
106C	D1	P4	-	2' - 6"	8' - 0"	0' - 0 1/2"	WOOD				TBD	TBD	
107A	D1	P4	-	3' - 0"	9' - 6"	0' - 0 1/2"	WOOD				TBD	TBD	
108	D1	P3	T3	2' - 0 1/2"	7' - 0"	0' - 1 1/2"	GL-#				TBD	TBD	
111	D1	P1	T1	2' - 10"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
112	D1	P1	T1	3' - 0"	7' - 11"	0' - 1 3/4"	WOOD				TBD	TBD	GC TO COORD INTERLOCK WITH ELEVATOR MANUFACTURER
113	D1	P1	T1	2' - 10"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
200	D1	P1	T1	2' - 8"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
201A	D3	P1	T1	2' - 10"	9' - 6"	0' - 1 3/4"	WOOD				TBD	TBD	
201B	D3	P1	T1	2' - 10"	9' - 6"	0' - 1 3/4"	WOOD				TBD	TBD	
201C	D1	P4	-	3' - 0"	9' - 6"	0' - 0 1/2"	WOOD				TBD	TBD	
201D	D1	P4	-	3' - 0"	9' - 6"	0' - 0 1/2"	WOOD				TBD	TBD	
202	D3	P1	T1	2' - 10"	9' - 6"	0' - 1 3/4"	WOOD				TBD	TBD	
203	D1	P1	T1	3' - 0"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
205	D1	P1	T1	2' - 8"	8' - 0"	0' - 1 1/2"	WOOD				TBD	TBD	
213	D1	P1	T1	3' - 0"	9' - 5"	0' - 1 3/4"	WOOD				TBD	TBD	GC TO COORD INTERLOCK WITH ELEVATOR MANUFACTURER



PANEL TYPES
1/4" = 1'-0"

DOOR TYPES
1/4" = 1'-0"



BASE-1
12" = 1'-0"

BASE-2 (BID-ALT)
12" = 1'-0"

DOOR HARDWARE

GC TO PROVIDE COMPLETE DOOR HARDWARE SUBMITTAL FOR ARCHITECT & OWNER REVIEW & APPROVAL PRIOR TO PURCHASE AND INSTALLATION

TYPICAL INTERIOR LEVER SET:
FSB 1076 LEVER
FINISH: BRUSHED STAINLESS STEEL



TYPICAL INTERIOR HINGE:
EMTEK SQUARE CORNER HEAVY DUTY HINGE. SOLID BRASS 3.5"x3.5"
FINISH: SATIN NICKEL



TYPICAL DOOR STOP:
WALL: ROCKWOOD
RM871 - US32D (SATIN STAINLESS STL)



TYPICAL DOOR STOP:
FLOOR: ROCKWOOD
RM850 - US32D (SATIN STAINLESS STL)



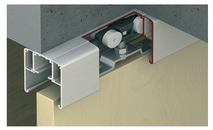
CLOSET DOOR PULL:
ACCURATE CS2002
FLUSH PULL DUMMY SET
FINISH: SATIN NICKEL



POCKET DOOR PULL:
ACCURATE POCKET DOOR SET
2002CPDL-4
FINISH: SATIN NICKEL



TYPICAL POCKET DOOR SYSTEM:
HAFELE SLIDO CLASSIC FRAME KIT
W/ CLASSIC P-40 TRACK
SOFT CLOSE / SOFT OPEN



GLASS SHOWER DOOR HINGE: METAL CREATIONS INC (1"x1"x4" CHANNEL PROFILE) FINISH: BRUSHED STAINLESS STEEL





GLASS DOOR HANDLE:
PORTALS
COUNTERPOINT 3/4"
DIA, 16" DOUBLE SIDED
PULL W/ FLAT ENDS
FINISH: TBD



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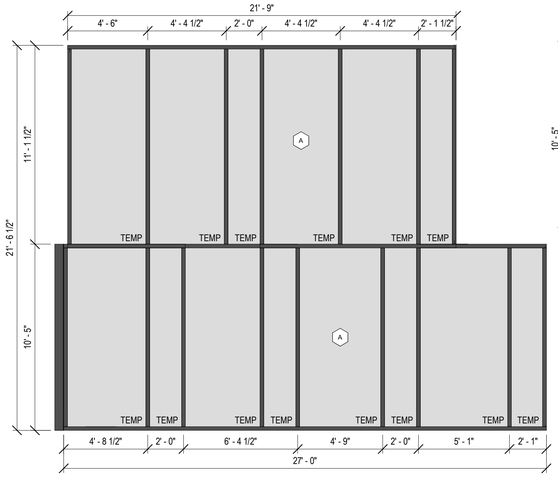
DUNEGRASS RESIDENCE

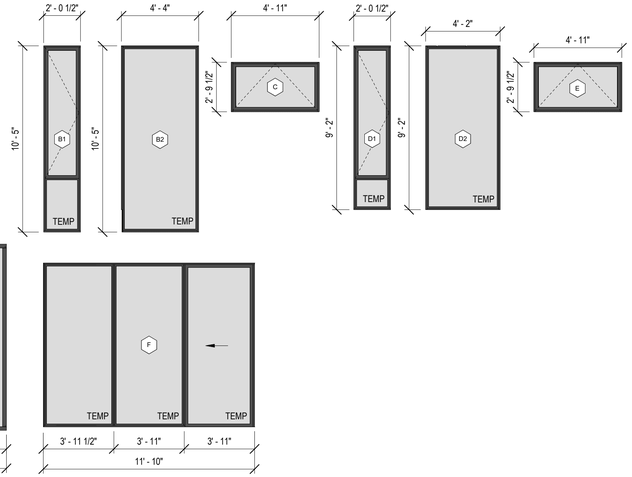
195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

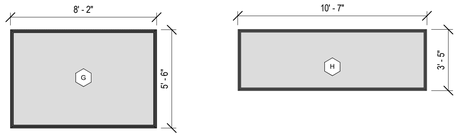
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

DOOR SCHEDULE

A701







WINDOW SCHEDULE

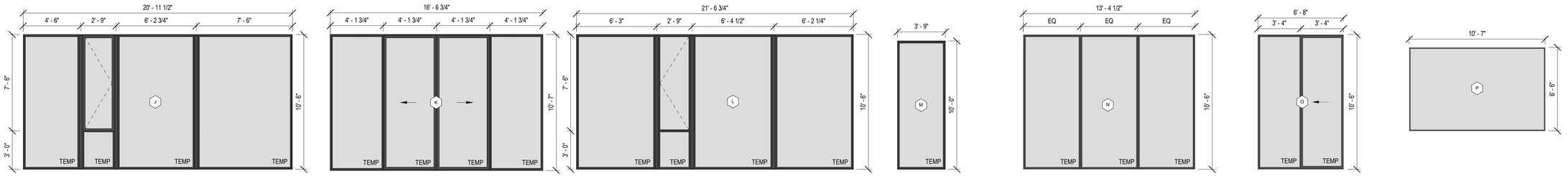
TAG	TYPE	FRAME EXT FINISH	FRAME INT FINISH	MANUFACTURER	MODEL	CONTACT	GLAZING	SCREEN	COMMENTS
A	FIXED WINDOW WALL	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
B1	CASEMENT W/ FIXED BELOW	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
B2	FIXED	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
C	AWNING	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON	YES	NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
D1		THERMALLY BROKEN ALUM / BLACK		TBD	TBD				
D2	CASEMENT W/ FIXED BELOW	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
E	AWNING	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
F	WINDOW WALL W/ SLIDERS	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
G	FIXED	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
H	FIXED	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
J	WINDOW WALL W/ CASEMENT	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
K	WINDOW WALL W/ SLIDERS	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON	YES	NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
L	WINDOW WALL W/ CASEMENT	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
M	FIXED	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
N	FIXED WINDOW WALL	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
O	WINDOW WALL W/ SLIDERS	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
P	FIXED		ALUM / BLACK				INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
Q	CASEMENT	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON	YES	NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
S	FIXED WINDOW WALL	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
T	FIXED	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
U	FIXED	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
V	WINDOW WALL W/ CASEMENT	THERMALLY BROKEN ALUM / BLACK	ALUM / BLACK	TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2

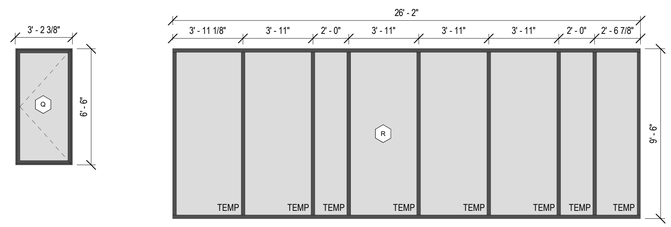
SKYLIGHT SCHEDULE

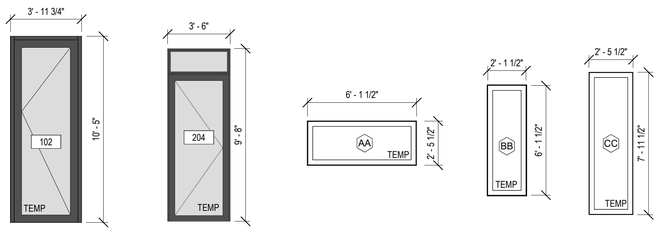
TAG-	TYPE	FINISH 1	MANUFACTURER -	CONTACT	Glazing	Comments
AA	SKYLIGHT		TBD			
BB	SKYLIGHT		TBD			
CC	SKYLIGHT		TBD			

EXTERIOR DOOR SCHEDULE

TAG	NOMINAL SIZE MATERIAL	WIDTH	HEIGHT	MANUFACTURER	MODEL	CONTACT	GLAZING	SCREEN	COMMENTS
100	ALUM / CLAD-2			TBD	TBD				
101C	ALUM / CLAD-2			TBD	TBD				
102	ALUMINUM			TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
107B	ALUMINUM			TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
204	ALUMINUM			TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
208A	ALUMINUM			TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
208B	ALUMINUM			TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2
210	ALUMINUM			TBD	TBD		INSULATED GLASS LOW-E W/ ARGON		NFRC CERTIFIED VALUES: U-FACTOR = 0.28, SHGC = 0.2







WINDOW GENERAL NOTES

1. ANY GLAZED PANEL GREATER THAN 18" IN WIDTH, WITH A SILL LESS THAN 24" ABOVE THE FLOOR, AND IMMEDIATELY ADJACENT TO ANY DOOR SHALL BE GLAZED WITH SAFETY GLAZING.
2. SAFETY GLAZING:
   A. SAFETY GLAZING TO BE PROVIDED AT DOORS, AT GLAZED PANELS WIDER THAN 18" ADJACENT TO DOORS, AND AT ANY WINDOW BELOW 2'-0" AFF. CBC 33 (13-124-350)
   B. ALL SKYLIGHTS TO HAVE 1" INSULATED TEMPERED, LAMINATED SAFETY GLASS. CBC 33 (13-124-370)
3. ANY OPERABLE WINDOW BELOW 2'-0" ABOVE FINISH FLOOR IS TO HAVE A GUARDRAIL INSTALLED 42" AFF. CBC 33 (13-124-320)
4. ALL OPERABLE WINDOWS TO HAVE RESTRICTIONS TO ALLOW THE WINDOW TO BE FIXED IN AN OPEN POSITION OF NOT LESS THAN FOUR INCHES AND NOT MORE THAN SIX INCHES. CONFIRM W/ OWNER.
5. MINIMUM 5.7 SF CLEAR OPENING SHALL BE REQUIRED FOR EGRESS WINDOWS
6. OPERABLE WINDOWS WITH A SILL LESS THAN 36" A.F.F. OR 72" ABOVE FINISHED GRADE OR OTHER SURFACE SHALL NOT ALLOW THE PASSAGE OF A 4" DIAMETER SPHERE.
7. G.C. TO CONFIRM WINDOW SIZES BASED UPON FIELD CONDITIONS AND EXISTING WINDOW SIZES.
8. EVERY WINDOW WHICH IS OPERABLE AND WHICH IS LOCATIED WITHIN 20 FEET OF GROUND LEVEL OR WITHIN 10 FEET OF EXTERIOR STAIR SHALL BE EQUIPPED WITH A LOCK WHICH, WHEN IN THE LOCKED POSITION, WILL PREVENT THE WINDOW FROM BEING OPENED FROM OUTSIDE THE BUILDING. CBC 4 (13-164-050)
9. WINDOW CONTRACTOR TO PROVIDE FULL SET OF SHOP DRAWINGS AND DETAILS FOR APPROVAL. DETAILS SHALL INCLUDE ALL REQUIRED MULL REINFORCEMENT INFORMATION.
10. ALL U-FACTORS TO BE DETERMINED IN ACCORDANCE WITH NFRC TEST PROCEDURE.

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DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

WINDOW SCHEDULE

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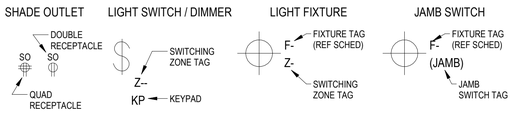
LIGHTING SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	CONTACT	MOUNTING	MODEL / STYLE / FINISH	LAMP / WATTS / COLOR TEMP / LUMENS	INSTALL	REMARKS
F1	2" ADJ DOWNLIGHT (FLANGE)	VISUAL COMFORT	ABIGAIL SORENSEN / 847-410-4699	RECESSED / FLANGED	ELEMENT 2" LED, IC HOUSING: E2R-L-LH--927-20-A-I TRIM: E2R-F-F-O-W	LED / 17W /2700K / 1250 LUMENS	CFCI	
F2	2" ADJ DOWNLIGHT (WET FLANGE))	VISUAL COMFORT	ABIGAIL SORENSEN / 847-410-4699	RECESSED / FLANGED	ELEMENT 2" LED, IC HOUSING: E2R-L-LH--927-20-A-I TRIM: E2R-F-F-H-W	LED / 17W /2700K / 1250 LUMENS	CFCI	
F3	3" ADJ DOWNLIGHT (HIGH BY MUD-IN)	TECH LIGHTING	ABIGAIL SORENSEN / 847-410-4699	RECESSED / FLANGED	ELEMENT 3" LED, IC HOUSING: E3R-L-F-LH--927-2-A-I TRIM: E3R-L-F-O-W	LED / 16W / 2700K / 1440 LUMENS	CFCI	GC & EC TO COORDINATE REMOTE POWER SOURCE LOCATIONS W/ ARCH, TYP
F4	TRACK LIGHT (TRACK)	LUMINII	TBD	RECESSED / MUD-IN	LUMINII STENOS TRACK		CFCI	GC & EC TO COORD POWER SOURCE W/ MILLWORKER
F5A	TRACK LIGHT (HEAD)	LUMINII	TBD	RECESSED / TRACK	LUMINII STENOS TRACK HEAD		CFCI	GC & EC TO COORDINATE REMOTE POWER SOURCE LOCATIONS W/ ARCH, TYP
F5B	TRACK LIGHT (MODULE)	LUMINII	TBD	RECESSED / TRACK	LUMINII STENOS DIRECTIONAL MODULE		CFCI	GC & EC TO COORDINATE REMOTE POWER SOURCE LOCATIONS W/ ARCH, TYP
F6	PINHOLE DOWNLIGHT	APURE	TBD	RECESSED / MUD-IN	MINUS-1 3/8" LED	LED / 12W / 2700K / 1000 LUMENS	CFCI	
F7	TRACK LIGHT (TRACK)	FLOS	MARY GRAHAM / 312-810-4699	RECESSED / MUD-IN	MICRO RUNNING MAGNET, RECESSED TRACK PROFILE 06.6004.14, FINISH: BLACK		CFCI	
F8	TRACK LIGHT (HEAD)	FLOS	MARY GRAHAM / 312-810-4699	RECESSED / TRACK	MICRO RUNNING MAGNET, MEDUIM OPTIC SPOT 03.2236.40A, FINISH: WHITE	LED / 6W / 2700K / 545 LUMENS	CFCI	
F10	CLOSET LIGHT (24")	LITHONIA	TBD	SURFACE	CONTEMPORARY SQUARE VANITY - FMVCSL, 24IN MVOLT, 30K, 90 CRI, BN	LED / 18W / 3000K / 1300 LUMENS	CFCI	GC & EC TO COORD POWER SOURCE, TYP
F11	CLOSET LIGHT (48")	LITHONIA	TBD	SURFACE	CONTEMPORARY SQUARE VANITY - FMVCSL, 48IN MVOLT, 30K, 90 CRI, BN	LED / 34W / 3000K / 2500 LUMENS	CFCI	GC & EC TO COORD POWER SOURCE, TYP
F12	SURFACE MOUNTED 24" ROUND	FLOS	TBD	SURFACE	FLOS CLARA 24" DIAMETER X 2" TALL (ROUND) W/ FROSTED ACRYLIC LENS/DIFFUSER, FINISH: FU157009 WHITE	LED / 22W / 2700K / 2000 LUMENS	CFCI	GC & EC TO COORDINATE REMOTE POWER SOURCE LOCATIONS W/ ARCH, TYP
F13	UTILITY ROOM LIGHT	TBD	TBD	SURFACE	12" DIAMTER LED UTILITY LIGHT (ROUND) W/ FROSTED ACRYLIC LENS/DIFFUSER, FINISH: WHITE	LED / 30W / 3000K / 2800 LUMENS	CFCI	GC & EC TO COORDINATE REMOTE POWER SOURCE LOCATIONS W/ ARCH, TYP
F14	GARAGE STRIP LIGHT	VISUAL COMFORT	ABIGAIL SORENSEN / 847-410-4699	SURFACE	ESSENCE LINEAR LED - TAPE: ESLTU-16-500-935 AND CHANNEL: ESSF12296WW. COLOR: WHITE	LED / 4.6W per FT / 3500K / 500 LUMENS per FT	CFCI	GC & EC TO COORDINATE REMOTE POWER SOURCE LOCATIONS W/ ARCH, TYP
F15	CEILING FAN	MATTHEWS	TBD	HUGGER	ELIZA-H 56" DIA FLUSH MOUNT "HUGGER" 3-BLADE FAN	(NO LIGHT)	CFCI	GC & EC TO COORD POWER SOURCE, TYP
F21	LED LINEAR ACCENT LIGHT	LUMINII	ABIGAIL SORENSEN / 847-410-4699	COVE / RECESSED	KENDO M-XX-29K-SO-F-F-WH (STANDARD OUTPUT, FROSTED LENS, FIXED MOUNTING, WHITE FINISH)	LED / 3.2W per FT / 2900K / 118 LUMENS per FT	CFCI	EC TO PROVIDE ENDCAPS & BRACKETS AS NEEDED, EC TO PROVIDE REMOTE DIMMING POWER SUPPLY & ALL REQD ACCESSORIES FOR A COMPLETE SYSTEM
F22	LED LINEAR ACCENT LIGHT (45 DEGREE)	LUMINII	ABIGAIL SORENSEN / 847-410-4699	COVE / RECESSED	KENDO 45M K45M-XX-29K-HO-F-WH-F1 (HIGH OUTPUT, FROSTED LENS, FIXED MOUNTING, WHITE FINISH)	LED / 5.2W per FT / 2900K / 302 LUMENS per FT	CFCI	EC TO PROVIDE ENDCAPS & BRACKETS AS NEEDED, EC TO PROVIDE REMOTE DIMMING POWER SUPPLY & ALL REQD ACCESSORIES FOR A COMPLETE SYSTEM
F23	PRIMARY BATH PENDANT	TBD	TBD	PENDANT	PROVIDE ALLOWANCE OF $5000		CFCI	PROVIDE AIRCRAFT CABLE SUPPORTS, AND ALL REQ'D ACCESSORIES FOR A COMPLETE INSTALLATION
F24	BATH-2 PENDANT	TBD	TBD	PENDANT	PROVIDE ALLOWANCE OF $1000		CFCI	
F25	BATH-3 WALL SCONCE	TBD	TBD	SURFACE	PROVIDE ALLOWANCE OF $1000		CFCI	GC & EC TO COORD BUILB SPEC WITH OWNER & ARCHITECT
F26	PWDR PENDANT	TBD	TBD	SURFACE / PENDANT	PROVIDE ALLOWANCE OF $1000		CFCI	GC & EC TO COORD POWER SOURCE, TYP
F27	BUNK ROOM SCONCE	TBD	TBD	SURFACE	PROVIDE ALLOWANCE OF $300 / FIXTURE (6 TOTAL FIXTURES)		CFCI	GC & EC TO COORD POWER SOURCE, TYP
F28	DINING ROOM PENDANT	TBD	TBD	PENDANT	PROVIDE ALLOWANCE OF $10000		CFCI	
F29	KITCHEN PENDANT	TBD	TBD	PENDANT	PROVIDE ALLOWANCE OF $5000		CFCI	
F30	GAME LOUNGE PENDANT	TBD	TBD	PENDANT				
F31	PRIMARY BED PENDANT	TBD	TBD	PENDANT				
F32	PRIMARY BED SCONCE	TBD	TBD	SURFACE				
F39	CLOSET ROD LIGHT	LUMINII	ABIGAIL SORENSEN / 847-410-4699	SURFACE	LUMINII RUNDA CLOSET ROD - RCR-XX-29-HO-F-EM-SA		CFCI	
F40	OUTDOOR SCONCE	TBD	TBD	SURFACE	PROVIDE ALLOWANCE OF $600 / FIXURE		CFCI	GC & EC TO COORD POWER SOURCE, TYP
F41	LED LINEAR ACCENT LIGHT	LUMINII	ABIGAIL SORENSEN / 847-410-4699	COVE / RECESSED	KENDO M WET KMW-XX-30K-SO-F-FC-BK (STANDARD OUTPUT, FROSTED LENS, FIXED MOUNTING, BLACK FINISH)	LED / 3.2W per FT / 3000K / 149 LUMENS per FT	CFCI	EC TO PROVIDE ENDCAPS & BRACKETS AS NEEDED, EC TO PROVIDE REMOTE DIMMING POWER SUPPLY & ALL REQD ACCESSORIES FOR A COMPLETE SYSTEM
F42	STAKE LIGHT	SPJ	TBD	STAKE	SPJ - MR. UNIVERSE B-3W-SPOT-65-2700K, FINISH: BLACK	LED / 3W / 2700K / 85 LUMENS	CFCI	GC & EC TO COORD POWER SOURCE, TYP
F43	IN GROUND UP-LIGHT	MP LIGHTING	TBD	IN GROUND	MP LIGHTING L01-2-W30S-N-F-HB-0, FINISH: STAINLESS STEEL	LED / 2.5W / 2700K / 80 LUMENS	CFCI	GC & EC TO COORD POWER SOURCE, TYP
F44	LINEAR LED ACCENT LIGHT (PLANTERS)	LUMINII	ABIGAIL SORENSEN / 847-410-4699	COVE / RECESSED	KENDO M WET K45MW-XX-29K-SO-F-FC-BKM (STANDARD OUTPUT, BLACK FINISH, FROSTED LENSE, FIXED CLIP MOUNT).	LED / 3.2W / 2900K / 199 LUMENS per FT	CFCI	GC & EC TO COORD POWER SOURCE & TRANSFORMER LOCATIONS WITH ARCHITECT, TYP

SWITCHING NOTES

1. ALL LIGHT FIXTURES TO BE DIMMABLE U.N.O.
2. EC TO VERIFY DIMMER COMPATIBILITY FOR ALL FIXTURE TYPES
3. LIGHTING CONTROLS: LUNTRON MAESTRO DIMMERS - U.N.O.
4. CONFIRM SIZE OF EXISTING ELECTRICAL PANEL. ELECTRICIAL TO PROVIDE OWNER WITH PRICING FOR ADDITIONAL PANEL IF NECESARY.

LIGHTING SYMBOLS



LIGHTING NOTES

1. ALL INTERIOR RECESSED FIXTURES TO BE IC RATED.
2. ALL IC RATED RECESSED FIXTURES TO BE SEALED AT HOUSING FOR <2.0 CFM LEAKAGE AT 75 PA.
3. HVAC SUPPLY/RETURN IS DUCTED. CONFIRM REQUIRED CLEARANCES.
4. NO FIXTURE SUBSTITUTIONS.
5. LIGHTING SHOP DRAWING **SUBMITTALS SHALL INCLUDE** LAMP INFORMATION SHEETS ALONG WITH FIXTURE INFORMATION SHEETS.
6. VERIFY CEILING COMPATIBILITY, MOUNTING CONDITIONS, CLEARANCES AND STRUCTURAL SUSPENSION SYSTEM PRIOR TO FIXTURE PROCUREMENT.
7. ALL CIRCUITS ARE 2-WIRE. **NO COMMON NEUTRALS.**
8. COORDINATE TRANSFORMER/POWER SUPPLY SIZE AND LOCATIONS WITH MANUFACTURER. REVIEW WITH ARCHITECT PRIOR TO FIXTURE PROCUREMENT.
9. COORDINATE LOCATIONS OF ALL REMOTE TRANSFORMERS/POWER SUPPLIES WITH ARCHITECT - TO BE PLACED IN ACCESSIBLE OUT OF SIGHT LOCATIONS.
10. ELECTRICIAN TO PROVIDE AND LOCATE TRANSFORMERS/POWER SUPPLIES TO ELIMINATE LINE VOLTAGE DROP.
11. **ELECTRICIAN TO PROVIDE ITEMIZED PRICING FOR ALL LIGHT FIXTURES.**
12. ELECTRICIAN TO COORDINATE W/ A/V CONTRACTOR REGARDING: KEYPAD LIGHTING CONTROLS, TV, DATA, PHONE, SPEAKERS, ALARM, ETC.
13. ELECTRICIAN TO PROVIDE SAMPLES OF ALL LED FIXTURES WITH SELECTED LAMP COLOR TEMPERATURE - FOR APPROVAL BEFORE ORDER IS PLACED.
14. ELECTRICIAN TO PROVIDE 2' SAMPLE OF LED TAPE LIGHTING PRIOR TO FULL ORDER PLACED TO VERIFY COLOR TEMP COMPLIANCE. ELECTRICIAN TO VERIFY LED TAPE LIGHT IS FROM AVAILABLE BATCH.
15. 'CFCI' FIXTURES WILL BE CONTRACTOR FURNISHED - CONTRACTOR INSTALLED (CFCI). ELECTRICIAN TO PROVIDE LAMPS.
16. 'OFCI' FIXTURES WILL BE OWNER FURNISHED - CONTRACTOR INSTALLED (OFCI). ELECTRICIAN TO PROVIDE LAMP, ELECTRICIAN TO CONTACT ARCHITECT AND OWNER FOR FINAL FIXTURE SELECTIONS INFORMATION AND COORDINATE MOUNTING REQUIREMENTS.
17. ALL LIGHT SWITCHES TO BE LOCATED 42" TO THE CENTER OF COVER PLATE FROM FINISHED FLOOR UNLESS NOTED ON ELEVS.
18. ALL OUTLETS TO BE LOCATED 15" HEIGHT TO THE CENTER OF COVE PLATE FROM FINISHED FLOOR.
19. ALL LIGHTING FIXTURES, POWER SUPPLIES, AND ASSOCIATED ACCESSORIES AND COMPONENTS TO MEET LOCAL CODE REQUIREMENTS/LISTINGS.

ELECTRICAL FIXTURES

TYPICAL RECEPTACLE: LUTRON SCRS-15-TR (TAMPER-RESISTANT) W/ CLARO SNAP-ON WALL PLATE (SCREWLESS), SNOW WHITE, SATIN FINISH



TYPICAL USB RECEPTACLE: LUTRON SCR-15-UBTR (TAMPER RESISTANT) W/ USB-C AND LUTRON SNAP-ON WALL PLATE (SCREWLESS) SNOW WHITE, SATIN FINISH



TRUFIG: FLUSH GFCI (TAMPER RESISTANT) RECEPTACLE FASCIA PLATE (50401) & TRIM KIT (50314) - APPLIED OVER TYPICAL RECEPTACLE; FINISHED TO MATCH ADJ SURFACE



TYPICAL DIMMER & SWITCH: LUTRON SUNNATA RF TOUCH DIMMER, W/ SNAP-ON WALL PLATE (SCREWLESS), SNOW WHITE, SATIN FINISH



TYPICAL KEYPAD: LUTRON RADIO RA3 SUNNATA RF KEYPAD W/ SNAP-ON WALL PLATE (SCREWLESS) SNOW WHITE, SATIN FINISH



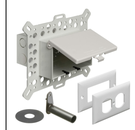
TYPICAL WOOD FLOOR RECEPTACLE: ARLINGTON **FLBR5420NL** RECESSED POWER & DATA ROUND FLOOR BOX, FINISH: BRUSHED NICKEL



TYPICAL CONCRETE SLAB RECEPTACLE: FULLY RECESSED HUBBEL MULTI-SERVICE CAST IRON FLOOR BOX **CFBS1R4CFB** W/ ADJUSTABLE COLLAR **CFBS1R4CUP** & SUB-PLATE **S1R4SPDUPLEX** & ROUND ALUM COVERPLATE



TYPICAL EXT. RECEPTACLE: ARLINGTON LOW PROFILE 'IN BOX' FOR NEW CONSTRUCTION STUCCO, HORIZONTAL/WHITE COLOR: WHITE (TO BE PAINTED ON SITE) CATALOG# DBHM1W UPC# 77610



TYPICAL COMBO SMOKE / CO2 DETECTOR: NEST PROTECT WIRED SMOKE & CO2 DETECTOR (HARD-WIRE ALL LOCATIONS TO COMPLY W/ CITY OF CHICAGO REQUIREMENTS).



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LICENSED ARCHITECT
KEVIN A. TOUKOUMIDIS
001-020032
STATE OF ILLINOIS

07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

LIGHTING & PLUMBING SCHEDULES

A703

GENERAL

GE.01 BEFORE SUBMITTING A PROPOSAL FOR THIS WORK, THE CONTRACTOR SHALL VISIT THE PREMISES AND ACQUAINT HIMSELF FULLY WITH THE EXISTING CONDITIONS, TEMPORARY CONSTRUCTION REQUIRED, QUANTITIES AND TYPES OF EQUIPMENT REQUIRED, ETC. HIS BID SHALL INCLUDE ALL SUMS REQUIRED TO DO THE WORK WITHIN THE EXISTING CONDITIONS. DISRUPTION OF NORMAL ACTIVITIES IN THE WORK AREA MUST BE KEPT TO A MINIMUM.

GE.02 THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONSTRUCTION, DIMENSIONS, MEMBER SIZES, AND ELEVATIONS FOR CONFORMANCE WITH THE DRAWINGS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

GE.03 UNLESS NOTED OTHERWISE, DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS ARE INTENDED TO BE TYPICAL FOR SIMILAR CONDITIONS.

GE.04 DIMENSIONS ON STRUCTURAL DRAWINGS ARE TO BE CHECKED AGAINST THE DRAWINGS OF OTHER DISCIPLINES, AND ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

GE.05 COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR LINTELS, METAL WALL FRAMING, SHELF ANGLES, SIZE AND LOCATION OF SLOPES, DEPRESSED AREAS, FINISH FILLS, CHAMFERS, GROOVES, SLEEVES, INSERTS, ETC.

GE.06 COORDINATE WITH MECHANICAL/ELECTRICAL/PLUMBING DRAWINGS FOR DUCTWORK, PIPE SLEEVES, FLOOR DRAINS, INSERTS, HANGERS, TRENCHES, PITS, PADS, WALL AND SLAB OPENINGS, CONDUIT RUNS IN WALLS AND SLABS, SIZE AND LOCATION OF MACHINE OR EQUIPMENT SUPPORTS, BASES, ANCHOR BOLTS, ETC

GE.07 ELEVATIONS SHOWN REFER TO PROJECT DATUM WHICH IS EL= 0'- 0" = T/FF FIRST FLOOR. SEE ARCHITECTURE AND CIVIL FOR MORE ELEVATION INFORMATION.

GE.08 SHOP DRAWINGS PREPARED BY THE CONTRACTOR AND/OR HIS SUPPLIERS SHALL BE REVIEWED BY THE ARCHITECT ONLY FOR CONFORMANCE WITH THE DESIGN INTENT. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.

GE.09 SHOP DRAWINGS PREPARED BY SUPPLIERS AND SUBCONTRACTORS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE ARCHITECT

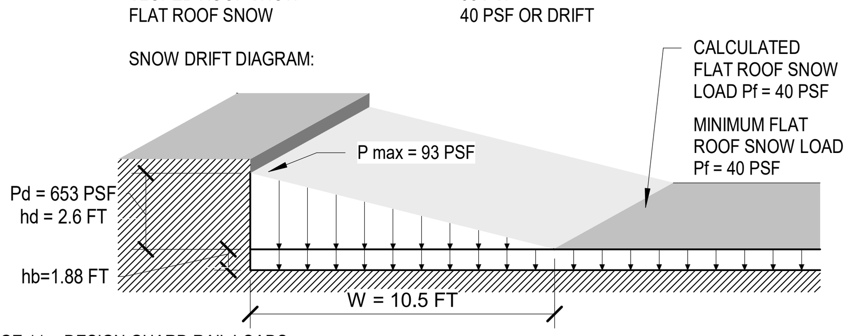
GE.10 DESIGN LOADS, ALLOWABLE STRESSES AND STRUCTURAL CAPACITIES ARE BASED ON THE 2015 MICHIGAN BUILDING CODE, WITH LOCAL AMENDMENTS.

DESIGN WIND LOADS
MAIN WIND RESISTING SYSTEM (SERVICE LEVEL LOADS)
MWFRS - LAKESIDE EXPOSURE 30 PSF
MWFRS - OTHER THAN LAKESIDE EXPOSURE 24 PSF

COMPONENTS & CLADDING (SERVICE LEVEL LOADS)
(CORNER DIMENSION "a" = 6'-0")
WALLS - LAKESIDE EXPOSURE
CORNER ZONE 5 + 30 PSF / - 39 PSF
OTHER THAN CORNER ZONE 4 + 30 PSF / - 32 PSF
WALLS - OTHER THAN LAKESIDE EXPOSURE
CORNER ZONE 5 + 23.5 PSF / - 31 PSF
OTHER THAN CORNER ZONE 4 + 23.5 PSF / - 25 PSF
ROOFS
CORNER ZONE 3 - 50 PSF
EDGE ZONE 2 - 33 PSF
CENTER ZONE 1 - 20 PSF
COMPONENTS AND CLADDING WIND LOADS ASSUME AN EFFECTIVE WIND AREA OF 10 FT^2 OR LESS. REDUCTION FACTORS ARE ALLOWED FOR LARGER EFFECTIVE WIND AREAS PER ASCE 7-10.

DESIGN FLOOR AND ROOF LIVE LOADS
RESIDENTIAL & STAIRS 40 PSF
TERRACE AND DECKS 60 PSF
GREEN ROOF 40 PSF
SLOPED ROOF SNOW 35 PSF
FLAT ROOF SNOW 40 PSF OR DRIFT

SNOW DRIFT DIAGRAM:



GE.11 DESIGN GUARD RAIL LOADS
STAIRWAY, PORCH, DECK AND BALCONY GUARD RAILS, BOTH EXTERIOR AND INTERIOR, SHALL BE DESIGNED TO RESIST A SIMULTANEOUS VERTICAL AND HORIZONTAL THRUST OF 50 PLF APPLIED AT THE TOP OF THE RAILING OR A CONCENTRATED LOAD OF 200 LBS IN ANY DIRECTION, WHICHEVER PRODUCES THE GREATEST STRESS. FOR ONE- AND TWO-FAMILY DWELLING UNITS, A THRUST OF 20 PLF MAY BE USED FOR INTERIOR STAIR BALUSTERS OR WALL-MOUNTED INTERIOR HANDRAILS ONLY.

GE.12 SHOP DRAWING SUBMITTALS TO ARCHITECT/ENGINEER ARE REQUIRED FOR ALL PRE-FABRICATED ITEMS.

EXCAVATION AND BACKFILL

EB.01 BEFORE ANY OTHER BUILDINGS OPERATIONS ARE STARTED, REMOVE ALL BITUMINOUS PAVEMENT, LOOSE GRAVEL, ABANDONED FOUNDATIONS, BLACK LOAM, ORGANIC MATERIAL, AND FILL ENCOUNTERED WITHIN THE AREA TO BE OCCUPIED BY NEW CONSTRUCTION. NONE OF THIS MATERIAL OR OTHER EXCAVATED ON-SITE SOILS, WHICH ARE FOUND TO BE UNSUITABLE, SHALL BE USED FOR FILL WITHIN OR ADJACENT TO THE BUILDING. STORE GRAVEL ON SITE FOR POTENTIAL REUSE.

EB.02 GENERAL MACHINE EXCAVATION FOR FOOTINGS SHALL STOP NOT LESS THAN 6" ABOVE SCHEDULED ELEVATIONS OF BOTTOMS OF FOOTINGS. FINAL EXCAVATION TO UNDISTURBED SOIL AT REQUIRED FOOTING ELEVATION SHALL BE DONE BY HAND NOT MORE THAN 48 HOURS BEFORE THE FOOTING IS PLACED.

EB.03 ALL NECESSARY CHANGES IN ELEVATION OF WALL FOOTINGS SHALL BE MADE IN STEPS OF NOT MORE THAN 2'-0" HIGH AND A MINIMUM OF 4'-0" APART, EXCEPT AS OTHERWISE DETAILED.

EB.04 AFTER EXCAVATING FOR ALL EARTH-SUPPORTED SLABS AND PRIOR TO PLACING FILL, THE EXPOSED NATURAL SOIL SHALL BE COMPACTED TO 95% OF ASTM D-1557 (MODIFIED PROCTOR) MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

EB.05 SEE GEOTECHNICAL REPORT FOR FOUNDATION BACKFILL AND FILL REQUIRED TO ESTABLISH FINAL SUB-GRADES. ALL EARTH-SUPPORTED SLABS SHALL HAVE AT LEAST 6" OF CA6 DIRECTLY BELOW THE SLAB COMPACTED TO 95% OF ASTM D-1557 (MODIFIED PROCTOR) MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

EB.06 BACKFILL PLACED DIRECTLY ADJACENT TO BASEMENT AND RETAINING WALLS SHALL BE CA6 COMPACTED TO 95% OF ASTM D-1557 (MODIFIED PROCTOR) MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. AT TOP OF BACKFILL, PROVIDE 1'-6" OF CA6 COMPACTED TO 95% OF ASTM D-1557 (MODIFIED PROCTOR) MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

EB.07 ALL SOIL SUPPORTED FOUNDATIONS SHALL BE FOUNDED UPON UNDISTURBED, NATURAL SUBGRADE WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF, AS INDICATED IN THE GEOTECHNICAL REPORT REFERENCED IN NOTE EB.14 AND AS FIELD VERIFIED AND APPROVED BY THE OWNER'S SOIL TESTING LABORATORY. THE FOOTING ELEVATIONS AND SOIL BEARING CAPACITIES AS SHOWN ON THE DRAWINGS ARE ESTIMATED FROM THE SOIL BORING DATA. FINAL, EXACT ELEVATIONS AND SOIL BEARING CAPACITIES SHALL BE FIELD DETERMINED AND VERIFIED BY THE OWNER'S SOIL TESTING LABORATORY AND REVIEWED BY THE ARCHITECT/ENGINEER PRIOR TO PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN THE EVENT THAT THE SOIL CONDITIONS ENCOUNTERED VARY FROM THOSE ASSUMED IN THE DESIGN.

EB.08 DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL GROUND FLOOR AND LOWER LEVEL SLABS HAVE BEEN PLACED AND THE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH.

EB.09 BACKFILL AGAINST SIDES OF FOUNDATION WALLS SHALL BE PLACED SIMULTANEOUSLY ON BOTH SIDES TO THE TOP OF THE WALL.

EB.10 NO MUD SLABS, FOOTINGS, OR SLABS SHALL BE PLACED ONTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST, OR ICE.

EB.11 THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY FROST OR ICE FROM PENETRATING ANY FOOTINGS OR SLAB SUBGRADE BEFORE AND AFTER PLACEMENT OF CONCRETE UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT BUILDING STRUCTURE.

EB.12 THE CONCRETE FOR EACH ISOLATED FOOTING SHALL BE PLACED IN ONE (1) CONTINUOUS PLACEMENT.

EB.13 ALL PERIMETER WALL AND COLUMN FOOTINGS SHALL BEAR AT A MINIMUM OF 3'-6" BELOW FINISHED GRADE.

EB.14 FOR ADDITIONAL SITE CONDITIONS, FOUNDATION CONSTRUCTION CONSIDERATIONS, AND RECOMMENDATIONS, REFER TO THE GEOTECHNICAL REPORT NUMBER 2024.2378 PERFORMED BY SOILS & STRUCTURES ON DECEMBER 11, 2024.

CONCRETE AND FORMWORK

CO.01 ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING AMERICAN CONCRETE INSTITUTE PUBLICATIONS:
ACI 301 ACI 304 ACI 311
ACI 315 ACI 318 ACI 347

CO.02 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND PLACEMENT OF INSERTS, EMBEDDED PLATES, MASONRY ANCHORS, REGLETS, SLEEVES, DUCT WORK, PADS, AND ANCHOR BOLTS. THE INSERTS, EMBEDDED PLATES, ETC. SHALL NOT INTERFERE WITH CONCRETE REINFORCEMENT LOCATIONS. THE GENERAL CONTRACTOR SHALL VERIFY ALL OPENINGS THROUGH WALLS WITH SHOP DRAWINGS, SHOWING OPENINGS IN THE SLABS INCLUDING, BUT NOT LIMITED TO, SLEEVE SIZES AND LOCATIONS, DUCT SIZES AND LOCATIONS, ETC.

CO.03 SEE ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF ALL ARCHITECTURAL FINISHES, FLOOR FINISHES, FLOOR DEPRESSIONS, AND CURBS AND FOR ALL WATERPROOFING AND/OR DAMPPROOFING DETAILS. SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL WALL AND/OR SLAB OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

CO.04 THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS SHOWING THE LOCATIONS OF ALL CONSTRUCTION JOINTS, CURBS, AND SLAB DEPRESSIONS, IF ANY, AND DESCRIBE THE CONCRETE PLACEMENT SEQUENCE. ALL CURBS SHALL BE REINFORCED WITH AT LEAST 1-#4 CONTINUOUS AND #3 AT 16" C/C DOWELS TO THE STRUCTURE BELOW, UNLESS NOTED OTHERWISE.

CO.05 CONCRETE SHALL DEVELOP MINIMUM 28-DAY STRENGTH AS FOLLOWS:

FOOTINGS, WALLS AND FOUNDATIONS	NMWT	(145 PCF)	f'c=	4,000 PSI
SLABS ON GRADE	NMWT	(145 PCF)	f'c=	3,500 PSI
COLUMNS & PIERS	NMWT	(145 PCF)	f'c=	4,000 PSI

CO.06 ALL CONCRETE EXPOSED TO THE EXTERIOR SHALL BE AIR- ENTRAINED. WATER REDUCING PLASTICIZING ADMIXTURES MAY BE USED, PENDING APPROVAL OF THE ARCHITECT.

CO.07 NO CALCIUM CHLORIDE OR CHLORIDE-ION PRODUCING ADMIXTURE SHALL BE USED IN ANY CONCRETE.

CO.08 FORMWORK FOR ALL CONCRETE WHICH WILL BE EXPOSED IN THE COMPLETED BUILDING SHALL BE CONSTRUCTION FROM A SUITABLE PLASTIC SURFACED PLYWOOD WHICH WILL PRODUCE AN ACCEPTABLY SMOOTH SURFACE. ALSO SEE THE SPECIFICATIONS.

CO.09 VERTICAL WALL CONSTRUCTION JOINTS SHALL BE FORMED WITH VERTICAL BULKHEADS AND KEYWAYS. WALL REINFORCEMENT SHALL BE CONTINUOUS THROUGH THE JOINT OR SHALL BE DOWELED WITH AN EQUIVALENT AREA OF REINFORCEMENT.

CO.10 ALL CONSTRUCTION JOINTS SHALL BE WIRE-BRUSHED AND CLEANED IMMEDIATELY PRIOR TO PLACING NEW CONCRETE. ALLOW 24 HOURS MINIMUM TO ELAPSE BETWEEN PLACEMENTS.

CO.11 PROVIDE CONTINUOUS WATERSTOPS IN VERTICAL CONSTRUCTION JOINTS, IN BASEMENT AND ELEVATOR PIT WALLS, AND IN ALL OTHER WALLS ADJACENT TO BELOW GRADE SLABS.

CO.12 EXPOSED EXTERNAL CONCRETE CORNERS SHALL BE CHAMFERED PER ARCH DETAILS.

CO.13 INTERIOR SLABS ON GRADE THICKNESSES AND REINFORCEMENT SHALL BE AS SHOWN AND NOTED ON THE PLANS, THICKENED OR DEPRESSED AS REQUIRED FOR THE DETAILS. DEPRESSED SLABS SHALL MAINTAIN FULL THICKNESS UNLESS NOTED OTHERWISE. SEE NOTE RS.09 FOR THE PLACEMENT OF WELDED WIRE FABRIC. A VAPOR RETARDED SHALL BE PROVIDED UNDER ALL INTERIOR SLABS ON GRADE PER THE PROJECT SPECIFICATIONS.

CO.14 SLABS ON GRADE SHALL BE PLACED IN ALTERNATE STRIPS WITH A MAXIMUM WIDTH OF 15'-0" OR AS SHOWN ON PLAN. CONTROL JOINTS SHALL BE CUT WITHIN A 8-12 HOURS AFTER THE CONCRETE HAS SET. CONTROL JOINTS SHALL NOT EXCEED 15'-0" INTERVALS IN EACH DIRECTION, AND SHALL BE LOCATED TO CONFORM WITH BAY SPACING WHEREVER POSSIBLE (I.E. AT COLUMN CENTERLINES, HALF-BAYS, THIRD-BAYS)

CO.15 SLOPE CONCRETE SLABS, WHERE REQUIRED, TO FLOOR DRAINS SHOWN ON THE ARCHITECTURAL AND PLUMBING DRAWINGS. MAINTAIN MINIMUM SLAB THICKNESSES AS SHOWN ON THE STRUCTURAL DRAWINGS.

CO.16 NO SLAB SHALL HAVE COLD JOINTS IN A HORIZONTAL PLANE. CONSTRUCTION JOINTS IN ELEVATED CONCRETE ON METAL DECK SHALL BE MADE AT THE THIRD POINT OF THE SPAN.

CO.17 FOR ELEVATED CONCRETE ON METAL DECK, PROVIDE ADDITIONAL CONCRETE AS NECESSARY TO ACHIEVE FLOOR FLATNESS AND FLOOR LEVELNESS NUMBERS SPECIFIED. ANTICIPATED DEFLECTIONS OF MEANS AND GIRDERS ARE LESS THAN 1/2" BELOW THE DESIGN ELEVATIONS.

CO.18 NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.

REINFORCEMENT STEEL

RS.01 ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED AND SPACED IN FORMS, AND SECURED IN PLACE IN ACCORDANCE WITH PROCEDURES AND REQUIREMENTS OUTLINES IN THE LATEST EDITIONS OF THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318) AND THE "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315). AT EPOXY COATED BARS, USE DIELECTRIC MATERIAL FOR BAR SUPPORTS AND NYLON COATED TIE WIRE.

RS.02 CHECKED SHOP DRAWINGS SHOWING REINFORCEMENT DETAILS, INCLUDING STEEL SIZES, SPACING, AND PLACEMENT SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

RS.03 ALL REINFORCEMENT STEEL SHALL BE HIGH STRENGTH NEW BILLET STEEL CONFORMING TO THE LATEST EDITION OF ASTM A 615. GRADE 60.

RS.04 ALL WELDED WIRE FABRIC SHALL CONFORM TO THE LATEST EDITION OF ASTM A 185

RS.05 THE FOLLOW CLEAR COVER SHALL BE PROVIDED FOR REINFORCEMENT IN CAST-IN-PLACE CONCRETE, UNLESS NOTED OTHERWISE:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER:	
#6 THROUGH #18 BARS	2"
#5 BARS, 5/8" DIA. WIRE AND SMALLER	1 1/2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS & WALLS	3/4"
PIERS, COLUMNS, AND BEAMS:	
PRIMARY REINFORCEMENT, TIES, AND STIRRUPS	1 1/2"

RS.06 PROVIDE ADEQUATE BOLSTERS, HIGH CHAIRS, SUPPORT BARS, ETC. TO MAINTAIN SPECIFIED CLEARANCES FOR THE ENTIRE LENGTH OF ALL REINFORCEMENT BARS. PROVIDE CONTINUOUS #4 SPACER BARS IN WALLS AND SLABS TO SUPPORT DOWELS, AS REQUIRED. WELDED WIRE FABRIC SHALL BE SUPPORTED IN PROPER POSITION ON CHAIRS AND CARRIER BARS.

RS.07 ALL EMBEDMENT LENGTHS SHALL CONFORM TO THE LATEST EDITION OF ACI 318.

RS.08 ALL REINFORCEMENT SPLICES SHALL BE LAP SPLICED AND WIRED TOGETHER IN CONTACT. SPLICE LENGTHS SHALL CONFORM TO THE LATEST ACI CRITERIA FOR SIZE AND TYPE OF REINFORCEMENT STEEL AND CONCRETE COMPRESSIVE STRENGTHS SPECIFIED. UNLESS NOTED OTHERWISE, MINIMUM LAP SHALL BE 40 BAR DIAMETERS.

RS.09 ALL WELDED WIRE FABRIC SHALL BE LAPPED TWO (2) FULL MESH PANELS AT SIDE AND END LAPS AND TIED SECURELY. PROVIDE ADDITIONAL REINFORCEMENT WHERE SHOWN ON THE DRAWINGS. PLACE MESH 1" FROM THE TOP OF SLABS. NO ELECTRICAL CONDUIT SHALL BE PLACED ABOVE WELDED WIRE FABRIC SLABS.

RS.10 NO REINFORCEMENT STEEL SHALL BE WELDED IN ANYWAY UNLESS PRIOR WRITTEN APPROVAL IS GIVEN BY THE ARCHITECT.

RS.11 CORNER BARS SHALL BE PROVIDED AT WALL CORNERS EQUAL TO THE HORIZONTAL WALL REINFORCEMENT.

RS.12 ALL CONCRETE FORMED SLAB OR WALL OPENINGS SHALL BE REINFORCED WITH 2-#5 BARS PLACED ONE IN EACH FACE AT 45 DEGREES TO OPENING CORNERS.

RS.13 UNLESS NOTED OTHERWISE, ALL CONCRETE WORK SHALL CONTAIN AT LEAST MINIMUM REINFORCEMENT AS REQUIRED BY ACI 318.

SHORING AND BRACING

SB.01 INDIVIDUAL STRUCTURAL COMPONENTS ARE DESIGNED TO SUPPORT LOADS IN THEIR FINAL ERECTED POSITION AS PART OF THE TOTAL COMPLETED STRUCTURE. PROVIDE TEMPORARY SHORING, GUYING AND BRACING AS REQUIRED UNTIL ALL CONSTRUCTION AFFECTING LOAD CARRYING MEMBERS AND LATERAL STABILITY IS COMPLETED.

SB.02 CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR STABILITY OF STRUCTURE, ITS PARTS, AND JOB SITE SAFETY BY USE OF GUYING, BRACING, SHORING, BARRICADES, SAFETY RAILINGS AND DEVICES DURING THE ENTIRE PERIOD OF CONSTRUCTION.

SB.03 CONTRACTOR IS FULLY RESPONSIBLE FOR PROVIDING ALL TEMPORARY SHORING AND BRACING OF EXISTING ELEMENTS DURING CONSTRUCTION. ALL SHORING SHALL BE ADEQUATE TO SUPPORT ALL LOADINGS DURING MODIFICATION OF THE EXISTING BUILDING AND ERECTION OF THE NEW STRUCTURAL SUPPORT SYSTEM. TEMPORARY SHORING MUST REMAIN IN PLACE UNTIL ALL NEW STRUCTURAL MEMBERS SUPPORTING SHORED ELEMENTS ARE IN PLACE AND ALL NEW CONNECTIONS COMPLETED.

STRUCTURAL STEEL

SS.01 ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," LATEST EDITIONS.

SS.02 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES WITH RELATION TO TEMPERATURE DIFFERENTIAL (ESPECIALLY WITH RESPECT TO STRUCTURAL STEEL FRAMING INTO CONCRETE WALLS, BEAMS, OR COLUMNS) AND TEMPORARY STRUCTURAL STABILITY.

SS.03 ERECT AND MAINTAIN TEMPORARY BRACING TO INSURE THE ALIGNMENT AND STABILITY OF THE STRUCTURE DURING ERECTION UNTIL PERMANENT CONNECTIONS HAVE BEEN COMPLETED.

SS.04 REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL STRUCTURAL AND MISCELLANEOUS STEEL REQUIREMENTS. ALL EXTERIOR EDGE ANGLES, LINTELS, AND SHELF ANGLES SHALL BE GALVANIZED AFTER FABRICATION.

SS.05 THE FABRICATOR/ERECTOR SHALL SUBMIT TO THE ARCHITECT, FOR INFORMATION ONLY, CONNECTION CALCULATIONS AND, FOR REVIEW, ENGINEERED AND CHECKED DRAWINGS SHOWING SHOP FABRICATION DETAILS, FIELD ASSEMBLY DETAILS, AND ERECTION DIAGRAMS FOR ALL STRUCTURAL STEEL.

SS.06 THE OWNER'S STEEL TESTING LABORATORY SHALL PERFORM ALL TESTING OF WELDED AND BOLTED CONNECTIONS IN ACCORDANCE WITH ALL AISC AND AWS REQUIREMENTS AND THE CHICAGO BUILDING CODE. WRITTEN REPORTS, SIGNED AND SEALED BY THE INSPECTING DESIGN PROFESSIONAL AND INCLUDING THE LICENSE EXPIRATION DATE, SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW. SEE ALSO THE PROJECT SPECIFICATIONS.

SS.07 ALL STRUCTURAL MEMBERS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

WIDE FLANGE SECTIONS	ASTM A 992	(Fy= 50 KSI)
OTHER SHAPES & PLATES	ASTM A 36	(Fy= 36 KSI)
STEEL HSS SHAPES (RECTANGULAR)	ASTM A 500, GRADE C	(Fy= 50 KSI)
STEEL HSS SHAPES (CIRCULAR)	ASTM A 500, GRADE C	(Fy= 46 KSI)
STEEL PIPES	ASTM A 53 TYPE E, GRADE B	(Fy= 35 KSI)

SS.08 STEEL SHALL BE CLEAN OF RUST, LOOSE MILL SCALE, AND OTHER FOREIGN MATERIALS FOR PROPER FABRICATION, FIT-UP, AND WELDING.

SS.09 ALL BOLTED CONNECTIONS SHALL BE IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR ASTM A 490 BOLTS."

SS.10 ALL BOLTS SHALL CONFORM TO THE LATEST EDITION OF ASTM A 325. BOLTS SHALL BE 3/4" DIAMETER MINIMUM. AT CONNECTIONS WITH LONG-SLOTTED HOLES IN OUTER PLYS, 5/16" PLATE WASHERS SUFFICIENT IN SIZE TO COMPLETELY COVER THE SLOT SHALL BE PROVIDED.

SS.11 ALL NUTS SHALL CONFORM TO THE LATEST EDITION OF ASTM A 563.

SS.12 ALL WASHERS SHALL CONFORM TO THE LATEST EDITION OF ASTM F 436.

SS.13 WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS AND SHALL CONFORM TO THE AWS D1.1 "STRUCTURE WELDING CODE," LATEST EDITION. ALL WELDING ELECTRODES SHALL BE E70XX.

SS.14 FIELD CONNECTIONS, EXCEPT WHERE SHOWN TO BE WELDED, SHALL BE BOLTED. SHOP CONNECTIONS MAY BE WELDED UNLESS NOTED OTHERWISE. MINIMUM WELDS NOT SHOWN ON THE DRAWINGS SHALL BE 1/4" FILLET WELDS.

SS.15 UNLESS NOTED OTHERWISE, ALL SIMPLE BEAM SHEAR CONNECTIONS SHALL BE WELDED OR BEARING TYPE N BOLTED DOUBLE ANGLE FRAMED CONNECTIONS SIZE TO SUPPORT 60% (FOR NON-COMPOSITE BEAMS) OR 75% (FOR COMPOSITE BEAMS) OF THE TOTAL CAPACITY GIVEN IN THE AISC ALLOWABLE UNIFORM LOAD TABLES. BEAM END REACTIONS NOTED THUS 100K SHALL BE DESIGNED FOR THE LOAD SO INDICATED. IN NO CASE SHALL ANY CONNECTION BE LESS THAN ONE-HALF THE DEPTH OF THE SUPPORTED BEAM, AND THE QUANTITY OF VERTICAL ROWS OF BOLTS SHALL NOT BE LESS THAN:

W8:	2 ROWS	W21:	6 ROWS
W10:	2 ROWS	W24:	6 ROWS
W12:	3 ROWS	W27:	7 ROWS
W14:	3 ROWS	W30:	8 ROWS
W16:	4 ROWS	W33:	9 ROWS
W18:	5 ROWS	W36:	10 ROWS

SEE SPECIFICATION FOR CONNECTION DESIGN RESPONSIBILITIES

SS.16 TRUSS CHORD SPLICES, IF REQUIRED, SHALL BE DESIGNED BY THE FABRICATOR TO DEVELOP THE FULL CROSS SECTION OF THE MEMBER.

SS.17 BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER UP.

SS.18 ALL STRUCTURAL STEEL EXPOSED TO VIEW SHALL CONFORM TO THE ARCHITECTURAL EXPOSED STRUCTURAL STEEL (AESS) CRITERIA OF THE "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."

SS.19 THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.

SS.20 PRIME PAINT ALL STEEL EXCEPT THOSE THAT ARE TO RECEIVE SPRAY-ON FIREPROOFING OR ARE TO BE ENCASED IN CONCRETE.

SS.21 ALL ANCHORS BOLTS SHALL CONFORM TO F1554 AND MINIMUM GRADE 36 KSI, UNO.

DIMENSIONAL LUMBER

DL.01 ALL WOOD CONSTRUCTION SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATION(NDS) FOR WOOD CONSTRUCTION", ANSI/AWC NDS-2015.

DL.02 SAWN STRUCTURAL LUMBER SHALL HAVE THE FOLLOWING MINIMUM IN GRADE UNIT STRESSES:
HEM FIR (NORTH) NO.1/NO.2 OR BETTER

Fb =	1,000 psi
Fv =	145 psi
Fc PARALLEL=	1,450 psi
Fc PERPENDICULAR =	405 psi
Ft =	575 psi
E =	1,600,000 psi

DL.03 ALL LUMBER SHALL HAVE AN AVERAGE MOISTURE CONTENT OF NOT MORE THAN 19 PERCENT.

DL.04 BOLT HEADS & NUTS BEARING ON WOOD SHALL BE PROVIDED WITH STANDARD CUT WASHERS.

DL.05 ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.

DL.06 MINIMUM NAILED CONNECTIONS FOR WOOD FRAMING MEMBERS SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE LATEST IBC.

ENGINEERED LUMBER

EL.01 ALL WOOD CONSTRUCTION SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATION(NDS) FOR WOOD CONSTRUCTION", ANSI/AWC NDS-2015.

EL.02 ALL LVL's ARE TO HAVE THE FOLLOWING MINIMUM STRUCTURAL PROPERTIES:
Fb = 2600 psi
Fv = 285 psi
Fc = 750 psi (PERPENDICULAR)
Fc = 2510 psi (PARALLEL)
E = 2,000 ksi
ALL PSL COLUMNS ARE TO HAVE THE FOLLOWING MINIMUM STRUCTURAL PROPERTIES:
Fb = 2400 psi
Fv = 190 psi
Fc = 425 psi (PERPENDICULAR)
Fc = 2500 psi (PARALLEL)
E = 1,800 ksi
ALL PSL BEAMS ARE TO HAVE THE FOLLOWING MINIMUM STRUCTURAL PROPERTIES:
Fb = 2900 psi
Fv = 290 psi
Fc = 750 psi (PERPENDICULAR)
Fc = 2900 psi (PARALLEL)
E = 2,200 ksi

EL.03 BOLT HEADS & NUTS BEARING ON WOOD SHALL BE PROVIDED WITH STANDARD CUT WASHERS.

EL.04 MINIMUM NAILED CONNECTIONS FOR WOOD FRAMING MEMBERS SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE LATEST IBC.

EL.05 MICROLLAM (LVL), TRUSJOIST (TJI), AND PARALLAM (PSL) BEAMS AND COLUMNS ARE MANUFACTURED BY WEYERHAEUSER / TRUSS-JOIST MACMILLAN, UNO.

EL.06 ALL MULTIPLE LAMINATED HEADERS SHALL BE NAILED TOGETHER IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATION

POST-INSTALLED ANCHORS

PA.01 ADHESIVE ANCHOR SYSTEMS USED FOR DESIGN:

ADHESIVE (CONCRETE):	HILTI	HIT-HY 200	HILTI, TULSA, OK
ADHESIVE (CMU/MASONRY):	HILTI	HIT-HY 270	HILTI, TULSA, OK
THREADED ROD:	HILTI	HAS-E	

OVERHEAD AND/OR CONSTANT TENSION ADHESIVE ANCHOR INSTALLATIONS NOT SHOWN ON THE DRAWINGS SHALL NOT BE PERMITTED UNLESS EACH CONDITION IS REVIEWED AND APPROVED IN WRITING BY THE SER.

PA.02 PROOF TESTING OF ADHESIVE ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. UNLESS NOTED OTHERWISE, ADHESIVE ANCHOR PROOF TENSION LOADS SHALL BE PER THE ADHESIVE ANCHOR PROOF TENSION SCHEDULES.

PA.03 FIELD DRILLED EXPANSION ANCHOR SYSTEMS USED FOR DESIGN. KWIK BOLT 3 HILTI, TULSA. OK

PA.04 PROOF TESTING OF EXPANSION ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. UNLESS NOTED OTHERWISE, EXPANSION ANCHOR PROOF TORQUE LOADS SHALL BE PER THE EXPANSION ANCHOR PROOF TORQUE SCHEDULES.

PA.05 FIELD DRILLED THREADED SCREW ANCHOR SYSTEMS USED FOR DESIGN: HUS-EZ HILTI, TULSA. OK

PA.06 ALTERNATIVE SYSTEM EQUIVALENT TO OR EXCEEDING THE PROPERTIES OF THE SYSTEMS ABOVE WILL BE CONSIDERED AS A SUBSTITUTION REQUEST. SEE PROJECT SPECIFICATIONS.

PA.07 ANCHORS ARE TO BE MINIMUM 3/4' DIAMETER WITH A MINIMUM EMBEDMENT OF 6", UON.

PA.08 INSTALL ANCHORS TO MEET THE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS AND THE CURRENT MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII).

PA.09 LOCATE, BY NON-DESTRUCTIVE MEANS AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO INSTALLATION OF ANCHORS. IF EXISTING REINFORCING PROHIBITS THE INSTALLATION OF ANCHORS AS INDICATED IN THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONALS.

PA.10 INSTALL MASONRY ANCHORS IN SOLID MASONRY OR IN HOLLOW MASONRY THAT HAS BEEN GROUTED SOLID AT LEAST ONE COURSE ABOVE ANO ONE COURSE BELOW THE ANCHOR, UON.

PA.11 SEE PROJECT SPECIFICATIONS FOR POST-INSTALLED ANCHOR INSPECTION REQUIREMENTS.

PLYWOOD SHEATHING

PS.01. ROOF SHEATHING SHALL BE MINIMUM 3/4" THICK NOMINAL. C-DX APA EXPOSURE 1, 32/16. LAY UP WITH 1/8" CLEAR BETWEEN PANELS TO ALLOW FOR EXPANSION. PROVIDE MINIMUM ONE PANEL EDGE CLIP PER SPAN.

PS.02. FLOOR SHEATHING: MIN. 3/4" (NOMINAL) C-DX APA RATED SHEATHING EXPOSURE 1, 48/24 TONGUE-AND-GROOVE EDGE SEALED PANELS.

PS.03. FASTEN PLYWOOD DECK WITH 10d NAILS AT 6" O.C. AT PANEL EDGES AND AT 12" O.C. AT INTERMEDIATE SUPPORTS (UNLESS NOTED OTHERWISE).

PS.04. GRADE: C-DX APA EXPOSURE 1
MODULUS OF ELASTICITY: 1,800,000 PSI
MINIMUM WORKING STRESSES DRY USE CONDITION

EXTREME FIBER IN BENDING	Fb =	2000 psi
TENSION IN PLANE OF PLYS.	Ft =	2000 psi
COMPRESSION IN PLANE OF PLYS	Fc =	1640 psi
SHEAR IN PLANE PERPENDICULAR TO PLYS.	Fv =	190 psi
SHEAR IN PLANE OF PLYS.	Fs =	75 psi
BEARING PERPENDICULAR TO PLANE OF PLYS.	Fc =	340 psi

Structural Drawing List

S0.0	GENERAL NOTES
S1.0	FOUNDATION AND LOWER LEVEL FRAMING PLAN
S1.0A	T/WALL PLAN
S1.1	UPPER LEVEL FRAMING PLAN
S1.2	ROOF FRAMING PLAN
S2.0	BUILDING SECTIONS
S3.0	CONCRETE DETAILS
S3.1	STEEL & WOOD DETAILS
S9.0	3D VIEWS

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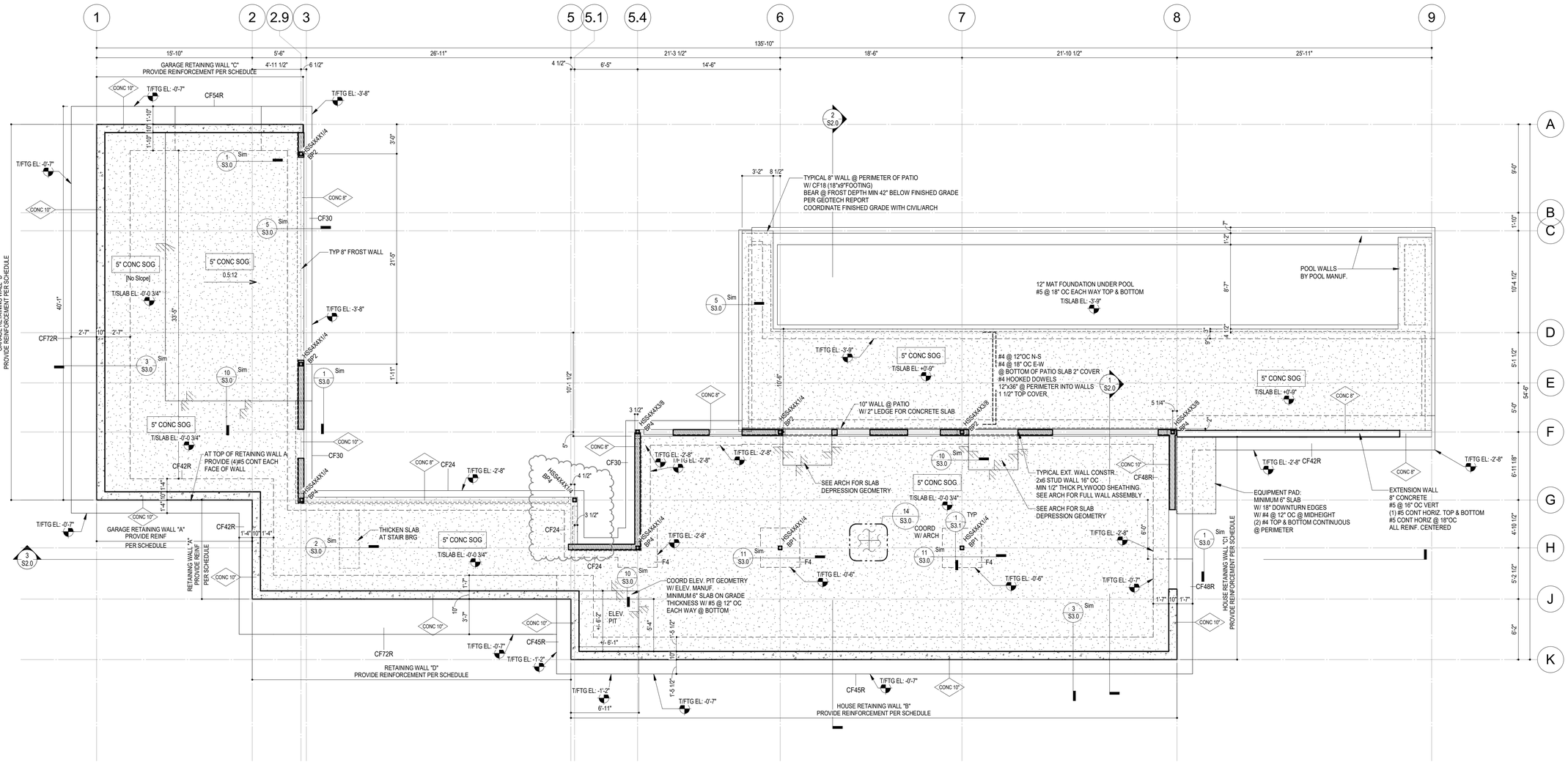
DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
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PROJECT NUMBER: 0244.01
SCALE: AS NOTED

GENERAL NOTES

S0.0



FOUNDATION PLAN NOTES

1. ELEVATIONS INDICATED ARE RELATIVE TO LOCAL DATUM: 0'-0" = T/FINISHED FIRST FLOOR. COORDINATEWITH ARCHITECTURE.
2. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS AND INFORMATION.
3. PROVIDE TEMPORARY BRACING AT BASEMENT AND RETAINING WALLS AS REQUIRED.
4. SEE GENERAL NOTES. BRACING TO REMAIN IN PLACE UNTIL GROUND FLOOR FRAMING IS COMPLETE. DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL GROUND FLOOR STRUCTURE AND LOWER LEVEL SLAB HAVE BEEN PLACED AND THE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH.
5. TYPICAL 5" SOG: PROVIDE 5"SOG REINF WITH WWF 6x6 W2.1/W2.1 OVER VAPOR RETARDER OVER MINIMUM 6" DRAINAGE BED. SEE GEOTECH REPORT FOR ADDITIONAL INFORMATION.
6. "F4" INDICATES ISOLATED SPREAD FOOTING 4'-0"x4'-0"x12". SEE DETAILS FOR GEOMETRY AND REINFORCEMENT INFORMATION.
7. "CFxx" INDICATES CONTINUOUS WALL OR RETAINING FOOTING. SEE DETAILS FOR GEOMETRY AND REINFORCEMENT SCHEDULES.
8. "BPxx" INDICATES STEEL BASE PLATE. SEE DETAILS FOR SCHEDULES.

1 FOUNDATION & FIRST FLOOR FRAMING PLAN
3/16" = 1'-0"

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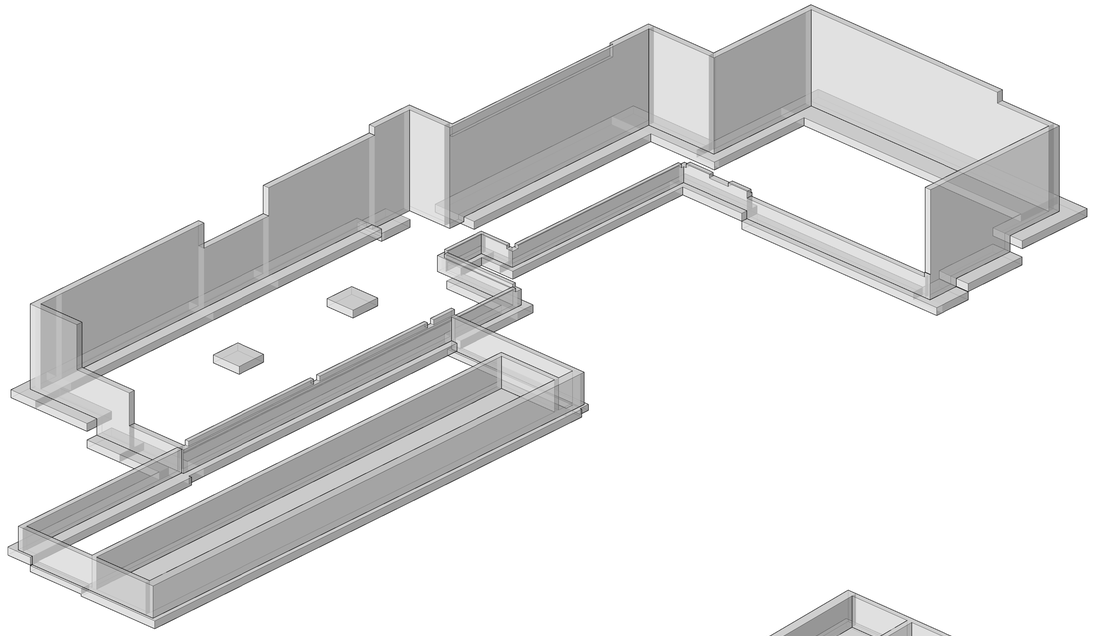
DUNEGRASS RESIDENCE

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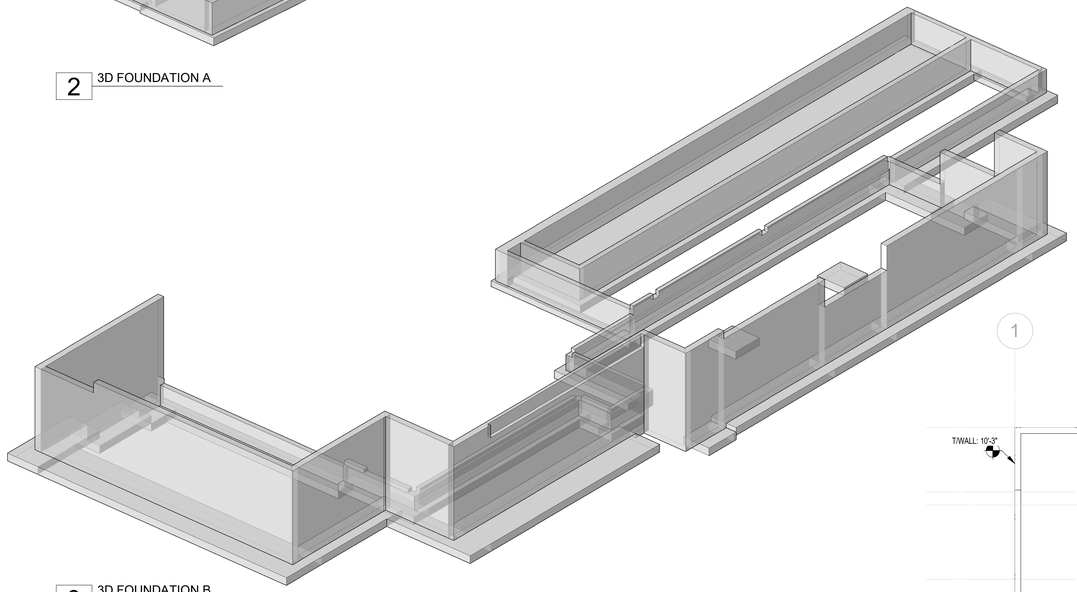
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

FOUNDATION AND LOWER LEVEL FRAMING PLAN

S1.0



2 3D FOUNDATION A



3 3D FOUNDATION B

Footing & Mat Material Takeoff

Type	Volume
F4	1.8 CY
12" MAT	28.8 CY
CF16	1.0 CY
CF24	2.7 CY
CF30	9.3 CY
CF42R	6.9 CY
CF45R	9.9 CY
CF48R	3.1 CY
CF54R	3.9 CY
CF72R	14.6 CY
	81.9 CY

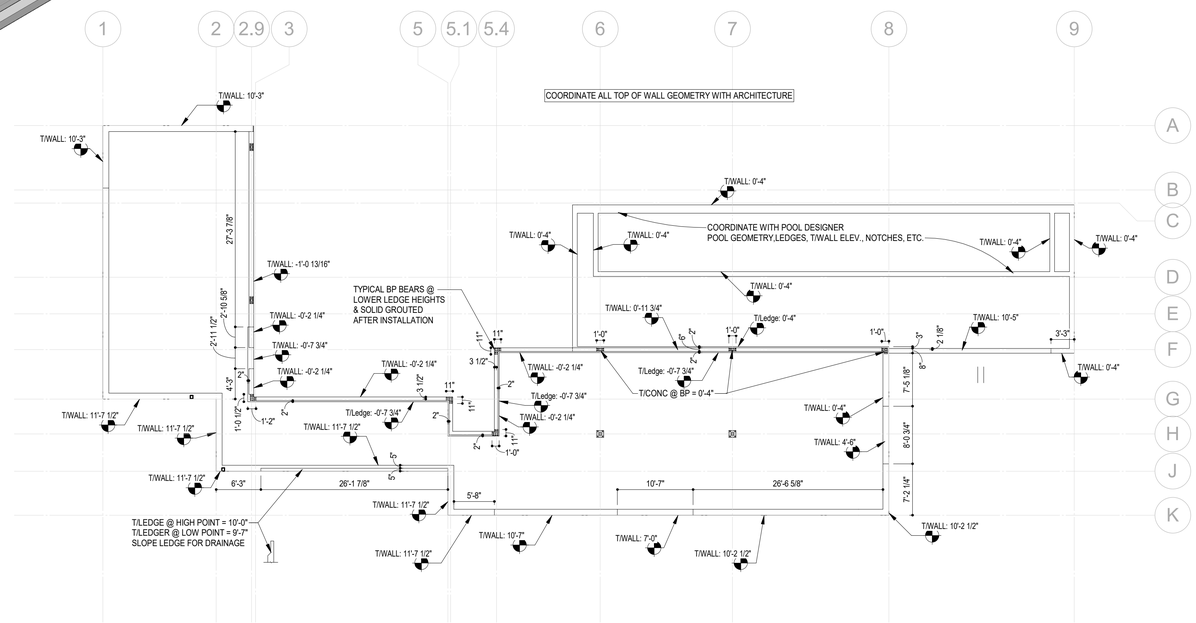
Foundation Wall Material Takeoff

Type	Volume	Formwork Area
CONC 8"	24.8 CY	2,029 SF
CONC 10"	74.8 CY	4,931 SF
CONC 14"	12.3 CY	568 SF
	111.9 CY	7,528 SF

Slab Material Takeoff

Type	Area	Volume
Concrete - Slab on Grade		
Floor: 5" CONC SOG	3,049 SF	47.1 CY
Floor: 6" CONC SOG	69 SF	1.3 CY
	3,118 SF	48.3 CY

NOTE:
SCHEDULES FOR SHALL BE USED FOR ESTIMATION PRICING PURPOSES ONLY. ACTUAL SIZES, GEOMETRY, AND QUANTITIES MAY VARY IN FINAL DESIGN. STEPPED FOOTINGS, LANDSCAPE ELEMENTS, BASE PLATES, BEARING PLATES, BOLTS, AND OTHER CONNECTION ITEMS NOT INCLUDED.



1 T/WALL PLAN
1" = 10'-0"

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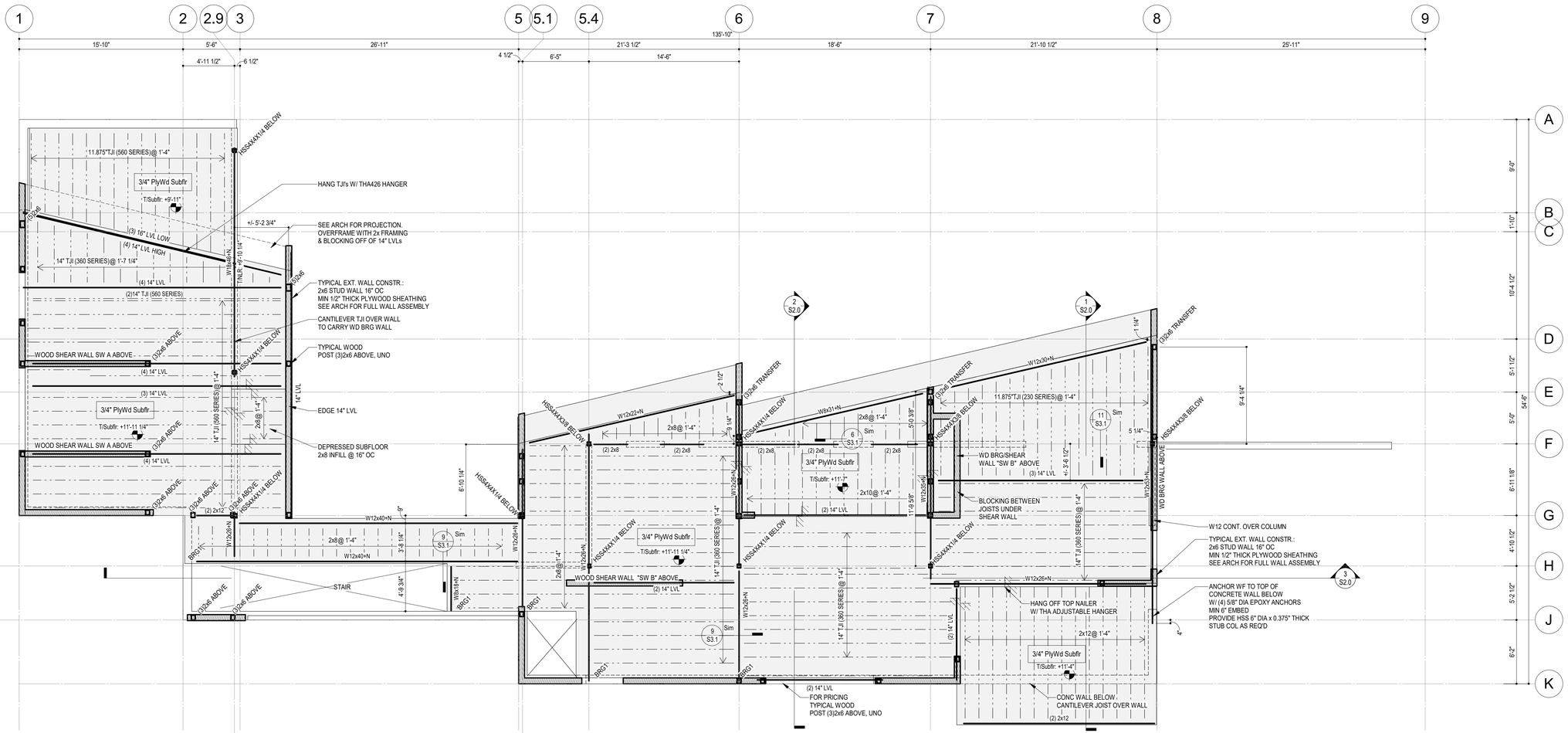
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PROJECT NUMBER: 0244.01
SCALE: AS NOTED

T/WALL PLAN

S1.0A



PLAN NOTES

1. ELEVATIONS INDICATED ARE RELATIVE TO LOCAL DATUM: 0'-0" = T/FINISHED FIRST FLOOR. COORDINATE WITH ARCHITECTURE.
2. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS AND INFORMATION.
3. PROVIDE TEMPORARY BRACING AT BASEMENT AND RETAINING WALLS AS REQUIRED.
4. TYPICAL FLOOR SUBFLOOR & ROOF SHEATHING IS 3/4" PLYWOOD. GLUE AND FASTEN PLYWOOD DECK USING 10d NAILS @ 6" OC @ BOUNDARIES AND EDGES AND 12" OC IN FIELD.
5. "Hx" INDICATES WOOD HEADER. MINIMUM WOOD HEADER = H1 = (2)2x8, UNO. SEE DETAILS FOR SCHEDULE.
6. ALL EXTERIOR STUD WALLS PROVIDE 2x6 STUDS @ 16"OC AND USE 1/2" MINIMUM PLYWOOD SHEATHING. ATTACH PLYWOOD SHEATHING TO STUDS WITH 10d NAILS @ 6" OC AT BOUNDARIES AND EDGES AND 12" OC. AT INTERIOR SHEAR WALLS, PROVIDE 5/8" GYSUM SHEATHING BOTH SIDES WITH 6d COOLER NAILS (OR EQUIV.) @ 7" OC AT BOUNDARIES AND EDGES AND 12"OC IN FIELD.
7. "Wxx+N" INDICATES WOOD NAILER ON TOP OF STEEL BEAM. TYPICAL T/STEEL = (-)0'-3/4" BELOW T/SUBFLOOR , UNO. TYPICAL T/STEEL W/ NAILER = (-)0'-2 1/4" BELOW T/SUBFLOOR, UNO

1 SECOND FLOOR FRAMING PLAN
3/16" = 1'-0"

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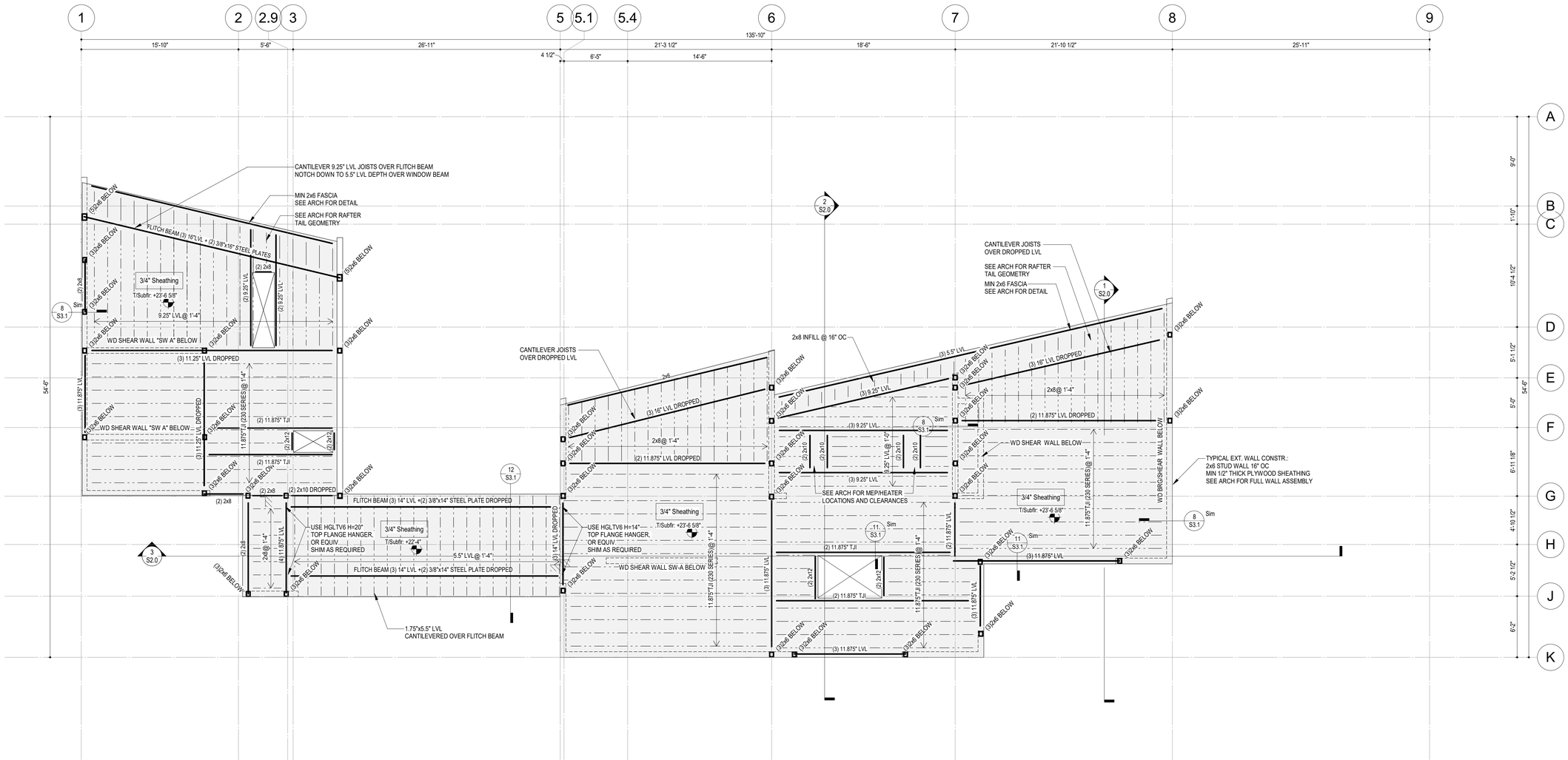
DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
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PROJECT NUMBER: 0244.01
SCALE: AS NOTED

UPPER LEVEL FRAMING PLAN

S1.1



PLAN NOTES

1. ELEVATIONS INDICATED ARE RELATIVE TO LOCAL DATUM: 0'-0" = T/FINISHED FIRST FLOOR. COORDINATE WITH ARCHITECTURE.
2. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS AND INFORMATION.
3. PROVIDE TEMPORARY BRACING AT BASEMENT AND RETAINING WALLS AS REQUIRED.
4. TYPICAL FLOOR SUBFLOOR & ROOF SHEATHING IS 3/4" PLYWOOD. GLUE AND FASTEN PLYWOOD DECK USING 10d NAILS @ 6" OC @ BOUNDARIES AND EDGES AND 12" OC IN FIELD.
5. "Hx" INDICATES WOOD HEADER. MINIMUM WOOD HEADER = H1 = (2)2x8, UNO. SEE DETAILS FOR SCHEDULE.
6. ALL EXTERIOR STUD WALLS PROVIDE 2x6 STUDS @ 16"OC AND USE 1/2" MINIMUM PLYWOOD SHEATHING. ATTACH PLYWOOD SHEATHING TO STUDS WITH 10d NAILS @ 6" OC AT BOUNDARIES AND EDGES AND 12" OC. AT INTERIOR SHEAR WALLS, PROVIDE 5/8" GYSUM SHEATHING BOTH SIDES WITH 6d COOLER NAILS (OR EQUIV.) @ 7" OC AT BOUNDARIES AND EDGES AND 12"OC IN FIELD.
7. "Wxx+N" INDICATES WOOD NAILER ON TOP OF STEEL BEAM. TYPICAL T/STEEL = (-)0'-3/4" BELOW T/SUBFLOOR , UNO. TYPICAL T/STEEL W/ NAILER = (-)0'-2 1/4" BELOW T/SUBFLOOR, UNO

1 ROOF FRAMING PLAN
3/16" = 1'-0"

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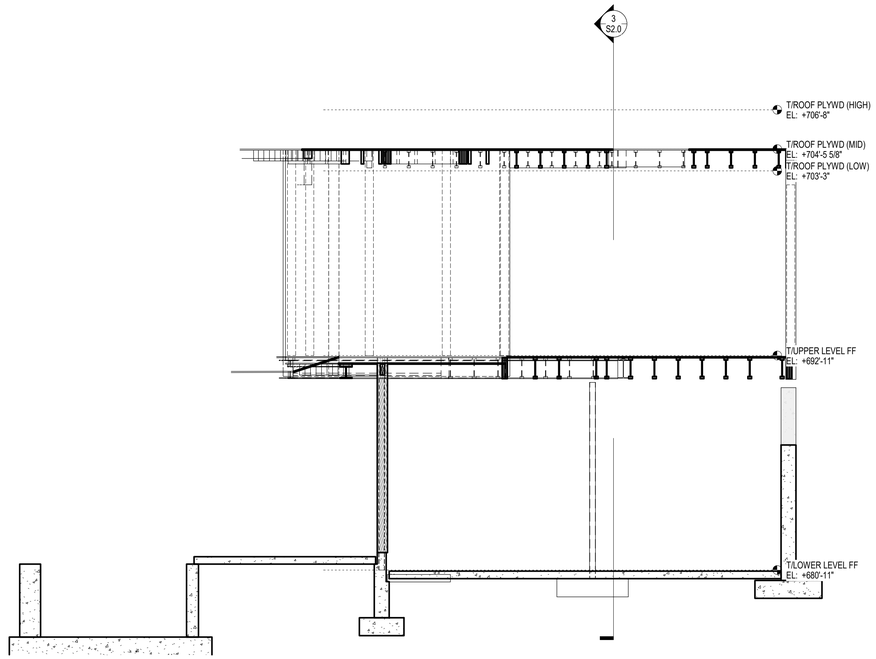
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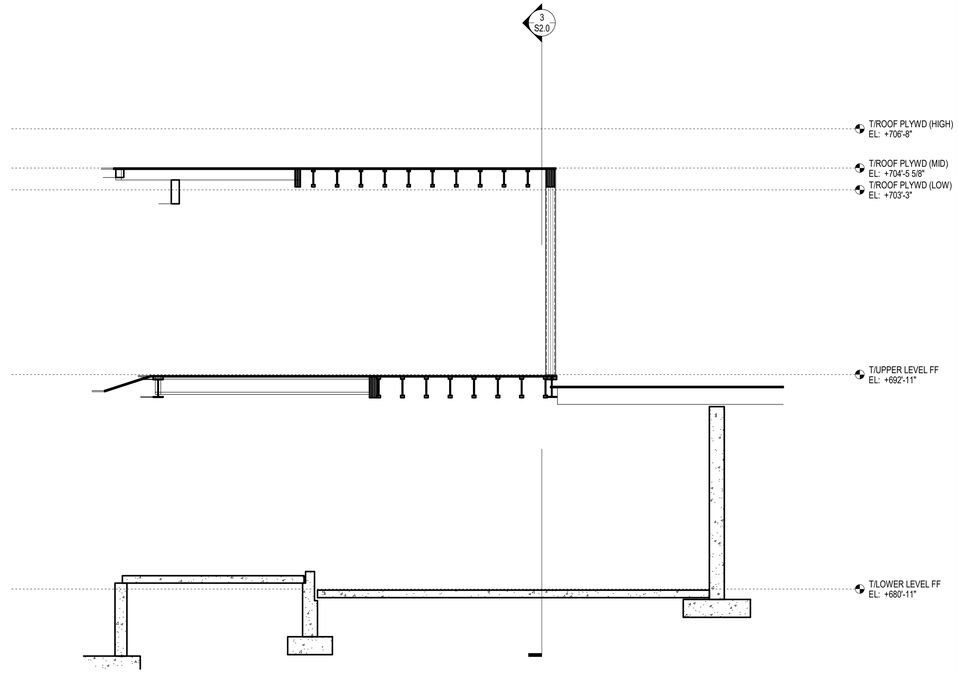
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ROOF FRAMING PLAN

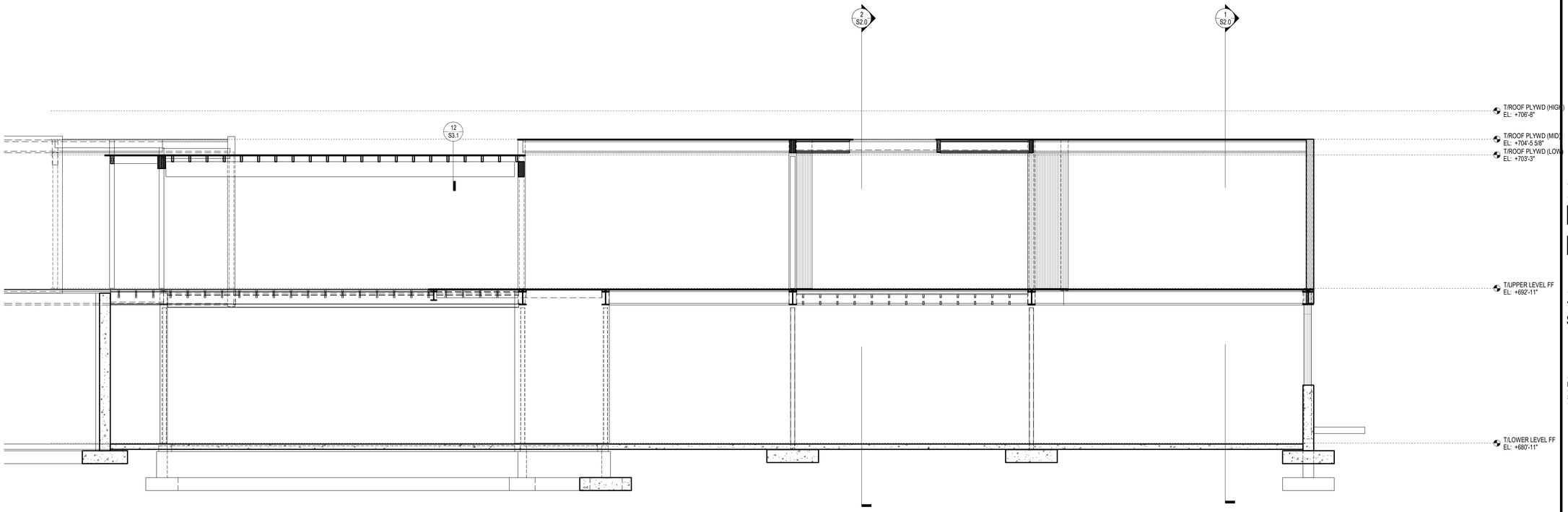
S1.2



2 BUILDING SECTION
1/4" = 1'-0"



1 BUILDING SECTION
1/4" = 1'-0"



3 BUILDING SECTION
1/4" = 1'-0"

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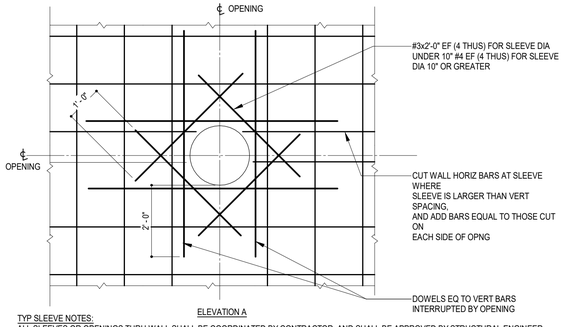
DUNEGRASS RESIDENCE

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PROJECT NUMBER: 0244.01
SCALE: AS NOTED

BUILDING SECTIONS

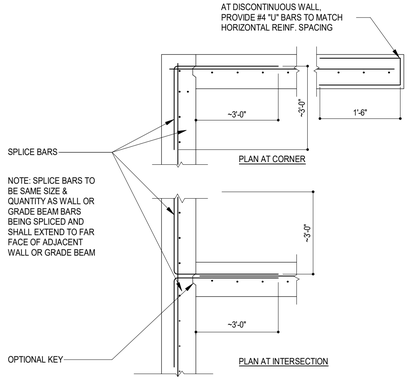
S2.0



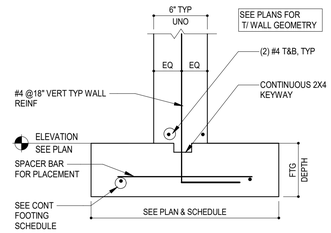
TYP SLEEVE NOTES:
ALL SLEEVES OR OPENINGS THRU WALL SHALL BE COORDINATED BY CONTRACTOR AND SHALL BE APPROVED BY STRUCTURAL ENGINEER PRIOR TO INSTALLATION

SLEEVE MATERIAL:
A. SLEEVE DIA OF 4" OR LESS - NO RESTRICTION, EXCEPT THE MATERIAL MUST BE COMPATIBLE WITH CONCRETE.
B. SLEEVE DIA. MORE THAN 4" BUT LESS THAN 10" - STANDARD PIPE CONFORMING ASTM A53.
C. SLEEVE DIA 10" OR GREATER - STEEL PIPE WITH 3/8" MIN WALL THICKNESS CONFORMING TO ASTM A53 OR A283 GRADE C.

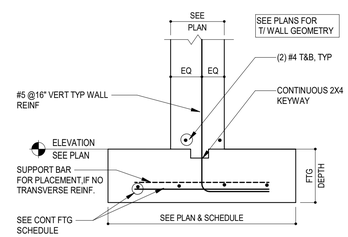
16 TYP WALL REINF AT SLEEVES
1/2" = 1'-0"



9 TYP CORNER BARS @ FND & FROST WALLS
3/4" = 1'-0"



7 LANDSCAPE WALL CONT FOOTING DETAIL - 6"
3/4" = 1'-0"

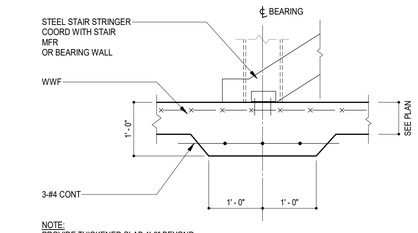


5 TYP HOUSE CONT FOOTING DETAIL - 10" OR LESS
3/4" = 1'-0"

CONT WALL FOOTING SCHEDULE

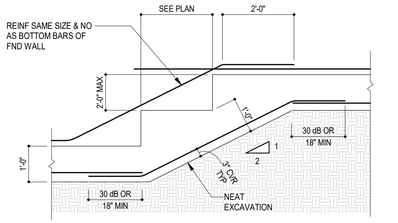
MARK	FTG WIDTH	FTG DEPTH	BOTTOM BARS		NOTES
			LONG	TRANSVERSE	
CF16	1'-4"	0'-9"	2 #5	#3 @ 48"OC SPACER	SITE FTG
CF24	2'-0"	1'-0"	3 #5	#3 @ 48"OC SPACER	-
CF30	2'-6"	1'-0"	3 #5	#3 @ 48"OC SPACER	-
CF42R	3'-5"	1'-0"			SEE RETAINING WALL SCHED.
CF45R	3'-9"	1'-0"			SEE RETAINING WALL SCHED.
CF48R	4'-0"	1'-0"			SEE RETAINING WALL SCHED.
CF54R	4'-6"	1'-0"			SEE RETAINING WALL SCHED.
CF72R	6'-0"	1'-0"			SEE RETAINING WALL SCHED.

NOTE: FOOTINGS ARE DESIGNED FOR NET ALLOWABLE BEARING CAPACITY OF 2,000 PSF TO BE VERIFIED BY GEOTECHNIC CONSULTANT. PROVIDE IN-SITU COMPACTION TESTS AT BOTTOM OF ALL NEW FOOTING TO VERIFY THIS VALUE PRIOR TO FOOTING.

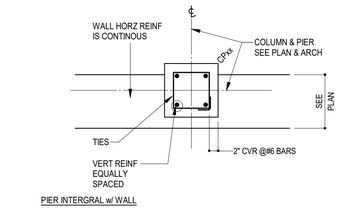


NOTE:
PROVIDE THICKENED SLAB 1'-0" BEYOND LOAD BEARING POINT (2'-0" MIN) COORD WITH STAIR FABRICATOR

2 TYP THICKENED SLAB @ STAIR/BEARING WALLS
3/4" = 1'-0"

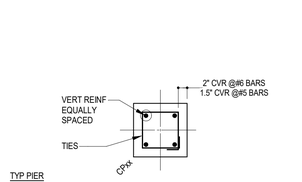


1 TYP STEPPED FOOTING
1/2" = 1'-0"



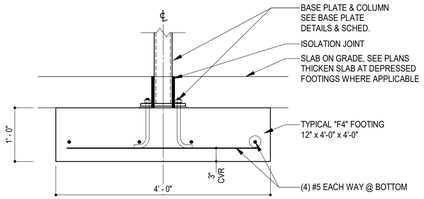
PIER INTERGRAL w/ WALL

4 TYP CONCRETE PIER PLAN
3/4" = 1'-0"



NOTE:
ALLOW A MINIMUM OF 12 HOURS BETWEEN ADJACENT POURS

15 TYP WALL CONST JOINT
1/2" = 1'-0"

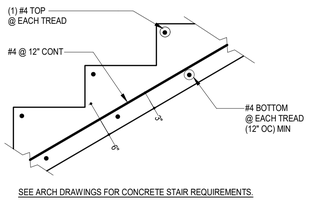


11 TYP INTERIOR SPREAD FOOTING
3/4" = 1'-0"

RETAINING WALL SCHEDULE

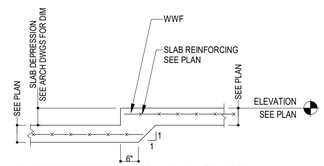
TYPE	WALL THICKNESS	WALL REINFORCEMENT		FTG TYPE	FTG WIDTH	FTG DEPTH	FOOTING REINFORCEMENT		MAX RETAINED HEIGHT ABOVE SLAB/GRADE	NOTES
		VERTICAL	HORIZONTAL				LONG	TRANSVERSE		
"A"	10"	#5@16" OC	#5@18"	CF42R	3'-6"	1'-0"	#5 @ 12" OC BOTTOM ONLY	#4 @18" OC BOTTOM ONLY	11'-0"	PROVIDE (2) #5 CONT. EACH FACE @ TOP OF WALL
"B"	10"	#5@16" OC	#5@18"	CF45R	3'-9"	1'-0"	#5 @ 16" OC BOTTOM ONLY	#4 @18" OC BOTTOM ONLY	7'-0"	-
"C"	10"	#5@16" OC	#5@18"	CF54R	4'-6"	1'-0"	#5 @ 16" OC BOTTOM ONLY	#5 @14" OC BOTTOM ONLY	8'-6" AVERAGE	-
"C1"	10"	#5@16" OC	#5@18"	CF48R	4'-0"	1'-0"	#5 @ 16" OC BOTTOM ONLY	#5 @16" OC BOTTOM ONLY	7'-6" AVERAGE	-
"D"	10"	#5@6" OC	#5@18"	CF72R	6'-0"	1'-0"	#5 @ 12" OC TOP & BOT	#5 @14" OC TOP & BOT	11'-0"	-

NOTES:
1. FOOTINGS ARE DESIGNED FOR NET ALLOWABLE BEARING CAPACITY OF 2,000 PSF TO BE VERIFIED BY GEOTECHNIC CONSULTANT. PROVIDE IN-SITU COMPACTION TESTS AT BOTTOM OF ALL NEW FOOTING TO VERIFY THIS VALUE PRIOR TO FOOTING.

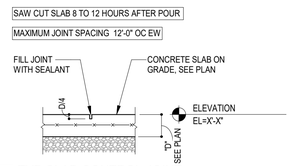


SEE ARCH DRAWINGS FOR CONCRETE STAIR REQUIREMENTS.

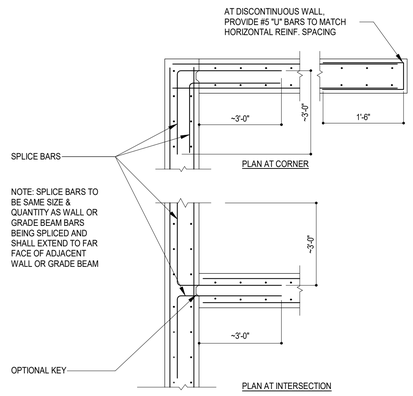
6 TYP CONCRETE STAIR REINF
1" = 1'-0"



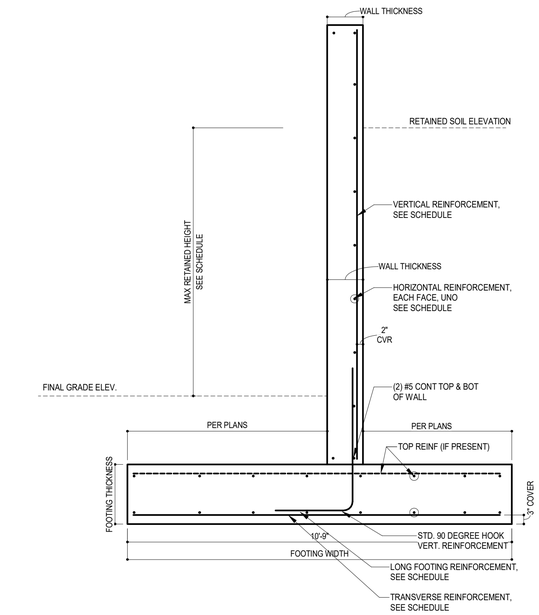
10 TYP DEPRESSION @ SLAB ON GRADE
1/2" = 1'-0"



14 TYP SLAB CONTROL JOINT
1/2" = 1'-0"



8 TYP CORNER BARS @ FND & FROST WALLS
3/4" = 1'-0"



3 RETAINING WALL TYPICAL DETAIL
1/2" = 1'-0"

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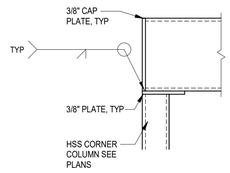
DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

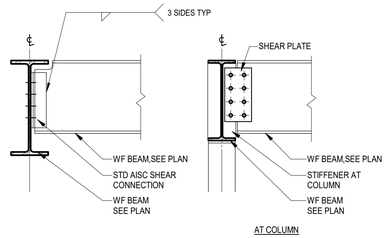
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

CONCRETE DETAILS

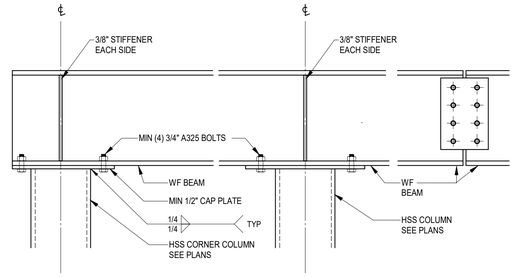
S3.0



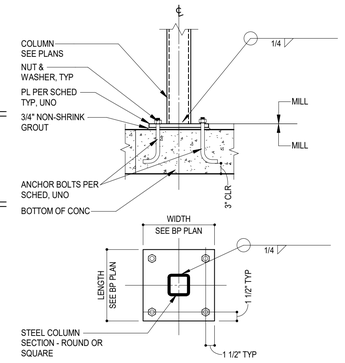
4 HSS COL TO HSS BEAM MOMENT CONNECTION
3/4" = 1'-0"



3 TYP WF STL BEAM TO BEAM
3/4" = 1'-0"



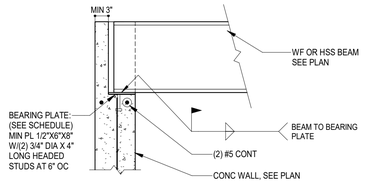
2 TYP WF STL BEAM OVER HSS COLUMN
1" = 1'-0"



1 TYP BASE PLATE DETAIL
1" = 1'-0"

BASE PLATE SCHEDULE

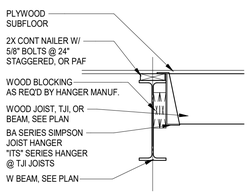
MARK	PLATE SIZE (THK x L x W)	ANCHOR BOLTS	COMMENTS
BP1	5/8"x11"x11"	(4) 3/4" ANCHOR BOLTS W/ 9" EMBEDMENT	
BP2	3/4"x6"x12"	(4) 3/4" ANCHOR BOLTS W/ 9" EMBEDMENT	
BP3	VOID		
BP4	3/4"x12"x12"	(4) 3/4" ANCHOR BOLTS W/ 9" EMBEDMENT	"L" SHAPED BASE PLATE W/ 6"x6" NOTCH



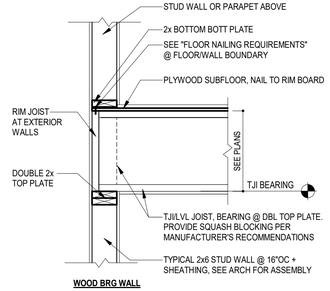
5 BEAM BEARING DETAIL @ CONCRETE
3/4" = 1'-0"

BEARING PLATE SCHEDULE

MARK	PLATE/ MEMBER SIZE	COMMENTS
BRG1	1/2"x6"x8"	MIN BRG PLATE

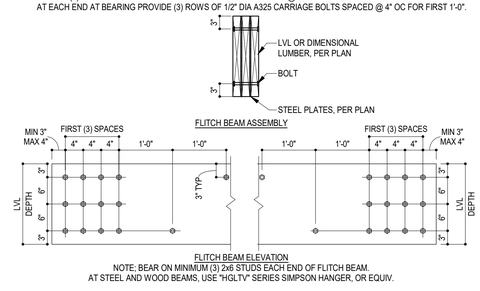


9 TYP WOOD JOIST OR BEAM TO STEEL BEAM
3/4" = 1'-0"



8 TYPICAL TJI BEARING DETAIL
3/4" = 1'-0"

TYPICAL FASTENERS AT LVL FLITCH BEAMS:
MINIMUM (2) ROWS STAGGERED OF 1/2" DIA A325 CARRIAGE BOLTS @ 12"OC W/ NUT & WASHER IN MAX 9/16" HOLES.
AT EACH END AT BEARING PROVIDE (3) ROWS OF 1/2" DIA A325 CARRIAGE BOLTS SPACED @ 4" OC FOR FIRST 1'-0".



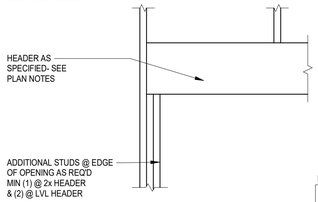
NOTE: BEAR ON MINIMUM (3) 2x6 STUDS EACH END OF FLITCH BEAM.
AT STEEL AND WOOD BEAMS, USE "HGLTV" SERIES SIMPSON HANGER, OR EQUIV.

7 FLITCH BEAM DETAIL
3/4" = 1'-0"

HEADER SCHEDULE

MARK	MEMBER SIZE	WALL TYPE	LOAD BEARING	COMMENTS
H1	(2)2X12	2X STUD WALL	YES	MAX SPAN <6'-0"

NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR WALL OPENING LOCATIONS, HEADER ELEVATIONS, AND ADDITONAL HEADER INFORMATION.

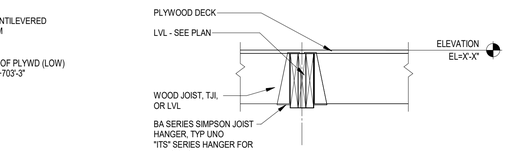


6 TYP WOOD HEADER DETAIL
3/4" = 1'-0"

FLOOR NAILING REQUIREMENTS

LEVEL (NOTE 1)	BLOCKED (NOTE 2)	PANEL EDGE (NOTE 3)	INTERMEDIATE (NOTE 4)	FLOOR WALL BOUNDARY (NOTE 5)
ROOF	YES	6"	12"	6"
UPPER LEVEL	YES	6"	12"	6"

NOTES:
1. FLOOR SYSTEM IS 3/4" PLYWOOD PER GENERAL NOTES.
2. BLOCKING TO BE 2" NOMINAL WIDTH, FULL DEPTH BETWEEN FLOOR TRUSSES AND PLACED AT ALL PANEL EDGES.
3. PANEL EDGE TO BE INSTALLED HAVING THE SHORT PANEL EDGE PERPENDICULAR TO THE SPAN DIRECTION OF THE FLOOR TRUSSES AND TO BE IN A STAGGERED PATTERN.
4. "INTERMEDIATE" SPACING INDICATES "PANEL FIELD".
5. PANEL EDGE TO BE NAILED TO WALL LEDGER OR BEAM NAILER (WHERE APPLICABLE) AT FLOOR BOUNDARIES.
6. MINIMUM 10d NAIL PENETRATION INTO FRAMING 1-5/8".



12 CONNECTOR ROOF FRAMING DETAIL
3/4" = 1'-0"

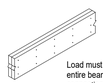
11 TYP WOOD JOIST OR LVL AT LVL
3/4" = 1'-0"

Fastener Installation Requirements

Piece Width	# of Plies	Fastener Type (1)	Min. Length	# Rows	OC Spacing	Location
1 ½"	2	10d nails	3"	3(2)	12"	One side
		12d-16d nails	3 ¼"	2(2)		
		Screws	3 ½" or 3 ½"	2	24"	
	3	10d nails	3"	3(2)	12"	Both sides
		12d-16d nails	3 ¼"	2(2)		
		Screws	3 ½" or 3 ½"	2	24"	Both sides
			5"			One side
	4	10d nails (3)	3"	3(2)	12"	One side (per ply)
		12d-16d nails (3)	3 ¼"	2(2)		
		Screws	5" or 6"	2	24"	Both sides
			6 ¾"			One side
3 ½"	2	Screws	5" or 6"	2	24"	Both sides
			6 ¾"			One side
		½" bolts	8"	2	24"	-

(1) 10d nails are 0.128" diameter; 12d-16d nails are 0.148" - 0.162" diameter; screws are SDS, SDW, WS, or Truss-LOK-EWP™.
(2) An additional row of nails is required with depths of 14" or greater.
(3) When connecting 4-ply members, nail each ply to the other and offset nail rows by 2" from the rows in the ply below.

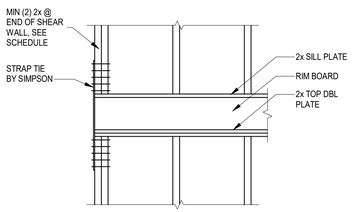
When fasteners are required on both sides, stagger fasteners on the second side so they fall halfway between fasteners on the first side.



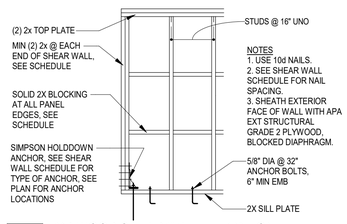
Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.

Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"

10 MULTIPLE MEMBER LVL CONNECTIONS
1/4" = 1'-0"



14 EXTERIOR SHEAR WALL STRAP DETAIL
3/4" = 1'-0"



NOTES
1. USE 10d NAILS.
2. SEE SHEAR WALL SCHEDULE FOR NAIL SPACING.
3. SHEATH EXTERIOR FACE OF WALL WITH APA EXT STRUCTURAL GRADE 2 PLYWOOD, BLOCKED DIAPHRAGM.

13 TYP WOOD SHEAR WALL ELEVATION
3/4" = 1'-0"

WOOD SHEAR WALL SCHEDULE

"SW" WALL MARK	FLOORS USED	SHEATHING TYPE	SHEATHING SIDES	NAIL SIZE	NAIL SPACING @ PANEL EDGES,DOORS, AND WINDOWS	NAIL SPACING @ INTERMEDIATE FRAMING MEMBERS	WALL TYPE	# OF STUDS EACH END OF WALL	#, TYPE, AND FORCE OF HOLD DOWNS @ E.E. OF WALL			#, TYPE, AND FORCE OF STRAPS TIES @ E.E. OF WALL BETWEEN FLOORS			BLOCKING	COMMENTS
SW, TYP	1ST-ROOF	1/2" PLY/OSB	1	10d	6"	6"	2x6	2-2x6	1	HTT4_SDS2.5	3000#	1	CS20	1000#		ALL EXTERIOR WALLS NOT MARKED
SW A	1ST-ROOF	5/8" GYPSUM	2	6d COOLER	7"	7"	2x6	2-2x6		NOT REQ'D					YES	INTERIOR SHEAR WALLS
SW B	1ST-ROOF	5/8" GYPSUM	2	6d COOLER	7"	7"	2x6	2-2x6	1	HTT4_SDS2.5	3000#				YES	INTERIOR SHEAR WALLS

NOTES:
1. PROVIDE 5/8" ANCHORS INTO CONCRETE WALL/SLAB @32" OC WITH MIN 6" EMBEDMENT AT ALL PERIMETER EXTERIOR WALL, UNO.
2. PROVIDE HOLDDOWN AND ANCHORS PER MANUFACTURER RECOMMENDATIONS.
-AT LVLs & BEAMS, PROVIDE A 5/8" DIA THRU BOLT FOR HOLDDOWNS.
3. PROVIDE H2.5A HURRICANE TIE @ 32" OC TO RAFTERS & JOISTS AT ROOF LEVEL UNO.

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STATE OF MICHIGAN
ROBERT D MAGRUDER
ENGINEER
No. 6201054876
PROFESSIONAL ENGINEER
EXP 10/31/2026

07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

STEEL & WOOD DETAILS

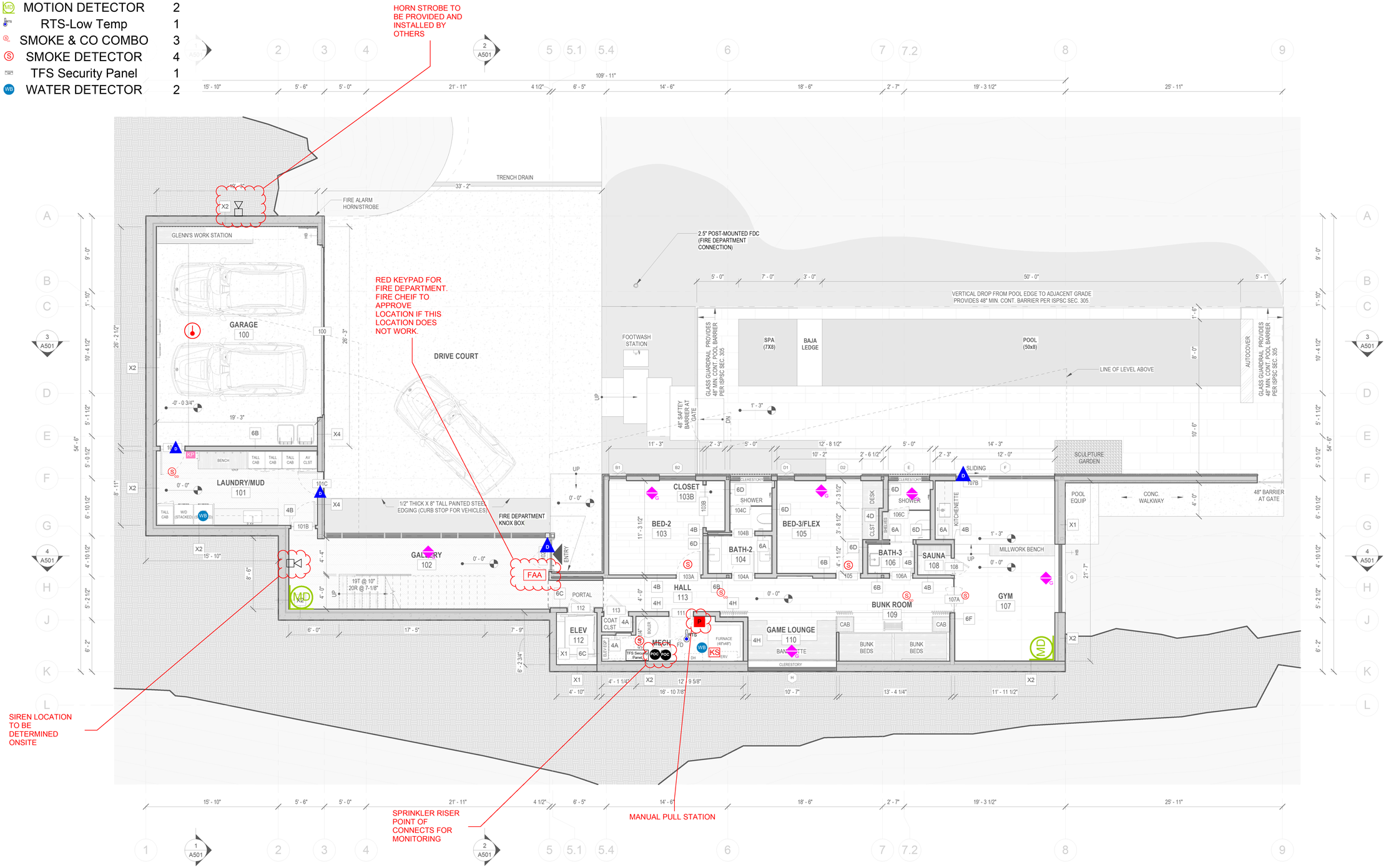
S3.1

SECURITY DEVICES

Description	Quantity
DOOR CONTACT	4
Fire Alarm Annunciator	1
Heat Detector	1
Key Switch	1
KEYPAD	1
Manual Pull Station	1
MOTION DETECTOR	2
RTS-Low Temp	1
SMOKE & CO COMBO	3
SMOKE DETECTOR	4
TFS Security Panel	1
WATER DETECTOR	2

ADD ON OPTIONS

Description	Quantity
Glass Break Sensor	6



1 LOWER LEVEL FLOOR PLAN
3/16" = 1'-0"

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DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

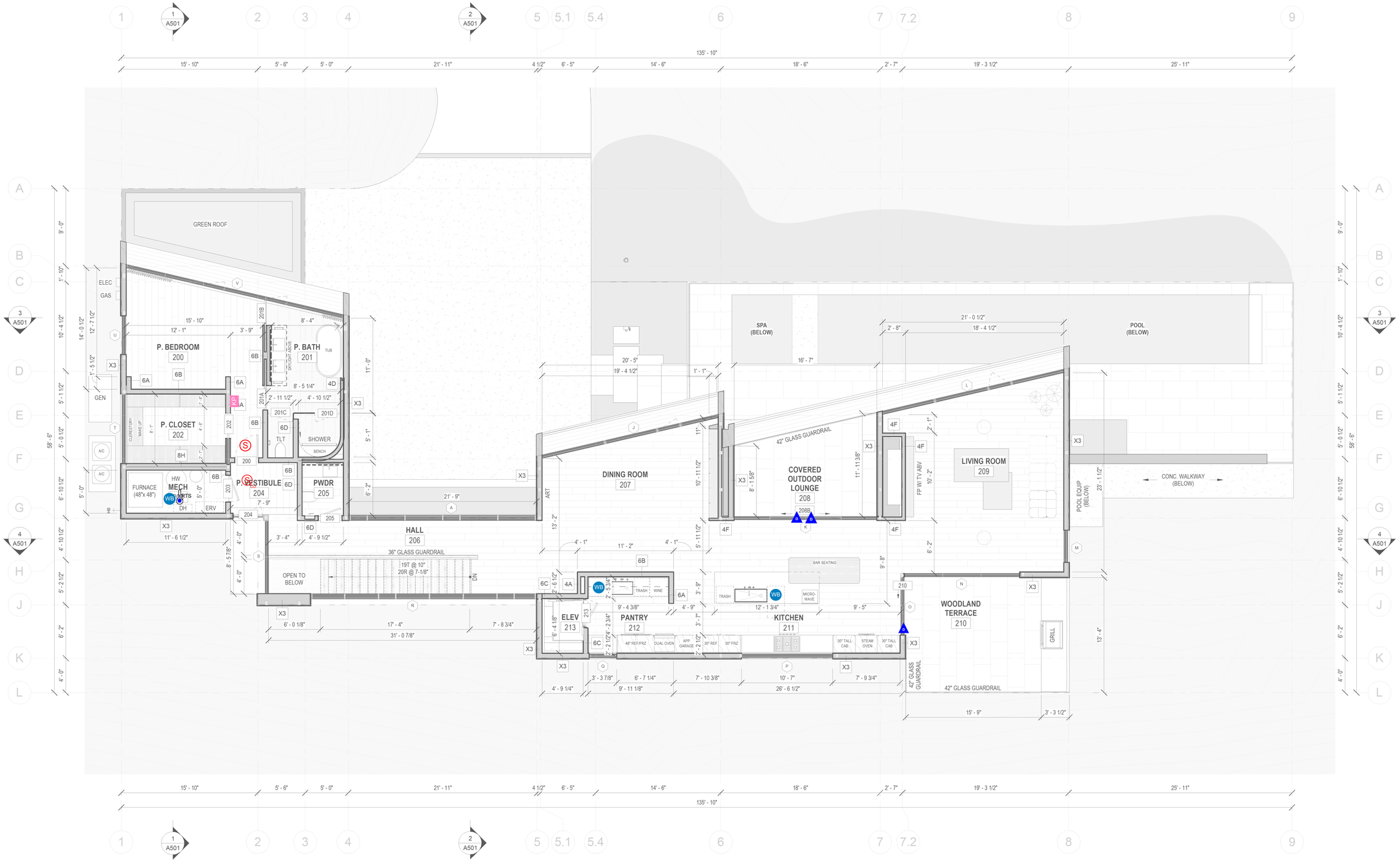
PROJECT NUMBER: 0244.01
SCALE: AS NOTED

LOWER LEVEL FIRE ALARM & SECURITY PLAN

F001

SECURITY DEVICES

Description	Quantity
DOOR CONTACT	3
KEYPAD	1
RTS-Low Temp	1
SMOKE & CO COMBO	1
SMOKE DETECTOR	1
WATER DETECTOR	3



1 UPPER LEVEL FLOOR PLAN
3/16" = 1'-0"

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07.08.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

UPPER LEVEL FIRE ALARM & SECURITY PLAN

F002

ALLEGAN COUNTY HEALTH DEPARTMENT



System Type: Residential

Label: 195 Dunegrass ridge

Property Information

Address: 195 DUNEGRASS RIDGE DR

City: SAUGATUCK

State: MI

Zip: 49453

Township: CITY OF SAUGATUCK

County:

PIN: 57-077-004-01

Property Use Limitations:

Parcel accessible to Public Sewer System:

Parcel accessible to Public Water System:

Owner Information

Owner Name: GLENN KARPF & ANDI OWEN

Owner Address:

Owner City:

Owner State:

Owner Zip:

Owner Phone:

Owner Email:

APPLICATION

Application Information

Vacant Land Evaluation:

New Sewage Treatment System Permit: Yes

Replacement Sewage Treatment System Permit:

Replacement Septic Tank Permit:

New Well Permit:

Replacement Well Permit:

Existing Wells on Property:

Evaluate Existing Well:

Evaluate Existing Sewage Treatment System:

Number of Bedrooms: 4

Proposed Number of Bedrooms: 1

Total SqFt of Proposed/Existing Home: 4890

Flow Gallons Per Day:

Lot Size (acres):

Application Date: 10/01/2024

Assigned Sanitarian: JACOB WHEATLEY

Applicant Information

Applicant Name: ROBERT MCFADDEN

Applicant Signature:

Applicant Address:

Applicant City:

Applicant State

Applicant Zip:

Applicant Phone:

Applicant Email:

Comments:

FEES

Fee Name:
Residential Single/Two Family onsite sewage disposal system construction permit new & replacement (includes soil evaluation)

Fee Description: Single/Two Family

Receipt Number: 3071

Local Receipt Number: 351763

Fee Date: 10/01/2024

Local Fee: 325

Other Fee:

Total Fee ($): 325

Fee Voided:

Payment Method: Card

Check Number: REF#43564129

Paid Date: 10/02/2024

Payment Received by: BB

Comments:

Unpaid Fees: $0.00 Total Fees: $325.00

PERMIT

Permit Status: Issued

Permit Type: New

Permit Number: 64988

Alternative: No

THIS PERMIT EXPIRES ONE (1) YEAR FROM THE DATE OF ISSUANCE. THERE IS A FEE TO EXTEND THE PERMIT FOR SIX (6) MONTHS FROM THE EXPIRATION DATE

Bedrooms: 5

Seasonal High Water Table (in):

Extension Approved By:

Extension Expiration Date: MM/DD/YYYY

Variance Requested: No

Variance Code:

Variance Approved: No

Variance Date: MM/DD/YYYY

SEPTIC TANK

Permit Number: 64988
Type: Septic
Capacity Gallons: 1000

Width (ft): 10
Length (ft): 5
Height (ft):
Tank Depth (in):
Riser(s): No
Effluent Filter: No
Tank Outlet: Outlet Baffle
Material: Concrete
Compartments:
Manufacturer:

Status: Proposed
Install Type:
Issued By: Jacob Wheatley, REHS
Issued Date: 10/03/2024
Installed By:
Install Date: MM/DD/YYYY
Approved By:
Approved Date: MM/DD/YYYY
Comments:

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Compartments:
Manufacturer:

Status: Proposed
Install Type:
Issued By: Jacob Wheatley, REHS
Issued Date: 10/03/2024
Installed By:
Install Date: MM/DD/YYYY
Approved By:
Approved Date: MM/DD/YYYY
Comments:

Issued By: Jacob Wheatley, REHS
Issued Date: 10/03/2024
Sanitarian Signature:
Owner Signature:



Expiration Date: 10/03/2025
Approved By:
Approved Date: MM/DD/YYYY

Site Preparation/Requirements:
Tank only permit, No observable water table. Tanks to be connected to the East to community septic system

Isolation Distances:

BUILDINGS

Label:	Water Supply Source: Well
Building Class: Residential	Building Type: Res, Single
Current Use:	Building Status: Planned
Short Term Rental:	Long Term Rental:
Number of Baths:	Number of Bedrooms: 5
Basement:	Water Softener: Yes
Garbage Disposer: Yes	Basement Plumbing:
Oversized Spa/Jacuzzi: Yes	Sewage Ejector/Grinder Pump:
Food Service Facility:	Licensed Child/Adult Care Facility:
Number of Employees:	
Days of Operation:	Hours of Operation:
Number of Customers:	Number of Seats:
Comments:	

ALLEGAN COUNTY HEALTH DEPARTMENT



System Type: Residential

Label: 195 DUNEGRASS RIDGE DR

Property Information

Address: 195 DUNEGRASS RIDGE DR

City: SAUGATUCK

State: MI

Zip: 49453

Township: CITY OF SAUGATUCK

County: ALLEGAN COUNTY

PIN: 57-077-004-01

Property Use Limitations:

Parcel accessible to Public Sewer System:

Parcel accessible to Public Water System:

Owner Information

Owner Name: GLENN KARPF & ANDI OWEN

Owner Address:

Owner City:

Owner State:

Owner Zip:

Owner Phone:

Owner Email:

PERMIT

Permit Type: Soil Erosion

Permit Number: 67282

Permit Status: Issued

Stormwater Operator

Company Name: Andi Owen & Glenn Karpf

Company Address:

Company Telephone:

Company License Number:

Project Information

Start Date: 03/01/2025, 9:58 AM

End Date: 03/01/2026, 9:58 AM

Earth change size (sqft): 18450

Earth change size (acres):

Earth change within 200ft of storm water catch basin which discharges into body of water: No

Earth change within 500ft of body of water: Yes

Project Description: New home and amenities construction.

Soil Erosion Permit Instructions:
Display permit at all times. Permit cannot be closed until the site has full established vegetation. Permit holder shall plan to seed / landscape as soon as possible after earth change. Install a silt sack in down gradient catch basin (as applicable). INSTALL MILLINGS, CRUSHED CONCRETE, OR OTHER FORM OF CONSTRUCTION DRIVEWAY prior to excavation. Maintain vegetation buffers that are being used as a control measure. Properly install and maintain silt fencing. Do not allow sediment off the permitted parcel or onto the roadway. Use erosion control blanket on slopes 1 on 4 or greater. Permit holder is responsible for all soil erosion and must control all soil migration from site. Contact the EGLE Water Resources Division (Jason Combs) if you feel that you may have wetlands on the property that may be altered by your project. This permit does not exempt applicant from EGLE permits, nor does it guarantee permission from EGLE. **Inspections and construction not to commence until March 2025**

Sanitarian Signature:



Issued By: Jacob Wheatley, REHS

Issued Date: 12/03/2024

Expiration Date: 12/03/2025

Permit Conditions

1. The permitted activity shall be completed in accordance with the approved plans and specification, and the attached general and specific conditions.
2. This permit does not waive the necessity for obtaining all other required federal, state, or local permits.
3. Applicant shall notify the permitting agency within one week after completing the permitted activity or one week prior to the permit expiration date, whichever comes first.

In accordance with Rule 1709 promulgated under the authority of Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and in addition to the information on the attached plan(s) and special conditions, the following general conditions apply to the earth change authorized by this permit:

Design, construct, and complete the earth change in a manner that limits the exposed area of disturbed land for the shortest period of time.
Remove sediment caused by accelerated soil erosion from runoff water before it leaves the site of the earth change.
Temporary or permanent control measures shall be designed and installed to convey water around, through, or from the earth change at non erosive velocity.
Install temporary soil erosion and sedimentation control measures before or upon commencement of the earth change activity and maintain the measures on a daily basis. Remove temporary soil erosion and sedimentation control measures after permanent soil erosion measures are in place and the area is stabilized. ("Stabilized" means the establishment of vegetation or the proper placement, grading, or covering of soil to ensure its resistance to soil erosion, sliding, or other earth movement.)
Complete permanent soil erosion control measures for the earth change within five calendar days after final grading or upon completion of the final earth change. If it is not possible to permanently stabilize the earth change, then maintain temporary soil erosion and sedimentation control measures until permanent soil erosion control measures are in place and the area is stabilized.

THIS PERMIT MUST BE POSTED AT THE PROJECT SITE

[redacted]

May 7th, 2025

dSpace Studio LTD.
[redacted]

Re: 195 Dunegrass Ridge Dr., Saugatuck, MI – New Residence – Site Plan Review #1 – dSpace Studio LTD, Project #0244.01, drawings dated 04.09.25.

Dear Mr. Toukoumidis,

We are in receipt of the site plan for 195 Dunegrass Ridge Dr., received 4/11/2025. We reviewed the plans using the International Fire Code (IFC) 2015 edition. Please see the result of the fire department review listed ***below***.

1. Dead end driveways and access roads in excess of 150 feet in length shall be provided with an approved area for turning around with fire apparatus (IFC 503.2.5) ***Not applicable, driveway length is shown as +/- 165 feet and due to the suppression and alarm systems has been increased within 10% as allowed by the FCO.***

2. "No Parking Fire Lane" signage shall be installed at the dead end of the turnaround. (IFC 503.3) ***Not applicable.***

3. No parking shall be allowed within the turnaround. The area must be clear and unobstructed for turnaround at all times. (IFC 503.4)

4. Fire apparatus access roads and driveways shall have an unobstructed width of not less than 20 feet, exclusive of shoulders. This may be reduced to 16 feet when the drive serves one-single family dwelling. (IFC 503.2.1) ***Approved, width is shown as 16 feet minimum.***

5. Minimum clear height shall be 13'6" across the entire 20ft width of driveway. (IFC 503.2.1) ***Approved, height clearance is noted as 13'6" in plans provided.***

6. Road shall not exceed the 10% maximum grade. (IFC 503.2.7) ***Approved, grade is noted as 10% max slope in plans provided.***

7. The driveway shall be installed with asphalt, concrete, or other approved driving surfaces capable of supporting the 80,000-pound imposed load of our heaviest apparatus and be installed to provide emergency access prior to commencement of building construction. (IFC 503.2.3) ***Approved, weight capacity is noted as supporting 80,000lbs.***

8. The road shall be maintained free of snow and ice to provide all weather driving capabilities. (IFC 503.2.3)

9. Fire department access roads shall be constructed and maintained for all construction sites. (IFC 3310.1) ***Please ensure the driveway, apparatus access road, and/or turnaround are installed prior to construction material being delivered to the site.***

10. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates

and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200. (IFC 503.6) ***No gate is listed in the plans provided, however if it is installed in the future, a Knox Key switch is required for emergency access and activation***

11. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. (IFC 505.1) ***Address signage must be posted prior to commencement of construction. Green reflective address signs are preferred and are available free of charge to Fire District properties at https://www.saugatuckfire.org/address-sign-order-form.html***

12. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire code official. (IFC 506.1). ***A Knox Key Box is required and shall be installed adjacent to the main front door at 60" AFF. Minimum accepted box is Model #3261. Surface mount or recessed options are available at www.knoxbox.com***.

13. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into or within the jurisdiction. (IFC 507.1) ***Approved, existing.***

14. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official, or approved documentation of the test shall be provided to the fire code official prior to final approval of the water supply system. (IFC 507.4). ***Not applicable, Dunegrass watermain is existing.***

15. A hydrant is required within 400 ft. of any exterior portion of a non-sprinklered building or 600 ft. for an R-3 occupancy or sprinklered building. (IFC 507.5.1) ***Approved, proposed residence is within 400 feet from the existing hydrant.***

16. An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site. (IFC 3312.1) ***Approved, existing.***

17. Upon completion of construction, physical testing with apparatus will be required. If the apparatus is unable to navigate the completed road and driveway in a safe and efficient manner, modifications may be required.

18. Anything omitted in this plan review is subject to field inspection. (IFC 105.4.4)

Per the terms of the Dunegrass PUD, the dwelling will be equipped with the following required systems. The Fire District will review plans for these systems and conduct subsequent required inspections of the fire protection and fire alarm systems in accordance with the current applicable fee schedule.

1. ***Fire Suppression System in accordance with NFPA 13D, to include all bathrooms, closets, and garages and to include a single 2.5" NHT Fire Department Connection (FDC) in a location approved by the fire code official.***
2. ***Fire Alarm System in accordance with NFPA 72 capable of 24/7/365 monitoring of the Fire Suppression System and***
3. ***Knox Key Box as outlined above.***

You have site plan approval from the fire department to begin construction 195 Dunegrass Ridge Drive in Saugatuck City if you are in agreement with the above-mentioned items. Please ensure you receive the appropriate permits from Michigan Township Services prior to commencement of construction. Please let us know if you have any questions.

Sincerely,

Chris Mantels
Deputy Chief / Fire Inspector

Cc: Greg Janik – Fire Chief (via email)
Luke Thompson – Zoning Administrator (via email)
Dan Poll – Building Official (via email)

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
WATER RESOURCES DIVISION
PERMIT

Issued To:

Glenn Karpf

[redacted]

Permit No: **WRP044667 v1.0**
Submission No: **HQ8-KT4Z-ZXCSC**
Site Name: **May 19, 2025**
Revised:
Expires: **May 19, 2030**

This permit is being issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); specifically:

☒ **Part 323, Shorelands Protection and Management**
☒ **Part 353, Sand Dunes Protection and Management**

EGLE certifies that the activities authorized under this permit are in compliance with the State Coastal Zone Management Program and certifies without conditions under the Federal Clean Water Act, Section 401 that the discharge from the activities authorized under this permit will comply with Michigan's water quality requirements in Part 31, Water Resources Protection, of the NREPA and associated administrative rules, where applicable.

Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:

Authorized Activity:

Construct a new single-family residential home with attached garage that will be supported by a slab-on-grade foundation. Additional work will include a lap pool and patio area, a cantilevered deck, a new septic system, a new concrete driveway and parking area, a geoweb retaining wall, storm water collection and disposal systems, landscaping around the new house with native plants and connections to public and private utilities. The foundation footprint of the new house will be approximately 2,131 square feet with the attached garage adding another approximately 696 square feet. All structures are proposed to be landward of the 60-year setback. Restore all areas disturbed by the construction of the house/garage, pool/patio, outdoor living areas, concrete driveway, retaining walls and supporting structures with native dune vegetation per the submitted and attached vegetation assurance.

All work shall be completed in accordance with the attached plans approved by EGLE on May 19, 2025, and the permit specifications listed herein.

Waterbody Affected: Lake Michigan

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WRP044667 v1.0
Approved
Issued On:05/19/2025
Expires On:05/19/2030

Waterbody Affected: Lake Michigan
Property Location: Allegan County, City of Saugatuck, Town/Range/Section: 03N16W08; Property Tax No: 03-57-077-004-01

Authority granted by this permit is subject to the following limitations:

A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.
E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.
F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with 2013 PA 174 (Act 174) and comply with each of the requirements of Act 174.
G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
I. Permittee shall notify EGLE within one week after the completion of the activity authorized by this permit by completing and forwarding the attached preaddressed postcard to the office addressed thereon.
J. This permit shall not be assigned or transferred without the written approval of EGLE.
K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
L. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31 of the NREPA, and wetlands).
M. In issuing this permit, EGLE has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, EGLE may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
N. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the state: (1) provides the permittee or its designated representative written notice of the claim or cause of action within 30 days after it is received by the state, and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act, 1969 PA 306, as amended, challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
O. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, EGLE may initiate criminal and/or civil proceedings as may be

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deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.

P. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from EGLE. Such revision request shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by EGLE prior to being implemented.

Q. This permit may be transferred to another person upon written approval of EGLE. The permittee must submit a written request to EGLE to transfer the permit to the new owner. The new owner must also submit a written request to EGLE to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties that includes all the above information may be provided to EGLE. EGLE will review the request and, if approved, will provide written notification to the new owner.

R. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.

S. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.

T. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent (CEA).

U. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.

V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.

W. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the water body are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.

X. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the Michigan Department of Natural Resources, Fisheries Division.

Y. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

1. Authority granted by this permit does not waive permit or program requirements under Part 91 of the NREPA or the need to acquire applicable permits from the CEA. To locate the Soil Erosion Program Administrator for your county, visit https://www.michigan.gov/egle/about/organization/water-resources/soil-erosion/sesc-overview and select “Soil Erosion and Sedimentation Control Agencies”.

2. Authority granted by this permit does not waive permit or program requirements under Part 91 of the NREPA or the need to acquire applicable permits from the CEA. To locate the Soil Erosion Program Administrator for your county, visit:

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https://www.michigan.gov/egle/about/organization/water-resources/soil-erosion/sesc-overview and select "Soil Erosion and Sedimentation Control Agencies."

3. The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state, or federal approval or authorization necessary to conduct the activity.

4. No fill, excess soil, or other material shall be placed in any wetland, floodplain, or surface water area not specifically authorized by this permit, its plans, and specifications.

5. This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.

6. The permit placard shall be kept posted at the work site in a prominent location at all times for the duration of the project or until permit expiration.

7. This permit is being issued for the maximum time allowed and no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by EGLE, will be for a five-year period beginning on the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.

8. **Prior to initiation of construction, a preconstruction meeting shall be held with the contractor, permittee or her/his representative(s), and representatives of EGLE. Contact:** [redacted]

9. The tree pest, hemlock woolly adelgid (HWA), is known to infest hemlock and tiger-tail spruce trees in this county. The Michigan Department of Agriculture and Rural Development (MDARD) has issued a quarantine on the movement of all branches, boughs, any tree part bearing twigs and needles and uncomposted, chipped/shredded/ground parts that include twigs and needles. Issuance of this permit does not obviate the need to obtain approval to move hemlock and tiger-tail spruce parts off the project site prior to commencement of construction activity as stated in the quarantine effective on September 10, 2020, by authority of Public Act 72 of 1945, as amended, for Allegan, Ottawa, Muskegon, Oceana and Mason counties. [redacted]

10. Oak wilt, a non-native tree killing fungus, is known to infect oak trees in this county. Damage to the trees from construction, such as cut or broken branches, during the growing season may result in the tree becoming infected and dying shortly thereafter. If possible, do not cut or trim oak trees during the growing season, especially April 15 through July 15. Open cuts on damaged trees should be immediately painted with pruning sealer or tree paint. Contact the local Cooperative Invasive Species Management Area (CISMA) staff for more information, info@MichiganInvasives.org or www.MichiganInvasives.org.

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11. The permittee is responsible for acquiring all necessary easements or rights of way before commencing any work authorized by this permit. All construction operations relating to, or part of this project shall be confined to the existing right-of-way limits or other acquired easements.

12. Prior to the initiation of any permitted construction activities, a sedimentation barrier shall be constructed immediately downgradient of the construction site. Sedimentation barriers shall be specifically designed to handle the sediment type, load, water depth, and flow conditions of each construction site throughout the anticipated time of construction and unstable site conditions. The sedimentation barrier shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland (non-wetland, non-floodplain) site and stabilized with seed and mulch. The sedimentation barrier shall then be removed in its entirety and the area restored to its original configuration and cover.

13. All earth moving and contour changes must occur within **five (5) feet** of the limits of disturbance as depicted on the attached project drawings.

14. Vegetation changes are not permitted more than **ten (10) feet** outside of the limits of disturbance as depicted on the attached project drawings. All disturbed areas shall be re-vegetated with native dune vegetation and stabilized with temporary measures before or upon commencement of the permitted activity and maintained until permanent measures are in place. The removal and re-establishment of vegetation must be in accordance with the submitted and attached vegetation assurance.

15. Restore all areas disturbed by the construction of the house and supporting structures, by planting native species as described in the submitted vegetation assurance. Only native species of plants selected from that attached list are permitted for all site restoration and landscaping around the new house, garage, etc. This will include the planting of new native tree specimens to replace all live trees over a diameter at breast height (DBH) of 3 inches removed as part of this project. The number of replacement trees and their size shall be as described in the attached vegetation assurance.

16. The transport of building materials/excavated sand and access to and from the site shall be via the newly permitted driveway.

17. A separate temporary driveway or access road is not permitted for construction activities.

18. Impacting the dunes is not permitted outside of the approved disturbance area including activities such as driving machinery on any slopes steeper than one-on-three (33%), or storing (permanently or temporarily) machinery, soil, materials, equipment, or removed vegetation, on any slopes steeper than one-on-four (25%).

19. The construction of porches, decks, landscaping (with the exception of planting native dune vegetation), on-grade walkways, on-grade stairways, and retaining walls which also includes the placement of boulders, are considered uses, and not permitted unless specified in the permit conditions.

20. The underground utility lines must be placed in areas with slopes less than one on four or the lines must be installed using the directional bore method or by hand digging. If the directional

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bore method is utilized, the bore pits must be located in areas with slopes less than one on four. The disturbed areas must be stabilized and repaired with temporary measures before or upon commencement of the permitted activity and shall be maintained until permanent measures are in place. Trenching areas with slopes steeper than one on four is not permitted.

21. All excess woody debris, concrete, building materials, or other types of soil must be deposited off-site, outside of the Critical Dunes Area.

22. Only clean sand shall be placed in areas depicted on the site plan. Where mature trees are present, sand shall not be placed greater than 2 inches deep. Where shrubs are present, sand shall not be placed greater 3 inches deep. In areas of open sand or dune grass, sand shall not be placed greater than 18 inches deep.

23. If it is not feasible to dispose of excess excavated sand or soil on-site, then it must be deposited off-site, outside of a regulated critical dune area, floodplain, lake, river, stream, or wetland, and stabilized with temporary measures until permanent measures are in place. Permanent measures shall be in place within five (5) days of achieving final grade.

24. This permit was issued after the review of the existing conditions at the project site. The Great Lakes shoreline is always changing. Erosion occurs with fluctuating water levels and storms. Soil types and the presence or absence of plants and trees may also impact the rate of erosion. The location of the landward edge of the zone of active erosion (erosion hazard line) used for this permit may change due to erosion. At the time of construction, the permittee should review the location of the building site with the erosion hazard line and the setbacks. More information is available online at www.mi.gov/shorelands.

25. The proposed activity is on a bluff greater than 25 feet in height. The 30-year required setback distance from the erosion hazard line for readily moveable structures is 65 feet.

26. The 60-year required setback distance from the erosion hazard line for non-readily moveable structures is 115 feet.

Upon signing by the permittee named herein, this permit must be returned to EGLE's Water Resources Division, Kalamazoo District Office, [redacted] for final execution. This permit shall become effective on the date of the EGLE representative's signature.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

X _____ 5/10/25
Permittee Date

X GLENN KARPF 10 PROPERTY OWNER
Printed Name and Title of Permittee

Andrea Sauer

EGLE
WRP044667 v1.0
Approved
Issued On:05/19/2025
Expires On:05/19/2030

Issued By: _____

John Bayha, P.E.
District Engineer
Kalamazoo District Office
Water Resources Division

cc: City of Saugatuck Clerk
Allegan County SESC Agent
Allegan County Health Department
Adrienne Peterson, Agent
Laurel Bronkella, Agent
Kevin Toukoumidis, Architect
Tony Zahn, Contractor

EGLE
WRP044667 v1.0
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Issued On:05/19/2025
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Vegetation Assurance

Project Site Description

The project is vacant forested backdune with some areas of sparse trees and low growing vegetation.

Proposed Development

The project proposes the construction of a single-family residence with associated infrastructure such as a garage, driveway, decks, patio, pool, and utilities. 41 trees greater than 3" DBH will be removed for the project.

Proposed Actions for Maintaining Site Stability During & After Construction

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1. Upon completion of construction activities, all exposed soils will be re-vegetated with native species or covered with a weed-free biodegradable mulch blanket to stabilize soils and allow dead leaf material to accumulate, if deemed appropriate by the landscaper.
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Common Name	Scientific Name	Category
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Jack Pine	*Pinus banksiana*	Tree
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Black Oak*	*Quercus velutina*	Tree
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American Basswood	*Tilia americana*	Tree
Eastern Hemlock^	*Tsuga canadensis*	Tree

* = not recommend if Oak Wilt in area ^ = not recommended if Hemlock Woolly Adelgid in area ~ = not recommended if Beech Bark Disease in area

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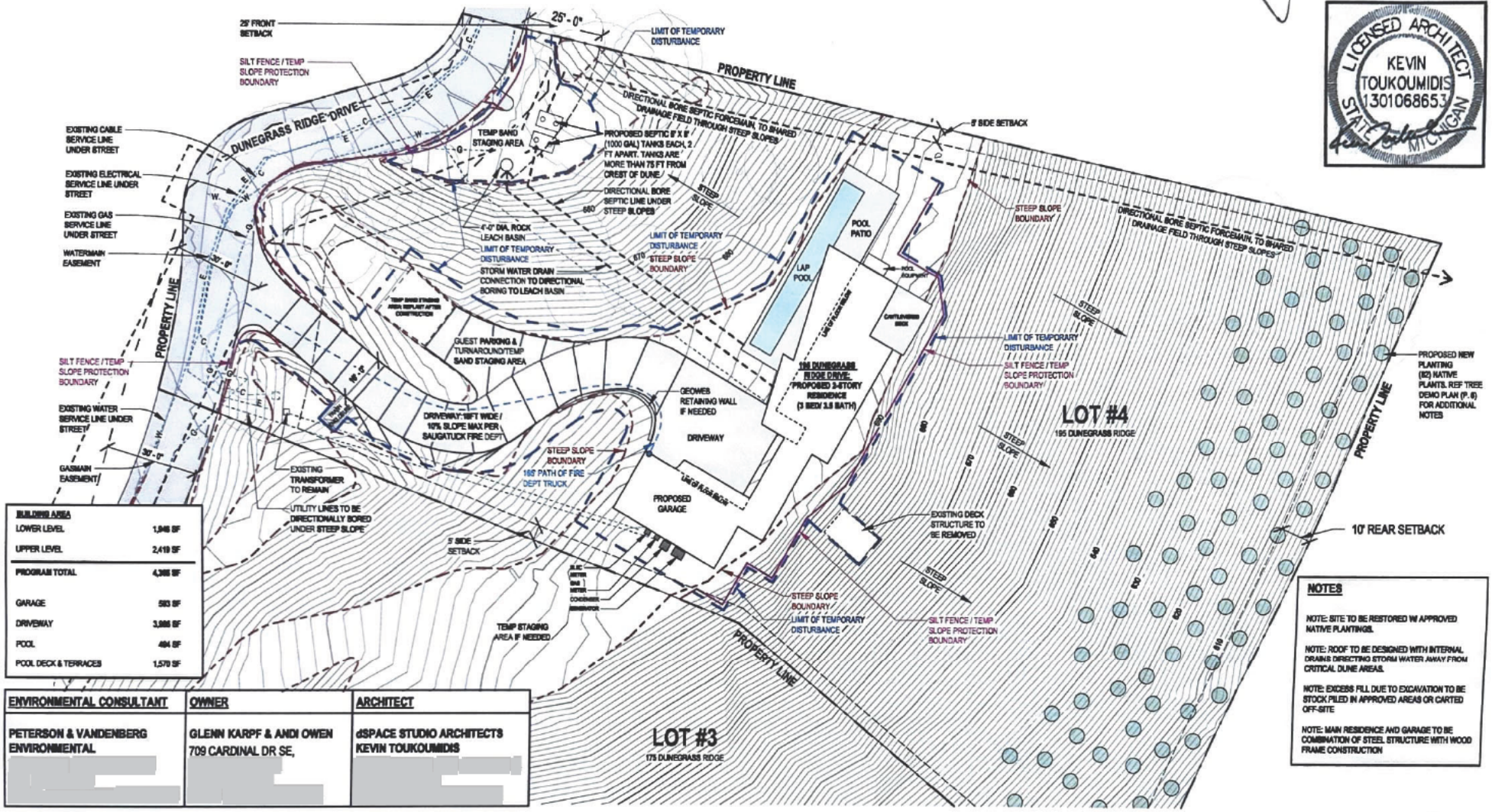
AO
5/10/25

3. The property will be restored and stabilized with native vegetation from the species listed below, or other species deemed appropriate by the landscaper.

Common Name	Scientific Name	Category
Bearberry	*Arctostaphylos uva-ursi*	Shrub
Serviceberry	*Amelanchier interior*	Shrub
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Seaside Spurge	*Euphorbia polygonifolia*	Forb
Flowering Spurge	*Eurphorbia corrollata*	Forb
Canada Wild Rye	*Elymus canadensis*	Grass
Hyssop-Leaved Bugseed	*Corispermum hyssopifolium*	Forb
Harebell	*Campanula rotundifolia*	Forb
Sand Reed Grass	*Calamovilfa longifolia*	Grass
Sea-Rocket	*Cakile edentula*	Forb
Common Milkweed	*Asclepias syriaca*	Forb
Wild Wormwood	*Artemisia campetris*	Forb
Sand Cress	*Arabidopsis lyrate*	Forb
Little Bluestem	*Schizachyrium scoparium*	Grass
Marram Grass	*Ammophila breviluglata*	Grass

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5/10/25



BUILDING AREA	
LOWER LEVEL	1,946 SF
UPPER LEVEL	2,419 SF
PROGRAM TOTAL	4,365 SF
GARAGE	583 SF
DRIVEWAY	3,986 SF
POOL	494 SF
POOL DECK & TERRACES	1,570 SF

ENVIRONMENTAL CONSULTANT	OWNER	ARCHITECT
PETERSON & VANDENBERG ENVIRONMENTAL	GLENN KARPF & ANDI OWEN 709 CARDINAL DR SE,	dSPACE STUDIO ARCHITECTS KEVIN TOUKOUMIDIS

NOTES

NOTE: SITE TO BE RESTORED W/ APPROVED NATIVE PLANTINGS.

NOTE: ROOF TO BE DESIGNED WITH INTERNAL DRAINS DIRECTING STORM WATER AWAY FROM CRITICAL DUNE AREAS.

NOTE: EXCESS FILL DUE TO EXCAVATION TO BE STOCKPILED IN APPROVED AREAS OR CARTED OFF-SITE

NOTE: MAIN RESIDENCE AND GARAGE TO BE COMBINATION OF STEEL STRUCTURE WITH WOOD FRAME CONSTRUCTION

LICENSED ARCHITECT
KEVIN TOUKOUMIDIS
1301068653
STATE OF MICHIGAN

1 EGLE - SITE PLAN
1" = 30'-0"

N

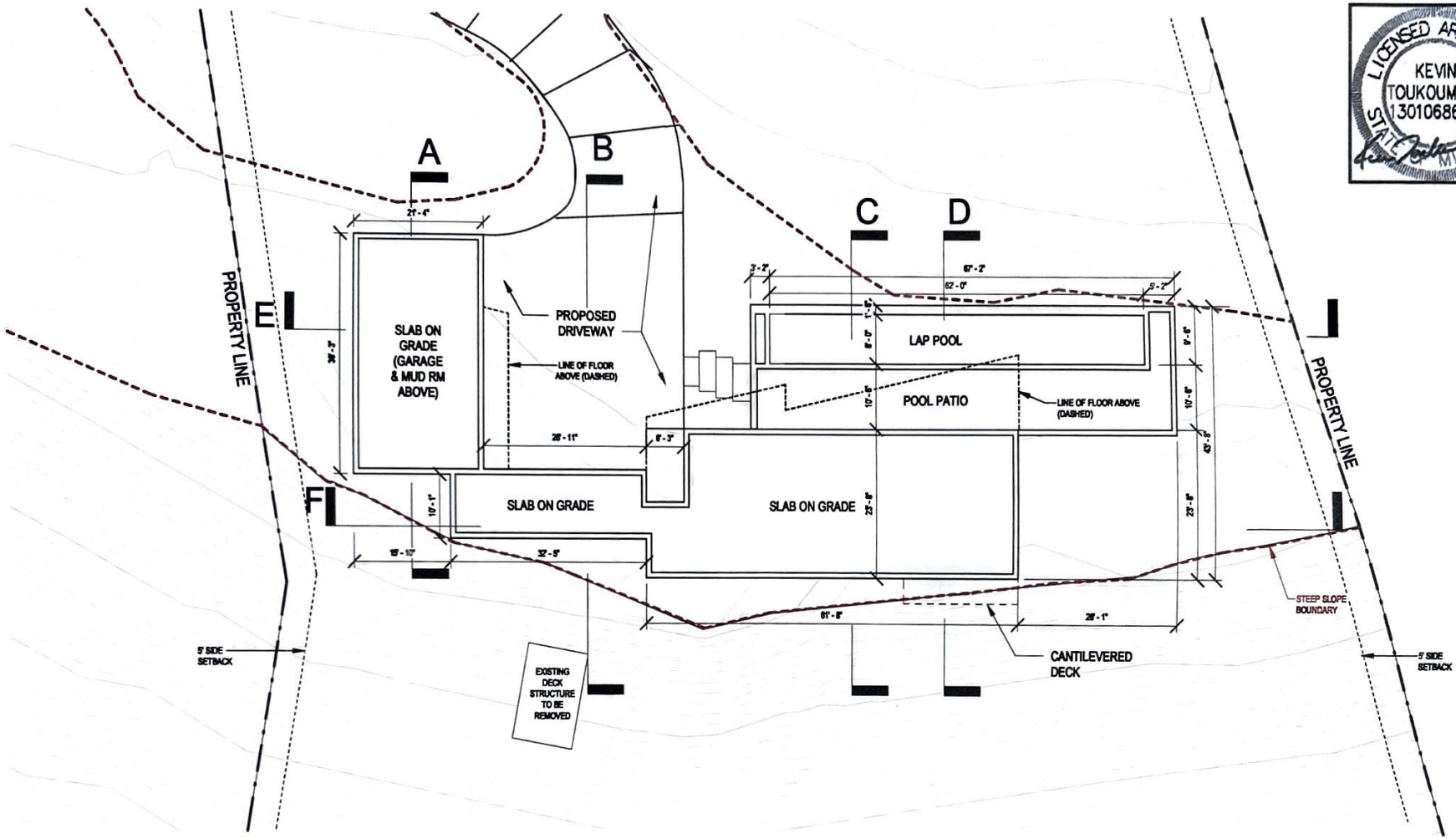
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architecture | interiors | landscape

KARPF-OWEN RESIDENCE
195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

EGLE - SITE PLAN
5/2/25

EGLE
WRP044667 v1.0
Approved
Issued On:05/19/2025
Expires On:05/19/2030

5/10/25



1 EGLE - PROPOSED FOUNDATION PLAN
1/16" = 1'-0"

LICENSED ARCHITECT
KEVIN TOUKOUMIDIS
1301068653
STATE OF MICHIGAN

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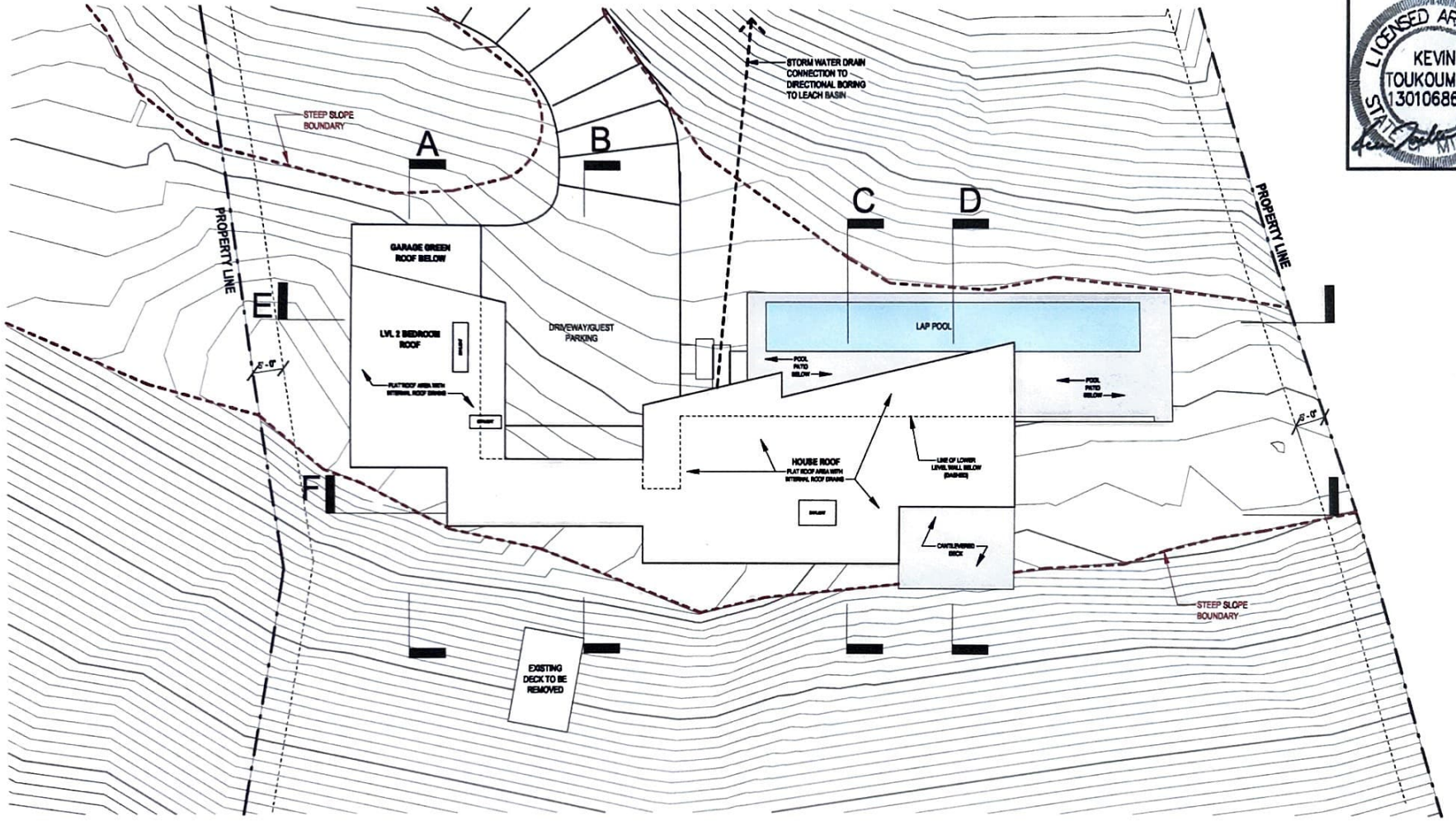
KARPF-OWEN RESIDENCE
195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

EGLE FOUNDATION PLAN
5/2/25

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5/10/25

LICENSED ARCHITECT
KEVIN TOUKOUMIDIS
1301068653
STATE OF MICHIGAN



1 EGLE - ROOF PLAN
1/16" = 1'-0"

N

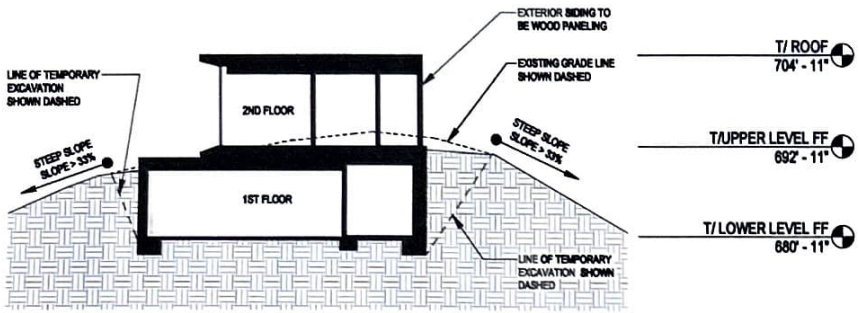
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KARPF-OWEN RESIDENCE
195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

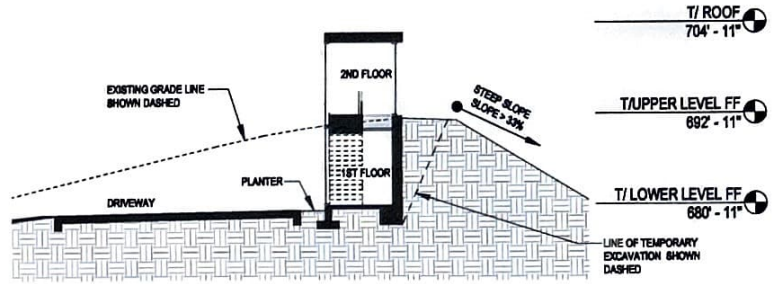
EGLE - ROOF PLAN
5/2/25

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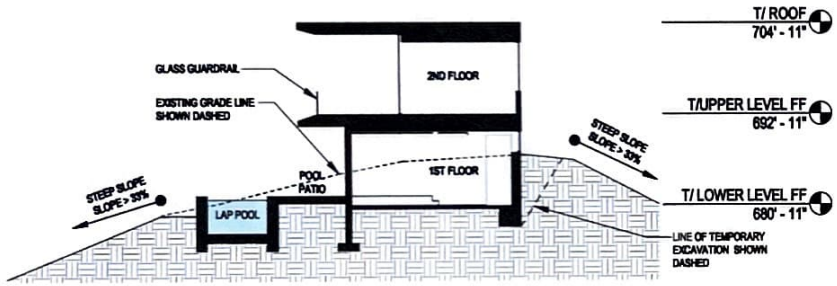
5/10/25



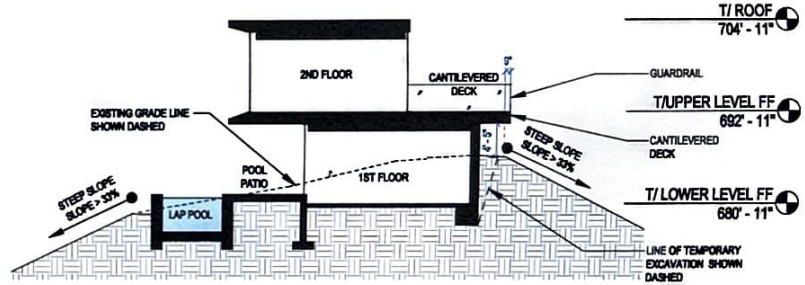
A EGLE - SECTION A
1/16" = 1'-0"



B EGLE - SECTION B
1/16" = 1'-0"



C EGLE - SECTION C
1/16" = 1'-0"



D EGLE - SECTION D
1/16" = 1'-0"

LICENSED ARCHITECT
KEVIN TOUKOUMIDIS
1301068653
STATE OF MICHIGAN

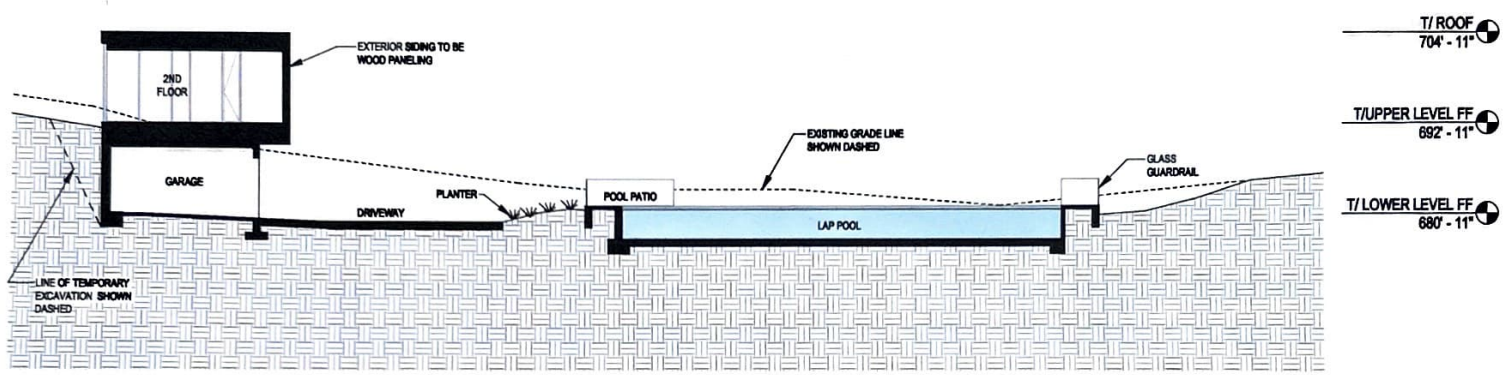
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KARPF-OWEN RESIDENCE
195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

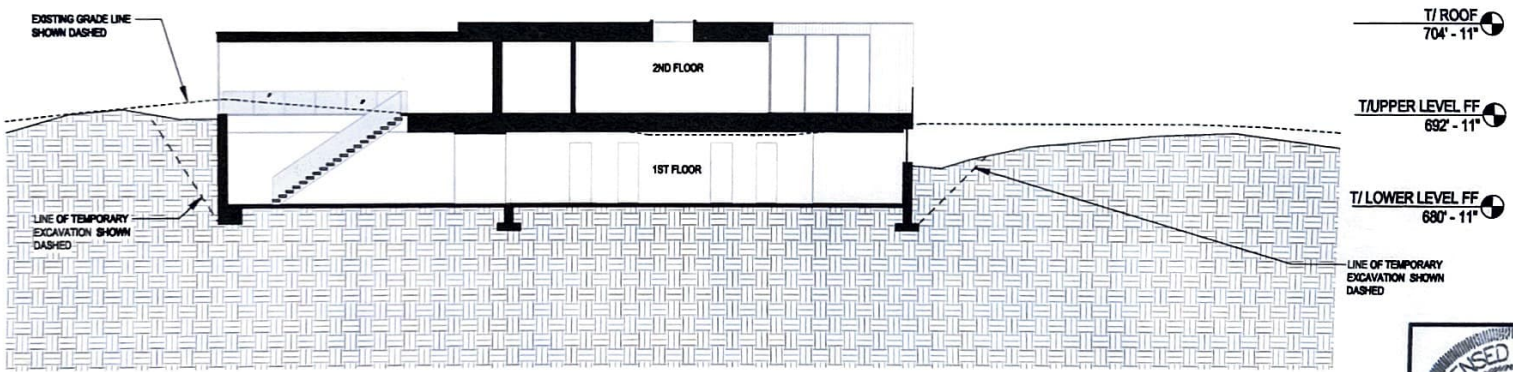
EGLE - SITE SECTIONS
5/2/25

EGLE
WRP044667 v1.0
Approved
Issued On:05/19/2025
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5/10/25



E EGLE - SECTION E
1/16" = 1'-0"



F EGLE - SECTION F
1/16" = 1'-0"



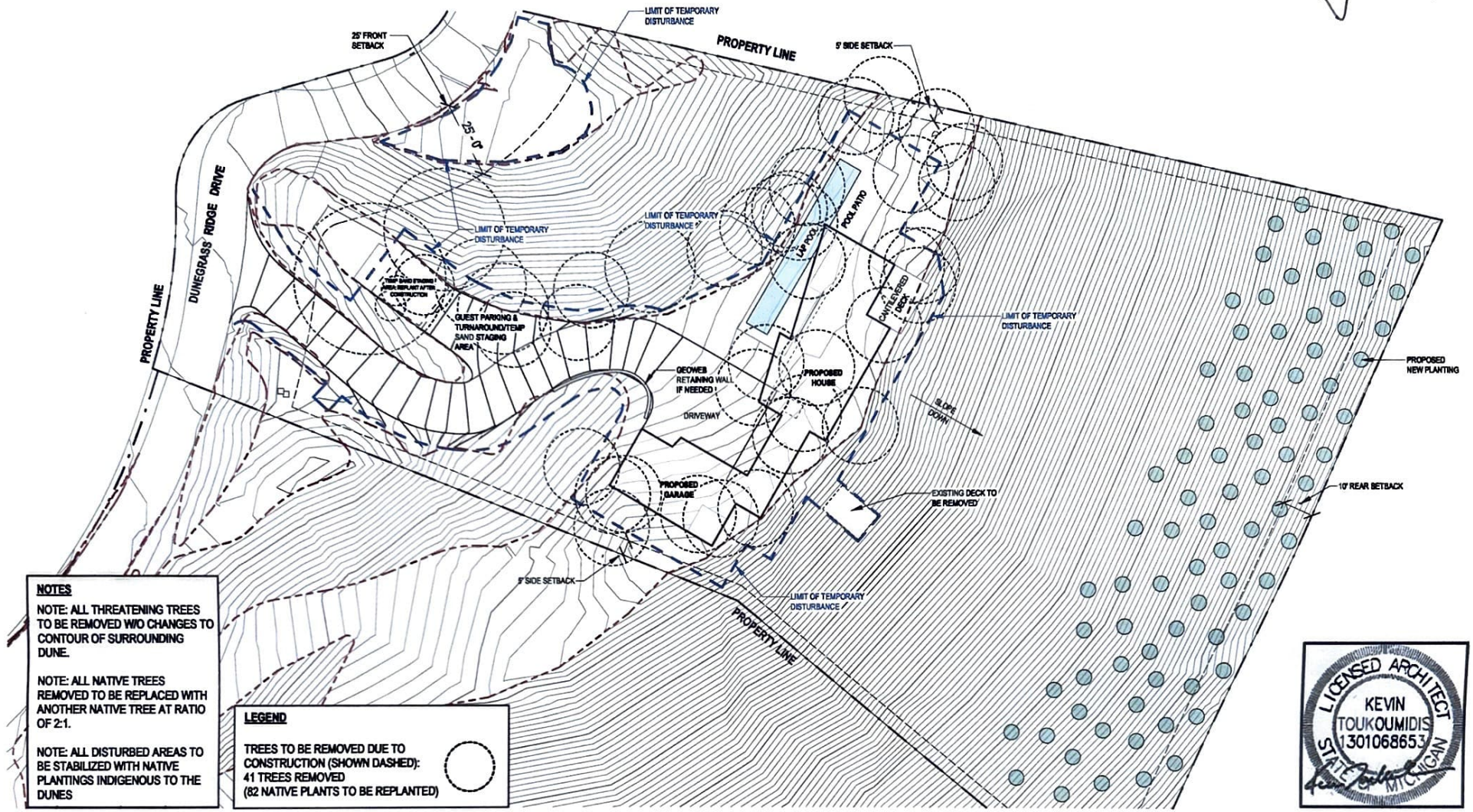
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KARPF-OWEN RESIDENCE
195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

EGLE - SITE SECTIONS
5/2/25

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NOTES

NOTE: ALL THREATENING TREES TO BE REMOVED W/O CHANGES TO CONTOUR OF SURROUNDING DUNE.

NOTE: ALL NATIVE TREES REMOVED TO BE REPLACED WITH ANOTHER NATIVE TREE AT RATIO OF 2:1.

NOTE: ALL DISTURBED AREAS TO BE STABILIZED WITH NATIVE PLANTINGS INDIGENOUS TO THE DUNES

LEGEND

TREES TO BE REMOVED DUE TO CONSTRUCTION (SHOWN DASHED):
41 TREES REMOVED
(82 NATIVE PLANTS TO BE REPLANTED)

LICENSED ARCHITECT
KEVIN TOUKOUMIDIS
1301068653
STATE OF MICHIGAN

1 EGLE - SITE PLAN - TREE DEMO
1" = 30'-0"

N

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KARPF-OWEN RESIDENCE
195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

LANDSCAPING PLAN
5/2/25

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GEOWEB RETAINING REFERENCE



PRESTO GEOSYSTEMS - GEOWEB RETAINING WALL SYSTEM

DRAIN REFERENCE



STAINLESS STEEL GRATE TRENCH DRAIN (VEHICULAR GRADE)

PLANTING LEGEND

- NEW DUNE GRASS
- NEW TREE SAPLING
- EXISTING TREE TO REMAIN

GENERAL SITE NOTES

1. **DO NOT SCALE DRAWINGS.** WRITTEN DIMENSIONS HOLD PRIORITY OVER APPARENT SCALE.
2. ALL DIMENSIONS ARE TAKEN FROM THE FACE OF FINISH OR GRIDLINE UNLESS NOTED OTHERWISE.
3. GC TO VERIFY ALL DIMENSIONS & CLEARANCES - NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. REF A703 FOR LIGHT FIXTURE SCHEDULE
5. REF STRUCTURE DRAWINGS FOR STRUCTURAL DETAILS.
6. REF ARCHITECTURAL FLOOR PLAN FOR ADDITIONAL BUILDING INFO.

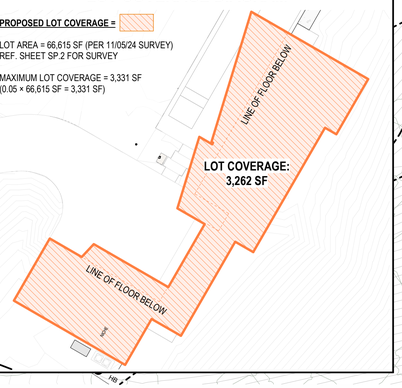
NOTE: GC TO RESTORE THE ROAD TO ITS ORIGINAL CONDITION IN ANY LOCATION WHERE REPAIR IS NEEDED FOR NEW UTILITY CONNECTIONS & SITE IMPROVEMENTS. GC TO ALSO COORDINATE TRAFFIC CONTROL AS REQUIRED.

SILT FENCE / TEMP SLOPE PROTECTION BOUNDARY
EXISTING CABLE SERVICE LINE UNDER STREET
EXISTING ELECTRICAL SERVICE LINE UNDER STREET
EXISTING GAS SERVICE LINE UNDER STREET
2' TALL ADDRESS SIGN (NUMBERS TO BE 6" TALL): GC TO ENSURE NUMBERS ARE CLEARLY VISIBLE FROM STREET.
WATERMAIN EASEMENT
EXISTING TRANSFORMER TO REMAIN
UTILITY LINES TO BE DIRECTIONALLY BORED UNDER STEEP SLOPE
EXISTING WATER SERVICE LINE UNDER STREET
GASMAIN EASEMENT

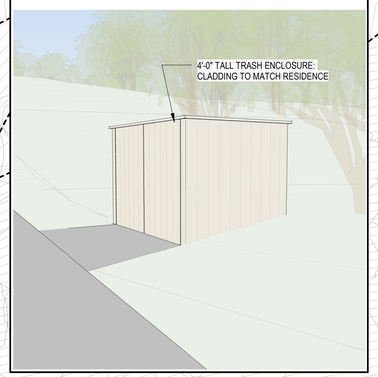
SILT FENCE / TEMP SLOPE PROTECTION BOUNDARY
STEEP SLOPE BOUNDARY
NEW CURB BOX LABELED FOR 2" DOMESTIC WATER SERVICE
NEW CURB BOX LABELED FOR 2.5" FIRE SUPPRESSION WATER SERVICE
DUNEGRASS RIDGE DRIVE
PROPERTY LINE
25' FRONT SETBACK
5' SIDE SETBACK
TEMP SAND STAGING AREA
PROPOSED SEPTIC 5' X 8' (1000 GAL) TANKS EACH, 2 FT APART. TANKS ARE MORE THAN 75 FT FROM CREST OF DUNE
DIRECTIONAL BORE SEPTIC FORCEMAIN TO SHARED DRAINAGE FIELD
DIRECTIONAL BORE ELEC TO SEPTIC PUMP CHAMBER
LIMIT OF TEMPORARY DISTURBANCE
STEEP SLOPE
2'-0" DIA. ROCK LEACH BASIN BELOW NEW CATCH BASIN
4'-0" DIA. ROCK LEACH BASIN
STORM WATER DRAIN CONNECTION TO DIRECTIONAL BORING TO LEACH BASIN
NEW 2" DOMESTIC WATER SERVICE & SEPARATE 2.5" FIRE SUPRESSION SERVICE
TEMP SAND STAGING AREA: REPLANT AFTER CONSTRUCTION
GUEST PARKING & TURNAROUND/TEMP SAND STAGING AREA
CATCH BASIN
VALLEY GUTTER
DRIVEWAY
16' - 0"
2% CROSS SLOPE TO GUTTER
SAGE
ASPHALT DRIVEWAY: 16FT WIDE & 10% SLOPE MAX PER SAUGATUCK FIRE DEPT
DRIVEWAY & SITE PLAN APPROVED BY FIRE DEPARTMENT: PLEASE REFERENCE APPROVAL DOCUMENT ON SHEET A002
TRENCH DRAIN
SLOPE
GEOWEB RETAINING WALL
NEW TRASH ENCLOSURE W/ WOOD GATE
DRIVE COURT
GREEN ROOF
PROPOSED GARAGE
ELEC METER
GAS METER
GENERATOR
CONDENSERS
POOL PATIO
T/ POOL PATIO 682' - 2"
POOL
DECK
T/ LOWER LEVEL FF 680' - 11"
195 DUNEGRASS RIDGE DRIVE: PROPOSED 2-STORY RESIDENCE (3 BED/3.5BATH)
STEEP SLOPE BOUNDARY
LIMIT OF TEMPORARY DISTURBANCE
SILT FENCE / TEMP SLOPE PROTECTION BOUNDARY
EXISTING DECK STRUCTURE TO BE REMOVED
82 NEW NATIVE TREE SAPLINGS PER APPROVED EGLE PERMIT DRAWINGS.
10' REAR SETBACK
DIRECTIONAL BORE SEPTIC FORCEMAIN, TO SHARED DRAINAGE FIELD
5' SIDE SETBACK
LOT #4
195 DUNEGRASS RIDGE
LOT #3
175 DUNEGRASS RIDGE

LOT COVERAGE DIAGRAM

- **PROPOSED LOT COVERAGE =**
- LOT AREA = 66,615 SF (PER 11/05/24 SURVEY) REF. SHEET SP.2 FOR SURVEY
- MAXIMUM LOT COVERAGE = 3,331 SF (0.05 × 66,615 SF = 3,331 SF)



TRASH ENCLOSURE 3D VIEW



1 ARCHITECTURAL SITE PLAN
1/16" = 1'-0"

N

dSPACE studio LTD
www.dspacestudio.com
info@dspacestudio.com
773.423.2920
2920 North Lincoln Avenue
Chicago, IL 60657

ARCHITECT
dSPACE STUDIO LTD
KEVIN TOUKOUMIDIS, BOB MCFADDEN, JOSEPH KAFTAN, LILLIAN JONES, & HAYLEY BURROUGHS
2920 N LINCOLN AVE
CHICAGO, IL 60657
PHONE: 773.423.2920

STRUCTURAL ENGINEER
GOODFRIEND MAGRUDER STRUCTURE, LLC
BOB MAGRUDER & ERIC WHITE
53 W. JACKSON BLVD.
SUITE 340
CHICAGO, IL 60604
PHONE: 312.607.9898

GENERAL CONTRACTOR
ZAHN BUILDERS, INC
TONY ZAHN & MATT BRUURSEMA
443 DOUGLAS AVE #40
HOLLAND, MI 49424
PHONE: 616.738.9246

LICENSED ARCHITECT KEVIN A. TOUKOUMIDIS 001-020032 STATE OF ILLINOIS

09.11.25 1 PERMIT REVISIONS
09.09.25 ISSUE FOR PERMIT

DUNEGRASS RESIDENCE

195 DUNEGRASS RIDGE DR
SAUGATUCK, MI 49453

PROJECT NUMBER: 0244.01
SCALE: AS NOTED

ARCHITECTURAL SITE PLAN

A001

Permittee Date

Vegetation Assurance

195 Dunegrass Ridge Drive
City of Saugatuck, Allegan County, MI

Project Site Description

The project is vacant forested backdune with some areas of sparse trees and low growing vegetation.

Proposed Development

The project proposes the construction of a single-family residence with associated infrastructure such as a garage, driveway, decks, patio, pool, and utilities. 41 trees greater than 3" DBH will be removed for the project.

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* = not recommend if Oak Wilt in area ^ = not recommended if Hemlock Woolly Adelgid in area ~ = not recommended if Beech Bark Disease in area		

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Horse Mint	*Monarda punctata*	Forb
Hairy Puccoon	*Lithospermum carliniense*	Forb
Beach Pea	*Lathyrus japonicus*	Vine
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Flowering Spurge	*Eurphorbia corrollata*	Forb
Canada Wild Rye	*Elymus canadensis*	Grass
Hyssop-Leaved Bugseed	*Corispermum hyssopifolium*	Forb
Harebell	*Campanula rotundifolia*	Forb
Sand Reed Grass	*Calamovilfa longifolia*	Grass
Sea-Rocket	*Cakile edentula*	Forb
Common Milkweed	*Asclepias syriaca*	Forb
Wild Wormwood	*Artemisia campetris*	Forb
Sand Cress	*Arabidopsis lyrate*	Forb
Little Bluestem	*Schizachyrium scoparium*	Grass
Marram Grass	*Ammophila breviluglata*	Grass

EGLE
67-RP-044667 v1.0
Approved
Issued On:05/19/2025
Expires On:05/19/2030

GARY E. MEDLER

gary.medler@yahoo.com
461 Vine Street PO Box 461
Saugatuck, Michigan 49453
312-848-2453

September 18, 2025

BY EMAIL DELIVERY

Jamie Wolters
City Clerk
City of Saugatuck
102 Butler Street/PO Box 86
Saugatuck, Michigan 49453
jwolters@saugatuckcity.com

Grayson Moore
Director, Planning and Zoning
gmoore@saugatuckcity.com

Ryan Cummins
City Manager
rcummins@saugatuckcity.com

PLANNING COMMISSION

Steven Manns, Chair
Christopher Bagierek, Vice Chair
Craig Baldwin
Joseph Clark
Bobbie Gaunt
Mark LaChey
Auston Marineau

David M. Jirousek, AICP
Consultant

Re: Planning Commission Meeting
September 18, 2025; Agenda Item 5B
195 DuneGrass Ridge Dr. – Site Plan Review

Dear Ms. Wolters:

This comment letter is submitted for inclusion in the Record on the Site Plan Review Application of the Karph-Owen Family Trust ("Applicant") for the proposed build at 195 DuneGrass Ridge Drive ("Application").

All residential builds within the DuneGrass Development are subject to:

1. Site plan review pursuant to City Code Sections 154.060 – 154.068;

2. The Consent Judgment in *Gary E. Medler v. City of Saugatuck, Planning Commission and City of Saugatuck Zoning Administrator*, Case No. 13-52646-CZ, as consolidated with *Shorewood Association v. City of Saugatuck and Dune Ridge SA LP,* Case No.13-52737-AA, entered by the Circuit Court of Allegan County, Allegan, Michigan, on September 24, 2015, recorded December 29, 2015 ("Consent Judgment");

3. The Saugatuck Planning Commission Special Land Use Resolution No. 1312203-A, dated December 3, 2013, recorded December 6, 2013 ("SLU Resolution"); and

4. The Saugatuck City Council Planned Unit Development Resolution 150610-A, dated June 10, 2015 ("PUD Resolution").

Copies of the Consent Judgment, SLU Resolution and PUD Resolution are attached.

This Application has only been reviewed pursuant to the requirements of the City Code and the PUD Resolution (See September 12, 2025, Memorandum contained in the Planning Commission Packet). Until City Staff has evaluated this Application as required by the SLU Resolution and the Consent Judgment, this Application cannot be approved by the Planning Commission.

Section 3.8 of the Consent Judgment states:

> "The SLU Resolution and PUD Resolution and all other resolutions, determinations, decisions and conditions by the City or its departments or designees, and any other government body, agency or official related in any manner to the Property, which were issued or adopted prior to the date of this Consent Judgment remain binding and in effect and are enforceable by the appropriate entity to the extent the resolutions, determinations, decisions and conditions are not inconsistent with this Consent Judgment."

Additionally, paragraph 1 (l) of the PUD Resolution states "Dune Ridge shall abide by verbal representations made at the June 1, 2015 City Council meeting . . ." Despite repeated requests since adoption of the PUD Resolution, the City has yet to memorialize these verbal representations for preservation of the record in order to properly review and evaluate all residential builds since adoption of the PUD Resolution. Once again, I hereby request the City to document these verbal representations and provide copies to all parties to the Consent Judgment.

As presented, this Application has not been fully vetted as required by the Consent Judgment and SLU Resolution and therefore cannot be approved by the Planning Commission.

Sincerely

Gary E. Medler

cc: Holly Anderson
Lauren Stanton
Joseph Clark
Scott Dean
Russ Gardner
Gregory Muncey
Chris Peterson

N
W E
S

SCALE.: 1" = 100'

PREVIOUSLY APPROVED SPECIAL LAND USE AREA

EROSION HAZARD LINE

PREVIOUSLY APPROVED SPECIAL LAND USE AREA

CREST OF FOREDUNE

LAKE MICHIGAN

100 YEAR FLOODPLAIN ELEV.=584.0

EROSION HAZARD LINE (01-16-15)

PROPOSED PUD BOUNDARY

PROPOSED PUD BOUNDARY

ZONED CRC

ZONED CRC

ZONED CRC

ZONED CRC

ZONED CRC

ZONED PW

ZONED PW

ZONED PW

ZONED PW

ZONED SRP

ZONED PW

ZONED PS

ZONED PS

ZONED RESORT DISTRICT C-4

OPEN SPACE

OPEN SPACE

DUNEGRASS CIRCLE DRIVE (PVT)

DUNEGRASS CIRCLE DRIVE (PVT)

DUNEGRASS RIDGE DR. (PVT)

PERRYMAN STREET

VAN DALSON STREET

HOUTKAMP STREET

BLISS STREET

MAPLE STREET

KALAMAZOO LAKE

VINE REI

PARK STREET

PARK ADDITION TO SAUGATUCK LIBER 2 OF PLATS, PAGE 40

LIBER 2 OF PLATS, PAGE 40

EXISTING 66' WIDE ROAD EASEMENT TO REMAIN

EXISTING 66' WIDE ROAD EASEMENT TO REMAIN

EXISTING 66' WIDE ROAD EASEMENT TO REMAIN

PROPOSED NON-MOTORIZED TRAIL WITH INGRESS / EGRESS EASEMENT

PROPOSED NON-MOTORIZED TRAIL WITH INGRESS / EGRESS EASEMENT

PROPOSED 16' PAVED ROAD

PROPOSED 16' PAVED ROAD

PROPOSED 16' PAVED ROAD

PROPOSED 16' PAVED ROAD

PROPOSED 22' PAVED ROAD

PROPOSED 22' PAVED ROAD

PROPOSED 22' PAVED ROAD

PROPOSED FIRE HYDRANT (TYP.)

PROPOSED PUBLIC 8" HDPE WATERMAIN

PROPOSED 66' WIDE PRIVATE ROAD EASEMENT

PROPOSED GUEST PARKING

PROPOSED GUEST PARKING

PROP. 30' UTILITY EASEMENT

PROPOSED 66' WIDE PRIVATE ROAD EASEMENT

PROPOSED 66' WIDE PRIVATE ROAD EASEMENT

PROPOSED 20' WIDE NON-MOTORIZED TRAIL EASEMENT

PROPOSED 40' UTILITY EASEMENT ROUTE

PUBLIC 8" HDPE WATERMAIN

PROPOSED PUBLIC WATERMAIN IN MAPLE STREET ROW

DEVELOPER OWNED PARCELS (TYP.)

20' ACCESS EASEMENT

PROPOSED SETBACK (TYP)

PROPOSED TENNIS COURT

PROP. 30' UTILITY EASEMENT

PROP. 66' ACCESS EASEMENT

EXISTING TRAIL

EXISTING TRAIL

EXISTING TRAIL

EXISTING TRAIL

EXISTING DRIVEWAY USE TO BE MAINTAINED AND USED IN CURRENT CONDITION

PROPOSED TRAIL TO BEACH

CENTERLINE OF EXISTING SHOREWOOD FOOTPATH WITHIN PROPOSED 3' WIDE EASMENT

EX. MANHOLE RIM ELEV: 594.16 *NO ACCESS, RUSTED LID

EX. MANHOLE RIM ELEV: 618.28 INV: 601.38

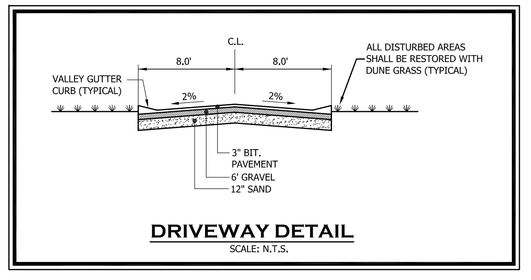
1 — 226,763 s.f. (5.2 ac)
2 — 151,635 s.f. (3.5 ac)
3 — 76,052 s.f. (1.7 ac)
4 — 85,601 s.f. (2.0 ac)
5 — 110,239 s.f. (2.5 ac)
6 — 94,790 s.f. (2.2 ac)
7 — 126,803 s.f. (3.1 ac)
8 — 125,255 s.f. (2.9 ac)
9 — 133,011 s.f. (3.1 ac)
10 — 151,753 s.f. (3.5 ac)
11 — 121,756 s.f. (2.8 ac)
12 — 137,964 s.f. (3.2 ac)
13 — 88,224 s.f. (2.0 ac)
14 — 32,956 s.f. (0.8 ac)
15 — 28,250 s.f. (0.6 ac)
16 — 35,572 s.f. (0.8 ac)
17 — 23,696 s.f. (0.5 ac)
18 — 16,939 s.f. (0.4 ac)
19 — 33,459 s.f. (0.8 ac)
20 — 33,427 s.f. (0.8 ac)
21 — 24,207 s.f. (0.6 ac)

LEGEND

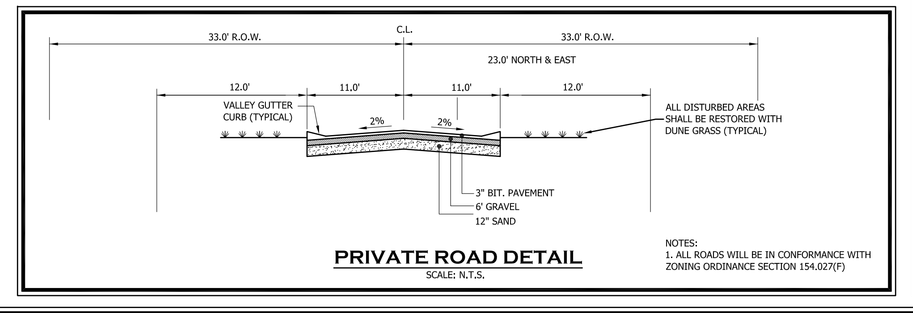
- EX. GRADE CONTOUR
- PROP. BITUMINOUS
- PUD BOUNDARY
- POSSIBLE HOUSE FOOTPRINT
- POSSIBLE GARAGE/ACCESSORY BUILDING FOOTPRINT
- LIMITED COMMON ELEMENT

GENERAL NOTES

1. ZONING REQUIREMENTS: CRC (CONSERVATION, RECREATION AND CAMP DISTRICT)
   MINIMUM LOT AREA = 2 ACRES
   MINIMUM LOT WIDTH = 200 FEET
   MAXIMUM BUILDING HEIGHT = 28 FEET
   MAXIMUM LOT COVERAGE = 5%
   SETBACK:
   FRONT YARD = 100 FEET
   SIDE YARD = 50 FEET
   REAR YARD = 50 FEET
2. PROPOSED PUD: SINGLE-FAMILY RESIDENTIAL PUD
   LOTS 1 THRU 5 AND 13 THRU 21
   SITE CONDOMINIUM
   AVERAGE LOT AREA = 1.6 ACRES
   MINIMUM LOT WIDTH = 100 FEET
   PROPOSED BUILDING HEIGHT RESTRICTION
   WE ARE PROPOSING A REVISED BUILDING HEIGHT RESTRICTION AS AGREED TO WITH THE FIRE CHIEF ON 10/28/2014 AND REFERENCED IN D10S6 EXISTING IFC CODE AND D105.1 2012 IFC CODE: NO BUILDING SHALL HAVE A BUILDING HEIGHT EXCEEDING 30 FEET AS MEASURED FROM THE HIGHEST LEVEL FIRE DEPARTMENT VEHICLE ACCESS AND THE EAVE OF THE PITCHED ROOF (THE INTERSECTION OF THE ROOF TO THE EXTERIOR WALL). SUCH REVISED BUILDING HEIGHT RESTRICTIONS SHALL ALSO APPLY TO THE PREVIOUSLY APPROVED 8 LOTS ON THE ADJACENT PROPERTY.
   OPEN SPACE = 9.8 ACRES
   TOTAL PUD LAND AREA = 32.9 ACRES
   PROPOSED PUD SETBACKS:
   FRONT YARD = 20 FEET
   SIDE YARD = 5 FEET
   REAR YARD = 10 FEET
3. THE PROJECT WILL BE SERVICED BY PUBLIC WATERMAIN AND SEPTIC SYSTEMS.
4. THE PROJECT WILL CONSIST OF 14 LOTS BY SITE CONDOMINIUM.
5. ALL EXISTING STRUCTURES WILL BE REMOVED.
6. THE SITE IS COMPLETELY WOOD. EXISTING TREES AND VEGETATION WILL BE PRESERVED EXCEPT AS NECESSARY TO REMOVE FOR DRIVEWAY, UTILITIES AND HOME CONSTRUCTION. ALL DISTURBED AREAS WILL BE RESTORED WITH DUNE GRASS OR APPROPRIATE VEGETATION.
7. NO PARKING AREAS ARE PROPOSED.
8. NO TRASH RECEPTACLES ARE PROPOSED.
9. GIVEN THE SANDY SITE SOILS AND PROXIMITTY TO LAKE MICHIGAN, NO STORMWATER DETENTION IS PROPOSED. STORMWATER WILL BE ALLOWED TO INFILTRATE THE SANDY SITE SOILS.
10. NO LANDSCAPING IS PROPOSED.
11. NO STREET LIGHTING IS PROPOSED.
12. NO FENCING IS PROPOSED.
13. ALL ROADS AND DRIVEWAY RADII AND DEAD END TURNAROUNDS COMPLY WITH INTERNATIONAL FIRE CODE APPENDIX D REQUIREMENTS.
14. "NO PARKING - FIRE LANE" SIGNS WILL BE PLACED ALONG ALL FIRE APARATUS ACCESS ROADS IN ACCORDANCE WITH THE INTERNATIONAL FIRE CODE.



DRIVEWAY DETAIL
SCALE: N.T.S.



PRIVATE ROAD DETAIL
SCALE: N.T.S.

NOTES:
1. ALL ROADS WILL BE IN CONFORMANCE WITH ZONING ORDINANCE SECTION 154.027(F)

STATE OF MICHIGAN
ROGER JACK BARR II
ENGINEER
No. 41990
PROFESSIONAL ENGINEER

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6355 Old Avery Road, Suite A
Dublin, OH 43016
PHONE: 614.859.1127

GRAND RAPIDS
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
PHONE: 616.575.3190

HOLLAND
347 Hoover Boulevard
Holland, MI 49423
PHONE: 616.393.0449

INDIANAPOLIS
8459 Castlewood Dr., Suite B
Indianapolis, IN 46250
PHONE: 317.288.3702

Proposed PUD Plan - Public Watermain Option

DUNEGRASS

THE PRESERVE AT THE LAKESHORE

PART OF SECTION 8 AND SECTION 9, T3N, R16W,
VILLAGE OF SAUGATUCK, ALLEGAN COUNTY, MICHIGAN

Attn:
Paulus Heule

Dune Ridge SA GP, LLC
231 West Fulton Street
Grand Rapids, Michigan 49503
Phone: (650) 855-3333

no.	date	comment	checked by:	drawn by:
1	11/27/14	PUD SITE PLAN	RJB	WPS
2	01/21/15	REVISED PUD SITE PLAN	RJB	WPS
3	03/11/15	REVISED PUD SITE PLAN	RJB	WPS
4				
5				
6				
7				
8				

date: 03/11/15
date: 02/21/13

project no.:
13200082

C-102A

BM 03/11/15 8:55

13200082-PUD3

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STATE OF MICHIGAN Allegan County
Joyce A. Watts Register of Deeds
RECORDED
December 06, 2013 12:41:51
Liber 3800 Page 274-324 RESOL
FEE: $164.00
Liber 3800 Page 274 #2013026196

THE PLANNING COMMISSION FOR THE CITY OF SAUGATUCK
ALLEGAN COUNTY, MICHIGAN
(Resolution No. 131203-A)

(5)

At a regular meeting of the Planning Commission for the City of Saugatuck held at the City offices on December 3, 2013, beginning at 7:00 p.m., Planning Commission Member Peterson made the motion to adopt the following resolution, which was seconded by Planning Commission Member Schmidt:

A RESOLUTION APPROVING A SPECIAL LAND USE AND SITE PLAN FOR THE FORMER PRESBYTERIAN CAMP PROPERTY (i.e., THE BARKER APPLICATION 13-013) TO BE DEVELOPED FOR SINGLE-FAMILY RESIDENTIAL HOMES AND TO ATTACH REASONABLE CONDITIONS TO SUCH DEVELOPMENT.

FACTS

For over a hundred years, the Presbytery of Chicago owned and operated a summer camp within the City of Saugatuck (the "City") on and adjacent to Lake Michigan. The property involved is approximately 91.4 acres± in size and is legally described as follows:

Government Lot 2 Excluding North 400 Ft. Also Government Lot 3 Section 8, Township 3 North, Range 16 West.

(the "Overall Property").

To the north of the Overall Property is Oval Beach Park, a property that is owned by the City. A public road accessing Oval Beach exists across the northern portion of the Property called "Perryman Street". To the south of the Property is a private summer resort association called "Shorewood."

According to the Presbytery of Chicago, it is no longer financially feasible for them to operate a summer camp (or a similar use) on the Overall Property. Accordingly, the Overall Property was listed for sale. David Barker (the "Developer") purchased and holds an option to

12-06-13A10:52 RCVD

buy the Overall Property. The Developer hopes to develop 8 single-family residential waterfront parcels or lots from the Overall Property, pursuant to simple metes and bounds land divisions.

The portion of the Overall Property to be developed for 8 single-family homes is approximately 22.7 acres in size, has extensive frontage on Lake Michigan, and legally described as follows:

Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8 to the Point of Beginning; thence Southerly 75.38 feet along a 93.00 feet radius curve to the left, the chord of which bears S30°10'35"E 73.33 feet; thence S53°23'43"E 73.10 feet; thence Southerly 40.06 feet along a 20.00 feet radius curve to right, the chord of which bears S03°59'28"W 33.69 feet; thence Southerly 61.95 feet along a 277.00 feet radius curve to the right, the chord of which bears S67°47'04"W 61.82 feet; thence Southerly 56.98 feet along a 162.00 feet radius curve to the right, the chord of which bears S84°16'04"W 56.69 feet; thence N85°39'21"W 166.97 feet; thence Southerly 159.49 feet along a 88.00 feet radius curve to the left, the chord of which bears S42°25'20"W 138.54 feet; thence Southerly 43.85 feet along a 37.00 feet radius curve to the right, the chord of which bears S24°27'16"W 41.33 feet; thence Southerly 71.29 feet along a 118.00 feet radius curve to the left, the chord of which bears S41°06'03"W 70.21 feet; thence S23°47'34"W 20.81 feet; thence Southerly 23.34 feet along a 30.00 feet radius curve to the right, the chord of which bears S46°04'50"W 22.76 feet; thence Southerly 128.54 along a 70.00 feet radius curve to the left, the chord of which bears S15°45'39"W 111.23 feet; thence N67°09'05"W 436.00 feet to Reference Point "A"; thence continuing N67°09'05"W 20 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 1385 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N89°07'21"W from Reference Point "B" along the South line of the North 400 feet of the South 1/2 of the Northeast fractional 1/4 of said Section 8 (said Reference Point "B" being located N24°32'49"E 1392.13 feet from Reference Point "A"); thence S89°07'21"E 20 feet more or less along said South line to Reference Point "B"; thence continuing S89°07'21"E 760.89 feet along said South line; thence Southerly 204.36 feet along a 305.17 feet radius curve right, the chord of which bears S25°06'59"E 200.55 feet; thence S10°26'40"E 61.70 feet; thence Southerly 91.60 feet along a 890.86 feet radius curve to the left, the chord of which bears S14°08'20"E 91.56 feet; thence S89°55'29"W 255.69 feet; thence Southerly 76.08 feet along a 108.00 feet radius curve to the left, the chord of which bears S69°44'42"W 74.51 feet; thence S48°45'34"W 83.10 feet; thence Southerly 67.05 feet along a 133.00 feet radius curve to the left the chord of which bears S27°31'19"W 66.34 feet; thence S15°20'44"W 128.03 feet; thence S20°11'38"W 183.86 feet; thence Southerly 55.55 feet along a 77.00 feet radius curve to the right, the chord of which bears S40°51'41"W 54.35 feet; thence S61°31'45"W 65.70 feet; thence Southerly 111.16 feet along a 93.00 feet radius curve to the left, the chord of which bears S27°17'09"W 104.70 feet to the Point of Beginning. Contains 23 acres more or less. Subject to easements, restrictions, and rights of way of record.

(the "Residential Property").

The legal descriptions for the proposed individual lots or parcels are as follows:

"Lot 5" DESCRIPTION: *Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8 to the Point of Beginning; thence Southerly 75.38 feet along a 93.00 feet radius curve to the left, the chord of which bears S30°10'35"E 73.33 feet; thence S53°23'43"E 73.10 feet; thence Southerly 40.06 feet along a 20.00 feet radius curve to right, the chord of which bears S03°59'28"W 33.69 feet; thence Southerly 61.95 feet along a 277.00 feet radius curve to the right, the chord of which bears S67°47'04"W 61.82 feet; thence Southerly 56.98 feet along a 162.00 feet radius curve to the right, the chord of which bears S84°16'04"W 56.69 feet; thence N85°39'21"W 166.97 feet; thence Southerly 159.49 feet along a 88.00 feet radius curve to the left, the chord of which bears S42°25'20"W 138.54 feet; thence Southerly 43.85 feet along a 37.00 feet radius curve to the right, the chord of which bears S24°27'16"W 41.33 feet; thence Southerly 21.70 feet along a 118.00 feet radius curve to the left, the chord of which bears S53°08'27"W 21.67 feet to the Point of Beginning; thence Southerly 49.59 feet along a 118.00 feet radius curve to the left, the chord of which bears S35°49'58"W 49.23 feet; thence S23°47'34"W 20.81 feet; thence Southerly 23.34 feet along a 30.00 feet radius curve to the right, the chord of which bears S46°04'50"W 22.76 feet; thence Southerly 128.54 along a 70.00 feet radius curve to the left, the chord of which bears S15°45'39"W 111.23 feet; thence N67°09'05"W 436.00 feet to Reference Point "1"; thence continuing N67°09'05"W 20 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 200 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N67°07'35"W from Reference Point "2" (said Reference Point "2" being located N24°32'49"E 200.35 feet from Reference Point "1"); thence S67°07'35"E 20 feet more or less to Reference Point "2"; thence continuing S67°07'35"E 436.72 feet to the Point of Beginning. Contains 2 acres more or less. Subject to easements, restrictions, and rights of way of record.*

"Lot 6" DESCRIPTION: *Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8 to the Point of Beginning; thence Southerly 75.38 feet along a 93.00 feet radius curve to the left, the chord of which bears S30°10'35"E 73.33 feet; thence S53°23'43"E 73.10 feet; thence Southerly 40.06 feet along a 20.00 feet radius curve to right, the chord of which bears S03°59'28"W 33.69 feet; thence Southerly 61.95 feet along a 277.00 feet radius curve to the right, the chord of which bears S67°47'04"W 61.82 feet; thence Southerly 56.98 feet along a 162.00 feet radius curve to the right, the chord of which bears S84°16'04"W 56.69 feet; thence N85°39'21"W 138.08 feet to the Point of Beginning; thence N85°39'21"W 28.89 feet; thence Southerly 159.49 feet along a 88.00 feet radius curve to the left, the chord of which bears S42°25'20"W 138.54 feet; thence Southerly 43.85 feet along a 37.00 feet radius curve to the right, the chord of which bears S24°27'16"W 41.33 feet; thence Southerly 21.70 feet along a 118.00 feet radius curve to the left, the chord of which bears S53°08'27"W 21.67 feet; thence N67°07'35"W 436.72 feet to Reference Point "2"; thence continuing N67°07'35"W 20 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 200 feet more or less along said water's edge of Lake Michigan*

to the intersection of said water's edge of Lake Michigan and a line bearing N67°05'38"W from Reference Point "3" (said Reference Point "3" being located N24°32'49"E 200.15 feet from Reference Point "2"); thence S67°05'38"E 19 feet more or less to Reference Point "3"; thence continuing S67°05'38"E 516.68 feet to the Point of Beginning. Contains 2 acres more or less. Subject to easements, restrictions, and rights of way of record.

"Lot 7" DESCRIPTION: *Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8; thence Southerly 9.37 feet along a 93.00 feet radius curve to the left, the chord of which bears S09°50'37"E 9.37 feet to the Point of Beginning; thence Southerly 66.01 feet along a 93.00 feet radius curve to the left, the chord of which bears S33°03'45"E 64.63 feet; thence S53°23'43"E 73.10 feet; thence Southerly 40.06 feet along a 20.00 feet radius curve to right, the chord of which bears S03°59'28"W 33.69 feet; thence Southerly 61.95 feet along a 277.00 feet radius curve to the right, the chord of which bears S67°47'04"W 61.82 feet; thence Southerly 56.98 feet along a 162.00 feet radius curve to the right, the chord of which bears S84°16'04"W 56.69 feet; thence N85°39'21"W 138.08 feet; thence N67°05'38"W 516.68 feet to Reference Point "3"; thence continuing N67°05'38"W 19 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 200 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N67°07'35"W from Reference Point "4" (said Reference Point "4" being located N24°32'49"E 200.03 feet from Reference Point "3"); thence S67°07'35"E 19 feet more or less to Reference Point "4"; thence continuing S67°07'35"E 599.72 feet to the Point of Beginning. Contains 3 acres more or less. Subject to easements, restrictions, and rights of way of record.*

"Lot 8" DESCRIPTION: *Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8 to the Point of Beginning; thence Southerly 9.37 feet along a 93.00 feet radius curve to the left, the chord of which bears S09°50'37"E 9.37; thence N67°07'35"W 599.72 feet to Reference Point "4"; thence continuing N67°07'35"W 19 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 200 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N67°07'08"W from Reference Point "5" (said Reference Point "5" being located N24°32'49"E 200.10 feet from Reference Point "4"); thence S67°07'08"E 19 feet more or less to Reference Point "5"; thence continuing S67°07'08"E 653.88 feet; thence Southerly 40.19 feet along a 77.00 feet radius curve to the right, the chord of which bears S46°34'42"W 39.74 feet; thence S61°31'45"W 65.70 feet; thence Southerly 111.16 feet along a 93.00 feet radius curve to the left, the chord of which bears S27°17'09"W 104.70 feet to the Point of Beginning. Contains 3 acres more or less. Subject to easements, restrictions, and rights of way of record.*

"Lot 9" DESCRIPTION: *Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8; thence Northerly 111.16 feet along a 93.00 feet radius curve to the right, the chord of which bears N27°17'09"E 104.70 feet; thence N61°31'45"E 65.70 feet; thence Northerly 40.19 feet along a*

77.00 feet radius curve to the left, the chord of which bears N46°34'42"E 39.74 feet to the Point of Beginning; thence N67°07'08"W 653.88 feet to Reference Point "5"; thence continuing N67°07'08"W 19 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 200 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N67°01'22"W from Reference Point "6" (said Reference Point "6" being located N24°32'49"E 200.13 feet from Reference Point "5"); thence S67°01'22"E 19 feet more or less to Reference Point "6"; thence continuing S67°01'22"E 640.25 feet; thence S20°11'38"W 183.86 feet; thence Southerly 15.36 feet along a 77.00 feet radius curve to the right, the chord of which bears S25°54'28"W 15.33 feet to the Point of Beginning. Contains 3 acres more or less. Subject to easements, restrictions, and rights of way of record.

"Lot 10" DESCRIPTION: *Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8 to the Point of Beginning; thence Northerly 111.16 feet along a 93.00 feet radius curve to the right, the chord of which bears N27°17'09"E 104.70 feet; thence N61°31'45"E 65.70 feet; thence Northerly 55.55 feet along a 77.00 feet radius curve to the left, the chord of which bears N40°51'41"E 54.35 feet; thence N20°11'38"E 183.86 feet to the Point of Beginning; thence N67°01'22"W 640.25 feet to Reference Point "6"; thence continuing N67°01'22"W 19 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 200 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N75°07'16"W from Reference Point "7" (said Reference Point "7" being being located N24°32'49"E 202.64 feet from Reference Point "6"); thence S75°07'16"E 19 feet more or less to Reference Point "7"; thence continuing S75°07'16"E 493.15 feet; thence S36°38'06"E 156.17 feet; thence Southerly 67.05 feet along a 133.00 feet radius curve to the left, the chord of which bears S27°31'19"W 66.34 feet; thence S15°20'44"W 128.03 feet to the Point of Beginning. Contains 3 acres more or less. Subject to easements, restrictions, and rights of way of record.*

"Lot 11" DESCRIPTION: *Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8; thence Northerly 111.16 feet along a 93.00 feet radius curve to the right, the chord of which bears N27°17'09"E 104.70 feet; thence N61°31'45"E 65.70 feet; thence Northerly 55.55 feet along a 77.00 feet radius curve to the left, the chord of which bears N40°51'41"E 54.35 feet; thence N20°11'38"E 183.86 feet; thence N15°20'44"E 128.03 feet; thence Northerly 67.05 feet along a 133.00 feet radius curve to the right, the chord of which bears N27°31'19"E 66.34 feet; thence N36°38'06"W 156.17 feet to the Point of Beginning; thence N75°07'16"W 493.15 feet to Reference Point "7"; thence continuing N75°07'16"W 19 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 200 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N89°07'21"W from Reference Point "8" along the South line of the North 400 feet of the South 1/2 of the Northeast fractional 1/4 of said Section 8 (said Reference Point "8" being N24°32'49"E 188.75 feet from Reference Point "7"); thence S89°07'21"E 20 feet more or less along said South line to Reference Point "8"; thence continuing S89°07'21"E 492.48 feet along said South line; thence S17°57'14"W 305.66 feet to the Point of Beginning. Contains 3 acres more or less. Subject to easements, restrictions, and rights of way of record.*

"Lot 12" DESCRIPTION: *Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8; thence Northerly 111.16 feet along a 93.00 feet radius curve to the right, the chord of which bears N27°17'09"E 104.70 feet; thence N61°31'45"E 65.70 feet; thence Northerly 55.55 feet along a 77.00 feet radius curve to the left, the chord of which bears N40°51'41"E 54.35 feet; thence N20°11'38"E 183.86 feet; thence N15°20'44"E 128.03 feet; thence Northerly 67.05 feet along a 133.00 feet radius curve to the right, the chord of which bears N27°31'19"E 66.34 feet to the Point of Beginning; thence N36°38'06"W 156.17 feet; thence N17°57'14"E 305.66 feet; thence S89°07'21"E 268.41 feet along the South line of the North 400 feet of the South 1/2 of the Northeast fractional 1/4 of said Section 8; thence Southerly 204.36 feet along a 305.17 feet radius curve to the right, the chord of which bears S25°06'59"E 200.55 feet; thence S10°26'40"E 61.70 feet; thence Southerly 91.60 feet along a 890.86 feet radius curve to the left, the chord of which bears S14°08'20"E 91.56 feet; thence S89°55'29"W 255.69 feet; thence Southerly 76.08 feet along a 108.00 feet radius curve to the left, the chord of which bears S69°44'42"W 74.51 feet; thence S48°45'34"W 83.10 feet to the Point of Beginning. Contains 3.17 acres. Subject to easements, restrictions, and rights of way of record.*

The balance of the Overall Property, which will remain undeveloped (at least for the foreseeable future), is approximately 68.7 acres in size and is legally described as follows:

The South 1/2 of the Northeast fractional 1/4 of Section 8, Town 3 North, Range 16 West, Except the North 400 feet thereof. AND ALSO, Government Lot 3, also described as the North fractional 1/2 of the Southeast fractional 1/4 of Section 8, Town 3 North, Range 16 West.

EXCEPT,

"Lots 5-12" DESCRIPTION: Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8 to the Point of Beginning; thence Southerly 75.38 feet along a 93.00 feet radius curve to the left, the chord of which bears S30°10'35"E 73.33 feet; thence S53°23'43"E 73.10 feet; thence Southerly 40.06 feet along a 20.00 feet radius curve to right, the chord of which bears S03°59'28"W 33.69 feet; thence Southerly 61.95 feet along a 277.00 feet radius curve to the right, the chord of which bears S67°47'04"W 61.82 feet; thence Southerly 56.98 feet along a 162.00 feet radius curve to the right, the chord of which bears S84°16'04"W 56.69 feet; thence N85°39'21"W 166.97 feet; thence Southerly 159.49 feet along a 88.00 feet radius curve to the left, the chord of which bears S42°25'20"W 138.54 feet; thence Southerly 43.85 feet along a 37.00 feet radius curve to the right, the chord of which bears S24°27'16"W 41.33 feet; thence Southerly 71.29 feet along a 118.00 feet radius curve to the left, the chord of which bears S41°06'03"W 70.21 feet; thence S23°47'34"W 20.81 feet; thence Southerly 23.34 feet along a 30.00 feet radius curve to the right, the chord of which bears S46°04'50"W 22.76 feet; thence Southerly 128.54 along a 70.00 feet radius curve to the left, the chord of which bears S15°45'39"W 111.23 feet; thence N67°09'05"W 436.00 feet to Reference Point "A"; thence continuing N67°09'05"W 20 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 1385 feet more or less along said water's

edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N89°07'21"W from Reference Point "B" along the South line of the North 400 feet of the South 1/2 of the Northeast fractional 1/4 of said Section 8 (said Reference Point "B" being located N24°32'49"E 1392.13 feet from Reference Point "A"); thence S89°07'21"E 20 feet more or less along said South line to Reference Point "B"; thence continuing S89°07'21"E 760.89 feet along said South line; thence Southerly 204.36 feet along a 305.17 feet radius curve right, the chord of which bears S25°06'59"E 200.55 feet; thence S10°26'40"E 61.70 feet; thence Southerly 91.60 feet along a 890.86 feet radius curve to the left, the chord of which bears S14°08'20"E 91.56 feet; thence S89°55'29"W 255.69 feet; thence Southerly 76.08 feet along a 108.00 feet radius curve to the left, the chord of which bears S69°44'42"W 74.51 feet; thence S48°45'34"W 83.10 feet; thence Southerly 67.05 feet along a 133.00 feet radius curve to the left the chord of which bears S27°31'19"W 66.34 feet; thence S15°20'44"W 128.03 feet; thence S20°11'38"W 183.86 feet; thence Southerly 55.55 feet along a 77.00 feet radius curve to the right, the chord of which bears S40°51'41"W 54.35 feet; thence S61°31'45"W 65.70 feet; thence Southerly 111.16 feet along a 93.00 feet radius curve to the left, the chord of which bears S27°17'09"W 104.70 feet to the Point of Beginning. Subject to easements, restrictions, and rights of way of record. (the "Undeveloped Property").

The Developer has applied for special land use and site plan approval from the City to be able to develop a portion of the Overall Property (i.e., the eight lots previously described). He has also submitted a site plan together with his application. The Developer is aware that he will have to extend both water and sewer to service the individual home sites if the development is approved, as well as install new private roadways within the proposed development.

There has been significant neighborhood and other opposition to the proposed development.

This Resolution pertains and applies to the Residential Property (except for the items herein that expressly apply to the Undeveloped Property).

THE ZONING ISSUES

All of the Overall Property is located within the Conservation Recreation Camp ("CRC") zoning district pursuant to the City of Saugatuck Zoning Code or Ordinance, as amended (the "Zoning Ordinance"). The creation or development of single-family lots or parcels is not a listed permitted use within the CRC zoning district per section 154.027(B). However, "Single Family

Homes" is listed under Section 154.027(C)(1) as a special land use and requires special land use and site plan approval from the Planning Commission pursuant to Section 154.027(C)(1) of the Zoning Ordinance.

During the two public hearings and other public meetings for this development proposal, several opponents of the proposed development have asserted that the eight home sites are not allowed within the CRC zoning district, either as a permitted use or even with special land use and site plan approval. They assert that single family homes are only allowed as an accessory use to an existing and ongoing camp and cannot be developed or approved separate or apart from any such camp. The Zoning Administrator made the determination last winter that the proposed single family residential development is allowed within the CRC zoning district with special land use and site plan approval, and that determination was not timely appealed to the Saugatuck Zoning Board of Appeals. The Planning Commission agrees with the Zoning Administrator's interpretation/determination.

Under the Zoning Ordinance, it is the Planning Commission that makes the final decision regarding special land use requests. See Section 154.081 of the Zoning Ordinance. Furthermore, the special land use review and approval or denial process incorporates site plan review pursuant to Sections 154.060(B)(3) and 154.083(B) of the Zoning Ordinance.

PROCEDURAL HISTORY

The Developer filed his original application with the City on or about March 11, 2013. Initially, the Developer sought approval for twelve single family home sites.

The Planning Commission held an initial public hearing on the Developer's proposal on April 18, 2013. The Planning Commission did not make a decision regarding the proposed development then and asked the Developer to provide a complete submission. Thereafter, the

Developer revised his application to request approval for only eight single family residential home sites.

Given the changes to the proposed development, the Planning Commission held a second public hearing on October 16, 2013. At that public hearing, the Planning Commission heard extensive public comments from both the Developer and members of the general public. Furthermore, prior to and after that public hearing, the Planning Commission received and considered many letters, emails, writings and documents submitted by members of the public, the Developer and City staff.

At its meeting on October 24, 2013, the Planning Commission received additional limited public comments and thereafter deliberated extensively regarding the Developer's proposal. Near the end of that meeting, the Planning Commission (by a vote of 4 to 2) adopted the following motion:

> That the Planning Commission tentatively approve the special land use request and preliminary site plan for the David Barker development proposal contingent upon City staff and the City's attorneys preparing a final written resolution to that effect for consideration and adoption at the next or subsequent meeting of the Planning Commission.

A draft version of this Resolution was prepared by City staff and the City attorney's office pursuant to that motion. The Planning Commission carefully considered the draft Resolution (and additional materials) at its November 21, 2013 meeting, going through the document page by page. At its next meeting on December 3, 2013, the Planning Commission again considered the revised draft resolution before taking final action.

STANDARDS THAT ARE APPLICABLE FOR A ZONING APPROVAL

In order to have the proposed development approved for the Residential Property, the Developer had the burden of proving that the development will meet certain standards contained within the Zoning Ordinance. First, the special land use must meet the applicable residential development standards contained in Section 154.027(F) of the Zoning Ordinance. Second, the Developer must also prove that the general special land use standards contained in Section 154.082 of the Zoning Ordinance will also be met. Finally, the Developer must establish that the general site plan standards contained in Section 154.064 of the Zoning Ordinance will also be met.

1. Applying the special land use standards of Section 154.082:

(a) In location, size, height and intensity of the principal and/or accessory operations, be compatible with the size, type and kind of buildings, uses and structures in the vicinity and on adjacent property.

Finding: The proposed eight single family residential building sites is an extremely low-density residential development. In fact, every residential zoning district within the Zoning Ordinance calls for higher density within the City. The Planning Commission finds that the proposed low density single-family residential use and homes would be consistent and compatible with all of the uses on the neighboring properties to the south and the east. The parcel to the north (which is occupied by Oval Beach) would not be in conflict with the proposed low density residential use (or vice versa). The proposed parcels must meet the 2 acre minimum and 5% maximum lot coverage requirements, thus resulting in a far lower density and intensive development than is found in the surrounding residential neighborhoods, including along Park Street, Shorewood, and Vine Street (where the residential densities are much higher and lot coverage maximums range

from 25% to 50%). Furthermore, each of the proposed parcels would be regulated with the same standards in terms of number of structures, activities, and uses as those found elsewhere within the vicinity including building height.

(b) Be consistent with and promote the intent and purpose of this chapter;

Finding: Section 154.027 states:

(1) This district is designed to maximize preservation of the existing environment by providing for a private recreation camp and low density residential uses.

(2) It is a restrictive zone, intended to permit development only after an in-depth review and zoning approval. This is in order to help protect and enhance natural resources, amenities and natural wildlife habitats, to ensure the availability of adequate utilities and public services, and to protect public health, safety and welfare.

(3) The purpose of this district is to accommodate private recreation camps and residential uses so that they generally relate to one another and the surrounding uses in terms of site design, architectural compatibility, and access and so that potential conflicts are minimized.

The proposed use is very low density single family residential use. The Planning Commission is satisfied regarding the availability of adequate utilities and public services, as well as that the safeguards in this Resolution will protect the public health, safety and welfare. The applicant will remove the existing camp structures from the site and proposes to develop the site in a manner that would limit the removal of trees and other vegetation as much as possible in an effort to maintain the rural character of the site. Furthermore, the special land use approval process provides for the required in-depth review of the proposed single family residential uses

and allows an opportunity for the Planning Commission to request additional materials and information, to seek the comments of others (including the general public) during the required public hearing, and to review the work of independent professionals, such as an environmental review by an independent consultant. Finally, the 2-acre minimum lot size and 5% maximum lot coverage allowance will establish the lowest density residential anywhere within the City of Saugatuck.

(c) Be compatible with the natural environment and conserve natural resources and energy;

Finding: The proposed development has more environmental restrictions than most other developments or areas due to steep slopes and state-regulated critical dunes. The Developer has provided a letter from an environmental consultant regarding the regulations contained in Section 154.027 of the Zoning Ordinance. These include keeping structures back from the crest of the foredune, planting of dune grasses in open areas along streets and driveways, and the installation of public water and sewer for the site. The City has received a pre-application letter from the Michigan Department of Environmental Quality (the "DEQ") dated April 26, 2013 noting that the building locations and access for sites 5 - 12 meet the state requirements. Furthermore, the engineering firm of Fleis & Vandenbrink was contracted to provide an environmental review of the proposed development and pursuant to its letter dated September 23, 2013, it found that based on the documentation provided, the applicable environmental standards in Section 154.027 will be met.

The Developer must preserve the natural topography and existing native vegetation on the site as much as possible, as he has indicated that the rural character of the site and proximity

to Lake Michigan are the primary selling points for the vacant lots to be developed and that substantial tree removal or regrading would decrease that character.

Currently, the entire camp uses a private well and septic system that are only operated seasonally. As such, many of 60 or more camp structures are connected to a septic tank and/or septic field and water pumps via only a web of PVC waste pipes, and water lines, none of which is fully buried as required by ordinance and codes. However, the proposed development will be connected to municipal water and sewer systems, thus eliminating on site processing and disposal of septic waste and offering treated water supplies to each residential structure.

(d) Be consistent with existing and future capabilities of public services and facilities affected by the proposed use;

Finding: Other than Perryman Street, the proposed streets within the development will be private and will need to be maintained by private contractors and regulated by a home owners association maintenance agreement. Additionally, the Planning Commission has received letters of preliminary approval pertaining to public services and utilities from the Saugatuck Township Fire District and the Kalamazoo Lake Water and Sewer Authority stating that the revised plan as proposed meets the applicable requirements. Finally, the development of eight single family residential lots is not likely to interfere with existing or future capabilities of public services and facilities within the general proximity of the proposed development.

(e) Protect the public health, safety and welfare as well as the social and economic well-being of those who will use the land use or activity, residents, businesses and landowners immediately adjacent and the city as a whole;

Finding: The Developer has indicated that each of the residential structures will have an internal fire suppression sprinkler system installed and will be in close proximity to a fire hydrant.

Furthermore, the Saugatuck Township Fire District has indicated that the positioning of the driveways and private roads meets all applicable fire code regulations. In contrast, the current camp structures do not have sprinkler systems and some of the neighboring residential developments have structures that are not located in close proximity to fire hydrants or are so located that each structure is not easily accessible to emergency vehicles.

There has been concern from some members of the public that the closing of the camp may result in decreased tourism as people would not be traveling to the area anymore to attend the camp, but no quantitative studies have been provided to the City supporting this claim. In addition, by all indications, continuing to use or operate the property as a camp is not feasible and will not be done by the Presbytery of Chicago. Accordingly, if the proposed development is approved and built, each residential parcel would be placed on the property tax rolls, regardless of whether a structure is built, thus providing additional tax revenue for the City, County, state and Saugatuck Public School System, which funds can be used to maintain and enhance public and school services. Based on the documentation provided to the Planning Commission on October 24, 2013 by the City Assessor, assuming a projected $2,000,000 market value for each of the 8 proposed residential lots, the vacant lots would yield a total annual tax revenue of $459,957.20. Please also see the other findings herein.

(f) Not create any hazards arising from storage and use of inflammable fluids;

Finding: There has been no indication that such hazards would be present. The Developer indicates that the development will be limited to residential structures, and as such, would be typical of other neighborhoods within the area. As such, the proposed development will not likely create any hazards arising from the storage and use of inflammable fluids. Furthermore,

the Developer is requiring that any residential structures built as part of this development be constructed with an internal sprinkling fire suppression system.

(g) Not be in conflict with convenient, save and normal vehicular and pedestrian traffic routes, flows, intersections and general character and intensity of development. In particular:

(i) The property shall be easily accessible to fire and police; and

(ii) Not create or add to any hazardous traffic condition.

Finding: This standard was not of major concern to members of the public or opponents of the proposed development. The two main issues discussed involve conflict with traffic on Perryman Street during the tie-in construction period and whether garbage trucks could easily access the home sites. The Saugatuck Township Fire District has reviewed the proposed plan and pursuant to its September 17, 2013 letter states that the proposed private roads and driveways meet applicable fire code regulations. The letter does indicate that no parking signs will need to be installed in particular locations. Upon the applicant completing the requirements as indicated in the September 17, 2013 letter from the Saugatuck Township Fire District, this standard will be met.

The Developer proposes to discontinue the existing 349 person capacity private church camp and replace it with a low density single family residential development containing eight single-family residential dwellings. The proposed development will likely result in a decrease in vehicle traffic and thus have less of an impact than the camp, and substantially less traffic than typical would be of the neighboring Oval Beach during the summer.

Additionally, the Developer will provide a 50-foot wide public non-motorized trail easement from Park Street to Oval Beach for the future development of a sidewalk, boardwalk or similar pedestrian path as a way to provide safer access.

(h) Be of such a design and impact that the location and height of buildings, the location, nature and height of walls, fences and the nature and extent of landscaping on the site shall not hinder or discourage the appropriate development and use of adjacent land and buildings or impair the value thereof;

Finding: The Developer has not proposed any renderings of potential homes. The zoning dimensional regulations, including a maximum lot size, 5% lot coverage and a 2 acre minimum lot size will likely result in a very secluded development, which is not likely to hinder or discourage the appropriate development and use of adjacent lands and buildings, nor impair the values thereof.

Please also refer to the findings elsewhere in this Resolution.

(i) That in the nature, location, size and site layout of the use, be a harmonious part of the district in which it is situated taking into account, among other things, prevailing shopping habits, convenience of access by prospective patrons, the physical and economic relationship of one type of use to another and characteristic groupings of uses of the district; and

Finding: The zoning district is almost entirely rural in nature and the Developer is proposing to retain that character. The two acre minimum lot size requirement is the largest minimum lot size required in the City, and the 5% maximum lot coverage is 20% less than the next lowest lot coverage requirement, thus restricting the possible density of the site to a level not found elsewhere in the immediate area. The density of the development will only be 0.352 dwellings

per acre within the developed part of the land (not including the Undeveloped Property), whereas Shorewood (the development to the south of the Residential Property) has a density of 0.977 dwelling units per acre for the entire development and as much as 5.0 dwelling units per acre within the area in the CR Community Residential (R-1) zoning district. Furthermore, since the proposed development would only be residential in nature, shopping habits and access by prospective patrons would not be considered as part of this application. Please also see the findings elsewhere in this Resolution.

(j) That in the location, size, intensity and site layout be such that operations will not be objectionable to nearby dwellings, by reason of noise, fumes, pollution, vibration, litter, refuse, glare or flash of lights to an extent which is greater than would be operations of any use permitted by right for that district within which the special land use is proposed to be located.

Finding: As proposed, the eight residential dwellings will be no closer than 100 feet from each other and further than 1,000 feet from the nearest existing residential structure located outside of the Residential Property. The retention of the natural vegetation and topography are likely to mitigate many of the listed objectionable conditions. Furthermore, the proposed low density residential development will have less of an impact than that of a camp in terms of traffic and activities. In addition, the eight proposed residential structures are likely to have less objectionable noise, fumes, pollution, vibration, little, refuse, glare, or similar objectionable conditions than a camp or Oval Beach.

(B) The Planning Commission shall consult the city land use plan to determine if the proposed Special Land Use is compatible with the future planned use of surrounding property and may

limit the permit so as not to conflict with future planned land use. The duration of the permit may be limited only if such use is clearly temporary in nature.

Finding: Chapter 8 of the Tri-Community Plan discusses the needed balance between taxable and untaxed land along the waterfront and notes "Should these natural areas be greatly damaged or destroyed through inappropriate development, then the 'goose that laid the golden egg' will be dead." In response, the City of Saugatuck undertook an extensive process to prevent inappropriate development by requiring large lot sizes with minimal lot coverage allotments. This proposed extremely low density use was not deemed inappropriate and is allowed as a special land use within the Conservation Recreation & Camp Zoning District. Furthermore, the connection of municipal water and sewer systems to the proposed structures may actually decrease potential environmental contamination as the current system processes the septic water on site.

Chapter 10 of the Tri-Community Plan provides a future land use map. It calls for this area to be "Greenspace / Preserve" which "should be preserved public open space and the portion that remains in private ownership should be maintained for low intensity uses (like the art colony and church camp)." In regards to the Residential Property, the description also states, "While the activities of the camp are changing to more year round activities, as long as the overall intensity of the use at the site remains low, it is a compatible use. A strong effort should be made to acquire an easement across the camp property for a walking/biking path from Campbell road in Douglas to Oval Beach."

The proposed development would reduce the number of structures on the property, reduce the vehicular traffic, reduce the potential environmental concerns related to treating sewage water, and result in an overall lower impact than the church camp. Furthermore the

Developer is granting a 50-foot wide non-motorized easement, parallel to Perryman Street, to provide for future improvements to allow safe pedestrian traffic from Park Street to Oval beach.

Chapter 11 of the Tri-Community Plan contains a bit more district specific direction in the form of a "Zoning Plan" to provide development-specific suggestions and notes that the Conservation Recreation Development district "is designed to maximize preservation of existing environments by permitting only low density residential uses. It is a restrictive zone, intended to permit development after in-depth review in order to protect and enhance the natural resources, amenities natural habitats of wildlife, public recreation areas and to protect public health, safety and welfare. The purpose of this District is to provide a natural undeveloped area for the benefit of public recreation and utilization by large numbers of residents and visitors. The minimum lot size for single family residences is 2 acres; however, the maximum lot coverage is 5%. The 'intensity' of a camp with over 60 buildings containing 349 beds, 68 toilets, 53 showers, and 103 sinks not hooked up to municipal water or sewer systems (and used for a combination of youth and adult activities) has a more intense use in terms of impact on the environment and surrounding areas and uses than that of eight single family homes in a 22.7 acre area, all required to hook up to public water and sewer.

While bits and parts of the plan could be isolated to encourage a decision one way or another, a reasonable interpretation of the document as a whole permits very low density residential development when conditions are put into place to protect the environment and the Lake Michigan shoreline. The Planning Commission finds that this proposed development is consistent with the Tri-Community Plan.

The Planning Commission finds that all of the special land use standards contained in Section 154.082 will be met.

2. Applying the site plan review standards of Section 154.064:

(a) All elements of the site plan shall be harmoniously and efficiently organized in relation to topography, the size and type of lot, the character of adjoining property and the type and size of the buildings. The site will be so developed as not to impede the normal and orderly development or improvement of surrounding property for uses permitted in this chapter.

Finding: The Developer has demonstrated that the buildable areas are situated in a manner to maintain the rural character of the site and to accommodate applicable zoning and DEQ requirements as indicated in the April 26, 2013 pre-application letter from the DEQ. Furthermore, most of the private roads are being constructed where the existing roads and paths are located in an effort to minimize adverse impacts and additional excavation and other impacts on the natural environment. The proposed low density residential use is consistent with uses found on surrounding parcels to the south and east, although the density will be substantially less with each lot being a minimum of two acres in area. By contrast, the residential density of Shorewood (located directly to the south of the subject property Residential Property) is 0.977 dwelling units per acre, whereas the proposed request is only 0.352 dwelling units per acre. The use to the north, Oval Beach, is not likely to be adversely impacted by very low density residential use. Finally, the Developer is proposing to include regulations that will limit the removal of vegetation while the demolition of the existing camp structures is proposed to be done in a manner that will preserve the natural vegetation of the site. Please also see the other findings in this Resolution.

(b) The landscape shall be preserved in its natural state, insofar as practical, by removing only those areas of vegetation or making those alterations to the topography

which are reasonably necessary to develop the site in accordance with the requirements of this chapter.

Finding: The Developer indicates that only vegetation that will directly interfere with the minimum development requirements will be removed. This includes the expansion of the current gravel roads to accommodate private roads that will range from 16 feet wide to 22 feet wide, which is required for emergency service vehicles, associated driveways, and the building sites for the new residential structures. The construction of the internal private roadway will be similar in nature to that of Perryman Street and at times narrower than Vine Street in terms of a tree canopy. The Developer has also provided a demolition plan for the removal of the existing camp structures (sheet 6) which indicates that some of the existing structures will be dismantled by hand to avoid disturbing existing vegetation and by the use of a trench box process to limit the width needed for the installation of underground utilities. The Developer has also provided an outline of a home owners association agreement to further restrict the removal of any tree larger than 6 inches in diameter and also requires the replacement of any disturbed beach grasses or other native vegetation.

(c) The site plan shall provide reasonable visual and sound privacy for all dwelling units located therein. Fences, walks, barriers and landscaping shall be used as appropriate, to accomplish these purposes.

Finding: As proposed, each residential dwelling will be at least 100 feet from any other residential structure, which by contrast is a substantially longer distance than is found in surrounding residential developments, including Shorewood. By comparison, homes within the CR Community Residential district can be as close as 14 feet from each other and still conform to the requirement. Furthermore, the natural vegetation and substantial varied topography will

likely absorb typical residential noises. No other uses are proposed as part of this development and as proposed in the site plan, no proposed structure will be located closer than 1,000 feet from any existing residential home. No other development or modifications are proposed on any of the remainder of the site beyond the proposed vehicular circulation system as presented in the site plan.

(d) All buildings or groups of buildings shall be arranged so as to permit necessary emergency vehicle access as required by the Fire Department.

Finding: Chief Greg Janik of the Saugatuck Township Fire District prepared a letter dated September 17, 2013 noting that the revised plan will meet all applicable fire code standards pending the installation of "no parking" signs at various points, the issuance of road names, and the installation of water and fire hydrants before the construction of any residential dwellings. This includes the construction of the private road system with roads as narrow as 16 feet and driveways to the proposed structures.

(e) There shall be provided a pedestrian circulation system, which is separated from the vehicular circulation system. In order to ensure public safety, special pedestrian measures, such as crosswalks, crossing signals and other such facilities may be required in the vicinity of schools, playgrounds, local shopping areas and other uses which generate a considerable amount of pedestrian traffic. All federal, state and local barrier free requirements shall be met.

Finding: The Developer has shown a 50-foot wide easement on sheet 5 of the site plan for the future construction of a non-motorized trail, which will run along Perryman Street from Park Street to Oval Beach. This will require further environmental and surveying analysis before any pathway, sidewalk, or boardwalk is constructed. The locations and site of the proposed parcels

are such that they are not likely to require an internal pedestrian circulation system as the 2-acre minimum lot size requirement, private road circulation system, and direct beach access is distinctively different than other traditional residential developments found within the City.

(f) The arrangement of public or common ways for vehicular and pedestrian circulation shall be connected to existing or planned streets and pedestrian or bicycle pathways in the area. Streets and drives which are part of an existing or planned street pattern serving adjacent development shall be of a width appropriate to the traffic volume they will carry and shall have a dedicated right-of-way equal to that specified in the city's land use plan.

Finding: The Developer proposes to connect the new development at Perryman Street, which would serve as the only direct access to Park Street. Perryman Street currently has heavy seasonal traffic during the summer and is not pedestrian friendly under the current configuration. However, the Developer is providing a 50-foot non-motorized easement from Park Street to Oval Beach, running parallel to Perryman Street. The new proposed private roads are only to accommodate the proposed residential lots, and will be maintained by a home owners association.

(g) All streets shall be developed in accordance with city specifications, unless developed as a private road.

Finding: While all of the proposed roads will be private, they still need to meet the applicable standards as required by the Saugatuck Township Fire District to provide direct access for emergency vehicles. The letter from the Fire District dated September 17, 2013 notes that the proposed dimensions of the roads as shown on the site plan meet all applicable fire code requirements, which include road widths as narrow as 16 feet wide. Furthermore, the engineering

for the new private roads will need to meet applicable weight requirements as also noted in the Fire District letter.

(h) Appropriate measures shall be taken to ensure that removal of surface waters will not adversely affect neighboring properties or 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, create puddles in paved areas or create erosion problems.

Finding: Each of the eight home sites are a minimum of two acres in size and the soil composition is primarily sand with natural vegetation that includes a combination of coniferous and deciduous trees, beach and dune grasses, and related undergrowth. Permeability is significant. The private road and driveway construction will be such that it will have a 2% slope into a gravel bed and/or beach grass shoulder to absorb storm water runoff. This configuration of acreage, materials, permeable soil types, and vegetation will be adequate to prevent any storm water from being displaced onto neighboring properties. Furthermore, the home owners association regulations will prevent the removal of vegetation beyond an agreed amount of the site and place further limitations on the amount of impermeable surfaces allowed on the site.

(i) All loading and unloading areas and outside storage areas, including areas for the storage of trash, which face or are visible from residential districts or public thoroughfares, shall be screened by an opaque wall or landscaped screen not less than six feet in height. (See §§ 154.142 through 154.144.)

Finding: The Developer is not proposing any loading/unloading areas or trash receptacle areas as part of this development as is typical in most residential developments. Each residential structure

will still need to meet the applicable regulations found in Section 50.07 of the Code of City Ordinances pertaining to the storage and maintenance of refuse containers, which prohibits storage within the front yard (roadside).

(j) Exterior lighting shall be arranged so that it is deflected away from adjacent properties and so that it does not impede the vision of traffic along adjacent streets. Flashing or intermittent lights shall not be permitted.

Finding: The Developer is not proposing any non-residential lighting as part of this development. Furthermore, any lights that are installed at the residential sites would be typical of residential structures found within close proximity to the development site. The Developer has indicated that the natural vegetation will be retained to mitigate any potential visual impact from neighboring properties, and does not wish to install streetlights along the private road system as a way to lessen potential change to the existing rural character of the site.

(k) In approving the site plan, the Planning Commission may recommend that a bond or other financial guarantee of ample sum be furnished by the developer to ensure compliance for such requirements as drives, walks, utilities, parking, landscaping and the like (see § 154.173).

Finding: Given the nature of the development and the installation of private roads, public water and sanitary sewer, underground utilities, and further infrastructure, City staff suggests that bonds be required for the construction and completion of any infrastructure, including any utility work installed under Perryman Street as proposed in the application, in accordance with Section 154.173 if the Zoning Ordinance. This will require coordination with the City Engineer, the Developer's engineer, and the City Attorney to make sure that all appropriate bonding processes and requirements have been followed.

The Planning Commission finds that all of the site plan review standards of Section 154.064 will be met.

3. Applying the standards of Section 154.027(F):

(a) *Purpose*. Pursuant to the City Land Use Plan and the intent of the Conservation, Recreation and Camp District (CRC), every building and structure shall conform not only to the following regulations, but also to those of the Sand Dune Protection and Management Act, Public Act 222 of 1976, being M.C.L.A. §§ 324.63701 *et seq.*, updated Part 353 of NREPA, Act 451 of 1994 as amended; and Part 323 of NREPA, Act 451 of 1994, as amended (collectively, the "Act"), if the land in question is within a designated critical dune or high risk erosion area. Where a standard in the Act is more restrictive than this chapter, or vice versa, the more restrictive standard shall apply.

Finding: The Developer has provided a letter from an environmental consultant regarding compliance with these requirements and the April 26, 2013 pre-application letter from the DEQ indicates that the shared driveway accesses and building sites for parcels 5-12 meet applicable requirements. Furthermore, the letter dated September 26, 2013 from Fleis & Vandenbrink, the engineering company hired by the City to provide an independent review of the site, also indicates that the proposed development will generally meet the applicable standards. Further reviews will likely be done later on a structure-by-structure basis.

(b) Foredune ridges and all crests shall not be disturbed. In no case shall the natural topography of the dune crest be altered.

Finding: As indicated on the site plan, some of the "Buildable Area" boxes are right at the edge of this area. Furthermore, the standards established in the proposed home owners association

agreement will prohibit any development or modification within this area. The letters from the DEQ, Fleis & Vandenbrink, and the applicant's environmental engineer confirm that the eight residential parcels meet this standard.

(c) Roadways and pathways shall be located in troughs between dune crests and other natural gaps.

Finding: Most of the proposed private roads are replacing existing pathways and are in natural gaps. Furthermore, as proposed, the new roads will need to be between 16-feet and 22 feet wide, thus requiring cutting and filling to accommodate the required road width. However, the review letter dated September 26, 2013 from Fleis & Vandenbrink notes that this requirement is generally met. For the road segments that cannot comply, the letter discussed that although they may not always be in a crest or valley, they will be located on the existing unimproved roadway to provide the least environmental impact to the property as possible. Finally, per the City Attorney, Section 154.027(F)(3)(b) of the Zoning Ordinance is likely pre-empted by state law (specifically Part 353 of the Natural Resources and Environmental Protection Act, MCL 32435301 *et. seq.*)

(d) Alteration of dune vegetation shall be minimal.

Finding: While the Developer notes that minimal vegetation is to be removed, there will still need to be some excavation and vegetation removal to accommodate the required road modifications, and possibly at the building sites. However, this should be the minimal amount required to be removed for the development. The home owners association agreement as provided by the Developer notes that additional vegetation shall not be removed. Furthermore, the September 26, 2013 letter from Fleis & Vandenbrink finds that the proposed plan meets this standard.

(e) No structure shall be placed within an area that will be affected by the shifting of a dune within 30 years unless the structure has a lesser life. Barring substantial evidence to the contrary, a rate of change of one foot per year shall be used.

Finding: The Developer requests that the location of the proposed structures will be such that they will not be within the area affected by the shifting of a dune within 30 years. The DEQ has provided a pre-application letter dated April 26, 2013 indicating that lots 5-12 meet applicable requirements, and sheet C-101 on the site plan shows the proposed building areas in relation to the areas affected by the shifting of a dune. Furthermore, the September 26, 2013 letter from Fleis & Vandenbrink supports the DEQ's preliminary findings and indicates that the site plan is in conformance with the regulations and are generally met.

(f) Areas with little vegetation may be required to use raised construction piers. Where sand is of indeterminate depth or solid ground is too deep for piling, spread footings shall be used.

Finding: The September 26, 2013 letter from Fleis & Vandenbrink points out that while lot 7 appears to have little vegetation, lots 5, 6, and 8-12 do meet this requirement. Lot 7 is currently occupied by a structure and a parking lot, which is the likely reason for limited existing vegetation. Therefore, the Planning Commission finds that this standard is met conditioned upon a depth to ground review being completed before a building permit for each structure can be issued.

(g) Roadways shall have beach grass planted on areas of open sand on the shoulders.

Finding: The site plan and letter from the environmental engineer indicates that the roadway shoulders will be planted with appropriate beach grasses. The September 26, 2013 letter from Fleis & Vandenbrink finds that this standard is met.

(h) Utilities shall be underground (except for private recreation camps).

Finding: The Developer represents that all utilities will be located underground including water, sewer, natural gas, phone, and electric. Furthermore, the September 26, 2013 letter from Fleis & Vandenbrink finds that this standard is met.

(i) No construction shall be permitted lakeward of the foredune ridge.

Finding: The Developer represents that there will be no construction within this area. The DEQ has provided a pre-application letter dated April 26, 2013 indicating that lots 5-12 meet applicable requirements. The September 26, 2013 letter from Fleis & Vandenbrink also finds that this standard is met.

(j) Raised boardwalks may be required for pedestrian access ways.

Finding: The September 26, 2013 letter from Fleis & Vandenbrink indicates that some raised boardwalks may need to be placed in the trails with steeper slope areas and may be required between Perryman Street and Oval Beach once that is examined. However, the Planning Commission may require boardwalks to be installed as part of a 'final site plan' approval for each new dwelling.

(k) Recreational use of all-terrain, off-road vehicles is prohibited.

Finding: The Developer represents that no all-terrain, off-road vehicles will be used. A condition is imposed to further enforce this provision.

(l) *Setbacks from water bodies.* Any structure or any part of the septic system shall not be located closer than 40 feet to a water body, or from the edge of perennial vegetation moving lakeward. *VEGETATION* shall mean any type of stabilizing ground cover from beach grass through successive stages of vegetation. Where two or more principal structures abutting each side of a proposed principal structure are closer to the water than permitted by these requirements, the new principal structure may be set back in line with the average setback of the existing structures.

Finding: The location of the proposed structures as indicated on the site plan shows that all structures will be located further than 200 feet from the water's edge and at least 40 feet from edge of the tree canopy. The Developer also agrees that beach grasses will be planted following construction. Furthermore, the September 26, 2013 letter from Fleis & Vandenbrink finds that this standard is met.

(m) *Restoration review.* Where vegetation must be removed, the Planning Commission may require a plan indicating what is to be removed and the reasons why it is to be removed. The plan shall be presented for Commission approval. The Commission may require amendments or impose conditions. The Commission may also require that cleared areas be replanted in dune grass or other suitable natural materials. Restoration must take place within 60 days of the normal planting season after final building inspection.

Finding: Minimal vegetation will need to be removed to accommodate the additional road width for emergency vehicles. The Developer indicates that the vegetation to be removed for the construction of the residential structures will be only what is required. Furthermore, the

Developer represents that vegetation (including beach grasses) will need to be planted following construction within areas disturbed but not covered by driveways, roads, or structures.

The Planning Commission finds that the applicable standards of Section 154.027(F) will be met.

GENERAL ZONING DECISION/STATEMENT OF CONCLUSIONS

Based on the above, the Planning Commission hereby finds that all of the special land use standards contained in Section 154.082 of the Zoning Ordinance will be met for the proposed development. The Planning Commission also finds that the proposed development will meet all of the site plan standards contained in Section 154.064 and the specific applicable residential requirements of Section 154.027(F) of the Zoning Ordinance. Finally, the Planning Commission concludes that the granting of the proposed special land use approval will not adversely affect the public interest, health, safety or welfare of the community. Accordingly, the special land use request for the development is approved subject to the conditions and requirements as specified in this Resolution. Furthermore, preliminary and final site plan approvals are also hereby granted for the development (subject to the conditions and requirements specified below), except that each of the individual dwellings to be built on the 8 single-family residential lots must still obtain final site plan approval from the Planning Commission pursuant to Section 154.061(C)(2)(M) of the Zoning Ordinance with regard to front, side and rear view, exterior materials and colors, and height at the street, basement, top of main floor, top of the building, and height above the lake before construction commences on the dwelling involved.

CONDITIONS AND REQUIREMENTS/STATEMENT OF CONDITIONS

The special land use and site plan approvals for the Developer's proposed development on the Residential Property is expressly contingent upon all of the following conditions and requirements being fully met and complied with at all times:

a. No more than 8 lots or parcels may be created or developed on the Residential Property.

b. The site plan approved by the Planning Commission pursuant to this matter is dated (and has the following components) as follows:

C-100 revised September 9, 2013;

C-101 revised October 3, 2013;

C-102 revised September 9, 2013;

C-103 revised September 9, 2013;

C-104 revised October 10, 2013; and

C-105 revised October 3, 2013

and was presented for a public hearing on October 16, 2013, Planning Commission discussion on October 24, 2013 and final approval at the Planning Commission meeting on November 21, 2014, and has been signed and dated by the Chairperson of the Planning Commission as the approved plan (the "Approved Site Plan"). The Approved Site Plan constitutes final site plan approval for the proposed development, the Residential Property and the proposed 8 lots (including the building envelopes), but constitutes only preliminary site plan approval for the individual houses or dwellings to be built on those lots. The development and all uses, lots, structures, buildings, and activities on the Residential Property must comply at all times with the Approved Site Plan (and individual houses or dwellings must also comply with any final site plan approved for such buildings by the Planning Commission when it comes time to construct

the particular building involved) and this Resolution. No aspect of the Approved Site Plan may be altered, amended or changed except with the express approval of the City pursuant to a formal amendment to the Approved Site Plan and special land use approval.

c. The Residential Property shall be developed and used for single-family residential purposes only.

d. The Undeveloped Property shall remain undeveloped and no residences or buildings shall be built thereon (with the exception of the improvements specified herein) until and unless the Developer applies for and obtains a formal amendment to both the Approved Site Plan and the special land use approval contained in this Resolution or as part of a new zoning application or review.

e. The following shall be applicable to the Undeveloped Property:

i. Motorized off road vehicle use is prohibited;

ii. The installation and use of non-residential outdoor lighting shall be prohibited; and

iii. Dune grass or other native vegetation shall be planted wherever a structure has been removed as soon as possible, but no later than May 1st of any given year if a structure is removed after November 15 of the previous year.

iv. Removal or destruction of trees and vegetation is prohibited unless approved as part of this Resolution.

f. The Developer shall install and extend public water and public sanitary sewer (at the Developer's sole cost and expense) to each of the 8 residential parcels or lots to be

developed on the Residential Property and as shown on the Approved Site Plan. The following shall also apply to such public water and public sanitary sewer extensions and use:

i. A public water system shall be installed by the Developer as shown on **Exhibit C-104** as attached hereto.

ii. A public sanitary sewer system shall be installed by the Developer as shown on **Exhibit C-104** as attached hereto.

iii. No dwelling or building shall be built or commenced on any of the 8 single-family residential lots or parcels until both the public water and public sanitary sewer installations as shown on **Exhibit C-104** attached hereto have been fully installed and completed for the whole development, inspected by the City, and the City has approved the same.

iv. The installation of water and sewer facilities shall be constructed to the specifications and standards as required by the Kalamazoo Lake Water and Sewer Authority and/or its designee.

v. Fire hydrants shall be installed and maintained as shown on **Exhibit C-104.**

g. Permanent utility easements shall be granted to the City by the Developer for all utilities.

h. The Developer shall install the private roads (at the Developer's sole cost and expense) as shown on the Approved Site Plan as follows:

i. The private roads shall meet all applicable standards as deemed necessary by the Saugatuck Township Fire District Chief.

ii. Required dune grasses or other non-invasive vegetation shall be planted along the private roads in conformance with Section 154.027(F) of the Zoning Ordinance.

iii. The private roads shall be maintained, snowplowed and repaired by a private homeowners association or by the developer. The private roads shall be maintained and snowplowed at all times to the requirements of the Saugatuck Township Fire District.

iv. The recorded homeowners association agreement shall include language that will require the condition of the roads to be maintained to a level found acceptable to the Saugatuck Township Fire District and shall include language that would prevent the City of Saugatuck from being held financially or otherwise responsible or liable for the construction, maintenance, use, or repair of any private road within the proposed development.

v. Road signs, no parking signs, and other requirements as indicated in the September 17, 2013 letter from the Saugatuck Township Fire District shall be installed and maintained in coordination with other applicable agencies including the Kalamazoo Lake Water and Sewer Authority.

i. The public road that crosses the northern portion of the Overall Property (known as "Perryman Street") is shown on **Exhibit C-104** as attached hereto. A 66-foot wide permanent public road easement shall be granted to the City for that road. Such additional public road right of way/easement shall be transferred to the City in a document executed by the

Developer (and approved by the City) in a recordable form and shall be delivered to the City prior to any dwelling being built or commenced on any of the eight lots. Furthermore, Perryman Street shall remain open and unobstructed to general vehicular traffic from April 1 to November 1 during any given year. A "non-disturb area" is hereby created on both sides of that public road and shall constitute all lands within 100 feet of the 66-foot wide public road right-of-way. Within that area, all trees and vegetation shall be left in an undisturbed, natural state. Furthermore, the topography shall not be altered. Notwithstanding such prohibitions, however, dead or dying trees or invasive species foliage may be removed by the Developer, but only after being approved beforehand in writing by the City. In addition, such non-disturb area (and its provisions) shall not apply to drives and other infrastructure approved by the City. Such "non-disturb area" shall be evidenced by a permanent deed restriction (or the equivalent) executed by both the Developer and the City (and with language acceptable to the City), which shall be enforceable by the City and shall be recorded prior to any dwelling being built or commenced on any of the eight lots.

j. Prior to the removal of any structure, the installation of any infrastructure, or any dwelling being built or commenced on any of the eight lots, the Developer shall execute and record a permanent public easement document (in a form and with language acceptable to the City) in favor of the City creating the 50 foot wide non-motorized path/easement shown on the Approved Site Plan.

k. The following shall be applicable to any interference with Perryman Street during construction periods and related matters:

i. The Developer shall provide an irrevocable letter of credit to the City to reimburse the City for any damage done to Perryman Street

during or attributable to the construction of the private roads, the tie-in of the private roads to Perryman Street, and installation of water or sewer or other required underground utilities. The irrevocable letter of credit shall be in a form, in an amount and from a bank deemed reasonably acceptable to the City. The letter of irrevocable credit shall remain in effect for a period of one year after all construction has been completed and accepted by the City.

ii. The Developer shall repair and reinstall the public roads (at the Developer's sole cost and expense) as shown on the Approved Site Plan to a standard as required by the City or the City's designee.

iii. The Developer shall reimburse the City for any damage to or removal of sand, dust or dirt on or to Perryman Street attributable to the construction of any dwelling, the installation or repair of any infrastructure and any other improvements on any of the eight lots.

iv. The Developer shall not cause any interruption in the general flow of vehicular traffic due to road construction, lane closures, staging of construction vehicles, staging of construction materials or similar obstruction or interference between April 1 and November 1 of any given year.

v. No permit for construction for the private road tie-in to Perryman Street and for the reconstruction/repair of Perryman Street shall be issued by the City unless a feasibility plan for all such construction

has been filed by the Developer with the City and approved in writing by the City's engineer.

vi. No work shall commence on Perryman Street until the City and the Developer have entered into a written road work agreement.

l. The following shall be applicable to signage:

i. Signage as required by the fire department shall be installed before any certificate of occupancy shall be issued.

ii. "Private Road" signage shall be installed at both intersections with Perryman Street.

iii. No other development signage shall be installed without prior approval.

m. The entrance gate for Oval Beach shall be relocated (at the Developer's expense) to a site west of the final access drive for the proposed development and shall be done per the direction of the City of Saugatuck Public Works Department.

n. No dwelling or building shall be built, structure removed, or infrastructure installed on the Property and no alteration of any dune shall occur without first obtaining any and all necessary permits and approvals from the State of Michigan with regard to sand dunes and other matters. In addition, no building permit shall be issued for a dwelling or any building until and unless the Developer files with the City a copy of the permits or approvals from the State of Michigan or the Department of Environmental Quality ("DEQ") for such dune alterations and construction (or a letter or other written indication from the State of Michigan or the DEQ stating that no such permit is required under state law). Furthermore, the Developer and all properties shall comply with all such state approvals and permits at all times.

o. No vegetation shall be destroyed or removed from the residential sites or elsewhere except as is absolutely necessary for the construction of a single family residential dwelling, utilities and driveways as indicated on **Exhibit C-104**. In addition, in any areas where vegetation has been removed, destroyed or damaged, new compatible vegetation shall be planted and established by the Developer where required by the DEQ or the Zoning Ordinance, and such planting shall occur in a reasonably prompt fashion. The Developer shall monitor such new or replanted vegetation to ensure that it survives, and if it does not, it shall be promptly replaced by the Developer. Any trees with a caliber greater than 6 inches shall not be removed without prior City approval.

No vegetation or trees shall be removed, destroyed or damaged until and unless the Developer submits the following vegetative removal plans to the City and the City approves the same (including any conditions that the City may impose for any plan approval):

i. For any infrastructure or disturbance on the Undeveloped Property;

ii. For any infrastructure or disturbance on any of the eight parcels (for work done before a final site plan is approved for a dwelling on such lot); and

iii. For the construction of a dwelling and improvements on an individual lot (i.e., the final site plan).

For iii, above, the Planning Commission shall conduct the vegetative removal plan review, while the Zoning Administrator shall perform the plan review process under i. and ii. above, unless the Zoning Administrator refers the matter to the Planning Commission for decision.

p. Apart from any stairway or mechanical chairlift or trolley approved by the State of Michigan, no deck, gazebo, shed, building or similar item shall be located west of the

western edge of the top of the lakeward-most dune peak on any of the 8 single-family residential lots or parcels.

q. The existing buildings and structures on the Overall Property shall be fully removed in accordance with **Exhibit C-105**. No permit for a residential dwelling shall be issued unless all such structures have been fully removed (except the two items as indicated in **Exhibit C-105**) and no certificate of occupancy shall be issued for any new dwelling until the two remaining structures have been fully removed. No building permit shall be issued for any dwelling until the previously occupied sites have had appropriate vegetation planted in accordance with Section 154.027(F). Finally, the removal of all of the structures shall be subject to the required performance bond to assure that all applicable standards and regulations, and the method and process as indicated in **Exhibit C-105,** have been followed.

r. No house or residential dwelling shall be built on any of the eight lots until and unless a final site plan for each such dwelling has been submitted to and approved by the Planning Commission as a final site plan for each such dwelling. Said site plan shall also include a vegetation plan showing which trees and other vegetation are to be removed and the reason for their removal. The Planning Commission may require that any trees removed or damaged be replaced with one or more trees where the total diameter is equal to the diameter of the tree(s) being removed.

s. All utilities (including, but not limited to, water, sewer, natural gas, electric and telecommunications) shall be installed and maintained underground. There shall be no above ground or buried propane, gasoline or other similar fuel tanks.

t. The home owners association agreement, deed restrictions or similar document shall not be recorded until and unless it has been reviewed and approved by the City.

Such document shall also provide that each dwelling built on any of the eight lots shall have an internal fire suppression system, which shall be constructed to the standards and requirements as determined by the Saugatuck Township Fire District Chief.

u. All driveways shall meet the requirement for shape as illustrated on **Exhibit C-104** and shall be of the thickness, width and construction meeting the standards as provided by the Saugatuck Township Fire District Chief. No driveways shall be commenced or constructed for a particular parcel until and unless the final site plan has been approved by he Planning Commission and the building permit has been issued for the parcel thereon.

v. No street lights shall be maintained, installed or used.

w. No satellite dish shall be visible from the ordinary high water mark of Lake Michigan or from Oval Beach.

x. This Resolution (as well as the zoning approvals contained herein) shall not be effective until and unless a copy of this Resolution has been signed and dated by the Developer and returned to the City Clerk within 45 days of the date of this Resolution.

y. Any violation of this Resolution or the Approved Site Plan (or any approved final site plan for a dwelling) shall also constitute a violation of the Zoning Ordinance.

z. This Resolution (as well as the conditions and requirements contained herein) shall run with the lands involved and shall bind not only the Developer but also the Developer's successors, assigns, agents, and creditors.

aa. No permit for the construction of a dwelling or building shall be issued (nor shall any excavations for the same commence) until and unless the Developer has fully completed all of the following:

i. The public water and public sanitary sewer system as extended by the Developer has been completely installed as shown on **Exhibit C-104** as attached hereto and the City has approved the same.

ii. All private roads as shown on the Approved Site Plan have been completed and inspected by the City or designee and the City approves the same.

bb. There shall be full compliance with the requirements of Sections 154.027(F)(3) and (4) of the Zoning Ordinance.

cc. Prior to any lot within the Residential Property being sold or transferred to a third party, a binding deed restriction/restrictive covenant document shall be executed by the Developer (as well as any and all other persons or entities with any ownership or other interest in said property) and recorded with the Allegan County Register of Deeds Records that references this zoning approval, creates a property owners association for the 8 lots, and includes any other additional restrictions on the 8 lots that will be imposed by the Developer. Such document shall also provide that it is also enforceable by the City (in addition to the property owners association and any of the owners of the 8 lots) and that the document shall not be amended to delete any reference to the City or requirement of the City without the City's express written consent. Such document shall be reviewed and approved by the City before recording and shall include a copy of this Resolution.

dd. No mineral, sand, gravel or other mining or removal or commercial water removal shall occur on or from the Overall Property. Notwithstanding such prohibitions, the Developer may remove not more than the minimum number square yards of sand or earth from the site as deemed necessary by the City Engineer for the construction of the improvements as

approved in this Resolution and the Approved Site Plan, in order to prepare the building sites, build required roads or construct other improvements, so long as such removal meets all applicable City, county, and state requirements.

ee. A performance bond in accordance with Section 154.173 of the Zoning Ordinance, irrevocable letters of credit or other monetary security deemed reasonably acceptable to the City shall be filed by the Developer with the City for:

i. any improvements, infrastructure or modifications as approved or required as part of this Resolution or the Approved Site Plan, including but not limited to the installation of water and sewer along the right-of-way known as Perryman Street, the relocation of the Oval Beach gate, and any other improvements within the public road right-of-way, and

ii. any other improvements (which shall not to be located or interfere with the regular vehicular traffic along the right-of-way known as Perryman Street).

The amount, form and type of bond, irrevocable letter of credit or other monetary security shall be as reasonably determined by the City Attorney, City Manager, City Engineer, and otherwise in conformance with the requirements of Section 154.173 of the Zoning Code.

ff. The Developer (and all uses, activities and structures on the Residential Property) shall comply with all other applicable requirements of the Zoning Ordinance.

gg. Zoning escrow fees

The Developer shall promptly reimburse the City for all costs incurred by the City in inspecting or reviewing any plans, work, construction or matters relating to or arising out of the

installation or construction of any utilities, private roads, drives and other infrastructure, improvements or structures arising out of this zoning approval. The Developer shall reimburse the City within 30 days of the date that the Developer receives an itemized statement from the City for the same. Such reimbursements shall not apply to salaried City officials or employers except to the extent that overtime is required. Such reimbursement shall be required pursuant to services rendered by the City Engineer, other outside experts or professionals and others as required by the City or other governmental agency.

hh. No variance regarding any aspect of this approval or the conditions herein shall be applied for or granted by the Saugatuck Zoning Board of Appeals.

THE UNDEVELOPED PROPERTY

The Undeveloped Property is not part of this zoning approval except to the extent that provisions contained in this Resolution that apply to improvements, infrastructure and other matters that the Developer has represented or agreed will be done or accomplished on the Undeveloped Property. The Undeveloped Property shall not be otherwise developed until and unless any and all applicable zoning approvals have been obtained from the City.

This Resolution constitutes the Planning Commission's written decision regarding this matter.

The vote to approve the above Resolution was as follows:

YEAS: Peterson, Schmidt, McPolin, Muir

NAYS: Lint, Walker

ABSENT/ABSTAIN: Kelly

RESOLUTION DECLARED ADOPTED.

CERTIFICATION

I hereby certify that that the above is a true copy of the Resolution adopted by the City of Saugatuck Planning Commission at the time, date, and place specified above pursuant to the required statutory procedures.

Respectfully submitted,

By _____

Jim Muir, Chairperson of the
City of Saugatuck Planning Commission

* * *

David Barker, the Developer, hereby accepts and agrees to all of the requirements, conditions, and regulations contained in the above Resolution, both on behalf of the Developer and the Developer's successors, assigns, creditors, heirs, and transferees in and to the Overall Property.

Dated: 12/5, 2013

_____
David Barker

Prepared by:
Clifford H. Bloom
Bloom Sluggett Morgan, PC
15 Ionia Avenue, SW, Suite 640
Grand Rapids, Michigan 49503
(616) 965-9341

Michael J. Clark AICP
Zoning Administrator
City of Saugatuck
102 Butler Street
Saugatuck Michigan, 49453
(269) 857-2603


LAKE MICHIGAN
LEGEND
Existing Conditions and Survey Plan
THE HAMPTONS
C-100
1 OF 5
NEDERVELD

NOTES

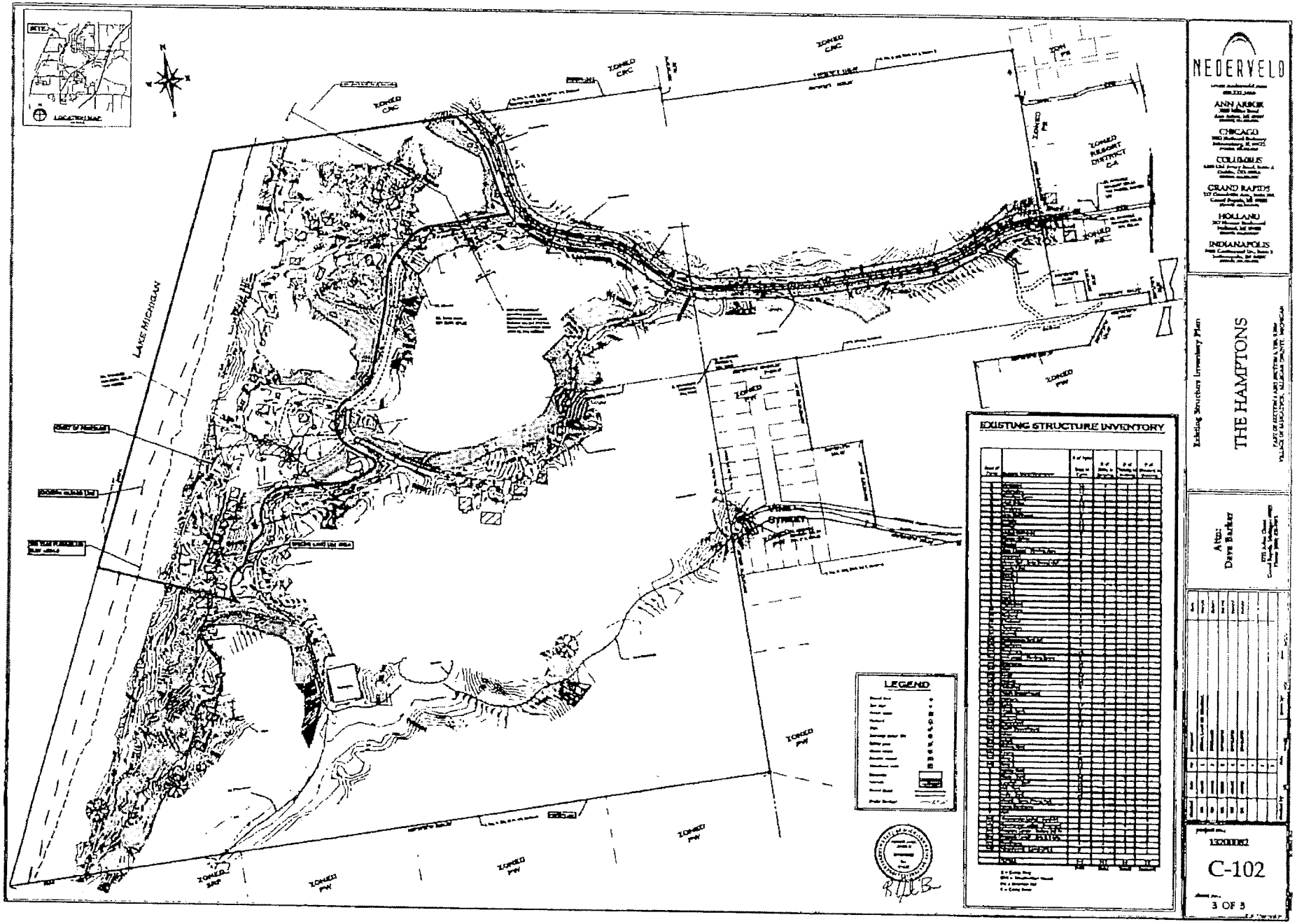
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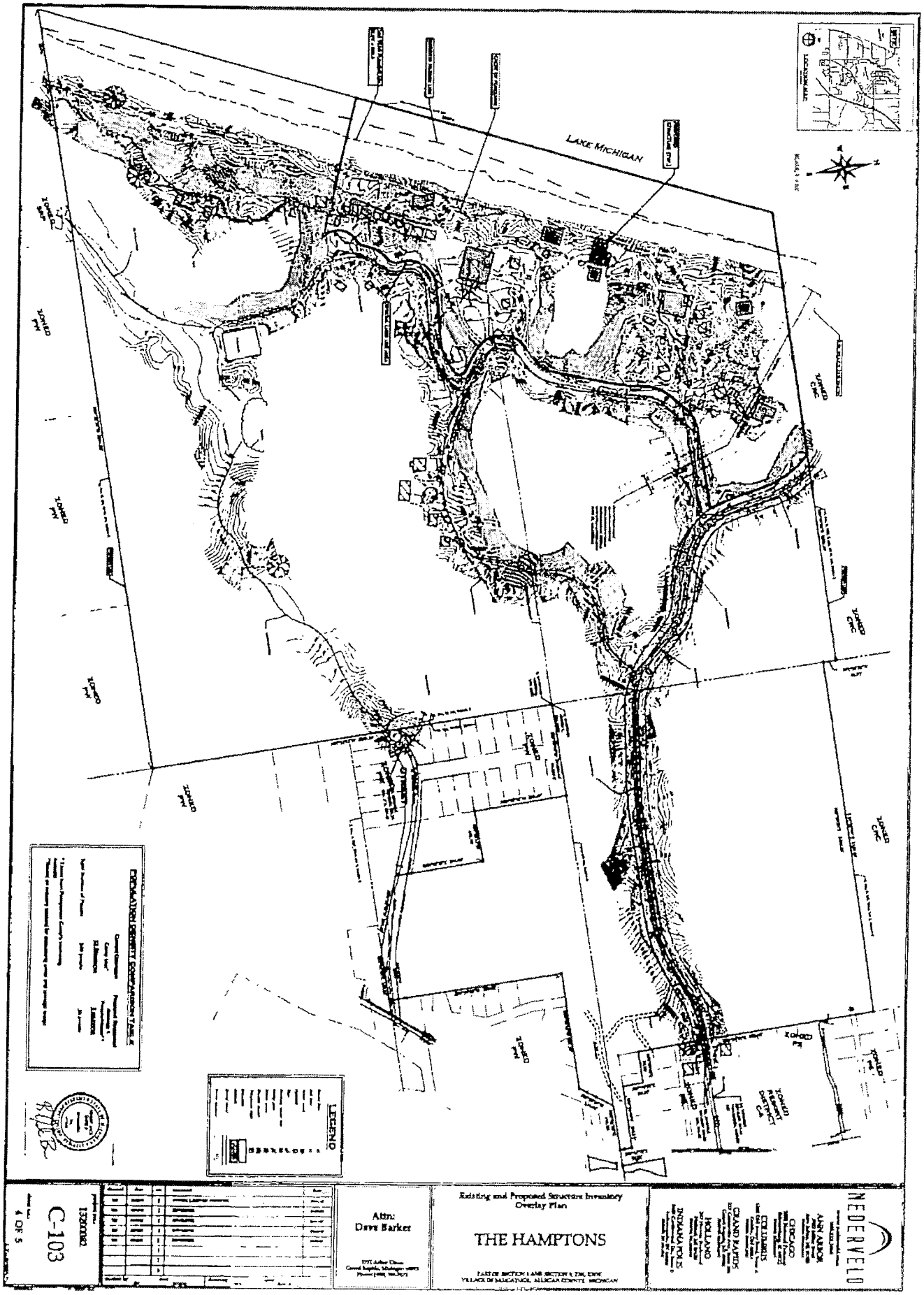
THE HAMPTONS

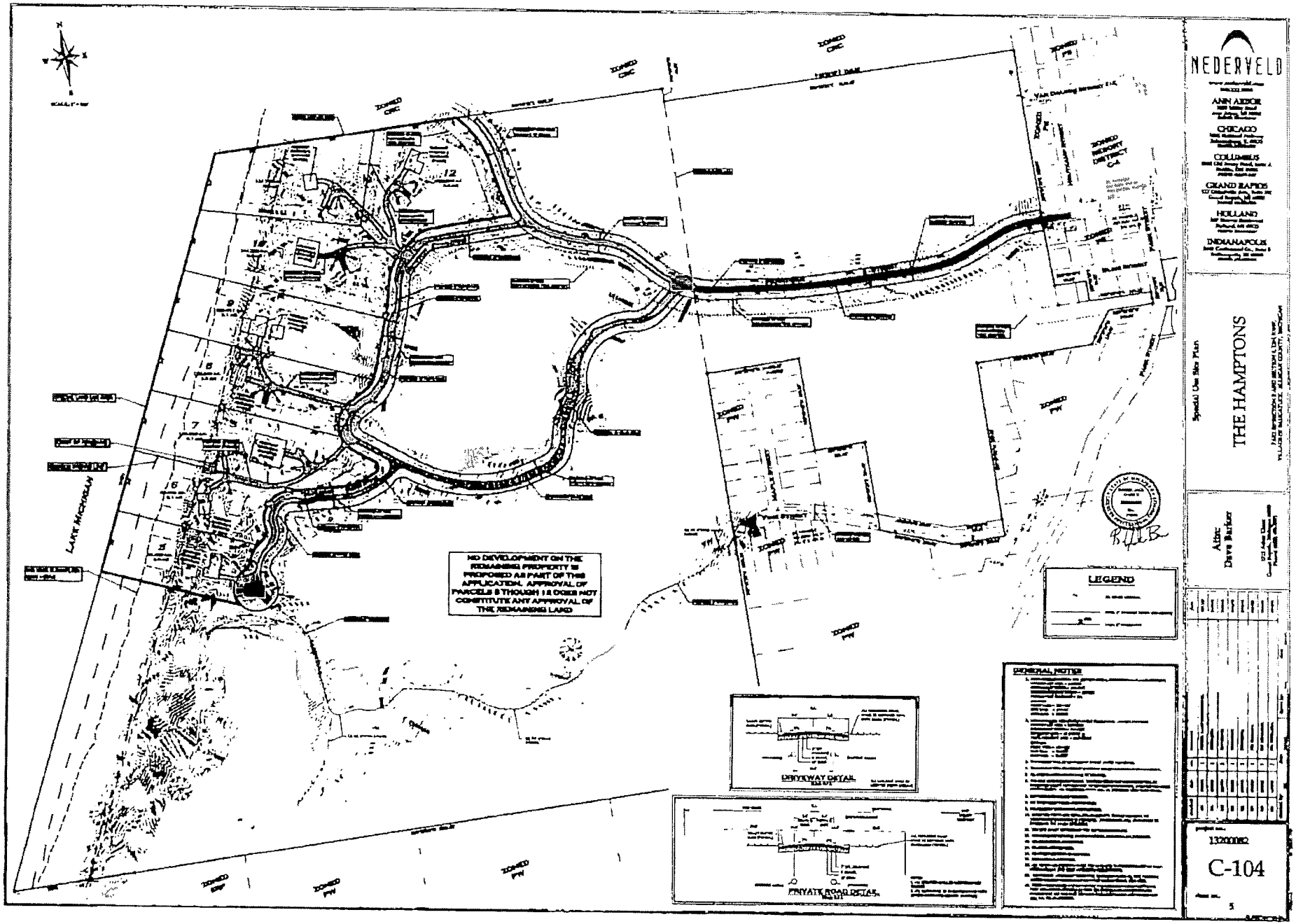
Attn: Dave Barker

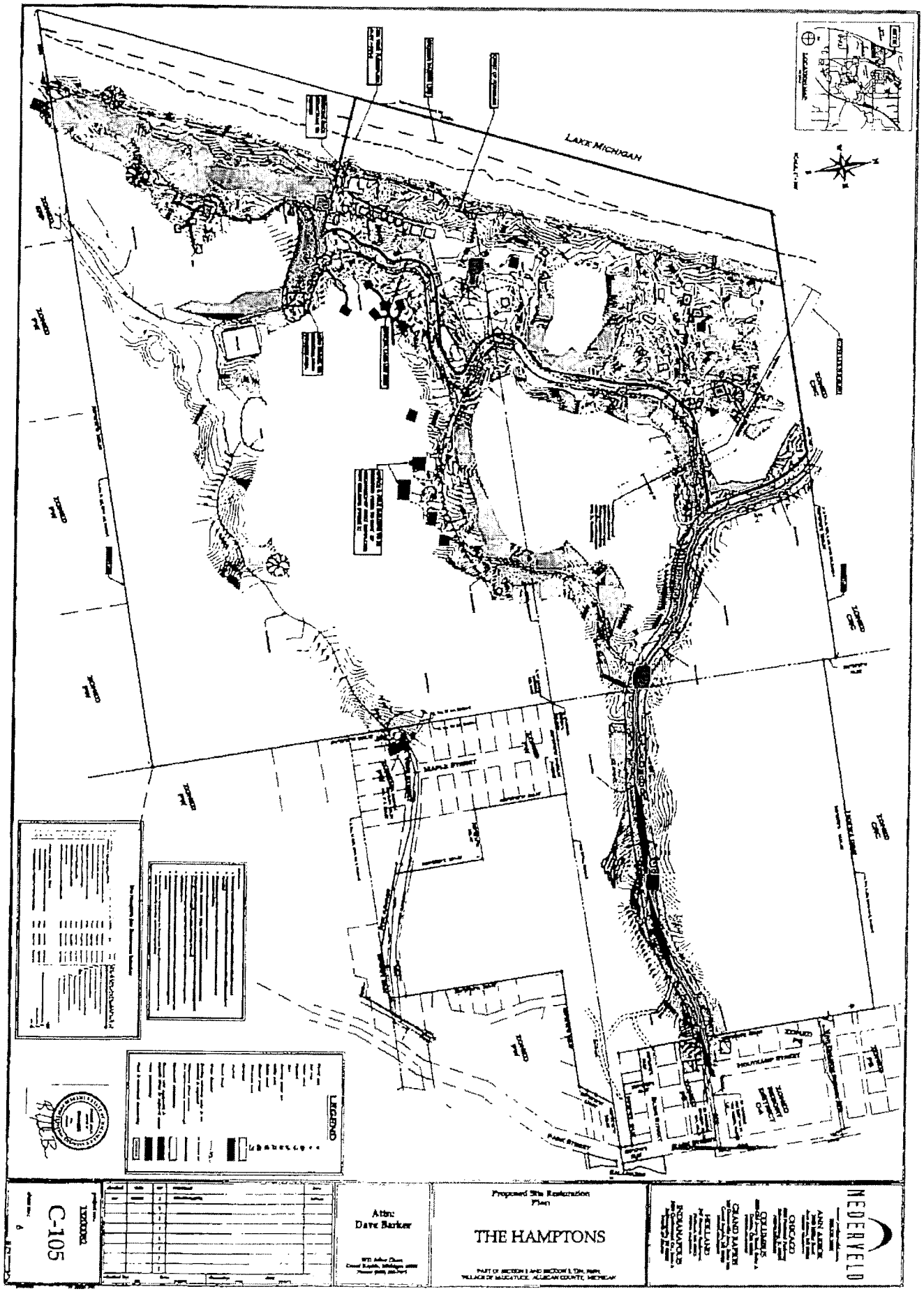
C-101

NEDERVELD


LAKE MICHIGAN
EXISTING STRUCTURE INVENTORY
LEGEND
NEDERVELD
ANN ARBOR
CHICAGO
COLUMBUS
GRAND RAPIDS
HOLLAND
INDIANAPOLIS
THE HAMPTONS
C-102
3 OF 3


LAKE MICHIGAN
LEGEND
Attn:
Dave Barker
Existing and Proposed Structure Inventory
Overlay Plan
THE HAMPTONS
C-103
NEDERVELD


NEDERVELD
ANN ARBOR
CHICAGO
COLUMBUS
GRAND RAPIDS
HOLLAND
INDIANAPOLIS
THE HAMPTONS
Special Use Site Plan
Atty: Dave Barker
LEGEND
NO DEVELOPMENT ON THE REMAINING PROPERTY IS PROPOSED AS PART OF THIS APPLICATION. APPROVAL OF PARCELS 9 THOUGH 18 DOES NOT CONSTITUTE ANY APPROVAL OF THE REMAINING LAND
DRIVEWAY DETAIL
PRIVATE ROAD DETAIL
GENERAL NOTES
LAKE MICHIGAN
C-104


LAKE MICHIGAN
MAPLE STREET
MOUNTAIN STREET
LEGEND
C-105
Attn:
Dave Barker
Proposed Site Restoration
Plan
THE HAMPTONS
NEDERVELD

CITY COUNCIL
CITY OF SAUGATUCK
ALLEGAN COUNTY, MICHIGAN

At a special meeting of the City Council for the City of Saugatuck held at the City offices on June 10, 2015 at 4:00 p.m., Council Member Peterson offered the following resolution and moved its adoption, seconded by Council Member Trester:

RESOLUTION NO. 150610-A

A RESOLUTION APPROVING A PLANNED UNIT DEVELOPMENT FOR THE PROPERTY COMMONLY KNOWN AS 631 PERRYMAN (APPLICATION NO. 15-008), WITH CONDITIONS, ON THE RECOMMENDATION OF THE SAUGATUCK PLANNING COMMISSION

WHEREAS, on or about March 11, 2013, the City of Saugatuck ("City") first received an application for special land use approval to develop twelve single family lots on a portion of the former Presbyterian Camp property commonly known as 631 Perryman ("Property"); and

WHEREAS, on December 3, 2013, following a series of public hearings and meetings at which the special land use application was discussed, the Planning Commission for the City of Saugatuck (the "Planning Commission") approved a resolution (Resolution No. 131203-A) pursuant to the City of Saugatuck Zoning Ordinance ("Zoning Ordinance") granting special land use and site plan approval for eight single-family lots on a portion of the Property; and

WHEREAS, on or about November 1, 2014, the applicant Dune Ridge SA, LP ("Dune Ridge") filed a planned unit development ("PUD") application, as amended, on January 23, 2015 and March 12, 2015, for the development of an additional portion of the Property, which provided for the development of 14 single-family residential lots (of which one lot was included in the original eight lots approved in Planning Commission Resolution No. 131203-A), which if approved would allow for a total of 21 single-family residential lots on the entire Property; and

WHEREAS, the City referred the PUD application to the Planning Commission, which held a public hearing on the application on April 16, 2015 and thereafter recommended approval of the PUD application and site plan to the City Council; and

WHEREAS, on June 1, 2015, the City Council and Planning Commission held public hearings related to the Property, at which they received further public comment regarding the PUD application; and

WHEREAS, the City Council on June 1, 2015 tentatively approved the PUD application and site plan subject to several express conditions, and subject to review and approval of a resolution setting forth those conditions of approval;

NOW, THEREFORE, IT IS RESOLVED AS FOLLOWS:

1. The City Council hereby approves Planned Unit Development Application No. 15-008 and its site plan for the property commonly known as 631 Perryman, subject to the following conditions:

a. A public water system is installed in the general location shown on the approved site plan, specifically the plan labeled C-102A, and as further provided on watermain plans provided to the City and the Michigan Department of Environmental Quality ("MDEQ") for permit dated May 26, 2015, subject to approval by the City of Saugatuck Engineer, the Kalamazoo Lake Water and Sewer Authority or its designee, the Michigan Department of Environmental Quality, the Saugatuck Township Fire District Chief, and any other governmental agency or office from which an approval is required.

b. Dune Ridge shall provide utility easement agreement(s) that are in a form acceptable to the City and the Kalamazoo Lake Water and Sewer Authority, before any connection to the public water system.

c. Individual site plans for each principal and accessory structure remain subject to review and approval by the Zoning Administrator and Planning Commission.

d. Dune Ridge shall obtain approval from Allegan County and any other necessary governmental agencies or officials for the location of the septic tanks and fields.

e. Dune Ridge shall install the required landscaping in accordance with the standards set forth in Section 154.027 of the City Code of Ordinances and all applicable MDEQ requirements.

f. The Saugatuck Township Fire District Chief shall approve the location and width of the private roads to ensure adequate emergency access and all roads shall meet applicable engineering standards.

g. Each principal and accessory structure shall be equipped with a year-round operational sprinkler system approved by the Saugatuck Township Fire District Chief.

h. Dune Ridge shall comply with all applicable MDEQ critical dune requirements, as determined by the MDEQ.

i. Restoration review may be conducted administratively.

j. Dune Ridge shall submit documentation satisfactory to the City Attorney guaranteeing that all open space portions of the PUD will be maintained in the manner approved, which documents shall (1) bind all successors and future owners in fee title to maintenance commitments made as a part of the approval of open space; and (2) provide for maintenance to be undertaken by the City in the event that the dedicated open space is inadequately maintained, or is determined by the City to be a public nuisance, with the assessment of costs upon the property owners.

k. Dune Ridge shall comply with all escrow requirements of the City.

1. Dune Ridge shall abide by verbal representations made at the June 1, 2015 City Council meeting, including but not exclusively that it will within a reasonable time convey a non-motorized trail to the City for use by the public, with ingress/egress easements, generally located south of Perryman Street, all in the locations shown on the approved site plan labeled C-102A.

2. The PUD approval, and development of the PUD property legally described in the site plan, is contingent upon Dune Ridge's compliance with the above the conditions.

3. In approving the PUD application, the City Council has reviewed and relied upon the findings of City staff, as set forth in staff's April 10, 2015 memorandum, and upon the recommendation of the City Planning Commission, and finds that, with the above conditions, the application meets all of the applicable standards in the Zoning Ordinance, including the standards set forth in Sections 154.060 *et seq.* (Site Plan Review) and 154.110 *et seq.* (Planned Unit Development) and Section 154.027 (Conservation, Recreation and Camp District).

4. All resolutions and parts of resolutions insofar as they conflict with the provisions of this Resolution are rescinded.

YEAS: Members: Peterson, Trester, Spangler, Bekken, Verplank & Hess

NAYS: Members: None

ABSENT: Members: Johnson

RESOLUTION NO. 150610-A DECLARED ADOPTED.

William Hess, Mayor

Monica Nagel, Clerk

CERTIFICATION

I hereby certify that that the above is a true copy of the Resolution adopted by the City of Saugatuck City Council at the time, date, and place specified above pursuant to the required statutory procedures.

Respectfully submitted,

By _____
Monica Nagel
City of Saugatuck Clerk

APPROVED
KH

CONSENT JUDGMENT

At a session of said Court held in the Allegan County Courthouse, City of Allegan, and State of Michigan on this 24th day of September, 2015.

PRESENT: HONORABLE MARGARET ZUZICH BAKKER
Chief Circuit Court Judge

The above referenced cases each involve the proposed development by Dune Ridge SA, LP of a portion of the former Presbyterian Camp property as shown and legally described on the attached **Exhibit A** (the "Property") in the City of Saugatuck, Michigan and challenges by Shorewood Association and Gary Medler to actions taken under the City of Saugatuck Zoning Ordinance relative to the approval of the proposed development; therefore, while the matters came before the Court separately and with different procedural backgrounds, both matters have common questions of fact as provided in MCR 2.505(A). The parties have reached a comprehensive resolution and settlement that resolves both cases and resolution of each case is conditioned on the resolution of both cases.

I. JURISDICTION, VENUE AND GENERAL PROVISIONS

1.1 This Court has jurisdiction over the subject matter of the above captioned actions pursuant to Const 163, art 6, §28 and MCL 600.601. See also MCR 7.122.

1.2 This Court has personal jurisdiction over all of the parties to each action.

1.3 Venue is proper in this Circuit because the Property is located within the County of Allegan.

1.4 Upon entry of this Consent Judgment, each of the above-referenced cases shall be dismissed with prejudice and without an award of costs and/or attorney's fees; however, the Court shall retain jurisdiction over the parties and the subject matter of each action to

enforce this Consent Judgment and resolve disputes arising under the same, including those that may be necessary for its construction, execution and implementation.

1.5 Should a court of competent jurisdiction declare any provision of this Consent Judgment to be unenforceable, the remaining provisions shall remain in effect.

1.6 This Consent Judgment shall bind and benefit not only the parties, but also their assigns, successors in title, creditors, lessees and transferees in and to the Property, their respective properties or any part thereof, and this Order shall also bind and run with the lands involved.

1.7 A copy of this Consent Judgment may be recorded with the Allegan County Register of Deeds.

1.8 The above-referenced cases are hereby consolidated into Case No. 13-52646-CZ pursuant to MCR 2.505(A)(2).

1.9 To avoid the burden, expense and uncertainty of further litigation and appeals, after consultation with their respective legal counsel and extensive negotiations, the parties have agreed to a comprehensive compromise and settlement of both cases to fully and finally resolve their disputes through this Consent Judgment.

1.10 The Court finds in reliance on the parties' stipulation that the terms and conditions of this Consent Judgment are fair, adequate and reasonable, consistent with the public interest, and adequately resolve the subject matter of this case.

1.11 Except as otherwise provided herein, this Consent Judgment is neither an admission nor denial of liability, fault or error with respect to any of the claims raised in the above captioned cases, or any issue addressed in this Judgment.

1.12 All parties represent and guarantee that they have the legal power and authority to execute and enter into this Consent Judgment.

1.13 This Consent Judgment is a comprehensive settlement and compromise, and fully adjudicates all of the claims, defenses, appeals and causes of action in this consolidated case, including those pleaded and which could have been pleaded and constitutes the final order of the Court.

II. PARTIES AND BACKGROUND

2.1 Appellant Shorewood Association ("Shorewood") is a Summer Resort Association created under 1897 PA 230 and is the title holder to Lots 1-74 inclusive, all streets, the athletic area and the beach park and all land comprising the Plat of Shorewood located in the City of Saugatuck, County of Allegan and shares common a boundary with the Property, as described below, of approximately 700 feet.

2.2 Appellee and Defendant City of Saugatuck ("City") is an incorporated Home Rule City in the State of Michigan.

2.3 Intervening Appellee and Defendant Dune Ridge SA, LP ("Dune Ridge") is the owner of the Property that is the subject of this action.

2.4 Plaintiff Gary Medler ("Medler") is an individual who owns three lots and resides at 461 Vine Street, Saugatuck, County of Allegan, Michigan 49453, title to which is held by the Gary E. Medler Trust, dated June 13, 2007, and which is located on three lots, lots

5, 6 and A on the attached Exhibit B, and as legally described on the attached **Exhibit B** (the "Medler Property"). The Medler Property shares a common boundary with the Property and Medler alleges the Medler Property would be negatively impacted by any development of the Property adjacent to the Medler Property, including but not limited to, the improvement and extension of Vine Street into the Property, the installation and extension of public sanitary sewer and public water from the end of Vine Street into the Property.

2.5 On or about March 11, 2013, the City first received an application for special land use permit to develop twelve single family lots on a portion of the Property; the application was subsequently amended to reduce the number of proposed lots from twelve to eight.

2.6 In November 2013, Plaintiff Medler sought an appeal to the City's Zoning Board of Appeals seeking to challenge the City Zoning Administrator's determination that the proposed use was allowed under the City Zoning Ordinance with special land use approval ("Appeal").

2.7 The City refused to process Medler's Appeal, claiming it was untimely, prompting Medler to sue the City in this action and prompting Dune Ridge to intervene as a Defendant.

2.8 Defendants and Intervening Defendants dispute Medler's Appeal and contend the actions taken by the City of Saugatuck Planning Commission ("Planning Commission") and the City's determination that Medler's Appeal was untimely were consistent with the City's Zoning Ordinance.

2.9 On December 3, 2013, following a series of public hearings and meetings at which the special land use application was discussed, the Planning Commission approved a resolution pursuant to the Zoning Ordinance granting special land use and site plan approval for a portion of the Property (Resolution No. 131203-A, as amended, referred to herein as the "SLU Resolution"), which allowed for the development of eight single-family residential lots on the area described in the SLU Resolution as the "Residential Property", as shown and legally described on **Exhibit C**, and left the remainder of the Property as "Undeveloped Property" (the terms "Residential Property" and "Undeveloped Property" shall have the same meaning in this Consent Judgment as they are given in the SLU Resolution).

2.10 Appellant Shorewood filed a Claim of Appeal with this Court challenging the SLU Resolution as, among other things, not authorized by law (the "Claim of Appeal").

2.11 Appellee City and Intervening Appellee Dune Ridge dispute Appellant's Claim of Appeal and contend the action taken by the Planning Commission was valid and consistent with law.

2.12 By Order dated December 2, 2014, this Court dismissed Appellant's Claim of Appeal and Appellant has filed a motion to reconsider. The December 2, 2014 order shall be hereby vacated to the extent it could be considered inconsistent with the relief granted in this Consent Judgment.

2.13 On or about November 1, 2014, Dune Ridge filed a planned unit development ("PUD") application, as amended on January 23, 2015 and March 12, 2015, for the development of an additional portion of approximately 30.1 acres of the Undeveloped

Property (the "PUD Property"), which provided for the development of 14 single-family residential lots (of which one lot was included in the original eight lots approved in the SLU Resolution) as shown and legally described on the attached **Exhibit D**.

2.14 The Residential Property and the PUD Property are both part of the Property to be developed into a total of 21 single-family residential lots.

2.15 The City referred the PUD application to the City's Planning Commission, which held a public hearing on April 16, 2015 and recommended approval of the PUD application and site plan to the City Council.

2.16 On June 1, 2015, the City held a joint City Council and Planning Commission public hearing, following which (1) the Planning Commission adopted a resolution approving a request by Dune Ridge to change the location of the public water system servicing the Property, and reaffirming that the individual units in the Residential Property remain subject to site plan review by the Planning Commission (i.e., denying Dune Ridge's request for administrative review of individual site plans); and (2) the City Council tentatively adopted the PUD application, subject to final approval by the Council of a resolution or consent judgment setting forth the Council's findings and the conditions of the approval.

2.17 On June 10, 2015, the City Council approved a resolution pursuant to the Zoning Ordinance approving the PUD Application and Site Plan for the PUD Property (Resolution 150610-A, referred to herein as the "PUD Resolution"), **Exhibit E.**

III. RESOLUTION

3.1 Notwithstanding any other provision of the City ordinances to the contrary, and consistent with City Ordinance No. 150309-1, which authorizes the use of a septic disposal system in critical dune area such as the Property, no public sanitary sewer system will be installed or constructed on any part of the Property including the Residential Property, the PUD Property and the Undeveloped Property.

3.2 Public water will be provided for by means of a connection to the municipal water system at Frederick (Maple) Street and Vine Street, extending north on Frederick Street, with a connecting water line off Frederick Street, west through the Property and connecting to the municipal water system at Perryman Street and the main entrance to the Property, all as depicted on the Site Plan attached as **Exhibit D**, and as further provided on watermain plans provided to the City and the Michigan Department of Environmental Quality ("MDEQ") for City permit dated May 26, 2015, subject to approval by the City of Saugatuck Engineer, the Kalamazoo Lake Water and Sewer Authority or its designee, the Michigan Department of Environmental Quality, the Saugatuck Township Fire District Chief, and any other governmental agency or office from which an approval is required.

3.3 Installation of the public water system described in Section 3.2 shall be accomplished by means of directional drilling and boring in all open spaces and along Perryman Street pursuant to an engineered approved plan approved by the City, which shall include staging areas and a reclamation plan for bentonite slurry, acceptable to the City. All bore pits and property disturbance shall be restored to pre-installation conditions.

3.4 Dune Ridge shall neither request nor pursue an extension of Vine Street or any other road or pathway which would connect Vine Street to the Property.

3.5 Nothing in this Consent Judgment prohibits Medler from seeking vacation of any unimproved portion of Vine Street through the usual means; however, this Consent Judgment does not vacate any portion of Vine Street. Dune Ridge has no objection, and shall not object, to any request by Medler to the City to vacate and convey to Medler the unimproved portion of Vine Street.

3.6 Except as provided in the SLU Resolution, as amended by the Planning Commission on March 19, 2015 and June 1, 2015, and as provided in the PUD Resolution as approved and effective June 10, 2015, Dune Ridge shall not propose and the City shall not approve any additional residential units or other development on the Property or any amendment to the Site Plans attached as **Exhibits C and D**, except for de minimus, nonmaterial changes that do not alter the character of the unimproved portions of the Property.

3.7 The PUD, with accompanying site plan, was approved as meeting all of the applicable standards in the Zoning Ordinance, and may be constructed according to an approved, executable engineering plan, subject to the conditions set forth in Resolution No. 150610-A, attached as **Exhibit E**, which was adopted by the City of Saugatuck City Council, on the recommendation of the City of Saugatuck Planning Commission, on June 10, 2015, and the parties waive the right to challenge or appeal the PUD approval.

3.8 The SLU Resolution and PUD Resolution and all other resolutions, determinations, decisions and conditions by the City or its departments or designees, and any other governmental body, agency or official related in any manner to the Property, which were issued or adopted prior to the date of this Consent Judgment remain binding and in effect and are enforceable by the appropriate entity to the extent the resolutions, determinations, decisions and conditions are not inconsistent with this Consent Judgment.

This is a final decision and closes the cases.

IT IS SO ORDERED.

MARGARET ZUZICH BAKKER

Margaret Zuzich Bakker
Chief Circuit Court Judge

ATTEST, A TRUE COPY
DEPUTY CLERK

BY SIGNING BELOW EACH PARTY CONSENTS TO THE FORM, SUBSTANCE AND ENTRY OF THIS CONSENT JUDGMENT:

By:_____
Joel G. Bouwens (P26306)
CUNNINGHAM DALMAN, PC
Attorneys for Shorewood Association

By:_____
Crystal L. Morgan (P68837)
BLOOM SLUGGETT MORGAN, PC
Attorneys for the City of Saugatuck and Saugatuck Defendants

By:_____
Lee T. Silver (P36905)
Douglas W. Van Essen (P33169)
SILVER & VAN ESSEN, PC
Attorneys for Medler

By:_____
Aaron M. Phelps (P64790)
VARNUM LLP
Attorneys for Dune Ridge SA, LP

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This is a final decision and closes the cases.

IT IS SO ORDERED.

_____
Margaret Zuzich Bakker
Chief Circuit Court Judge

BY SIGNING BELOW EACH PARTY CONSENTS TO THE FORM, SUBSTANCE AND ENTRY OF THIS CONSENT JUDGMENT:

By: Joel G. Bouwens

Joel G. Bouwens (P26306)
CUNNINGHAM DALMAN, PC
Attorneys for Shorewood Association

By: _____
Crystal L. Morgan (P68837)
BLOOM SLUGGETT MORGAN, PC
Attorneys for the City of Saugatuck and Saugatuck Defendants

By: Lee T. Silver

Lee T. Silver (P36905)
Douglas W. Van Essen (P33169)
SILVER & VAN ESSEN, PC
Attorneys for Medler

By: _____
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VARNUM LLP
Attorneys for Dune Ridge SA, LP

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This is a final decision and closes the cases.

IT IS SO ORDERED.

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Margaret Zuzich Bakker
Chief Circuit Court Judge

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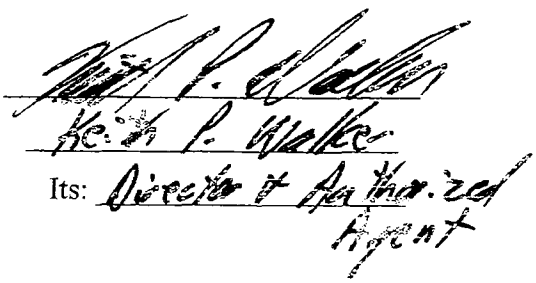
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Attorneys for Shorewood Association

By:_____
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BLOOM SLUGGETT MORGAN, PC
Attorneys for the City of Saugatuck and Saugatuck Defendants

By:_____
Lee T. Silver (P36905)
Douglas W. Van Essen (P33169)
SILVER & VAN ESSEN, PC
Attorneys for Medler

By:_____
Aaron M. Phelps (P64790)
VARNUM LLP
Attorneys for Dune Ridge SA, LP

SHOREWOOD ASSOCIATION

By: 

Its:

CITY OF SAUGATUCK AND
SAUGATUCK DEFENDANTS

By:_____
William Hess
Its: Mayor

By:_____
Gary Medler

DUNE RIDGE SA, LP

By:_____

_____

Its:_____

9625873_1.DOCX

SHOREWOOD ASSOCIATION

By: _____

* _____

Its: _____

CITY OF SAUGATUCK AND SAUGATUCK DEFENDANTS

By: _____

William Hess

Its: Mayor

By: _____

Gary Medler

DUNE RIDGE SA, LP

By: _____

* _____

Its: _____

9625873_1.DOCX

SHOREWOOD ASSOCIATION

By:_____

*_____

Its: _____

By:_____
Gary Medler

CITY OF SAUGATUCK AND
SAUGATUCK DEFENDANTS

By:_____
William Hess
Its: Mayor

DUNE RIDGE SA, LP

By:_____

*_____

Its:_____

9625873_1.DOCX

SHOREWOOD ASSOCIATION

By:_____

*_____

Its: _____

By:_____

Gary Medler

CITY OF SAUGATUCK AND
SAUGATUCK DEFENDANTS

By:_____

William Hess
Its: Mayor

DUNE RIDGE SA, LP,
a Delaware limited partnership
By: Dune Ridge SA GP, LLC,
a Michigan limited liability company,
Its: General Partner

By:_____

Paulus C. Heule, its Manager

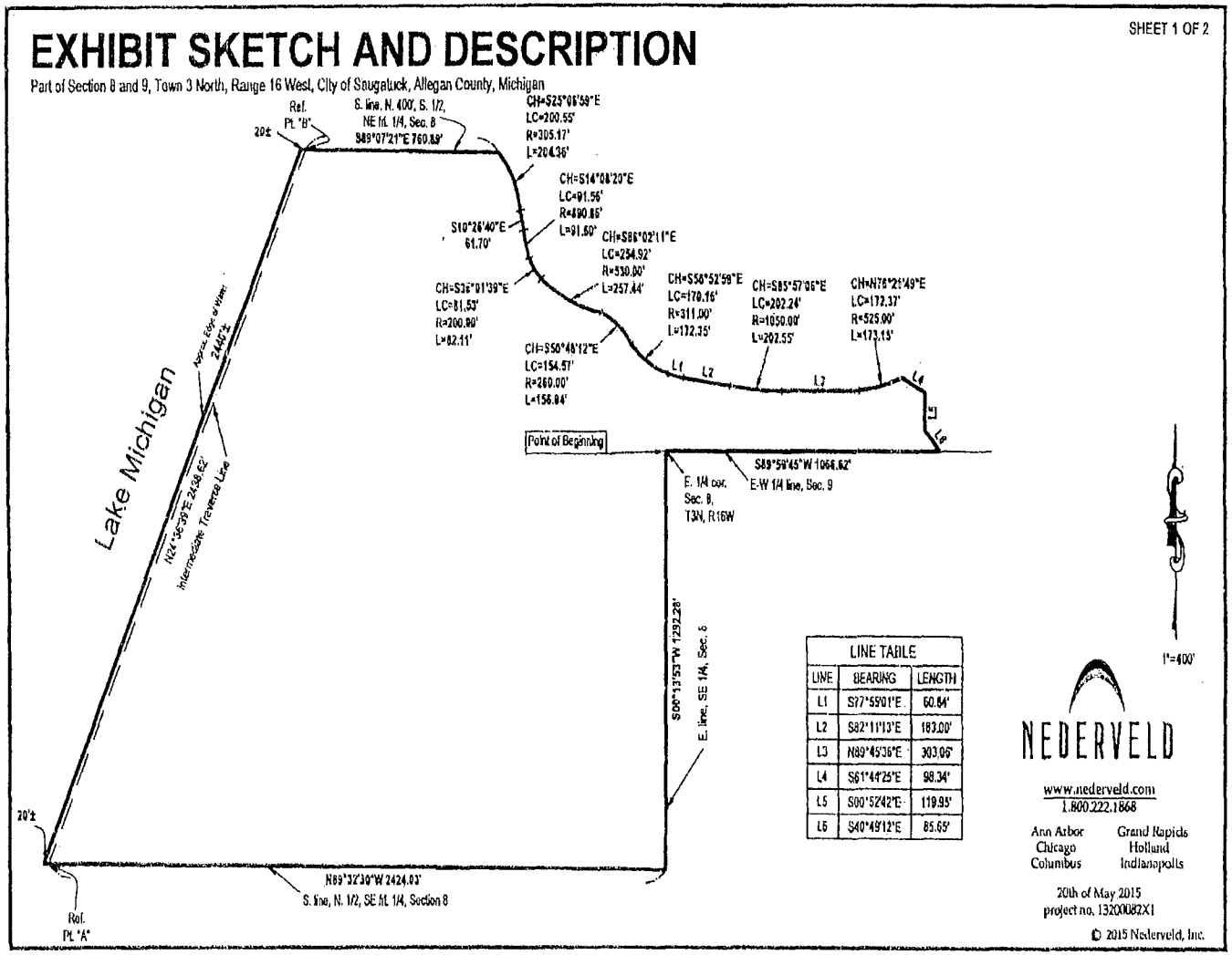
9625873_1.DOCX

EXHIBIT A

Legal Description of the Property

Part of Section 8 and Section 9, Town 3 North, Range 16 West, City of Saugatuck, Allegan County, Michigan, described as: Beginning at the East 1/4 corner of said Section 8; thence S00°13'53"W 1292.28 feet along the East line of the Southeast 1/4 of said Section 8; thence N89°32'30"W 2424.03 feet along the South line of the North 1/2 of the Southeast fractional 1/4 of said Section 8 to Reference Point "A"; thence continuing N89°32'30"W 20 feet, more or less, to the Water's edge of Lake Michigan; thence Northeasterly 2440 feet, more or less, along said Water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N89°07'21"W from Reference Point "B" (said Reference Point "B" being located N24°36'39"E 2438.62 feet from Reference Point "A"); thence S89°07'21"E 20 feet, more or less, to Reference Point "B"; thence continuing S89°07'21"E 760.89 feet along the South line of the North 400.00 feet of the South 1/2 of the Northeast fractional 1/4 of said Section 8; thence Southeasterly 204.36 feet along a 305.17 feet radius curve to the right, the chord of which bears S25°06'59"E 200.55 feet; thence S10°26'40"E 61.70 feet; thence Southeasterly 91.60 feet along a 890.86 feet radius curve to the left, the chord of which bears S14°08'20"E 91.56 feet; thence Southeasterly 82.11 feet along a 200.00 feet radius curve to the left, the chord of which bears S36°01'39"E 81.53 feet; thence Southeasterly 257.44 feet along a 530.00 feet radius curve to the left, the chord of which bears S66°02'11"E 254.92 feet; thence Southeasterly 156.94 feet along a 260.00 feet radius curve to the right, the chord of which bears S50°48'12"E 154.57 feet; thence Southeasterly 172.35 feet along a 311.00 feet radius curve to the left, the chord of which bears S56°52'59"E 170.16 feet; thence S77°55'01"E 60.84 feet; thence S82°11'13"E 183.00 feet; thence Southeasterly 202.55 feet along a 1050.00 feet radius curve to the left, the chord of which bears S85°57'06"E 202.24 feet; thence N89°45'36"E 303.06 feet; thence Northeasterly 173.15 feet along a 525.00 feet radius curve to the left, the chord of which bears N76°21'49"E 172.37 feet; thence S61°44'25"E 98.34 feet; thence S00°52'42"E 119.95 feet; thence S40°49'12"E 85.65 feet; thence S89°59'45"W 1066.62 feet along the East-West 1/4 line of said Section 9 to the East 1/4 corner of said Section 8 and the Point of Beginning.

EXHIBIT A


EXHIBIT SKETCH AND DESCRIPTION
SHEET 1 OF 2
Part of Section 8 and 9, Town 3 North, Range 16 West, City of Saugatuck, Allegan County, Michigan
Ref. Pt "B"
20±
S. line, N. 400', S. 1/2, NE fr. 1/4, Sec. 8
S89°07'21"E 760.88'
CH=S25°08'59"E
LC=200.55'
R=305.17'
L=204.36'
CH=S14°08'20"E
LC=91.56'
R=490.85'
L=91.50'
S10°26'40"E
61.70'
CH=S36°01'39"E
LC=81.53'
R=200.80'
L=82.11'
CH=S86°02'11"E
LC=254.92'
R=530.00'
L=257.44'
CH=S50°48'12"E
LC=154.57'
R=260.00'
L=156.84'
CH=S50°52'59"E
LC=170.16'
R=311.00'
L=172.35'
CH=S85°57'06"E
LC=202.24'
R=1050.00'
L=202.55'
CH=N76°25'49"E
LC=172.37'
R=525.00'
L=173.13'
L1
L2
L3
L4
L5
L6
Point of Beginning
S89°59'45"W 1066.62'
E. 1/4 cor. Sec. 8, T3N, R16W
E-W 1/4 line, Sec. 9
Lake Michigan
Approx. Edge of Water 2440'±
N24°36'39"E 2438.62'
Intermediate Traverse Line
S00°13'53"W 1232.28'
E. line, SE 1/4, Sec. 8
20'±
N89°32'30"W 2424.03'
S. line, N. 1/2, SE fr. 1/4, Section 8
Ref. Pt "A"
LINE TABLE
LINE | BEARING | LENGTH
L1 | S77°55'01"E | 60.84'
L2 | S82°11'13"E | 183.00'
L3 | N89°45'36"E | 303.06'
L4 | S61°44'25"E | 98.34'
L5 | S00°52'42"E | 119.95'
L6 | S40°49'12"E | 85.65'
1"=400'
NEDERVELD
www.nederveld.com
1.800.222.1868
Ann Arbor
Chicago
Columbus
Grand Rapids
Holland
Indianapolis
20th of May 2015
project no. 13200082X1
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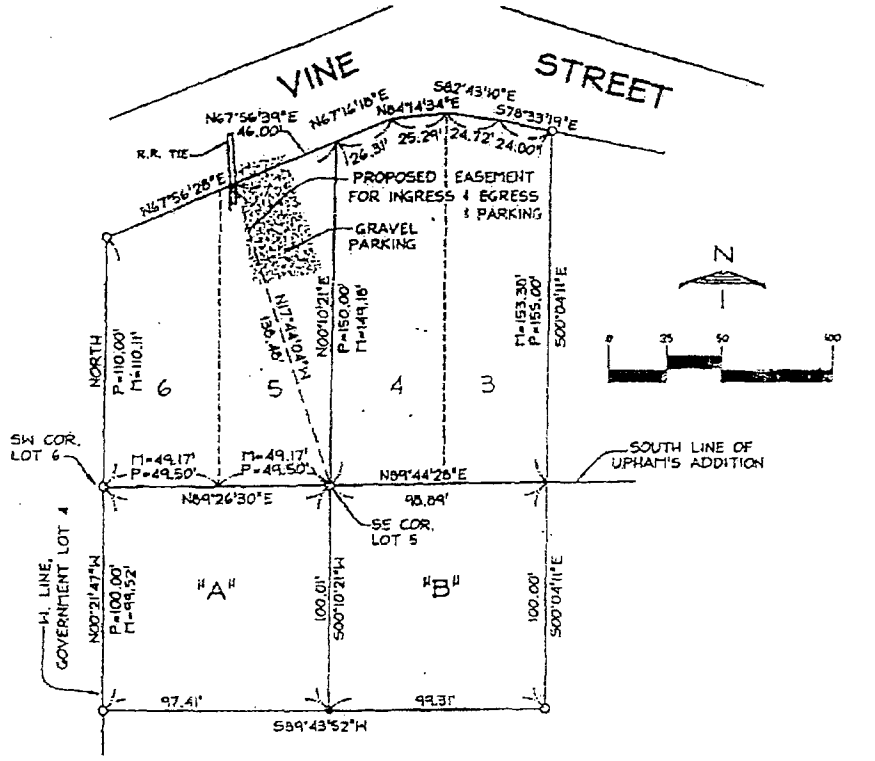
EXHIBIT B

461 VINE STREET LEGAL DESCRIPTION

Property consists of 3 Lots. Adjacent Lots 5 and 6 in Upham's Addition plus a Landlocked Lot adjacent to Lots 5 and 6 to the south. Lot 6 and the Landlocked Lot are adjacent to the Camp property to the west. Title is held as Gary E. Medler Trust, Gary E. Medler, Trustee.

Lots 5 and 6 Tax ID No. 57-850-003-00; Landlocked Lot Tax ID No. 57-009-074-10

EXHIBIT B



MITCHELL & MORSE LAND SURVEYING
A DIVISION OF MITCHELL SURVEYS, INC.

404 BROADWAY
SOUTH HAVEN, MICHIGAN 49090
OFFICE: (269) 637-1107
FAX: (269) 637-1907

CLIENT FRED MUNDINGER

DATE 7-27-2007 JOB NO. 03-992 SHEET 1 OF 1

DWG. BY JM DWG. CK DESC. BY DESC. CK

BEING IN THE SW 1/4 SECTION 9 ,T 3 N ,R 16 W

SAUGATUCK (CITY) TWP. ALLEGAN CO., MICHIGAN

SCALE 1" = 50' BOOK 323 PAGE 48 REVISION

EDWARD C. MORSE
PROFESSIONAL
SURVEYOR

KEITH F. KLUTING
PROFESSIONAL
SURVEYOR

GEORGE J. M
PROFESSI
SURVEY

EXHIBIT C

Legal Description of the Residential Property

Part of Section 8, Town 3 North, Range 16 West, Village of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence N89°59'16"W 1191.51 feet along the East-West 1/4 line of said Section 8 to the Point of Beginning; thence Southerly 75.38 feet along a 93.00 feet radius curve to the left, the chord of which bears S30°10'35"E 73.33 feet; thence S53°23'43"E 73.10 feet; thence Southerly 40.06 feet along a 20.00 feet radius curve to right, the chord of which bears S03°59'28"W 33.69 feet; thence Southerly 61.95 feet along a 277.00 feet radius curve to the right, the chord of which bears S67°47'04"W 61.82 feet; thence Southerly 56.98 feet along a 162.00 feet radius curve to the right, the chord of which bears S84°16'04"W 56.69 feet; thence N85°39'21"W 166.97 feet; thence Southerly 159.49 feet along a 88.00 feet radius curve to the left, the chord of which bears S42°25'20"W 138.54 feet; thence Southerly 43.85 feet along a 37.00 feet radius curve to the right, the chord of which bears S24°27'16"W 41.33 feet; thence Southerly 71.29 feet along a 118.00 feet radius curve to the left, the chord of which bears S41°06'03"W 70.21 feet; thence S23°47'34"W 20.81 feet; thence Southerly 23.34 feet along a 30.00 feet radius curve to the right, the chord of which bears S46°04'50"W 22.76 feet; thence Southerly 128.54 along a 70.00 feet radius curve to the left, the chord of which bears S15°45'39"W 111.23 feet; thence N67°09'05"W 436.00 feet to Reference Point "A"; thence continuing N67°09'05"W 20 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 1385 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N89°07'21"W from Reference Point "B" along the South line of the North 400 feet of the South 1/2 of the Northeast fractional 1/4 of said Section 8 (said Reference Point "B" being located N24°32'49"E 1392.13 feet from Reference Point "A"); thence S89°07'21"E 20 feet more or less along said South line to Reference Point "B"; thence continuing S89°07'21"E 760.89 feet along said South line; thence Southerly 204.36 feet along a 305.17 feet radius curve right, the chord of which bears S25°06'59"E 200.55 feet; thence S10°26'40"E 61.70 feet; thence Southerly 91.60 feet along a 890.86 feet radius curve to the left, the chord of which bears S14°08'20"E 91.56 feet; thence S89°55'29"W 255.69 feet; thence Southerly 76.08 feet along a 108.00 feet radius curve to the left, the chord of which bears S69°44'42"W 74.51 feet; thence S48°45'34"W 83.10 feet; thence Southerly 67.05 feet along a 133.00 feet radius curve to the left the chord of which bears S27°31'19"W 66.34 feet; thence S15°20'44"W 128.03 feet; thence S20°11'38"W 183.86 feet; thence Southerly 55.55 feet along a 77.00 feet radius curve to the right, the chord of which bears S40°51'41"W 54.35 feet; thence S61°31'45"W 65.70 feet; thence Southerly 111.16 feet along a 93.00 feet radius curve to the left, the chord of which bears S27°17'09"W 104.70 feet to the Point of Beginning. Contains 23 acres more or less. Subject to easements, restrictions, and rights of way of record.

EXHIBIT C

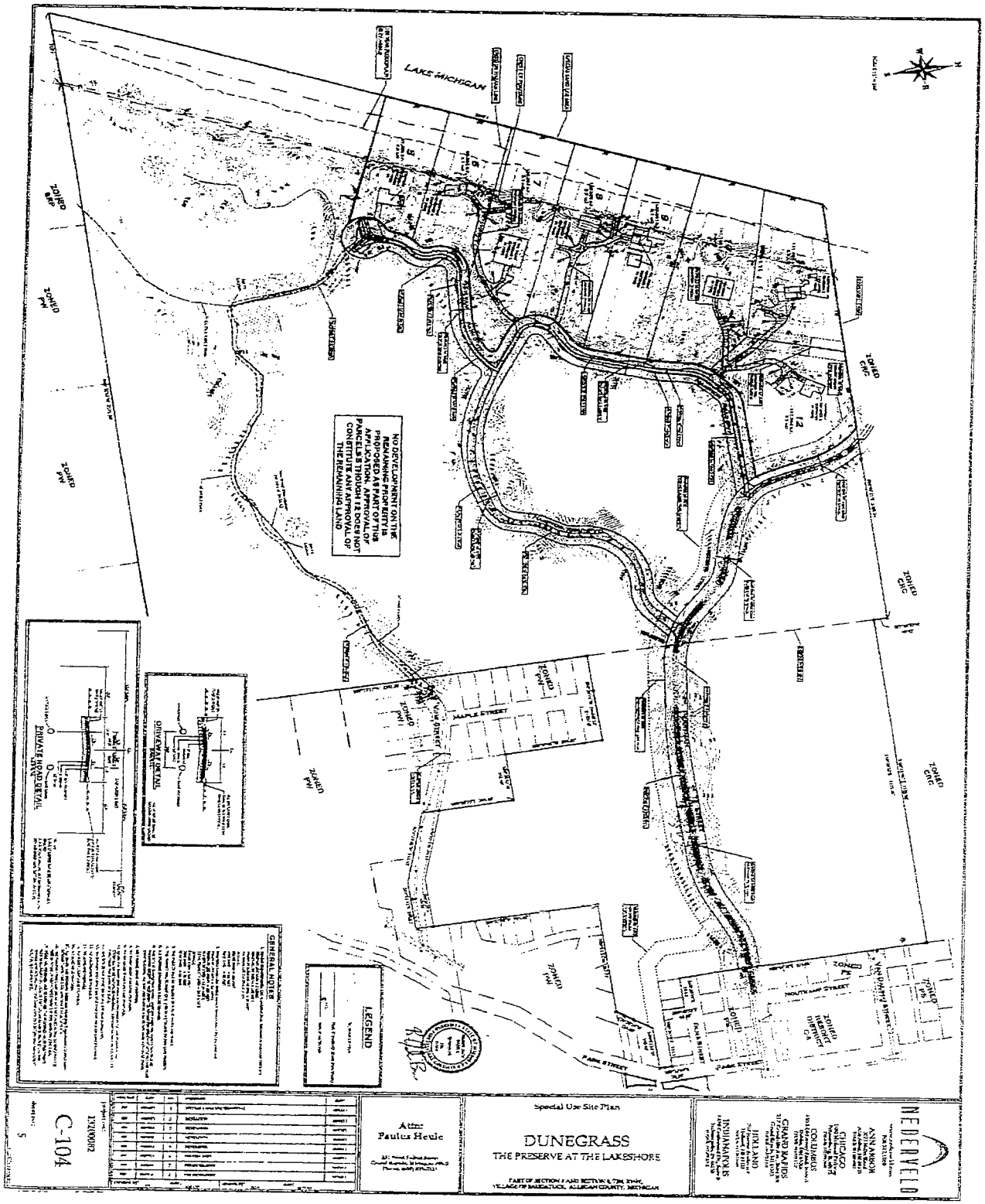
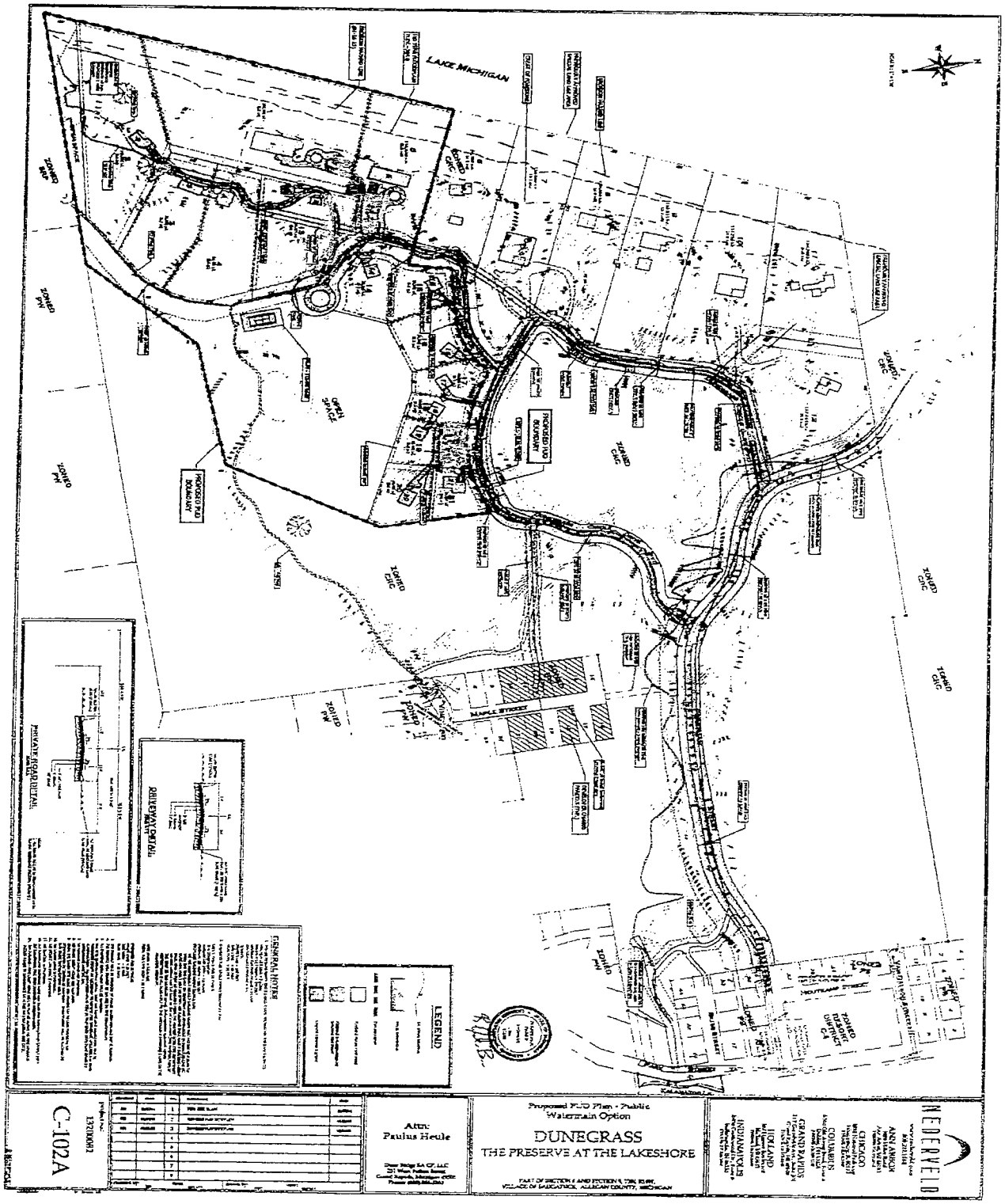

LAKE MICHIGAN
MAPLE STREET
PARK STREET
ZONED PM
ZONED CHC
NO DEVELOPMENT ON THE REMAINING PARCEL(S) IS PROPOSED AS PART OF THIS APPLICATION. APPROVAL OF PARCELS 5 THOUGH 12 DOES NOT CONSTITUTE ANY APPROVAL OF THE REMAINING LAND
LEGEND
GENERAL NOTES
Special Use Site Plan
DUNEGRASS
THE PRESERVE AT THE LAKESHORE
Attn: Paulus Heule
C-104
NEDERVELD
ANN ARBOR
CHICAGO
COLUMBUS
GRAND RAPIDS
HOLLAND
INDIANAPOLIS

EXHIBIT D

Legal Description of the PUD Property

Part of Section 8, Town 3 North, Range 16 West, City of Saugatuck, Allegan County, Michigan, described as: Commencing at the East 1/4 corner of said Section 8; thence S00°13'53"W 1292.28 feet along the East line of the Southeast 1/4 of said Section 8; thence N89°32'30"W 1564.14 feet along the South line of the North 1/2 of the Southeast fractional 1/4 of said Section 8 to the Point of Beginning; thence continuing N89°32'30"W 859.89 feet along said South line to Reference Point "C"; thence continuing N89°32'30"W 20 feet more or less to the water's edge of Lake Michigan; thence Northeasterly 1250 feet more or less along said water's edge of Lake Michigan to the intersection of said water's edge of Lake Michigan and a line bearing N67°07'35"W from Reference Point "A" (said Reference Point "A" being located N24°41'45"E 1246.85 feet from Reference Point "C"); thence S67°07'35"E 20 feet more or less to Reference Point "A"; thence continuing S67°07'35"E 525.76 feet; thence Northeasterly 7.24 feet along a 110.00 feet radius curve to the left, the chord of which bears N21°20'49"E 7.24 feet; thence N19°28'22"E 57.92 feet; thence Northeasterly 38.82 feet along a 126.00 feet radius curve to the left, the chord of which bears N10°38'50"E 38.66 feet; thence Northeasterly 3.11 feet along a 15.00 feet radius curve to the right, the chord of which bears N07°43'36"E 3.11 feet; thence N13°37'54"E 19.60 feet; thence Northeasterly 6.30 feet along a 22.00 feet radius curve to the right, the chord of which bears N86°08'13"E 6.28 feet; thence S85°39'21"E 166.97 feet; thence Northeasterly 80.20 feet along a 228.00 feet radius curve to the left, the chord of which bears N84°16'04"E 79.78 feet; thence Northeasterly 76.71 feet along a 343.00 feet radius curve to the left, the chord of which bears N67°47'04"E 76.55 feet; thence Northeasterly 29.76 feet along a 86.00 feet radius curve to the left, the chord of which bears N51°27'50"E 29.61 feet; thence Northeasterly 44.53 feet along a 30.00 feet radius curve to the right, the chord of which bears N84°04'38"E 40.56 feet; thence S53°23'43"E 7.48 feet; thence Southeasterly 412.83 feet along a 458.00 feet radius curve to the left, the chord of which bears S79°13'05"E 399.00 feet; thence N74°57'34"E 61.85 feet; thence Northeasterly 8.80 feet along a 113.00 feet radius curve to the left, the chord of which bears N72°43'44"E 8.80 feet; thence S00°17'18"W 329.17 feet; thence S34°49'50"W 503.49 feet; thence S87°32'36"W 421.10 feet; thence S48°41'40"W 429.00 feet to the Point of Beginning. Contains 33 acres more or less. Subject to easements, restrictions and rights of way of record.

EXHIBIT D


LAKE MICHIGAN
DUNEGRASS
THE PRESERVE AT THE LAKESHORE
Proposed PUD Plan - Public Watermain Option
Attn: Paulus Heule
C-102A
LEGEND
GENERAL NOTES
PRIVATE BOARD DETAIL
DRIVEWAY DETAIL
NEDERVELD