



# MEMORANDUM

To: Zoning Board of Appeals  
From: Kariline P. Littlebear, Zoning Administrator  
Date: April 17, 2024  
Re: Case 24-06  
2345 Oakland Dr  
11-12-101-042  
Applicant: Stacy Drouillard  
Owner: Stacy Drouillard

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The subject parcel is zoned LV – Lake and Village Residential District. The parcel size is approximately 0.292 acres.

The required setbacks for this parcel are as follows:

Front yard: 33 feet

Rear yard for primary structure: 38 ft

Side yards: 10 ft for the smallest yard and 25 ft total when both side yards are added together














This request is for a 5-foot variance from the required 10-foot side yard setback to 5-feet provided for the construction of an attached garage and loft storage. This request is for a variance from Section 9.02.B.b. of the Zoning Ordinance.

The applicant has provided a scaled site plan, a floor plan, and elevations. Staff has supplied assessing records, a zoning map, an aerial approximation of the property, and Section 9.02. of the Zoning Ordinance.

# CHARTER TOWNSHIP OF HIGHLAND ZONING MAP



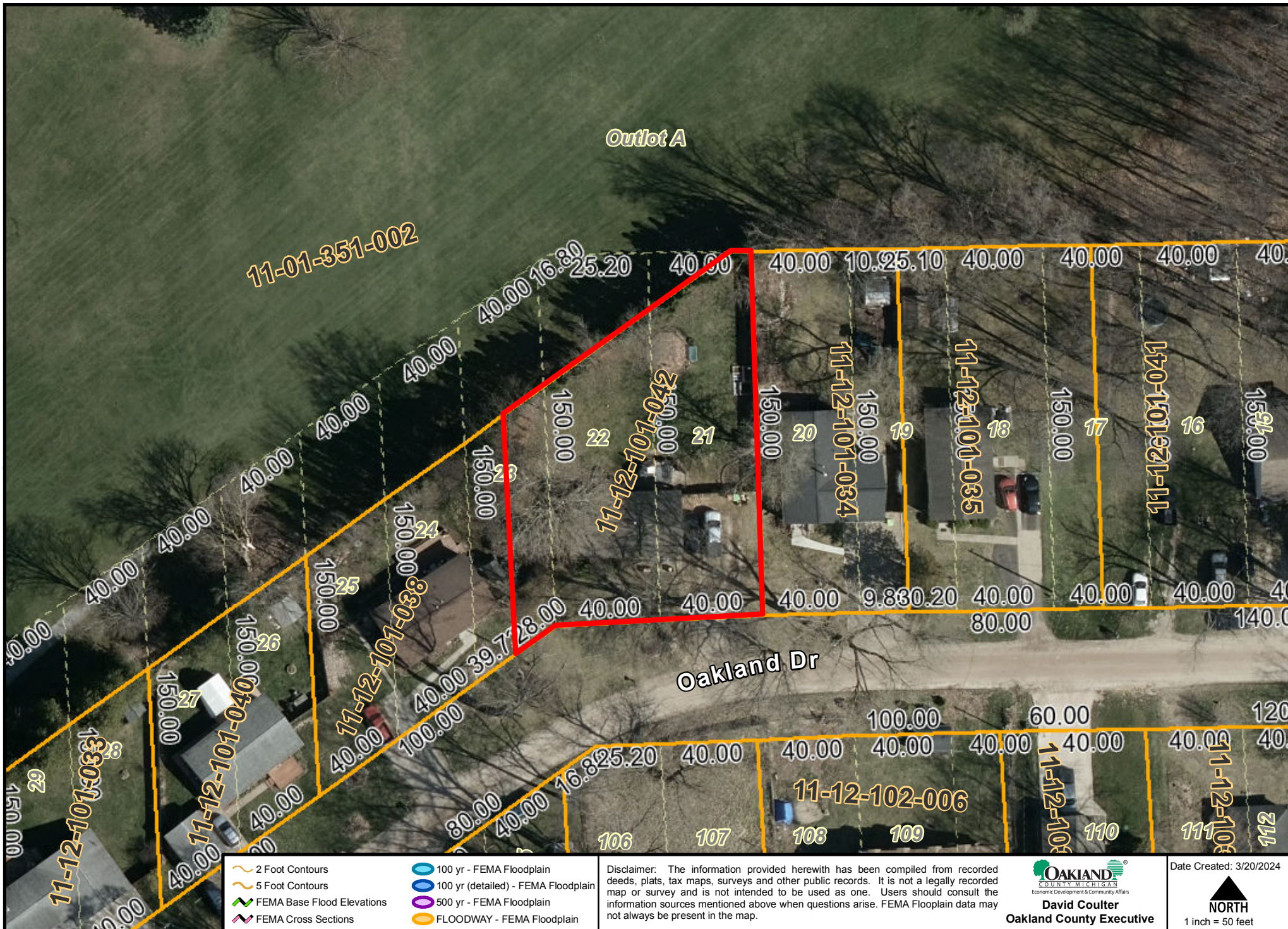
ZBA24-06  
2345 Oakland Dr

-  OC Tax Parcel Stacked
- Zoning Districts**
-  ARR: Agricultural Rural Residential 5 acre
-  LV: Lakes and Villages
-  R1.5: Residential 1.5 acre
-  R3: Residential 3 acre
-  RM: Multiple Family
-  MH: Mobile Home Park
-  OS: Office Service
-  C-1: Local Commercial
-  C-2: General Commercial
-  HS: Highland Station
-  TR: Technology and Research
-  IM: Industrial Manufacturing



ENACTED: November 18, 2010

# 2345 Oakland Dr



- |                            |                                     |
|----------------------------|-------------------------------------|
| 2 Foot Contours            | 100 yr - FEMA Floodplain            |
| 5 Foot Contours            | 100 yr (detailed) - FEMA Floodplain |
| FEMA Base Flood Elevations | 500 yr - FEMA Floodplain            |
| FEMA Cross Sections        | FLOODWAY - FEMA Floodplain          |

Disclaimer: The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise. FEMA Floodplain data may not always be present in the map.

**OAKLAND**  
 COUNTY MICHIGAN  
 Economic Development & Community Affairs  
**David Coulter**  
 Oakland County Executive

Date Created: 3/20/2024  
  
 NORTH  
 1 inch = 50 feet

Case # 24-06

Hearing Date 4/17/24

CHARTER TOWNSHIP OF HIGHLAND ZONING BOARD OF APPEALS  
APPLICATION FOR APPEAL

APPLICANT	
NAME:	<u>Stacy Drouillard</u>
ADDRESS:	<u>2345 Oakland</u> <u>Highland, MI 48356</u>
PHONE:	<u>248-884-9094</u>
EMAIL:	<u>drouillards@Frontier.com</u>

OWNER	
NAME:	<u>Stacy Drouillard</u>
ADDRESS:	<u>2345 Oakland</u> <u>Highland, MI 48356</u>
PHONE:	<u>248-884-9094</u>
EMAIL:	<u>drouillards@Frontier.com</u>

PROPERTY ADDRESS: 2345 Oakland Dr ZONING: LV

PROPERTY TAX ID NO: 11.12.101.042

ORDINANCE SECTIONS BEING APPEALED: Sec. 9.02.B.b.a.

VARIANCES REQUESTED: 5' variance from 10' to 5' for side yard

DESCRIBE THE NATURE OF YOUR PRACTICAL DIFFICULTY: The property is small and irregularly shaped. The topography is irregular and includes a steep driveway that is lower than the home and sloping front yard. Building within the zoning requirements does not allow room for stairs to access the home or attic/storage, nor room for vehicles or sidedoor.

I certify that all required information is shown on the attached plan and included on this form. I acknowledge that by signing this application, I am granting the right of the Zoning Board of appeals members, inspectors and administrators to conduct a site inspection of the subject property. All statements are true to the best of my knowledge.

SIGNATURE OF OWNER: [Signature] DATE: 3/8/24  
SIGNATURE OF APPLICANT: [Signature] DATE: 3/8/24

Signature of applicant must be notarized.

Subscribed and sworn to before me this  
8 day of March, 2024  
Jennifer Bosh Notary Public  
My Commission expires 06/16/2025

JENNIFER BOSH  
NOTARY PUBLIC - STATE OF MICHIGAN  
COUNTY OF OAKLAND  
My Commission Expires June 16, 2025  
Acting In the County of Oakland

APPLICATION FEE: \$275.00  
Receipt# 1.059409 Date Paid 3/8/24  
Received by [Signature]

Form revised 12/21/2015  
S:\Planning Department New Folder\Zoning Board of Appeals\forms\ZBA Application form

To Whom it May Concern:

We are requesting a variance of 5 feet into the side lot set back to build a garage and addition that would permit us to protect our vehicles and provide appropriate storage.

The topography of the lot is irregular and presents many difficulties. Specifically, the house sits on a hill in relation to the road, creating a very sloped driveway that is significantly lower than the home. The lot is irregularly shaped, and the position of the home makes the lot small. Building a garage and addition cannot be done within the zoning requirements.

There are many practical difficulties. First, if built without a variance, the space would not be large enough to accommodate the necessary stairs to gain access to the house, nor would there be enough room for necessary safe stairs to access the attic/storage space above the garage. Secondly, there would not be enough room for two vehicles to be parked in the space and allow the doors of the vehicles to be opened to enter or exit the vehicles. Thirdly, a side door would be necessary in the garage. The access door is required to open inward and there would not be enough room for the door to open without hitting a vehicle parked in the garage.

Additional practical difficulties arise due to the position of the home. The home is situated nearly in the center of the lot. This was created by the original builder in 1971. This created a 22.5-foot side yard on the west side of the home and a 33.5-foot side lot on the east side of the home, thus making the lot smaller than it seems. There is no ability to build a garage and addition on the west side of the home. There is more than adequate space to build a garage and addition on the east side with a 5-foot variance. In addition, the lot is irregularly shaped with significant angles on the front and back property lines which do not allow for the project to be built in a different position on the property.

The lot abuts Highland Hills Golf Course. Every vehicle that we own or have owned previously has sustained damage from golf balls. This included several dents and a broken window. A 5-foot variance would allow us to build a garage that would protect our vehicles.

The proposed attached addition to the home and garage with a 5-foot variance would give us the necessary space to have access into the home from the garage and allow for safe stairs to the attic/storage above the garage. The project cannot be redesigned to meet the zoning requirements without the need for a 5-foot variance into the side lot.

Thank you for your consideration,



Stacy A. Drouillard

CHARTER TOWNSHIP OF HIGHLAND  
ZONING BOARD OF APPEALS  
WORKSHEET

The worksheet is designed to help you understand the appeal process and to help you submit a complete application for review by the Zoning Board of Appeals. If you have any questions after reading this worksheet you may contact the Planning and Zoning Department for assistance.

**HAVE YOU MET ALL OF THE FOLLOWING CRITERIA?**

- 1) Do the characteristics of the property include exceptional narrowness, shallowness, smallness, irregular shape, topography, vegetation or other similar characteristics? If so, please describe here.

Yes. The topography is irregular and includes a steep driveway that is lower than the home and a sloping front yard. The property is small and irregularly shaped. The property abuts a golf course.

- 2) Can the project be redesigned to meet the zoning requirements without the need for a variance?

No.

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- 3) Is the reason for a variance request of a personal nature? (for example: financial impact, physical and/or mental characteristics of the household members, inconvenience, etc.)

No.

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4) Has the difficulty been created by the current or previous owner?

No.

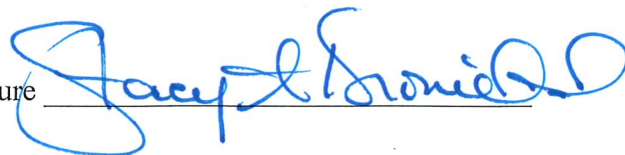
5) Will the proposed variance be harmful to or alter the essential character of the area in which the property is located?

No.

6) Will the proposed variance be the minimum necessary?

Yes.

Signature



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**Sec. 9.02. LV—Lake and Village Residential District.**

**A. Creation of new lots in the Lake and Village Residential District.**

1. No new Lake and Village Residential Districts shall be created. New parcels within the district may be created through land division and combination, subject to the following:
  - a. Where public sewer and public water service is available the minimum buildable area shall be fourteen thousand (14,000) square feet, provided the lot fronts a street, and twenty thousand (20,000) square feet where the lot fronts a major thoroughfare, and minimum frontage shall be eighty (80) feet:
  - b. Where public sewer and/or public water is not available the minimum buildable area shall be twenty thousand (20,000) square feet, provided the lot fronts a street and twenty-five thousand (25,000) square feet where the lot fronts a major thoroughfare and minimum frontage shall be one hundred and twenty (120) feet:
2. The lot must satisfy all criteria specified in the Land Division Ordinance.
3. No lot shall be divided in such a way as to create a non-conforming lot or to increase the degree of nonconformity already in existence.

**B. Setbacks.**

**a. Front yard setback.**

- a. A front yard setback shall be determined to promote consistency with established patterns within a developed neighborhood. The required setback will range from 30 feet to 40 feet based on analysis of existing houses within 200 feet of the subject parcel, located on the same side of the road as the subject parcel. If there are no homes within 200 feet of the subject parcel, the required front yard setback shall be 40 feet.
- b. In determining the setback, the following method shall be used, utilizing aerial photography and parcel models provided in the Oakland County Geographic Information System:
  - 1) Determine which existing houses shall be considered in the calculations.
  - 2) Determine the distance from each house to the front property line and record the distance.
  - 3) Subtract 30 feet from each measurement and record the difference. For measurements 30 feet or less, enter zero feet for further calculations. For measurements greater than 40 feet, enter ten feet for further calculations.
  - 4) Determine the average difference of all measurements as recorded in step 3) (e.g. add all recorded differences and divide by the number of samples). Add this calculated average to 30 feet. This is the required setback.
- c. The Zoning Administrator may refer any plot plan to the Zoning Board of Appeals for determination of the required setback.

**b. Side yard setback.**

- a. For all principal and accessory buildings and structures, the side yard setbacks are established based on lot width, as follows:

Lot Width (feet)	Least Side (feet)	Total Both Sides (feet)
120 or greater	10	30



90 to 119	10	25
70 to 89	5	20
40 to 69	5	15

c. *Rear yard setback.*

- a. A rear yard setback shall be determined to promote consistency with established patterns within a developed neighborhood. The required setback will range from 30 feet to 40 feet based on analysis of existing houses within 200 feet of the subject parcel, located on the same side of the road as the subject parcel. If there are no homes within 200 feet of the subject parcel, the required rear yard setback shall be 40 feet.
- b. In determining the setback, the following method shall be used, utilizing aerial photography and parcel models provided in the Oakland County Geographic Information System:
  - 1) Determine which existing houses shall be considered in the calculations.
  - 2) Determine the distance from each house to the rear property line and record the distance.
  - 3) Subtract 30 feet from each measurement and record the difference. For measurements 30 feet or less, enter zero feet for further calculations. For measurements greater than 40 feet, enter ten feet for further calculations.
  - 4) Determine the average difference of all measurements as recorded in step 3) (e.g. add all recorded differences and divide by the number of samples). Add this calculated average to 30 feet. This is the required setback.
- c. The Zoning Administrator may refer any plot plan to the Zoning Board of Appeals for determination of the required setback.

C. *Setback exceptions and height restrictions for accessory structures.*

- a. One (1) storage shed not greater than one hundred and fifty (150) square feet in area and not greater than ten (10) feet in height may be permitted as close as five (5) feet to side lot line or rear lot line. All sheds must comply with required front yard setback.
- b. One (1) accessory structure such as a garage, swimming pool, or play structure not greater than two hundred and forty (240) square feet in area and not greater than fifteen (15) feet in height may be permitted as close as ten (10) feet to the rear lot line provided the structure complies with the required side yard setback.

D. *Minimum Setback from the Ordinary High Water Mark.*

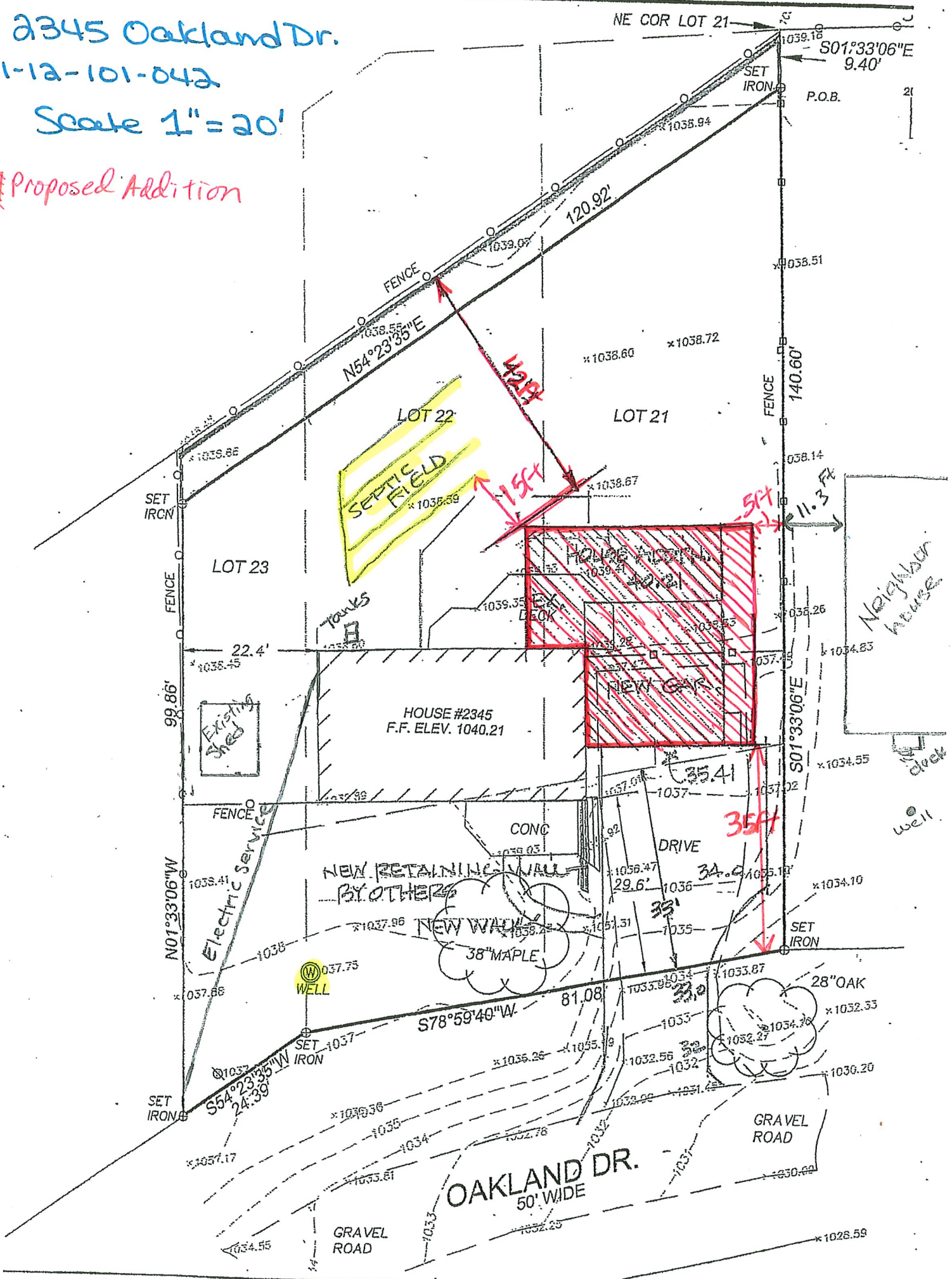
- a. The setback from the ordinary high water mark shall be determined to promote consistency with established patterns within a developed neighborhood, while protecting viewsheds of the lake for neighboring properties.
- b. Typically, the setback from the ordinary high water mark is sixty-five (65) feet. The setback may be reduced to as little as thirty (30) feet on lakefront lots, based on an analysis of like structures on parcels within two hundred (200) feet of the subject parcel, located along the lakeshore. This setback reduction may be applied to principle primary structures or to uncovered porches and decks. This setback reduction may not be applied to accessory structures such as garages and boathouses.
- c. In determining the setback reduction, the following method shall be used, utilizing aerial photography and parcel models provided in the Oakland County Geographic Information System:

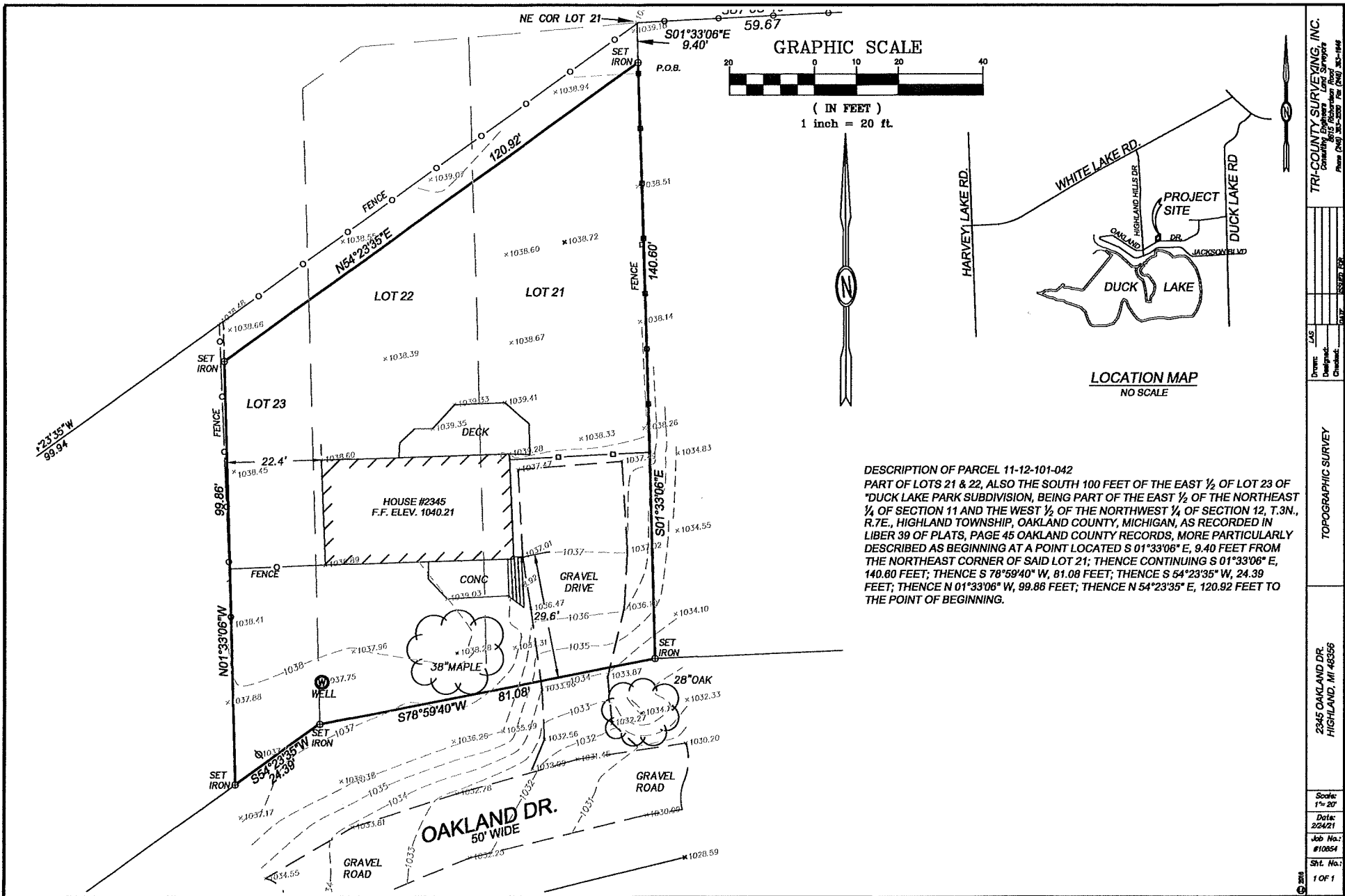
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- 1) Determine which existing primary structures or decks/uncovered porches shall be considered in the calculations. Decks and uncovered porches shall not be used in determining setback reductions for a principle structure, but principle structures may be used in determining setback reductions for decks/uncovered porches.
  - 2) Determine the distance from each structure to the presumed ordinary high water mark and record the distance.
  - 3) For parcels with no structures are closer to the presumed high water mark than sixty-five (65) feet, enter a value of zero for further calculations. For parcels with structures closer to the presumed high water mark than thirty (30) feet, enter a value of thirty-five (35) feet for further calculations. For remaining parcels with structures falling between those two (2) limiting factors, enter the difference between sixty-five (65) feet and the measured distance.
  - 4) Determine the average difference of all measurements as recorded in Step 3 (e.g. add all recorded differences and divide by the number of samples). This result represents the allowable setback reduction.
- E. *Minimum floor area per residential unit.* One thousand (1,000) square feet.
- F. *Minimum first floor area per residential unit.* Seven hundred and fifty (750) square feet.
- G. *Maximum height for principal structures.* Two stories or twenty eight (28) feet.
- H. *Maximum height for residential accessory structures.* Twenty eight (28) feet for all accessory structures which comply with the setback requirements under Section 9.02B, Setbacks. See Section 9.02C, Setback Exceptions and Height Restrictions for Accessory Structures for height restrictions for accessory structures placed under the provisions for setback exceptions.
- I. *Maximum Lot Coverage.* The maximum lot coverage for all building (principal and accessory) is as follows:
- a. For lots with net area less than fourteen thousand (14,000) square feet, the maximum lot coverage shall be forty-five (45) percent.
  - b. For lots with net area of fourteen thousand (14,000) square feet or greater, the maximum lot coverage shall be thirty-five (35) percent.

( Ord. No. Z-006, § 3, 10-14-2015 )

2345 Oakland Dr.  
 11-12-101-042  
 Scale 1" = 20'

 Proposed Addition





**DESCRIPTION OF PARCEL 11-12-101-042**  
 PART OF LOTS 21 & 22, ALSO THE SOUTH 100 FEET OF THE EAST 1/2 OF LOT 23 OF 'DUCK LAKE PARK SUBDIVISION, BEING PART OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 11 AND THE WEST 1/2 OF THE NORTHWEST 1/4 OF SECTION 12, T.3N., R.7E., HIGHLAND TOWNSHIP, OAKLAND COUNTY, MICHIGAN, AS RECORDED IN LIBER 39 OF PLATS, PAGE 45 OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT LOCATED S 01°33'06" E, 9.40 FEET FROM THE NORTHEAST CORNER OF SAID LOT 21; THENCE CONTINUING S 01°33'06" E, 140.60 FEET; THENCE S 78°59'40" W, 81.08 FEET; THENCE S 54°23'35" W, 24.39 FEET; THENCE N 01°33'06" W, 99.86 FEET; THENCE N 54°23'35" E, 120.92 FEET TO THE POINT OF BEGINNING.

**TRI-COUNTY SURVEYING, INC.**  
 Licensed Professional Land Surveyors  
 3615 Robinson Road  
 Farmington, MI 48335  
 Phone (248) 381-2887 Fax (248) 381-1448

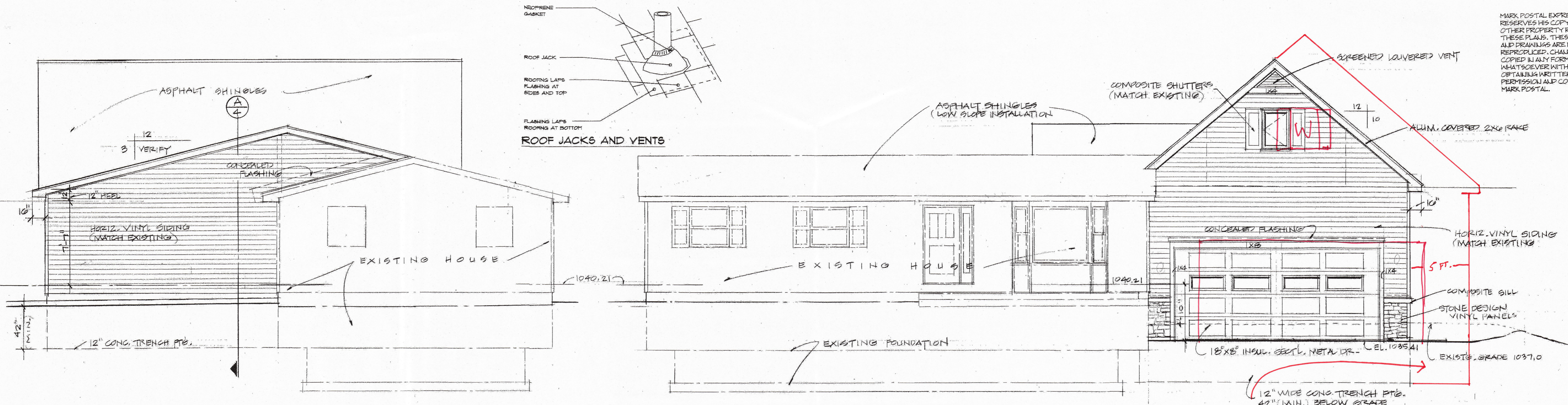
Project: \_\_\_\_\_  
 Designated: \_\_\_\_\_  
 Consultant: \_\_\_\_\_

Scale: 1" = 20'  
 Date: 2/24/21  
 Job No.: #10854  
 Sht. No.: 1 OF 1

TOPOGRAPHIC SURVEY  
 2345 OAKLAND DR.  
 HIGHLAND, MI 48356

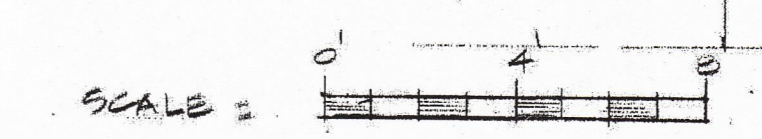
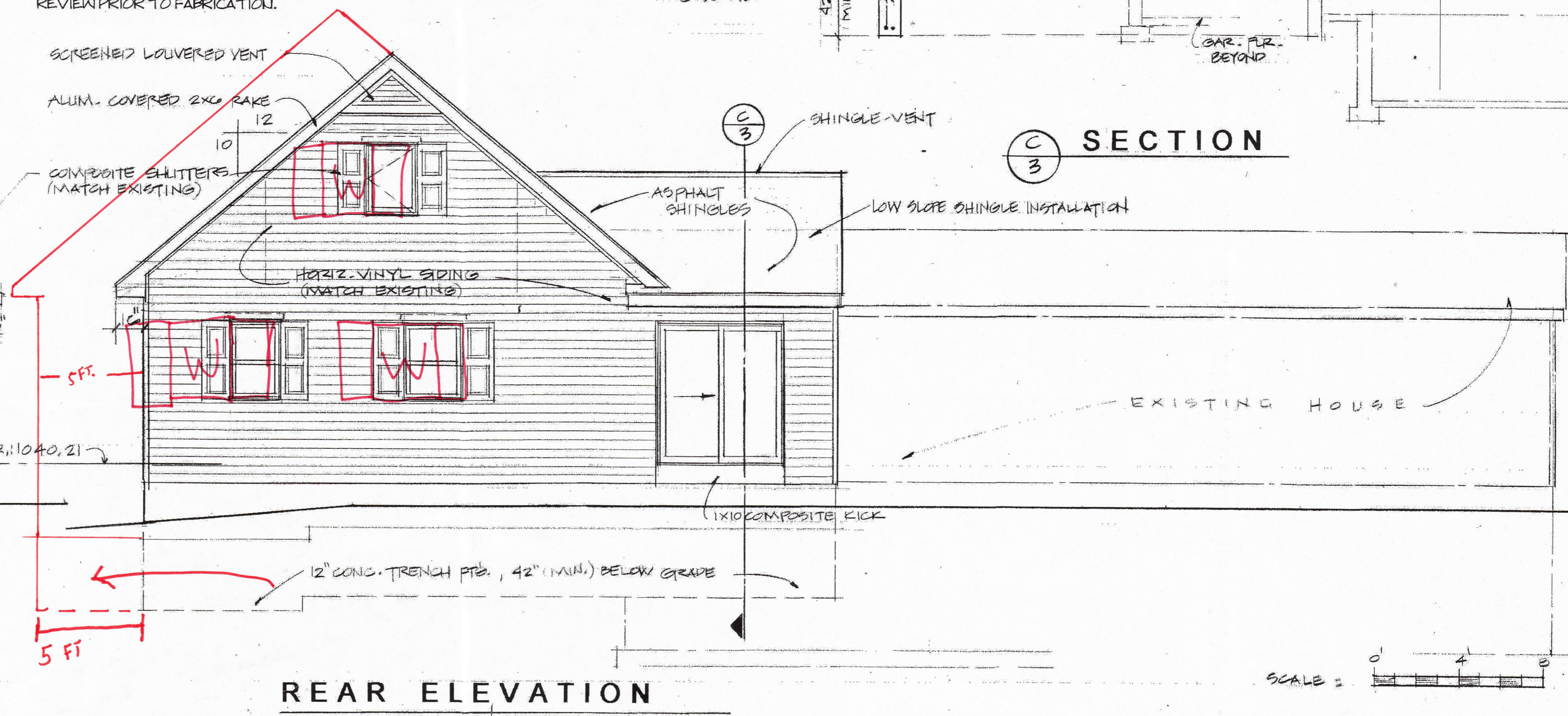
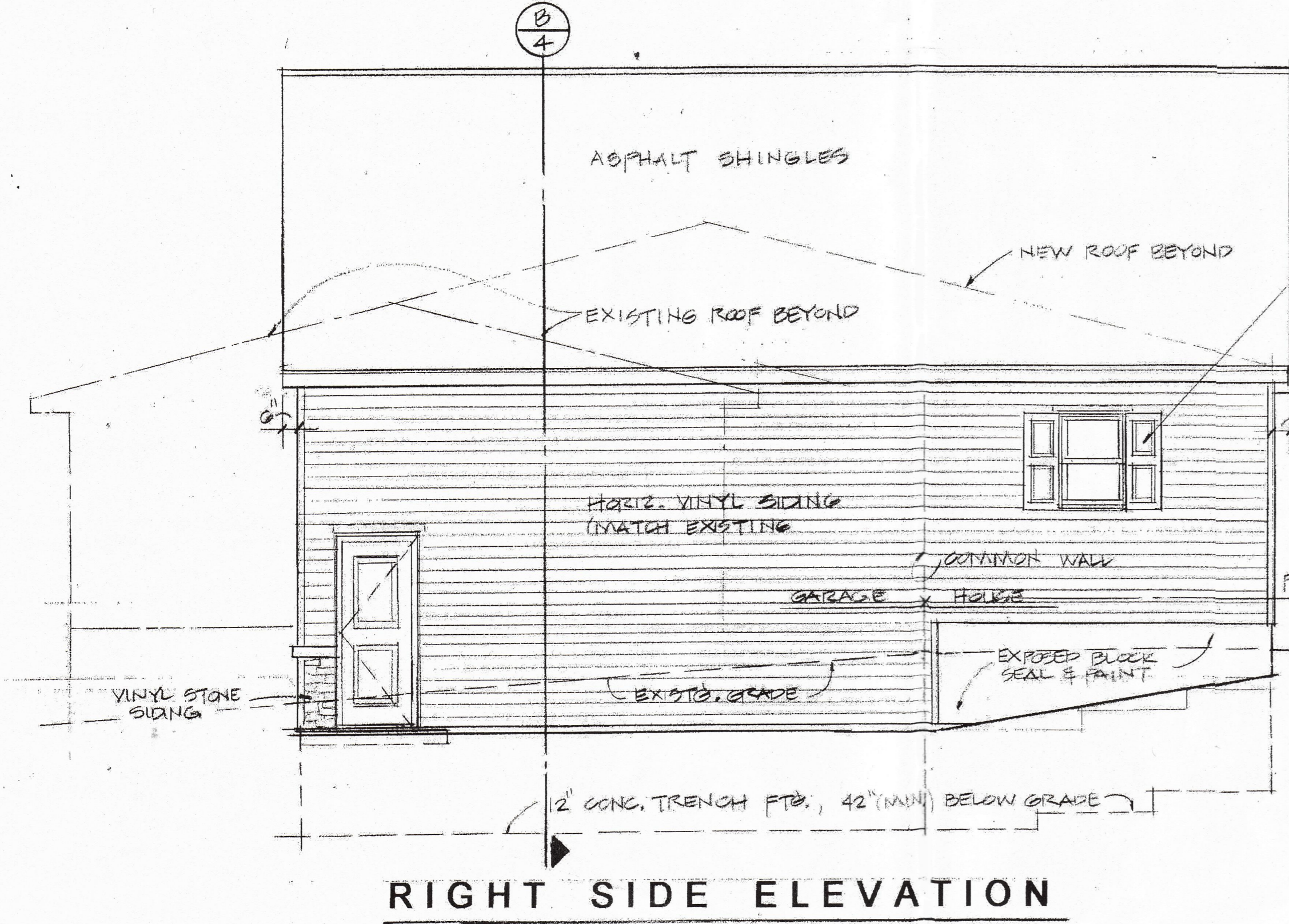
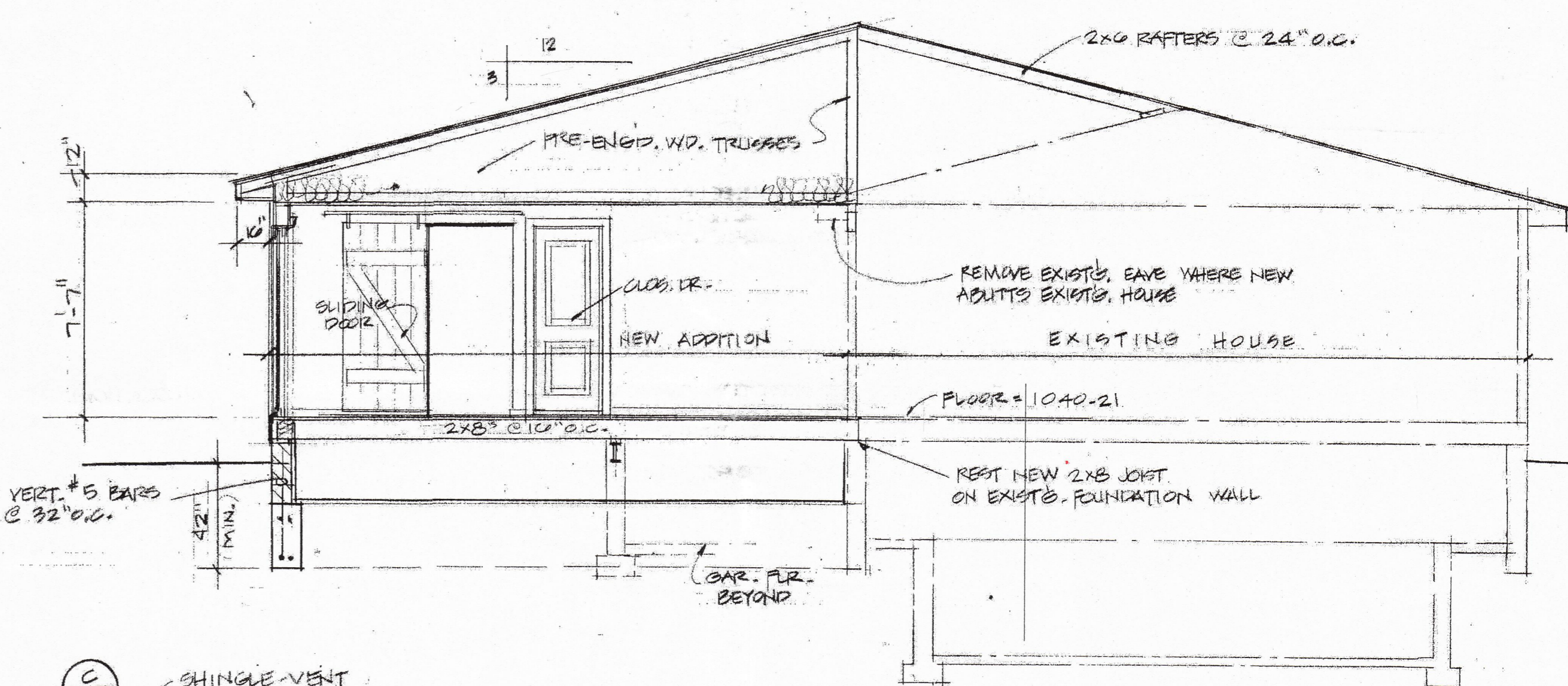
MARK POSTAL EXPRESSLY RESERVES HIS COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING WRITTEN PERMISSION AND CONSENT OF MARK POSTAL.

MARK POSTAL DESIGNER  
 PH. 248-425-7144  
 48347  
 MICHIGAN  
 CLARKSTON  
 P.O. BOX 908



- WOOD TRUSS SPECIFICATIONS DESIGN INFORMATION:**
- DESIGNS SHALL CONFORM WITH THE LATEST VERSION OF NDS (NATIONAL DESIGN STANDARDS), "THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION, AND "DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES" BY THE TRUSS PLATE INSTITUTE (T.P.I.).
  - TRUSSES SHALL BE SPACED AS INDICATED ON THE PLANS UNLESS THE DESIGNER DETERMINES THAT DIFFERENT SPACING IS REQUIRED TO MEET THE DEFLECTION REQUIREMENTS.
  - MAXIMUM DEFLECTION OF FLOOR TRUSSES SHALL BE LIMITED TO L/240 FOR TOTAL LOAD AND L/360 FOR LIVE LOAD. MAXIMUM DEFLECTION OF ROOF TRUSSES SHALL BE LIMITED TO L/180 FOR TOTAL LOAD AND L/240 FOR LIVE LOAD, UNL.D.
  - DESIGN LOADS:  
 ROOF: 30 PSF TOP CHORD LIVE LOAD\*  
 7 PSF TOP CHORD DEAD LOAD  
 10 PSF BOTTOM CHORD DEAD LOAD\*\*  
 \*A 15% INCREASE IN ALLOWABLE STRESSES FOR SHORT TERM LOADING IS ALLOWED. DRIFT LOADING SHALL BE ACCOUNTED FOR PER CODE REQUIREMENTS.  
 \*\*ADD ADDITIONAL ATTIC STORAGE FOR LIVE LOADS PER CODE REQUIREMENTS.
  - ADEQUATE CAMBER SHALL BE BUILT INTO ALL TRUSSES TO COMPENSATE FOR NORMAL DEAD LOAD DEFLECTION.

- SHOP DRAWINGS**
- THE TRUSS FABRICATOR SHALL SUBMIT TRUSS SHOP DRAWINGS AND/OR ENGINEERED FLOOR SYSTEM DRAWINGS TO THE DESIGNER/ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE TRUSSES WILL BE USED.
  - THE APPROVED SHOP DRAWINGS SHALL BE SUBMITTED TO THE LOCAL MUNICIPALITY AS PART OF THE DRAWINGS AS REQUIRED.
  - THE FOLLOWING INFORMATION SHALL APPEAR ON ALL TRUSS SHOP DRAWINGS:
    - DESIGN CRITERIA, INCLUDING LOAD INFORMATION ACCOUNTING FOR SNOW BUILD-UP WHERE APPLICABLE.
    - CONNECTOR PLATE MANUFACTURER, GAGE, SIZE AND LOCATION AT EACH TRUSS JOINT.
    - THE LUMBER GRADE AND SIZE OF ALL MEMBERS.
    - ALL REQUIRED STRUCTURAL LATERAL BRACING (SIZE, CONNECTION AND LOCATION).
  - COMPLETE TRUSS LAYOUTS (FRAMING PLANS) SHALL BE PREPARED BY THE TRUSS FABRICATOR. LAYOUTS SHALL INDICATE TRUSS TYPE, SPACING AND CONNECTION. REQUIRED TRUSS HANGER CONNECTIONS SHALL BE INDICATED ON THE LAYOUTS. THE TRUSS LAYOUTS SHALL BE SUBMITTED TO THE DESIGNER/ENGINEER FOR REVIEW PRIOR TO FABRICATION.



JOB NO. 20221001  
 DATE 11-17-22  
 SHEET 3 OF 4

**ELECTRICAL SYMBOL LEGEND**

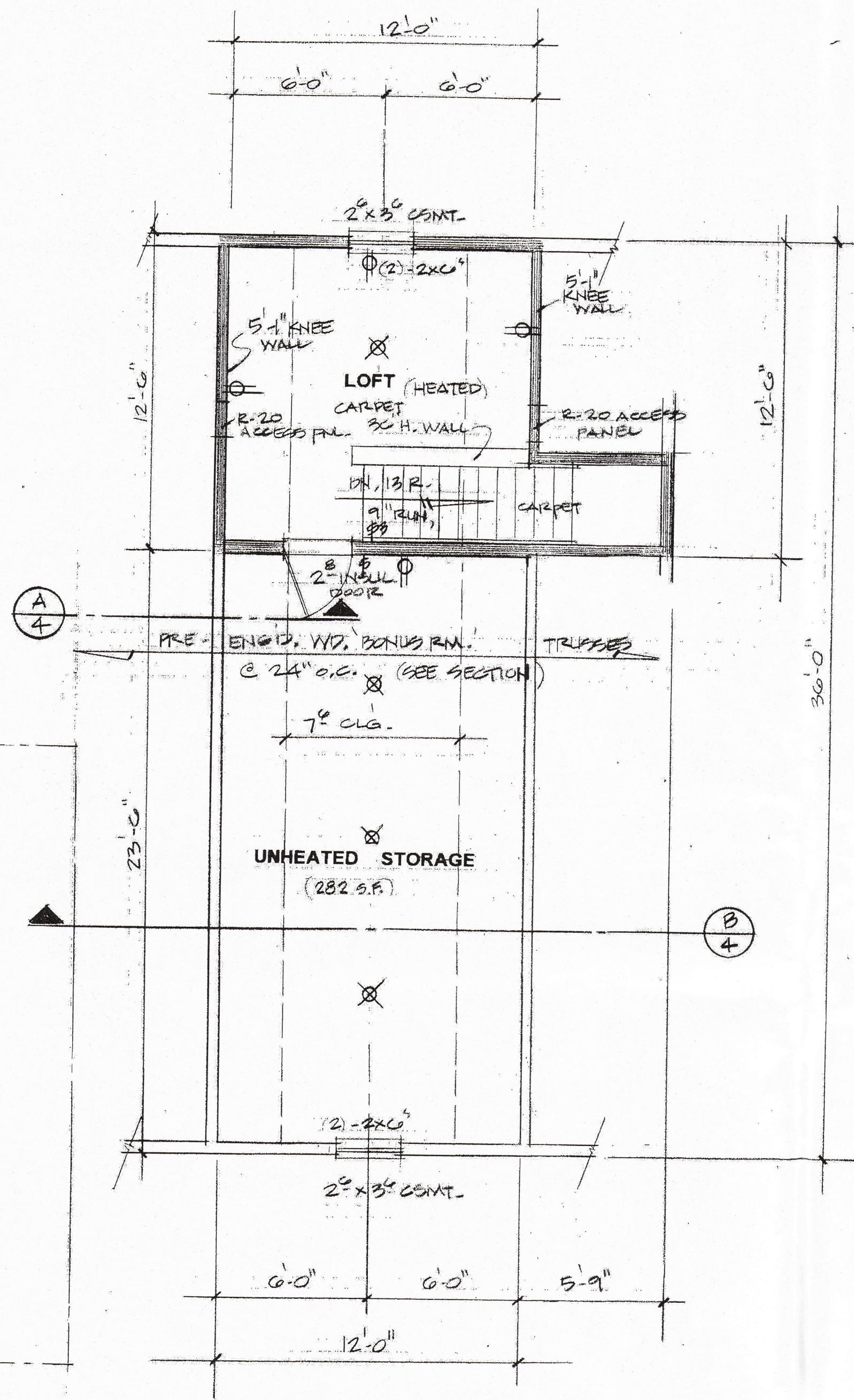
- ⊞ SINGLE POLE SWITCH
- ⊞ THREEWAY SINGLE POLE SWITCH
- ⊞ FOURWAY SINGLE POLE SWITCH
- ⊞ DIMMER SWITCH
- ⊞ DUPLEX RECEPTACLE OUTLET
- ⊞ DUPLEX RECEPTACLE OUTLET w/ GROUND FAULT INTERRUPTER
- ⊞ WEATHERPROOF DUPLEX RECEPTACLE OUTLET w/ GROUND FAULT INTERRUPTER
- ⊞ JUNCTION BOX VERIFY CONDUIT & BOX SIZE REQUIRED
- ⊞ TELEPHONE
- ⊞ MODEM/TELEPHONE LINE
- ⊞ FAX MACHINE
- ⊞ THERMOSTAT
- ⊞ MOUNTING HEIGHT A.F.F.
- ⊞ RECESSED FLOOR MOUNTED DUPLEX RECEPTACLE OUTLET
- ⊞ SINGLE PHASE MOTOR
- ⊞ THREE PHASE MOTOR
- ⊞ ELECTRICAL POWER PANEL

- ⊞ CEILING MTD. EXIT LIGHT
- ⊞ WALL MTD. EXIT LIGHT
- ⊞ EMERGENCY LIGHT w/ BATTERY BACKUP
- ⊞ SINGLE BULB FIXTURE w/ FULL CHAIN
- ⊞ RECESSED LIGHT FIXTURE
- ⊞ EXTERIOR SURFACE MTD. DECORATIVE LIGHT FIXTURE
- ⊞ SURFACE MOUNTED HALO TRACK LIGHTING w/ 100w MAX. INCANDESCENT LIGHT FIXTURES
- ⊞ SURFACE MTD. SPEAKER
- ⊞ SMOKE DETECTOR / CARBON MONOXIDE DETECTOR
- ⊞ VARIABLE SPEED HANGING FAN
- ⊞ CHANDELIER
- ⊞ EXHAUST FAN

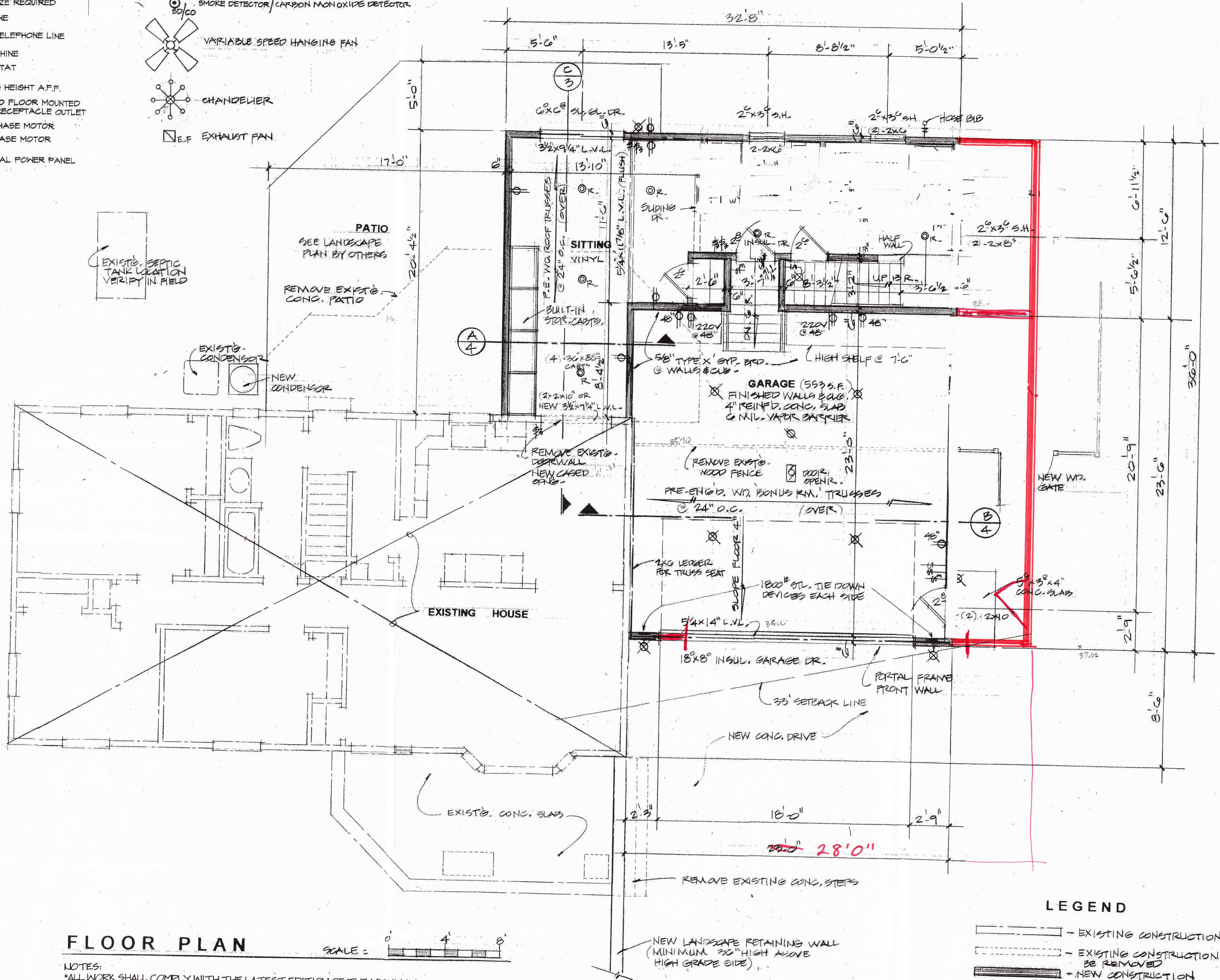
**NOTES:**  
 \*THIS ELECTRICAL PLAN IS TO BE USED AS A GUIDE ONLY. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMING HIS/HER WORK TO COMPLY WITH ALL CURRENT STATE AND LOCAL CODES.  
 \*ALL FIXTURES SHALL BE U.L. APPROVED AND RECEIVE THE OWNER'S APPROVAL PRIOR TO INSTALLATION.  
 \*VERIFY EXACT LOCATION OF ALL LIGHTING FIXTURES AND SPECIAL OUTLETS WITH THE OWNER.  
 \*VERIFY WITH THE OWNER ANY INSTALLATIONS OF EQUIPMENT NOT SHOWN ON THIS PLAN (ALARM SYSTEM, INTERCOM, CENTRAL VAC., ETC.).  
 \*INSTALL ADEQUATE REINFORCING AT CEILING WHERE HANGING FANS AND CHANDELIERS ARE SPECIFIED.  
 \*THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL TYPES AND FINISHES OF FIXTURES, OUTLETS, SWITCHES AND COVER PLATES PRIOR TO INSTALLATION.

MARK POSTAL EXPRESSLY RESERVES HIS COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING WRITTEN PERMISSION AND CONSENT OF MARK POSTAL.

**MARK POSTAL - DESIGNER**  
 P.O. BOX 908 CLARKSTON, MICHIGAN 48347 PH. 248-425-7144



**ATTIC PLAN**  
 SCALE: 1" = 4'-0"  
 LIVING AREA = 150 SQ. FT.



**FLOOR PLAN**  
 SCALE: 1" = 4'-0"

**NOTES:**  
 \*ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE MICHIGAN RESIDENTIAL CODE.  
 \*ALL DIMENSIONS ARE FIGURED TO ROUGH LUMBER. EXTERIOR DIMENSIONS INCLUDE 1/2" SHEATHING.  
 \*PLATE HEIGHT THIS LEVEL SHALL BE 7'-1" MATCH EXISTING.  
 \*VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION.  
 \*ALL MATERIALS SELECTED TO BE USED ON THIS PROJECT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH EACH MANUFACTURER'S WRITTEN SPECIFICATIONS.  
 \*DO NOT SCALE PRINTS. USE FIGURED DIMENSIONS.  
 \*WINDOWS SHALL BE AS PER BUILDERS SPEC. & APPROVED BY OWNER.  
 AS NOTED, UNLESS SPECIFIED OTHERWISE.

**LEGEND**

- EXISTING CONSTRUCTION TO REMAIN
- - - EXISTING CONSTRUCTION TO BE REMOVED
- NEW CONSTRUCTION

EXISTING HOUSE =	1100 SQ. FT.
NEW ADDITION LIVING AREA:	
MAIN FLOOR =	470 SQ. FT.
UPPER FLOOR =	150 SQ. FT.
NEW TOTAL LIVING AREA	1720 SQ. FT.

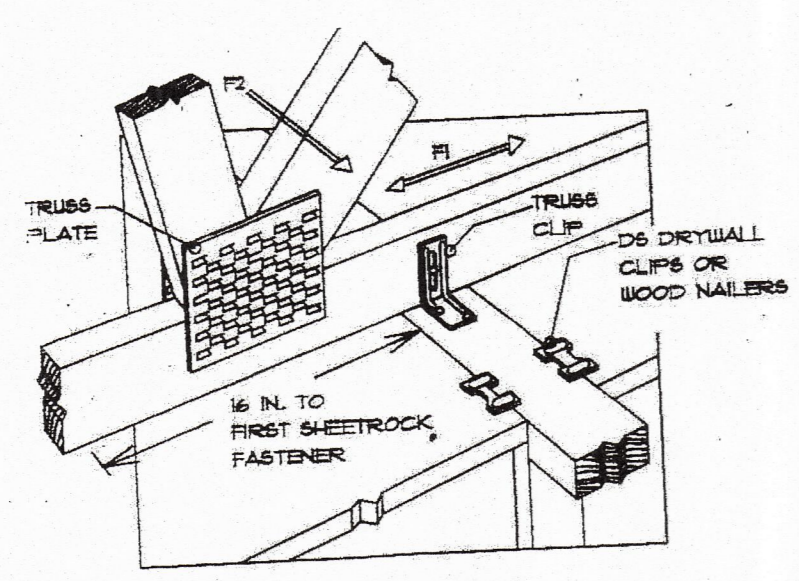
**JOB NO.**  
20221001

**DATE**  
11-17-22

**SHEET**  
2  
OF 4

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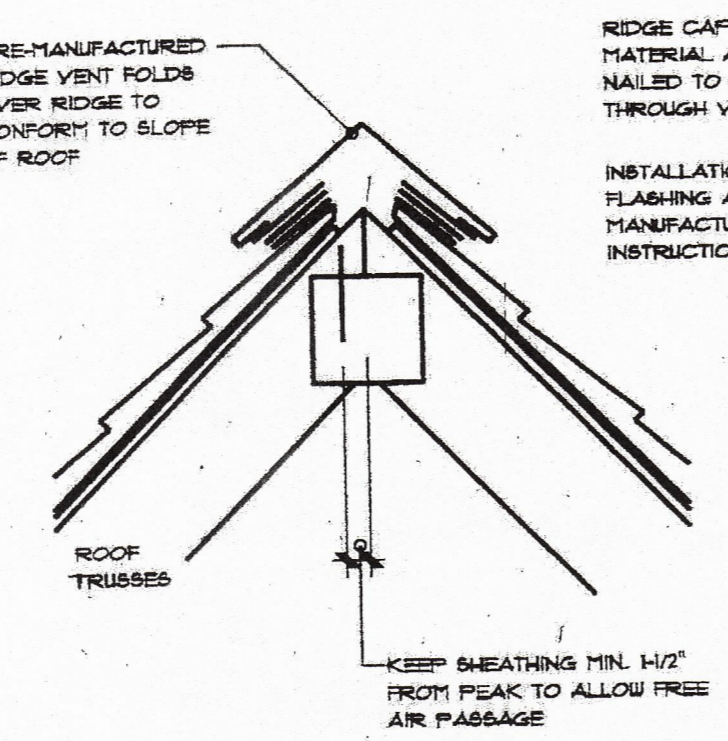
MARK POSTAL - DESIGNER  
 PH. 248-425-7144  
 48347  
 MICHIGAN  
 CLARKSTON  
 P.O. BOX 908



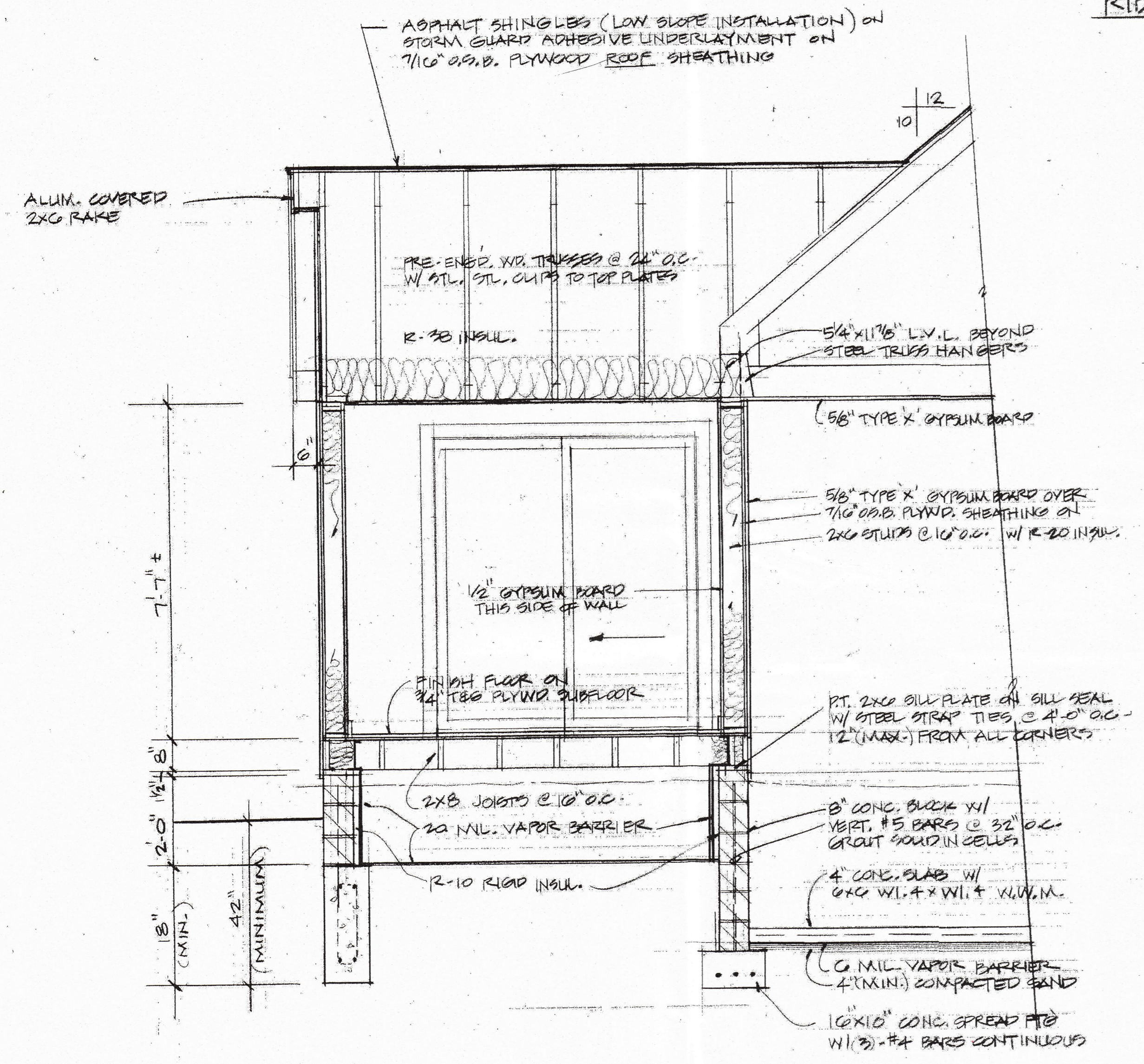
INTERIOR WALL ATTACHMENT

NOTE THAT 'DORMER' STYLE THROUGH-ROOF EXHAUST VENTS MAY BE PROVIDED IN ADDITION TO OR IN LIEU OF RIDGE VENTS INDICATED.

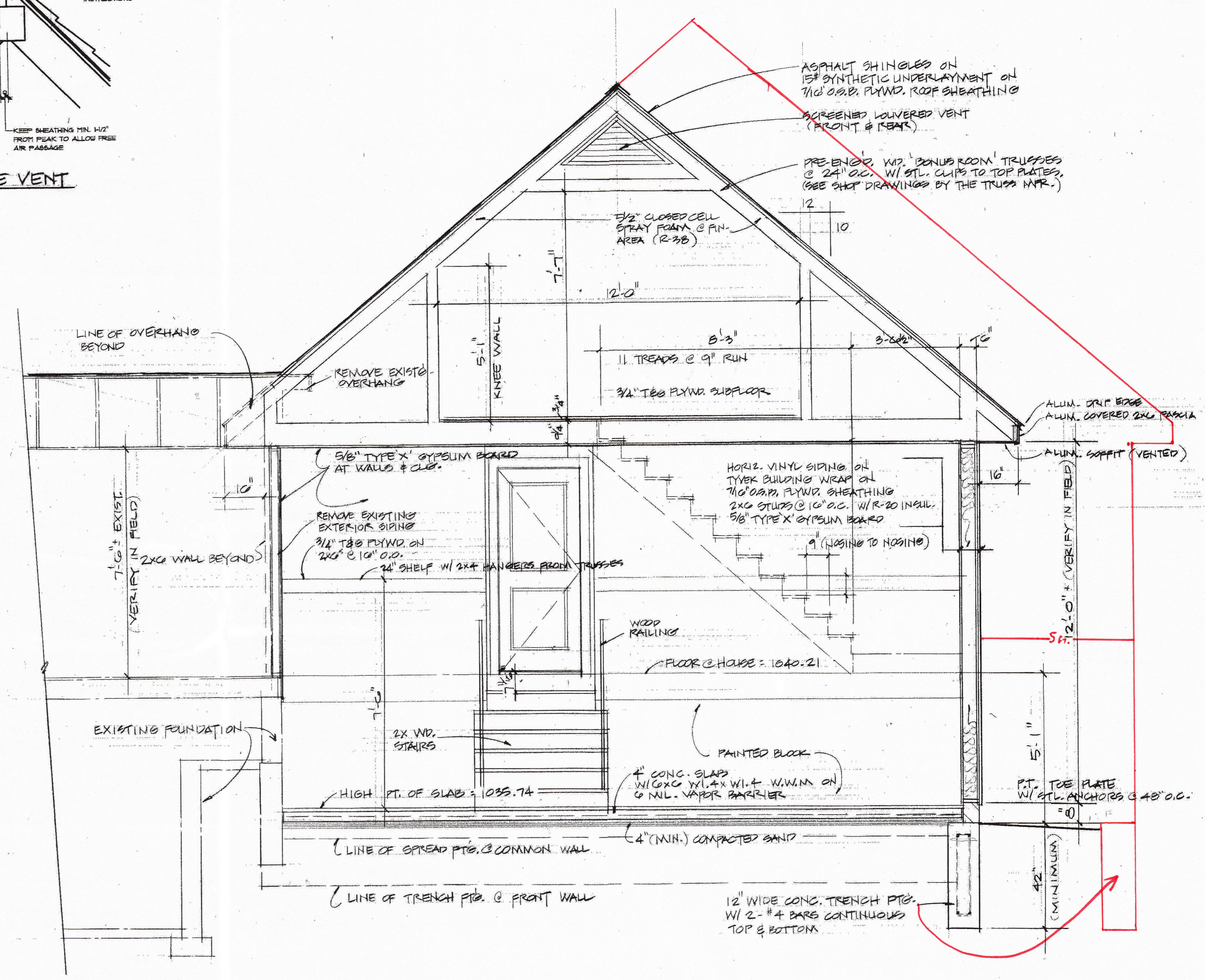
PROVIDE VENTILATION AREA REQD.



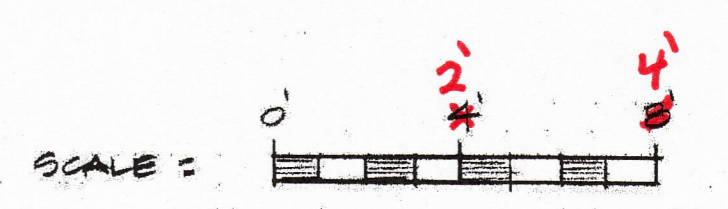
RIDGE VENT



A CROSS SECTION



B CROSS SECTION



JOB NO. 2022.1001  
 DATE 11-17-22

SHEET 4 OF 4

TABLE R401.4.1  
PRESUMPTIVE LOAD-BEARING VALUES OF  
FOUNDATION MATERIALS A

CLASS OF MATERIAL	LOAD-BEARING PRESSURE (POUNDS PER SQUARE FOOT)
CRYSTALLINE BEDROCK	12,000
SEDIMENTARY AND FOLIATED ROCK	4,000
SANDY GRAVEL AND/OR GRAVEL (GM AND GP)	3,000
SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL AND CLAYEY GRAVEL (SM, SP, SM, SC, GM AND GC)	2,000
CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, SILT AND SANDY SILT (CL, ML, MH AND CH)	1,500 B

FOR SI: 1 POUND PER SQUARE FOOT = 0.0479 KPA.  
A. WHEN SOIL TESTS ARE REQUIRED BY SECTION R401.4, THE ALLOWABLE BEARING CAPACITIES OF THE SOIL SHALL BE PART OF THE RECOMMENDATIONS.  
B. WHERE THE BUILDING OFFICIAL DETERMINES THAT IN-PLACE SOILS WITH AN ALLOWABLE BEARING CAPACITY OF LESS THAN 1,500 PSF ARE LIKELY TO BE PRESENT AT THE SITE, THE ALLOWABLE BEARING CAPACITY SHALL BE DETERMINED BY A SOILS INVESTIGATION.

**SOIL BEARING REQUIREMENTS**

- ALL TOP SOIL, ORGANIC AND VEGETATIVE MATERIAL SHOULD BE REMOVED PRIOR TO CONSTRUCTION. ANY REQUIRED FILL SHALL BE CLEAN, GRANULAR MATERIAL COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
- FOUNDATIONS SHALL BEAR ON EXISTING UNDISTURBED SOILS WITH A MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 2,000 PSF, UNLESS NOTED OTHERWISE. THE ALLOWABLE SOIL BEARING CAPACITY MUST BE VERIFIED BY A REGISTERED SOILS ENGINEER PRIOR TO THE START OF CONSTRUCTION AND IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR.
- NOTIFY THE DESIGNER IF THE ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 2,000 PSF SO THAT FOUNDATIONS CAN BE REDESIGNED FOR THE NEW ALLOWABLE BEARING CAPACITY.

**CONCRETE SPECIFICATIONS:**

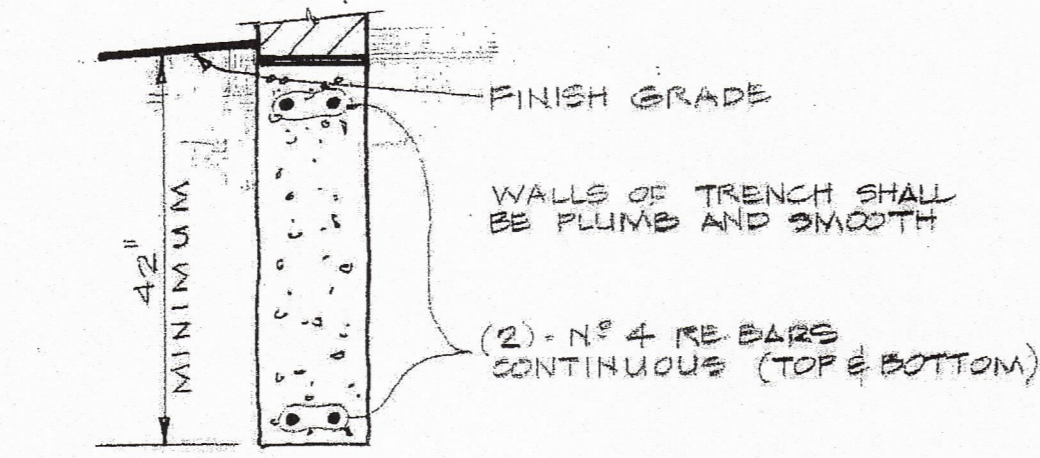
- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-89, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, EXCEPT AS MODIFIED BY SUPPLEMENTAL REQUIREMENTS.
- ALL CONCRETE SHALL HAVE A MINIMUM OF 3000 PSI, 28 DAY COMPRESSIVE STRENGTH, UNO., (57 LBS. OF CEMENT PER CUBIC YARD MINIMUM (5.5 SACKS) AND A WATER/CEMENT RATIO NOT TO EXCEED 6 GALLONS PER SACK). EXTERIOR CONCRETE SLABS SHALL HAVE A MINIMUM OF 4000 PSI, 28 DAY COMPRESSIVE STRENGTH, AND 4% AIR ENTRAINMENT.
- THE USE OF ADDITIVES SUCH AS FLY ASH OR CALCIUM CHLORIDE IS NOT ALLOWED WITHOUT PRIOR REVIEW FROM THE ENGINEER.
- THE CONCRETE CONTRACTOR SHALL SUBMIT THE DESIGN MIX OF EACH TYPE FOR REVIEW BY THE DESIGNER/ENGINEER PRIOR TO PLACEMENT.

**REINFORCING STEEL SPECIFICATIONS:**

- ALL REINFORCING BARS, POWELS, AND TIES SHALL CONFORM WITH ASTM A615 GRADE 60 REQUIREMENTS AND SHALL BE FREE OF RUST, DIRT AND MUD.
- ALL WELDED WIRE FABRIC SHALL CONFORM WITH ASTM A485 AND BE POSITIONED AT THE MID HEIGHT OF SLABS, UNO.
- ALL REINFORCING SHALL BE PLACED AND SECURELY TIED IN PLACE SUFFICIENTLY AHEAD OF PLACING OF CONCRETE TO ALLOW INSPECTION AND CORRECTION, IF NECESSARY, WITHOUT DELAYING THE CONCRETE PLACEMENT.
- EXTEND ALL REINFORCING BARS A MINIMUM OF 36" AROUND ALL CORNERS AND LAP BARS AT ALL SPLICES A MINIMUM OF 30", UNO.
- WELDING OF REINFORCING STEEL IS NOT ALLOWED.

**MASONRY SPECIFICATIONS:**

- ALL MASONRY WORK SHALL BE IN ACCORDANCE WITH A.C.I. 530-92, AND SPECIFICATIONS FOR MASONRY STRUCTURES A.C.I. 530.1-92. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-90, GRADE N, TYPE I FOR HOLLOW CONCRETE MASONRY UNITS, AND ASTM C45, GRADE N, TYPE I FOR SOLID CONCRETE MASONRY UNITS. BRICK SHALL MEET THE LATEST REVISIONS OF ASTM C216, GRADE SW.
- ALL MORTAR SHALL CONFORM TO ASTM C270, TYPE M OR S, MINIMUM COMPRESSIVE STRENGTH FC-1800 PSI AT 28 DAYS.
- ALL CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM PRISM STRENGTH OF 1500 PSI.
- EXPANSION JOINTS FOR BRICK MASONRY SHALL BE PLACED AT 20' TO 30' O.C. MAXIMUM.
- CONTROL JOINTS FOR CONCRETE MASONRY SHALL BE PLACED AT 30' O.C. MAXIMUM, UNO.
- ALL CONCRETE BLOCK WALLS SHALL HAVE 'DUR-O-WAL' OR EQUIVALENT TRUSS-TYPE HORIZONTAL REINFORCING INSTALLED AT EVERY OTHER COURSE. HORIZONTAL WIRE REINFORCEMENT SHALL BE #9 GA. WIRE WITH ASTM A641 GALVANIZED COATING UNLESS NOTED OTHERWISE. WALLS WITH VERTICAL REINFORCEMENT SHALL HAVE ONLY 'LADDER' TYPE REINFORCEMENT. DO NOT EXTEND HORIZONTAL REINFORCING THROUGH CONTROL JOINTS.
- INSTALL VERTICAL REINFORCING (AS NOTED ON PLANS) IN THE CENTER OF BLOCK CORES AND GROUT IN MAXIMUM OF FOUR FOOT HEIGHTS. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. LAP AND TIE BAR SPLICES SHALL BE PLACED IN ACCORDANCE WITH ACI 530-92, SECTION 8.5.7.1.
- ALL BRICK WORK SHALL HAVE PROPER TIES TO THE STRUCTURE IN ACCORDANCE WITH THE MOST RECENT SPECIFICATIONS OF THE BRICK INSTITUTE OF AMERICA.
- THE MASONRY CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY SHORING AND FALSEWORK REQUIRED TO WITH STAND WIND LOADS AND TEMPORARY CONSTRUCTION LOADS. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH ALL OSHA REQUIREMENTS.
- ALL BEAMS BEARING ON MASONRY WALLS SHALL HAVE A 7 1/2" X 7 1/2" X 3/8" BEARING PLATE WITH TWO 1/2" DIAMETER X 12" LONG ANCHOR BOLTS, UNO. THE TOP THREE COURSES OF BLOCK BELOW THE BEARING SHALL BE GROUTED SOLID.



TRENCH TYPE FOOTING (NO SCALE)

**WOOD SPECIFICATIONS:**

- WOOD CONSTRUCTION SHALL BE GOVERNED BY THE LATEST EDITIONS OF THE AITC MANUAL AND NDS (NATIONAL DESIGN STANDARDS) AS PUBLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
- LAMINATED VENEER LUMBER (SUCH AS MICROLAM) SHALL HAVE THE FOLLOWING STRUCTURAL PROPERTIES: FB=2800 PSI, FV=285 PSI, E=2,000,000 PSI.
- LAMINATED WOOD BEAMS (GLULAMS) SHALL BE VISUALLY GRADED WESTERN SPECIES 24F-V8 AITC DESIGNATION WITH THE FOLLOWING STRUCTURAL PROPERTIES: FB=2400 PSI, FV=165 PSI, E=1,800,000 PSI.
- STUDS SHALL BE SPF/STUD (NAPA) OR BETTER GRADE, UNO., AT MC 19% MAXIMUM.
- STRUCTURAL DIMENSION LUMBER SUCH AS HEADERS AND JOISTS SHALL BE A MINIMUM OF #2 HEM FIR AT MC 19% MAXIMUM.
- ALL STRUCTURAL LUMBER IN CONTACT WITH CONCRETE OR MASONRY, LESS THAN 8" ABOVE GRADE OR EXPOSED TO THE WEATHER SHALL BE PRESSURE TREATED.
- ALL LUMBER AT OR BELOW GRADE SHALL BE PRESSURE TREATED.
- ALL TREATED LUMBER WHICH IS CUT, PRILLED OR NOTCHED SHALL BE FIELD TREATED (BRUSHED ON EXPOSED SURFACES).

**WOOD SPECIFICATIONS CONTINUED:**

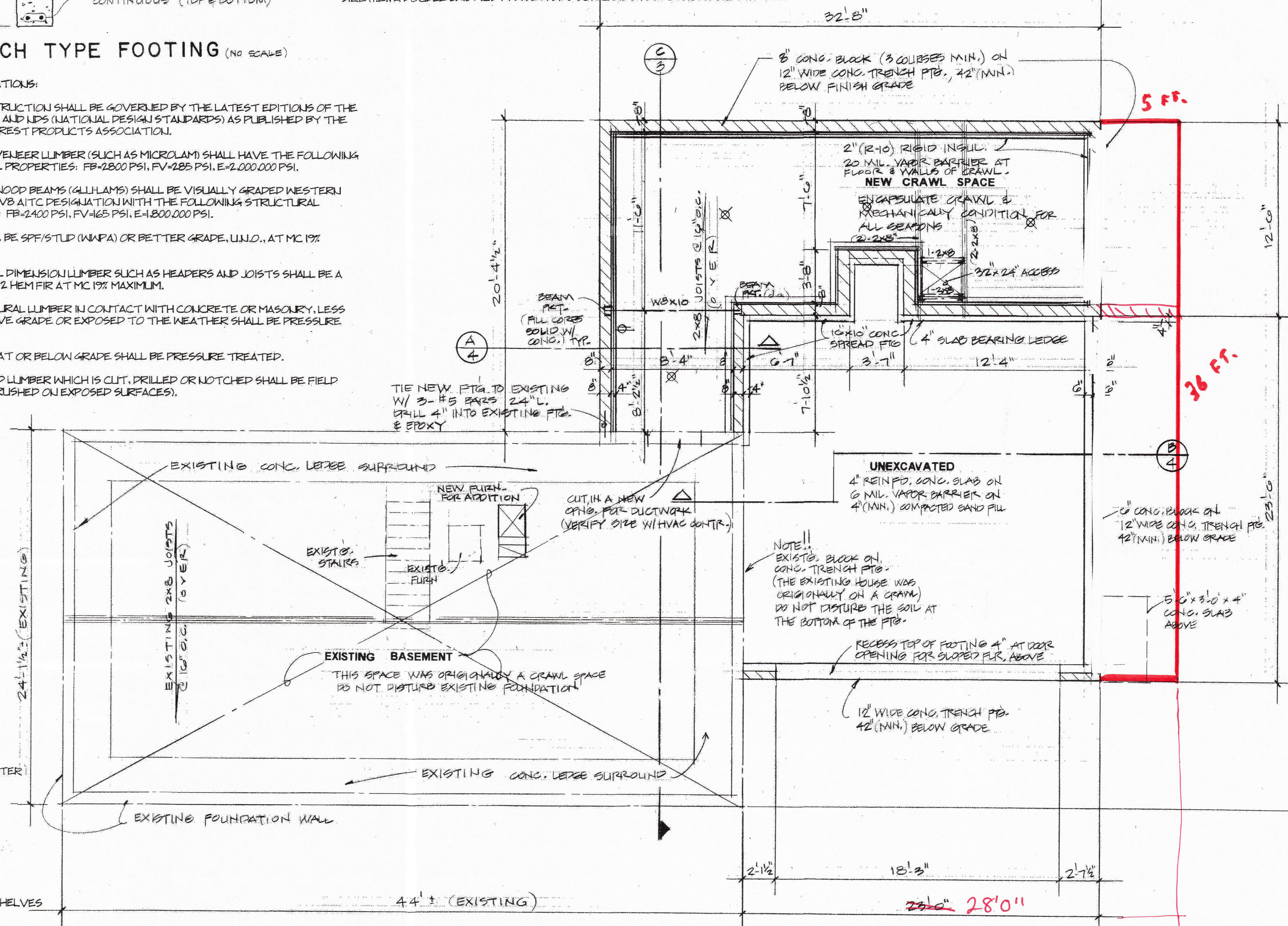
- AT EACH WALL OPENING ADD ONE HALF THE TOTAL NUMBER OF STUDS DISPLACED TO EACH SIDE OF THE OPENING (FULL HEIGHT) AND ADD 2 CRIPPLE STUDS BELOW THE HEADER, UNO.
- NOTCHING AND PRILLING OF STRUCTURAL MEMBERS IS PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER.
- ALL CONNECTIONS NOT NOTED ON THE DRAWINGS SHALL BE MADE WITH PREFABRICATED STEEL HANGERS SIZED FOR THE CARRIED LOAD AND MEMBER SIZE (I.E., A DOUBLE 2X10 MUST HAVE A SIMPSON U-210-2 HANGER (OR EQUAL), ETC.).

- ALL POSTS SHALL EXTEND TO SOLID BEARING. REPEAT POSTS ON LOWER FLOORS BELOW UPPER POSTS, UNO. BLOCK SOLID BELOW ALL POSTS TO SOLID BEARING BELOW.
- ALL EXTERIOR WALL AND ROOF SHEATHING SHALL BE 1/2" APA RATED EXTERIOR GRADE SHEATHING INSTALLED PER APA INSTALLATION GUIDE REQUIREMENTS (NAILING, SPACING, BLOCKING, STORAGE, HANDLING AND PROTECTION, ETC.)
- THIS PLAN DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR FOLLOWING MINIMUM GUIDELINES SET FORTH IN THE LATEST EDITION OF THE MICHIGAN RESIDENTIAL BUILDING CODES (THIS PUBLICATION IS CONSIDERED TO BE PART OF THE STRUCTURAL SPECIFICATIONS).

MARK POSTAL EXPRESSLY RESERVES HIS COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING WRITTEN PERMISSION AND CONSENT OF MARK POSTAL.

**ABBREVIATIONS**

- SLB. = SLAB
- CONC. = CONCRETE
- FTG. = FOOTING
- DP. = DEEP
- STL. = STEEL
- PL. = PLATE
- PKT. = POCKET
- BM. = BEAM
- JTS. = JOISTS
- L.V.L. = MICRO LAM
- LAM. = LAMINATED
- WD. = WOOD
- ENG.D. = ENGINEERED
- REINF. = REINFORCED
- FLR. = FLOOR
- CONT. = CONTINUOUS
- MIN. = MINIMUM
- F.D. = FLOOR DRAIN
- WTR. HTR. = WATER HEATER
- SOFTNR. = SOFTENER
- W.T. = WELL TANK
- FURN. = FURNACE
- COL. = COLUMN
- JT. = JOINT
- BRG. = BEARING
- ALUM. = ALUMINUM
- GL. = GLASS
- T. = TEMPERED
- R.S. = ROUGH SAUN
- SH. SHLV. = SHELF OR SHELVES
- R. = ROD
- H.B. = HOSE BIB
- HDR. = HEADER
- HD. = HEAD
- CEIL. CLG. = CEILING
- SPICO = SMOKE & CARBON MONOXIDE DETECTOR
- W.D. = WASHER, DRYER
- S. = SINK
- REF. = REFRIGERATOR
- DW. = DISHWASHER
- EXH. = EXHAUST
- E.F. = EXHAUST FAN
- W.C. = WATER CLOSET
- CL. = CLOSET
- W.I.C. = WALK IN CLOSET
- SCUT. = SCUTTLE
- AP. = ACCESS PANEL
- P.C. = PULL CORD



**CRAWL SPACE AND FOUNDATION PLAN**

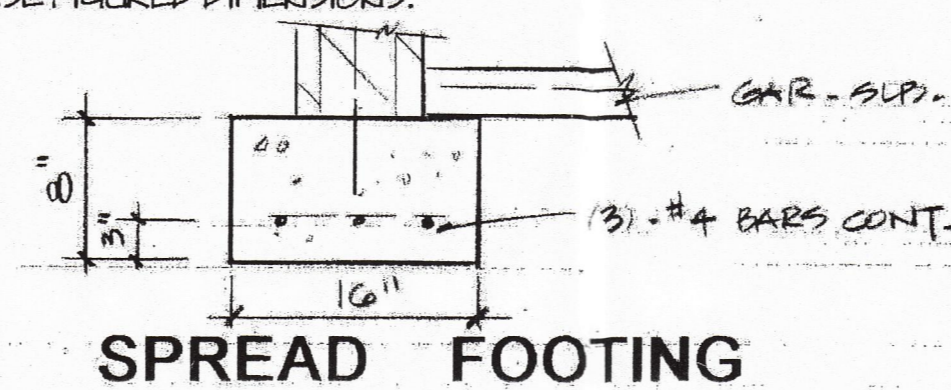
SCALE: 1/8" = 1'-0"

**LEGEND**

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE REMOVED
- NEW FRAME CONSTRUCTION
- NEW MASONRY CONSTRUCTION

**ZONING: LV DISTRICT**

NOTES:  
\*ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE MICHIGAN RESIDENTIAL CODE.  
\*ALL DIMENSIONS ARE FIGURED TO ROUGH LUMBER. EXTERIOR DIMENSIONS INCLUDE 1/2" SHEATHING.  
\*VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION.  
\*ALL MATERIALS SELECTED TO BE USED ON THIS PROJECT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH EACH MANUFACTURER'S WRITTEN SPECIFICATIONS.  
\*DO NOT SCALE PRINTS. USE FIGURED DIMENSIONS.



SPREAD FOOTING

- SECTION DESIGNATION
- SHEET ON WHICH THE SECTION IS SHOWN
- DIRECTION THE SECTION IS VIEWED

ADDITION FOR: 2345 OAKLAND DRIVE, HIGHLAND MI.  
**DROUILLARD/OLIVER HOUSE**

M A R K P O S T A L - D E S I G N E R  
 P.O. BOX 908 CLARKSTON, MICHIGAN 48347 PH. 248-425-7144

JOB NO. 20221001  
 DATE 11-17-22  
 SHEET 1 OF 4



2345 Oakland Dr  
Highland MI 48356-1557

**View:** Front

**Structure:** Primary

**Photo Date:** 04/04/2013



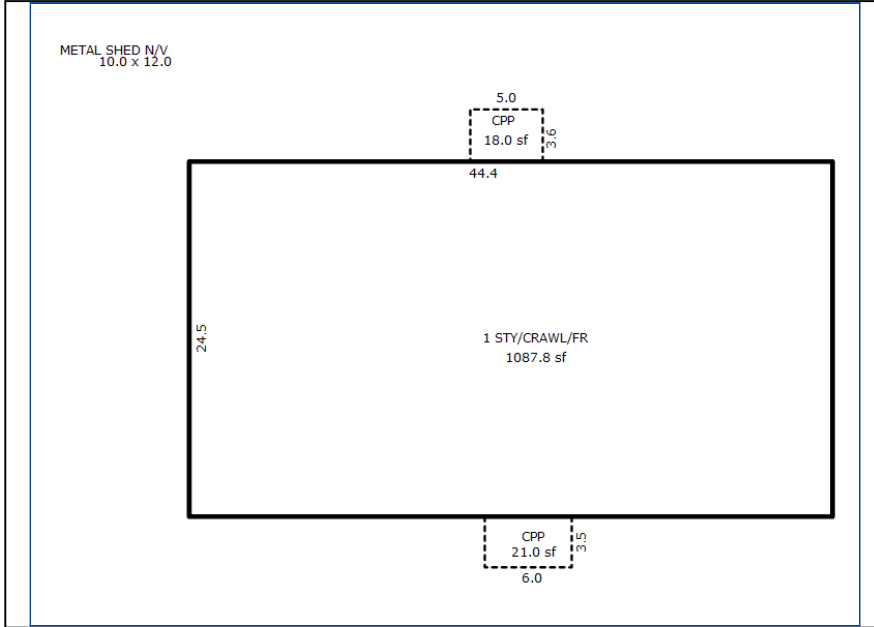
Parcel Sketch View

Charter Township of Highland (H)

Page Print Layout: 2 per page

PIN: 11-12-101-042

PRINT DATE: 3/20/2024



3 beds / 1 full baths / 0 half baths / 1088 sq ft

**Residential Property Profile**

11-12-101-042

**Note: Please be advised the data included in Property Gateway originates from multiple local municipalities. Data, in regard to properties, may be classified and updated differently by municipalities. If you have any questions, please contact the local community where the data originated.**

**Owner Information**

Owner(s) : **STACY DROUILLARD**  
Postal Address : **2345 OAKLAND DR HIGHLAND MI 48356-1557**

**Location Information**

Site Address : **2345 OAKLAND DR HIGHLAND MI 48356-1557**  
PIN : **11-12-101-042** Neighborhood Code : **RDL**  
Municipality : **Charter Township of Highland**  
School District : **63220 HURON VALLEY SCHOOLS**  
Class Code : **401 Residential - Improved**

**Property Description**

**T3N, R7E, SEC 12 DUCK LAKE PARK SUB LOTS 21 & 22 EXC NLY PART DESC AS BEG AT NE COR OF LOT 21, TH S ALG LOT LINE 9.40 FT, TH S 59-43-00 W 96.20 FT TO W LINE OF LOT 22, TH N ALG SD W LINE 50 FT TO NW LOT COR, TH N 59-53-00 E 16.80 FT, TH N 80-13-00 E 65.20 FT TO BEG, ALSO S 100 FT OF E 1/2 OF LOT 23 4-30-90 FR 037 & 039**

**Split/Combination Information**

Added Status : **Added Parcel**  
Added Date : **05/15/1990** Added From : **FR 037 & 039**

**Most Recent Sale Since 1994**

Date : **11/22/2002**  
Amount : **\$139,000** Liber : **27484:197**  
Grantor : **HAMILTON, KEVIN R**  
Grantor : **HAMILTON, MARY A** Grantee : **DROUILLARD, STACY**

3 beds / 1 full baths / 0 half baths / 1088 sq ft

**Residential Property Profile**

11-12-101-042

**Note: Please be advised the data included in Property Gateway originates from multiple local municipalities. Data, in regard to properties, may be classified and updated differently by municipalities. If you have any questions, please contact the local community where the data originated.**

**Tax Information**

Taxable Value	: <b>\$47,790</b>	State Equalized Value	: <b>\$90,540</b>
Current Assessed Value	: <b>\$90,540</b>	Capped Value	: <b>\$47,790</b>
Effective Date For Taxes	: <b>12/01/2023</b>	Principal Residence Exemption Type	: <b>N/A</b>
Summer Principal Residence Exemption Percent	: <b>100%</b>	Winter Principal Residence Exemption Percent	: <b>100%</b>
<b>2022 Taxes</b>		<b>2023 Taxes</b>	
Summer	: <b>\$976.17</b>	Summer	: <b>\$1,024.82</b>
Winter	: <b>\$674.84</b>	Winter	: <b>\$731.12</b>
Village	:	Village	:

**Lot Information**

Description	: <b>LEVEL</b>	Area	: <b>0.292 ACRES</b>
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**Primary Structure**

Structure	: <b>Other</b>	Living Area	: <b>1088 SQ FT</b>
Ground Floor	: <b>1088 SQ FT</b>	Year Built	: <b>1970</b>
Effective Year	: <b>1977</b>	Remodel Year	: <b>0</b>
Stories	: <b>1 Story</b>	Rooms	: <b>5</b>
Bedrooms	: <b>3</b>	Full Baths	: <b>1</b>
Half Baths	: <b>0</b>	Fireplaces	: <b>0</b>
Ext Walls	: <b>Alum., Vinyl</b>	Basement	: <b>YES - FULL</b>
Garage	: <b>None</b>	Heat	: <b>Forced Air w/ Ducts</b>
Fuel Type	: <b>Gas</b>	Central Air	: <b>No</b>

**Basement Information**

Finish	: <b>UNFINISHED</b>	Area	: <b>0 SQ FT</b>
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**Porch Information**

Type	Area
<b>CPP</b>	<b>21 SQ FT</b>
<b>CPP</b>	<b>18 SQ FT</b>