

NOTICE OF MEETING  
VILLAGE OF FOX POINT  
BUILDING BOARD

Schwemer Hall  
7200 North Santa Monica Blvd.  
Fox Point, WI 53217

Wednesday  
Sept 14, 2022  
5:00 P.M.

**Join Zoom Meeting**

<https://us02web.zoom.us/j/84512215267>

**Meeting ID: 845 1221 5267**

**Dial by your location: 312.626.6799**

**AGENDA**

1. Roll call of board members and quorum confirmation.
2. Discussion, corrections, and approval of the minutes of the August 10, 2022 Building Board meeting.
3. John Crichton, 7014 N Barnett Ln, proposed roof over uncovered patio.
4. Ben Glicksman, 221 W Suburban Dr, proposed roof mounted solar array.
5. Paul Bodis, 7001 N Yates Rd, proposed fence.
6. Robert Jones, 7900 N Club Cir, proposed fence.
7. Bang Tongkumbunjong, 8036 N Santa Monica Blvd, proposed adding 3 new windows.
8. Alex Perlin, 8301 N Lake Dr, proposed deck.
9. William Walenberger, 7111 N Lombardy Rd, proposed addition.
10. Alex Godfrey, 130 W Bradley Rd, proposed attached garage.
11. Chad Wenzel, 7539 N Bell Rd, proposed roof mounted solar array.
12. Adjourn.

PLEASE NOTE: Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through sign language interpreters or other auxiliary aids. For additional information or to request these services, contact the Village Clerk at 414-351-8900. It is possible that members of, and possibly a quorum of members of, other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information; no action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice.

## VILLAGE OF FOX POINT BUILDING BOARD MINUTES

A meeting of the Building Board was held via Zoom, on Wednesday, August 10, 2022, at 5:00 pm. Those present included:

Justin Racinowski  
Jeff Weber  
William Feldman  
Sharon Celek  
Michael Rakow

Notice of the meeting was provided to the North Shore Now and to all others as required by State open meeting laws and posted on the official bulletin boards.

### MINUTES

Motion was made by William Feldman to approve the minutes from July 13, 2022. Motion was seconded by Jeff Weber. Motion Passed.

### AGENDA

- **Revision Development LLC, 8034 N Links Way, proposed remodel and new attached garage, and modification to open area.** It was the consensus of the Building Board to approve as submitted.
- **Bruce Arbit, 7900 N Beach Dr, proposed solar array.** It was the consensus of the Building Board to approve as submitted.
- **Tom Simeone, 8045 N Beach Dr, proposed 18' X 18' pavilion.** It was the consensus of the Building Board to approve as submitted.
- **John Malzewski, 8210 N Whitney Rd, proposed detached garage.** It was the consensus of the Building Board to approve as submitted.
- **Jesse Schenck, 408 E Daphne Rd, proposed conversion of screen porch to four season room.** It was the consensus of the Building Board to approve as submitted.
- **John Crichton, 7014 N Barnett Ln, proposed roof over uncovered patio.** It was the consensus of the Building Board to table for photos and new exterior elevations.
- **Sadoff, 7855 N Club Cir, proposed front entry, window well, and chimney rework.** It was the consensus of the Building Board to approve subject to the combination of the lot.
- **James Bonnimann, 6708 N Holly Ct, proposed patio door.** It was the consensus of the Building Board to approve as submitted.

### ADJOURN

Motion to adjourn Building Board was made by William Feldman. Motion seconded by Jeff Weber. Motion Passed. Building Board adjourned at 6:01 pm.

Respectfully Submitted,



Michael Rakow  
Building Inspector  
Village of Fox Point



VILLAGE OF FOX POINT  
7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

Permit Number:

B-\_\_\_\_\_

| OFFICE USE ONLY |         |
|-----------------|---------|
| Issued Date     |         |
| Zoning          | A-1, 80 |

## BUILDING PERMIT

|                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Job Address</b> 7014 North Barnett Lane                                                                                                                                                                                                                                                                                                                                                  | <b>Building Type:</b> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> |
| <b>Description of Work</b>                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                           |
| Construction of a roof over an existing rear uncovered patio. The project includes no change in the building footprint. No new walls are being constructed so there will be no change in the enclosed area of the building. The new posts that support the new roof structure are supported/anchored on existing frost walls so no new footings or other foundations are being constructed. |                                                                                                           |
| <b>Estimated Cost of Project</b> \$ 20,000.00                                                                                                                                                                                                                                                                                                                                               |                                                                                                           |

|                                        |                                           |
|----------------------------------------|-------------------------------------------|
| <b>Owner/Occupant</b> John B. Crichton |                                           |
| <b>Business Name</b> N/A               | <b>Contact Name</b> John B. Crichton      |
| <b>Address</b> 7014 North Barnett Lane | <b>City/State/Zip</b> Fox Point, WI 53217 |
| <b>Phone</b>                           | <b>Email</b>                              |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                              |                                        |
|------------------------------|----------------------------------------|
| <b>Contractor</b>            |                                        |
| <b>Company Name</b>          | <b>Contact Name</b>                    |
| <b>Address</b>               | <b>City/State/Zip</b>                  |
| <b>Phone</b>                 | <b>Email</b>                           |
| <b>Dwelling Contractor #</b> | <b>Dwelling Contractor Qualifier #</b> |

| Square Footage Under Construction |                       |          |          |        |
|-----------------------------------|-----------------------|----------|----------|--------|
| 1 <sup>st</sup> Floor 340         | 2 <sup>nd</sup> Floor | Basement | Addition | Garage |

| Description                                                                                                     | Rate           | Amount                           |
|-----------------------------------------------------------------------------------------------------------------|----------------|----------------------------------|
| Project - Per \$1,000 of estimated cost                                                                         | \$10.00        | \$200.00                         |
| Building Board                                                                                                  | \$75.00        | \$75.00                          |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                          |                |                                  |
| Plan Review - \$275.00 one and two family; New Single Family Construction \$330.00 plus \$30.00/unit commercial |                |                                  |
| State Seal                                                                                                      | \$75.00        |                                  |
| Razing, Interior Demolition \$925.00 max/bld \$95.00 minimum plus                                               | \$0.13/sqft    |                                  |
| Moving buildings \$250.00 plus                                                                                  | \$0.13/sqft    |                                  |
| Fuel tanks - Per 1,000 gallons                                                                                  | \$25.00        |                                  |
| Re-inspection                                                                                                   | \$100.00       |                                  |
| Work started without permit                                                                                     | Double         |                                  |
| <b>Minimum Fee</b>                                                                                              | <b>\$70.00</b> |                                  |
| Payable to: Village of Fox Point                                                                                |                | <b>Total Permit Fee</b> \$275.00 |

Applicant Signature

Date

Rev 01/22

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**

Applicant email: dellis@ellis-engineering.com  
Applicant phone: 414-469-0104

VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.057826

Jul 11, 2022

7014 N BARNETT LANE

|                                                                                           |        |
|-------------------------------------------------------------------------------------------|--------|
| Previous Balance:                                                                         | .00    |
| LICENSES & PERMITS - BUILDING PERMIT<br>24-44460 BUILDING PERMIT                          | 200.00 |
| LICENSES & PERMITS - BUILDING PLANS - FILING<br>FEE<br>24-44440 BUILDING PLANS-FILING FEE | 75.00  |
| Total:                                                                                    | 275.00 |
| CHECK                      Check No: 1049<br>Payor: ELLIS ENGINEERING LLC                 | 275.00 |
| Total Applied:                                                                            | 275.00 |
| Change Tendered:                                                                          | .00    |

Duplicate Copy

07/11/2022 11:02 AM

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## **CAUTIONARY STATEMENT TO OWNERS OBTAINING BUILDING PERMITS**

101.65(1r) of the Wisconsin Statutes requires municipalities that enforce the Uniform Dwelling Code to provide an owner who applies for a building permit with a statement advising the owner that:

If the owner hires a contractor to perform work under the building permit and the contractor is not bonded or insured as required under s. 101.654(2)(a), the following consequences might occur:

- (a) The owner may be held liable for any bodily injury to or death of others or for any damage to the property of others that arises out of the work performed under the building permit or that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.
- (b) The owner may not be able to collect from the contractor damages for any loss sustained by the owner because of a violation by the contractor of the one- and two- family dwelling code or an ordinance enacted under sub. (1)(a), because of any bodily injury to or death of others or damage to the property of others that arises out of the work performed under the building permit or because of any bodily injury to or death of others or damage to the property of others that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.

### **Wetlands Notice to Permit Applicants**

You are responsible for complying with state and federal laws concerning the construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the Department of Natural Resources wetlands identification web page or contact a Department of Natural Resources service

### **Additional Responsibilities for Owners of Projects Disturbing One or More Acre of Soil**

I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and will comply with those standards.

JOHN B. CRICHTON      7014 N. BARNETT LN. FOX POINT  
Homeowner's Name – PRINTED      Property Address WI 53217

[Signature]      7/1/22  
Homeowner's Signature      Date

Rev 09/20



ELLIS ENGINEERING &  
CONSTRUCTION MANAGEMENT  
SERVICES, LLC

# STRUCTURAL CALCULATIONS

NEW ROOF AT EXISTING PATIO – 7014 N BARNETT LN, FOX POINT, WI



*[Handwritten signature]*  
04/30/2022

APRIL 27, 2022

ELLIS ENGINEERING & CONSTRUCTION MANAGEMENT SERVICES, LLC



ELLIS ENGINEERING &  
CONSTRUCTION MANAGEMENT  
SERVICES, LLC

|                                                    |                      |          |      |                      |      |
|----------------------------------------------------|----------------------|----------|------|----------------------|------|
| Project<br>BUILDING ALTERATION – 7014 N BARNETT LN |                      |          |      | Job Ref.<br>SD111-22 |      |
| Section<br>ROOF FRAMING AND SUPPORTS AT PATIO      |                      |          |      | Sheet no./rev.<br>1  |      |
| Calc. by<br>DSE                                    | Date<br>4/27/20226/2 | Chk'd by | Date | App'd by             | Date |

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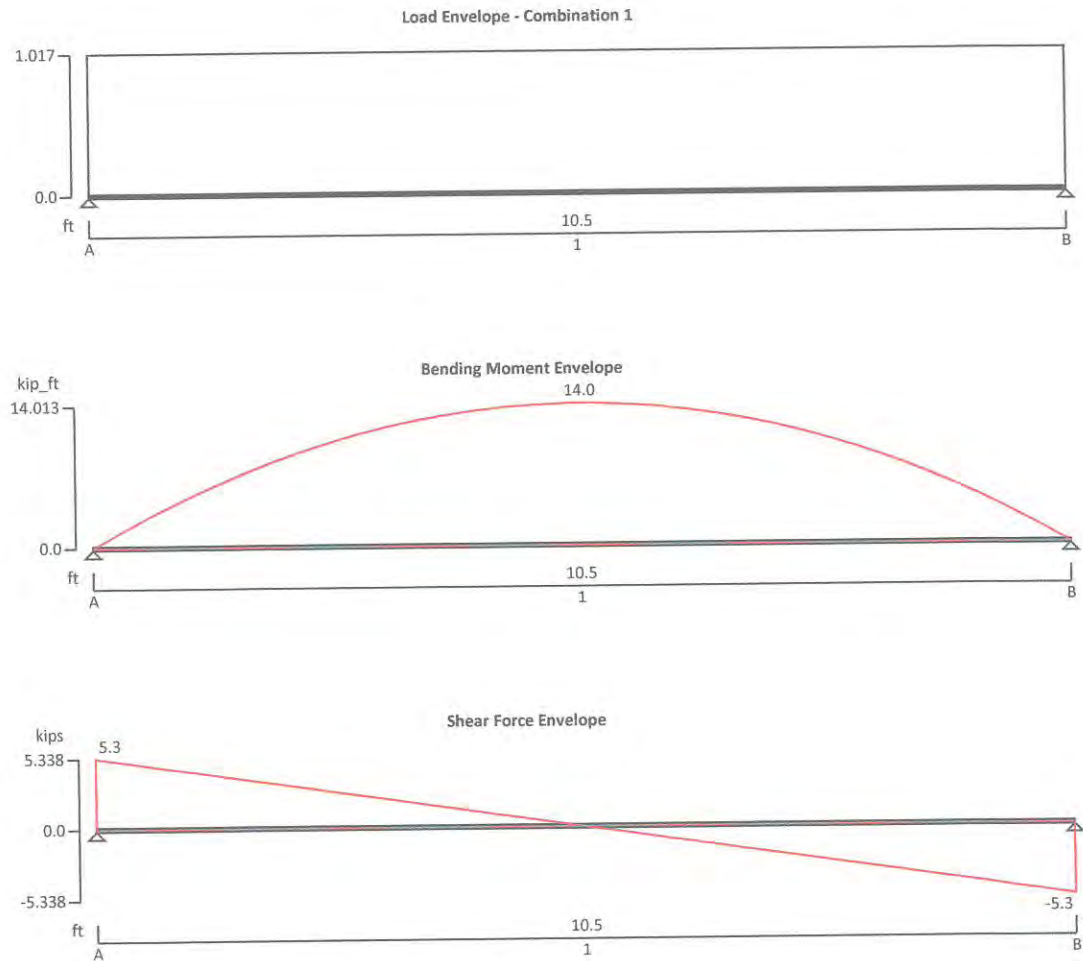
|                                                                                                                                                                   |                                                    |                      |          |      |                      |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------|----------|------|----------------------|------|
| <br><b>ELLIS ENGINEERING &amp;<br/>CONSTRUCTION MANAGEMENT<br/>SERVICES, LLC</b> | Project<br>BUILDING ALTERATION – 7014 N BARNETT LN |                      |          |      | Job Ref.<br>SD111-22 |      |
|                                                                                                                                                                   | Section<br>ROOF FRAMING AND SUPPORTS AT PATIO      |                      |          |      | Sheet no./rev.<br>2  |      |
|                                                                                                                                                                   | Calc. by<br>DSE                                    | Date<br>4/27/20226/2 | Chk'd by | Date | App'd by             | Date |

**HEADER AT EAST WALL AT EXISTING BACK PORCH**

**STRUCTURAL COMPOSITE LUMBER MEMBER ANALYSIS & DESIGN (NDS)**

In accordance with the ANSI/AF&PA NDS-2018 using the LRFD method

Tedds calculation version 1.7.10



Applied loading

Beam loads

|                    |                              |
|--------------------|------------------------------|
| Self Wt.           | Dead self weight of beam × 1 |
| Roof D.L. (20 psf) | Dead full UDL 279 lb/ft      |
| Snow (30 psf)      | Snow full UDL 419 lb/ft      |

Load combinations

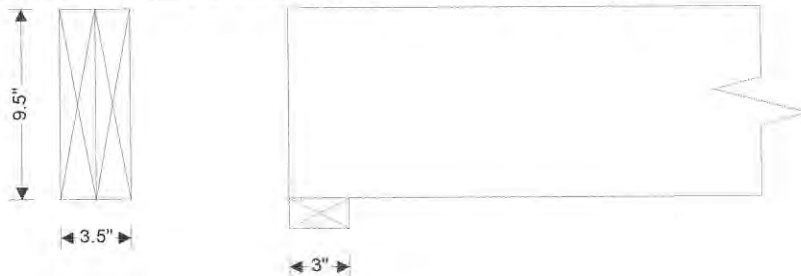
|                    |           |             |
|--------------------|-----------|-------------|
| Load combination 1 | Support A | Dead × 1.20 |
|--------------------|-----------|-------------|

|                                                                                                                                                                   |                                         |              |          |                |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------|----------|----------------|----------|
| <br><b>ELLIS ENGINEERING &amp;<br/>CONSTRUCTION MANAGEMENT<br/>SERVICES, LLC</b> | Project                                 |              |          | Job Ref.       |          |
|                                                                                                                                                                   | BUILDING ALTERATION – 7014 N BARNETT LN |              |          | SD111-22       |          |
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|                                                                                                                                                                   | DSE                                     | 4/27/20226/2 |          |                |          |

Span 1      Snow × 1.60  
Dead × 1.20  
Support B      Snow × 1.60  
Dead × 1.20  
Snow × 1.60

#### Analysis results

|                                            |                                                                             |                                |
|--------------------------------------------|-----------------------------------------------------------------------------|--------------------------------|
| Maximum moment                             | $M_{max} = 14013 \text{ lb\_ft}$                                            | $M_{min} = 0 \text{ lb\_ft}$   |
| Design moment                              | $M = \max(\text{abs}(M_{max}), \text{abs}(M_{min})) = 14013 \text{ lb\_ft}$ |                                |
| Maximum shear                              | $F_{max} = 5338 \text{ lb}$                                                 | $F_{min} = -5338 \text{ lb}$   |
| Design shear                               | $F = \max(\text{abs}(F_{max}), \text{abs}(F_{min})) = 5338 \text{ lb}$      |                                |
| Total load on member                       | $W_{tot} = 10677 \text{ lb}$                                                |                                |
| Reaction at support A                      | $R_{A\_max} = 5338 \text{ lb}$                                              | $R_{A\_min} = 5338 \text{ lb}$ |
| Unfactored dead load reaction at support A | $R_{A\_Dead} = 1516 \text{ lb}$                                             |                                |
| Unfactored snow load reaction at support A | $R_{A\_Snow} = 2200 \text{ lb}$                                             |                                |
| Reaction at support B                      | $R_{B\_max} = 5338 \text{ lb}$                                              | $R_{B\_min} = 5338 \text{ lb}$ |
| Unfactored dead load reaction at support B | $R_{B\_Dead} = 1516 \text{ lb}$                                             |                                |
| Unfactored snow load reaction at support B | $R_{B\_Snow} = 2200 \text{ lb}$                                             |                                |



#### Composite section details

|                                               |                                             |
|-----------------------------------------------|---------------------------------------------|
| Breadth of composite section                  | $b = 1.75 \text{ in}$                       |
| Depth of composite section                    | $d = 9.5 \text{ in}$                        |
| Number of composite sections in member        | $N = 2$                                     |
| Overall breadth of composite member           | $b_b = N \times b = 3.5 \text{ in}$         |
| Composite type and grade                      | Microllam LVL, 2.0E-2600Fb grade            |
| Bending parallel to grain                     | $F_b = 2600 \text{ lb/in}^2$                |
| Tension parallel to grain                     | $F_t = 1555 \text{ lb/in}^2$                |
| Compression parallel to grain                 | $F_c = 2510 \text{ lb/in}^2$                |
| Compression perpendicular to grain            | $F_{c\_perp} = 750 \text{ lb/in}^2$         |
| Shear parallel to grain                       | $F_v = 285 \text{ lb/in}^2$                 |
| Modulus of elasticity                         | $E = 2000000 \text{ lb/in}^2$               |
| Modulus of elasticity, stability calculations | $E_{min} = 1017000 \text{ lb/in}^2$         |
| Mean shear modulus                            | $G_{def} = E / 16 = 125000 \text{ lb/in}^2$ |
| Average density                               | $\rho = 42 \text{ lb/ft}^3$                 |

|                                                                                                                                                                   |                                         |              |                |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------|----------------|------|
| <br><b>ELLIS ENGINEERING &amp;<br/>CONSTRUCTION MANAGEMENT<br/>SERVICES, LLC</b> | Project                                 |              | Job Ref.       |      |
|                                                                                                                                                                   | BUILDING ALTERATION – 7014 N BARNETT LN |              | SD111-22       |      |
|                                                                                                                                                                   | Section                                 |              | Sheet no./rev. |      |
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|                                                                                                                                                                   | DSE                                     | 4/27/20226/2 |                |      |
|                                                                                                                                                                   |                                         |              | App'd by       | Date |

#### Member details

Service condition

**Dry**

Length of span

$L_{s1} = 10.5 \text{ ft}$

Length of bearing

$L_b = 3 \text{ in}$

#### Section properties

Cross sectional area of member

$A = N \times b \times d = 33.25 \text{ in}^2$

Section modulus

$S_x = N \times b \times d^2 / 6 = 52.65 \text{ in}^3$

$S_y = d \times (N \times b)^2 / 6 = 19.40 \text{ in}^3$

Second moment of area

$I_x = N \times b \times d^3 / 12 = 250.07 \text{ in}^4$

$I_y = d \times (N \times b)^3 / 12 = 33.94 \text{ in}^4$

#### Adjustment factors

Resistance factor for bending - Table 2.3.6

$\phi_b = 0.85$

Resistance factor for tension - Table 2.3.6

$\phi_t = 0.80$

Resistance factor for compression - Table 2.3.6

$\phi_c = 0.90$

Resistance factor for shear - Table 2.3.6

$\phi_v = 0.75$

Resistance factor for modulus of elasticity - Table 2.3.6

$\phi_s = 0.85$

Format conversion factor for bending -Table 2.3.5

$K_{Fb} = 2.54$

Format conversion factor for tension -Table 2.3.5

$K_{Ft} = 2.70$

Format conversion factor for compression - Table 2.3.5

$K_{Fc} = 2.40$

Format conversion factor for shear -Table 2.3.5

$K_{Fv} = 2.88$

Format conversion factor for perp.compression - Table 2.3.5

$K_{Fc\_perp} = 1.67$

Format conversion factor for modulus of elasticity - Table 2.3.5

$K_{FE} = 1.76$

Time effect factor - Table N.3

$\lambda = 0.80$

Temperature factor - Table 2.3.3

$C_t = 1.00$

Volume factor

$C_v = (12 \text{ in} / \max(d, 3.5 \text{ in}))^{0.136} = 1.03$

Repetitive member factor - cl.8.3.7

$C_r = 1.00$

Length factor

$C_{Len} = (4 \text{ ft} / L_{s1})^{0.085} = 0.92$

Bearing area factor - cl.3.10.4

$C_b = 1.00$

Depth-to-breadth ratio

$d / (N \times b) = 2.71$

- Beam is fully restrained

Beam stability factor - cl.3.3.3

$C_L = 1.00$

#### Bearing perpendicular to grain - cl.3.10.2

Design compression perpendicular to grain

$F_{c\_perp}' = F_{c\_perp} \times K_{Fc\_perp} \times \phi_c \times C_t \times C_b = 1127 \text{ lb/in}^2$

Applied compression stress perpendicular to grain

$f_{c\_perp} = R_{A\_max} / (N \times b \times L_b) = 508 \text{ lb/in}^2$

$f_{c\_perp} / F_{c\_perp}' = 0.451$

**PASS - Design compressive stress exceeds applied compressive stress at bearing**

|                                                                                                                                                                   |                                                    |                      |          |                      |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------|----------|----------------------|------------------|
| <br><b>ELLIS ENGINEERING &amp;<br/>CONSTRUCTION MANAGEMENT<br/>SERVICES, LLC</b> | Project<br>BUILDING ALTERATION – 7014 N BARNETT LN |                      |          | Job Ref.<br>SD111-22 |                  |
|                                                                                                                                                                   | Section<br>ROOF FRAMING AND SUPPORTS AT PATIO      |                      |          | Sheet no./rev.<br>5  |                  |
|                                                                                                                                                                   | Calc. by<br>DSE                                    | Date<br>4/27/20226/2 | Chk'd by | Date                 | App'd by<br>Date |

#### Strength in bending - cl.3.3.1

Design bending stress

$$F_b' = F_b \times K_{Fb} \times \phi_b \times \lambda \times C_t \times C_L \times C_V \times C_r = 4636 \text{ lb/in}^2$$

Actual bending stress

$$f_b = M / S_x = 3194 \text{ lb/in}^2$$

$$f_b / F_b' = 0.689$$

**PASS - Design bending stress exceeds actual bending stress**

#### Strength in shear parallel to grain - cl.3.4.1

Design shear stress

$$F_v' = F_v \times K_{Fv} \times \phi_v \times \lambda \times C_t = 492 \text{ lb/in}^2$$

Actual shear stress - eq.3.4-2

$$f_v = 3 \times F / (2 \times A) = 241 \text{ lb/in}^2$$

$$f_v / F_v' = 0.489$$

**PASS - Design shear stress exceeds actual shear stress**

#### Deflection - cl.3.5.1

Modulus of elasticity for deflection

$$E' = E \times C_M \times C_t = 2000000 \text{ lb/in}^2$$

Design deflection

$$\delta_{adm} = 0.0042 \times L_{s1} = 0.529 \text{ in}$$

Total deflection

$$\delta_{b_{s1}} = 0.387 \text{ in}$$

$$\delta_{b_{s1}} / \delta_{adm} = 0.731$$

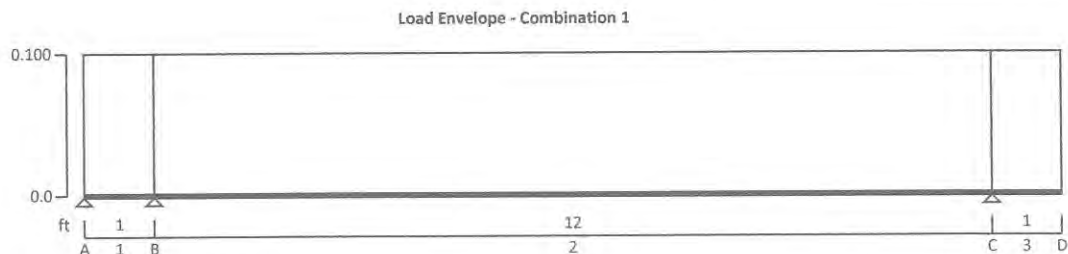
**PASS - Total deflection is less than design deflection**

## ROOF JOIST ANALYSIS AND DESIGN

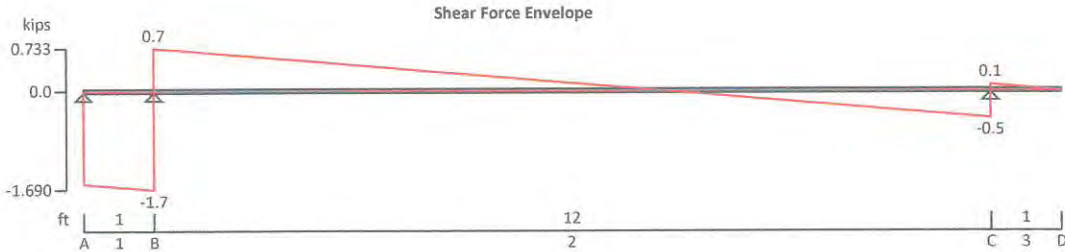
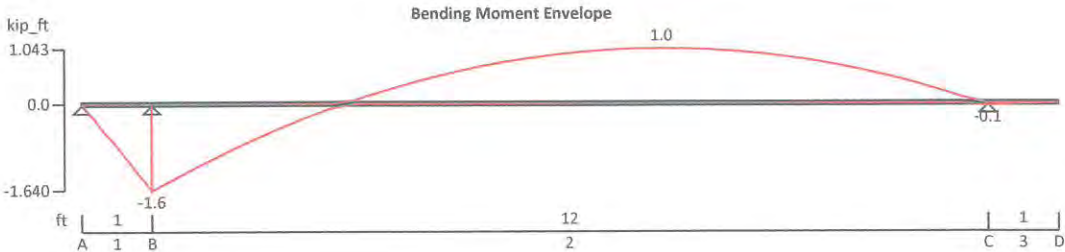
### STRUCTURAL WOOD MEMBER ANALYSIS & DESIGN (NDS)

In accordance with the ANSI/AF&PA NDS-2018 using the LRFD method

Tedds calculation version 1.7.10



|                                                                                                                                                                   |                                         |          |      |                |      |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------|------|----------------|------|--|
| <br><b>ELLIS ENGINEERING &amp;<br/>CONSTRUCTION MANAGEMENT<br/>SERVICES, LLC</b> | Project                                 |          |      | Job Ref.       |      |  |
|                                                                                                                                                                   | BUILDING ALTERATION – 7014 N BARNETT LN |          |      | SD111-22       |      |  |
|                                                                                                                                                                   | Section                                 |          |      | Sheet no./rev. |      |  |
| ROOF FRAMING AND SUPPORTS AT PATIO                                                                                                                                |                                         |          | 6    |                |      |  |
| Calc. by                                                                                                                                                          | Date                                    | Chk'd by | Date | App'd by       | Date |  |
| DSE                                                                                                                                                               | 4/27/20226/2                            |          |      |                |      |  |



Applied loading

Beam loads

Self Wt.

Dead self weight of beam × 1

Roof D.L. (20 psf)

Dead full UDL 27 lb/ft

Snow (30 psf)

Snow full UDL 40 lb/ft

Load combinations

Load combination 1

Support A

Dead × 1.20

Snow × 1.60

Span 1

Dead × 1.20

Snow × 1.60

Support B

Dead × 1.20

Snow × 1.60

Span 2

Dead × 1.20

Snow × 1.60

Support C

Dead × 1.20

Snow × 1.60

Span 3

Dead × 1.20

Snow × 1.60

Support D

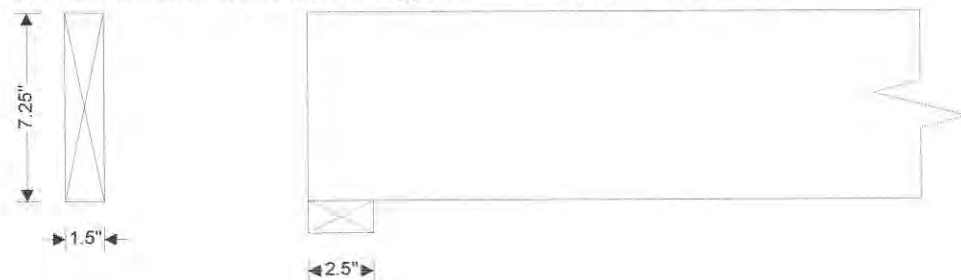
Dead × 1.20

Snow × 1.60

|                                                                                                                                                                   |                                         |              |          |                |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------|----------|----------------|----------|
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|                                                                                                                                                                   | DSE                                     | 4/27/20226/2 |          |                |          |

### Analysis results

|                                            |                                                                            |                                  |
|--------------------------------------------|----------------------------------------------------------------------------|----------------------------------|
| Maximum moment                             | $M_{max} = 1043 \text{ lb\_ft}$                                            | $M_{min} = -1640 \text{ lb\_ft}$ |
| Design moment                              | $M = \max(\text{abs}(M_{max}), \text{abs}(M_{min})) = 1640 \text{ lb\_ft}$ |                                  |
| Maximum shear                              | $F_{max} = 733 \text{ lb}$                                                 | $F_{min} = -1690 \text{ lb}$     |
| Design shear                               | $F = \max(\text{abs}(F_{max}), \text{abs}(F_{min})) = 1690 \text{ lb}$     |                                  |
| Total load on member                       | $W_{tot} = 1400 \text{ lb}$                                                |                                  |
| Reaction at support A                      | $R_{A\_max} = -1590 \text{ lb}$                                            | $R_{A\_min} = -1590 \text{ lb}$  |
| Unfactored dead load reaction at support A | $R_{A\_Dead} = -477 \text{ lb}$                                            |                                  |
| Unfactored snow load reaction at support A | $R_{A\_Snow} = -636 \text{ lb}$                                            |                                  |
| Reaction at support B                      | $R_{B\_max} = 2422 \text{ lb}$                                             | $R_{B\_min} = 2422 \text{ lb}$   |
| Unfactored dead load reaction at support B | $R_{B\_Dead} = 727 \text{ lb}$                                             |                                  |
| Unfactored snow load reaction at support B | $R_{B\_Snow} = 969 \text{ lb}$                                             |                                  |
| Reaction at support C                      | $R_{C\_max} = 568 \text{ lb}$                                              | $R_{C\_min} = 568 \text{ lb}$    |
| Unfactored dead load reaction at support C | $R_{C\_Dead} = 170 \text{ lb}$                                             |                                  |
| Unfactored snow load reaction at support C | $R_{C\_Snow} = 227 \text{ lb}$                                             |                                  |
| Reaction at support D                      | $R_{D\_max} = 0 \text{ lb}$                                                | $R_{D\_min} = 0 \text{ lb}$      |
| Unfactored dead load reaction at support D | $R_{D\_Dead} = 0 \text{ lb}$                                               |                                  |
| Unfactored snow load reaction at support D | $R_{D\_Snow} = 0 \text{ lb}$                                               |                                  |



### Sawn lumber section details

|                                               |                                         |
|-----------------------------------------------|-----------------------------------------|
| Nominal breadth of sections                   | $b_{nom} = 2 \text{ in}$                |
| Dressed breadth of sections                   | $b = 1.5 \text{ in}$                    |
| Nominal depth of sections                     | $d_{nom} = 8 \text{ in}$                |
| Dressed depth of sections                     | $d = 7.25 \text{ in}$                   |
| Number of sections in member                  | $N = 1$                                 |
| Overall breadth of member                     | $b_b = N \times b = 1.5 \text{ in}$     |
| Species, grade and size classification        | Spruce-Pine-Fir, No.2 grade, 2" & wider |
| Bending parallel to grain                     | $F_b = 875 \text{ lb/in}^2$             |
| Tension parallel to grain                     | $F_t = 450 \text{ lb/in}^2$             |
| Compression parallel to grain                 | $F_c = 1150 \text{ lb/in}^2$            |
| Compression perpendicular to grain            | $F_{c\_perp} = 425 \text{ lb/in}^2$     |
| Shear parallel to grain                       | $F_v = 135 \text{ lb/in}^2$             |
| Modulus of elasticity                         | $E = 1400000 \text{ lb/in}^2$           |
| Modulus of elasticity, stability calculations | $E_{min} = 510000 \text{ lb/in}^2$      |

|                                                                                                                                                                   |                                         |              |          |                |          |
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|                                                                                                                                                                   | DSE                                     | 4/27/20226/2 |          |                |          |

Mean shear modulus

$$G_{def} = E / 16 = 87500 \text{ lb/in}^2$$

#### Member details

Service condition

**Dry**

Length of span 1

$$L_{s1} = 1 \text{ ft}$$

Length of span 2

$$L_{s2} = 12 \text{ ft}$$

Length of span 3

$$L_{s3} = 1 \text{ ft}$$

Length of bearing

$$L_b = 2.5 \text{ in}$$

The beam is one of three or more repetitive members

#### Section properties

Cross sectional area of member

$$A = N \times b \times d = 10.87 \text{ in}^2$$

Section modulus

$$S_x = N \times b \times d^2 / 6 = 13.14 \text{ in}^3$$

$$S_y = d \times (N \times b)^2 / 6 = 2.72 \text{ in}^3$$

Second moment of area

$$I_x = N \times b \times d^3 / 12 = 47.63 \text{ in}^4$$

$$I_y = d \times (N \times b)^3 / 12 = 2.04 \text{ in}^4$$

#### Adjustment factors

Resistance factor for bending - Table 2.3.6

$$\phi_b = 0.85$$

Resistance factor for tension - Table 2.3.6

$$\phi_t = 0.80$$

Resistance factor for compression - Table 2.3.6

$$\phi_c = 0.90$$

Resistance factor for shear - Table 2.3.6

$$\phi_v = 0.75$$

Resistance factor for modulus of elasticity - Table 2.3.6

$$\phi_s = 0.85$$

Format conversion factor for bending - Table 2.3.5

$$K_{Fb} = 2.54$$

Format conversion factor for tension - Table 2.3.5

$$K_{Ft} = 2.70$$

Format conversion factor for compression - Table 2.3.5

$$K_{Fc} = 2.40$$

Format conversion factor for shear - Table 2.3.5

$$K_{Fv} = 2.88$$

Format conversion factor for perp.compression - Table 2.3.5

$$K_{Fc\_perp} = 1.67$$

Format conversion factor for modulus of elasticity - Table 2.3.5

$$K_{FE} = 1.76$$

Time effect factor - Table N.3

$$\lambda = 0.80$$

Temperature factor - Table 2.3.3

$$C_t = 1.00$$

Size factor for bending - Table 4A

$$C_{Fb} = 1.20$$

Size factor for tension - Table 4A

$$C_{Ft} = 1.20$$

Size factor for compression - Table 4A

$$C_{Fc} = 1.05$$

Flat use factor - Table 4A

$$C_{fu} = 1.15$$

Incising factor for modulus of elasticity - Table 4.3.8

$$C_{IE} = 1.00$$

Incising factor for bending, shear, tension & compression - Table 4.3.8

$$C_i = 1.00$$

Incising factor for perpendicular compression - Table 4.3.8

|                                                                                                                                                                   |                                                    |                      |          |                      |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------|----------|----------------------|------------------|
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Repetitive member factor - cl.4.3.9  
 Bearing area factor - cl.3.10.4  
 Depth-to-breadth ratio  
 - Beam is fully restrained  
 Beam stability factor - cl.3.3.3  
**Bearing perpendicular to grain - cl.3.10.2**  
 Design compression perpendicular to grain  
 Applied compression stress perpendicular to grain

$C_{ic\_perp} = 1.00$   
 $C_r = 1.15$   
 $C_b = (L_b + 0.375 \text{ in}) / L_b = 1.15$   
 $d_{nom} / (N \times b_{nom}) = 4.00$   
 $C_L = 1.00$   
 $F_{c\_perp}' = F_{c\_perp} \times K_{F_{c\_perp}} \times \phi_c \times C_t \times C_{ic\_perp} \times C_b = 735 \text{ lb/in}^2$   
 $f_{c\_perp} = R_{B\_max} / (N \times b \times L_b) = 646 \text{ lb/in}^2$   
 $f_{c\_perp} / F_{c\_perp}' = 0.879$

**PASS - Design compressive stress exceeds applied compressive stress at bearing**

**Strength in bending - cl.3.3.1**  
 Design bending stress  
 Actual bending stress

$F_b' = F_b \times K_{F_b} \times \phi_b \times \lambda \times C_t \times C_L \times C_{F_b} \times C_i \times C_r = 2086 \text{ lb/in}^2$   
 $f_b = M / S_x = 1497 \text{ lb/in}^2$   
 $f_b / F_b' = 0.718$

**PASS - Design bending stress exceeds actual bending stress**

**Strength in shear parallel to grain - cl.3.4.1**  
 Design shear stress  
 Actual shear stress - eq.3.4-2

$F_v' = F_v \times K_{F_v} \times \phi_v \times \lambda \times C_t \times C_i = 233 \text{ lb/in}^2$   
 $f_v = 3 \times F / (2 \times A) = 233 \text{ lb/in}^2$   
 $f_v / F_v' = 0.999$   
**PASS - Design shear stress exceeds actual shear stress**

**Deflection - cl.3.5.1**  
 Modulus of elasticity for deflection  
 Design deflection  
 Total deflection

$E' = E \times C_{ME} \times C_t \times C_{iE} = 1400000 \text{ lb/in}^2$   
 $\delta_{adm} = 0.0042 \times 2 \times L_{s3} = 0.101 \text{ in}$   
 $\delta_{b\_s3} = -0.067 \text{ in}$   
 $\delta_{b\_s3} / \delta_{adm} = -0.668$   
**PASS - Total deflection is less than design deflection**

## **NEW HEADER NEAR EAST EDGE OF PATIO ROOF - ANALYSIS AND DESIGN**

### **STRUCTURAL COMPOSITE LUMBER MEMBER ANALYSIS & DESIGN (NDS)**

In accordance with the ANSI/AF&PA NDS-2018 using the LRFD method

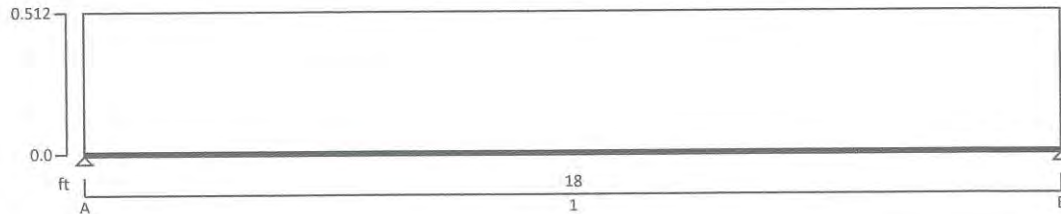
Tedds calculation version 1.7.10



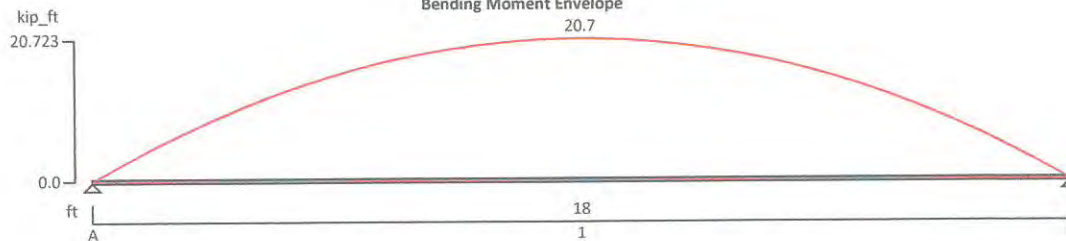
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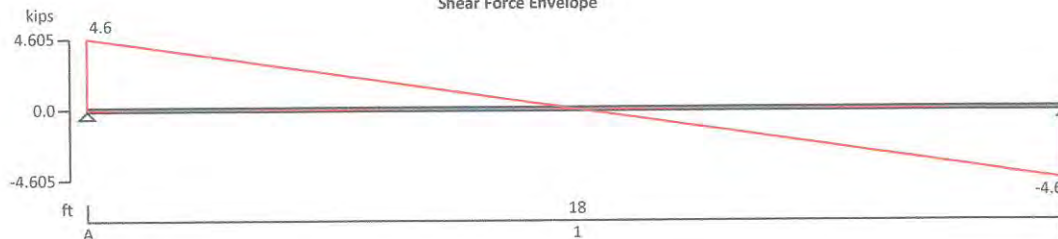
Load Envelope - Combination 1



Bending Moment Envelope



Shear Force Envelope



### Applied loading

#### Beam loads

Self Wt.

Roof D.L. 12 Psf)

Snow (30 psf)

Dead self weight of beam  $\times 1$

Dead full UDL 96 lb/ft

Snow full UDL 240 lb/ft

#### Load combinations

Load combination 1

Support A

Dead  $\times 1.20$

Snow  $\times 1.60$

Span 1

Dead  $\times 1.20$

Snow  $\times 1.60$

Support B

Dead  $\times 1.20$

Snow  $\times 1.60$



|                                                    |                   |          |      |                      |      |
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### Analysis results

Maximum moment  
Design moment  
Maximum shear  
Design shear  
Total load on member  
Reaction at support A  
Unfactored dead load reaction at support A  
Unfactored snow load reaction at support A  
Reaction at support B  
Unfactored dead load reaction at support B  
Unfactored snow load reaction at support B

$M_{max} = 20723 \text{ lb\_ft}$   
 $M_{min} = 0 \text{ lb\_ft}$   
 $M = \max(\text{abs}(M_{max}), \text{abs}(M_{min})) = 20723 \text{ lb\_ft}$   
 $F_{max} = 4605 \text{ lb}$   
 $F_{min} = -4605 \text{ lb}$   
 $F = \max(\text{abs}(F_{max}), \text{abs}(F_{min})) = 4605 \text{ lb}$   
 $W_{tot} = 9210 \text{ lb}$   
 $R_{A\_max} = 4605 \text{ lb}$   
 $R_{A\_min} = 4605 \text{ lb}$   
 $R_{A\_Dead} = 958 \text{ lb}$   
 $R_{A\_Snow} = 2160 \text{ lb}$   
 $R_{B\_max} = 4605 \text{ lb}$   
 $R_{B\_min} = 4605 \text{ lb}$   
 $R_{B\_Dead} = 958 \text{ lb}$   
 $R_{B\_Snow} = 2160 \text{ lb}$



### Composite section details

Breadth of composite section  
 Depth of composite section  
 Number of composite sections in member  
 Overall breadth of composite member  
 Composite type and grade  
 Bending parallel to grain  
 Tension parallel to grain  
 Compression parallel to grain  
 Compression perpendicular to grain  
 Shear parallel to grain  
 Modulus of elasticity  
 Modulus of elasticity, stability calculations  
 Mean shear modulus  
 Average density

$b = 1.75 \text{ in}$   
 $d = 11.875 \text{ in}$   
 $N = 2$   
 $b_b = N \times b = 3.5 \text{ in}$   
 RigidLam LVL, 2.0E-3100Fb grade  
 $F_b = 3100 \text{ lb/in}^2$   
 $F_t = 2100 \text{ lb/in}^2$   
 $F_c = 3000 \text{ lb/in}^2$   
 $F_{c\_perp} = 750 \text{ lb/in}^2$   
 $F_v = 290 \text{ lb/in}^2$   
 $E = 2000000 \text{ lb/in}^2$   
 $E_{min} = 1057000 \text{ lb/in}^2$   
 $G_{def} = E / 16 = 125000 \text{ lb/in}^2$   
 $\rho = 36 \text{ lb/ft}^3$

### Member details

Service condition  
 Length of span  
 Length of bearing

Dry  
 $L_{s1} = 18 \text{ ft}$   
 $L_b = 3 \text{ in}$

|                                                                                                                                                                   |                                                           |                            |          |                             |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------|----------|-----------------------------|------------------|
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### Section properties

Cross sectional area of member

$$A = N \times b \times d = \mathbf{41.56 \text{ in}^2}$$

Section modulus

$$S_x = N \times b \times d^2 / 6 = \mathbf{82.26 \text{ in}^3}$$

$$S_y = d \times (N \times b)^2 / 6 = \mathbf{24.24 \text{ in}^3}$$

Second moment of area

$$I_x = N \times b \times d^3 / 12 = \mathbf{488.41 \text{ in}^4}$$

$$I_y = d \times (N \times b)^3 / 12 = \mathbf{42.43 \text{ in}^4}$$

### Adjustment factors

Resistance factor for bending - Table 2.3.6

$$\phi_b = \mathbf{0.85}$$

Resistance factor for tension - Table 2.3.6

$$\phi_t = \mathbf{0.80}$$

Resistance factor for compression - Table 2.3.6

$$\phi_c = \mathbf{0.90}$$

Resistance factor for shear - Table 2.3.6

$$\phi_v = \mathbf{0.75}$$

Resistance factor for modulus of elasticity - Table 2.3.6

$$\phi_s = \mathbf{0.85}$$

Format conversion factor for bending -Table 2.3.5

$$K_{Fb} = \mathbf{2.54}$$

Format conversion factor for tension -Table 2.3.5

$$K_{Ft} = \mathbf{2.70}$$

Format conversion factor for compression - Table 2.3.5

$$K_{Fc} = \mathbf{2.40}$$

Format conversion factor for shear -Table 2.3.5

$$K_{Fv} = \mathbf{2.88}$$

Format conversion factor for perp.compression - Table 2.3.5

$$K_{Fc\_perp} = \mathbf{1.67}$$

Format conversion factor for modulus of elasticity - Table 2.3.5

$$K_{FE} = \mathbf{1.76}$$

Time effect factor - Table N.3

$$\lambda = \mathbf{0.80}$$

Temperature factor - Table 2.3.3

$$C_t = \mathbf{1.00}$$

Volume factor

$$C_v = (12 \text{ in} / d)^{1/8} = \mathbf{1.00}$$

Repetitive member factor - cl.8.3.7

$$C_r = \mathbf{1.00}$$

Length factor

$$C_{LeH} = (4 \text{ ft} / L_{s1})^{1/9} = \mathbf{0.85}$$

Bearing area factor - cl.3.10.4

$$C_b = \mathbf{1.00}$$

Depth-to-breadth ratio

$$d / (N \times b) = \mathbf{3.39}$$

Effective laterally unsupported span length

$$l_e = \mathbf{1.33 \text{ ft}}$$

Slenderness ratio for bending members - eq.3.3-5

$$R_b = \sqrt{[l_e \times d / (N \times b)^2]} = \mathbf{3.933}$$

Adjusted bending design value for bending

$$F_b^* = F_b \times K_{Fb} \times \phi_b \times \lambda \times C_M \times C_t \times C_r = \mathbf{5354 \text{ lb/in}^2}$$

Adjusted modulus of elasticity for member stability

$$E_{min}' = E_{min} \times C_M \times C_t \times K_{FE} \times \phi_s = \mathbf{1581272 \text{ lb/in}^2}$$

Critical buckling design value for bending

$$F_{bE} = 1.2 \times E_{min}' / R_b^2 = \mathbf{122647 \text{ lb/in}^2}$$

Beam stability factor - eq.3.3-6

$$C_L = [1 + (F_{bE} / F_b^*)] / 1.9 - \sqrt{[(1 + (F_{bE} / F_b^*)) / 1.9]^2 - (F_{bE} / F_b^*) / 0.95} = \mathbf{1.00}$$

### Bearing perpendicular to grain - cl.3.10.2

Design compression perpendicular to grain

$$F_{c\_perp}' = F_{c\_perp} \times K_{Fc\_perp} \times \phi_c \times C_t \times C_b = \mathbf{1127 \text{ lb/in}^2}$$

Applied compression stress perpendicular to grain

$$f_{c\_perp} = R_{A\_max} / (N \times b \times L_b) = \mathbf{439 \text{ lb/in}^2}$$

$$f_{c\_perp} / F_{c\_perp}' = \mathbf{0.389}$$

|                                                                                                                                                                   |                                         |           |          |      |                |      |
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**PASS - Design compressive stress exceeds applied compressive stress at bearing**

**Strength in bending - cl.3.3.1**

Design bending stress

$$F_b' = F_b \times K_{Fb} \times \phi_b \times \lambda \times C_t \times C_L \times C_V \times C_r = 5349 \text{ lb/in}^2$$

Actual bending stress

$$f_b = M / S_x = 3023 \text{ lb/in}^2$$

$$f_b / F_b' = 0.565$$

**PASS - Design bending stress exceeds actual bending stress**

**Strength in shear parallel to grain - cl.3.4.1**

Design shear stress

$$F_v' = F_v \times K_{Fv} \times \phi_v \times \lambda \times C_t = 501 \text{ lb/in}^2$$

Actual shear stress - eq.3.4-2

$$f_v = 3 \times F / (2 \times A) = 166 \text{ lb/in}^2$$

$$f_v / F_v' = 0.332$$

**PASS - Design shear stress exceeds actual shear stress**

**Deflection - cl.3.5.1**

Modulus of elasticity for deflection

$$E' = E \times C_M \times C_t = 2000000 \text{ lb/in}^2$$

Design deflection

$$\delta_{adm} = 0.0042 \times L_{s1} = 0.907 \text{ in}$$

Total deflection

$$\delta_{b_{s1}} = 0.838 \text{ in}$$

$$\delta_{b_{s1}} / \delta_{adm} = 0.923$$

**PASS - Total deflection is less than design deflection**

## **NEW POSTS SUPPORTING PATIO ROOF EAST HEADER**

### **WOOD MEMBER DESIGN (NDS 2018)**

In accordance with the ANSI/AF&PA NDS 2018 using the LRFD method

Tedds calculation version 2.2.13

#### **Design section 1**

##### **Member details**

Service condition

Wet

##### **Sawn lumber section details**

Number of sections in member

N = 1

Nominal breadth of sections

b<sub>nom</sub> = 4 in

Breadth of sections

b = 3.5 in

Nominal depth of sections

d<sub>nom</sub> = 4 in

Depth of sections

d = 3.5 in

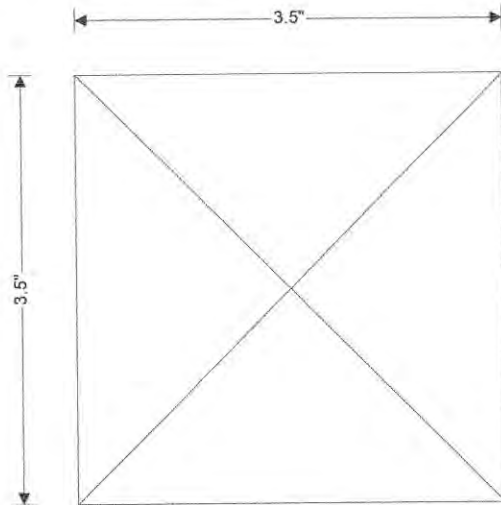
Material

Spruce-Pine-Fir, 2" && wider, No.2 grade



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|                                                           |                             |          |      |                             |      |
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**4"x4" sawn lumber section**

Cross-sectional area,  $A$ , 12.25 in<sup>2</sup>  
 Section modulus,  $S_x$ , 7.1 in<sup>3</sup>  
 Section modulus,  $S_y$ , 7.1 in<sup>3</sup>  
 Second moment of area,  $I_x$ , 12.5 in<sup>4</sup>  
 Second moment of area,  $I_y$ , 12.5 in<sup>4</sup>  
 Radius of gyration,  $r_x$ , 1.01 in  
 Radius of gyration,  $r_y$ , 1.01 in  
**Spruce-Pine-Fir, 2" & wider, No.2 grade**  
 Bending,  $F_b$ , 875 psi  
 Shear parallel to grain,  $F_v$ , 135 psi  
 Compression parallel to grain,  $F_c$ , 1150 psi  
 Compression perpendicular to grain,  $F_{c\_perp}$ , 425 psi  
 Tension parallel to grain,  $F_t$ , 450 psi  
 Modulus of elasticity,  $E$ , 1400000 psi  
 Minimum modulus of elasticity,  $E_{min}$ , 510000 psi  
 Density,  $\rho$ , 30.6 lbm/ft<sup>3</sup>  
 Specific gravity,  $G$ , 0.42

**Span details**

Unbraced length - Major axis

$$L_x = 8 \text{ ft}$$

Effective bending length - Major axis

$$L_{e,x} = 1.37 \times L_x + 3 \times b = 11.835 \text{ ft}$$

Column buckling length - Major axis

$$L_{b,x} = L_x = 8 \text{ ft}$$

Unbraced length - Minor axis

$$L_y = 0 \text{ ft}$$

**Analysis results**

Design axial compression force

$$P = 5746 \text{ lb}$$

| Section s1 results summary | Unit               | Capacity | Maximum | Utilization | Result |
|----------------------------|--------------------|----------|---------|-------------|--------|
| Compressive stress         | lb/in <sup>2</sup> | 672      | 469     | 0.698       | PASS   |

**Adjustment factors - Table 4.3.1**

Wet service factor for compression - Table 4A

$$C_{Mc} = 0.8$$

Wet service factor for mod.of elasticity - Table 4A

$$C_{ME} = 0.9$$

Size factor for compression - Table 4A

$$C_{Fc} = 1.15$$

Reference compression design value

$$F_c^* = F_c \times C_{Mc} \times C_{Fc} \times K_{Fc} \times \phi_c \times \lambda = 1828 \text{ lb/in}^2$$

Adjusted modulus of elasticity

$$E_{min}' = E_{min} \times C_{ME} \times K_{FE} \times \phi_s = 686664 \text{ lb/in}^2$$

Critical buckling design value

$$F_{cE} = 0.822 \times E_{min}' / (L_{b,x} / d)^2 = 750 \text{ lb/in}^2$$

Column stability factor - eq.3.7-1

$$C_P = (1 + (F_{cE} / F_c^*)) / 1.6 - \sqrt{((1 + (F_{cE} / F_c^*)) / 1.6)^2 - (F_{cE} / F_c^*) / 0.8} = 0.368$$

Format conversion factor for comp. - Table 2.3.5

$$K_{Fc} = 2.4$$

Form.conv.factor for mod.of elasticity - Table 2.3.5

$$K_{FE} = 1.76$$

Resistance factor for compression - Table 2.3.6

$$\phi_c = 0.9$$

Resistance factor for mod.of elasticity - Table 2.3.6

$$\phi_s = 0.85$$

Time effect factor - Table N.3

$$\lambda = 0.8$$

|                                                                                                                                                                  |                                         |           |          |      |                |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------|----------|------|----------------|------|
| <br><b>ELLIS ENGINEERING &amp;<br/>CONSTRUCTION MANAGEMENT<br/>SERVICES, LLC</b> | Project                                 |           |          |      | Job Ref.       |      |
|                                                                                                                                                                  | BUILDING ALTERATION – 7014 N BARNETT LN |           |          |      | SD111-22       |      |
|                                                                                                                                                                  | Section                                 |           |          |      | Sheet no./rev. |      |
|                                                                                                                                                                  | ROOF FRAMING AND SUPPORTS AT PATIO      |           |          |      | 15             |      |
|                                                                                                                                                                  | Calc. by                                | Date      | Chk'd by | Date | App'd by       | Date |
|                                                                                                                                                                  | DSE                                     | 4/27/2022 |          |      |                |      |

**Compression members - General - cl.3.6**

Design axial compression force

$$P = 5746 \text{ lb}$$

Design compression parallel to grain - Table 4.3.1  $F_c' = F_c \times C_{Mc} \times C_{Fc} \times C_P \times K_{Fc} \times \phi_c \times \lambda = 672 \text{ lb/in}^2$

Actual compression parallel to grain

$$f_c = P / (b \times d) = 469 \text{ lb/in}^2$$

$$f_c / F_c' = 0.698$$

**PASS - Design compression stress exceeds actual compression stress**

PREPARED FOR: JOHN & CATHERINE CRICHTON / MASTER BUILDERS, INC.

LOCATION: 7014 NORTH BARNETT LANE (VILLAGE OF FOX POINT)

### DESCRIPTION OF PROPERTY

**PARCEL 1:** THAT PART OF GOVERNMENT LOT 1, BEING A PART OF THE NORTHEAST 1/4 AND THE NORTHWEST 1/4 OF SECTION 21, TOWN 8 NORTH, RANGE 22 EAST, IN THE VILLAGE OF FOX POINT, MILWAUKEE COUNTY, WISCONSIN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT A POINT IN THE EASTERLY LINE OF NORTH BARNETT LANE, 224.75 FEET NORTH OF THE SOUTH LINE OF GOVERNMENT LOT 1, OR THE CENTER LINE OF GREEN TREE ROAD; THENCE EAST ON A LINE PARALLEL TO THE CENTER LINE OF GREEN TREE ROAD 376 FEET, MORE OR LESS TO THE CENTER LINE OF A PUBLIC HIGHWAY; THENCE IN A NORTHEASTERLY DIRECTION ON AND ALONG THE CENTER LINE OF SAID PUBLIC HIGHWAY TO A POINT WHICH IS 324.75 FEET NORTH OF THE CENTER LINE OF GREEN TREE ROAD AND ABOUT 406.70 FEET EAST OF THE EASTERLY LINE OF NORTH BARNETT LANE; THENCE WEST ON A LINE PARALLEL TO THE GREEN TREE ROAD 406.70 FEET, MORE OR LESS TO THE EASTERLY LINE OF NORTH BARNETT LANE; THENCE SOUTH 14°08' WEST ON AND ALONG THE EASTERLY LINE OF NORTH BARNETT LANE 103.21 FEET TO THE PLACE OF BEGINNING. EXCEPTING THEREFROM THAT PART OF THE WITHIN DESCRIBED PREMISES LYING WITHIN THE STATUTORY LIMITS OF NORTH BEACH DRIVE.

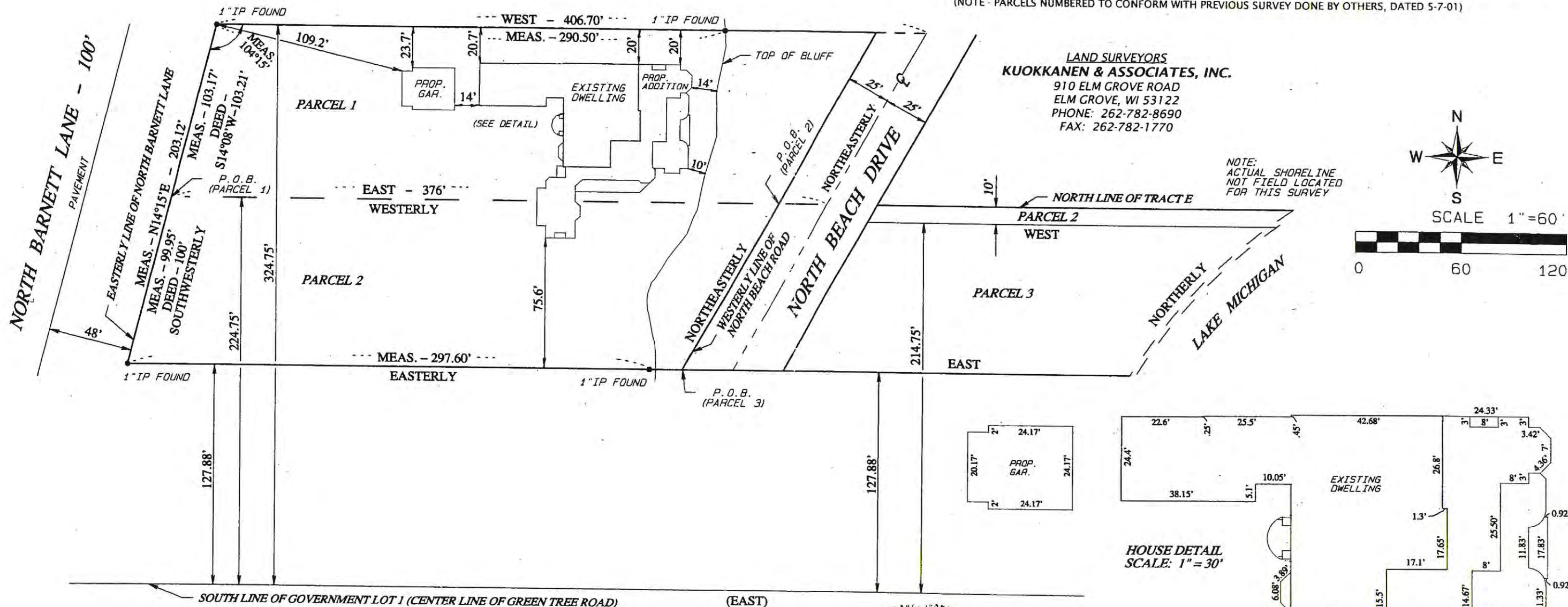
### PARCEL 2:

THAT PART OF SECTION 21, TOWN 8 NORTH, RANGE 22 EAST, IN THE VILLAGE OF FOX POINT, MILWAUKEE COUNTY, WISCONSIN, BOUNDED AND DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE WEST LINE OF THE SOUTH BEACH ROAD 224.75 FEET NORTH OF THE SOUTH LINE OF GOVERNMENT LOT 1; THENCE WESTERLY ALONG SAID LINE AND PARALLEL TO THE SOUTH LINE OF GOVERNMENT LOT 1 TO A POINT IN THE EASTERLY LINE OF BARNETT LANE; THENCE SOUTHWESTERLY ALONG THE EASTERLY LINE OF SAID BARNETT LANE 100 FEET TO A POINT; THENCE EASTERLY AND PARALLEL TO THE SOUTH LINE OF GOVERNMENT LOT 1 TO A POINT IN THE WESTERLY LINE OF THE BEACH ROAD; THENCE NORTHEASTERLY ALONG THE WESTERLY LINE OF BEACH ROAD TO THE PLACE OF BEGINNING (SOMETIMES TERMED PARCEL A OF TRACT E; SAID TRACT E BEING THE REAL ESTATE DESCRIBED IN DEED DATED OCTOBER 19, 1926, RECORDED IN THE OFFICE OF REGISTER OF DEEDS FOR MILWAUKEE COUNTY, WISCONSIN, ON OCTOBER 22, 1926; IN VOLUME 1146 OF DEEDS ON PAGE 34, AS DOCUMENT NO. 1472651) ALSO THAT PART OF SAID TRACT E DESCRIBED AS FOLLOWS: THE NORTH 10 FEET OF ALL OF SAID TRACT OWNERSHIP OF LAKE MICHIGAN) AND ON THE SOUTH BY A LINE 10 FEET SOUTH OF AND MEASURED AT RIGHT ANGLES TO THE NORTH LINE OF SAID TRACT E.

### PARCEL 3:

THAT PART OF GOVERNMENT LOT 1 IN THE NORTHEAST FRACTIONAL 1/4 OF SECTION 21, TOWN 8 NORTH, RANGE 22 EAST, IN THE VILLAGE OF FOX POINT, MILWAUKEE COUNTY, WISCONSIN, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT A POINT IN THE WESTERLY LINE OF NORTH BEACH DRIVE (AS LAID OUT) SAID POINT BEING 127.88 FEET NORTH OF THE SOUTH LINE OF SAID GOVERNMENT LOT 1; RUNNING THENCE EAST AND PARALLEL TO THE SOUTH LINE OF SAID GOVERNMENT LOT 1 TO THE SHORE OF LAKE MICHIGAN; THENCE NORTHERLY ALONG THE SHORE OF LAKE MICHIGAN TO A POINT WHICH IS 214.75 FEET NORTH OF THE SOUTH LINE OF SAID GOVERNMENT LOT 1; THENCE WEST ALONG A LINE 214.75 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF SAID GOVERNMENT LOT 1, TO A POINT IN THE WESTERLY LINE OF NORTH BEACH DRIVE; THENCE SOUTHWESTERLY ALONG THE WESTERLY LINE OF SAID NORTH BEACH DRIVE TO THE PLACE OF COMMENCEMENT. EXCEPT THAT PART TAKEN FOR NORTH BEACH DRIVE.

(NOTE - PARCELS NUMBERED TO CONFORM WITH PREVIOUS SURVEY DONE BY OTHERS, DATED 5-7-01)



### SURVEY CERTIFICATE

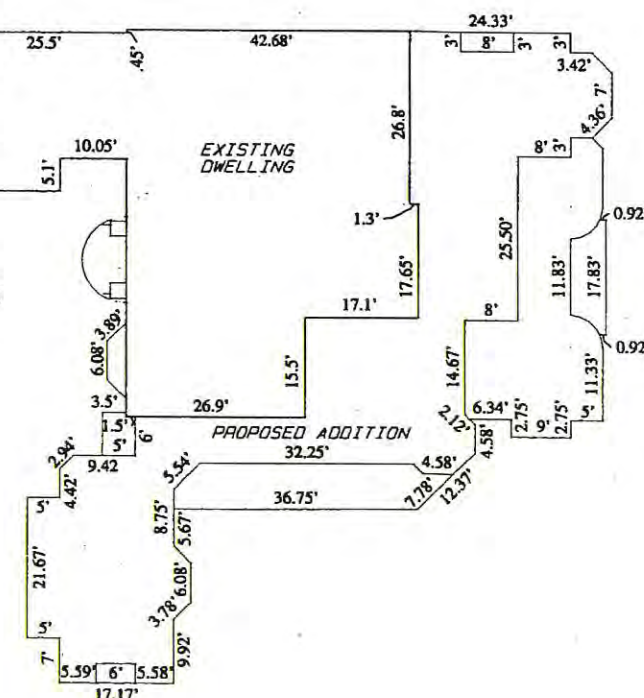
I HAVE SURVEYED THE ABOVE-DESCRIBED PROPERTY AND THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION AND DIMENSIONS OF ALL VISIBLE STRUCTURES THEREON, FENCES, APPARENT EASEMENTS AND ROADWAYS AND VISIBLE ENCROACHMENTS, IF ANY.

THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE PRESENT OWNERS OF THE PROPERTY, AND ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THERETO WITHIN ONE YEAR FROM DATE HEREOF.

KIT KUOKKANEN  
REGISTERED LAND SURVEYOR  
S-1177

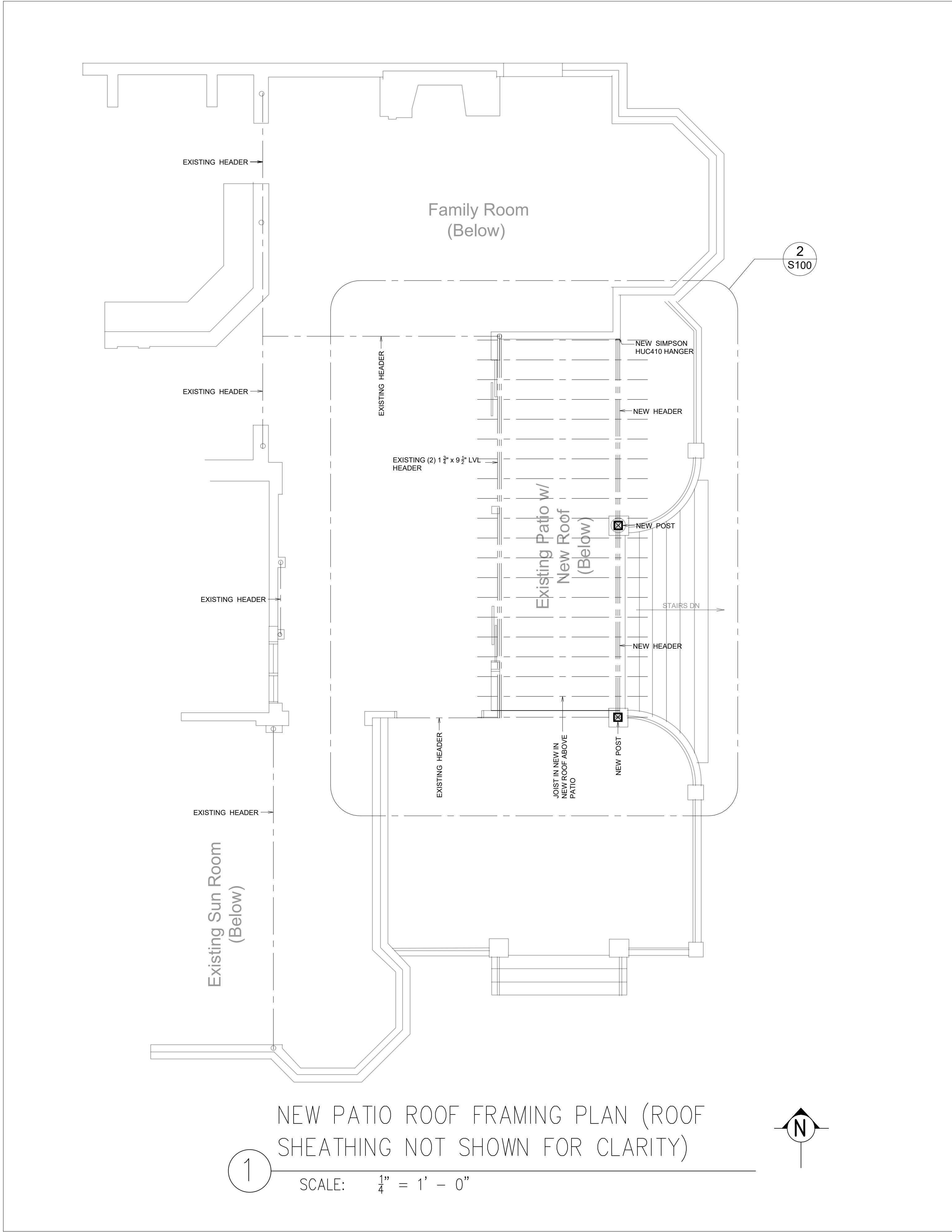


HOUSE DETAIL  
SCALE: 1"=30'



DATE

JULY 27, 2001



BUILDING CODE INFORMATION AND CONSTRUCTION NOTES:

1. ALL WORK SHALL BE PERFORMED BY COMPETENT PERSONS IN CONFORMANCE WITH STATE OF WISCONSIN UNIFORM DWELLING CODE, CURRENT EDITION AND VILLAGE OF FOX POINT ZONING ORDINANCES.
2. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH ALL APPLICABLE SAFETY REQUIREMENTS AND REGULATIONS INCLUDING, FEDERAL (OSHA), STATE AND LOCAL REGULATIONS. THE BUILDING SHALL BE ADEQUATELY SHORED AND ALL SAFETY PRECAUTIONS IMPLEMENTED BEFORE REMOVING ANY FASTENER OR CUTTING OR REMOVING ANY STRUCTURAL MEMBER.
3. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND EXISTING SITE CONDITIONS TO ENSURE THAT THE WORK CAN BE IMPLEMENTED AS INDICATED ON THE DRAWINGS. CONTACT ENGINEER BEFORE PROCEEDING WITH THE WORK IF DISCREPANCIES ARE IDENTIFIED IN THE FIELD.
4. DRAWINGS SHOW DETAILS FOR STRUCTURAL WORK ONLY. CONTRACTOR SHALL PROVIDE CLADDING AND ARCHITECTURAL FINISHES AND DETAILS CONFORMING TO STANDARD INDUSTRY PRACTICE AND MATCHING EXISTING BUILDING ARCHITECTURE.
5. CONTRACTOR SHALL PROVIDE FLASHING, SEALS AND SEALANTS IN CONFORMANCE WITH STANDARD INDUSTRY PRACTICE AT JOINTS BETWEEN NEW AND EXISTING ROOFING AND OTHER CLADDING AND AS REQUIRED TO ENSURE A WATER-TIGHT BUILDING ENVELOPE AT THE LOCATION OF THE MODIFICATION WORK.
6. SAWN LUMBER SHALL BE SPF NO. 2 GRADE OR BETTER. LUMBER
7. LVL SHALL BE 2.0E, 3100 Fb GRADE OR BETTER.
8. WOOD USED IN NEW POSTS SHALL BE PRESERVATIVE PRESSURE TREATED.
9. CONNECTORS SHALL BE INSTALLED USING FASTENERS IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
10. WHEN CONNECTORS ARE NOT IDENTIFIED IN THE DRAWINGS, MEMBERS SHALL BE ATTACHED IN ACCORDANCE WITH THE UDC, AND INDUSTRY STANDARDS.
11. NEW MEMBERS OR CONNECTORS SHALL BE ATTACHED DIRECTLY TO EXISTING BUILDING FRAMING. REMOVE CLADDING, AT LOCATION OF CONNECTION, DOWN TO WALL SHEATHING OR OTHER FRAMING MEMBER BEFORE ATTACHING CONNECTOR OR NEW MEMBER.
12. CONTRACTOR SHALL CAREFULLY REMOVE, WITHOUT DAMAGING THE RAFTERS, THE EXISTING EAVE ABOVE THE BACK PORCH EAST WALL. THE EAVE AT THIS LOCATION IS TO BE COMPLETELY REMOVED DOWN TO THE EXISTING RIM BOARD.

DRAWING SCHEDULE

| <u>SHEET NO.</u> | <u>TITLE</u>                |
|------------------|-----------------------------|
| S100             | ROOF FRAMING PLAN AND NOTES |
| S200             | FRAMING PLAN AND SECTION    |
| S300             | SECTIONS                    |



**ELLIS ENGINEERING &  
CONSTRUCTION MANAGEMENT  
SERVICES, LLC**

4458 NORTH 71ST STREET  
MILWAUKEE, WI 53218  
PHONE: (414) 469-0101 | WEB: WWW.ELLIS-ENGINEERING.COM

PROJECT INFORMATION

PROJECT NO.: SD111-22

REAR PATIO MODIFICATION  
7014 N. BARNETT LN •  
FOX POINT, WI

PROFESSIONAL SEAL:

DISTRIBUTION DATES

APRIL 27, 2022

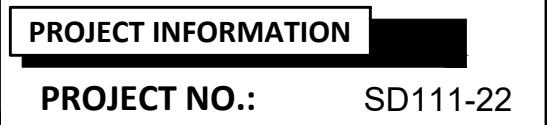
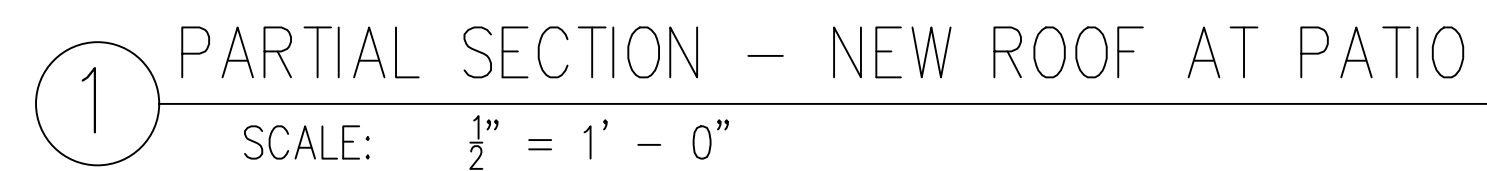
CONSTRUCTION SET

SHEET INFORMATION

PATIO ROOF FRAMING PLAN  
AND NOTES

SHEET NUMBER

**S100**



**PROFESSIONAL SEAL:**

CONSTRUCTION SET

**SHEET INFORMATION**

**PATIO ROOF FRAMING PLAN  
AND SECTION**

SHEET NUMBER

**S200**

**REAR PATIO MODIFICATION**

**7014 N. BARNETT LN •  
FOX POINT, WI**

PROFESSIONAL SEAL:

**DISTRIBUTION DATES**

APRIL 27, 2022

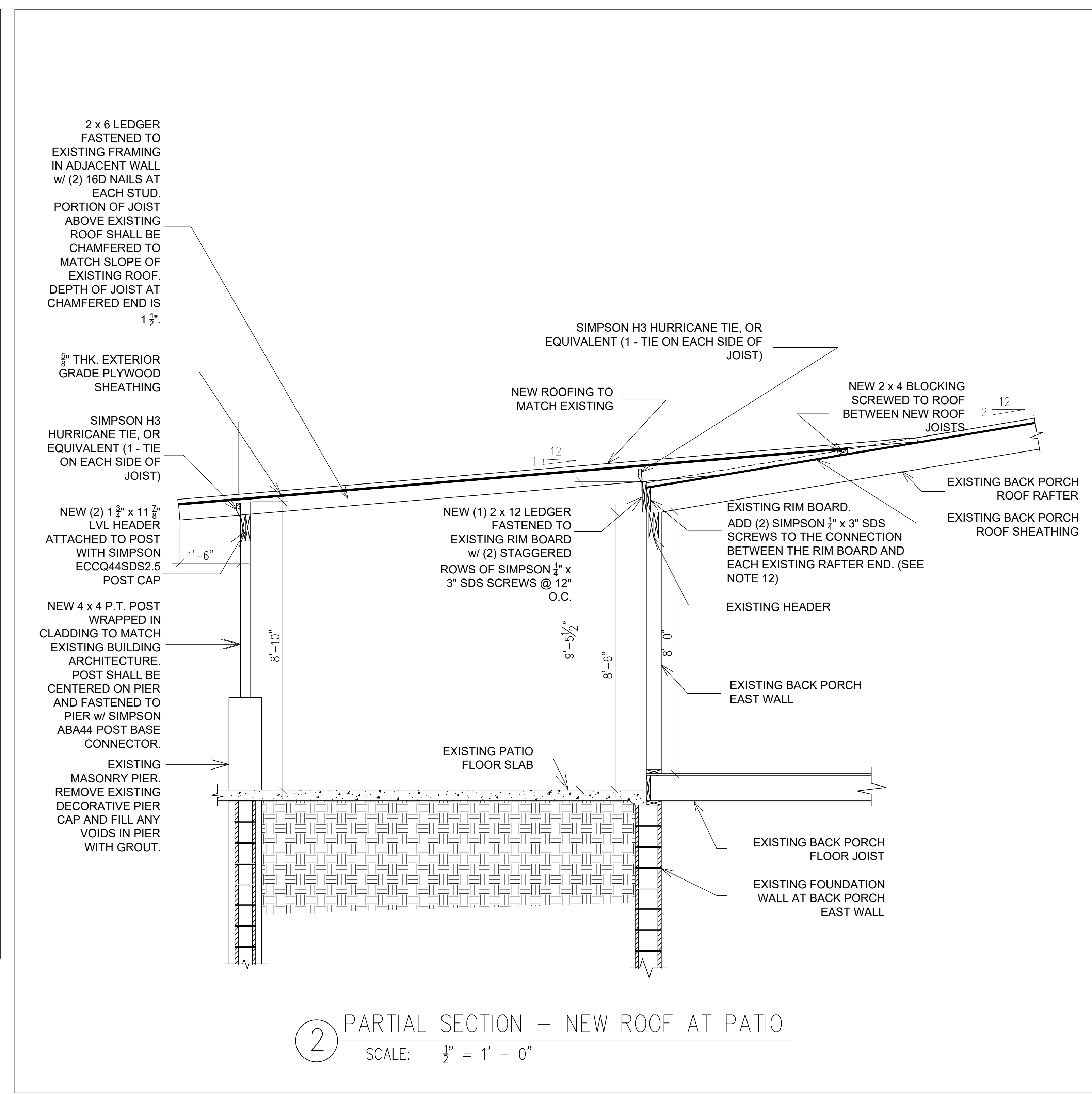
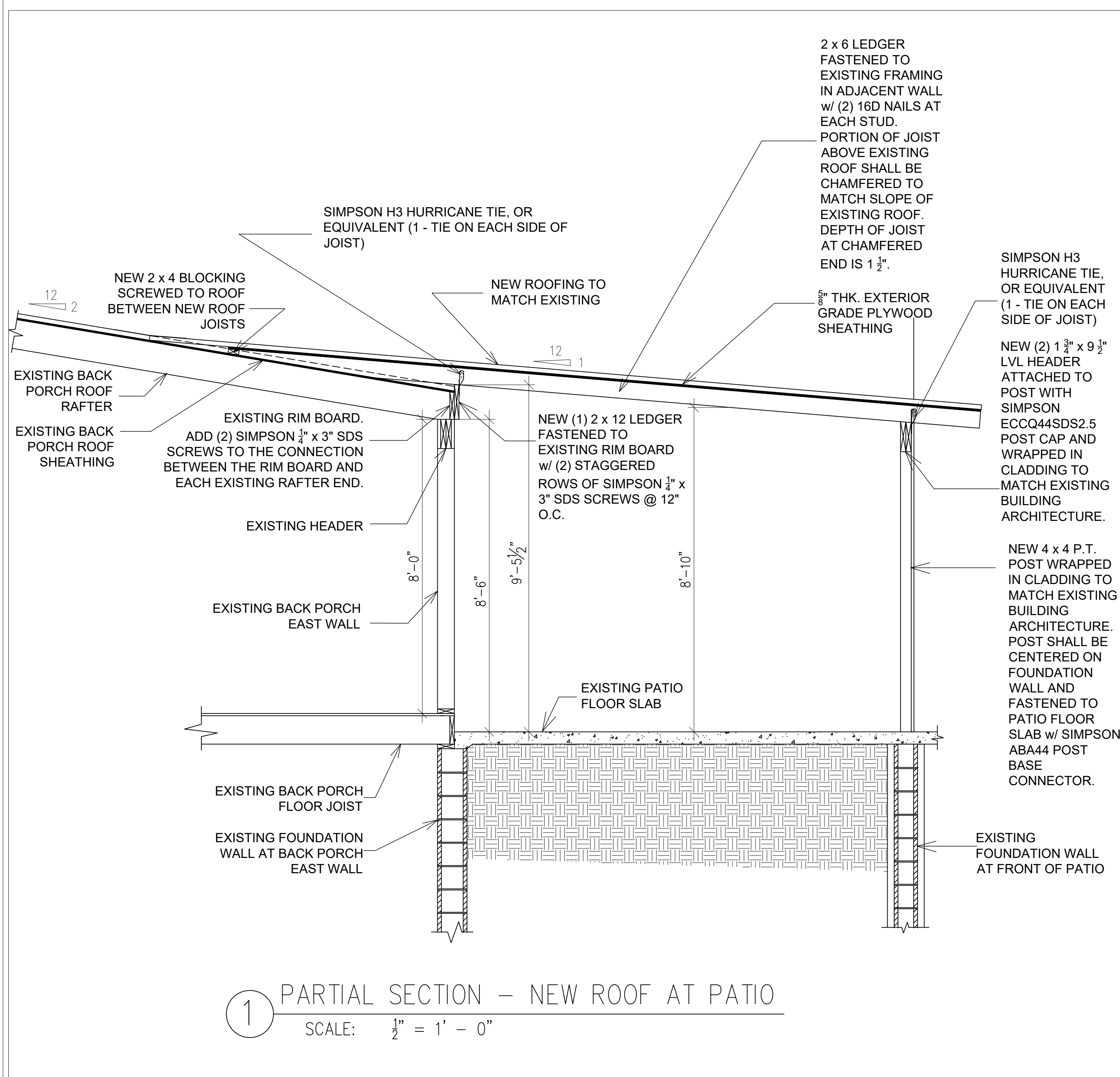
CONSTRUCTION SET

**SHEET INFORMATION**

SECTIONS

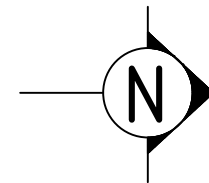
SHEET NUMBER

**S300**





1 EAST (REAR) ELEVATION  
SCALE:  $\frac{1}{4}'' = 1' - 0''$



ELLIS ENGINEERING &  
CONSTRUCTION MANAGEMENT  
SERVICES, LLC

4458 NORTH 71ST STREET  
MILWAUKEE, WI 53218  
PHONE: (414) 469-0104 WEB: WWW.ELLIS-ENGINEERING.COM

PROJECT INFORMATION

PROJECT NO.: SD111-22

REAR PATIO MODIFICATION  
7014 N. BARNETT LN •  
FOX POINT, WI

PROFESSIONAL SEAL:

DISTRIBUTION DATES

AUG. 20, 2022

\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
CONSTRUCTION SET

SHEET INFORMATION

EAST (REAR) ELEVATION

SHEET NUMBER

**S400**

7014 North Barnett Ln Photos.



Existing Uncovered Rear Porch (Proposed location of new roof) – View Looking West



West Half of Rear Elevation

7014 North Barnett Ln Photos.



Rear Elevation – Looking Northeast



Front Elevation



VILLAGE OF FOX POINT  
7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

Permit Number:

B-\_\_\_\_\_

| OFFICE USE ONLY |
|-----------------|
| Issued Date     |
| Zoning          |

## BUILDING PERMIT

|                                                     |                                                                                                    |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Job Address <u>221 W. Suburban Dr.</u>              | Building Type: Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> |
| Description of Work <u>Roof mounted solar array</u> |                                                                                                    |
|                                                     |                                                                                                    |
|                                                     |                                                                                                    |
| Estimated Cost of Project \$ <u>12,200</u>          |                                                                                                    |

|                                                       |                                           |
|-------------------------------------------------------|-------------------------------------------|
| Owner/Occupant                                        |                                           |
| Business Name <u>Ben Glicksman &amp; Kelsey Autin</u> | Contact Name <u>Kelsey Autin</u>          |
| Address <u>221 W. Suburban Dr.</u>                    | City/State/Zip <u>Fox Point, WI 53217</u> |
| Phone <u>772-240-9031</u>                             | Email <u>Kautin2@gmail.com</u>            |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                                           |                                                      |
|-------------------------------------------|------------------------------------------------------|
| Contractor                                |                                                      |
| Company Name <u>Current Electric Co.</u>  | Contact Name <u>James Knowles</u>                    |
| Address <u>2942 N. 117th St.</u>          | City/State/Zip <u>Wauwatosa WI 53222</u>             |
| Phone <u>262-599-1596</u>                 | Email <u>james@callcurrent.com</u>                   |
| Dwelling Contractor # <u>DC-021400080</u> | Dwelling Contractor Qualifier # <u>DCQ-061700071</u> |

| Square Footage Under Construction |                       |          |          |        |
|-----------------------------------|-----------------------|----------|----------|--------|
| 1 <sup>st</sup> Floor             | 2 <sup>nd</sup> Floor | Basement | Addition | Garage |

| Description                                                                                                        | Rate                 | Amount                            |
|--------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------|
| Project - Per \$1,000 of estimated cost                                                                            | \$10.00              | <u>120</u>                        |
| Building Board                                                                                                     | \$75.00              | <u>75</u>                         |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                             |                      |                                   |
| Plan Review - \$275.00 one and two family; New Single Family Construction<br>\$330.00 plus \$30.00/unit commercial |                      |                                   |
| State Seal                                                                                                         | \$75.00              |                                   |
| Razing, Interior Demolition \$925.00 max/bld                                                                       | \$95.00 minimum plus |                                   |
| Moving buildings                                                                                                   | \$250.00 plus        |                                   |
| Fuel tanks - Per 1,000 gallons                                                                                     | \$25.00              |                                   |
| Re-inspection                                                                                                      | \$100.00             |                                   |
| Work started without permit                                                                                        | Double               |                                   |
| Minimum Fee                                                                                                        |                      | \$70.00                           |
| Payable to: Village of Fox Point                                                                                   |                      | Total Permit Fee \$ <u>195.00</u> |

Applicant Signature

Date August 17, 2022

Rev 01/22

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**

VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.058003

Aug 23, 2022

221 W Suburban Dr

|                                                  |        |
|--------------------------------------------------|--------|
| Previous Balance:                                | .00    |
| LICENSES & PERMITS - BUILDING PERMIT             | 120.00 |
| 24-44460 BUILDING PERMIT                         |        |
| LICENSES & PERMITS - BUILDING PLANS - FILING FEE | 75.00  |
| 24-44440 BUILDING PLANS-FILING FEE               |        |
| LICENSES & PERMITS - ELECTRICAL PERMIT           | 65.00  |
| 24-44430 ELECTRICAL PERMIT                       |        |
| <hr/>                                            |        |
| Total:                                           | 260.00 |
| <hr/>                                            |        |
| CHECK                                            | 260.00 |
| Check No: 63251                                  |        |
| Payor: Current Electric                          |        |
| Total Applied:                                   | 260.00 |
| <hr/>                                            |        |
| Change Tendered:                                 | .00    |
| <hr/>                                            |        |

08/23/2022 8:13 AM



## VILLAGE OF FOX POINT

7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

### CAUTIONARY STATEMENT TO OWNERS OBTAINING BUILDING PERMITS

101.65(1r) of the Wisconsin Statutes requires municipalities that enforce the Uniform Dwelling Code to provide an owner who applies for a building permit with a statement advising the owner that:

If the owner hires a contractor to perform work under the building permit and the contractor is not bonded or insured as required under s. 101.654(2)(a), the following consequences might occur:

- (a) The owner may be held liable for any bodily injury to or death of others or for any damage to the property of others that arises out of the work performed under the building permit or that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.
- (b) The owner may not be able to collect from the contractor damages for any loss sustained by the owner because of a violation by the contractor of the one- and two- family dwelling code or an ordinance enacted under sub. (1)(a), because of any bodily injury to or death of others or damage to the property of others that arises out of the work performed under the building permit or because of any bodily injury to or death of others or damage to the property of others that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.

#### Wetlands Notice to Permit Applicants

You are responsible for complying with state and federal laws concerning the construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the Department of Natural Resources wetlands identification web page or contact a Department of Natural Resources service

#### Additional Responsibilities for Owners of Projects Disturbing One or More Acre of Soil

I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and will comply with those standards.

Benjamin Glicksman

Homeowner's Name – PRINTED

Benjamin Glicksman  
Benjamin Glicksman (Aug 13, 2022 12:04 CDT)

Homeowner's Signature

221 W Suburban Drive, Fox Point, WI 53217

Property Address

Aug 13, 2022

Date

NAME:

KELSEY AUTIN  
CITY OF FOX POINT  
STATE OF WISCONSIN

SYSTEM SIZE:

21 X 360W = 7.56KW

RACKING

UNIRAC SOLARMOUNT  
FLUSH MOUNT

MODULE SPECS (STC):

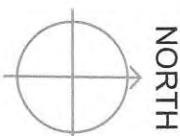
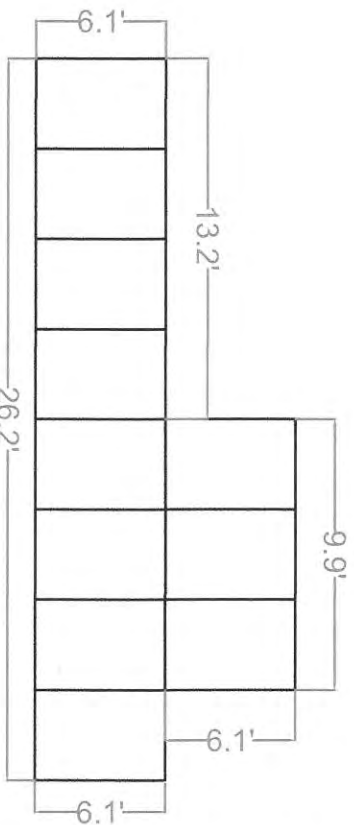
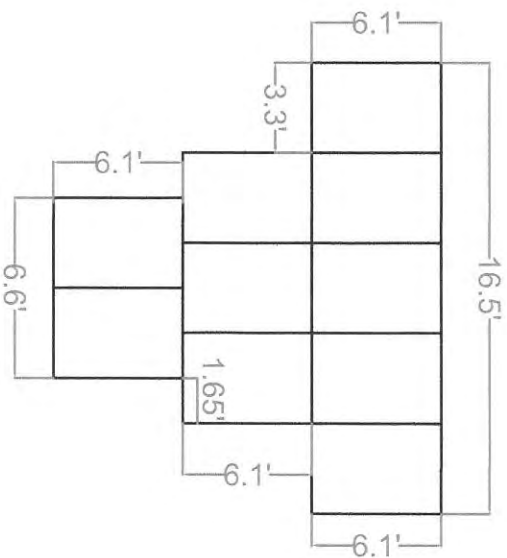
TRINA 360W  
72.91" x 39.21" x 1.38"  
Voc: 47.2V  
Isc: 9.79A  
MAX SERIES FUSE: 20A  
57.3 lbs PER MODULE

INVERTER:

(21) ENPHASE  
MICRO-INVERTERS  
IQ7+

BATTERY:

NONE



General Notes  
SITE PLAN



| No. | Revisions/Issues | Date |
|-----|------------------|------|
|     |                  |      |

Current Electric Company  
2942 North 117th Street  
Wauwatosa, WI 53222  
Phone: (262) 788-5565  
Fax: (262) 788-5566  
www.CurrentElectric.com

AUTIN RESIDENCE  
221 W. SUBURBAN DR.  
FOX POINT, WI 53217

|           |           |
|-----------|-----------|
| Project   | Site      |
| 8/17/2022 | SITE PLAN |
| NO SCALE  |           |

NAME:  
KELSEY AUTIN  
CITY OF FOX POINT  
STATE OF WISCONSIN

SYSTEM SIZE:  
21 X 360W = 7.56KW

RACKING  
UNIRAC SOLARMOUNT  
FLUSH MOUNT

MODULE SPECS (STC):  
TRINA 360W  
72.91" x 39.21" x 1.38"  
Voc: 47.2V  
Isc: 9.79A  
MAX SERIES FUSE: 20A  
57.3 lbs PER MODULE

INVERTER:  
(21) ENPHASE  
MICRO-INVERTERS  
IQ7+  
1 MICRO PER MODULE  
BATTERY:  
NONE

EXTERNAL DISCONNECT  
METER ENCLOSURE  
MAIN PANEL  
ENPHASE COMBINER PANEL  
INVERTERS

General Notes  
SITE PLAN

|     |                |      |
|-----|----------------|------|
| No. | Revision/Issue | Date |
|     |                |      |

Copyright © 2012 Current Electric, Inc.  
 Current Electric Company  
 2402 North 117th Street  
 Wauwatosa, WI 53222  
 Phone: (262) 786-5865  
 Fax: (262) 786-1560  
 www.currentelectric.com

AUTIN RESIDENCE  
 221 W. SUBURBAN DR.  
 FOX POINT, WI 53217

Date: 7/21/2022  
 Title: SITE PLAN  
 Scale: NO SCALE

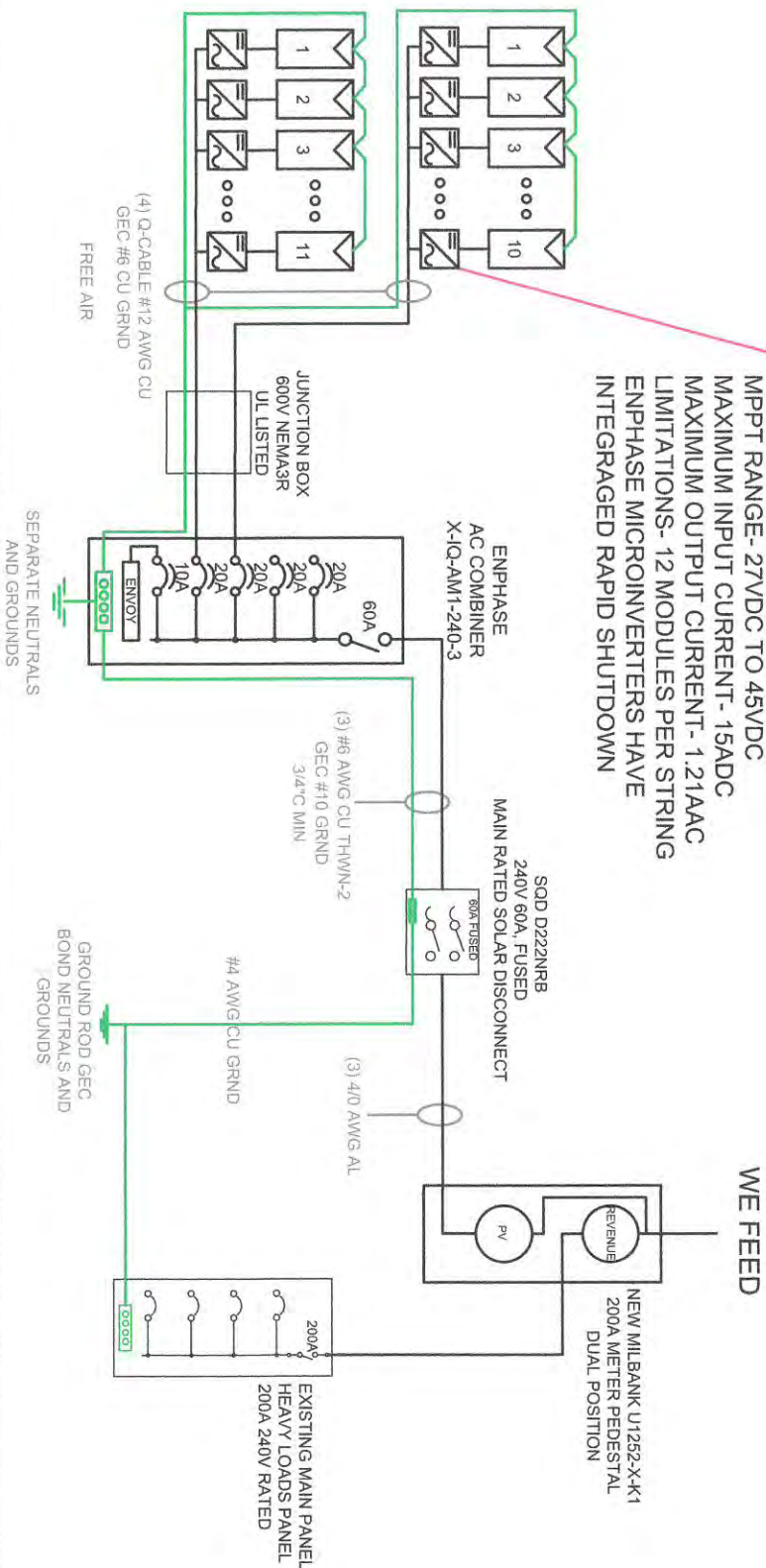
(21) TRINA SOLAR 360W MODULES

(1) STRING OF 10 MODULES  
(1) STRING OF 11 MODULES  
CONNECTED IN SERIES PER STRING

SYSTEM SIZE (DC):

(21) X TRINA 360W = 7.56KW

ENPHASE IQ7+ MICRO INVERTERS  
DC INPUT POWER- 440W  
MAXIMUM INPUT VOLTAGE- 60VDC  
MPPT RANGE- 27VDC TO 45VDC  
MAXIMUM INPUT CURRENT- 15ADC  
MAXIMUM OUTPUT CURRENT- 1.21AAC  
LIMITATIONS- 12 MODULES PER STRING  
ENPHASE MICROINVERTERS HAVE  
INTEGRATED RAPID SHUTDOWN



General Notes  
**ELECTRICAL**  
DESIGN DRAWING



No. Revision/Issue Date

Current Electric Company  
221 W. SUBURBAN DR.  
FOX POINT, WI 53217  
Phone: (262) 785 5855  
Fax: (262) 785 7856  
WWW.CURRENTELECTRIC.COM

AJTN RESIDENCE  
221 W. SUBURBAN DR.  
FOX POINT, WI 53217

7/21/2022  
NO SCALE  
ONELINE



VSE Project Number: U2768.0126.221

July 26, 2022

Current Electric Co  
ATTENTION: Andy Voelker  
2942 N 117th St  
Wauwatosa, WI 53222

**REFERENCE: Autin Residence: 221 West Suburban Drive, Fox Point, WI 53217**  
**Current Electric Co Project: 203934**  
**Solar Array Installation**

To Whom It May Concern:

We have reviewed the existing structure at the above referenced site. The purpose of our review was to determine the adequacy of the existing structure to support the proposed installation of solar panels on the roof as shown on the panel layout plan.

**Based upon our review, we conclude that the existing structure will require a retrofit per the attached detail in order to support the proposed solar panel installation. Rafters with a horizontal span less than 12' will not require a retrofit. Rafters with horizontal spans greater than 12' and less than 18' will require a single 2x8 sister retrofit. Rafters with a horizontal span greater than 18' and less than 22' will require a double 2x8 sister retrofit.**

**Design Parameters**

Code: 2016 Wisconsin Uniform Dwelling Code  
Occupancy Category: II  
Design wind speed,  $V_{asd}$ : 90 mph (3-sec gust)  
Wind exposure category: C  
Snow load: 30 psf

**Connection to Roof**

Mounting connection: (1) 5/16" lag screw w/ min. 2.5" threaded embedment into framing at max. 48" o.c. along rails  
Install (2) rails per row of panels, evenly spaced; panel length perpendicular to the rails shall not exceed 70 in  
Rail cantilever shall not exceed 33% of connection spacing  
Connections shall be staggered so as not to overload any existing structural member

**Conclusions**

Based upon our review, we conclude that the existing structure will require a retrofit per the attached detail in order to support the proposed solar panel installation. See attached calculations.

The solar array will be flush-mounted (no more than 10" above the roof surface) and parallel to the roof surface. Thus, we conclude that any additional wind loading on the structure related to the addition of the proposed solar array is negligible. The attached calculations verify the capacity of the connections of the solar array to the existing roof against wind (uplift), the governing load case. Increases in lateral forces less than 10% are considered acceptable. Thus the existing lateral force resisting system is permitted to remain unaltered.



VSE Project Number: U2768.0126.221

Autin Residence

7/26/2022

### Limitations

Installation of the solar panels must be performed in accordance with manufacturer recommendations. All work performed must be in accordance with accepted industry-wide methods and applicable safety standards. The contractor must notify Vector Structural Engineering, LLC should any damage, deterioration or discrepancies between the as-built condition of the structure and the condition described in this letter be found. The use of solar panel support span tables provided by others is allowed only where the building type, site conditions, site-specific design parameters, and solar panel configuration match the description of the span tables. The design of the solar panels, solar racking (mounts, rails, etc.) and electrical engineering is the responsibility of others. Waterproofing around the roof penetrations is the responsibility of others. Vector Structural Engineering assumes no responsibility for improper installation of the solar array. Vector Structural Engineering shall be notified of any changes from the approved layout prior to installation.

VECTOR STRUCTURAL ENGINEERING, LLC

WI Firm License: 3372-11



07/26/2022

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Trevor Hawkes, P.E.

WI License: 46486-6 - Expires: 07/31/2024

Project Engineer

Enclosures

TPH/rph



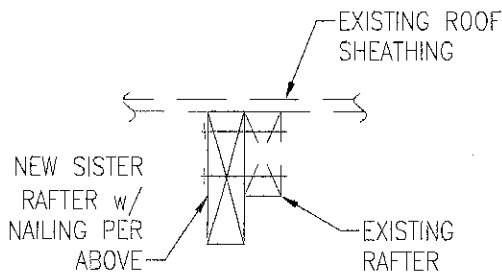
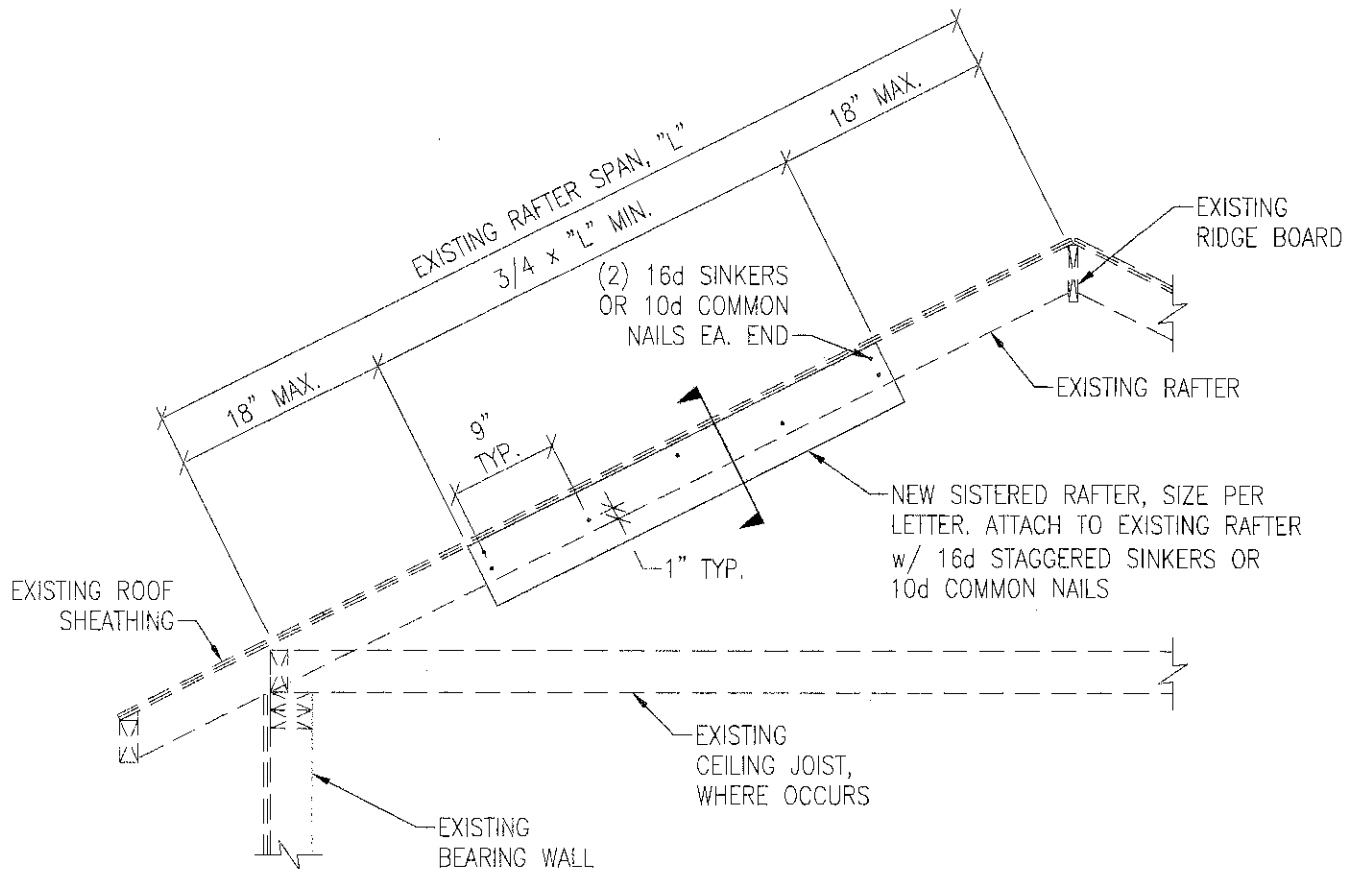
DRAPER, UTAH  
(801) 990-1775  
WWW.VECTORSOLAR.COM

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Vector Structural Engineering, LLC

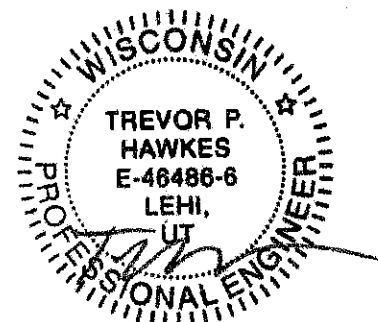
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**SUBJECT** SISTERED RAFTER RETROFIT



**NOTES:**

1. GRADE OF NEW DIMENSIONAL LUMBER SHALL BE SPF #2, DFL #2, OR BETTER. LAMINATED VENEER LUMBER (LVL) SHALL BE  $F_b = 2600$  psi,  $F_v = 285$  psi,  $E = 1.9 \times 10^6$  psi OR BETTER.
2. CONSULT ENGINEER WHERE CONDITIONS DIFFER FROM THAT SHOWN.
3. THE SISTERED RAFTER MAY BE INSTALLED AS TWO SEPARATE LENGTHS WITH ONE LENGTH INSTALLED ON EACH SIDE OF THE EXISTING RAFTER. THE TWO SEPARATE LENGTHS SHALL OVERLAP A MINIMUM DISTANCE OF 3'-0". ALL OTHER REQUIREMENTS OF THE DETAIL ABOVE APPLY.
4. RETROFIT REQUIRED @ ROOF AREAS SUPPORTING SOLAR PANELS ONLY, U.N.O. IN LETTER.



07/26/2022



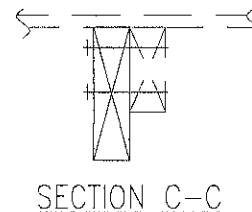
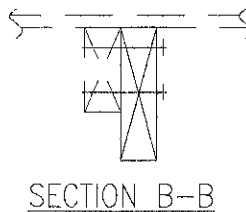
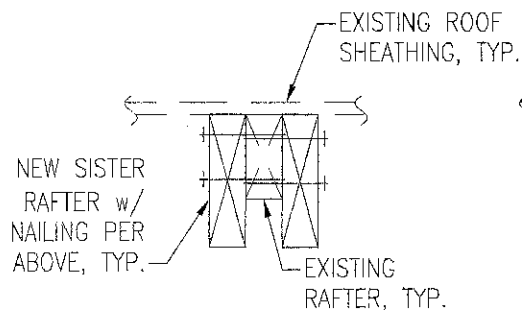
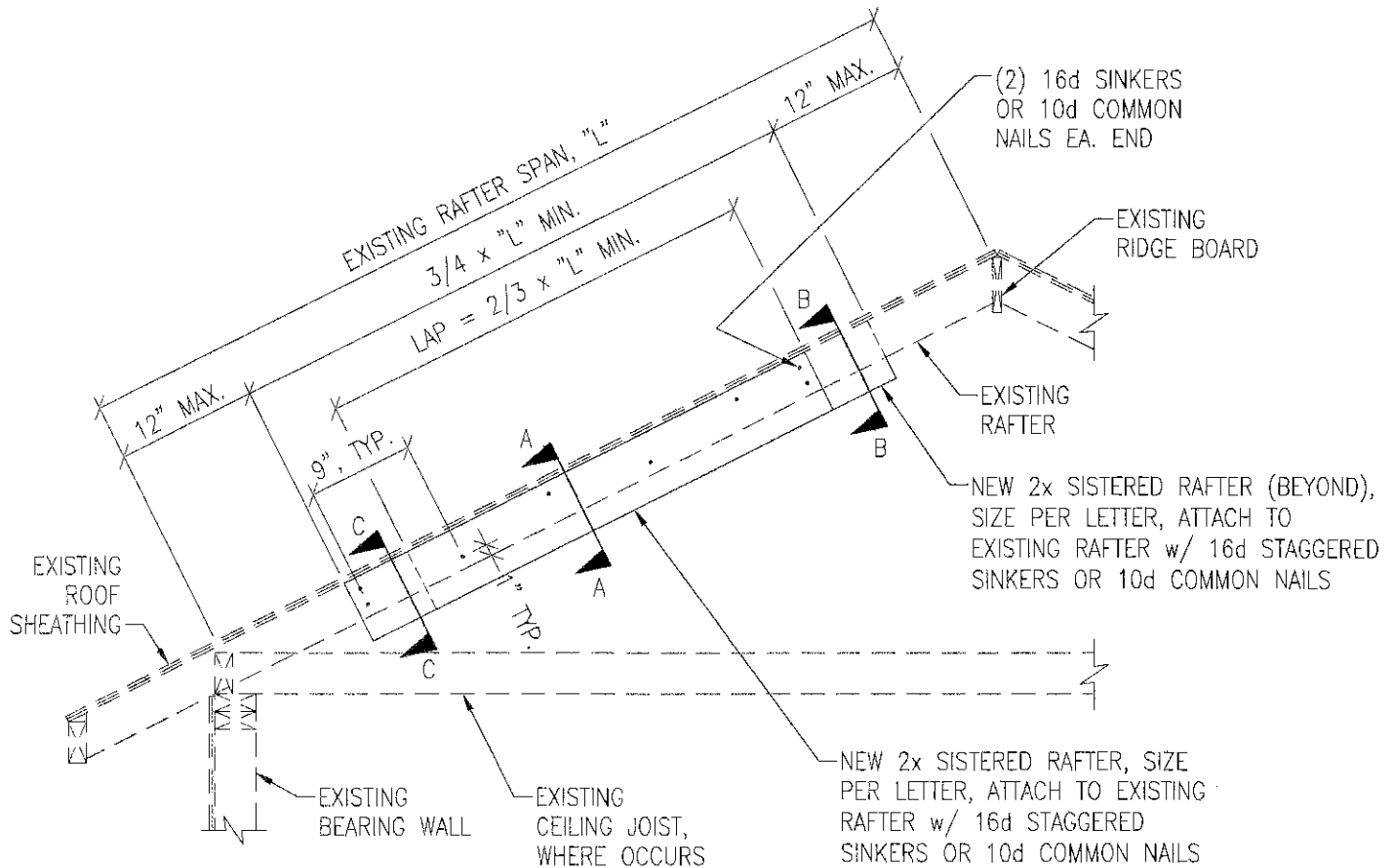
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SUBJECT DOUBLE SISTERED RAFTER RETROFIT



NOTES:

1. GRADE OF NEW MEMBERS TO BE SPF #2, DFL #2, OR BETTER.
2. CONSULT ENGINEER WHERE CONDITIONS DIFFER FROM THAT SHOWN.
3. RETROFIT REQUIRED @ ROOF AREAS SUPPORTING SOLAR PANELS ONLY, U.N.O. IN LETTER.



07/26/2022



JOB NO.: U2768.0126.221  
SUBJECT: WIND PRESSURE

PROJECT: Autin Residence

Components and Cladding Wind Calculations

Label: Solar Panel Array

Note: Calculations per ASCE 7-05

SITE-SPECIFIC WIND PARAMETERS:

Basic Wind Speed [mph]: 90  
Exposure Category: C  
Occupancy Category: II  
Importance Factor, I: 1.0

Notes:

ADDITIONAL INPUT & CALCULATIONS:

Height of Roof, h [ft]: 15 (Approximate) Hip? Yes  
Comp/Cladding Location: Gable/Hip Roofs  $7^\circ < \theta \leq 27^\circ$   
Enclosure Classification: Enclosed Buildings  
Zone 1 GC<sub>p</sub>: 0.9 Figure 6-11C (enter negative pressure coefficients)  
Zone 2 GC<sub>p</sub>: 1.7  
Zone 3 GC<sub>p</sub>: 1.7  
 $\alpha$ : 9.5 Table 6-2  
 $z_g$  [ft]: 900 Table 6-2  
 $K_h$ : 0.85 Table 6-3  
 $K_{zt}$ : 1 Equation 6-3  
 $K_d$ : 0.85 Table 6-4  
Velocity Pressure,  $q_h$  [psf]: 15.0 Equation 6-15  
GC<sub>pi</sub>: 0 Figure 6-5

PRESSURES:

$$p = q_h [(GC_p) - (GC_{pi})] \quad \text{Equation 6-4}$$

Zone 1, p [psf]: 13.4 psf (1.0 W, Interior Zones, beyond 'a' from roof edge)  
Zone 2, p [psf]: 24.9 psf (1.0 W, End Zones, within 'a' from roof edge)  
Zone 3, p [psf]: 24.9 psf (1.0 W, Corner Zones, within 'a' from roof corner)  
(a = 3 ft)



**JOB NO.:** U2768.0126.221  
**SUBJECT:** CONNECTION

**PROJECT:** Autin Residence

**Calculate Uplift Forces on Connection**

|        | Pressure<br>(0.6 Dead -1.0 Wind)<br>(psf) | Max Trib. Width <sup>1</sup><br>(ft) | Max Trib.<br>Area <sup>2</sup><br>(ft <sup>2</sup> ) | Max Uplift<br>Force<br>(lbs) |
|--------|-------------------------------------------|--------------------------------------|------------------------------------------------------|------------------------------|
| Zone 1 | 11.8                                      | 4.0                                  | 11.7                                                 | 137                          |
| Zone 2 | 23.3                                      | 4.0                                  | 11.7                                                 | 272                          |
| Zone 3 | 23.3                                      | 4.0                                  | 11.7                                                 | 272                          |

**Calculate Connection Capacity**

|                              |                |                 |
|------------------------------|----------------|-----------------|
| Lag Screw Size [in]:         | 5/16           | NDS Table 2.3.2 |
| C <sub>d</sub> :             | 1.6            |                 |
| Embedment <sup>3</sup> [in]: | 2.5            | NDS Table 12.2A |
| Grade:                       | SPF (G = 0.42) |                 |
| Nominal Capacity [lbs/in]:   | 205            |                 |
| Number of Screws:            | 1              |                 |
| Prying Coefficient:          | 1.4            |                 |
| Total Capacity [lbs]:        | 586            |                 |

**Determine Result**

|                           |     |
|---------------------------|-----|
| Maximum Demand [lbs]:     | 272 |
| Lag Screw Capacity [lbs]: | 586 |

Result: **Capacity > Demand, Connection is adequate.**

**Notes**

1. 'Max Trib. Width' is the width along the rails tributary to the connection.
2. 'Max Trib Area' is the product of the 'Max. Trib Width' and 1/2 the panel width/height perpendicular to the rails. (2) rails per row of panels. Length of panels perpendicular to the rails shall not exceed 70".
3. Embedment is measured from the top of the framing member to the beginning of the tapered tip of the lag screw. Embedment in sheathing or other material is not effective. The length of the tapered tip is not part of the embedment length.



**JOB NO.:** U2768.0126.221  
**SUBJECT:** GRAVITY LOADS

**PROJECT:** Autin Residence

## GRAVITY LOADS

Roof Pitch: 4.0 :12

| ROOF DEAD LOAD (D)     | Design material weight [psf] | Increase due to pitch | Material weight [psf] |
|------------------------|------------------------------|-----------------------|-----------------------|
| Composite Shingles     | 2.1                          | 1.05                  | 2.0                   |
| 1/2" Plywood           | 1.1                          | 1.05                  | 1.0                   |
| Framing*               | 0.0                          |                       | 0.0                   |
| Insulation             | 0.0                          |                       | 0.0                   |
| 1/2" Gypsum Clg.       | 0.0                          | 1.05                  | 0.0                   |
| M, E & Misc            | 2.0                          |                       | 2.0                   |
| Total Existing Roof DL | 5.2                          |                       |                       |
| PV Array DL            | 2.8                          | 1.05                  | 3                     |

\*Self weight of framing members calculated on beam analysis page

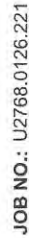
## ROOF LIVE LOAD (Lr)

|                                      |    |                     |
|--------------------------------------|----|---------------------|
| Existing Design Roof Live Load [psf] | 20 | ASCE 7-05 Table 4-1 |
| Roof Live Load With PV Array [psf]   | 0  |                     |

## SNOW LOAD (S):

Existing w/ Solar Array

|                                      |               |               |                          |
|--------------------------------------|---------------|---------------|--------------------------|
| Roof Slope [x:12]:                   | 4.0           | 4.0           |                          |
| Roof Slope [°]:                      | 18            | 18            |                          |
| Ground Snow Load, $p_g$ [psf]:       | 30            | 30            | ASCE 7-05, Section 7.2   |
| Terrain Category:                    | C             | C             | ASCE 7-05, Table 7-2     |
| Exposure of Roof:                    | Fully Exposed | Fully Exposed | ASCE 7-05, Table 7-2     |
| Exposure Factor, $C_e$ :             | 0.9           | 0.9           | ASCE 7-05, Table 7-2     |
| Thermal Factor, $C_t$ :              | 1.1           | 1.1           | ASCE 7-05, Table 7-3     |
| Risk Category:                       | II            | II            | ASCE 7-05, Table 1-1     |
| Importance Factor, $I_s$ :           | 1.0           | 1.0           | ASCE 7-05, Table 7-4     |
| Flat Roof Snow Load, $p_f$ [psf]:    | 21            | 21            | ASCE 7-05, Equation 7-1  |
| Minimum Roof Snow Load, $p_m$ [psf]: | 30            | 30            | ASCE 7-05, Section 7.3.4 |
| Unobstructed Slippery Surface?       | No            | No            | ASCE 7-05, Section 7.4   |
| Slope Factor Figure:                 | Figure 7-2b   | Figure 7-2b   | ASCE 7-05, Section 7.4   |
| Roof Slope Factor, $C_s$ :           | 1.00          | 1.00          | ASCE 7-05, Figure 7-2    |
| Sloped Roof Snow Load, $p_s$ [psf]:  | 21            | 21            | ASCE 7-05, Equation 7-2  |
| Design Snow Load, S [psf]:           | 30            | 30            |                          |



**PROJECT:** Autin Residence

SUBJECT: BEAMS

| CRITERIA (L/) | $D_{TL}$ | $D_{LL}$ | $D_{DL}$ |
|---------------|----------|----------|----------|
| $A_{(BLANK)}$ | 120      | 180      |          |

[illegible]



JOB NO.: U2768.0126.221  
SUBJECT: SOLAR LAYOUT

PROJECT: Autin Residence

---





VILLAGE OF FOX POINT  
7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

Permit Number:

B-\_\_\_\_\_

| OFFICE USE ONLY |
|-----------------|
| Issued Date     |
| Zoning          |

Passed BOA on 7-27-22

## BUILDING PERMIT

|                                                                                                                                        |                                                |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Job Address <u>7001 N YATES RD.</u>                                                                                                    | Building Type: <u>Residential</u> - Commercial |
| Description of Work <u>REMOVE OLD FENCE, BUILD NEW FENCE which has been approved by the BOARD of APPEALS 7/27/2022 (plans on file)</u> |                                                |
| Estimated Cost of Project \$ <u>24,000</u>                                                                                             |                                                |

|                                |                                           |
|--------------------------------|-------------------------------------------|
| Owner/Occupant                 |                                           |
| Business Name                  | Contact Name <u>PAUL BODIS</u>            |
| Address <u>7001 N YATES RD</u> | City/State/Zip <u>FOX POINT, WI 53217</u> |
| Phone <u>(414) 412-5927</u>    | Email <u>paul.bodis@gmail.com</u>         |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                                         |                                           |
|-----------------------------------------|-------------------------------------------|
| Contractor                              |                                           |
| Company Name <u>A I FENCE</u>           | Contact Name <u>DAVE DESUTEL</u>          |
| Address <u>740 N. DEKORA Woods Blvd</u> | City/State/Zip <u>SAUKVILLE, WI 53080</u> |
| Phone <u>(262) 251-6766</u>             | Email <u>sales@a1-fence.com</u>           |
| Dwelling Contractor #                   | Dwelling Contractor Qualifier #           |

| Square Footage Under Construction |                       |          |          |        |
|-----------------------------------|-----------------------|----------|----------|--------|
| 1 <sup>st</sup> Floor             | 2 <sup>nd</sup> Floor | Basement | Addition | Garage |

| Description                                                                                                     | Rate                 | Amount           |
|-----------------------------------------------------------------------------------------------------------------|----------------------|------------------|
| Project - Per \$1,000 of estimated cost                                                                         | \$10.00              | <u>240.00</u>    |
| Building Board                                                                                                  | \$75.00              | <u>75.00</u>     |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                          |                      |                  |
| Plan Review - \$275.00 one and two family; New Single Family Construction \$330.00 plus \$30.00/unit commercial |                      |                  |
| State Seal                                                                                                      | \$75.00              |                  |
| Razing, Interior Demolition \$925.00 max/bld                                                                    | \$95.00 minimum plus |                  |
| Moving buildings                                                                                                | \$250.00 plus        |                  |
| Fuel tanks - Per 1,000 gallons                                                                                  | \$25.00              |                  |
| Re-inspection                                                                                                   | \$100.00             |                  |
| Work started without permit                                                                                     | Double               |                  |
| Minimum Fee                                                                                                     | \$70.00              |                  |
| Payable to: Village of Fox Point                                                                                | Total Permit Fee     | \$ <u>315.00</u> |

Applicant Signature

Date 8/8/2022

Rev 01/22

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**

VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.057968

Aug 9, 2022

7001 N Yates Rd

|                                                  |        |
|--------------------------------------------------|--------|
| Previous Balance:                                | .00    |
| LICENSES & PERMITS - BUILDING PLANS - FILING FEE | 75.00  |
| 24-44440 BUILDING PLANS-FILING FEE               |        |
| LICENSES & PERMITS - BUILDING PERMIT             | 240.00 |
| 24-44460 BUILDING PERMIT                         |        |
| <hr/>                                            |        |
| Total:                                           | 315.00 |
| <hr/>                                            |        |
| CHECK                                            | 315.00 |
| Check No: 1111                                   |        |
| Payor: Paul Bodis                                |        |
| Total Applied:                                   | 315.00 |
| <hr/>                                            |        |
| Change Tendered:                                 | .00    |
| <hr/>                                            |        |

08/09/2022 3:15 PM

# PLAN REVIEW

INSPECTION DEPARTMENT  
VILLAGE OF FOX POINT

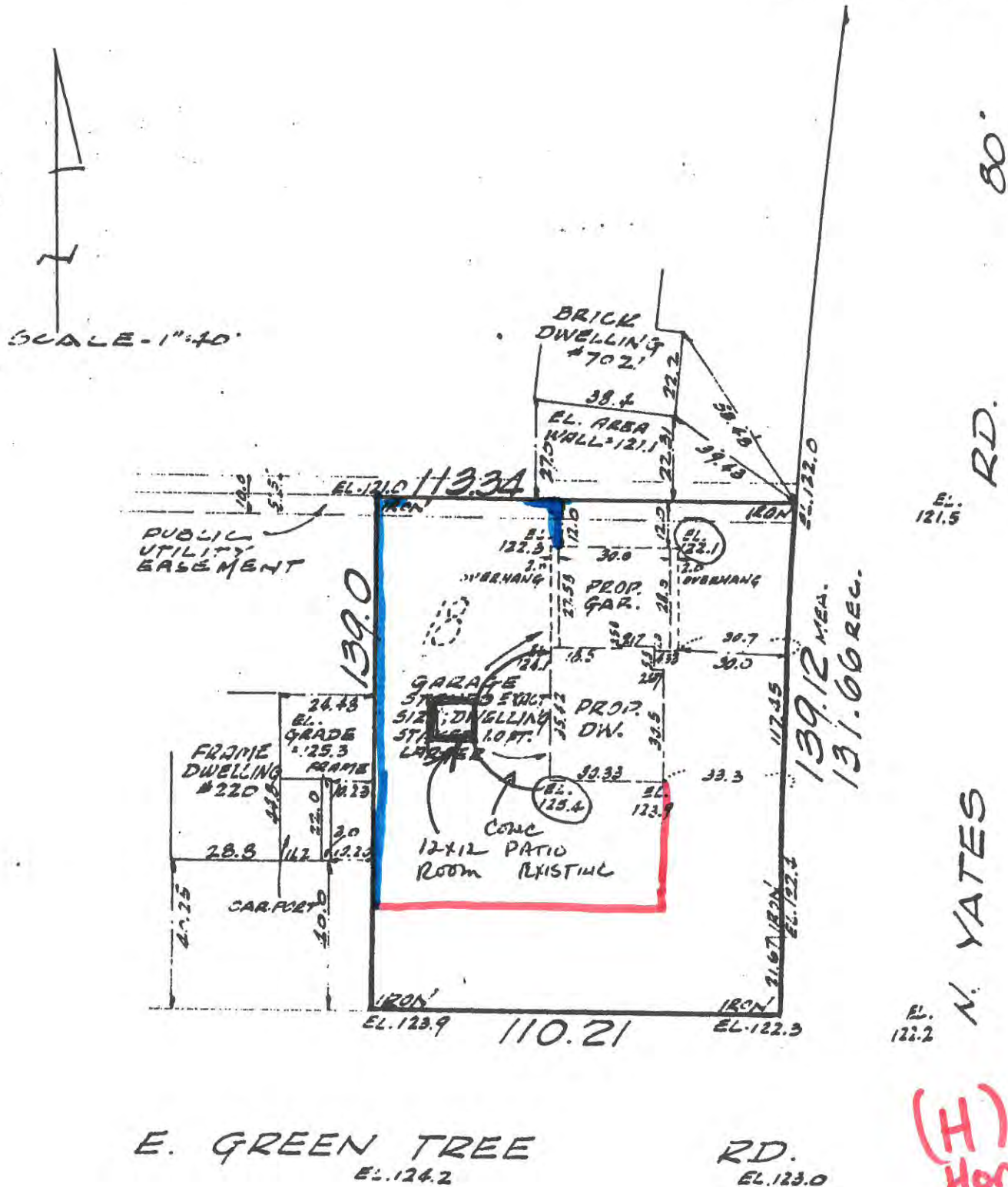
## Letter of Conditional Approval

- 1) A copy of the Village fence ordinance 745-7B(3) can be found at [www.villageoffoxpoint.com](http://www.villageoffoxpoint.com).
- 2) The person picking up this permit is responsible for all contractors calling in requests for final inspections.
- 3) Inspections may be completed 48 hours after notification.
- 4) A fence may be permitted up to the lot line in the side and rear yard of any property.
- 5) A fence located in a rear or side yard shall not exceed a height of six feet from the finished lot grade and shall not project forward of the front line of the principal building.
- 6) No new fence, wall, architectural screening device, driveway gate or arbor shall be located beyond the front line of the principal building unless permitted by the Board of Appeals.
- 7) Fences shall be constructed in such a manner that the "finished" side shall face the neighboring property. Fence posts shall be on the side of the fence facing the permit applicant's property.
- 8) If owners rear lot abuts a neighbor's side yard, the proposed fence shall be an "Open Fence" style, unless neighbor signs waiver.
- 9) All construction shall meet current code.

## Plat of Surney

Known as 7001 North Yates Road, Village of Fox Point, Wisconsin.  
 Lot 18 in Block 1 in CARL MILLER SUBDIVISION NO. 4, being a Subdivision of a part  
 of the N. E. 1/4 of Section 20 and the N. W. 1/4 of Section 21, T 8 N, R 22 E, in  
 the Village of Fox Point, Milwaukee County, Wisconsin.  
 November 6, 1958

**Survey No. 87050-S**



(H) Horizontal  
(P) Privacy

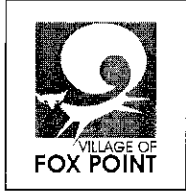


HORIZONTAL FENCE (H)  
on diagram

VILLAGE OF FOX POINT

MILWAUKEE COUNTY

WISCONSIN



VILLAGE HALL  
7200 N. SANTA MONICA BLVD.  
FOX POINT WI 53217-3505  
414-351-8900  
FAX 414-351-8909

**VILLAGE OF FOX POINT  
NOTICE OF BUILDING BOARD MEETING  
REQUEST FOR A FENCE ON A CORNER LOT**

PLEASE TAKE NOTICE that the Fox Point Building Board will meet via Zoom on Wednesday, September 14, 2022 at 5:00 p.m. to hear the following:

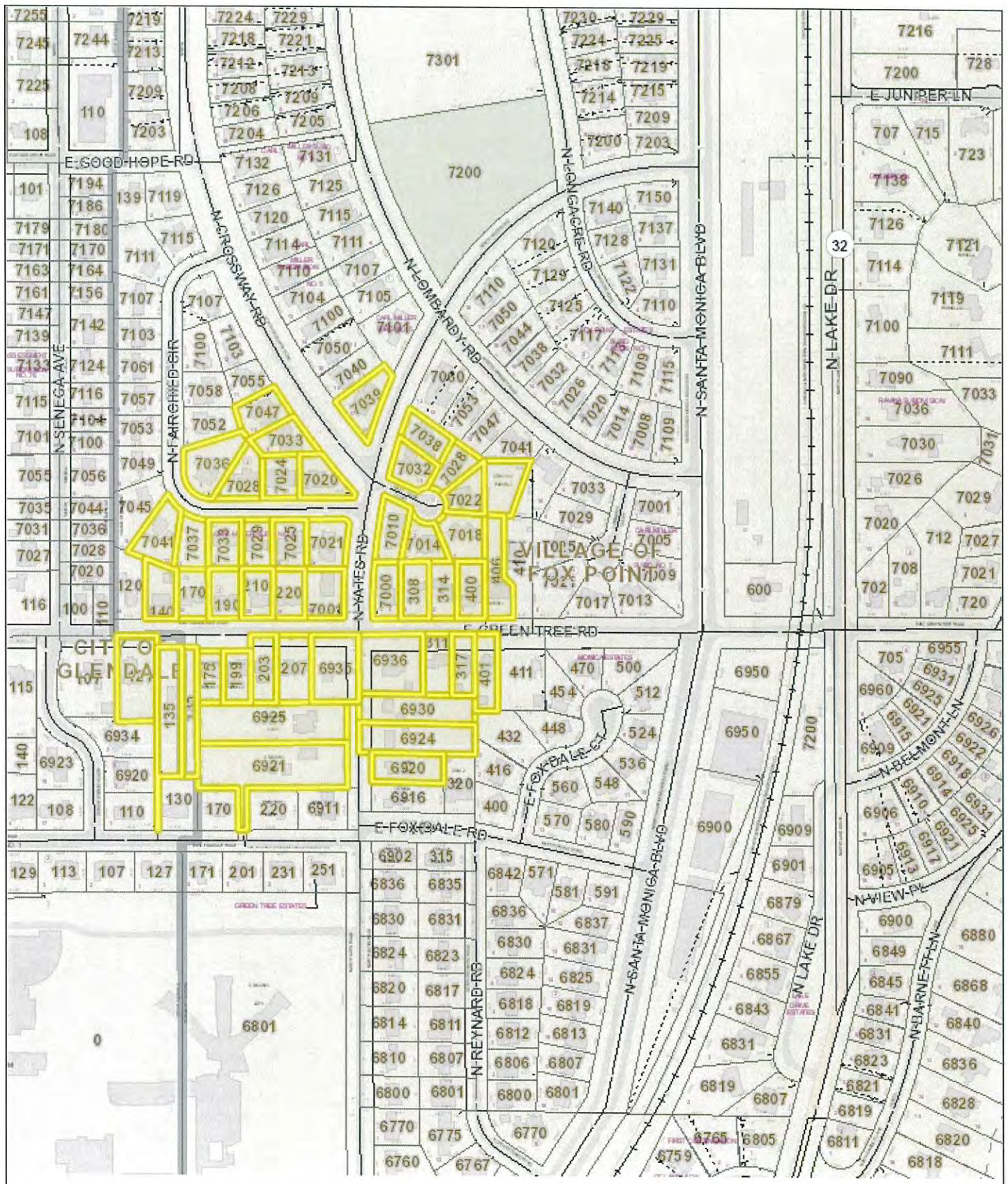
- 1. 7900 N Club Circle.** The applicant is requesting a special exception to install a fence on a corner lot.
- 2. 7001 N Yates Rd.** The applicant is requesting a special exception to install a fence on a corner lot.

Any interested party may attend this meeting and be heard concerning this case. The Zoom hyperlink and Zoom dial-up phone number will be located on the Villages website <https://www.villageoffoxpoint.com> under Agendas & Minutes.

The applications, drawings, and related materials are available for viewing in the office of the Building Inspector, Monday through Thursday from 8:00 a.m. - 4:00 p.m. and on Friday from 8:00 a.m. to 12:00 noon.

Michael Rakow  
Building Inspector

Notice Sent: 08/15/2022



## Village of Fox Point GIS



## VILLAGE OF FOX POINT

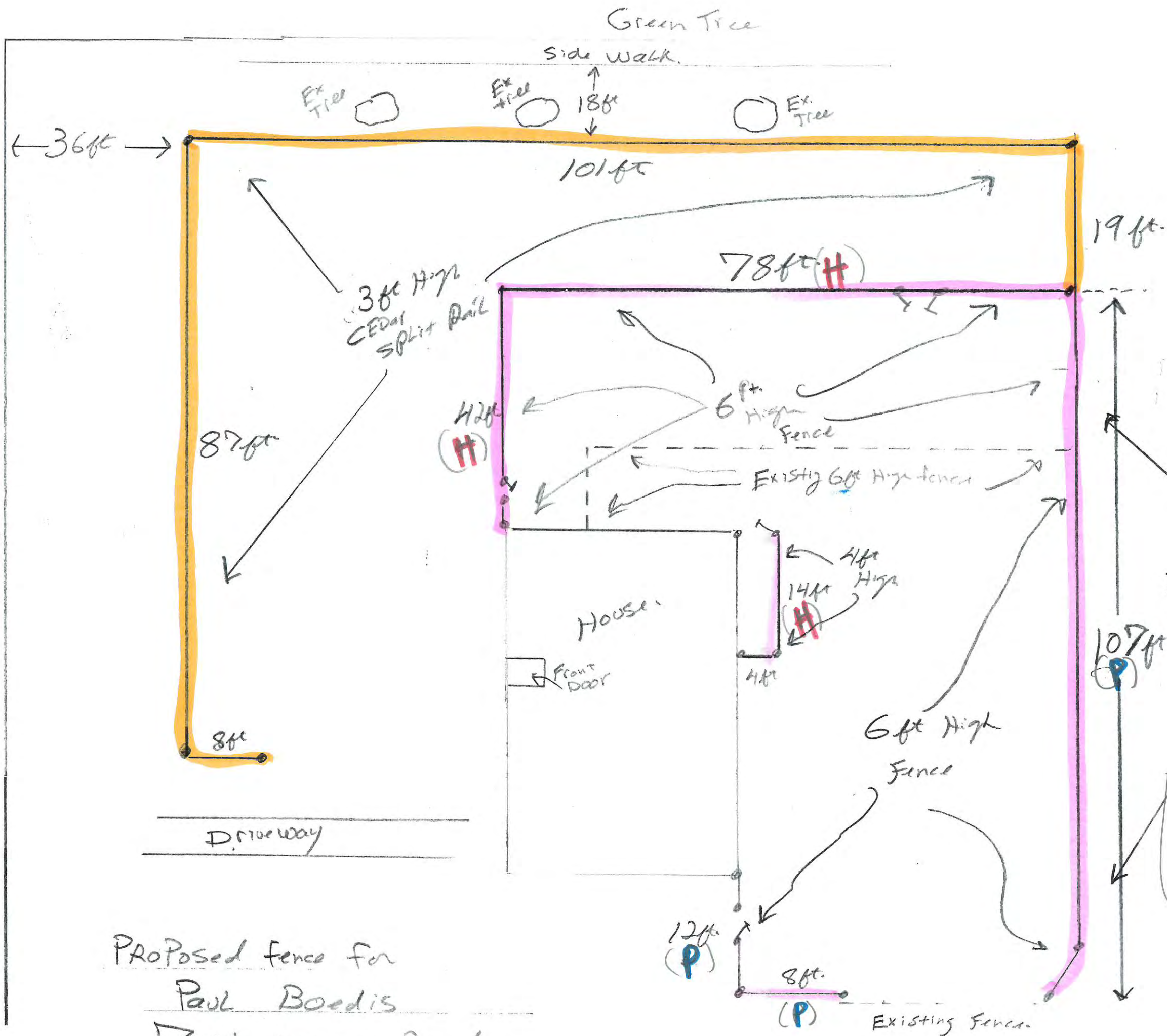
7200 North Santa Monica Blvd  
Fox Point, WI 53217  
(414) 351-8900

DISCLAIMER: The Village of Fox Point Does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 376'

Print Date: 8/15/2022

Yates



PROPOSED fence for  
Paul Boedis  
700 Yates Road



**VILLAGE OF FOX POINT**  
 7200 N Santa Monica Blvd  
 Fox Point, WI 53217  
 (414) 247-6622  
 www.villageoffoxpoint.com

**Permit Number:**

**B-**

| OFFICE USE ONLY |
|-----------------|
| Issued Date     |
| Zoning          |

PASSED BOA ON 7-27-22

## BUILDING PERMIT

|                                                         |                                                                                                           |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Job Address</b> 7900 N. CLUB CIRCLE                  | <b>Building Type:</b> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> |
| <b>Description of Work</b>                              |                                                                                                           |
| INSTALL A 6' HIGH UPRIGHT STORAGE FENCE IN REAR YARD    |                                                                                                           |
| <b>Estimated Cost of Project \$</b> 6,500 <sup>00</sup> |                                                                                                           |

|                                    |                                           |
|------------------------------------|-------------------------------------------|
| <b>Owner/Occupant</b>              |                                           |
| <b>Business Name</b> ROBERT JONES  | <b>Contact Name</b> ROBERT JONES          |
| <b>Address</b> 7900 N. CLUB CIRCLE | <b>City/State/Zip</b> FOX POINT, WI 53217 |
| <b>Phone</b> 414-526-7710          | <b>Email</b> ALSTON-JON @ GMAIL.COM       |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                                    |                                        |
|------------------------------------|----------------------------------------|
| <b>Contractor</b>                  |                                        |
| <b>Company Name</b> SUBURBAN FENCE | <b>Contact Name</b> JOSEPH OLLA        |
| <b>Address</b> 5111 N. LYNN AVE.   | <b>City/State/Zip</b> GANDY, WI 53117  |
| <b>Phone</b> 414-962-5000          | <b>Email</b> SUBFENCEBUY @ ATT.NET     |
| <b>Dwelling Contractor #</b>       | <b>Dwelling Contractor Qualifier #</b> |

| Square Footage Under Construction |                       |          |          |        |
|-----------------------------------|-----------------------|----------|----------|--------|
| 1 <sup>st</sup> Floor             | 2 <sup>nd</sup> Floor | Basement | Addition | Garage |

| Description                                                                                                     | Rate                    | Amount           |
|-----------------------------------------------------------------------------------------------------------------|-------------------------|------------------|
| Project - Per \$1,000 of estimated cost                                                                         | \$10.00                 | 70.00            |
| Building Board                                                                                                  | \$75.00                 | 75.00            |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                          |                         |                  |
| Plan Review - \$275.00 one and two family; New Single Family Construction \$330.00 plus \$30.00/unit commercial |                         |                  |
| State Seal                                                                                                      | \$75.00                 |                  |
| Razing, Interior Demolition \$925.00 max/bld \$95.00 minimum plus                                               | \$0.13/sqft             |                  |
| Moving buildings \$250.00 plus                                                                                  | \$0.13/sqft             |                  |
| Fuel tanks - Per 1,000 gallons                                                                                  | \$25.00                 |                  |
| Re-inspection                                                                                                   | \$100.00                |                  |
| Work started without permit                                                                                     | Double                  |                  |
| <b>Minimum Fee</b>                                                                                              | <b>\$70.00</b>          |                  |
| Payable to: Village of Fox Point                                                                                | <b>Total Permit Fee</b> | <b>\$ 145.00</b> |

**Applicant Signature**

Rev 01/22

for P. Olla (SUBURBAN FENCE)

**Date**

05/18/22

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**

VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.057937

Aug 3, 2022

7900 N Club Cir

|                                                  |       |
|--------------------------------------------------|-------|
| Previous Balance:                                | .00   |
| LICENSES & PERMITS - BUILDING PLANS - FILING FEE | 75.00 |
| 24-44440 BUILDING PLANS-FILING FEE               |       |
| LICENSES & PERMITS - BUILDING PERMIT             | 70.00 |
| 24-44460 BUILDING PERMIT                         |       |

|        |        |
|--------|--------|
| Total: | 145.00 |
|--------|--------|

|       |                |        |
|-------|----------------|--------|
| CHECK | Check No: 1233 | 145.00 |
|-------|----------------|--------|

Payor: Robert Alston Jones

|                |        |
|----------------|--------|
| Total Applied: | 145.00 |
|----------------|--------|

|                  |     |
|------------------|-----|
| Change Tendered: | .00 |
|------------------|-----|

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# PLAN REVIEW

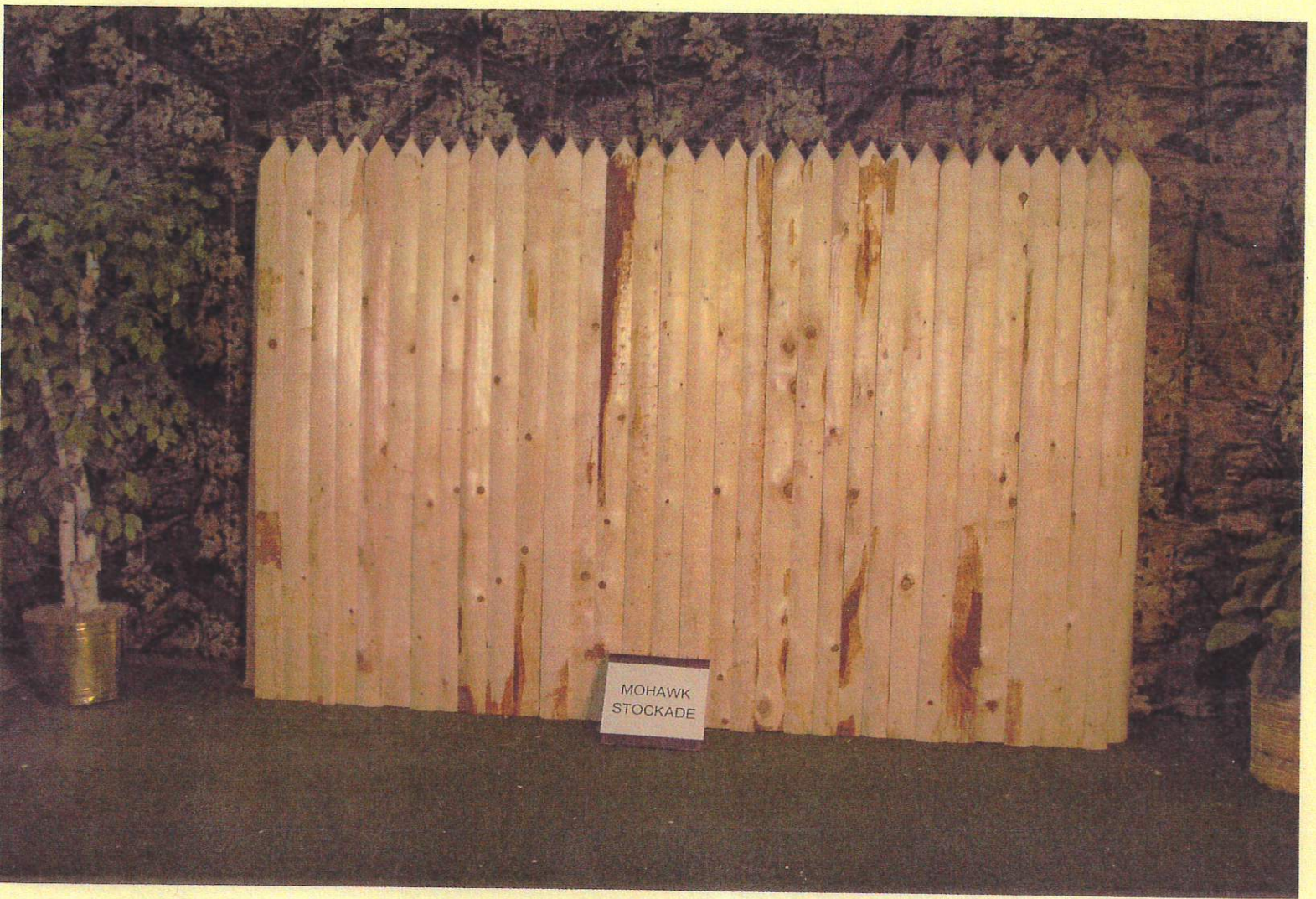
INSPECTION DEPARTMENT  
VILLAGE OF FOX POINT

## Letter of Conditional Approval

- 1) A copy of the Village fence ordinance 745-7B(3) can be found at [www.villageoffoxpoint.com](http://www.villageoffoxpoint.com).
- 2) The person picking up this permit is responsible for all contractors calling in requests for final inspections.
- 3) Inspections may be completed 48 hours after notification.
- 4) A fence may be permitted up to the lot line in the side and rear yard of any property.
- 5) A fence located in a rear or side yard shall not exceed a height of six feet from the finished lot grade and shall not project forward of the front line of the principal building.
- 6) No new fence, wall, architectural screening device, driveway gate or arbor shall be located beyond the front line of the principal building unless permitted by the Board of Appeals.
- 7) Fences shall be constructed in such a manner that the "finished" side shall face the neighboring property. Fence posts shall be on the side of the fence facing the permit applicant's property.
- 8) If owners rear lot abuts a neighbor's side yard, the proposed fence shall be an "Open Fence" style, unless neighbor signs waiver.
- 9) All construction shall meet current code.



# MOHAWK STOCKADE



VILLAGE OF FOX POINT

MILWAUKEE COUNTY

WISCONSIN



VILLAGE HALL  
7200 N. SANTA MONICA BLVD.  
FOX POINT WI 53217-3505  
414-351-8900  
FAX 414-351-8909

**VILLAGE OF FOX POINT  
NOTICE OF BUILDING BOARD MEETING  
REQUEST FOR A FENCE ON A CORNER LOT**

PLEASE TAKE NOTICE that the Fox Point Building Board will meet via Zoom on Wednesday, September 14, 2022 at 5:00 p.m. to hear the following:

1. **7900 N Club Circle.** The applicant is requesting a special exception to install a fence on a corner lot.
2. **7001 N Yates Rd.** The applicant is requesting a special exception to install a fence on a corner lot.

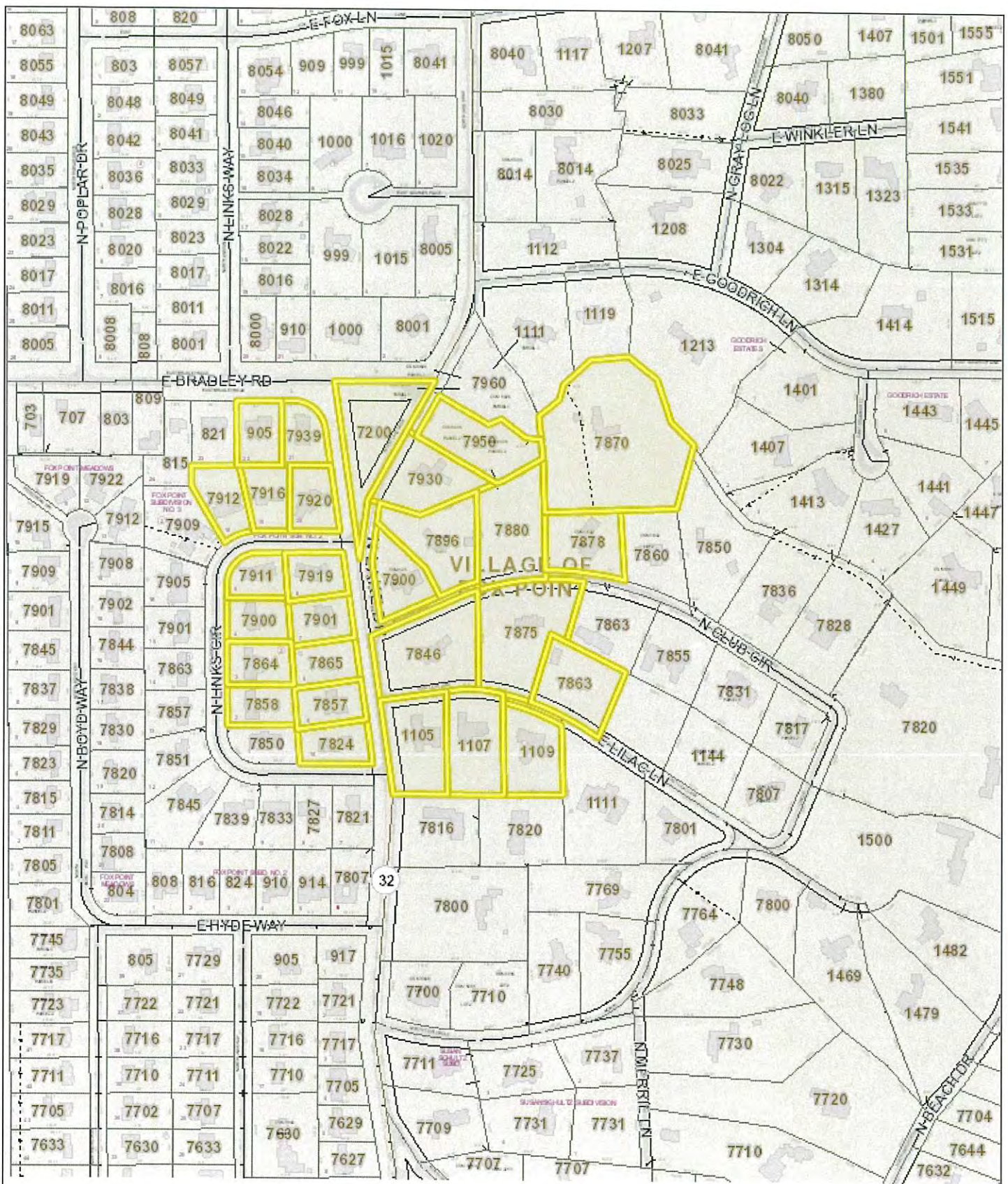
Any interested party may attend this meeting and be heard concerning this case. The Zoom hyperlink and Zoom dial-up phone number will be located on the Villages website <https://www.villageoffoxpoint.com> under Agendas & Minutes.

The applications, drawings, and related materials are available for viewing in the office of the Building Inspector, Monday through Thursday from 8:00 a.m. - 4:00 p.m. and on Friday from 8:00 a.m. to 12:00 noon.

A handwritten signature in black ink, appearing to read 'Michael Rakow'.

Michael Rakow  
Building Inspector

Notice Sent: 08/15/2022



## Village of Fox Point GIS

DISCLAIMER: The Village of Fox Point Does not guarantee the accuracy of the material contained here in and is not responsible for any misuse or misrepresentation of this information or its derivatives.

SCALE: 1" = 376'



## VILLAGE OF FOX POINT

7200 North Santa Monica Blvd  
Fox Point, WI 53217  
(414) 351-8900

Print Date: 8/15/2022



VILLAGE OF FOX POINT  
7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

Permit Number:

B-\_\_\_\_\_

ref#33037

| OFFICE USE ONLY |  |
|-----------------|--|
| Issued Date     |  |
| Zoning          |  |

## BUILDING PERMIT

|                                                                                                                                                                      |                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Job Address</b> 8036 N Santa Monica Blvd                                                                                                                          | <b>Building Type:</b> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> |
| <b>Description of Work</b><br>Adding 3 new windows to 2nd story of house, 2 side windows and 1 on the back of the home. Alteration description and drawings included |                                                                                                           |
| <b>Estimated Cost of Project</b> \$ 41,000                                                                                                                           |                                                                                                           |

|                                         |                                           |
|-----------------------------------------|-------------------------------------------|
| <b>Owner/Occupant</b>                   |                                           |
| <b>Business Name</b>                    | <b>Contact Name</b> Bang Tongkumbunjong   |
| <b>Address</b> 8036 N Santa Monica Blvd | <b>City/State/Zip</b> Fox Point, WI 53217 |
| <b>Phone</b> 440.645.9565               | <b>Email</b> bangtee@live.com             |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                                               |                                               |
|-----------------------------------------------|-----------------------------------------------|
| <b>Contractor</b>                             |                                               |
| <b>Company Name</b> Weather Tight Corporation | <b>Contact Name</b> Nikki Malik/Andre Simpson |
| <b>Address</b> 11400 W. Oklahoma Ave          | <b>City/State/Zip</b> West Allis, WI 53227    |
| <b>Phone</b> 414.459.3888                     | <b>Email</b> asimpson@weathertightcorp.com    |
| <b>Dwelling Contractor #</b> 267342           | <b>Dwelling Contractor Qualifier #</b> 267349 |

| Square Footage Under Construction |                        |          |          |        |
|-----------------------------------|------------------------|----------|----------|--------|
| 1 <sup>st</sup> FloorX            | 2 <sup>nd</sup> FloorX | Basement | Addition | Garage |

| Description                                                                                                        | Rate             | Amount    |
|--------------------------------------------------------------------------------------------------------------------|------------------|-----------|
| Project - Per \$1,000 of estimated cost                                                                            | \$10.00          | 410.00    |
| Building Board                                                                                                     | \$75.00          | 75.00     |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                             |                  |           |
| Plan Review - \$275.00 one and two family; New Single Family Construction<br>\$330.00 plus \$30.00/unit commercial |                  |           |
| State Seal                                                                                                         | \$75.00          |           |
| Razing, Interior Demolition \$925.00 max/bld \$95.00 minimum plus                                                  | \$0.13/sqft      |           |
| Moving buildings \$250.00 plus                                                                                     | \$0.13/sqft      |           |
| Fuel tanks - Per 1,000 gallons                                                                                     | \$25.00          |           |
| Re-inspection                                                                                                      | \$100.00         |           |
| Work started without permit                                                                                        | Double           |           |
| Minimum Fee                                                                                                        | \$70.00          |           |
| Payable to: Village of Fox Point                                                                                   | Total Permit Fee | \$ 485.00 |

Applicant Signature

Date

8.8.2022

Rev 01/22

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**

VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.057978

Aug 15, 2022

8036 N Santa Monica

|                                                  |        |
|--------------------------------------------------|--------|
| Previous Balance:                                | .00    |
| LICENSES & PERMITS - BUILDING PERMIT             | 410.00 |
| 24-44460 BUILDING PERMIT                         |        |
| LICENSES & PERMITS - BUILDING PLANS - FILING FEE | 75.00  |
| 24-44440 BUILDING PLANS-FILING FEE               |        |

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|        |        |
|--------|--------|
| Total: | 485.00 |
|--------|--------|

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|                      |                 |        |
|----------------------|-----------------|--------|
| CHECK                | Check No: 60056 | 469.00 |
| Payor: Weather Tight |                 |        |
| CHECK                | Check No: 60074 | 18.00  |
| Payor: Weather Tight |                 |        |

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|                |        |
|----------------|--------|
| Total Paid:    | 485.00 |
| Total Applied: | 485.00 |

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|                  |     |
|------------------|-----|
| Change Tendered: | .00 |
|------------------|-----|

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08/15/2022 8:32 AM



NASA Technical Report  
NASA-TN-1030-60  
April 1960  
10-10-60  
NASA Langley Research Center

## NUMERICAL STATEMENT TO GOVERN OBTAINING BUILDING PERMITS

THE FOLLOWING STATEMENT IS A SUMMARY OF THE RESULTS OF THE STUDY OF THE PROBLEM OF OBTAINING BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING.

THE STUDY WAS CONDUCTED BY THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., AND THE RESULTS ARE PRESENTED IN THIS REPORT.

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THE STUDY WAS CONDUCTED BY THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., AND THE RESULTS ARE PRESENTED IN THIS REPORT.

### REFERENCES

1. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

2. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

3. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

4. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

5. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

6. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

7. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

8. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

9. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

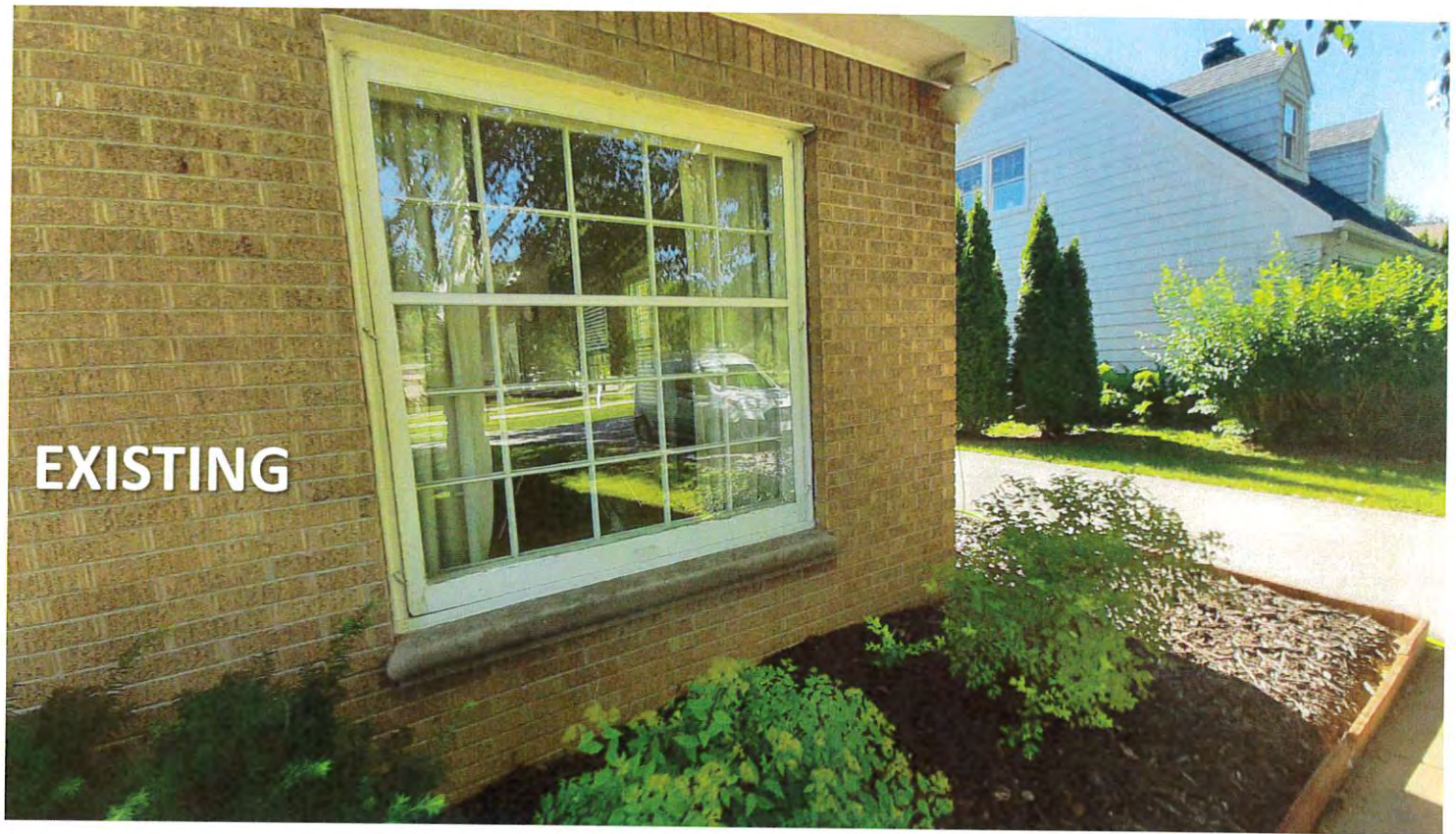
10. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C., "BUILDING PERMITS FOR THE CONSTRUCTION OF A BUILDING," NASA-TN-1030-60, April 1960.

## Replacing Windows and entry door

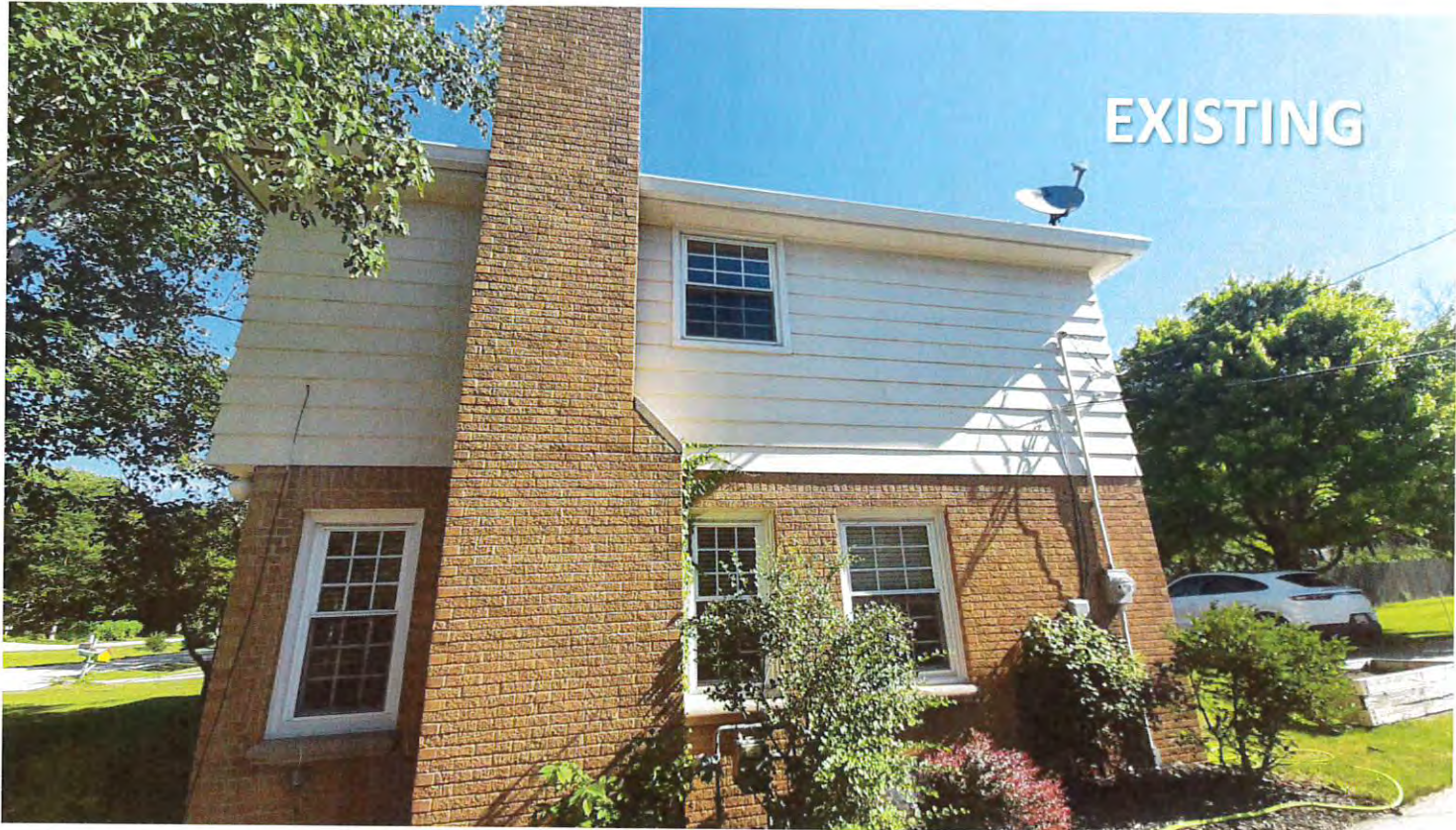




**Front windows replace with Twin Casements.**  
**Removing grids from style.**



Adding window to side of front bedrooms



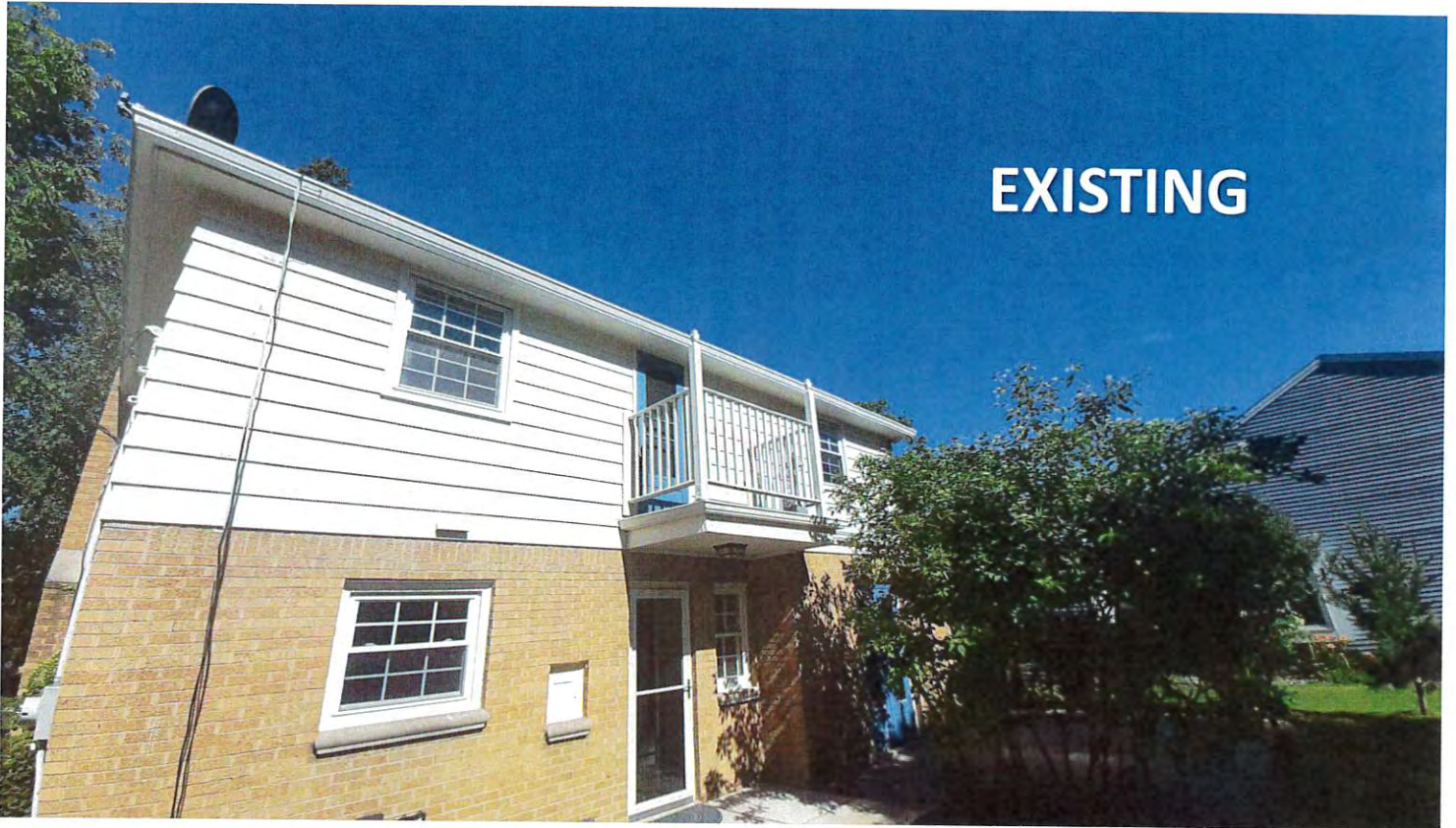


EXISTING



PROPOSED

## Adding window to back hallway above porch



Homeowner Name and Job Number: **Bang Tonkumbunjong # 33037**

Address: **8036 N. Santa Monica Blvd, Fox Point, WI 53217**

Wall depth: **2x4 wall. "5-1/4 total"**

Number of stories of opening wall: **New openings on 2nd story in 2 story house. Hip roof.**

Describe Scope of work:

**Adding 3 new windows to 2nd story of house. 2 side windows and 1 on back of home.**

Describe exterior finish details:

Aluminum trim covering brickmold or window highlight

Diamond Kote LP Trim

Composite or wood flat surround

Brick, stone or other masonry surround

~~If cutting in new door opening or altering window opening to new door what is being done for exterior from bottom of door to exterior grade.~~

~~Step down for door is at grade or < 7" No further action.~~

~~Exterior has existing step or deck~~

~~Temporary step will be built~~

~~Homeowner is building deck~~

~~Door will be rendered inoperable with mechanical fastener.~~

Other \_\_\_\_\_

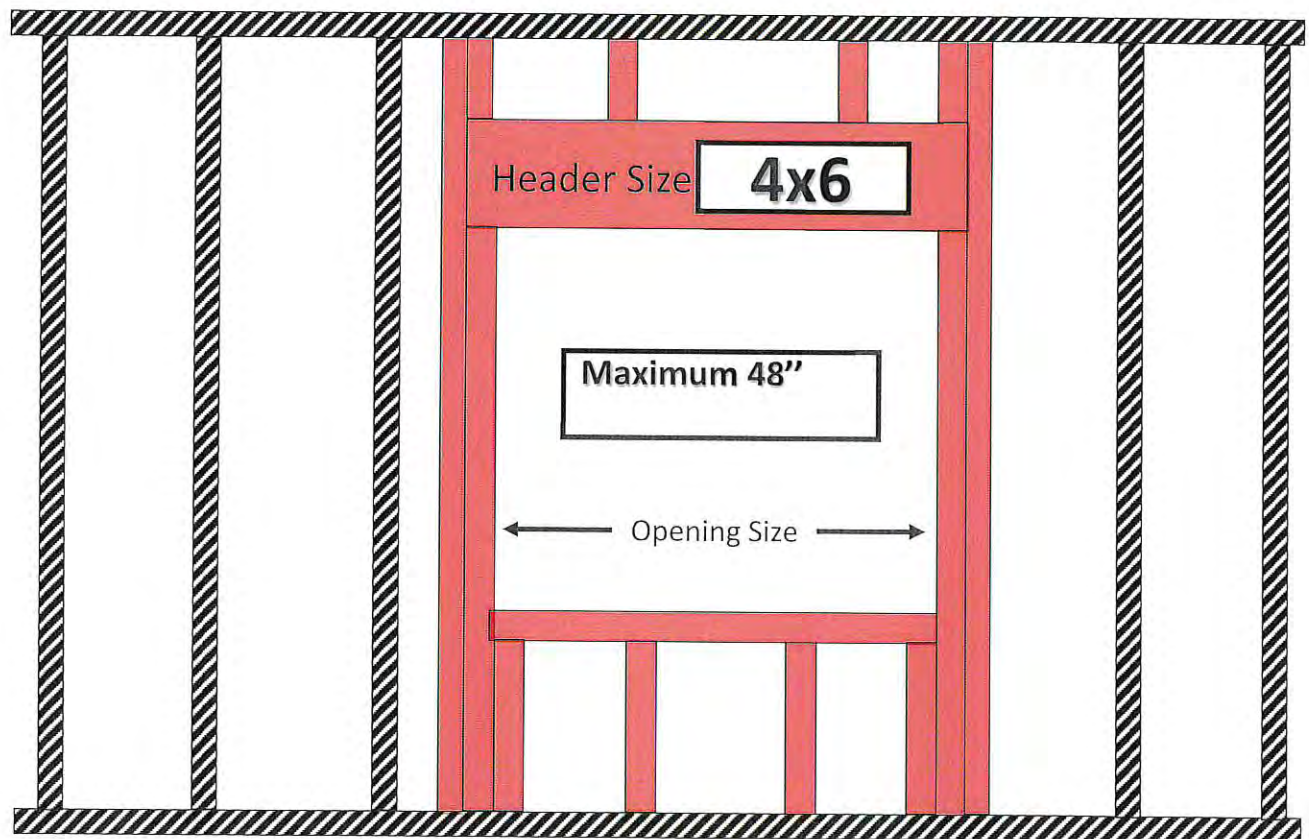
For building department after reviewing scope of work is there any additional work needed not indicated that will be required to pass inspection including utilities (HVAC, electrical, plumbing, etc.) that will be added or moved?

**There are electrical outlets and radiators present in work space but should not need to be disturbed or relocated. Most likely will reuse studs that they are attached to already.**

New Framing



Existing Framing





**VILLAGE OF FOX POINT**  
7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

**Permit Number:**

**B-**

| OFFICE USE ONLY |
|-----------------|
| Issued Date     |
| Zoning          |

## BUILDING PERMIT

|                                               |                                                                                                |
|-----------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Job Address</b> 8301 N. LAKE DR.           | <b>Building Type:</b> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> |
| <b>Description of Work</b><br>Deck Renovation |                                                                                                |
| <b>Estimated Cost of Project \$</b> 6000      |                                                                                                |

|                       |                                            |
|-----------------------|--------------------------------------------|
| <b>Owner/Occupant</b> |                                            |
| <b>Business Name</b>  | <b>Contact Name</b> Alex Perlin            |
| <b>Address</b>        | <b>City/State/Zip</b> Fox Point, WI, 53217 |
| <b>Phone</b>          | <b>Email</b> alex.perlin@gmail.com         |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                              |                                        |
|------------------------------|----------------------------------------|
| <b>Contractor</b>            |                                        |
| <b>Company Name</b>          | <b>Contact Name</b>                    |
| <b>Address</b>               | <b>City/State/Zip</b>                  |
| <b>Phone</b>                 | <b>Email</b>                           |
| <b>Dwelling Contractor #</b> | <b>Dwelling Contractor Qualifier #</b> |

| Square Footage Under Construction |                       |          |          |        |
|-----------------------------------|-----------------------|----------|----------|--------|
| 1 <sup>st</sup> Floor             | 2 <sup>nd</sup> Floor | Basement | Addition | Garage |

| Description                                                                                                     | Rate             | Amount    |
|-----------------------------------------------------------------------------------------------------------------|------------------|-----------|
| Project - Per \$1,000 of estimated cost                                                                         | \$10.00          |           |
| Building Board                                                                                                  | \$75.00          | 75.0      |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                          |                  |           |
| Plan Review - \$275.00 one and two family; New Single Family Construction \$330.00 plus \$30.00/unit commercial |                  |           |
| State Seal                                                                                                      | \$75.00          |           |
| Razing, Interior Demolition \$925.00 max/bld \$95.00 minimum plus                                               | \$0.13/sqft      |           |
| Moving buildings \$250.00 plus                                                                                  | \$0.13/sqft      |           |
| Fuel tanks - Per 1,000 gallons                                                                                  | \$25.00          |           |
| Re-inspection                                                                                                   | \$100.00         |           |
| Work started without permit                                                                                     | Double           |           |
| Minimum Fee                                                                                                     | \$70.00          | 70.00     |
| Payable to: Village of Fox Point                                                                                | Total Permit Fee | \$ 145.00 |

**Applicant Signature**

Rev 01/22

**Date**

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**



VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.058002

Aug 22, 2022

8301 N Lake Drive

|                                                  |       |
|--------------------------------------------------|-------|
| Previous Balance:                                | .00   |
| LICENSES & PERMITS - BUILDING PLANS - FILING FEE | 75.00 |
| 24-44440 BUILDING PLANS-FILING FEE               |       |
| LICENSES & PERMITS - BUILDING PERMIT             | 70.00 |
| 24-44460 BUILDING PERMIT                         |       |

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|        |        |
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| Total: | 145.00 |
|--------|--------|

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|       |                |        |
|-------|----------------|--------|
| CHECK | Check No: 4793 | 145.00 |
|-------|----------------|--------|

Payor: Alex Perlin

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|                |        |
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| Total Applied: | 145.00 |
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|------------------|-----|
| Change Tendered: | .00 |
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## VILLAGE OF FOX POINT

7200 N Santa Monica Blvd

Fox Point, WI 53217

(414) 247-6622

www.villageoffoxpoint.com

### CAUTIONARY STATEMENT TO OWNERS OBTAINING BUILDING PERMITS

101.65(1r) of the Wisconsin Statutes requires municipalities that enforce the Uniform Dwelling Code to provide an owner who applies for a building permit with a statement advising the owner that:

If the owner hires a contractor to perform work under the building permit and the contractor is not bonded or insured as required under s. 101.654(2)(a), the following consequences might occur:

- (a) The owner may be held liable for any bodily injury to or death of others or for any damage to the property of others that arises out of the work performed under the building permit or that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.
- (b) The owner may not be able to collect from the contractor damages for any loss sustained by the owner because of a violation by the contractor of the one- and two- family dwelling code or an ordinance enacted under sub. (1)(a), because of any bodily injury to or death of others or damage to the property of others that arises out of the work performed under the building permit or because of any bodily injury to or death of others or damage to the property of others that is caused by any negligence by the contractor that occurs in connection with the work performed under the building permit.

#### Wetlands Notice to Permit Applicants

You are responsible for complying with state and federal laws concerning the construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the Department of Natural Resources wetlands identification web page or contact a Department of Natural Resources service

#### Additional Responsibilities for Owners of Projects Disturbing One or More Acre of Soil

I understand that this project is subject to ch. NR 151 regarding additional erosion control and stormwater management and will comply with those standards.

Alex Perlin

Homeowner's Name – PRINTED

8301 W. Lake Dr.

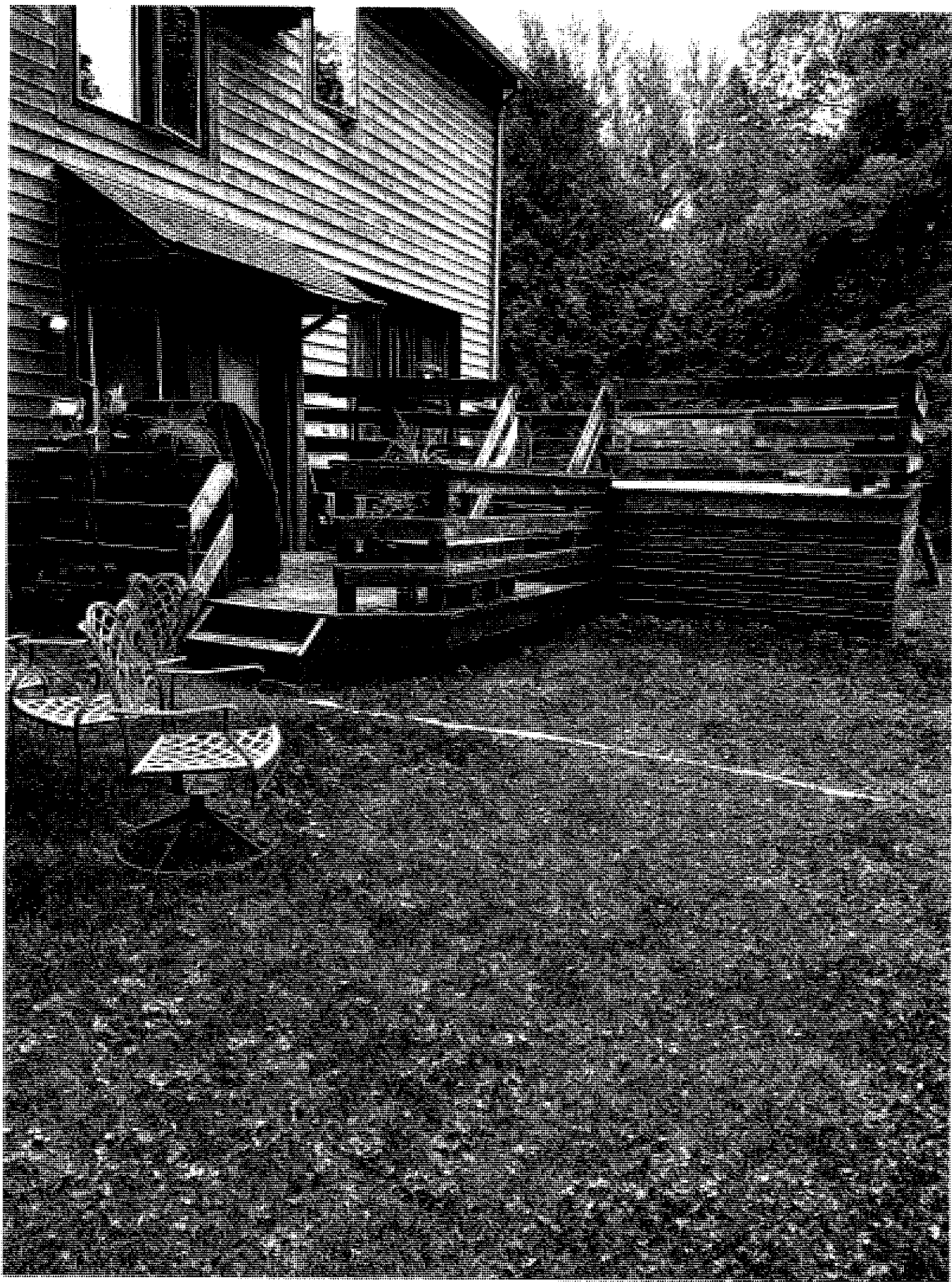
Property Address

Homeowner's Signature

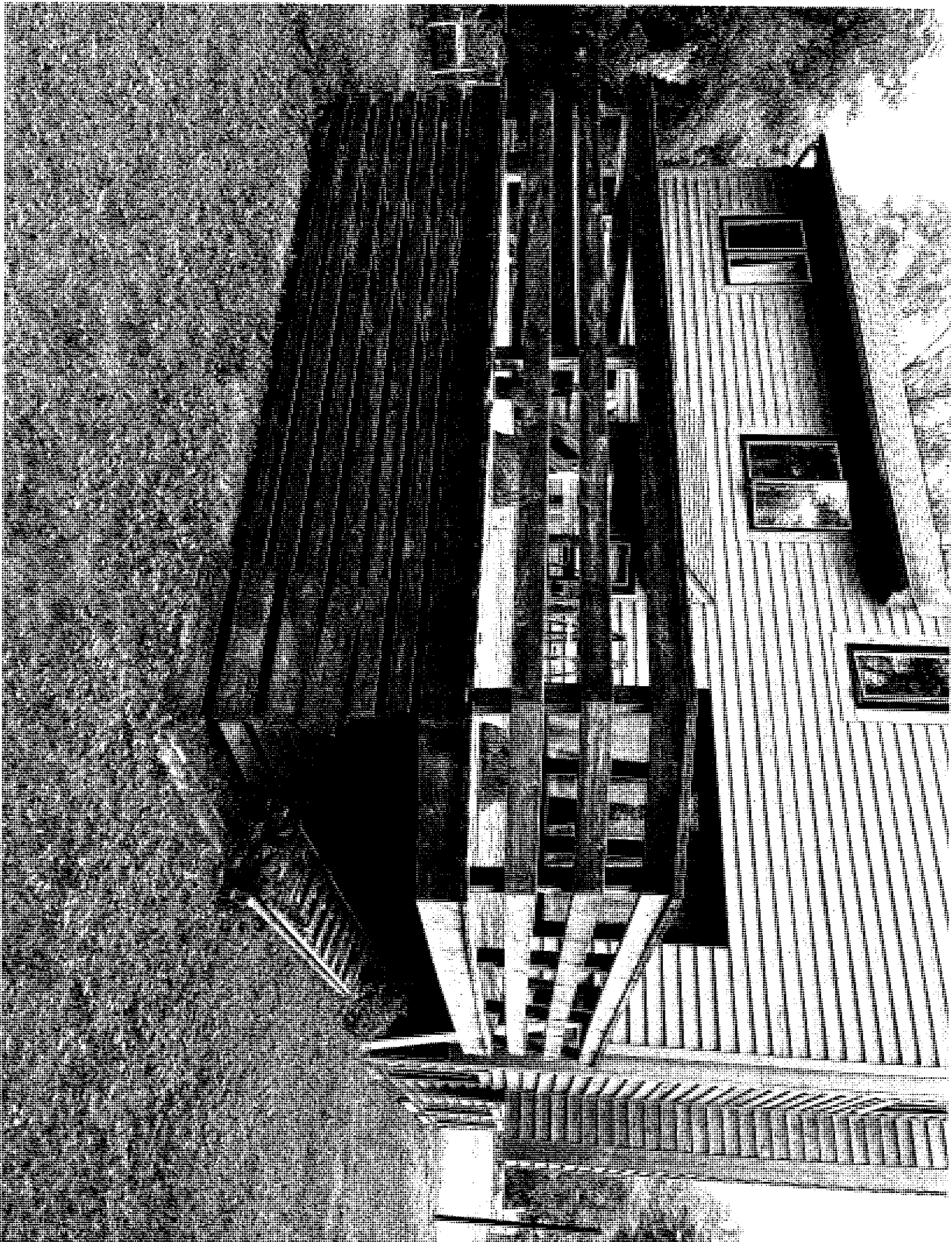
8/22/22

Date









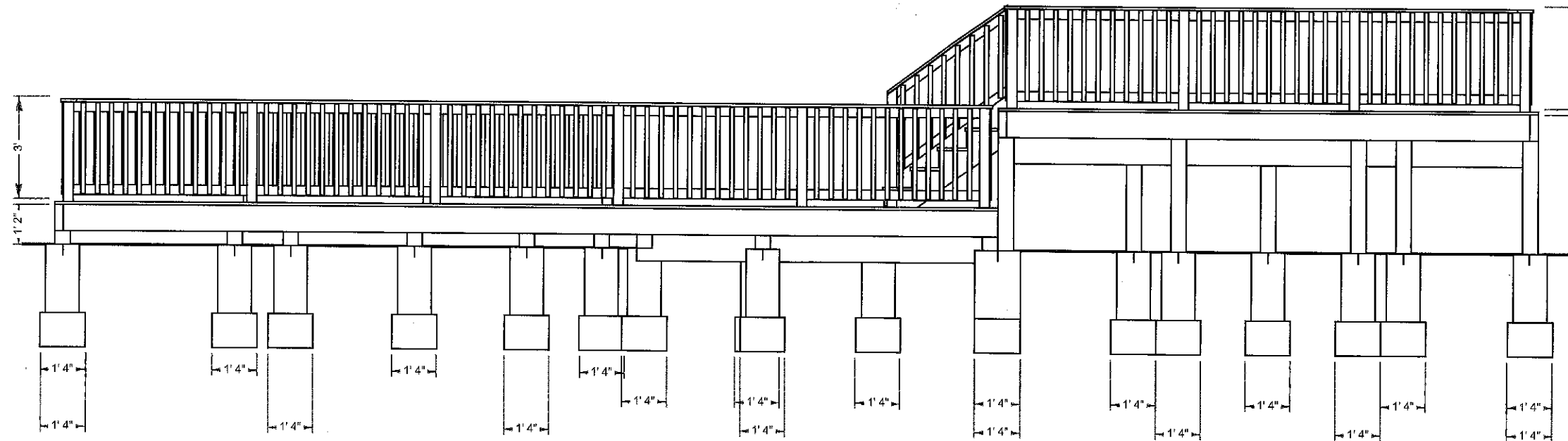






DISCLAIMER: THIS PLAN IS NOT CONSIDERED COMPLETE UNLESS APPROVED BY YOUR BUILDING INSPECTOR OR STRUCTURAL ENGINEER. BUILDER ACCEPTS ALL RESPONSIBILITY AND LIABILITY. DECKS.COM LLC AND ASSOCIATED SPONSORS ACCEPT NO LIABILITY FOR THE USE OF THIS PLAN.

STAIRWAY ILLUMINATION: ALL EXTERIOR STAIRWAYS SHALL BE ILLUMINATED AT THE TOP LANDING TO THE STAIRWAY. ILLUMINATION SHALL BE CONTROLLED FROM INSIDE THE DWELLING OR AUTOMATICALLY ACTIVATED.



2x10 Ledger Board to be flashed and bolted (2) 1/2" bolts with washers or equivalent every 16" on center. (See ledger detail in deck construction guide)

Joists to be 2x10 pressure treated southern yellow pine installed 16" on center.

Beams to be 2-2x10 pressure treated southern yellow pine nailed.

Guard Rails to be 36" high with less than 4" openings per IRC code. (See rail detail in deck construction guide)

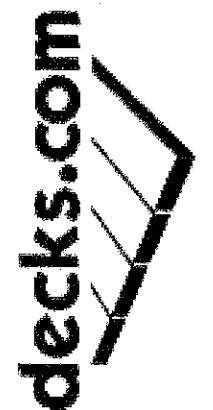
Stairs to be built max rise 7-3/4" min rise 4" in run 10" per IRC code. (See stair detail in deck construction guide)

Decking to be 5/4x6 Pressure Treated Pine. (Follow manufacturers' installation instructions)

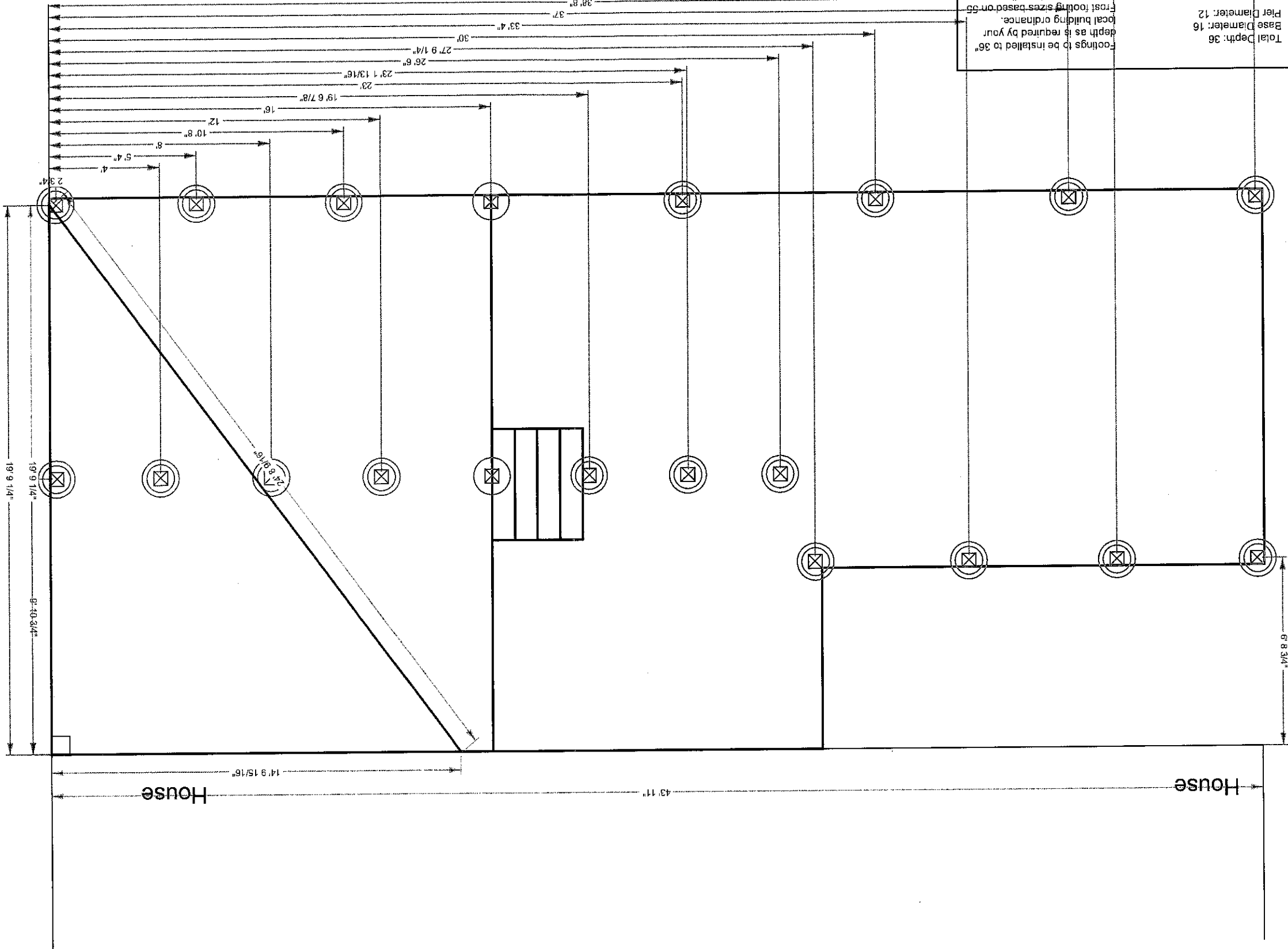
All hardware to be corrosion resistant and installed per manufacturers' instructions.

DISCLAIMER: ONLY USE #2 OR BETTER PRESSURE TREATED SOUTHERN PINE 2X10 FOR FRAMING MATERIALS. NEVER SUBSTITUTE SOFTWOODS OR COMPOSITE FOR FRAMING MATERIALS.

DISCLAIMER: THIS PLAN IS NOT CONSIDERED COMPLETE UNLESS APPROVED BY YOUR BUILDING INSPECTOR OR STRUCTURAL ENGINEER. BUILDER ACCEPTS ALL RESPONSIBILITY AND LIABILITY. DECKS.COM LLC AND ASSOCIATED SPONSORS ACCEPT NO LIABILITY FOR THE USE OF THIS PLAN. © DECKS.COM LLC



STAIR FOOTING REQUIREMENTS  
WHERE THE STAIRWAY MEETS GRADE, ATTACH THE STAIR  
STRINGERS TO THE STAIR GUARD RAIL POSTS. POSTS SHALL  
BEAR ON FOOTINGS



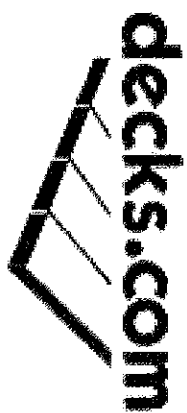
Total Depth: 36"  
Base Diameter: 16"  
Pier Diameter: 12"

Total Depth: 36"  
Base Diameter: 16"  
Pier Diameter: 12"

Footings to be installed to 36" depth as is required by your local building ordinance.  
Frost footing sizes based on 55 lbs per square foot tributary loads applied to 1500 psi soil compression capacity (assumed clay soil).  
See footing detail in deck construction guide.

DISCLAIMER: USE ONLY 2,500 PSI CONCRETE FOR FROST FOOTING FOUNDATIONS.

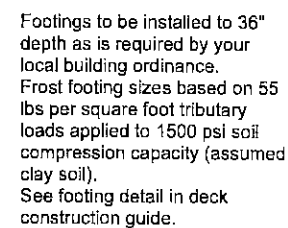
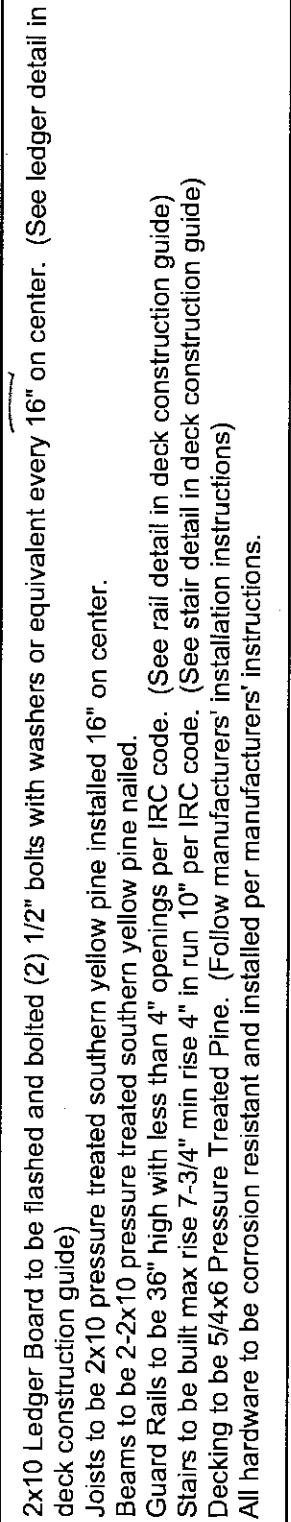
DISCLAIMER: THIS PLAN IS NOT CONSIDERED COMPLETE UNLESS APPROVED BY YOUR BUILDING INSPECTOR OR STRUCTURAL ENGINEER. BUILDER ACCEPTS ALL RESPONSIBILITY AND LIABILITY. DECKS.COM LLC AND ASSOCIATED SPONSORS ACCEPT NO LIABILITY FOR THE USE OF THIS PLAN. © DECKS.COM LLC



Footings to be installed to 36" depth as is required by your local building ordinance.  
Frost footing sizes based on 55 lbs per square foot tributary loads applied to 1500 psi soil compression capacity (assumed clay soil).  
See footing detail in deck construction guide.

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STAIRWAY ILLUMINATION: ALL EXTERIOR STAIRWAYS SHALL BE ILLUMINATED AT THE TOP LANDING TO THE STAIRWAY. ILLUMINATION SHALL BE CONTROLLED FROM INSIDE THE DWELLING OR AUTOMATICALLY ACTIVATED.



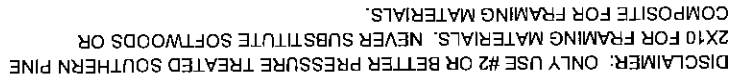
DISCLAIMER: ONLY USE #2 OR BETTER PRESSURE TREATED SOUTHERN PINE 2X10 FOR FRAMING MATERIALS. NEVER SUBSTITUTE SOFTWOODS OR COMPOSITE FOR FRAMING MATERIALS.

DISCLAIMER: THIS PLAN IS NOT CONSIDERED COMPLETE UNLESS APPROVED BY YOUR BUILDING INSPECTOR OR STRUCTURAL ENGINEER. BUILDER ACCEPTS ALL RESPONSIBILITY AND LIABILITY. DECKS.COM LLC AND ASSOCIATED SPONSORS ACCEPT NO LIABILITY FOR THE USE OF THIS PLAN. © DECKS.COM LLC



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STAIRWAY ILLUMINATION: ALL EXTERIOR STAIRWAYS SHALL BE ILLUMINATED AT THE TOP LANDING TO THE STAIRWAY. ILLUMINATION SHALL BE CONTROLLED FROM INSIDE THE DWELLING OR AUTOMATICALLY ACTIVATED.



PLAT NO. P 9-36

**W. G. NIENOW ENGINEERING ASSOC.  
CONSULTING ENGINEERS-SURVEYORS**

WALLACE G. NIENOW, P.E., L.S.

LAND CONSULTANT  
SEWER & WATER DESIGN  
SUBDIVIDING

1743 W. GREEN TREE ROAD  
TELEPHONE 351-1620

MILWAUKEE, WIS.

ASSOCIATES

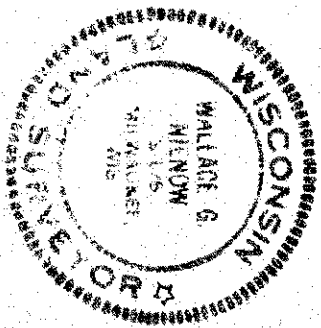
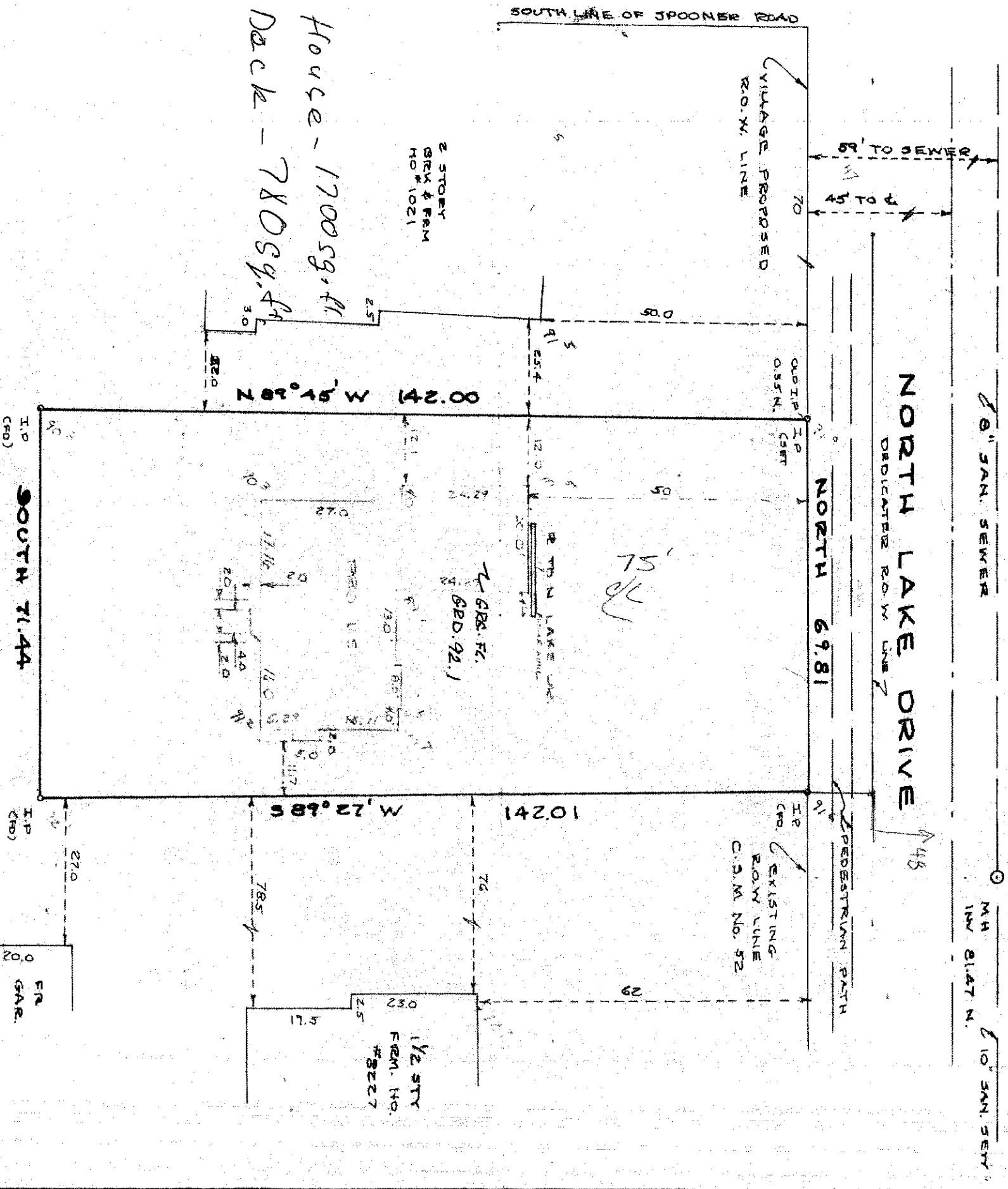
KENNETH B. WESTERN, P.E.  
DAVID E. OBLACK, JR., P.E.  
PAUL D. DIXON, L.S.

**PLAT OF SURVEY**

WATER

PREPARED FOR M & M BUILDERS

DESCRIPTION OF PROPERTY Lot 2 in Block 4 of Fox Point Terrace a subdivision located in the Southwest 1/4 of Section 9, Town 8 North, Range 22 East, in the Village of Fox Point, Milwaukee County, Wisconsin



REVISED AUG. 19, 1987

SCALE: 1" = 20 FT.

STATE OF WISCONSIN  
MILWAUKEE COUNTY

I hereby certify that I have surveyed the above described property and the above map is a true representation thereof and shows the size and location of the property, its exterior boundaries, the location of all visible structures and dimensions of all principal buildings thereon, boundary fences, apparent easements, roadway and visible encroachments, if any.

This survey is made for present owners of the property, and also those who purchase, mortgage, or guarantee, the title thereto within one (1) year from date hereof.

Dated at Milwaukee, Wisconsin, this 9th day of June, 1987.  
Surveyor: *Wallace Nienow*





VILLAGE OF FOX POINT  
7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

Permit Number:

B-\_\_\_\_\_

| OFFICE USE ONLY |
|-----------------|
| Issued Date     |
| Zoning C, 70'   |

## BUILDING PERMIT

|                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Job Address:</b> 7111 N. Lombardy Rd, Fox Point, WI 53217                                                                                                                                                                                                                                                                                                                                            | <b>Building Type:</b> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> |
| <b>Description of Work</b>                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                           |
| Adding a 1 story addition to the back of the home that will include a master suite and remodel existing spaces on the 1st floor which includes renovating existing living room, dining room, kitchen, existing bedroom, renovate existing bedroom into laundry and refresh existing bedrooms and bathrooms. There will also be a new basement under the new addition, with an egress window for bedroom |                                                                                                           |
| <b>Estimated Cost of Project \$</b>                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                           |

|                                       |                                                      |
|---------------------------------------|------------------------------------------------------|
| <b>Owner/Occupant</b>                 |                                                      |
| <b>Business Name:</b>                 | <b>Contact Name:</b> William & Jennifer Waltenberger |
| <b>Address:</b> 7111 N. Lombardy Road | <b>City/State/Zip:</b> Fox Point, WI 53217           |
| <b>Phone:</b> 414-975-8290            | <b>Email:</b> wjw@gruber-law.com                     |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                                                 |                                                      |
|-------------------------------------------------|------------------------------------------------------|
| <b>Contractor</b>                               |                                                      |
| <b>Company Name:</b> Story Hill Renovations     | <b>Contact Name:</b> Savannah Callen                 |
| <b>Address:</b> 12040 W Feerick Street, Suite F | <b>City/State/Zip:</b> Wauwatosa, WI 53222           |
| <b>Phone:</b> 262-751-9910                      | <b>Email:</b> savannah@storyhillrenovations.com      |
| <b>Dwelling Contractor #</b> DC-121200002       | <b>Dwelling Contractor Qualifier #</b> DCQ-060900110 |

| Square Footage Under Construction |                       |          |                 |        |
|-----------------------------------|-----------------------|----------|-----------------|--------|
| 1 <sup>st</sup> Floor: 950        | 2 <sup>nd</sup> Floor | Basement | Addition: 1,036 | Garage |

| Description                                                                                                     | Rate             | Amount   |
|-----------------------------------------------------------------------------------------------------------------|------------------|----------|
| Project - Per \$1,000 of estimated cost                                                                         | \$10.00          |          |
| Building Board                                                                                                  | \$75.00          | 75.00    |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                          |                  |          |
| Plan Review - \$275.00 one and two family; New Single Family Construction \$330.00 plus \$30.00/unit commercial |                  |          |
| State Seal                                                                                                      | \$75.00          |          |
| Razing, Interior Demolition \$925.00 max/bld \$95.00 minimum plus                                               | \$0.13/sqft      |          |
| Moving buildings \$250.00 plus                                                                                  | \$0.13/sqft      |          |
| Fuel tanks - Per 1,000 gallons                                                                                  | \$25.00          |          |
| Re-inspection                                                                                                   | \$100.00         |          |
| Work started without permit                                                                                     | Double           |          |
| Minimum Fee                                                                                                     | \$70.00          |          |
| Payable to: Village of Fox Point                                                                                | Total Permit Fee | \$ 75.00 |

Applicant Signature

Rev 01/22

Date

9-2-22

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**

VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.058046

Sep 2, 2022

7111 N Lombardy Road

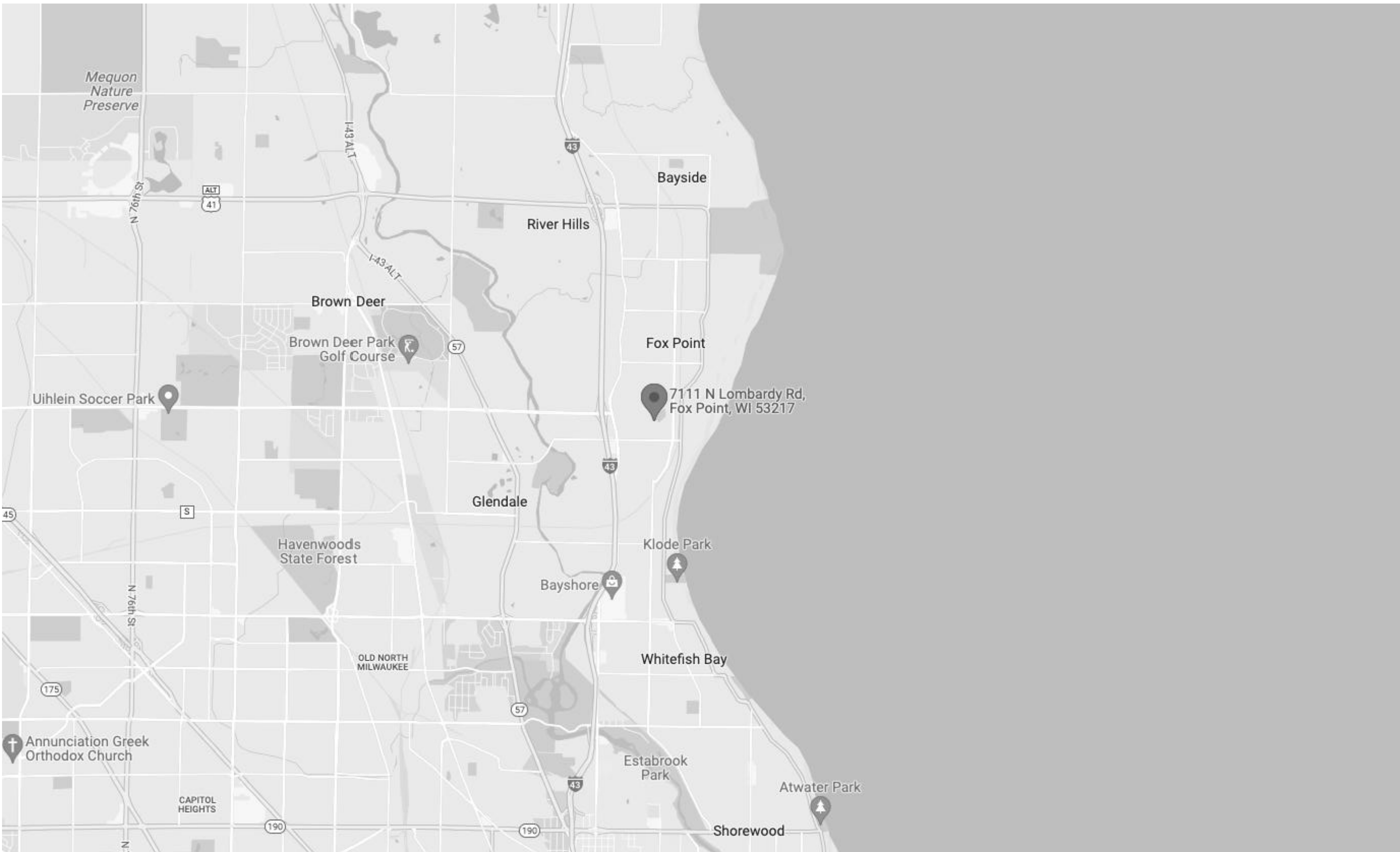
|                                                  |       |
|--------------------------------------------------|-------|
| Previous Balance:                                | .00   |
| LICENSES & PERMITS - BUILDING PLANS - FILING FEE | 75.00 |
| 24-44440 BUILDING PLANS-FILING FEE               |       |
| <hr/>                                            |       |
| Total:                                           | 75.00 |
| <hr/>                                            |       |
| CHECK                                            | 75.00 |
| Check No: 1085                                   |       |
| Payor: Story Hill Renovations LLC                |       |
| Total Applied:                                   | 75.00 |
| <hr/>                                            |       |
| Change Tendered:                                 | .00   |
| <hr/>                                            |       |

09/02/2022 10:02 AM

# WALTENBERGER RESIDENCE

7111 N LOMBARDY RD | FOX POINT 53217

## BUILDING BOARD REVIEW SET SEPTEMBER 1, 2022



PROJECT SITE

### PROJECT INFORMATION:

ZONING: FOX POINT  
BUILDING CODE: WISCONSIN UDC

#### EXISTING + ADDITION TO RESIDENCE

TOTAL MAIN LEVEL AREA (MAIN LEVEL & GARAGE): 3,507 SF (GROSS)

#### SF OF WORK

MAIN LEVEL REMODEL: 1,150 SF  
MAIN LEVEL ADDITION: 1,027 SF

NO. OF STORIES: 1

#### OPEN AREA CALCULATION:

EXISTING LOT AREA: 14,743 SF  
NEW OPEN LOT AREA: 11,236 SF  
(MIN PER ZONING: 10,500 SF)

#### BUILDING HEIGHT TO ROOF RIDGE FROM

GRADE: APPROX. 13'-8"  
(MAX PER ZONING: 25 SF)

### SHEET INDEX:

T 1.0 TITLE SHEET  
T 1.1 EXTERIOR IMAGES - EXISTING  
T 1.2 EXTERIOR IMAGES - NEW  
T 1.3 EXTERIOR MATERIALS

C 1.0 SURVEY - EXISTING

A 0.2 ARCHITECTURAL SITE PLAN

D 1.0 DEMO - BASEMENT PLAN  
D 1.1 DEMO - MAIN LEVEL PLAN  
D 1.2 DEMO - ROOF PLAN  
A 1.0 BASEMENT PLAN  
A 1.1 MAIN LEVEL PLAN  
A 1.2 ROOF PLAN

D 3.0 DEMO - EXTERIOR ELEVATIONS  
D 3.1 DEMO - EXTERIOR ELEVATIONS  
A 3.0 EXTERIOR ELEVATIONS  
A 3.1 EXTERIOR ELEVATIONS  
A 3.2 WINDOW SCHEDULE  
A 3.3 DOOR SCHEDULE



1 | EXISTING EXTERIOR - EAST ELEVATION - STREET



2 | EXISTING EXTERIOR - SOUTHEAST ELEVATION



3 | EXISTING EXTERIOR - SOUTH ELEVATION



4 | EXISTING EXTERIOR - WEST ELEVATION



5 | EXISTING EXTERIOR - WEST ELEVATION



6 | EXISTING EXTERIOR - NORTH ELEVATION

REMODEL & ADDITION FOR

WALTENBERGER

7111 N Lombardy Rd,  
Fox Point, WI 53217

GENERAL CONTRACTOR & INTERIORS

STORY HILL  
RENOVATIONS

12040 W Feenick St,  
Wauwatosa, WI 53222  
414.209.1988  
info@storyhillrenovations.com

STRUCTURAL ENGINEER

LT ENGINEERING

262.488.0192  
loomistara@gmail.com



1 NEW EXTERIOR - WEST ELEVATION

IMAGES ARE FOR REFERENCE OF THE DESIGN INTENT. REFER TO EXTERIOR ELEVATIONS FOR ACCURATE DIMENSIONAL INFORMATION



2 NEW EXTERIOR - SOUTHWEST ELEVATION

IMAGES ARE FOR REFERENCE OF THE DESIGN INTENT. REFER TO EXTERIOR ELEVATIONS FOR ACCURATE DIMENSIONAL INFORMATION



3 NEW EXTERIOR - SOUTH MIDDLE ELEVATION

IMAGES ARE FOR REFERENCE OF THE DESIGN INTENT. REFER TO EXTERIOR ELEVATIONS FOR ACCURATE DIMENSIONAL INFORMATION



4 NEW EXTERIOR - SOUTH ELEVATION

IMAGES ARE FOR REFERENCE OF THE DESIGN INTENT. REFER TO EXTERIOR ELEVATIONS FOR ACCURATE DIMENSIONAL INFORMATION

REVISIONS

BUILDING BOARD  
REVIEW SET  
SEPTEMBER 1, 2022

PROPOSED EXTERIOR  
RENDERINGS

T1.2

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1 | NEW EXTERIOR - WEST ELEVATION

IMAGES ARE FOR REFERENCE OF THE DESIGN INTENT. REFER TO EXTERIOR ELEVATIONS FOR ACCURATE DIMENSIONAL INFORMATION



ROOFING: GAF Barkwood HD (Same as Existing)



NEW WINDOW COLOR, FLASHING COLOR & GUTTERS / DOWNSPOUTS - Sierra Pacific Bronze



NEW PAINT COLOR: Vertical siding, Fascia & Soffit: Sherwin Williams Rushing River



Vertical Siding: LP SmartSide Board & Batten, Cedar Texture (Same profiles as Existing)



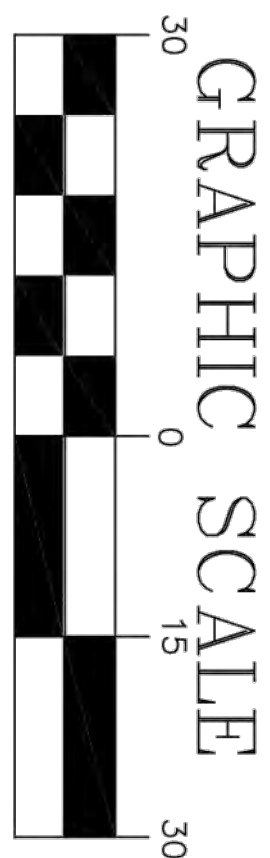
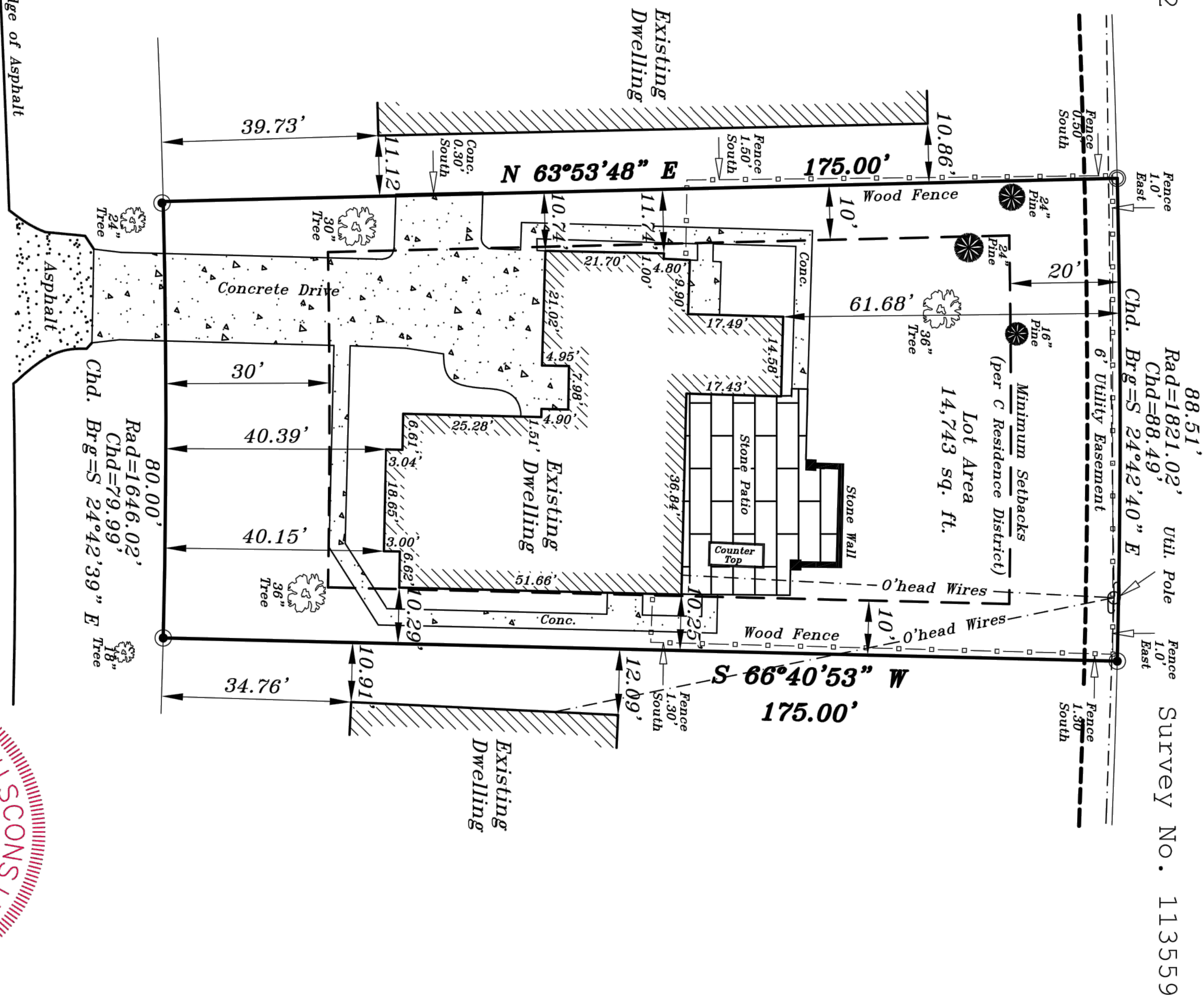
MASONRY: Reuse salvage Limestone from demo to patch as needed (Same as Existing)

Waltenberger Residence

## PLAT OF SURVEY

**LOCATION:** 7111 North Lombardy Road, Fox Point, Wisconsin**LEGAL DESCRIPTION:** Lot 4 in Block 1 in **CARL MILLER SUBDIVISION NO. 5**, being a part of the Southwest 1/4 of Section 16, part of the Southeast 1/4 of Section 17, part of the Northeast 1/4 of Section 20, and part of the Northwest 1/4 of Section 21, Town 8 North, Range 22 East in the Village of Fox Point, Milwaukee County, Wisconsin

June 24, 2022

( IN FEET )  
1 inch = 30 ft.**METROPOLITAN SURVEY  
SERVICE, INC.****PROFESSIONAL LAND SURVEYORS**

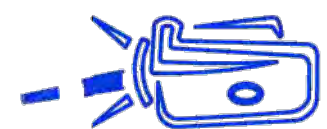
9415 West Forest Home Avenue, Suite 202

Hales Corners, Wisconsin 53130

PH. (414) 529-5380

survey@metropolitansurvey.com

www.metropolitansurvey.com



● — Denotes Iron Pipe Found

○ — Denotes Iron Pipe Set

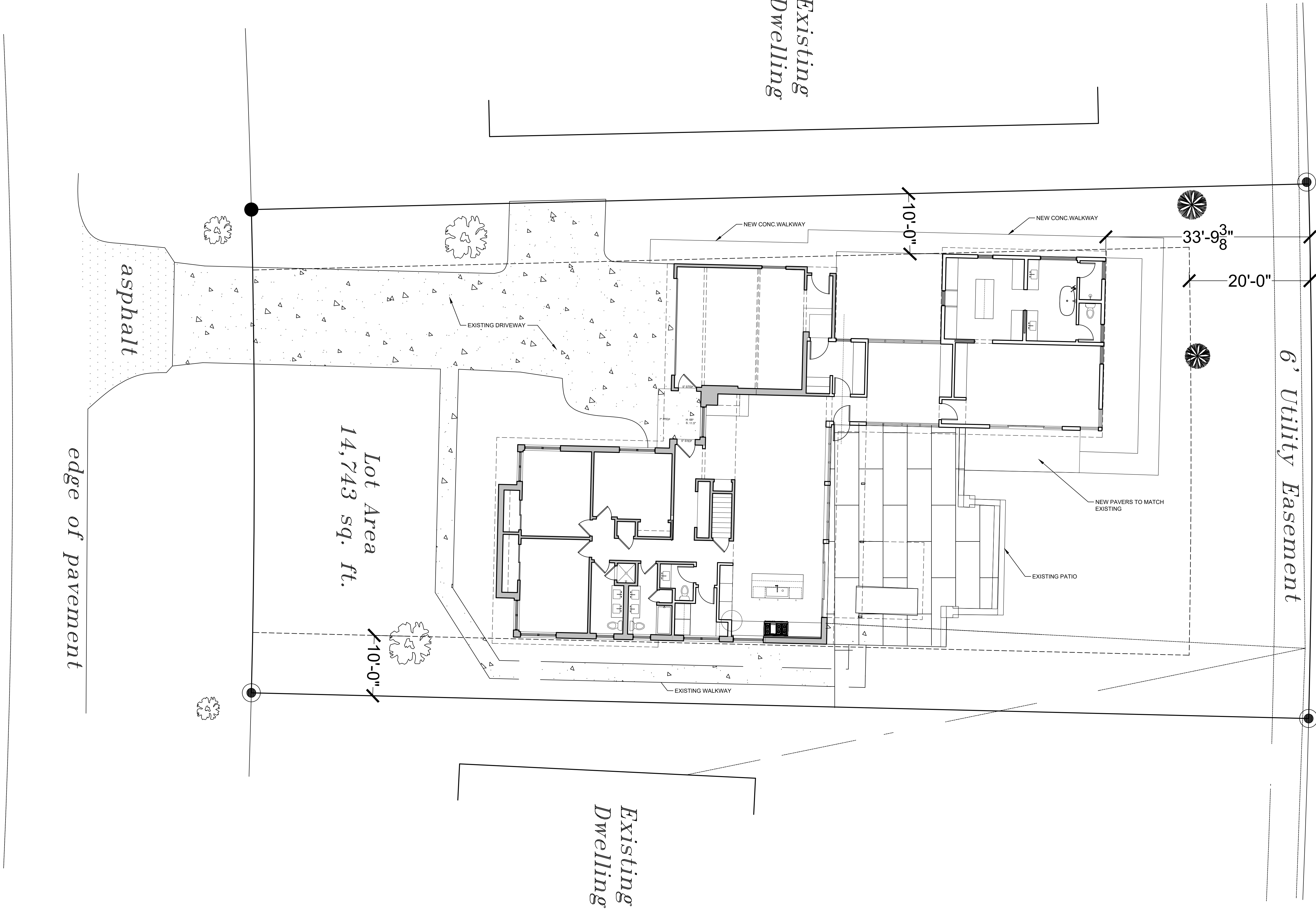
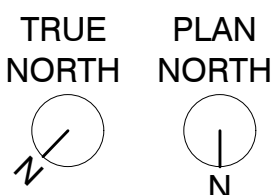
I HEREBY CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND THAT THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION OF ALL VISIBLE STRUCTURES AND DIMENSIONS OF ALL PRINCIPAL BUILDINGS THEREON, BOUNDARY FENCES, APPARENT EASEMENTS AND ROADWAYS AND VISIBLE ENCROACHMENT, IF ANY.

THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE PRESENT OWNERS OF THE PROPERTY, AND ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THERETO WITHIN ONE (1) YEAR FROM THE DATE HEREOF.

SIGNED

Dennis C. Sauer

Professional Land Surveyor S-2421



DEMO PLAN GENERAL NOTES

A. PRESERVE WOOD FLOORING WHERE POSSIBLE IN CONSTRUCTION AREA. PREP FOR SANDING & FINISHING.

B. REMOVE EXISTING SWING DOORS IN CONSTRUCTION AREA.

C. DEMO OR CONSOLIDATE ALL LIGHTING AND ELECTRIC CONDUIT ON CEILING AND WALLS.

D. DEMO ALL EXISTING HVAC DUCTS IN CONSTRUCTION AREA. COORDINATE WITH HVAC CONTRACTOR. EVALUATE EXISTING FURNACE & WATER HEATER FOR APPROPRIATE SIZING.

E. EVALUATE ROOF, GUTTERS, DOWNSPOUTS FOR REPAIR OR REPLACEMENT.

F. SALVAGE ALL EXTERIOR STONE VENEER FOR REUSE ON PROJECT.

G. PREP EXISTING WINDOWS FOR NEW PAINT.

DRAWING KEY

DEMO

EXISTING WALL

NEW DOOR

EXISTING DOOR

The drawing is a detailed basement floor plan. It features a central staircase with a landing. To the left of the stairs is a large open area with a 2x10 joist indicated. To the right of the stairs is a bathroom containing a toilet and a sink. Further right is a room with a water heater (W.H.) and a furnace (FURN). A sump pump (SUMP) and electrical panel (ELEC) are located in the bottom right corner. The plan includes numerous dimensions for walls, openings, and overall room sizes. For example, the overall width is 26'-5" and 16'-0", and the overall depth is 16'-6". Specific room dimensions include 15'-7 7/8" and 33'-11 3/4" for the main living area, and 15'-8" and 33'-11" for the adjacent room. Door and window heights and widths are also specified, such as H: 16" S: 69 5/8" for a door and 1'-2 3/8" for a window. Section cut symbols 1/D3.0 and 2/D3.0 are placed around the perimeter of the plan.

1

DEMO FLOOR PLAN - BASEMENT

1/4" = 1'

STUDIO  
EHR

414.405.3320  
josh@studio-ehr.com

REMODEL & ADDITION FOR

WALTENBERGER

7111 N Lombardy Rd,  
Fox Point, WI 53217

GENERAL CONTRACTOR & INTERIORS

STORY HILL  
RENOVATIONS

12040 W Feerick St,  
Wauwatosa, WI 53222  
414.209.1988  
info@storyhillrenovations.com

STRUCTURAL ENGINEER

LT ENGINEERING

262.488.0192  
lorenzstewart@gmail.com

REVISIONS

BUILDING BOARD  
REVIEW SET

SEPTEMBER 1, 2022

BASEMENT LEVEL  
DEMO FLOOR PLAN

D1.0

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DEMO PLAN GENERAL NOTES

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F. SALVAGE ALL EXTERIOR STONE VENEER FOR REUSE ON PROJECT.

G. PREP EXISTING WINDOWS FOR NEW PAINT.

DRAWING KEY

DEMO

EXISTING WALL

NEW DOOR

EXISTING DOOR

The floor plan illustrates the main level of a building undergoing renovation. It shows a complex arrangement of rooms, including a large open area at the top, a central hallway with a staircase labeled 'TREAS 14 RISES 13 @ 7.5"', and a bathroom area at the bottom left. The plan uses solid lines for existing walls and dashed lines for areas to be demoed. Numerous dimensions are provided for walls, openings, and overall room sizes. Key annotations include 'PREP CONCRETE SLAB FOR NEW ENTRY STAIRS' pointing to a new entry area, 'PREP CHIMNEY FOR MASONRY PATCHING OF SALVAGED STONE VENEER' pointing to a chimney structure, and 'REMOVE STONE VENEER. SALVAGE FOR REUSE. SEE EXTERIOR ELEVATIONS FOR MORE INFORMATION' pointing to a wall section. The plan also indicates 'DEMO EXISTING CEILING FOR NEW STRUCTURAL FRAMING' and '5\"/>

1 | DEMO FLOOR PLAN - LEVEL 1  
1/4" = 1'

STUDIO  
EHR

414.405.3520  
josh@studio-ehr.com

REMODEL & ADDITION FOR  
**WALTENBERGER**  
  
7111 N Lombardy Rd,  
Fox Point, WI 53217  
  
GENERAL CONTRACTOR & INTERIORS  
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STRUCTURAL ENGINEER  
**LT ENGINEERING**  
  
262.488.0192  
lorenzstewart@gmail.com

REVISIONS

BUILDING BOARD  
REVIEW SET

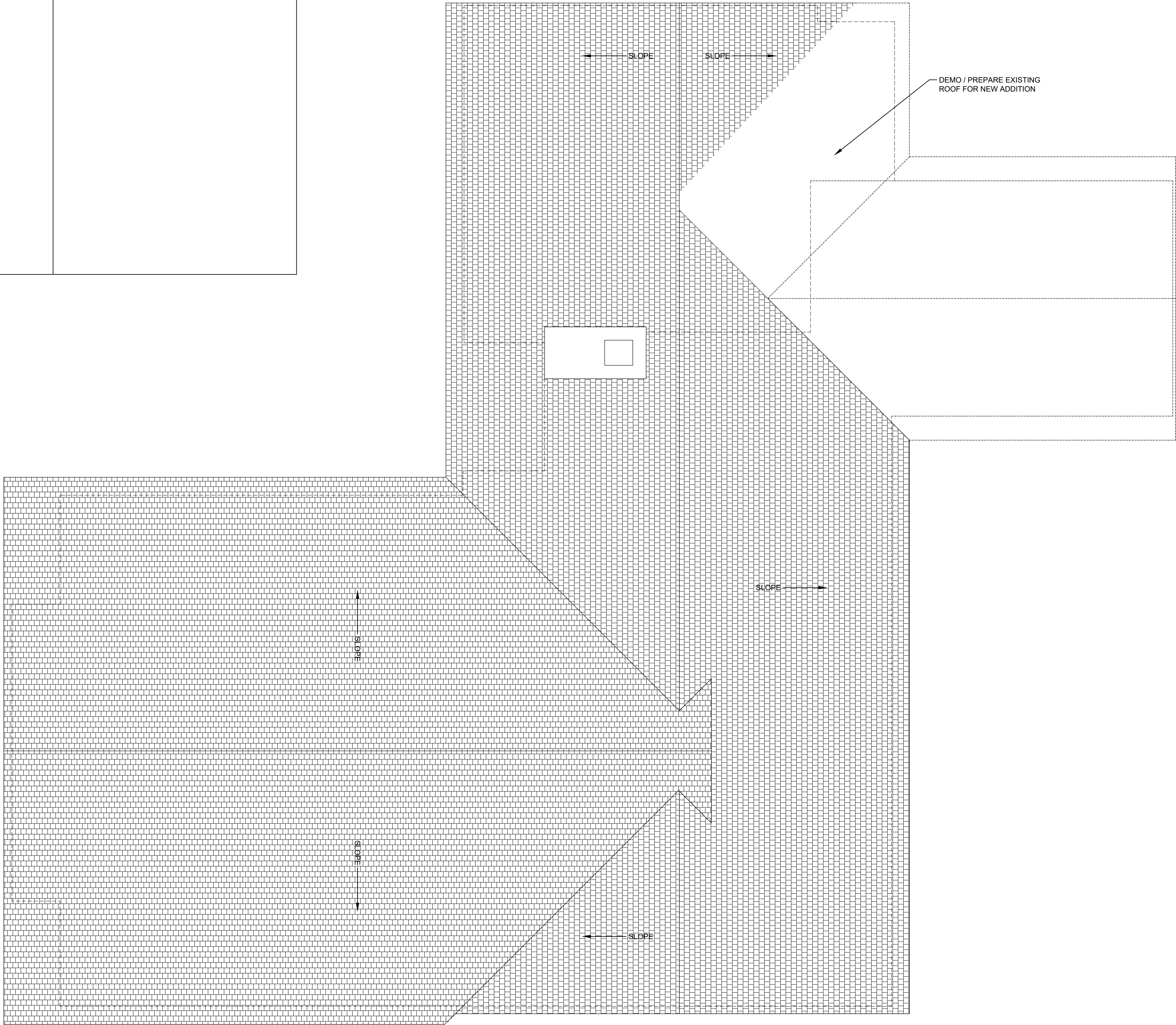
SEPTEMBER 1, 2022

MAIN LEVEL  
DEMO FLOOR PLAN

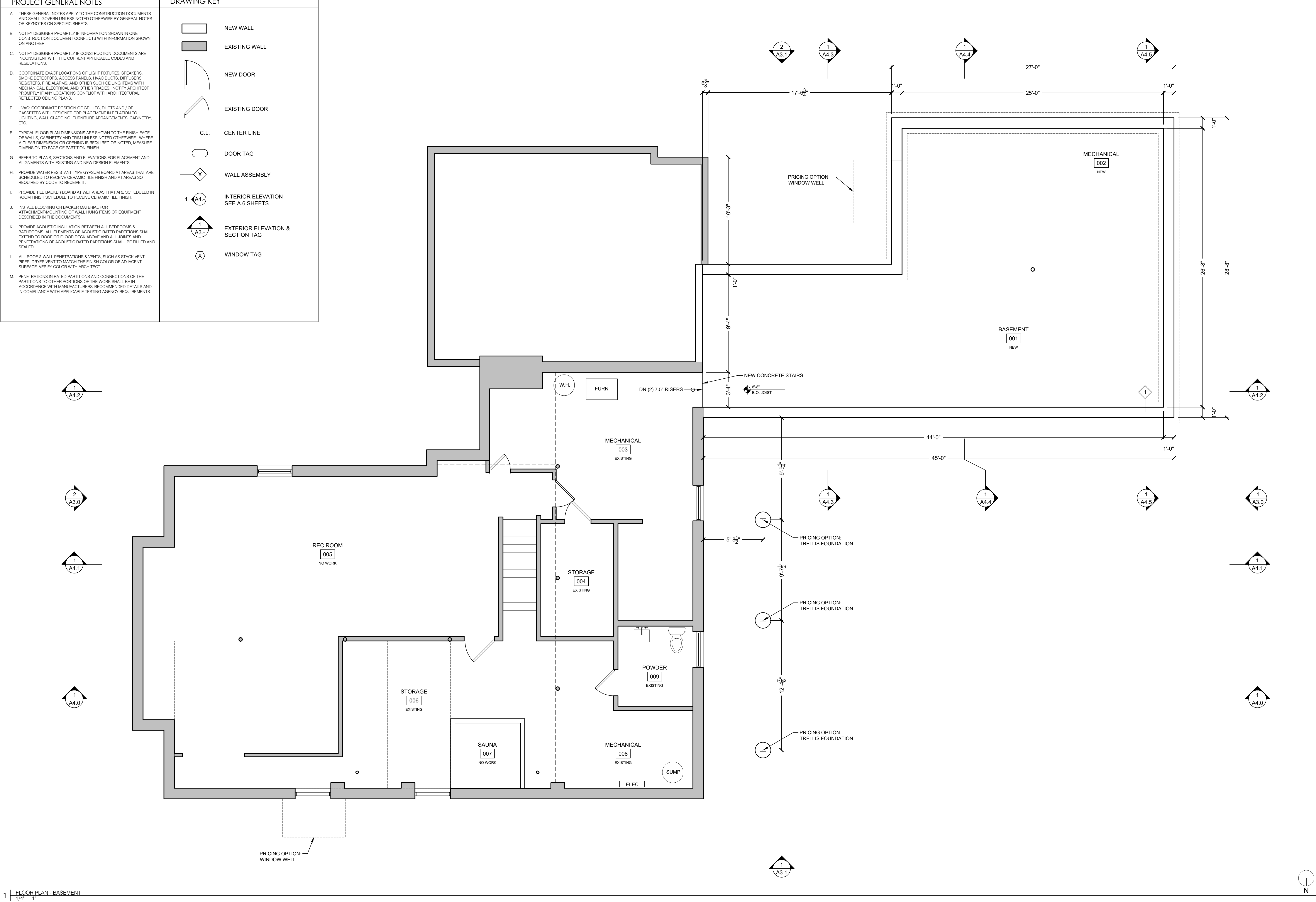
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| DEMO PLAN GENERAL NOTES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | DRAWING KEY                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <div>A. PRESERVE WOOD FLOORING WHERE POSSIBLE IN CONSTRUCTION AREA. PREP FOR SANDING &amp; FINISHING.</div> <div>B. REMOVE EXISTING SWING DOORS IN CONSTRUCTION AREA</div> <div>C. DEMO OR CONSOLIDATE ALL LIGHTING AND ELECTRIC CONDUIT ON CEILING AND WALLS.</div> <div>D. DEMO ALL EXISTING HVAC DUCTS IN CONSTRUCTION AREA. COORDINATE WITH HVAC CONTRACTOR. EVALUATE EXISTING FURNACE &amp; WATER HEATER FOR APPROPRIATE SIZING.</div> <div>E. EVALUATE ROOF, GUTTERS, DOWNSPOUTS FOR REPAIR OR REPLACEMENT.</div> <div>F. SALVAGE ALL EXTERIOR STONE VENEER FOR REUSE ON PROJECT.</div> <div>G. PREP EXISTING WINDOWS FOR NEW PAINT.</div> | <div><div></div> DEMO</div> <div><div></div> EXISTING WALL</div> <div><div></div> NEW DOOR</div> <div><div></div> EXISTING DOOR</div> |

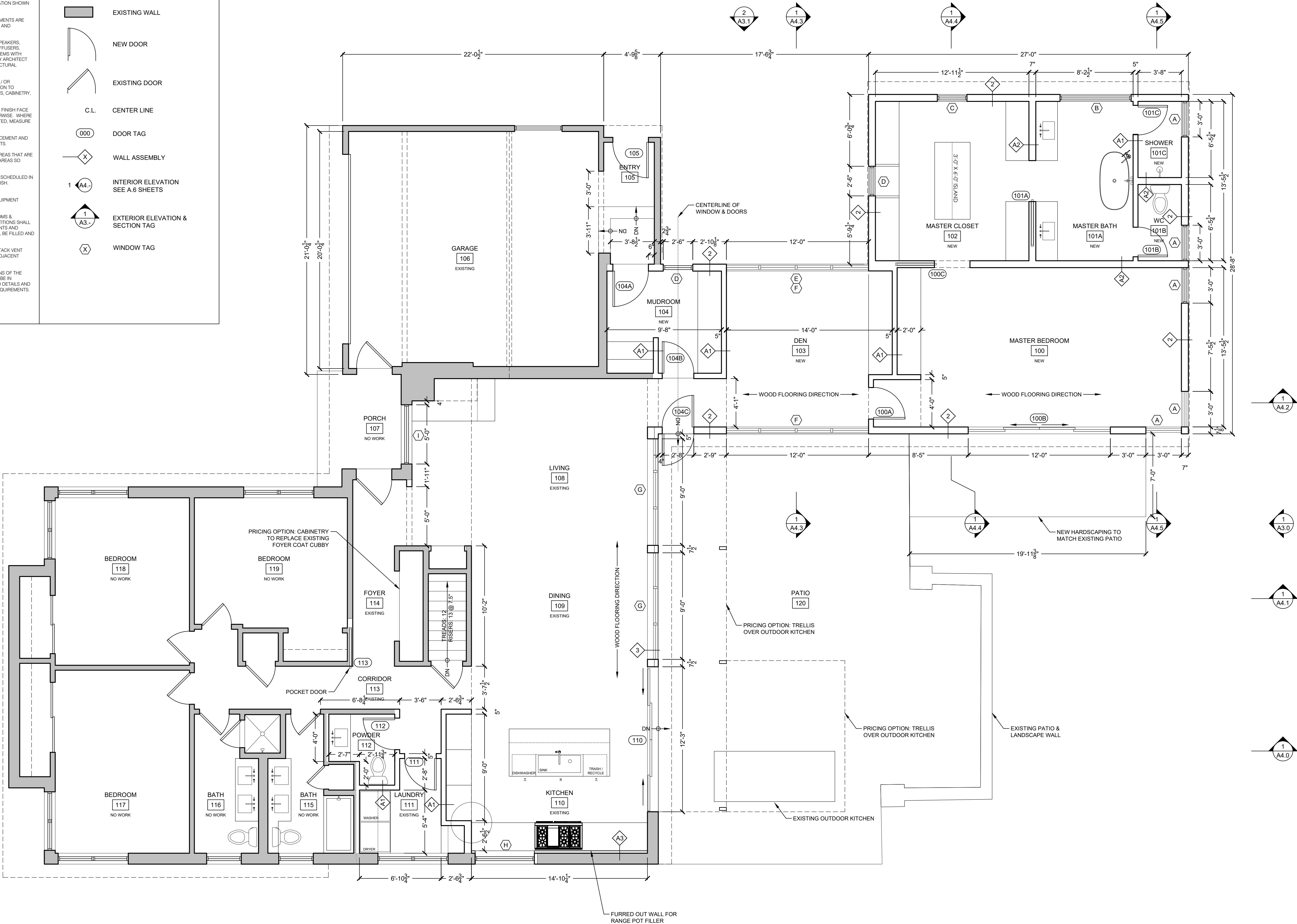


| PROJECT GENERAL NOTES                                                                                                                                                                                                                                                                                                 | DRAWING KEY                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| A. THESE GENERAL NOTES APPLY TO THE CONSTRUCTION DOCUMENTS AND SHALL GOVERN UNLESS NOTED OTHERWISE BY GENERAL NOTES OR KEYNOTES ON SPECIFIC SHEETS.                                                                                                                                                                   | <div><div></div>NEW WALL</div>                                                 |
| B. NOTIFY DESIGNER PROMPTLY IF INFORMATION SHOWN IN ONE CONSTRUCTION DOCUMENT CONFLICTS WITH INFORMATION SHOWN ON ANOTHER.                                                                                                                                                                                            | <div><div></div>EXISTING WALL</div>                                            |
| C. NOTIFY DESIGNER PROMPTLY IF CONSTRUCTION DOCUMENTS ARE INCONSISTENT WITH THE CURRENT APPLICABLE CODES AND REGULATIONS.                                                                                                                                                                                             | <div><div></div>NEW DOOR</div>                                                 |
| D. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES, SPEAKERS, SMOKE DETECTORS, ACCESS PANELS, HVAC DUCTS, DIFFUSERS, REGISTERS, FIRE ALARMS, AND OTHER SUCH CEILING ITEMS WITH MECHANICAL, ELECTRICAL, AND OTHER TRADES. NOTIFY ARCHITECT PROMPTLY IF ANY LOCATIONS CONFLICT WITH ARCHITECTURAL REFLECTED CEILING PLANS. | <div><div></div>EXISTING DOOR</div>                                            |
| E. HVAC: COORDINATE POSITION OF GRILLES, DUCTS AND / OR CASSETTES WITH DESIGNER FOR PLACEMENT IN RELATION TO LIGHTING, WALL CLADDING, FURNITURE ARRANGEMENTS, CABINETRY, ETC.                                                                                                                                         | <div><div>C.L.</div>CENTER LINE</div>                                          |
| F. TYPICAL FLOOR PLAN DIMENSIONS ARE SHOWN TO THE FINISH FACE OF WALLS, CABINETRY AND TRIM UNLESS NOTED OTHERWISE. WHERE A CLEAR DIMENSION OR OPENING IS REQUIRED OR NOTED, MEASURE DIMENSION TO FACE OF PARTITION FINISH.                                                                                            | <div><div></div>DOOR TAG</div>                                                 |
| G. REFER TO PLANS, SECTIONS AND ELEVATIONS FOR PLACEMENT AND ALIGNMENTS WITH EXISTING AND NEW DESIGN ELEMENTS.                                                                                                                                                                                                        | <div><div></div>WALL ASSEMBLY</div>                                            |
| H. PROVIDE WATER RESISTANT TYPE GYPSUM BOARD AT AREAS THAT ARE SCHEDULED TO RECEIVE CERAMIC TILE FINISH AND AT AREAS SO REQUIRED BY CODE TO RECEIVE IT.                                                                                                                                                               | <div><div>1</div><div>A4.-</div>INTERIOR ELEVATION<br/>SEE A 6 SHEETS</div>    |
| I. PROVIDE TILE BACKER BOARD AT WET AREAS THAT ARE SCHEDULED IN ROOM FINISH SCHEDULE TO RECEIVE CERAMIC TILE FINISH.                                                                                                                                                                                                  | <div><div>1</div><div>A3.-</div>EXTERIOR ELEVATION &amp;<br/>SECTION TAG</div> |
| J. INSTALL BLOCKING OR BACKER MATERIAL FOR ATTACHMENT/MOUNTING OF WALL HUNG ITEMS OR EQUIPMENT DESCRIBED IN THE DOCUMENTS.                                                                                                                                                                                            | <div><div></div>WINDOW TAG</div>                                               |
| K. PROVIDE ACOUSTIC INSULATION BETWEEN ALL BEDROOMS & BATHROOMS. ALL ELEMENTS OF ACOUSTIC RATED PARTITIONS SHALL EXTEND TO ROOF OR FLOOR DECK ABOVE AND ALL JOINTS AND PENETRATIONS OF ACOUSTIC RATED PARTITIONS SHALL BE FILLED AND SEALED.                                                                          |                                                                                |
| L. ALL ROOF & WALL PENETRATIONS & VENTS, SUCH AS STACK VENT PIPES, DRYER VENT TO MATCH THE FINISH COLOR OF ADJACENT SURFACE. VERIFY COLOR WITH ARCHITECT.                                                                                                                                                             |                                                                                |
| M. PENETRATIONS IN RATED PARTITIONS AND CONNECTIONS OF THE PARTITIONS TO OTHER PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED DETAILS AND IN COMPLIANCE WITH APPLICABLE TESTING AGENCY REQUIREMENTS.                                                                                     |                                                                                |



- PROJECT GENERAL NOTES**
- A. THESE GENERAL NOTES APPLY TO THE CONSTRUCTION DOCUMENTS AND SHALL GOVERN UNLESS NOTED OTHERWISE BY GENERAL NOTES OR KEYNOTES ON SPECIFIC SHEETS.
- B. NOTIFY DESIGNER PROMPTLY IF INFORMATION SHOWN IN ONE CONSTRUCTION DOCUMENT CONFLICTS WITH INFORMATION SHOWN ON ANOTHER.
- C. NOTIFY DESIGNER PROMPTLY IF CONSTRUCTION DOCUMENTS ARE INCONSISTENT WITH THE CURRENT APPLICABLE CODES AND REGULATIONS.
- D. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES, SPEAKERS, SMOKE DETECTORS, ACCESS PANELS, HVAC DUCTS, DIFFUSERS, REGISTERS, FIRE ALARMS, AND OTHER SUCH CEILING ITEMS WITH MECHANICAL, ELECTRICAL AND OTHER TRADES. NOTIFY ARCHITECT PROMPTLY IF ANY LOCATIONS CONFLICT WITH ARCHITECTURAL REFLECTED CEILING PLANS.
- E. HVAC: COORDINATE POSITION OF GRILLES, DUCTS AND / OR CASSETTES WITH DESIGNER FOR PLACEMENT IN RELATION TO LIGHTING, WALL CLADDING, FURNITURE ARRANGEMENTS, CABINETS, ETC.
- F. TYPICAL FLOOR PLAN DIMENSIONS ARE SHOWN TO THE FINISH FACE OF WALLS, CABINETS AND TRIM UNLESS NOTED OTHERWISE. WHERE A CLEAR DIMENSION OR OPENING IS REQUIRED OR NOTED, MEASURE DIMENSION TO FACE OF PARTITION FINISH.
- G. REFER TO PLANS, SECTIONS AND ELEVATIONS FOR PLACEMENT AND ALIGNMENTS WITH EXISTING AND NEW DESIGN ELEMENTS.
- H. PROVIDE WATER RESISTANT TYPE GYPSUM BOARD AT AREAS THAT ARE SCHEDULED TO RECEIVE CERAMIC TILE FINISH AND AT AREAS SO REQUIRED BY CODE TO RECEIVE IT.
- I. PROVIDE TILE BACKER BOARD AT WET AREAS THAT ARE SCHEDULED IN ROOM FINISH SCHEDULE TO RECEIVE CERAMIC TILE FINISH.
- J. INSTALL BLOCKING OR BACKER MATERIAL FOR ATTACHMENT/MOUNTING OF WALL HUNG ITEMS OR EQUIPMENT DESCRIBED IN THE DOCUMENTS.
- K. PROVIDE ACOUSTIC INSULATION BETWEEN ALL BEDROOMS & BATHROOMS. ALL ELEMENTS OF ACOUSTIC RATED PARTITIONS SHALL EXTEND TO ROOF OR FLOOR/DECK ABOVE AND ALL JOINTS AND PENETRATIONS OF ACOUSTIC RATED PARTITIONS SHALL BE FILLED AND SEALED.
- L. ALL ROOF & WALL PENETRATIONS & VENTS, SUCH AS STACK VENT PIPES, DRYER VENT TO MATCH THE FINISH COLOR OF ADJACENT SURFACE. VERIFY COLOR WITH ARCHITECT.
- M. PENETRATIONS IN RATED PARTITIONS AND CONNECTIONS OF THE PARTITIONS TO OTHER PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED DETAILS AND IN COMPLIANCE WITH APPLICABLE TESTING AGENCY REQUIREMENTS.

- DRAWING KEY**
- NEW WALL
- EXISTING WALL
- NEW DOOR
- EXISTING DOOR
- C.L. CENTER LINE
- DOOR TAG
- WALL ASSEMBLY
- INTERIOR ELEVATION SEE A.6 SHEETS
- EXTERIOR ELEVATION & SECTION TAG
- WINDOW TAG



PROJECT GENERAL NOTES

A. THESE GENERAL NOTES APPLY TO THE CONSTRUCTION DOCUMENTS AND SHALL GOVERN UNLESS NOTED OTHERWISE BY GENERAL NOTES OR KEYNOTES ON SPECIFIC SHEETS.

B. NOTIFY DESIGNER PROMPTLY IF INFORMATION SHOWN IN ONE CONSTRUCTION DOCUMENT CONFLICTS WITH INFORMATION SHOWN ON ANOTHER.

C. NOTIFY DESIGNER PROMPTLY IF CONSTRUCTION DOCUMENTS ARE INCONSISTENT WITH THE CURRENT APPLICABLE CODES AND REGULATIONS.

D. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES, SPEAKERS, SMOKE DETECTORS, ACCESS PANELS, HVAC DUCTS, DIFFUSERS, REGISTERS, FIRE ALARMS, AND OTHER SUCH CEILING ITEMS WITH MECHANICAL, ELECTRICAL AND OTHER TRADES. NOTIFY ARCHITECT PROMPTLY IF ANY LOCATIONS CONFLICT WITH ARCHITECTURAL REFLECTED CEILING PLANS.

E. HVAC: COORDINATE POSITION OF GRILLES, DUCTS AND / OR CASSETTES WITH DESIGNER FOR PLACEMENT IN RELATION TO LIGHTING, WALL CLADDING, FURNITURE ARRANGEMENTS, CABINETRY, ETC.

F. TYPICAL FLOOR PLAN DIMENSIONS ARE SHOWN TO THE FINISH FACE OF WALLS, CABINETRY AND TRIM UNLESS NOTED OTHERWISE. WHERE A CLEAR DIMENSION OR OPENING IS REQUIRED OR NOTED, MEASURE DIMENSION TO FACE OF PARTITION FINISH.

G. REFER TO PLANS, SECTIONS AND ELEVATIONS FOR PLACEMENT AND ALIGNMENTS WITH EXISTING AND NEW DESIGN ELEMENTS.

H. PROVIDE WATER RESISTANT TYPE GYPSUM BOARD AT AREAS THAT ARE SCHEDULED TO RECEIVE CERAMIC TILE FINISH AND AT AREAS SO REQUIRED BY CODE TO RECEIVE IT.

I. PROVIDE TILE BACKER BOARD AT WET AREAS THAT ARE SCHEDULED IN ROOM FINISH SCHEDULE TO RECEIVE CERAMIC TILE FINISH.

J. INSTALL BLOCKING OR BACKER MATERIAL FOR ATTACHMENT/MOUNTING OF WALL, HUNG ITEMS OR EQUIPMENT DESCRIBED IN THE DOCUMENTS.

K. PROVIDE ACOUSTIC INSULATION BETWEEN ALL BEDROOMS & BATHROOMS. ALL ELEMENTS OF ACOUSTIC RATED PARTITIONS SHALL EXTEND TO ROOF OR FLOOR DECK ABOVE AND ALL JOINTS AND PENETRATIONS OF ACOUSTIC RATED PARTITIONS SHALL BE FILLED AND SEALED.

L. ALL ROOF & WALL PENETRATIONS & VENTS, SUCH AS STACK VENT PIPES, DRYER VENT TO MATCH THE FINISH COLOR OF ADJACENT SURFACE. VERIFY COLOR WITH ARCHITECT.

M. PENETRATIONS IN RATED PARTITIONS AND CONNECTIONS OF THE PARTITIONS TO OTHER PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED DETAILS AND IN COMPLIANCE WITH APPLICABLE TESTING AGENCY REQUIREMENTS.

DRAWING KEY

NEW WALL

EXISTING WALL

NEW DOOR

EXISTING DOOR

C.L.

CENTER LINE

DOOR TAG

WALL ASSEMBLY

1  
A4.1

INTERIOR ELEVATION  
SEE A.6 SHEETS

1  
A3.1

EXTERIOR ELEVATION &  
SECTION TAG

WINDOW TAG

The roof plan drawing illustrates the building's footprint and roof layout. The main structure is a large rectangle with a diagonal cutout on the left side. A smaller rectangular section is attached to the right side, containing a hatched area labeled 'PRICING OPTION: TRELLIS OVER OUTDOOR KITCHEN'. The drawing includes numerous elevation callouts (e.g., 1/A4.1, 2/A3.0, 1/A4.2) and slope indicators. Dimensions are provided for various sections, including a 34'-0" width on the left and a 31'-11" length on the right. A north arrow is located in the bottom right corner.

1 | ROOF PLAN  
1/4" = 1'

STUDIO  
EHR

414.405.3520  
josh@studio-ehr.com

REMODEL & ADDITION FOR

WALTENBERGER

7111 N Lombardy Rd,  
Fox Point, WI 53217

GENERAL CONTRACTOR & INTERIORS

STORY HILL  
RENOVATIONS

12040 W Feerick St,  
Wauwatosa, WI 53222  
414.209.1988  
info@storyhillrenovations.com

STRUCTURAL ENGINEER

LT ENGINEERING

262.488.0192  
loomsdave@gmail.com

REVISIONS

BUILDING BOARD  
REVIEW SET  
SEPTEMBER 1, 2022

ROOF PLAN  
A1.2  
© COPYRIGHT 2022. ALL RIGHTS RESERVED

REMODEL & ADDITION FOR

WALTENBERGER

7111 N Lombardy Rd.  
Fox Point, WI 53217

GENERAL CONTRACTOR & INTERIORS

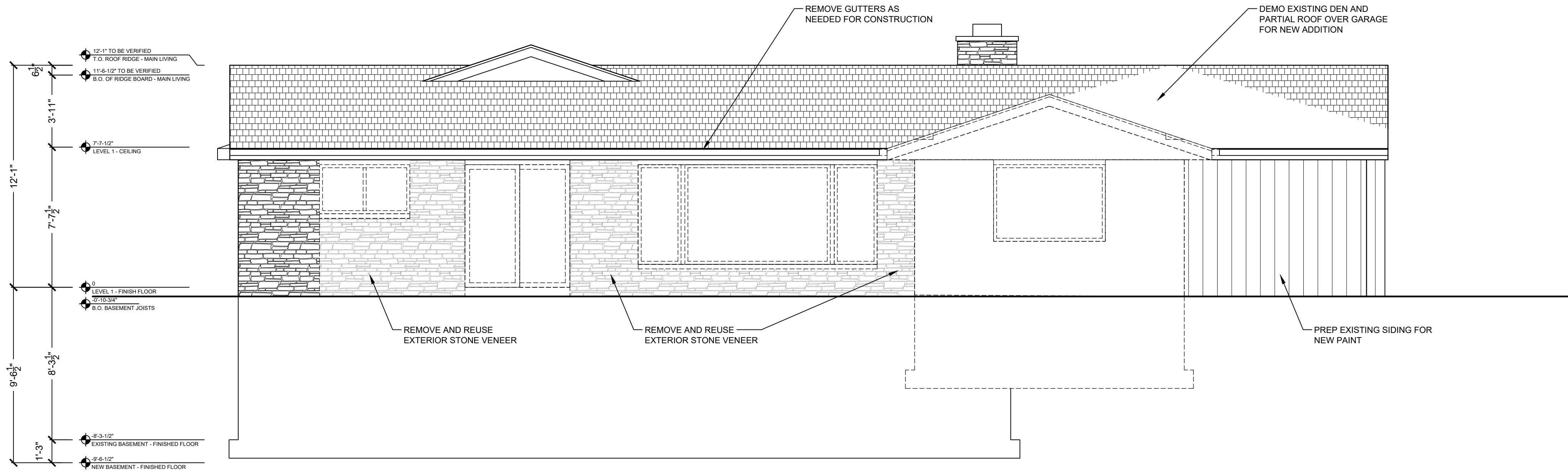
STORY HILL  
RENOVATIONS

12040 W Fenwick St.  
Wauwatosa, WI 53222  
414.209.1988  
info@storyhillrenovations.com

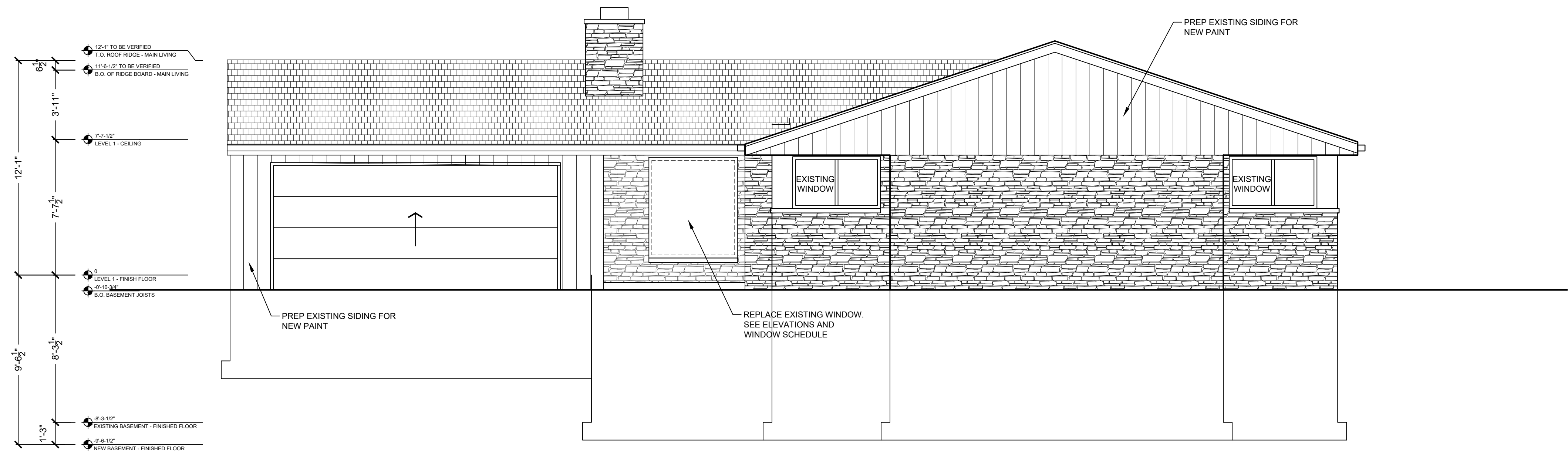
STRUCTURAL ENGINEER

LT ENGINEERING

262.488.0192  
loomistara@gmail.com



1 | EXTERIOR ELEVATION - WEST  
1/4" = 1'



2 | EXTERIOR ELEVATION - EAST  
1/4" = 1'

REVISIONS

BUILDING BOARD  
REVIEW SET

SEPTEMBER 1, 2022

DEMO  
EXTERIOR ELEVATIONS

D3.0

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REMODEL & ADDITION FOR

WALTENBERGER

7111 N Lombardy Rd.  
Fox Point, WI 53217

GENERAL CONTRACTOR & INTERIORS

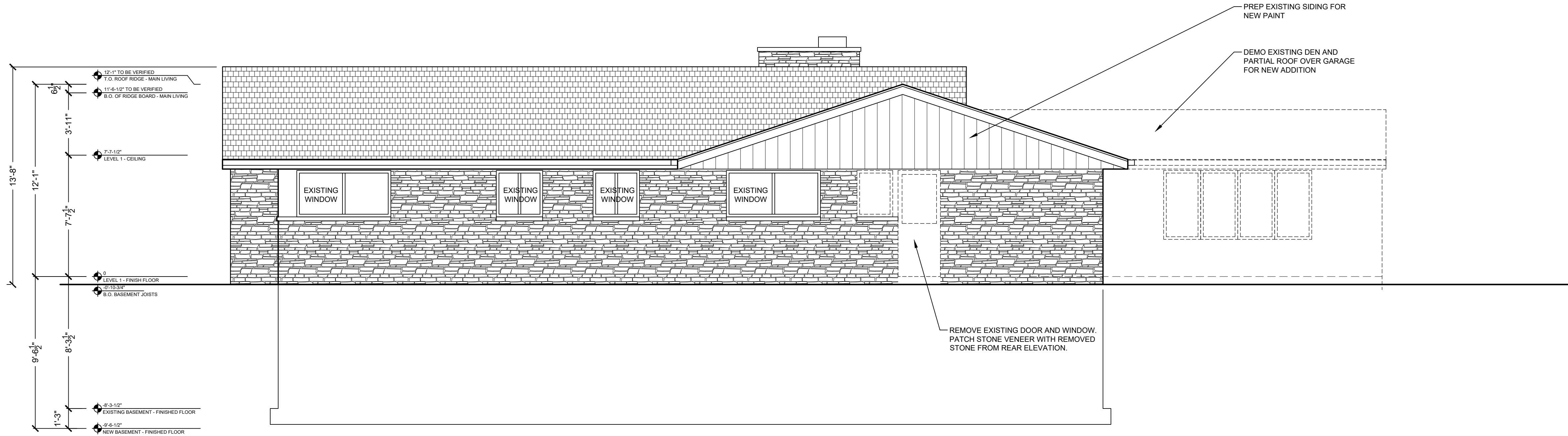
STORY HILL  
RENOVATIONS

12040 W Fennick St.  
Wauwatosa, WI 53222  
414.209.1988  
info@storyhillrenovations.com

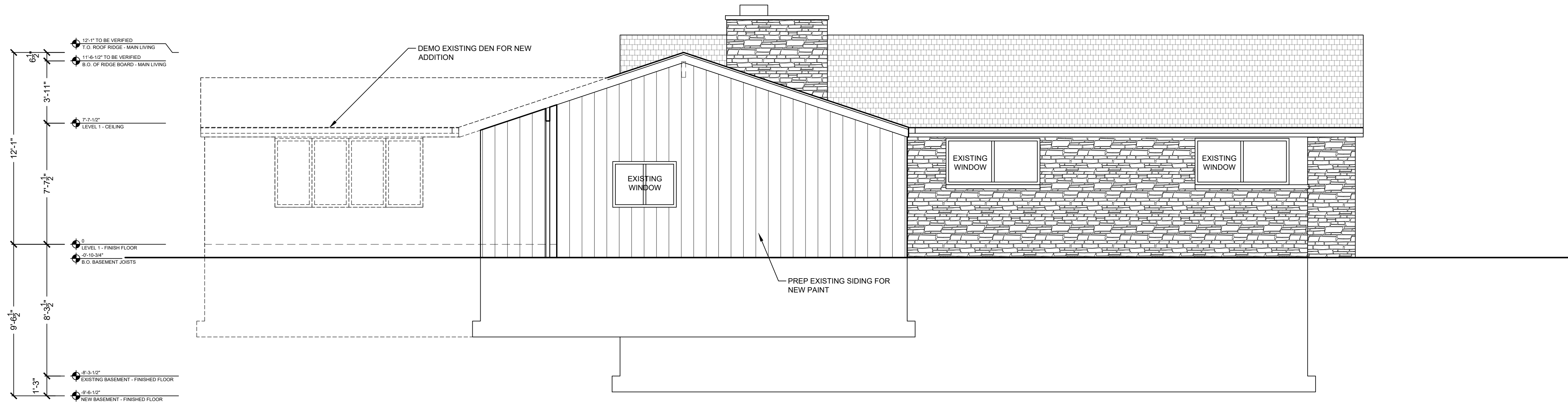
STRUCTURAL ENGINEER

LT ENGINEERING

262.488.0192  
loomistara@gmail.com



1 | EXTERIOR ELEVATION - NORTH  
1/4" = 1'



2 | EXTERIOR ELEVATION - SOUTH  
1/4" = 1'

REVISIONS

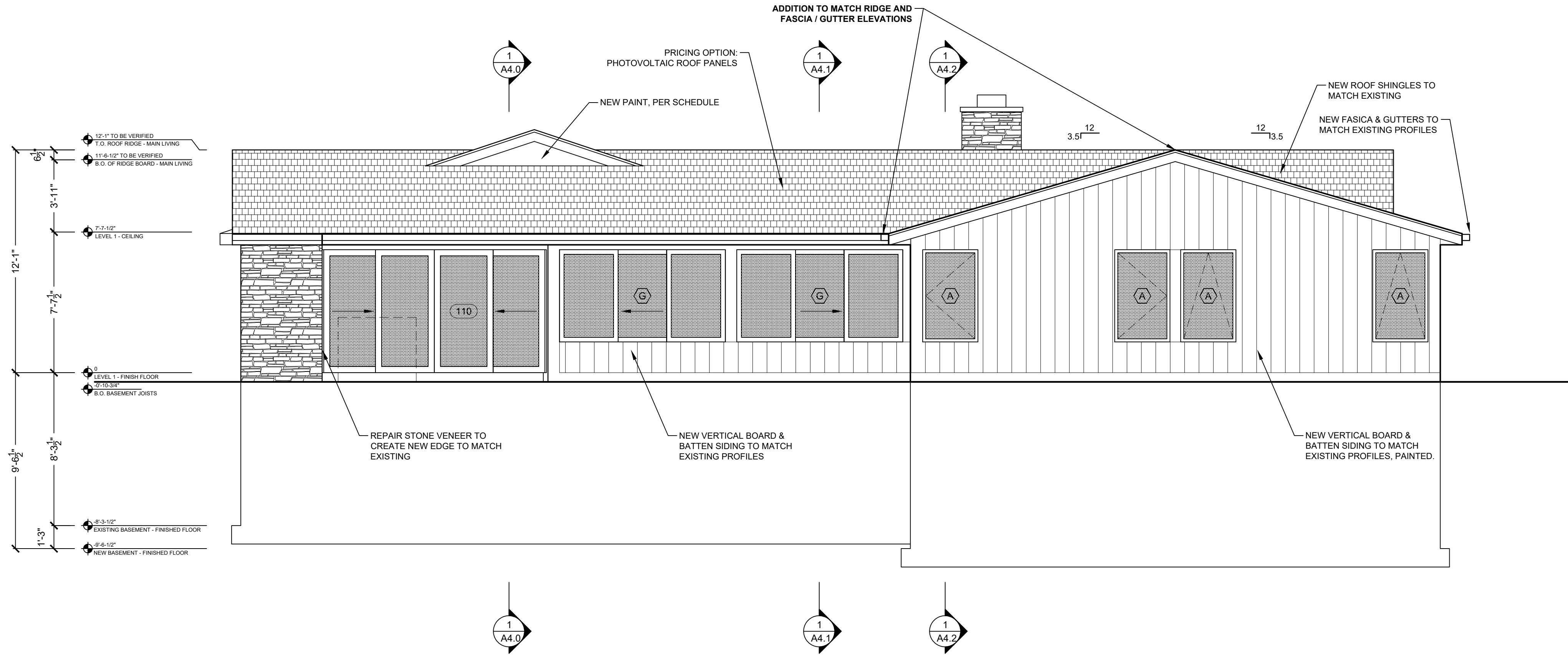
BUILDING BOARD  
REVIEW SET

SEPTEMBER 1, 2022

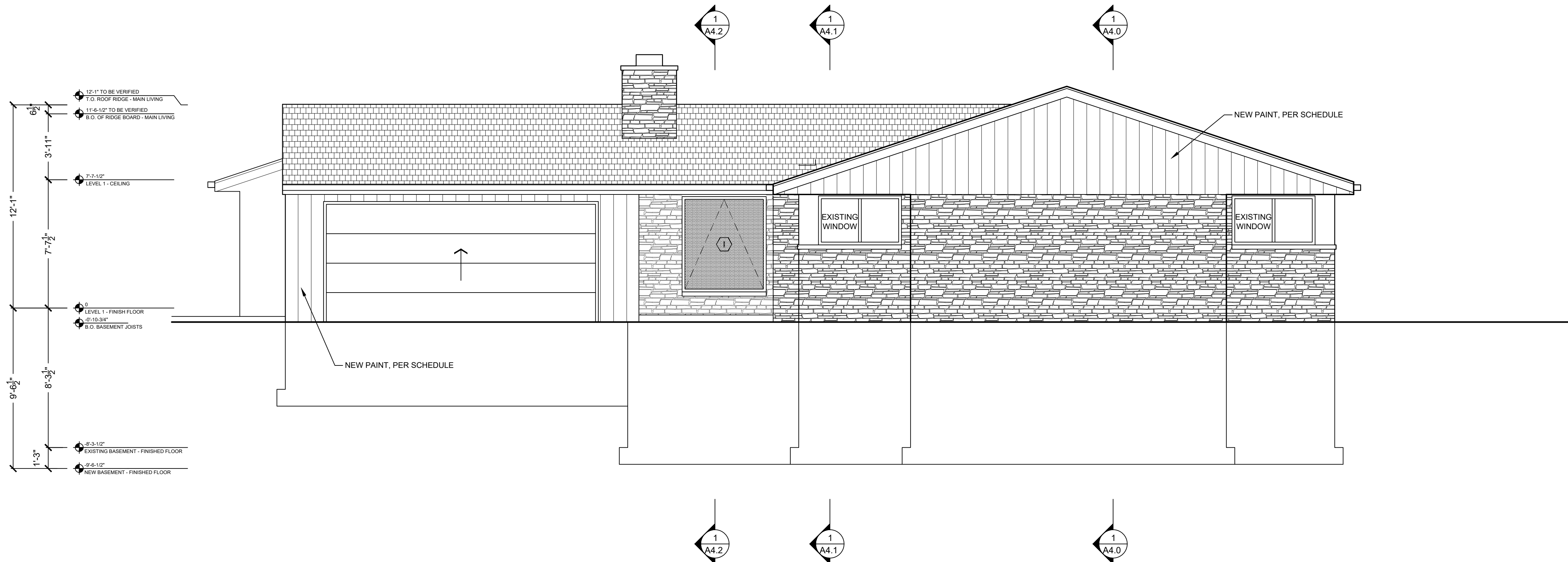
DEMO  
EXTERIOR ELEVATIONS

D3.1

© COPYRIGHT 2022. ALL RIGHTS RESERVED



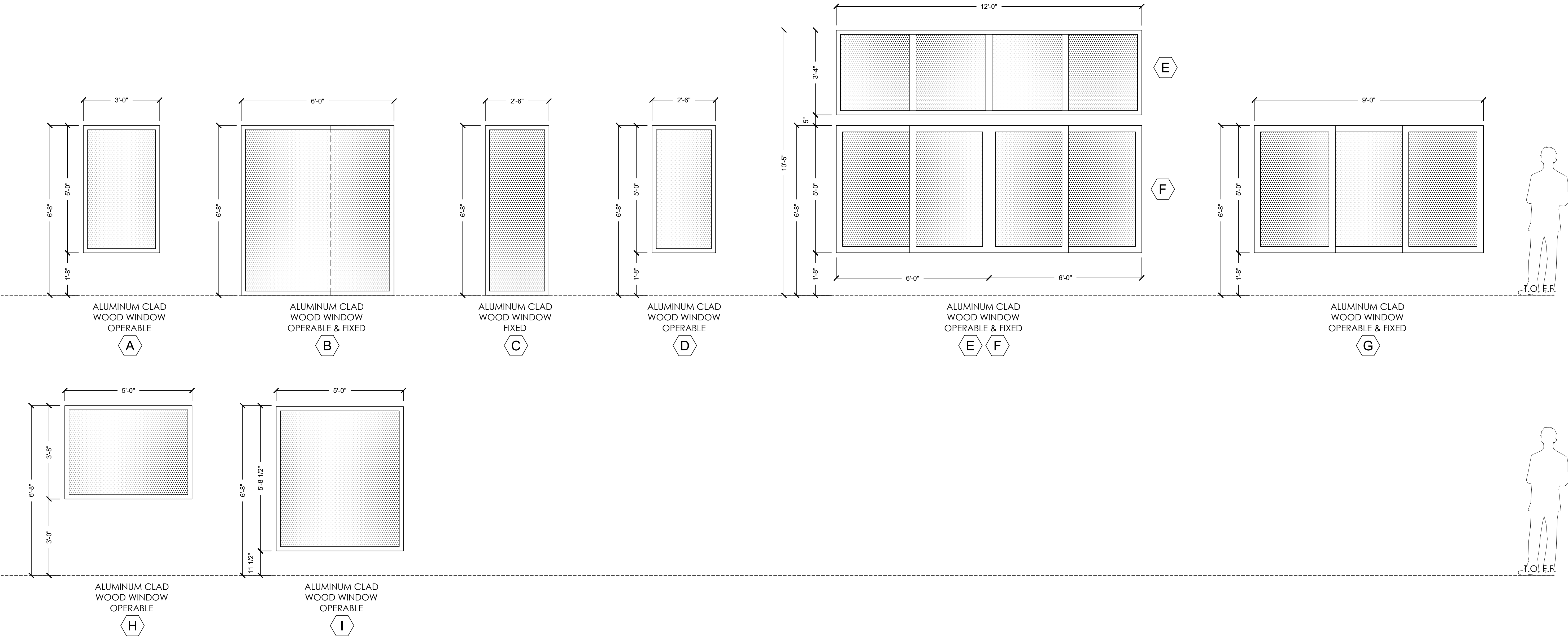
1 | EXTERIOR ELEVATION - WEST  
1/4" = 1"



2 | EXTERIOR ELEVATION - EAST  
1/4" = 1"



WINDOW TYPES



**\*SEE EXTERIOR ELEVATIONS FOR WINDOW & DOOR OPERATION**

\*EXTERIOR WINDOW AND DOOR DESIGN BASED ON **SIERRA PACIFIC** SERIES WINDOWS. ALTERNATE WINDOW MANUFACTURER SELECTION IS ACCEPTABLE TO REDUCE COST, AND SHOULD BE REVIEWED BY ARCHITECT.

EXTERIOR FINISH TO BE **BRONZE** ALUMINUM CLAD

WINDOW SCHEDULE

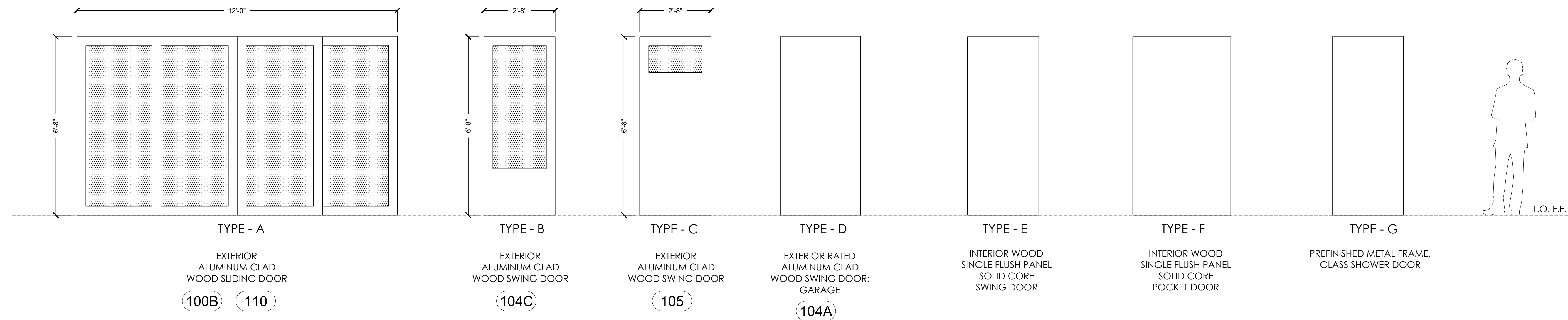
| WINDOW TYPE | MANUFACTURER | SERIES/ TYPE | GLAZING          | MATERIAL & FINISH | UNIT SIZE (WxH) | R.O. (WxH) | DETAILS |      |      | SCHEDULE NOTES |
|-------------|--------------|--------------|------------------|-------------------|-----------------|------------|---------|------|------|----------------|
|             |              |              |                  |                   |                 |            | HEAD    | JAMB | SILL |                |
| A           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      | -              |
| B           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      |                |
| C           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      |                |
| D           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      |                |
| E           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      |                |
| F           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      |                |
| G           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      |                |
| H           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      |                |
| I           | ----         |              | INSULATED, LOW E |                   |                 |            |         |      |      |                |
|             |              |              |                  |                   |                 |            |         |      |      |                |
|             |              |              |                  |                   |                 |            |         |      |      |                |

SCHEDULE NOTES

1. PROVIDE HIGHEST TRANSPARENCY SCREEN. VERIFY WITH DESIGNER / ARCHITECT
2. ALL WINDOWS TO SQUARE STICKING

WINDOW GENERAL NOTES

1. IF **ANY** PORTION OF THE CONSTRUCTION DOCUMENTS IS UNCLEAR, INCOMPLETE IN ITS DIRECTION, OR CONFLICTS WITH OTHER PORTIONS OF THE WORK, PLEASE NOTIFY THE ARCHITECT PRIOR TO EXECUTING THAT WORK.
2. NOTIFY ARCHITECT PROMPTLY IF THE INFORMATION SHOWN IN ONE PORTION OF THE CONSTRUCTION DOCUMENTS CONFLICTS WITH THAT SHOWN IN ANOTHER.
3. NOTIFY ARCHITECT PROMPTLY IF THE CONSTRUCTION DOCUMENTS ARE INCONSISTENT WITH ANY APPLICABLE CODES OR REGULATIONS.
4. **ATTENTION:** CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO EXECUTION OF WORK. DIMENSIONS SHOWN ON FRAME ELEVATIONS MAY NOT ACCURATELY REFLECT FIELD CONDITIONS.
5. WINDOW/DOOR MANUFACTURER TO PROVIDE SHOP DRAWINGS FOR REVIEW. CONTRACTOR TO REVIEW DRAWINGS FOR COMPLIANCE WITH CONTRACT DOCUMENTS AND FIELD CONDITIONS PRIOR TO SUBMITTING TO ARCHITECT.
6. GLASS TO BE 1" CLEAR, LOW E COATING, WITH ARGON FILL.
7. PROVIDE TEMPERED SAFETY GLASS IN ALL LOCATIONS NOTED ON DRAWINGS AND PER WISCONSIN SPS-21.05.3
8. \*DIMENSIONS SHOWN ARE INTERIOR TRIMMED OPENING FRAME SIZES TO MATCH WITH EXISTING. VERIFY ALL ROUGH OPENINGS AND SHIM SPACES DIMENSIONS WITH MANUFACTURER'S RECOMMENDED INSTALLATION TOLERANCES.
9. OPERATORS AND OPERATING DIRECTION AS SHOWN IN ELEVATIONS & PLANS
10. DIMENSIONS TO INTERMEDIATE MULLIONS WITHIN FRAME ARE TO C.L.'S.
11. SEE ELEVATIONS FOR ASSEMBLIES AND OPERATIONS.



EXTERIOR FINISH TO BE BRONZE ALUMINUM CLAD

[illegible]

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**VILLAGE OF FOX POINT**  
7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

**Permit Number:**

**B-**

| OFFICE USE ONLY |                          |
|-----------------|--------------------------|
| Issued Date     |                          |
| Zoning          | C, S5 BRADLEY, 60' HANNO |

## BUILDING PERMIT

|                                                                                      |                                                                                                           |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Job Address</b> 130 W. Bradley                                                    | <b>Building Type:</b> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> |
| <b>Description of Work</b>                                                           |                                                                                                           |
| Demo 26.5' x 22.5' attached garage and construct a new 26.5' x 22.5' attached garage |                                                                                                           |
| <b>Estimated Cost of Project</b> \$ 40,000.00                                        |                                                                                                           |

|                                    |                                    |
|------------------------------------|------------------------------------|
| <b>Owner/Occupant</b> Alex Godfrey |                                    |
| Business Name                      | Contact Name                       |
| Address 130 W. Bradley             | City/State/Zip Fox Point, WI 53217 |
| Phone 414-399-0443                 | Email alexanderjgodfrey@gmail.com  |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                                   |                                             |
|-----------------------------------|---------------------------------------------|
| <b>Contractor</b>                 |                                             |
| Company Name Classic Builders     | Contact Name Jay Bollman                    |
| Address S83 W18901 Saturn Dr      | City/State/Zip Muskego, WI 53150            |
| Phone 262-679-4800                | Email tbollman@classicbuilderswi.com        |
| Dwelling Contractor # 069600111 ✓ | Dwelling Contractor Qualifier # 010800073 ✓ |

| Square Footage Under Construction |                       |          |          |               |
|-----------------------------------|-----------------------|----------|----------|---------------|
| 1 <sup>st</sup> Floor             | 2 <sup>nd</sup> Floor | Basement | Addition | Garage 596.25 |

| Description                                                                                                        | Rate             | Amount |
|--------------------------------------------------------------------------------------------------------------------|------------------|--------|
| Project - Per \$1,000 of estimated cost                                                                            | \$10.00          | 400.00 |
| Building Board                                                                                                     | \$75.00          | 75.00  |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                             |                  |        |
| Plan Review - \$275.00 one and two family; New Single Family Construction<br>\$330.00 plus \$30.00/unit commercial |                  |        |
| State Seal                                                                                                         | \$75.00          |        |
| Razing, Interior Demolition \$925.00 max/bld \$95.00 minimum plus                                                  | \$0.13/sqft      |        |
| Moving buildings \$250.00 plus                                                                                     | \$0.13/sqft      |        |
| Fuel tanks - Per 1,000 gallons                                                                                     | \$25.00          |        |
| Re-inspection                                                                                                      | \$100.00         |        |
| Work started without permit                                                                                        | Double           |        |
| Minimum Fee                                                                                                        | \$70.00          |        |
| Payable to: Village of Fox Point                                                                                   | Total Permit Fee | \$     |

**Applicant Signature**

*Sen Ba*

**Date**

8/30/22

Rev 01/22

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**

VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.058045

Sep 1, 2022

130 W Bradley

|                                                  |       |
|--------------------------------------------------|-------|
| Previous Balance:                                | .00   |
| LICENSES & PERMITS - BUILDING PLANS - FILING FEE | 75.00 |
| 24-44440 BUILDING PLANS-FILING FEE               |       |

|        |       |
|--------|-------|
| Total: | 75.00 |
|--------|-------|

|                         |                 |       |
|-------------------------|-----------------|-------|
| CHECK                   | Check No: 16976 | 75.00 |
| Payor: Classic Builders |                 |       |

|                |       |
|----------------|-------|
| Total Applied: | 75.00 |
|----------------|-------|

|                  |     |
|------------------|-----|
| Change Tendered: | .00 |
|------------------|-----|

09/01/2022 11:11 AM

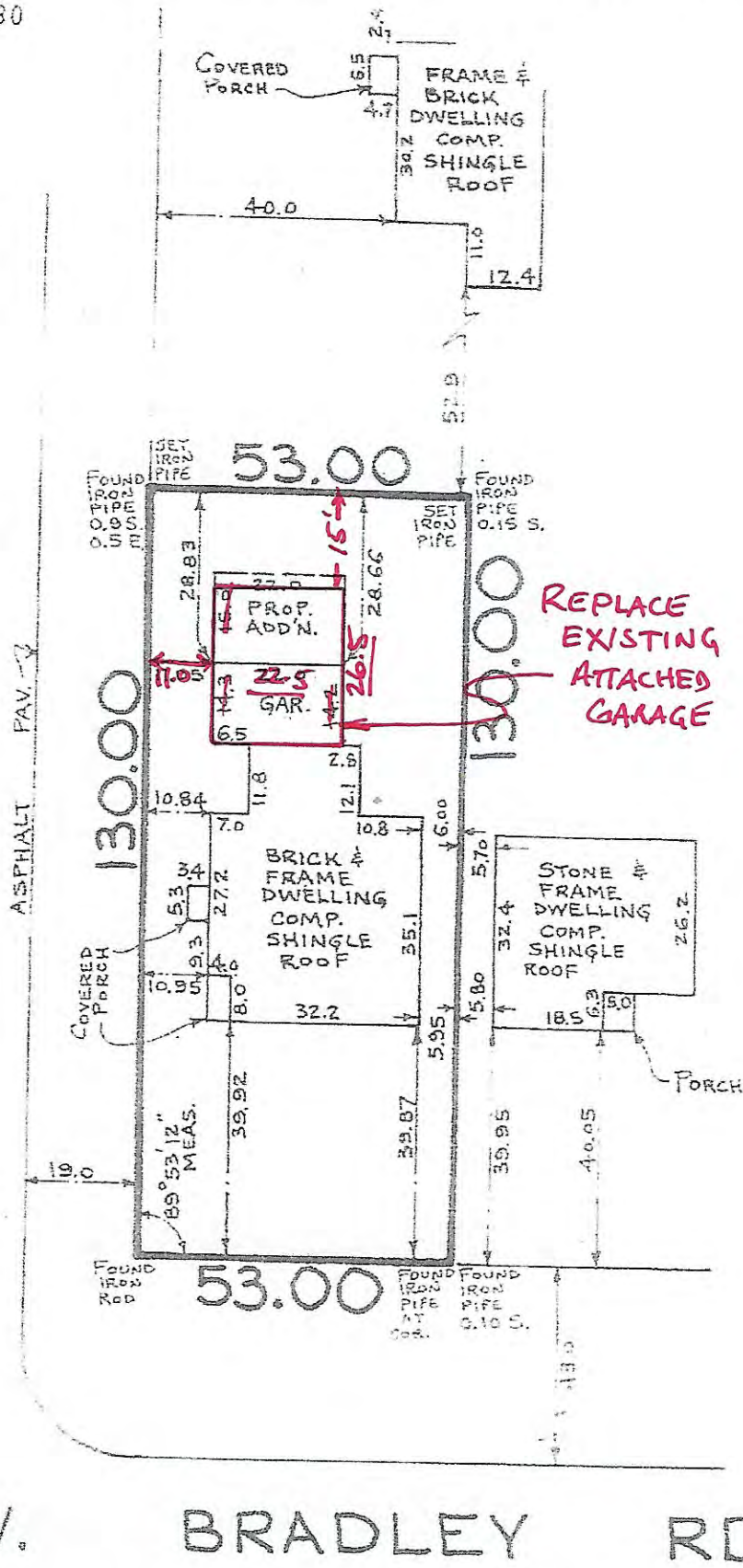
# Plat of Survey

KNOWN AS 130 WEST BRADLEY ROAD, IN VILLAGE OF FOX POINT, WISCONSIN  
 LOT 15 IN BLOCK 10 IN SAVINGS AND INVESTMENT ASSOCIATION OF MILWAUKEE SUBDIVISION NO. 24, BEING A SUBDIVISION OF A PART OF THE SE 1/4 OF SECTION 8, T 8 N. R 22 E, IN THE VILLAGE OF FOX POINT, MILWAUKEE COUNTY, WISCONSIN

OCTOBER 24, 1980

SURVEY NO. 146584-S

GO.  
 NAVAJO RD.  
 N.



SCALE 1"=30'

I Certify that I have surveyed the above described property (Property), and the above map is a true representation thereof and shows the size and location of the Property, its exterior boundaries, the location and dimensions of all visible structures thereon, boundary fences, apparent easements and roadways and visible encroachments, if any. This survey is made for the exclusive use of the present owners of the Property, and also those who purchase, mortgage, or guarantee the title thereto, within one (1) year from date hereof.

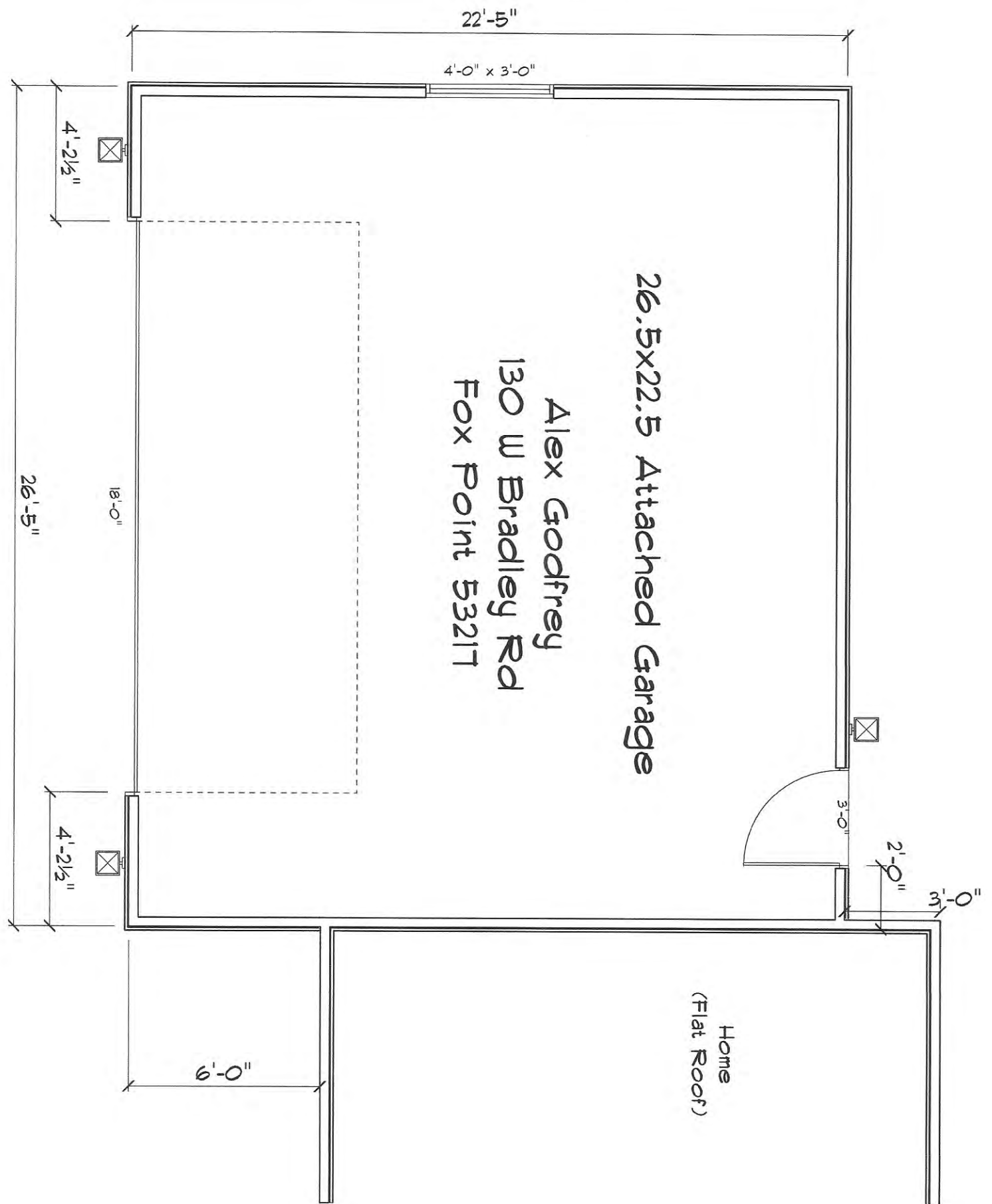
Kenneth E. Berke  
 SURVEYOR

THIS IS ORIGINAL  
 PRINT ONLY IF  
 SEAL IS IMPRINTED  
 IN RED

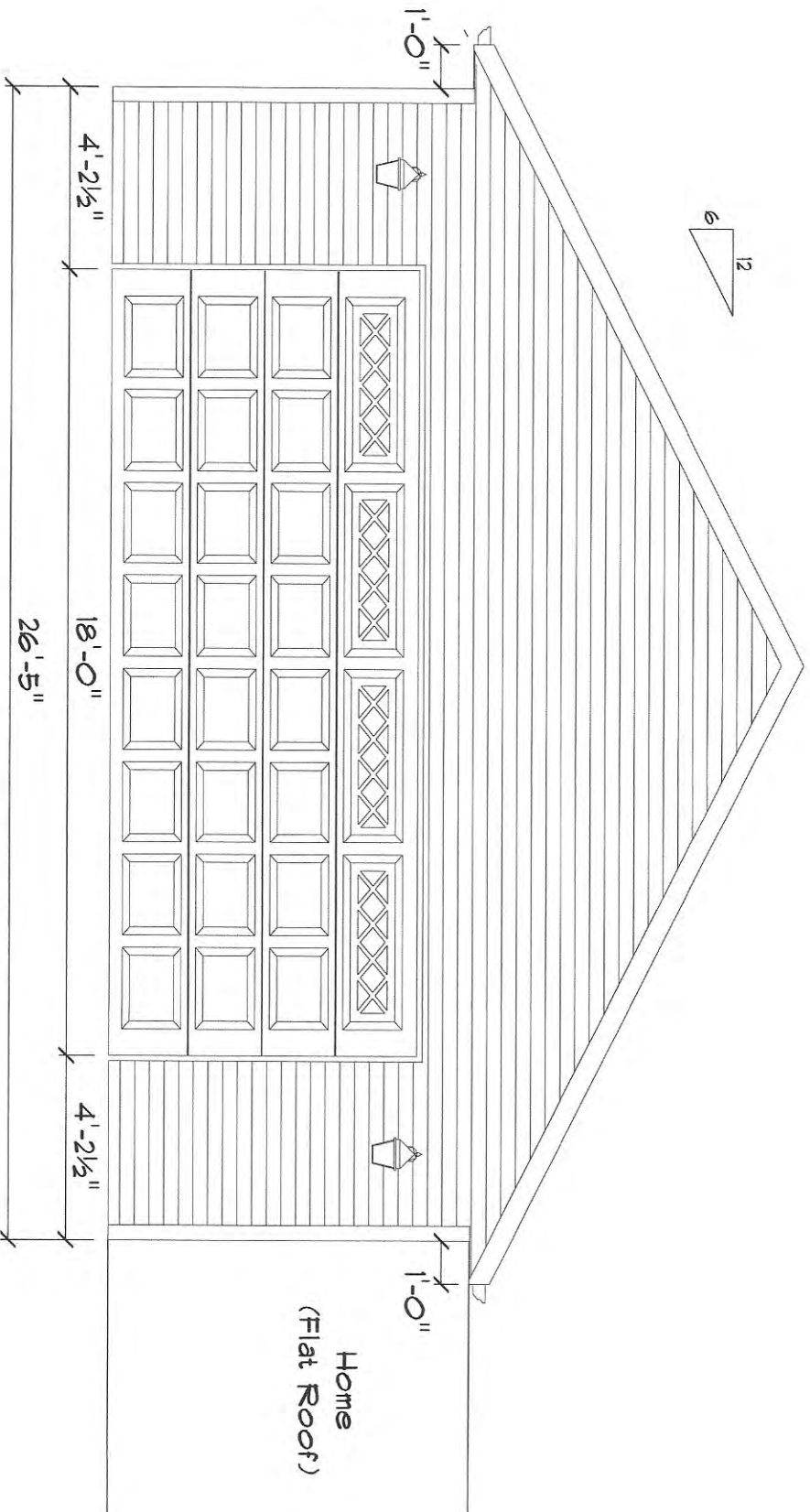


national survey & engineering

3470 north 127th street • p.o. box 444 • brookfield, wisconsin 53005 • phone 414 / 781-1000



- 18x6  
Overhead door -  
White
- D4\_Vinyl Siding -  
Classic Cream
- Aluminum Soffit/Fascia  
& Trim -  
White
- Seamless Gutters -  
White



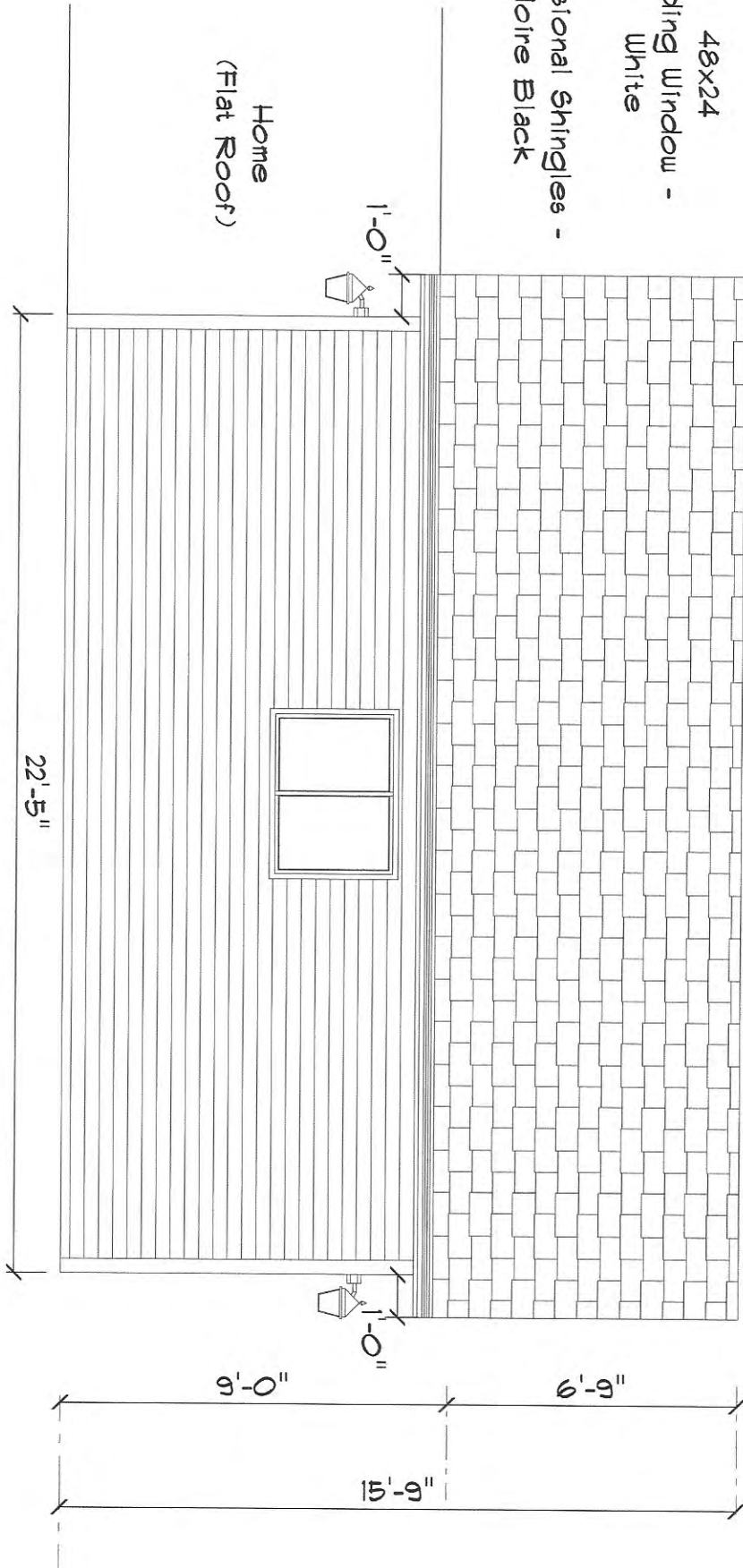
# FRONT ELEVATION

SCALE: 1/4" = 1'-0"

48x24  
Sliding Window -  
White

Dimensional Shingles -  
Moire Black

Home  
(Flat Roof)



# LEFT ELEVATION

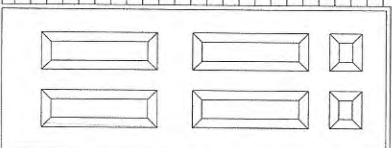
SCALE: 1/4" = 1'-0"

36" Fiberglass  
Service Door

Home  
(Flat Roof)

1'-0"

1'-0"

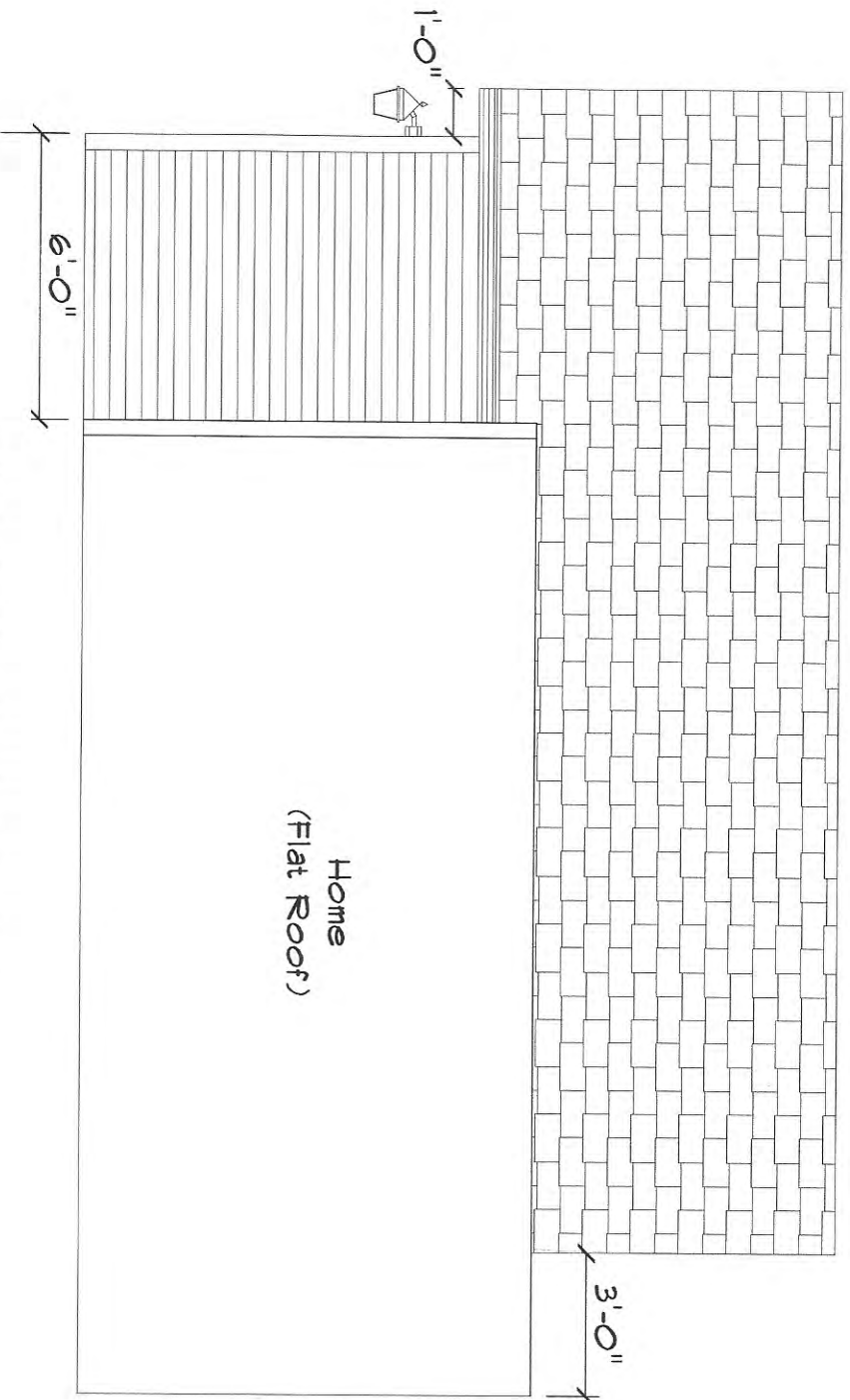


2'-0" 3'-0"

26'-5" 21'-5"

# REAR ELEVATION

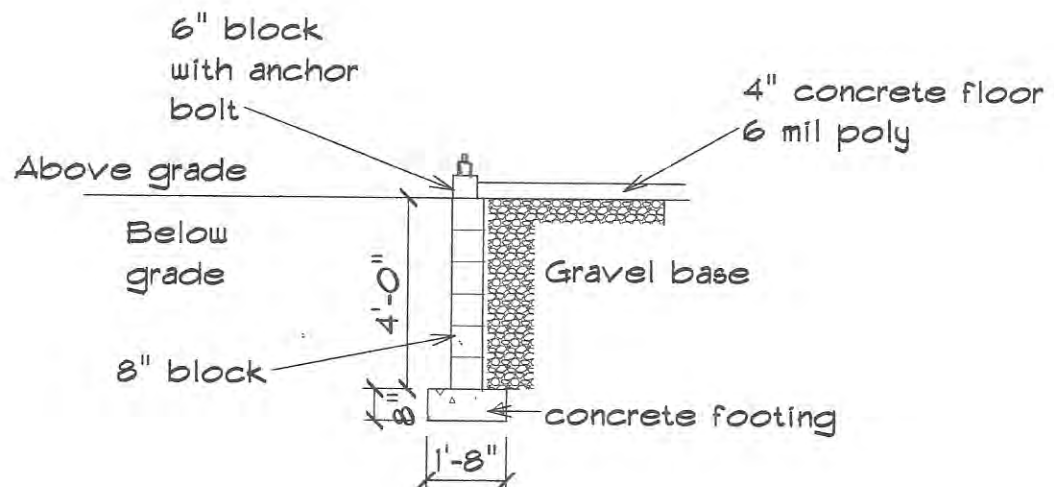
SCALE: 1/4" = 1'-0"



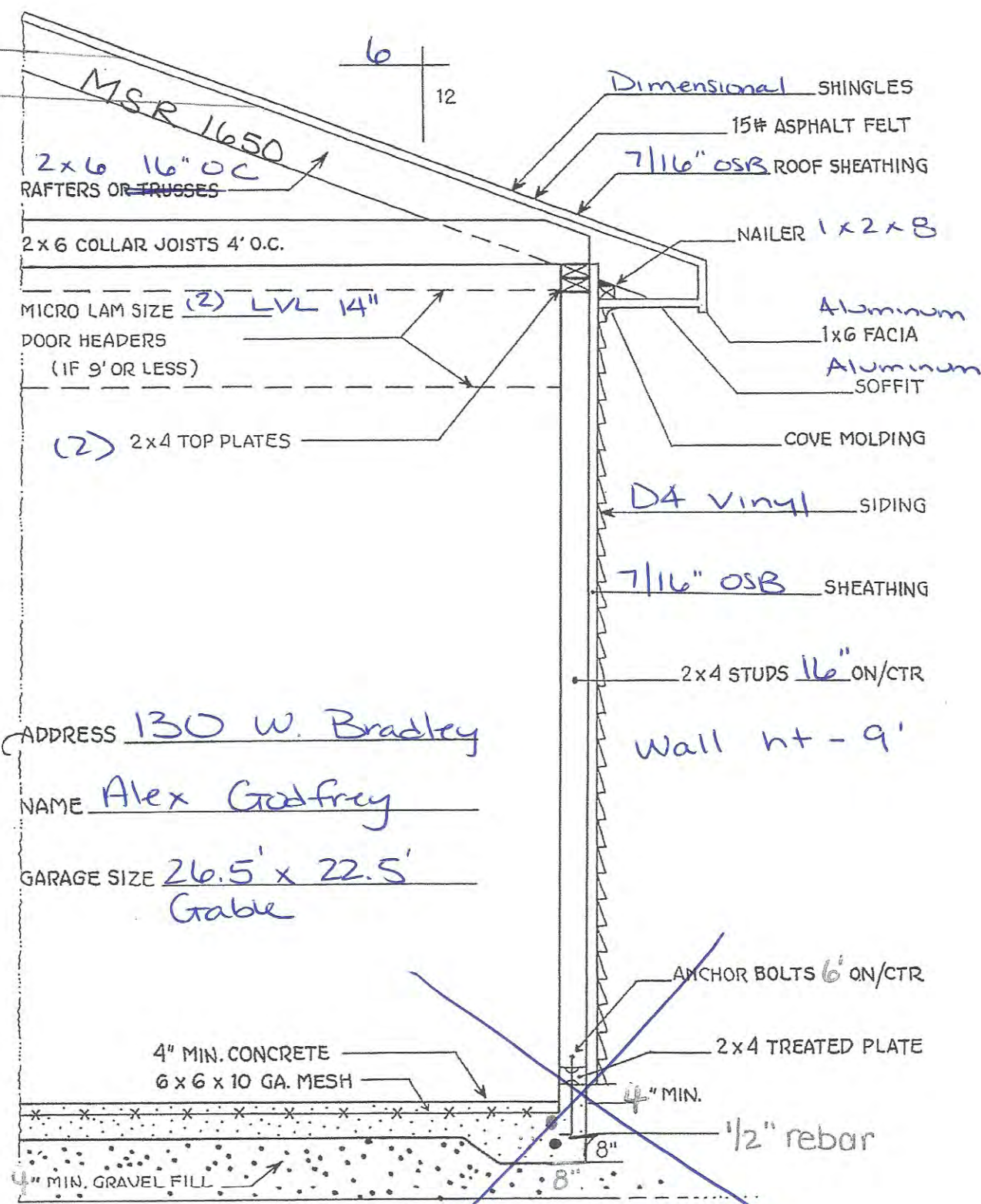
# RIGHT ELEVATION

SCALE: 1/4" = 1'-0"

## FOOTING DETAIL



Collar ties  
in upper 1/3  
of rafter



See footing  
detail

Google Maps 8028 N Navajo Rd



Image capture: Jul 2011 © 2022 Google



130 W Bradley Rd

All

Street View & 360°

**VILLAGE OF FOX POINT**

7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

**Permit Number:****B-****OFFICE USE ONLY**

Issued Date

Zoning

**BUILDING PERMIT**

|                                                              |                                                 |
|--------------------------------------------------------------|-------------------------------------------------|
| <b>Job Address</b> 7539 N Bell Rd                            | <b>Building Type:</b> *Residential - Commercial |
| <b>Description of Work</b> 13.53 kW Roof Mounted Solar Array |                                                 |
|                                                              |                                                 |
|                                                              |                                                 |
| <b>Estimated Cost of Project \$</b> 26,446                   |                                                 |

|                        |                                   |
|------------------------|-----------------------------------|
| <b>Owner/Occupant</b>  |                                   |
| Business Name          | Contact Name Chad Wenzel          |
| Address 7539 N Bell Rd | City/State/Zip Fox Point WI 53217 |
| Phone 920-410-6628     | Email chad.g.wenzel@gmail.com     |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                                   |                                             |
|-----------------------------------|---------------------------------------------|
| <b>Contractor</b>                 |                                             |
| Company Name Arch Solar           | Contact Name Lindsey Hansen                 |
| Address 1237 Pilgrim Rd           | City/State/Zip Plymouth WI 53073            |
| Phone 920-838-5137                | Email lindsey@archelec.com                  |
| Dwelling Contractor # 082-000-870 | Dwelling Contractor Qualifier # 082-000-909 |

| Square Footage Under Construction |                       |          |          |        |
|-----------------------------------|-----------------------|----------|----------|--------|
| 1 <sup>st</sup> Floor             | 2 <sup>nd</sup> Floor | Basement | Addition | Garage |

| Description                                                                                                        | Rate                    | Amount         |
|--------------------------------------------------------------------------------------------------------------------|-------------------------|----------------|
| Project - Per \$1,000 of estimated cost                                                                            | \$10.00                 |                |
| Building Board                                                                                                     | \$75.00                 | 75.00          |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                             |                         |                |
| Plan Review - \$275.00 one and two family; New Single Family Construction<br>\$330.00 plus \$30.00/unit commercial |                         |                |
| State Seal                                                                                                         | \$75.00                 |                |
| Razing, Interior Demolition \$925.00 max/bld                                                                       | \$95.00 minimum plus    | \$0.13/sqft    |
| Moving buildings                                                                                                   | \$250.00 plus           | \$0.13/sqft    |
| Fuel tanks - Per 1,000 gallons                                                                                     |                         | \$25.00        |
| Re-inspection                                                                                                      |                         | \$100.00       |
| Work started without permit                                                                                        |                         | Double         |
|                                                                                                                    | <b>Minimum Fee</b>      | <b>\$70.00</b> |
| Payable to: Village of Fox Point                                                                                   | <b>Total Permit Fee</b> | <b>\$</b>      |

Applicant Signature Lindsey Hansen Date 8/16/22  
Rev 01/22

**ISSUED PERMITS** are available on the Village website under **PERMITS & LICENSES**

VILLAGE OF FOX POINT  
7200 N. SANTA MONICA BLVD  
FOX POINT WI 53217

414-351-8900

Receipt No: 1.058068

Sep 7, 2022

7539 N Bell

|                                                                                           |        |
|-------------------------------------------------------------------------------------------|--------|
| Previous Balance:                                                                         | .00    |
| LICENSES & PERMITS - ELECTRICAL PERMIT<br>24-44430 ELECTRICAL PERMIT                      | 70.00  |
| LICENSES & PERMITS - BUILDING PLANS - FILING<br>FEE<br>24-44440 BUILDING PLANS-FILING FEE | 75.00  |
| LICENSES & PERMITS - BUILDING PERMIT<br>24-44460 BUILDING PERMIT                          | 265.00 |
| <hr/>                                                                                     |        |
| Total:                                                                                    | 410.00 |
| <hr/>                                                                                     |        |
| CHECK      Check No: 2917241760                                                           | 410.00 |
| Payor: Arch SOLar                                                                         |        |
| Total Applied:                                                                            | 410.00 |
| <hr/>                                                                                     |        |
| Change Tendered:                                                                          | .00    |
| <hr/>                                                                                     |        |

09/07/2022 12:11 PM

**VILLAGE OF FOX POINT**

7200 N Santa Monica Blvd  
Fox Point, WI 53217  
(414) 247-6622  
www.villageoffoxpoint.com

**Permit Number:****B-****OFFICE USE ONLY**

Issued Date

Zoning

**BUILDING PERMIT**

|                                                              |                                                             |
|--------------------------------------------------------------|-------------------------------------------------------------|
| <b>Job Address</b> 7539 N Bell Rd                            | <b>Building Type:</b> <sup>X</sup> Residential - Commercial |
| <b>Description of Work</b> 13.53 kW Roof Mounted Solar Array |                                                             |
|                                                              |                                                             |
|                                                              |                                                             |
| <b>Estimated Cost of Project \$</b> 26,446                   |                                                             |

|                        |                                   |
|------------------------|-----------------------------------|
| <b>Owner/Occupant</b>  |                                   |
| Business Name          | Contact Name Chad Wenzel          |
| Address 7539 N Bell Rd | City/State/Zip Fox Point WI 53217 |
| Phone 920-410-6628     | Email chad.g.wenzel@gmail.com     |

**\*\*Cautionary Statement required when homeowner is applying for permit\*\***

|                                   |                                             |
|-----------------------------------|---------------------------------------------|
| <b>Contractor</b>                 |                                             |
| Company Name Arch Solar           | Contact Name Lindsey Hansen                 |
| Address 1237 Pilgrim Rd           | City/State/Zip Plymouth WI 53073            |
| Phone 920-838-5137                | Email lindsey@archelec.com                  |
| Dwelling Contractor # 082-000-870 | Dwelling Contractor Qualifier # 082-000-909 |

| Square Footage Under Construction |                       |          |          |        |
|-----------------------------------|-----------------------|----------|----------|--------|
| 1 <sup>st</sup> Floor             | 2 <sup>nd</sup> Floor | Basement | Addition | Garage |

| Description                                                                                                        | Rate                    | Amount         |
|--------------------------------------------------------------------------------------------------------------------|-------------------------|----------------|
| Project - Per \$1,000 of estimated cost                                                                            | \$10.00                 |                |
| Building Board                                                                                                     | \$75.00                 |                |
| Footing early start - \$230.00 one and two family; \$305.00 commercial                                             |                         |                |
| Plan Review - \$275.00 one and two family; New Single Family Construction<br>\$330.00 plus \$30.00/unit commercial |                         |                |
| State Seal                                                                                                         | \$75.00                 |                |
| Razing, Interior Demolition \$925.00 max/bld \$95.00 minimum plus                                                  | \$0.13/sqft             |                |
| Moving buildings \$250.00 plus                                                                                     | \$0.13/sqft             |                |
| Fuel tanks - Per 1,000 gallons                                                                                     | \$25.00                 |                |
| Re-inspection                                                                                                      | \$100.00                |                |
| Work started without permit                                                                                        | Double                  |                |
|                                                                                                                    | <b>Minimum Fee</b>      | <b>\$70.00</b> |
| Payable to: Village of Fox Point                                                                                   | <b>Total Permit Fee</b> | <b>\$</b>      |

Applicant Signature Lindsey Hansen Date 8/16/22

Rev 01/22

**ISSUED PERMITS are available on the Village website under PERMITS & LICENSES**

Equipment Location:

Meter outside SE corner of the house. Main disconnect will be located adjacent to meter. Additional disconnect will be located on garage between windows. Combiner will also be next to meter. Relocate cable box as necessary.

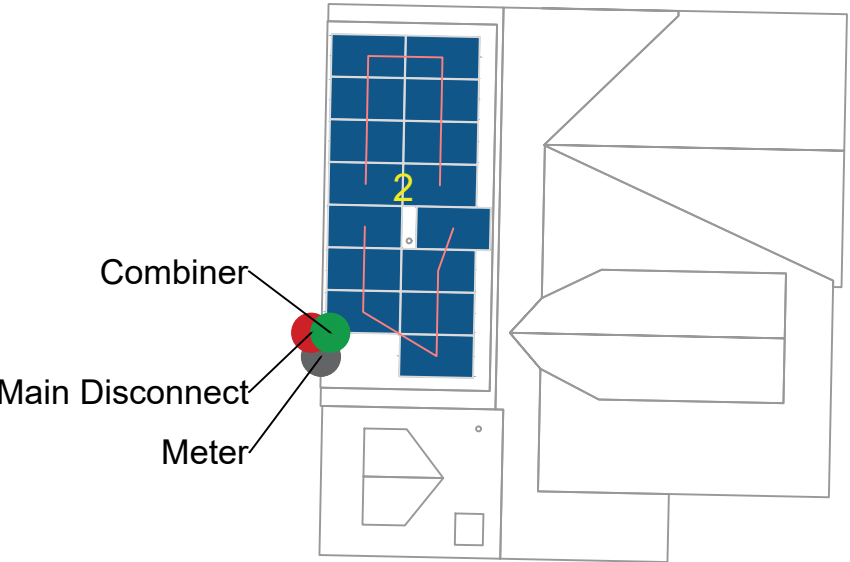
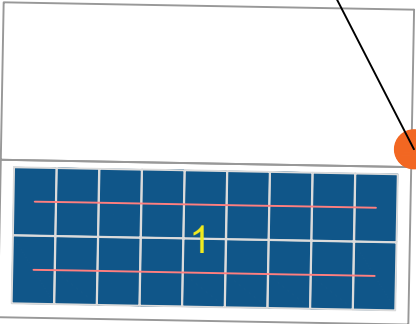
| Array # | Array Pitch | True Azim. | Mag. Azim. | PV SqFt |
|---------|-------------|------------|------------|---------|
| 1       | 26.5°       | 181°       | 184°       | 358.38  |
| 2       | 13°         | 271°       | 274°       | 298.65  |



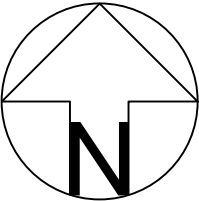
Combiner

Main Disconnect

Garage Disconnect



Plot Plan: Scale - NTS



Customer: Chad Wenzel  
Address: 7539 N Bell Rd  
City: Fox Point  
State: WI  
Zip Code: 53217  
Contact: Chad Wenzel  
Phone: (920) 410-6628  
Email: chad.g.wenzel@gmail.com

Project Number: 22R-205  
System Size: 13.53kWdc  
Designer: Mike Gietman

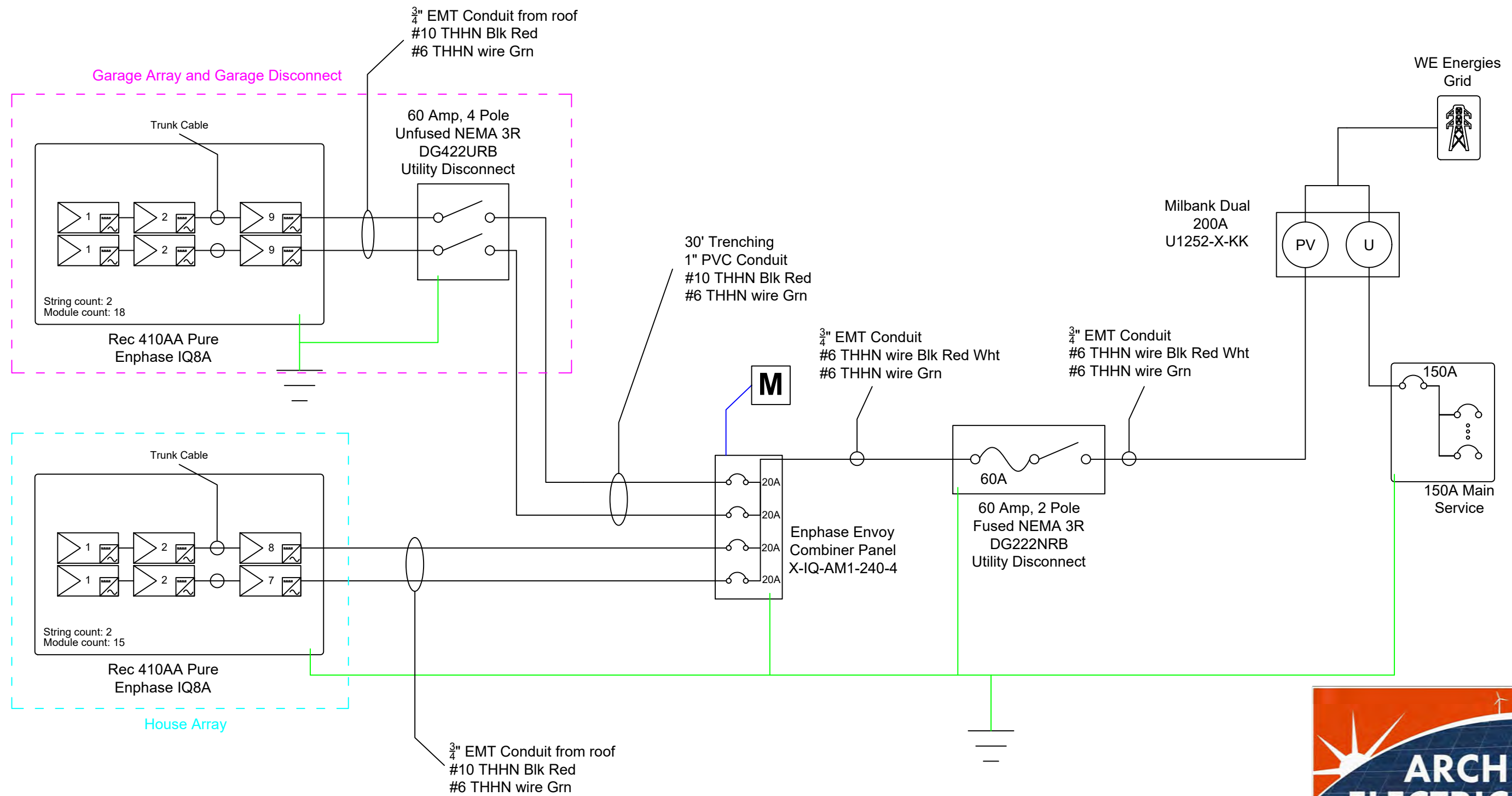
Site Plan

Revision: 1 Date: 8.1.22

Page A.2



Main service panel in basement.



| Module Specifications         |         |
|-------------------------------|---------|
| Rec Solar 410AA Pure (QTY:33) |         |
| STC Rating                    | 410 W   |
| Vmp                           | 42.7 V  |
| Imp                           | 9.61 A  |
| Voc                           | 49.0 V  |
| Isc                           | 10.35 A |

| Array Specifications                                     |         |        |         |  |
|----------------------------------------------------------|---------|--------|---------|--|
| 4 Strings: 9 Modules / 9 Modules / 8 Modules / 7 Modules |         |        |         |  |
| Max DC Power Rating                                      | 3.69kW  | 3.28kW | 2.87kW  |  |
| Operating AC Voltage                                     | 240 V   | 240 V  | 240 V   |  |
| Operating AC Current                                     | 13.05 A | 11.6 A | 10.15 A |  |
| Max AC System Voltage                                    | 240 V   | 240 V  | 240 V   |  |
| AC Short Circuit Current                                 | 20 A    | 20 A   | 20 A    |  |

| Inverter Specifications     |                           |
|-----------------------------|---------------------------|
| Enphase 366w IQ8A           |                           |
| Max AC Power Rating         | 366W / 12.078kWac Total   |
| Max DC Input Voltage        | 60 V                      |
| Max DC Input Current        | 15 A                      |
| Nominal AC OperatingVoltage | 240 V                     |
| Max AC Operating Current    | 1.45A Each / 47.85A Total |



THE SOLAR + ENERGY STORAGE EXPERTS

Customer: Chad Wenzel  
Address: 7539 N Bell Rd  
City: Fox Point  
State: WI  
Zip Code: 53217  
Contact: Chad Wenzel  
Phone: (920) 410-6628  
Email: chad.g.wenzel@gmail.com

Project Number: 22R-205  
System Size: 13.53kWdc  
Designer: 920.838.6610

Mike Gietman  
One Line Diagram

Revision: 1 Date: 8.1.22

August 16, 2022

**Arch Electric**  
**1237 Pilgrim Road**  
**Plymouth, Wisconsin, 53073**

**Design Criteria:**

Wind Speed ( $V_{ult}$ ) - 115.0 mph  
Ground Snow Load - 30.0 psf  
Risk Category - 2  
Exposure Category - C

**RE: Structural Roof Evaluation for the Chad Wenzel Residence: 7539 N Bell Rd, Fox Point, Wisconsin**

We have evaluated the roof structure under the proposed solar panel array. The information used to evaluate this structure was gathered during a field visit by Arch Electric on behalf of Right Angle Engineering. The design criteria used to analyze this structure are listed above and included with this letter. The adopted building codes in this jurisdiction are: The 2018 International Residential code and ASCE 7-16.

| Array Name | Connection Type | Panel Quantity | Min # Connections | Reinforcements |
|------------|-----------------|----------------|-------------------|----------------|
| Array 1    | L-Foot          | 15             | 24                | None           |

***Solar Panel Anchorage***

The solar panel anchorage shall be installed according to the manufactures most current installation manual. For the loads to be evenly distributed, the roof attachments should be staggered and spread evenly throughout the panel array. Attachment points should be spaced at a maximum of 48 inches on center. Roof anchors that are attached to the substructure should have a 5/16" or 18/8 SS lag screw with 2.5" minimum penetration centered on each truss top chord or rafter.

***Conclusion***

Based on our assessment, we have determined that the existing roof framing is in good condition and will safely and adequately support the additional loads imposed by the solar panels without reinforcement. The equipment will not create a negative impact on the building's structural design, including any additional loads imposed (dead, snow, wind/seismic). A roof evaluation was performed with the required loading in accordance with section 324.4 of the Residential Code

Regards,



08/16/2022

Robert D. Smythe, P.E.  
Right Angle Engineering

***Scope of work and limitations***

The evaluation is based on information provided by the client. All information is verified by the engineer from pictures, video, and third party software. Verification of the field observations is the responsibility of the contractor. The contractor shall verify the framing sizes, spacing, spans, and roof pitch noted in this letter and/or sealed plans. The contractor shall notify the engineer if there are any discrepancies, or if there is any damage to the structure (i.e., fire damage, water damage, dry rot, deflections, broken member, broken connection, etc). The scope of work is strictly limited to the fastener attachments and underlying roof framing directly under each solar array. Right Angle Engineering assumes no responsibility for improper installation of solar panels or their components. Waterproofing around the roof penetrations is the responsibility of others. Alterations to this engineering evaluation and/or sealed plans shall not be made without direct written consent of the engineer of record.

# Job Details

| Roof Snow Load - ASCE 7-16                                         |           | Design Criteria                                                                                                 |            |
|--------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------|------------|
| Ground Snow Load ( $p_g$ )<br><i>Section 7.2</i>                   | 30.0 psf  | Design Wind Speed                                                                                               | 115.0mph   |
| Exposure Factor ( $C_e$ )<br><i>Table 7.3-1</i>                    | 0.9       | Exposure Category                                                                                               | C          |
| Thermal Factor ( $C_t$ )<br><i>Table 7.3-2</i>                     | 1.1       | Risk Category                                                                                                   | 2          |
| Importance Factor ( $I_s$ )<br><i>Table 1.5-2</i>                  | 1         | Mean Roof Height                                                                                                | 30 ft      |
| Flat Roof Snow Load ( $p_f$ )<br><i>Equation 7.3-1</i>             | 20.79 psf | Roof Type                                                                                                       | Gable Roof |
| Slippery Surface Slope Factor ( $C_s$ )<br><i>Figure 7.4-1</i>     | 0.72      | Building Type                                                                                                   | Enclosed   |
| Non-Slippery Surface Slope Factor ( $C_s$ )<br><i>Figure 7.4-1</i> | 1         | <div>Roof Live Load</div> <div>Existing Roof Live Load<br/><i>ASCE 7-16 Table 4.3-1</i></div> <div>20 psf</div> |            |
| Roof Snow Load<br><i>Equation 7.4-1</i>                            | 20.79 psf |                                                                                                                 |            |
| Reduced Snow Load (Slippery Surface)<br><i>Equation 7.4-1</i>      | 15.07 psf |                                                                                                                 |            |
|                                                                    |           |                                                                                                                 |            |
| <sup>1</sup> Roof Dead Load                                        |           |                                                                                                                 |            |
| Asphalt Shingles                                                   | 2.0 psf   | No Drywall                                                                                                      | 0.0 psf    |
| 5/8" Plywood Sheathing                                             | 2.0 psf   | Solar Panel Array                                                                                               | 2.39 psf   |
| Roof Framing                                                       | 2.36 psf  | Dead Load Without Panels                                                                                        | 7.56 psf   |
| Insulation                                                         | 1.2 psf   | Dead Load With Panels                                                                                           | 9.95 psf   |

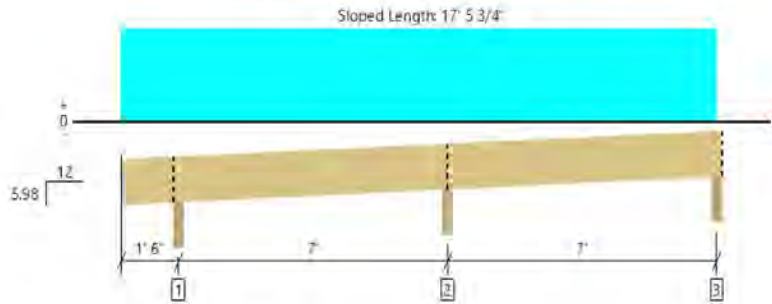
<sup>1</sup>Roof Dead Load is taken from the worst case scenario dead load from all arrays of the job in order to provide a more conservative evaluation.

# Array 1

| Array Details  |            | Beam Stresses     |                 |                          |          |
|----------------|------------|-------------------|-----------------|--------------------------|----------|
| Roof Pitch     | 26.5°      | Beam Span         | 84", 84"        | Panel Orientation        | Portrait |
| Panel Quantity | 15         | Spacing           | 16.0"           | # of Panels on Rafter    | 2        |
| Panel Area     | 263.74 ft² | Roof Framing Type | 2x6 Rafter DF#2 | Panel Distance From Eave | 0.0"     |

| Wind Calculations - ASCE 7-16                              |            | Panel Area                                         |              |
|------------------------------------------------------------|------------|----------------------------------------------------|--------------|
| <b>GC<sub>p</sub> Zone 2</b><br><i>Figure 30.3-(2A-5B)</i> | -2.5       | <b>Shear Capacity</b><br><i>NDS 2015 Table 12k</i> | 190.0 lbs    |
| <b>GC<sub>pi</sub></b><br><i>Table 26.13-1</i>             | -0.18      | <b>Pullout Capacity</b>                            | 266.0 lbs/in |
| <b>K<sub>h</sub></b><br><i>Table 26.10-1</i>               | 0.98       | <b>Minimum # of Connections</b>                    | 24           |
| <b>K<sub>ht</sub></b><br><i>Equation 26.8-1</i>            | 1          | <b>Lag Screw Embedment</b>                         | 2.5"         |
| <b>K<sub>d</sub></b><br><i>Table 26.6-1</i>                | 0.85       | <b>Total Pullout Capacity</b>                      | 665.0 lbs    |
| <b>Velocity Pressure</b><br><i>Equation 26.10-1</i>        | 28.2 psf   |                                                    |              |
| <b>Zone 2 Pressure</b><br><i>Equation 30.7-1</i>           | -65.43 psf |                                                    |              |

Roof, roof: joist before panels  
1 piece(s) 2 x 4 DF No.1 @ 16" OC



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Member Length : 17' 7 1/2"

| Design Results        | Actual @ Location  | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|--------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 334 @ 8' 6"        | 3666 (3.50") | Passed (9%)    | --   | 1.0 D + 1.0 S (Adj Spans)   |
| Shear (lbs)           | 152 @ 8' 10 7/8"   | 725          | Passed (21%)   | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Moment (Ft-lbs)       | -230 @ 8' 6"       | 506          | Passed (45%)   | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Live Load Defl. (in)  | 0.115 @ 12' 3"     | 0.388        | Passed (L/807) | --   | 1.0 D + 1.0 S (Alt Spans)   |
| Total Load Defl. (in) | 0.150 @ 12' 3 5/8" | 0.517        | Passed (L/619) | --   | 1.0 D + 1.0 S (Alt Spans)   |

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.

System : Roof  
Member Type : Joist  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 5.88/12

| Supports               | Bearing Length |           |          | Loads to Supports (lbs) |           |      |          | Accessories |
|------------------------|----------------|-----------|----------|-------------------------|-----------|------|----------|-------------|
|                        | Total          | Available | Required | Dead                    | Roof Live | Snow | Factored |             |
| 1 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 49                      | 121       | 126  | 175      | Blocking    |
| 2 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 95                      | 229       | 238  | 334      | Blocking    |
| 3 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 30                      | 78        | 81   | 111      | Blocking    |

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

| Lateral Bracing  | Bracing Intervals | Comments |
|------------------|-------------------|----------|
| Top Edge (Lu)    | 17' 6" o/c        |          |
| Bottom Edge (Lu) | 17' 6" o/c        |          |

• Maximum allowable bracing intervals based on applied load.

| Vertical Load     | Location (Side) | Spacing | Dead (0.90) | Roof Live (non-snow: 1.25) | Snow (1.15) | Comments                                                |
|-------------------|-----------------|---------|-------------|----------------------------|-------------|---------------------------------------------------------|
| 1 - Uniform (PSF) | 0 to 15' 6"     | 16"     | 7.6         | 20.0                       | 20.0        | Dead load and snow load on roof before panels are added |

#### Member Notes

Roof joist before solar panels are added

#### Weyerhaeuser Notes

Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC-ES under evaluation reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to [www.weyerhaeuser.com/woodproducts/document-library](http://www.weyerhaeuser.com/woodproducts/document-library).

The product application, input design loads, dimensions and support information have been provided by Imported test Software Operator.

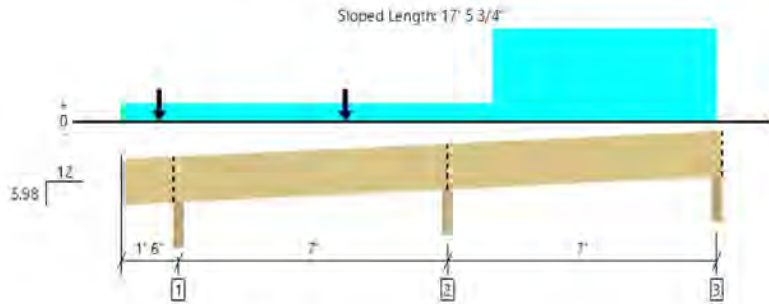
| Forteweb Software Operator                                                                    | Job Notes                                          |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------|
| Andrew Schwartz<br>Right Angle Engineering<br>(925) 323-3626<br>andrewrightangleeng@gmail.com | Roof joist before and after solar panels are added |



8/16/2022 5:51:50 PM UTC  
Forteweb v3.4, Engine: V8.2.2.122, Data: V8.1.2.2  
File Name: Chad Wenzel-Array\_1\_ImportedDesignAll

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Roof, roof: Joist with solar panels  
1 piece(s) 2 x 6 DF No.2 @ 16" OC



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Member Length : 17' 8 1/2"

| Design Results        | Actual @ Location | Allowed      | Result          | LDF  | Load: Combination (Pattern) |
|-----------------------|-------------------|--------------|-----------------|------|-----------------------------|
| Member Reaction (lbs) | 344 @ 8' 6"       | 3666 (3.50") | Passed (9%)     | --   | 1.0 D + 1.0 S (Adj Spans)   |
| Shear (lbs)           | 180 @ 7' 11 5/16" | 1139         | Passed (16%)    | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Moment (Ft-lbs)       | -265 @ 8' 6"      | 975          | Passed (27%)    | 1.15 | 1.0 D + 1.0 S (Adj Spans)   |
| Live Load Defl. (in)  | 0.035 @ 12' 2"    | 0.388        | Passed (L/999+) | --   | 1.0 D + 1.0 Lr (All Spans)  |
| Total Load Defl. (in) | 0.046 @ 5'        | 0.521        | Passed (L/999+) | --   | 1.0 D + 1.0 S (All Spans)   |

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.

System : Roof  
Member Type : Joist  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Pitch : 5.88/12

| Supports               | Bearing Length |           |          | Loads to Supports (lbs) |           |      |          | Accessories |
|------------------------|----------------|-----------|----------|-------------------------|-----------|------|----------|-------------|
|                        | Total          | Available | Required | Dead                    | Roof Live | Snow | Factored |             |
| 1 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 100                     | -9        | 201  | 301      | Blocking    |
| 2 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 144                     | 84        | 200  | 344      | Blocking    |
| 3 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 38                      | 81        | 80   | 119      | Blocking    |

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

| Lateral Bracing  | Bracing Intervals | Comments |
|------------------|-------------------|----------|
| Top Edge (Lu)    | 17' 6" o/c        |          |
| Bottom Edge (Lu) | 17' 6" o/c        |          |

• Maximum allowable bracing intervals based on applied load.

| Vertical Loads    | Location (Side)      | Spacing | Dead (0.90) | Roof Live (non-snow: 1.25) | Snow (1.15) | Comments           |
|-------------------|----------------------|---------|-------------|----------------------------|-------------|--------------------|
| 1 - Uniform (PSF) | 0 to 15' 6"          | 16"     | -9.9        | -                          | -           | DL                 |
| 2 - Uniform (PSF) | 0                    | 16"     | -           | 20.0                       | 20.8        | DL+SL below panels |
| 3 - Point (lb)    | 1'                   | N/A     | 26          | -                          | 148         | solar and SL       |
| 4 - Point (lb)    | 5' 10 1/8"           | N/A     | 26          | -                          | 148         | solar and SL       |
| 5 - Uniform (PSF) | 9' 8 3/16" to 15' 6" | 16"     | -           | 20.0                       | 20.8        | DL+SL above panels |

#### Member Notes

Roof joist with solar panels

#### Weyerhaeuser Notes

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The product application, input design loads, dimensions and support information have been provided by Imported test Software Operator.

| ForTEWEB Software Operator                                                                                                                       | Job Notes                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Andrew Schwartz<br>Right Angle Engineering<br>(925) 323-3626<br><a href="mailto:andrewrightangleeng@gmail.com">andrewrightangleeng@gmail.com</a> | Roof joist before and after solar panels are added |



8/16/2022 5:51:50 PM UTC  
ForTEWEB v3.4, Engine: V8.2.2.122, Data: V8.1.2.2  
File Name: Chad Wenzel-Array 1\_ImportedDesignAll

Page 1 / 1

August 16, 2022

**Arch Electric**  
**1237 Pilgrim Road**  
**Plymouth, Wisconsin, 53073**

**Design Criteria:**

Wind Speed ( $V_{ult}$ ) - 115.0 mph  
Ground Snow Load - 30.0 psf  
Risk Category - 1  
Exposure Category - C

**RE: Structural Roof Evaluation for the Chad Wenzel Detached Garage: 7539 N Bell Rd, Fox Point, Wisconsin**

We have evaluated the roof structure under the proposed solar panel array. The information used to evaluate this structure was gathered during a field visit by Arch Electric on behalf of Right Angle Engineering. The design criteria used to analyze this structure are listed above and included with this letter. The adopted building codes in this jurisdiction are: The 2018 International Building code and ASCE 7-16.

| Array Name | Connection Type | Panel Quantity | Min # Connections | Reinforcements |
|------------|-----------------|----------------|-------------------|----------------|
| Array 1    | L-Foot          | 18             | 37                | None           |

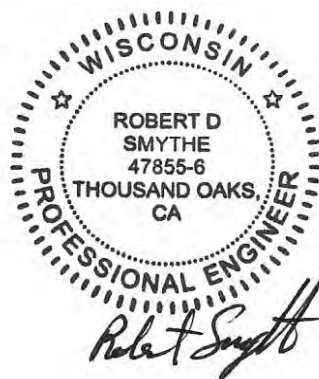
***Solar Panel Anchorage***

The solar panel anchorage shall be installed according to the manufactures most current installation manual. For the loads to be evenly distributed, the roof attachments should be staggered and spread evenly throughout the panel array. Attachment points should be spaced at a maximum of 48 inches on center. Roof anchors that are attached to the substructure should have a 5/16" or 18/8 SS lag screw with 2.5" minimum penetration centered on each truss top chord or rafter.

***Conclusion***

Based on our assessment, we have determined that the existing roof framing is in good condition and will safely and adequately support the additional loads imposed by the solar panels without reinforcement. The equipment will not create a negative impact on the building's structural design, including any additional loads imposed (dead, snow, wind/seismic).

Regards,



08/16/2022

Robert D. Smythe, P.E.  
Right Angle Engineering

***Scope of work and limitations***

The evaluation is based on information provided by the client. All information is verified by the engineer from pictures, video, and third party software. Verification of the field observations is the responsibility of the contractor. The contractor shall verify the framing sizes, spacing, spans, and roof pitch noted in this letter and/or sealed plans. The contractor shall notify the engineer if there are any discrepancies, or if there is any damage to the structure (i.e., fire damage, water damage, dry rot, deflections, broken member, broken connection, etc). The scope of work is strictly limited to the fastener attachments and underlying roof framing directly under each solar array. Right Angle Engineering assumes no responsibility for improper installation of solar panels or their components. Waterproofing around the roof penetrations is the responsibility of others. Alterations to this engineering evaluation and/or sealed plans shall not be made without direct written consent of the engineer of record.

# Job Details

| Roof Snow Load - ASCE 7-16                                                         |           | Design Criteria                                                |            |
|------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------|------------|
| <b>Ground Snow Load (<math>p_g</math>)</b><br><i>Section 7.2</i>                   | 30.0 psf  | <b>Design Wind Speed</b>                                       | 115.0mph   |
| <b>Exposure Factor (<math>C_e</math>)</b><br><i>Table 7.3-1</i>                    | 0.9       | <b>Exposure Category</b>                                       | C          |
| <b>Thermal Factor (<math>C_t</math>)</b><br><i>Table 7.3-2</i>                     | 1.1       | <b>Risk Category</b>                                           | 1          |
| <b>Importance Factor (<math>I_s</math>)</b><br><i>Table 1.5-2</i>                  | 1         | <b>Mean Roof Height</b>                                        | 30 ft      |
| <b>Flat Roof Snow Load (<math>p_f</math>)</b><br><i>Equation 7.3-1</i>             | 20.79 psf | <b>Roof Type</b>                                               | Gable Roof |
| <b>Slippery Surface Slope Factor (<math>C_s</math>)</b><br><i>Figure 7.4-1</i>     | 0.95      | <b>Building Type</b>                                           | Enclosed   |
| <b>Non-Slippery Surface Slope Factor (<math>C_s</math>)</b><br><i>Figure 7.4-1</i> | 1         | <b>Roof Live Load</b>                                          |            |
| <b>Roof Snow Load</b><br><i>Equation 7.4-1</i>                                     | 20.79 psf | <b>Existing Roof Live Load</b><br><i>ASCE 7-16 Table 4.3-1</i> | 20 psf     |
| <b>Reduced Snow Load (Slippery Surface)</b><br><i>Equation 7.4-1</i>               | 19.75 psf | <b>Roof Live Load with Solar Panels</b><br><i>1607.13.5.1</i>  | 0.0 psf    |
| <sup>1</sup> Roof Dead Load                                                        |           |                                                                |            |
| <b>Asphalt Shingles</b>                                                            | 2.0 psf   | <b>No Drywall</b>                                              | 0.0 psf    |
| <b>5/8" Plywood Sheathing</b>                                                      | 2.0 psf   | <b>Solar Panel Array</b>                                       | 2.39 psf   |
| <b>Roof Framing</b>                                                                | 1.57 psf  | <b>Dead Load Without Panels</b>                                | 5.57 psf   |
| <b>Insulation</b>                                                                  | 0 psf     | <b>Dead Load With Panels</b>                                   | 7.96 psf   |

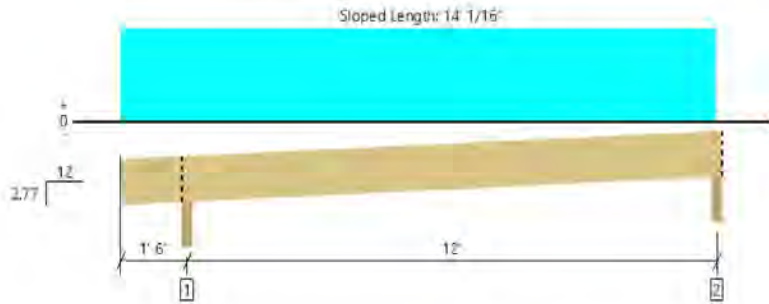
<sup>1</sup>Roof Dead Load is taken from the worst case scenario dead load from all arrays of the job in order to provide a more conservative evaluation.

# Array 1

| Array Details  |            | Beam Stresses     |                 |                          |          |
|----------------|------------|-------------------|-----------------|--------------------------|----------|
| Roof Pitch     | 13.0°      | Beam Span         | 144"            | Panel Orientation        | Portrait |
| Panel Quantity | 18         | Spacing           | 24.0"           | # of Panels on Rafter    | 2        |
| Panel Area     | 316.49 ft² | Roof Framing Type | 2x6 Rafter DF#2 | Panel Distance From Eave | 6.0"     |

| Wind Calculations - ASCE 7-16                              |            | Panel Area                                         |              |
|------------------------------------------------------------|------------|----------------------------------------------------|--------------|
| <b>GC<sub>p</sub> Zone 2</b><br><i>Figure 30.3-(2A-5B)</i> | -3.0       | <b>Shear Capacity</b><br><i>NDS 2015 Table 12k</i> | 190.0 lbs    |
| <b>GC<sub>pi</sub></b><br><i>Table 26.13-1</i>             | -0.18      | <b>Pullout Capacity</b>                            | 266.0 lbs/in |
| <b>K<sub>h</sub></b><br><i>Table 26.10-1</i>               | 0.98       | <b>Minimum # of Connections</b>                    | 37           |
| <b>K<sub>ht</sub></b><br><i>Equation 26.8-1</i>            | 1          | <b>Lag Screw Embedment</b>                         | 2.5"         |
| <b>K<sub>d</sub></b><br><i>Table 26.6-1</i>                | 0.85       | <b>Total Pullout Capacity</b>                      | 665.0 lbs    |
| <b>Velocity Pressure</b><br><i>Equation 26.10-1</i>        | 28.2 psf   |                                                    |              |
| <b>Zone 2 Pressure</b><br><i>Equation 30.7-1</i>           | -79.53 psf |                                                    |              |

Roof, roof: Joist before panels  
1 piece(s) 2 x 6 DF No.2 @ 24" OC



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Member Length : 14' 1 5/16"

| Design Results        | Actual @ Location   | Allowed      | Result         | LDF  | Load: Combination (Pattern) |
|-----------------------|---------------------|--------------|----------------|------|-----------------------------|
| Member Reaction (lbs) | 401 @ 1' 6"         | 3368 (3.50") | Passed (12%)   | --   | 1.0 D + 1.0 S (All Spans)   |
| Shear (lbs)           | 290 @ 2' 1 1/8"     | 1139         | Passed (25%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Moment (Ft-lbs)       | 926 @ 7' 6 5/16"    | 975          | Passed (95%)   | 1.15 | 1.0 D + 1.0 S (All Spans)   |
| Live Load Defl. (in)  | 0.590 @ 7' 5 13/16" | 0.613        | Passed (L/249) | --   | 1.0 D + 1.0 S (All Spans)   |
| Total Load Defl. (in) | 0.749 @ 7' 5 7/8"   | 0.817        | Passed (L/196) | --   | 1.0 D + 1.0 S (All Spans)   |

System : Roof  
Member Type : Joist  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Prints : 2/7/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Upward deflection on left cantilever exceeds overhang deflection criteria.
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.

| Supports               | Bearing Length |           |          | Loads to Supports (lbs) |           |      |          | Accessories |
|------------------------|----------------|-----------|----------|-------------------------|-----------|------|----------|-------------|
|                        | Total          | Available | Required | Dead                    | Roof Live | Snow | Factored |             |
| 1 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 86                      | 303       | 314  | 401      | Blocking    |
| 2 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 68                      | 239       | 249  | 317      | Blocking    |

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

| Lateral Bracing  | Bracing Intervals | Comments |
|------------------|-------------------|----------|
| Top Edge (Lu)    | 4' 3" o/c         |          |
| Bottom Edge (Lu) | 14' o/c           |          |

• Maximum allowable bracing intervals based on applied load.

| Vertical Load     | Location (Side) | Spacing | Dead (0.90) | Roof Live (non-snow: 1.25) | Snow (1.15) | Comments                                                |
|-------------------|-----------------|---------|-------------|----------------------------|-------------|---------------------------------------------------------|
| 1 - Uniform (PSF) | 0 to 13' 6"     | 24"     | 5.6         | 20.0                       | 20.8        | Dead load and snow load on roof before panels are added |

#### Member Notes

Roof joist before solar panels are added

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The product application, input design loads, dimensions and support information have been provided by Imported test Software Operator

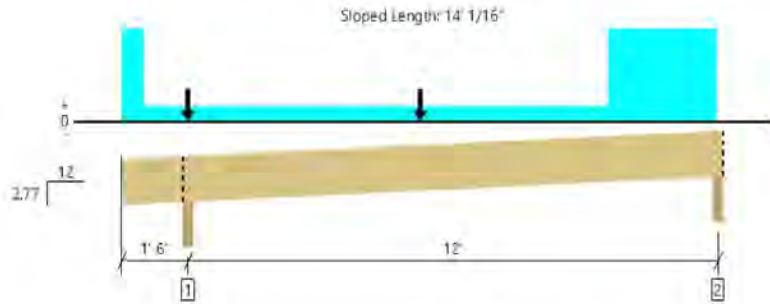
| ForTEWEB Software Operator                                                                    | Job Notes                                          |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------|
| Andrew Schwartz<br>Right Angle Engineering<br>(925) 323-3626<br>andrewrightangleeng@gmail.com | Roof joist before and after solar panels are added |



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Roof, roof: Joist with solar panels  
1 piece(s) 2 x 6 DF No.2 @ 24" OC



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Member Length : 14' 1 5/16"

| Design Results        | Actual @ Location  | Allowed      | Result         | LDF  | Load Combination (Pattern) |
|-----------------------|--------------------|--------------|----------------|------|----------------------------|
| Member Reaction (lbs) | 445 @ 1' 6"        | 3368 (3.50") | Passed (13%)   | --   | 1.0 D + 1.0 S (All Spans)  |
| Shear (lbs)           | 235 @ 12' 10 7/8"  | 1139         | Passed (21%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)  |
| Moment (Ft-lbs)       | 867 @ 6' 9 1/4"    | 975          | Passed (89%)   | 1.15 | 1.0 D + 1.0 S (Alt Spans)  |
| Live Load Defl. (in)  | 0.363 @ 7' 5 3/16" | 0.613        | Passed (L/405) | --   | 1.0 D + 1.0 S (Alt Spans)  |
| Total Load Defl. (in) | 0.629 @ 7' 5 3/8"  | 0.817        | Passed (L/234) | --   | 1.0 D + 1.0 S (Alt Spans)  |

System : Roof  
Member Type : Joist  
Building Use : Residential  
Building Code : IBC 2018  
Design Methodology : ASD  
Member Prints : 2/7/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Upward deflection on left cantilever exceeds overhang deflection criteria.
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.

| Supports               | Bearing Length |           |          | Loads to Supports (lbs) |           |      |          | Accessories |
|------------------------|----------------|-----------|----------|-------------------------|-----------|------|----------|-------------|
|                        | Total          | Available | Required | Dead                    | Roof Live | Snow | Factored |             |
| 1 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 155                     | 32        | 289  | 445      | Blocking    |
| 2 - Beveled Plate - DF | 3.50"          | 3.50"     | 1.50"    | 106                     | 88        | 164  | 270      | Blocking    |

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

| Lateral Bracing  | Bracing Intervals | Comments |
|------------------|-------------------|----------|
| Top Edge (Lu)    | 6' 8" o/c         |          |
| Bottom Edge (Lu) | 14' o/c           |          |

• Maximum allowable bracing intervals based on applied load.

| Vertical Loads    | Location (Side)    | Spacing | Dead (0.90) | Roof Live (non-snow: 1.25) | Snow (1.15) | Comments           |
|-------------------|--------------------|---------|-------------|----------------------------|-------------|--------------------|
| 1 - Uniform (PSF) | 0 to 13' 6"        | 24"     | 8.0         | -                          | -           | DL                 |
| 2 - Uniform (PSF) | 0 to 6"            | 24"     | -           | 20.0                       | 20.8        | DL+SL below panels |
| 3 - Point (lb)    | 1' 6"              | N/A     | 20          | -                          | 165         | solar and SL       |
| 4 - Point (lb)    | 6' 9 1/4"          | N/A     | 20          | -                          | 165         | solar and SL       |
| 5 - Uniform (PSF) | 11' 1/2" to 13' 6" | 24"     | -           | 20.0                       | 20.8        | DL+SL above panels |

| Member Notes                  |
|-------------------------------|
| Roof joist with solar panels. |

| Weyerhaeuser Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| The product application, input design loads, dimensions and support information have been provided by Imported test Software Operator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| ForTEWEB Software Operator                                                                    | Job Notes                                          |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------|
| Andrew Schwartz<br>Right Angle Engineering<br>(925) 323-3626<br>andrewrightangleeng@gmail.com | Roof joist before and after solar panels are added |



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