<u>code summary & design criteria</u>

2019 residential code of ohio 2017 national electric code 2018 international energy conservation code

Design Snow Load: section 301 design criteria figure 301.2(5) ground snow loads roof snow load = 30 psf

Design Wind Load: table 301.2(2) component and cladding loads for a building with a mean roof height of 30 feet located in exposure b 115 mph (Vut) (3 second gust)

baseline structural criteria & design information

Framing Lumber (Minimum): E = 1,400,000 psi Fb = 875 psi Fv = 135 psi

Microlam (LVL): E = 2,000,000 psi Fb = 2800 psi Fv = 285 psi

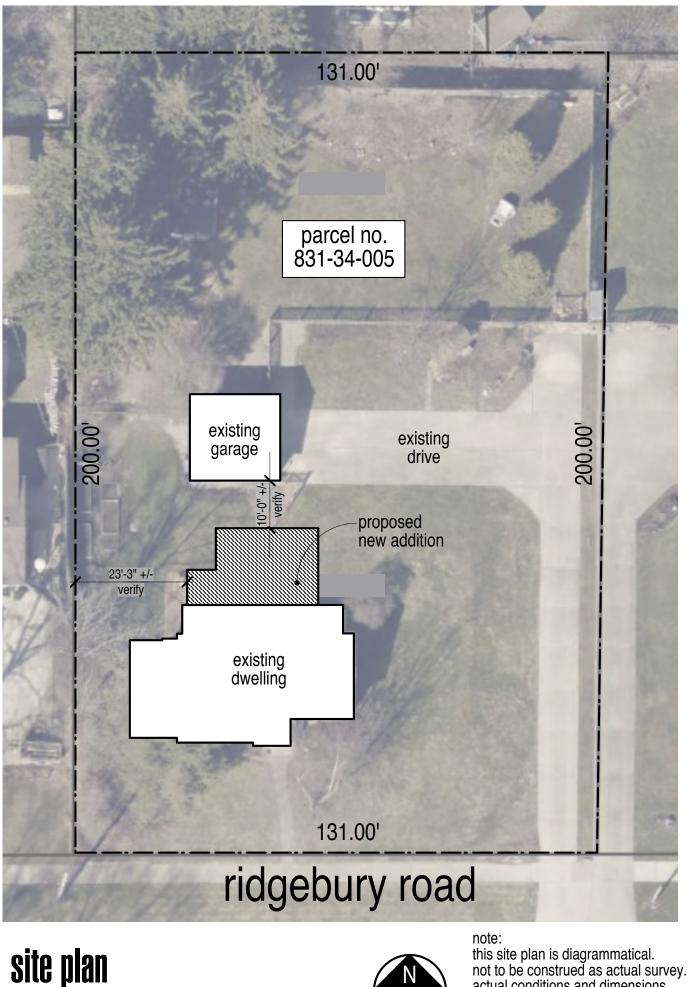
Steel: ASTM A-36 E = 29,000,000 psi Fy = 36 ksi Fv = 14.5 ksi W Shapes: Fy= 50,000 psi (astm A992) Pipes: Fy= 46,000 psi (astm A500 Grade B) Plates: Fy= 36,000 psi (astm A36) Anchor Bolts: Astm A307 (may Use A36 Or A325) Live Loads: Roof = 30 psf Floor = 40 psf Floor 30 psf (sleeping) Ceilings = 20 psf Attic = 30 psf Decks = 40 psf Balconies (Exterior) = 40 psf

Dead Loads: Roof = 15 psf Ceilings = 10 psf Floor = 10 psf

Concrete: Footings: Fc= 3000 psi, Slabs: Fc- 4000 psi (with 6% Air Entrainment For Exterior Exposure) Concrete Block: F'm= 1500 psi Truss Data (Min.): Top Chord: LL= 30 psf DL= 15 psf Bottom Chord: LL= 10 psf DL= 10 psf

Seismic Category A or B

Wind Speed (design) 115 mph (Vult) (3 second gust)



scale 1" = 20'-0"



not to be construed as actual survey. actual conditions and dimensions may vary. verify and confirm the accuracy of this site plan prior to commencement of construction.

arko residence

6221 ridgebury road mayfield village, ohio 44124

color & finish schedule

POINL & IIIII9II 9PIIEAAIE		(for architectural review use)
	Туре	Color
Siding		
Roof		
Brick		
Stone		
Trim		
Shutters		
Soffit		

notice

A complete and careful review of these plans should be performed by the party responsible for executing the work prior to construction.

The building contractor should verify all site conditions and review all manufacturer's shop drawings for compliance prior to assembly, installation or construction.

All framing and structural elements must comply with all governing codes and be installed according to common practice and industry standards.

All federal, state and local codes, ordinances and regulations, etc. shall be considered a part of the specifications of this building; and are to be adhered to even if they are in variance with the plan.

building information

Owner's Name:

Builder's Name:

Builder's Phone:

Building Location:

Soil Bearing Capacity (Min.): 1500 psf

Allowable Deflection: Rafters = L/240Ceilings = L/360Floors = L/480Floors with tile = L/600Beams & Headers = L/480Lintels for Masonry= L/600(L = Span Length)

<u>structural</u> notes

1. The structural specifications are a suggested baseline and should be verified prior to the commencement of construction. The building contractor should adjust these values as required to meet local codes or building conditions.

The drawings show the general details of construction. The contractor shall notify the designer where additional details are required, or where conditions are encountered that are not anticipated by the drawings.

3. The contractor is to verify all dimensions prior to fabrication and construction. Notify designer of any discrepancies.

4. The structure is designed to be self-supporting and stable after the building is fully completed. it is the contractor's sole responsibility to determine erection procedure and sequence and ensure the safety of the building and its component parts during construction. this includes the addition of whatever shoring, temporary bracing, underpinning, earth retention, etc. that may be necessary.



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(for building department use)

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 issued: 06/06/23

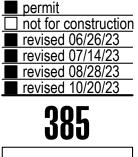
 first draft

 progress

 design review

 bid-estimates

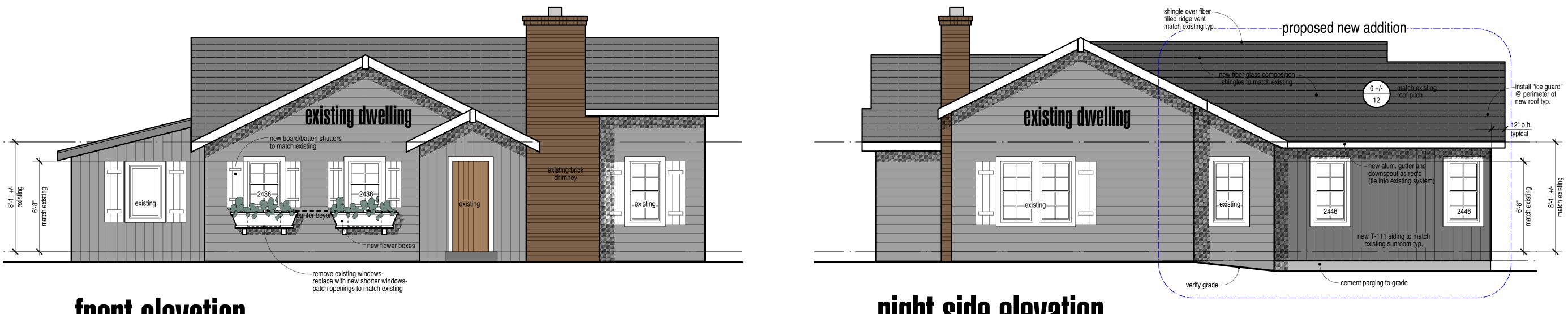
 print







reference photographs





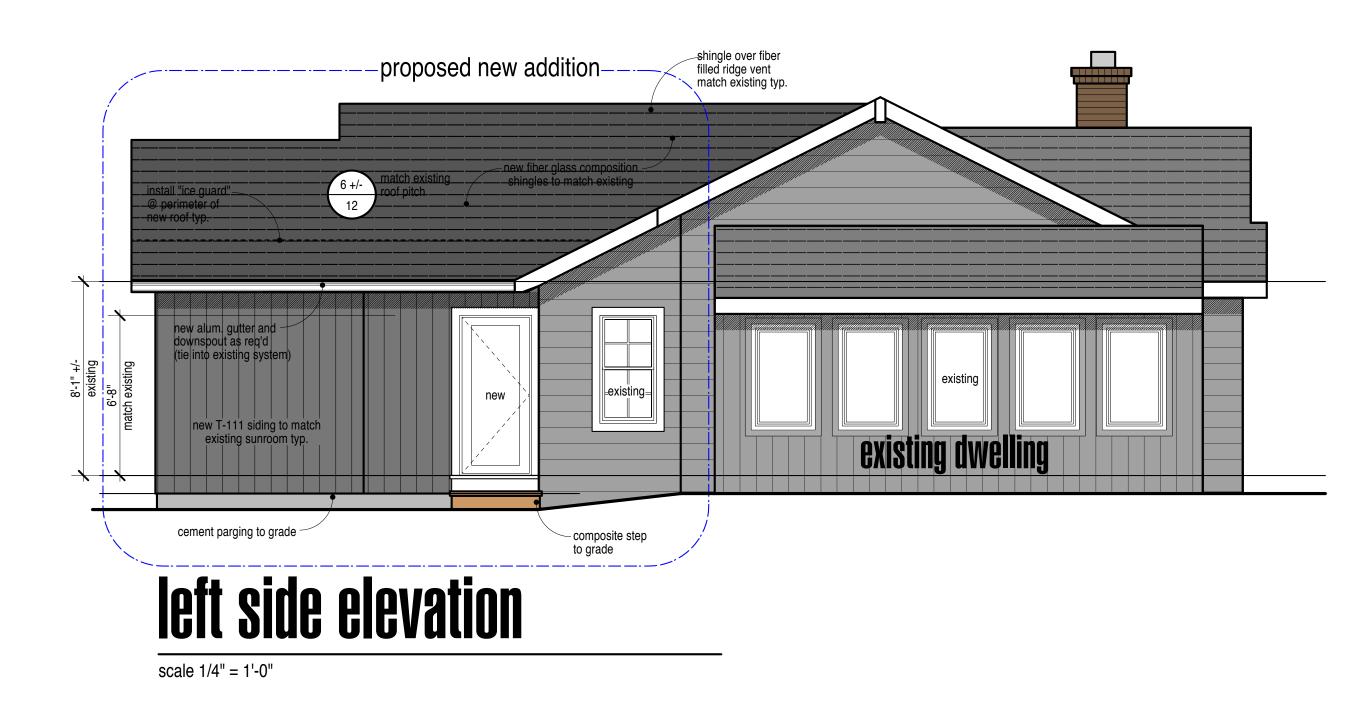
proposed new addition_ new 2x8 rake to match existing lash up min. 8" ehind siding tvp. 12" o.h. <u>_</u> 4" window \rightarrow 8'-1" +/-existing new T-111 siding to match existing sunroom typ. ē ļē 0 \mathbf{X} - cement parging to grade verify grade -to grade rear elevation

scale 1/4" = 1'-0"



right side elevation

scale 1/4" = 1'-0"







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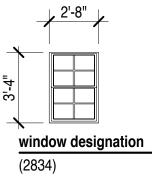
prior to commencement of construction.











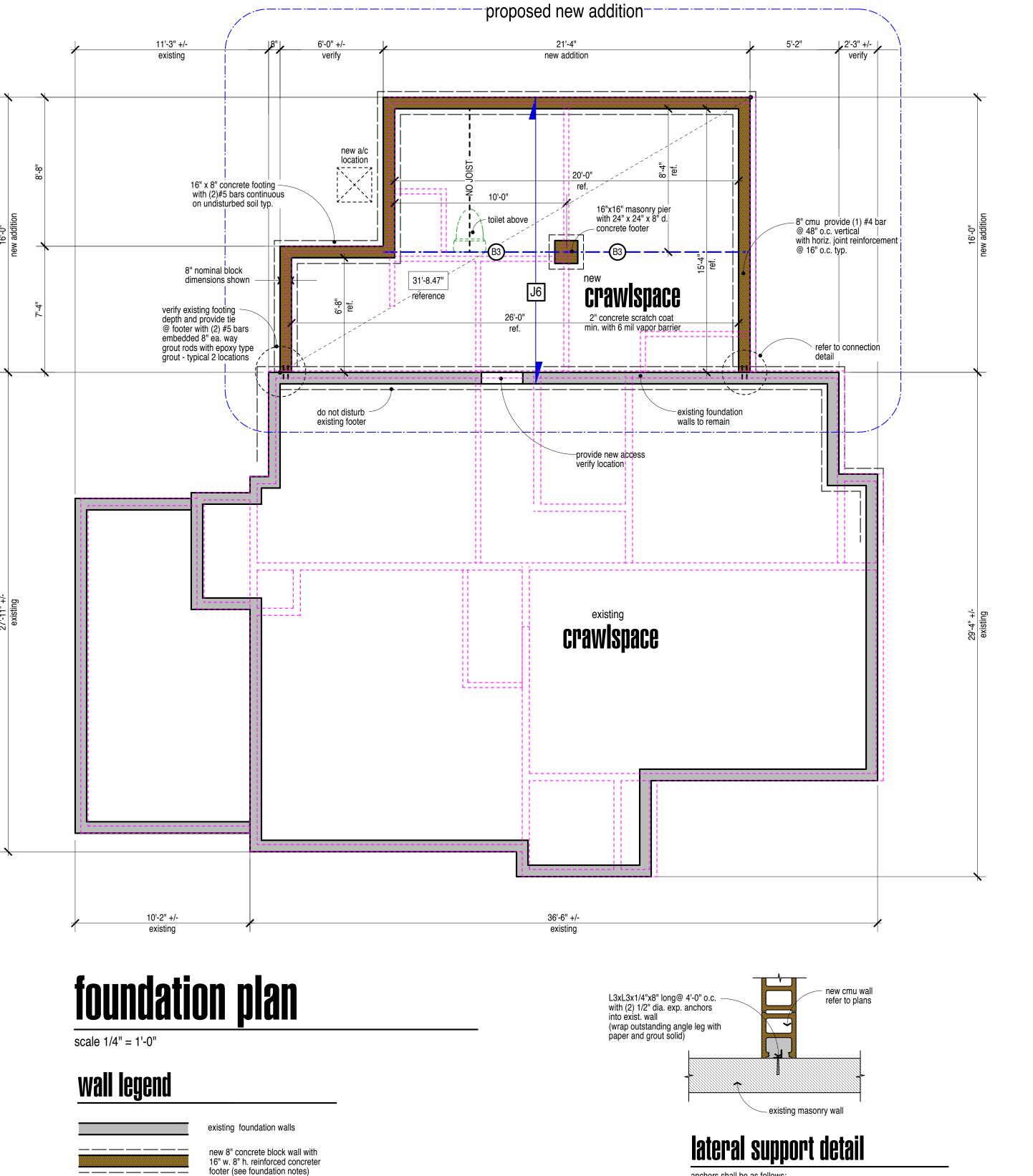
note

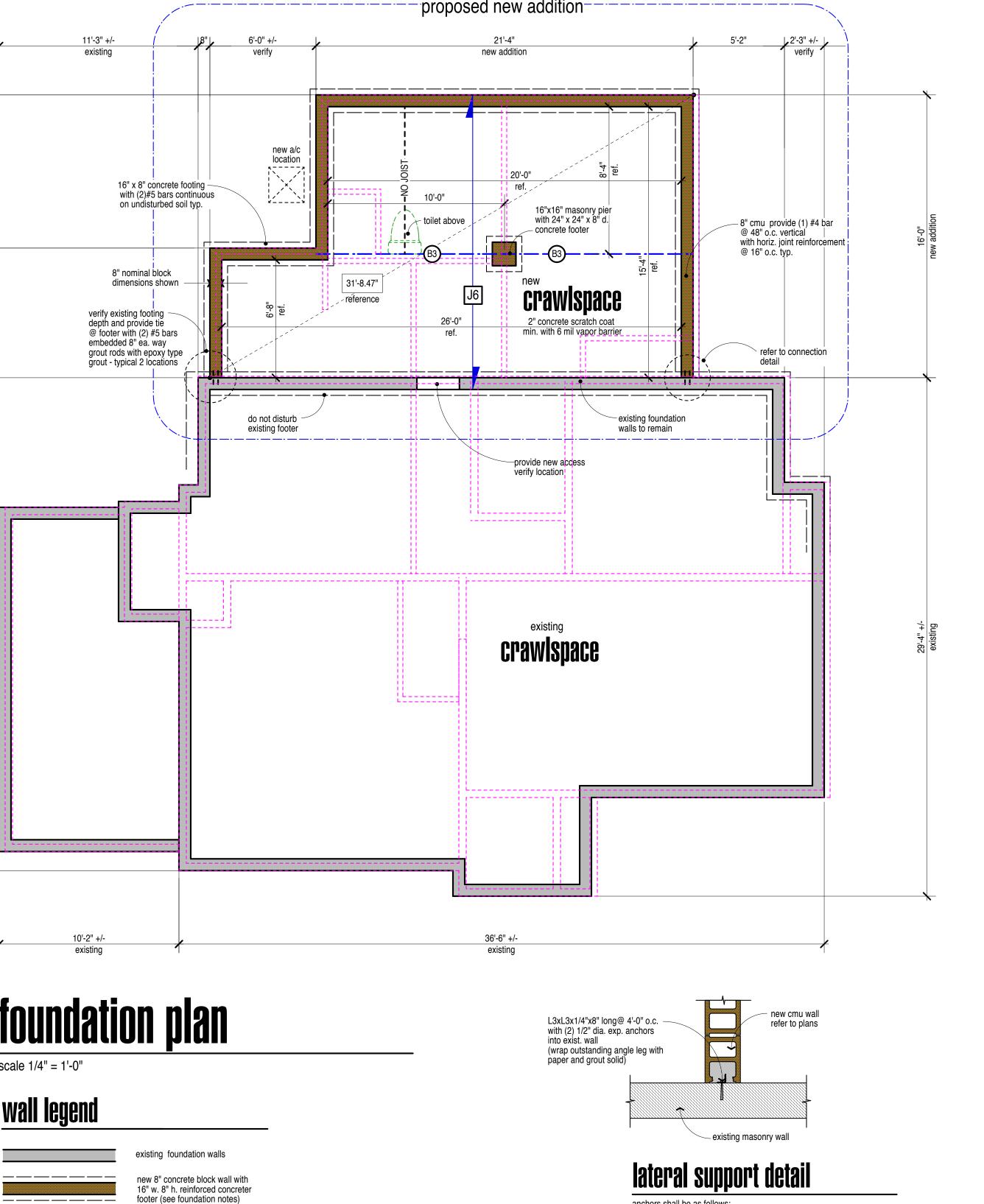
1) BUILDING CONTRACTOR TO VERIFY ALL MATERIALS, FINISHES AND SIZES PRIOR TO CONSTRUCTION. 2) WINDOW DESIGNATIONS ARE REFERENCED AS "GENERIC" WINDOW NUMBERS

3) PROVIDE SAFETY GLASS FOR WINDOW GLAZING < 18" A.F.F. OR ADJUST WINDOW SIZE TYP.

4) FIELD VERIFY ALL WINDOW LOCATIONS & ROUGH OPENINGS AS REQUIRED WITH WINDOW MANUFACTURERS SPECIFICATIONS.

5) TREATED WOOD NOTICE: ALL ANCHORS, CONNECTORS, FASTENERS ETC. MUST BE OF SUITABLE MATERIAL TO RESIST REACTION OR CORROSION WITH THE TREATED LUMBER. CONSULT WITH MANUFACTURER OR MATERIAL SUPPLIER FOR PROPER FASTENERS REQUIRED.





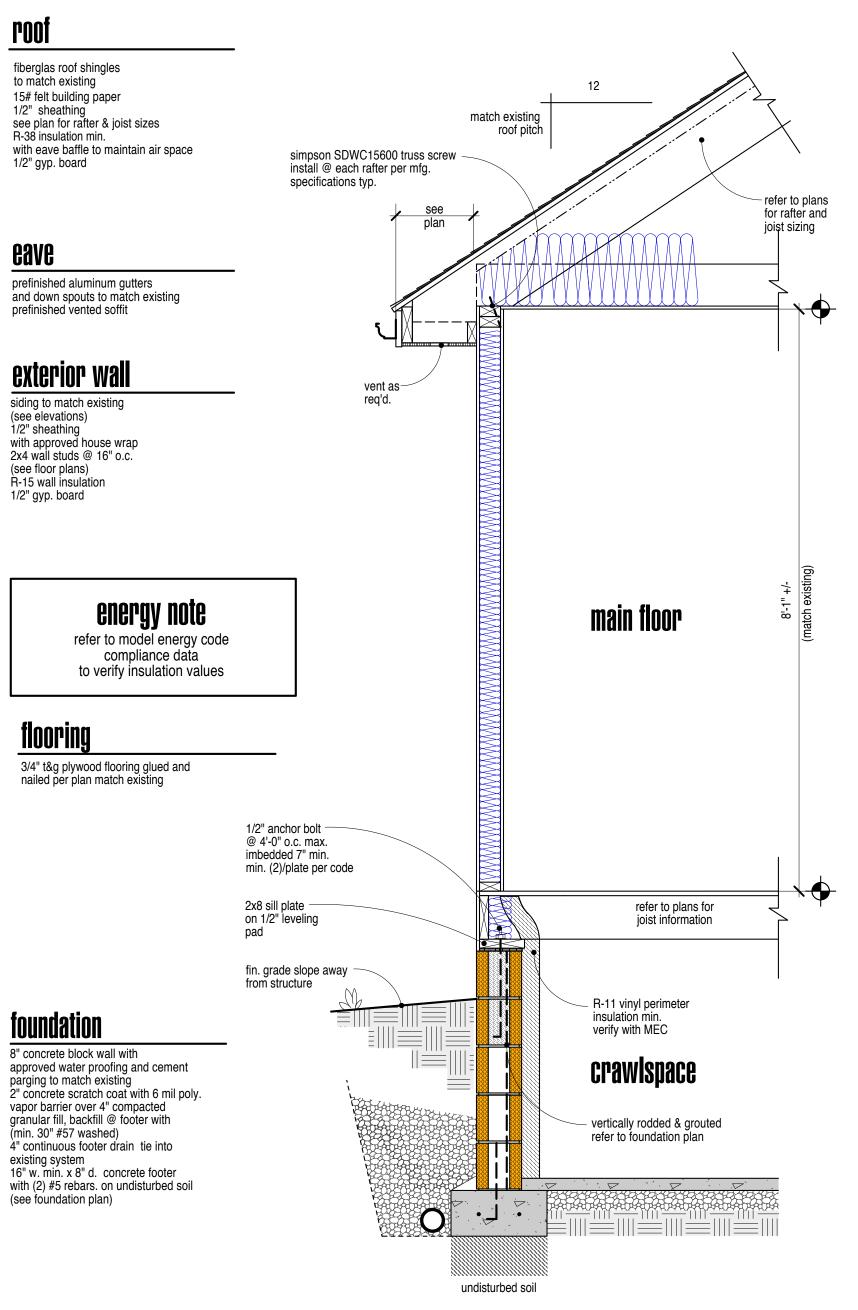


floor joist schedule Lumber Species Douglas fir-larch OR Spruce pine-larch #2 or equiv. unless noted otherwise

- J1 2X10 floor joists @ 16" o.c. with 'x' bracing @ midspan or as required. J2 2X10 floor joists @ 12" o.c. with 'x' bracing @ midspan or as required. J3 2X10 floor joists @ 16" o.c. double every other joist with 'x' bracing @ midspan or as required. [J4] (2) 2X10 floor joists @ 16" o.c. with 'x' bracing @ midspan or as required. J5 2X10 treated floor joists @ 16" o.c. with bracing @ midspan or as required. J6 2X8 floor joists @ 16" o.c. with bracing @ midspan or as required. J7 2X12 floor joists @ 16" o.c. with 'x' bracing @ midspan or as required. J8 2X12 floor joists @ 12" o.c. with 'x' bracing @ midspan or as required. J9 2X12 floor joists @ 16" o.c. double every other joist with 'x' bracing @ midspan or as required. J10 (2) 2X12 floor joists @ 16" o.c. with 'x' bracing @ midspan or as required. wood beam schedule all wood framed headers to be (2)2x10 min. unless noted otherwise (B1) (2) 2X10's (3) 1 3/4" X 11 7/8" LVL'S
- (B2) (3) 2x10's (B11) (2) 1 3/4" x 14" LVL's (B3) (2) 1 3/4" x 9 1/4" LVL's (B12) (3) 1 3/4" x 14" LVL's (3) 1 3/4" x 9 1/4" LVL's (B13) (2) 1 3/4" x 16" LVL's (2) 2x12's (3) 1 3/4" x 16" LVL's (3) 2x12's (2) 1 3/4" x 18" LVL's (B7) (2) 1 3/4" x 11 1/4" LVL's (B16) (3) 1 3/4" x 18" LVL's (3) 1 3/4" x 11 1/4" LVL's (B17) (2) 1 3/4" x 20" LVL's (2) 1 3/4" X 11 7/8" LVL'S (B18) (3) 1 3/4" x 20" LVL's GT girder truss (verify with mfg.) p.t. - pressure treated 2xx indicates a doubled structural member w.p. - weather protected

walls above

anchors shall be as follows: solid wall: hilti kwik bolt III, or approved equiv. hollow wall: hilti hit hy 20, or approved equiv.



roo

fiberglas roof shingles

to match existing 15# felt building paper

R-38 insulation min.

1/2" gyp. board

prefinished vented soffit

exterior wa

siding to match existing (see elevations) 1/2" sheathing

(see floor plans) R-15 wall insulation

flooring

3/4" t&g plywood flooring glued and nailed per plan match existing

8" concrete block wall with approved water proofing and cement parging to match existing 2" concrete scratch coat with 6 mil poly. vapor barrier over 4" compacted granular fill, backfill @ footer with (min. 30" #57 washed) À" continuous footer drain tie into existing system

16" w. min. x 8" d. concrete footer with (2) #5 rebars. on undisturbed soil (see foundation plan)

typical wall section

scale 3/4" = 1'-0"

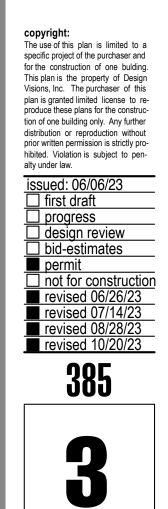


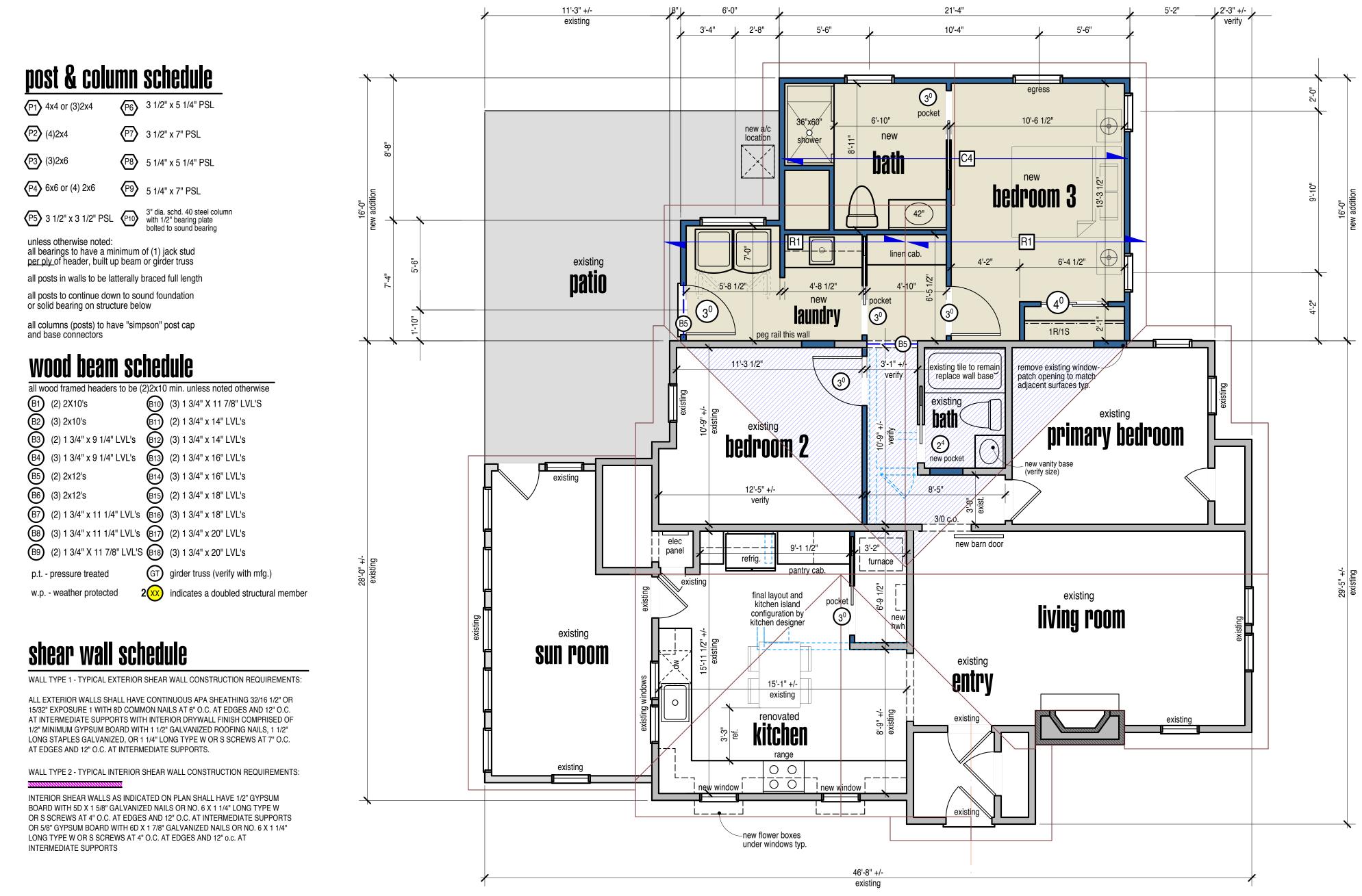
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sheet 5 details sheet 6 elec. - mech. plans

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main floor plan scale 1/4" = 1'-0"

wall legend

340 sq. ft. new addition

existing walls

new 2x4 @16" o.c wood frame walls walls (removed)



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general plan notes

1) INTERIOR WOOD FRAMED WALLS ARE DIMENSIONED AT 3 1/2" ROUGH AND ALL EXTERIOR WALLS ARE DIMENSIONED TO THE OUTSIDE OF 1/2" SHEATHING UNLESS OTHERWISE NOTED.

2) BUILDING CONTRACTOR MUST VERIFY ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

3) ALL WALL ANGLES ARE 45 DEGREES UNLESS OTHERWISE NOTED.

4) FIELD VERIFY ALL WINDOW LOCATIONS & ROUGH OPENINGS AS REQUIRED WITH WINDOW MANUFACTURERS SPECIFICATIONS.

5) PROVIDE SAFETY GLASS FOR WINDOW GLAZING < 18" A.F.F. OR ADJUST WINDOW SIZE TYP. 6) STRUCTURAL AND FRAMING MEMBERS INDICATED ARE SIZED BASED ON SPECIES OF LUMBER THAT SATISFY THE SPAN.

7) BUILDER TO VERIFY THAT ALL CEILING JOISTS AND RAFTER

BRACINGS BEAR ON LOAD BEARING WALLS WHICH ALIGN AS SHOWN AND TERMINATE AT FOUNDATION AND BE SUPPORTED BY THICKENED SLAB GRADE BEAM OR FOOTING AS INDICATED.

8) UNLESS NOTED OTHERWISE- ALL NON-STRUCTURAL RIDGE BOARDS TO BE (1)2X12 MIN., ALL HIP RAFTERS TO BE (1)2X12 MIN. ALL VALLEY RAFTERS TO BE (2)2X12 MIN. PROVIDE POST UP SUPPORTS FROM SOUND BEARINGS OR TRIPLE CEILING JOISTS MINIMUM.

9) CEILING JOIST NOTICE: APPLY 1/2" PLYWOOD TO TOP SIDE OF CEILING JOISTS MIN. 48" IN FROM WALL WHEN CEILING JOISTS RUN PARALLEL TO A RAFTER BEARING WALL NOTCH FOR RAFTERS AS REQUIRED.

10) TREATED WOOD NOTICE: ALL ANCHORS, CONNECTORS, FASTENERS ETC. MUST BE OF SUITABLE MATERIAL TO RESIST REACTION OR CORROSION WITH THE TREATED LUMBER. CONSULT WITH MANUFACTURER OR MATERIAL SUPPLIER FOR PROPER FASTENERS REQUIRED.

rafter/ceiling joist schedule Lumber Species Douglas fir-larch OR Spruce pine-larch #2 or equiv. unless noted otherwise - Ceiling Joists are uninhabitable with limited storage

unless noted otherwise - Ceiling Joists are uninhal		
R1	2X10 rafters @ 16" o.c.	
R2	2X8 rafters @ 16" o.c.	
R3	2X6 rafters @ 16" o.c.	
R4	2X12 rafters @ 16" o.c.	
C1	2X12 ceiling joists @ 16" o.c.	
C2	2X10 ceiling joists @ 16" o.c. seclect structural	
C3	2X10 ceiling joists @ 16" o.c.	
C4	2X8 ceiling joists @ 16" o.c.	
C5	2X6 ceiling joists @ 16" o.c.	
all wood framed headers to be		

(2)2x10 min. unless noted otherwise

hatched area indicates
2x over framing-shore
supporting rafters
as req'd. typ.

village nayfield ad ridgebury **B** -622

24

—

44

ohio

CD

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issued: 06/06/23

<u>design review</u> <u>bid-estimates</u>

not for construction revised 06/26/23

revised 07/14/23 revised 08/28/23 revised 10/20/23

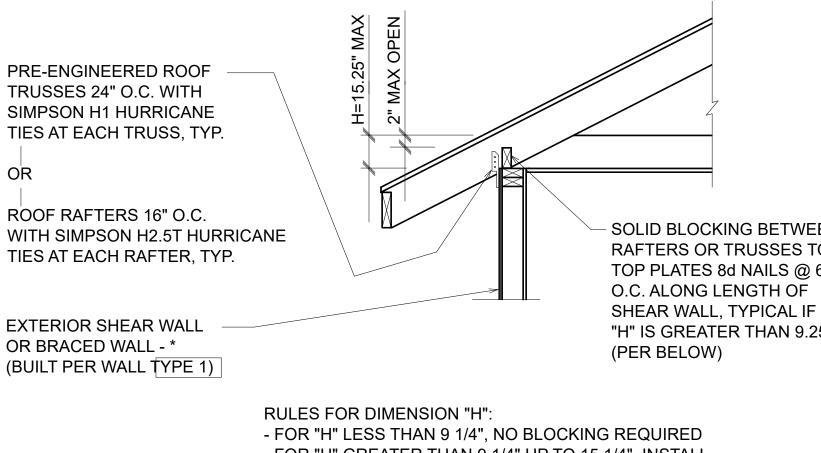
385

<u>progress</u>

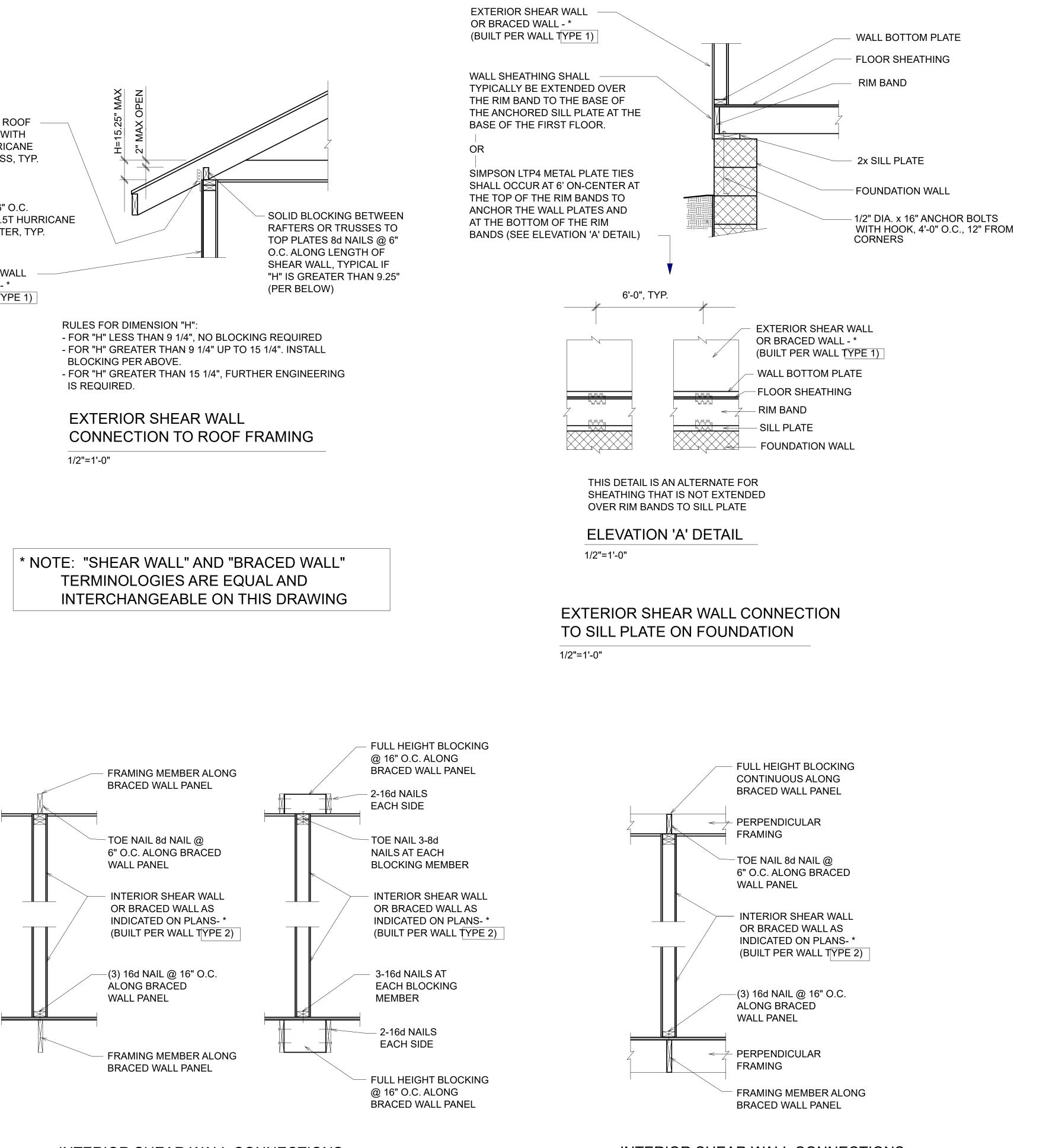
permit

alty under law.

DETAILS FOR FULLY CONTINUOUS SHEATHING PER 2019 RESIDENTIAL CODE OF OHIO



TERMINOLOGIES ARE EQUAL AND INTERCHANGEABLE ON THIS DRAWING



INTERIOR SHEAR WALL CONNECTIONS AT PARALLEL FLOOR/CEILING FRAMING

1/2"=1'-0"

INTERIOR SHEAR WALL CONNECTIONS AT PERPENDICULAR FLOOR/CEILING FRAMING

1/2"=1'-0"

EXTERIOR SHEAR WALL OR BRACED WALL -(BUILT PER WALL TYPE 1)

WALL SHEATHING SHALL THE RIM BAND TO THE WALL FLOOR.

OR

SHALL OCCUR AT 6' ON-CENTER AT THE TOP OF THE RIM BANDS TO ANCHOR THE WALL PLATES BANDS (SEE ELEVATION 'B' DETAIL)

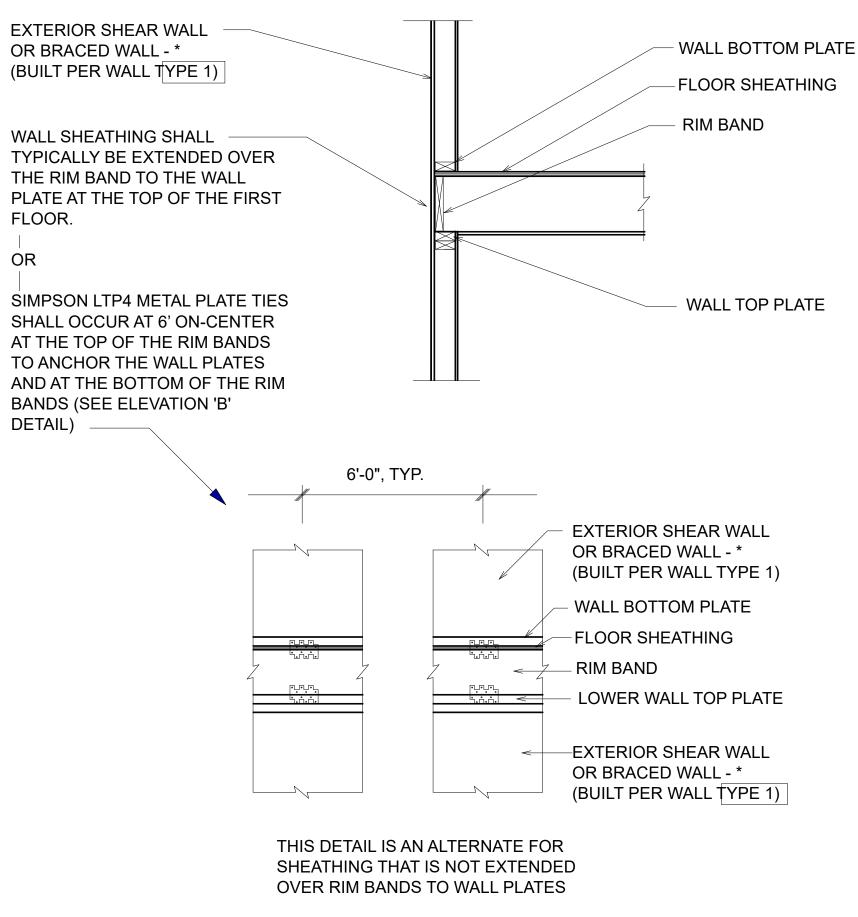
BRACED WALL CONSTRUCTION SPECIFICATIONS:

WALL TYPE 2 - TYPICAL INTERIOR SHEAR WALL CONSTRUCTION REQUIREMENTS:

- INTERIOR SHEAR WALLS AS INDICATED ON PLAN SHALL HAVE 1/2" GYPSUM BOARD WITH 5D X 1 5/8" GALVANIZED NAILS OR NO. 6 X 1 1/4" LONG TYPE W OR S SCREWS AT 4" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS OR 5/8" GYPSUM BOARD WITH 6D X 1 7/8" GALVANIZED NAILS OR NO. 6 X 1 1/4" LONG TYPE W OR S SCREWS AT 4" O.C. AT EDGES AND 12" o.c. AT INTERMEDIATE SUPPORTS

DESIGN LOADING FOR BRACED WALLS:

DESIGN WIND LOAD:



ELEVATION 'B' DETAIL

1/2"=1'-0"

EXTERIOR SHEAR WALL CONNECTION AT FLOOR TO FLOOR FRAMING

1/2"=1'-0"

- WALL TYPE 1 - TYPICAL EXTERIOR SHEAR WALL CONSTRUCTION REQUIREMENTS:

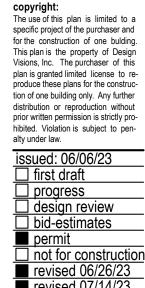
ALL EXTERIOR WALLS SHALL HAVE CONTINUOUS APA SHEATHING 32/16 1/2" OR 15/32" EXPOSURE 1 WITH 8D COMMON NAILS AT 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS WITH INTERIOR DRYWALL FINISH COMPRISED OF 1/2" MINIMUM GYPSUM BOARD WITH 1 1/2" GALVANIZED ROOFING NAILS, 1 1/2" LONG STAPLES GALVANIZED, OR 1 1/4" LONG TYPE W OR S SCREWS AT 7" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

TABLE 301.2(2) COMPONENT AND CLADDING LOADS FOR A BUILDING WITH A MEAN ROOF HEIGHT OF 30 FEET LOCATED IN EXPOSURE B 115 MPH (VULT) (3 SECOND GUST)

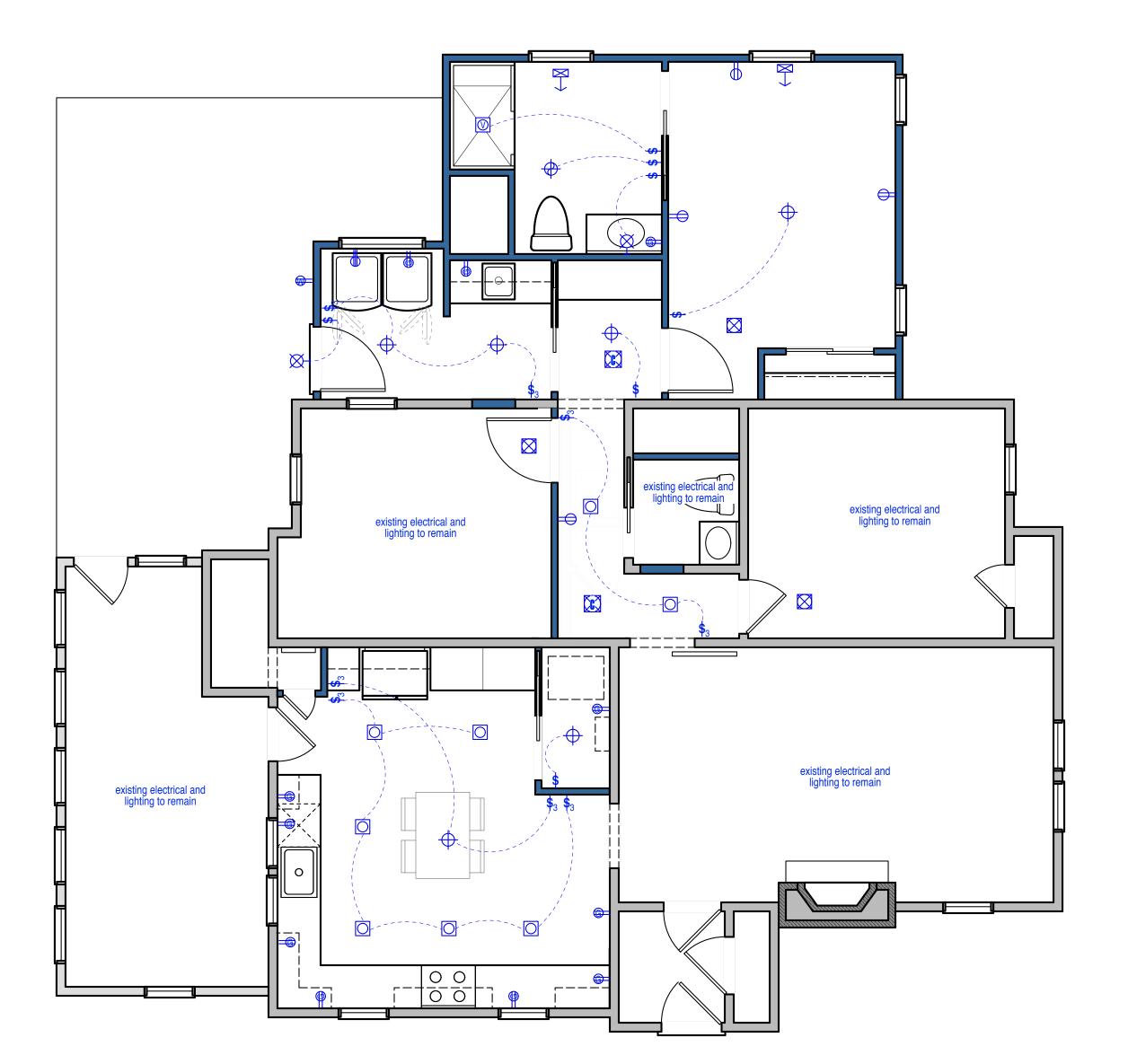


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electrical notes

precedence over this layout.

All electrical work must be performed in accordance with all governing codes and regulations.

Provide proper electrical outlets for dishwasher, trash compactor, garbage disposal and microwave.

All smoke detectors are to be wired in series with battery back up All bathroom vents exhaust to the exterior of the dwelling.

The contractor shall verify that there is a complete system of grounding for all electrical equipment.

symbol legend

€	duplex receptac 110v
€	recepatcle 220v
	weather proof gfi duplex recep
₽=	floor mounted duplex recept.
© =	gfi duplex recep
\oplus	ceiling mounted light fixture
\mathbf{X}	wall mounted light fixture
\oplus	surface mounted light with pull ch
\bigoplus	ceiling mounted light fixture & far

main floor electrical/mechanical schematic



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sheet 5 details

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CD

sheet 6 elec. - mech. plans

The electrical plans shown here are suggested only! Electrical layouts can be altered as required for builder's standards, owner's preference or superceded by any governing code. The local governing codes take

All electrical equipment must meet the Underwriters Laboratories (UL) standards. Consult local applicable codes for specific requirements.

Provide proper electrical outlets for clothes dryer, range and air conditioners.

Provide proper outlet or wiring for whirlpool tub.

All kitchen, bathroom, sink areas, outdoor outlets and basement outlets to be equipped as (GFI) ground fault interrupting circuits.

power supply. Provide smoke alarms/detectors in compliance with all governing codes

Receptacle outlets in habitable rooms shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6 feet from a receptacle outlet(less than 12 foot spacing). a receptacle shall be installed in each wall space 2 feet or more in width.

Per nec 210.12, all 120-volt, single phase, 15 and 20 ampere branch circuits supplying outlets in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways or similar rooms or areas shall be protected

by a listed arc-fault circuit interrupter, combination type, installed to provide protection of the branch circuit.

acle	\$	single pole switch
)v	\$ 3	three way switch
ept.	\bigcirc	recessed ceiling light fixture
	\bigcirc	recessed clg. light w/ vapor proof lens
ept. ed	42	surface mounted flood light
	\boxtimes	smoke detector w/ batter backup-photoelectric and ionization activated
ed chain		smoke detector with CO detector combo w/ battery backup
ed an	\checkmark	supply air
	$\overline{\uparrow}$	return air

44124 ohio village, nayfield Ц oad 6221 ridgebury an

