

2
S-1
Architectural Site Plan
1"=60'-0"

NOTE:
INFORMATION ON THIS
SHEET GATHERED FROM
SURVEY PERFORMED BY
SCHWARTZ LAND
SURVEYING DATED 7-8-22

1
S-1
Architectural Site Plan
1"=20'-0"

A New Barn
The Manley Residence
2078 Ravenna St, Hudson, OH 44236
Barn Site Plan

Job Number Drawn By
2325 RP
2023.09.21 Variance
2023.11.26 Owner Review
2024.04.15 ARB Submittal



PANTUSO ARCHITECTURE

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Expiration Date 12/31/2024
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REGISTERED ARCHITECT
STATE OF OHIO
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Spec. Div. 1: General Requirements

BUILDING CODE: All work under this contract shall be subject to the **RESIDENTIAL CODE OF OHIO** for One-, Two- and Three-Family Dwellings, latest edition, and all municipal and local laws and regulations.

CONTRACT: The Owner will enter into a working relationship with the selected General Contractor based on one of the following two agreements: (1) "Standard Form of Agreement Between Owner and Contractor-AIA Document A105-2007," or (2) an agreement format proposed by General Contractor and approved by The Owner, which shall include The General Conditions of A105, which are hereby made a part of these Specifications and The Contract Documents. The Contract Documents, including The Drawings, Specifications, and General Conditions are complimentary and what is required by one shall be as if required by all. Generally, the Specifications take precedence over the Drawings and The General Conditions of the Contract take precedence over the Specifications. Should conflicts occur within the Contract Documents, The Contractor is assumed to have based his cost on the more expensive method of performing the Work unless The Architect has issued clarification before submittal of the Bid Proposal or The Contractor has specifically clarified the issue within his proposal.

When applying for subsequent draws, The Contractor shall submit to The Owner an Affidavit of Release of Liens (AIA-G706) for amounts previously paid to The Contractor by The Owner or a lending institution. The Release of Liens (AIA-G706) shall be presented from himself, all subcontractors, suppliers of material and equipment and all performers of Work, labor or services.

INSURANCE: Before beginning the Work, The Contractor shall provide to The Owner a Certificate of Insurance for an amount equal to the Contract Amount and shall also provide a copy of his current Worker's Compensation Certificate. He shall also provide proof of Builder's Risk and Liability Insurance. The Owner will obtain or increase existing Homeowner's Insurance to cover work incorporated into the job.

JOB SITE SECURITY/SAFETY/CONDITION: Barriers, barricades, signs or warning lights, and other safety devices shall be provided to insure safety to The Owner, workers, and the general public from hazardous conditions which may arise as a result of the work. The Contractor shall utilize all means necessary during demolition and construction to insure that all new construction and existing finished spaces are thoroughly protected from vandalism, theft, water and wind damage; and shall remedy/replace, at The Contractor's expense, any such damage that does occur.

Debris: On a daily basis The Contractor shall place all construction debris in a mobile refuse container, located where agreed with The Owner, to insure a safe, orderly and clean construction site. All debris shall be removed at completion of the project. No burying or burning of construction debris shall be permitted unless approved in advance by The Owner.

PORTABLE TOILET: The Contractor shall provide a portable toilet for use by all personnel, located where directed by The Owner, which shall be cleaned and serviced on a regular basis. The Contractor may use existing facilities only if The Owner has provided written approval prior to signing a contract. Expectations of cleaning and use shall be clearly discussed in advance.

MATERIALS PROTECTION/ STORAGE: Construction materials stored outside shall be covered and protected with weatherproof tarps. Wood and similar materials shall not be stored in contact with the ground.

WARRANTY: The Contractor shall provide to The Owner a minimum one-year guarantee on materials, equipment and workmanship to commence at the point of substantial completion for all contract work. The Contractor shall furnish The Owner with copies of all equipment guarantees and Owner's Manuals

WORK: Before submitting his Bid Proposal, The Contractor shall visit the Project Site and familiarize himself with existing conditions and shall carefully study and compare the Contract Documents with the existing conditions and report to The Architect any errors, discrepancies, inconsistencies or omissions, and materials, products, systems, procedures, and construction methods shown or specified which are incorrect, inadequate, obsolete, or unsuitable for actual field conditions discovered, or which The Contractor would not warrant as required by The Contract Documents.

Prior to ordering materials or doing work at the site, The Contractor shall verify dimensions and conditions affecting materials to be ordered or work to be done, to insure that information shown on The Contract Documents accurately reflects actual conditions, and shall not proceed without The Architect's instructions if there are omissions, errors, discrepancies or inconsistencies.

The Contractor shall provide all labor, material, equipment, apparatuses and accessories required to complete all work shown on these drawings, or reasonably implied and necessary for the completion of the project. All materials and equipment to be installed following manufacturers' instructions and best construction methods and standards.

The Contractor shall obtain and pay for all required permits, royalties, shipping charges, fees and licenses and shall arrange for all inspections necessary for the proper execution of the Work. Approval Certificates shall be posted in a prominent, central location and per local authority's requirements.

Substitutions for items herein specified, or shown on Drawings, must be approved by The Architect. The phrase "or equal" in the Drawings or Specifications shall be interpreted as meaning equal in the opinion of the Architect, and must have his approval prior to ordering.

A copy of the Drawings and Specifications, any Addenda issued before or during construction, and all detail drawings submitted during construction, shall be kept and maintained in a suitable condition on the site for use by the Owner, Architect, General Contractor, and all tradesmen.

EXISTING CONDITIONS

TOTAL DEMOLITION: No demolition shall commence on any building before utilities are properly disconnected from said building. During demolition, the structure shall be thoroughly wetted to prevent dust. All above grade structures removed from the site, all foundations, walks, stoops, patios, and adjacent structures to be removed in whole from the site. The hole shall be protected as stated above until filled with fill, dirt, and rubble no greater than 4" in diameter in 12" properly compacted lifts. The top 12" shall be clean fill that results in level ground or slightly raised from adjacent soils.

WASTE REMOVAL: All other waste and debris from demolition work shall be removed from site using a recycling waste removal service offering 85% minimum repurposing/recycling of existing building materials. Waste service provider to be approved by The Architect.

PROJECT CLEANING: At the completion of the project, and during the project as may be appropriate, The Contractor shall thoroughly clean all work, including, but not limited to, the following: removal of mortar spatters or stains from all interior and exterior masonry; removal of masonry waterproofing above finish grade; removal of any spatters or stains from exterior siding, roofing, or other exterior materials; removal of all stains from all exposed concrete work, except for Crawl Space concrete; removal of stains and cleaning of counter tops, ceramic tile, plumbing fixtures and fittings, etc.; thorough cleaning of faucet screens and plumbing traps; vacuuming of all floors, followed by wet mopping of hardwood, ceramic, stone or other hard surface floors; dusting of all walls, ceilings, trim, doors, windows, cabinets, etc., including the interiors of all cabinets; removal of all window and door stickers, paint or stain overlapping on glass, and other glass spatters; polishing of all windows, mirrors or other glass.

In addition, The Contractor shall be responsible for the removal, including final vacuuming, of all construction, or other, debris from joist, rafter, stud, or other cavities prior to concealing with flooring, drywall

Spec. Div. 2: Site Work and Excavation

SITE ACCESS: The Contractor shall access the site, stockpile construction materials and park construction vehicles and equipment where agreed with The Owner. Work shall be executed in a manner to minimize damage to existing drives, walks, lawns, plantings, trees, house, utilities, etc. Any such items that are damaged by construction activities shall be repaired to their original condition at The Contractor's expense.

The Contractor shall remove topsoil in areas of new excavations, if any, and stockpile where agreed with The Owner for reuse as finish grading material. The Contractor shall limit site disturbance to minimum required for access and mobility.

SOIL EROSION PROTECTION: Slopes greater than 12% and open and exposed soil areas including any stockpiles of subsoil or topsoil shall be enclosed with straw wattles, fiber rolls, straw bale dams, or other recycled materials to prevent soil from washing onto adjacent property or into drainage paths. Such barriers shall be maintained during all construction phases of work, through final grading.

TREE PROTECTION: The Contractor shall actively protect all trees onsite unless requested otherwise by The Owner or on the drawings. Before heavy equipment is employed on site, PROTECTION FENCING must be erected where required to prevent root damage by equipment travel within tree drip line. The Contractor shall obtain approval of The Owner prior to removal of any trees not directly within perimeter of new construction.

TREE/ PLANTINGS REMOVAL:
The Contractor shall remove existing trees as required for construction and as agreed upon with The Owner. Trees shall be limbed and cut into firewood and stacked if so directed by The Owner. (Brush and Stumps) shall be chipped and reused for mulch. The Contractor shall coordinate with local yard waste recycling facility.

EXCAVATION: Prior to beginning any excavation work, The Contractor shall ascertain the location of all underground utilities and services, using utility company location services if necessary, and carefully avoid damage to these items, or interruption of service, to include electric, phone, water, gas, sanitary/storm sewers, etc. The cost to repair and restore any damage to such services shall be paid for by The Contractor.

The Contract Documents have been prepared with an assumed soil bearing capacity of 2,000 psf. No sub-surface geotechnical report or soil bearing logs have been provided or reviewed prior to design of this work. The Contractor shall verify soil conditions and shall notify The Architect and The Owner of any suspected or unusual soil conditions that may affect the footing or foundation work, and shall not proceed until so directed. No new work shall bear on unusual or questionable soil. Excavate to depths as required to provide floor levels as shown on Drawings. Provide a minimum footing depth of 3'-6" below grade. If existing footings are shallower than new adjacent footings, DO NOT disturb soil, call The Architect for further instructions BEFORE proceeding. Minimize over-digging and do not allow water to stand in excavation (pump as required). Stockpile excavated subsoil needed for back-filling and grading where agreed with the Owner and dispose of any remaining soil off-site.

FOOTING DRAINS: Install 4" dia. Schedule 35 perforated footing drains, holes oriented down, at the interior and exterior of all footings, with minimum slope of 1/16" per L.F. Exterior footing drain system shall include a minimum of (2) flush ports, or clean-out risers to grade, with threaded PVC caps, and shall be wrapped in silt filter fabric. Filter fabric shall wrap an additional 6" radius of gravel around the pipe; fabric shall not be tightly wrapped to pipe itself. Layout and install where required to permit cleaning of all footing drains. Plug ends of downspout and footing drains when work is in progress to prevent clogging, and clean out before covering.

Note: existing invert heights must be low enough to allow for proper placement and slope of new footer drains, and The Owner and The Architect must be notified immediately if the existing system is not of proper depth or is otherwise inadequate. Any alternate drainage system must be approved by The Architect, The Owner and by The Building Inspector.

DOWNSPOUT DRAINS: The Contractor shall connect new boots to the existing downspout drainage system using 4" dia. Schedule 35 solid PVC with minimum slope of 1/8" per L.F. No connection with the footing drainage system is allowed, except downstream combination to storm main exit pipe.

Backflow preventer to the footing system shall be installed to prevent storm system backup into the foundation backfill.

BACK-FILLING: Foundations shall not be back-filled until Crawlspace or Basement floor slab and First Floor deck are in place or until walls are adequately braced to accommodate loading. Before backfilling, thoroughly clean all excavations around foundations and any retaining walls of all masonry and other construction debris. Backfill around foundation shall be smooth, washed river stone to within 6" of finished grade. Backfill top 6" with clean soil. Excavations for utilities under steps and/or terraces shall be filled with granular material.

GRADING: Prior to final grading, clean site of all construction debris. Rough grade with clean excavated subsoil in a fashion to continue natural contours and provide good drainage away from house. Provide drainage swales or yard drains connected to storm sewers for any low areas where surface water is likely to collect. The Contractor shall be responsible for insuring that finish grades are a minimum of 8" below siding/ sill plate, and that all surface water drains away from house. Finish grade with stockpiled topsoil and provide additional topsoil if necessary. New grading to be reseeded.

DRIVEWAY: New drive to be staked as shown on The Drawings, reviewed with The Owner for approval of layout, and re-staked as directed by The Owner, if necessary.

Concrete Drive: See Specifications Division 3 for Concrete driveway.

Gravel Drive: Excavate 8-12 inches and install weed barrier fabric. Cover the fabric with a 4- to 5-inch layer of crushed #1 or #2 limestone rocks. Use this as the construction drive. Add a second 4-inch thick layer of #57 limestone. Compact this and fill in low areas as needed. Top the driveway with a 4-inch to 5-inch inch layer of crushed compacted #8 limestone. Install 2" Schedule 40 PVC Conduit sleeves, as shown on The Drawings, under the driveway for future landscape lighting, lawn irrigation, etc.

Project Description

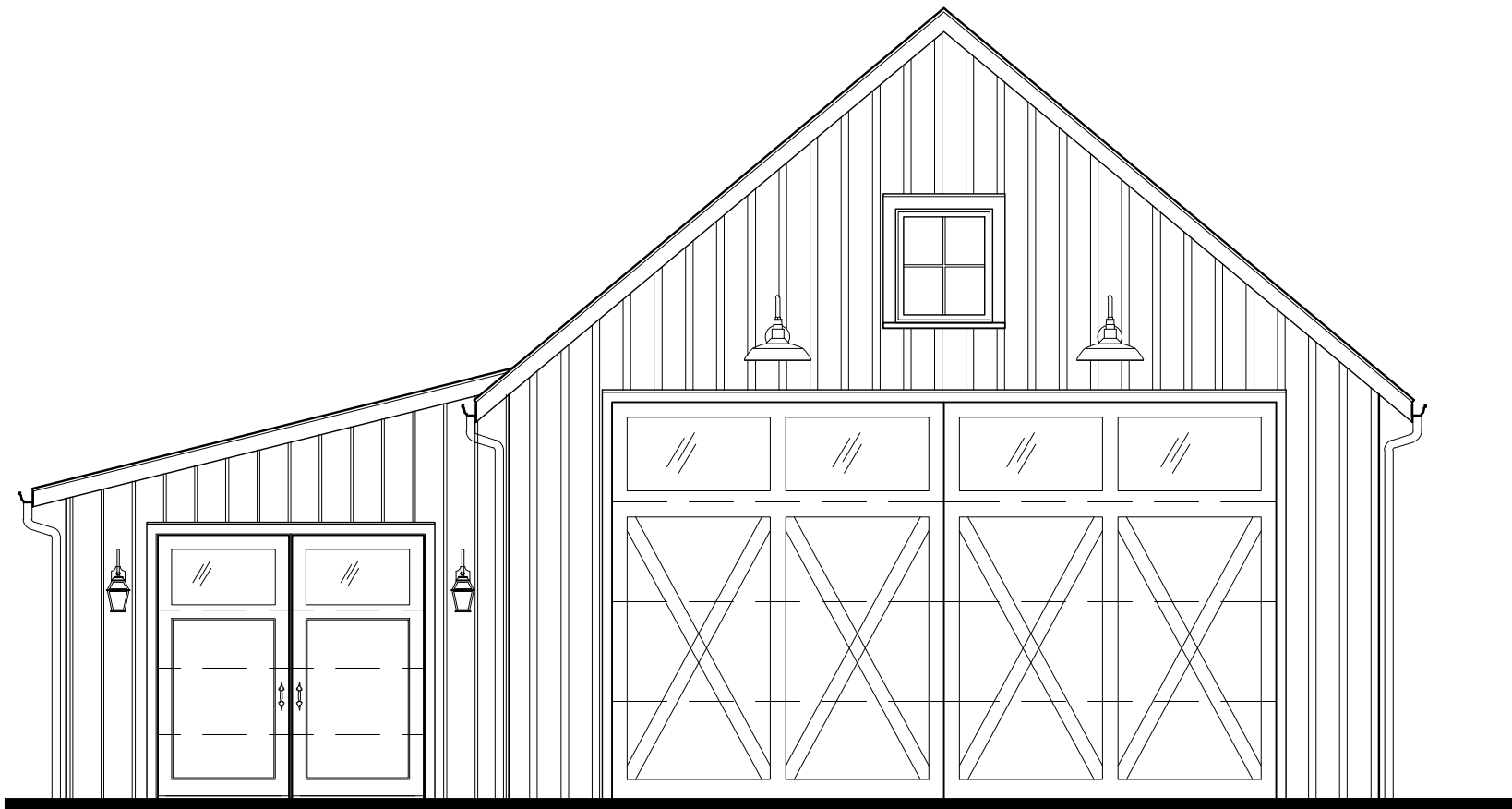
THE PROJECT SCOPE INCLUDES THE DEMOLITION OF AN EXISTING BARN AND THE CONSTRUCTION OF A NEW BARN.

Design Loads

SEISMIC DESIGN CATEGORY:	"B"
WIND SPEED (mph):	115
1. FLOOR LIVE LOADS:	
FIRST FLOOR:	40 psf
SECOND FLOOR:	30 psf
FLOOR DEAD LOADS:	10 psf
2. ROOF LIVE LOADS (SNOW):	30 psf
ROOF/ CEILING DEAD LOAD:	12 psf
TOTAL ROOF LOADING:	42 psf

Proposed Front Elevation

NTS For Reference Only



Project Area

NEW BARN FLOOR AREA:	1742 SF
LOT AREA:	4.0281 ACRES

Project Team

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Index of Drawings

A-1	Title Sheet, spec 1-2
S-1	Site Plan
A-2	Foundation Plan, spec 3-5
A-3	First Floor & Roof Plan, spec 7-9
A-4	Elevations
A-5	Sections, Details, spec 6
A-6	Typical Framing Details
M-1	MEP Plan, spec 10-26

Mr. and Mrs. Josh & Jessica Manley

Spec. Div. 3: Concrete

GENERAL: Cast-in-place concrete construction shall conform to the latest edition of American Concrete Institute ACI-301, 305, 306, 315, 318, and 347, unless noted otherwise.
Slump for all classes of concrete to be between 4" and 5" (ASTM C-143).
Concrete shall be discharged at the site within 1 ½ hours after water has been added to the cement and aggregates.
Addition of water to the mix at the project site will not be permitted.
CONCRETE WASTE and wash water should be returned with each concrete truck for disposal at the concrete batch plant. If this is not possible, operators can install prefabricated or built on-site concrete washout area per *The Architect's* instructions. Contractor must not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams. Do not allow excess concrete to be dumped onsite, except in designated concrete washout areas.

COMPRESSIVE STRENGTH: The compressive strength of concrete in 28 days shall be as follows:

Grout:	2,500 psi minimum	
Footings and Interior slabs:	3,000 psi	
Exterior and Garage slabs-on-grade:	4,000 psi with 6% +/- 1% Air-entrainment	
Water/Cement Ratio:	The water/cement ratio shall not exceed the following:	
Comp. Strength	Non Air-entrained	Air-entrained
3,000 psi	0.58	
4,000 psi	0.53	0.44

REINFORCING: Concrete steel reinforcing bars shall conform to ASTM A-615, Grade 60. Welded wire fabric (w.w.f.) shall conform to ASTM A-185-79 (60,000 psi yield). All detailing, fabrication, and placement of reinforcing steel shall conform to the Manual of Standard Practice for Detailing Reinforced Concrete Members. For footings and concrete walls: Lap all reinforcing bar splices 45 bar diameters minimum. Bend all horizontal bars 36 bar diameters past each corner or provide equivalent corner bars matching horizontal reinforcing. For slabs: Wire shall lap one full mesh +2" and be securely wired each side and end. Reinforcing placed at 1/3 of slab thickness from top of slab, typical.
Properly support all reinforcing and wire mesh on chairs. Minimum coverage for concrete reinforcing shall be:
1. Concrete deposited against the ground: 3"
2. Concrete exposed to the weather: 2"
3. Slabs/wall not exposed to the weather: ¾"
4. Beams/columns (over main reinforcing): 2"

FOOTING: Sizes and reinforcement shall be as detailed on the *Drawings* but shall not be less than 10" thick, 8" wider than the wall supported, and reinforced with (2) #5 bars, bot. Below masonry chimney construction, footings to be min. 12" thick, 12" wider than masonry above, with #5 bar @ 12" each way, bot.. Carefully form all footings with 2x material staked and adequately supported. Verify that footing layout is square and the tops of all footings are level. Construction over footings shall not commence for 48 hours after casting minimum, or per local code. Footings to reach 3000 psi compressive strength at 28 days, water/cement ratio not to exceed 0.58

CONCRETE FOUNDATION WALL:

POURED-IN-PLACE FOUNDATION WALLS to be: 1'-4" thick. Include reinforcing bar as indicated on drawings per engineered design. Walls to reach 3000 psi compressive strength at 28 days, water/cement ratio not to exceed 0.58

Contractor to avoid using petroleum based concrete form release agents. Use only low toxicity agents such as Bio-form, Crete-Lease, Duogard or SOY solv. Contractor to use FSC certified or metal form work that can be reused.

INTERIOR SLAB: 4" thick, 3000 psi concrete with w.w.f. 6x6-W2.9xW2.9. Slab to reach 3000 psi compressive strength at 28 days, water/cement ratio not to exceed 0.58. Under floor slab construction, provide 4" compacted #57 limestone fill beneath a 10 mil concrete vapor barrier. Finish to be metal floated and steel troweled to a smooth, ridgeless, finish (no machine finishing will be permitted without approval from *The Owner and The Architect*), at a level to match adjacent concrete floors or as shown on Drawings. Slabs to be level to within 1/4" per 10' radius.

EXTERIOR/GARAGE SLAB: 4" thick, 4000 psi air-entrained concrete with w.w.f. 6x6-W2.9xW2.9. Driveway and garage slabs to be 4,000 psi with 6% (+/- 1%) air-entrainment over 4" compacted #57 Limestone base (omit vapor barrier). Water/cement ratio not to exceed 0.44. Garage slab finish to be metal floated and steel troweled to a smooth, ridgeless, finish (no machine finishing will be permitted without approval from *The Owner and The Architect*), sloped toward floor drains or garage doors as shown on the drawings. Garage concrete floor to include: a ¾" deep depression at overhead door; a 24" wide sloped apron at exterior; and be sprayed with a liquid sealing/hardening agent. Exterior concrete steps, walks and driveway to have a broom finish and concrete steps and curbs to receive tooled edges.

CONTROL JOINTS: Exterior slabs shall have troweled control joints, and basement slabs shall have saw-cut control joints, dividing slabs into rectangular panels as nearly square as possible. The long side of any panel shall not be more than 1½ times the short side and spacing of joints shall be 10' to 12' max. for 4" thick slabs. Control joints shall be a minimum of ¼ the depth of the slab and shall be continuous to the edge of the slab. Isolation joints shall be cut-in around columns, piers, etc. and panels shall have no "inside" corners. Provide control joints in all slabs on grade within 8 hours of casting concrete.

Spec. Div. 4: Masonry

GENERAL: Construct all masonry walls in accordance with ACI 530.1 specifications (with requirements for Owner Inspection and Acceptance deleted), unless otherwise noted. Anti-freeze admixtures shall not be used and uncured walls shall be protected from freezing as may be required. The tops of walls under construction shall be covered at the end of each day and protected from rain or snow. The minimum Masonry Prism Strength (Fm) shall be 1500 p.s.i. at 28 days, unless noted otherwise.

MATERIALS (GENERAL): Masonry materials shall conform to the following ASTM specifications:

Concrete Masonry Units	ASTM C-90 (Grade N-1)
Facing Brick	ASTM C-216 (Type FBS, Grade SW)
Mortar (Type M,S,N,O)	ASTM C-270
Grout	ASTM C-476 (2,500 psi @ 28days)
Reinforcing Steel Bars	ASTM A-615 (Grade 60)

MORTAR: Mortar for use above and below grade shall be as follows:

Exterior, below grade:	Type S
Exterior, above grade:	Type S
Interior, Non-load bearing:	Type S

SAMPLE PANEL: A 24" wide by 36" high sample panel shall be constructed and approved before commencing masonry construction. Sample panel shall demonstrate complete wall construction as well as typical detail or openings as directed by *The Architect*. Sample panel shall remain on site until masonry work is completed.

SEALING: Glaze N Seal Multi-Purpose Sealer or approved alternate for sealing all exterior brick.

MASONRY FOUNDATION WALLS; TO BE 6" nominal thickness with trench footing, reinforced with #5 bars, vertical, at 32" on center with #9 gauge Dur-O-Wall Ladur-type horizontal joint reinforcing every other block course. Dur-O-Wall DA2200 joint stabilization anchors at all connections of new foundations to existing.

REINFORCEMENT: Foundation wall reinforcement shall be as shown on *The Drawings* but in no case shall un-balanced fill against 8" masonry walls exceed 4'-0" (6 block courses) or 6'-0" (nine block courses) for 12" walls. When grade or other conditions require heights exceeding these figures the walls shall be reinforced full height of the wall and lapped 45 bar diameters min. with projecting bar cast into the footing. Cores shall be grouted solid at anchor bolts and reinforcing bars, and the bars shall be held 1" clear of the interior face of the core.

MASONRY FOUNDATION DAMPROOFING: The exterior of all foundation block and brick walls shall be parged with 3/8" cement with ironite from cove at footing to a finish grade level to be approved by *The Owner or The Architect*. Fully dried parging shall be coated with 60 mil. wet thickness, two-coat application of Watchdog Waterproofing polymer-enhanced asphalt liquid-applied membrane or approved alternate. Both parging and waterproofing shall run continuous and uninterrupted around complete basement perimeter, installed prior to construction of intersecting masonry walls. Insulating (expanded polystyrene or equal) protection board shall be installed below grade, full depth to footing, prior to backfilling.

Spec. Div. 5: Metals

STRUCTURAL STEEL: Structural steel shall be detailed, fabricated, and erected in accordance with the latest AISC Specification for Structural Steel Buildings, Allowable Stress Design, and Code of Standard Practice.

Fitch Plates: Steel fitch plates shall be ASTM A-36 steel (Fy = 36 KSI). Fitch plates shall be connected to wood members with 1/2" dia. flush mounted through bolts. Minimum edge and end distance to be 2". See plans for size of plates and spacing of bolts.

Lintels for masonry openings shall conform to the following schedule unless otherwise noted on the Drawings.

Clear span	Lintel
up to 4'-0"	L 3½" x 3½" x 1/4"
4'-1" to 6'-0"	L 4" x 3½" x 5/16" LLV
6'-1" to 8'-0"	L 5" x 3½" x 5/16" LLV
8'-1" to 9'-0"	L 6" x 3½" x 5/16" LLV

All lintels shall have 1" of bearing for each foot of span with a minimum of 6" at each end. All lintels at exterior walls shall be hot-dipped galvanized.

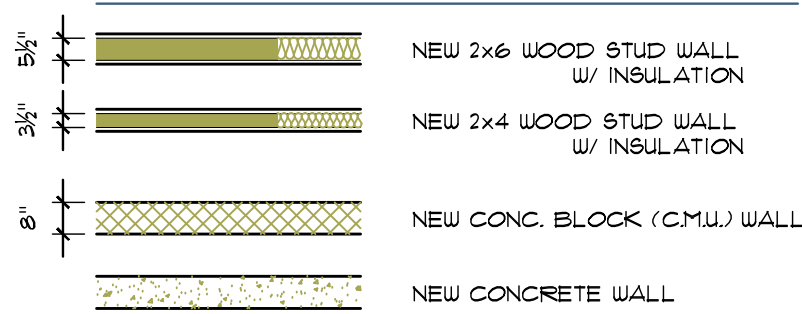
Beams: shall be ASTM A-992 steel (Fy = 50 ksi), sizes as shown on drawings, in continuous lengths between bearing points. Steel beams bearing on masonry walls shall bear on steel bearing plates (sizes shown on plans) and masonry grouted solid 16" wide by 8" deep.

Columns: Steel columns shall be ASTM A-53 steel (Fy=35 ksi), sizes as noted on *The Drawings*. Columns shall be continuous from footing to beam, with ½" top and bottom bearing plates (unless otherwise noted) welded to columns. Light gauge steel posts to be H.U.D. and B.O.C.A. approved, size as shown on *the Drawings*, as manufactured by Tel-O-Post, Tapco Mono Post, or equal, and shall be installed with adjustment nut at bottom. Basement columns and posts shall be installed and adjusted prior to casting concrete floors. Beams shall be bolted to cap plates w/(4) ¾" dia. bolts. Column base plates shall be connected to footing with a minimum of (2) ¾" anchor bolts.

Shop Painting: Structural steel to be finished with two shop coats of rust inhibitive paint.

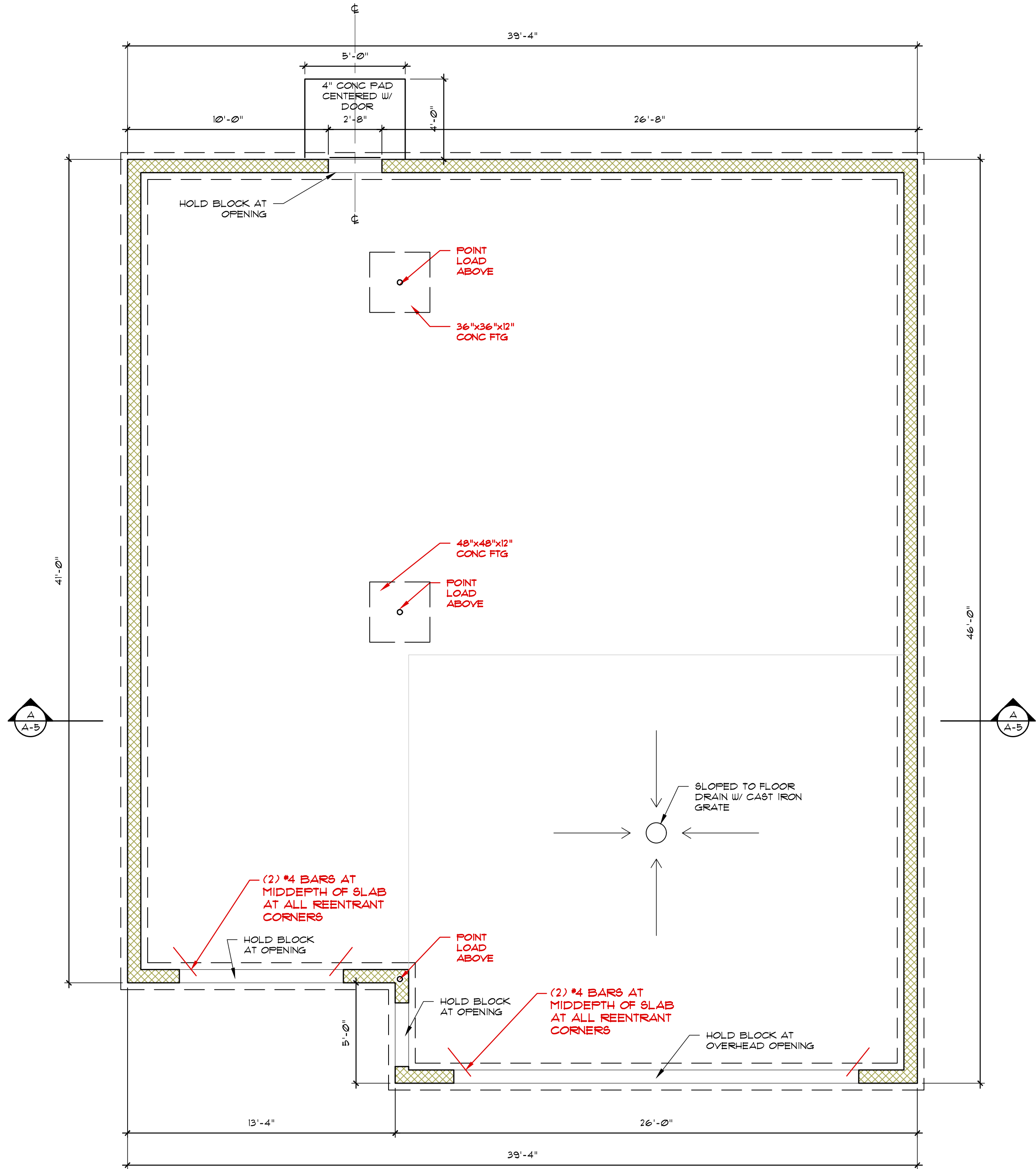
Connectors: Connectors and Accessories to be included as required for complete structural support. All shop connections to be made with ASTM A307 bolts or welded using E70 electrodes and shall conform to the specification set forth in the AWS Structural Welding Code. All field connections to be ASTM A307 bolts, unless noted otherwise. Anchor bolts, nuts, washers, straps, framing anchors, hangers, masonry ties, and other accessories to be hot-dipped galvanized.

Wall Legend



NOTE: ALL DIMENSIONS TO FACE OF WOOD STUD (NEW WALLS), FACE OF EXISTING FINISH (EXISTING WALLS), OR FACE OF MASONRY UNIT, UNO.

D.B. = DOWNSPOUT
EX.G. = EXISTING
F.V. / V.F. = FIELD VERIFY / VERIFY IN FIELD
GSF = GROSS SQUARE FEET (OUTSIDE OF EXT. WALLS)
GYP. BD. = GYPSUM BOARD (DRYWALL)
H.B. = HOSE BIB
NET SF = NET SQUARE FEET (INSIDE OF EXT. WALLS)
PL. HT. = ROUGH PLATE HEIGHT
R.D. = ROOF DRAIN
TYP. = TYPICAL
UNO. = UNLESS NOTED OTHERWISE



1
A-2

Foundation Plan

1/4"=1'-0"

A New Barn

The Manley Residence

2078 Ravenna St, Hudson, OH 44236

Foundation Plan, Spec 3-5

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2325	RP
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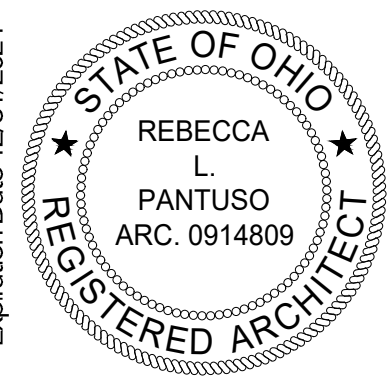
A-2



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Expiration Date 12/31/2024



Div. 7: Thermal & Moisture Protection

INSULATION, GENERAL: Material specifications and R-value ratings calculated by installer to comply with the latest edition of the prevailing Dept. of Energy Building Energy Codes as adopted into the Ohio Residential Code for residential structures (listed below). In general, all heated living spaces shall be totally enveloped in insulation. Access doors from conditioned spaces into unconditioned attics shall be weatherstripped and insulated to a level equivalent to the insulation on the surrounding surfaces. The Work shall include corrugated rigid foam insulation baffles at sloped ceilings and rafter/sidewall intersections as shown on *The Drawings*.

Minimum R Values by component (See Residential Code Table 1102.1.2 and 1107.4.1 for more information):

	New Construction	Addition/Renovation
Ceilings (cathedral, flat)	R-49	R-38
Wood Framed Walls	R-20 or R-13 + R-5 cont.	same
Mass Walls (cmu, concrete, icf)	R-13/R-17 *	same
Floors (framed)	R-30 **	same
Basement Walls	R-10/R-13 ***	same
Concrete Slab (ground, basement)	R-10 for 24"	same
Crawl space	R-10/R-13 ***	same

* R-17 applies where more than half of the insulation is on the interior of the mass wall.

** Alternatively, insulation sufficient to fill the framing cavity providing not less than R-19.

*** R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation on the interior of basement wall.

WALL/CEILING INSULATION: All thermal insulation shall be fiberglass batt conforming to the following: Wall cavities to receive R-21 unfaced batt; cathedral ceilings to receive unfaced batt with baffles for airflow beneath roof to minimum R value as listed above; attic spaces to receive fiberglass batt or pneumatic-spray loose cellulose to minimum R value as listed above, settled depth.

AIR-SEALING: Contractor to perform the following:

- Non-expanding foam to seal around all window and door rough-openings.
- Seal with caulk at tight joints, bottom plate all walls, top plate all walls, and at vertical joints between separately-erected wall sections (corners, etc.). Seal top and bottom of rim joints with floor sheathing.
- Fully seal all floor/wall penetrations for plumbing, mechanical, etc. with fire-code approved material. Fully block up with rigid foam and foam seal all vertical chases at top of basement and at attic.
- Fully seal behind electrical and communication boxes within exterior walls or provide air-sealed boxes.
- All exterior doors to be fully weather-stripped

MOISTURE/AIR BARRIER : Huber Engineered Woods LLC ZIP System Wall Sheathing. All exterior walls to have factory laminated integral water-resistive barrier facer. See Division 8 for required window/door installation and flashing. See Division 4 for requirements at Masonry veneer walls.

SEALANTS: Provide the following sealants, or equal as approved by Architect, where shown on drawings or required for a complete and proper installation. Install per manufacturer's specifications in a neat bead and a workmanlike manner.

- General Exterior Sealant to be OSI's Quad Advanced
- Secondary Exterior Sealants to be DAP 756 SMS Building Sealant / DAP 758 Silicone Weather Barrier

The use of solvent based sealant or those that cure through solvent evaporation in any application in contact with ZIP System flashing products is NOT approved for use with Huber Engineered Wood wall sheathing system.

- General Interior Sealant and DYNAFLEX 230 Premium

Completely seal with caulking compound, joints around frames and sills of doors, windows, joints of dissimilar material and other openings in exterior masonry. Use Bond Breakers, backer rods and Primers as recommended by caulking mfr.

ROOFING: ASPHALT SHINGLES: New asphalt/fiberglass shingle roofing system to be installed in strict accordance with manufacturer's specifications and the recommendations of the Asphalt Shingle Association. Asphalt shingles to be GAF or CertainTeed, 30 year minimum warranty, Architectural grade, installed over underlayment as specified below. The Work shall include installation of "Ridgeline" nailable polypropylene ridge vent with cap shingles, or equal as approved by Architect.

ROOF UNDERLAYMENT: Owens Corning Titanium UDL30 synthetic underlayment or approved alternate to be installed and lapped per strict manufacturers recommendations and RCO Section 905.2.7.

In addition, self-adhering waterproof underlayment, Grace Ice & Water Shield" or approved equal, shall be installed 3'-0" width at all valleys, 4'-6" width at eaves (min. 2'-0" beyond inside face of exterior wall line), full coverage for small dormers and shingle roofs below 4:12 pitch. Under metal roofs, Grace Ice & Water Shield HT" (High Temperature) shall be used as required by roofing manufacturer at all valleys and eaves. At rakes, underlayment shall be covered with metal drip edge.

FLASHING: All flashing shall be designed and installed in strict accordance with the Architectural Sheet Metal Manual. Roof valley flashing shall be 20" wide, 0.019" coil coated aluminum, 1/2" crimped, color to match shingles as close as possible. Chimney flashing to be 16 oz. copper, cap and base type with hemmed edges and installed in raked out mortar joints or saw kerfs. Set with lead roying and seal with a small bead of clear silicone. Other roof flashing to be 0.019" coil coated aluminum, to match shingle color.

Flashing at stoops and steps, where masonry abuts wood wall or floor systems, shall be 0.019" coil coated aluminum, color to match adjacent siding or trim, and installed to thoroughly protect wood.

GUTTERS and RAINWATER LEADERS, GENERAL: Sizing of gutters and downspouts to be verified by roofing contractor. If roof area calculations/unusual conditions warrant an increase in gutter size to 6" with 4" downspouts, contact The Architect for approval. Install splash or overflow guards on gutters where recommended at the termination of major valleys, or other locations where overflow is likely. Gutter lengths shall be extruded in continuous lengths with neoprene expansion joints in all hip-roof applications and at straight runs over 40'-0", full mitered inside and outside corners and stock endcaps, installed with concealed hanger. Gutters shall be pitched to downspouts within the height of the gutter board, not allowing water to stand in gutter. All joints shall be sealed with sealant recommended by gutter manufacturer.

GUTTERS: Shall be pre-finished aluminum 5" ogee or k style, 0.32 ga aluminum, pre-finished white polyester or baked enamel. PVC boot to project maximum 6" above grade to accept downspout and be painted to match downspout. DOWNSPOUTS: shall be .019" thickness 3" diameter round prefinished aluminum. Finish to match gutters. Downspout connection at gutter shall be located so that downspout is centered directly over boots with no bends in its vertical drop. If necessary, relocate downspout drain to achieve straight drops. If it is impractical, or unadvisable, to locate downspouts where shown on The Drawings, contact The Architect for approval of alternate location.

Spec. Div. 8: Windows and Doors

WINDOW PACKAGE ORDERING: Architect to receive copy of window order with min. three days to review/approve order prior to execution of window order. Contractor to directly confirm with Owner to approve: interior finish of screens and window hardware, interior finish of door hardware, acceptability of glass color, details of muntin bars as specified. Jeld-Wen and Windsor to remove sash groove, top and bottom, at DH windows. Owner to see window sample upon request.

WINDOW INSTALLATION: Air-and-moisture barrier per factory laminated water-resistant barrier facer on Huber Engineered Woods; ZIP System. Window unit with nailing flange: ZIP system stretch tape at window sill per unit manufacturer's installation guidelines shall be applied to the building exterior, properly taped and wrapped at openings, before installation of windows. Apply a continuous bead of sealant under nailing fins. Provide ZIP system flashing tape at window jambs, lap over nailing flange when flush to exterior face of wall. Provide ZIP system flashing tape at head of window. When a "I-Joint" occurs in the head of the window ensure vertical panel tape seams overlap onto the head flashing. In the event vertical panel seam has been taped prior to window installation tape head of the window with 6 inch or wider ZIP system flashing tape to cover seam with tape extending a minimum of 1 inch on the side of the vertical tape. Window unit without a nailing flange: provide ZIP system stretch tape and flashing tape in the jambs of the rough opening per manufacturer's recommendation prior to placement of window unit.

DOOR INSTALLATION: Air-and-moisture barrier per factory laminated water-resistant barrier facer on Huber Engineered Woods; ZIP System. Install ZIP System tape in the jambs of the rough opening. Install sealant as three separate beads in the threshold and minimum 6 inch up the jambs. Install door in rough opening per manufacturer's recommendation, apply a bead of sealant at the molding / ZIP system sheathing intersection. Install head flashing above the door and then lap Huber flashing tape over top of head flashing for proper drainage.

TEMPERED/SAFETY GLAZING: Tempered or safety glazing shall be required for the following locations considered hazardous:

- Glazing in a fixed or operable panel within 24 inches of an adjacent door and whose bottom edge is less than 60 inches above the floor or walking surface.
- Glazing in a fixed or operable panel that is larger than 9 square feet and whose bottom edge is less than 18 inches above the walking surface.
- Glazing in enclosures for or walls facing hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers where the bottom edge of the glazing is less than 60 inches measured vertically above any standing or walking surface.
- Glazing adjacent to stairways, landings and ramps within 36 inches measured horizontally of a walking surface and whose bottom edge is less than 60 inches above the plane of the adjacent walking surface. Glazing adjacent to stairways within 60 inches measured horizontally from the bottom tread of the

stairway and whose bottom edge is less than 60 inches above the nose of the tread. EMERGENCY EGRESS: Windows located in bedrooms shall comply with RCO section R310.1 and be provided with minimum opening area, opening height, width and compliant operating hardware. See Division 10 for egress window well specification.

MANUFACTURED WINDOWS AND DOORS: to be Pella 250 Series. All new-construction (and replacement, where applicable and approved by the Architect) windows, as well as exterior doors supplied by window manufacturer to meet the following specification standards:

GENERAL: units to have nailing fins w/ corner waterproof closure; high-performance, 5" wide butyl-modified window tape included with order.

GLASS: to be double-pane glass with Natural Sun 180 Low-E coating for higher light transmissance, U= 0.32, SHGC greater than 0.5, still meeting 2009 EnergyStar. APPROVED PRODUCTS: Pella Architect Series windows with Natural Sun glass option or equal.

The Contractor shall be responsible for installing tempered glass units where required by any applicable codes or ordinances.

MUNTIN BARS: to be 7/8" Simulated Divided Lite, pattern as indicated on drawings, w/ spacer bars, exterior to be pultruded fiberglass, finish to match windows. Provide wider (1 1/2" to 2") SDL bars to simulate double-hung center sash if indicated.

EXTERIOR FINISH: Pultruded-fiberglass finish to meet or exceed AAMA 623-10, White exterior finish.

INTERIOR FINISH: Pre-primed wood interiors, including interior muntin bars. Window manufacturer to verify with Owner and Architect all Interior/Exterior window and hardware finish choices prior to window order. Standard hardware finish included.

Window units to include Aluminum-extruded panning extensions with profile for jamb, head, and sill as indicated.

INTERIOR DOORS: to be as indicated on Door Schedule. For solid masonry/MDF doors, finish shall be smooth (NO WOOD GRAIN). Set doors to provide maximum 1/4" clearance between bottom edge of doors and finish flooring, including carpeting. Jambs at Door and Cased Openings shall be tightly shimmed in a minimum of three locations on each side including at hinges and locksets. Interior doors from house to Garage: door and frame to have one hour fire rating and self-closing mechanism.

GARAGE DOORS AND OPENERS:

NEW/REPLACEMENT OVERHEAD GARAGE DOORS to be Haas American Tradition Series or equal, flush finish, four section, 1 3/8" thick min., solid polyurethane core (R-12 min.) with inside and outside steel skins with composite overlays. Door shall be complete with windows (if shown), hinges, interior handles, latch mechanisms, and compressible-type rubber weather-strip for bottom rail and weather-strips for top and side rails.

NEW/REPLACEMENT DOOR OPENERS shall be LiftMaster Premium Series Model 3265-267, 1/2 H.P., with Multi-Function Controls Panel, manual release, Remote Control Units, and optical and contact sensors.

NEW/REPLACEMENT OVERHEAD DOOR HARDWARE shall include "Quiet Rollers" with nylon wheels, or equal, with galvanized steel channels. Contractor shall verify ceiling/head height in garage and provide appropriate track configuration. Low bow headroom track and/or rear torsion spring may be required.

DOOR HARDWARE: Provide and install all finish hardware as selected by The Owner and Architect under allowance, and shall include all door latches/knobs and stops. Unless otherwise directed, door hardware shall be 2 3/4" backset latches. Doors shall be hung with three square hinges per door, 3 1/2 x 3 1/2" hinges for interior doors, and 4" x 4" for exterior doors. Shim all jambs, minimum 3 shims per side jamb.

Spec. Div. 9: Finishes

DRYWALL: Use 5/8" gypsum-board for new wall finish; Use 5/8" gypsum-board for new ceiling finish. Verify adequate/level framing before installation to avoid visibly uneven surface. All ends and edges of gypsum board should occur over framing members or other solid backing except where treated joints occur at right angles to framing or furring members. Gypsum Board is applied directly to wood framing members. Ceilings are applied first, then sidewalls. Boards should be accurately cut and joints abutted but not forced together. Horizontal application, long edges at right angles to nailing members, is preferred for it minimizes joints and strengthens the wall or ceiling. Enclosed, accessible space under stairs shall have walls, under-stair surface, and any soffits protected on the enclosed with minimum 1/2" gypsum board.

FASTENERS: NAIL APPLICATION: Nails shall be spaced not to exceed 7" on ceilings, or 8" on sidewalls, a minimum of 3/8" and a maximum of 1 1/2" from edges and ends of gypsum board. Gypsum board nails or annular ring nails, such as the GWB-54, are recommended. SCREW APPLICATION: Screw application is often preferred as the screw holds the gypsum board tight against the framing when applied as recommended. Type W 1 1/4" Drywall Screws are driven with an electric screw gun equipped with adjustable screw depth control and a #2 Phillips bit. If framing is spaced up to 16" o.c., screws are spaced 12" o.c. max on ceilings and 16" o.c. max on walls. If framing is spaced 24" o.c., screw spacing must not exceed 12" o.c. Minimum screw penetration shall be 5/8" for wood studs.

GYPSTUM BOARD BENDING RADII: Lengthwise Bending: 1/4" (6.4 mm) = 5'-0" radius; 3/8" (9.4 mm) = 7'-6" radius; 1/2" (12.7 mm) = 10'-0" radius; 5/8" (15.9 mm) = 15'-0" radius; Note: To achieve tighter bending radii, use 1/4" High Flex Gypsum Board.

GYPSTUM BOARD FINISHING: Execution of finishing is to conform to Gypsum Association publication GA 214-10: Recommended Levels of Gypsum Board Finish. Levels shall be attained according to ASTM C 840, "The Standard Specification for Application and Finishing of Gypsum Board." Tape all edges, all joints thoroughly bedded, taped and feathered, and all drywall corners finished with metal corner bead. All finish surfaces to be smooth, free of cracks, breaks, bulges, ridges, etc., with all topping compound well feathered and sanded and thoroughly concealed. Carefully cut around all electric, HVAC or other openings. Furr walls and ceilings as required where installed adjacent to existing plastered surfaces.

Level 4: If the final decoration is to be a flat paint, light texture or lightweight wall covering, a Level 4 finish is required. As stated in Level 4, "All joints and interior angles shall have tape embedded in joint compound and shall be immediately wiped with a joint knife leaving a thin coating of joint compound over all joints and interior angles. Two separate coats of joint compound shall be applied over all flat joints and one separate coat of joint compound shall be applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges." It is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes.

Level 5: Level 5 finish is recommended for areas where severe lighting conditions exist and areas that are to receive gloss, semi-gloss, enamel or non-textured flat paints. Level 5 requires all the operations in Level 4. Additionally, a thin skim coat of joint compound, or material manufactured especially for this purpose, is applied to the entire surface. A skim coat of joint compound is intended to conceal small imperfections in joints and on the surface of the gypsum board to help conceal joints and create the appearance of flatness. A skim coat will also smooth the texture of the paper, minimize differences in surface porosity, and create a more uniform surface to which the final decoration can be applied. The Level 5 finish is required to achieve the highest degree of quality by providing a uniform surface and minimizing the possibility of joint photographing and/or fasteners showing through the final decoration.

CEILING TEXTURES: SMOOTH THROUGHOUT

FIRE-RATED GYPSTUM BOARD: 5/8" fire-rated drywall to be installed and finished as required by all governing building codes. Panel complies with requirements of ASTM C 1396, Type X. Typically, all attached garage walls and ceiling to be fire-rated.

MOLD AND MOISTURE RESISTANT GYPSTUM BOARD: Gold Bond® BRAND XP Gypsum Board or equal, panel complies with requirements of ASTM C 1396. Mold/Mildew Resistance: 10 when tested in accordance with ASTM D 3273. Moisture resistant drywall shall be used in areas prone to moisture, such as bathrooms, laundry rooms, basements, garages, kitchens and utility rooms. Also may be used as tile backer in limited wet areas, such as bathroom and basement walls, as well as kitchen and laundry wall tile areas.

BACKER BOARD: Cementitious, water durable, board: surfaced with fiberglass reinforcing mesh on front and back; long edges wrapped; and complying with ANSI A118.9 and ASTM C 1325. Approved fasteners: Nails: 1-1/2-in. long, hot dipped galvanized, and in accordance with FS FF-N-105B, Type 2, Style 20. Screws: Hi-Lo thread screws (No. 8) wafer head, corrosion-resistant, 1-1/4 in. or 1-5/8 in. long, and complying with ASTM C 1002. Joint Treatment: Use alkali-resistant fiberglass mesh tape intended for use with cement board. Install in accordance with ANSI A108.11 and Manufacturer's Recommendations: "PermaBase Cement Board Construction Guide," 110831, National Gypsum Co.

CERAMIC/ PORCELAIN/ STONE TILE: Tile shall be selected by The Owner under allowance and installed per the latest edition of The Tile Council of America specifications as follows:

MUD-SET FLOORS: Reinforced 1 1/4" to 2" maximum mortar bed over cleavage membrane over sub floor, F141. THRESHOLDS: Tapered marble thresholds shall be installed at transitions between tile flooring and adjacent flooring surfaces, and shall be installed per Tile Council of America specification TH 611.

SEALING: All porous stone, ceramic tile, or other porous flooring and wall tile shall be sealed following installation to prevent staining, and other precautions taken to prevent damage to such tile work.

INTERLOCKING RUBBER FLOORING: Rubber flooring Swiss Trax by Obsessed Garage.

INTERIOR PAINTING:

PREPARATION: Prior to starting the Work, The Contractor shall inspect all surfaces to be painted or stained to ascertain that all such surfaces are dry, clean and in perfect condition for finishing. Wood surfaces shall be smoothly sanded; all nail and screw holes and imperfections filled with non-shrinking putty and refilled as required so that these imperfections are indiscernible; and all knots, pitch pockets and saps streaks primed with shellac. After priming fill gaps between trim and walls/ceilings with paintable latex/silicone caulk and wipe smooth.

MATERIALS: Painting materials to be Sherwin Williams, Pratt and Lambert, Benjamin-Moore, or approved equal, delivered to job in new, unopened containers. Paint or finish shall be of color, shade, sheen and texture as selected and approved by The Owner prior to commencement of work, samples presented on a reasonably large

area. EXECUTION: Finish work shall be of uniform shades, free from shadows, runs, sags, grain, grain variations (when stained) and dust, dirt or other airborne particles. Where surfaces of different colors meet, the final appearance shall be of a fine, straight line. All light fixtures, electric outlet covers, HVAC grills, hardware, or other removable materials adjacent to painted surfaces shall be removed and replaced after painting is completed. Other built-in materials adjacent to painted surfaces shall be carefully masked prior to painting/staining. INTERIOR PAINTED WOOD or MDF trim work shall be painted with three coats: First, alkyd enamel primer; Second and third, alkyd base enamel, Benjamin Moore Impervo or equal, finish as selected by Owner, second coat tinted to differentiate from final coat. Putty prior to primer coat. Sand between coats. All window muntin grilles to be painted or stained at inside to match adjacent woodwork finish, and painted at exterior to match window color.

STAINED WOODWORK: to be stain finished with three coats: First, stain/sealer; Second and third, clear polyurethane or approved equal, satin finish. Sand between coats.

DRYWALL WALLS AND CEILINGS: to be painted with three coats: First, latex wall primer; Second and third, latex enamel. After initial priming, inspect all surfaces and re-prime as required following surface corrections, if any. Prime and paint all edges of all doors, including top and bottom edges, after trimming, shaving, undercutting or other adjustments to doors. Prime and finish paint all edges of windows and exterior doors.

EXTERIOR PAINTING AND STAINING:

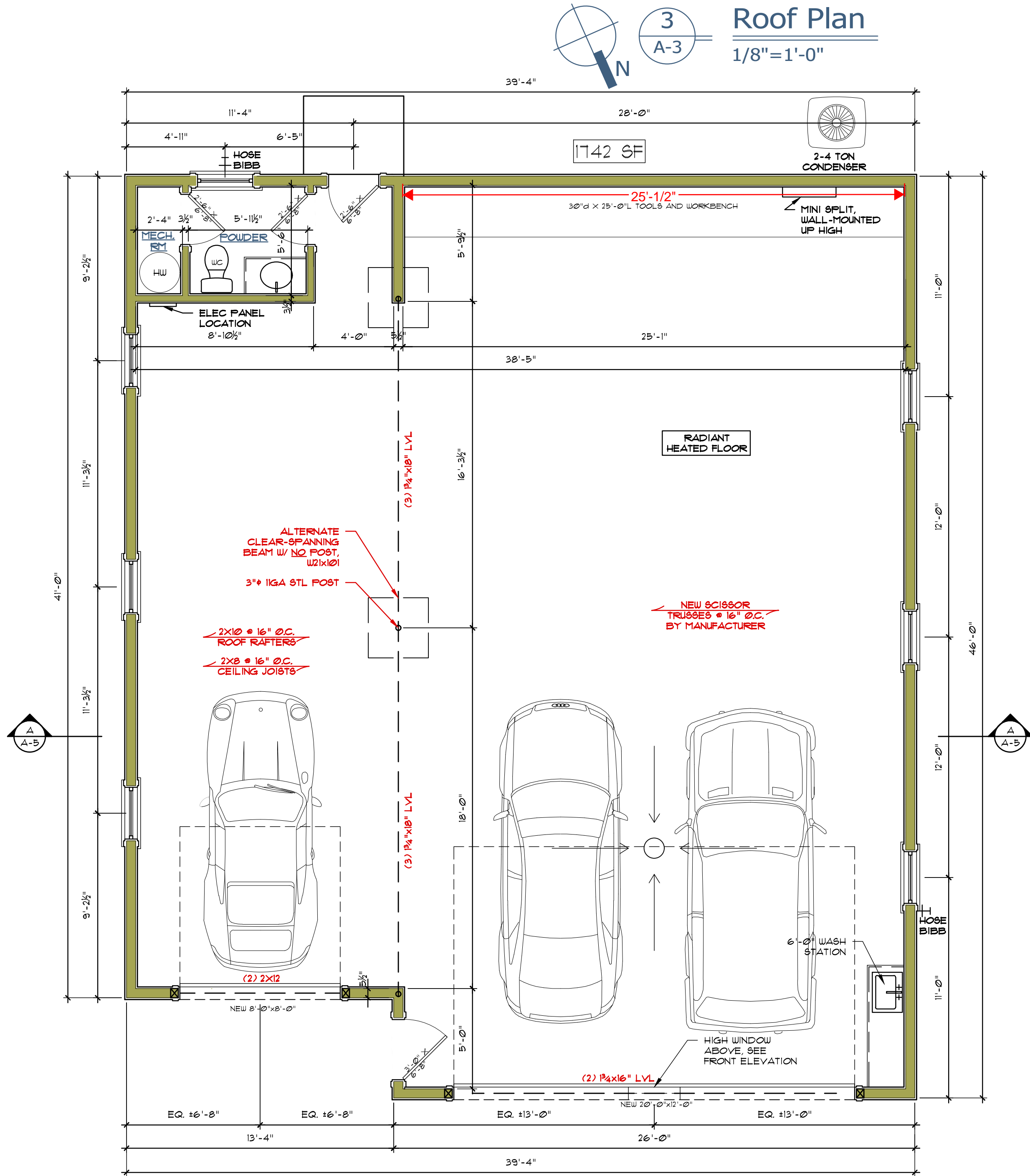
PREPARATION: The Contractor shall inspect, clean, and properly prepare all exterior surfaces that are to be painted or stained. The Architect shall be notified of any surfaces that cannot be brought up to proper standards for finishes specified. Sand any exposed wood to a fresh surface. Patch all nail holes with a wood filler or putty and sand smooth. Work to include application of sealant on all exterior joints between siding and windows, trim or other exterior openings or areas where moisture penetration is likely (see Division 7).

NEW WOOD PRIMING: prime and back-prime all new exterior wood trim and wood siding prior to installation. Prime all cut ends or rips prior to installation.

EXTERIOR PAINTED WOOD TRIM AND SIDING: The Contractor shall paint all exterior siding, trim and woodwork with one coat of alkyd-based stain-blocking primer (prior to installation). Finish paint with two coats of highest-quality exterior latex house paint, Sherwin-Williams 'Duration' or equal, color and texture to match existing. Include all exterior surfaces of windows and doors concealed by meeting rails or overlapping members.

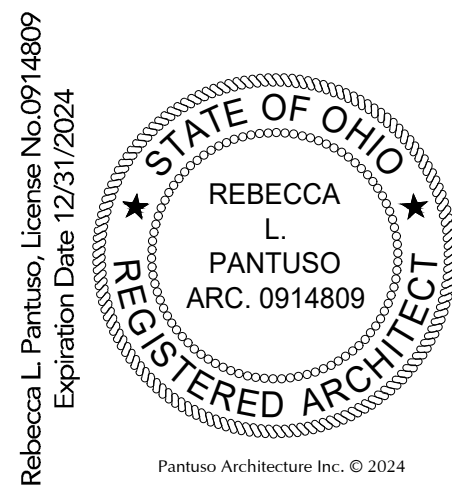
CELLULAR PVC OR BORAL TRIM: shall be painted with two coats highest-quality latex acrylic house paint, color and sheen as approved by The Owner.

METAL AND STEEL PAINTING IN FIELD: Use specially-formulated primer as recommended by finish paint mfr. (SW DTM acrylic primer or equal) and two coats semi-gloss exterior latex enamel. Do not paint pre-finished metal elements such as windows or gutters.



Roof Plan
1/8" = 1'-0"

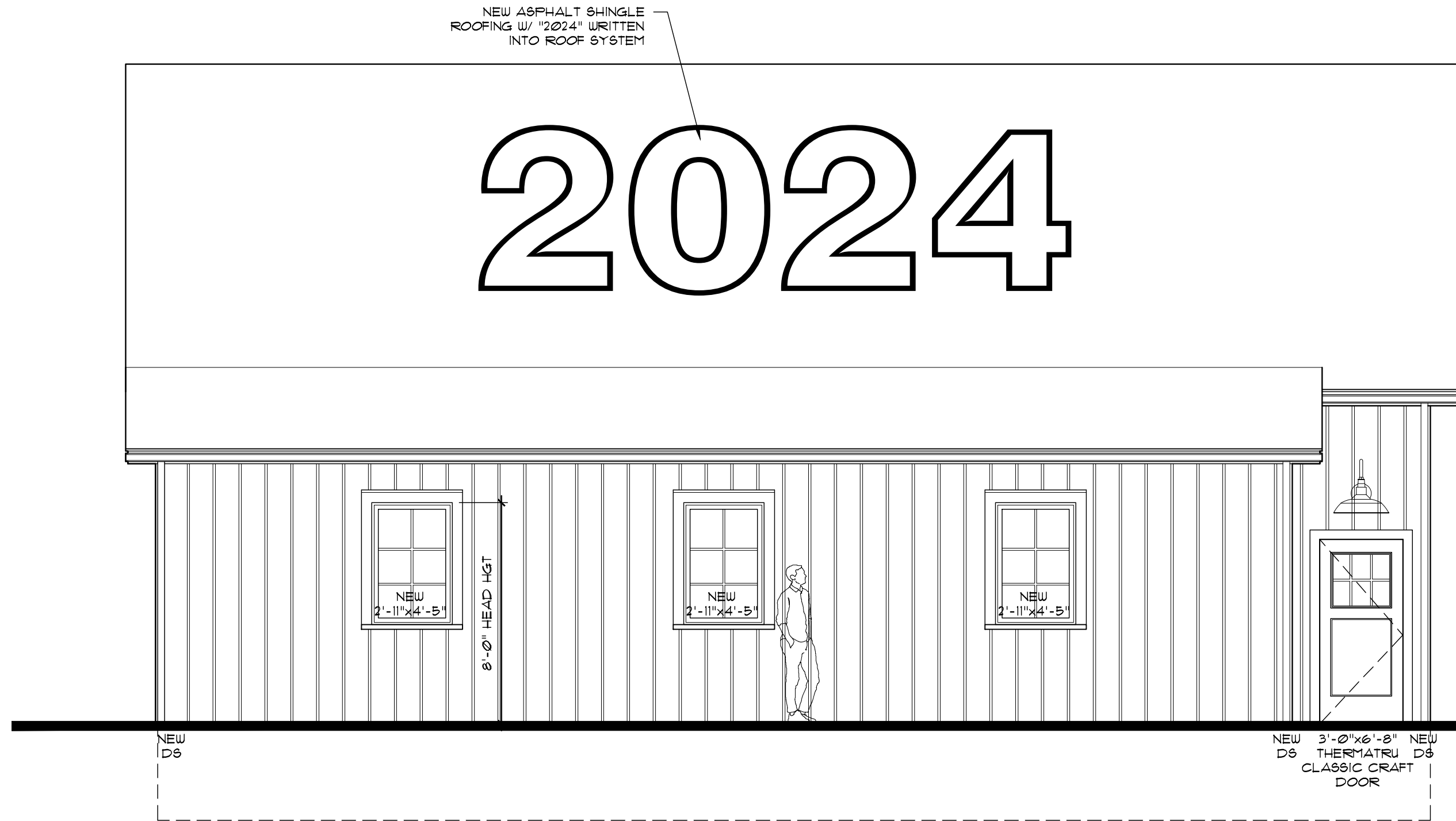
Barn Floor Plan
1/4" = 1'-0"



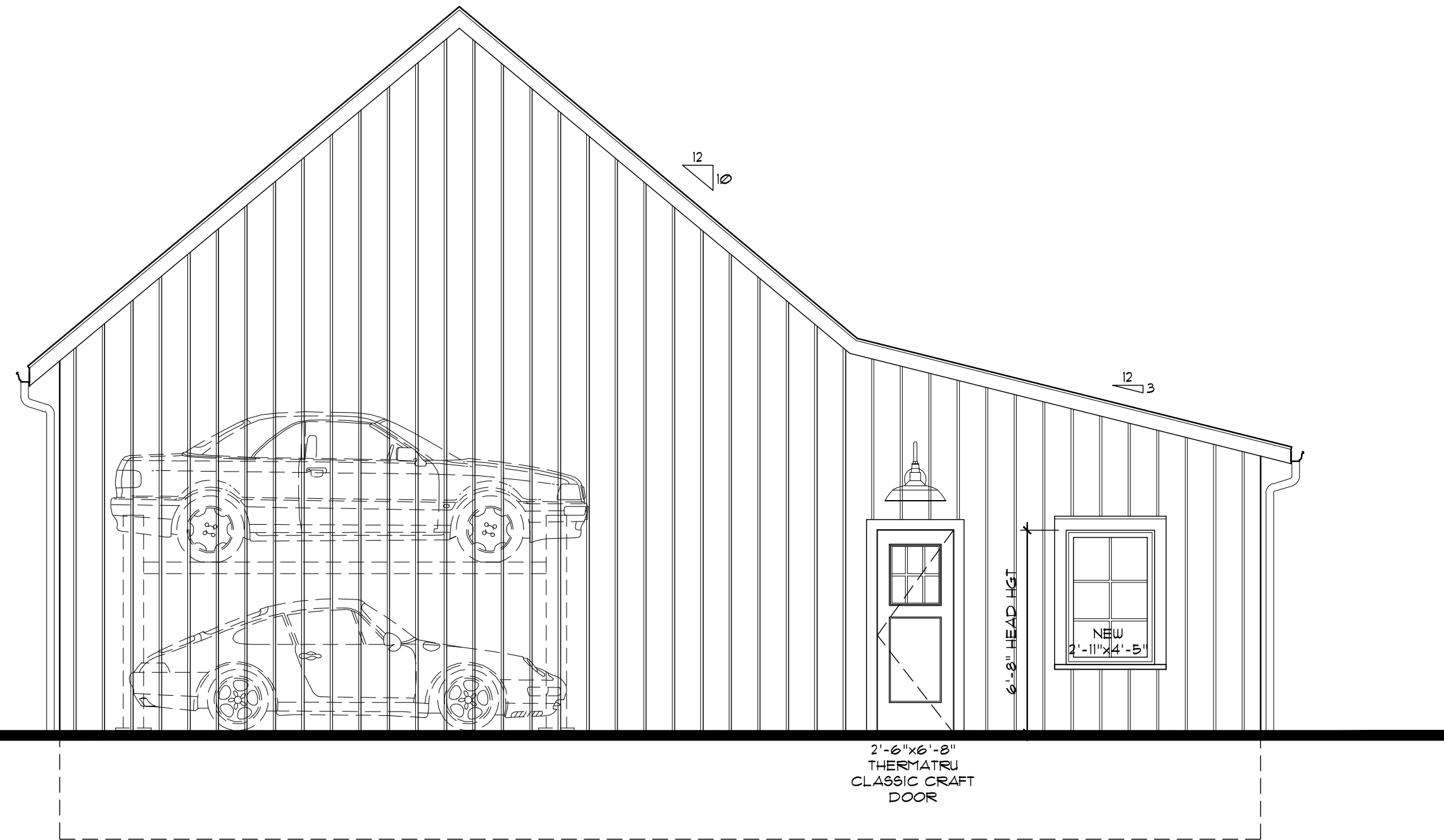
A New Barn
The Manley Residence
2078 Ravenna St, Hudson, OH 44236

Job Number 2325
Drawn By RP
2023.09.21 Variance
2023.11.26 Owner Review
2024.04.15 ARB Submittal

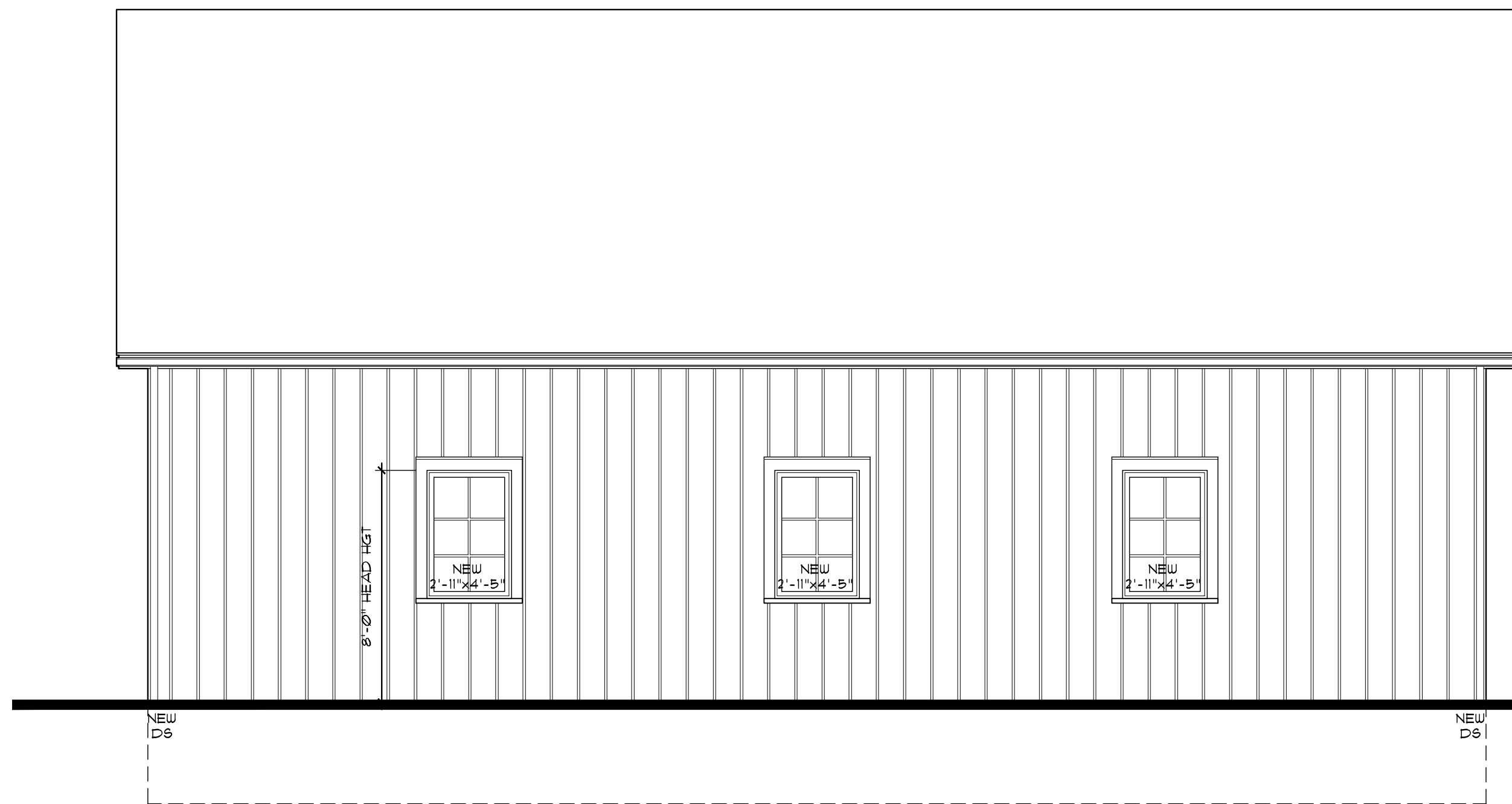




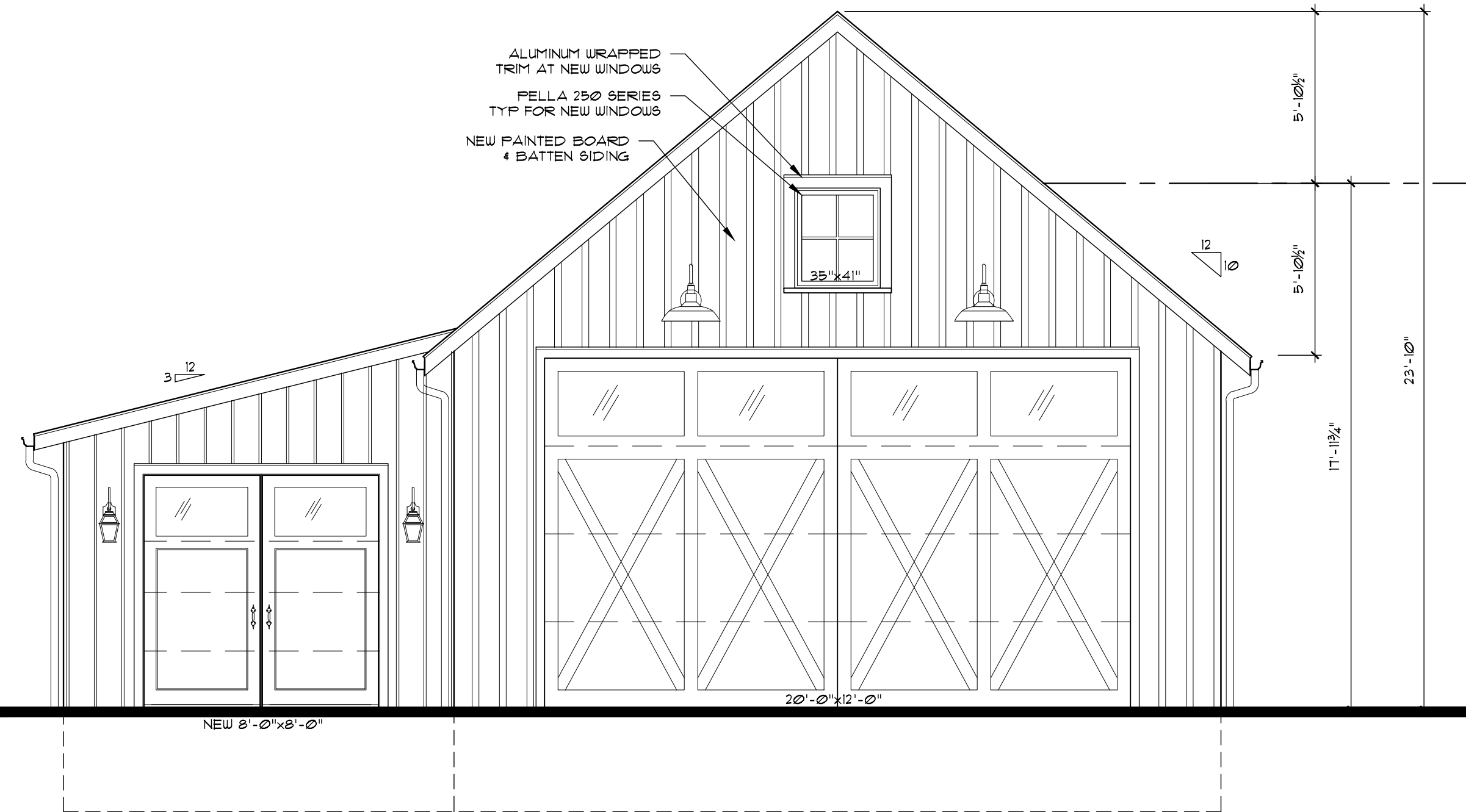
4 Barn Side Elevation SE
A-4 1/4"=1'-0"



3 Barn Rear Elevation SW
A-4 1/4"=1'-0"



2 Barn Side Elevation NW
A-4 1/4"=1'-0"



1 Barn Front Elevation NE
A-4 1/4"=1'-0"

Spec. Div. 6: Wood and Plastics

A. ROUGH FRAMING: GENERAL

All structural framing shall be detailed, fabricated, and erected in accordance with the "National Design Specification" by the National Forest Products Association (N.Fo.P.A.), latest edition. Nail or spike members in accordance with the Residential Code of Ohio, latest edition, Chapter 5-9. All nails exposed to weather to be hot-dipped galvanized at minimum. Framing lumber shall be seasoned to a moisture content of 19% or less (S-DRY). Braces all walls, rafters, floor and roof joists as required to prevent shifting, racking or other movement both during construction and after completion of the work. Cut framing square on bearings, closely fitted, accurately set to required lines and levels and plumb. Do not use shims for leveling on wood or metal bearings. LVL (Laminated Veneer Lumber) & Pre-Engineered Joists (TJI's): where indicated, shall be stored, installed, braced, and blocked per the manufacturer's directions. Notching, drilling or other cutouts shall be in accordance with manufacturer's published instructions. LVL beams over two members wide shall be assembled with 1/2" dia. flush-mounted through bolts 2 per row at 24" o.c. with (2) bolts at each end, all located 2" from edges and ends.

- Framing:** All structural framing members shall be single lengths between points of support.
- Floor and ceiling joists shall have solid bridging at minimum 8'-0" intervals or at mid-spans, with minimum 2" bearing at ends. Floor joists to be doubled under partitions parallel to joist direction. Solid blocking required under partitions perpendicular to joist direction. Solid blocking required at 32" o.c. to the first joist back to parallel foundation walls, where foundation walls run parallel to joist direction.
 - Sill plates and wall plates on concrete block or slabs shall be pressure-treated wood and bear over 1/2" compressible sill sealer as manufactured by Dow, Celotex, or Amoco. Sill plates shall be anchored with 1/2" anchor bolts @ 4'-0" o.c. (max.) and 1'-0" from corners and openings. Minimum (2) bolts per plate. Embedment of anchor bolts shall be no less than 12".
 - Exterior stud framing to be spaced 16" o.c., doubled at openings, framed for solid backing at corners and angles for drywall. Inner trimmer/jack studs at window/door, etc., openings shall be cut to support the header over the opening and shall extend in one piece from header to bearing. Jack studs shall be doubled at openings exceeding 8'-0". Walls taller than 9'-0" shall receive solid, horizontal blocking at mid-height.
 - Wall opening headers shall be minimum (2) 2 x 8's with plywood spacers for spans less than 3'-6" and (2) 2x10's with 1/2" plywood for spans equal to or greater than 3'-6" unless indicated otherwise on Drawings.
 - Dormers: provide double rafters and headers at all dormers and skylights, unless noted otherwise. Connect doubled headers to rafters with galvanized hangers.
 - Hearth and other floor openings: Provide doubled joists as minimum at perimeter of hearths and all floor openings. Headered members to be hangered to doubled joists where interrupted.

ROUGH LUMBER: Unless otherwise noted on the Drawings, material shall be selected and warranted by The Contractor to satisfy the following minimum design stresses for sawn lumber and laminated veneer lumber:

Framing Member	Fb (psi)	Fv (psi)	Fc (psi)	E (psi)
Beams and Headers	1000	130	1000	1,400,000
Floor Joists	1000	130	1000	1,400,000
Rafters & Cl'g Jst's	1000	130	1000	1,400,000
Studs & Misc. Fram'g	875	110	1000	1,400,000
MicroIam (LVL)	2600	285	2510	1,900,000

2x Rough Framing: shall be S4S #2 Southern pine, Hem-Fir, Spruce Pine Fir or better.
Sill plates, all framing against masonry or concrete, and framing exposed to weather: shall be pressure-treated lumber.

EXTERIOR WALL STUD FRAMING: to be 2x6, unless noted otherwise on drawings for walls up to 9'-5" tall and 2x6 for walls over 9'-5". Gable walls with uninterrupted vertical studs over 14'-0" in height to be 2x8.

INTERIOR WALL STUD FRAMING: to be 2x4 , unless noted otherwise on drawings for walls up to 9'-5" tall, and 2x6 for walls over 9'-5". Gable walls with uninterrupted vertical studs over 14'-0" in height to be 2x8.

PRE-ENGINEERED TRUSSES: Pre-engineered wood roof and floor trusses shall be designed, fabricated and erected by a Licensed Professional Engineer in accordance with The Truss Plate Institute "Design Specification for Metal Plate Connected Wood Trusses". The Fabricator shall prepare and submit to the Architect, shop Drawings bearing the seal of an Ohio Licensed Professional Engineer.

FLOOR SHEATHING: N/A

ROOF SHEATHING: INSTALLATION: Install panels over two or more spans with the long dimension perpendicular to the floor framing. Space 4' panel ends a minimum of 1/8" at time of installation. End joints of adjacent panel runs should be staggered. Square edge panels should be installed with a minimum spacing of 1/8" on all panel edges at time of installation. Use 1/4" bead of polyurethane or solvent-based adhesives, which conforms to industry standards AFG-01 and follow manufacturers' recommendations. Joist to be clean and dry and apply only enough adhesive to lay one or two panels at a time. Fasteners should penetrate framing members at least 1". Apply fasteners 3/8" from panel edges. Space fasteners 6" o.c. on supported edges (4' ends) and 12" o.c. at intermediate support locations. Use 10d ring shank nails or screw shank nails. Cutouts for plumbing and electrical components should be oversized by at least 1/4" to avoid a forced fit. All joints parallel to joists to be fully supported by floor joists below. Sheathing unsupported more than 20" in either direction shall be reinforced or supported with edge blocking or "H" clips

NOTE: Allow for crown or moldings at fascia and rake, where detailed on drawings. Roof sheathing MUST overhang to accept details as drawn: insufficient overhang will be rejected and rebuilt.

MATERIAL: 3/4" for roofs, APA-rated exterior plywood, span rated for the rafter or truss spacing shown.
OPTION B: shall be ADVANTECH FLOOR AND ROOF SHEATHING shall be of thickness as shown on The Drawings, but not less than 7/8" for floors and 5/8" for roofs.

CONNECTORS: Where shown on the Drawings or required herein metal connections shall be provided, designed for specific loading requirements, fabricated from galvanized sheet metal or painted steel plate, as manufactured by Simpson Strong-Tie or equal.

PRESERVATIVE PRESSURE TREATED WOOD shall meet the following AWPA standards for ACQ Preservative retention rates:

Above ground (decking & joists, etc.)	0.25 lb/cu.ft.
Ground contact (posts)	0.40 lb/cu.ft.
Permanent Foundations (poles)	0.60 lb/cu.ft.

WALL SHEATHING: INSTALLATION: Install panels over two or more spans with the long dimension perpendicular to the floor framing. Space 4' panel ends a minimum of 1/8" at time of installation. End joints of adjacent panel runs should be staggered. Square edge panels should be installed with a minimum spacing of 1/8" on all panel edges at time of installation. Fasteners should penetrate framing members at least 1". Apply fasteners 3/8" from panel edges. Space fasteners 6" o.c. on supported edges (4' ends) and 12" o.c. at intermediate support locations. Use 10d ring shank nails or screw shank nails. Cutouts for plumbing and electrical components should be oversized by at least 1/4" to avoid a forced fit. All joints parallel to joists to be fully supported by floor joists below.

MATERIAL: shall be 7/16" Structural 1 Performance category for walls.
Install Huber Engineered Woods ZIP System Wall Sheathing Oriental Strand-Board with factory laminated integral water-resistant barrier facer per manufacturers recommendations (designed to resist weather exposure for 180 days). Space 4' OSB panel ends a minimum of 1/8" at time of installation. End joints of adjacent panel runs should be staggered. Square edge panels should be installed with a minimum spacing of 1/8" on all panel edges at time of installation. Sheathing joints: seal sheathing joints according to instructions: apply seam tape to joints between sheathing panels, utilize tape gun or hard rubber roller provided by manufacturer to ensure tape is adhered to substrate. When using liquid-applied flashing (12 mils / .3mm thickness) to seal sheathing joints, follow manufacturer's recommendation for panel seams. Provide Miscellaneous material from manufacturer for Self-Adhering Seam and Flashing Tape. Provide width of Huber tape and type as indicated, minimum 3.75 inch width and .012 inch thick. Provide Liquid Applied Flashing membrane Huber Liquid Flash per manufacturer recommendation, integrating with flashing tape, and self-adhering flexible Huber Stretch tape as appropriate for penetrations, gaps, and cracks to form a continuous weather-tight surface. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements. Only mechanically attached and drainable EIFS and exterior insulation should be used with ZIP System sheathing.

PRESERVATIVE PRESSURE TREATED WOOD shall meet the following AWPA standards for ACQ Preservative retention rates:

Above ground (decking & joists, etc.)	0.25 lb/cu.ft.
Ground contact (posts)	0.40 lb/cu.ft.
Permanent Foundations (poles)	0.60 lb/cu.ft.

EXTERIOR TRIM:

Aluminum-wrapped Exterior Casings and Trim: Eave fascias, casings, ventilated soffits, gutter "boards", rakes and sub-rakes, and other aluminum trims as shown on *The Drawings* to be .019" coil-coated aluminum, job fabricated and installed in a fashion to approximate appearance of wood trim and to avoid "oil-canning", with concealed fastening. All work to be fitted to allow for expansion. Any required caulking shall be of minimal size and the same color as adjacent trim. Aluminum breaks and joints to be clean, tight, and unobtrusive. Exterior window and door casings, corner trim, frieze board, panel frames and belts shall be 5/4x (width shown on drawings). Add pre-fin. alum. drip cap over all head casing. Window sub-sills to be 1 1/2" thick, sloped to wash, with 2" projection. Fascia board to be 1x (width shown on drawings) over 2x backup. Use hot-dipped galvanized nails for exterior trim members with min. 1 1/2" penetration into framing lumber.

EXTERIOR SIDING: Board-and-batten siding: Provide 4' wide by height of wall cement-fiber sheet panel or Azek sheet panel, min. 5/16" thickness. Caulk vertical panel joints. Avoid horizontal joints: notify *The Architect* if horizontal joints are necessary. Battens to be spaced for five battens each 48" width, battens to cover all vertical joints. Batten material to match trim material, profile and dimension as shown on drawings.

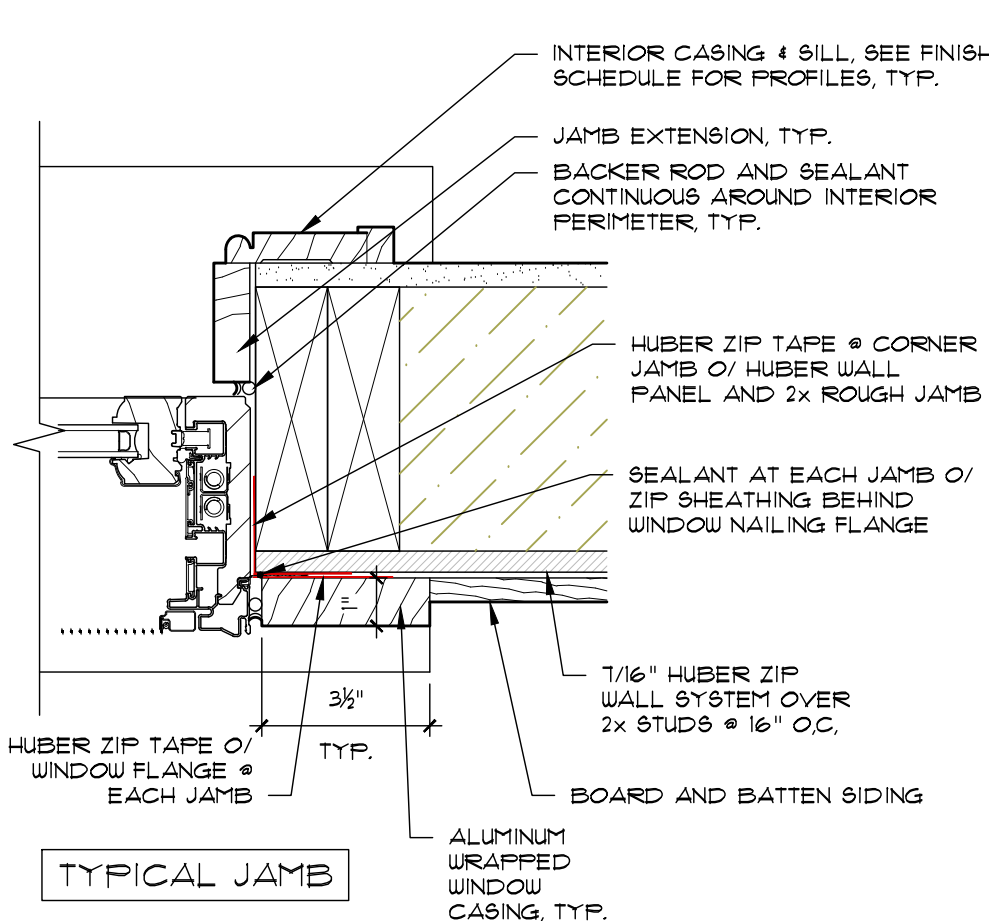
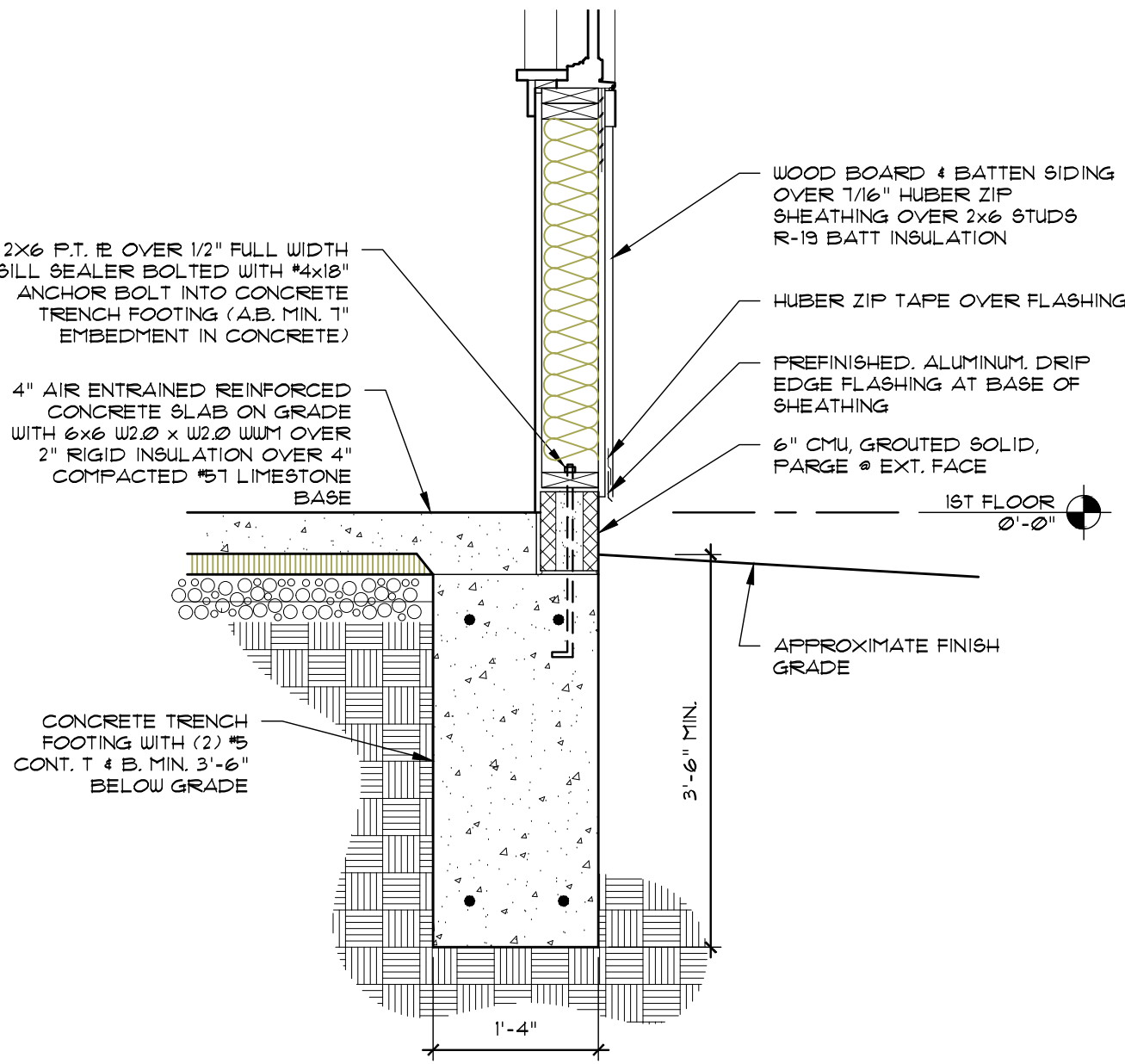
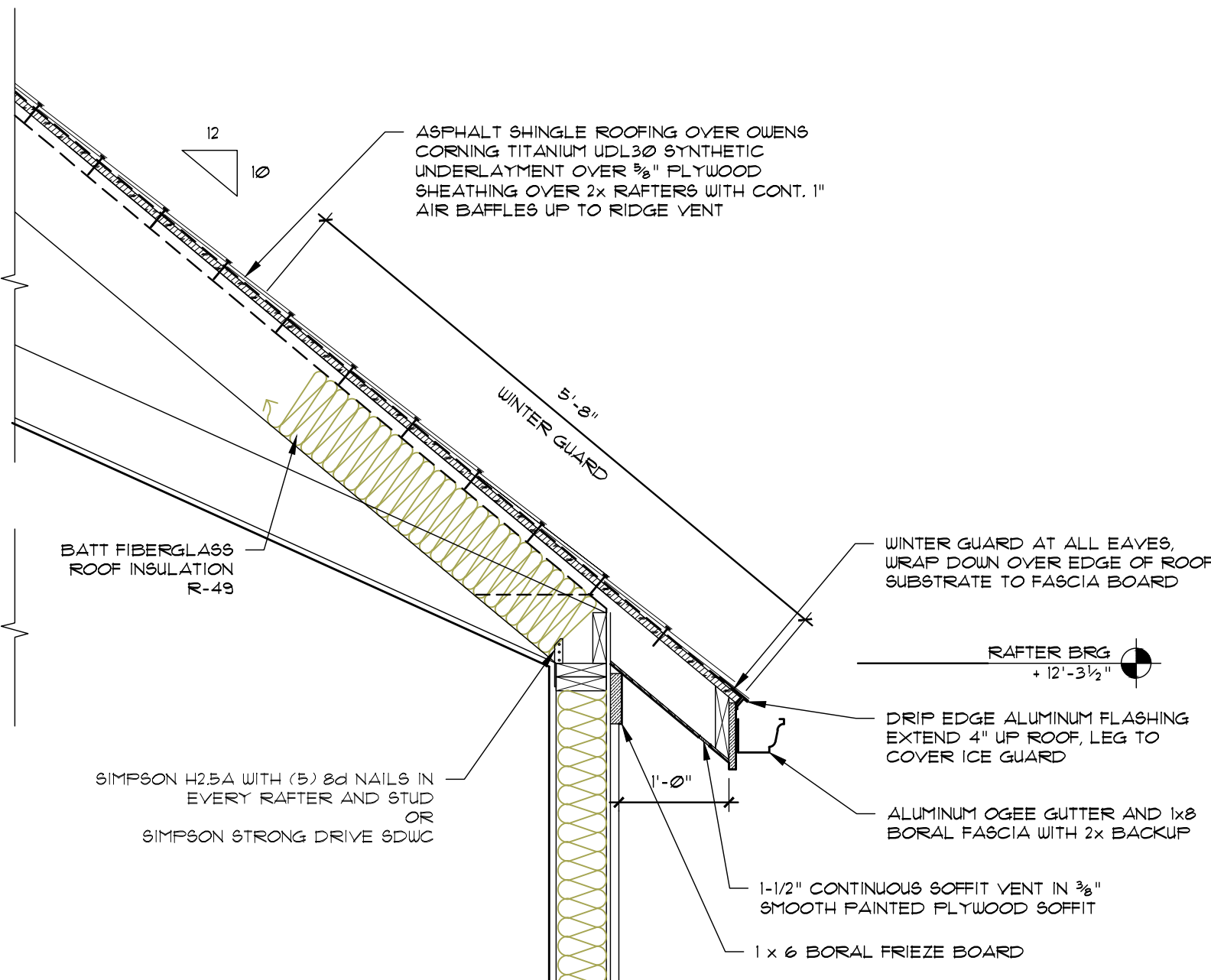
SOFFITS: to be 3/8" smooth, AC grade, fir plywood with continuous prefinished aluminum soffit vents, to be painted to match trim color. Patch and sand nail holes prior to paint/stain finish.

INTERIOR TRIM, GENERAL: All wood interior trim material, including flooring, shall be delivered and acclimate in an interior, weather-tight, heated and conditioned environment for minimum one week. Upon delivery, flooring shall be broken into small lots and stored in the rooms where it is to be installed. All trim shall be carefully matched, mitered, coped, etc., finish nailed tight to surfaces, and sanded, ready for painting or staining. All horizontal trim shall be installed in continuous lengths wherever possible, or mitered when not, and coped at inside corners. Jambs at Door and Cased Openings shall be tightly shimmed in a minimum of three locations on each side including at hinges and locksets.

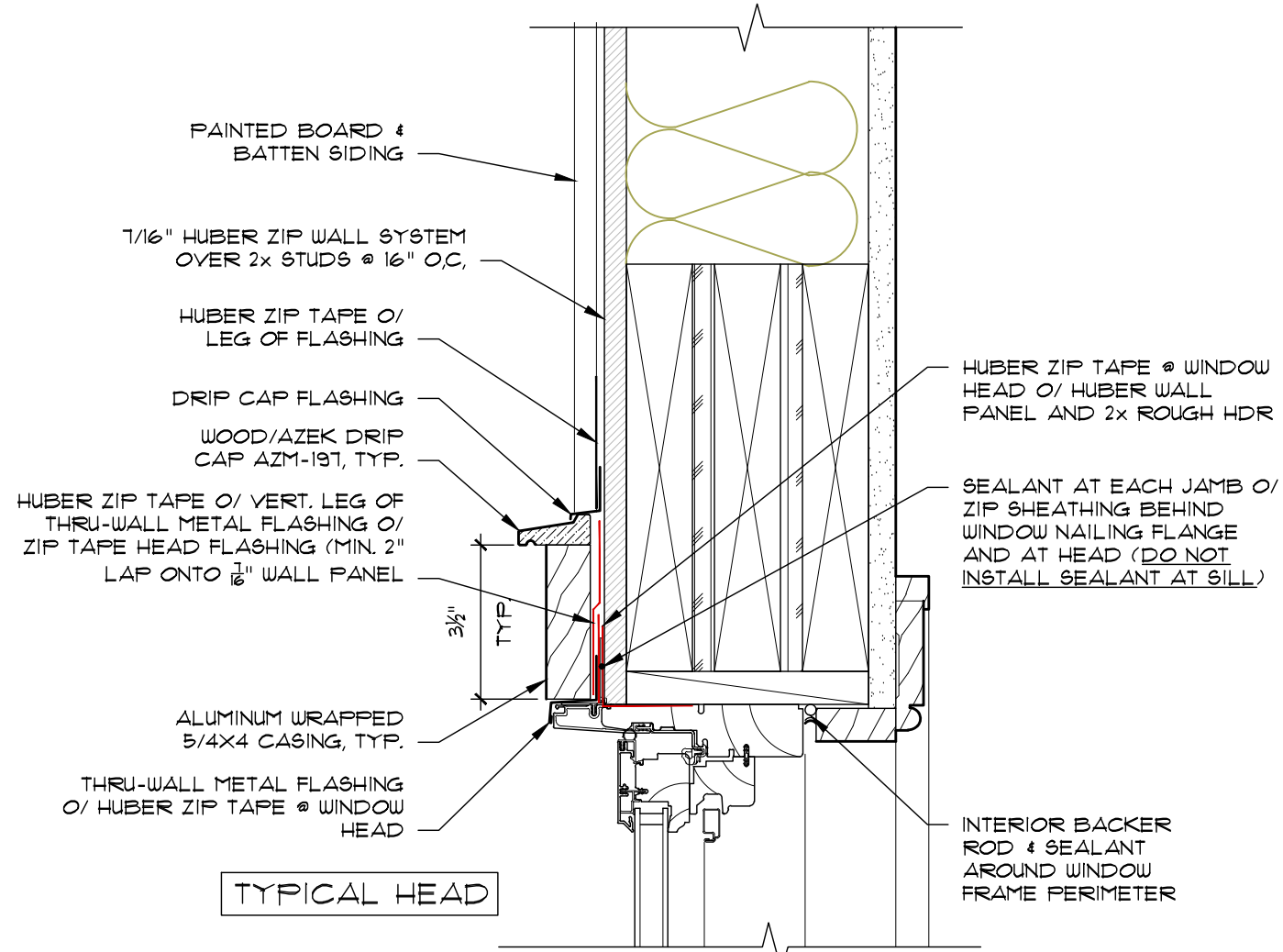
Wherever trim terminates and is not fully stopped by cabinets, casings, plinths, etc., repeat profile of trim at end by miter-returning, coping or molding as needed. **Window casing** to include molded stool, miter-returned at ends, and apron of casing material, inverted and miter-returned at ends. Doorways at end of Halls shall be centered in Hall, unless shown otherwise, and all doorways roughed-in and jambs hung so that full casing may be installed. When casings are within 1' of corner walls, fill gap between casing and wall with S4S wood trim 1/8" thinner than casing. Closet doors shall be fully jambed and cased on both sides (Reach-in closets may have secondary casing type for interior, as approved by *the Architect*) Casing at bi-fold or bypassing doors shall be installed to conceal track and hardware above doors. **Shoe mould** shall be installed at all new hardwood, ceramic tile, vinyl, or other hard surface flooring.

INTERIOR TRIM: All new woodwork shall be clear poplar, thoroughly seasoned and kiln dried, milled or S4S, no finger joints.

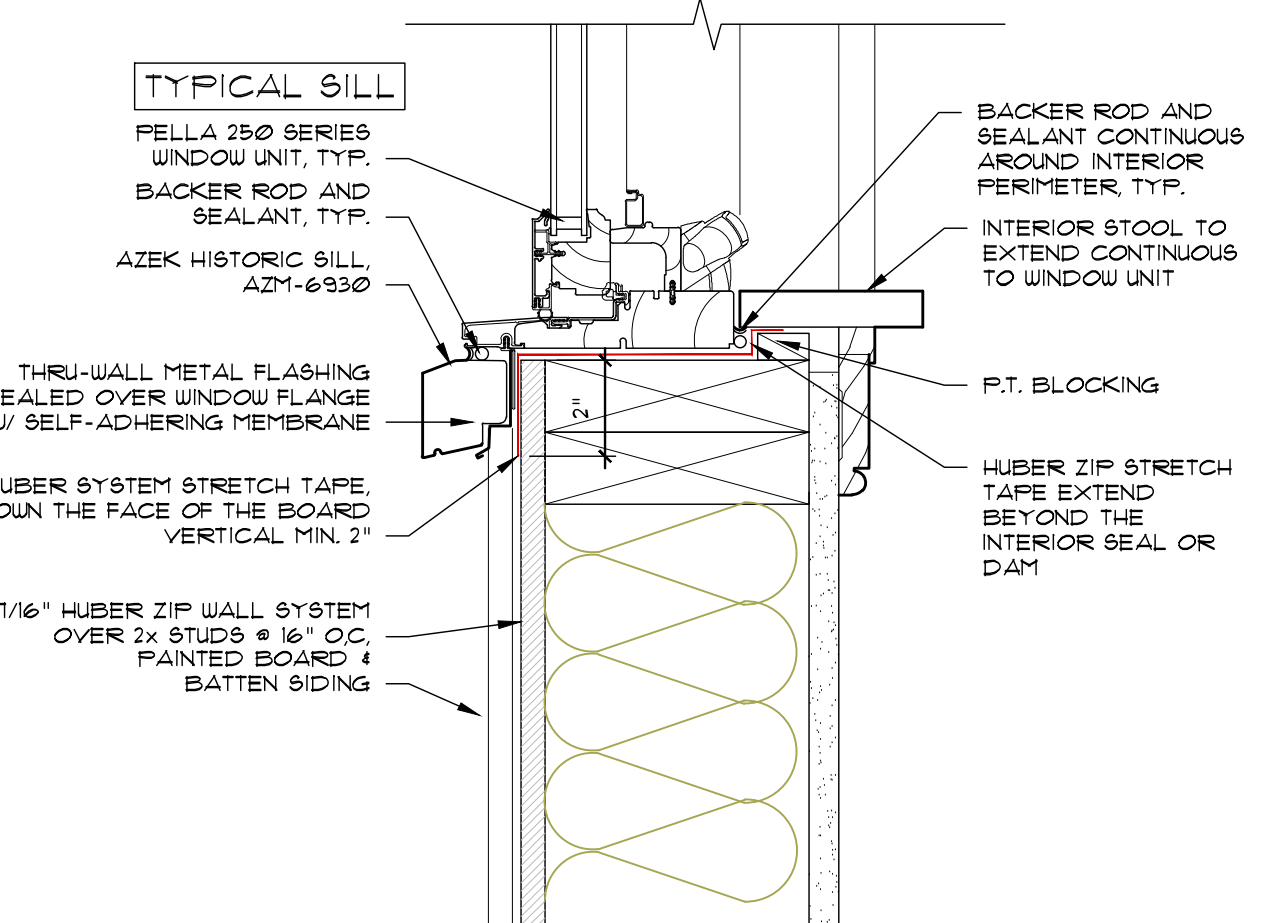
ATTIC SCUTTLE where indicated shall be 3/4" birch plywood hinged to 1 x 6 CWP cased jamb, weather-stripped, and insulated to a level equivalent to surrounding areas.



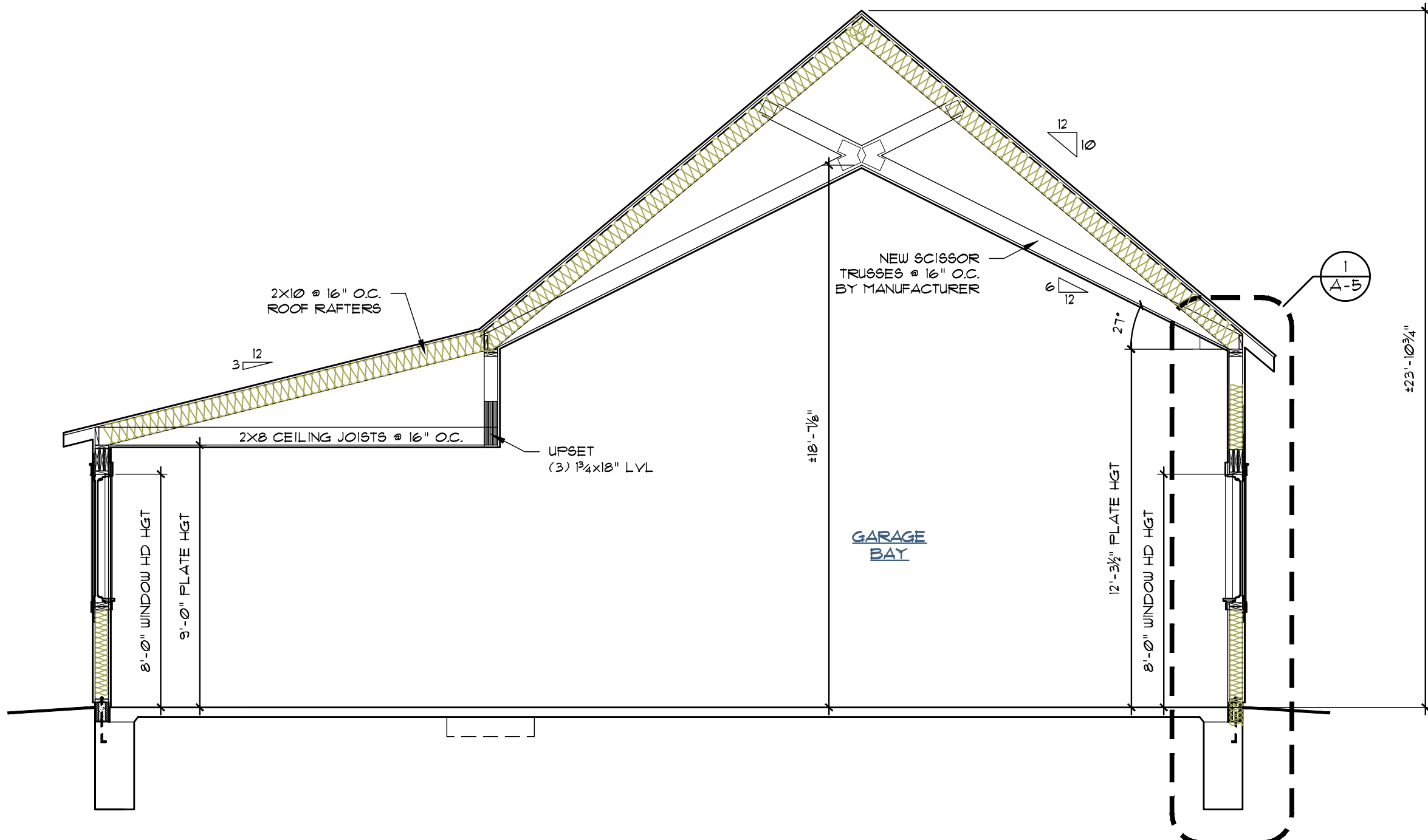
4
A-5
Window Details
3/4"=1'-0"



3
A-5
Window Details
3/4"=1'-0"



2
A-5
Window Details
3/4"=1'-0"



A
A-5
Building Section
1/4"=1'-0"

A New Barn

The Manley Residence

2078 Ravenna St, Hudson, OH 44236

Wall Sections, Details, Spec 6

Job Number	Drawn By
2325	RP
2023.09.21 Variance	
2023.11.26 Owner Review	
2024.04.15 ARB Submittal	

A-5

Rebecca L. Pantuso, License No.0914809
Expiration Date 12/31/2024



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Spec. Div. 10: Specialties

CUSTOM-BUILT CABINETS: Cabinetry and Casework to be built with solid wood doors, drawers, and face-frames. Box and shelving construction to be veneer plywood, 1/2" thickness minimum for sides and backs, 3/4" min. thickness for shelving. Interior melamine finish for cabinet interiors at *The Owner's* option only. All construction to comply with Architectural Wood Institute Custom Grade Standards.

CABINET HARDWARE: Drawer glides to be full-extension, self-closing, soft close, under-mounted Blum Motion. Door hinges shall be fully concealed European-style with soft close and shall include all required latches and stops. Adjustable shelving to use drilled holes with chrome pin shelf supports. Glass shelves, if indicated, to be thickness as recommended for span by glass supplier, tempered with polished edges all sides. Door glass, where required, shall be tempered and cushioned against wood door frame to avoid rattling. Cabinet pulls/ knobs shall be furnished under Allowance and set by *Contractor*.

All cabinetry and casework installation shall be by *The Contractor*. Install all cabinets level and plumb, securely fastened to walls and to each other, and scribed to walls. Cabinetry fabricator is responsible for field verifying all dimensions and clearances with trims, doors, windows, and appliances.

COUNTERTOPS: Provide counter and vanity material as shown on drawings. Colors and material types shall be approved by *The Owner*. For stone countertops, installation shall follow recommendations of the Granite and Marble Association. Reinforce base cabinets as required to support stone or concrete countertops, and notify/coordinate with *The Architect* if additional brackets or support is required for tops. Stone tops as selected by *The Owner* under Allowance shall be installed by marble supplier/ fabricator whose work shall include installation of any under-counter sinks or lavatories.

MIRRORS: To be selected by Owner under Allowance & installed by Contractor. Contractor to verify height with Owner on-site prior to installation.

TOILET AND BATH ACCESSORIES: Toilet and Bath Accessories shall be selected by *The Owner* under Allowance and installed by *The Contractor*, and shall include towel bars/rings, robe hooks, toilet paper holders, toothbrush holders, etc. 2x blocking shall be provided behind all wall-mounted accessories.

BATH AND SHOWER ENCLOSURES: Tempered glass tub and shower enclosures and doors shall be selected by *The Owner* under Allowance and installed by *The Contractor*, material and labor to be covered by Allowance.

Spec. Div. 11: Equipment

APPLIANCES AND EQUIPMENT: All appliances as shown on drawings to be installed by *The Contractor*, and contract price must include all electric circuitry, gas supply piping, or other required infrastructure to support appliances and equipment as shown on drawings. All fuel fired appliances to comply with venting per RCO Section 2427.6 as applicable. All clothes dryers to be constructed of smooth metal duct, minimum 4" nominal in diameter and comply with installation requirements per RCO Section 1502.

SECURITY: Security to be handled directly by *The Owner* under separate contract. *The Owner* is responsible for coordinating the Security system work as directed by *The Contractor*

Spec Div. 22: Plumbing

GENERAL:

All plumbing work shall meet or exceed requirements of the latest edition of the *National Plumbing Code* and all other applicable codes and ordinances. Water supply lines shall not be installed in exterior walls less than 6" (nom.) thick. Lines in 6" walls shall have a minimum of R-12 insulation behind them. Water supply branches to plumbing fixtures to be 3/4" diameter, to include enlargement of existing supply branches as required. New Hot Water supply shall be a looped system with legs to individual faucets kept to as short as possible.Include removal, termination or relocation of existing plumbing work as required for demolition, new construction, as shown in The Drawings or as required to meet applicable codes. Any wall device mounting boards shall be fabricated from 3/4" MDO sheet material, primed and finish painted beige prior to the installation of any devices. Seal all fixtures and fittings to abutting surfaces, with all fixture traps, wastes, supplies, valves, etc., exposed in vanities or elsewhere to be polished chrome finish, such incidental materials to be supplied by Contractor. Provide and install gas piping and valves for all gas fired appliances and devices. If applicable, provide and install water piping and valve for refrigerator, ice maker, and hook-ups to same, all per manufacturers' specifications. Provide all required natural-gas piping for supply of indicated gas-fired equipment and appliances.

SUPPLY PIPING: Water pipes to be **Type L copper**, sized and arranged to provide even pressure and temperature to all fixtures, with 18" air chambers and shut off valves for hot and cold supply lines at each fixture. No ferrous metal to be in contact with copper lines. Hot & cold water lines in un-heated spaces shall be wrapped with 3/4" thick, closed-cell, foam insulation.

Cross-Linked Polyethylene (PEX) Water Supply Piping is an approved alternate. Provide supply manifold(s) with dedicated runs less than 25 feet to each fixture to allow for shut-off to individual fixtures.

HOSE BIBBS: To be all copper, frost free, anti-siphon type. Provide two hose-bibbs, minimum, as part of Work.

SANITARY/WASTE PIPING: Soil, waste and vent lines to be PVC, vents penetrating rear roofs. All soil and waste piping in ceilings and walls of finished living spaces to be situated to avoid contact with framing and drywall, areas where piping and framing are in close proximity shall be filled with expandable foam. Floor joist or stud spaces at soil or waste lines shall be insulated with dense pack cellulose acoustical insulation.

HOT WATER HEATER: Provide and install a single A.O. Smith, Rudd, or approved equal 50 gallon hot water heater, with maximum efficiency and 5 year warranty. New water heater(s) to be High-efficiency, sealed-combustion units.

HOT WATER RADIANT FLOOR SYSTEM: Provide Hot-water radiant heated floor by Obsessed Garage.

PLUMBING FIXTURES: Plumbing fixtures shall be selected by *The Owner* under allowance. Fixtures shall be purchased, delivered, stored, and installed by *The Contractor*. *The Contractor* shall protect new plumbing fixtures, including fiberglass shower or bath units if applicable, from damage or staining during construction. Acrylic shower or tub base units to be solidly set into mortar base.

FLOOR DRAINS:

GARAGE FLOOR DRAINS

TRENCH DRAIN

12" TERRA COTTA

Spec Div. 23: HVA/C

GENERAL:

HVA/C FWA SYSTEM: Provide and install material and equipment necessary to heat and cool new garage evenly (1/- 2 degrees F. between rooms) to 72 degrees F. at 0 degrees F. outside and 90 degrees F. outside. Ductwork shall be installed in full accord with ASHRAE and National Warm Air Standards and recommendations. All diffusers, grills, louvers, dampers and other required accessories required for a complete installation shall be included. Provide flexible connections at air units, turning vanes at elbows and balancing dampers in all branches and runouts. Use transition type fittings and adapters. Support or suspend ductwork from structure and keep as close to joists, partitions and columns as feasible. Bedroom suites shall have a minimum of one return air. Crawl spaces to be conditioned per RCO Section 408, unless noted otherwise. All new ductwork, and ductwork affected by construction, shall be kept free of debris during construction and vacuumed at completion of the work. All new ductwork shall be completely **MASTIC-SEALED** to minimize leakage in both supply and return ducts. New ductwork in unheated spaces shall be fully insulated. **SYSTEM TESTING:** Ductwork to be tested (by *The Owner's* Energy Auditor) through ductblaster method prior to and upon project completion. New ductwork to be completely sealed per Energy Auditor requirements. All equipment shall be started, tested and balanced by *The Contractor*. All filters shall be replaced after construction is completed. System shall be balanced and regulated to distribute the air quantities as required and to provide quiet, efficient operation. All controls shall be accurately set.

SYSTEM BALANCING: Upon completion of the HVA/C system *The Contractor* shall place the system in operation and adjust and Balance the system in such a way to provide as close as possible continuous air circulation, as described in the current edition of the National Warm Air Heating and Air Conditioning Manual. If required, *The Contractor* shall re-balance the system during the heating season and shall provide service exclusive of normal maintenance for one year after start-up, without additional charge to *The Owner*. All dampers shall be clearly and neatly marked as to their function, and *The Owner* shall be instructed in the method of operation and care of the system. Manufacturer's instructions for maintenance and operation of equipment shall be attached to all equipment.

WARRANTY: This *Contractor* guarantees by his acceptance of the contract that all work installed will be free from any and all defects in workmanship, equipment, materials, and that all apparatus will develop characteristics

specified. If any such defects appear within one year from the date of final completion and acceptance of the Work, The Contractor shall, without cost to *The Owner*, remedy such defects within a reasonable time to be specified in notice from *The Owner*. In default thereof, *The Owner* may have work done and charge the cost to *The Contractor*. The one (1) year guarantee period on workmanship and equipment operation shall start from the date of Final Payment by *The Owner*.

HVA/C EQUIPMENT: New Mini-split system to be reviewed by Owner & Architect

MECHANICAL PADS: Provide 4" concrete slabs for air conditioning condensing units. Pads shall be sized appropriately for the mechanical equipment installed, i.e. slab shall be no more than 6" wider than the unit on any side. Location(s) shall be determined and the *HVA/C Contractor* and approved by *The Owner*.

DIFFUSERS: Where floor-type diffusers are installed in hardwood floor, baseboards, or kickplates, the diffuser shall be wood to match the surrounding finish (DIFFUSERS IN WOOD FLOORS SET FLUSH INTO FLOORING). Where floor-type diffusers are installed in tile, the diffuser shall be metal painted to match tile. Where floor-type diffusers are installed in carpet, the diffuser shall be metal colored to match carpet.

BATHROOM VENTILATION: Provide all bathrooms with mechanical exhaust vent per applicable governing codes. Use Fantech Premium Series bath fans OR Panasonic Whisper-Green fan series, sized in accordance with code but in no case less than 110 CFM per fan, providing minimum 8 ACH. Employ variable speed control system to set continuous, lower level venting at 0-70 CFM and pre-set timer for on-demand 60 min. high setting exhaust. Second-floor bathrooms to have in-line, combined bath exhaust unit if practicable. Owner to approve first-floor bath fan noise level (higher noise level desired).

Spec Div. 26: Electrical

GENERAL:

ALL ELECTRICAL WORK TO COMPLY WITH THE 2017 NEC WITH MODIFICATIONS TO THE NEC AS LISTED IN THE RESIDENTIAL CODE OF OHIO, CHAPTER 34.

ELECTRICAL: Provide and install all electrical materials shown or inferred in *The Drawings*, including hook-ups of all new appliances, mechanical equipment or other electrical devices shown. Disconnect, terminate, rewire or relocate all existing electrical devices as required for new construction and as noted on Electrical and Demolition Plans or as required to meet all applicable codes.

The Contractor shall calculate electrical load requirements for all existing and new work, feed new circuits from existing subpanel(s), or provide and install new Square D, or approved equal, circuit breaker type main/sub distribution panel, sized to accommodate new and existing electrical load requirements and an additional 25% capacity for future electric work, if required. The Base Bid shall include all labor and material costs associated with relocating the existing meter and service entrance and with upgrading the electrical service into the house, if required to accommodate electric requirements specified herein. Any wall device mounting boards, for electrical distribution panels or other devices, shall be fabricated from 3/4" MDO sheet material, primed and finish painted beige prior to the installation of any devices.

WIRING: Wiring layout, circuiting, materials and installation shall conform to the requirements of latest edition of the National Electric Code. Electrical contractor must use 12 gauge wiring at a minimum. 14 gauge wire is not acceptable unless contractor acquires written approval from *The Owner*.

CIRCUIT PROTECTION: AFCI PROTECTION: All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling living spaces shall be protected.

GFCI PROTECTION: Include in Bid the installation of GFCI protected outlets where shown on *The Drawings* and in all other locations per applicable codes.

OUTLETS: In all areas dwelling areas, all non-locking-type, 125-volt, 15- and 20-ampere outlet receptacles shall be tamper-resistant.

WATERPROOF OUTLET COVERS: shall be White Greenfield diecast zamak alloy low profile 1 gang electrical box with this UL Listed, weatherproof flip cover.

ELECTRICAL WALKTHROUGH: Before wiring, all outlet work boxes shall be tacked in place where shown on *The Drawings*, and exterior lantern or outlet locations marked on sheathing, reviewed with *The Architect* and *The Owner*, and relocated as directed.

DECORATIVE LIGHTING: (interior and exterior) and surface lighting fixtures and paddle fans shown on Electrical Plans shall be selected by *The Owner* under Allowance. The Base Bid shall include all material & labor costs for recessed light housings and trim (as shown on drawings), undercabinet or within-cabinet lighting, flood lights, closet utility lighting, recessed fluorescent lighting and porcelain lamp holders. Exterior wall lanterns shall be mounted on 1 1/2" thick shaped Azek blocks with routed edges, painted to match adjacent surface.

RECESSED LIGHTING: All recessed light housings in insulated areas to be IC type; size and specification as indicated on Lighting Fixture Schedule.

SWITCHES: All switches to be silent type; all switch and duplex receptacle devices and outlet cover colors to be industry standard white or ivory, as selected by *The Owner*. Outlet covers to be plastic. Other colors or cover materials to be provided to *The Owner* for an additional charge. Dimmer switches, assumed for all surface mounted and recessed lights to be Lutron "Diva" or "Toggle", whichever is consistent with switch style selected by *The Owner*. In general, it shall be assumed that all wall and ceiling surface mounted light fixtures, flood lights and lanterns, incandescent under-cabinet lighting, cabinet display lighting, and **recessed lighting shall be dimmed, whether shown on The Drawings or not.**

FLOODLIGHTS: Double floodlights shall be minimum 70 watt LED type with white finish and shall be included in the Base Bid.

SMOKE DETECTORS: to be provided per Residential Code of Ohio, R314: The residence shall be wired for photoelectric and ionization smoke detectors per requirements for a new residence. All smoke detectors to be interconnected and hardwired. Carbon-monoxide detectors to be installed in locations per applicable codes and manufacturer's recommendations.

Lighting Fixture Schedule

SYMBOL	DESCRIPTION	TYPE	LAMPING
⊙ 4R	4" RECESSED	HALO H995 HOUSING OR EQ. W/LED LAMPING: HALO RL460WH927PK W/ADAPTER (INTEGRATED TRIM)	HALO RL460WH927PK
⊕ BL	BARN LIGHT	SURFACE-MOUNTED BARN LIGHT BY OWNER (RUSTPROOF AT EXT. AND PORCH)	
⊕ SC	WALL MOUNTED	SURFACE-MOUNTED SCONCE BY OWNER (RUSTPROOF AT EXT. AND PORCH)	
⊙ CLG	CEILING MOUNTED	SURFACE-MOUNTED CLG. FIXTURE BY OWNER (RUSTPROOF AT EXT. AND PORCH)	
⊗ CH	CHANDELIER	CHANDELIER FIXTURE BY OWNER (RUSTPROOF AT EXT. AND PORCH)	
⊗ P	PENDANT	PENDANT FIXTURE BY OWNER (RUSTPROOF AT EXT. AND PORCH)	20W G4 12V
✱ CF	CEILING FAN	MINKA GROUP PADDLE FAN	
⊠ U	UTILITY FIXTURE	LEVITON PORCELAIN KEYLESS TOP WIRED INCANDESCENT LAMP HOLDER	
⊠ EX	EXHAUST FAN	EXHAUST FAN FIXTURE: BROAN QTXE150	

Electrical Symbol Legend

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
\$	SWITCH - SINGLE POLE	⊕ WP	DUPLEX RECEPTACLE -- WEATHER PROOF @ 24" A.F.F.
\$3	SWITCH - THREE WAY	⊕ DED	DUPLEX RECEPTACLE -- DEDICATED
\$4	SWITCH - FOUR WAY	⊕ OP	AUTOMATIC OVERHEAD GARAGE DOOR OPENER
\$D	SWITCH WITH DIMMER	⊕ C	CARBON MONOXIDE DETECTOR
⊕ 110V	DUPLEX RECEPTACLE - @ 18" A.F.F.: 110V	⊕ S	SMOKE DETECTOR
⊕ 220V	DUPLEX RECEPTACLE - @ 18" A.F.F.: 220V	⊕ PB	CIRCUIT BREAKER PANEL BOARD
⊕ GFCI	DUPLEX RECEPTACLE - G.F.C.I TYPE	⊕ SB	CIRCUIT BREAKER SUB-PANEL BOARD
⊕ CT	DUPLEX RECEPTACLE - @ 7" ABOVE COUNTER TOP	⊕ E	INDICATES EXISTING

NOTE: SEE SPECIFICATION DIV 26, ELECTRICAL CONTRACTOR SHALL MEET ALL CODES

Note:

- 1) ALL SWITCH, OUTLET & LIGHTING LOCATIONS ARE APPROXIMATE, CONTRACTOR TO VERIFY LOCATIONS W/ OWNER & ARCHITECT DURING ELECTRICAL WALKTHROUGH.
- 2) CONTRACTOR RESPONSIBLE FOR ALL COORDINATION OF APPLIANCES & WIRING, AS REQUIRED
- 3) COORDINATE DIMMER LOCATIONS W/OWNER PRIOR TO INSTALLATION
- 4) CONTRACTOR TO CONFIRM SMOKE DETECTORS EXIST PER CODE AND ARE IN GOOD WORKING ORDER

Note:

- ALL 120-V BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAM, RM's, LIVING RM's, PARLORS, DEN's, BEDROOM's, SUNROOM's, REC. RM's, CLOSET's, HALLWAYS, OR SIM. AREAS TO BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTOR PER NEC 210.12 (b)

