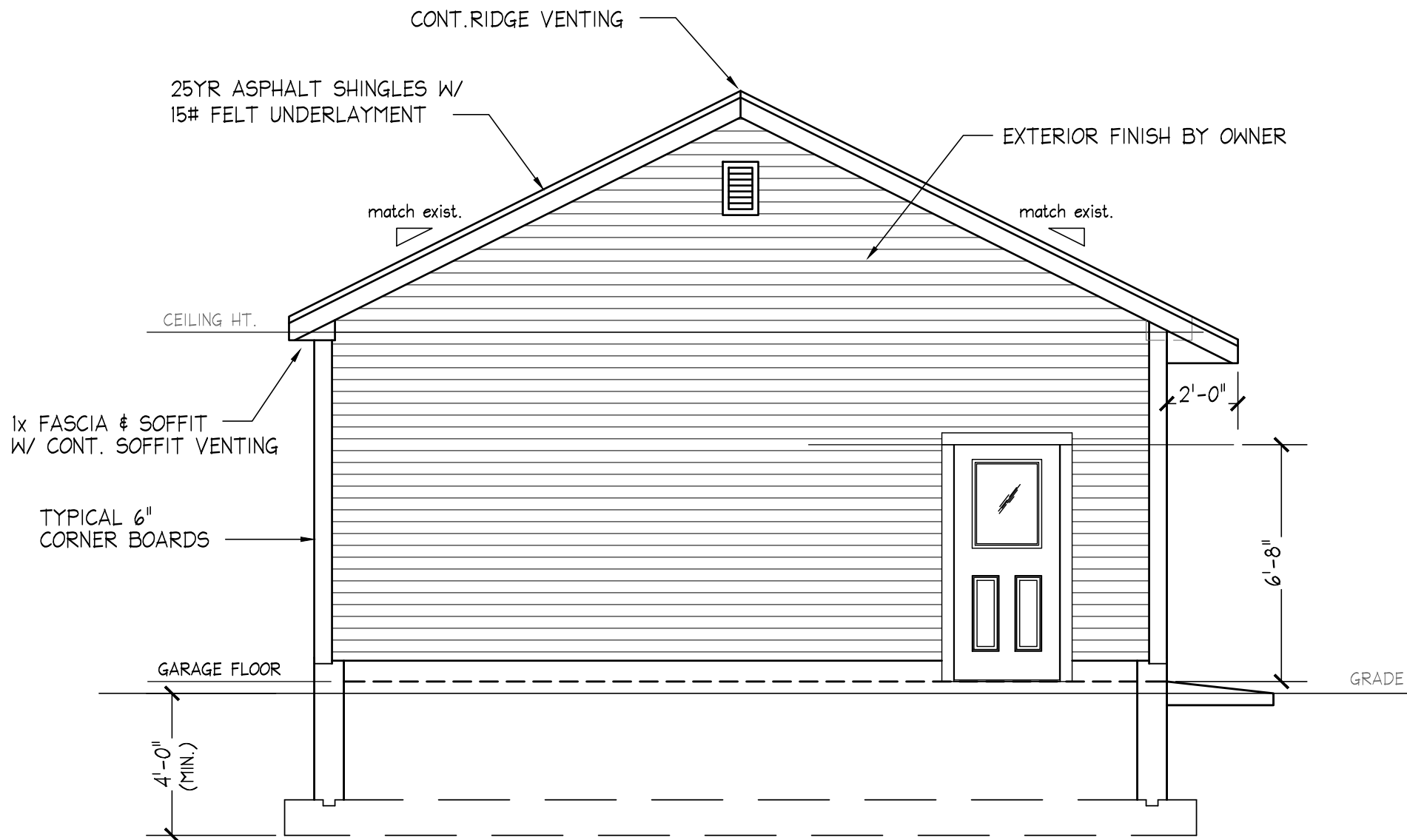


FRONT ELEVATION

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



SIDE ELEVATION

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

RESIDENTIAL GENERAL NOTES

ALL CONSTRUCTION SHALL CONFORM TO THE 2005 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY THE STATE OF MASSACHUSETTS (AND/OR LOCAL JURISDICTION) AND BE IN ACCORDANCE WITH MASSACHUSETTS STATE LAWS AND REGULATIONS

DRAWING NOTES: DO NOT SCALE DRAWINGS. USE GIVEN DIMENSIONS. CHECK DETAILS FOR APPROPRIATE LOCATION OF ALL ITEMS NOT DIMENSIONED ON THE DRAWINGS. DIMENSIONS ON THE DRAWINGS ARE TO FRAMING ELEMENTS OR ON THE CENTERLINE OF COLUMNS AND INTERIOR WALLS UNLESS NOTED OTHERWISE. DOORS AND CASED OPENINGS WITHOUT DIMENSIONS ARE TO BE 4" FROM THE FACE OF THE ADJACENT WALL OR CENTERED BETWEEN THE WALLS, UNLESS NOTED OTHERWISE. VERIFY FIELD CONDITIONS PRIOR TO COMMENCEMENT OF EACH PORTION OF THE WORK. "ALIGN" MEANS TO ACCURATELY LOCATE FINISHED FACES IN THE SAME PLANE.

CONTRACTOR'S RESPONSIBILITY: CONTRACTOR VERIFY ALL DIMENSIONS AND STRUCTURAL MEMBER SIZES PRIOR TO THE CONSTRUCTION. CONTRACTOR IN INFORM ENGINEER OF ANY DISCREPANCIES IN THE DOCUMENTS OR IN CONFLICT WITH THE CODES. CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE OWNER AND ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. PROVIDE ADEQUATE TIME (10 WORKING DAYS MINIMUM) FOR OWNER AND ENGINEER TO REVIEW PROPOSED CHANGE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS AND METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. ALL STRUCTURAL SYSTEMS SUCH AS WOOD PRESSED-PLATE TRUSSES WHICH HAVE COMPONENTS TO BE FIELD ERRECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S PRINTED INSTRUCTIONS. CONTRACTOR TO COORDINATE STRUCTURAL FRAMING WITH ELECTRICAL, PLUMBING AND MECHANICAL WORK. CONTRACTOR IS RESPONSIBLE FOR THE PROPER OPERATION OF ALL SYSTEMS AND THE COORDINATION OF ALL SYSTEMS AND TRADES. CONTRACTOR TO NOTIFY ENGINEER FOR RESOLUTION OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION.

CRAWL SPACE: CRAWL SPACE SHALL BE VENTILATED WITH AN APPROVED MECHANICAL MEANS OR BY OPENINGS IN THE EXTERIOR FOUNDATION WALLS. OPENINGS SHALL HAVE A NET AREA OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDER-FLOOR AREA. ONE OPENING SHALL BE WITHIN 3 FEET OF EACH CORNER IF POSSIBLE. THE OPENING SIZE SHALL BE EQUALLY DISTRIBUTED ALONG THE LENGTH OF TWO OPPOSITE SIDES PER IRC R408.2

GARAGES: DOORS BETWEEN DWELLING AND GARAGE SHALL BE SOLID CORE WOOD 1-3/8" MINIMUM THICKNESS OR 20-MINUTE FIRE RATED PER IRC R302.5.1. THERE SHALL BE NO OPENINGS BETWEEN ROOMS USED FOR SLEEPING PURPOSES AND THE GARAGE. SEPARATE THE RESIDENTIAL SPACES INCLUDING ATTIC SPACES FROM THE GARAGE OR SHOP WITH NOT LESS THAN 1/2" GWB APPLIED AT THE GARAGE SIDE. AND, GARAGES BELOW HABITABLE SPACES SHALL BE SEPARATED WITH 3/8" TYPE "X" GWB PER IRC R302.6. HEATING/COOLING SWITCHES AT LEAST 18" ABOVE THE FLOOR LEVEL PER IRC G2408.2. PROVIDED AUTOMATIC GARAGE OPENERS SHALL BE LISTED IN ACCORDANCE WITH UL 325.

FIREPLACES: FACTORY BUILT FIREPLACES AND CHIMNEYS SHALL BE LISTED AND INSULATED PER THE MANUFACTURERS SPECIFICATIONS, IRC R1004.1 AND TESTED IN ACCORDANCE WITH UL 127. MASONRY FIREPLACES, BARBECUES, SMOKE CHAMBERS, AND CHIMNEYS SHALL BE CONSTRUCTED OF MASONRY OR REINFORCED CONCRETE. FOUNDATIONS SHALL BE MINIMUM 12" THICK AND EXTEND 6" BEYOND FACE OF MASONRY. WALLS MINIMUM 8" THICK EXCEPT IN FIREBOX TO BE MINIMUM 10" THICK. COMBUSTIBLE MATERIALS SHALL NOT BE PLACED WITHIN 6" OF THE FIREPLACE OPENING. HEARTH TO BE MINIMUM 4" THICK NON-COMBUSTIBLE MATERIAL EXTENDING 16" IN FRONT AND 8" TO THE SIDE OF THE FIREPLACE OPENING. COMBUSTIBLE MATERIAL WITHIN 12" OF THE FIREPLACE OPENING SHALL NOT PROJECT MORE THAN 1/8" FOR EACH 1" DISTANCE FROM SUCH OPENING. REFER TO IRC R1001.

CEILING HEIGHTS: HABITABLE SPACES SHALL HAVE A CLEAR CEILING HEIGHT OF NOT LESS THAN 7'-0". NOT MORE THAN 50% OF REQUIRED FLOOR AREA OF A SPACE IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN 7'-0" WITH NO PORTION LESS THAN 5'-0". BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT WITH NO PORTION BEING LOWER THAN 6'-8" ABOVE THE FIXTURES AND ITS FRONT CLEARANCE AREA. IRC R305.

ROOFING: APPLY ROOFING IN CONFORMANCE WITH IRC R905. BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND SIMILAR SURFACES EXPOSED TO THE WEATHER SHALL BE WATERPROOFED AND SLOPED A MINIMUM OF 1/4" PER FOOT (2%) FOR DRAINAGE.

ATTIC: PROVIDE VENTILATION AS INDICATED ON THE DRAWINGS. THE NET FREE VENTING AREA SHALL BE NOT LESS THAN 1/150TH OF THE SPACE. EXCEPT THAT THE AREA MAY BE 1/300TH PROVIDED AT LEAST 50% OF THE REQUIRED VENTILATING AREA IS PROVIDED WITH VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE THE EAVES OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS (IRC R806.2). ATTIC ACCESS SHALL BE A MINIMUM 22" X 30" OPENING WITH A MINIMUM 30" CLEARANCE HEADROOM ABOVE, UNOBSTRUCTED, AND READILY ACCESSIBLE FROM BELOW. PROVIDE FOR ALL ATTIC SPACES OVER 30 SF AND OVER 30" HIGH (IRC R807).

GLAZING: ALL GLAZING TO BE IN COMPLIANCE WITH IRC R308 AND MASSACHUSETTS AMENDMENTS. GLAZING IN HAZARDOUS LOCATIONS SUCH AS GLASS IN DOORS, GLASS WITHIN 24" EACH SIDE OF A DOOR OPENING, AREAS WITHIN 60" VERTICALLY AND 60" HORIZONTALLY FROM THE BOTTOM LANDING OF A STAIRWAY, STORM DOORS, RAILINGS, SHOWER DOORS, SLIDING GLASS DOORS, AND THE ENCLOSURES AROUND TUB/SHOWER ENCLOSURES SHALL BE SAFETY GLAZING MATERIALS (IRC R308.4). ALL EXTERIOR GLAZING SHALL COMPLY WITH THE 2015 IECC.

EGRESS: EACH SLEEPING ROOM SHALL BE PROVIDED WITH AN ESCAPE OPENING: NET CLEAR OPENING OF 5.7 SQ NET CLEAR OPENING SHALL BE 24" BY 20" IN EITHER DIRECTION. THE SILL HEIGHT SHALL BE NO HIGHER THAN 44" ABOVE THE FINISHED FLOOR. REFER TO IRC R310.1. A MINIMUM OF ONE BUILDING EXIT DOOR IS REQUIRED THE MINIMUM SIZE IS 3'-0" WIDE X 6'-8" HIGH. PROVIDE DIRECT ACCESS TO THE EXTERIOR.

STAIRWAYS: MINIMUM HEADROOM IS 6'-8" MEASURED VERTICALLY FROM A SLOPED PLANE CONNECTING THE TREAD NOSING OR FROM THE FLOOR SURFACE OR PLATFORM. MINIMUM WIDTH IS 36". REFER TO IRC 311.7. MINIMUM TREAD: 10" MAXIMUM RISER IS 7-3/4". HANDRAIL: 34" TO 38" ABOVE STAIR NOSING. HANDRAIL TO BE 1-1/4" TO 2" CROSS SECTION AND 1-1/2" AWAY FROM WALL. IRC 311.7. INSTALL FIRE BLOCKING AT MID STRINGER SPAN AND AT WALL ALONG STRINGER. COVER WALLS AND SOFFITS OF USABLE SPACE UNDER STAIR WITH 1/2". IRC R302.7. GUARDRAILS: ANY EXTERIOR WALKING SURFACE 30" OR MORE ABOVE GRADE OR ADJACENT SURFACE SHALL HAVE MINIMUM 36" HIGH GUARDRAIL. IRC 312.1. AT STAIRS MORE THAN 30 INCHES ABOVE FLOOR OR GRADE PROVIDE A 34" MINIMUM HEIGHT GUARDRAIL. PROVIDE INTERMEDIATE RAILS THAT TO NOT ALLOW PASSAGE OF A 4" DIAMETER SPHERE.

FIRE PROTECTION SYSTEMS: ALL SMOKE DETECTORS TO BE PHOTOELECTRIC TYPE LISTED IN ACCORDANCE WITH UL217 OR UL268 AND COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND UL 2034. ALL SMOKE DETECTORS TO BE INSTALLED IN ACCORDANCE WITH NFPA 72 AND IRC 314.3 REFLECTING THE MASSACHUSETTS AMENDMENTS. ALL ALARM DEVICES TO BE INTERCONNECTED PER IRC R314.4. FRAMING TO HAVE FIREBLOCKING PER IRC 602.8. PROVIDE DRAFTSTOPPING AT CONCEALED SPACES OVER 1000 SF PER IRC R502.12.

VENTILATION SYSTEMS: IN HABITABLE ROOMS NOT PROVIDED WITH AN OPENABLE EXTERIOR OPENING OF AT LEAST 4% OF THE FLOOR AREA A MECHANICAL VENTILATION SYSTEM MUST BE PROVIDED THAT PROVIDES A MINIMUM 0.35 AIR CHANGES PER HOUR PER IRC R303.1.DRYER AND BATHROOM FANS SHALL BE CFM, AND RANGE FANS SHALL BE 100 CFM MINIMUM WITH VENTING TO THE EXTERIOR. REFER TO IRC R303 AND MASS AMENDMENTS.

NATURAL LIGHTING: ALL HABITABLE ROOMS SHALL HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN 8% OF THE FLOOR AREA OF THE ROOM PER IRC R303. GLAZED AREAS ARE NOT REQUIRED WHERE ARTIFICIAL LIGHTING IS PROVIDED.

BATHROOMS: ALL STUD WALLS AT TUB AND SHOWER STALLS SHALL HAVE FIREBLOCKING BETWEEN STUDS. ALL GLAZING IN DOORS OR ENCLOSURES IN BATHROOMS SHALL BE SAFETY GLAZING. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING A SHOWER OR BATHTUB WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE STANDING SURFACE AND DRAIN OUTLET SHALL BE SAFETY GLAZING (IRC R308.4). SHOWER STALL WAINSCOT SHALL BE MINIMUM OF 72" ABOVE THE FLOOR (IRC R307.2). WATERCLOSETS SHALL HAVE A MIN. 15" TO SIDE WALLS FROM CENTER OF FIXTURE, AND A MINIMUM 21" CLEARANCE IN FRONT OF THE FIXTURE (IRC R307.1).

DRAINAGE: DRAINS SHALL BE PROVIDED AROUND CONCRETE FOUNDATION TO RETAIN EARTH AND ENCLOSURE HABITABLE OR USEABLE SPACES LOCATED BELOW GRADE. DRAINAGE TIES, GRAVEL OR CRUSHED STONE DRAINS, PERFORATED PIPE OR OTHER APPROVED SYSTEMS OR MATERIALS SHALL BE INSTALLED AT OR BELOW THE AREA TO BE PROTECTED AND SHALL DISCHARGE BY GRAVITY OR MECHANICAL MEANS INTO AN APPROVED DRAINAGE SYSTEM. GRAVEL OR CRUSHED STONE DRAINS SHALL EXTEND NOT LESS THAN ONE FOOT BEYOND THE OUTSIDE EDGE OF THE FOOTING AND 6" ABOVE THE TOP OF FOOTING AND BE COVERED WITH AN APPROVED FILTER MEMBRANE MATERIAL. THE TOP SHALL BE SURROUNDED WITH AN APPROVED FILTER MEMBRANE OR THE FILTER MEMBRANE SHALL COVER THE WASHED GRAVEL OR CRUSHED ROCK COVERING THE DRAIN. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON A MINIMUM OF 2" OF WASHED GRAVEL OR CRUSHED ROCK NOT LESS THAN ONE SIEVE LARGER THAN THE TILE JOINT OPENING OF PERFORATION AND COVERED WITH NOT LESS THAN 6" OF THE SAME MATERIAL.

EXCEPTION: A DRAINAGE SYSTEM IS NOT REQUIRED WHERE THE FOUNDATION IS INSTALLED ON WELL- DRAINED GROUND OR SAND-GRAVEL MIXTURE SOILS ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM, GROUP 1 SOILS, AS DETAILED IN TABLE R405.1.



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SCAN QR CODE FOR DIGITAL FILE

Rev:	Date:	Description:	NAME
B	11/05/23	FOR PERMIT	TMN
A	11/13/23	PRELIMINARY	TMN

NEW GARAGE
KEILY RESIDENCE

82 SANING ROAD
WEYMOUTH, MA

ELEVATIONS
COVER SHEET

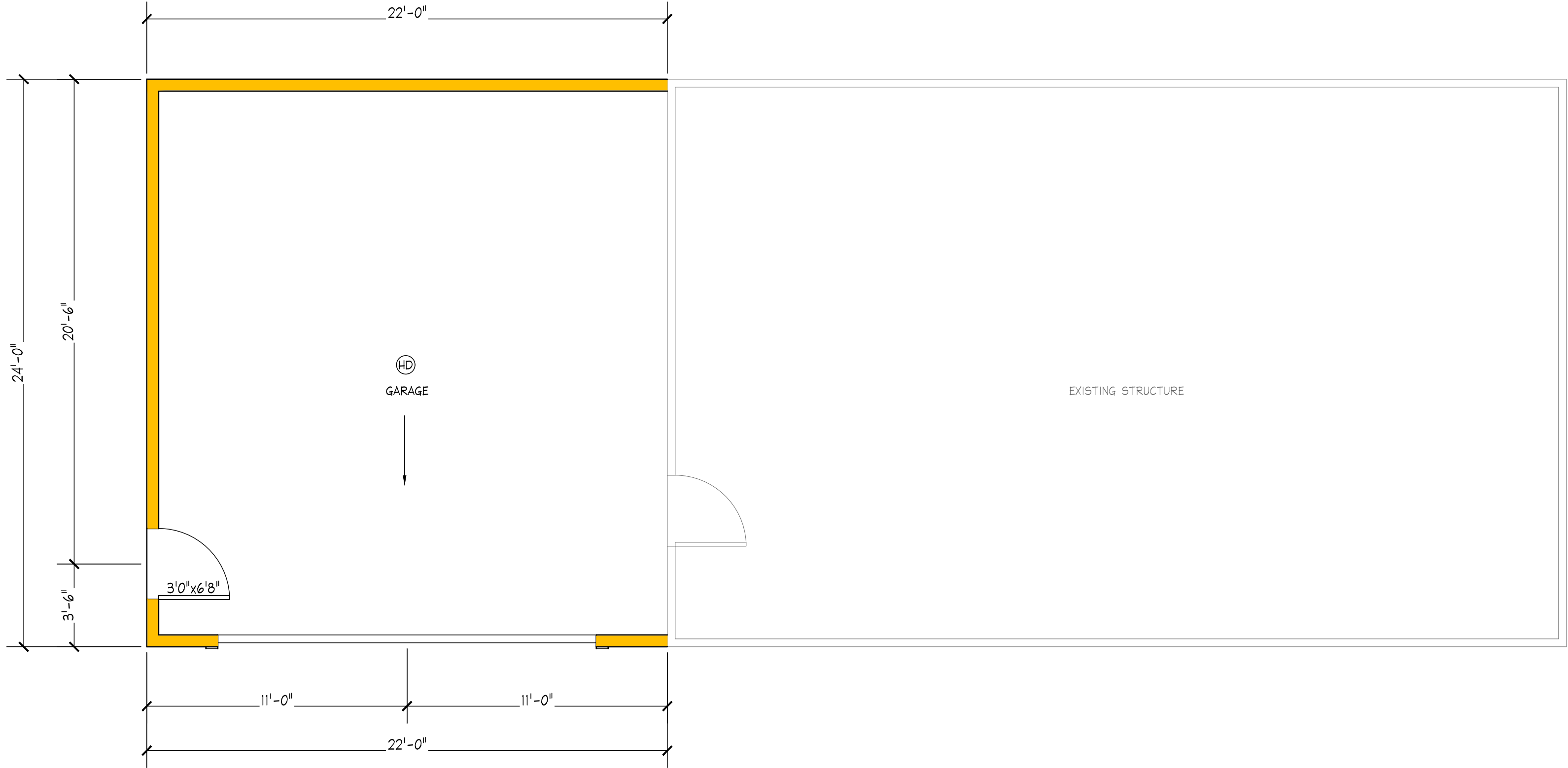
SCALE:	N/A
DRAWN by:	TMN
CHECK'D by:	MKS
PROJECT No:	2023-253

A-0



FIRST FLOOR
DEMOLITION PLAN
SCALE : 1/4"=1'-0"

— - WALLS TO BE DEMOLISHED
— - NEW WALL CONSTRUCTION



FIRST LOOR PLAN
SCALE : 1/4"=1'-0"

— - WALLS TO BE DEMOLISHED
— - NEW WALL CONSTRUCTION
Ⓜ - DENOTES HEAT DETECTOR



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SCAN QR CODE FOR DIGITAL FILE

Rev:	Date:	Description:	NAME
B	11/15/23	FOR PERMIT	TMN
A	11/13/23	PRELIMINARY	TMN

NEW GARAGE
KEILY RESIDENCE
82 SANING ROAD
WEYMOUTH, MA

PROPOSED FLOOR
PLAN AND
DEMO PLAN

SCALE:	1/4" = 1'-0"
DRAWN by:	TMN
CHK'D by:	MKS
PROJECT No:	2023-253

GENERAL REQUIREMENTS:

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER PROJECT DRAWINGS BY OTHER DISCIPLINES. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CODES LISTED BELOW.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS RELATING TO EXISTING CONDITIONS BY MAKING FIELD SURVEYS AND MEASUREMENTS PRIOR TO COMMENCING FABRICATION OR CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION METHODS USED WILL NOT CAUSE DAMAGE TO ADJACENT BUILDINGS, UTILITIES, OR OTHER PROPERTY. THIS REQUIREMENT IS PARTICULARLY IMPORTANT DURING FOUNDATION INSTALLATION.
- THE GENERAL CONTRACTOR SHALL OBTAIN COPIES OF THE LATEST CONTRACT DOCUMENTS, INCLUDING ALL ADDENDA, AND PROVIDE THE RELEVANT PORTIONS TO ALL SUB-CONTRACTORS AND SUPPLIERS PRIOR TO SUBMITTAL OF SHOP DRAWINGS AND FABRICATION AND ERECTION OF STRUCTURAL MEMBERS.
- THE GENERAL CONTRACTOR SHALL COMPARE AND COORDINATE THE DRAWINGS OF ALL DISCIPLINES AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS TO THE ARCHITECT AND ENGINEER.
- DETAILS LABELED "TYPICAL" SHALL APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SEE DETAIL TITLES FOR APPLICABILITY OF A PARTICULAR DETAIL. TYPICAL DETAILS SHALL APPLY WHETHER OR NOT THEY ARE SPECIFICALLY KEYS AT EACH LOCATION. THE ENGINEER SHALL HAVE FINAL AUTHORITY TO DETERMINE APPLICABILITY OF TYPICAL DETAILS.
- WHERE CONFLICTS EXIST BETWEEN STRUCTURAL DOCUMENTS THE STRICTEST REQUIREMENTS, AS INDICATED BY THE STRUCTURAL ENGINEER SHALL GOVERN.
- THE GENERAL CONTRACTOR SHALL REVIEW AND DETERMINE THAT DIMENSIONS ARE COORDINATED BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION OR START OF CONSTRUCTION.
- NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED OR OTHERWISE REDUCED IN STRENGTH UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
- THE GENERAL CONTRACTOR SHALL COORDINATE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ANCHORED, EMBEDDED OR SUPPORTED ITEMS. NOTIFY THE ARCHITECT / ENGINEER OF ANY DISCREPANCIES.

PRIMARY CODES AND SPECIFICATIONS:

- GENERAL BUILDING CODE:
 - MASSACHUSETTS STATE BUILDING CODE, 2015 INTERNATIONAL RESIDENTIAL BUILDING CODE WITH AMENDMENTS.
- CONCRETE CODES:
 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-05).
 - SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 30).
 - LATEST EDITION OF THE CRSI MANUAL OF STANDARD PRACTICE WITH ALL SUPPLEMENTS.
- STRUCTURAL STEEL CODES:
 - SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, MARCH 9,2005 (AISC 360-05).
 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, ADOPTED EFFECTIVE MARCH 18, 2005 (AISC 303-05).
- STEEL DECK:
 - NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, INCLUDING 2004 SUPPLEMENT (NAS-01).
 - SDI DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS.
- COLD FORMED METAL FRAMING:
 - NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, INCLUDING 2004 SUPPLEMENT (NAS-01).
- WOOD STRUCTURE FRAMING:
 - NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION, 2012 EDITION
 - SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (SDPMBS), 2012 EDITION

DESIGN LOADS:

- ROOF LOADS:
 - UNIFORMLY DISTRIBUTED LIVE LOAD ON HORIZONTAL PROJECTION.....20 PSF
 - TYPICAL ROOF......15 PSF+PITCH PSF
 - SNOW LOAD.....XX PSF
- FLOOR LOADS:
 - UNIFORMLY DISTRIBUTED LIVE LOADS:
 - RESIDENTIAL LIVING AREA.....40 PSF
 - RESIDENTIAL BEDROOM.....30 PSF
 - RESIDENTIAL ATTIC SPACE.....30 PSF
 - RESIDENTIAL UNINHABITABLE ATTIC SPACE.....20 PSF
 - RESIDENTIAL DECK.....40 PSF
 - SUPERIMPOSED DEAD LOADS:
 - TYPICAL FLOORS.....12 PSF
- WIND LOADS:
 - LOADS BASED ON ASCE 7-05 WIND LOAD CRITERIA.
 - BASIC WIND SPEED, 3 SECOND GUST.....XXX MPH
 - WIND EXPOSURE CATEGORY.....X

FOUNDATIONS:

- FOUNDATION DESIGN IS BASED ON THE INFORMATION PROVIDED BY THE CONTRACTOR ON THE EXISTING SITE CONDITIONS.
- ALL VEGETATION, TOPSOILS, ROOTS AND ORGANIC ZONES SHALL BE STRIPPED AND REMOVED FROM THE CONSTRUCTION AREA FOR A DISTANCE OF AT LEAST 5 FEET BEYOND THE EXTERIOR OF BUILDING FOUNDATION LIMITS. THE DEPTH OF STRIPPING SHALL BE THAT REQUIRED TO REMOVE SIGNIFICANT ROOT ZONES, SMALL TREE STUMPS AND OTHER UNACCEPTABLE MATERIALS, BUT IN NO CASE LESS THAN 6 INCHES.
- EXCAVATIONS FOR LARGE STUMPS, ABANDONED UTILITIES, UNDERGROUND TANKS, ETC. SHALL BE BACKFILLED IN LAYERS WITH COMPACTION AND TESTING OF EACH LAYER AS DESCRIBED FOR PLACEMENT AND COMPACTION OF FILL MATERIAL. USE LOOSE BACKFILL LAYER THICKNESS APPROPRIATE FOR THE SIZE OF COMPACTOR BEING USED.
- AFTER THE SITE HAS BEEN CLEARED AND PROOF-ROLLED, THE EXPOSED SOILS AT THE STRIPPED SURFACE WITHIN AND TO A POINT 5 FEET OUTSIDE THE BUILDING CONSTRUCTION AREA SHALL BE COMPACTED WITH OVERLAPPING PASSES WITH A LIGHT WEIGHT VIBRATORY DRUM ROLLER. DENSITIES OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) SHALL BE UNIFORMLY OBTAINED TO A DEPTH OF AT LEAST 24 INCHES BELOW THE COMPACTED SURFACE. REGARDLESS OF THE DEGREE OF COMPACTION ACHIEVED, A MINIMUM OF EIGHT COMPLETE COVERAGES SHALL BE MADE WITHIN THE BUILDING AREA. THE ROLLER COVERAGES SHALL BE DIVIDED EVENLY INTO TWO PERPENDICULAR DIRECTIONS. THE CONTRACTOR IS ADVISED NOT TO USE THE VIBRATORY MODE OF COMPACTORS IN CLOSE PROXIMITY TO EXISTING STRUCTURES. THE CONTRACTOR SHALL COORDINATE COMPACTION EFFORTS AND FOUNDATION INSTALLATIONS TO INSURE THAT NO DAMAGE OCCURS TO ADJACENT STRUCTURES.
- AFTER THE EXISTING CONCRETE SLAB HAS BEEN REMOVED, THE EXPOSED SOILS AT THE STRIPPED SURFACE WITHIN THE NEW GANTRY PIT CONSTRUCTION AREA SHALL BE COMPACTED WITH OVERLAPPING PASSES WITH A WALK-BEHIND VIBRATORY COMPACTOR. DENSITIES OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) SHALL BE UNIFORMLY OBTAINED TO A DEPTH OF AT LEAST 12 INCHES BELOW THE COMPACTED SURFACE. REGARDLESS OF THE DEGREE OF COMPACTION ACHIEVED, A MINIMUM OF EIGHT COMPLETE COVERAGES SHALL BE MADE WITHIN THE PIT AREA. THE CONTRACTOR COVERAGES SHALL BE DIVIDED EVENLY INTO TWO PERPENDICULAR DIRECTIONS. THE CONTRACTOR SHALL COORDINATE COMPACTION EFFORTS AND FOUNDATION INSTALLATIONS TO INSURE THAT NO DAMAGE OCCURS TO ADJACENT STRUCTURES.
- AFTER COMPLETION OF DENISIFICATION OF EXISTING SOILS, STRUCTURAL FILL SHALL THEN BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE THICKNESS WHEN USING THE ROLLER. PREVIOUSLY DESCRIBED EACH LIFT SHALL BE THOROUGHLY COMPACTED WITH THE VIBRATORY ROLLER UNTIL DENSITIES EQUIVALENT TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY ARE UNIFORMLY OBTAINED. STRUCTURAL FILL SHALL CONSIST OF AN INORGANIC, NON-PLASTIC, GRANULAR SOIL CONTAINING LESS THAN 10 PERCENT MATERIAL PASSING THE NO. 200 MESH SIEVE, A RELATIVELY CLEAN SAND WITH A UNIFIED SOIL CLASSIFICATION OF SP OR SP-SH.
- FOOTINGS AND MAT HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 4000 PSF. THE UPPER 12 INCHES OF SANDY BEARING SOILS IN THE FILLING EXCAVATION BOTTOMS SHALL BE COMPACTED TO DENSITIES EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. COMPACTION OR RECOMPACTION OF THE FOOTING EXCAVATION BEARING LEVEL SOILS LOOSENED BY THE EXCAVATION PROCESS, SHALL BE ACHIEVED BY MAKING SEVERAL PASSES WITH A RELATIVELY LIGHTWEIGHT, WALK-BEHIND VIBRATORY SLED OR ROLLER COMPACTOR.
- UNLESS NOTED, ALL FOOTINGS SHALL BE CENTERED UNDER COLUMNS, PIERS AND WALLS.
- SLAB-ON-GRADE CONSTRUCTION SHALL BE SUPPORTED ON SUBGRADE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) TO A DEPTH OF AT LEAST 12 INCHES. INTERIOR SLABS-ON-GRADE SHALL BE CAST OVER A VAPOR RETARDER. SEE SPECIFICATIONS.
- RETAINING WALLS HAVE BEEN DESIGNED FOR AN ASSUMED LATERAL EARTH PRESSURE OF 110 PSF PER FOOT OF DEPTH AND AN ASSUMED SURCHARGE OF 200 PSF. DESIGN ASSUMES WELL GRADED AND DRAINED BACKFILL.

CAST-IN PLACE CONCRETE:

- THE LATEST EDITION OF THE FOLLOWING ACT STANDARDS APPLY:
 - ACI 211 (MIX PROPORTIONS)
 - ACI 301 (SPECIFICATIONS)
 - ACI 304 (PLACING)
 - ACI 305 (HOT WEATHER CONCRETING)
 - ACI 306 (WINTER CONCRETING)
 - ACI 315 (DETAILING)
 - ACI 318 (CODES)
 - ACI 347 (FORMWORK)
- ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF DRY DENSITY, MIN.) WITH MIXES DESIGNED TO MEET THE FOLLOWING CRITERIA FOR USE IN VARIOUS ELEMENTS OF THE STRUCTURE AS FOLLOWS:

STRUCTURAL ELEMENT	28-DAY aggregate	max. size	max. w/c	slump range
A. FOOTINGS (WALL & MAT)	4000 PSI	3/4"	.45	3-5
B. FOUNDATION WALLS	4000 PSI	3/4"	.45	3-5
C. SLAB-ON-GRADE	3000 PSI	3/4"	.50	3-5
D. ELEVATED FLOORS & BEAMS	4000 PSI	3/4"	.45	3-5
- CONCRETE SLUMP IS TAKEN AT POINT OF PLACEMENT INTO STRUCTURE.
- WATER REDUCING AND AIR ENTRAINING AGENTS SHALL BE INCLUDED IN DESIGN MIXES. SUPERPLASTICIZERS MAY BE USED AT THE CONTRACTOR'S OPTION.
- A CONCRETE MIX DESIGN FOR EACH UNIQUE COMBINATION OF STRENGTH, COARSE AGGREGATE GRADATION AND WATER CEMENT RATIO SPECIFIED SHALL BE PREPARED BY THE SUPPLIER OR AN INDEPENDENT TESTING LABORATORY AND BE SUBMITTED FOR REVIEW PRIOR TO CASTING ANY CONCRETE. MIXES THAT WILL BE TRANSPORTED AT THE PROJECT SITE BY PUMPING SHALL BE SPECIFICALLY DESIGNED FOR PUMPING.
- SLABS ON GRADE: UNLESS NOTED OTHERWISE, CONCRETE SLABS ON GRADE SHALL BE A MINIMUM OF 4" THICK, REINFORCED WITH 6#6 W/4X4.4 WAF PLACED 1-1/2" CLEAR FROM THE TOP OF THE SLAB. SLABS SHALL BE PLACED OVER PROPERLY COMPACTED EARTH.
- CONCRETE TIE BEAMS: UNLESS NOTED OTHERWISE, CONCRETE TIE BEAMS SHALL BE A MINIMUM OF 16" DEEP BY THE SUPPORTING WALL WIDTH, REINFORCED WITH 2 #5 CONTINUOUS TOP AND BOTTOM AND #3 TIES AT 24" O.C.

REINFORCING STEEL:

- REINFORCING STEEL: ASTM A 615, GRADE 60.
- WELDED WIRE FABRIC: ASTM A 185 (FLAT SHEETS), MINIMUM YIELD STRENGTH OF 70,000 PSI.
- MINIMUM REINFORCING STEEL CLEAR COVER (U.N.O.):
 - CONCRETE CAST DIRECTLY AGAINST EARTH : 3"
 - INTERIOR SLABS.....1"
 - SPICES IN CONTINUOUS TOP BARS, IF REQUIRED, SHALL OCCUR OVER PARALLEL CMU WALLS OR AT THE CENTER OF THE OPENING SPAN.
 - SPICES IN CONTINUOUS BOTTOM BARS, IF REQUIRED, SHALL OCCUR OVER CMU WALLS OR CENTERED OVER COLUMNS.
- WHERE SPICE LENGTHS ARE NOT SPECIFIED, USE 48 BAR DIAMETERS IN MASONRY AND 40 BAR DIAMETERS IN CAST CONCRETE.
- REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL SPICES ARE NOT PERMITTED
- LAP ALL WELDED WIRE FABRIC A MINIMUM DISTANCE OF ONE CROSS WIRE SPACING PLUS 2 INCHES.
- ALL REINFORCING STEEL SHALL BE SUPPORTED ON STANDARD ACCESSORIES, HELD RIGIDLY AND ACCURATELY IN PLACE, AND PROTECTED AGAINST DISPLACEMENT BEFORE AND DURING PLACEMENT OF CONCRETE. SUPPORTING ACCESSORY LEGS THAT REST ON CONCRETE SURFACES THAT WILL BE EXPOSED IN THE FINISHED STRUCTURE SHALL BE FABRICATED OF STAINLESS STEEL.
- DOWELS AND OTHER MISCELLANEOUS CAST EMBEDDED ITEMS SHALL BE LOCATED AND HELD IN SPECIFIED POSITION PRIOR TO PLACEMENT OF CONCRETE AND SHALL NOT BE PUSHED INTO CONCRETE FOLLOWING CONCRETE POUR.
- FOUNDATION AND GRADE BEAM REINFORCING SHALL BE SUPPORTED ON SPECIALLY CAST 3-1/2 INCH HIGH CONCRETE BLOCKS CAST IN ACCORDANCE WITH DETAILS FURNISHED ON DRAWINGS. SLAB-ON-GRADE REINFORCING, INCLUDING WIRE FABRIC, SHALL BE SUPPORTED ON PRECAST BLOCKS OR 3000 PSI CONCRETE BRICK OF THE PROPER THICKNESS.

CONCRETE FORMWORK:

- SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
- ALL FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED, AND MAINTAINED ACCORDING TO ACI 347, RECOMMENDED STANDARD PRACTICE FOR CONCRETE FORMWORK.
- RESPONSIBILITY: THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE NET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND NET CONCRETE IMBALANCE. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.
- TOLERANCES: UNLESS SPECIFIED OTHERWISE, ALL TOLERANCES FOR CONCRETE FORMWORK SHALL CONFORM TO ACI STANDARD 117, STANDARD TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS. THE CONTRACTOR SHALL ENGAGE A LICENSED SURVEYOR TO VERIFY THAT WORK IS WITHIN SPECIFIED TOLERANCES UNLESS WRITTEN AUTHORIZATION IS OBTAINED FROM THE ARCHITECT TO PROVIDE TOLERANCE CONSENT USING THE CONTRACTOR'S OWN FORCES PRIOR TO BEGINNING WORK.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED WHERE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.
- PLUMBING SLEEVE SPACING SHALL BE THE LARGER OF THREE (3) DIAMETERS CENTER TO CENTER OF THE LARGER SLEEVE, OR 6" CLEAR BETWEEN SLEEVES. SUBMIT SLEEVE LOCATIONS AND SIZES TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
- PENETRATIONS SHALL NOT BE PERMITTED IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS WITHOUT THE WRITTEN REVIEW OF THE ENGINEER OF RECORD. THE CONTRACTOR SHALL SUBMIT DRAWINGS TO THE ENGINEER OF RECORD FOR REVIEW INDICATING ANY CONCENTRATION OF PIPES, OPENINGS OR PENETRATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS PRIOR TO CONCRETE POURS.

POST-INSTALLED ANCHORS:

- POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER OF RECORD (EOR) PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED ANCHORS.
- CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REINFORCING WHEN DRILLING HOLES. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE.
- SPECIAL INSPECTION SHALL BE PROVIDED FOR ALL ADHESIVE AND MECHANICAL ANCHOR INSTALLATIONS AS REQUIRED BY THE EOR. INDEPENDENT ON-SITE PROOF LOAD TESTING SHALL BE PERFORMED AS REQUIRED BY THE EOR. CONTACT EOR FOR NUMBER OF ANCHORS REQUIRED TO BE TESTED AND REQUIRED PROOF LOAD MAGNITUDE.
- UNLESS NOTED OTHERWISE ON DOCUMENTS, ACCEPTABLE PRODUCTS SHALL BE AS LISTED BELOW:
 - MECHANICAL ANCHORS INTO CONCRETE:
 - USE THE FOLLOWING (UNO):
 - HILTI Kwik Bolt TZ CARBON AND STAINLESS STEEL ANCHORS ((CC-ES ESR1917)
 - RED HEAD TRUBOLT + WEDGE ANCHORS ((CC-ES ESR2427)
 - SIMPSON STRONG-TIE STRONG-BOLT (STB) ((CC-ES ESR1771)/(FL8668)
 - USE THE FOLLOWING ONLY WHERE SPECIFICALLY CALLED OUT ON THE DOCUMENTS:
 - HILTI HDA ((CC-ES ESR1846)
 - HILTI HSL-S ANCHOR ((CC-ES ESR1856)
 - SIMPSON STRONG-TIE TITEN HD (THD) ((CC-ES ESR2713)/(FL2304)
 - MECHANICAL ANCHORS INTO MASONRY LINTELS OR GROUT FILLED CELLS:
 - USE THE FOLLOWING (UNO):
 - HILTI Kwik Bolt 3 MASONRY ANCHORS ((CC-ES ESR1386)
 - SIMPSON STRONG-TIE WEDGE-ALL ANCHOR(WA) ((CBO-ES ER-3631) (FL8415)
 - USE THE FOLLOWING ONLY WHERE SPECIFICALLY CALLED OUT ON THE DOCUMENTS:
 - HILTI HIT-HI-150 SCREEN ANCHOR ((CC-ES ESR2894)
 - SIMPSON STRONG-TIE TITEN HD (THD) ((CC-ES ESR1066)/(FL2304)
 - ADHESIVE ANCHORS INTO CONCRETE:
 - USE THE FOLLOWING (UNO):
 - HILTI HIT-RE 300-SD ADHESIVE ((CC-ES ESR2322)
 - RED HEAD EPON GS ADHESIVE ((CC-ES ESR1317)/(FL6582)
 - SIMPSON STRONG-TIE SET-XP EPOXY-TIE ADHESIVE (SETXP) ((CC-ES ESR2508)
 - USE THE FOLLOWING ONLY WHERE SPECIFICALLY CALLED OUT ON THE DOCUMENTS:
 - HILTI HIT-HI-150 MAX ADHESIVE ((CC-ES ESR2262)
 - SIMPSON STRONG-TIE TITEN HD (THD) ((CC-ES ESR1066)/(FL2304)

CONCRETE MASONRY:

- SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
- CONCRETE MASONRY UNITS SHALL BE LOAD BEARING TYPE CONFORMING TO ASTM C-90 HAVING A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI (NET AREA).
- MORTAR SHALL CONFORM TO ASTM C-270 TYPE S.
- PLAIN END TWO CELLED UNITS SHALL BE USED FOR BLOCKS THAT ARE TO HAVE CELLS REINFORCED AND FILLED. WEB SHELLS ADJACENT TO CELLS THAT ARE TO BE FILLED ARE TO BE BEDDED IN MORTAR.
- FILL CELLS AS NOTED ON DRAWINGS WITH 3000 PSI GROUT, OR GROUT CONFORMING TO ASTM C-476,SPECIFICALLY DESIGNED FOR FILLING OF CELLS.
- IN SPLICING VERTICAL BARS, LAP ENDS, PLACE IN CONTACT AND WIRE-TIE TOGETHER OR USE BAR POSITIONERS. LAP BARS SIDE BY SIDE IN THE PLANE OF THE WALL TO MAINTAIN PROPER COVER.
- SEE PRIMARY CODES, SPECIFICATIONS AND DRAWINGS FOR GROUTING PROCEDURES.
- INSTALLATION OF CONCRETE MASONRY SHALL BE COMPATIBLE WITH ALL APPLIED FINISHES, SUCH AS STUCCO OR PAINT. DO NOT SPRING WALLS WITHOUT PROPER CLEANING. COMPATIBLE WITH FINISHES.
- PROVIDE GALVANIZED WIRE TYPE HORIZONTAL JOINT REINFORCING AT 16" O.C. (MAX) AND AS INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE HOT DIP GALVANIZED HJR ON ALL EXTERIOR WALLS. IN ADDITION TO SCHEDULED OR DETAILED LINTEL AND SILL REINFORCING, PROVIDE TWO LAYERS OF HJR AT 8 INCHES ON CENTER ABOVE AND BELOW ALL LINTELS AND SILLS WHICH SPAN MORE THAN 12 INCHES. EXTEND ADDED HJR 24 INCHES BEYOND THE OPENING JAMBS EXCEPT AT MCI.
- MASONRY BOND BEAMS AND CONCRETE TIE BEAMS CAST ON MASONRY WALLS SHALL BE CONSTRUCTED SO AS TO KEY AND BOND INTO BLOCK CELLS. THE USE OF BUILDING PAPER OR SHEET PLASTIC TO CLOSE JOINTS BELOW BEAMS IS NOT ALLOWED.
- SEE ARCHITECT'S DRAWINGS FOR THE EXTENT AND EXACT LOCATION OF MASONRY WALLS.
- WALL CONTROL JOINTS (NCJ):
 - WALL CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE MASONRY CONSTRUCTION AT LOCATIONS INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS BUT UNLESS NOTED OTHERWISE AT A SPACING NOT GREATER THAN 24' O. C.
 - HORIZONTAL JOINT REINFORCING SHALL BE INTERRUPTED EACH SIDE OF WALL CONTROL JOINTS
 - WALL CONTROL JOINTS SHALL NOT BE PLACED OVER OPENINGS OR WITHIN AN OPENING JAMB WIDTH. USE PLANS AND/OR JAMB REINFORCING SCHEDULE FOR MINIMUM JAMB WIDTHS.
 - SEE ARCHITECTURAL DRAWINGS FOR SEALANT REQUIREMENTS AT WALL CONTROL JOINTS.
 - SEE THESE DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- MASONRY WALLS SHALL BE BRACED EITHER BY OTHER INTERSECTING WALLS OR BY ANCHORAGE OR BRACING TO THE STRUCTURE ABOVE, OR TO ADJACENT WALLS, AS DETAILED ON THE STRUCTURAL DRAWINGS.
- BLOCK LINTELS SHALL BE SPECIALLY FORMED U-SHAPED LINTEL OR LOW WEB LINTEL UNITS WITH REINFORCING BARS OR PRECAST UNITS DESIGNED FOR THE WEIGHT OF MASONRY ABOVE AND OTHER APPLIED LOADS.
- ALL MASONRY WALLS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES IN THE FINAL CONSTRUCTED CONFIGURATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BRACE THE WALLS FOR LATERAL SUPPORT AND BRACING. THE CONTRACTOR SHALL BE RESPONSIBLE PRIOR TO COMPLETION OF LATERAL SUPPORT BY CONNECTIONS AT FLOORS OR ROOF FRAMING LEVELS.
- QUALITY ASSURANCE: ALL REINFORCED MASONRY SHALL BE TESTED/INSPECTED IN CONFORMANCE WITH THE REFERENCED ACI 530/ASCE 5/TMS 402 CODES AND THE PROJECT SPECIFICATIONS. QUALITY ASSURANCES SHALL MEET THE REQUIREMENTS OF SECTION 1.6, TABLE 4 LEVEL B, UNLESS MORE RESTRICTIVE REQUIREMENTS ARE SPECIFIED ELSEWHERE IN THESE DOCUMENTS
- TYPICAL SCHEDULED VERTICAL WALL REINFORCING SIZE AND SPACING SHALL ALSO BE CONTINUED ABOVE AND BELOW ALL OPENINGS.

STRUCTURAL STEEL:

- SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE A.I.S.C. ALL SHAPE SHALL CONFORM TO THE FOLLOWING A.S.T.M. SPECIFICATIONS:

SHAPE	A.S.T.M.	Fy (min.)	Fu (min.)
W SHAPES	A992	50	65
T SHAPES	A36	36	58
S SHAPES	A36	36	58
CHANNELS	A36	36	58
ANGLES	A36	36	58
PLATES	A36	36	58
STEEL PIPE	A53 GR B	35	60
SQUARE HSS	A500 GR B	46	58
RECT. HSS	A500 GR B	46	58
- NON-SHRINK, NON-METALLIC GROUT WITH A 28 DAY STRENGTH OF 5000 PSI SHALL BE USED UNDER BASE PLATES AND SHALL CONFORM TO CORPS OF ENGINEERS CRD-C621, FACTORY PREPARED GROUT. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS.
- ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OF ANCHOR BOLTS OR RODS AND COLUMN BASE PLATES (PER GSA).
- TEMPORARY BRACING OF STRUCTURAL STEEL ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES DURING THE ERECTION PROCESS. CONTRACTOR MUST PROVIDE NOTIFICATION TO THE ERECTOR THAT, BY TESTING, THE FOUNDATION AND SUPPORTING WALLS HAVE ATTAINED SUFFICIENT STRENGTH TO SUPPORT THE STEEL TO BE ERECTED BEFORE ERECTING STRUCTURAL STEEL.
- PROVIDE ONE SHOP COAT OF PRIMER (TT-P-636) ON ALL STEEL EXCEPT FOR ITEMS TO BE HOT DIPPED GALVANIZED OR SPRAY FIREPROOFED. DO NOT PAINT PORTIONS EMBEDDED IN CONCRETE.
- FRAMING CONNECTIONS NOT DETAILED, OR CONNECTIONS THAT ARE MODIFIED FROM THOSE DETAILED, SHALL BE DESIGNED BY SUPPLIER FOR THE END REACTION SHOWN ON THE PLAN. IF NO REACTION IS PROVIDED, DESIGN FOR 1/2 THE BEAM MAXIMUM UNIFORM LOAD PER AISC MANUAL FOR STEEL CONSTRUCTION. SUBMIT SIGNED AND SEALED CALCULATIONS.
- ALL WELD OPERATORS SHALL BE CURRENTLY AWS QUALIFIED.
- SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED. USE 3/16" FILLET WELD MINIMUM.
- FIELD CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED AS DETAILED. NO FIELD WELDING OR HOT DIPPED GALVANIZED MEMBERS WILL BE ALLOWED. USE 3/16" FILLET WELD MINIMUM.
- DURING THE ERECTION OF STEEL BEAMS AND DIAGONAL BRACING, ALL BOLTING AND FIELD WELDING SHALL BE COMPLETE BEFORE RELEASING HOISTING CABLES.
- SUBMIT FOR REVIEW SHOP DRAWINGS OF STEEL DETAILS PRIOR TO FABRICATING STRUCTURAL STEEL.
- ALL EXTERIOR ELEMENTS AND THOSE ELEMENTS NOTED TO BE GALVANIZED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A103 AFTER SANDBLAST CLEANING PER SSPC-SP10. USE ASTM A325 BOLTS HOT DIPPED GALVANIZED WITH GALVANIZED HARDENED WASHERS AND GALVANIZED HEAVY HEX NUTS FOR BOLTING OF GALVANIZED ITEMS.
- STEEL COLUMNS, BASE PLATES AND ALL STEEL BELOW GRADE SHALL HAVE A MINIMUM 3' CONCRETE COVER PROTECTION.
- MEMBERS NOTED AS 'CONTINUOUS' SHALL BE FULLY WELDED AT ALL BUTT SPLICES OR CONNECTIONS SHALL BE DETAILED TO PROVIDE CONTINUITY.

WOOD FRAMING:

- SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
- SAWN LUMBER DESIGN IS BASED ON THE NATIONAL DESIGN SPECIFICATION LATEST DESIGN EDITION. SAWN LUMBER SHALL CONFORM TO EASTERN WOOD PRODUCTS ASSOCIATION GRADING RULES. ALL LUMBER NOT SPECIFIED SHALL BE SPF #2 OR BETTER. ALL LUMBER SHALL BE #2 AT THE TIME OF FABRICATION AND DRIED TO A MAXIMUM OF 15% BEFORE COVER AND INSTALLATION OF BRICK VENEER AND VERIFIED BY SPECIAL INSPECTION. ALL WOOD IN PERMANENT CONTACT WITH CONCRETE(UNLESS AN APPROVED BARRIER IS PROVIDED) OR EXPOSED TO OUTDOOR ENVIRONMENT SHALL BE PRESSURE TREATED, GRADING AS FOLLOWS:
 - POSTS AND BEAMS 6x AND GREATER - KILN-DRIED SPRUCE PINE FIR NO. 2 OR BETTER
 - POSTS, BEAMS, JOISTS 4x AND SMALLER - KILN-DRIED SPRUCE PINE FIR NO. 2 OR BETTER
 - PERIMETER RIVBAND JOISTS AND BLOCKING - SPRUCE PINE FIR
 - WALL STUDS AND WALL BLOCKING - KILN-DRIED SPRUCE PINE FIR NO. 2 (BLOCKING CAN BE SPF STANDARD)
 - PLATES AND SILLS - SPRUCE PINE FIR NO. 2
 - PRESSURE TREATED PLATES - SPRUCE PINE FIR NO. 2
- FRAMING ACCESSORIES AND STRUCTURAL FASTENERS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY (OR ENGINEER APPROVED EQUAL) AND OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS AND ATTACHED PER MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS UNLESS NOTED OTHERWISE. HANGERS NOT SHOWN SHALL BE SIMPSON HJ OF SIZE RECOMMENDED FOR MEMBER. ALL FRAMING NAILS SHALL BE COMMON NAILS, NO BOX NAILS ALLOWED. FASTENERS AND ACCESSORIES IN CONTACT WITH PRESERVATIVE TREATED WOOD OR FIRE TREATED WOOD MUST BE HOT DIPPED GALVANIZED OR HAVE ZMAX COATING WITH A MIN. COATING OF 2.0 OZ. A SQUARE FOOT.
- PLYWOOD PANELS SHALL CONFORM TO THE REQUIREMENTS OF VOLUNTARY PRODUCT STANDARD PS 1 OR PS 2, OR APA PRF-108 PERFORMANCE STANDARDS. UNLESS NOTED, PANELS SHALL BE APA RATED SHEATHING (EXPOSURE 1), OF THE THICKNESS AND SPAN RATING SHOWN ON THE DRAWINGS. PLYWOOD INSTALLATION SHALL BE IN CONFORMANCE WITH APA RECOMMENDATIONS. ALLOW 1/8" SPACING AT PANELS ENDS AND EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER. PROVIDE 1/2" GAP AT FLOORS FOR SHRINKAGE.
- ALL ROOF SHEATHING AND SUB-FLOORING SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS, EXCEPT AS INDICATED ON THE DRAWINGS. ROOF SHEATHING SHALL EITHER BE BLOCKED, TONGUE-AND-GROOVE, OR HAVE EDGES SUPPORTED BY PLY CLIPS. SHEAR WALL SHEATHING SHALL BE BLOCKED WITH FRAMING SPECIFIED BY SHEARWALL SCHEDULE, AT ALL PANEL EDGES. NAILING NOT SPECIFICALLY IDENTIFIED ON THE DRAWINGS SHALL CONFORM TO IBC TABLE 2304.9.1.
- GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH AMERICAN INSTITUTE OF TIMBER CONSTRUCTION, AITC A190.1 AND ASTM D 3737. EACH MEMBER SHALL BEAR AN AITC OR APA-ENG IDENTIFICATION MARK AND BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE. ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER SHOP OR FIELD. GLULAM HANGERS NOT SHOWN SHALL BE SIMPSON EG BEAMS SHALL BE VISUALLY GRADED WESTERN SPECIES INDUSTRIAL GRADE, AND OF THE STRENGTH INDICATED BELOW.

DEPTH	SYMBOL	SPECIES	USE
ALL	24F-V4	DF/DF	(SINGLE SPAN)
ALL	24F-V8	DF/DF	(CONTINUOUS OR CANTILEVER)
- PREMANUFACTURED WOOD JOISTS AND OPEN WEB TRUSSES SHALL BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS, MANUFACTURED BY THE TRUS JOIST MACHILLAN COMPANY, OR AN ENGINEER APPROVED EQUAL IN ACCORDANCE WITH ASTM D 5085. PROVIDE BRIDGING IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. JOISTS AND TRUSSES SHALL BE DESIGNED FOR THE LOADS ON THE DRAWINGS. JOISTS, TRUSSES, AND BRIDGING SHALL BE CAPABLE OF RESISTING A 5 PSF NET WIND UPLIFT UNLESS NOTED OTHERWISE ON THE DRAWINGS. PREMANUFACTURED WOOD JOIST ALTERNATES WILL BE CONSIDERED, PROVIDED THE ALTERNATE IS COMPATIBLE WITH THE LOAD CAPACITY, STIFFNESS, DIMENSIONAL, AND FIRE RATING REQUIREMENTS FOR THE PROJECT, AND IS ICC APPROVED.
- METAL PLATE CONNECTED WOOD TRUSSES SHALL BE MANUFACTURED AS REQUIRED BY TRUSS PLATE INSTITUTE TPI 1, AND DESIGNED FOR THE LOADS NOTED ON THE DRAWINGS. TRUSSES AND BRIDGING SHALL BE CAPABLE OF RESISTING WIND UPLIFT NOTED ON THE DRAWINGS (5 PSF NET UPLIFT MINIMUM), AS WELL AS LOADS RESULTING FROM MECHANICAL UNITS AND EQUIPMENT. COORDINATE LOADING AND LOCATIONS WITH MECHANICAL SUPPLIER AND CONTRACTOR). SNOW DRIFT LOADS SHOWN ON THE PLAN ARE IN ADDITION TO THE LISTED JOIST AND TRUSS LOADS. USE DOUGLAS-FIR TOP GRADE MATERIAL TO ACHIEVE ROOF DIAPHRAGM DESIGN LOADS. THE TRUSS MANUFACTURER SHALL RETAIN AN APPROVED INSPECTION AGENCY TO OBSERVE ALL PHASES OF TRUSS OPERATIONS DURING FABRICATION AND DELIVERY UNLESS THE TRUSS MANUFACTURER MEETS THE REQUIREMENTS OF IBC SECTION 2303.4. TEMPORARY BRACING OF THE TRUSSES DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- JOIST AND TRUSS DEFLECTION SHALL BE LIMITED TO THE FOLLOWING:
 - ROOF JOISTS OR TRUSSES L/240 LIVE L/100 TOTAL
 - FLOOR JOIST OR TRUSSES L/360 LIVE L/240 TOTAL

NEW GARAGE
KEILY RESIDENCE

GENERAL NOTES
AND STRUCTURAL
DESIGN GUIDELINES

SCALE:	AS NOTED
DRAWN by:	TMN
CHECK'D by:	MKS
PROJECT No:	2023-253

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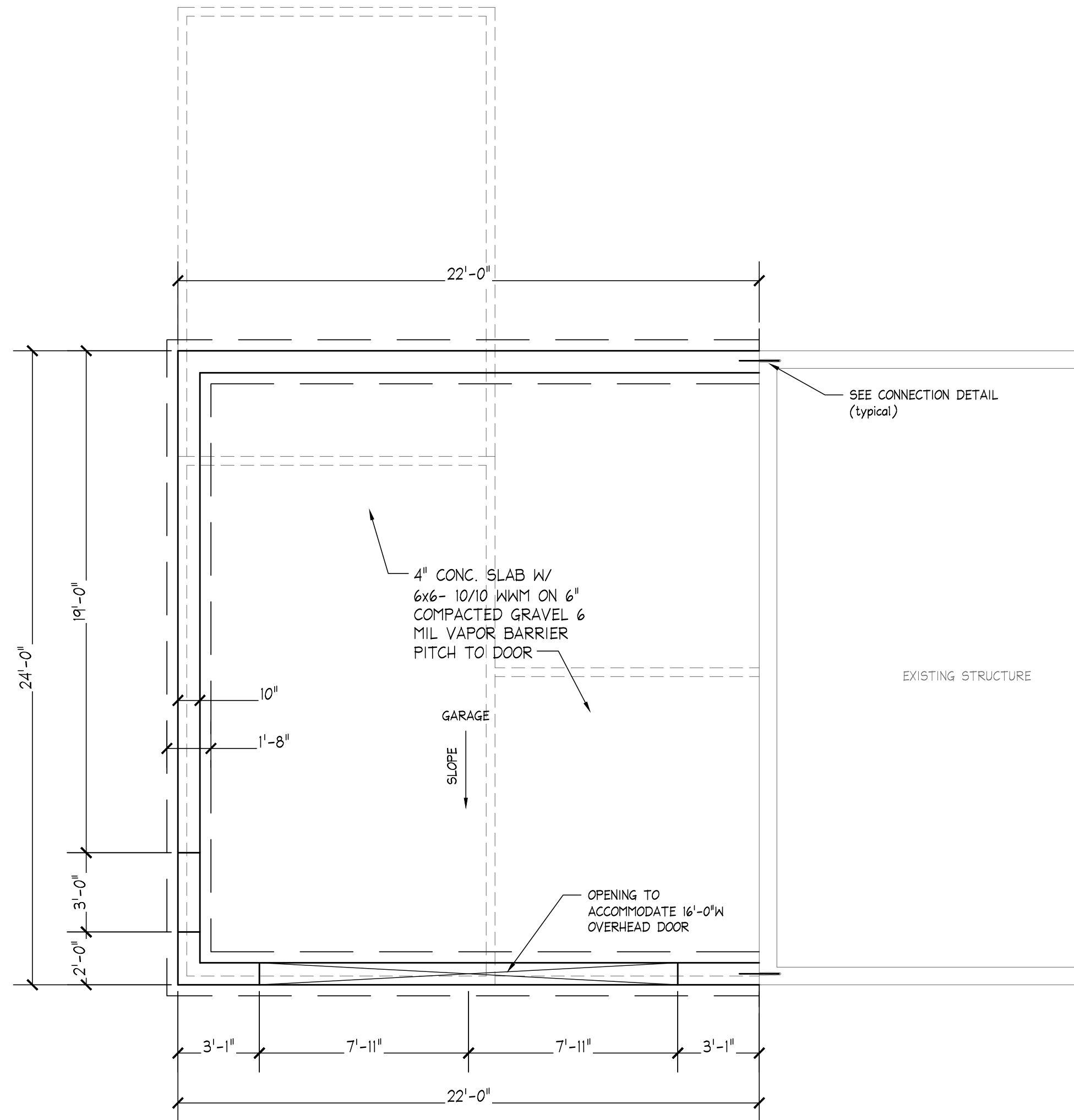
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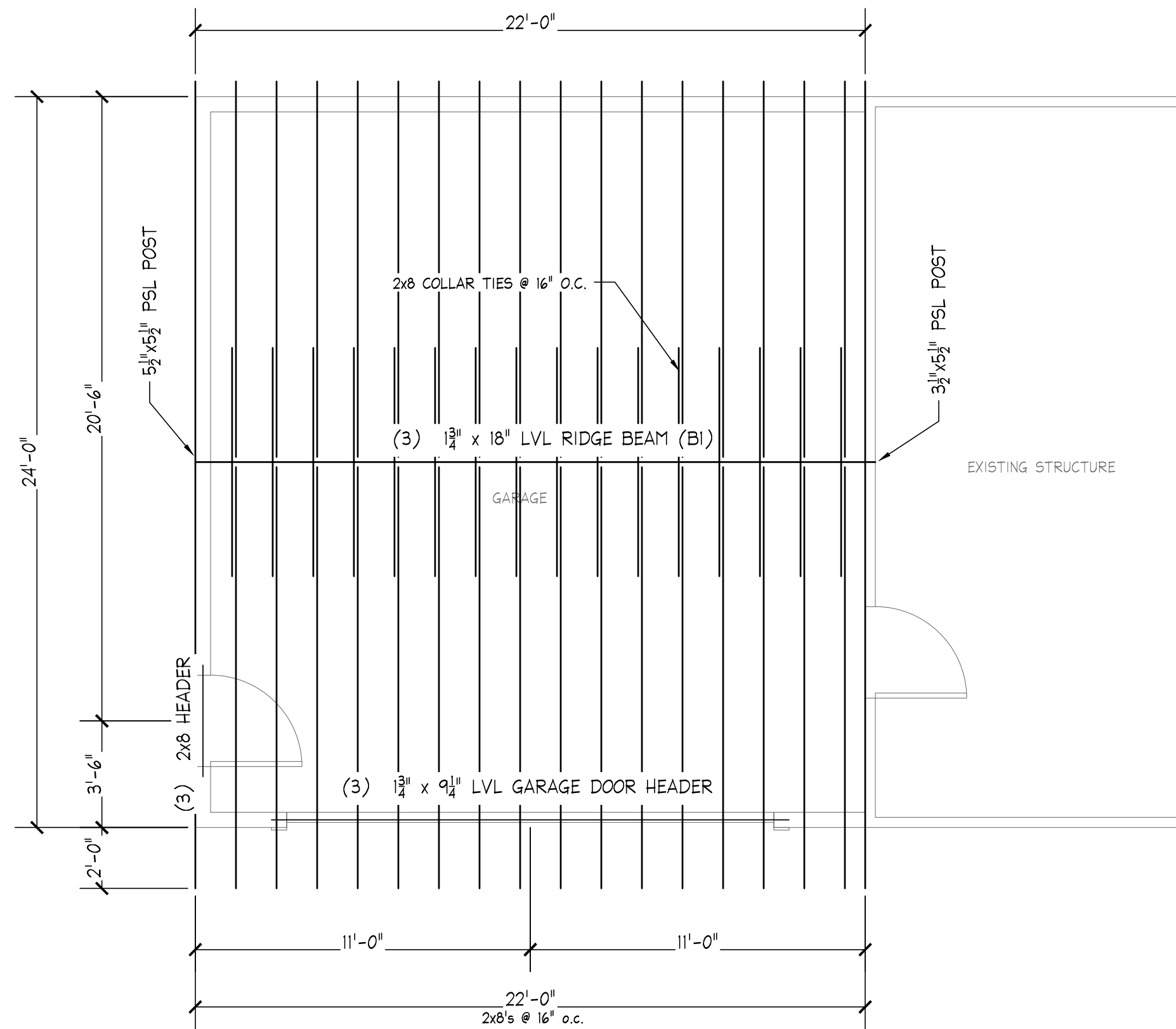
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WEYMOUTH, MA

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www.WAM-Engineers.com

Walter A. McKinnon Associates, Inc.
Consulting Engineers



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



ROOF FRAMING PLAN
SCALE : 1/4"=1'-0"



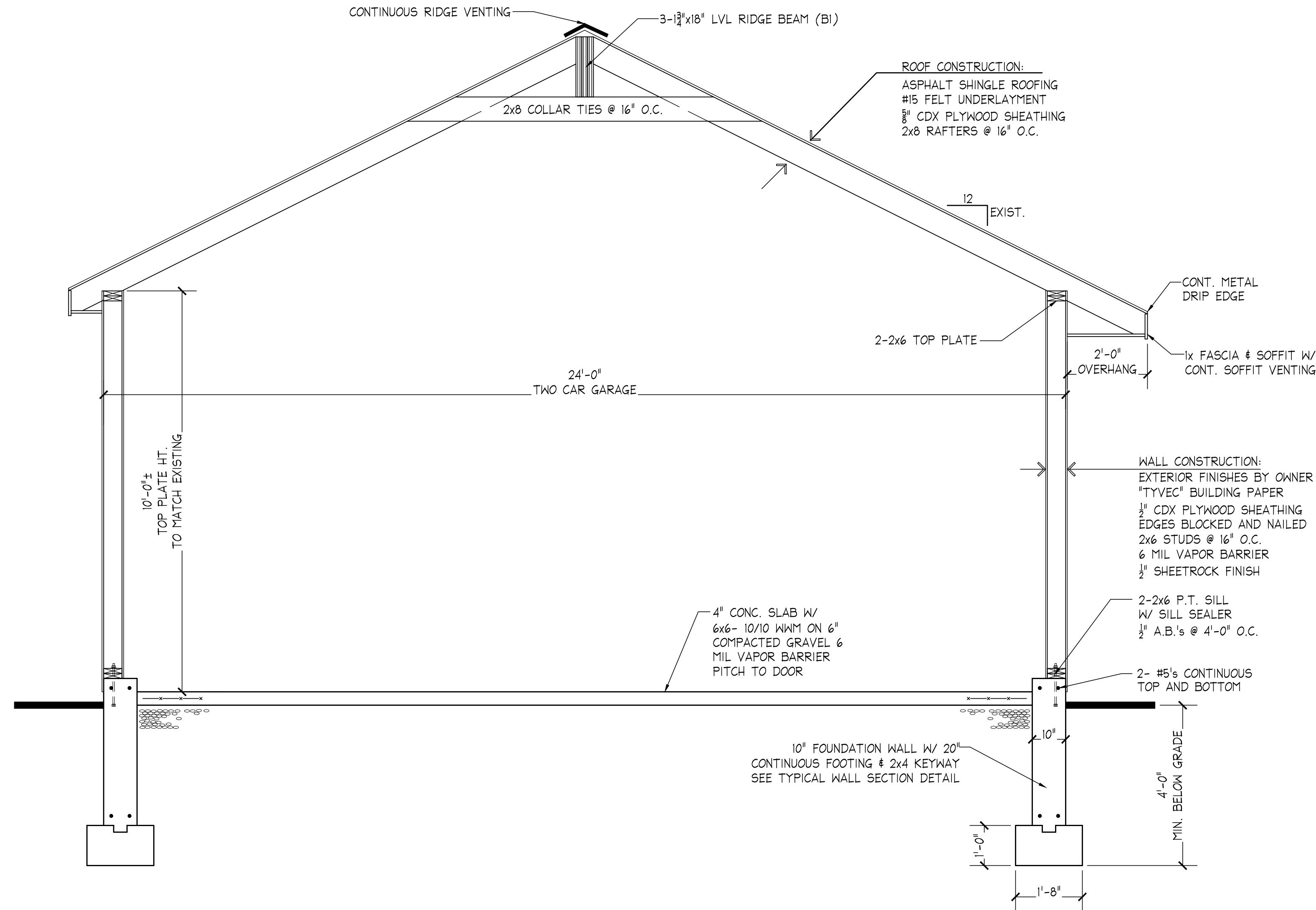
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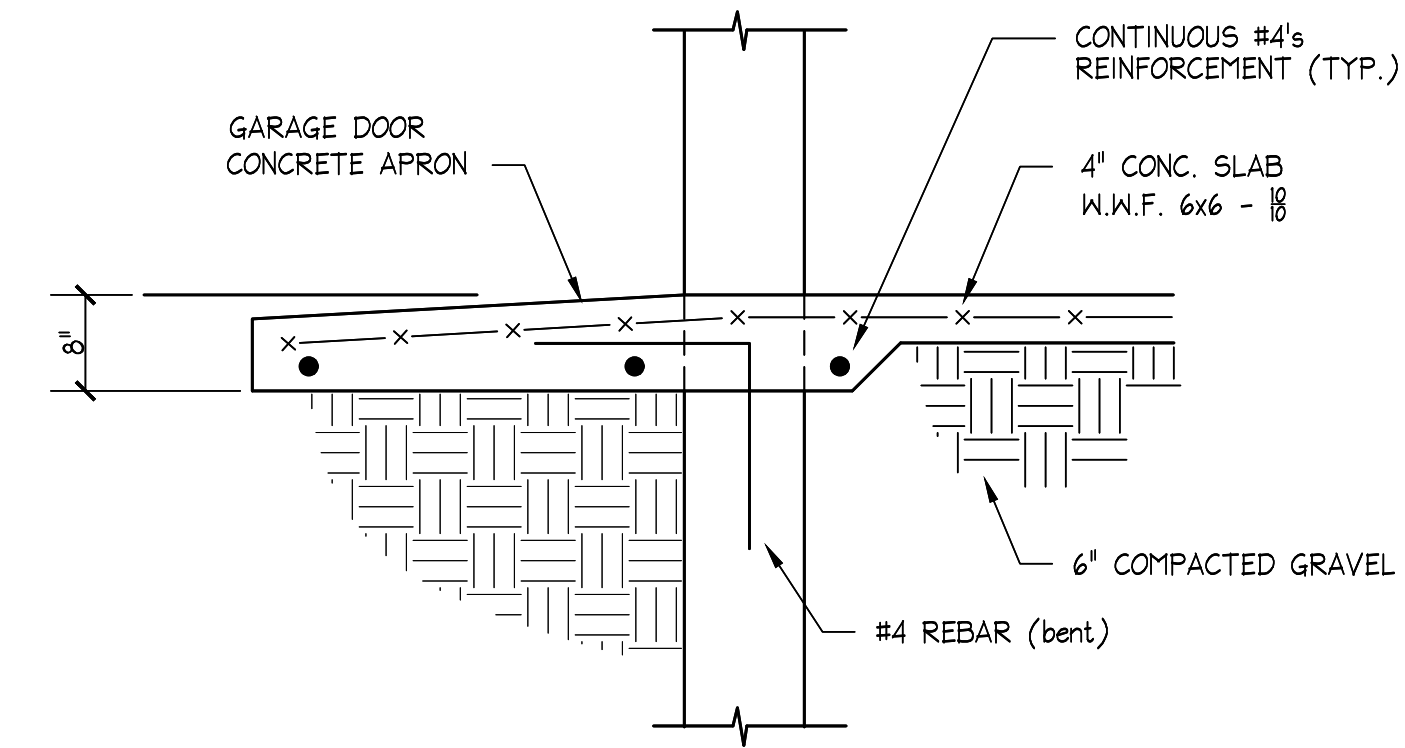
NEW GARAGE
KEILY RESIDENCE
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WEYMOUTH, MA

FOUNDATION PLAN
AND ROOF FRAMING
PLAN

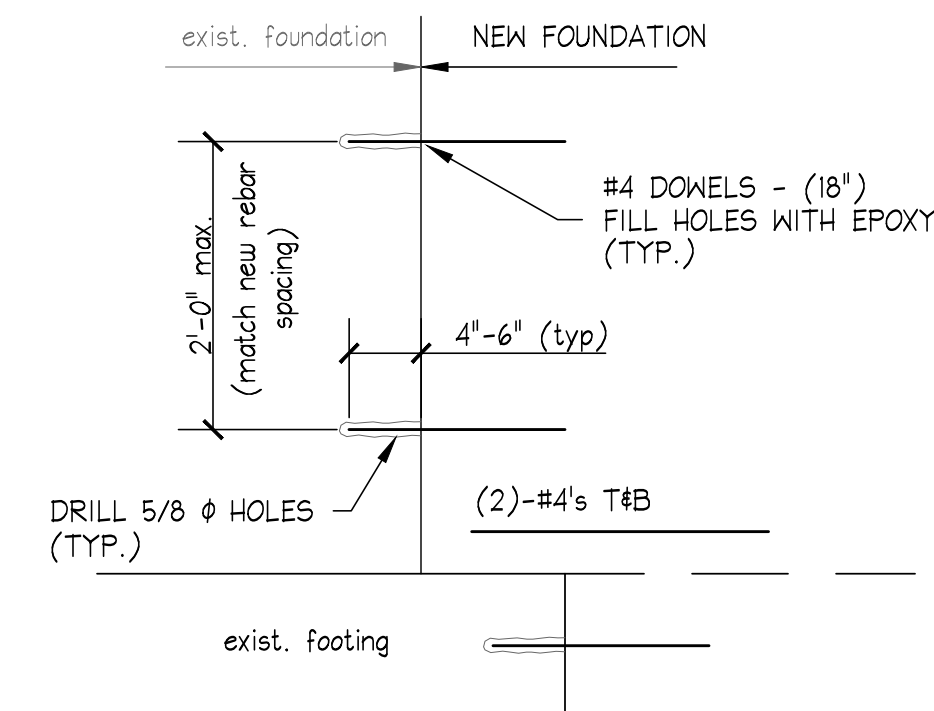
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CHK'D by:	MKS
PROJECT No:	2023-253



CROSS SECTION
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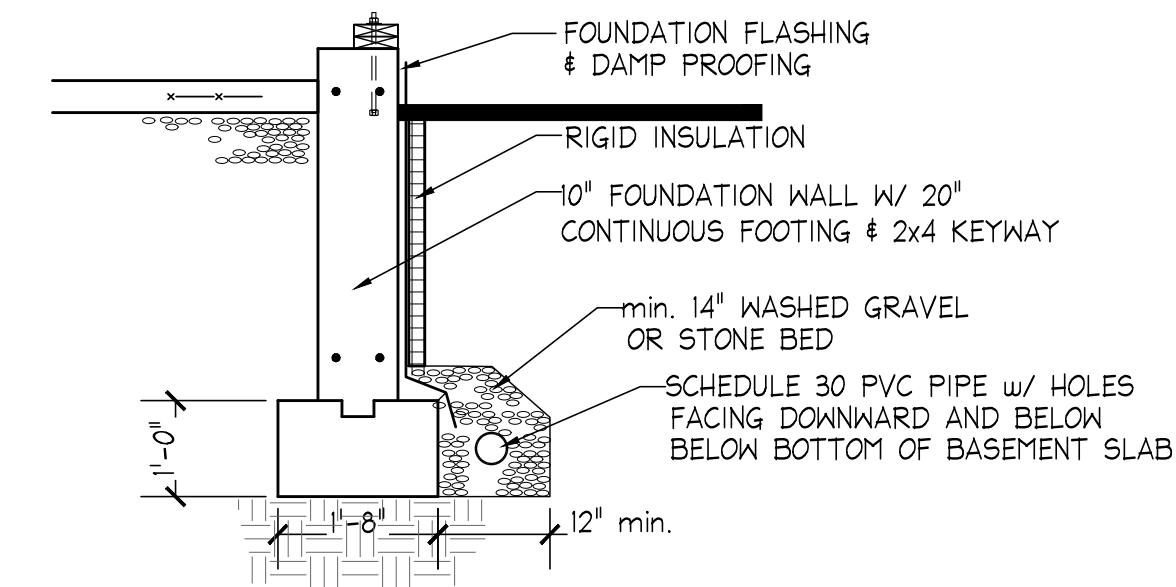


GARAGE DOOR APRON DETAIL
SCALE : 3/4"=1'-0"



NOTE: REMOVE ANY EXISTING WATERPROOFING AT CONNECTION LOCATIONS

FOUNDATION CONNECTION DETAIL
SCALE : 3/4"=1'-0"



TYP. FDN WALL SECTION
SCALE : 1/2"=1'-0"

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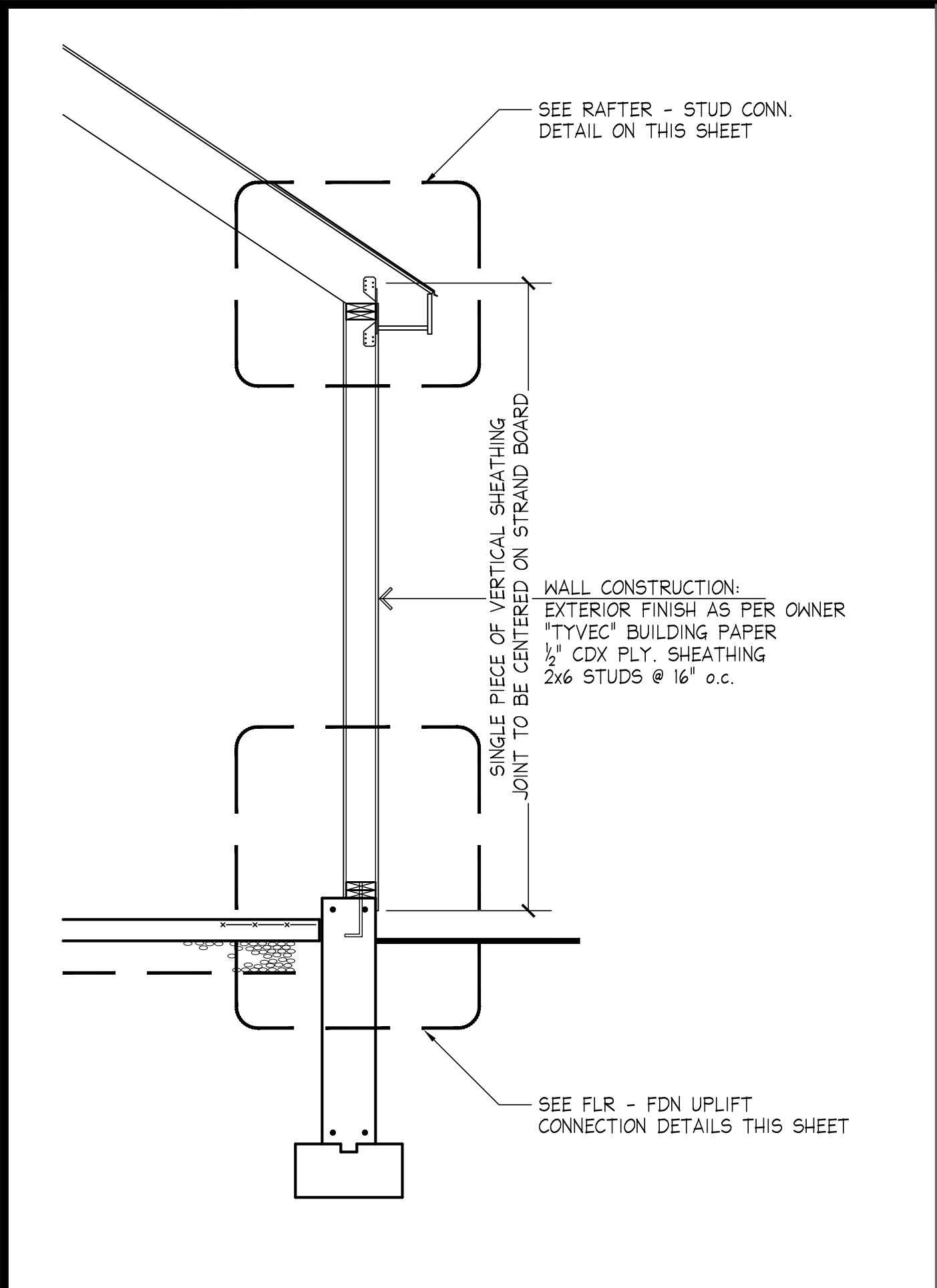
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B	11/05/23	FOR PERMIT	TMN
A	11/13/23	PRELIMINARY	TMN

NEW GARAGE
KEILY RESIDENCE

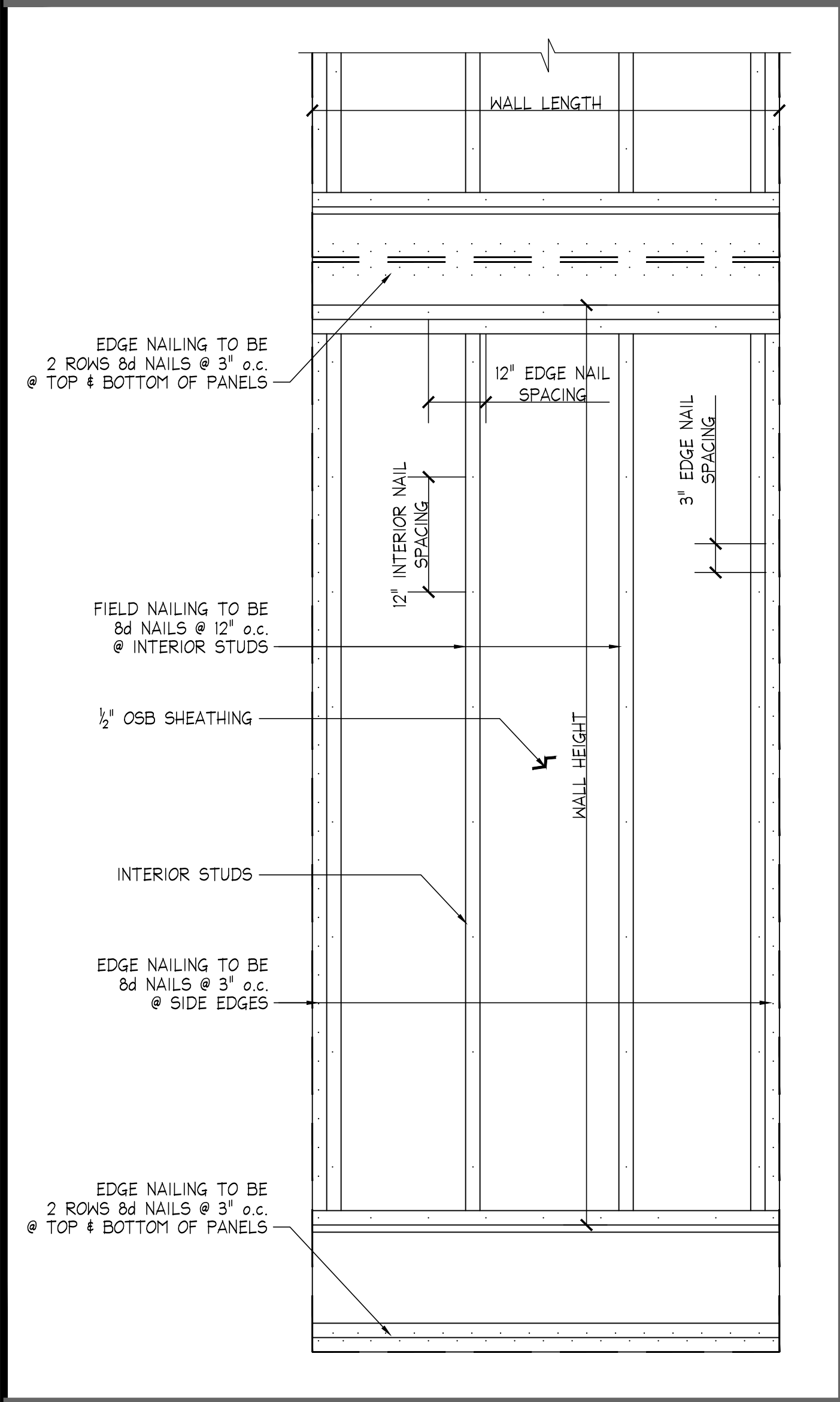
82 SANING ROAD
WEYMOUTH, MA

CROSS SECTION
AND DETAILS

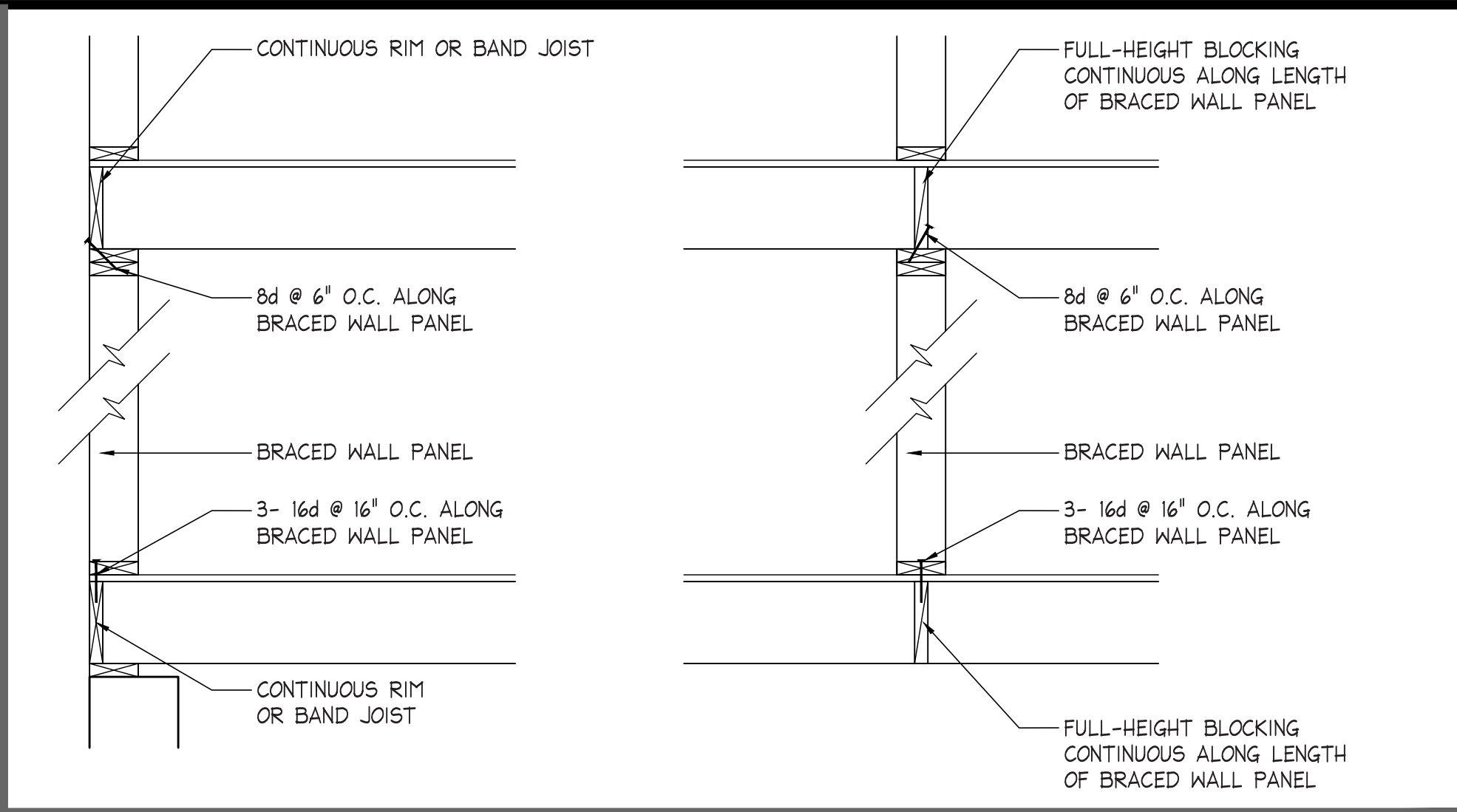
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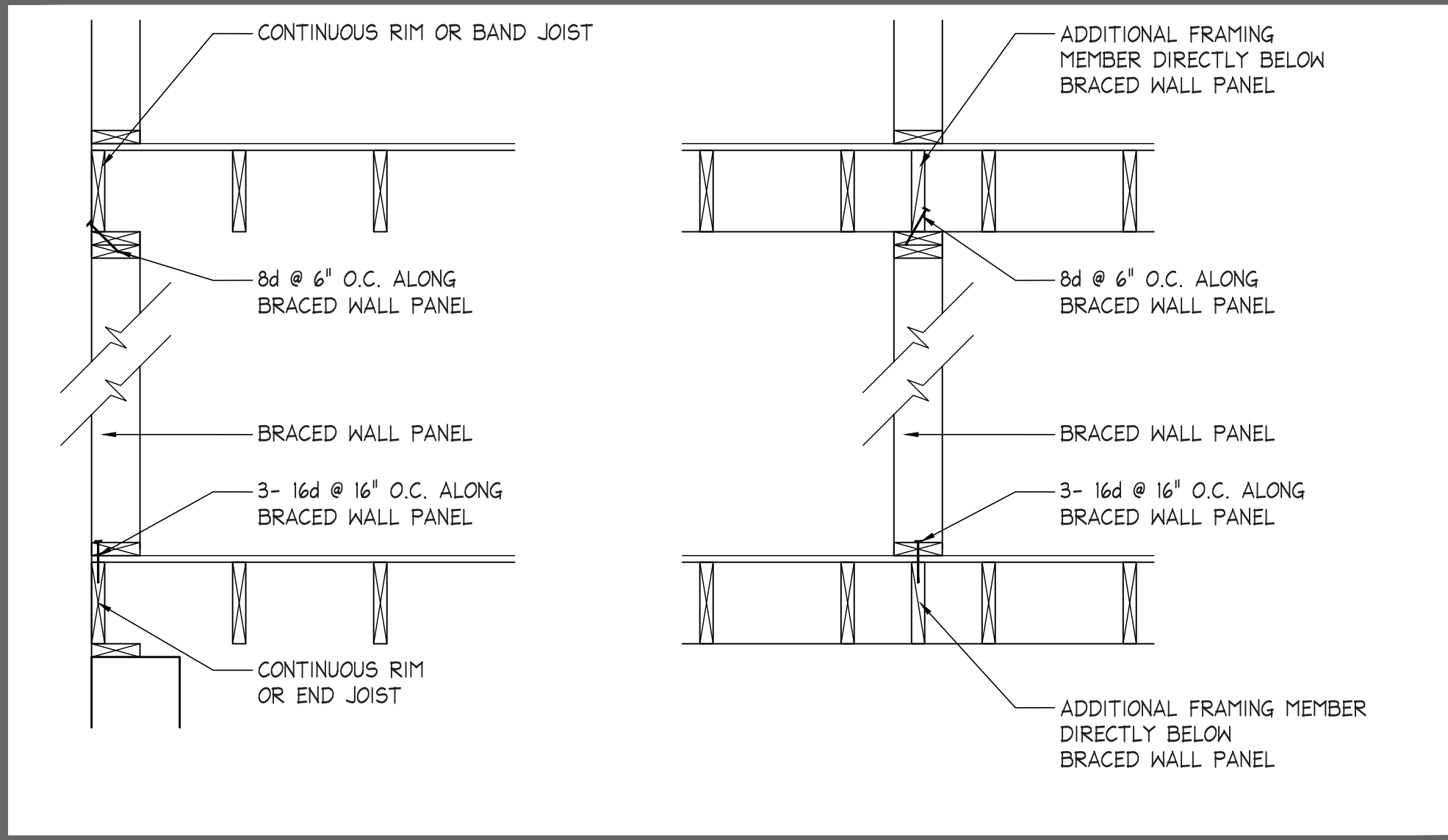
A WALL SECTION 1/2" = 1'-0"



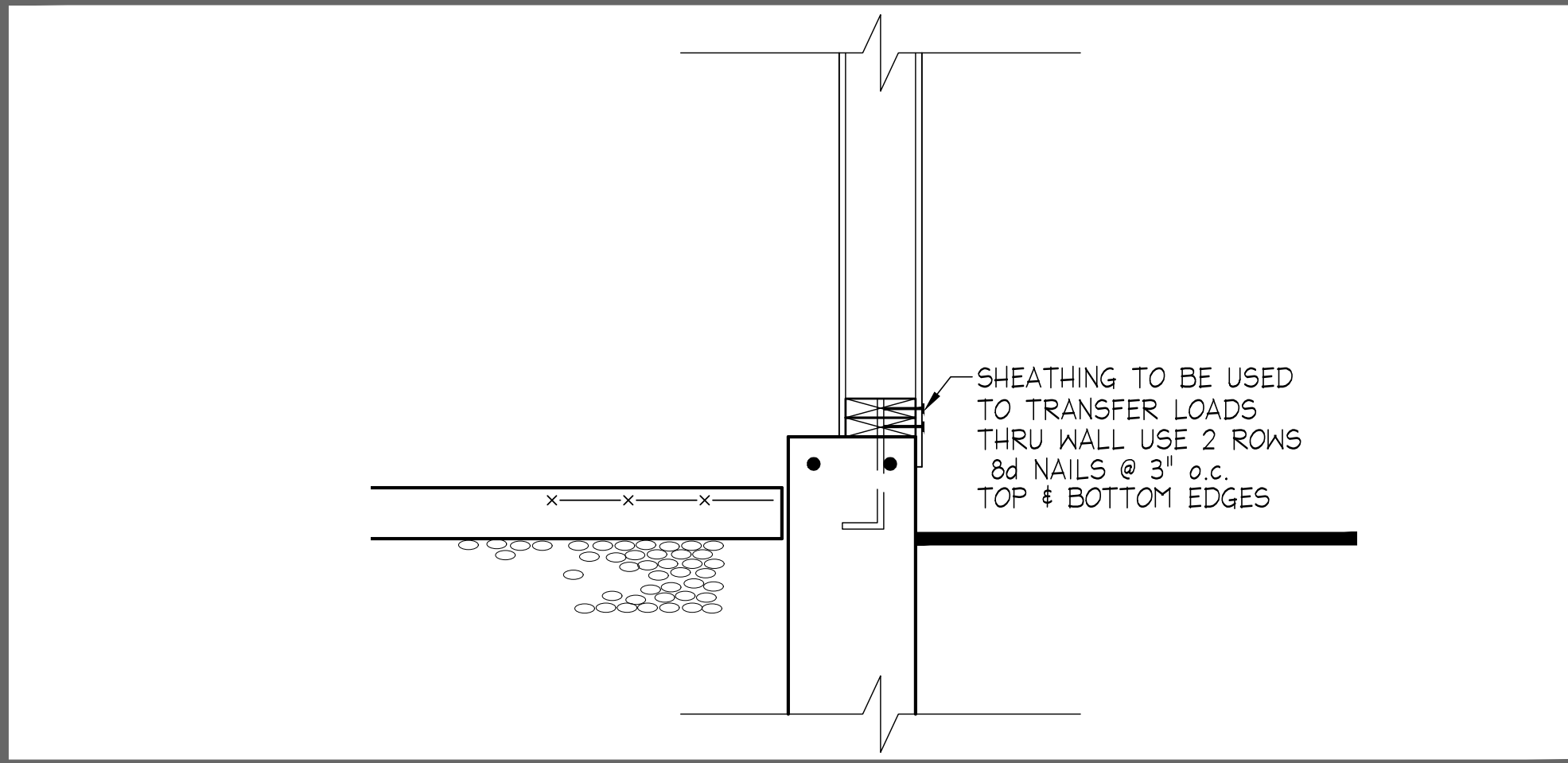
B CS-WSP BRACED WALL PANEL ELEVATION 1" = 1'-0"



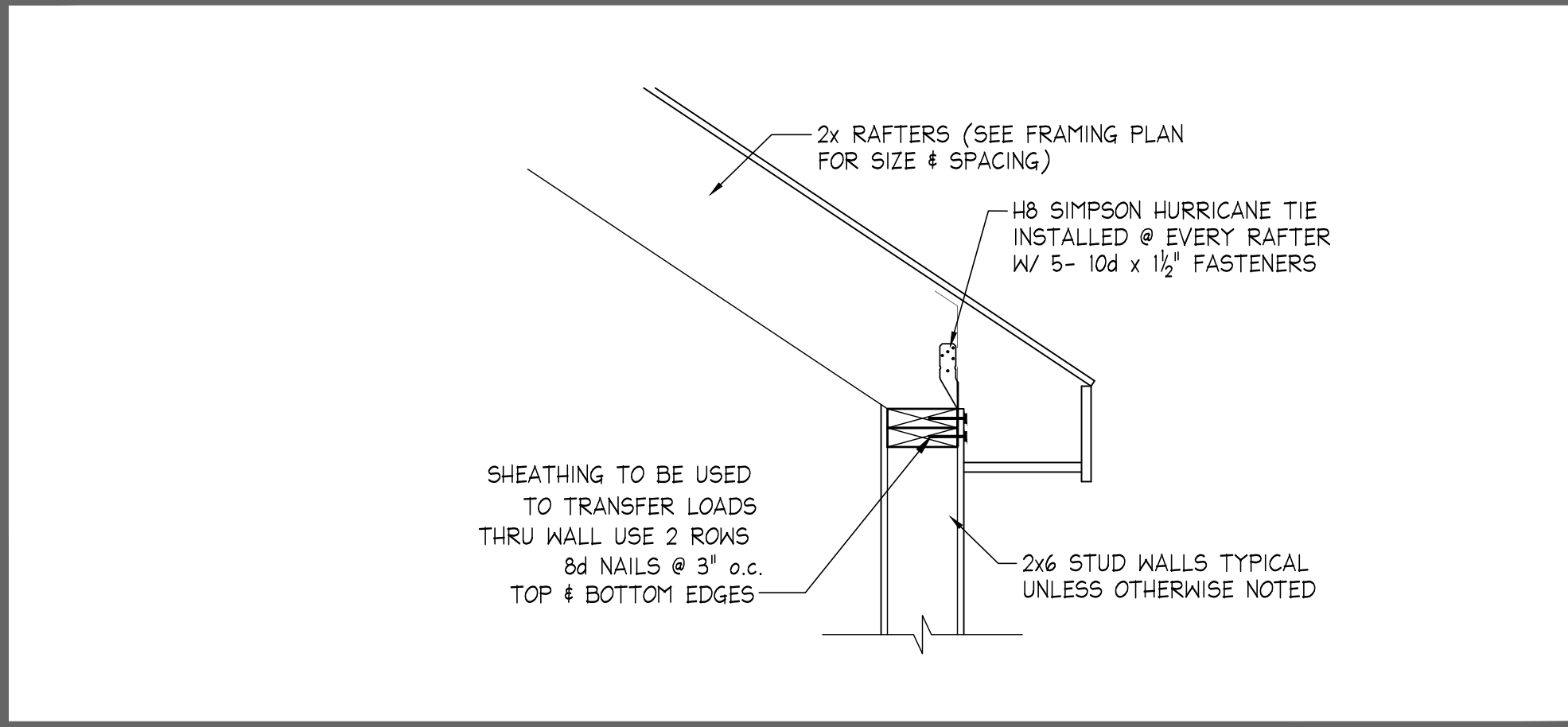
C BRACED WALL PANEL CONNECTION WHEN PERP TO FLR/ CLG. 3/4" = 1'-0"



D BRACED WALL PANEL CONNECTION WHEN PARAELL TO FLR/ CLG. 3/4" = 1'-0"



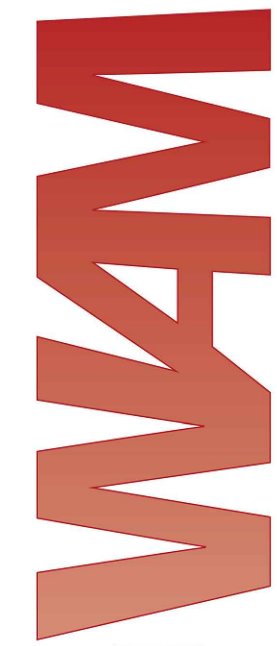
E FLR - FDN UPLIFT CONN. DETAIL 1" = 1'-0"



F RAFTER - STUD CONN. DETAIL 1" = 1'-0"

GENERAL NAILING SCHEDULE		
JOINT DESCRIPTION	NUMBER OF COMMON NAILS	NAIL SPACING
ROOF FRAMING		
BLOCKING TO RAFTER (TOE-NAILED)	2- 8d	EACH END
RIM BOARD TO RAFTER (END-NAILED)	2- 16d	EACH END
WALL FRAMING		
TOP PLATES @ INTERSECTIONS (FACE-NAILED)	4- 16d	AT JOINTS
STUD TO STUD (FACE-NAILED)	2- 16d	24" o.c.
HEADER TO HEADER (FACE-NAILED)	16d	16" o.c. @ EDGES
FLOOR FRAMING		
JOIST TO SILL, TOP PLATE OR GIRDER (TOE-NAILED)	4- 8d	PER JOIST
BLOCKING TO JOIST (TOE-NAILED)	2- 8d	EACH END
BLOCKING TO SILL OR TOP PLATE (TOE-NAILED)	3- 16d	EACH BLOCK
LEDGER STRIP TO BEAM/ GIRDER (FACE-NAILED)	3- 16d	EACH JOIST
JOIST ON LEDGER TO BEAM (TOE-NAILED)	3- 8d	PER JOIST
BAND JOIST TO JOIST (END-NAILED)	3- 16d	PER JOIST
BAND JOIST TO SILL/ TOP PLATE (TOE-NAILED)	2- 16d	PER FOOT
ROOF SHEATHING		
WOOD STRUCTURAL PANELS		
RAFTERS/ TRUSSES UP TO 16" o.c.	8d	6" EDGE/ 6" FIELD
RAFTERS/ TRUSSES OVER 16" o.c.	8d	4" EDGE/ 4" FIELD
GABLE ENDWALL RAKE OR RAKE TRUSS W/O OVERHANG	8d	6" EDGE/ 6" FIELD
GABLE ENDWALL RAKE OR RAKE TRUSS W/ OUTLOOKERS	8d	6" EDGE/ 6" FIELD
GABLE ENDWALL RAKE OR RAKE TRUSS W/ LOOKOUT BLOCKS	8d	4" EDGE/ 4" FIELD
CEILING SHEATHING		
GYPSUM WALLBOARD	8d	6" EDGE/ 12" FIELD
WALL SHEATHING		
WOOD STRUCTURAL PANELS		
STUDS SPACED UP TO 24" o.c.	8d	6" EDGE/ 12" FIELD
1/2" # 25/32" FIBERBOARD PANELS	8d	3" EDGE/ 6" FIELD
1/2" GYPSUM WALLBOARD	5d COOLERS	7" EDGE/ 10" FIELD
FLOOR SHEATHING		
WOOD STRUCTURAL PANELS		
1" OR LESS	8d	6" EDGE/ 12" FIELD
GREATER THAN 1"	10d	6" EDGE/ 6" FIELD

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SCAN QR CODE FOR DIGITAL FILE

Rev:	Date:	Description:	NAME
B	11/15/23	FOR PERMIT	TMN
A	11/13/23	PRELIMINARY	TMN

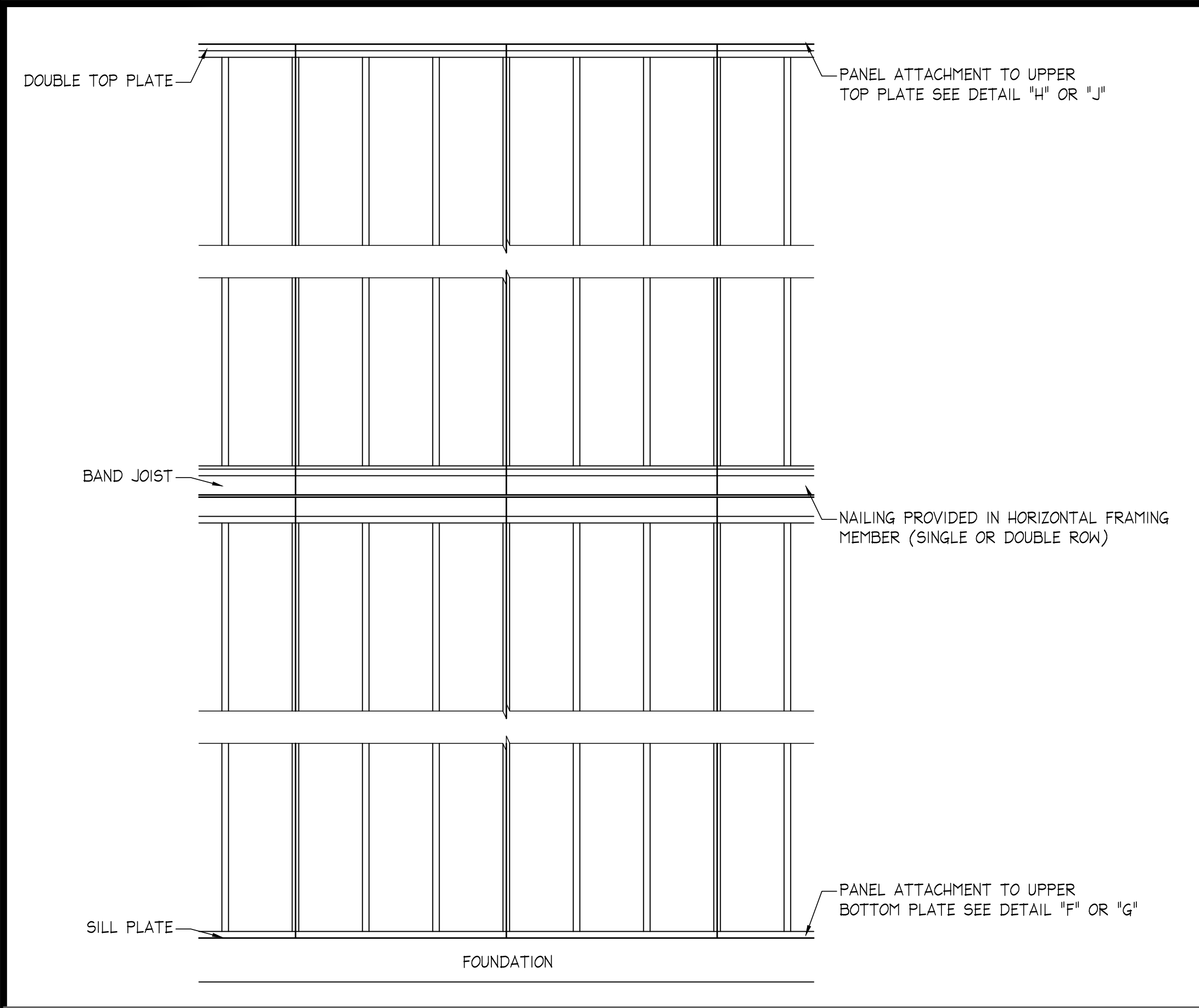
NEW GARAGE
KEILY RESIDENCE

82 SANING ROAD
WEYMOUTH, MA

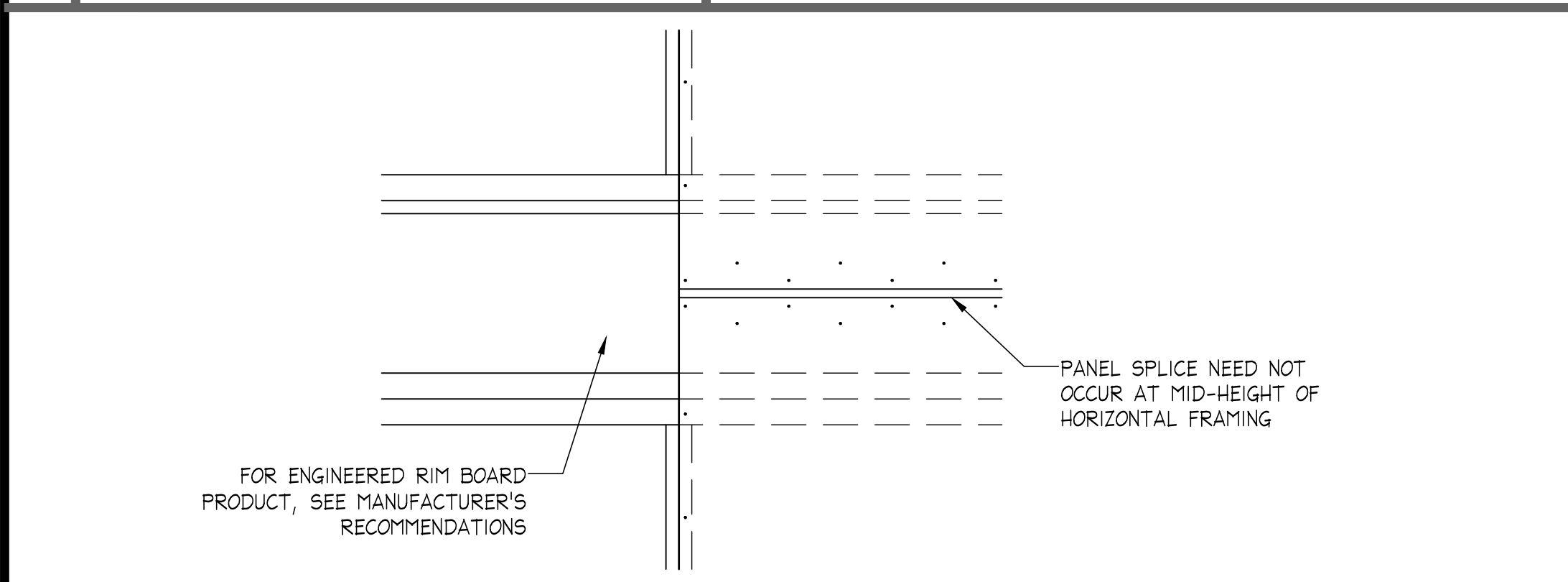
FASTENING NOTES
AND CONNECTION
DETAILS

SCALE: AS NOTED
DRAWN by: TMN
CHK'D by: MKS
PROJECT No: 2023-253

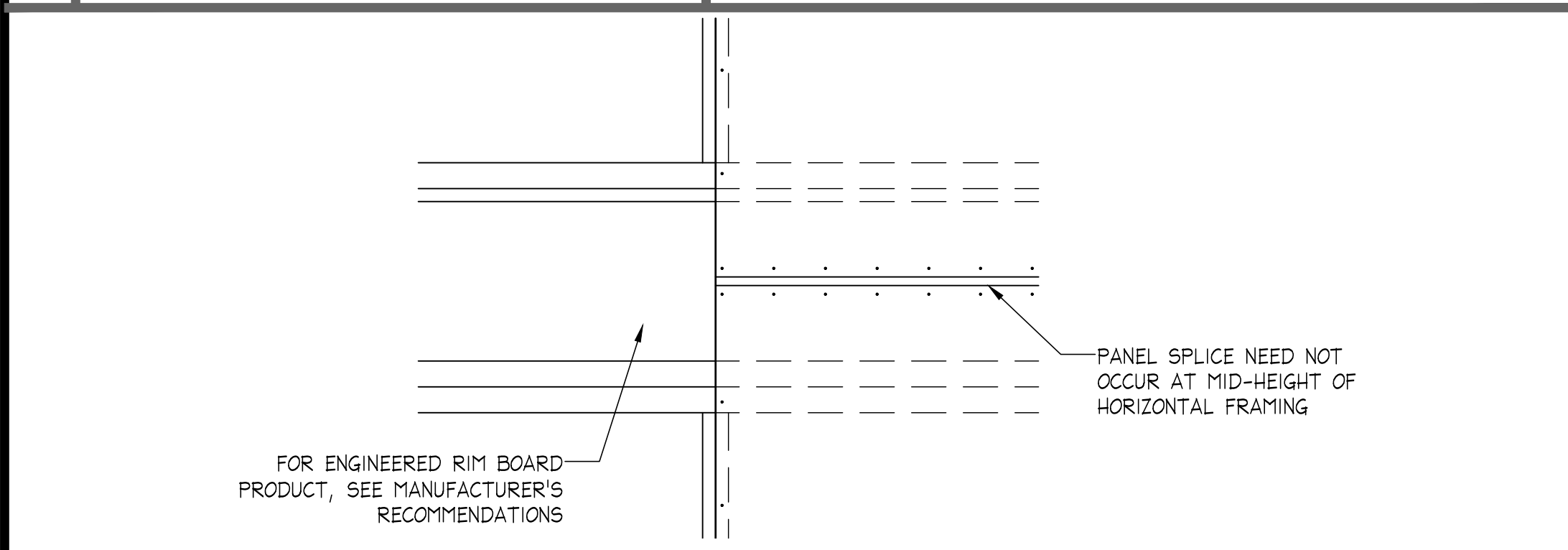
S-3



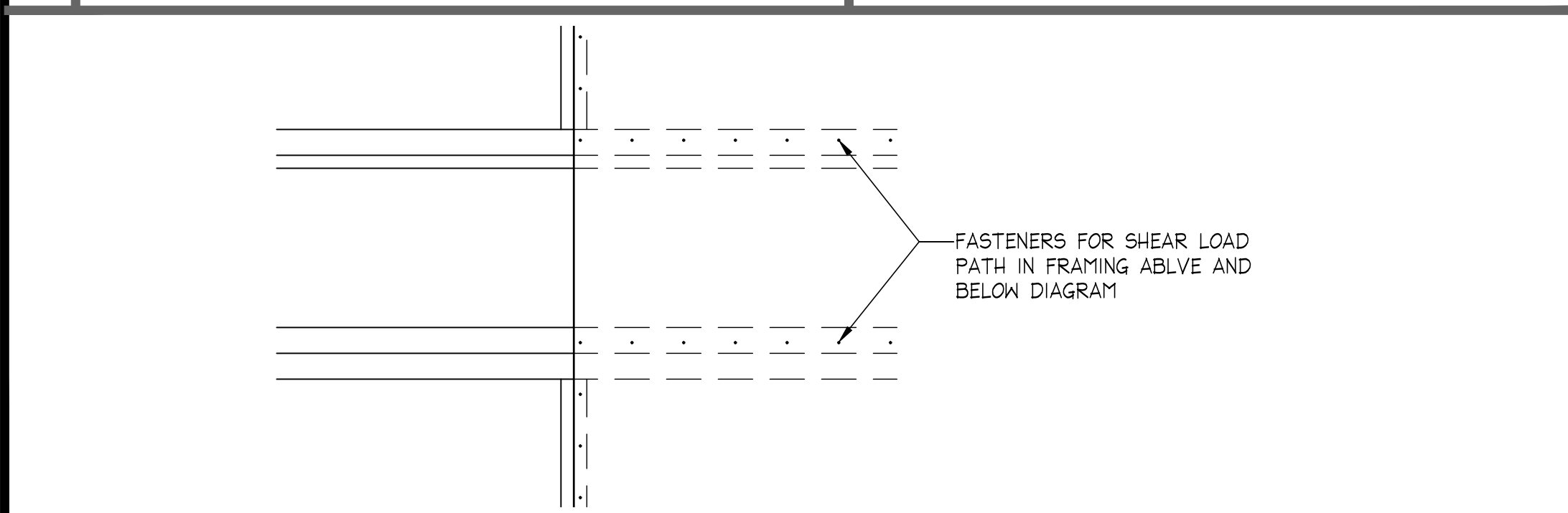
A | PANEL SPLICE OCCURRING ACROSS RIM JOIST | 1/2" = 1'-0"



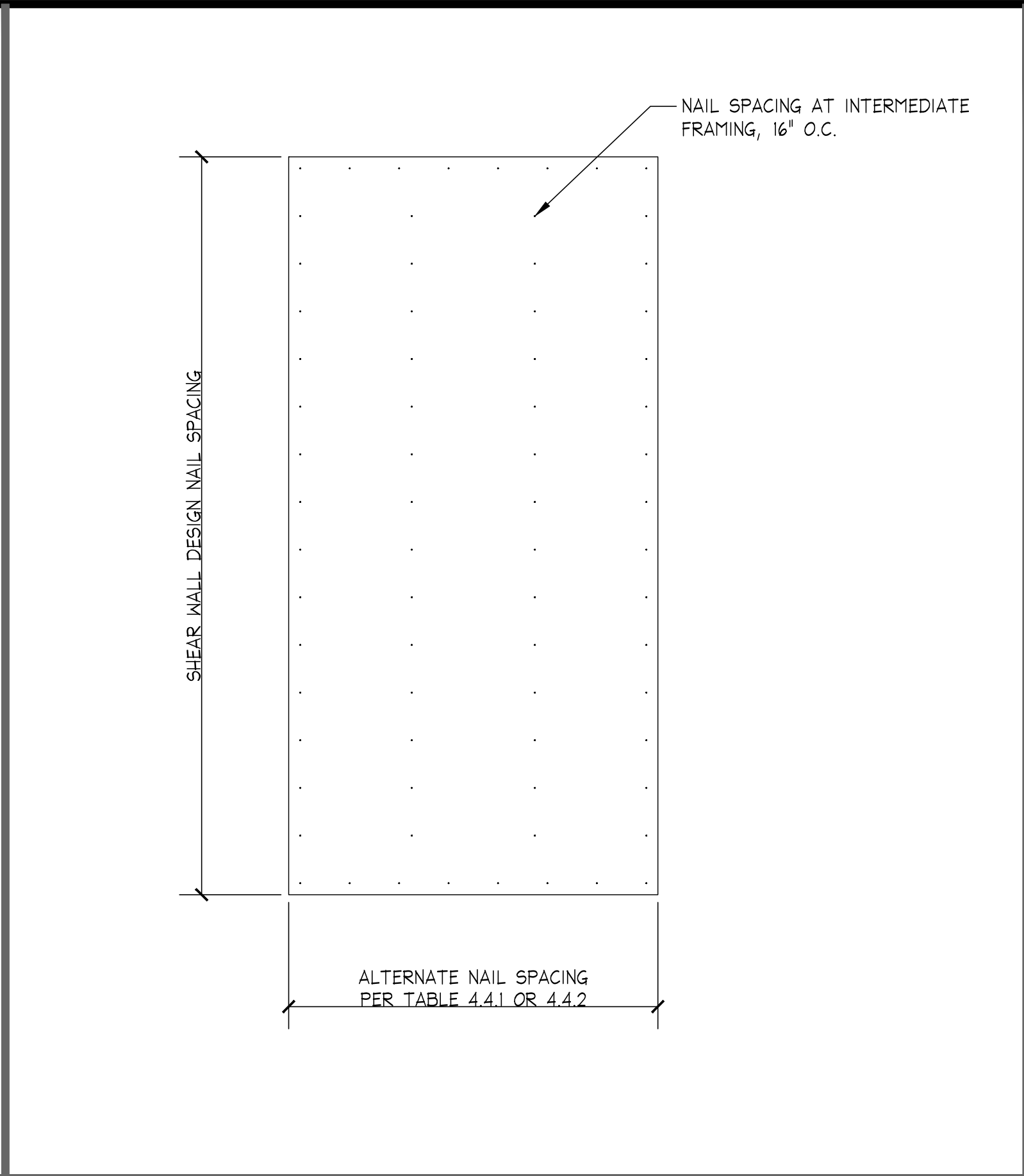
B | PANEL SPLICE W/ DOUBLE ROW OF FASTENING | 1/2" = 1'-0"



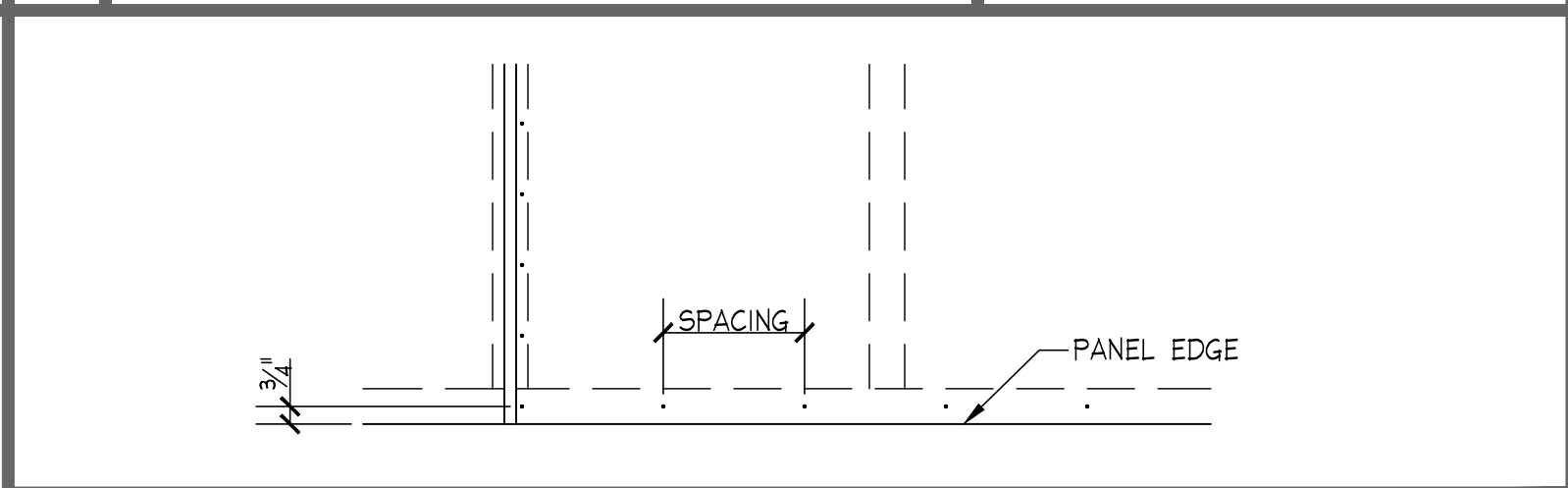
C | PANEL SPLICE OVER COMMON HORIZONTAL FRAMING MEMBER | 1 1/2" = 1'-0"



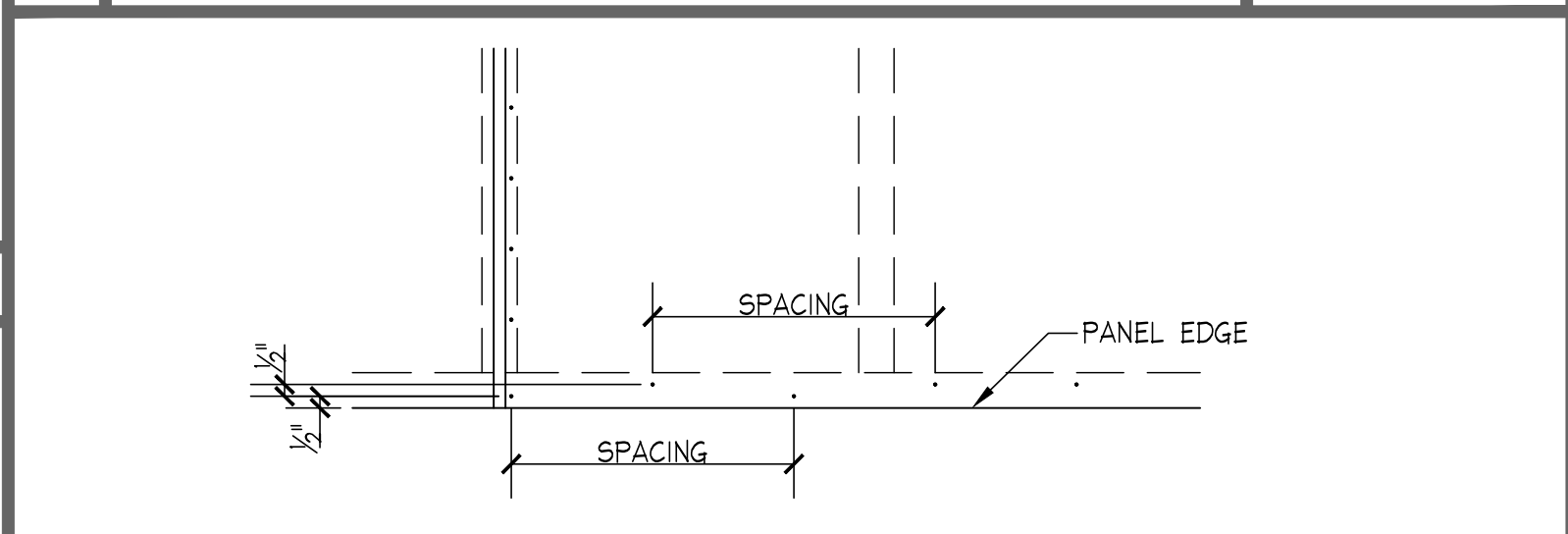
D | CONTINUOUS PANEL BETWEEN LEVELS (LOAD PATH FOR LOAD TRANSFER NOT SHOWN) | 1 1/2" = 1'-0"



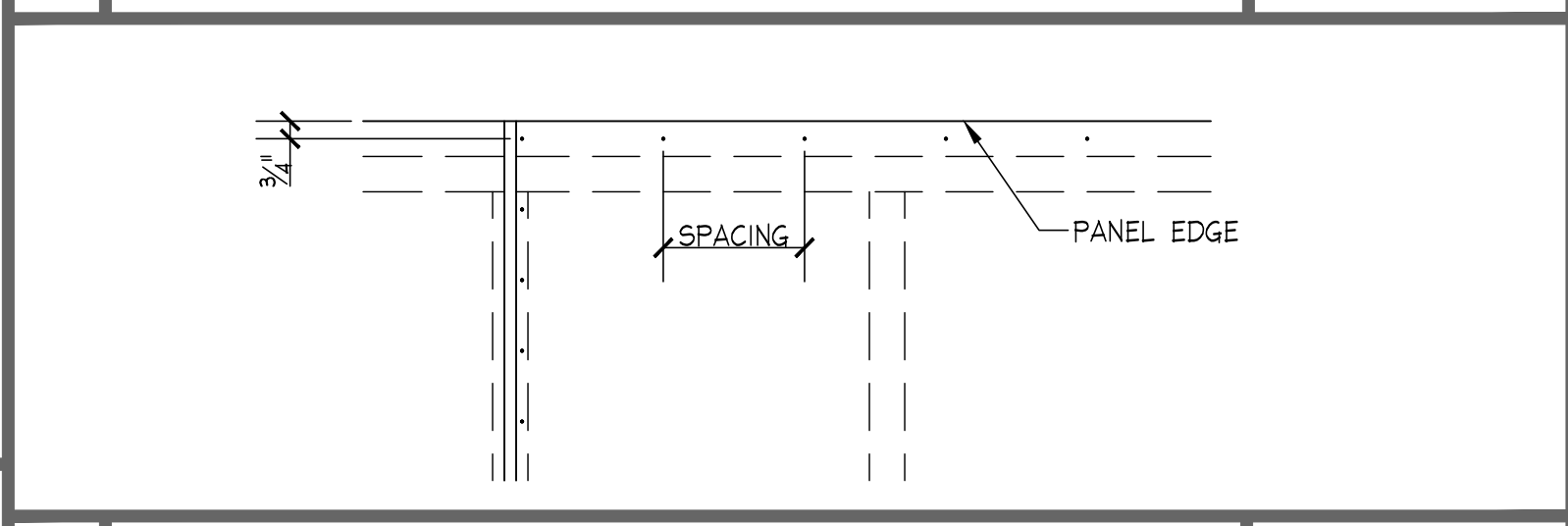
E | PANEL ATTACHMENT DETAIL | 1/2" = 1'-0"



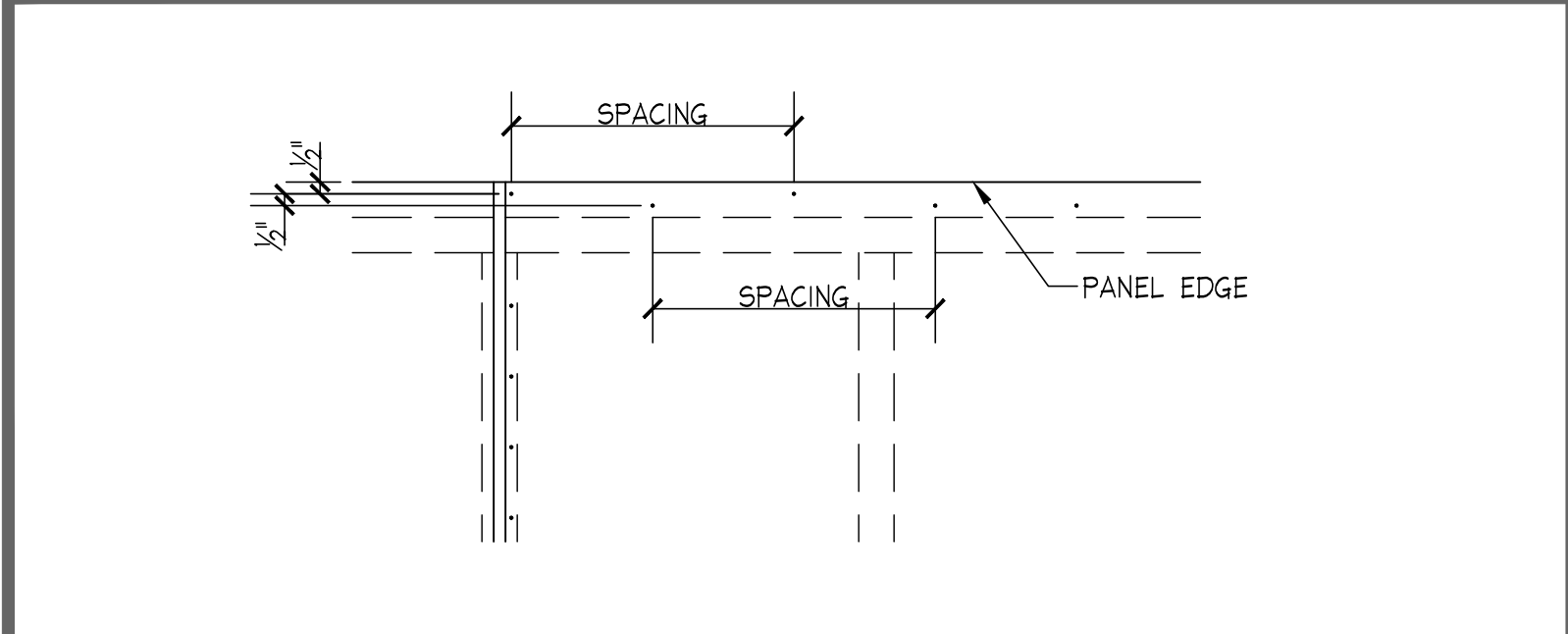
F | SHEATHING EDGES @ BOTTOM PLATE (SINGLE ROW OF FASTENING) | 1 1/2" = 1'-0"



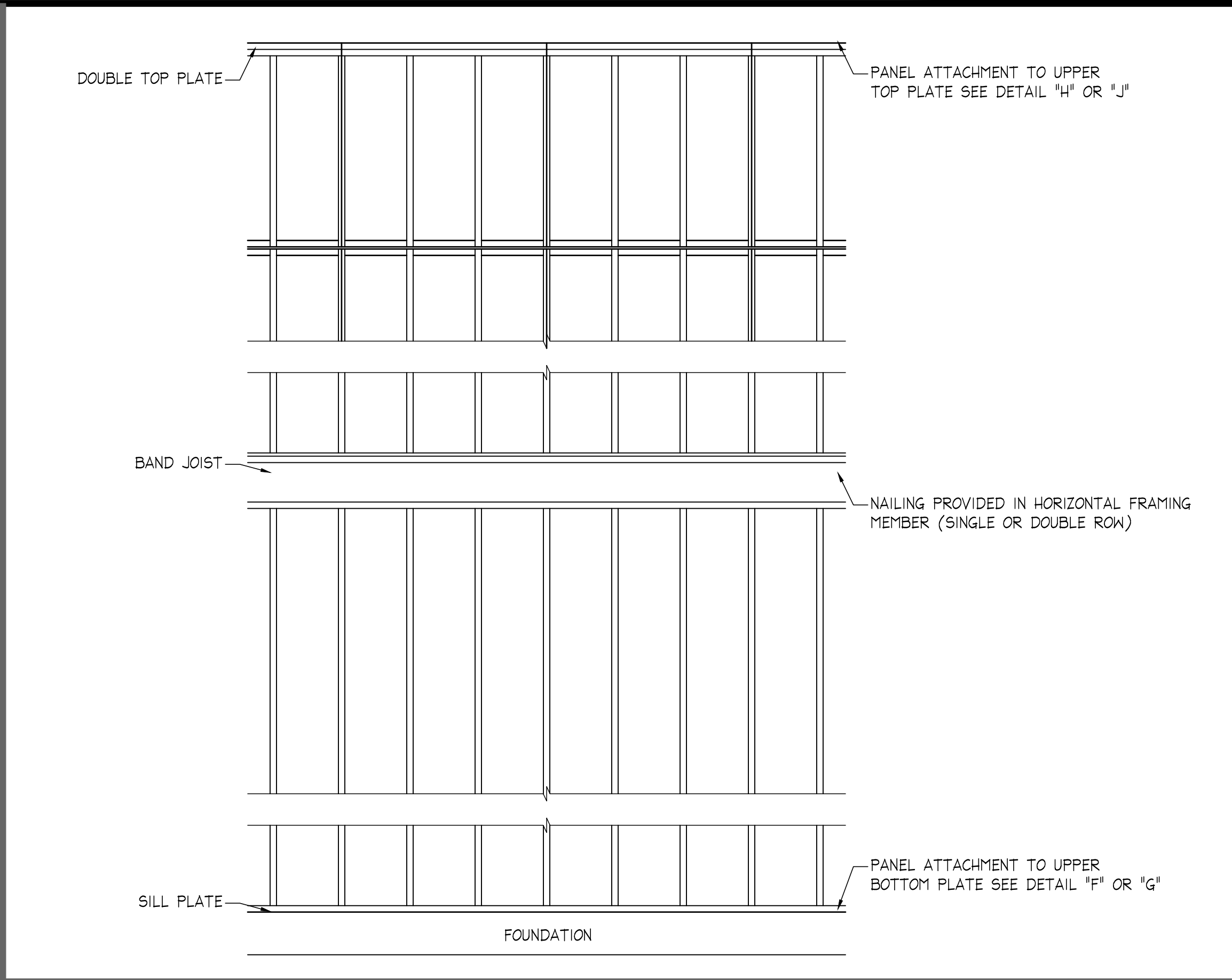
G | SHEATHING EDGES @ BOTTOM PLATE (DOUBLE ROW OF FASTENING) | 1 1/2" = 1'-0"



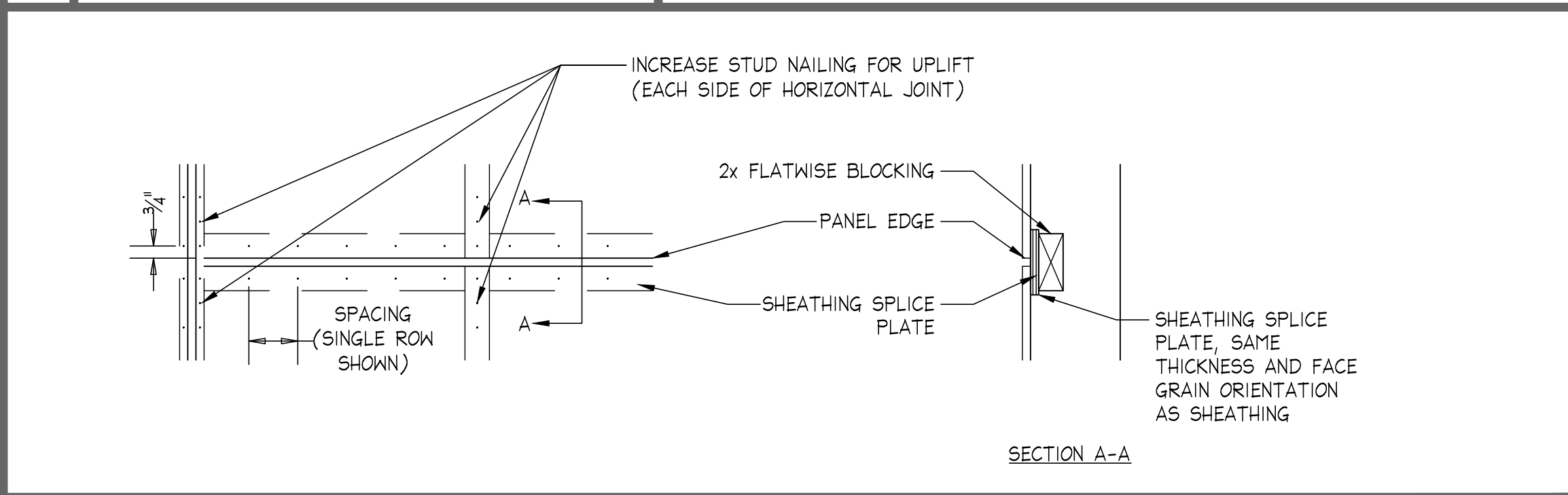
H | SHEATHING EDGES @ TOP PLATE (SINGLE ROW OF FASTENING) | 1 1/2" = 1'-0"



J | SHEATHING EDGES @ TOP PLATE (DOUBLE ROW OF FASTENING) | 1 1/2" = 1'-0"



K | PANEL SPLICE OCCURRING ACROSS STUDS | 1/2" = 1'-0"



L | SHEATHING SPLICE PLATE ALTERNATE DETAIL | 1 1/2" = 1'-0"



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NEW GARAGE
KEILY RESIDENCE

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WEYMOUTH, MA

PLYWOOD BLOCKING
AND NAILING
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S-4