

Walter Residence

48 High Ridge Road
Boxford, MA 01921

Architect

Rob Bramhall
Architects

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Existing Garage



Proposed Garage

DRAWING LIST

A000 COVER SHEET, DRAWING LIST

ARCHITECTURAL

A101 FLOOR PLANS
A201 EXTERIOR ELEVATIONS
A301 BUILDING SECTIONS

S101 FOUNDATION, ROOF FRAMING AND DETAILS

September 24, 2014 - Bidding Set

Number	Date	Description

Floor Plans
SCALE: 3/8" = 1'-0"

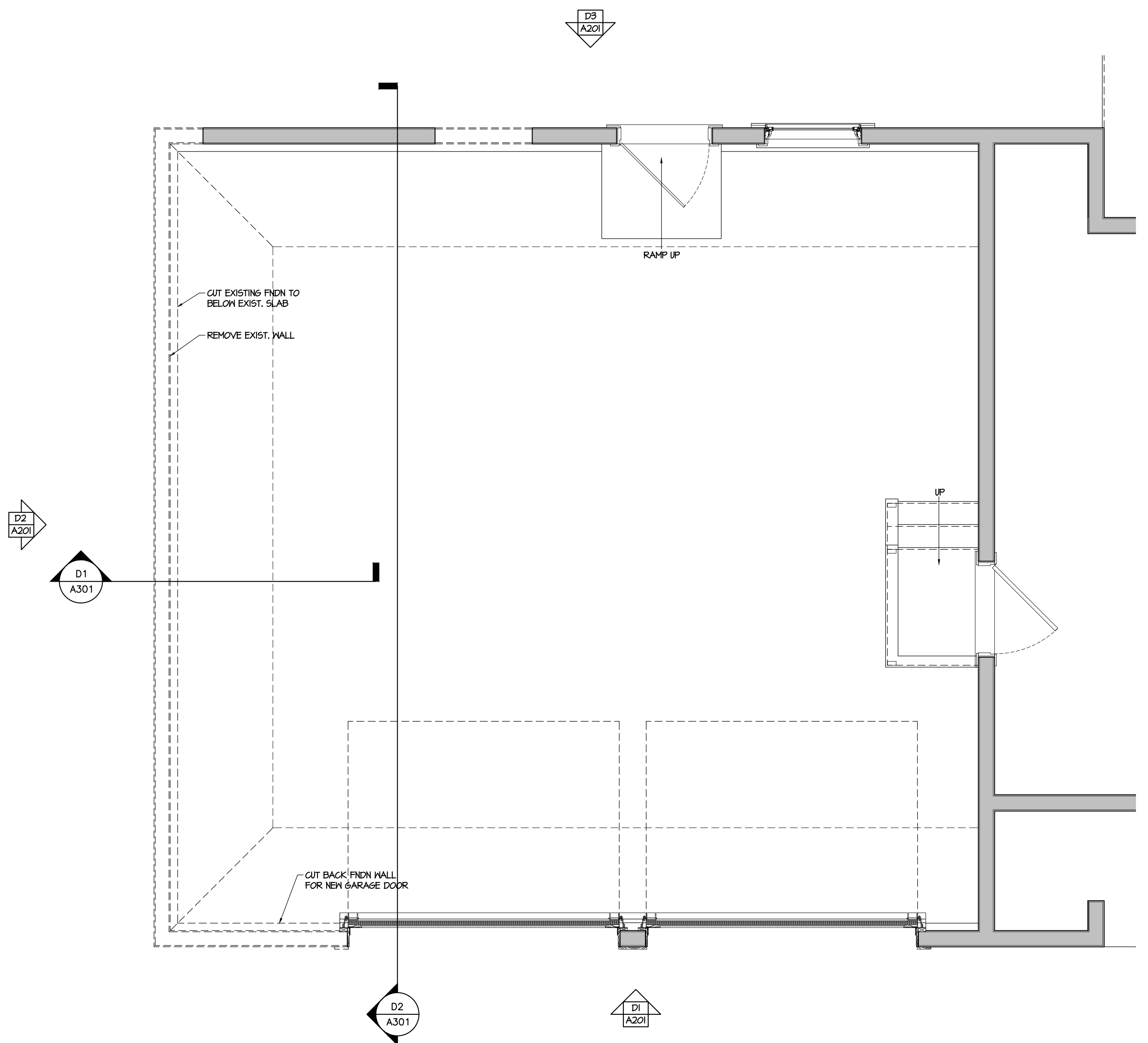
ROB BRAMHALL ARCHITECTS
14 Park Street Andover, Massachusetts 01810
978-749-3663

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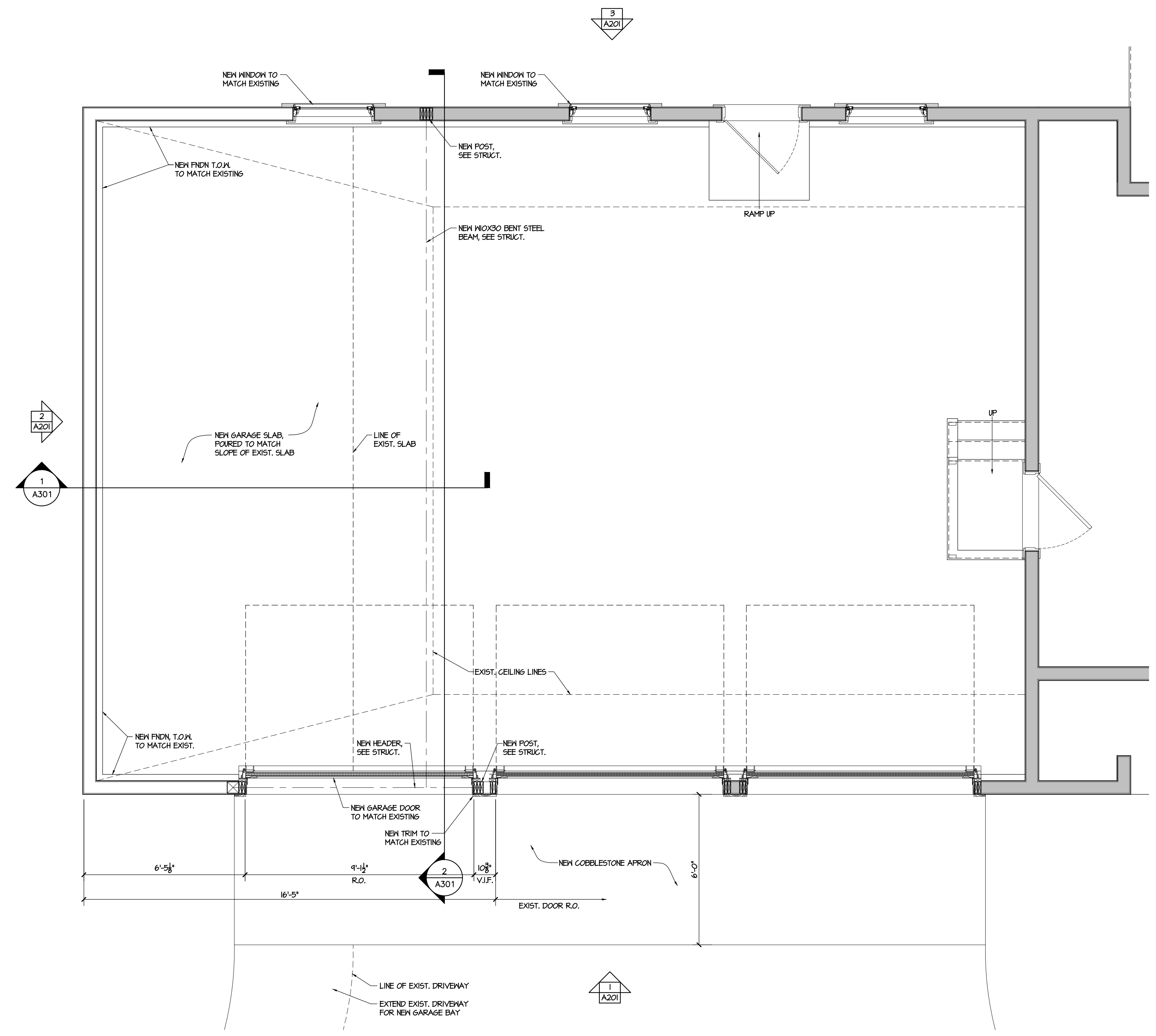
Project Number
2014-10

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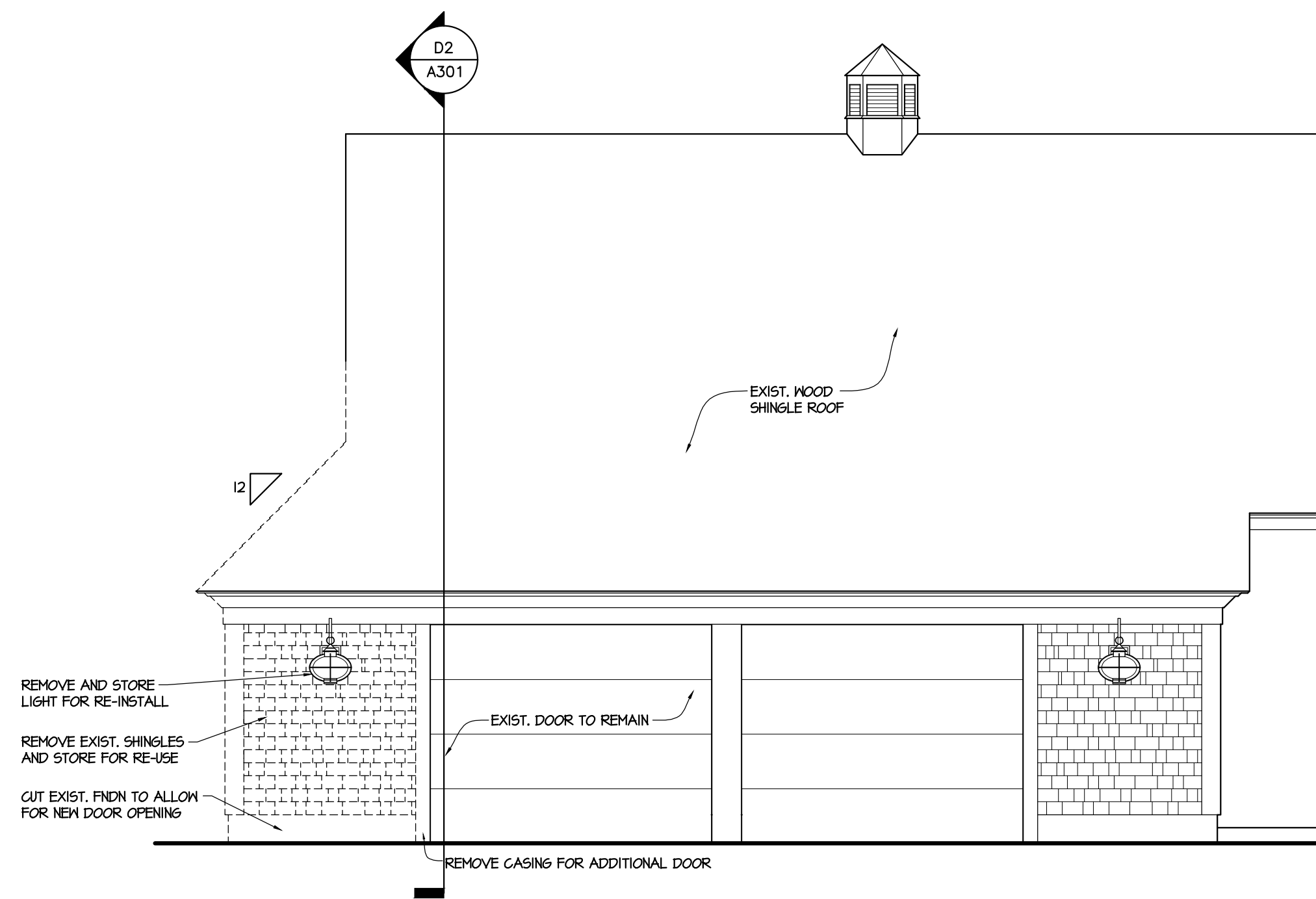
A101



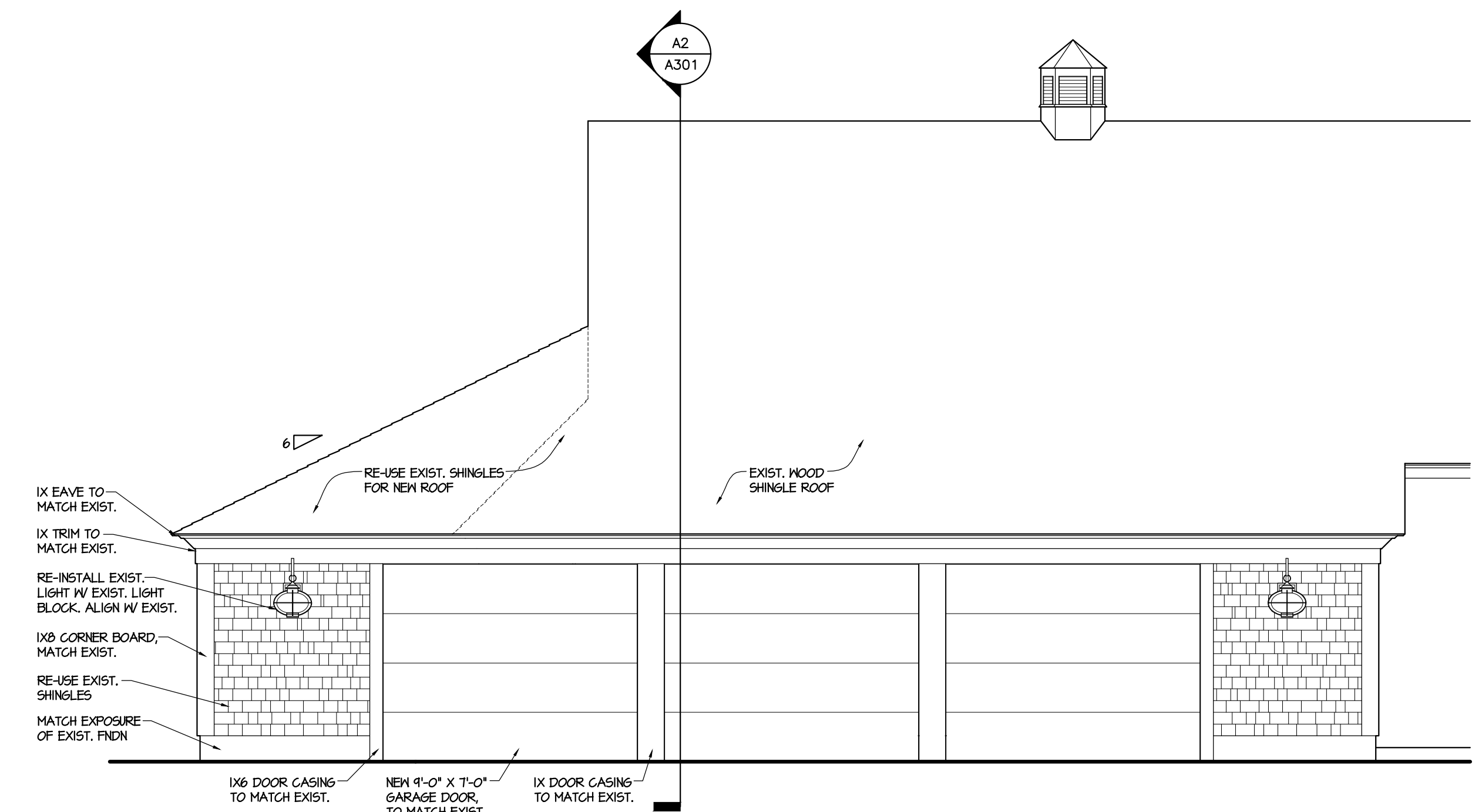
D1 Existing Floor Plan
Scale: 3/8" = 1'-0"



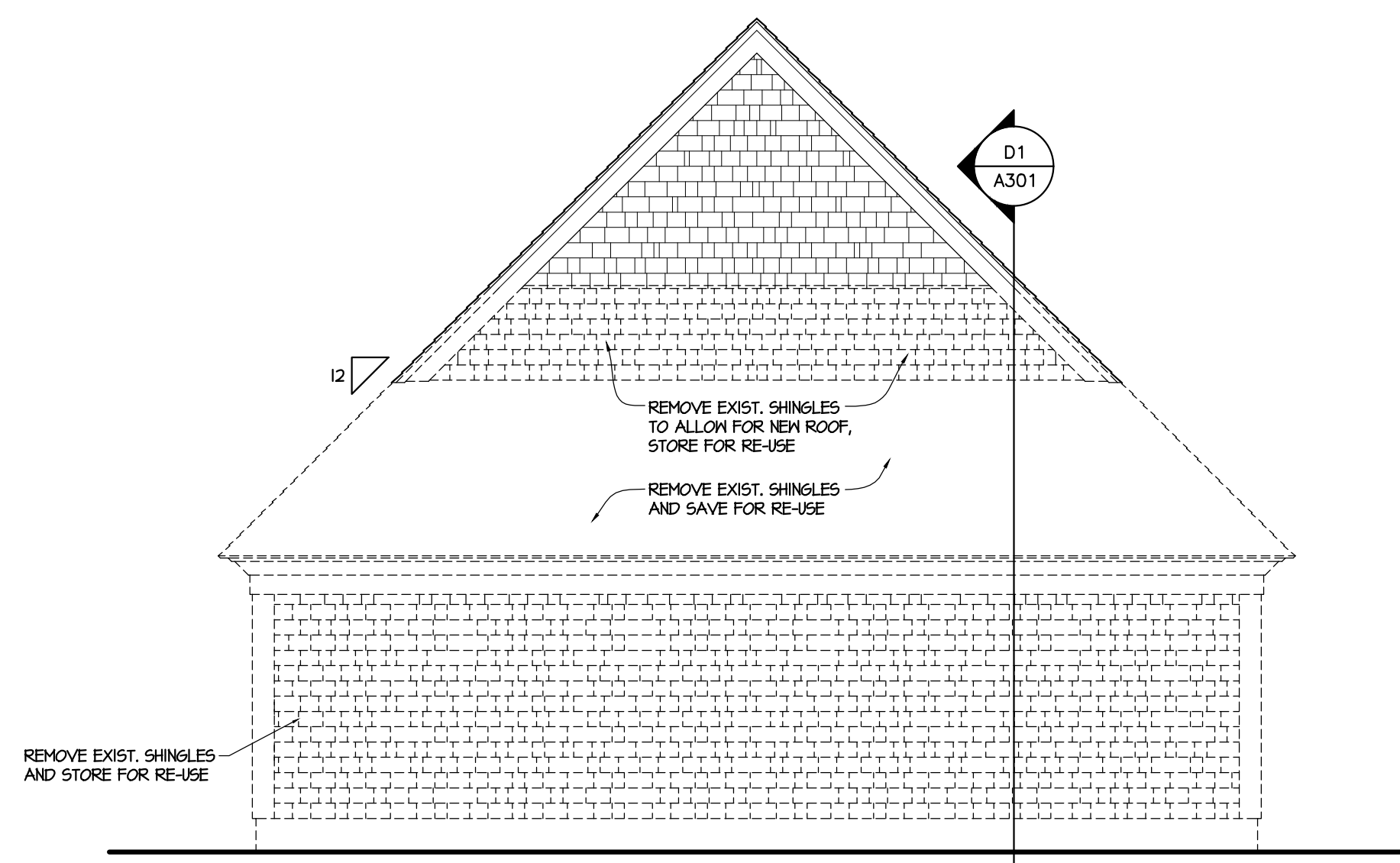
1 Proposed Floor Plan
Scale: 3/8" = 1'-0"



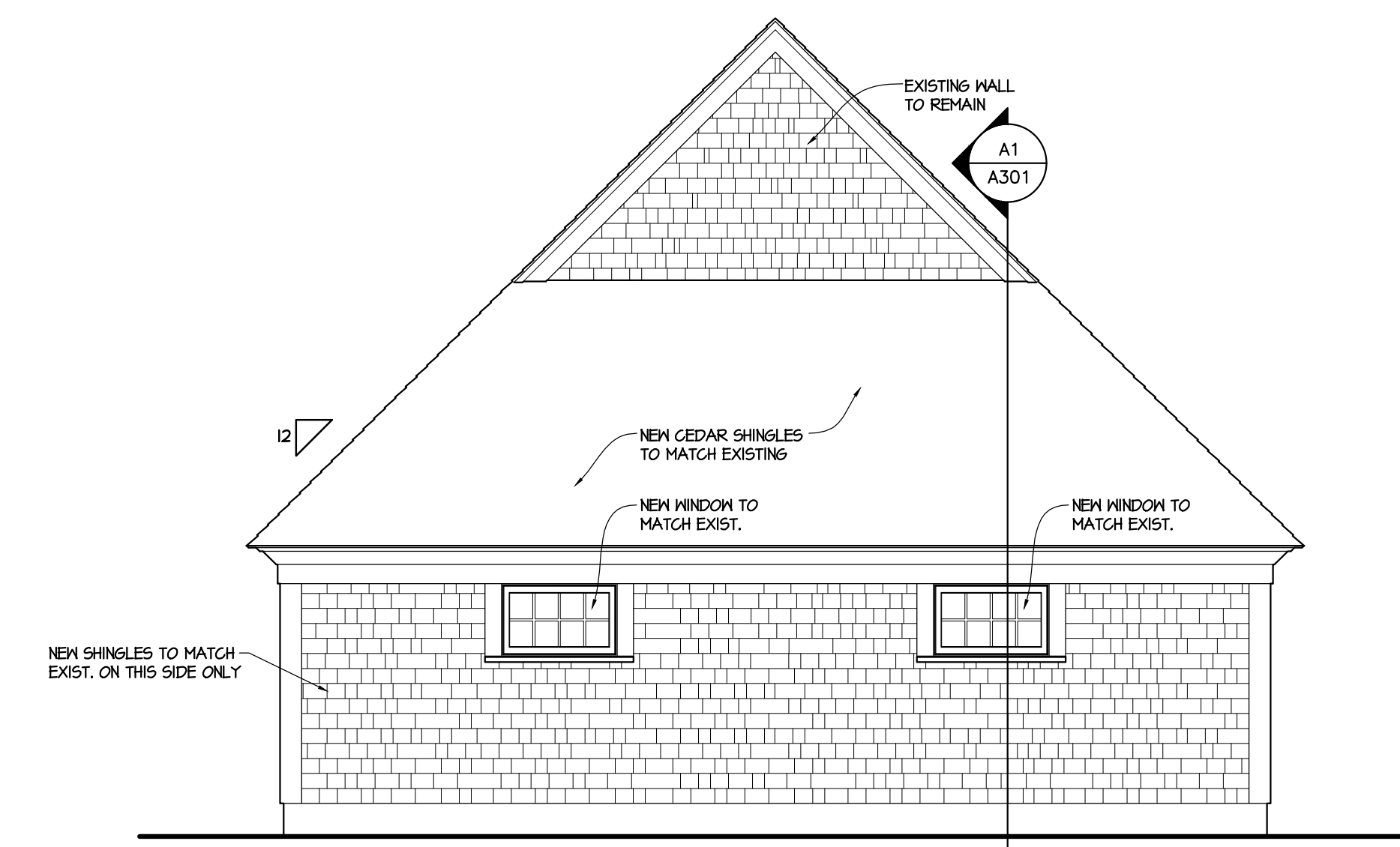
D1 Existing Front Elevation
Scale: 1/4" = 1'-0"



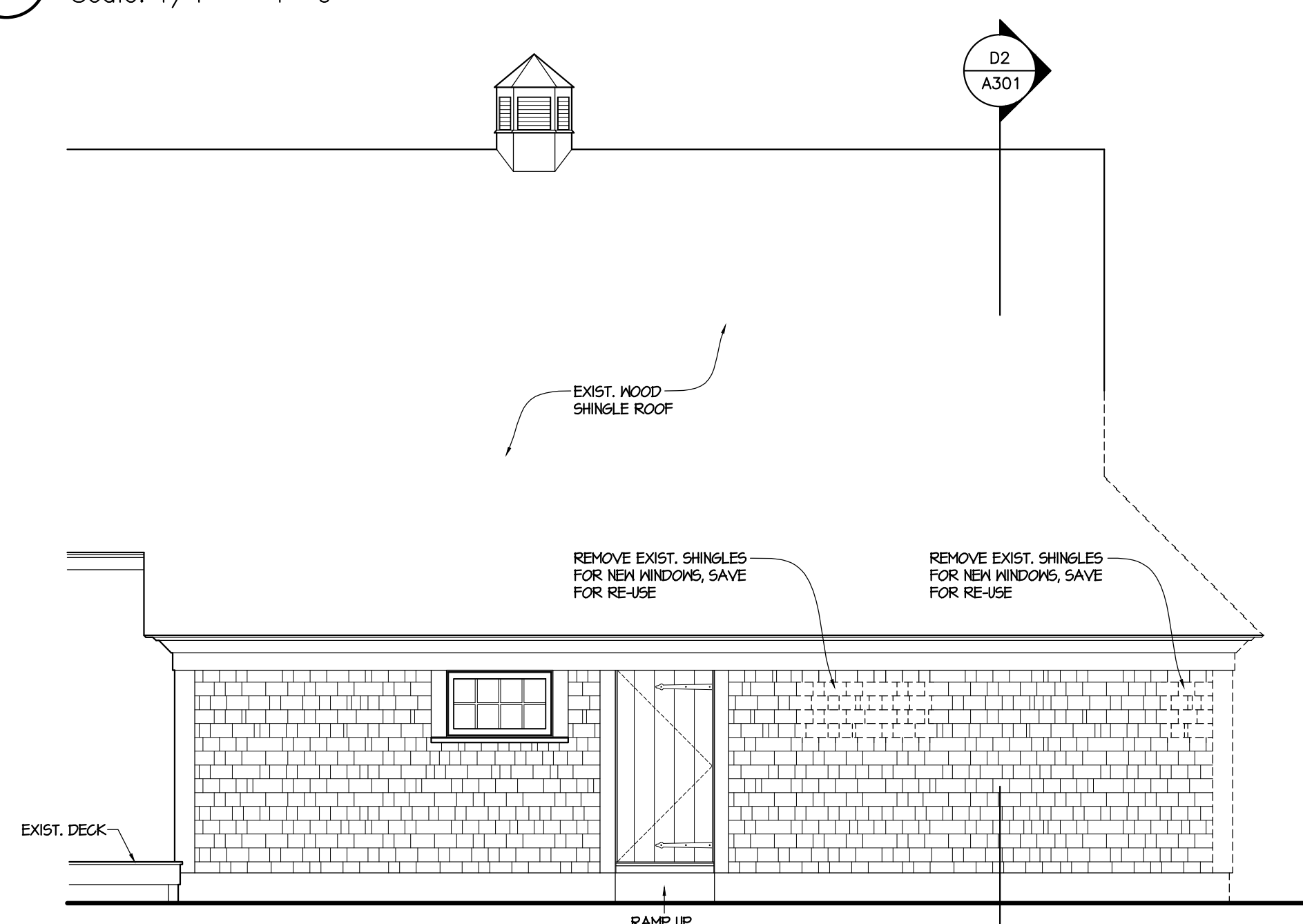
1 Front Elevation
Scale: 1/4" = 1'-0"



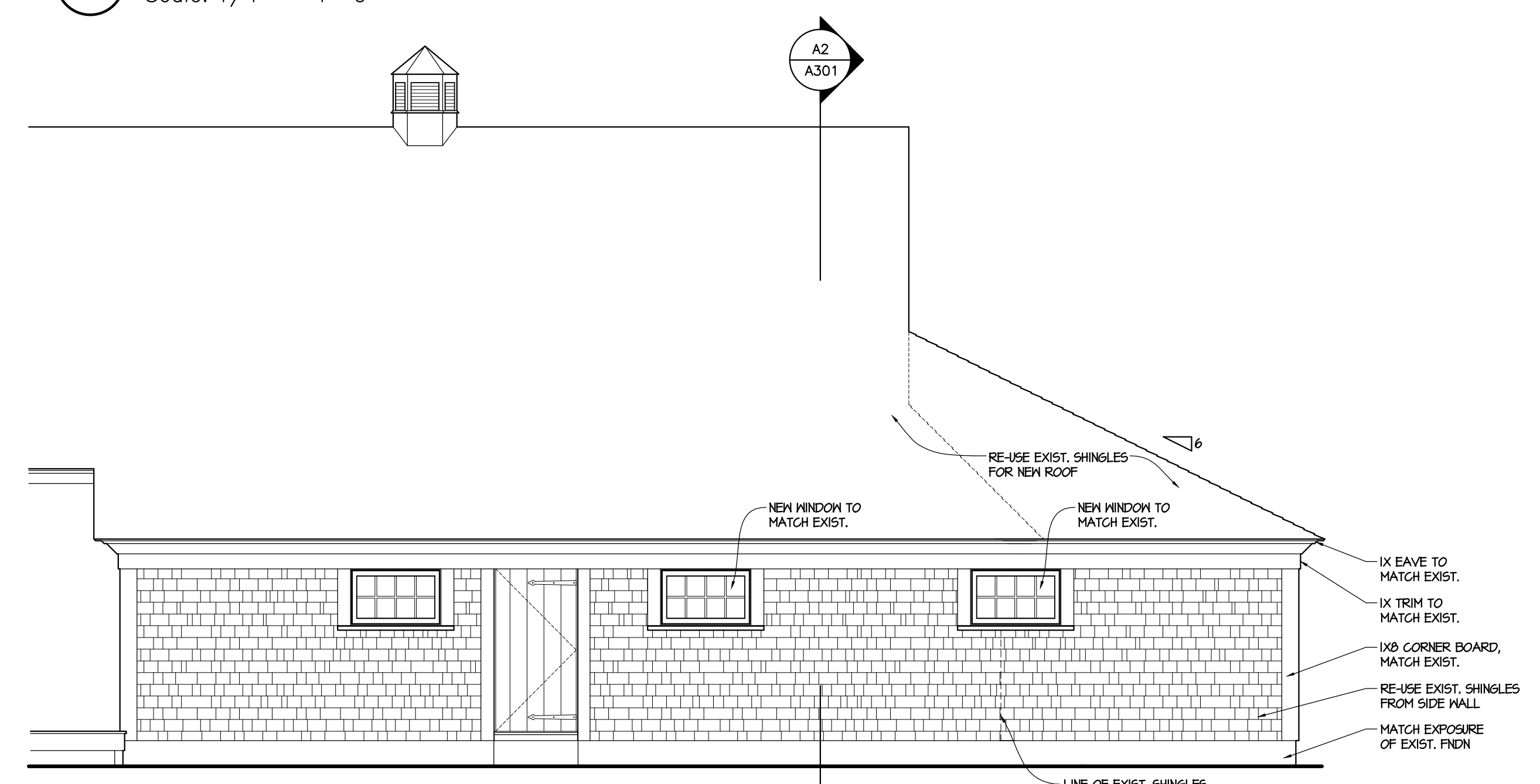
D2 Existing Side Elevation
Scale: 1/4" = 1'-0"



2 Side Elevation
Scale: 1/4" = 1'-0"



D3 Existing Back Elevation
Scale: 1/4" = 1'-0"



3 Back Elevation
Scale: 1/4" = 1'-0"

Number	Date	Description

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

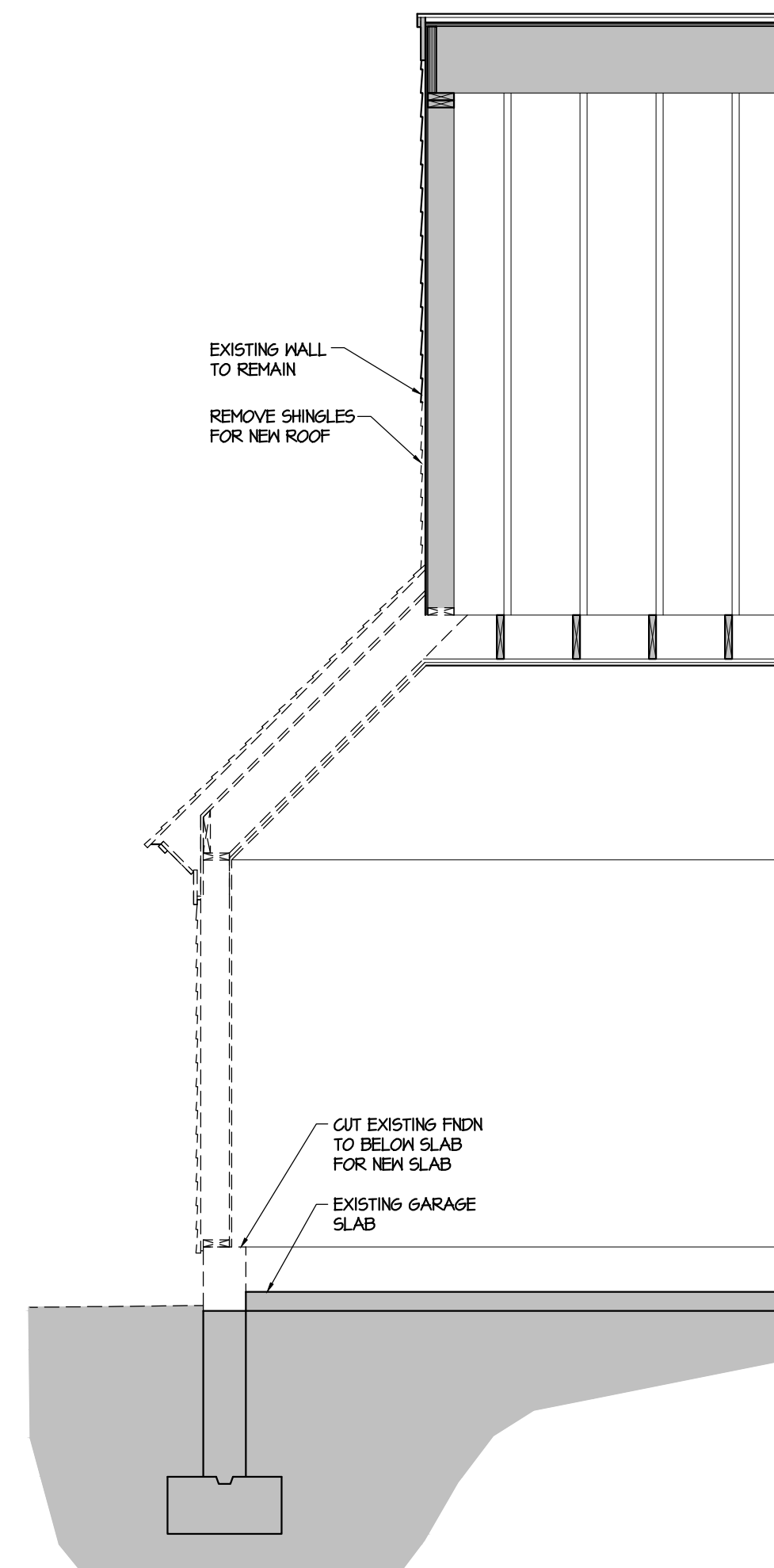
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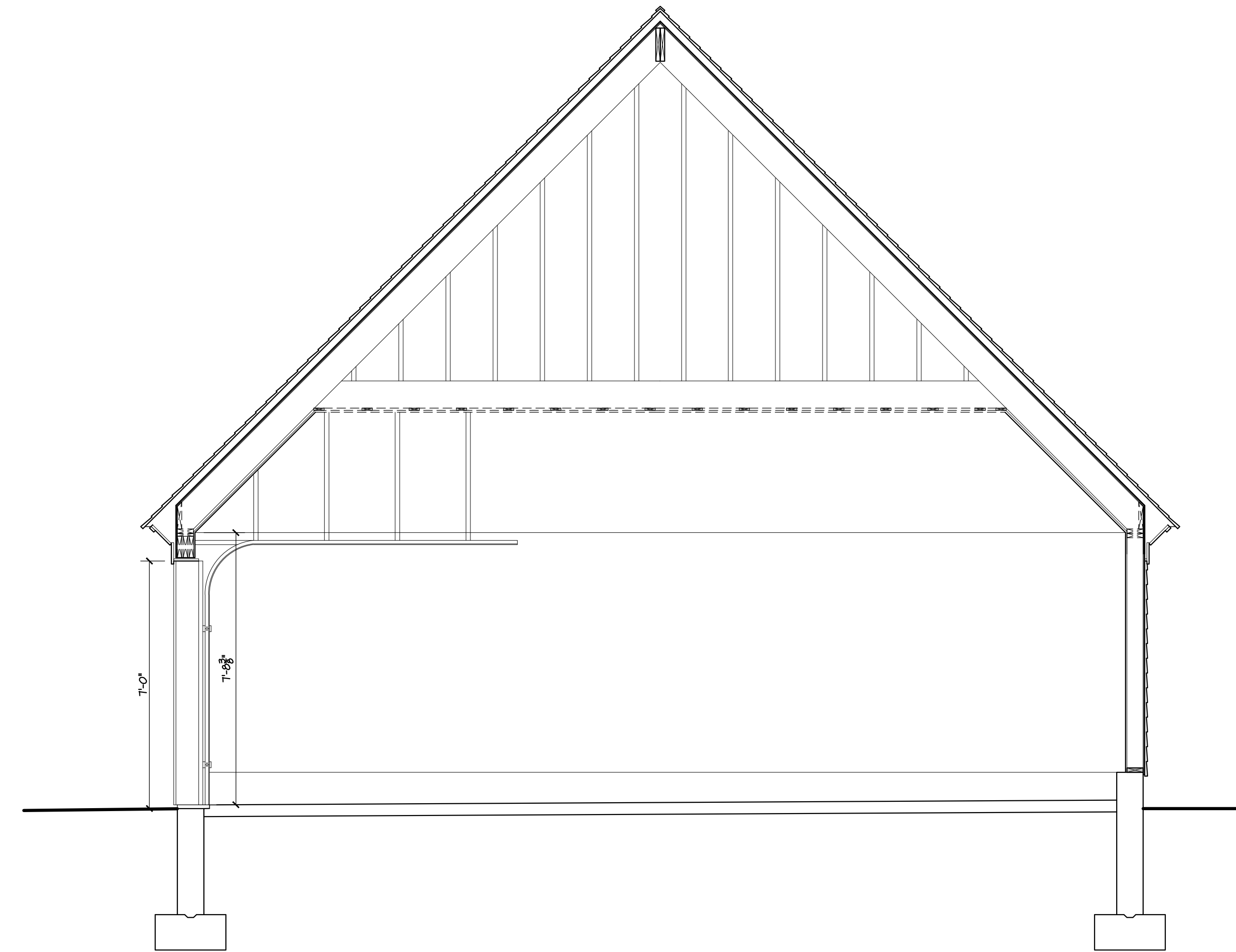
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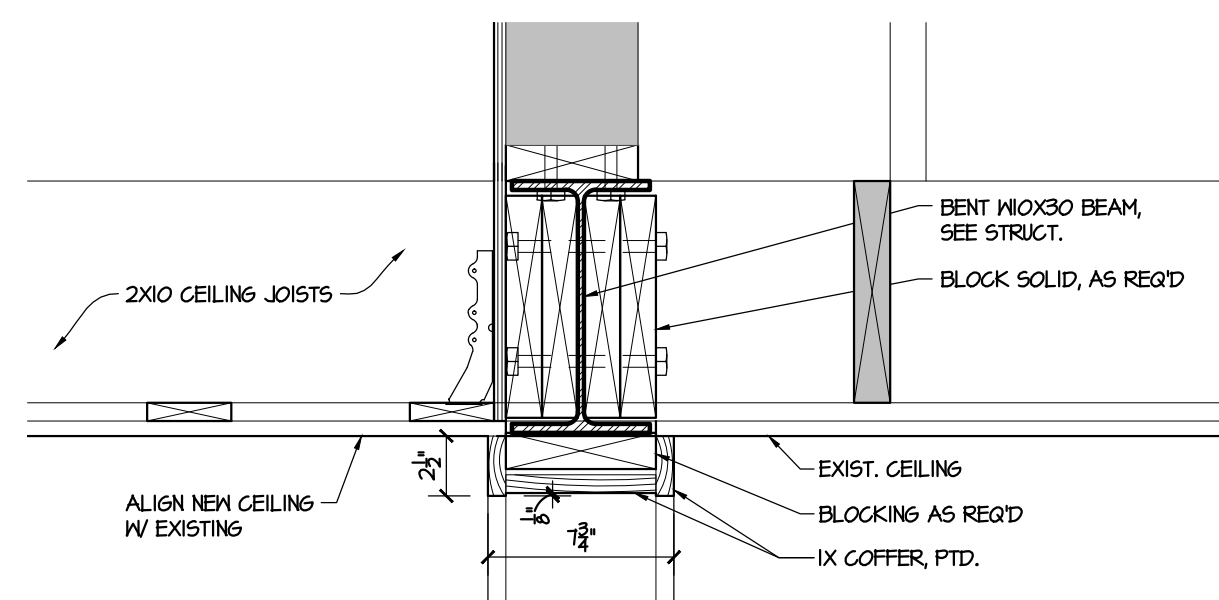
A201



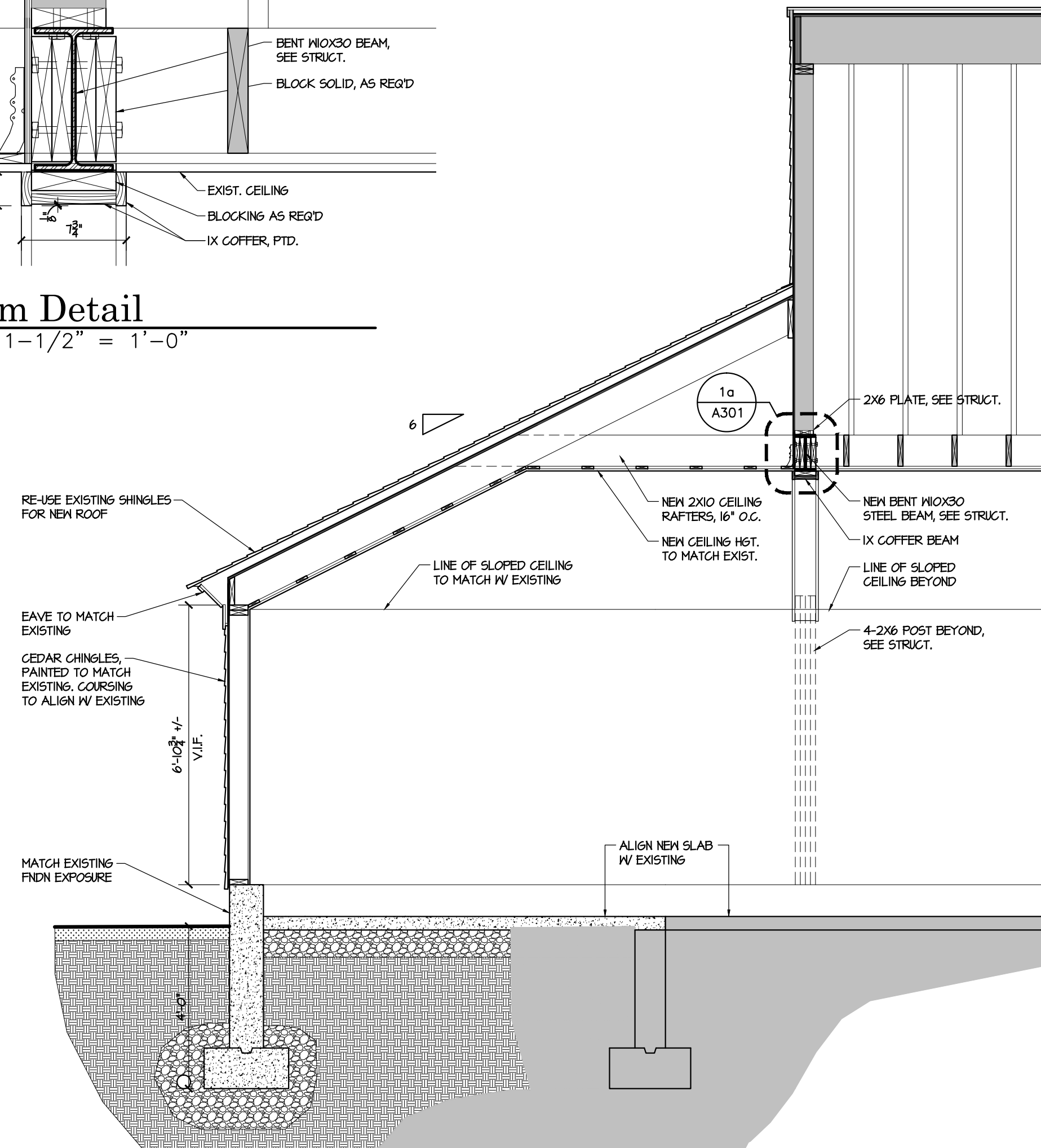
D1 Existing Section
Scale: 3/8" = 1'-0"



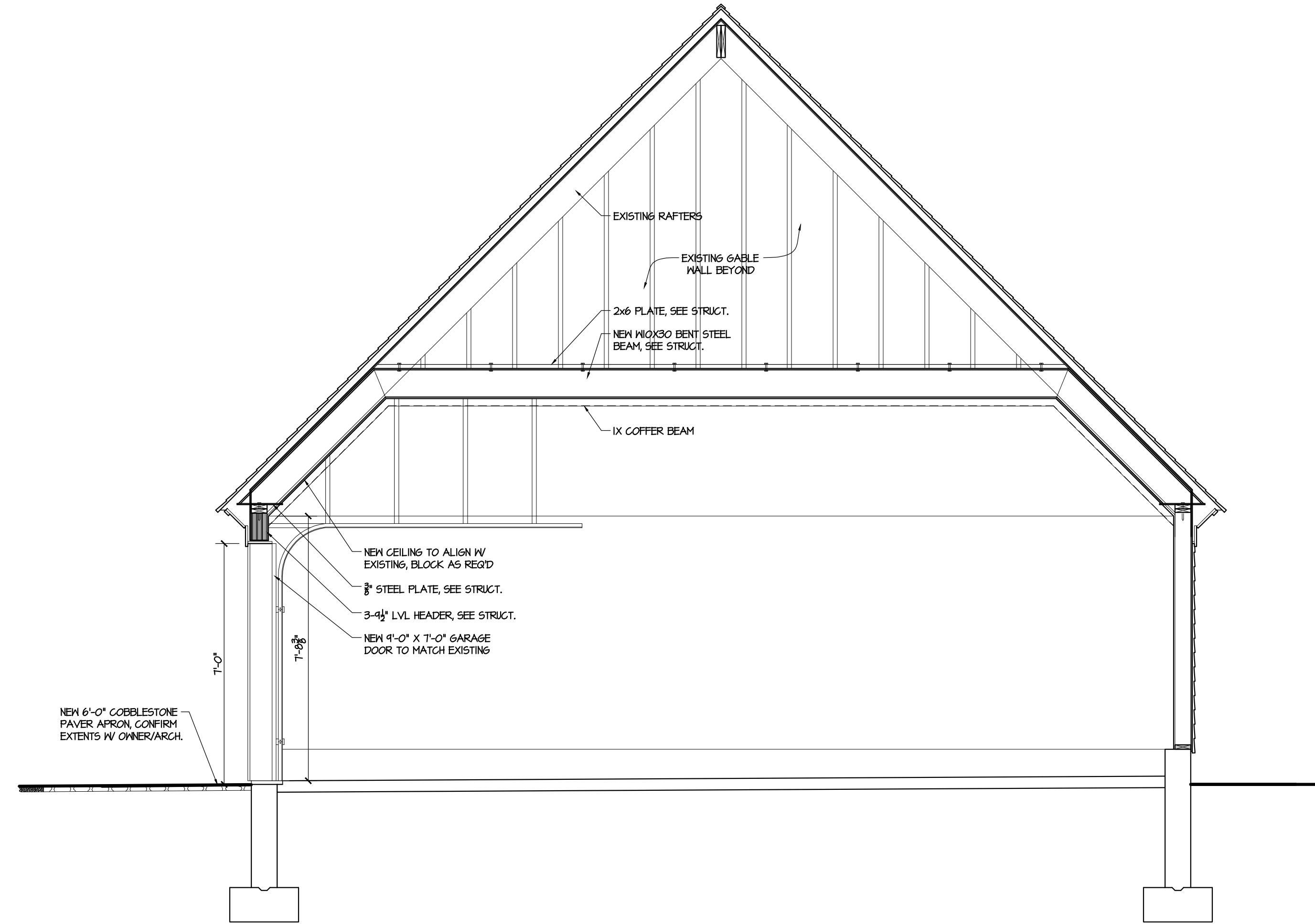
D2 Existing Section at Garage Door
Scale: 3/8" = 1'-0"



1a Beam Detail
Scale: 1-1/2" = 1'-0"



1 Section at Garage Extension
Scale: 3/8" = 1'-0"



2 Section at Garage Door
Scale: 3/8" = 1'-0"

Number	Date	Description

Building Sections
SCALE: 3/8" = 1'-0"

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DESIGN LOADS PER MASSACHUSETTS STATE BUILDING CODE

LIVE LOADS

GROUND SNOW LOAD:	55 PSF
UNINHABITABLE ATTICS WITH LIMITED STORAGE:	20 PSF
ALL OTHER AREAS EXCEPT DECKS AND BALCONIES	40 PSF
EXTERIOR BALCONIES AND DECKS	60 PSF

WIND LOADS

MASSACHUSETTS STATE BUILDING CODE 110 MPH, EXPOSURE B

DEAD LOAD

WEIGHTS OF MATERIALS AND CONSTRUCTION

GENERAL CONDITIONS

- G. C. MUST BUILD EXACTLY WHAT IS SHOWN ON STRUCTURAL DRAWINGS. ANY PROPOSED DEPARTURES FROM WHAT IS INDICATED MUST BE REVIEWED WITH THE ENGINEER PRIOR TO CONSTRUCTION. ALL UNAUTHORIZED CHANGES TO THE APPROVED DRAWINGS MUST BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL CAREFULLY VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS PRIOR TO COMMENCEMENT OF THE WORK, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ENGINEERING AND ARCHITECTURAL DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF TEMPORARY SHORING, BRACING, OR OTHERWISE PROTECTING ANY PORTION OF THE STRUCTURE, SITE AND UTILITIES FROM DAMAGE DURING CONSTRUCTION. THE ENGINEER IS SPECIFYING THE FINISHED CONDITION ONLY, WITHOUT ASSUMING KNOWLEDGE NOR RESPONSIBILITY FOR HOW THE CONTRACTOR WILL ACHIEVE THIS RESULT.
- FOR RENOVATION WORK STRUCTURAL DRAWINGS PRODUCED WITH ASSUMPTIONS MADE REGARDING EXISTING CONDITIONS. IF CONTRACTOR FINDS EXISTING CONDITIONS NOT AS ASSUMED CONTACT ENGINEER IMMEDIATELY. REVISIONS TO THE STRUCTURAL FRAMING MAY BE REQUIRED. FOR EXACT LOCATIONS OF FLOOR AND ROOF OPENINGS, POSTS, ETC., SEE ARCHITECTURAL DRAWINGS.

FOUNDATIONS

- WHERE FOUNDATIONS ARE EXISTING, DESIGN HAS BEEN COMPLETED ASSUMING FOUNDATIONS ARE SUITABLE TO SUPPORT PROPOSED RENOVATION. CONTRACTOR RESPONSIBLE FOR VERIFYING THAT THE EXISTING FOUNDATION CONFORMS TO BUILDING CODE REQUIREMENTS AND REPORT FOOTING CONDITIONS TO ENGINEER FOR VERIFICATION.
- EXCAVATE TO LINES AND GRADES REQUIRED TO PROPERLY INSTALL THE FOUNDATIONS ON INORGANIC, UNDISTURBED SOIL OR CONTROLLED STRUCTURAL BACKFILL AS REQUIRED BY THE ARCHITECT. ALL EXCAVATIONS SHALL BE DRY BEFORE PLACING ANY CONCRETE.
- EXTERIOR FOOTINGS SHALL BE PLACED ON APPROVED SOIL AT A MINIMUM DEPTH OF 4 FEET, OR AS MODIFIED BY THE STRUCTURAL ENGINEER, BELOW THE LOWEST ADJACENT GROUND EXPOSED TO FREEZING. ANY ADJUSTMENT OF FOOTING ELEVATIONS DUE TO FIELD CONDITIONS MUST HAVE THE APPROVAL OF THE ARCHITECT.
- SOIL BEARING CAPACITY: FOOTINGS MUST BE PLACED ON SOIL WITH A MINIMUM BEARING CAPACITY OF 4000 POUNDS PER SQUARE FOOT.
- BACKFILL BELOW FOOTINGS AND SLABS SHALL BE MADE WITH APPROVED GRANULAR MATERIALS PLACED IN 6" LAYERS. LAYERS SHALL BE COMPACTED TO 96% DENSITY AT OPTIMUM MOISTURE CONTENT, AS DEFINED BY ASTM D1557.
- BACKFILLING AGAINST WALLS OR PIERS MAY ONLY BE DONE AFTER WALLS OR PIERS ARE BRACED TO PREVENT MOVEMENT. FOR WOOD FRAMED RESIDENTIAL CONSTRUCTION, NO BACKFILLING OF WALLS MAY TAKE PLACE UNTIL THE FIRST FLOOR DECK HAS BEEN FRAMED AND SHEATHED, UNLESS WRITTEN APPROVAL IS GIVEN BY THE ARCHITECT OR ENGINEER.
- PROVIDE FOUNDATION DRAINAGE, WATERPROOFING/DAMP-PROOFING, AND FOUNDATION WALL INSULATION AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

CONCRETE

- ALL CONCRETE WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE LATEST EDITION OF ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
- CONCRETE SHALL ACHIEVE A MINIMUM 28 DAY DESIGN STRENGTH AS FOLLOWS: FOOTINGS, WALLS, INTERIOR SLABS-ON-GRADE, AND OTHER CONCRETE NOT OTHERWISE SPECIFIED - 3000 PSI. EXTERIOR SLABS EXPOSED TO WEATHER - 4000 PSI.
- SLUMP AT THE POINT OF DISCHARGE FROM THE READY-MIX TRUCK SHALL BE 3-5".
- REINFORCING STEEL: TYPICAL - ASTM A615, GRADE 60. FIELD BENT - ASTM A615, GRADE 40 WELDED WIRE FABRIC - ASTM A185.

ROUGH CARPENTRY

- ALL ROUGH CARPENTRY WORK SHALL BE EXECUTED IN CONFORMANCE WITH THE 8TH EDITION OF THE MASSACHUSETTS BUILDING CODE FOR ONE AND TWO FAMILY DWELLINGS (MBC 1&2) AND THE INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS (IRC 1&2).
- REFER TO THE MBC 1&2 AND IRC 1&2 FOR FRAMING COMPONENTS NOT SPECIFIED IN PLANS AND SECTIONS. NOTIFY THE ENGINEER OF ANY COMPONENT NOT DEFINED IN EITHER THE MBC 1&2 AND IRC 1&2 OR IN THESE DRAWINGS.
- REFER TO THE IRC 1&2 FASTENER SCHEDULE FOR STRUCTURAL MEMBERS TABLE 602.3 FOR CONNECTION FASTENING NOT IDENTIFIED IN THESE PLANS OR DETAILS.
- ENGINEER MAKES NO CLAIMS TOWARDS EXISTING CONDITIONS.
- WHEN NOT OTHERWISE IDENTIFIED, ALL WOOD BEAMS, JOISTS, RAFTERS, HEADERS, STRINGERS, PLATES, AND SILLS SHALL BE SPRUCE PINE FIR #2 OR BETTER, WITH A MINIMUM Fb = 875 PSI (SINGLE USE) AND Fv = 1000 PSI (REPETITIVE USE), AND E SHALL BE 1,400,000 PSI OR BETTER. WOOD STUDS MAY BE EASTERN HEMLOCK, EASTERN SPRUCE, OR HEM-FIR, GRADED "STUD" GRADE, #2 OR BETTER.
- LVL BEAMS, AS NOTED ON PLANS, SHALL HAVE A MINIMUM Fb = 3100 PSI, E = 2,000,000 PSI, AND Fv = 285 PSI. LVL BEAMS SHALL BE "VERSALAM" BY BOISE CASCADE. NO SUBSTITUTIONS WILL BE ACCEPTED, UNLESS THE ENGINEER SPECIFICALLY APPROVES ANOTHER PRODUCT SUBMITTED BY THE CONTRACTOR.
- PLYWOOD WALL SHEATHING, ROOF SHEATHING, AND SUBFLOORING SHALL BE APA GRADE, TRADEMARKED C-D INTERIOR WITH EXTERIOR GLUE. SUBFLOORING SHALL BE 3/4" THICK TONGUE AND GROOVE, AND SHALL BE GLUED TO FLOOR JOISTS WITH AN APPROVED ADHESIVE PRIOR TO NAILING. ROOF SHEATHING SHALL BE 1/2" THICK AND WALL SHEATHING SHALL BE 1/2" THICK.
- ALL WOOD HAVING DIRECT CONTACT WITH CONCRETE OR MASONRY, AND WHEREVER WOOD IS WITHIN 8" OF FINISHED GRADE OR PART OF OPEN DECK CONSTRUCTION, SHALL BE PRESSURE TREATED.
- ALL METAL CONNECTORS INCLUDING JOIST AND BEAM HANGERS AND COLUMN CAP AND BASES SHALL BE BY SIMPSON STRONG-TIE CORP. THE CONTRACTOR SHALL STRICTLY ADHERE TO MANUFACTURER'S FASTENING REQUIREMENTS. CONTRACTOR TO VERIFY ALL CONNECTOR SIZES TO FRAMING ELEMENTS BEFORE ORDERING.
- UNLESS DETAILED OR SPECIFIED OTHERWISE ON THE PLANS, HEADERS AND BEAMS SHALL BE SUPPORTED BY AT LEAST ONE JACK STUD AND ONE KING STUD.
- MEMBERS WITHIN BUILT-UP BEAMS, WHETHER MADE OF SAWN OR ENGINEERED LUMBER, SHALL ONLY BE SPLICED OVER SUPPORTS.
- PROVIDE SIMPSON H2.5 HURRICANE TIES BETWEEN EACH RAFTER BOTTOM AND ITS BEARING POINT.
- CONTRACTOR SHALL CAREFULLY COORDINATE THE WORK OF ALL TRADES TO MINIMIZE THE NEED FOR CUT, BORED OR NOTCHED IN FRAMING LUMBER. STRUCTURAL FLOOR MEMBERS SHALL NOT BE CUT, BORED OR NOTCHED IN EXCESS OF THE LIMITATIONS SPECIFIED IN THE BUILDING CODE WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
- AT WOOD POSTS LANDING ON FLOOR DECK, PROVIDE SOLID VERTICAL WOOD BLOCKING WITHIN DECK SANDWICH TO LINK UPPER POST WITH LOWER SUPPORT. BLOCKING TO MATCH UPPER POST SIZE.
- IN ADDITION TO THE FLOOR JOIST SHOWN IN THE PLANS, CONTRACTOR SHALL INSTALL DOUBLE JOISTS UNDER ALL PARTITIONS WALLS RUNNING PARALLEL TO THE DIRECTION OF FRAMING.
- MINIMUM BEAM BEARING TO BE 3 INCHES UNLESS NOTED OTHERWISE ON PLAN.

STRUCTURAL STEEL

- STRUCTURAL STEEL WORK SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION: "SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
- STEEL WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A992, WITH A MINIMUM YIELD STRENGTH OF 50 KSI. PLATES, ANGLES, CHANNELS, AND MISC. FABRICATED HARDWARE SHALL CONFORM TO ASTM A36, WITH A MINIMUM YIELD STRENGTH OF 36 KSI. RECTANGULAR STEEL TUBING SHALL CONFORM TO ASTM A500, GRADE B, WITH A MINIMUM YIELD STRENGTH OF 46 KSI.
- ALL STEEL TO STEEL FIELD CONNECTIONS SHALL BE MADE BY HIGH STRENGTH BOLTING WITH ASTM A325 BOLTS OR WELDING WITH E70 XX ELECTRODES. STEEL TO CONCRETE AND STEEL TO WOOD FIELD CONNECTIONS MAY BE MADE WITH ASTM A 307 BOLTS.
- STEEL SHALL BE SHOP-PAINTED WITH A MODIFIED ALKYD PRIMER UNLESS OTHERWISE NOTED.
- NO CUTTING OF OR OPENINGS THROUGH STEEL WILL BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- CONTRACTOR TO SUBMIT SHOP DRAWING TO ARCHITECT AND ENGINEER FOR APPROVAL.

LEGEND

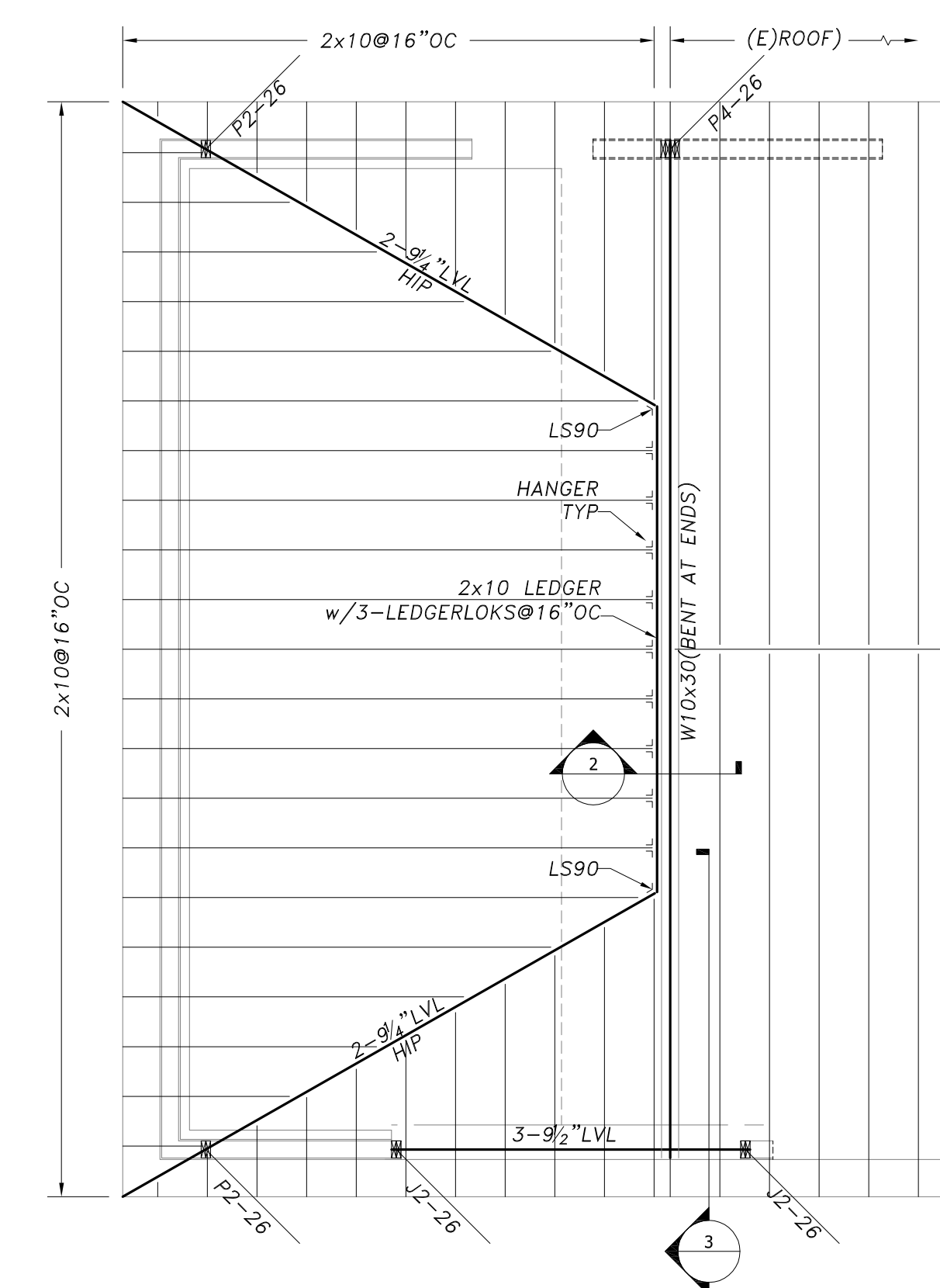
BW = BEARING WALL
FVP = FLAT VALLEY PLATE
(E) = EXISTING

(PU) POST ABOVE FRAMING LEVEL
(P) POST BELOW FRAMING LEVEL

NUMBER OF STUDS IF APPLICABLE
P3-26

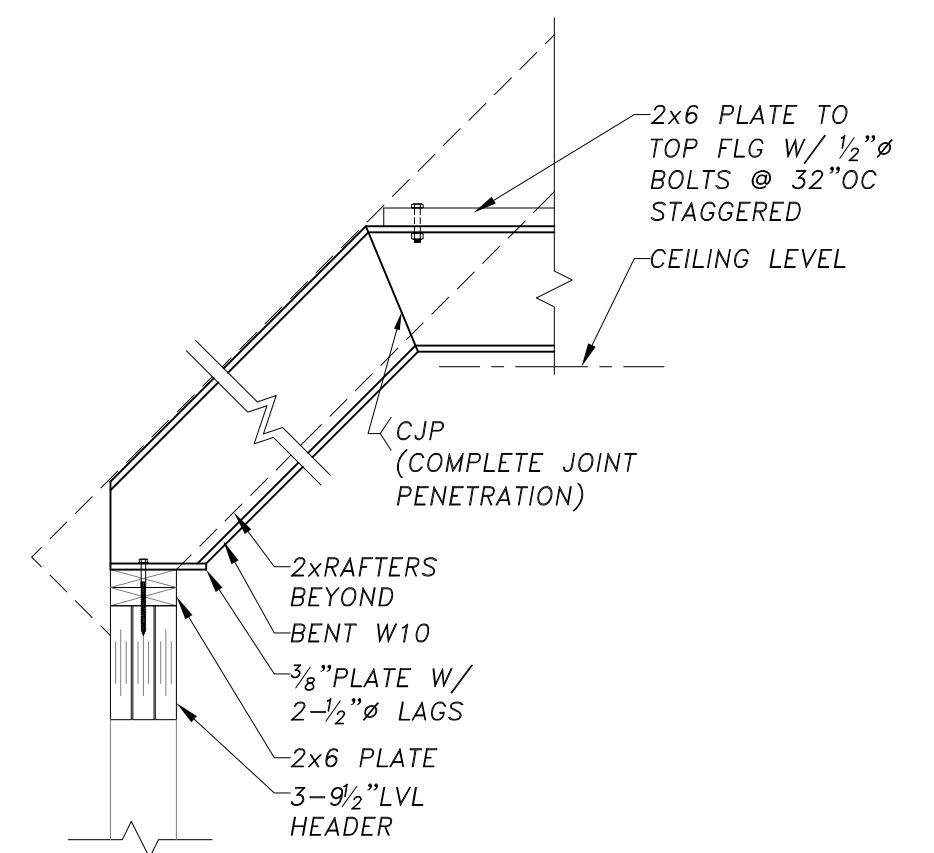
SIZE OF STUD OR DIMENSION OF SOLID POST

TYPE OF POST:
P-POST, J-JACK, VC-VERSA COLUMN, LC-LALLY COLUMN, HSS-HOLLOW STRUCTURAL SECTION

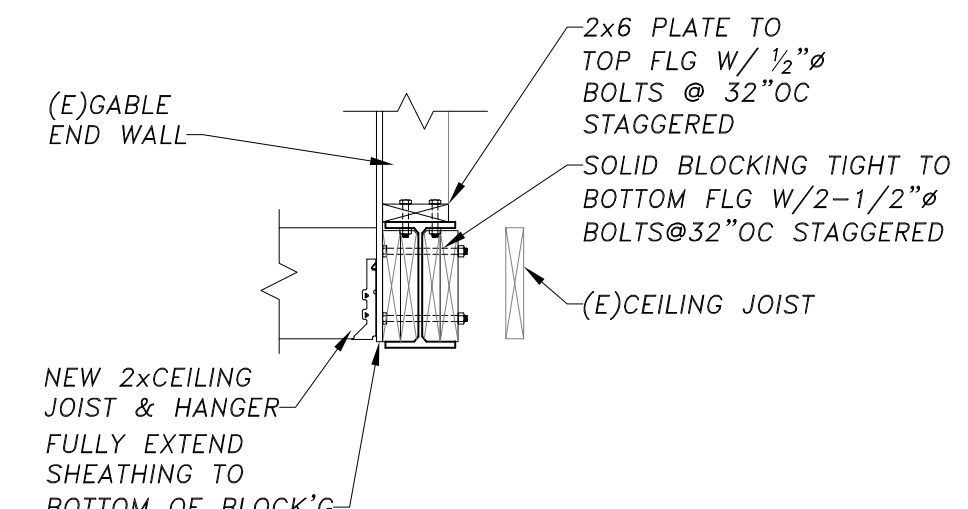


ROOF FRAMING PLAN
Scale: 1/4" = 1'-0"

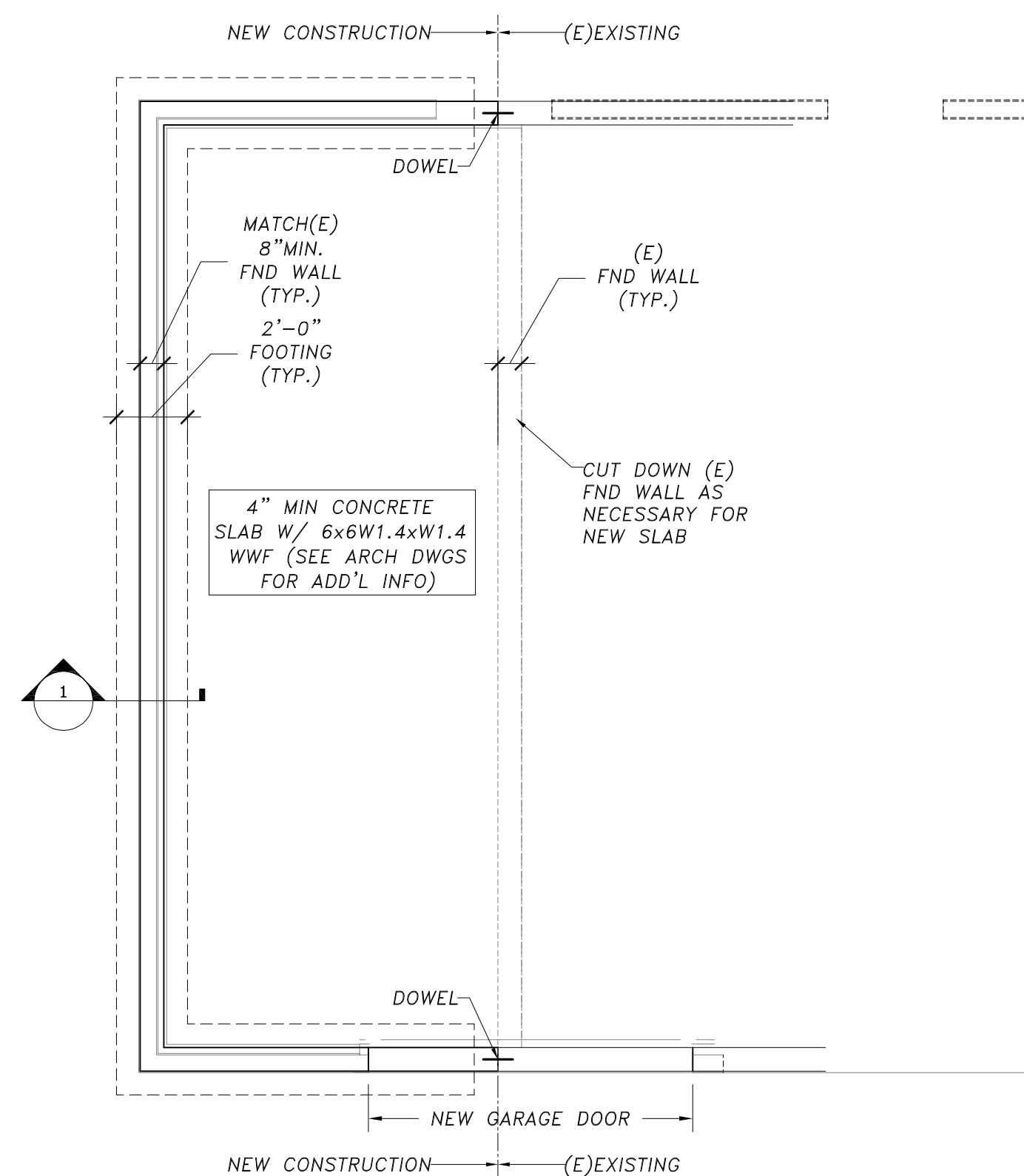
NOTES:
1. (EDIT)



3 EAVE DETAIL
Scale: 3/4" = 1'-0"

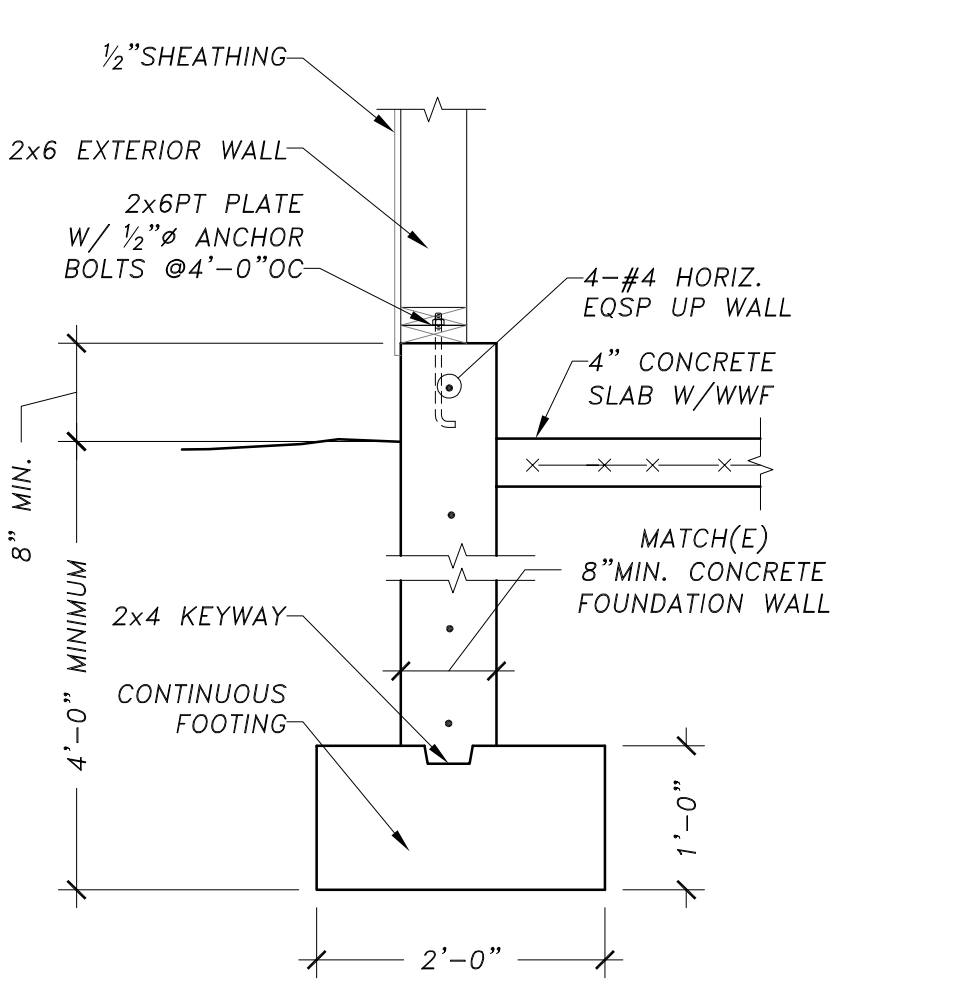


2 BEAM DETAIL
Scale: 3/4" = 1'-0"



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

- NOTES:
- VERIFY ALL DIMENSIONS WITH ARCHITECT.
 - DOWEL NEW FOUNDATION TO EXISTING WITH #4 BARS @ 24"OC, LENGTH=16"
 - NEW SLAB TO EXIST'G W/#4@16"O.C. 24" LONG 5" EPOXY EMBED, OR 1/2"x15"CONCRETE SCREW @ 16"O.C.



1 FROSTWALL DETAIL
Scale: 3/4" = 1'-0"

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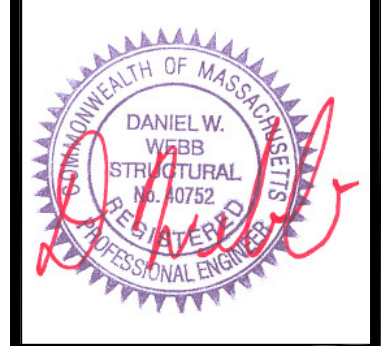
Revisions

Number	Date	Description

FOUNDATION, ROOF FRAMING, DETAILS & NOTES
SCALE: AS NOTED

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S101