STRUCTURAL NOTES

DIVISION 1 - GENERAL REQUIREMENTS GENERAL CODES AND STANDARDS
BUILDING CODES: 2015 INTERNATIONAL RESIDENTIAL CODE + AMENDMENTS
GROUND SNOW LOAD= 35 PSF FROST DEPTH = 30 INCHES
MINIMUM SOIL BEARING = 2000 PSF LIVE LOADS:
ROOF = 30 PSF (+ SNOW DRIFT)
FLOOR = 40 PSF
ACTIVE PRESSURE = 40 PSF/FT PASSIVE PRESSURE = 330 PSF/FT FRICTION = .4
SOIL UNIT WEIGHT = 120 PCF

LOADS GREATER THAN THE DESIGN LOADS STATED ABOVE SHALL NOT BE PLACED ON THE STRUCTURE DURING OR AFTER CONSTRUCTION.

CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING IN ORDER TO CONSTRUCT THE BUILDING. CONTRACTOR SHALL HAVE ALL TEMPORARY SHEETING, SHORING, FORMWORK, UNDERPINNING, ETC DESIGNED BY AN ENGINEER REGISTERED IN THE LOCAL JURISDICTION. ONE SET OF SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO COMPREHENSIVE STRUCTURAL SOLUTIONS FOR RECORD PURPOSES. COMPREHENSIVE STRUCTURAL SOLUTIONS IS NOT RESPONSIBLE FOR ANY TEMPORARY SHORING.

CONTRACTOR SHALL SUPPORT AND PROTECT ALL ADJACENT UTILITIES, STRUCTURES, EXCAVATIONS, ETC. AS REQUIRED TO INSTALL THE STRUCTURAL ELEMENTS AS CONTAINED WITHIN THIS SET OF DOCUMENTS.

CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS/DIMENSIONS PRIOR TO SUBMISSION OF SHOP DRAWINGS FOR REVIEW. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER PRIOR TO CONSTRUCTION OF EFFECTED AREAS.

NO MODIFICATION IN SIZE, DIMENSION, POSITION, OR PENETRATION THROUGH ANY STRUCTURAL ELEMENT SHALL BE MADE WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD.

THE STRUCTURAL DRAWINGS MUST BE USED IN CONJUNCTION WITH OTHER DISCIPLINE DRAWINGS CONTAINED IN THIS SET AND MUST BE COORDINATED AS A WHOLE ELEMENT. DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE OBTAINED FROM THE ARCHITECTURAL PLANS. DISCREPANCIES BETWEEN THESE NOTES, THE STRUCTURAL PLANS, THE PROJECT SPECIFICATIONS, AND/OR THE DRAWINGS OF OTHER DISCIPLINES SHALL BE DETERMINED BY THE ARCHITECT/ENGINEER. DISCREPANCIES SHALL BE BROUGHT TO THE ATIENTION OF THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH WORK.

ALL WORK SHALL BE INSPECTED IN ACCORDANCE WITH PRINCE GEORGES COUNTY INSPECTION REQUIREMENTS. ALL INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION. COMPREHENSIVE STRUCTURAL SOLUTIONS WILL NOT PERFORM CODE REQUIRED INSPECTIONS.

DMSION 2 - SITE WORK

FOOTINGS ARE DESIGNED FOR AN ASSUMED BEARING CAPACIIY OF 2000 PSF AND SHALL BEAR ON NATURAL UNDISTURBED SOIL FOOTINGS SHALL BE LOCATED AT A MINIMUM OF 30 INCHES BELOW EXTERIOR GRADE ELEVATION FOR FROST PROTECTION. SOIL BEARING PRESSURE MUST BE VERIFIED BY A QUALIFIED INSPECTOR. IF FIELD CONDITIONS VARY FROM CONDITIONS NOTED HEREIN, A GEOTECHNICAL ENGINEER MUST BE ENGAGED. IF BEARING CAPACITY IS LESS THAN NOTED ABOVE, THE FOUNDATIONS SHALL BE REDESIGNED.

CONTRACTOR MUST PROVIDE FROST PROTECTION FOR ALL FOOTINGS AND SUBGRADES DURING CONSTRUCTION. NO FOOTINGS SHALL BE CAST ON FROZEN MATERIAL.

DNISION 3 - CONCRETE

ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE UNLESS OTHERWISE SPECIFIED.
FOR ALL CONCRETE NOT EXPOSED TO WEATHER: F'C=3000 PSI MINIMUM AT 28 DAYS UNLESS NOTED OTHERWISE.
FOR ALL CONCRETE EXPOSED TO WEATHER: F'C=3500 PSI MINIMUM AIR-ENTRAINED CONCRETE AT 28 DAYS UNLESS NOTED OTHERWISE. EXPOSED CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45

REINFORCING STEEL, INCLUDING TIES AND STIRRUPS, SHALL BE DEFORMED HIGH STRENGTH BILLET STEEL AND SHALL CONFORM TO ASTM A-615 (LATEST LOCAL APPROVED EDITION) GRADE 60. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND CONSTRUCTED IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES" (ACI-315, LATEST LOCAL APPROVED EDITION).

ALL REINFORCING SPLICES SHALL BE CLASS "B" SPLICES IN ACCORDANCE WITH ACI-318 (LATEST LOCAI APPROVED EDITION) UNLESS OTHERWISE NOTED. UNLESS NOTED OTHERWISE, HORIZONTAL WALL REINFORCING SHALL BE BENT AROUND CORNERS AND EXTEND 1'-0" MINIMUM INTO ADJACENT CONSTRUCTION. PROVIDE 4'-0" LONG CORNER BARS TO MATCH HORIZONTAL REINFORCING.

UNLESS OTHERWISE SPECIFIED, PROVIDE THE FOLLOWING MINIMUM CONCRETE PROTECTION: CAST AGAINST EARTH3"
EXPOSED TO EARTH OR WEATHER
#5 AND SMALLER BARS 1 ½'
#6 AND LARGER BARS 2" NOT EXPOSED TO EARTH OR WEATHER
SLABS, WALLS, JOISTS ¾"
BEAMS, GIRDERS, COLUMNS 1 ½' TO TIES, STIRRUPS, OR SPIRALS

ALL CONCRETE WORK SHALL CONFORM TO THE LATEST CODE APPROVED EDITIONS OF THE ACI AND ASTM SPECIFICATIONS.

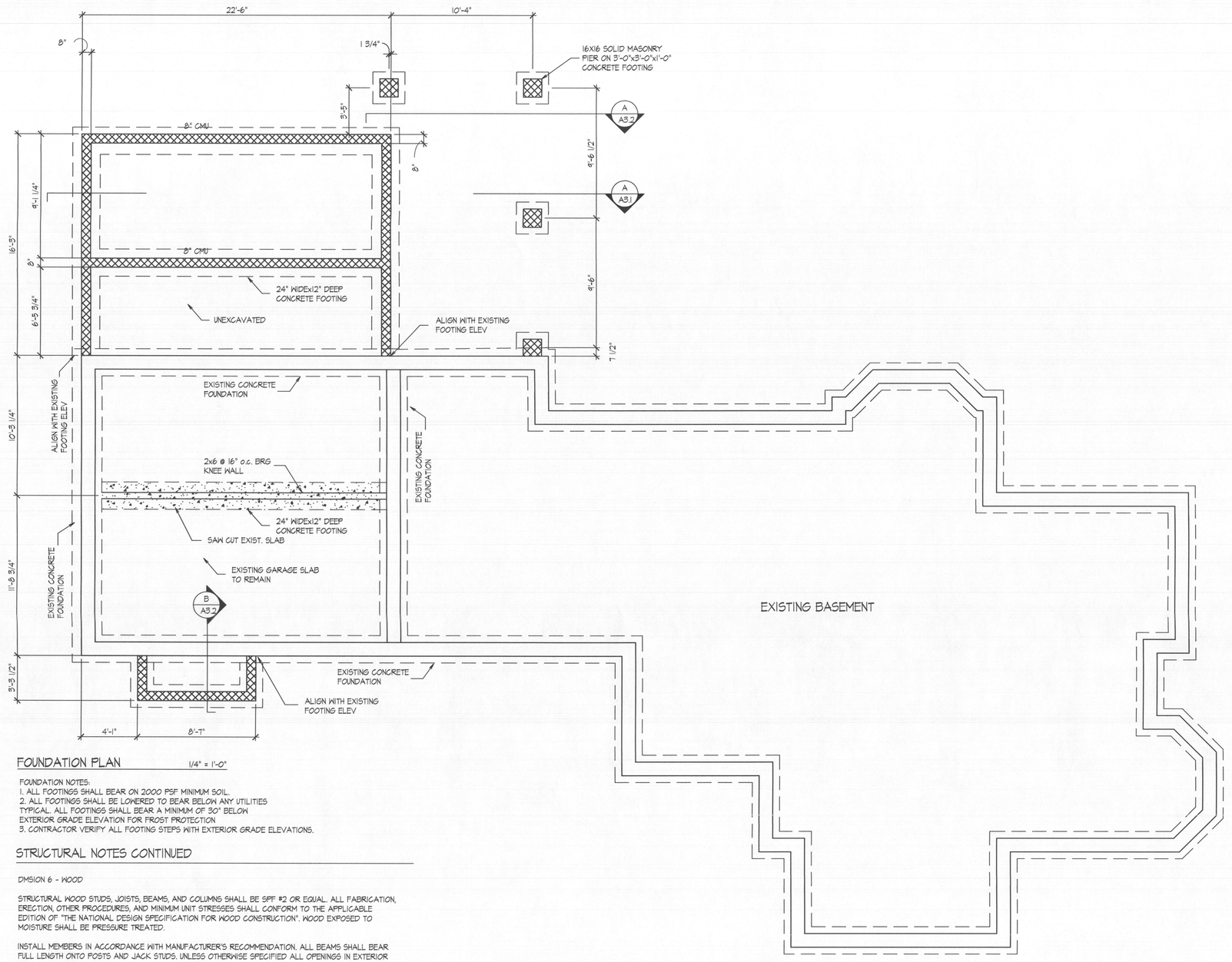
DIVISION 4 - MASONRY

ALL CONCRETE MASONRY SHALL CONFORM TO THE LATEST EDITION OF ASTM C90 AND C145 SPECIFICATIONS. ALL MORTAR SHALL CONFORM TO ASTM C270 AND SHALL BE TYPE "M" BELOW GRADE AND TYPE "S" ABOVE GRADE MINIMUM.

ALL GROUT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C476 WITH A MINIMUM GROUT STRENGTH OF 2500 PSI. CONTRACTOR SHALL SUBMIT A MIX DESIGN IN ACCORDANCE WITH ASTM C 1019. ALL MASONRY BELOW GRADE SHALL BE GROUTED 100% SOLID UNLESS NOTED OTHERWISE.

ALL MASONRY CONSTRUCTION SHALL CONFORM TO ACI "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530, LATEST LOCAL APPROVED EDITION).

CALCIUM CHLORIDE SHALL NOT BE USED AS AN ADMIXTURE.



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

FOUNDATION NOTES:
1. ALL FOOTINGS SHALL BEAR ON 2000 PSF MINIMUM SOIL.
2. ALL FOOTINGS SHALL BE LOWERED TO BEAR BELOW ANY UTILITIES TYPICAL. ALL FOOTINGS SHALL BEAR A MINIMUM OF 30" BELOW EXTERIOR GRADE ELEVATION FOR FROST PROTECTION
3. CONTRACTOR VERIFY ALL FOOTING STEPS WITH EXTERIOR GRADE ELEVATIONS.

STRUCTURAL NOTES CONTINUED

DMSION 6 - WOOD

STRUCTURAL WOOD STUDS, JOISTS, BEAMS, AND COLUMNS SHALL BE SPF #2 OR EQUAL. ALL FABRICATION, ERECTION, OTHER PROCEDURES, AND MINIMUM UNIT STRESSES SHALL CONFORM TO THE APPLICABLE EDITION OF "THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". WOOD EXPOSED TO MOISTURE SHALL BE PRESSURE TREATED.

INSTALL MEMBERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. ALL BEAMS SHALL BEAR FULL LENGTH ONTO POSTS AND JACK STUDS. UNLESS OTHERWISE SPECIFIED ALL OPENINGS IN EXTERIOR WALLS SHALL BE PROVIDED WITH A MINIMUM OF ONE |) JACK STUD AND ONE |) KING STUD FOR EACH 4 FEET OF ROUGH OPENING WIDTH.

NAILING AND DETAILS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING CODE. IN GENERAL, ALL JOISTS SHALL BE ANCHORED TO SUPPORTING MEMBERS WITH JOIST HANGERS OR HURRIANCE TIES. POSTS SHALL HAVE SIMPSON STRONG TIE POST BASES AND POST CAPS. ALL JOISTS AT HEADERS SHALL BE SUPPORTED WITH METAL JOIST OR BEAM HANGERS.

LOAD BEARING WOOD STUD WALLS SHALL HAVE 2 CONTINUOUS PLATES AT THE TOP WHICH ARE TO BE SPLICED AT STUD LOCATIONS ONLY. JOINTS TO BE STAGGERED AT LEAST 4'-0". BEVELED PLATES FOR TRUSS JOISTS ARE NOT TO BE CONSIDERED AS ONE OF THE TWO CAP PLATES. ALL STUDS IN BEARING PARTITIONS SHALL BE SOLID BLOCKED AT 4'-0" o.c. VERTICALLY.WOOD BLOCKING TO BE INSTALLED AS WALLS ARE BEING CONSTRUCTED.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ERECTION BRACING FOR FLOOR AND ROOF FRAMING TO INCLUDE STRUCTURAL BRACING, CROSS BRACING FOR BOTTOM CHORD BEARING, BOTTOM CHORD RESTRAINT, AND SWAY BRACING. USE IBC FOR NAILING SCHEDULE.

PLYWOOD - ROOF SHEATHING SHALL BE STANDARD APA RATED EXPOSURE 1 32/16 WITH EXTERIOR GLUE PLYWOOD. NAIL PLYWOOD TO JOISTS AND TRUSSES WITH 80 NAILS AT 6" AT SHEET EDGES AND AT 12" AT ALL INTERMEDIATE JOISTS. FLOOR SHEATHING SHALL BE TONGUE AND GROOVE APA RATED EXPOSURE 1 32/16 PLYWOOD. NAIL PLYWOOD TO JOISTS WITH 8D NAILS AT 6" AT SHEET EDGES AND AT 10" AT ALL INTERMEDIATE JOISTS.

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Woodbine, MD

SUBMITTALS

STATE OF MARYLAND MICHAEL ASBACHER No. 8476 ARCHITECT

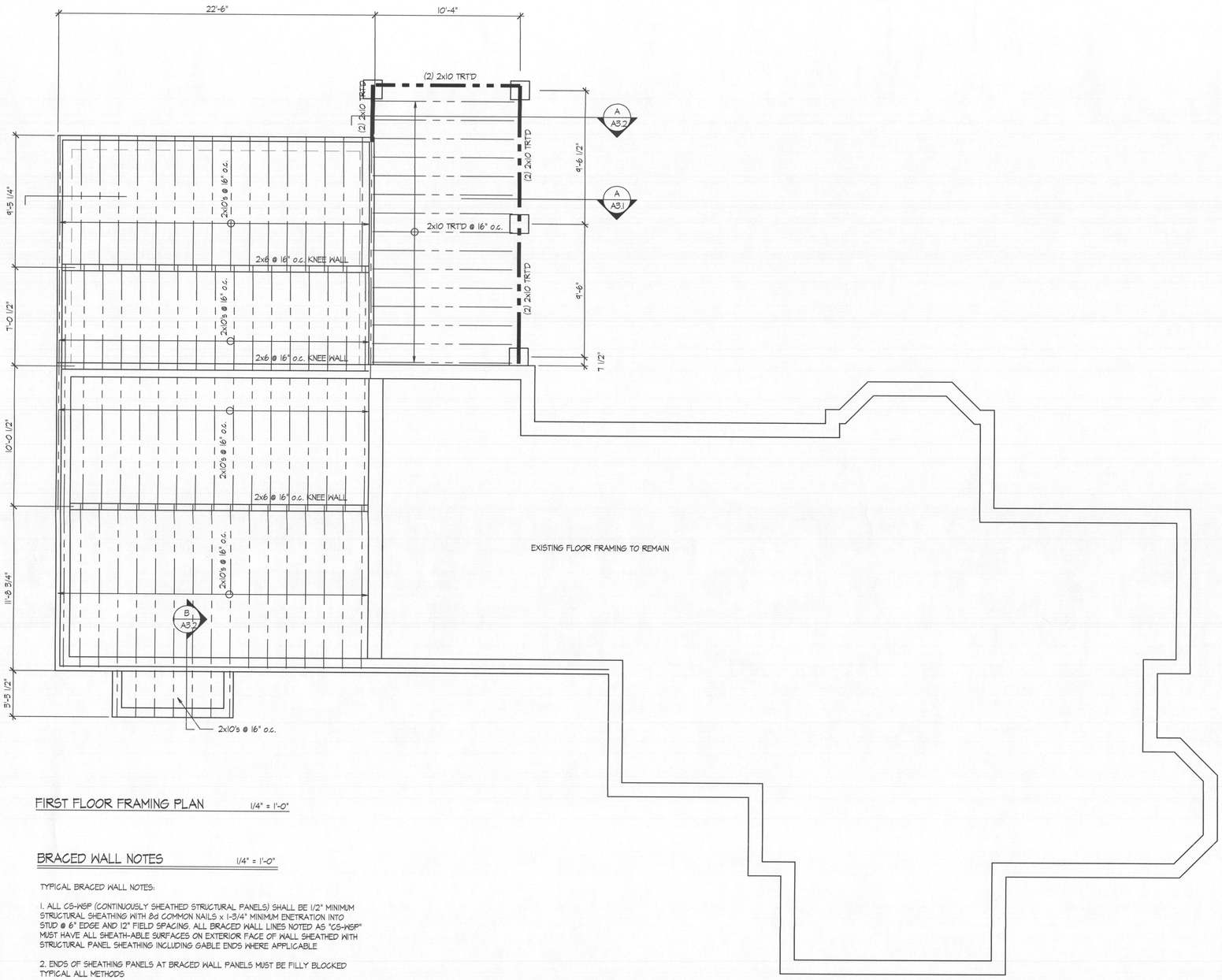
JOB No. 219-017

FILE

DATE 06.10.19

FOUNDATION PLAN

S1.1



FIRST FLOOR FRAMING PLAN 1/4" = 1'-0"

BRACED WALL NOTES 1/4" = 1'-0"

TYPICAL BRACED WALL NOTES:

1. ALL CS-WSP (CONTINUOUSLY SHEATHED STRUCTURAL PANELS) SHALL BE 1/2" MINIMUM STRUCTURAL SHEATHING WITH 8d COMMON NAILS x 1-3/4" MINIMUM ENETRATION INTO STUD @ 6" EDGE AND 12" FIELD SPACING. ALL BRACED WALL LINES NOTED AS "CS-WSP" MUST HAVE ALL SHEATH-ABLE SURFACES ON EXTERIOR FACE OF WALL SHEATHED WITH STRUCTURAL PANEL SHEATHING INCLUDING GABLE ENDS WHERE APPLICABLE

2. ENDS OF SHEATHING PANELS AT BRACED WALL PANELS MUST BE FILLY BLOCKED TYPICAL ALL METHODS

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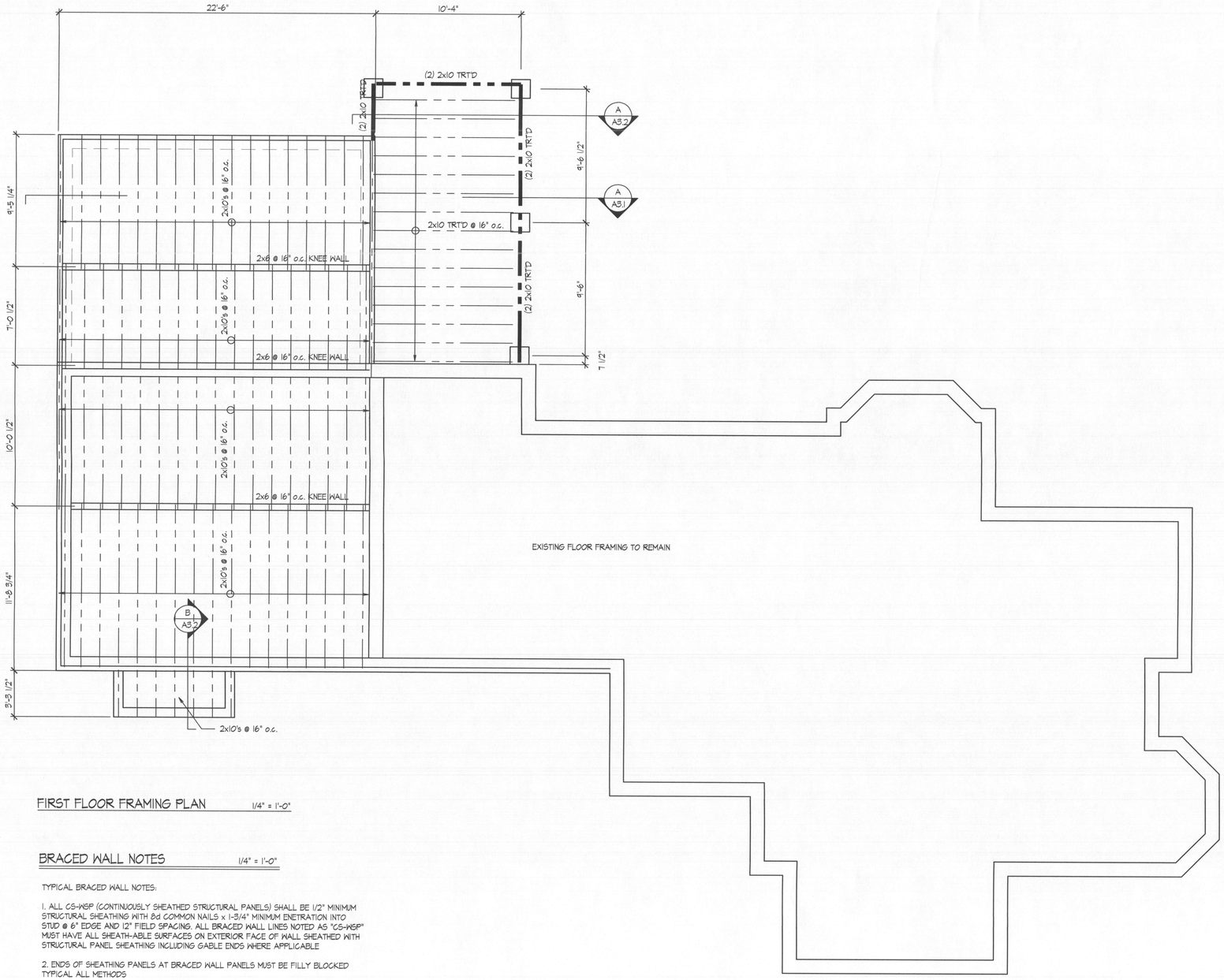
FIRST FLOOR FRAMING PLAN

S1.2



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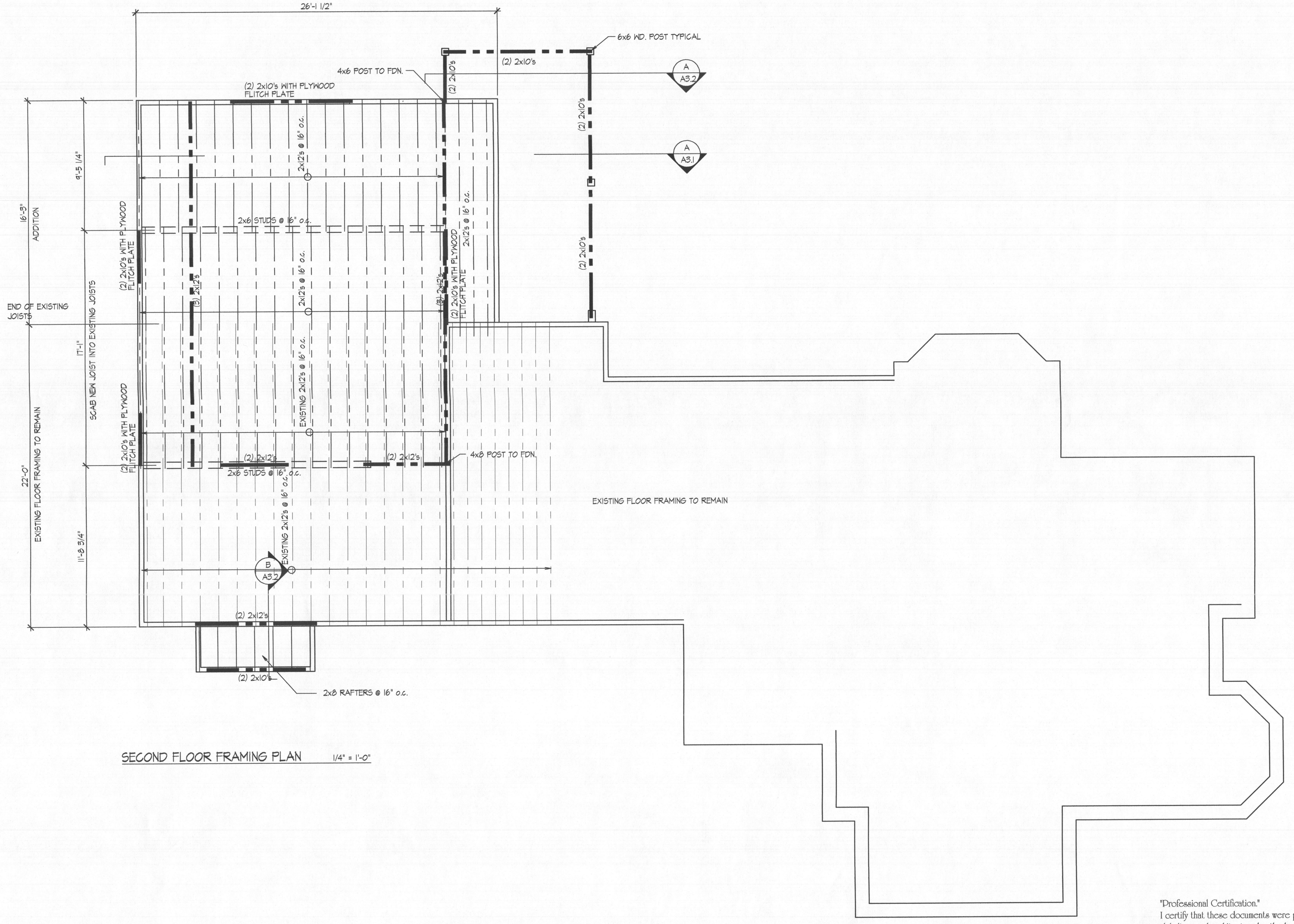
FIRST FLOOR FRAMING PLAN

S1.2



SECOND FLOOR FRAMING PLAN 1/4" = 1'-0"

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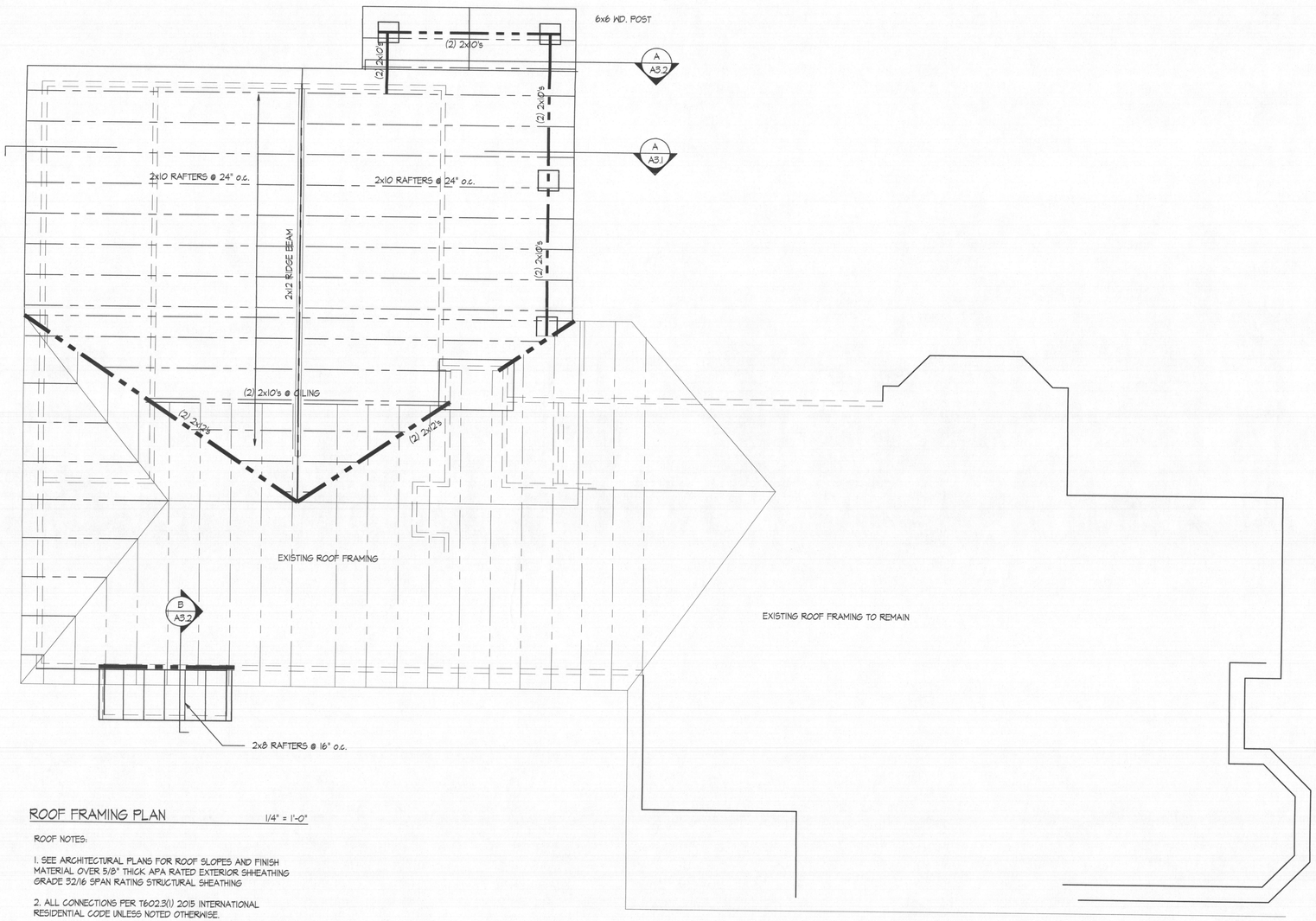
SECOND FLOOR FRAMING PLAN

S1.3



ROOF FRAMING PLAN

1/4" = 1'-0"

ROOF NOTES:

1. SEE ARCHITECTURAL PLANS FOR ROOF SLOPES AND FINISH MATERIAL OVER 5/8" THICK APA RATED EXTERIOR SHHEATHING GRADE 32/16 SPAN RATING STRUCTURAL SHEATHING

2. ALL CONNECTIONS PER T602.3(1) 2015 INTERNATIONAL RESIDENTIAL CODE UNLESS NOTED OTHERWISE.

3. ALL WOOD COLUMNS SHALL EXTEND FULL HEIGHT OF STRUCTURE FOR A CONTINUOUS LOAD PATH TO EITHER A TRANSFER BEAM OR FOUNDATION WALL / FOUNDATION. COLUMNS SHALL STACK AT FLOOR LINES, PROVIDE SQUASH BLOCKING ALL LOCATIONS.

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ROOF
FRAMING PLAN

S1.4