

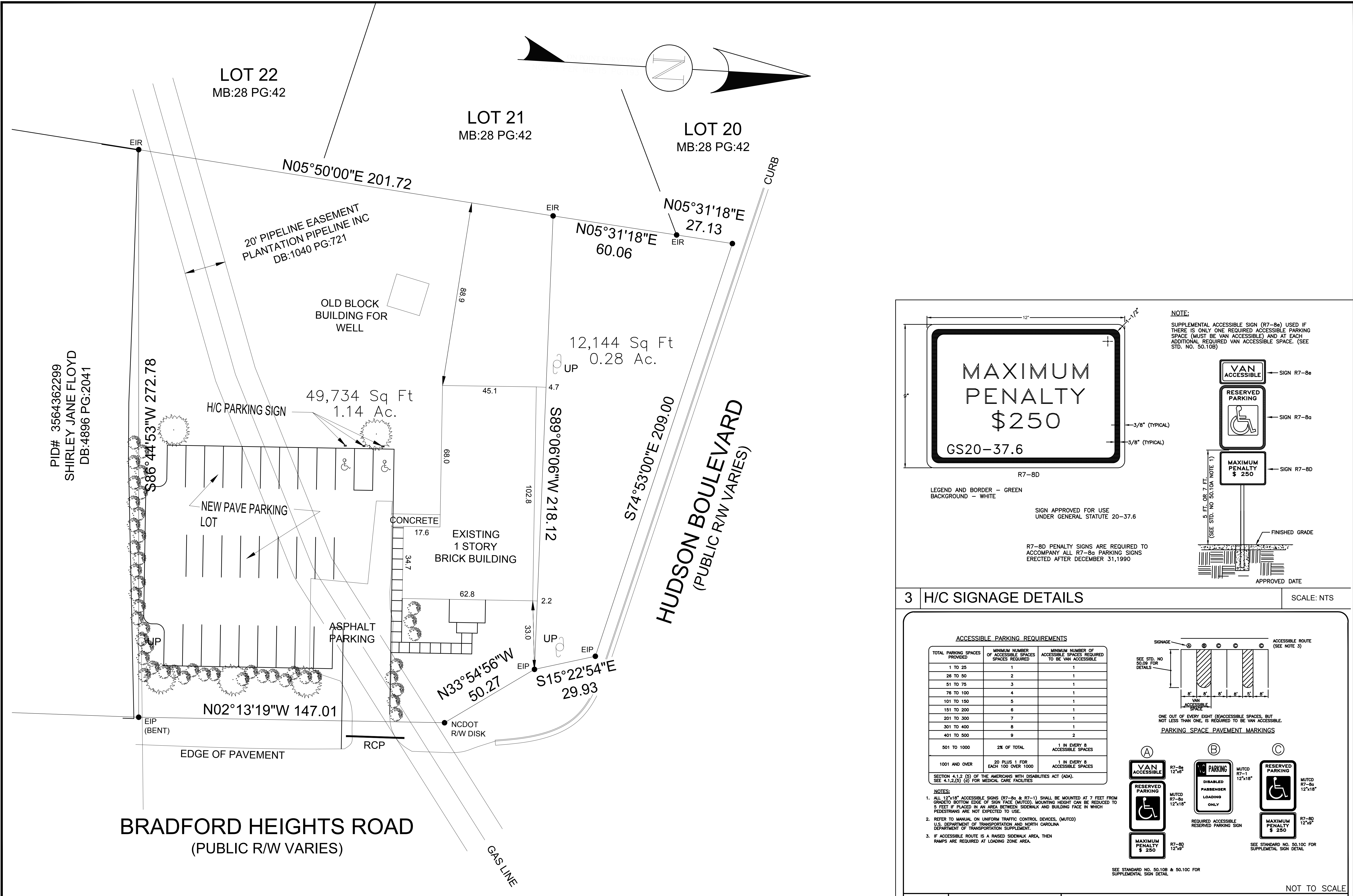
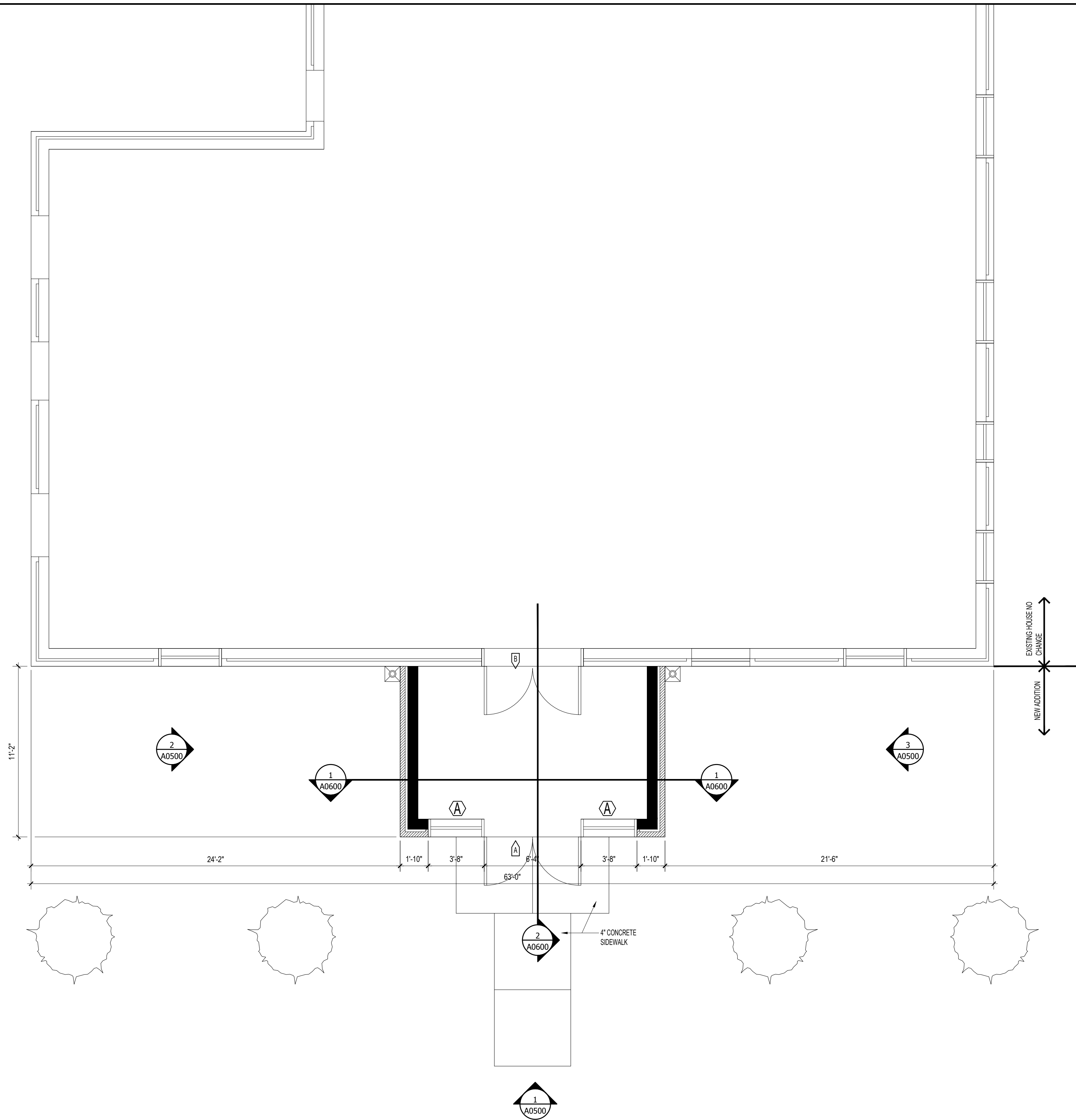


<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left; width: 40%;"> <p style="margin: 0;">REGISTERED PROFESSIONAL ENGINEER</p> <p style="margin: 0;">AMERICAN ARCHITECTURE COLLABORATIVE, PLLC</p> <p style="margin: 0;">TEL: 704.333.1965 FAX: 704.376.7122</p> </div> <div style="text-align: right; width: 40%;"> <p style="margin: 0;">4076 ALBEMARLE RD., SUITE 204 CHARLOTTE, NC 28206</p> </div> </div>													
													
													
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<p>NEW ADDITION TO EXISTING: Bradford Heights</p>	<p>1401 BRADFORD HEIGHTS RD. GASTONIA, NC</p>												
<p>REVISIONS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NO.</th> <th style="width: 20%;">DATE:</th> <th style="width: 70%;">DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td></td> <td>REVIEW COMMENTS</td> </tr> <tr> <td style="text-align: center;">2</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">3</td> <td></td> <td></td> </tr> </tbody> </table>		NO.	DATE:	DESCRIPTION	1		REVIEW COMMENTS	2			3		
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CONCEPTS

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CHARLOTTE, NC 28205
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FIRST FLOOR PLAN

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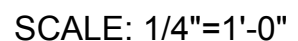
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2	ROOF PLAN BLOWUP
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4	ROOF DRAIN DETAIL
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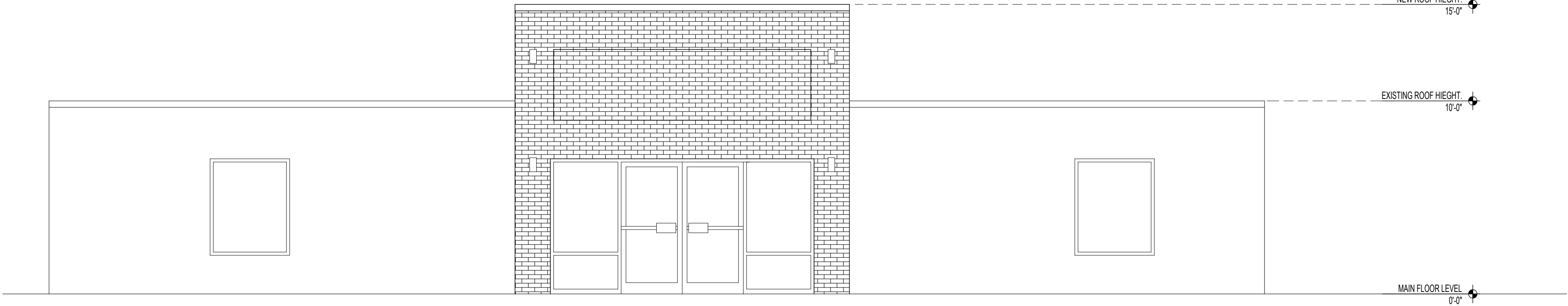
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ROOF PLAN & DETAIL

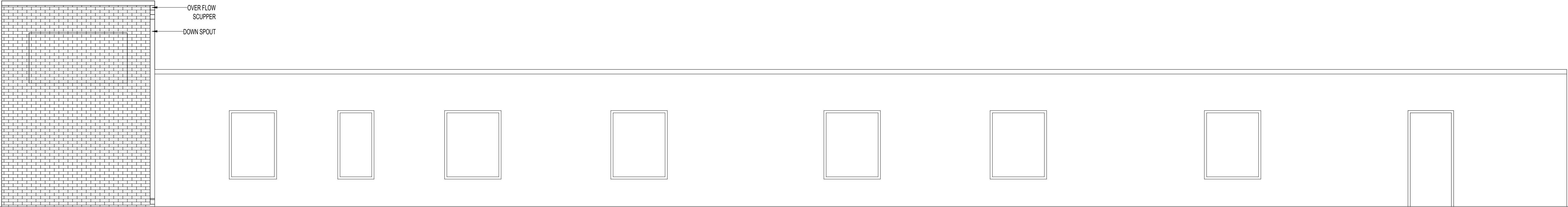
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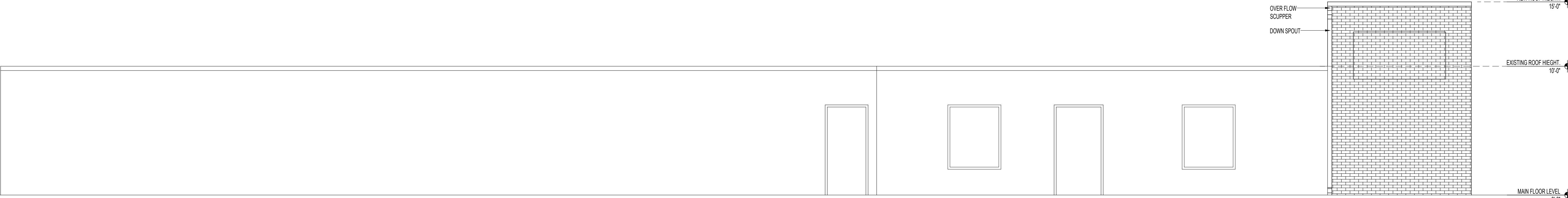
1	REAR ELEVATION
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SCALE: 1/4"=1'-0"



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



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

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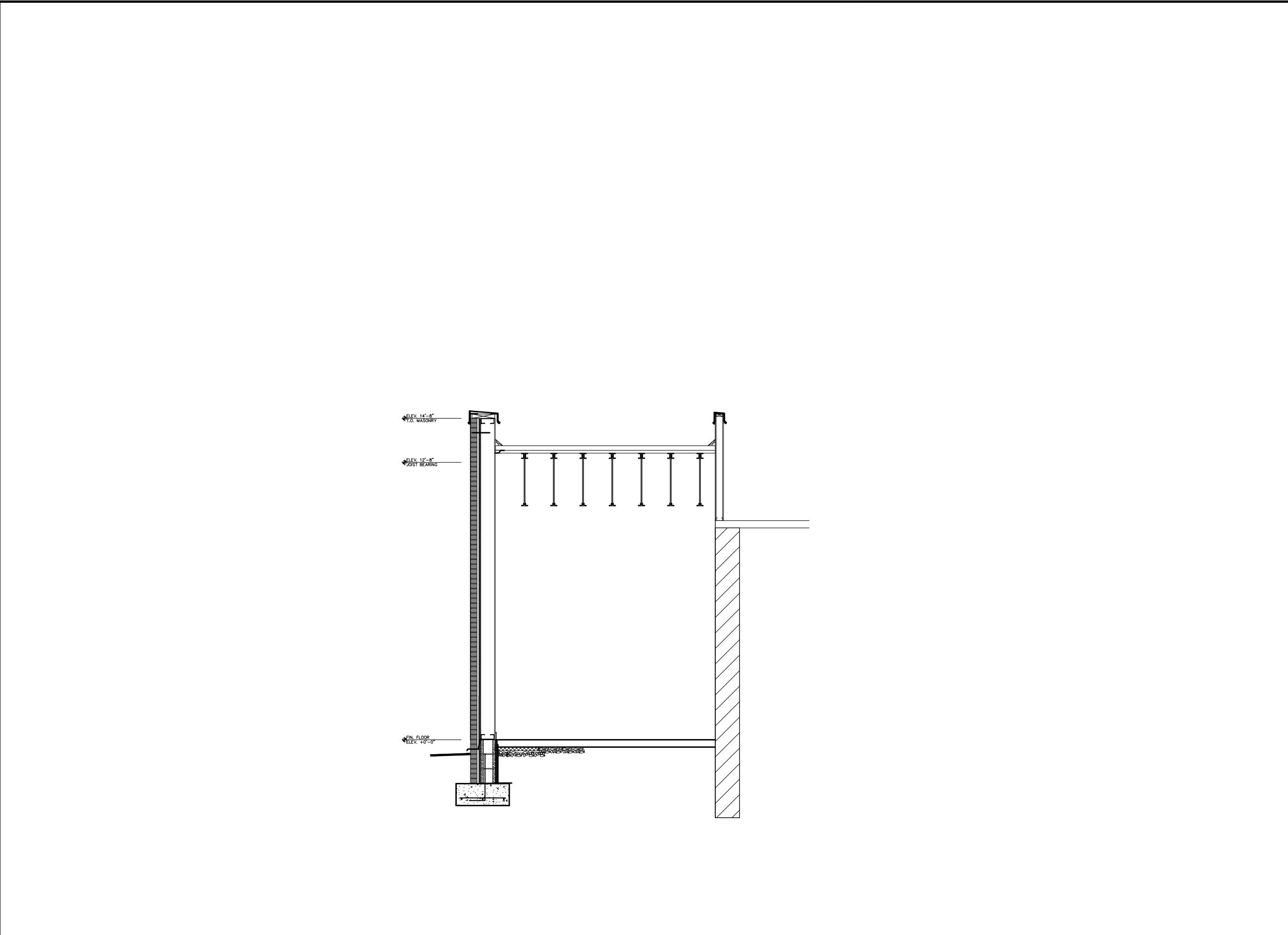
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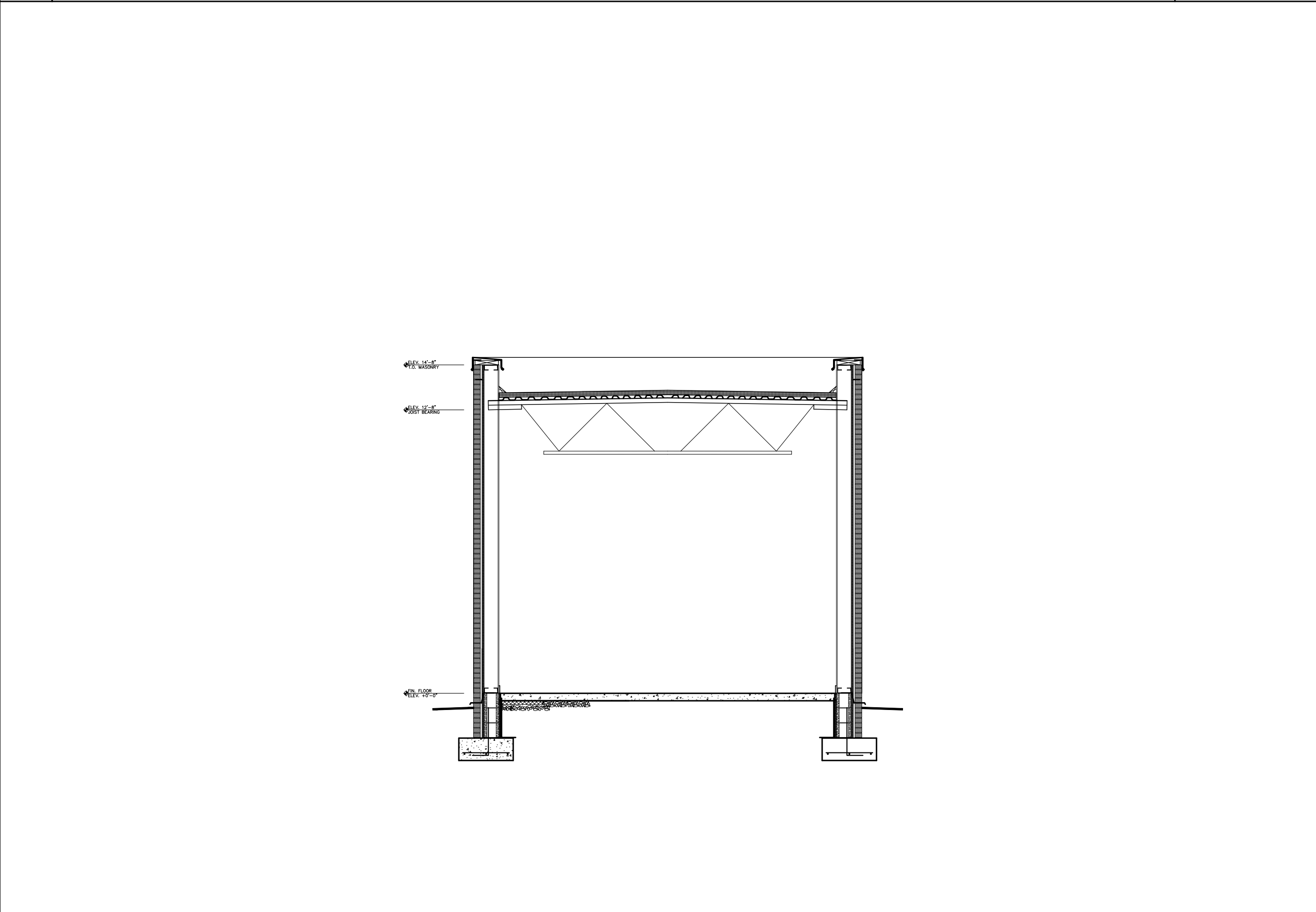
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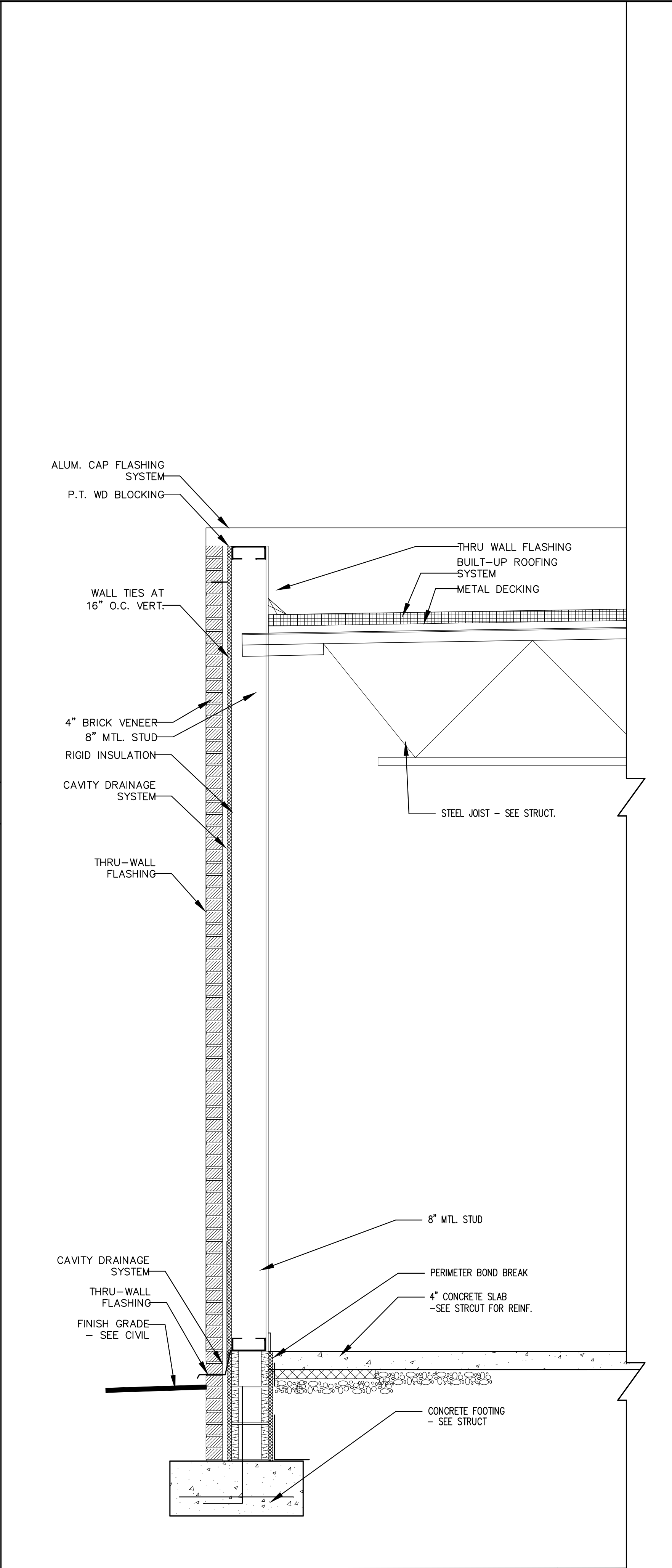
2 BUILDING SECTION CUT

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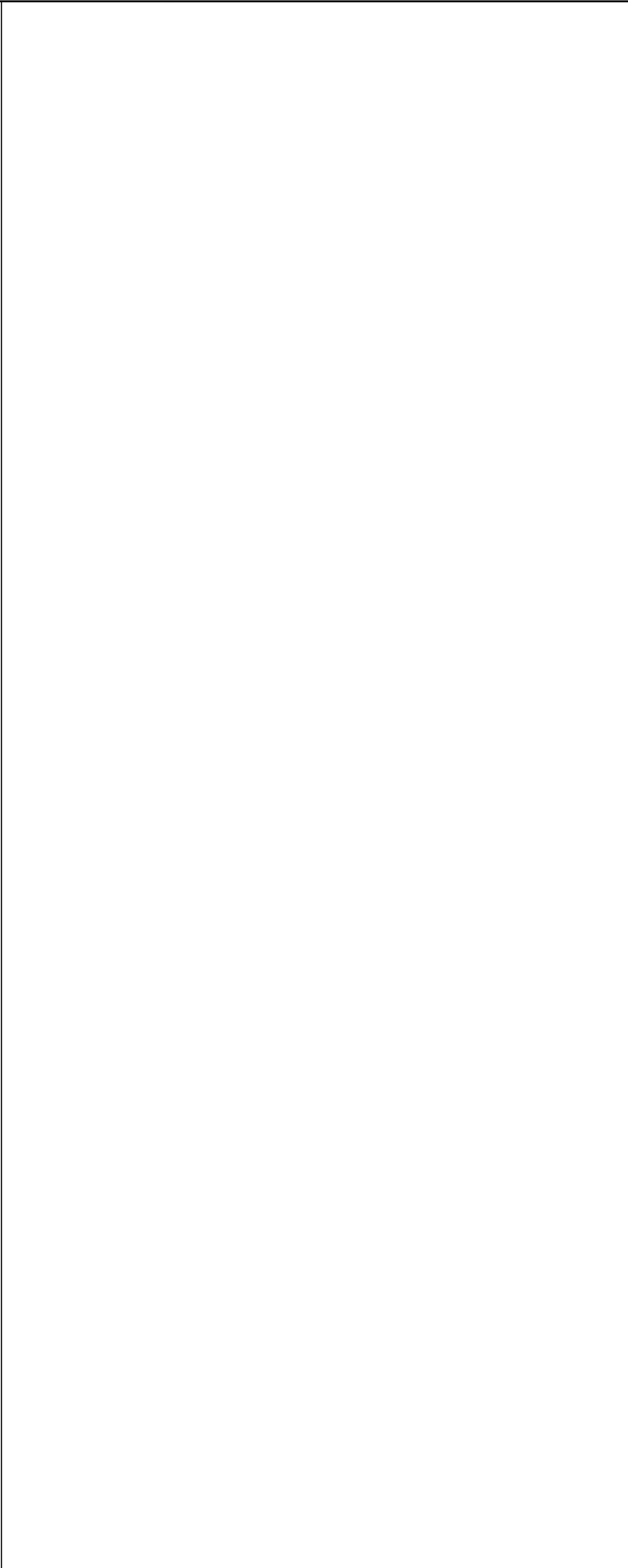
1 BUILDING SECTION CUT

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



3 WALL SECTION

SCALE: 3/4"=1'-0"



4 WALL SECTION

SCALE: 3/4"=1'-0"

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- 1.0. GENERAL NOTES
- 1.1. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES AND OTHER ITEMS TO BE PLACED OR SET IN STRUCTURAL WORK.
- 1.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.
- 1.3. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 1.4. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK. THE SUPERVISION OF THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 1.5. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER.
- 1.6. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTED IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
- 1.7. LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION IS THE CONTRACTOR'S SOLE RESPONSIBILITY AND SHALL NOT EXCEED THE SAFE LOAD - CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE INDICATED IN THE "DESIGN CRITERIA NOTES". DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED TOGETHER AND UNTIL ALL TEMPORARY BRACING IS IN PLACE.
- 1.8. ALL ASTM AND OTHER REFERENCES ARE PER THE LATEST EDITIONS OF THESE STANDARDS, UNLESS OTHERWISE NOTED.
- 1.9. UNLESS OTHERWISE INDICATED, ALL ITEMS NOTED TO BE DEMOLISHED SHALL BECOME THE CONTRACTOR'S PROPERTY AND BE REMOVED FROM THE SITE.
- 1.10. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OF COST THEREOF.
- 1.11. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OR PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.
- 1.12. FIREPROOFING OF STRUCTURAL ELEMENTS IS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO THE SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR FIRE RATING REQUIREMENTS, MATERIALS AND METHODS.
- 1.13. THE CONTRACTOR SHALL INFORM THE STRUCTURAL ENGINEER, CLEARLY AND EXPLICITLY IN WRITING, OF ANY DEVIATION OR SUBSTITUTION OF REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS NOT RELIEVED OF ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS BY VIRTUE OF THE STRUCTURAL ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS CLEARLY AND EXPLICITLY INFORMED THE STRUCTURAL ENGINEER IN WRITING OF ANY DEVIATIONS OR SUBSTITUTIONS AT TIME OF SUBMISSION, AND THE STRUCTURAL ENGINEER HAS GIVEN WRITTEN APPROVAL FOR THE SPECIFIC DEVIATIONS OR SUBSTITUTIONS.
- 1.14. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE DRAWINGS OR SPECIFICATIONS, THEN THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE STRUCTURAL ENGINEER. CORRECTIONS OR WRITTEN INTERPRETATIONS SHALL BE ISSUED BEFORE AFFECTED WORK MAY PROCEED.
- 1.15. IF THE CONTRACTOR CANNOT CONSTRUCT ANY PORTION OF THE WORK IDENTIFIED IN THE DRAWINGS IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THEN THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE WORK. WORK THAT DOES NOT COMPLY WITH THE DRAWINGS MAY REQUIRE REMOVAL, TESTING, OR ENGINEERING EVALUATION AT THE CONTRACTOR'S EXPENSE
- 1.16. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.
- 1.17. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS, INCONSISTENCIES ON THE STRUCTURAL DRAWINGS OR BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER CONTRACT, SHOP, FABRICATION, OR OTHER DRAWINGS OR INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK.

- 2.0. CODES AND STANDARDS
- 2.1. NORTH CAROLINA BUILDING CODE 2012 (NCBC 2012).
- 2.2. INTERNATIONAL BUILDING CODE 2009 (IBC 2009).
- 2.3. "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", (ASCE 7-05).
- 2.4. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", (ACI 318-08).
- 2.5. "STEEL CONSTRUCTION MANUAL", (AISC 360 13TH EDITION)
- 2.6. "MANUAL OF STANDARD PRACTICE", CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
- 2.7. "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", (NDS 2005).
- 2.8. "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES", (ACI 530-08).

3.0. DESIGN LOADS

DEAD AND LIVE LOADS (PSF)		AREA							
		ROOF	SLAB ON GRADE						
COMPONENT DEAD LOAD									
SHEATHING/ROOFING		3	-						
STEEL BEAMS/JOISTS		5	-						
4" SLAB ON GRADE		-	50						
COLLATERAL		2	-						
TOTAL DEAD LOAD		10	50						
TOTAL LIVE LOAD		20	100						
TOTAL LOAD		30	150						

SNOW LOADS (PSF)			
ASCE 7-10			
ITEM	SYMBOL	VALUE	REFERENCE
GROUND SNOW LOAD	P _g	10	FIGURE 7-1
SNOW EXPOSURE FACTOR	C _e	1.0	TABLE 7-2
THERMAL FACTOR	C _t	1.0	TABLE 7-3
SNOW LOAD IMPORTANCE FACTOR	I _s	1.0	TABLE 7-4
RAIN ON SNOW SURCHARGE	R _s	-	SECTION 7-10
SLOPE FACTOR	C _s	1.0	FIGURE 7-2
FLAT-ROOF SNOW LOAD	P _f	7.0	EQUATION 7-1
SLOPED-ROOF SNOW LOAD	P _s	7.0	EQUATION 7-2
MINIMUM FLAT-ROOF SNOW LOAD	P _{f-min}	10.0	SECTION 7.3.4
DESIGN ROOF SNOW LOAD	P _{f-design}	10.0	

WIND AND SEISMIC LOADS				
ASCE 7-10				
WIND LOADS				
ITEM	SYMBOL	VALUE	REFERENCE	
BASIC WIND SPEED (3 SEC GUST)	V	115MPH	FIGURE 26.5-1A	
WIND LOAD IMPORTANCE FACTOR	I _w	1.0	TABLE 1.5-2	
WIND LOAD EXPOSURE CATEGORY		B	SECTION 26.7.2	
ANALYSIS PROCEDURE	MWFRS (LOW-RISE BUILDING)		CHAPTER 28	FIGURE 28.4-1
WIND BASE SHEAR	V _x	2.0K	-	
	V _y	2.5K		
SEISMIC LOADS				
ITEM	SYMBOL	VALUE	REFERENCE	
SEISMIC LOAD IMPORTANCE FACTOR	I _e	1.0	SECTION 1.5-2	
SHORT PERIOD SPECTRAL ACCELERATION	S _s	0.24	SECTION 11.4.1	FIGURE 22.1
(1) SECOND PERIOD SPECTRAL ACCELERATION	S ₁	0.102	SECTION 11.4.1	FIGURE 22.2
MAPPED LONG PERIOD TRANSITION PERIOD	T _L	8	SECTION 11.4.5	FIGURE 22-12
RISK CATEGORY	OC	II	TABLE 1-1	
SEISMIC DESIGN CATEGORY	SDC	C	SECTION 11.6	
SITE CLASSIFICATION	-	D	SECTION 20.1	TABLE 20.3-1
BASIC STRUCTURAL SYSTEM	-	BEARING WALL SYSTEMS	TABLE 12.2-1	
BASIC SEISMIC-RESISTING SYSTEM	-	Light Framed Wood Structural Panels	TABLE 12.2-1	
RESPONSE MODIFICATION FACTOR	R	3	TABLE 12.2-1	
SYSTEM OVERSTRENGTH FACTOR	Q ₀	3	TABLE 12.2-1	
DEFLECTION AMPLIFICATION FACTOR	C _d	3	TABLE 12.2-1	
ANALYSIS PROCEDURE	-	EQUIVALENT LATERAL FORCE	SECTION 12.8	
SEISMIC BASE SHEAR	V _x	1.5K	EQUATION 12.8-1	
	V _y	1.5K		

4.0 SITE PREPARATION NOTES

- 4.1. WITHIN A MINIMUM AREA OF 5 FEET BEYOND THE STRUCTURE LIMITS, EXCAVATE A MINIMUM OF 3 FEET OF EXISTING SOIL. REMOVE ALL ORGANICS, PAVEMENT, ROOTS, DEBRIS AND OTHERWISE UNSUITABLE MATERIAL.
- 4.2. THE SURFACE OF THE EXPOSED SUBGRADE SHALL BE INSPECTED BY PROBING OR TESTING TO CHECK FOR POCKETS OF SOFT OR UNSUITABLE MATERIAL. EXCAVATE UNSUITABLE SOIL AS DIRECTED BY THE GEOTECHNICAL ENGINEER AND/OR TESTING AGENCY.
- 4.3. PROOFROLL THE SURFACE OF THE EXPOSED SUBGRADE WITH A LOADED TANDEM AXLE DUMP TRUCK. REMOVE ALL SOILS WHICH PUMP OF DO NOT COMPACT PROPERLY AS DIRECTED BY THE GEOTECHNICAL ENGINEER AND/OR TESTING AGENCY.
- 4.4. FILL ALL EXCAVATED AREAS WITH APPROVED CONTROLLED FILL. PLACE IN 8 INCH LOOSE LIFTS AND COMPACT TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-698.
- 4.5. ALL CONTROLLED FILL MATERIAL SHALL BE A SELECT GRANULAR MATERIAL FREE FROM ALL ORGANICS OR OTHERWISE DELETERIOUS MATERIAL WITH NOT MORE THAN 20% BY WEIGHT PASSING A NO. 200 SIEVE (CLASSIFIED AS SC, SM, SP OR BETTER IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM) AND WITH A PLASTICITY INDEX NOT EXCEEDING 6%.
- 4.6. PROVIDE FIELD DENSITY TEST FOR EACH 3000 S.F. OF BUILDING AREA FOR EACH LIFT OF CONTROLLED FILL.

- 5.0 FOUNDATION NOTES
- 5.1. NO GEOTECHNICAL STUDY WAS PERFORMED FOR THIS PROJECT ON THIS SITE. FOUNDATION DESIGN IS BASED UPON CODE RECOMMENDED SOIL CRITERIA.
- 5.2. ALL FOOTINGS HAVE BEEN DESIGN UPON A SOIL BEARING PRESSURE OF 2000 PSF PER CODE RECOMMENDED SOIL CRITERIA.
- 5.3. ALL FOOTINGS SHALL BEAR ON UNDISTURBED, FIRM NATURAL SOIL OR COMPACTED FILL. ALL FOOTINGS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER AND/OR TESTING AGENCY, INCLUDING VERIFICATION OF ABOVE ASSUMED SOIL BEARING PRESSURE PRIOR TO POURING FOUNDATION CONCRETE.
- 5.4. UNLESS NOTED OTHERWISE, THE CENTERLINES OF COLUMN FOOTINGS SHALL COINCIDE WITH THE CENTERLINE OF THE SUPPORTED COLUMN.
- 5.5. PRIOR TO COMMENCING ANY FOUNDATION WORK WORK, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATING WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES. STRUCTURAL ENGINEER MUST BE NOTIFIED IF FOOTINGS ARE LOWERED MORE THAN 1'-0" RELATIVE TO THAT WHICH IS SHOWN.

6.0 SLAB ON GRADE NOTES

- 6.1. PROVIDE CONCRETE SLABS OVER 4 INCHES OF POROUS FILL, REFER TO ARCHITECTURAL DRAWINGS AND/OR SPECIFICATIONS FOR ADDITIONAL MOISTURE/DRAINAGE REQUIREMENTS.
- 6.2. ALL WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-185. LAP ADJOINING PIECES AT LEAST ONE FULL MESH AND PLACED 1-1/2" BELOW TOP OF SLAB.
- 6.3. ALL POROUS FILL MATERIAL SHALL BE A CLEAN GRANULAR MATERIAL WITH 100% PASSING A 1-1/2 INCH SIEVE AND NO MORE THAN 5% PASSING A NO. 4 SIEVE. POROUS FILL SHALL BE COMPACTED TO 95% MAX DRY DENSITY PER ASTM D-698.
- 6.4. SLAB JOINTS SHALL BE FILLED WITH APPROVED MATERIAL. THIS SHOULD TAKE PLACE AS LATE AS POSSIBLE, PREFERABLY 4 TO 6 WEEKS AFTER THE SLAB HAS BEEN CAST. PRIOR TO FILLING, REMOVE ALL DEBRIS FROM THE SLAB JOINTS, THEN FILL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATINONS AS FOLLOWS:

a. 6" SLABS - FILL WITH EPOXY RESIN

b. OTHER SLABS - FILL WITH FIELD MOLDED OR ELASTOMERIC SEALANT.
- 6.5. UNLESS OTHERWISE APPROVED, ALL SLAB REINFORCEMENT SHALL BE SECURED INTO POSITION WITH PLASTIC TIPPED OR STAINLESS STEEL BAR SUPPORTS. BRICK OR OTHER MASONRY UNITS ARE NOT PERMITTED FOR USE AS SUPPORTS.
- 6.6. SLABS TO PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+/- 1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.
- 6.7. SLABS NOT PERMANENTLY EXPOSED TO WEATHER SHALL NOT BE AIR ENTRAINED AND ENTRAPPED AIR SHALL BE LIMITED TO 3%.
- 6.8. IN ORDER TO MINIMIZE CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE IN AN ALTERNATING LANE OR CHECKERBOARD PATTERN. THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO BE LESS THAN 100 FEET. THE MAXIMUM SPACING OF JOINTS SHALL BE 15'-0".
- 6.9. THE USE OF POLYPROPYLENE FIBERS IN LIEU OF WELDED WIRE FABRIC IS PROHIBITED WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER.
- 6.10. REFER TO ARCHITECTURAL DRAWINGS FOR DEPRESSED SLAB AREAS AND DRAINS, SLOPE SLAB TO DRAINS WHERE SHOWN.
- 6.11. SLABS HAVE BEEN DESIGNED BASED ON THE A SUBGRADE MODULUS, K=120 PCI.

- 7.0 PLYWOOD SHEATHING NOTES
- 7.1. ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH AMERICAN PLYWOOD ASSOCIATION (APA) SPECIFICATIONS.
- 7.2. ALL ROOF PANEL SHEATHING SHALL BE 7/16 INCH (NOMINAL) TYPE CDX, EXP 1 APA RATED 24/16 SHEATHING. SUITABLE EDGE SUPPORT SHALL BE PROVIDED BY USE OF PANEL CLIPS OR BLOCKING BETWEEN FRAMING. UNLESS NOTED OTHERWISE CONNECT ROOF SHEATHING WITH 6d COMMON NAILS AT 6 INCHES ON CENTER AT SUPPORTED PANEL EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS..
- 7.3. ALL WALL PANEL SHEATHING, INCLUDING DESIGNATED SHEARWALLS, SHALL BE 7/16 INCHES (NOMINAL) TYPE CDX, EXP 1. APA RATED 24/16 SHEATHING WITH 10d COMMON NAILS SPACED 6 INCHES ON CENTER AT SUPPORTED PANEL EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. INSTALL ALL PLYWOOD SHEATHING WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS. ALLOW 1/8 INCH SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.
- 7.4. NAILS SHOULD NOT BE OVERDRIVEN. THE USE OF PNEUMATIC NAIL GUNS IS PERMITTED PROVIDED (1) NAIL IS INSTALLED FOR EVERY OVERDRIVEN NAIL (THOSE SUNK MORE THAN 1/8 INCH INTO SHEATHING). THE USE OF STAPLES IS PROHIBITED.

8.0 MASONRY

- 8.1. MASONRY CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR MASONRY STRUCTURES".
- 8.2. HOLLOW LOAD-BEARING MASONRY UNITS SHALL CONFORM TO ASTM C-90, GRADE N-1 AND BE MADE WITH LIGHTWEIGHT AGGREGATE. THE MINIMUM PRISM COMPRESSIVE STRENGTH (F'm) SHALL BE 1550 PSI AT AN AGE OF 28 DAYS, AS DETERMINED BY THE UNIT STRENGTH METHOD OF ACI 530.1.
- 8.3. FILL ALL BOND BEAMS AND REINFORCED CELLS SOLIDLY WITH GROUT. GROUT SHALL CONFORM TO ASTM C-476 AND SHALL OBTAIN A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.
- 8.4. REINFORCING STEEL SHALL BE BE IN ACCORDANCE WITH ASTM A-615, GRADE 60. SHOP FABRICATE REINFORCING BARS WHICH ARE SHOWN TO BE HOOKED OR BENT. PROVIDE A MINIMUM LAP SPICE PER "CMU LAP SPICE SCHEDULE" (SEE TYPICAL DETAILS) AT ALL SPLICES, UNLESS INDICATED OTHERWISE
- 8.5. THE USE OF MASONRY-CEMENT MORTAR IS STRICTLY PROHIBITED. MORTAR SHALL CONFORM TO ASTM C-270, TYPE S. ALL MORTAR SHALL MEET THE "PROPORTION SPECIFICATION" OF ASTM C-270 AND BE MADE WITH PORTLAND CEMENT/LIME (NON AIR-ENTRAINED).
- 8.6. UNLESS OTHERWISE INDICATED, ALL WALLS SHALL BE LAID IN RUNNING BOND. BOND CORNERS AND INTERSECTIONS OF LOAD-BEARING WALLS
- 8.7. PROVIDE VERTICAL REINFORCING BARS AT ALL WALL CORNERS, INTERSECTIONS AND OPENING EDGES. MASONRY WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "LOW LIFT" DETAILS INDICATED.
- 8.8. PROVIDE REBAR DOWELS FROM FOUNDATIONS TO MATCH VERTICAL REINFORCING SIZE. DOWELS SHALL HAVE STANDARD 90 DEGREE HOOKS AND LAP WITH THE FIRST LIFT OF REINFORCING.
- 8.9. PROVIDE HORIZONTAL BOND BEAMS WITH CONTINUOUS REINFORCING AS INDICATED. DISCONTINUE ALL HORIZONTAL REINFORCING AT CONTROL JOINTS EXCEPT FOR THE BOND BEAMS AT BEARING ELEVATIONS.
- 8.10. PROVIDE STANDARD 9 GAUGE HORIZONTAL JOINT REINFORCING AT 16" ON CENTER IN ALL WALLS. PROVIDE TRUSS TYPE JOINT REINFORCEMENT FOR ALL CONCRETE MASONRY. COORDINATE BRICK TIE BACK REQUIREMENTS WITH THE ARCHITECTURAL DRAWINGS. UNLESS NOTED OTHERWISE, STOP ALL HORIZONTAL JOINT REINFORCEMENT AT CONTROL JOINTS.
- 8.11. PROVIDE BOND BEAM LINTELS AND BRICK SHELF ANGLES ABOVE ALL WALL OPENINGS PER TYPICAL DETAILS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL DOOR AND WINDOW OPENINGS.
- 8.12. THE MASONRY CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY WALL BRACING DURING CONSTRUCTION (SEE "GENERAL STRUCTURAL NOTES").
- 8.13. ALL MASONRY WALLS CELLS OR CAVITIES INDICATED AS REINFORCED SHALL BE GROUTED FOR THE FULL HEIGHT OF THE WALL, UNLESS SPECIFICALLY NOTED OTHERWISE, ON THE DRAWINGS. UN-REINFORCED WALLS INDICATED AS GROUTED SHALL BE GROUTED FULL HEIGHT, UNLESS SPECIFICALLY NOTED OTHERWISE.
- 8.14. ALL MASONRY CELLS OR CAVITIES BELOW GRADE SHALL BE GROUTED SOLID.
- 8.15. MASONRY CONTRACTOR SHALL PROVIDE FOR AND COORDINATE WITH OTHER TRADES FOR PLACEMENT OF ALL ITEMS TO BE EMBEDDED OF BUILT INTO THE MASONRY.

- 9.0 COLD FORMED STEEL (LIGHT GAUGE)
- 9.1. ALL COLD FORMED STEEL FRAMING MEMBERS, THEIR DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE LATEST EDITION OF THE "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" OF THE A.I.S.I.
- 9.2. ALL FRAMING MEMBERS SHALL BE FORMED FROM STEEL CONFORMING TO ASTM A446 WITH A MINIMUM YIELD STRENGTH AS FOLLOWS 12, 14, & 16 GAUGE MEMBERS: Fy = 50KSI.
- 9.3. 18 & 20 GAUGE MEMBERS: Fy = 33KSI
- 9.3. ALL FRAMING MEMBERS SHALL BE GALVANIZED WITH A G-60 COATING MEETING THE REQUIREMENTS OF ASTM A525.
- 9.4. MEMBERS SHALL BE THE MANUFACTURER'S STANDARD "C" SHAPED STUDS/JOISTS WITH A MINIMUM SIZE, FLANGE WIDTH AND GAUGE AS INDICATED. ALL MEMBERS SHALL HAVE A MINIMUM FLANGE LIP RETURN OF ½" AND SATISFY THE MINIMUM PROPERTIES AS PER "DIETRICH INDUSTRIES" OR APPROVED EQUAL.
- 9.5. CONNECTIONS AND MEMBER SIZES SHOWN ON THE DRAWINGS ARE SCHEMATIC AND ARE INTENDED ONLY TO SHOW THE RELATIONSHIP OF THE MEMBERS FOR INFORMATION AND PRICING/BIDDING. ALL MEMBER SIZES AND CONNECTIONS SHALL BE RESPONSIBILITY OF THE GENERAL CONTRACTOR (GC). GC SHALL PROVIDE MEMBER AND CONNECTION DESIGN BY ENGINEER LICENSED IN THE STATE OF SOUTH CAROLINA.
- 9.6. THE GAUGE OF ALL TRACKS SHALL BE NO LIGHTER THAN THE FRAMING BEING CONNECTED, UNLESS NOTED OTHERWISE. CONNECT TRACKS TO CONCRETE WITH A MINIMUM OF (2) 0.145" DIA POWER DRIVEN FASTENERS (WITH 1.125" EMBEDMENT) AT EACH STUD, OR AS REQUIRED BY THE LIGHT GAUGE DESIGNER.
- 9.7. ALL STRUCTURAL MEMBERS SHALL BE PROPERLY CONNECTED TO EACH OTHER AND TO THE SUPPORTING BACK-UP FRAMING. FASTENINGS SHALL BE MADE WITH SELF TAPPING SCREWS OR WELDS OF SUFFICIENT SIZE TO ENSURE THE CONNECTION STRENGTH.
- 9.8. PROVIDE THE MANUFACTURER'S STANDARD TRACK, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS AND ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AND AS NEEDED TO PROVIDE A COMPLETE FRAMING SYSTEM. UNLESS NOTED OTHERWISE, INSTALL THE METAL FRAMING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
- 9.9. FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL LIGHT GAUGE STEEL FRAMING AND SHALL RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA. THE ENGINEER SHALL SIGN AND SEAL BOTH CALCULATIONS AND SHOP DRAWINGS.
- 9.10. CUTTING OF STEEL FRAMING MEMBERS MAY BE DONE WITH A SAW OR CUTTING SHEARS.
- 9.11. COMPLETE, UNIFORM AN LEVEL BEARING SUPPORT SHALL BE PROVIDED FOR THE BOTTOM RUNNER. AT SPLICES WHERE SUPPORT IS NOT COMMON TO BOTH RUNNERS, EITHER PROVIDE BUTT WELDED RUNNERS OR USE OF A STUD SECTION INSERTED IN THE RUNNER AS A SPlicing MEMBER ATTACHED PER MANUFACTURER'S RECOMMENDATIONS. RUNNER INTERSECTIONS SHALL BUTT EVENLY.
- 9.12. SPACING OF STUDS SHALL HAVE A TOLERANCE OF 1/8 INCH FROM THAT SHOWN ON THE DRAWINGS, PROVIDED THAT THE CUMULATIVE ERRORS DOES NOT EXCEED THE REQUIREMENTS OF OTHER MATERIAL OR CONSTRUCTION.
- 9.13. ALIGNMENT OF STUDS (PLUMBNESS) AND WALL STRAIGHTNESS SHALL BE WITHIN ⅜640 th OF THEIR RESPECTIVE HEIGHTS AND LENGTHS.
- 9.14. STUDS SHALL BE PLUMBED, ALIGNED AND SECURELY ATTACHED TO BOTH TOP AND BOTTOM RUNNERS, SPLICES IN STUDS ARE NOT PERMITTED.
- 9.15. TEMPORARY BRACING, WHERE REQUIRED, SHALL BE PROVIDED UNTIL ERECTION IS COMPLETED.
- 9.16. WHERE MANUFACTURER'S RECOMMENDATIONS FOR ERECTION, ATTACHMENT, ASSEMBLY, BRACING, ALIGNMENT OR OTHER REQUIREMENTS ARE MORE STRINGENT THAN INDICATED IN THESE DRAWINGS OR THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS SHALL APPLY.

AMERICAN ARCHITECTURE
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PROJECT NO.	STRUCTURAL	FOUNDATION	CONCRETE
CONSULTANT'S LOGO			

Structural Capacity, PC

STRUCTURE CONSULTING GROUP

SCPC No.: 2021.10.0020

FOR SEAL

SEAL

033700

03/05/2021

6/10/20

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NEW ADDITION TO EXISTING:
Bradford Heights

1401 BRADFORD HEIGHTS RD.
GASTONIA, NC

GENERAL NOTES

REVISIONS:		
NO.	DATE:	DESCRIPTION
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DATE: MARCH 05, 2021		
SCALE:		
DRAWN BY: RW		
CHECKED BY: ASD		
JOB NO. 20-100		
CAD FILE: HOME		

S001

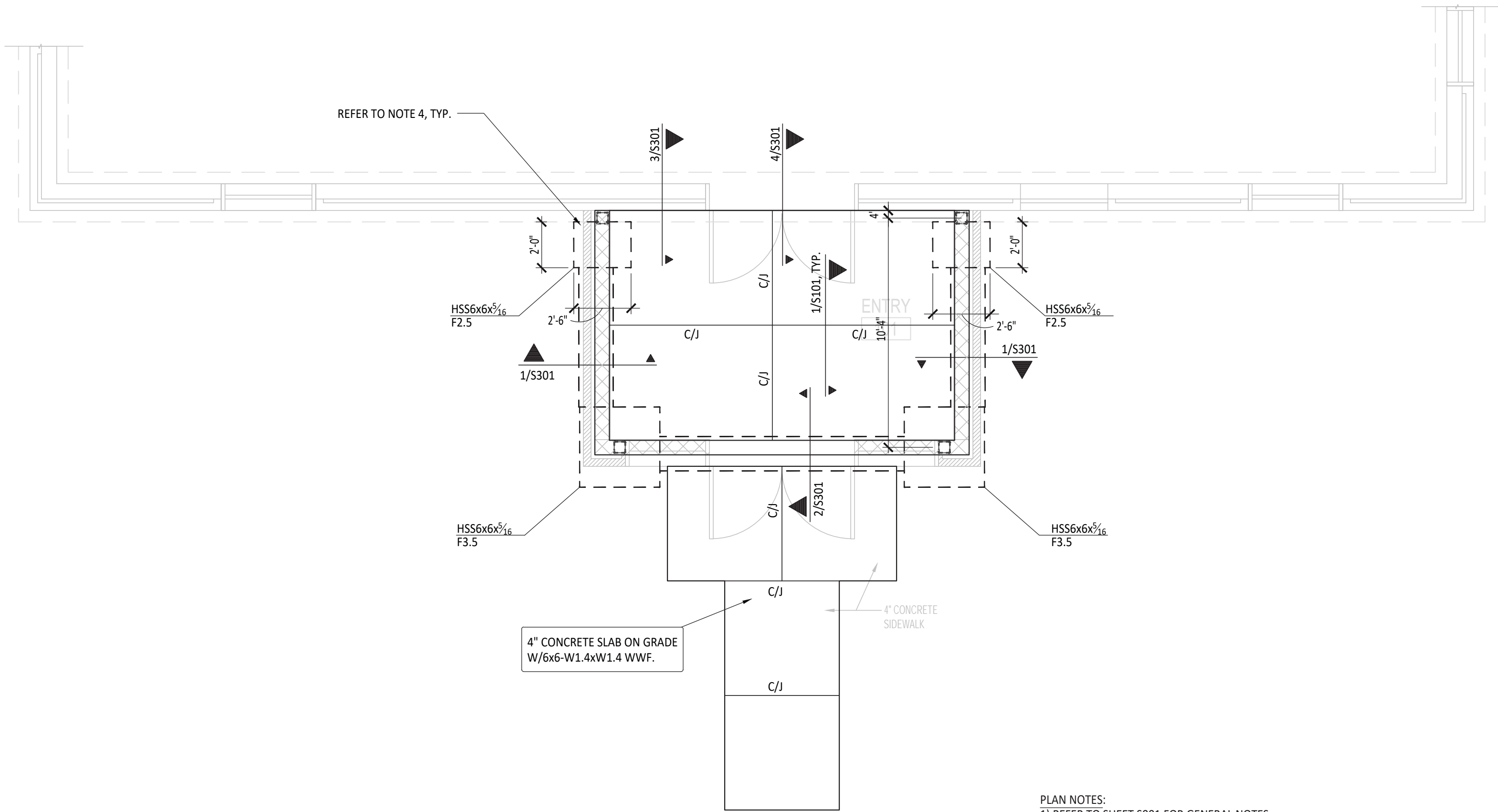
									<div><div>AMERICAN ARCHITECTURE</div><div>COLLABORATIVE, PLLC</div><div>4919 ALBEMARLE RD, SUITE 204 CHARLOTTE, NC 28206</div><div>TEL: 704.333.1965 FAX: 704.376.7122</div></div> <div>CONSULTANTS LOGO</div> <div>Structural Capacity, PC</div> <div>SCPC No.: 2021.10.0020</div> <div>SEAL 03/05/2021 ARJAN S. DUMAY</div> <div>THIS DOCUMENT IS THE PROPERTY OF A&C, PLLC, AND IS NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF THE DEVELOPER</div>
1/S101	TYPICAL FOOTING CORNER REINFORCEMENT SCALE: 3/4" = 1'-0"	2/S101	TYP. FOOTING INTERSECTION REINFORCEMENT SCALE: 1 1/2" = 1'-0"	3/S101	TYPICAL SLAB ON GRADE RE-ENTRANT CORNER SCALE: 3/4" = 1'-0"	4/S101	TYPICAL CONTROL JOINT SCALE: 3/4" = 1'-0"		
	<div>NOTE: SEE ARCH DWGS & SPECIFICATIONS FOR MOISTURE BARRIER/RETARDER</div>								
5/S101	TYPICAL CONSTRUCTION JOINT SCALE: 3/4" = 1'-0"	6/S101	TYPICAL STEPPED FOOTING SCALE: 3/4" = 1'-0"	7/S101	TYPICAL PIPE UNDER FOOTING SCALE: 3/4" = 1'-0"	8/S101	TYP. HSS COLUMN BASE CONNECTION SCALE: 3/4" = 1'-0"		
9/S101	TYPICAL COLUMN ISOLATION JOINT SCALE: 3/4" = 1'-0"	10/S101	SECTION SCALE: 3/4" = 1'-0"	11/S101	SECTION SCALE: 3/4" = 1'-0"	12/S101	SECTION SCALE: 3/4" = 1'-0"		

NEW ADDITION TO EXISTING: Bradford Heights	1401 BRADFORD HEIGHTS RD. GASTONIA, NC	TYPICAL DETAILS
REVISIONS:		
NO.	DATE	DESCRIPTION
1		
2		
3		
DATE: MARCH 05, 2021		
SCALE:		
DRAWN BY: RW		
CHECKED BY: ASD		
JOB NO. 20-100		
CAD FILE: HOME		

S101

1/S201

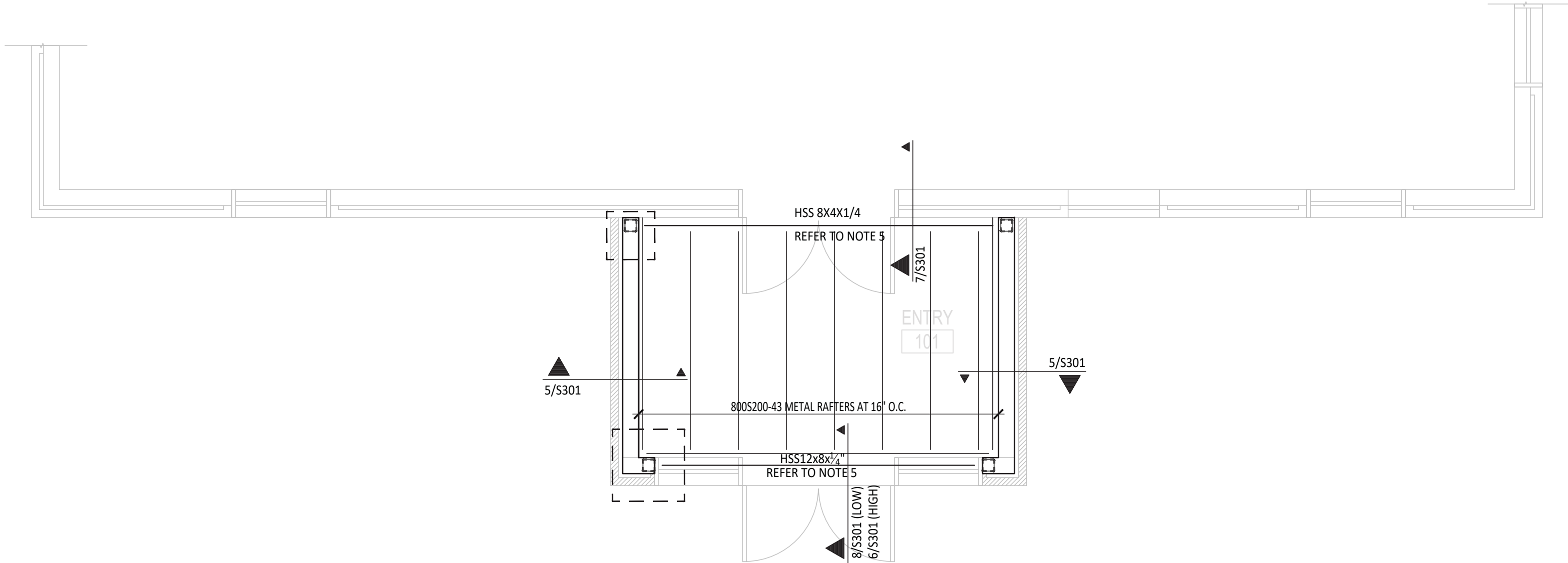
FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



- PLAN NOTES:
1) REFER TO SHEET S001 FOR GENERAL NOTES.
2) 4" SLAB ON GRADE WITH 6x6-W1.4xW1.4 WWF.
3) VERIFY ALL FINISHED FLOOR ELEVATIONS WITH ARCH AND/OR CIVIL DRAWINGS PRIOR TO CONSTRUCTION.
7) SLAB ELEVATION = +0'-0".
4) DRILL AND EPOXY FOOTING BARS INTO EXISTING FOOTING W/HILTI HY 200 ADHESIVE W/ 6" EMBEDMENT.
5) REFER TO 10/S301 FOR FOOTING SCHEDULE.

2/S201

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



- PLAN NOTES:
1) FOR GENERAL NOTES REFER TO S001.
2) FOR TYPICAL DETAILS REFER TO S102.
3) ELEVATIONS SHOWN ON PLAN ARE REFERENCED FROM FINISHED FLOOR ELEVATION (+0'-0").
VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCH DWGS. AND EXISTING FIELD CONDITIONS
BEFORE CONSTRUCTION.
4) REFER TO 9/S301 FOR SHEATHING SCHEDULE
5) ATTACH BEAM TO COLUMN WITH 1/4" FIELD, FILLET WELD ALL AROUND.

DESIGNED BY: R. HARRIS

PROJECT NO. 2021.10.0020

DATE: 03/05/2021

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

PROJECT: 1401 BRADFORD HEIGHTS RD. GASTONIA, NC

CLIENT: BRADFORD HEIGHTS

ARCHITECT: AMERICAN ARCHITECTURE COLLABORATIVE, PLLC

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CONSULTANTS LOGO

Structural Capacity, PC

STRUCTURAL CONSULTING GROUP

SCPC No.: 2021.10.0020

PROVIDER

NORTH CAROLINA

CERT. NO. C-5406

STRUCTURAL CAPACITY, PC

SEAL

033700

03/05/2021

ADRIAN S. DURANT

6/10/20

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NEW ADDITION TO EXISTING:

Bradford Heights

1401 BRADFORD HEIGHTS RD. GASTONIA, NC

FDN & ROOF FRMG PLANS

REVISIONS:

NO. DATE DESCRIPTION

1 03/05/2021

2 03/05/2021

3 03/05/2021

4 03/05/2021

5 03/05/2021

DATE: MARCH 05, 2021

SCALE:

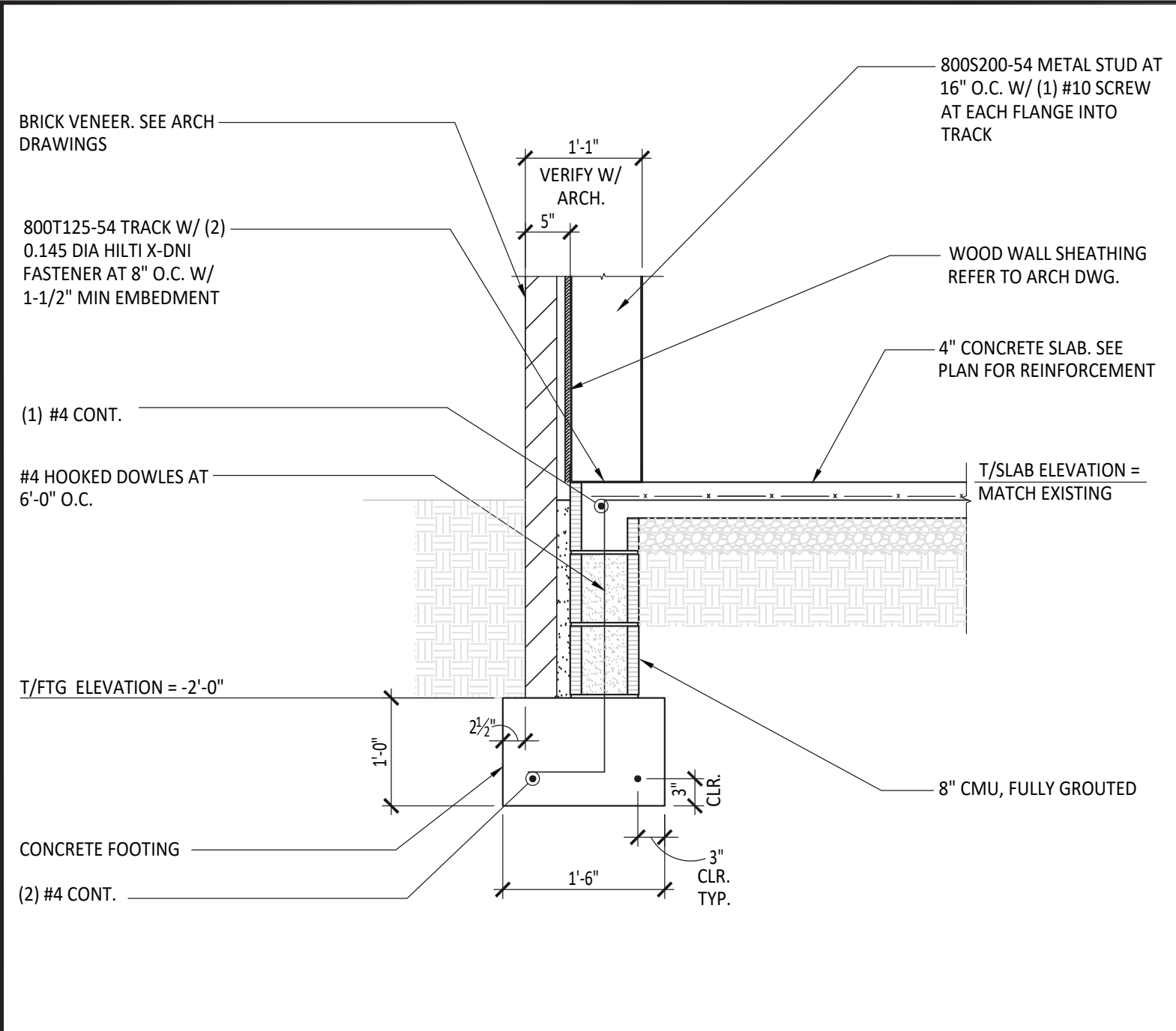
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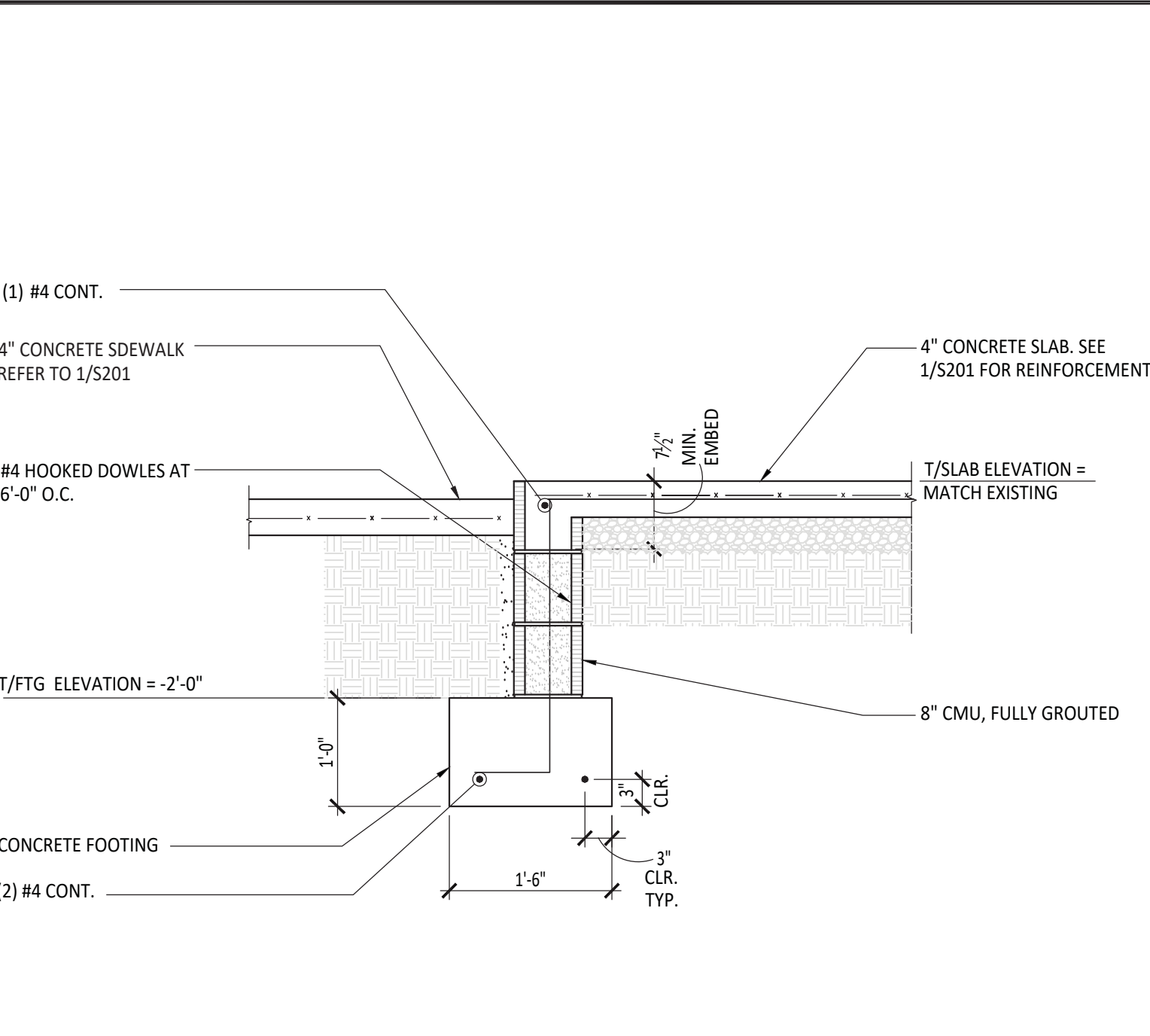
JOB NO. 20-100

CAD FILE: HOME

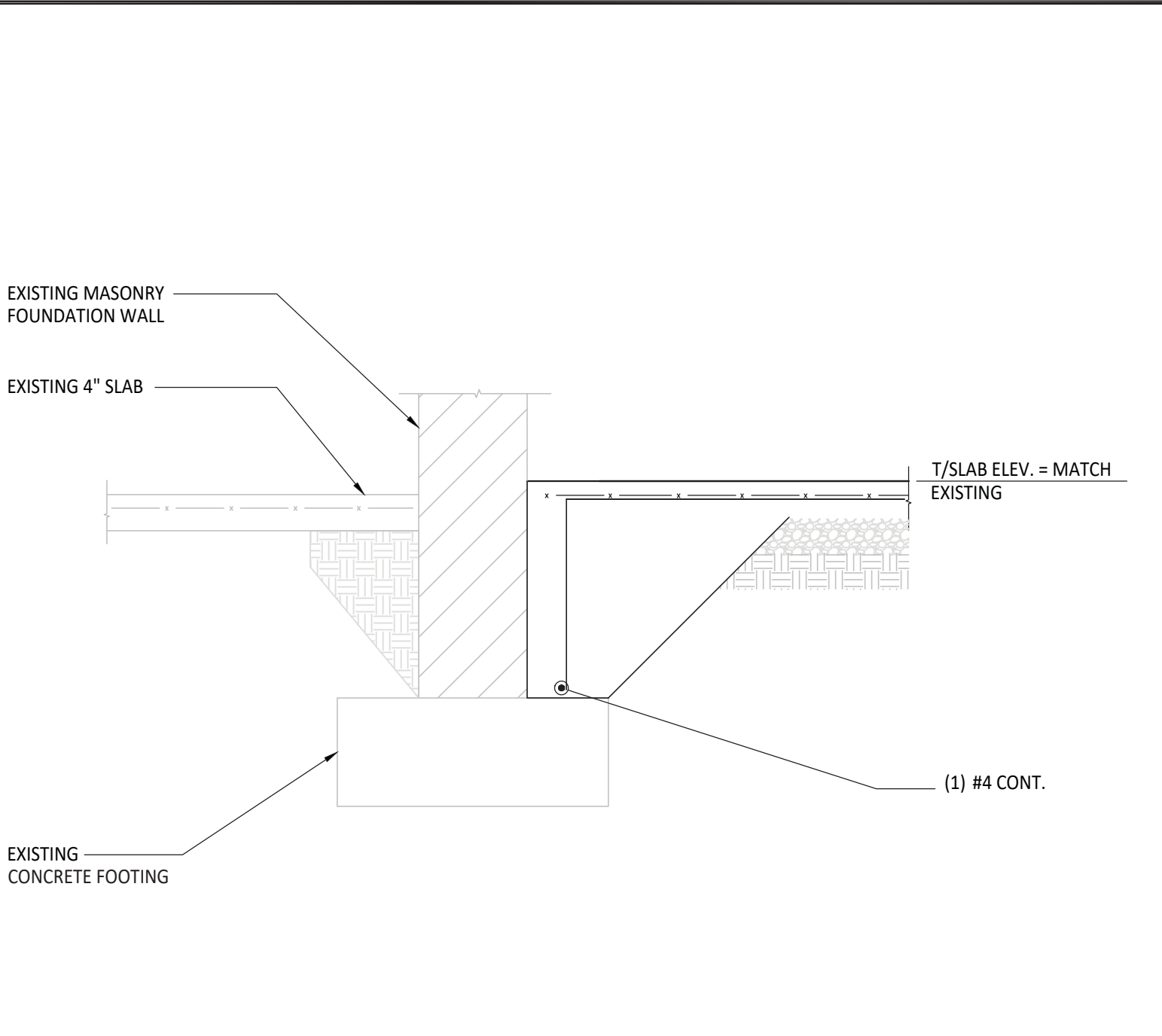
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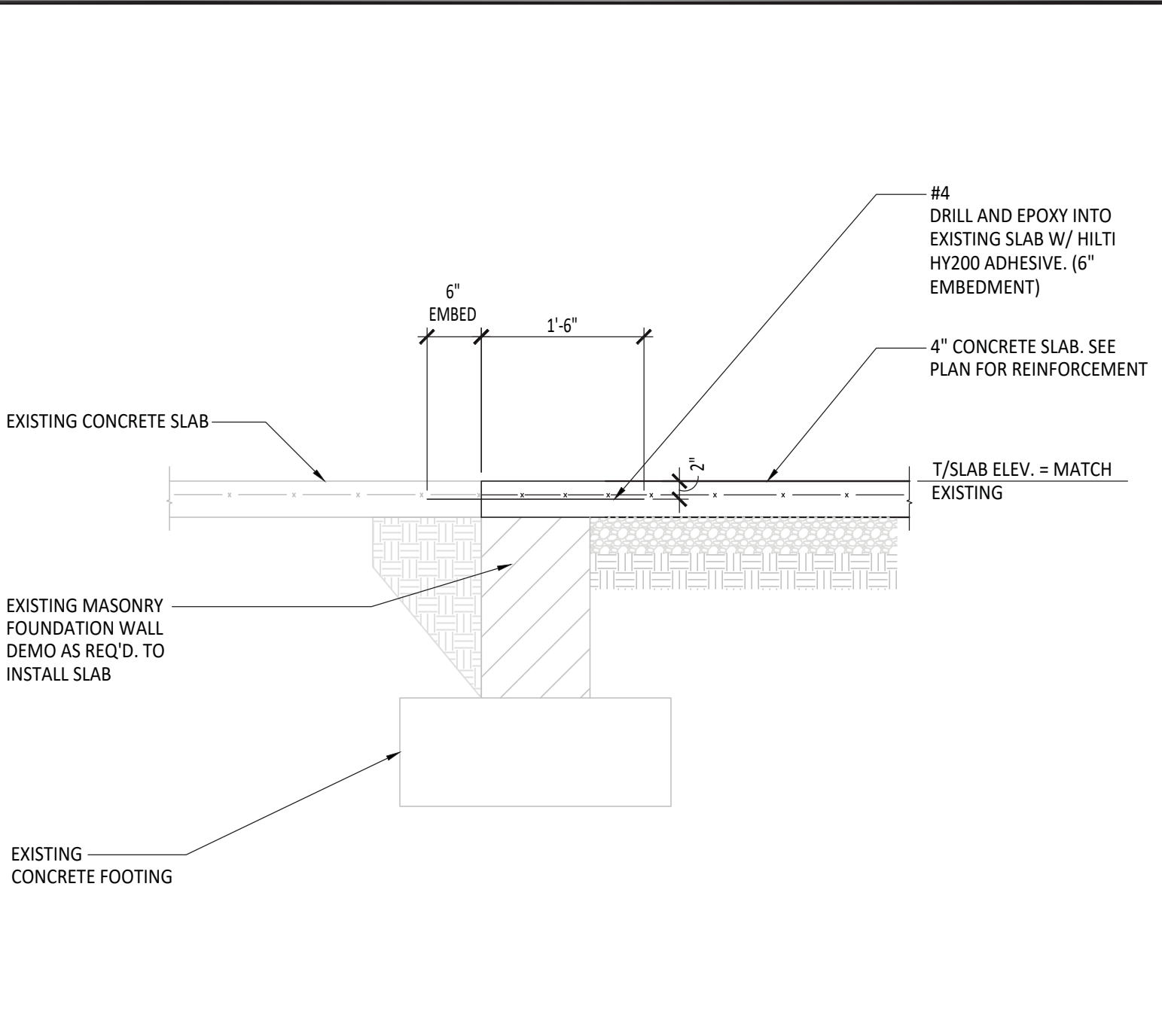
1/S301 SECTION
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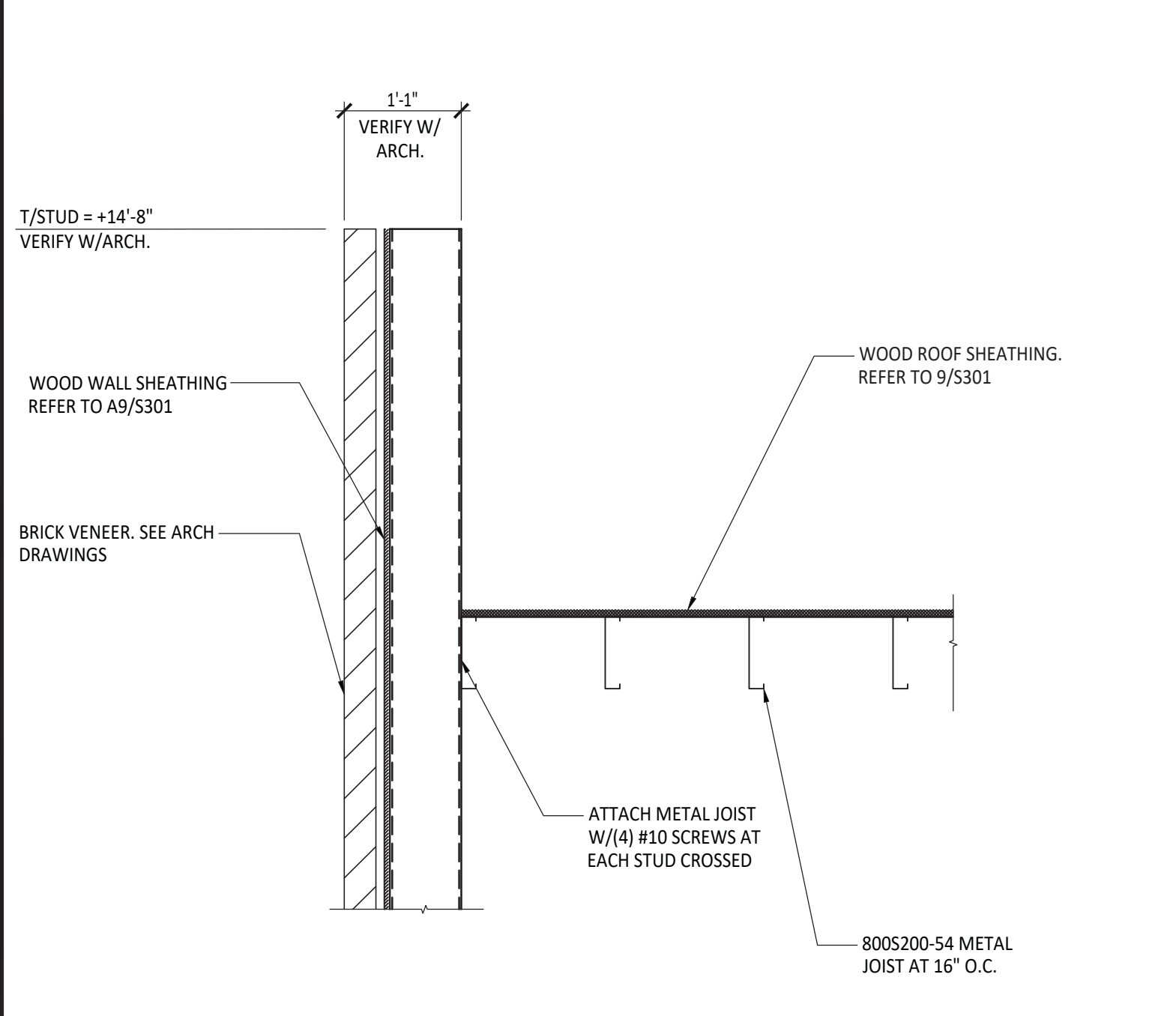
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SCALE: 3/4" = 1'-0"



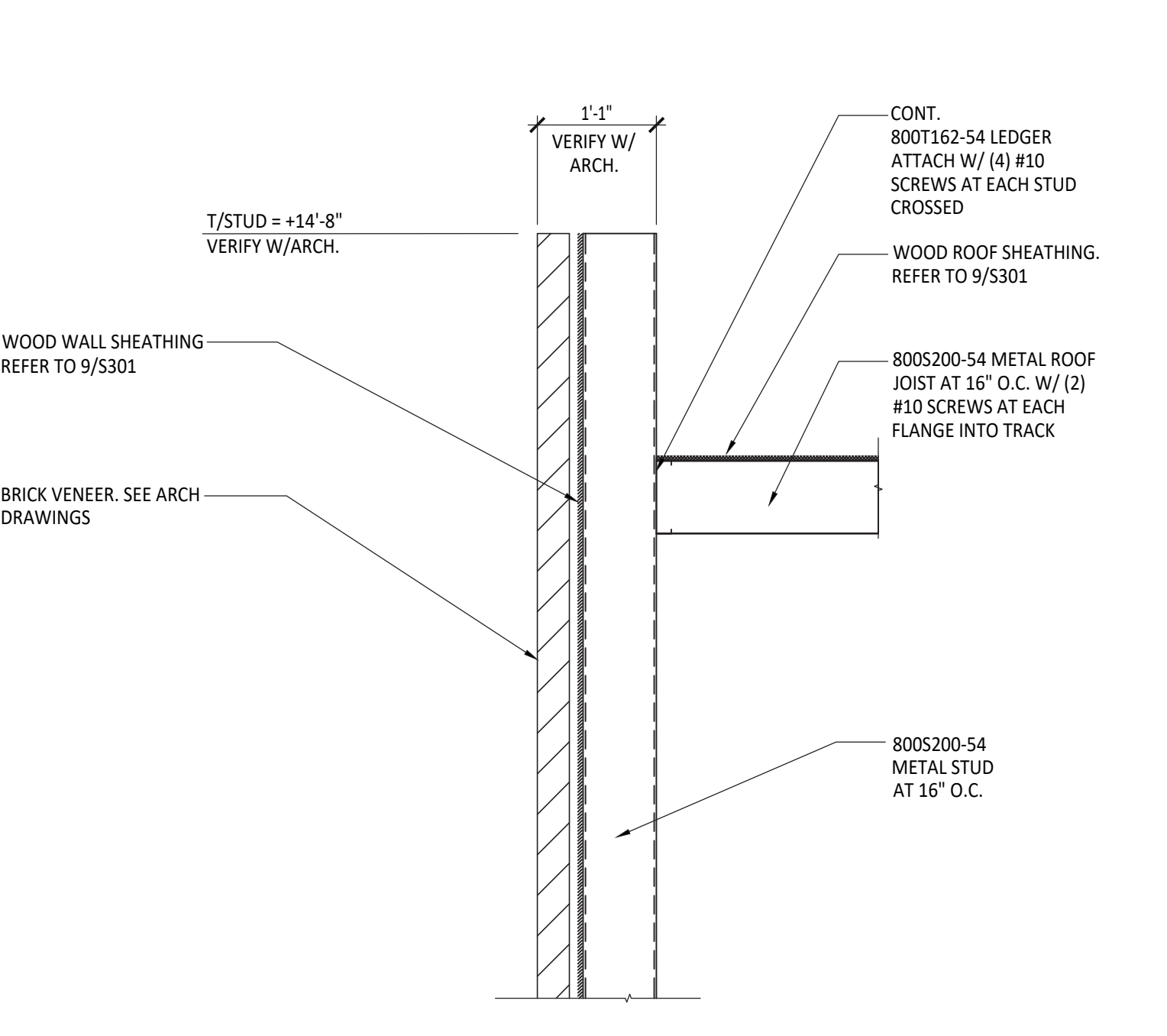
3/S301 SECTION
SCALE: 3/4" = 1'-0"



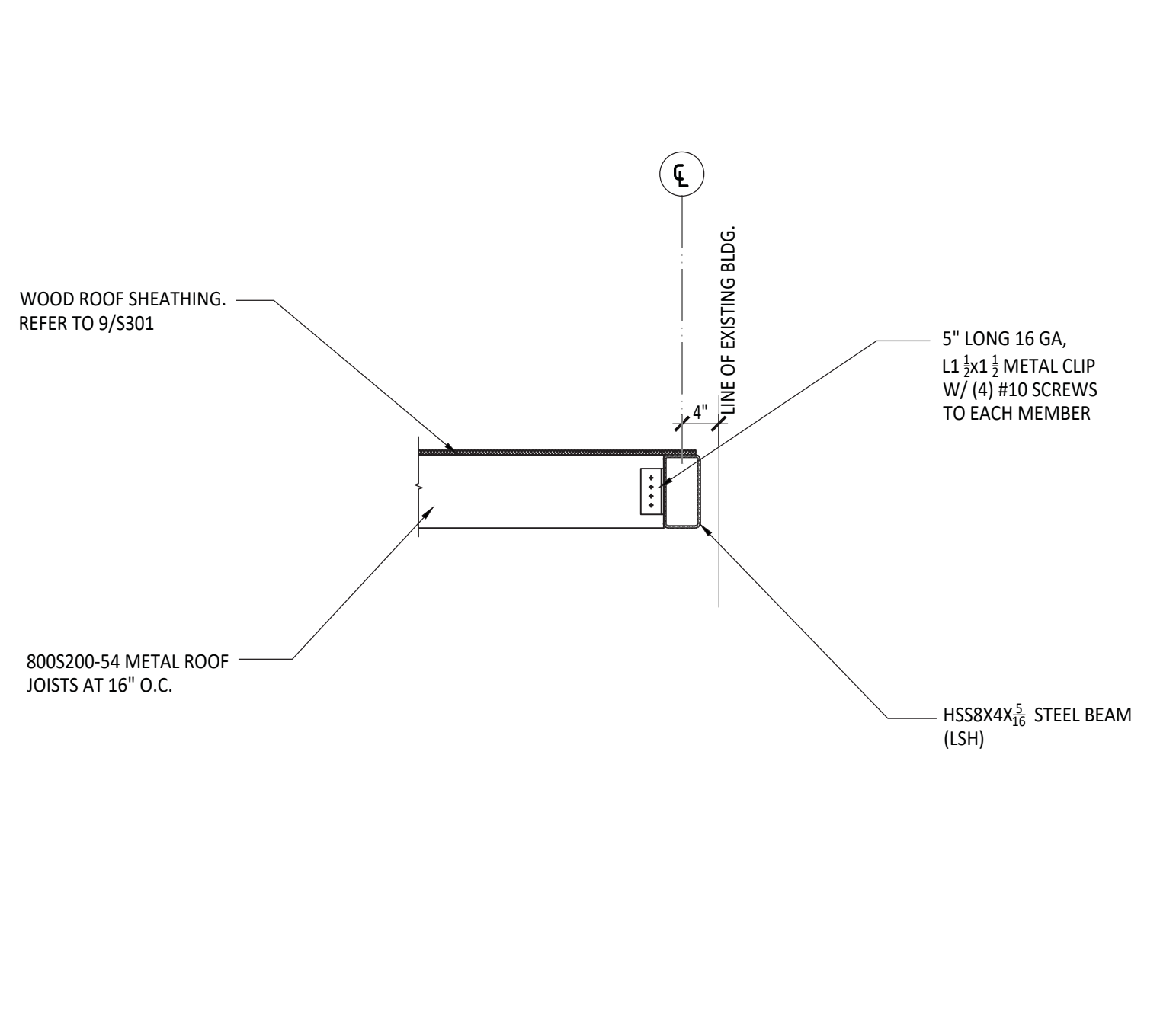
4/S301 TYPICAL CONTROL JOINT
SCALE: 3/4" = 1'-0"



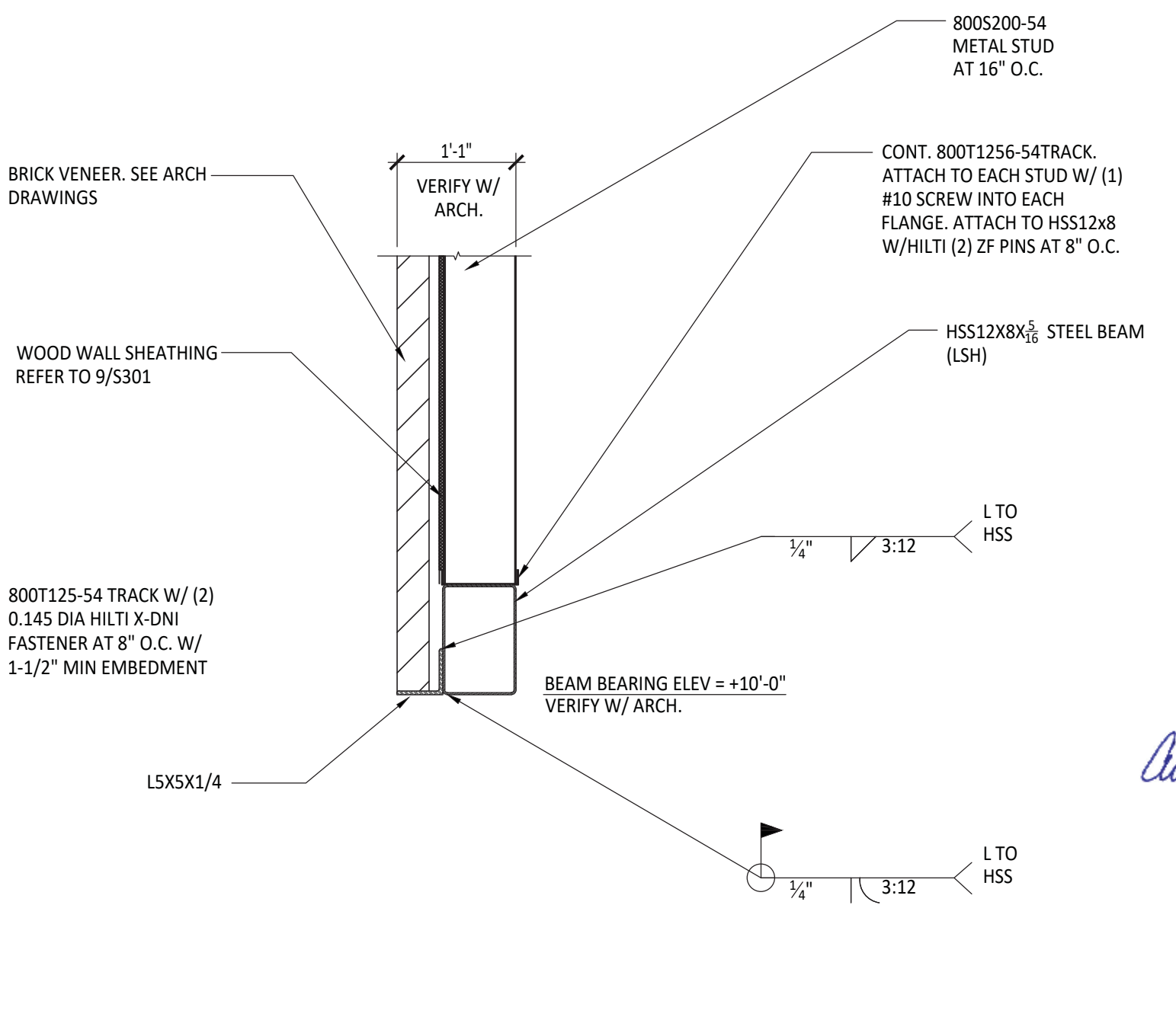
5/S301 SECTION
SCALE: 3/4" = 1'-0"



6/S301 SECTION
SCALE: 3/4" = 1'-0"



7/S301 SECTION
SCALE: 3/4" = 1'-0"



8/S301 SECTION
SCALE: 3/4" = 1'-0"

FLOOR, ROOF AND WALLS SHEATHING SCHEDULE	
SHEATHING	NAILING REQUIREMENTS
FLOORS	
23/32" APA RATED SHEATHING	GLUE AND NAILED WITH 8d COMMON NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. ALONG INTERMEDIATE SUPPORTS.
ROOFS	
7/16" APA RATED SHEATHING	GLUE AND NAILED WITH 8d COMMON NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. ALONG INTERMEDIATE SUPPORTS.
INTERIOR WALLS	
1/2" GYPSUM WALLBOARD	SCREW WITH #6 SCREWS AT 8" O.C. ALONG PANEL EDGES AND 12" O.C. ALONG INTERMEDIATE SUPPORTS.
EXTERIOR WALLS	
5/8" DENSGLASS SHEATHING	SCREW WITH #6 SCREWS AT 8" O.C. ALONG PANEL EDGES AND 12" O.C. ALONG INTERMEDIATE SUPPORTS.

9/S301 SHEATHING SCHEDULE
SCALE: NO SCALE

FOOTING SCHEDULE ⁽¹⁾				
F _p = 2000PSF ⁽²⁾				
MARK	SIZE	DEPTH	REINFORCEMENT	SERVICE LOAD CAPACITY
F2.0	2'-0" X 2'-0"	1'-0"	(3) #4 EW-BOTT	8.0k
F2.5	2'-6" X 2'-6"	1'-0"	(4) #4 EW-BOTT	12.5k
F3.0	3'-0" X 3'-0"	1'-0"	(4) #4 EW-BOTT	18.0k
F3.5	3'-6" X 3'-6"	1'-0"	(5) #4 EW-BOTT	24.0k
F4.0	4'-0" X 4'-0"	1'-4"	(6) #4 EW-BOTT	32.0k

NOTES:
1) CENTER FOOTING WITH COLUMN, U.N.O.
2) 2000 PSF SOIL BEARING PRESSURE TO BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.

10/S301 FOOTING SCHEDULE
SCALE: NO SCALE



11/S301 SECTION
SCALE: 3/4" = 1'-0"



12/S301 SECTION
SCALE: 3/4" = 1'-0"

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CONSULTANTS LOGO

Structural Capacity, PC
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SCPC No.: 2021.10.0020

SEAL
NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
CERT. NO. C-506
6/10/20

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NEW ADDITION TO EXISTING:
Bradford Heights

1401 BRADFORD HEIGHTS RD.
GASTONIA, NC

SECTIONS

REVISIONS:

NO.	DATE:	DESCRIPTION
1		
2		
3		
4		

DATE: MARCH 04, 2021

SCALE:

DRAWN BY: RW

CHECKED BY: ASD

JOB NO. 20-100

CAD FILE: HOME

S301