

**FRONT ELEVATION**

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

**ELEVATION NOTES**

**BUILDING CODES**  
THIS PLAN HAS BEEN DESIGNED UNDER THE NC BUILDING CODES, 2018 RESIDENTIAL EDITION.

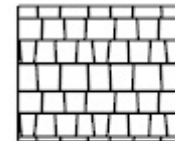




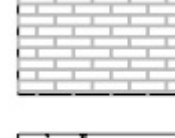


**ICE GUARDS:**  
ASPHALT SHINGLES SHALL BE USED ONLY ON ROOF SLOPES OF TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (2:12) OR GREATER. FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (2:12) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (4:12), DOUBLE UNDERLAYMENT APPLICATION IS REQUIRED IN ACCORDANCE WITH SECTION R905.1.1.

**VENTING CALCULATIONS**

**CRAWL SPACE VENTILATION**  
THE MIN. NET FREE AREA OF CRAWL VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF CRAWL SPACE AREA.  
1726 SQ. FT. CRAWL SPACE AREA / 150 = 11.5 SQ. FT. NET FREE AREA REQUIRED  
\*MAY BE REDUCED BY 50% W. VAPOR BARRIER

**ATTIC VENTILATION**  
2885 SQ. FT. OF ATTIC / 300 = 9.6 SQ. FT. OF INLET AND OUTLET VENTILATION MAY BE REDUCED 50% WHEN VENTILATORS ARE USED AT LEAST 3'-0" ABOVE THE CORNICE VENTS.

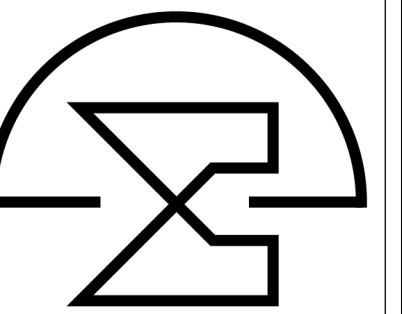
**MATERIAL LEGEND**

-  ASPHALT SHINGLES
-  STANDING SEAM METAL ROOF
-  HORIZONTAL LAP SIDING
-  BOARD & BATTEN SIDING @ 16" O.C.
-  SHAKE SIDING
-  BRICK VENEER
-  SYNTHETIC STONE VENEER
-  PARGED BLOCK FOUNDATION



**LEFT ELEVATION**

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



**REVISIONS**

NUMBER	DATE



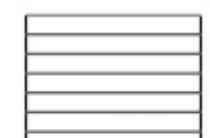





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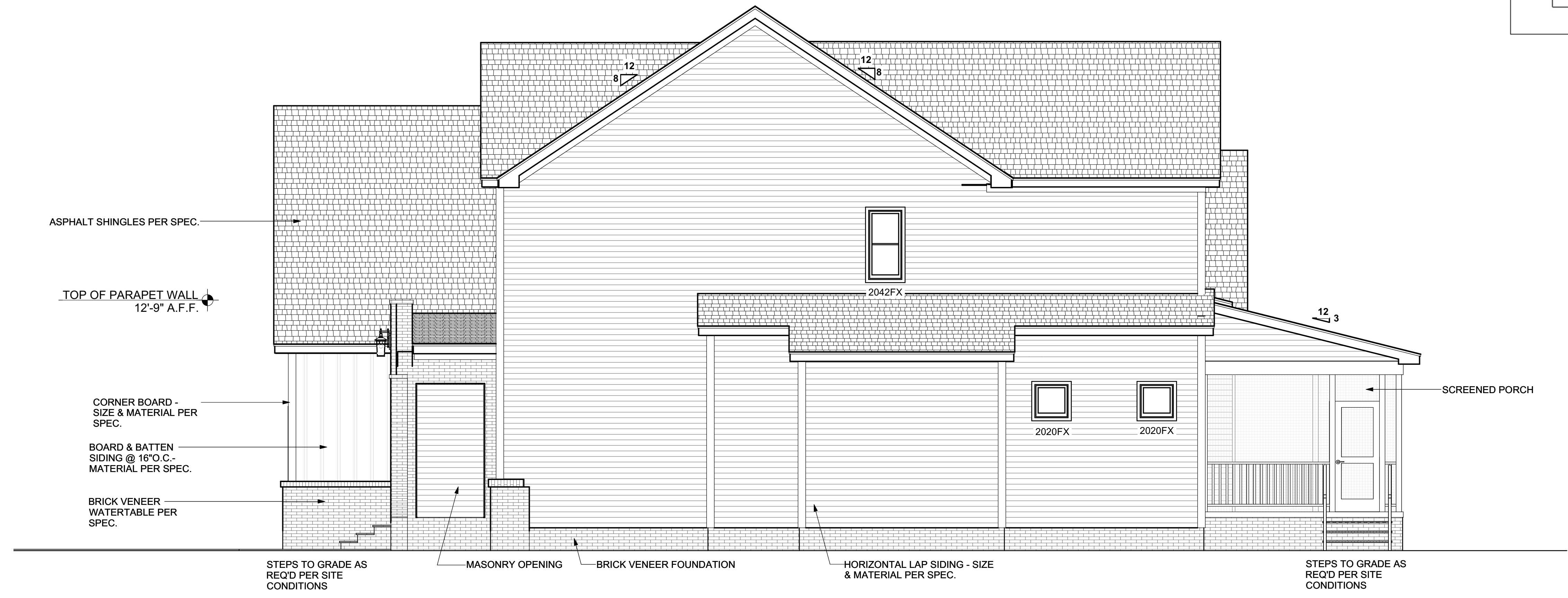
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**MATERIAL LEGEND**

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-  HORIZONTAL LAP SIDING
-  BOARD & BATTEN SIDING @ 16" O.C.
-  SHAKE SIDING
-  BRICK VENEER
-  SYNTHETIC STONE VENEER
-  PARGED BLOCK FOUNDATION

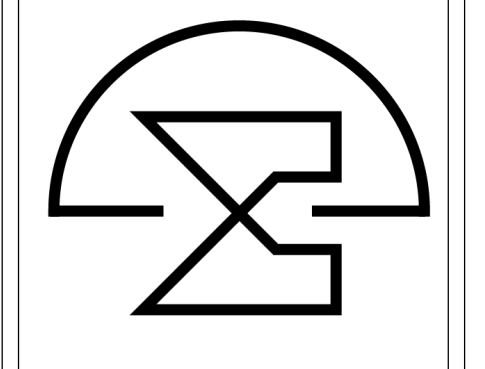


**REAR ELEVATION**  
 Scale: 1/4" = 1'-0"



**RIGHT ELEVATION**  
 Scale: 1/4" = 1'-0"

**McMillan Design**  
 847 Wake Forest Business Park, Suite 102  
 Wake Forest, NC 27587  
 919.263.1509  
 www.mcmillan-design.com



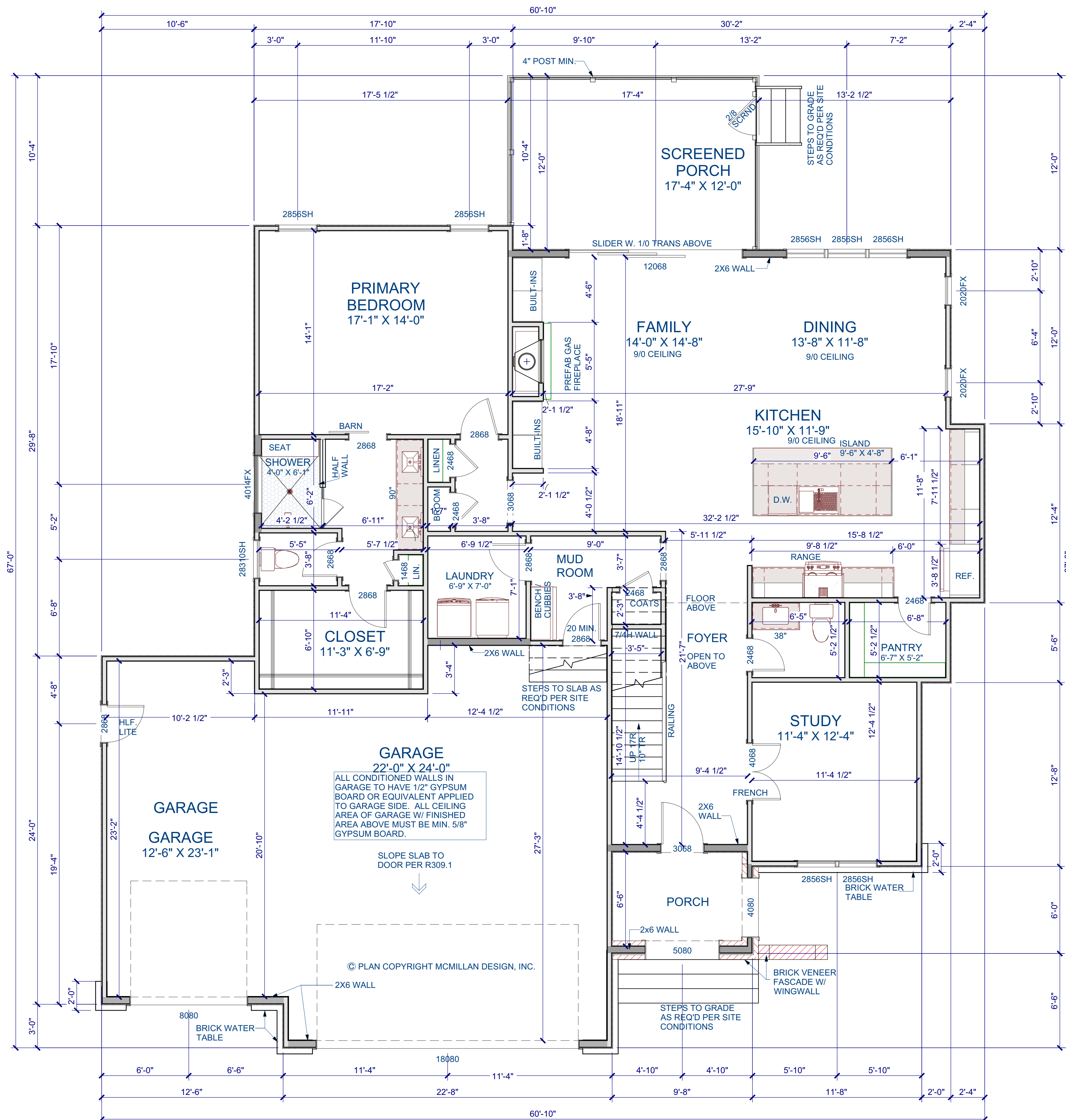
**Lilium Homes**  
**Cotton Farms**  
**Lot #14**

Sheet Title:  
**Exterior Elevations**

REVISIONS	
NUMBER	DATE

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Plan Number  
**M109-24**  
 Sheet No. **A-2**  
 Drawn By: **TB**  
 Date: **9/30/2024**  
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**GENERAL NOTES**

**WALLS**  
 ALL WALLS ARE DRAWN 3.5" WIDE (2X4) OR 5.5" WIDE (2X6) U.N.O. ANGLED WALL ARE DRAWN @45° U.N.O. EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING. INTERIOR DIMENSIONS ARE TO FACE OF STUD.

**SMOKE DETECTORS**  
 LOCATION AND NUMBER OF DETECTORS SHALL CONFORM TO NEC.

**EGRESS**  
 ALL BEDROOMS MUST HAVE AT LEAST ONE WINDOW WHICH CONFORMS TO R-310 OF THE N.C. BLDG. CODE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CHOSEN WINDOWS MEET EGRESS REQUIREMENTS AS MANUFACTURERS VARY.

**ATTIC ACCESS**  
 MIN. ATTIC ACCESS SHALL BE PROVIDED BY BUILDER AND LOCATED ON SITE.

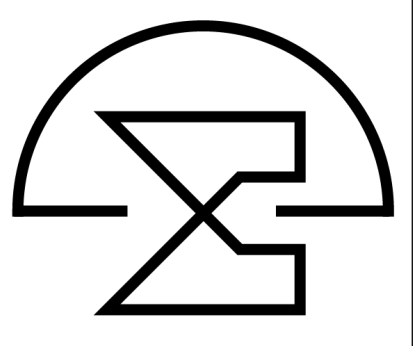
**WALL/CEILING HEIGHT**  
 WALL AND CEILING HEIGHT NOTES ARE BASED ON NOMINAL WALL SIZE. KNEE WALL HEIGHT LABELS FOR WALLS UNDER RAFTERS ASSUME AN EXTRA 2" FOR FURRING (IN HEATED SPACES) FOR INSULATION. THE WALL HEIGHT REFERS TO THE HGT. FROM THE FLOOR DECKING TO THE BOTTOM OF THE FURRING.

**WINDOW NOTE LEGEND**

- DH DOUBLE HUNG
- SH SINGLE HUNG
- FX FIXED
- SC SINGLE CASEMENT
- DC DOUBLE CASEMENT
- TC TRIPLE CASEMENT

Room	Finished Square Footage
1st Floor	1726
2nd Floor	1185
<b>Heated</b>	<b>2911</b>
Unfinished	
Storage and Options	
in Storage #1	530
<b>Storage / Options</b>	<b>530</b>

**FIRST FLOOR PLAN**  
 Scale: 1/4" = 1'-0"



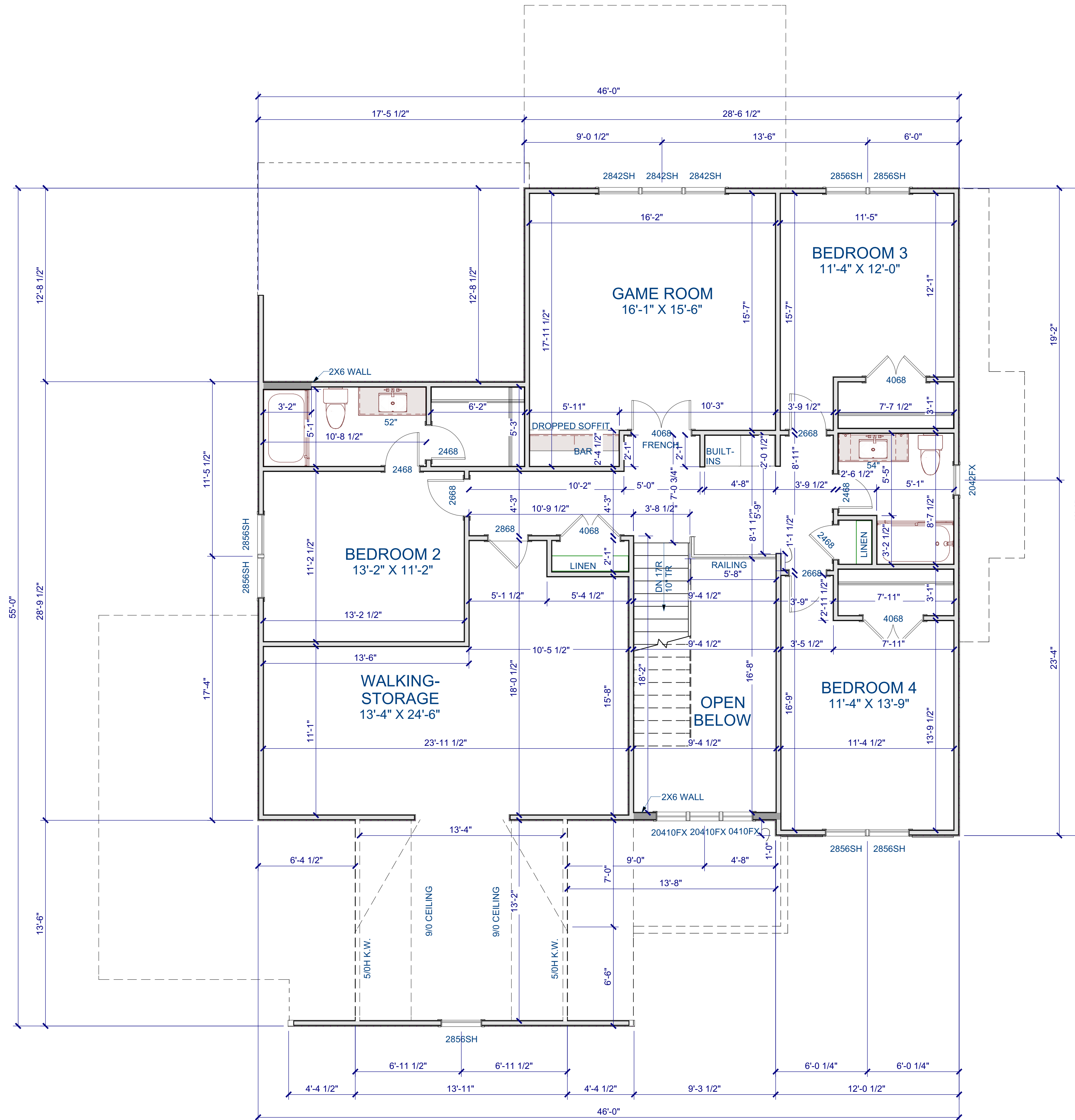
**Lilium Homes  
 Cotton Farms  
 Lot #14**

Sheet Title:  
**First Floor Plan**

**REVISIONS**

NUMBER	DATE

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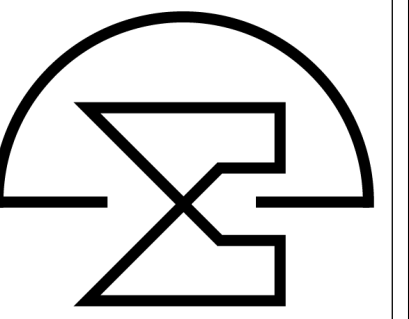
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- SMOKE DETECTORS**  
LOCATION AND NUMBER OF DETECTORS SHALL CONFORM TO NEC.
- EGRESS**  
ALL BEDROOMS MUST HAVE AT LEAST ONE WINDOW WHICH CONFORMS TO R-310 OF THE N.C. BLDG. CODE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CHOSEN WINDOWS MEET EGRESS REQUIREMENTS AS MANUFACTURERS VARY.
- ATTIC ACCESS**  
MIN. ATTIC ACCESS SHALL BE PROVIDED BY BUILDER AND LOCATED ON SITE.
- WALL/CEILING HEIGHT**  
WALL AND CEILING HEIGHT NOTES ARE BASED ON NOMINAL WALL SIZE. KNEE WALL HEIGHT LABELS FOR WALLS UNDER RAFTERS ASSUME AN EXTRA 2" FOR FURRING (IN HEATED SPACES) FOR INSULATION. THE WALL HEIGHT REFERS TO THE HGT. FROM THE FLOOR DECKING TO THE BOTTOM OF THE FURRING.

- WINDOW NOTE LEGEND**
- DH DOUBLE HUNG
  - SH SINGLE HUNG
  - FX FIXED
  - SC SINGLE CASEMENT
  - DC DOUBLE CASEMENT
  - TC TRIPLE CASEMENT

### SECOND FLOOR PLAN

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



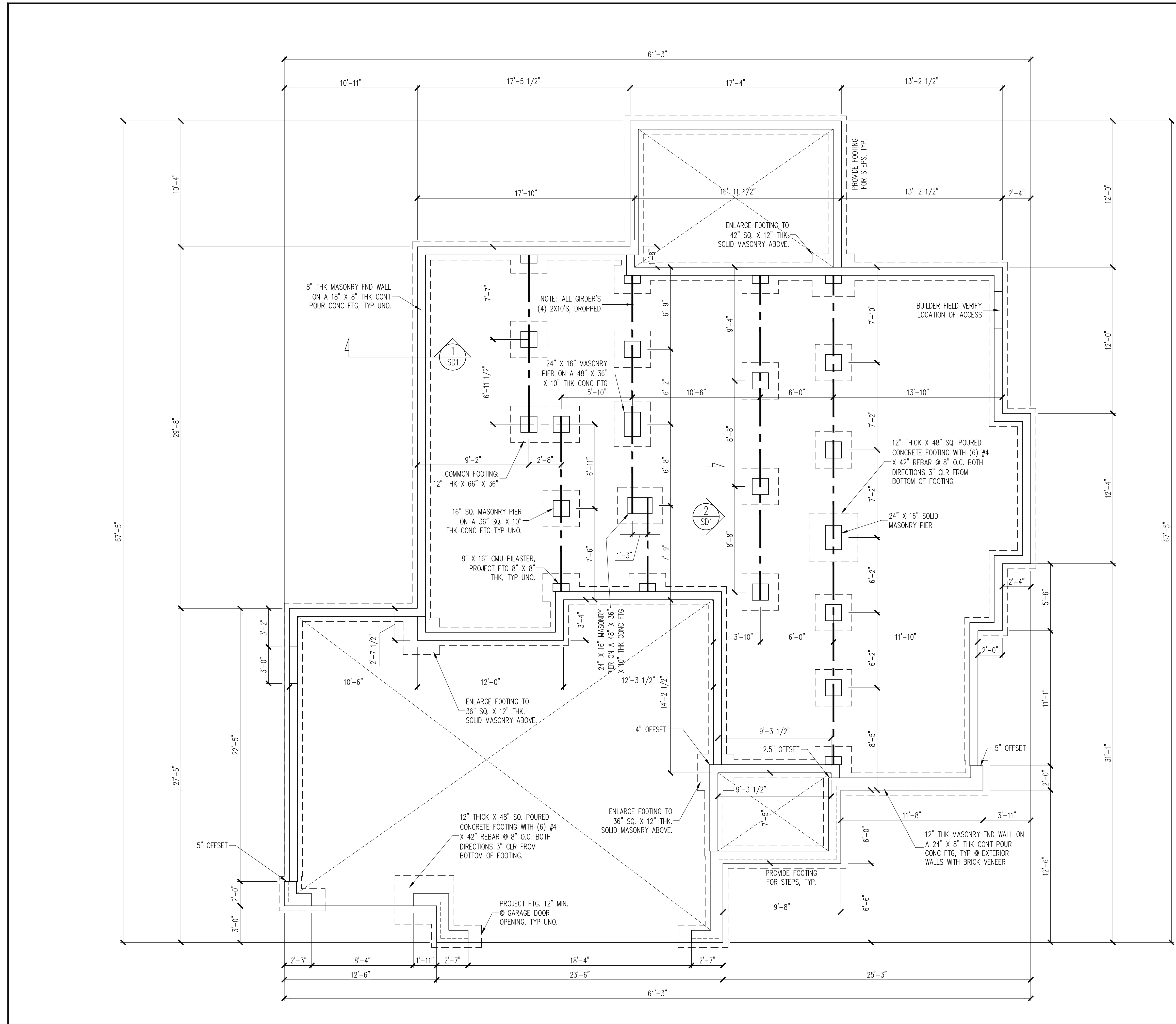
Lilium Homes  
Cotton Farms  
Lot #14

Sheet Title:  
Second Floor Plan

REVISIONS	
NUMBER	DATE

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Plan Number  
**M109-24**  
A-4  
Sheet No.  
Drawn By: TB  
Date: 9/30/2024  
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**CONSTRUCTION SPECIFICATIONS**  
 INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 16.02: GENERAL WALL BRACING NOTES

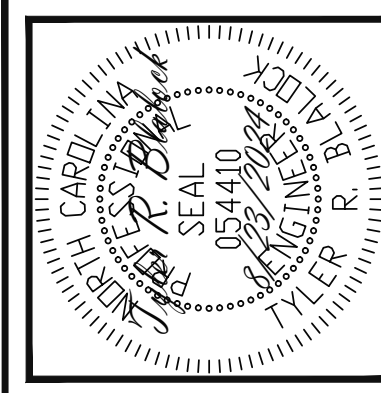
PART 17: KING STUDS FOR EXTERIOR WALLS

SEE DETAIL / CONSTRUCTION SPECIFICATIONS SHEETS FOR I-JOISTS ALLOWABLE SUBSTITUTIONS

NOTES:  
 -HEIGHT AND BACKFILL LIMITATIONS FOR FOUNDATION WALLS ARE TO BE GOVERNED BY THE NCSBC, LATEST EDITION.

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

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 License No. C-3870  
 318 W Millbrook Rd. Unit 201  
 Raleigh, North Carolina 27609  
 ASSOCIATES, P.A. Phone (919) 844-1661

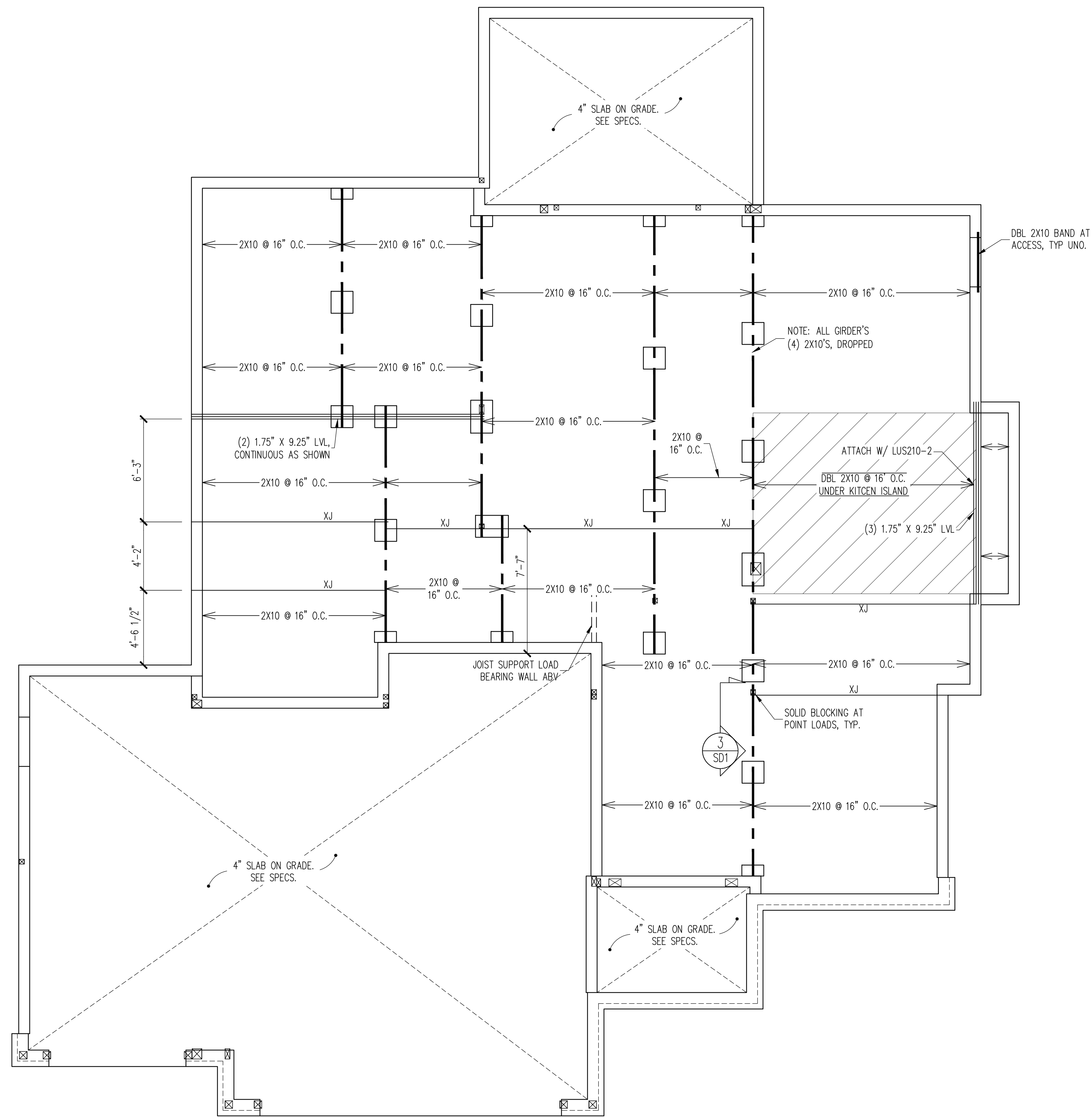
LILIAM HOMES	
STRUCTURAL ADDENDUM	
SCOPE:	14 COTTON FARMS
LOC:	
REV #	REF PROJ #
DATE	

ENG: TRB/CR  
 DATE: 8/23/2024

PLAN  
 M109-24

PROJECT NO.  
 24-21-213

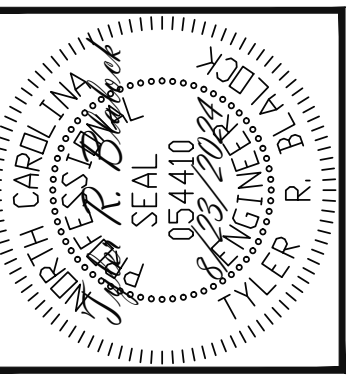
SHEET NO.  
 S1  
 1 of 7



CRAWLSPACE FRAMING PLAN

1/4" = 1'-0"

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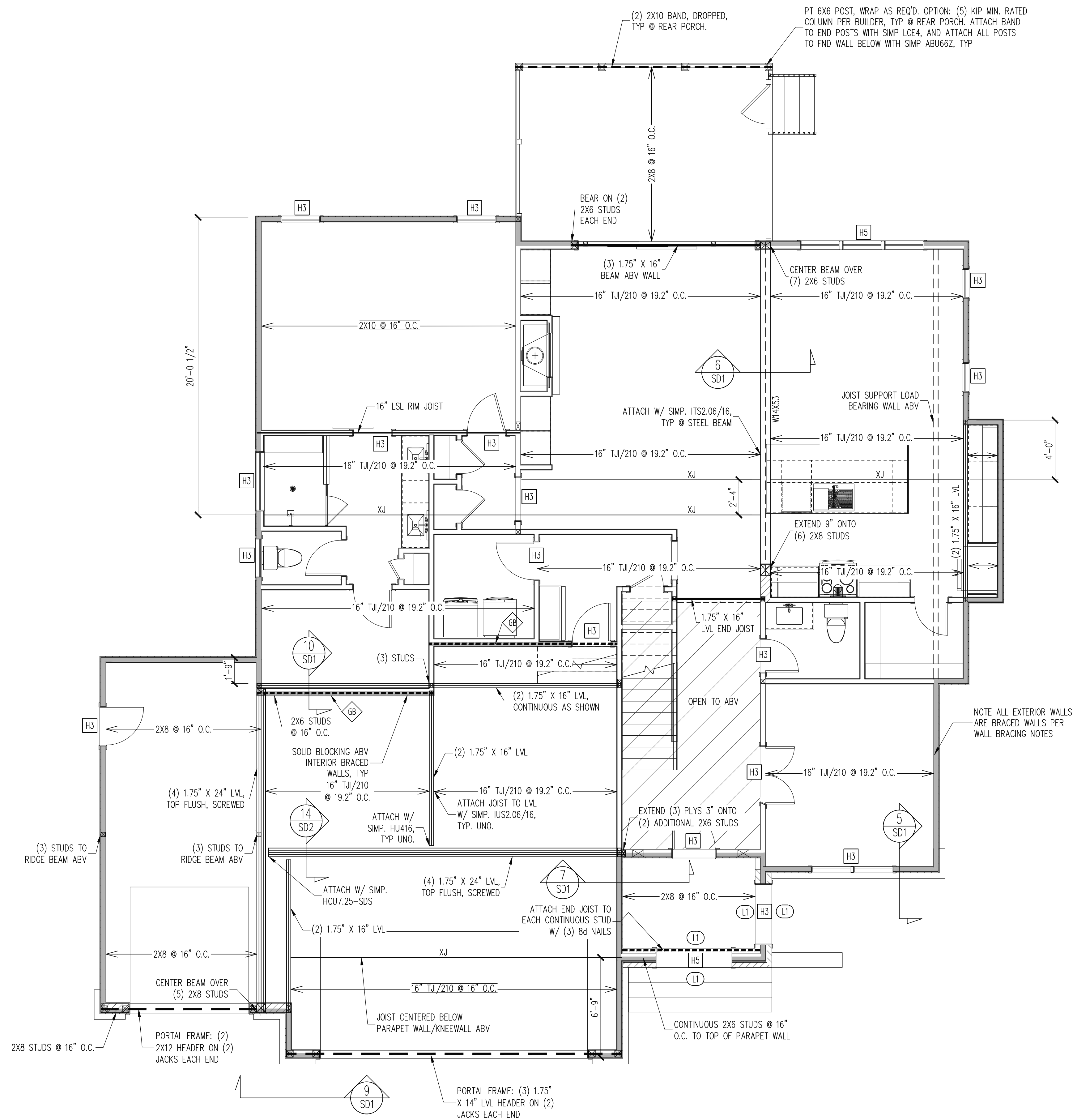
ENG: TRB/CR  
 DATE: 8/23/2024

PLAN  
 M109-24

PROJECT NO.  
 24-21-213

SHEET NO.  
 S2

2 of 7



### LINTEL SCHEDULE

L1	L 3 1/2 X 3 1/2 X 1/4
L2	L 5 X 3 1/2 X 5/16
L3	L 6 X 4 X 5/16 ATTACHED TO HEADER (2) - 1/2" DIA. X 3" LONG LAG SCREWS AT 16" O.C. (ONE LAG SCREW @ 16" O.C. PERMITTED FOR 5" OR LESS BRICK ABOVE)
L4	16 GAUGE FLEX LINTEL PER BUILDER

### WALL BRACING

CS - ALL EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

SHADED WALLS:

WSP ONE SIDE OF INTERIOR WALL OR INSIDE OF EXTERIOR WALL WITH 3/8" MIN. THICKNESS WOOD STRUCTURAL PANELING. ATTACH WSP TO STUD WALL WITH 8d NAILS @ 4" O.C. AT PANEL EDGES, 8" O.C. IN PANEL FIELD.

GB INTERIOR BRACED WALL. 1/2" GB SECURED PER TABLE R602.10.2 OF THE 2012 NCRBC. (FASTENERS @ 7" O.C.) BOTH SIDES OF WALL, OR (FASTENERS @ 4" O.C.) ONE SIDE OF WALL AT STAIRS

WC WIND COLUMN

NOTES:  
-PROVIDED CONTINUOUS SHEATHING = 206" MIN.

### HEADER SCHEDULE

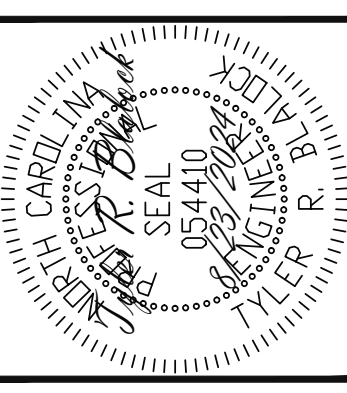
H1	SINGLE 2X4 TURNED FLAT (A)
H2	(2) 2X4'S ON SINGLE JACKS (B)
H3	(2) 2X10'S ON SINGLE JACKS (C)
H4	(2) 1.75" X 9.25" LVL'S ON DBL JACKS
H5	(3) 2X10'S ON SINGLE JACKS

(A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.  
(B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.  
(C) TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

NOTES:  
-HEADERS IN NON LOAD BEARING INTERIOR WALLS ARE NOT LABELED.

1ST FLOOR FRAMING PLAN  
WALLS AND CEILING 1/4" = 1'-0"

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SCOPE:	LILIAM HOMES	REV #	REF PROJ #	DATE
	STRUCTURAL ADDENDUM			
LOC:	14 COTTON FARMS			

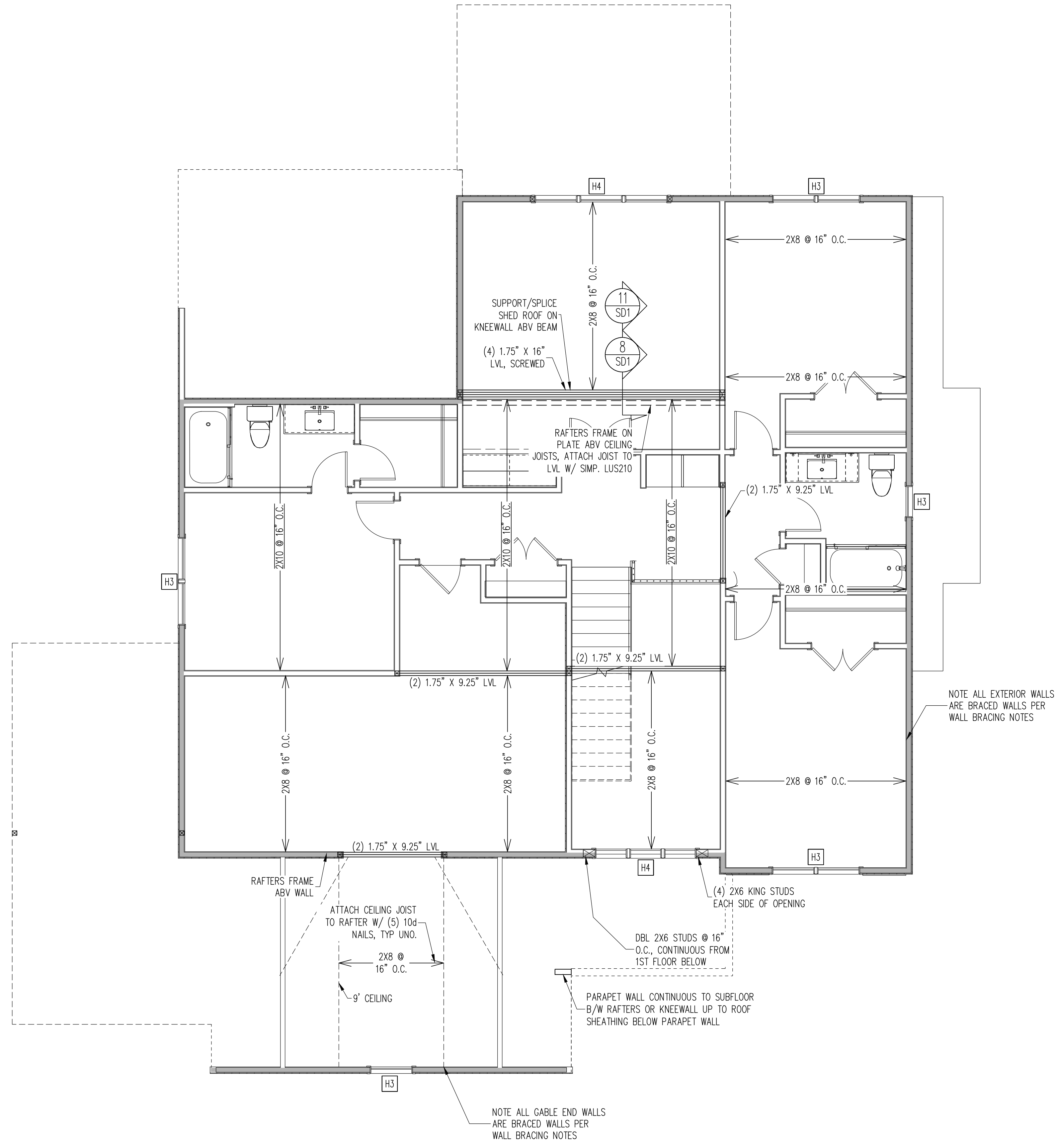
ENG: TRB/CR  
DATE: 8/23/2024

PLAN  
M109-24

PROJECT NO.  
24-21-213

SHEET NO.  
S3

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### WALL BRACING

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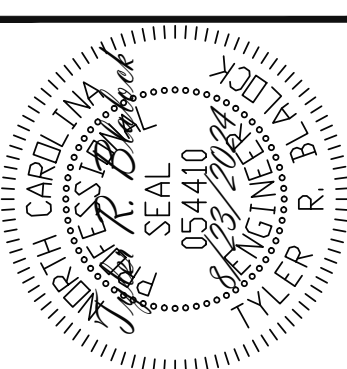
### HEADER SCHEDULE

H1 SINGLE 2X4 TURNED FLAT (A)  
H2 (2) 2X4'S ON SINGLE JACKS (B)  
H3 (2) 2X10'S ON SINGLE JACKS (C)  
H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS  
H5 (3) 2X10'S ON SINGLE JACKS

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(B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.  
(C) TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

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**2ND FLOOR FRAMING PLAN**  
WALLS AND CEILING 1/4" = 1'-0"



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ASSOCIATES, P.A. Phone (919) 844-1661

<b>LILIUM HOMES</b>	
<b>STRUCTURAL ADDENDUM</b>	
<b>SCOPE:</b>	REV # REF PROJ # DATE
<b>LOC:</b>	14 COTTON FARMS

**ENG:** TRB/CR  
**DATE:** 8/23/2024

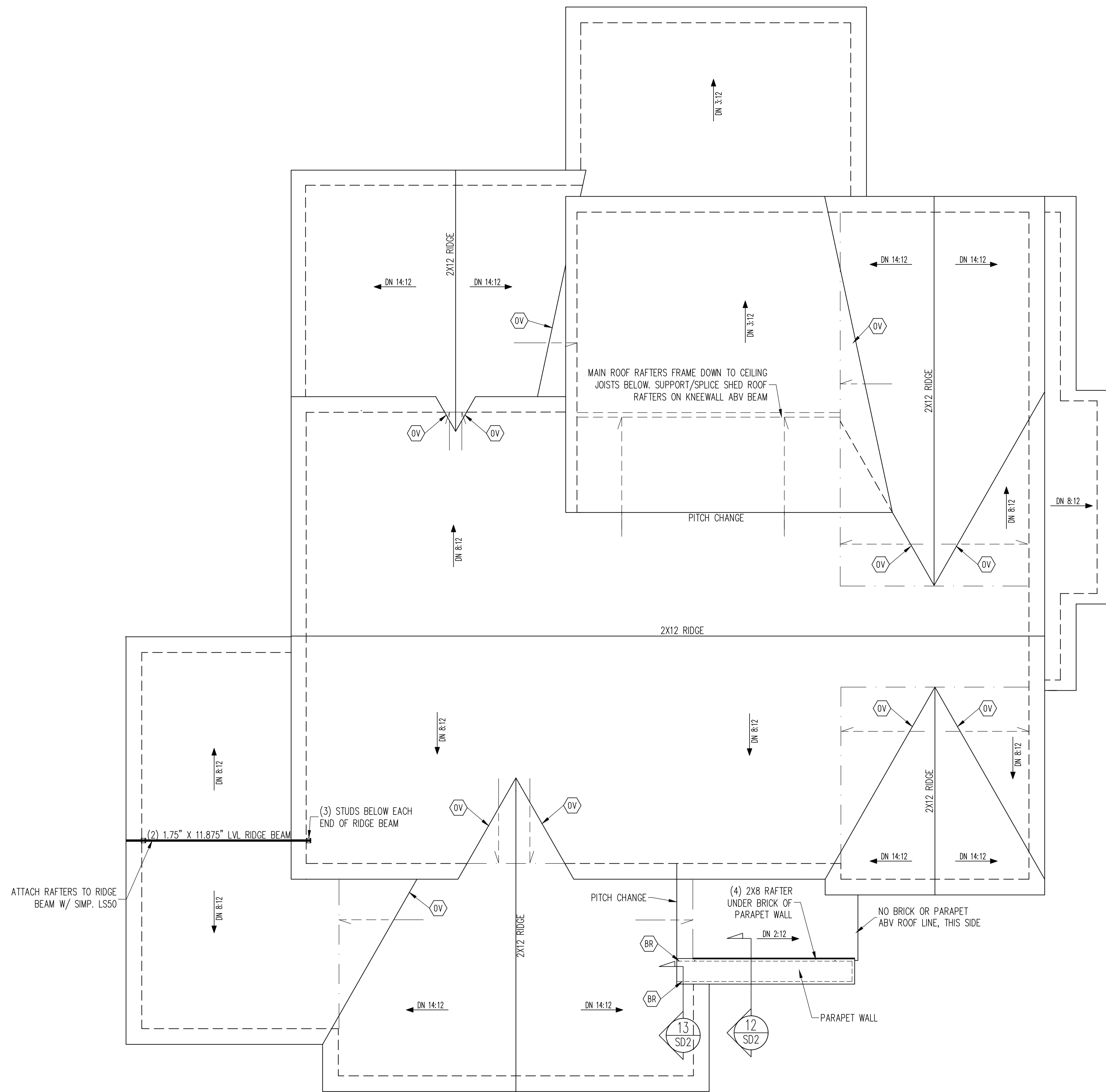
**PLAN**  
M109-24

**PROJECT NO.**  
24-21-213

**SHEET NO.**  
S4

4 of 7



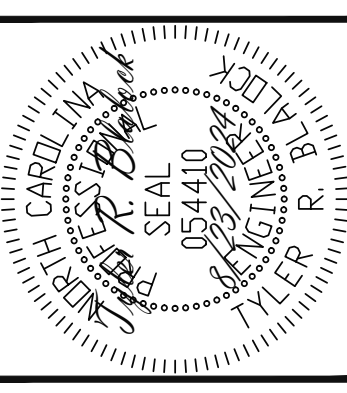


**FRAMING NOTES**  
 ROOF ONLY  
 -COMMON RAFTERS 2X8 @ 16" O.C. TYP U.N.O.  
 -COLLAR TIES 2X4 EVERY 3RD SET OF RAFTERS TYP U.N.O.  
 -VERIFY ROOF PITCHES, OVERHANG LENGTHS, AND KNEEWALL FRAMING HGTS WITH ARCHITECTURAL DRAWINGS, TYPICAL.

**FRAMING SCHEDULE**  
 ROOF ONLY  
 BR SUPPORT BRICK VENEER PER SECT.703.8 OF THE NCRS, LATEST EDITION.  
 OV OVERFRAME VALLEY ( 2X10 SLEEPER )

**ROOF FRAMING PLAN**  
 1/4" = 1'-0"

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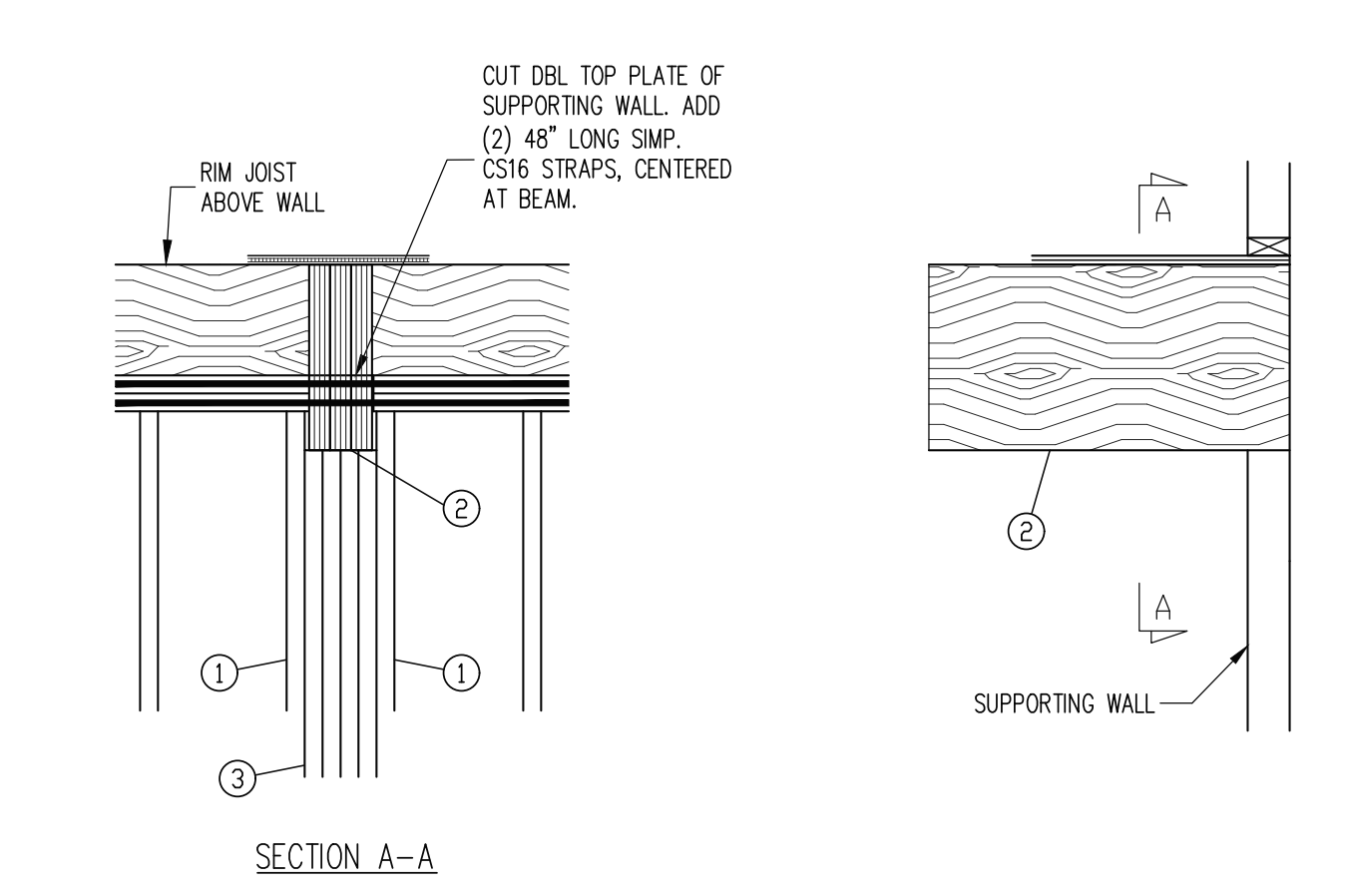
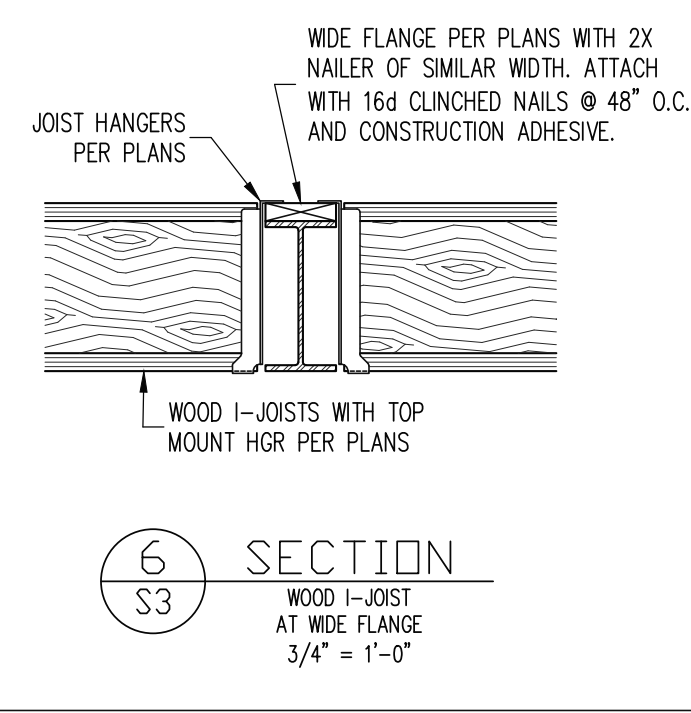
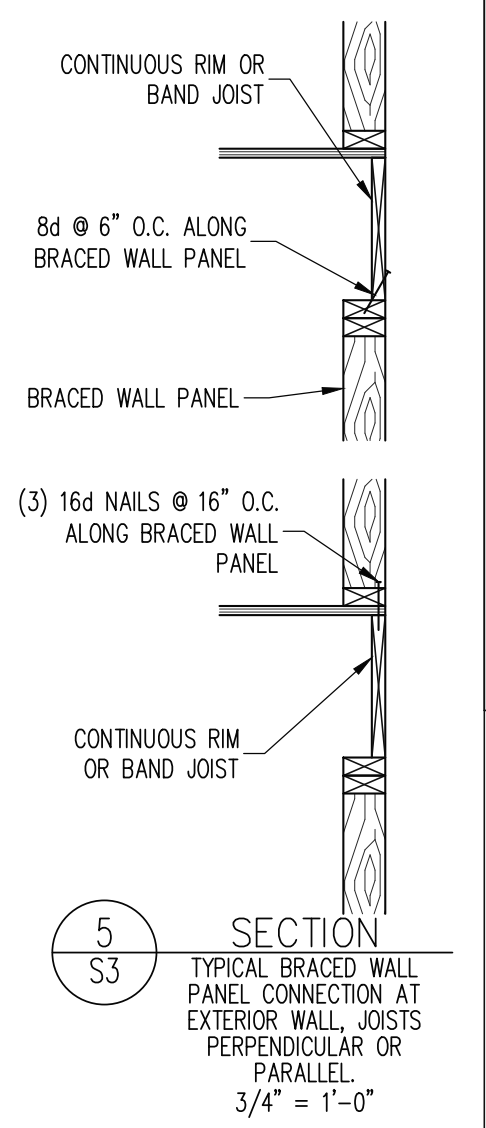
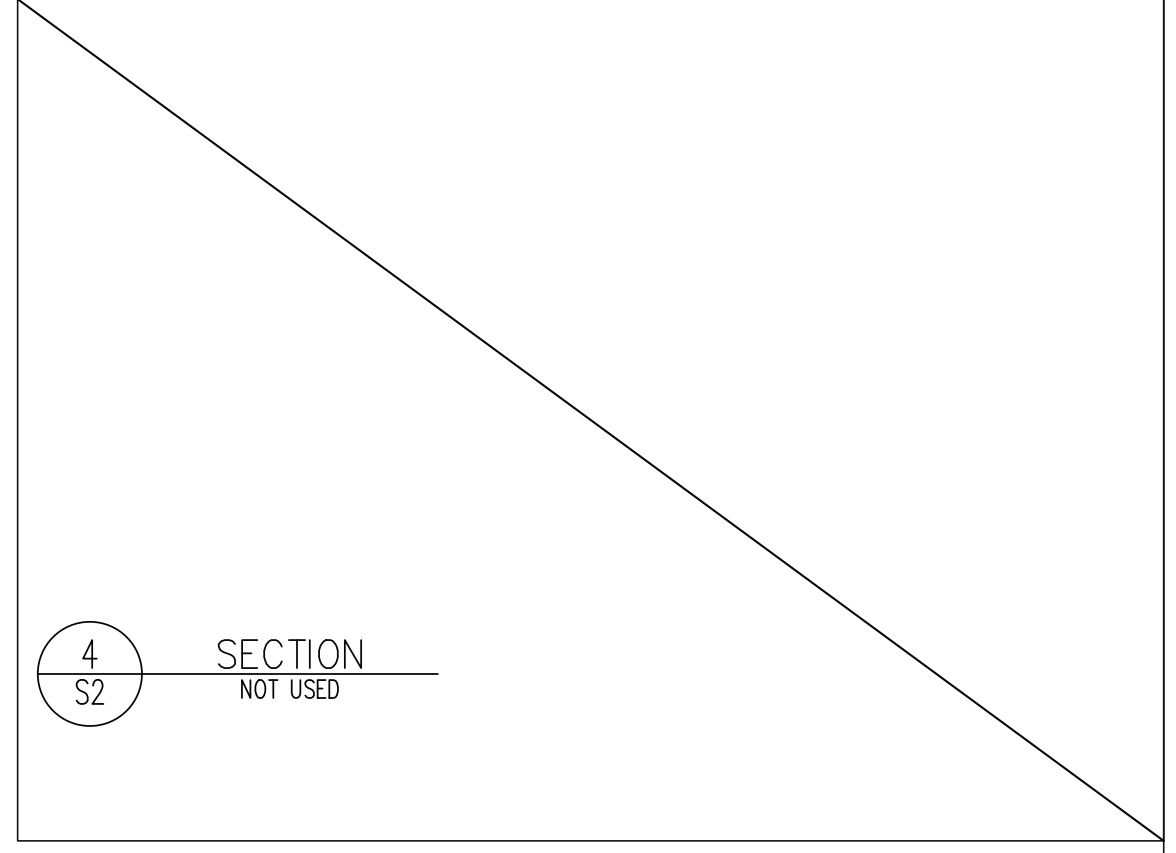
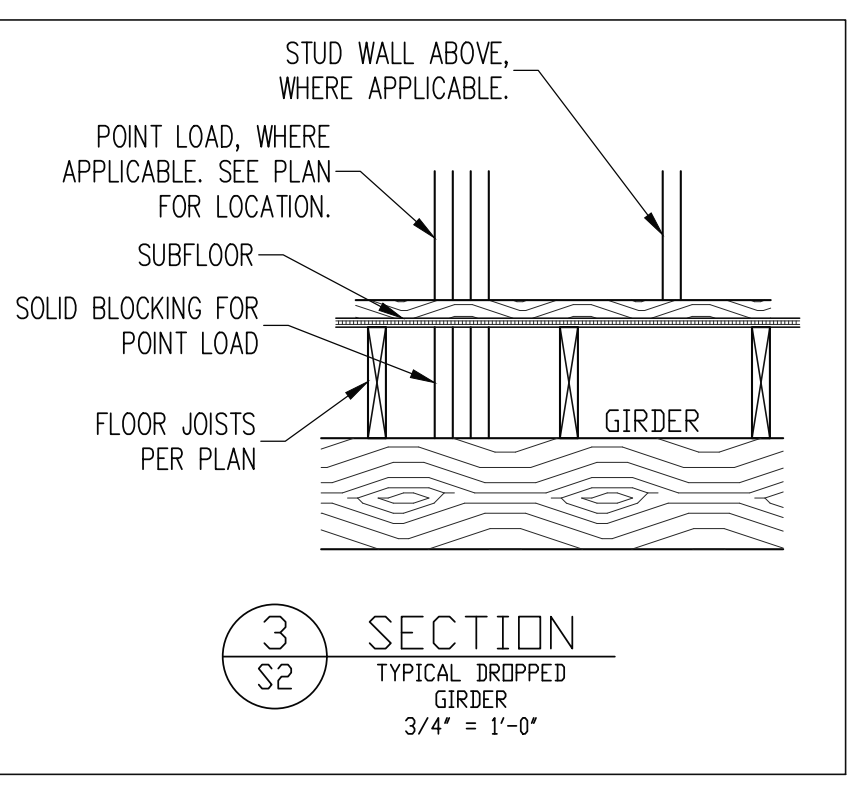
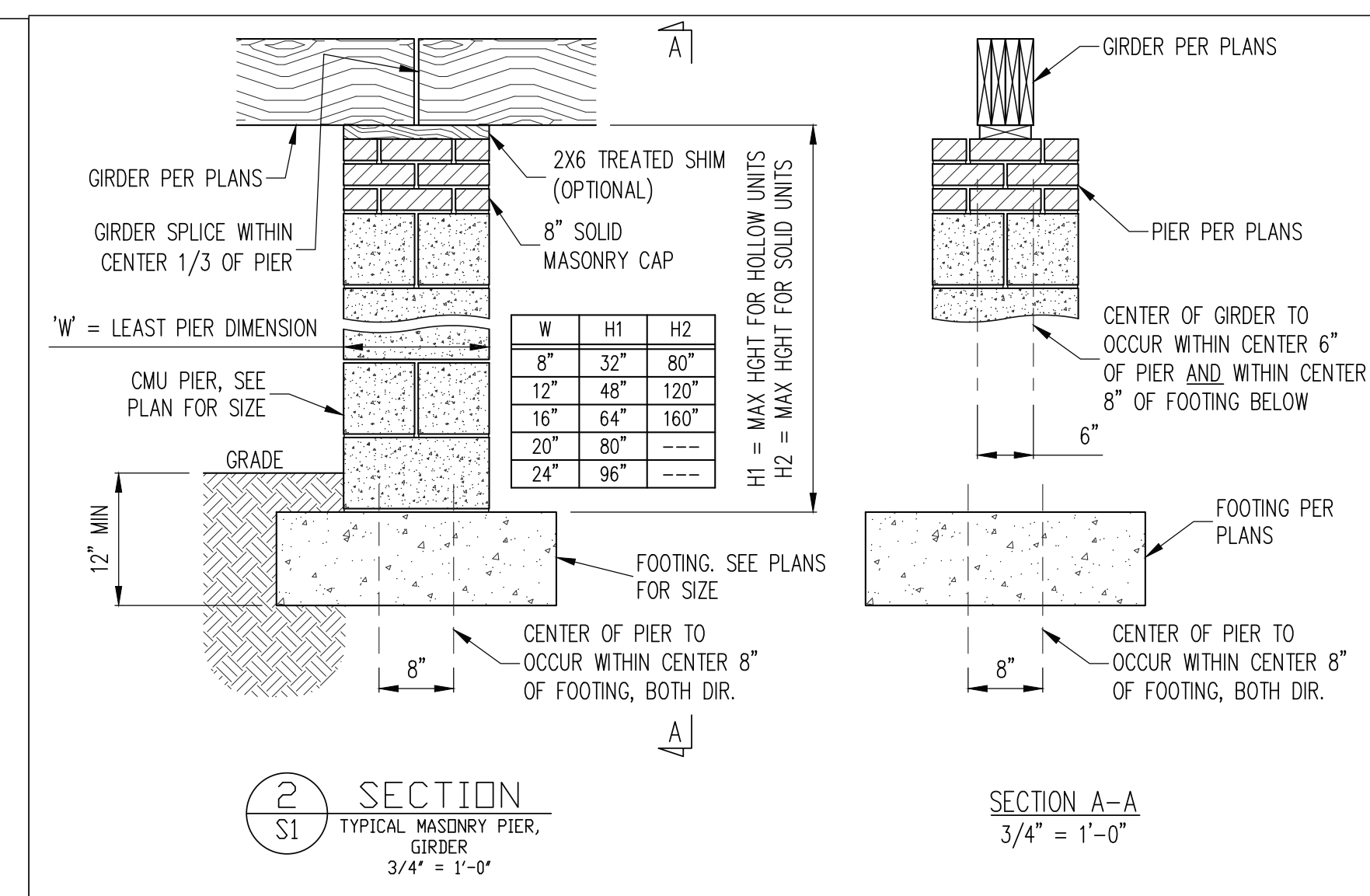
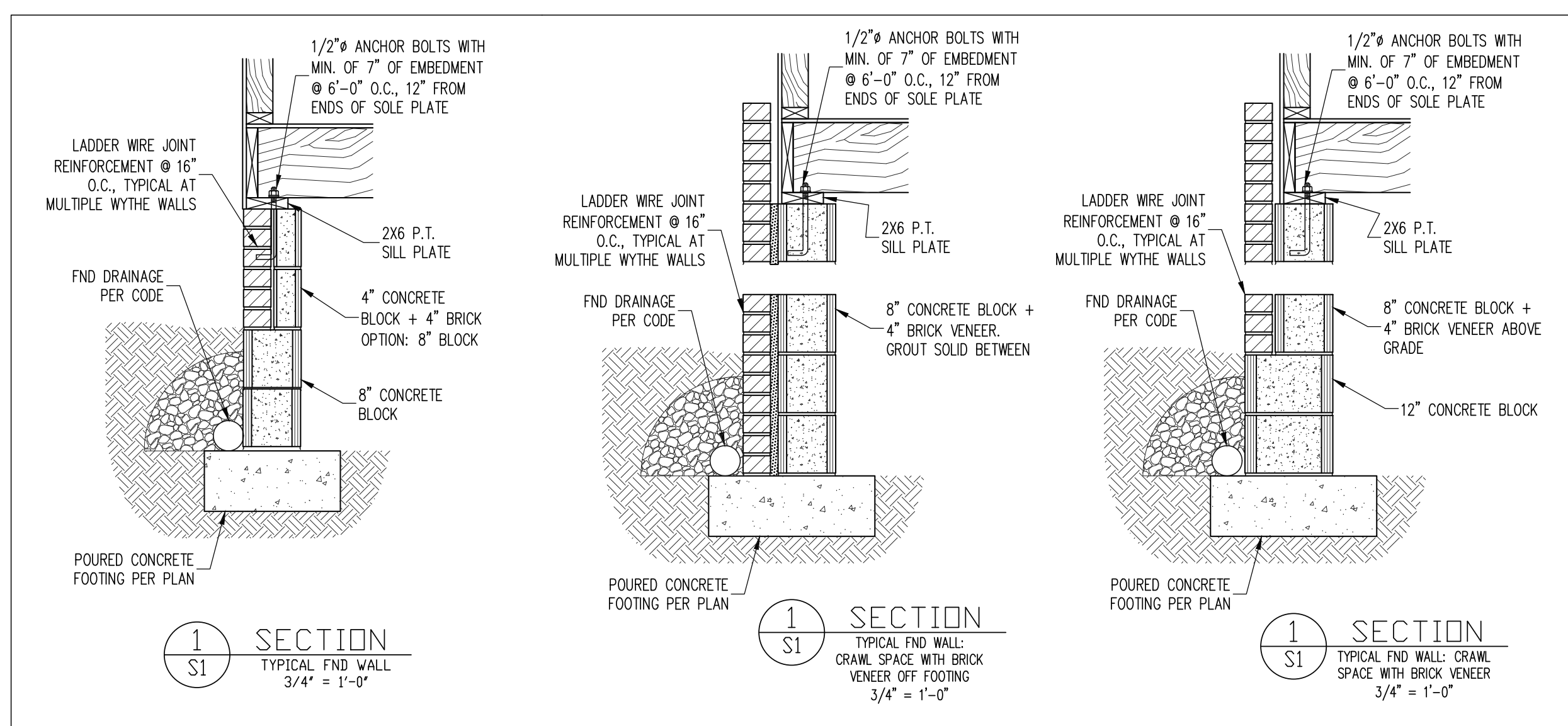
LILIAM HOMES	
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LOC:	
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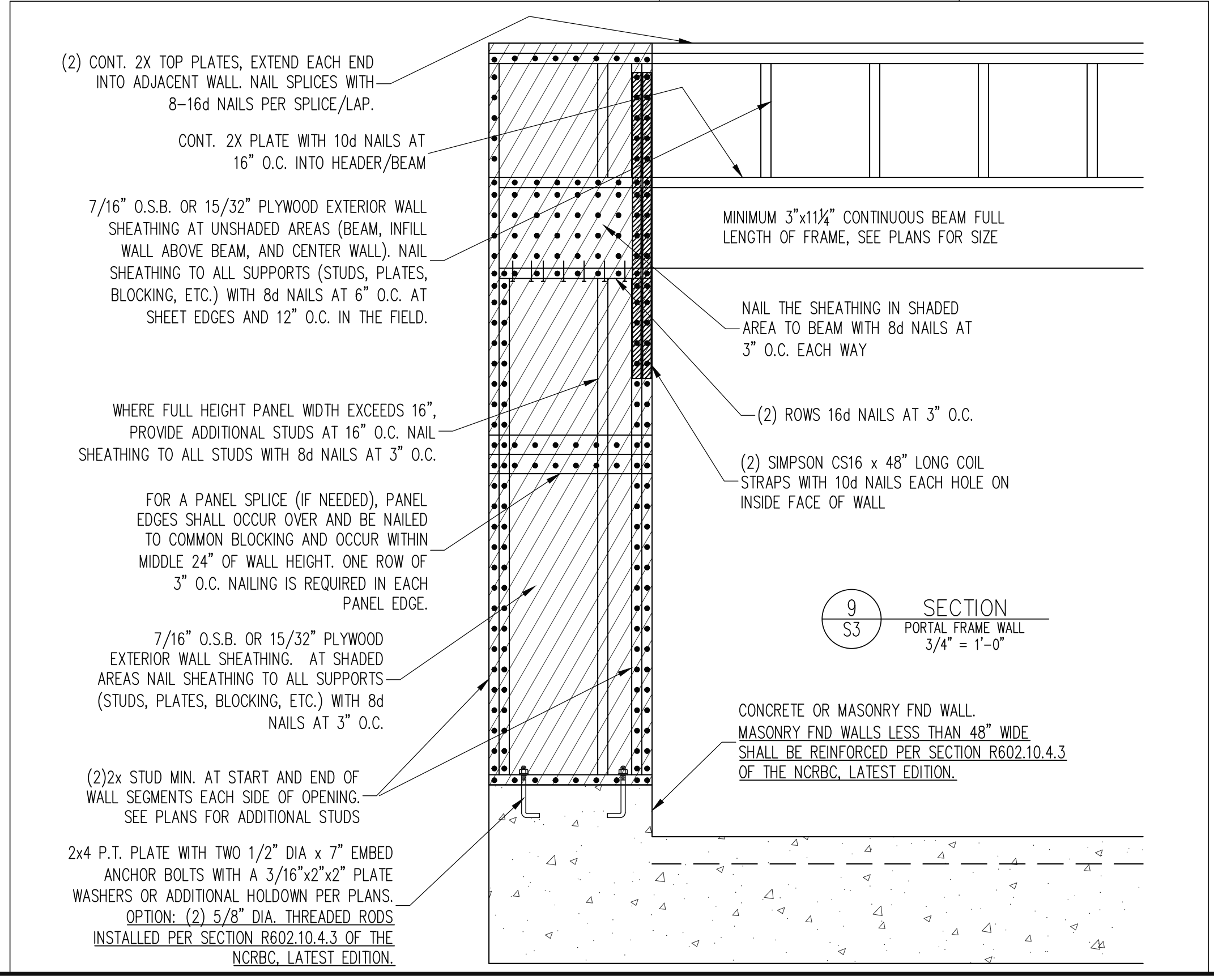
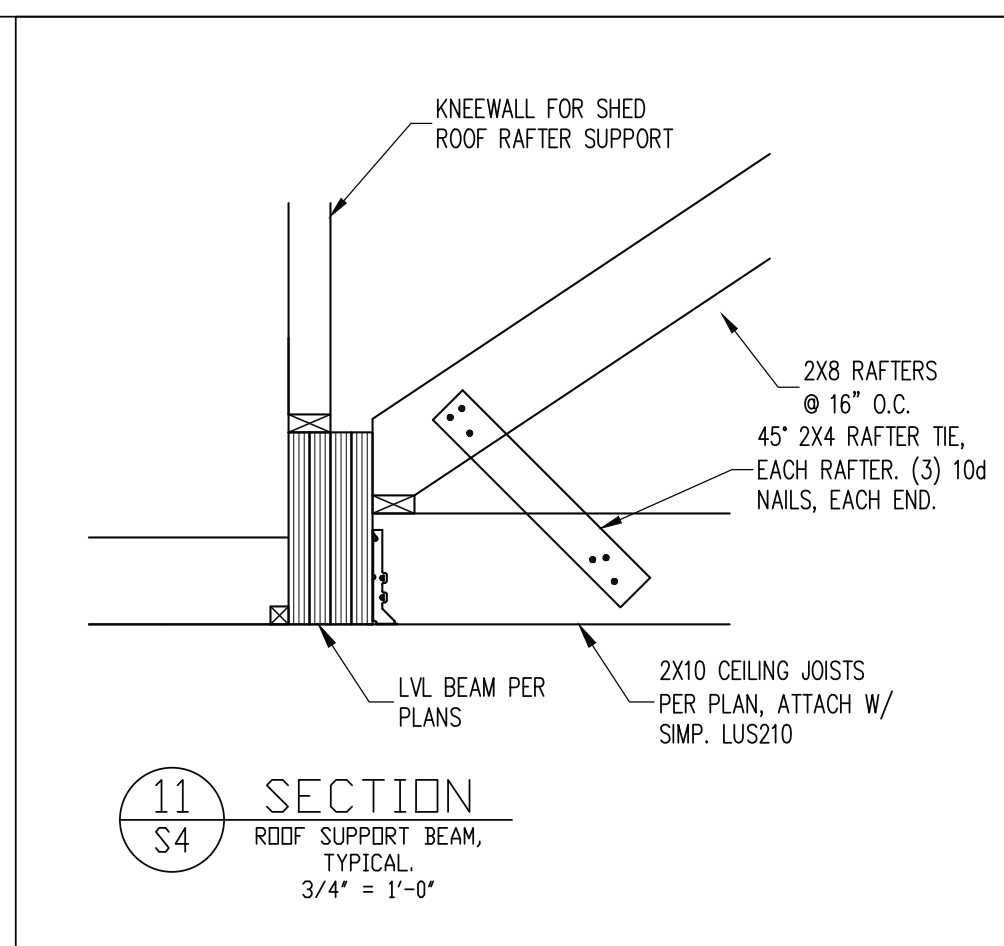
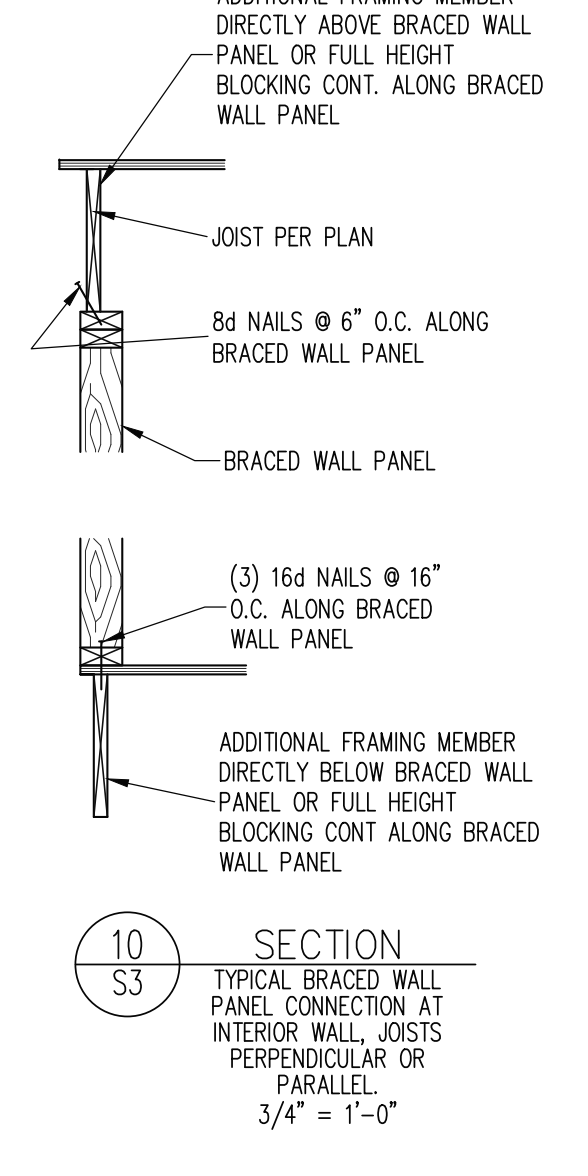
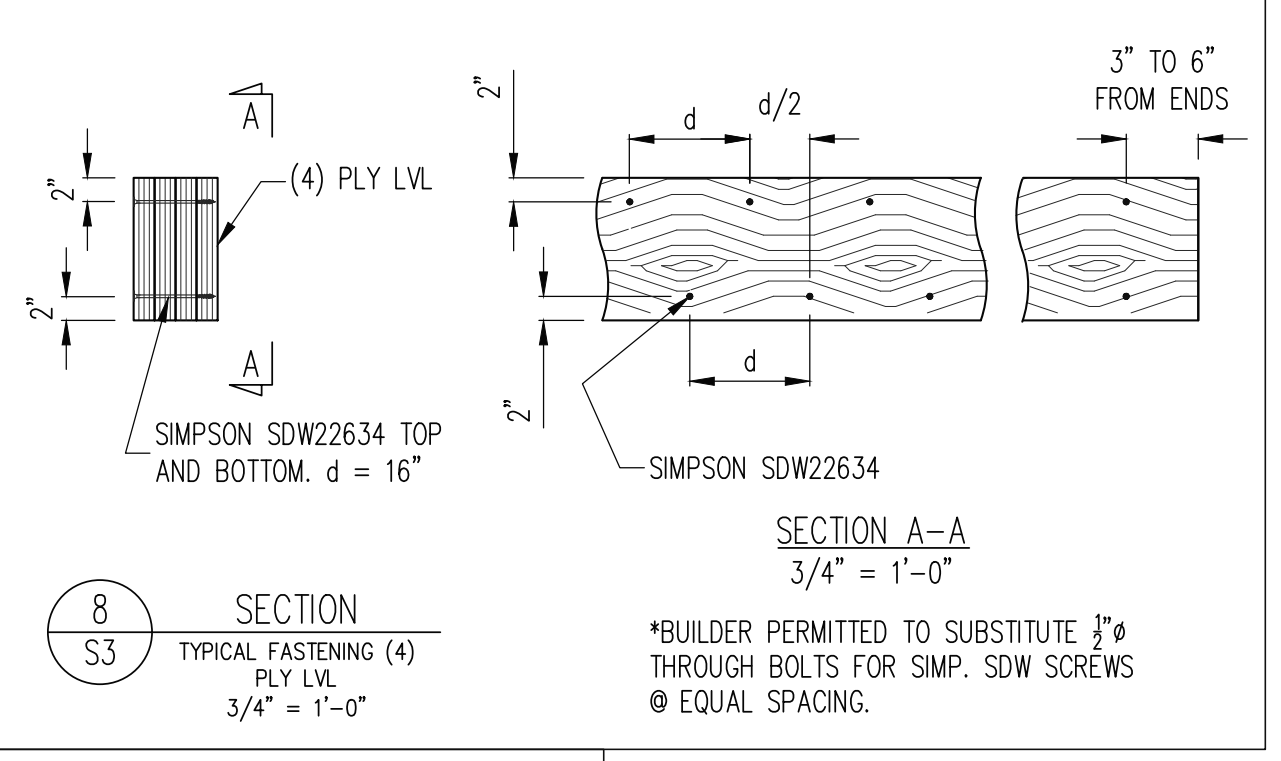
PLAN  
 M109-24

PROJECT NO.  
 24-21-213

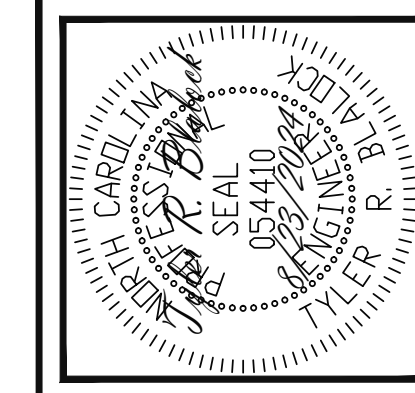
SHEET NO.  
 S5  
 5 of 7



ITEM DESCRIPTION	
1	KING STUD
2	TOP FLUSH BEAM (SEE PLAN)
3	STUDS SUPPORTING BEAM (SEE PLAN FOR NUMBER OF STUDS REQUIRED)



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LILIUM HOMES		
STRUCTURAL ADDENDUM		
SCOPE:	14 COTTON FARMS	
LOC:		
REV #	REF PROJ #	DATE

ENG:	TRB/CR
DATE:	8/23/2024
PLAN	
M109-24	
PROJECT NO.	
24-21-213	
SHEET NO.	
SD1	
6 of 7	

## CONSTRUCTION SPECIFICATIONS

- PART 1: GENERAL**
- 1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- 1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.
- 1.05 METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
- PART 2: DESIGN LOADS**
- 2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:
- | USE   | LIVE LOAD (PSF) | DEAD LOAD (PSF)    |
|---|-----------------|--------------------|
| BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES | 40              | 10                 |
| GARAGES (PASSENGER CARS ONLY)   | 50              | --                 |
| ATTICS (NO STORAGE, LESS THAN 5' HEADROOM)  | 10              | 10                 |
| ATTICS (WITH STORAGE)   | 20              | 10                 |
| ROOF  | 20              | 10 (15 FOR VAULTS) |
- NOTES: - INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF OR A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQ. WHOEVER PRODUCES THE GREATER STRESS.  
- BUILDER TO VERIFY DEAD LOAD DOES NOT EXCEED 10 PSF WHEN HEAVY FLOOR OR ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER THESE CONDITIONS.
- 2.02 INTERIOR WALLS: 5 PSF LATERAL.
- 2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.
- 2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).
- PART 3: STRUCTURAL STEEL**
- 3.01 WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM GRADE.
- 3.02 SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM GRADE.
- 3.03 STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, TYPE S, MINIMUM GRADE.
- 3.04 ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 MINIMUM GRADE.
- 3.05 STRUCTURAL STEEL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- PART 4: WELDING**
- 4.01 WELDING ELECTRODES SHALL BE E70XX AND ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER.
- PART 5: CONCRETE AND SLABS ON GRADE**
- 5.01 CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEIGHT, 4-6% AIR ENTRAINMENT, FOR EXTERIOR CONCRETE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. ALL ITEMS NOTED AS 'CONCRETE' ARE TO BE CAST IN PLACE, TYP UNO.
- 5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 308, LATEST EDITION.
- 5.03 SLABS ON GRADE, IF ANY, SHALL BE CAST IN PLACE, CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/SQ. YD. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 4" MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS.
- PART 6: REBAR AND WIRE REINFORCEMENT**
- 6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO.
- 6.02 LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO. STAGGER ADJACENT SPLICES A MINIMUM OF ONE LAP LENGTH.
- 6.03 WIRE REINFORCEMENT SHALL BE #9 GA AND SHALL CONFORM TO ASTM A1064.
- PART 7: MASONRY**

- 7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT, FM = 1,500 PSI MIN.
- 7.02 CLAY MASONRY UNITS SHALL CONFORM TO ASTM C62-17 GRADE SW.
- 7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, M16 COMPRESSIVE STRENGTH OF 2000 PSI.
- 7.04 MASONRY CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS OF ACI 530.
- 7.05 LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951, 6" MIN LAPS FOR CONTINUOUS WALL APPLICATIONS.
- PART 8: BOLTS AND LAG SCREWS**
- 8.01 BOLTS SHALL CONFORM TO ASTM A307 MINIMUM GRADE TYP UNO. INSTALL USS STEEL WASHERS (ASTM F844-07a) FOR THE NUT / BOLT HEAD WHEN BOLTING WOOD MEMBERS. HOLES FOR BOLTS SHALL BE ALSO STANDARD HOLES UNO.
- 8.02 LAG SCREWS SHALL CONFORM TO ANS/ASME STANDARD B18.2.1-1981. PILOT HOLES SHALL BE USED FOR LAG SCREW INSTALLATION AND SHALL BE BORED ACCORDING TO NDS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR SCREW HEAD.
- 8.03 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554-15 GRADE 36 UNO. BENT ANCHOR BOLTS SHALL HAVE A 2" MIN HOOK UNO.
- PART 9: DRIVEN FASTENERS**
- 9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667 - 05. NAILS ARE TO BE COMMON WIRE OR BOX.
- PART 10: DIMENSIONAL LUMBER**
- 10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR OR SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC. MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS:  
E = 1,400,000 PSI, F<sub>c</sub> pop = 425 PSI, F<sub>v</sub> = 135 PSI, SPECIFIC GRAVITY = 0.42 MIN  
F<sub>b</sub> = 875 PSI FOR 2X4, 2X6, 2X8, F<sub>b</sub> = 800 PSI FOR 2X10'S, 750 PSI FOR 2X12'S
- PART 11: ENGINEERED LUMBER**
- 11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS:  
E = 1,900,000 PSI, F<sub>c</sub> = 2600 PSI, F<sub>v</sub> = 205 PSI, F<sub>c</sub> pop = 750 PSI  
LVL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:  
E = 1.3 X 1066 PSI, F<sub>b</sub> = 1700 PSI, F<sub>v</sub> = 400 PSI, F<sub>c</sub> pop = 680 PSI
- 11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER DEPTH SPECIFIED IN THE PLANS. MAY SUBSTITUTE PSL AND LVL FOR EACH OTHER UNO.
- PART 12: PRESSURE TREATED LUMBER**
- 12.01 LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH ANPA STANDARD C-15. ALL OTHER EXPOSED LUMBER SHALL BE TREATED IN ACCORDANCE WITH ANPA STANDARD C-2 OR BY ANY METHOD GIVING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL DECAY RESISTANT WOOD PER SECTION 19-6(A).
- PART 13: STEEL FLITCH PLATE BEAMS**
- 13.01 FLITCH PLATE BEAMS SHALL CONSIST OF A CONTINUOUS STEEL PLATE BOLTED BETWEEN TWO PIECES OF CONTINUOUS LUMBER AS SIZED ON THE PLANS. BOLT PIECES TOGETHER USING 1/2" Ø BOLTS SPACED AT 16" O.C. STAGGERED TOP TO BOTTOM OF THE BEAM. MAINTAIN A 2" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, 16" MAX FROM EACH END OF THE BEAM. TYP UNO.
- PART 14: STUD SUPPORTS FOR BEAMS**
- 14.01 STEEL ENGINEERED LUMBER, AND FLITCH PLATE BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:  
1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE GANGED STUDS, OR A GANGED STUD COLUMN WITH A NUMBER OF STUDS SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE TRUE WIDTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UNO. FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM.  
2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED COLUMN TYP UNO.
- 14.02 DIMENSIONAL LUMBER BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:  
1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED (LESS 1 1/2" TO ALLOW FOR A CONTINUOUS RM JOIST WHERE APPLICABLE) AND SHALL BE SUPPORTED BY A GANGED STUD COLUMN THE SAME WIDTH AS THE BEAM TYP UNO. (E.G. A TRIPLE 2X10 IS TO BE SUPPORTED BY (3) STUDS). FOR THE SKEWED CONDITION PARTICULAR CARE SHALL

- BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM.  
2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 3" ONTO THE WALL AND BE SUPPORTED BY A DBL STUD GANGED COLUMN TYP UNO.
- 14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.
- 14.04 STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN NAILED TOGETHER WITH ONE ROW OF 16d NAILS @ 8" O.C. (TWO ROWS OF 16d NAILS @ 8" O.C., 3" APART, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOLIDLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN WITHIN THE CAVITY FORMED BY THE FLOOR JOISTS.
- PART 15: NAILING OF MULTI PLY WOOD BEAMS**
- 15.01 SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM NAILED TOGETHER WITH THREE ROWS OF 16d NAILS @ 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 16d NAILS @ 16" O.C. FOR 2X8, ONE ROW OF 16d NAILS @ 16" O.C. FOR 2X6 OR SMALLER. STAGGER ROWS 5" MIN.
- PART 16: WALL FRAMING AND BRACING**
- 16.01 STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. UNO. STUDS SHALL BE CONTINUOUS FROM SOLE PLATE AT FLOOR TO DOUBLE TOP PLATE AT THE CEILING OR ROOF. NO INTERMEDIATE BANDS OR PLATES SHALL CAUSE DISCONTINUITIES IN A STUD WALL EXCEPT AS REQUIRED FOR DOOR OR WINDOW OPENINGS. THE KING STUDS FOR SUCH OPENINGS SHALL BE CONTINUOUS, TYP UNO.  
MAX ALLOWABLE WALL HEIGHTS FOR EXTERIOR STUD WALLS, INCLUSIVE OF SOLE PLATE AND DBL TOP PLATE AND 7/16" OSB EXTERIOR BRACING AND ROW OF 2X4 2X6 PURLSINS AT 8" HEIGHT (AND AT 16" HEIGHT FOR TALL WALLS), TYP UNO:  
2X4 @ 16" O.C.: 11'-1 1/2", 2X6 @ 16" O.C.: 17'-0"  
2X4 @ 12" O.C.: 12'-1 1/2", 2X6 @ 12" O.C.: 18'-8"  
DBL 2X4 @ 16" O.C.: 13'-4", DBL 2X6 @ 16" O.C.: 21'-0"
- 16.02 FOR WALL BRACING THE FOLLOWING SHALL APPLY:  
-BLOCKING AT UNSUPPORTED PANEL EDGES IS REQUIRED TYP UNO.  
-WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION 602.10 OF THE 2018 NRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10 OF THE 2018 NRC HAS BEEN MET AND EXCEEDED.  
-BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NRCB 8602.3.5 AND 8602.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.  
-MAY SUBSTITUTE WSP FOR CB.  
-SINGLE JOIST CONTINUOUS RM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE WITH 16d NAILS @ 6" O.C. NAIL SOLE PLATE OF BRACED WALL TO BLOCKING BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.
- PART 17: KING STUDS**
- 17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:
- | MAX OPENING WIDTH | NUMBER OF KING STUDS |       |        |        |        |
|-------------------|----------------------|-------|--------|--------|--------|
|                   | 5'-0"                | 9'-0" | 13'-0" | 17'-0" | 21'-0" |
| 2X4               | 1                    | 2     | 3      | 4      | 5      |
| 2X6               | 1                    | 2     | 2      | 2      | 2      |
| 2X8               | 1                    | 1     | 1      | 1      | 2      |
- PART 18: SUBSTITUTIONS**
- 18.01 MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNER. UNAUTHORIZED DEVIATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- PART 19: OWNERSHIP OF STRUCTURAL DESIGN**
- 19.01 THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY OF ENGINEERING TECH ASSOCIATES (ETA). THESE PLANS ARE FOR THE ONE TIME USE AT THE LOCATION INDICATED AND FOR THE CLIENT LISTED. ETA ASSUMES NO LIABILITY FOR THESE PLANS IF THEY ARE REPRODUCED, IN WHOLE OR IN PART, FOR CONSTRUCTION AT ANY OTHER LOCATION WITHOUT WRITTEN PERMISSION FROM ETA.

## DECK SPECIFICATIONS

1. A DECK IS AN EXPOSED EXTERIOR WOOD FLOOR STRUCTURE WHICH MAY BE ATTACHED TO A STRUCTURE OR BE FREE STANDING. ROOFED PORCHES, OPEN OR SCREENED IN, MAY BE CONSTRUCTED USING THESE PROVISIONS.
2. SUPPORT POSTS SHALL BE SUPPORTED BY A FOOTING.
3. WHEN ATTACHED TO A STRUCTURE, THE STRUCTURE TO WHICH ATTACHED SHALL HAVE A TREATED WOOD BAND FOR THE LENGTH OF THE DECK, OR CORROSION RESISTANT FLASHING SHALL BE USED TO PREVENT MOISTURE FROM COMING IN CONTACT WITH THE UNTREATED FRAMING OF THE STRUCTURE. THE DECK BAND AND THE STRUCTURE BAND SHALL BE CONSTRUCTED IN CONTACT WITH EACH OTHER EXCEPT AT BRICK VENEER AND WHERE PLYWOOD SHEATHING IS REQUIRED AND PROPERLY FLASHED. SIDING SHALL NOT BE INSTALLED BETWEEN THE STRUCTURE AND THE DECK BAND. IF ATTACHED TO A BRICK STRUCTURE, NEITHER FLASHING NOR A TREATED BAND FOR THE BRICK STRUCTURE IS REQUIRED. IN ADDITION, THE TREATED DECK BAND SHALL BE CONSTRUCTED IN CONTACT WITH THE BRICK.
4. WHEN THE DECK IS SUPPORTED AT THE STRUCTURE BY ATTACHING THE DECK TO THE STRUCTURE, THE FOLLOWING ATTACHMENT SCHEDULES SHALL APPLY FOR ATTACHING THE DECK BAND TO THE STRUCTURE:
- A. ALL STRUCTURES EXCEPT BRICK STRUCTURES
- | REQUIRED FASTENERS | JOIST LENGTH  |   |
|--------------------|---|---|
|                    | UP TO 8' MAX.   | UP TO 16' MAX.  |
|                    | ONE- 5/8" Ø BOLT @ 42" O.C. AND   | ONE- 5/8" Ø BOLT @ 20" O.C. AND   |
|                    | (2) ROWS OF 12d NAILS @ 8" O.C. OR TWO ROWS OF SIMPSON SDWS224000B @ Ø = 32" O.C. STAGGERED | (3) ROWS OF 12d NAILS @ 6" O.C. OR TWO ROWS OF SIMPSON SDWS224000B @ Ø = 16" O.C. STAGGERED |
- A. BRICK VENEER STRUCTURES
- | REQUIRED FASTENERS | JOIST LENGTH                |                             |
|--------------------|-----------------------------|-----------------------------|
|                    | UP TO 8' MAX.               | UP TO 16' MAX.              |
|                    | ONE- 5/8" Ø BOLT @ 28" O.C. | ONE- 5/8" Ø BOLT @ 16" O.C. |
5. IF THE DECK BAND IS SUPPORTED BY A 1/2" MINIMUM MASONRY LEDGE ALONG THE FOUNDATION WALL, 5/8" Ø BOLTS SPACED @ 48" O.C. MAY BE USED FOR SUPPORT.
6. OTHER MEANS OF SUPPORT, SUCH AS JOIST HANGERS, MAY BE USED TO CONNECT DECK JOISTS TO A TREATED STRUCTURE BAND.
7. GIRDERS SHALL BEAR DIRECTLY ON POSTS OR BE CONNECTED TO THE SIDES OF POSTS WITH 2- 5/8" Ø BOLTS.
8. FLOOR DECKING SHALL BE NO. 2 GRADE TREATED SOUTHERN PINE OR EQUIVALENT. THE MINIMUM FLOOR DECKING THICKNESS SHALL BE AS FOLLOWS:

JOIST SPAN	DECKING
12" O.C.	1" S4S
16" O.C.	1" T&G
24" O.C.	1 1/4" S4S
32" O.C.	2" S4S

9. MAXIMUM HEIGHT OF DECK SUPPORT POSTS IS AS FOLLOWS:

POST SIZE	MAX POST HEIGHT
4X4	8'
6X6	20'
ENGINEERED	20'+

NOTES: 1) THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS.  
2) THIS TABLE IS BASED ON A MAXIMUM TRIBUTARY AREA OF 128 SQ. FT.  
3) POST HEIGHT IS FROM TOP OF FOOTING TO BOTTOM OF GRADER.

10. DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THE FOLLOWING METHODS:

A. WHEN THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION 4, LATERAL BRACING IS NOT REQUIRED.

B. 4X4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE ATTACHED AT THE ENDS TO THE GRADER AND THE POST WITH ONE - 5/8" Ø BOLT.

C. FOR FREE STANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN CONCRETE IN ACCORDANCE WITH THE FOLLOWING:

POST SIZE	TRIBUT. AREA	POST HEIGHT	EMB. DEPTH	CONC. DIAM.
4X4	48 SQ. FT.	4'-0"	2'-6"	1'-0"
6X6	120 SQ. FT.	6'-0"	3'-6"	1'-8"

D. 2X6 DIAGONAL VERTICAL CROSS BRACING SHALL BE PROVIDED IN TWO PERPENDICULAR DIRECTIONS FOR FREE STANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE BRACES SHALL BE ATTACHED TO THE POSTS WITH ONE - 5/8" Ø BOLT AT EACH END OF THE BRACE.

NOTES: 1) ALL NAILS AND BOLTS ARE TO BE HOT DIPPED GALVANIZED.  
2) MINIMUM EDGE DISTANCE FOR BOLTS IS 2 1/2".  
3) NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF 1 1/2".

### NOTES

THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:

- THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR
- THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION

ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE RESPONSIBILITY OF THE EOR. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAT ANY REVISIONS ISSUED BY THE EOR ARE PROMPTLY DISTRIBUTED TO THE SUBCONTRACTORS

THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.

ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW

### ABBREVIATIONS

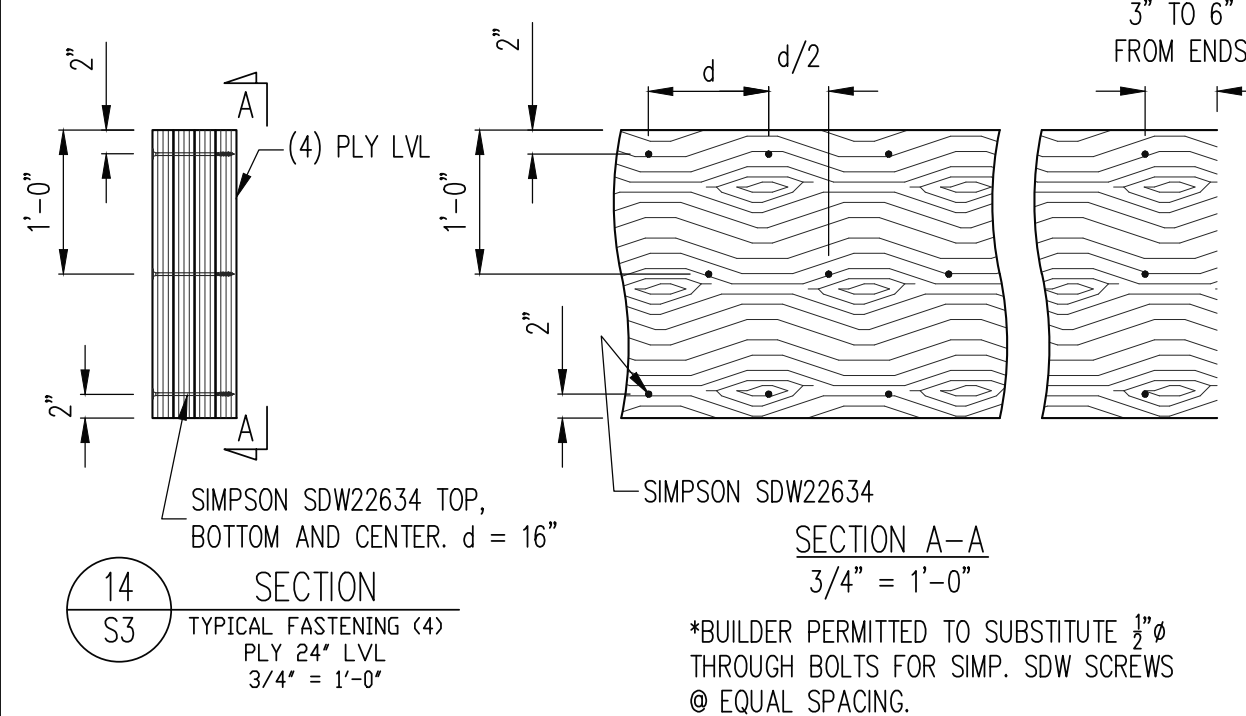
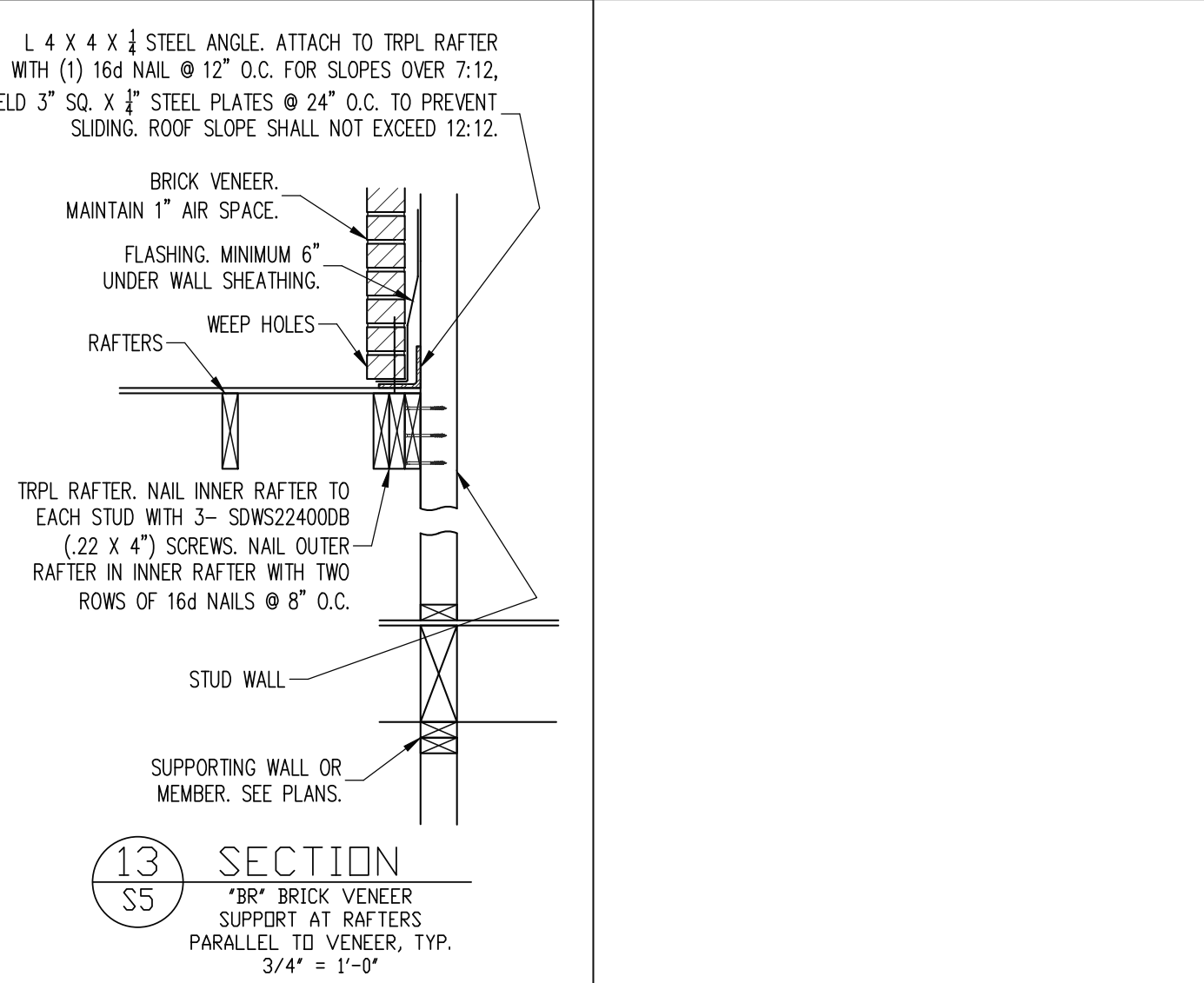
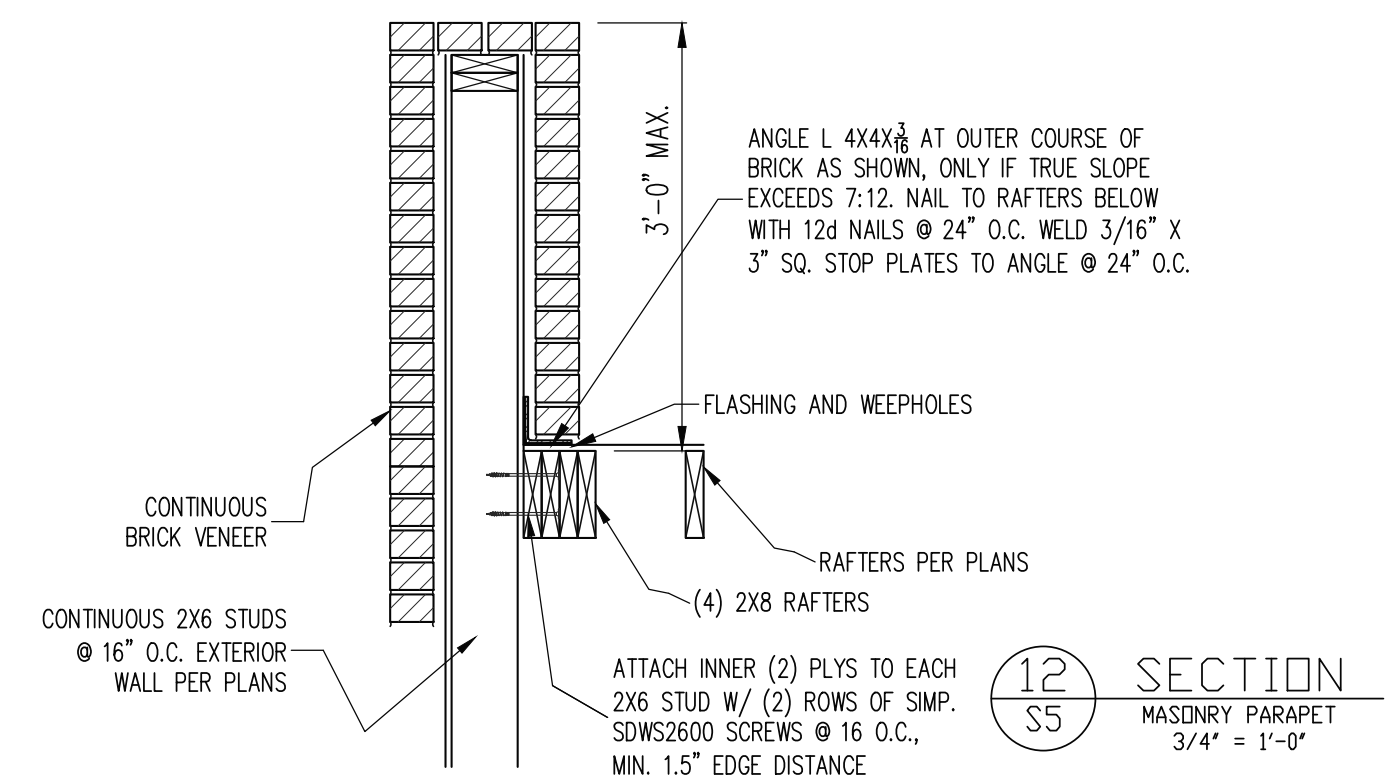
ABV ABOVE	FND FOUNDATION	TJ TRIPLE JOIST
B. BOTH	FTG FOOTING	TYP TYPICAL
B.E. BOTH ENDS	HDC HOT DIPPED	TRPL TRIPLE
BTWN BETWEEN	GLV GALVANIZED	TSP TRIPLE STUD POCKET
CBP CAST IN PLACE	HGR HANGER	UNO UNLESS NOTED OTHERWISE
CONC CONCRETE	LVL LAMINATED VENEER LUMBER	XJ EXTRA JOIST
CS CONTINUOUS SHEATHING	LUM LUMBER	
DIA DIAMETER	NTS NOT TO SCALE	
DBL DOUBLE	O.C. ON CENTER	
DJ DOUBLE JOIST	PSL PARALLEL STRAND LUMBER	
DSP DBL STUD POCKET	PT PRESSURE TREATED QUAD JOIST	
EQ EQUAL	SP SPACE (OR SPACING)	
EA EACH	SPP SINGLE STUD POCKET	
FLO FLANGE	SQ SQUARE	
FL PL FLITCH PLATE		
FLR FLOOR		

### ALLOWABLE I-JOIST SUBSTITUTION

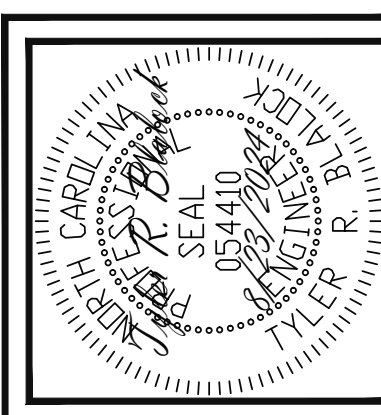
NOTE: MAINTAIN JOIST DEPTH, DIRECTION, AND SPACING SPECIFIED ON PLANS.

MANUFACTURER	DEPTH	SERIES	MOUNT HGR	SIMPSON FACE FLANGE HGR	SIMPSON TOP
BLUELINX	16"	BLI 40	IUS2.56/16		ITS2.56/16
BLUELINX	16"	BLI 60	IUS2.56/16		ITS2.56/16
BOISE CASCADE	16"	BCI 6000a	IUS2.06/16		ITS2.06/16
BOISE CASCADE	16"	BCI 6000S	IUS2.37/16		ITS2.37/16
INTERNATIONAL BEAMS	16"	IB 600	IUS2.56/16		ITS2.56/16
LP CORP	16"	LP1 20+	IUS2.56/16		ITS2.56/16
NORDIC	16"	NI 40X	IUS2.56/16		ITS2.56/16
ROSEBURG	16"	RFP1 60S	IUS2.56/16		ITS2.56/16
WEYERHAEUSER	16"	TJ 210	IUS2.06/16		ITS2.06/16
BOISE CASCADE	16"	BCI 60a	IUS2.37/16		ITS2.37/16
LP CORP	16"	LP 36	IUS2.37/16		ITS2.37/16
LP CORP	16"	LP 42+	IUS2.56/16		ITS2.56/16
NORDIC	16"	NI 70	IUS2.56/16		ITS2.56/16
ROSEBURG	16"	RFP1 70	IUS2.37/16		ITS2.37/16
WEYERHAEUSER	16"	TJ 360	IUS2.37/16		ITS2.37/16
WEYERHAEUSER	16"	EEI-30	IUS2.37/16		ITS2.73/16

JOISTS NOT LISTED IN THE ABOVE TABLE MAY BE USED PROVIDED THEY MEET OR EXCEED THE PROPERTIES OF THOSE LISTED. SUBSTITUTE USP BRAND HANGERS WITH EQUIVALENT VALUES AS DESIRED.



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SCOPE	REV #	REF PROJ #	DATE
LOC			
14 COTTON FARMS			

ENG: TRB/CR  
DATE: 8/23/2024

PLAN  
M109-24

PROJECT NO.  
24-21-213

SHEET NO.  
SD1

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