STRUCTURAL ABBREVIATIONS

ABBREV.	DEFINITION
A.B.	anchor bolts
ABV	above
ADDNL	additional
AFF	above finished floor
ALT	alternate
ARCH	architectural
B, BOT	bottom
B/xxx	bottom of xxx
BAL.	balance
BB	bond beam
BCX	bottom chord extension
BL	brick ledge
BLDG	building
BLW	below
BM	beam
BRG	bearing
BRK	brick
BTWN	between
CJ	const., control joint
CLR	clear
CMU	conc. masonry unit
COL	column
CONC	concrete
CONN	connection
CONST	construction
CONT	continuous
CTR	center
DBA	deformed bar anchor
DET,DTL	detail
DIM	dimension
DWGS	drawings
DWL	dowel
EA	each
EE	each end
EF	each face
EFF	effective
EJ	expansion joint
EL,ELEV	elevation
EOC	edge of concrete
EOD	edge of deck
EOM	edge of masonry
EOS	edge of slab
ES	each side
EW	each way
EXIST	existing
EXP	expansion
EXT	exterior, extension
FK	Foot-Kips
FL, FLR	floor
FOB	face of brick
FOM	face of masonry
FOS	face of stud
FP	full penetration
FT	foot, feet
FTG	footing
GB	grade beam
GEN	general
HEF	horizontal each face
HIF	horizontal inner face

ABBREV.	DEFINITION
HOF	horizontal outer face
HK	hook
HORZ	horizontal
IF	inner face
INT	interior
JT	joint
K	kips (1000 lbs)
L, LEN	length
LAT	lateral
LBS	pounds
LE	left end
LLH	long leg horizontal
LLO	long leg outstanding
LLV	long leg vertical
LONG	longitudinal
MAS	masonry
MAX	maximum
MECH	mechanical
MFR	manufacturer
MIN	minimum
MTL	metal
NOM	nominal
OC, O/C	on center
OF	outer face, opp. face
OH	opposite hand
OPP	opposite
OPNG	opening
PC	precast
PL	plate
RE	right end
REF	Reference
REINF	reinforcement
REQD	required
RET	retaining
SOG	slab on grade
SC	slip critical
SCHED	schedule
SECT	section
SL	slab
SPA	spacing
STFNR	stiffener
STL	steel
SUPPL	supplier
T	top
T/xxx	top of xxx
TCX	top chord extension
THK	thick, thickness
TRAN	transverse
TYP	typical
UNO	unless noted otherwise
VERT	vertical
VIF	verify in field
W	wide, width
WWF	welded wire fabric

1.0 GENERAL NOTES:

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 THE STRUCTURAL WORK.
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.
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.
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.
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.
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 ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
7. LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION IS THE CONTRACTORS SOLE RESPONSIBILITY AND SHALL NOT EXCEED THE SAFE LOAD - CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADINGS 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.
8. ALL ASTM AND OTHER REFERENCES ARE PER THE LATEST EDITIONS OF THESE STANDARDS, UNLESS OTHERWISE NOTED.
9. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL, AND SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH OTHER TRADES. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE CONTRACTORS APPROVAL STAMP, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS. THE ENGINEER'S REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS.THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC. ALL SUBMITTALS INCLUDING CONCRETE MIX DESIGNS, CMU SPECS, ETC. MUST BE DATED AND NO MORE THAN ONE (1) YEAR OLD.
10. SUBMIT SHOP DRAWINGS IN THE FORM OF THREE PRINTS.IN NO CASE SHALL REPRODUCTION OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.CONTRACTOR SHALL PROVIDE IN HIS SCHEDULE FOR SHOP DRAWING REVIEW AND RETURN TIME, A MINIMUM OF FIFTEEN (15) WORKING DAYS IN THE STRUCTURAL ENGINEER'S OFFICE.AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:

A. CONCRETE MIX DESIGN(S).
B. REINFORCING STEEL SHOP DRAWINGS INCLUDING ELEVATED SLABS.
C. PRE-MANUFACTURED WOOD SYSTEM/TRUSS SHOP DRAWINGS WITH CALCULATIONS.
OTHER SUBMITTALS MAY BE REQUIRED PER THE "SCHEDULE OF SPECIAL INSPECTIONS" OR THE SEPARATE NOTES CONTAINED HEREIN.

11. UNLESS OTHERWISE INDICATED, ALL ITEMS NOTED TO BE DEMOLISHED SHALL BECOME THE CONTRACTOR'S PROPERTY AND BE REMOVED FROM THE SITE.
12. CONTRACTORS SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF.
13. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.
14. 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.
15. 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.
16. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE DRAWINGS OR SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER. CORRECTIONS OR WRITTEN INTERPRETATIONS SHALL BE ISSUED BEFORE AFFECTED WORK MAY PROCEED.
17. 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.
18. 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.
19. 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 DESIGN CRITERIA NOTES:

1. THE PRIMARY DESIGN STANDARDS AND/OR CRITERIA INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

GENERAL:	BLDG CODE (N.C.B.C.2018, AS AMENDED, ASCE 7-10)
CONCRETE:	ACI 318
MASONRY:	ACI 530
STRUCTURAL STEEL	AISC 341
STEEL JOISTS / GIRDERS	SJI
METAL DECK	SDI
COLD - FORMED METAL	NAS

2. DESIGN GRAVITY SUPER IMPOSED DEAD LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS (SELF WEIGHT OF STRUCTURE IS NOT INCLUDED):

ROOF	20 PSF MAX.	10 PSF MIN.
FLOORS - TYPICAL	15 PSF	
PARTITION ALLOWANCE	0 PSF	

3. DESIGN GRAVITY LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:

SLAB ON GRADE..200 PSF

ROOF, TYPICAL..20 PSF MIN.
STAIRS...100 PSF
APARTMENT/CORRIDOR...40 PSF
BALCONY...60 PSF

FLOOR LIVE LOAD REDUCTION PER N.C.B.C. HAS BEEN UTILIZED. ROOF LIVE LOAD REDUCTION PER N.C.B.C HAS BEEN UTILIZED.

4. DESIGN LATERAL LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
WIND LOADS PER ASCE7-10:

BASIC WIND SPEED (3 SECOND GUST)	115 MPH
RISK CATEGORY	II
WIND EXPOSURE	B
HEIGHT 'h'	50.3ft.
INTERNAL PRESSURE COEFFICIENT "GCpi"	+/- 0.18

COMPONENTS & CLADDING PRESSURES (PSF):

	TRIBUTARY AREA (FT^2)			
	ZONE	A ≤ 10	A = 50	A ≥ 100
WALLS	ZONE 4 (-)	-29.9	-27.0	-25.8
	ZONE 5 (-)	-36.9	-31.2	-28.7
	ZONE 4&5(+)	+27.6	+24.7	+23.4
ROOF	ZONE 1 (-)	-34.6	-31.3	-29.9
	ZONE 2 (-)	-41.6	-35.1	-32.2
	ZONE 3 (-)	-72.0	-57.3	-50.9
	ALL ZONES (+)	+16.0	+16.0	+16.0

NOTES:
* CORNER & EDGE ZONES SHALL EXTEND 10'-8"FROM BUILDING EDGES.
* "+" INDICATES POSITIVE AND "-" NEGATIVE PRESSURE (SUCTION).

NET ROOF SUCTION 12 PSF

	NORTH/SOUTH	EAST/WEST
WING MAIN WIND FORCE RESISTING SYSTEM	LIGHT FRAME SHEAR WALLS	LIGHT FRAME SHEAR WALLS
WIND BASE SHEAR "Vo"	148 KIPS	55 KIPS

SEISMIC LOADS PER N.C.B.C. 2018:

SITE CLASS	D (ASSUMED)
SHORT PERIOD DESIGN SPECTRAL RESPONSE "Sds"	0.308g
1-SECOND PERIOD DESIGN SPECTRAL RESPONSE "Sd1"	0.169g
SEISMIC USE GROUP	II
IMPORTANCE FACTOR "Ie"	1.0
SEISMIC DESIGN CATEGORY	C

	NORTH/SOUTH	EAST/WEST
WING SEISMIC FORCE RESISTING SYSTEM	LIGHT FRAME SHEAR WALLS	LIGHT FRAME SHEAR WALLS
SEISMIC BASE SHEAR "Vo"	88 KIPS	88 KIPS

5. DESIGN SNOW LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
DRIFTING SNOW LOADS PER ASCE 7-10 : NONE WHERE "Pg" IS LESS THAN 10 PSF

50 YEAR GROUND SNOW LOAD "Pg"	15 PSF
EXPOSURE FACTOR "Ce"	1.0
THERMAL FACTOR "Ct"	1.0
IMPORTANCE CATEGORY CLASSIFICATION	II
IMPORTANCE FACTOR "Is"	1.0
Pf	10.5 PSF (ASCE 7-05, EQ. 7-1)
NET FLAT ROOF SNOW LOAD "Pf"	10.5 PSF

6. THIS STRUCTURE HAS BEEN DESIGNED WITH "SAFETY FACTORS" IN ACCORDANCE WITH GENERALLY ACCEPTED PRINCIPLES OF STRUCTURAL ENGINEERING. THE FUNDAMENTAL NATURE OF THE "SAFETY FACTOR" IS TO COMPENSATE FOR UNCERTAINTIES IN THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL BUILDING COMPONENTS. IT IS INTENDED THAT "SAFETY FACTORS" BE USED SO THAT THE LOAD CARRYING CAPACITY OF THE STRUCTURE DOES NOT FALL BELOW THE DESIGN LOAD AND THAT THE BUILDING WILL PERFORM UNDER DESIGN LOAD WITHOUT DISTRESS. WHILE THE USE OF "SAFETY FACTORS" IMPLIES SOME EXCESS CAPACITY BEYOND DESIGN LOAD, SUCH EXCESS CAPACITY CANNOT BE ADEQUATELY PREDICTED AND SHALL NOT BE RELIED UPON.
7. BUILDING SHALL NOT BE USED AS AN EMERGENCY SHELTER.

3.0 DEFERRED SUBMITTAL NOTES:

1. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
2. IN NO CASE SHALL REPRODUCTION OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD. CONTRACTOR SHALL PROVIDE IN HIS SCHEDULE FOR SHOP DRAWING REVIEW AND RETURN TIME, A MINIMUM OF FIFTEEN (15) WORKING DAYS IN THE STRUCTURAL ENGINEER'S OFFICE.
3. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL, AND SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH OTHER TRADES. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE CONTRACTORS APPROVAL STAMP, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
4. ALL SHOP DRAWINGS AND CALCULATIONS FOR DELEGATED DESIGN REQUIRING AN ENGINEER'S SEAL SHALL BE SEALED PRIOR TO SUBMISSION FOR REVIEW. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE DELEGATED ENGINEER'S SEAL, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
5. WHERE NOTED SEALED DRAWINGS OR CALCULATIONS ARE REQUIRED TO BE SEALED AND SIGNED BY A LICENSED STRUCTURAL ENGINEER IN THE PROJECT STATE. NOTE THAT PLACEMENT OR LAYOUT PLANS FOR TRUSSES AND JOISTS DO NOT REQUIRE ENGINEERS SEAL
6. THE ENGINEER OR RECORD'S (EOR) REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS.THE EOR REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC. ALL SUBMITTALS INCLUDING CONCRETE MIX DESIGNS, CMU SPECS, ETC. MUST BE DATED AND NO MORE THAN ONE (1) YEAR OLD.
7. AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:.

A. CONCRETE MIX DESIGN(S).
B. REINFORCING STEEL SHOP DRAWINGS
C. PRE-MANUFACTURED WOOD SYSTEM/TRUSS SHOP DRAWINGS WITH CALCULATIONS.
J. OTHER SUBMITTALS MAY BE REQUIRED PER THE "SCHEDULE OF SPECIAL INSPECTIONS" OR THE SEPARATE NOTES CONTAINED HEREIN.

8. ANY SHOP DRAWINGS WITH LANGUAGE LIMITING REVIEWER RESPONSES SUCH AS BUT NOT LIMITED TO THE FOLLOWING WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
   A. "RESPONSES SUCH AS "GC TO VERIFY" OR "ARCH TO VERIFY" ARE NOT ACCEPTABLE ANSWERS"
   B" CLOUDS MARKED IN ...... MANNER WILL BE CONSIDERED NOT ADDRESSED"
9. SHOP DRAWINGS SHALL NOT BE USED AS RFI'S AND ARE TO BE CONSIDERED COMPLETELY SEPARATE SUBMITTALS.

4.0 SITE PREPARATION NOTES:

1. WITHIN AN AREA A MINIMUM OF 5 FEET BEYOND THE BUILDING LIMITS,EXCAVATE A MINIMUM OF 3' OF EXISTING SOIL. REMOVE ALL ORGANICS.PAVEMENT,ROOTS, DEBRIS AND OTHERWISE UNSUITABLE MATERIAL.
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 / TESTING AGENCY.
3. PROOF-ROLL THE SURFACE OF THE EXPOSED SUBGRADE WITH A LOADED TANDEM AXLE DUMP TRUCK.REMOVE ALL SOILS WHICH PUMP OR DO NOT COMPACT PROPERLY AS DIRECTED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY.
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.
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%.
6. PROVIDE FIELD DENSITY TESTS FOR EACH 3,000 S.F. OF BUILDING AREA FOR EACH LIFT OF CONTROLLED FILL.

5.0 FOUNDATION NOTES: (TYP)

1. FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT BY BLE CORP, DATED 03/31/2025
2. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS ". HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305.COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60, UNLESS OTHERWISE NOTED.
4. SEE "CAST-IN-PLACE CONCRETE NOTES" FOR MINIMUM CONCRETE COVER REQUIREMENTS, AND CONCRETE ELEMENT PROPERTIES.
5. ALL REINFORCING MARKED CONTINUOUS (CONT.) ON THE PLANS AND DETAILS SHALL BE LAPPED LTS AT SPLICES UNLESS OTHERWISE NOTED.SEE EMBEDMENT & LAP SPLICE SCHEDULE.
6. NO UNBALANCED BACKFILLING SHALL BE DONE AGAINST FOUNDATION WALLS UNLESS WALLS ARE SECURELY BRACED AGAINST OVERTURNING,EITHER BY TEMPORARY BRACING OR BY PERMANENT CONSTRUCTION.
7. PRIOR TO COMMENCING ANY FOUNDATION 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 2 FEET RELATIVE TO THAT WHICH IS SHOWN.
8. UNLESS OTHERWISE NOTED, THE CENTERLINES OF COLUMN FOUNDATIONS SHALL BE LOCATED ON COLUMN CENTERLINES.
9. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE - DRAINING GRANULAR BACKFILL FULL HEIGHT OF WALL. PROVIDE VERTICAL CONTROL JOINTS NOT TO EXCEED 25 FEET O.C. NOR 3 TIMES THE WALL HEIGHT. MAXIMUM LENGTH OF WALL POURS SHALL NOT EXCEED 50 FEET IN ANY SINGLE POUR.
10. BOTTOM OF EXTERIOR FOUNDATIONS SHALL BEAR AT A MINIMUM DEPTH OF 1'-6" BELOW FINAL GRADE FOR FROST PROTECTION.
11. ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED SOIL BEARING PRESSURE OF 2500 PSF. ALL FOOTINGS SHALL BEAR ON UNDISTURBED, FIRM NATURAL SOIL OR COMPACTED FILL. ALL FOUNDATION EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY PRIOR TO POURING FOUNDATION CONCRETE.
12. TOP OF FOOTING ELEVATION SHALL BE AS SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS ARE A MAXIMUM AND SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN BEARING PRESSURE. STRUCTURAL ENGINEER MUST BE NOTIFIED IF FOOTINGS ARE LOWERED MORE THAN 2 FEET RELATIVE TO THAT WHICH IS SHOWN.
13. WHERE FOOTING EXCAVATIONS MUST REMAIN OPEN OVERNIGHT OR IF RAINFALL BECOMES IMMINENT WHILE BEARING SOILS ARE EXPOSED, A 2" TO 4" THICK MUD MAT OF UNREINFORCED LEAN (f'c = 2000psi) CONCRETE SHALL BE PLACED ON THE BEARING SOILS BEFORE PLACEMENT OF THE FOOTING REINFORCING.

6.0 SLAB ON GRADE NOTES:

1. PROVIDE CONCRETE SLABS OVER A VAPOR BARRIER PER ARCHITECT DRAWINGS AND 4" OF POROUS FILL. CONCRETE SLABS SHALL HAVE A MAXIMUM SLUMP OF 5 INCHES, USING TYPE 1 CEMENT.
2. ALL WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-185. LAP ADJOINING PIECES AT LEAST ONE FULL MESH.
3. ALL POROUS FILL MATERIAL SHALL BE A CLEAN GRANULAR MATERIAL WITH 100% PASSING A 1-1/2" 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.
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 RECOMMENDATIONS AS FOLLOWS: 6" SLABS - FILL WITH EPOXY RESIN OTHER SLABS - FILL WITH FIELD MOLDED OR ELASTOMERIC SEALANT
5. UNLESS OTHERWISE APPROVED, ALL SLAB REINFORCEMENT SHALL BE SECURED INTO POSITION WITH PLASTIC TIPPED OR STAINLESS STEEL BAR SUPPORTS. BRICK OR OTHER MASONRY ARE NOT PERMITTED FOR USE AS SUPPORTS.
6. WALKWAYS AND OTHER EXTERIOR SLABS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. SEE THE SITE PLAN AND ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, ELEVATIONS,JOINTING DETAILS AND FINISH DETAILS. PROVIDE 4" WALKS REINFORCED WITH 6X6 - W1.4XW1.4 WWF UNLESS OTHERWISE NOTED.
7. SLABS TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+/- 1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.
8. SLABS NOT PERMANENTLY EXPOSED TO WEATHER SHALL NOT BE AIR ENTRAINED AND ENTRAPPED AIR SHALL BE LIMITED TO 3%.
9. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS". HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305 COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
10. IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE SLABS 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 CONTROL JOINTS SHALL BE 3 TIMES THE SLAB THICKNESS IN FEET. (EXAMPLE 4" SLAB X 3 = 12'-0" CJ SPACING TYPICAL)
11. THE USE OF POLYPROPYLENE FIBERS (IN LIEU OF WELDED WIRE FABRIC) IS PROHIBITED WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER.
12. SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF DEPRESSED SLAB AREAS AND DRAINS. SLOPE SLAB TO DRAINS WHERE SHOWN.
13. THE FINISH TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 301, TYPE A.

7.0 POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD (E.O.R.) PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S). PROVIDE SPECIAL INSPECTIONS AS REQUIRED BY THE ANCHOR'S EVALUATION REPORT (ICC-ES ESR OR IAPMO-UES CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY. CALL SIMPSON STRONG-TIE AT (800) 999-5099.
2. FOR ANCHORING INTO CRACKED AND UN-CRACKED CONCRETE:

A. MECHANICAL ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.2 AND / OR ICC-ES AC193 FOR CRACKED AND UN-CRACKED CONCRETE. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "STRONG-BOLT 2" (ICC-ES ESR-2713)
2. SIMPSON STRONG-TIE "TITEN HD", "TITEN HD-RD" & "TITEN HD-CS" (ICC-ES ESR-2713)
3. SIMPSON STRONG-TIE "STAINLESS STEEL TITEN HD" (IAPMO-UES ER-493)
4. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-UES ER-712)

B. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI355.4 AND ICC-ES AC308 FOR CRACKED AND UN-CRACKED CONCRETE. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS. HOLES SHALL BE DRY AT THE TIME OF INSTALLATION. ACI355-4 TEMPERATURE CATEGORY 'B' ASSUMED IN DESIGN. PRIOR TO INSTALLATION OF ADHESIVE ANCHORS IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS RESISTING SUSTAINED TENSION LOADS, INSTALLERS ARE REQUIRED TO BE CERTIFIED IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM AND MUST BE CONTINUOUSLY INSPECTED. PRE-APPROVED PRODUCTS INCLUDE:
1. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "SET-3G" (ICC-ES ESR-4057)
2. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)
3. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "AT-XP" (IAPMO-UES ER-263)
4. POST INSTALLED REINFORCING BARS USING THE ACI318 DEVELOPMENT LENGTH PROVISION - SIMPSON STRONG-TIE "SET-3G" (ICC-ES ESR-4057)
5. POST INSTALLED REINFORCING BARS USING THE ACI318 DEVELOPMENT LENGTH PROVISION - SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)

C. SIMPSON STRONG-TIE CLEAN DXS DUST EXTRACTION SYSTEM IN APPROVED FOR USE WITH THE PRODUCTS LISTED ABOVE TO DRILL AND CLEAN HOLES.

3. FOR ANCHORING INTO GROUT-FILLED CONCRETE MASONRY UNITS.

A. MECHANICAL ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC01 (EXPANSION ANCHORS) OR ICC-ES AC106 (SCREW ANCHORS) PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "STRONG-BOLT 2" (IAPMO-UES ER-240)
2. SIMPSON STRONG-TIE "WEDGE-ALL" (ICC-ES ESR-1396)
3. SIMPSON STRONG-TIE "TITEN HD" & "STAINLESS STEEL TITEN HD" (ICC-ES ESR-1056)
4. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-UES ER-716)

B. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH (ICC-ES AC58) PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "SET-XP" (IAPMO-UES ER-265)
2. SIMPSON STRONG-TIE "AT-XP" (IAPMO-UES ER281)
3. SIMPSON STRONG-TIE "ET-HP" (IAPMO-UES ER241)

4. FOR ANCHORING INTO HOLLOW CONCRETE MASONRY UNITS

A. MECHANICAL ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC106 FOR PERFORMANCE IN HOLLOW CONCRETE MASONRY. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "STAINLESS STEEL TITEN HD" (ICC-ES ESR-1056)
2. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-UES ER-716)

B. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC58 FOR PERFORMANCE IN HOLLOW CONCRETE MASONRY USING MANUFACTURER'S RECOMMENDED SCREEN TUBES. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "SET-XP" (IAPMO-UES ER-265)
2. SIMPSON STRONG-TIE "AT-XP" (IAPMO-UES ER-281)

5. FOR ANCHORING INTO UN-REINFORCED MASONRY

A. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC60 FOR PERFORMANCE IN UN-REINFORCED MASONRY CONFIGURATIONS A, B, AND C. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "ET-HP" (ICC-ES ER-3638)

6. FOR ANCHORING LOW VELOCITY AND THREADED STUDS INTO CONCRETE, MASONRY AND STEEL

A. POWDER-ACTUATED FASTENERS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "POWDER-ACTUATED FASTENERS" (ICC-ES ESR-2138)

B. GAS-ACTUATED FASTENERS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
2. SIMPSON STRONG-TIE "GAS ACTUATED FASTENERS" (ICC-ES ESR-2811)

8.0 CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE MIXES SHALL BE DESIGNED PER ACI 301 CHAPTER 3, USING PORTLAND CEMENT CONFORMING TO ASTM C-150 OR C-595,AGGREGATE CONFORMING TO ASTM C-33, AND ADMIXTURES CONFORMING TO ASTM C-494, C-1017, C-618,C-989 AND C-260. CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C-94.
2. CONCRETE SHALL CONFORM TO THE FOLLOWING COMPRESSIVE STRENGTH, SLUMP AND UNIT WEIGHT RATIO REQUIREMENTS:

ELEMENT	MIN. f'c (28 DAYS)	SLUMP*	UNIT WEIGHT
CONCRETE NOT NOTED	3000 PSI	2" TO 4"	145 PCF
FOOTINGS	3000 PSI	2" TO 4"	145 PCF
SLABS-ON-GRADE	3000 PSI	2" TO 4"	145 PCF

*AT CONTRACTOR'S OPTION. AN APPROVED ADMIXTURE MAY BE USED TO PRODUCE FLOWABLE CONCRETE. MAXIMUM SLUMP SHALL NOT EXCEED 10 INCHES. THE CONTRACTOR SHALL SUBMIT TEST RESULTS OF THE PROPOSED CONCRETE MIXES ALONG WITH THE MANUFACTURER'S TECHNICAL DATA FOR APPROVAL PRIOR TO POURING CONCRETE.

3. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS". HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
4. WATER REDUCING ADMIXTURE SHALL BE USED IN ALL CONCRETE.
5. AIR ENTRAINING ADMIXTURE IN ACCORDANCE WITH ACI 301 TABLE 3.4.1 SHALL BE USED IN ALL CONCRETE EXPOSED TO FREEZING AND THAWING DURING CONSTRUCTION AND/OR SERVICE CONDITIONS.
6. WATER/CEMENT RATIO SHALL NOT EXCEED 0.50 FOR ANY CONCRETE SUBJECTED TO FREEZING/ THAWING.
7. ALL PUMPED CONCRETE SHALL HAVE A WATER/CEMENT RATIO LESS THAN 0.50 AND SHALL CONTAIN A HIGH RANGE WATER REDUCING ADMIXTURE (SUPERPLASTICIZER).
8. IN NO CASE SHALL A WATER/CEMENT RATIO EXCEED THE FOLLOWING:

f'c 3000 PSI 0.60 MAX. w/c RATIO

9. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 U.N.O. - EXCEPT THAT REINFORCING WHICH IS REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706. ALL WELDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH AWS D1.4. EPOXY COATED REINFORCING SHALL CONFORM TO ASTM A-775.
10. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A-185.
11. ALL REINFORCING STEEL SHALL BE SET AND TIED IN PLACE PRIOR TO POURING OF CONCRETE. DO NOT FIELD BEND BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE UNLESS SPECIFICALLY INDICATED OR APPROVED BY THE ENGINEER.
12. REINFORCING STEEL, INCLUDING HOOKS AND BENDS, SHALL BE DETAILED IN ACCORDANCE WITH ACI 315. ALL REINFORCING STEEL INDICATED AS BEING CONTINUOUS (CONT) SHALL BE LAPPED "LTS" PER EMBEDMENT AND LAP SPLICE SCHEDULE UNLESS OTHERWISE NOTED.
13. UNLESS OTHERWISE NOTED, THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

A.	CONCRETE EXPOSED TO EARTH OR WEATHER:	
	#6 THROUGH #18 BARS	- 2"
	#5 BAR, W31 OR D31 WIRE & SMALLER	- 1 1/2"
B.	CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
	SLABS, WALLS & JOISTS	
	#14 AND #18 BARS	- 1 1/2"
	#11 BAR AND SMALLER	- 3/4"
	BEAMS AND COLUMNS	
	PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	- 1 1/2"
	SHELLS, FOLDED PLATE MEMBERS	
	#6 BAR AND LARGER	- 3/4"
	#5 BAR, W31 OR D31 WIRE AND SMALLER	- 1/2"
C.	CONCRETE CAST AGAINST EARTH	- 3"

14. BAR SUPPORTS AND HOLDING BARS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO INSURE MINIMUM CONCRETE COVER AND PLACEMENT. BAR SUPPORTS SHALL BE PLASTIC TIPPED OR STAINLESS STEEL.
15. ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
16. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH DOCUMENTATION THAT ALL MATERIALS CONFORM TO THE QUALITY STANDARDS SPECIFIED IN THE GENERAL BUILDING CODE.
17. IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE SLABS IN AN ALTERNATING LANE PATTERN.THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR SHALL BE LIMITED TO 80 FEET.
18. FORMWORK SHALL REMAIN IN PLACE UNTIL CONCRETE HAS OBTAINED AT LEAST 90% OF ITS 28 DAY COMPRESSIVE STRENGTH.THE CONTRACTOR SHALL PROVIDE ALL SHORING AND RE-SHORING.
19. CONSTRUCTION JOINTS, REQUIRED TO FACILITATE CONSTRUCTION, ARE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND MAY REQUIRE ADDITIONAL REINFORCING. SUCH JOINTS SHALL BE CLEARLY DETAILED ON THE SHOP DRAWINGS AND ALL REINFORCING SHALL PASS CONTINUOUSLY THROUGH THE JOINT.
20. REFER TO ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIPS, REGLETS, WASHES, MASONRY ANCHORS, BRICK LEDGE ELEVATIONS, SLAB DEPRESSIONS AND MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGELS, ETC.
21. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES.WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF ACI 301.
22. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR UNDERFLOOR, PERIMETER AND OTHER DRAINS AND FOR SLEEVES,OUTLET BOXES, CONDUIT, ANCHORS, ETC. THE VARIOUS TRADES ARE RESPONSIBLE FOR THEIR ITEMS.
23. FILL SLABS, NOT SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE REINFORCED WITH A MINIMUM OF 6X6-W1.4XW1.4 WWM UNLESS NOTED OTHERWISE ON OTHER DRAWINGS OR IN THE SPECIFICATIONS.
24. REINFORCING BARS SHALL BE WELDED ONLY WHERE SHOWN ON THE STRUCTURAL DRAWINGS AND WELDS SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE - REINFORCING STEEL" (AWS D1.4). NO OTHER REINFORCING MAY BE WELDED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. TACK WELDING OF ANY REINFORCING IS STRICTLY PROHIBITED.
25. ALL REINFORCING TERMINATING AT THE TOPS OF THE COLUMNS AND PILASTERS SHALL BE HOOKED, U.N.O.
26. CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER A MINIMUM OF 48 HOURS PRIOR TO ALL CONCRETE POURS IN ORDER TO PERMIT REINFORCING STEEL REVIEW IF REQUIRED BY THE STRUCTURAL ENGINEER.

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NC CERTIFICATE OF LICENSURE # P-1593

SEAL 28481
JOSEPH D. HERNANDEZ
06.13.2025

SIGNATURE:

CLIENT:
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341 N main Street
Hendersonville, NC 28792
Luis Graef: President

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
GENERAL NOTES

SHEET #:
S-0.00

9.0 PLYWOOD/GYPBOARD SHEATHING TO WOOD NOTES:

1. ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH AMERICAN PLYWOOD ASSOCIATION (APA) SPECIFICATIONS.
2. ALL ROOF PANEL SHEATHING SHALL BE 7/16" (NOM.) 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 OTHERWISE NOTED CONNECT ROOF SHEATHING WITH 6d COMMON NAILS AT 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS.
3. ALL FLOOR SHEATHING SHALL BE 19/32" (NOM.) APA RATED STURD-1-FLOOR, @ 16" O.C. EXP. 1, WITH TONGUE AND GROOVE EDGE. UNLESS OTHERWISE NOTED CONNECT FLOOR SHEATHING WITH 10d COMMON NAILS SPACED 6" O/C AT SUPPORTED EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS. FIELD-GLUE USING ADHESIVES MEETING APA SPECIFICATIONS AFG-01, APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
4. ALL WALL PANEL SHEATHING, INCLUDING DESIGNATED SHEAR WALLS, SHALL BE 7/16" (NOM.) TYPE CDX, EXP. 1 APA RATED 24/16 SHEATHING. UNLESS OTHERWISE INDICATED, CONNECT WALL SHEATHING WITH 10d COMMON NAILS SPACED 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS. SEE SHEAR WALL SCHEDULE FOR FASTENING REQUIREMENTS.
5. 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" SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.
6. ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN. THE USE OF PNUEMATIC NAIL GUNS MAY BE USED PROVIDED (1) NAIL IS INSTALLED FOR EVERY OVERDRIVEN NAIL (THOSE SUNK > 1/8" INTO SHEATHING). THE USE OF STAPLES IS PROHIBITED.
7. ALL EXTERIOR WALLS SHALL BE SHEATHED ON BOTH FACES WITH GYP-BOARD SHEATHING (SEE ARCH. DWGS. FOR THICKNESS) AND CONNECTED WITH 5d COOLER NAILS SPACED 7" O/C AT SUPPORTED PANEL EDGES AND INTERMEDIATE SUPPORTS.
8. PROVIDE 2x BLOCKING AT UNSUPPORTED PANEL EDGES AS FOLLOWS: ROOFS AND FLOORS - ONLY WHERE INDICATED ON PLAN WALLS - PER THE SHEAR WALL SCHEDULE ON SHEET S1.2.

10.0 WOOD FRAMING NOTES:

1. ALL WOOD FRAMING MATERIAL SHALL BE SURFACED DRY AND USED AT 19% MAXIMUM MOISTURE CONTENT. ALLOWABLE STRESS REQUIREMENTS OF ALL MATERIAL SHALL BE IN ACCORDANCE WITH THE U RATING AS NOTED BELOW
2. ALL STUD AND WALL FRAMING SHALL BE EITHER OF THE FOLLOWING:
   A. NO. 2 GRADE SOUTHERN YELLOW PINE (SYP)
   B. NO. 2 GRADE SPRUCE-PINE-FIR (SPF)
3. ALL JOIST, RAFTER & MISC. FRAMING SHALL BE NO. 2 GRADE, SOUTHERN PINE. PROVIDE FULL-DEPTH (OR METAL) BRIDGING AT MIDSPAN AND AT A MAXIMUM SPACING OF 8' -0" O/C IN BETWEEN.
4. ALL FRAMING EXPOSED TO THE WEATHER OR IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION SPECIFICATIONS. WHERE POSSIBLE, ALL CUTS AND HOLES SHOULD BE COMPLETED BEFORE TREATMENT. CUTS AND HOLES DUE TO ON-SITE FABRICATION SHALL BE BRUSHED WTIH 2 COATS OF COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2% METALLIC COPPER IN SOLUTION (PER AWPA STD. M4).
5. THE CONTRACTOR SHALL CAREFULLY SELECT LUMBER TO BE USED IN LOADBEARING APPLICATIONS. THE LENGTH OF SPLIT ON THE WIDE FACE OF 2" NOMINAL LOADBEARING FRAMING SHALL BE LIMITED TO LESS THAN 1/2 OF THE WIDE FACE DIMENSION. THE LENGTH OF SPLIT ON THE WIDE FACE OF 3" (NOMINAL) AND THICKER LUMBER SHALL BE LIMITED TO 1/2 OF THE NARROW FACE DIMENSION.
6. ALL NAILING NOT OTHERWISE INDICATED SHALL BE IN ACCORDANCE WITH THE "NAILING SCHEDULE" ON SHEET S1.1. NAILING SHALL NOT BE OVERDRIVEN.
7. PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS WHICH RUN PARALLEL WITH JOISTS AND UNDER ALL CONCENTRATED LOADS FROM FRAMING ABOVE.
8. PROVIDE HEADER BEAMS OF THE SAME SIZE AS JOISTS OR RAFTERS TO FRAME AROUND OPENINGS IN THE PLYWOOD DECK UNLESS OTHERWISE INDICATED.
9. STRUCTURAL STEEL PLATE CONNECTORS SHALL CONFORM TO ASTM A-36 SPECIFICATIONS AND BE 1/4" THICK UNLESS OTHERWISE INDICATED. BOLTS CONNECTING WOOD MEMBERS SHALL BE PER ASTM A-307 AND BE 3/4" DIAMETER UNLESS OTHERWISE INDICATED. PROVIDE WASHERS FOR ALL BOLT HEADS AND NUTS IN CONTACT WITH WOOD SURFACES.
10. BOLT HOLES SHALL BE CAREFULLY CENTERED AND DRILLED NOT MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER. BOLTED CONNECTIONS SHALL BE SNUGGED TIGHT BUT NOT TO THE EXTENT OF CRUSHING WOOD UNDER WASHERS.
11. PREFABRICATED "MICRO-LAM" LUMBER HEADERS AND BEAMS SHALL BE AS MANUFACTURED BY "TRUSS JOIST MacMILLAN CORP.", BOISE, IDAHO OR APPROVED EQUAL. MICRO-LAM MATERIAL SHALL BE 2.0E, SOUTHERN PINE. DO NOT CUT OR NOTCH MICRO-LAM MATERIAL WITHOUT THE MANUFACTURER'S APPROVAL.
12. PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS AND OTHER ACCESSORIES SHALL BE AS MANUFACTURED BY "SIMPSON STRONG-TIE COMPANY", (TEL.800-999-5099), OR APPROVED EQUAL. INSTALL ALL ACCESSORIES PER THE MANUFACTURER'S REQUIREMENTS. ALL STEEL SHALL HAVE A MINIMUM THICKNESS OF 0.04 INCHES (PER ASTM A446, GRADE A) AND BE GALVANIZED (COATING G60).
13. HOLES AND NOTCHES DRILLED OR CUT INTO WOOD FRAMING SHALL NOT EXCEED THE REQUIREMENTS OF N.C.B.C. 2018.
14. ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE HOT DIP GALVANIZED.

11.0 PRE-ENGINEERED WOOD TRUSS NOTES:

1. WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE FOLLOWING LOADS:

A: MINIMUM GRAVITY LOADING:

	ROOF TRUSSES	FLOOR TRUSSES
TOP CHORD LIVE LOAD:	20 PSF	40 PSF
DEAD LOAD:	8 PSF	15 PSF
BOTTOM LIVE LOAD:	-------	-------
DEAD LOAD:	10 PSF	5 PSF

2. WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION OF THE NATIONAL FOREST PRODUCTS ASSOCIATION, THE DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES OF THE TRUSS PLATE INSTITUTE AND N.C.B.C 2303.4
3. WOOD MATERIALS SHALL BE SOUTHER PINE, DOUGLAS FIR OR LARCH AND SHALL BE KILN DRIED AND USED AT 19% MAXIMUM MOISTURE CONTENT. PROVIDE GRADE NO. 2 OR AS REQUIRED TO SATISFY STRESS REQUIREMENTS.
4. CONNECTOR PLATES SHALL BE NOT LESS THAN 0.036 INCHES (20 GAUGE) IN COATED THICKNESS, SHALL MEET OR EXCEED ASTM GRADE A OR HIGHER AND SHALL BE HOT DIPPED GALVANIZED ACCORDING TO ASTM A-525 (COATING G60). MINIMUM STEEL YIELD STRESS SHALL BE 33,000 PSI.
5. TRUSSES SHALL BE FABRICATED IN A PROPERLY EQUIPPED MANUFACTURING FACILITY OF A PERMANENT NATURE. TRUSSES SHALL BE MANUFACTURED BY EXPERIENCED WORKMEN, USING PRECISION CUTTING, JIGGING AND PRESSING EQUIPMENT UNDER THE REQUIREMENTS IN QUALITY CONTROL STANDARD QST-88 OF THE TRUSS PLATE INSTITUTE.
6. SECONDARY BENDING STRESSES IN TRUSS TOP AND BOTTOM CHORDS DUE TO DEAD, LIVE AND WIND LOADS SHALL BE CONSIDERED IN THE DESIGN. LOAD DURATION FACTORS SHALL BE PER THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION".
7. WOOD TRUSSES SHALL BE ERECTED IN ACCORDANCE WITH THE TRUSS MANUFACTURER'S REQUIREMENTS. THIS WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED CONTRACTOR. TRUSS ERECTION BY AN INEXPERIENCED OR NON-QUALIFIED CONTRACTOR CAN RESULT IN CONSTRUCTION COLLAPSE AND/OR SERIOUS INJURY AND DAMAGE.
8. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION AND PERFORMANCE OF THE TRUSSES. THE GUIDELINES SET FORTH BY THE TRUSS PLATE INSTITUTE PUBLICATION "HIB-91, COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES" SHALL BE A MINIMUM REQUIREMENT.
9. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED,DRILLED NOR OTHERWISE ALTERED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
10. SUBMIT COMPLETE SHOP DRAWINGS FOR ALL WOOD TRUSSES SHOWING MEMBER SIZES, SPECIES, GRADE, MOISTURE CONTENT, SPAN, CAMBER, DIMENSIONS, CHORD PITCH, BRACING REQUIREMENTS AND LOADINGS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN NORTH CAROLINA.

12.0 LAMINATED VENEER LUMBER (LVL) NOTES:

1. SUBMIT MANUFACTURER'S DESCRIPTIVE LITERATURE INDICATING MATERIAL COMPOSITION, THICKNESS, DIMENSIONS, LOADING AND FABRICATION DETAILS.
2. SUBMIT MANUFACTURER'S LITERATURE INDICATING INSTALLATION DETAILS. INCLUDE LOCATIONS AND DETAILS OF BEARING, BLOCKING, BRIDGING AND CUTTING FOR WORK BY OTHERS.
3. LVL BASIS OF DESIGN IS PER 2.0E GP LAM HAVING THE FOLLOWING PROPERTIES.
   A. QUALIFIED TO ASTM D 5456 BY APA- THE ENGINEERED WOOD ASSOCIATION.
   B. MODULUS OF ELASTICITY E = 2.0 x 10 PSI
   C. SHEAR MODULUS OF ELASTICITY G = 0.125 x 10 PSI
   D. FLEXURAL STRESS Fb = 2,900 PSI
   E. HORIZONTAL SHEAR Fv = 285 PSI
   F. COMPRESSION PERP. TO GRAIN Fc = 845 PSI
4. DELIVER MATERIALS TO THE JOB SITE IN MANUFACTURER'S ORIGINAL PACKAGING, CONTAINERS AND BUNDLES WITH MANUFACTURER'S IDENTIFICATION INTACT AND LEGIBLE.
5. STORE AND HANDLE MATERIALS TO PROTECT AGAINST CONTACT WITH DAMP AND WET SURFACES, EXPOSURE TO WEATHER, BREAKAGE AND DAMAGE. PROVIDE AIR CIRCULATION UNDER COVERING AND AROUND STACKS OF MATERIALS.
6. EXCEPT FOR CUTTING TO LENGTH, GP LAM LVL BEAMS AND HEADERS SHALL NOT BE CUT, DRILLED OR NOTCHED, EXCEPT AS NOTED IN MANUFACTURER'S LITERATURE.
7. PROVIDE GP LAM LVL BEAMS AND HEADERS WHERE INDICATED ON DRAWINGS USING HANGERS AND ACCESSORIES SPECIFIED.
8. INSTALL GP LAM LVL BEAMS AND HEADERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

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NORTH CAROLINA PROFESSIONAL SEAL 28481 ENGINEER JOSEPH D. HERNANDEZ
06.13.2025

SIGNATURE:

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Luis Graef: President

Orchards PROPERTIES

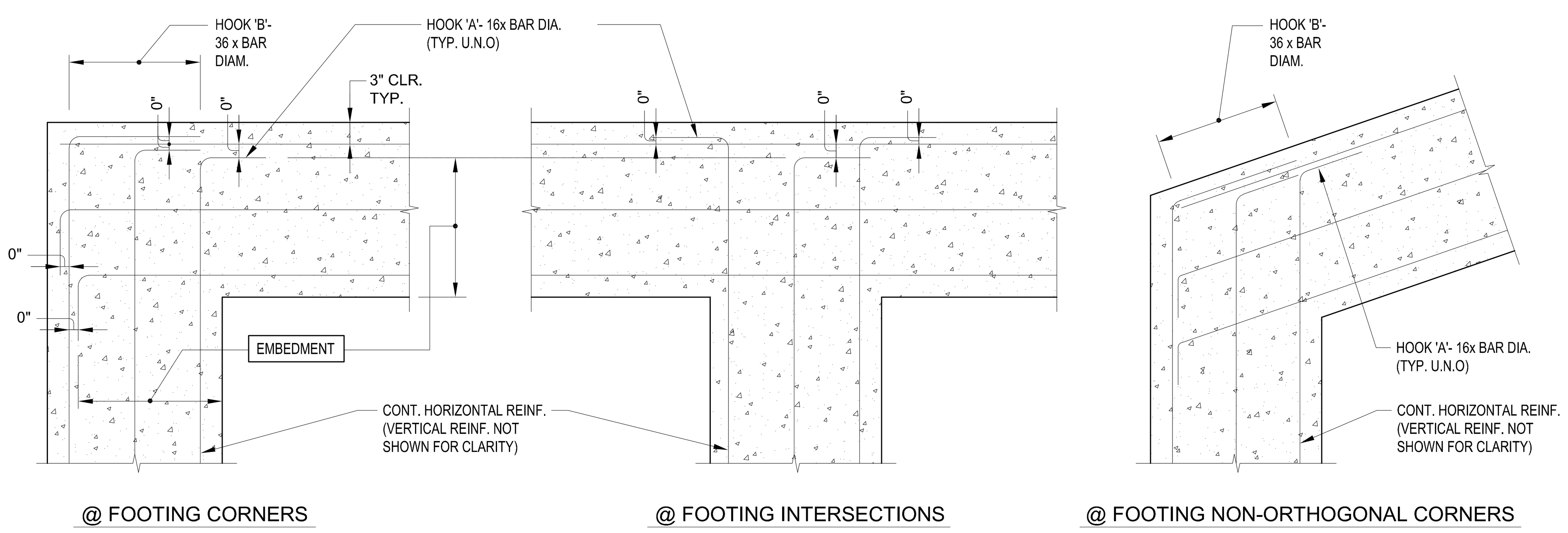
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

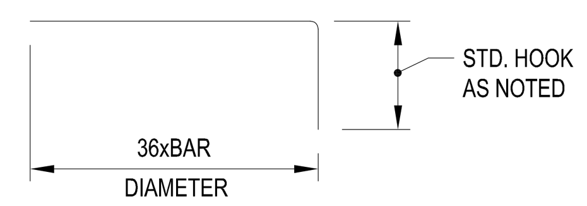
DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
GENERAL NOTES

SHEET #:
S-0.01



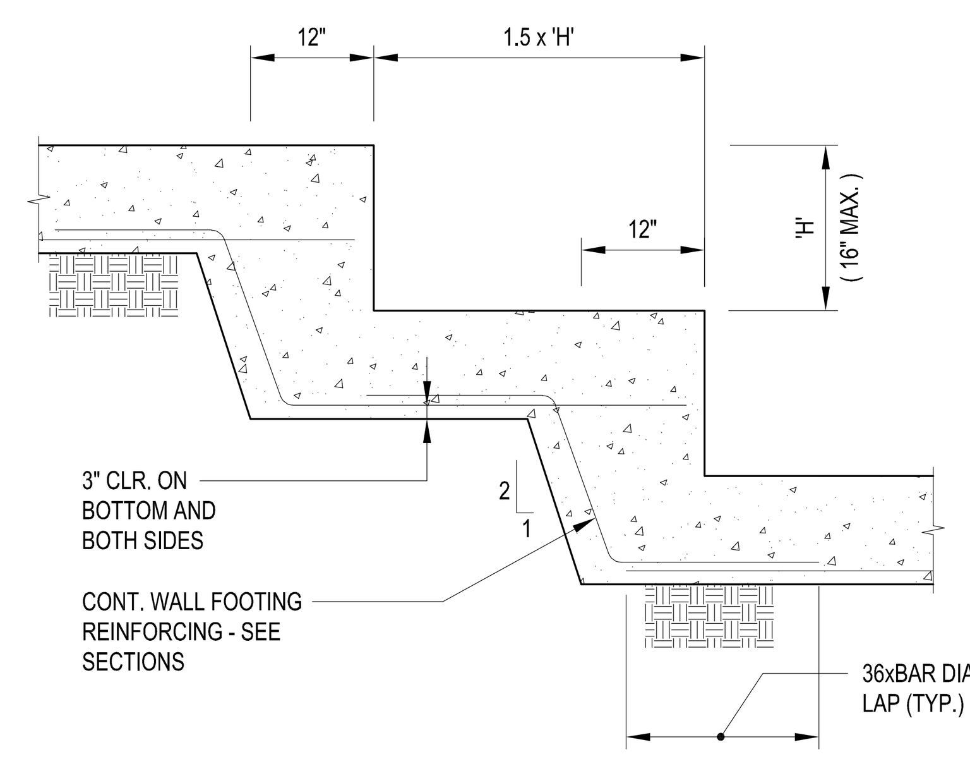
NOTES:
1. HOOK 'A' MAY BE OMMITTED IF 'EMBEDMENT' IS MORE THAN LTE PER SCHEDULE.
2. DOWELS MAY BE USED IN LIEU OF HOOKING CONTINUOUS BARS AS SHOWN.
3. THE DETAIL IS SHOWN FOR A MULTIPLE LINE OF REINFORCING. DETAIL IS SIMILAR FOR A SINGLE LINE.



OPTIONAL DOWEL

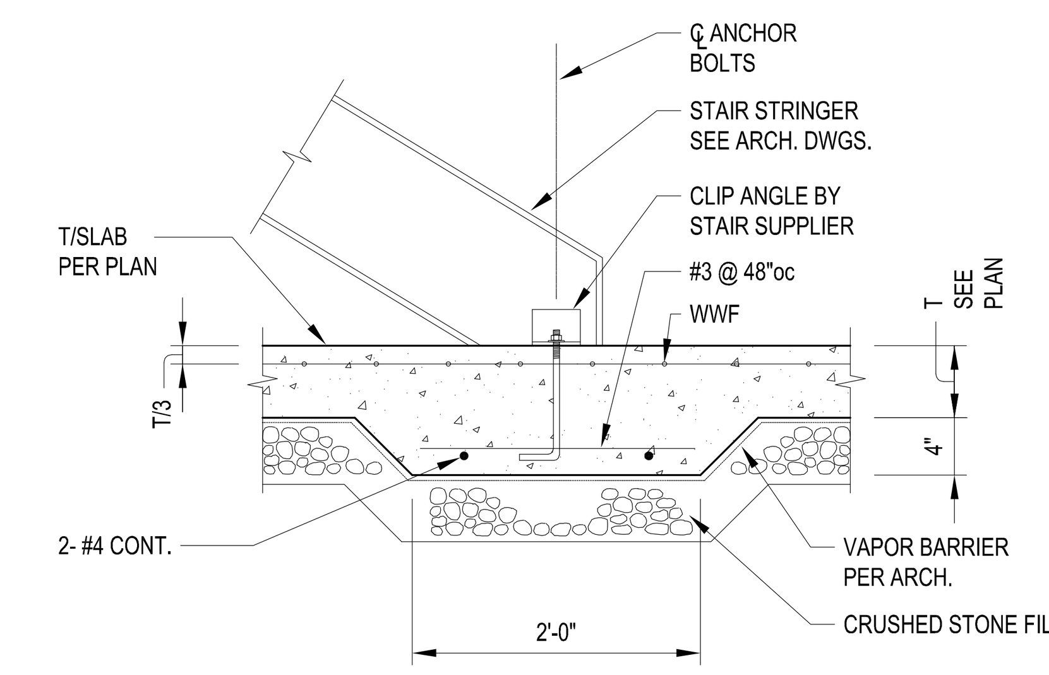
SCALE: 3/4" = 1'-0"

1 TYP. STRIP FOOTING CORNER INTERSECTION & NON-ORTHOGONAL



NO SCALE

2 STEPPED FOOTING

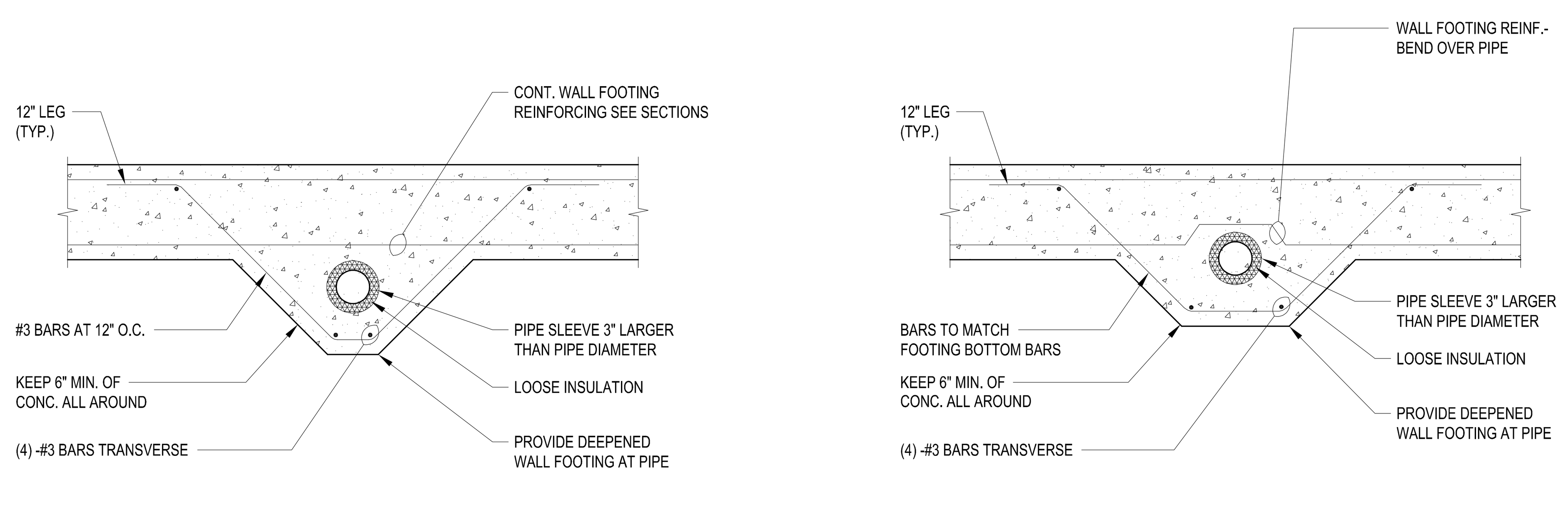


NOTE: EXTEND THICKENED SLAB BETWEEN STAIR STRINGERS AND 1'-0" BEYOND EACH.

AT STAIR STRINGER

NO SCALE

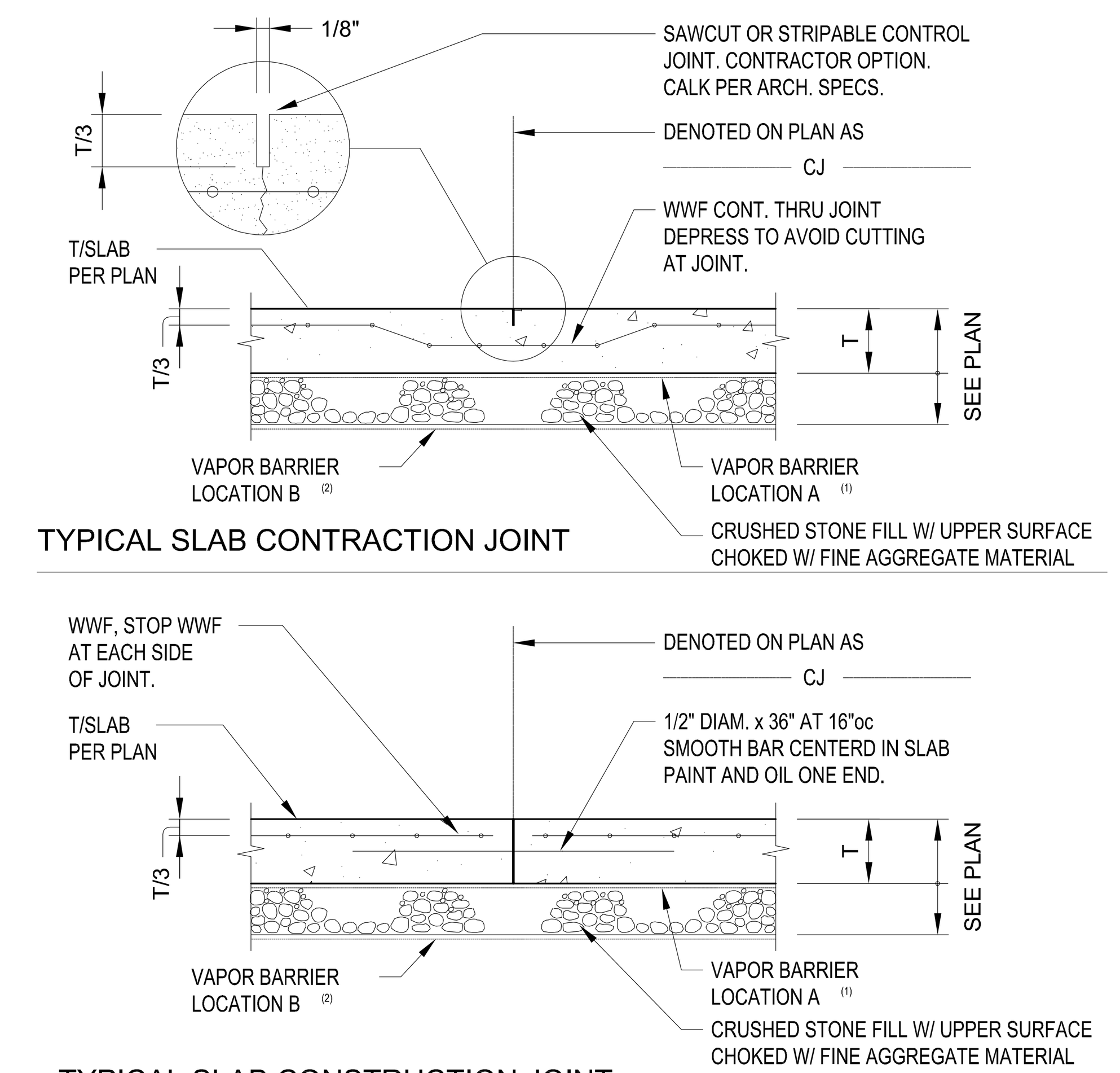
3 TYP. THICKENED SLAB DETAIL



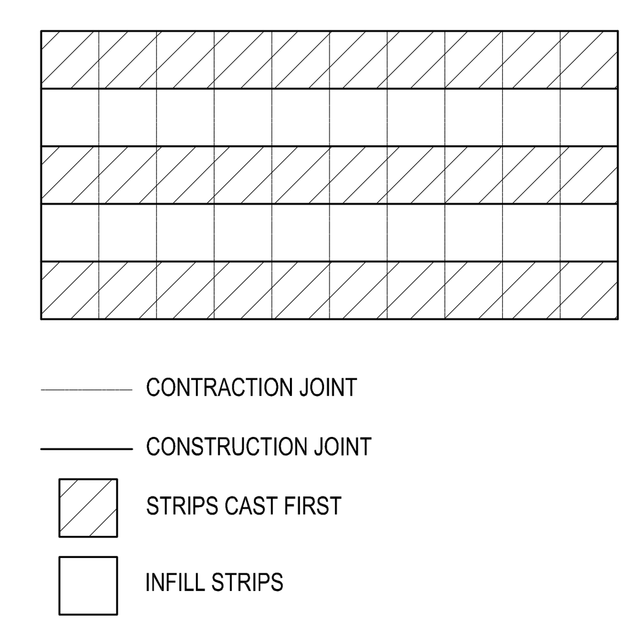
NOTE: THESE DETAILS DO NOT APPLY IF THE TOP OF THE PIPE IS MORE THAN 4" BELOW BOTTOM OF WALL FOOTING

NO SCALE

4 TYP. STRIP FOOTING CORNER INTERSECTION & NON-ORTHOGONAL



NOTES
1) VAPOR BARRIER LOCATION A APPLIES WHEN SLAB IS PLACED WITH OUT WATER TIGHT ROOFING SYSTEM IN PLACE
2) VAPOR BARRIER LOCATION B APPLIES WHEN SLAB IS PLACED WITH WATER TIGHT ROOFING SYSTEM IN PLACE



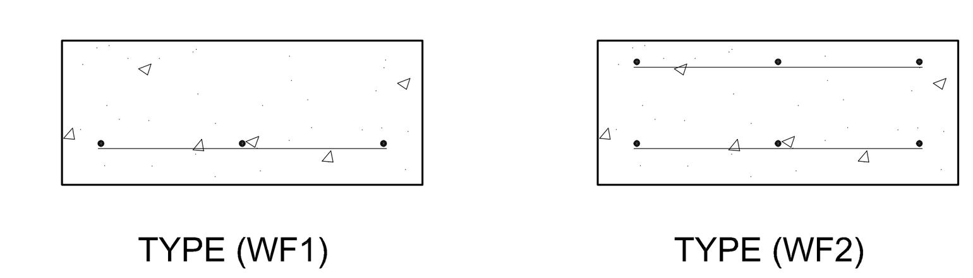
RECOMENDED SLAB PLACING SEQUENCE DETAIL

NO SCALE

5 TYP. SLAB CONSTRUCTION/ CONTROL JOINT

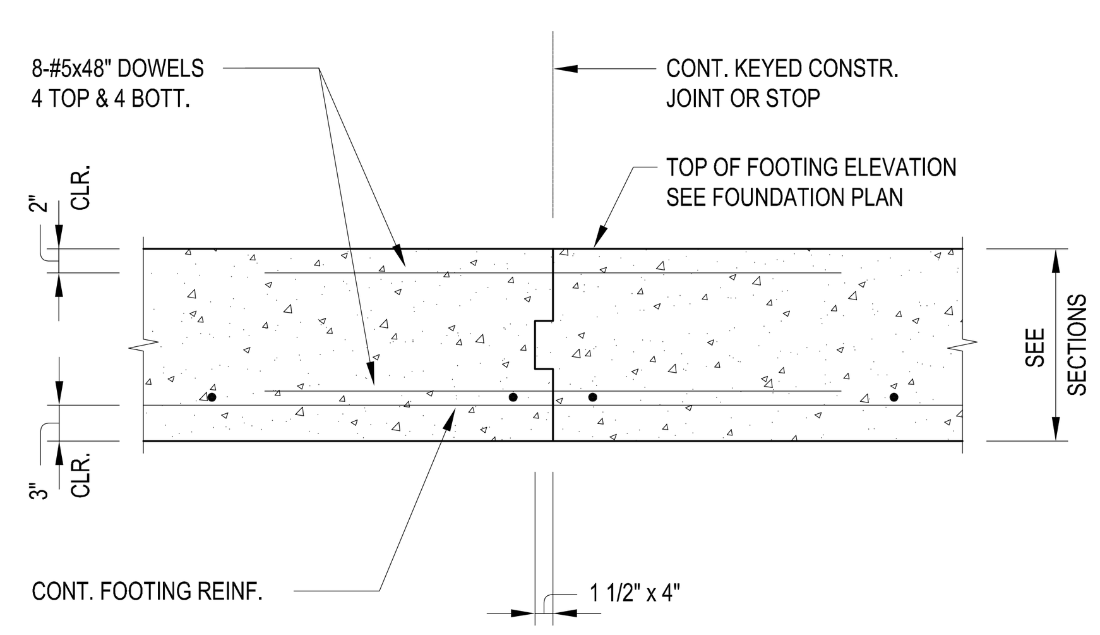
WALL FOOTING SCHEDULE — Fp = 2000 psf

MARK	SIZE (LxWxD)	REINFORCING	REMARKS
WF1	2'-6"x1'-0"	(3) - #5 CONT BOTT. #5 @ 14" O.C.	
WF2	2'-6"x1'-0"	(3) - #5 TOP & BOTT #5 @ 13" O.C. T & B	



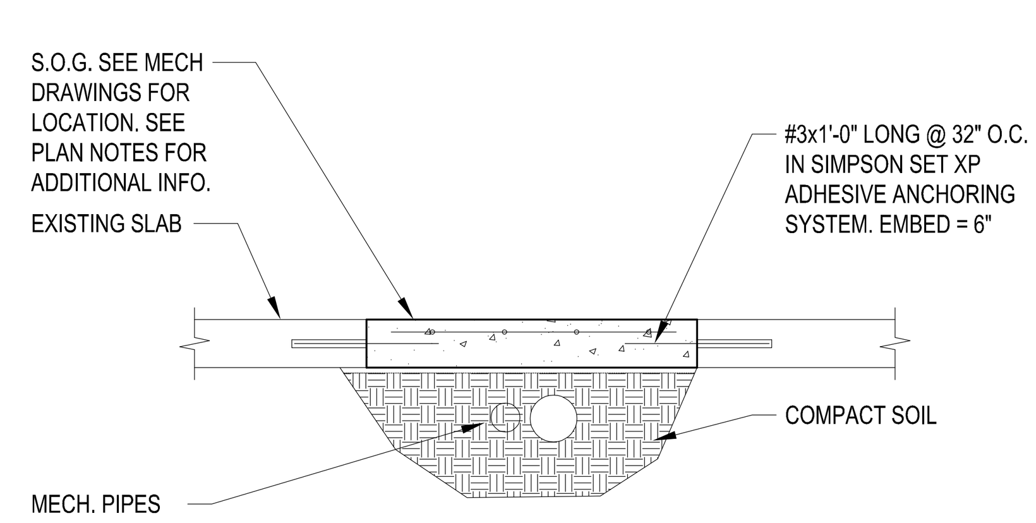
NO SCALE

6 WALL FOOTING SCHEDULE



NO SCALE

7 TYP. FOOTING CONST. JOINT



NO SCALE

8 TYP. TRENCH DETAIL

F_Y = 60,000 PSI — F_C = 3,000 PSI — CYLINDER STRENGTH

BAR SIZE	COMPRESSION		TENSION EMBEDMENT LENGTH (IN)				TENSION LAP SPLICE LENGTH - CLASS B, (IN)			
	EMBEDMENT LENGTH (IN.)	LAP SPLICE LENGTH (IN.)	TOP BARS CATEGORY		OTHER BARS CATEGORY		TOP BARS CATEGORY		OTHER BARS CATEGORY	
			I	II	I	II	I	II	I	II
#3	9	12	22	33	17	25	29	43	23	33
#4	11	15	29	43	22	33	38	56	29	43
#5	14	19	36	54	28	42	47	71	37	55
#6	17	23	43	65	33	50	56	85	43	65
#7	20	27	63	94	48	72	82	123	63	94
#8	22	30	72	107	55	83	94	140	72	108
#9	25	34	81	121	62	93	106	158	81	121
#10	28	39	91	136	70	105	119	177	91	137
#11	31	43	101	151	78	116	132	197	102	151
NOTATION	LCE	LCS	LTE				LTS			

CATEGORY	COVER	CLEAR SPACING	REMARKS
I	≥ db	≥ db	BEAM STIRRUPS OR COLUMN TIES THROUGHOUT DEVELOPMENT LENGTH CODE MINIMUM
I	≥ db	≥ 2db	
II	OTHER CASES		

NOTES: FOR EMBEDMENT & SPLICE SCHEDULES

1. THE CATEGORY OF THE REINFORCEMENT FOR DETERMINING THE EMBEDMENT & SPLICE LENGTHS SHALL BE OBTAINED FROM THE BOTTOM TABLE. (db = BAR DIAMETER)
2. THE SCHEDULE TO THE LEFT APPLIES FOR NORMAL WEIGHT CONCRETE.
3. TENSION LAP SPLICE LENGTH CATEGORIES I,II ARE BASED ON ACI CLASS 'B' CONDITIONS. LESSER LENGTHS MAY BE ACCEPTABLE, BUT ONLY IF:
   (a) THE AREA OF REINFORCEMENT PROVIDED IS AT LEAST TWICE THAT REQ'D BY ANALYSIS OVER THE ENTIRE LENGTH OF THE SPLICE
   AND
   (b) ONE-HALF OR LESS OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN THE REQUIRED LAP LENGTH. THE CONTRACTOR CAN REQUEST SUCH REDUCTION BY INDICATING THE FOLLOWING:
   A. WHERE THIS SIZE AND NUMBER OF TIES OR SPIRALS PERMITS THE REDUCTION OF LAP LENGTH, THOSE BARS SHALL BE INDICATED ON THE DETAILS.
   B. WHERE COMPUTED STRESS VALUES PERMIT THE REDUCTION OF LAP LENGTH, COMPUTATIONS SHALL BE SUBMITTED FOR REVIEW.
   C. THE APPLICATION SECTION OF THE ACI CODE. PEMITTING THE LESSER SPLICE LENGTH, SHALL BE INDICATED ON THE SUBMITTED MATERIAL.
4. USE TENSION LAP SPLICE LENGTH (L.T.S.) AT ALL SPLICE LOCATIONS NOT SPECIFICALLY DETAILED UNLESS INDICATED OTHERWISE ON PLANS OR DETAILS.
5. TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
6. WHERE BARS OF DIFFERENT SIZE ARE TO BE SPLICED, THE SPLICE LENGTH FOR ALL BARS SHALL BE THAT REQUIRED FOR THE LARGEST BAR.
7. FOR BUNDLED BARS INCREASE EMBEDMENT & SPLICE LENGTHS BY 20% FOR 3-BAR BUNDLE AND BY 33% FOR 4-BAR BUNDLE. IN DETERMINING THE CATEGORY OF BUNDLE REINF., TREAT THE BUNDLE AS A SINGLE BAR WITH A DIAMETER DERIVED FROM THE EQUIVALENT TOTAL AREA.
8. FOR TENSION SPLICING OF #14 BARS USE MECHANICAL COUPLERS. MECHANICAL COUPLERS MUST DEVELOP A MINIMUM OF 125% OF SPECIFIED YIELD STRENGTH (fy)OF BAR.
9. WHEN REINFORCING BARS ARE EPOXY-COATED, THE VALUE FOR TENSION EMBEDMENT AND LAP SPLICE LENGTHS FOR TOP BARS SHALL BE INCREASED BY 30% AND THE VALUES FOR THE OTHER BARS SHALL BE INCREASED BY 50%
10. SPLICE LENGTHS SHALL BE DIMESIONED AT ALL LOCATIONS ON ALL SHOP DRAWINGS.

EMBEDMENT AND LAP SPLICE SCHEDULE

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19645 GREENTREE WAY, SUITE B
CORNELIUS, NORTH CAROLINA 28031
phone 704.997.7072 fax 980.312.6520
http://jdhengineers.com
NC CERTIFICATE OF LICENSURE # P-1593

NORTH CAROLINA PROFESSIONAL SEAL 28481 ENGINEER JOSEPH D. HERNANDEZ
06.13.2025

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO.:
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
TYPICAL DETAILS

SHEET #:
S-1.00

WALL STUD SCHEDULE

MARK	LEVEL	STUDS	SPACING
W1	B - ROOF NOTES: (4) (5)	2 x 6 SPF NO. 2	24" O.C.
W2	B - 1	(3)2 x 4 SPF NO. 2	24" O.C.
	1 - 3	(2)2 x 4 SPF NO. 2	24" O.C.
	3 - ROOF	2 x 4 SPF NO. 2	24" O.C.
W3	1 - ROOF	2 x 4 SPF NO. 2	24" O.C.

NOTES:
1. 2x6 STUDS WITH SAME SPECIES AND GRADE CAN BE SUBSTITUTED FOR 2x4 STUDS WHERE INDICATED ON ARCH DWGS. TO ACCOMMODATE M.E.P. CHASES, ETC.
2. SPF DENOTES SPRUCE-PINE-FIR.
3. BRACE AT 1/3 POINTS.
4. BRACE AT MID-POINT.
5. NO ADDITIONAL BRACING REQUIRED WHERE WALL TYPE IS WITHIN A SHEAR WALL.

FASTENING REQUIREMENTS FOR MULTIPLE MEMBERS

PIECES IN MEMBER	MAX. SPAN	NAILED 16d COMMON	MAX. SPAN	NAILED 16d COMMON
2	20'	2 ROWS AT 12" oc	20'	2 ROWS AT 24" oc STAGGER AT 12"
	30'	3 ROWS AT 12" oc	40'-6"	2 ROWS AT 12" oc
3	15'	2 ROWS AT 12" oc	15'	2 ROWS AT 24" oc STAGGER AT 12"
	22'-6"	3 ROWS AT 12" oc	30'	2 ROWS AT 12" oc
4	-	N / A	13'-6"	2 ROWS AT 24" oc STAGGER AT 12"
	-	N / A	27'	2 ROWS AT 12" oc

NOTES:
1. TOP AND BOTTOM ROWS OF CONNECTORS SHALL BE 2" FROM EDGE
2. BOLT HOLES ARE TO BE THE SAME DIAMETER AS THE BOLT. EVERY BOLT MUST BOLT HOLES ARE EXTEND THROUGH THE FULL THICKNESS OF THE MEMBER. USE WASHERS UNDER HEAD AND NUT. CARRIAGE BOLTS MAY BE USED, BUT THE OUTERMOST OF THE HEAD MAY NOT BE DRAWN IN BEYOND FLUSH WITH THE OUTSIDE FACE OF THE LVL MEMBER.
3. FOR THREE-PIECE MEMBER, SPECIFIED NAILING IS FROM EACH SIDE.
4. FOUR-PLY MEMBERS, REGARDLESS OF DEPTH, MUST BE BOLTED.

MULTIPLE MEMBERS

TYP. WOOD HEADER SCHEDULE

2x4 STUD WALLS

WALL STUDS	ROUGH OPENING WIDTH "W"	SIZE	JAMB STUDS	
			JACKS	KINGS
2x4	"W" ≦ 3'-0"	(2) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	SINGLE
2x4	3'-0" < "W" < 6'-0"	(2) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	DOUBLE
2x4	6'-0" < "W" < 9'-0"	(2) 2x10 w/ 1/2" PLYWOOD PL	DOUBLE	DOUBLE
2x4	9'-0" < "W" < 12'-0"	(2) 1 3/4" X 11" LVL	DOUBLE	TRIPLE
2x4	12'-0" > "W"	SEE SECTIONS	---	---

TYP. WOOD HEADER SCHEDULE

2x6 STUD WALLS

WALL STUDS	ROUGH OPENING WIDTH "W"	SIZE	JAMB STUDS	
			JACKS	KINGS
2x6	"W" ≦ 3'-0"	(3) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	SINGLE
2x6	3'-0" < "W" < 6'-0"	(3) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	DOUBLE
2x6	6'-0" < "W" < 9'-0"	(3) 2x10 w/ 1/2" PLYWOOD PL	DOUBLE	DOUBLE
2x6	9'-0" < "W" < 12'-0"	(3) 1 3/4" X 11" LVL	DOUBLE	TRIPLE
2x6	12'-0" > "W"	SEE SECTIONS	---	---

NOTE:
SEE "LOOSE LINTEL" SCHEDULE FOR BRICK SHELF ANGLES

JOIST SCHEDULE

MARK	MEMBER	SPACING
J1	2 x 10 SPF NO.2	16" OC

NOTES:
1. WHERE DOUBLE JOISTS ARE REQUIRED, PROVIDE "TYPICAL POST" AT EACH END. SEE POST SCHEDULE ON S1.00 SERIES SHEETS.
2. 2x8 BLOCKING OR 2x12 BLOCKING @ 6'-0" O.C. MAX AS BRIDGING.

1 WALL STUD SCHEDULE

2 FASTENING REQUIREMENTS

3 WOOD HEADER SCHEDULE

4 JOIST SCHEDULE

5 NOT USED

WOOD BEAM SCHEDULE

MARK	SIZE	POST
B1	(2)2x12 SPF NO.2	SEE PLAN
B2	(2)1-3/4x11-7/8 LVL (2.0E)	SEE PLAN
B3	(3)1-3/4x14 LVL (2.0E)	SEE PLAN
B4	(2)2x10 SPF NO.2	SEE PLAN
B5	(3)1-3/4x11-7/8 LVL (2.0E)	SEE PLAN

NOTES:
1. SEE WALL OPENING SCHEDULE. TYPICAL FOR OPENING FRAMING NOT SPECIFICALLY NOTED ON THE PLANS.
2. SEE TYPICAL POST SCHEDULE & ELEVATION ON S1.00 SERIES SHEETS
3. IF NO POST IS SHOWN ON PLAN, USE (2) WALL STUDS UNDER BEAM

WOOD HEADER SCHEDULE

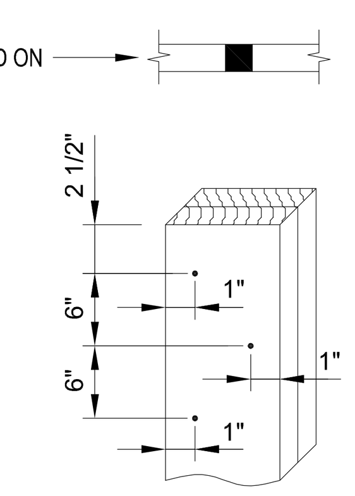
MARK	SIZE	JACKS	KINGS
H1	(3)1-3/4x9-1/4 LVL (2.0E)	TRIPLE	DOUBLE
H2	(3)2x12 SPF NO.2	DOUBLE	DOUBLE

NOTES:
1. SEE WALL OPENING SCHEDULE. TYPICAL FOR OPENING FRAMING NOT SPECIFICALLY NOTED ON THE PLANS.

6 WOOD BEAM SCHEDULE

7 WOOD HEADER SCHEDULE

CONNECTION, LOCATION	NAIL	NUMBER OR SPACING
BAND JOIST TO SILL OR TOP PLATE, TOE NAIL	8d	6" o.c.
JOIST TO BAND JOIST, FACE NAIL	16d COMMON	3
JOIST TO SILL OR GIRDER, TOE NAIL	8d COMMON	3
BRIDGING TO JOIST, TOE NAIL EACH END	8d COMMON	2
LEDGER STRIP	16d COMMON	3 AT EACH JOIST
1x6 OR LESS SUBFLOOR TO EACH JOIST, FACE NAIL	8d COMMON	2
OVER 1x6 SUBFLOOR TO EACH JOIST, FACE NAIL	8d COMMON	3
2-INCH SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	16d COMMON	2
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d COMMON	16" O.C.
TOP OR SOLE PLATE TO STUD, END NAIL	16d COMMON	2
STUD TO SOLE PLATE, TOE NAIL	8d COMMON	4
DOUBLED STUDS, FACE NAIL	10d COMMON	24" O.C.
DOUBLED TOP PLATES, FACE NAIL	10d COMMON	16" O.C.
TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	16d COMMON	2
CONTINUOUS HEADER, TWO PIECES	16d COMMON	16" O.C. ALONG EDGE
CEILING JOISTS TO PLATE, TOENAIL	8d COMMON	3
CONTINUOUS HEADER TO STUD, TOENAIL	8d COMMON	4
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	16d COMMON	3
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	16d COMMON	3
RAFTER TO PLATE, TOE NAIL	8d COMMON	3
1-INCH BRACE TO EACH STUD AND PLATE, FACE NAIL	8d COMMON	2
WIDER THAN 1x8 SHEATHING TO EACH BEARING, FACE NAIL	8d COMMON	3
BUILT-UP CORNER STUDS	16d COMMON	24" O.C.
BUILT-UP GIRDER OR BEAMS, THREE MEMBERS	20d COMMON	32" O.C. TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
2" PLANKS, AT EA. BEARING	16d COMMON	2
COLLAR TIE TO RAFTER, FACE NAIL	10d COMMON	3
JACK RAFTER TO HIP, TOE NAIL OR FACE NAIL	10d COMMON 16d COMMON	3 2
ROOF RAFTER TO 2-by RIDGE BEAM, TOE NAIL OR FACE NAIL	16d COMMON 16d COMMON	2 2
JOIST TO BAND JOIST, FACE NAIL	16d COMMON	3

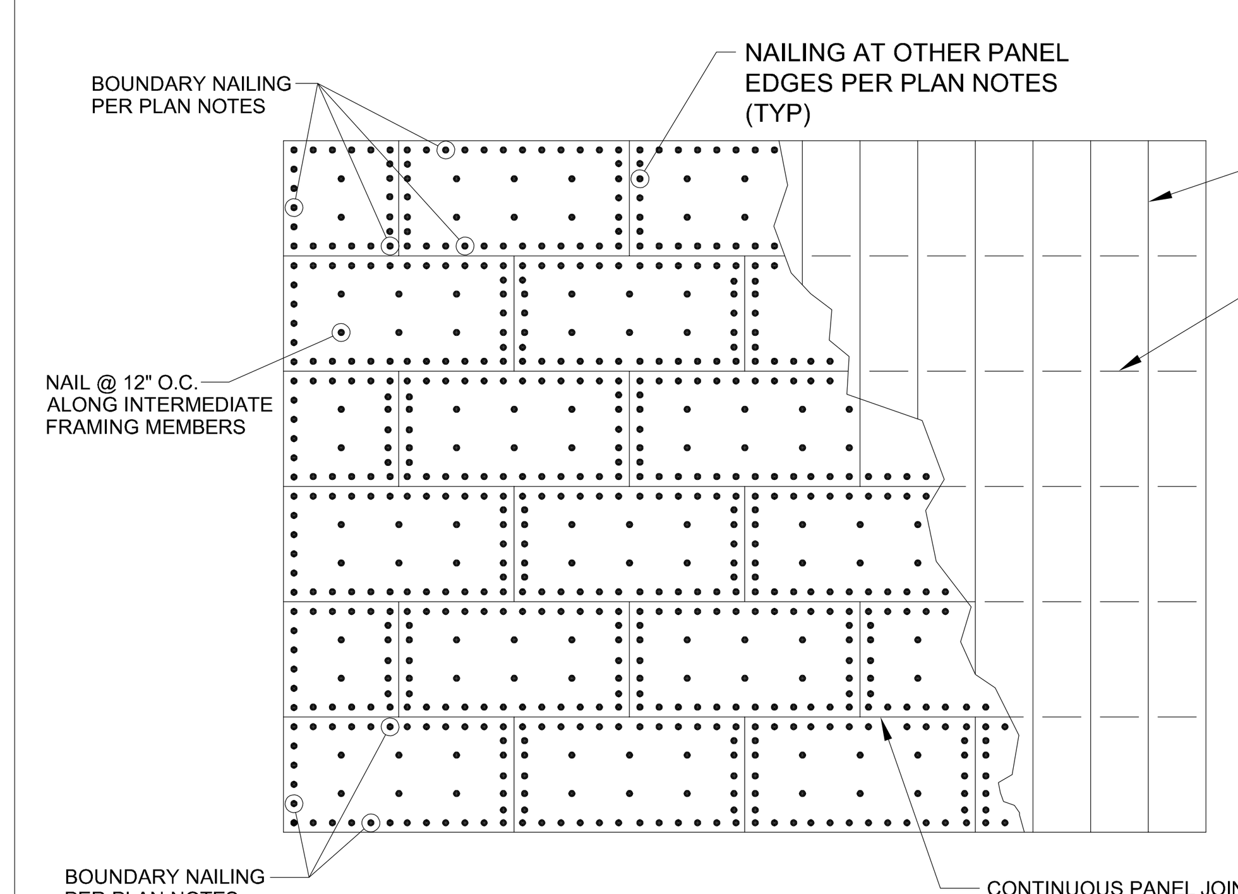


WOOD POST SCHEDULE

POST		CONNECTION	
MARK	SIZE	BASE	CAP
P1	6x6 SPF NO. 2	PBS66	CC64/ECC64
P2	5.25x5.25 PSL 2.0E	PBS66	CC64/ECC64
P3	(3)2x6 SPF NO. 2		
P4	HSS3-1/2x3-1/2x3/16		
P5	4x4 SPF NO. 2	PBS44	CC44/ECC44
P6	3.5x3.5 PSL 2.0E	PBS44	CC44/ECC44
P7	3.5x5.25 PSL 2.0E	PBS46	CC46
P8	(3)2x4 SPF NO. 2		

ALL POSTS SHALL BE SPRUCE PINE FIR- NO. 2 OR BETTER
USED TO BUILD UP STUDS SHALL BE 10d COMMON WIRE NAILS W/ MINIMUM DIAMETER= 0.148 IN. AND MINIMUM LENTGH= 3 IN.
SEE NAILING SCHEDULE BELOW

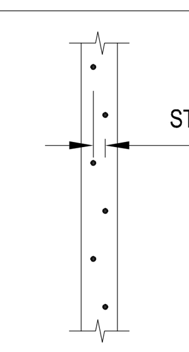
NARROW ROOF SHEATHING PANEL REQUIREMENTS:
IF WOOD SHEATHING PANEL IS:
16" TO 24": PROVIDE 2 CLIPS LOWER EDGE - BLOCK LOWER EDGE
12" TO 16": BLOCK LOWER EDGE
LESS THAN 12": BLOCK UPPER EDGE - BLOCK LOWER EDGE



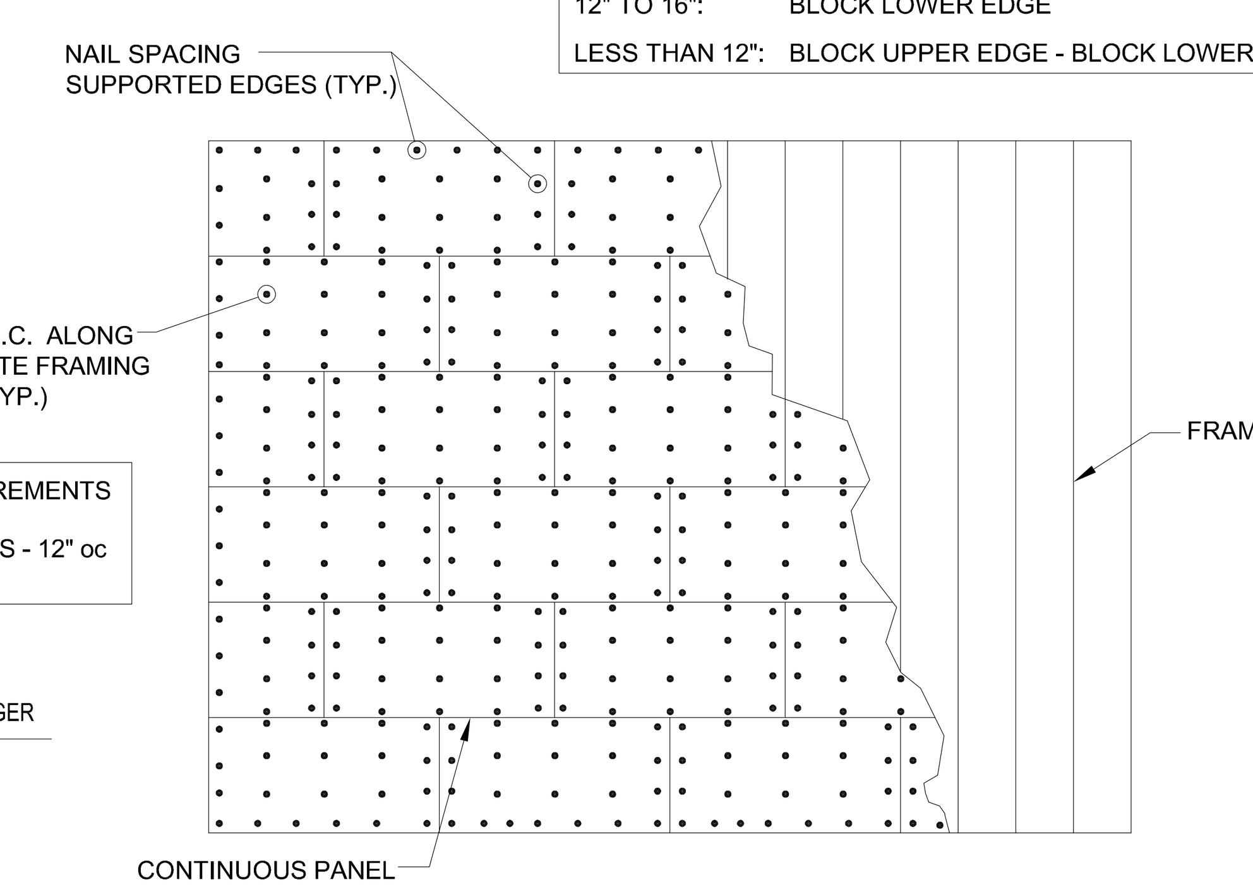
DECKING LAYOUT @ BLOCKED DIAPHRAGMS

NOTES:
1. BOUNDARY NAILING SHALL INCLUDE NAILING OVER LENGTH OF SHEAR WALLS
2. BOUNDARY NAILING SHALL INCLUDE NAILING ALONG ALL CONTINUOUS PANEL JOINTS
3. BOUNDARY NAILING SHALL INCLUDE NAILING ENTIRE PERIMETER OF DECKING
4. SPACE PANELS 1/8" MINIMUM FOR PANEL EXPANSION (ENDS AND EDGES)

MINIMUM NAILING REQUIREMENTS
PANEL ENDS - 6" oc
INTERMEDIATE SUPPORTS - 12" oc
EDGE DISTANCE = 3/8"



STAGGER FASTENERS TO MINIMIZE WOOD SPLITTING PARALLEL TO WOOD GRAIN



DECKING LAYOUT @ UNBLOCKED DIAPHRAGMS

NOTES:
1. SUPPORTED EDGE NAILING SHALL INCLUDE NAILING OVER LENGTH OF SHEAR WALLS
2. SUPPORTED EDGE NAILING SHALL INCLUDE NAILING ENTIRE PERIMETER OF DECKING
3. SPACE PANELS 1/8" MINIMUM FOR PANEL EXPANSION (ENDS AND EDGES)

NTS

8 NAIL FASTENER SCHEDULE

9 POST SCHEDULE

10 TYPICAL DECKING LAYOUT DETAILS

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phone 704.997.7072 fax 980.312.6520
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NC CERTIFICATE OF LICENSURE # P-1593

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 28481 JOSEPH D. HERNANDEZ
06.13.2025

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

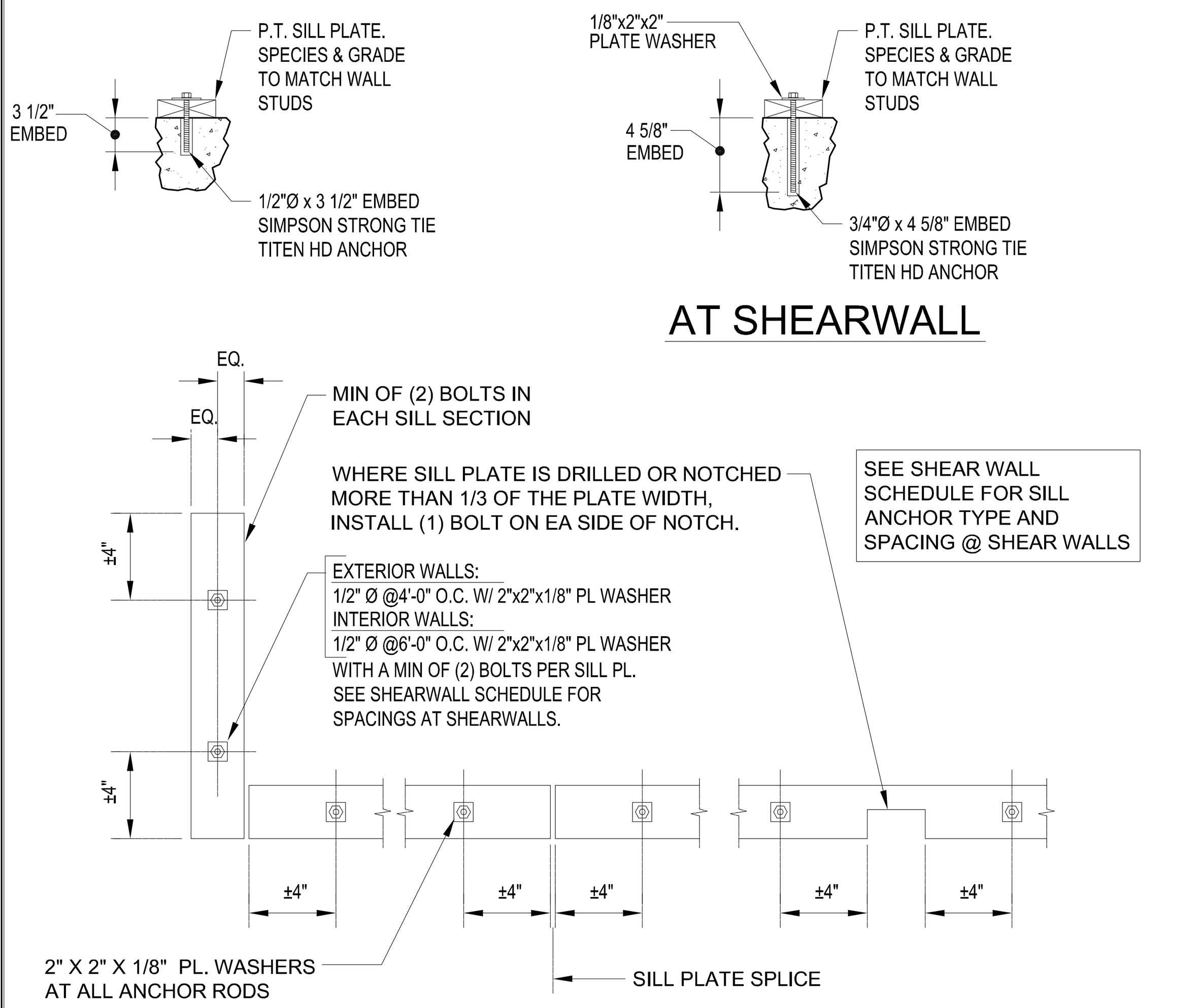
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

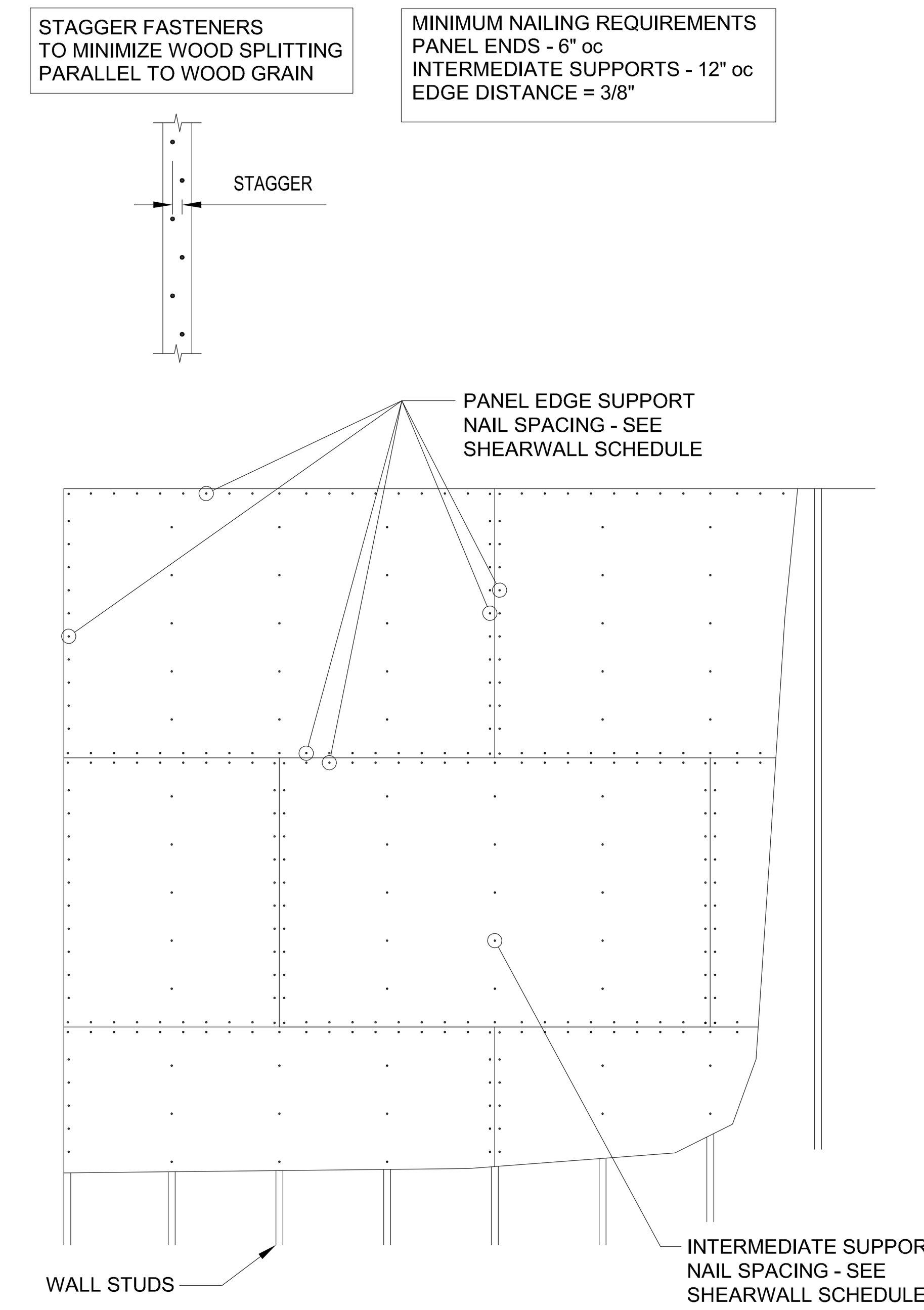
DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
TYPICAL DETAILS

SHEET #:
S-1.01

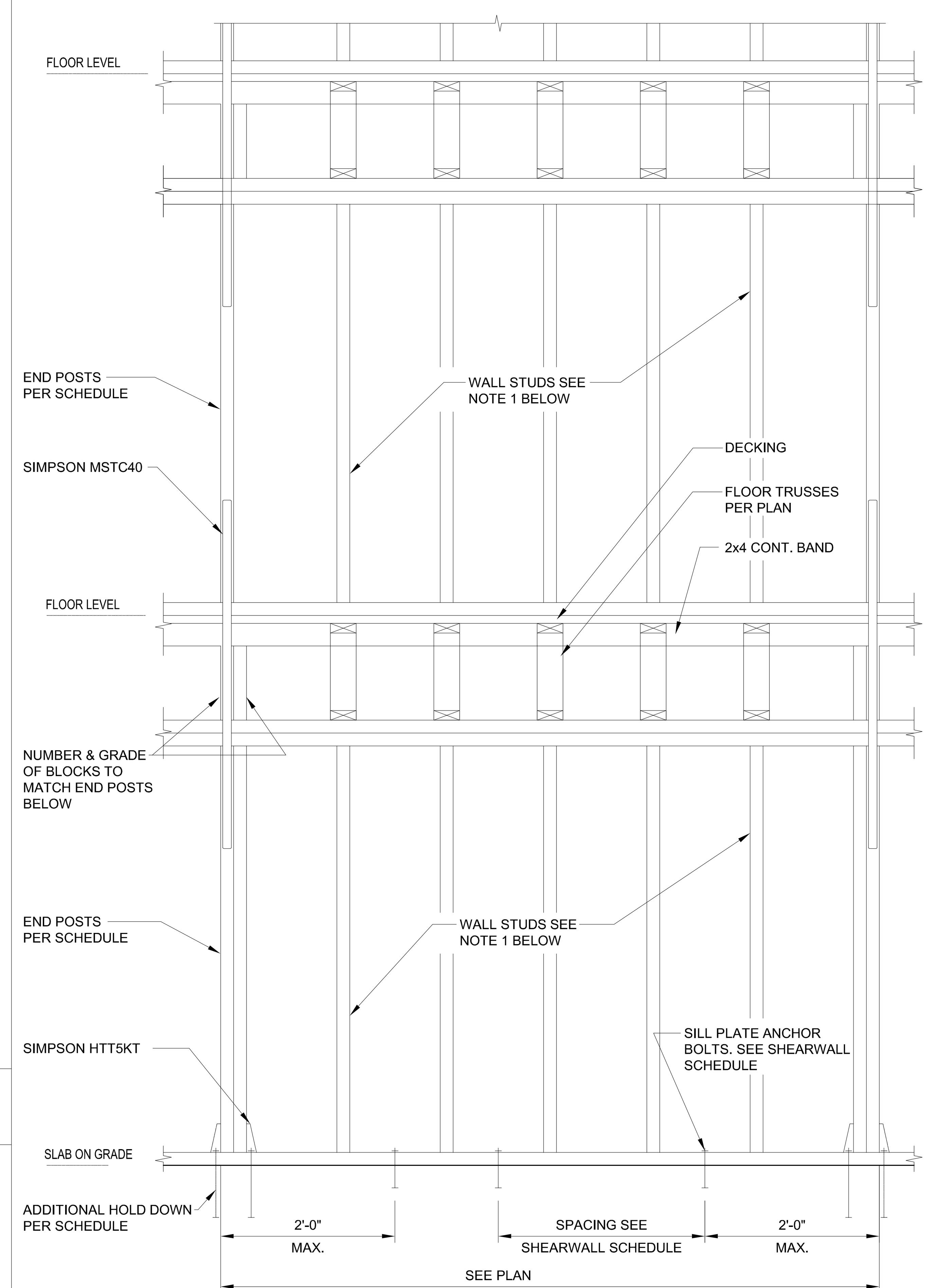


1 TYP. SILL PLATE BOLTING @ S.O.G.



TYPICAL SHEARWALL

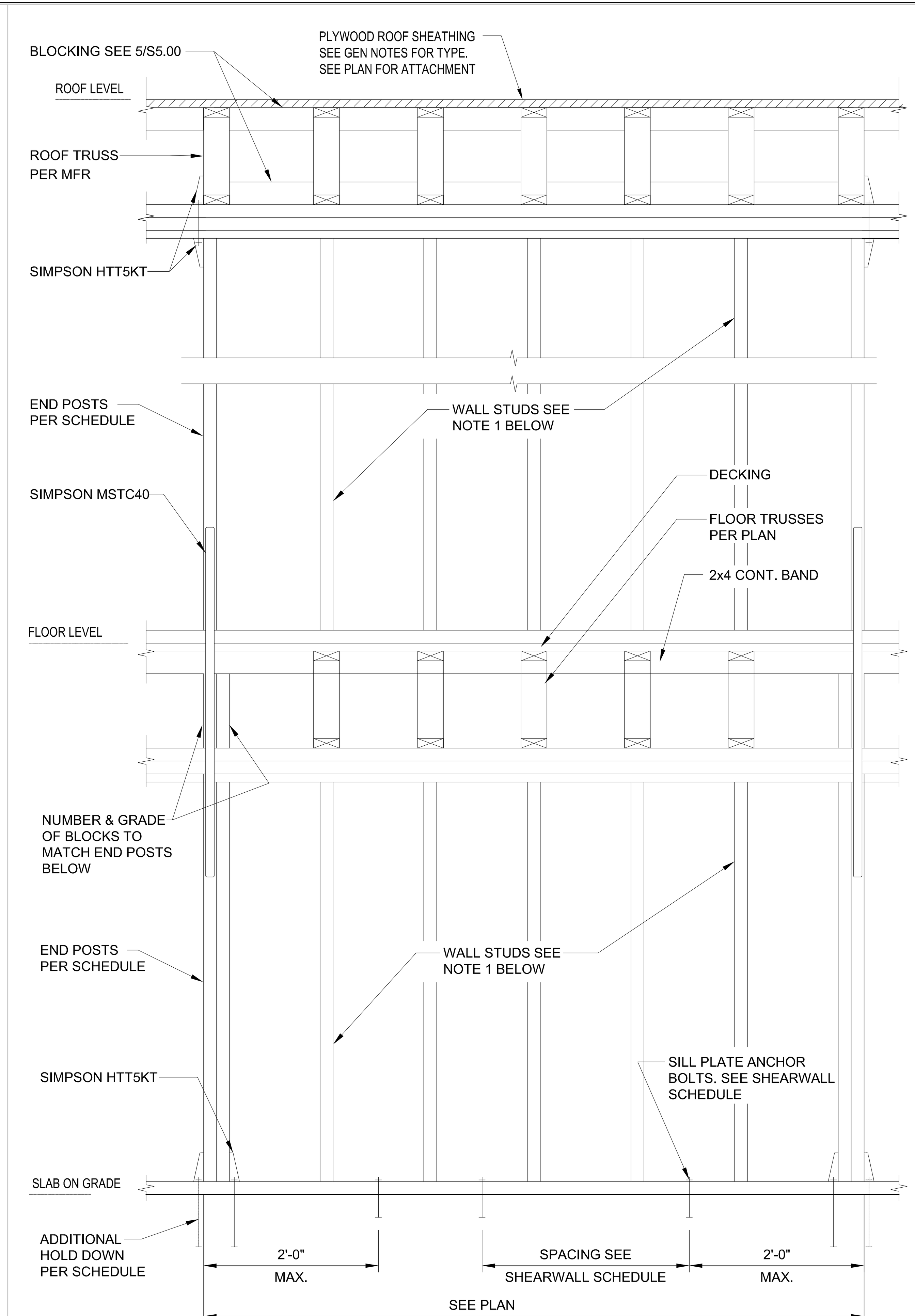
2 PANEL NAILING / SCREWING



NOTES:
1. WALL STUDS PER SCHEDULE SEE PLAN
2. WHERE OCCURS, THICKEN SLAB OR FOOTING AS REQUIRED AT HOLDDOWN LOCATIONS TO MAINTAIN ANCHOR EMBEDMENT AS INDICATED ON SCHEDULE.

NTS

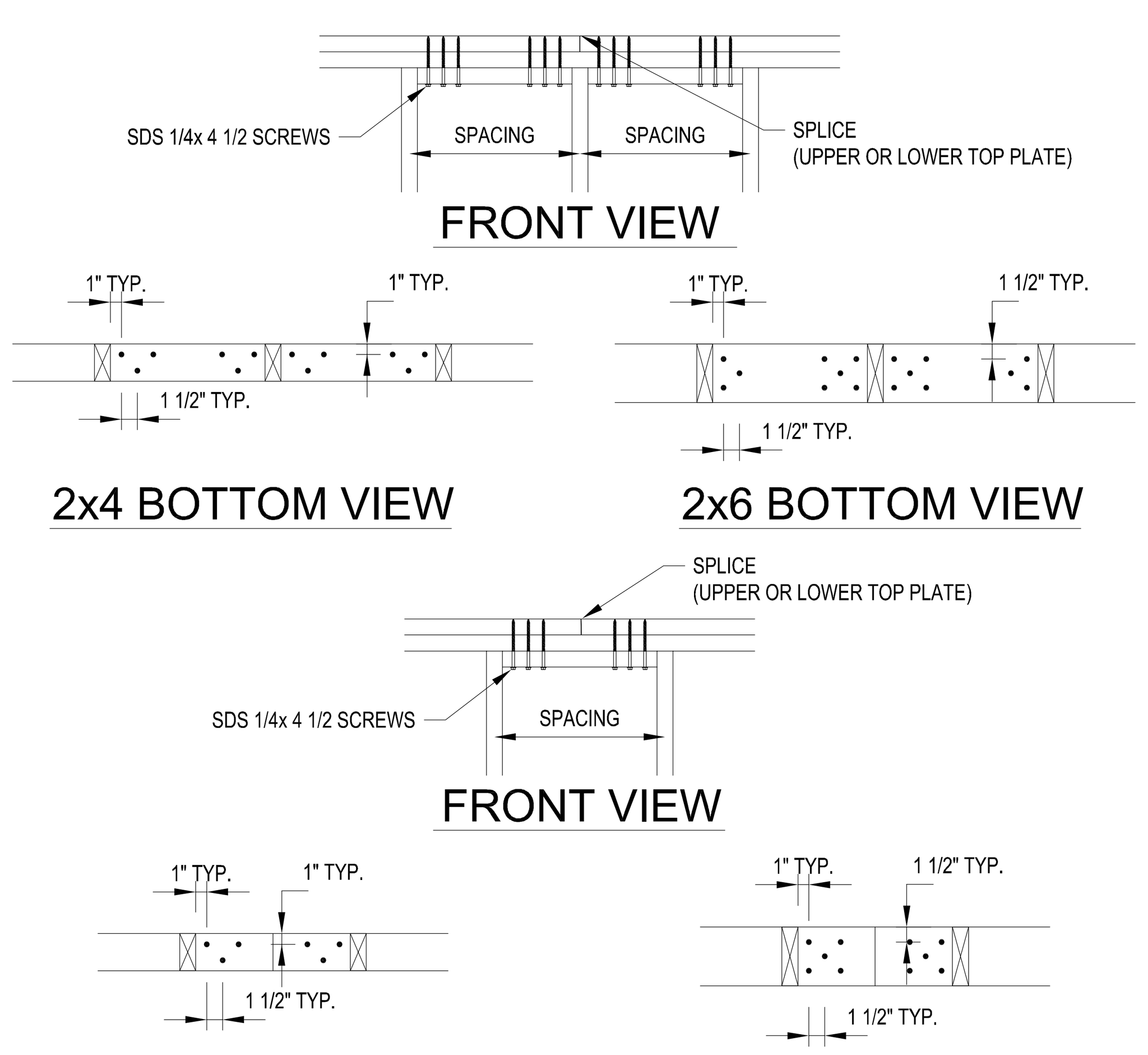
3 SW1 & SW2 ELEVATION



NOTES:
1. WALL STUDS PER SCHEDULE. SEE PLAN.
2. WHERE OCCURS, THICKEN SLAB OR FOOTING AS REQUIRED AT HOLDDOWN LOCATIONS TO MAINTAIN ANCHOR EMBEDMENT AS INDICATED ON SCHEDULE.

NTS

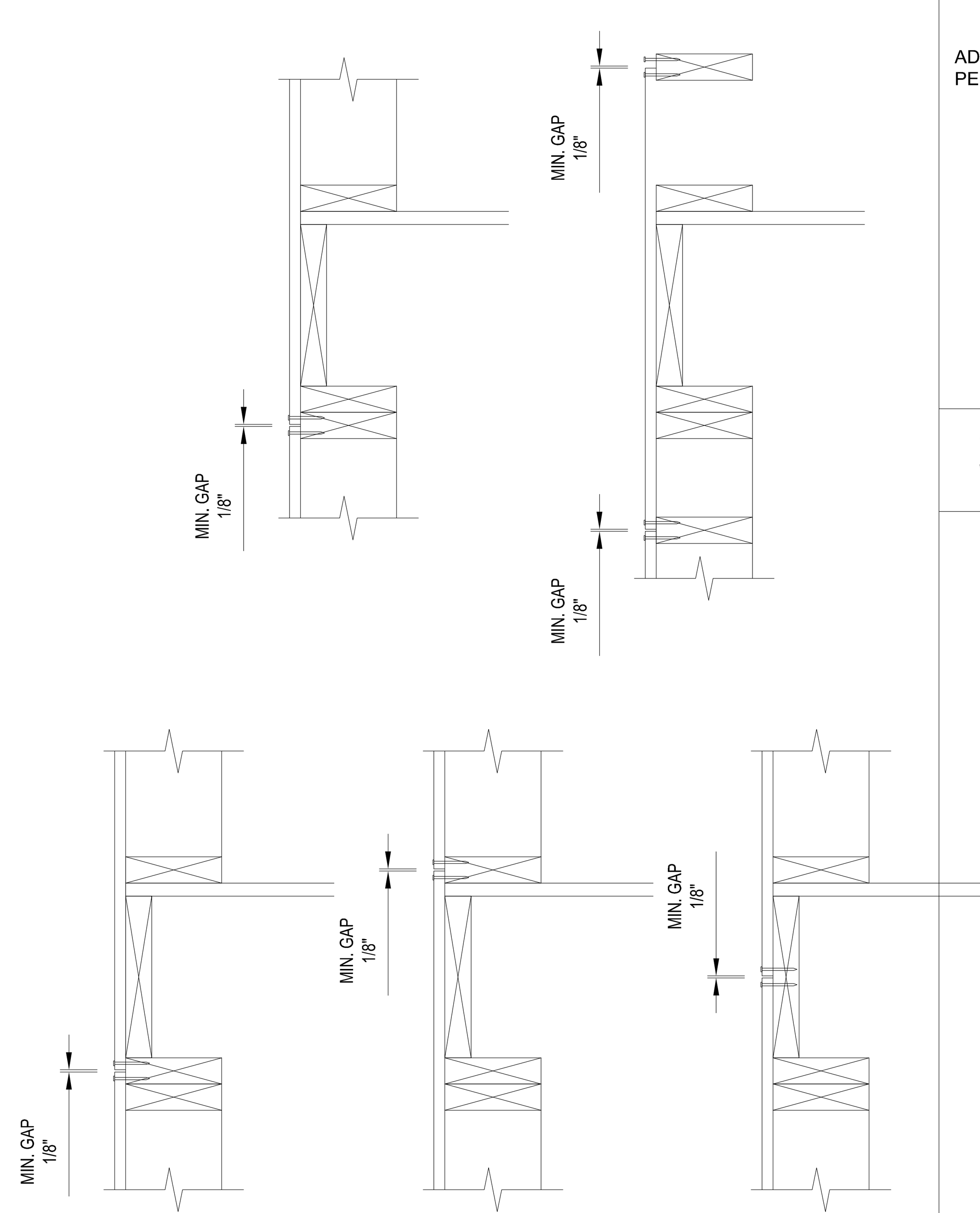
4 SW3 ELEVATION



N.T.S.

5 TOP PLATE SPLICE DETAILS

6 NOT USED



TYPICAL

N.T.S.

7 STORY TO STORY SHEATHING

SHEAR WALL SCHEDULE									
MARK	FLOOR	PANEL TYPE SEE ARCH ASSEMBLY	# OF PANELS (NOTE #3)	PANEL NAILING			BLOCKING REQUIRED (NOTE #4)	END POST (NOTE #2)	SILL PLATE ANCHORING
				NAIL SIZE	EDGE SUPPORT NAIL SPACING	INTERMEDIATE SUPPORT NAIL SPACING			
SW-1	B - 3	7/16" PLYWOOD	SINGLE	8d	4" O.C.	12" O.C.	YES	(2)2x6 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @32" O.C.
	3 - Roof	7/16" PLYWOOD	SINGLE	8d	6" O.C.	12" O.C.	YES	(2)2x6 SPF NO.2	
SW-2	B - 3	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(4)2x4 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @32" O.C.
	3 - Roof	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(3)2x4 SPF NO.2	
SW-3	B - 3	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(4)2x4 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @32" O.C.
	3 - Roof	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(3)2x4 SPF NO.2	

NOTES:
1. SEE 8/S1.2 FOR PERFORATED SHEAR WALL ELEVATON.
2. END POST HOLD DOWN, USE SIMPSON HTT4 W/ 5/8"Ø KWIK BOLT 3 (EMBED = 4")
3. "SINGLE" INDICATES PLYWOOD SHEATHING ON ONE SIDE OF WALL STUDS.
4. ALL FOUR SIDES OF EACH PANEL MUST BE CONTINUOUSLY BLOCKED (TYPICAL

NTS

8 SHEARWALL SCHEDULE

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phone 704.997.7072 fax 980.312.6520
http://jdhengineers.com
NC CERTIFICATE OF LICENSURE # P-1593

NORTH CAROLINA PROFESSIONAL SEAL 28481 ENGINEER JOSEPH D. HERNANDO
06.13.2025

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

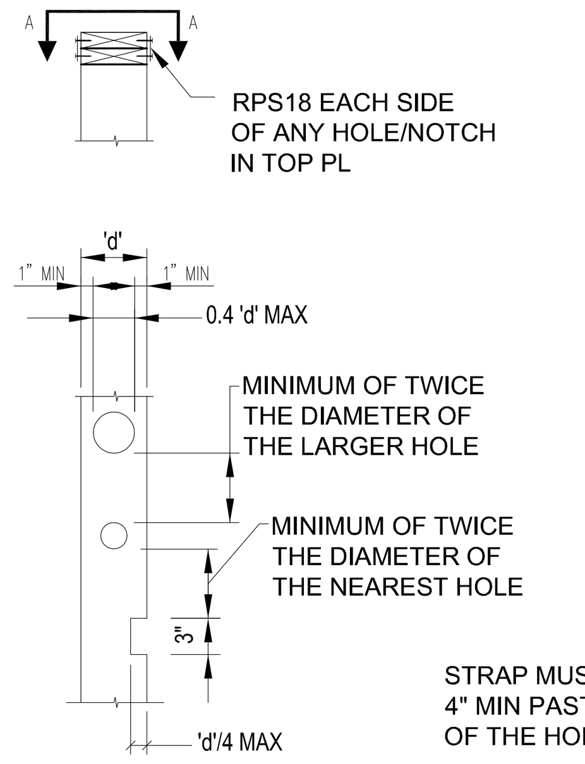
DWG DECRIPTION :
TYPICAL DETAILS

SHEET #:
S-1.02

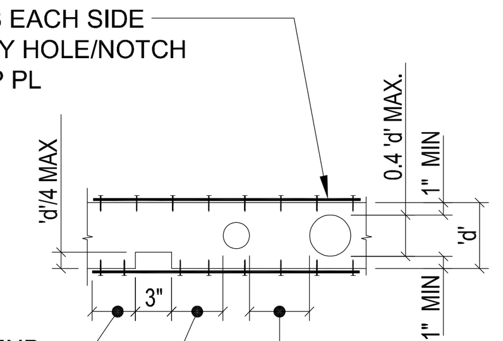
1 BEARING & SHEAR WALL STUDS

NOTCHING OR BORING

GENERAL NOTES:
1. NOTCHING/CUTTING/ BORING OTHER THAN SHOWN REQUIRES PRIOR APPROVAL BY THE STRUCTURAL ENGINEER.
2. ALL NOTCHES TO BE SEPARATED 3'-0" CLR



ELEVATION VIEW

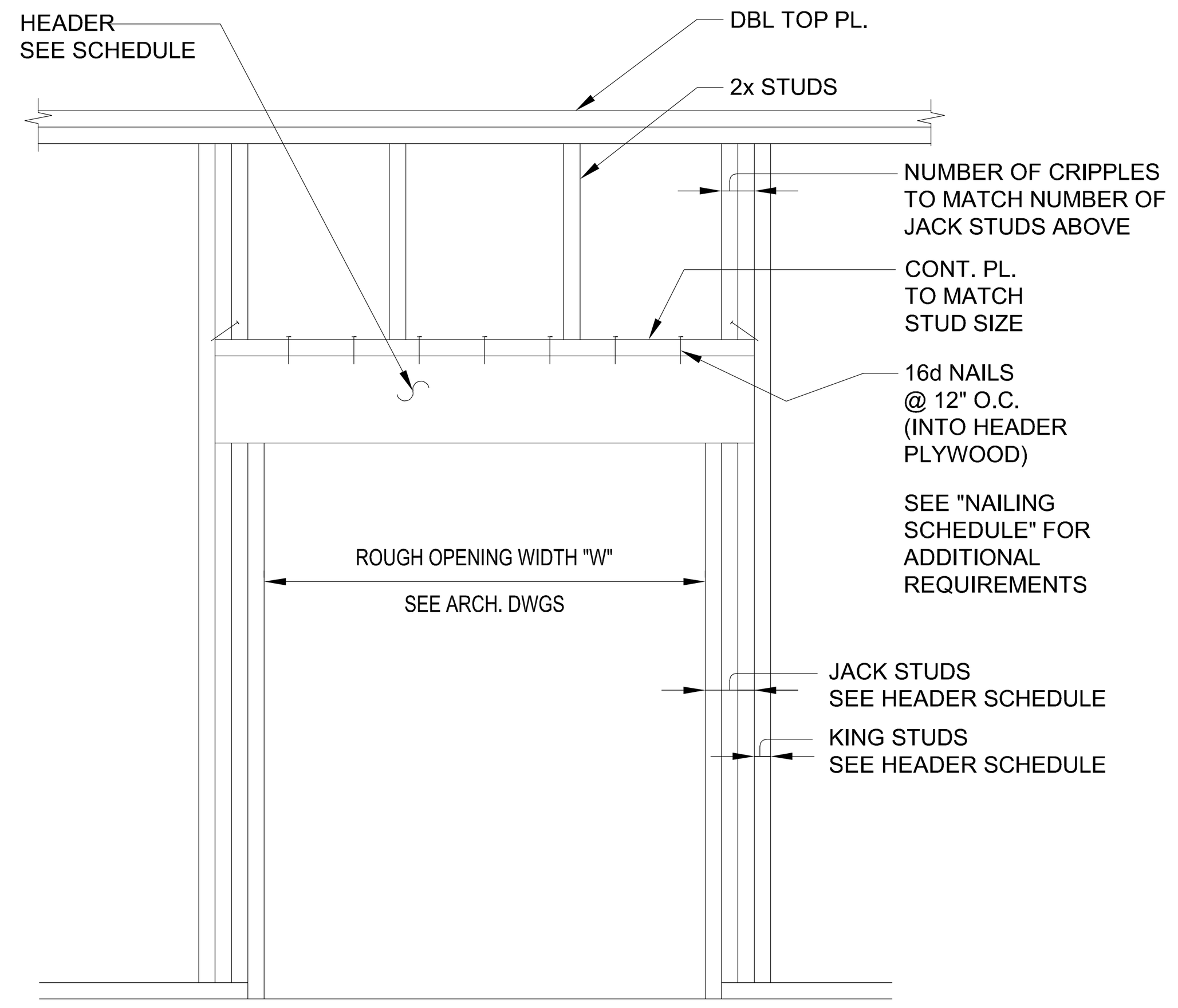


VIEW A-A
TOP VIEW

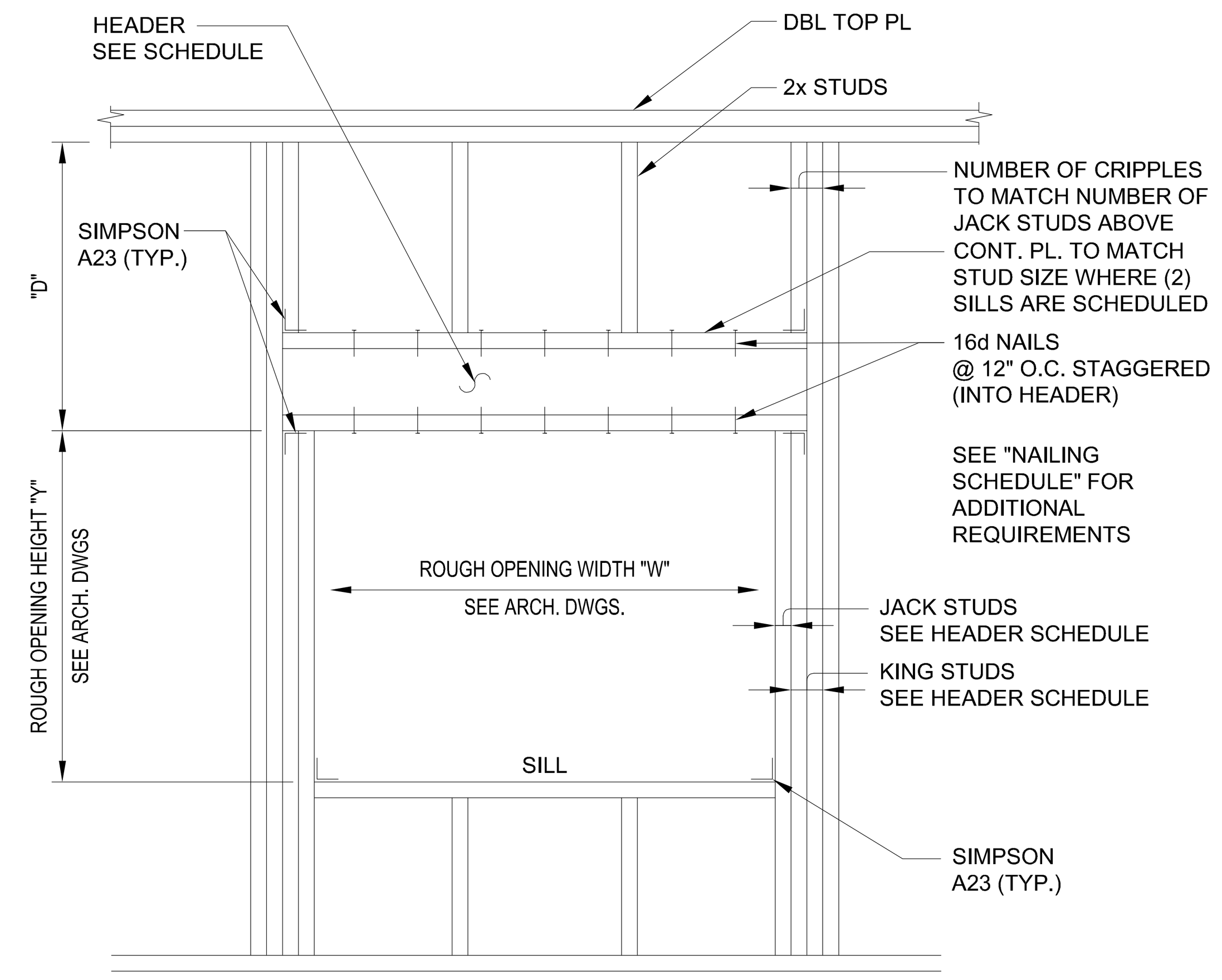
N.T.S.

2 FRAMED OPENINGS

DOOR AND WINDOW ELEVATIONS



ELEVATION TYPE 1



ELEVATION TYPE 2

N.T.S.

3 WOOD SHRINKAGE DETAIL

INTERNATIONAL BUILDING CODE 2018: SECTION 2304.3.3
WOOD WALLS AND BEARING PARTITIONS SHALL NOT SUPPORT MORE THAN TWO FLOORS AND A ROOF UNLESS AN ANALYSIS SATISFACTORY TO THE BUILDING OFFICIAL SHOWS THE SHRINKAGE OF THE WOOD FRAMING WILL NOT HAVE ADVERSE EFFECTS ON THE STRUCTURE OR ANY P,M,E SYSTEMS OR OTHER EQUIPMENT

$S = C * D * (M_F - M_I)$

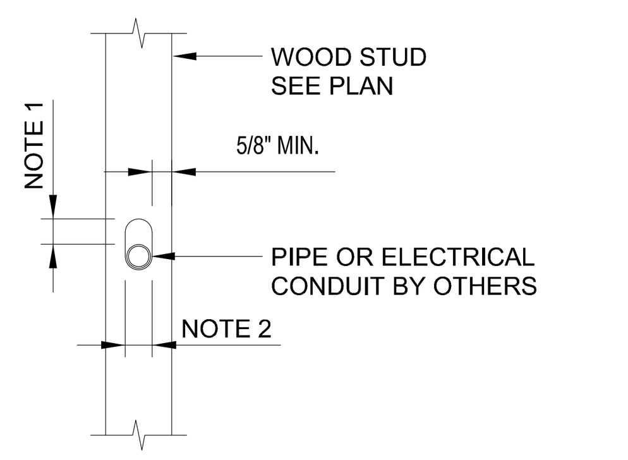
S = SHRINKAGE
C = DIMENSIONAL CHANGE COEFFICIENT (FROM WOOD HANDBOOK; CONSERVATIVELY, THE WORST CASE OF C_T IS TYPICALLY USED)
D_I = CROSS SECTIONAL DIMENSION OF WOOD SUBJECT TO SHRINKAGE (SHRINKAGE ZONE)
M_F = FINAL WOOD MC
M_I = INITIAL WOOD MC

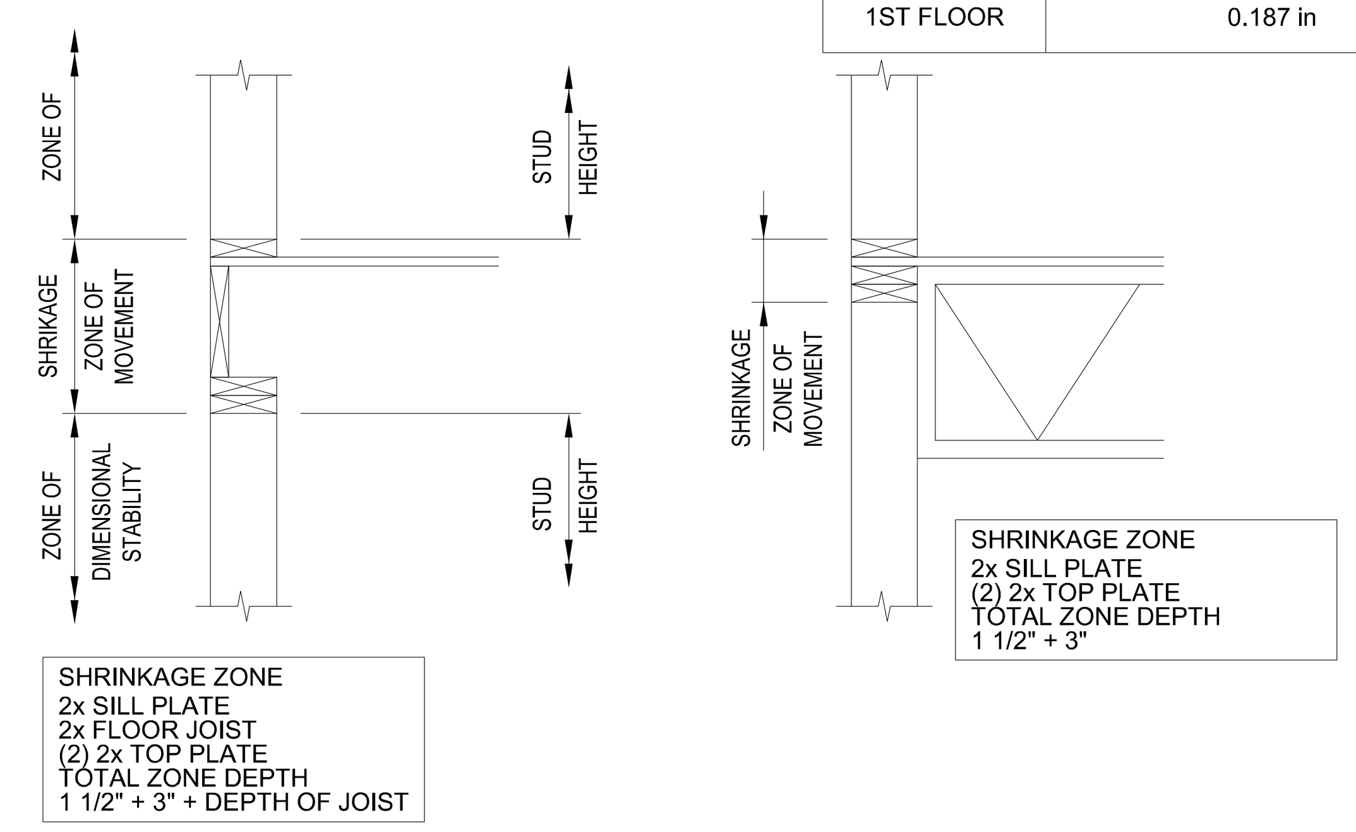
NOTE: 1
TOTAL ACCUMULATED ANTICIPATED SHRINKAGE AT LEVEL - SEE SCHEDULE

NOTE: 2
MAX OPENING IN BEARING OR EXTERIOR STUD:
2x4 STUD: 1 1/2"
2x6 STUD: 2 1/4"

WOOD SHRINKAGE SCHEDULE

FLOOR LEVEL	ANTICIPATED SHRINKAGE
ROOF	N/A
3RD FLOOR	0.561 in
2ND FLOOR	0.378 in
1ST FLOOR	0.187 in



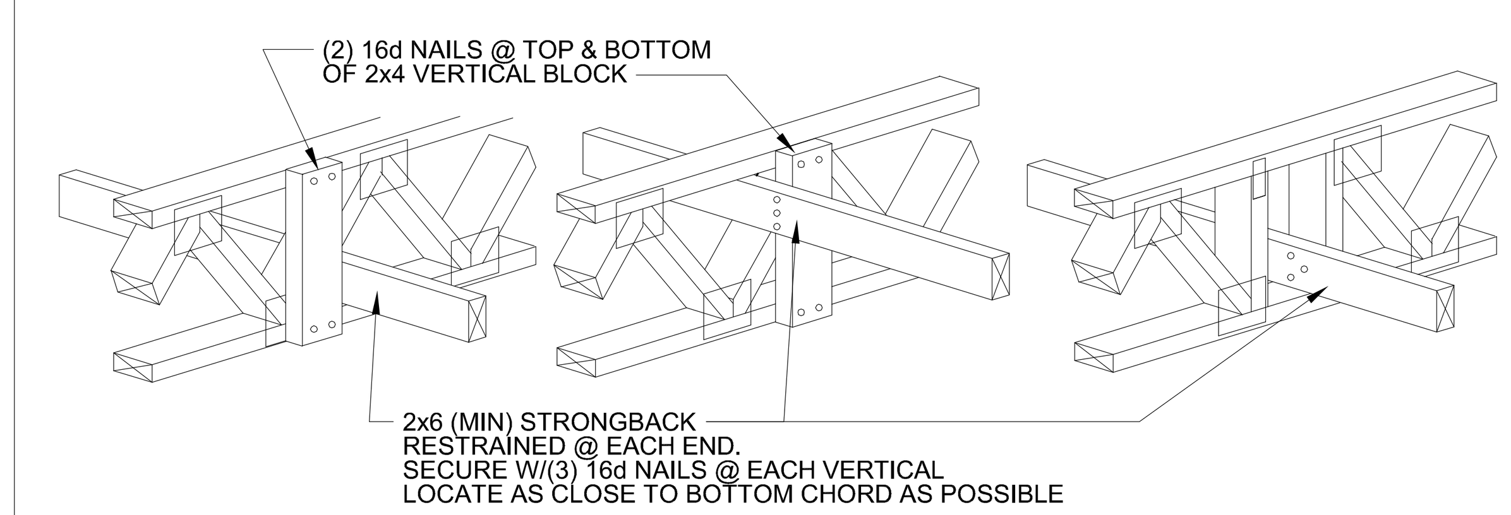


SHRINKAGE ZONE
2x SILL PLATE
2x FLOOR JOIST
(2) 2x TOP PLATE
TOTAL ZONE DEPTH
1 1/2" + 3" + DEPTH OF JOIST

SHRINKAGE ZONE
2x SILL PLATE
(2) 2x TOP PLATE
TOTAL ZONE DEPTH
1 1/2" + 3"

N.T.S.

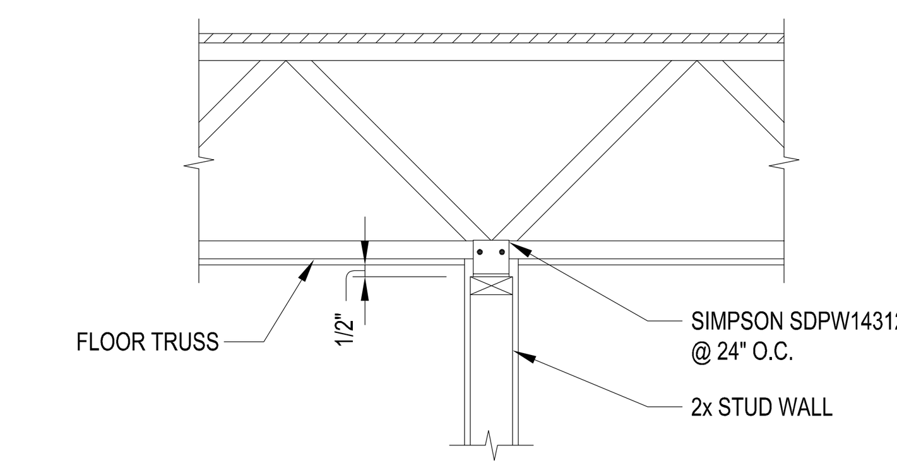
4 STRONG BACK DETAILS



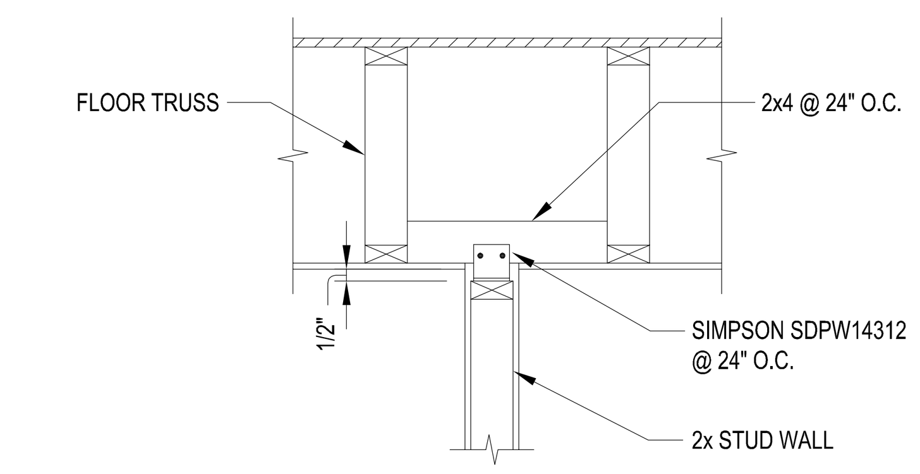
STRONGBACKS SPACED AT 10'-0" (MAX) ARE REQUIRED TO MAINTAIN CERTAIN FIRE ASSEMBLIES.
STRONGBACKS ARE RECOMMENDED TO MINIMIZE VIBRATION

FLOOR TRUSS

5 NON LOAD BEARING INT. WALL



@ WALL PERPENDICULAR TO FLOOR TRUSS

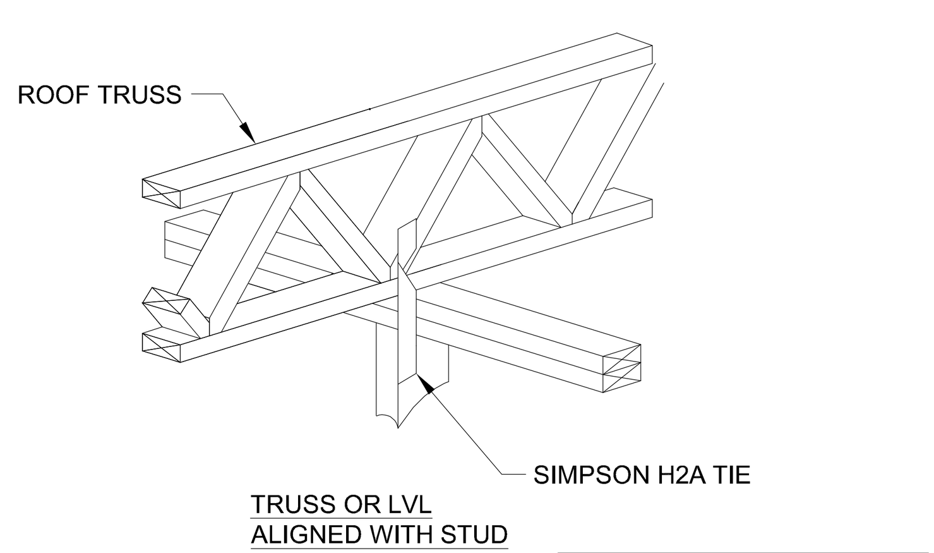


@ WALL PARALLEL TO FLOOR TRUSS

TYPICAL HEAD OF WALL

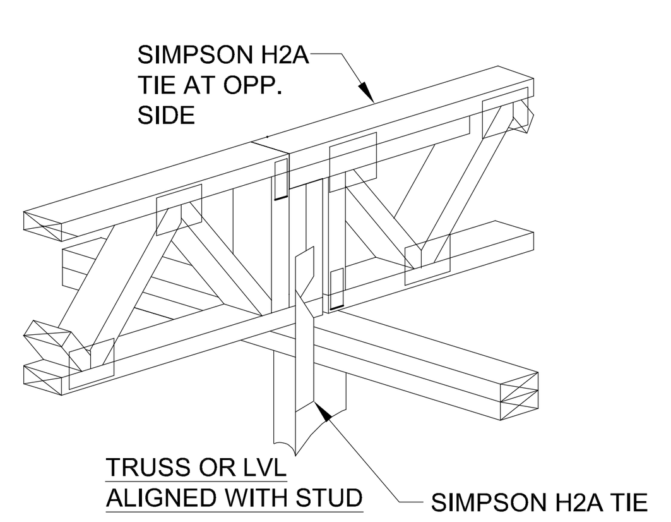
N.T.S.

6 ROOF TRUSS TO WALL UPLIFT DETAILS



SEE SECTIONS AND OTHER TYP. DETAILS FOR BALANCE OF INFO. NOT SHOWN

EXTERIOR WALL

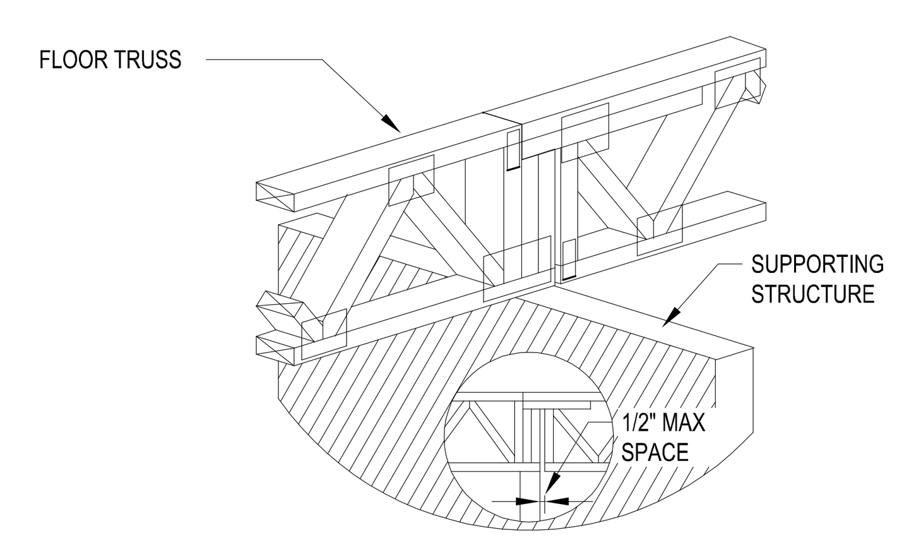


BALCONY WALL

TYPICAL

N.T.S.

7 FLOOR TRUSS BEARING DETAIL



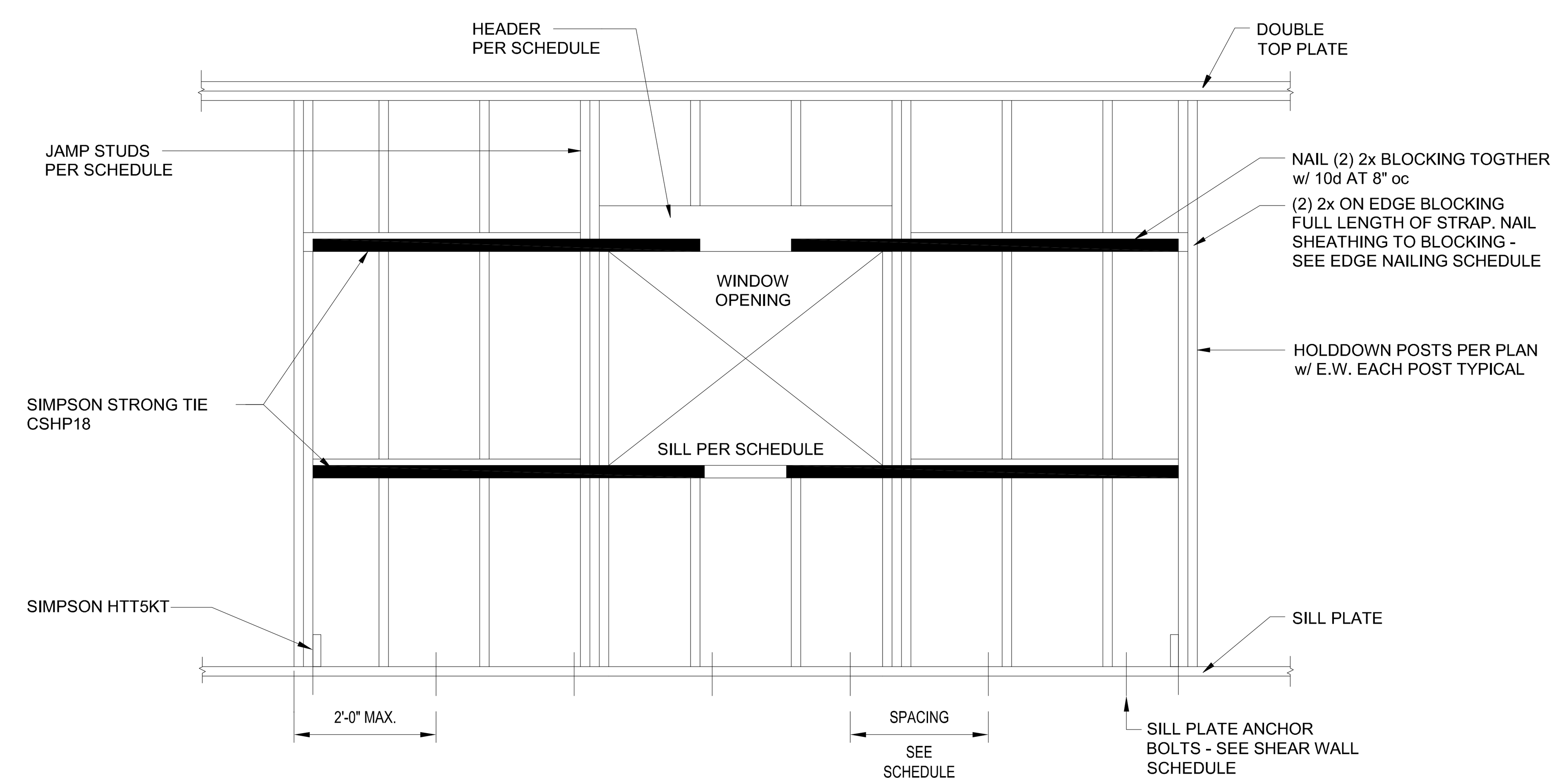
AT INTERIOR SUPPORT (BOTTOM BEARING)

(OPTIONAL PIGGY-BACK DETAIL)

TYPICAL

N.T.S.

8 DETAIL AT PERFORATED SHEARWALL OPENINGS



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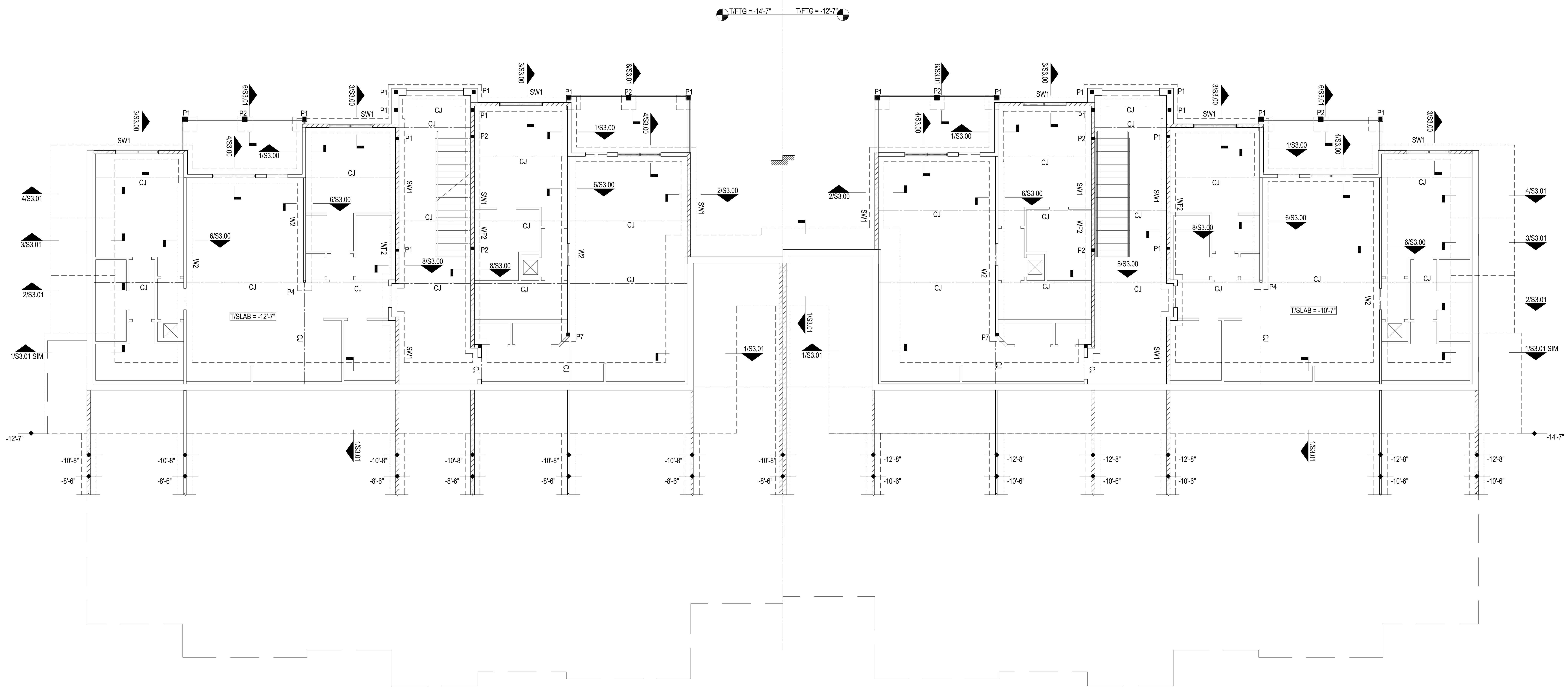
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
TYPICAL DETAILS

SHEET #:
S-1.03



BASEMENT FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

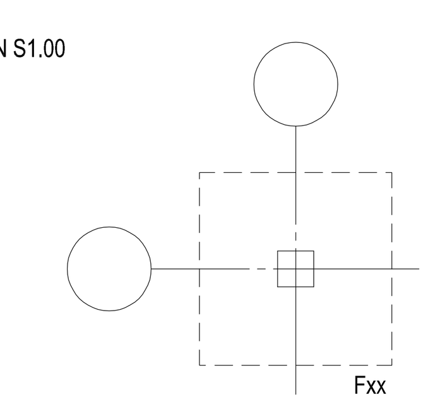
LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* INDICATES SHEAR WALL LOCATION AND LABEL
4. W* INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. " RJx " INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

FOUNDATION PLAN NOTES:

1. ELEVATIONS FOR FOOTINGS, SLABS, STEEL, WALLS, FLOORS, ELEVATOR PITS, ETC. ARE REFERENCED + OR - FROM DATUM ELEVATION SEE SHEET S2.02 (I.E. T/SL +2'-6", T/W -5'-3", T/STL -6 1/4", ETC.).
2. T/FTG ELEVATIONS SHOWN ON PLAN ARE FOR STRIP AND SPREAD FOOTINGS. T/FTG ELEVATION AROUND PERIMETER SHALL BE -2'-0" U.N.O. WITH FOOTING STEPS SHOWN IN RELATIVE LOCATIONS. SEE S1.00 SERIES SHEETS " TYPICAL DETAILS " FOR FOOTING STEP AND SPACING REQUIREMENTS.
3. TYPICAL SLAB ON GRADE (S.O.G.) IS 4" NORMAL WEIGHT CONCRETE REINFORCED WITH 6x6-W1.4xW1.4 WWF (FLAT SHEETS) ON 6" CRUSHED STONE BASE. SEE ARCHITECTURAL DRAWINGS FOR VAPOR BARRIER REQUIREMENTS. SEE S2.00 FOR SLAB CONTROL JOINT LAYOUT.
4. SUPPORT WWF AT 1" FROM TOP OF S.O.G. WITH SAND PLATES (CHAIRS WITH PLATE BASES) OR OTHER ACCEPTABLE DEVICES. BRICKS ARE NOT PERMITTED.
5. NO UNDERCUTTING AND BACKFILLING IS PERMITTED UNDER ANY FOOTING DUE TO HIGH ALLOWABLE BEARING PRESSURES USED IN FOOTING DESIGN. LEAN CONCRETE (f'c= 2000psi) OR FOOTING CONCRETE SHALL BE USED TO "BACKFILL" ANY OVEREXCAVATION.
6. CONTRACTOR SHALL SHORE ALL WALLS RECEIVING BACKFILL ON ONLY ONE SIDE OR RECEIVING UNEQUAL LEVELS OF BACKFILL ON OPPOSITE SIDES, UNLESS NOTED OTHERWISE IN THE DETAILS. ANY WALLS FOR WHICH SHORING IS INDICATED AS REQUIRED IN THE PLANS OR DETAILS SHALL BE SHORED REGARDLESS OF BACKFILL CONDITIONS.
7. MASONRY SHOWN ON STRUCTURAL DRAWINGS DEFINES ONLY THE EXTENT AND REQUIREMENTS OF MASONRY UTILIZED FOR STRUCTURAL PURPOSES (I.E. BEARING WALLS, SHEAR WALLS, RETAINING WALLS, FOUNDATION WALLS, COLUMNS, ETC.).
8. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.
9. ALL STUDS TO ALIGN W/ TRUSSES
10. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.
11. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON- STRUCTURAL MASONRY.
12. SEE S1.00 SERIES SHEETS FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
13. SEE S1.00 SERIES SHEETS FOR FOOTING SCHEDULE.
14. SEE S1.00 SERIES SHEETS FOR COLUMN SCHEDULE AND BASE PLATE DETAILS.
15. ALL STRUCTURAL WALLS SHOWN ARE TYPE " W1 " U.N.O.
16. FOOTINGS ARE NOTED ON PLAN WITH THE FOLLOWING DESIGNATIONS:

Fxx = FOOTING MARK PER SCHEDULE ON S1.00



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NC CERTIFICATE OF LICENSURE # P-1593

NORTH CAROLINA PROFESSIONAL SEAL 28481 ENGINEER JOSEPH D. HERNANDO

06.13.2025

SIGNATURE:

CLIENT:

The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:

The Orchards at Naples Road Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :

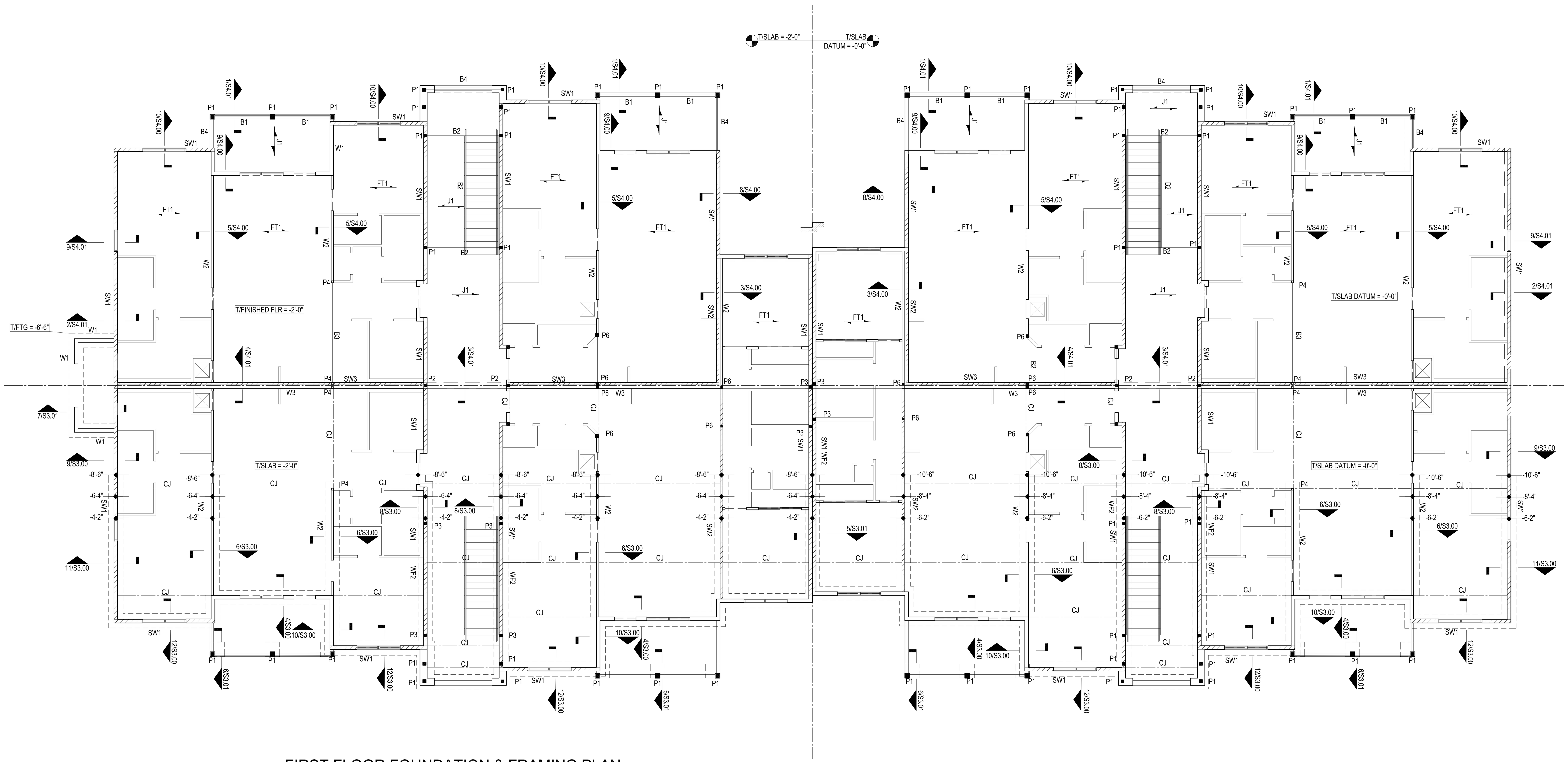
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :

BUILDINGS 1 & 5 BASEMENT FOUNDATION PLAN

SHEET #:

S-2.01B



FIRST FLOOR FOUNDATION & FRAMING PLAN

SCALE: 1/8" = 1'-0"

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* INDICATES SHEAR WALL LOCATION AND LABEL
4. W* INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. " RJx " INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

FOUNDATION PLAN NOTES:

1. T/SL DATUM ELEVATION IS 0'-0". ELEVATIONS FOR FOOTINGS, SLABS, STEEL, WALLS, FLOORS, ELEVATOR PITS, ETC. ARE REFERENCED + OR - FROM DATUM ELEVATION (I.E. T/SL +2'-6", T/W -5'-3", T/STL -6 1/4", ETC.).

2. T/FTG ELEVATIONS SHOWN ON PLAN ARE FOR STRIP AND SPREAD FOOTINGS. T/FTG ELEVATION AROUND PERIMETER SHALL BE -2'-0" U.N.O. WITH FOOTING STEPS SHOWN IN RELATIVE LOCATIONS. SEE S1.00 SERIES SHEETS " TYPICAL DETAILS " FOR FOOTING STEP AND SPACING REQUIREMENTS.

3. TYPICAL SLAB ON GRADE (S.O.G.) IS 4" NORMAL WEIGHT CONCRETE REINFORCED WITH 6x6-W1.4xW1.4 WWF (FLAT SHEETS) ON 6" CRUSHED STONE BASE. SEE ARCHITECTURAL DRAWINGS FOR VAPOR BARRIER REQUIREMENTS. SEE S2.00 FOR SLAB CONTROL JOINT LAYOUT.

4. SUPPORT WWF AT 1" FROM TOP OF S.O.G. WITH SAND PLATES (CHAIRS WITH PLATE BASES) OR OTHER ACCEPTABLE DEVICES. BRICKS ARE NOT PERMITTED.

5. NO UNDERCUTTING AND BACKFILLING IS PERMITTED UNDER ANY FOOTING DUE TO HIGH ALLOWABLE BEARING PRESSURES USED IN FOOTING DESIGN. LEAN CONCRETE (f'c= 2000psi) OR FOOTING CONCRETE SHALL BE USED TO "BACKFILL" ANY OVEREXCAVATION.

6. CONTRACTOR SHALL SHORE ALL WALLS RECEIVING BACKFILL ON ONLY ONE SIDE OR RECEIVING UNEQUAL LEVELS OF BACKFILL ON OPPOSITE SIDES, UNLESS NOTED OTHERWISE IN THE DETAILS. ANY WALLS FOR WHICH SHORING IS INDICATED AS REQUIRED IN THE PLANS OR DETAILS SHALL BE SHORED REGARDLESS OF BACKFILL CONDITIONS.

7. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.

8. ALL STUDS TO ALIGN W/ TRUSSES

9. FT1 INDICATES 18" DEEP FLOOR TRUSS @ 24" O.C. BY OTHERS

10. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.

11. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON- STRUCTURAL MASONRY.

12. SEE S1.00 SERIES SHEETS FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.

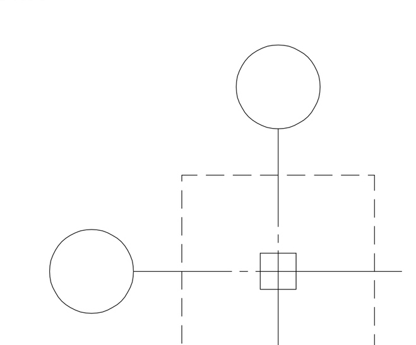
13. SEE S1.00 SERIES SHEETS FOR FOOTING SCHEDULE.

14. SEE S1.00 SERIES SHEETS FOR COLUMN SCHEDULE AND BASE PLATE DETAILS.

15. ALL STRUCTURAL WALLS SHOWN ARE TYPE " W1 " U.N.O.

16. FOOTINGS ARE NOTED ON PLAN WITH THE FOLLOWING DESIGNATIONS:

Fxx = FOOTING MARK PER SCHEDULE ON S1.00



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Luis Graef: President

Orchards PROPERTIES

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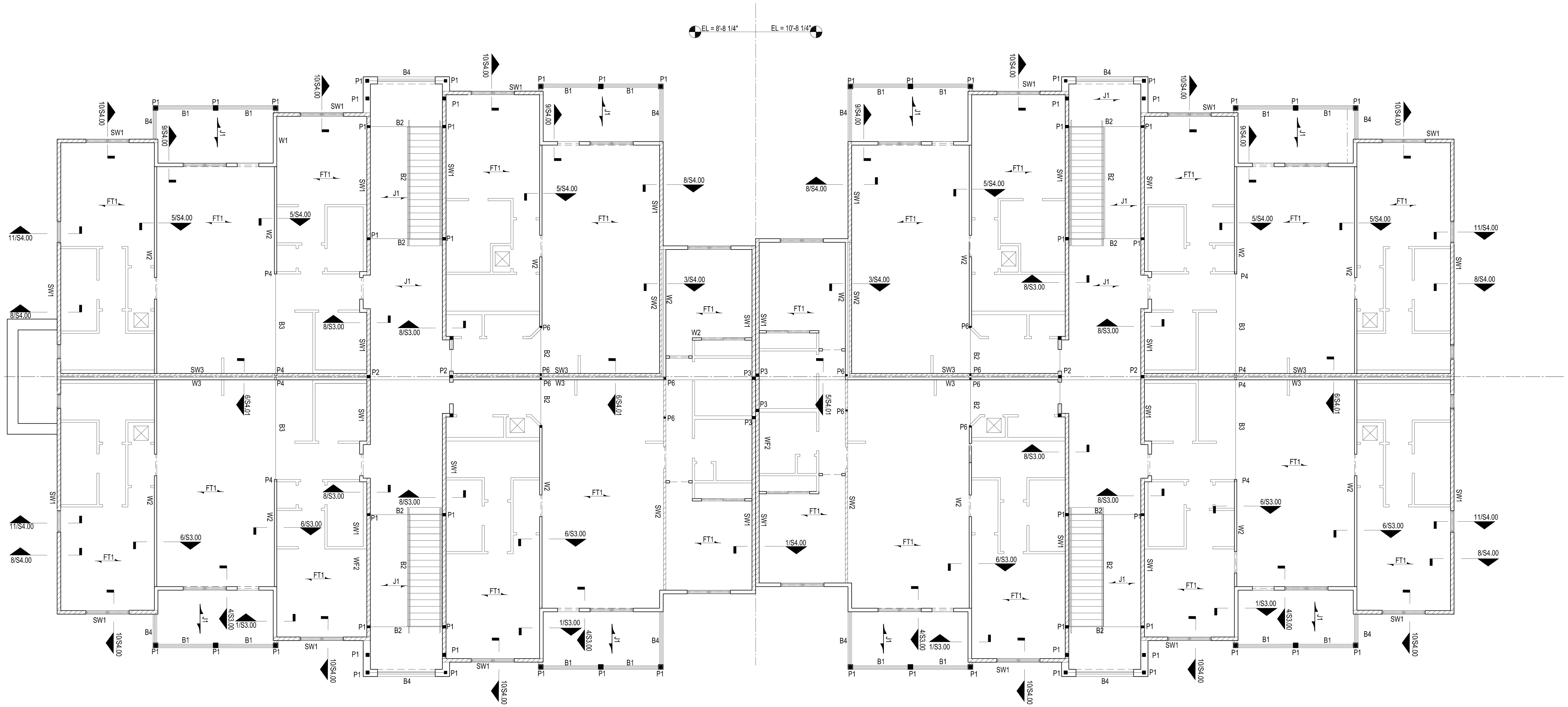
#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
BUILDINGS 1 & 5 FIRST FLOOR FOUNDATION/FRAMING PLAN

SHEET #:
S-2.02



SECOND FLOOR FRAMING PLAN

SCALE: 1/8" = 1'-0"

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* INDICATES SHEAR WALL LOCATION AND LABEL
4. W* INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. " RJx " INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

FLOOR FRAMING PLAN NOTES:

1. SEE PLAN FOR FINISHED FLOOR ELEVATIONS FROM DATUM ELEVATION, U.N.O. ON PLAN AS (+X'-X") OR (-X'-X") AS REFERENCED FROM NOMINAL DATUM.
2. WOOD TRUSS FABRICATOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION.
3. WHERE AVAILABLE, DIMENSIONS AND LOCATIONS FOR OPENINGS ARE SHOWN ON THE LOWEST LEVEL ON WHICH THE OPENING FIRST OCCURS AND ON SUBSEQUENT LEVELS WHERE DIMENSIONS OR LOCATIONS VARY.
4. SHEATH REMAINING LENGTH OF WALL (BEYOND MIN. SHEAR WALL LENGTH AS PER SCHEDULE) WITH EQUIVALENT NON-SHEAR WALL SHEATHING THICKNESS AND GWB PER ARCH. DWGS. ATTACH NON-SHEAR WALL SHEATHING WITH 10d NAILS @ 16" O.C.
5. TYPICAL FLOOR DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
6. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON-STRUCTURAL MASONRY.
7. SEE S1.00 SERIES SHTS. FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
8. SEE S1.00 SERIES SHTS. FOR SHEAR WALL INFORMATION.
9. SEE S1.00 SERIES SHEETS FOR WOOD JOIST AND ALL BEAM SCHEDULES.
10. SEE S1.00 SERIES SHEETS FOR BEARING WALL SCHEDULES.
11. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.
12. ALL STRUCTURAL WALLS SHOWN ARE TYPE "W1" U.N.O.
13. SEE 3/S1.03 FOR TYPICAL DECKING LAYOUT DETAILS, USE UNBLOCKED DIAPHRAGM U.N.O. USE BLOCKED DIAPHRAGM FOR SHADED AREA.
    USE 10d NAILS WITH 2" BOUNDARY SPACING IN BOTH DIRECTIONS.
14. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.
15. SWX INDICATES SHEARWALL LOCATION AND LABEL
16. ALL STUDS TO ALIGN W/ TRUSSES
17. FT1 INDICATES 18" DEEP FLOOR TRUSS @ 24" O.C. BY OTHERS
18. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.

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http://jdhengineers.com
NC CERTIFICATE OF LICENSURE # P-1593

NORTH CAROLINA PROFESSIONAL SEAL 28481 ENGINEER JOSEPH D. HERNANDEZ
06.13.2025

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

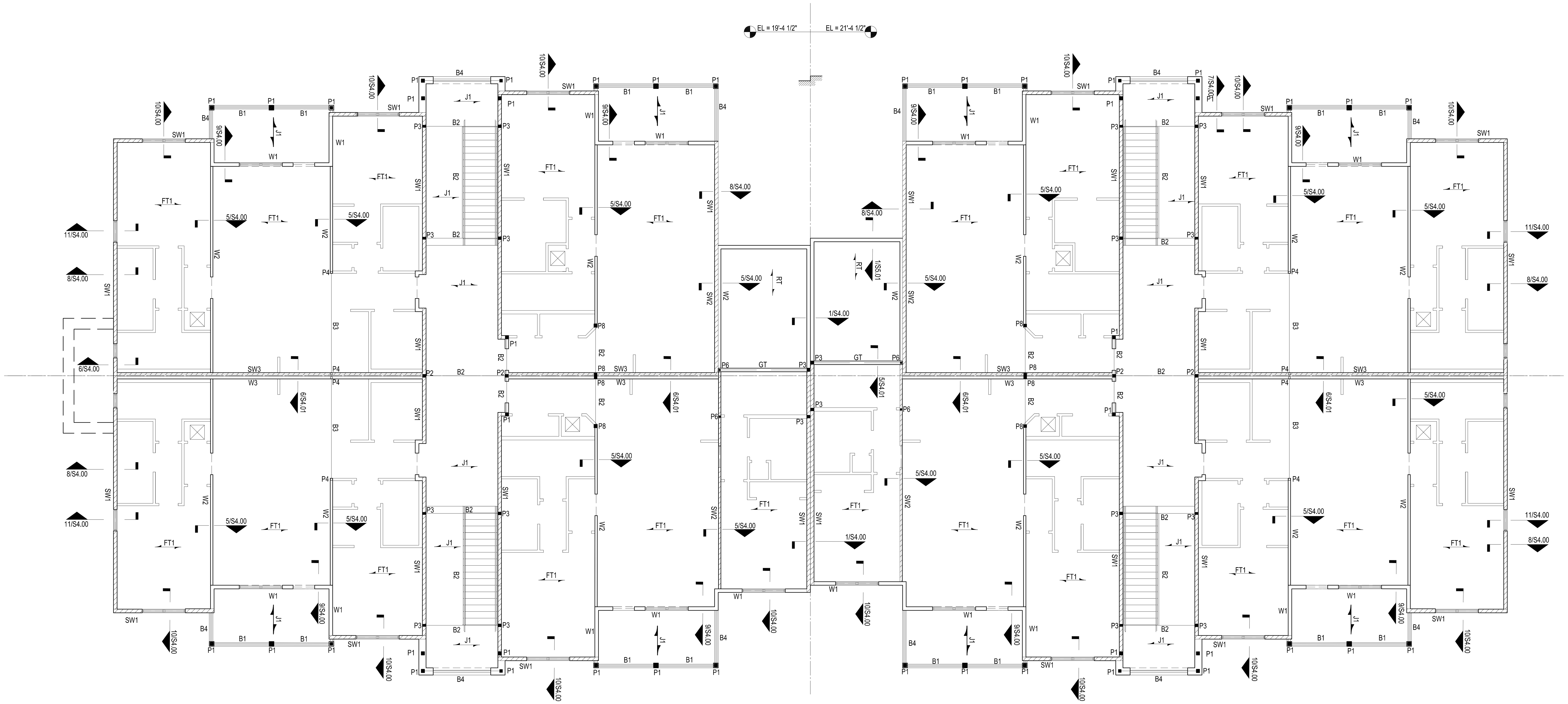
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION:
BUILDINGS 1 & 5 SECOND FLOOR FRAMING PLAN

SHEET #:
S-2.03



THIRD FLOOR FRAMING PLAN

SCALE: 1/8" = 1'-0"

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* INDICATES SHEAR WALL LOCATION AND LABEL
4. W* INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. " RJx " INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

FLOOR FRAMING PLAN NOTES:

1. SEE PLAN FOR FINISHED FLOOR ELEVATIONS FROM DATUM ELEVATION, U.N.O. ON PLAN AS (+X'-X") OR (-X'-X") AS REFERENCED FROM NOMINAL DATUM.
2. WOOD TRUSS FABRICATOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION.
3. TYPICAL ROOF DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
4. WHERE AVAILABLE, DIMENSIONS AND LOCATIONS FOR OPENINGS ARE SHOWN ON THE LOWEST LEVEL ON WHICH THE OPENING FIRST OCCURS AND ON SUBSEQUENT LEVELS WHERE DIMENSIONS OR LOCATIONS VARY.
5. SHEATH REMAINING LENGTH OF WALL (BEYOND MIN. SHEAR WALL LENGTH AS PER SCHEDULE) WITH EQUIVALENT NON-SHEAR WALL SHEATHING THICKNESS AND GWB PER ARCH. DWGS. ATTACH NON-SHEAR WALL SHEATHING WITH 10d NAILS @ 16" O.C.
6. TYPICAL FLOOR DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
7. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON-STRUCTURAL MASONRY.
8. SEE S1.00 SERIES SHTS. FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
9. SEE S1.00 SERIES SHTS. FOR SHEAR WALL INFORMATION.
10. SEE S1.00 SERIES SHEETS FOR WOOD JOIST AND ALL BEAM SCHEDULES.
11. SEE S1.00 SERIES SHEETS FOR BEARING WALL SCHEDULES.
12. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.
13. ALL STRUCTURAL WALLS SHOWN ARE TYPE "W1" U.N.O.
14. SEE 3/S1.03 FOR TYPICAL DECKING LAYOUT DETAILS, USE UNBLOCKED DIAPHRAGM U.N.O. USE BLOCKED DIAPHRAGM FOR SHADED AREA.
    USE 10d NAILS WITH 2" BOUNDARY SPACING IN BOTH DIRECTIONS.
15. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.
16. SWX INDICATES SHEARWALL LOCATION AND LABEL
17. ALL STUDS TO ALIGN W/ TRUSSES
18. FT1 INDICATES 18" DEEP FLOOR TRUSS @ 24" O.C. BY OTHERS
19. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.
20. GT. INDICATES GIRDER TRUSS

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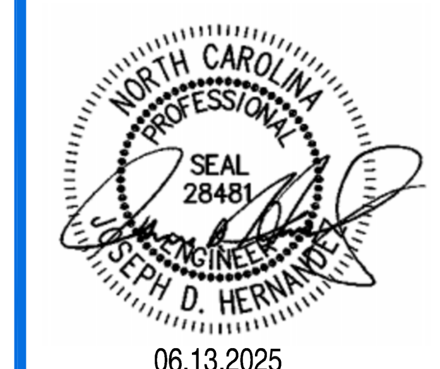

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DWG INFO :
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PROJECT #: 22105
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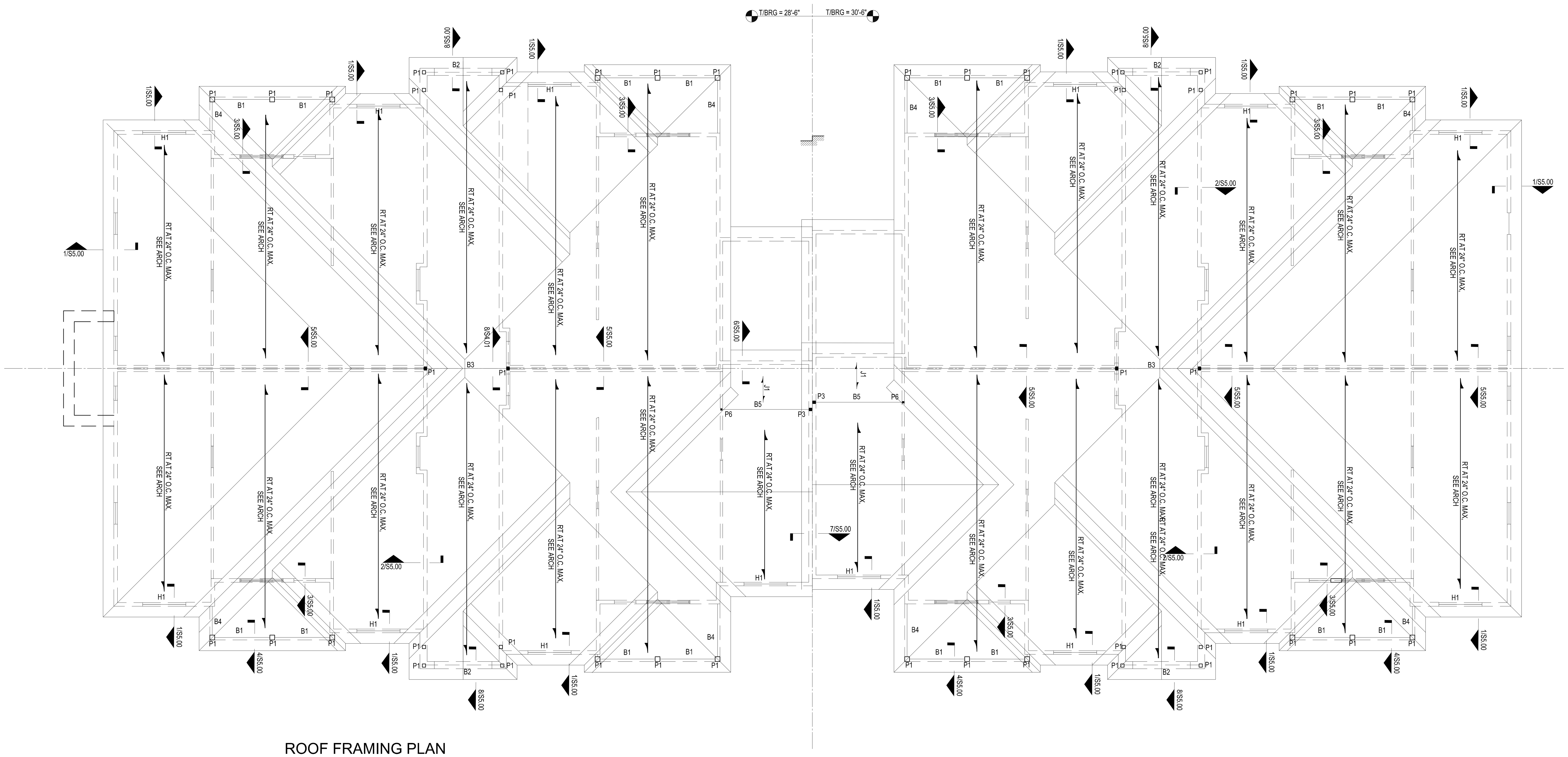
DWG DECRIPTION :
BUILDINGS 1 & 5 THIRD FLOOR FRAMING PLAN

SHEET #:
S-2.04



ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* INDICATES SHEAR WALL LOCATION AND LABEL
4. W* INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. " RJx " INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

ROOF FRAMING PLAN NOTES:

1. SEE PLAN FOR TRUSS BEARING ELEVATIONS FROM DATUM ELEVATION, U.N.O. ON PLAN AS (+X'-X") OR (-X'-X") AS REFERENCED FROM NOMINAL DATUM.
2. WOOD TRUSS FABRICATOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION.
3. TYPICAL ROOF DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
4. WHERE AVAILABLE, DIMENSIONS AND LOCATIONS FOR OPENINGS ARE SHOWN ON THE LOWEST LEVEL ON WHICH THE OPENING FIRST OCCURS AND ON SUBSEQUENT LEVELS WHERE DIMENSIONS OR LOCATIONS VARY.
5. SHEATH REMAINING LENGTH OF WALL (BEYOND MIN. SHEAR WALL LENGTH AS PER SCHEDULE) WITH EQUIVALENT NON-SHEAR WALL SHEATHING THICKNESS AND GWB PER ARCH. DWGS. ATTACH NON-SHEAR WALL SHEATHING WITH 10d NAILS @ 16" O.C.
6. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON-STRUCTURAL MASONRY.
7. SEE S1.00 SERIES SHTS. FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
8. SEE S1.00 SERIES SHTS. FOR SHEAR WALL INFORMATION.
9. SEE S1.00 SERIES SHEETS FOR WOOD JOIST AND ALL BEAM SCHEDULES.
10. SEE S1.00 SERIES SHEETS FOR BEARING WALL SCHEDULES.
11. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF WALL U.N.O.
12. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.
13. SEE 3/S1.03 FOR TYPICAL DECKING LAYOUT DETAILS, USE UNBLOCKED DIAPHRAGM U.N.O.
14. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.
15. MAU-1 AND MAU-2 DENOTES ROOF TOP UNITS, SEE MECH. DRAWINGS FOR LOCATION AND EQUIPMENT WEIGHT. JOIST SUPPLIER TO DESIGN TO SUIT. SEE S1.00 FOR ROOF LOADS.
16. SEE 1/S1.05 FOR WALL OPENINGS
17. ALL STUDS TO ALIGN W/ TRUSSES
18. FT1 INDICATES 18" DEEP FLOOR TRUSS @ 24" O.C. BY OTHERS

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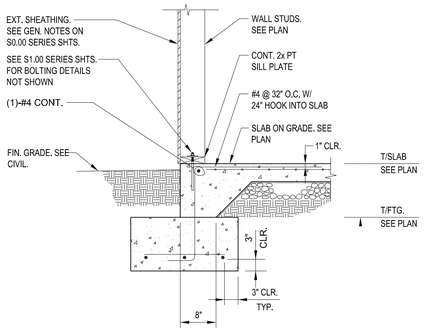
DWG DECRIPTION :
BUILDINGS 1 & 5
ROOF FRAMING PLAN

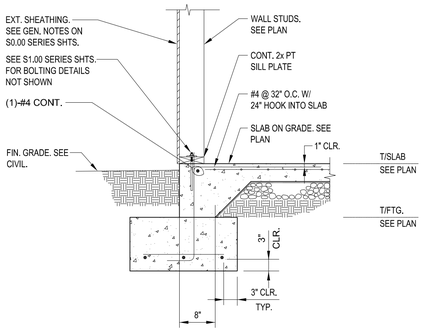
SHEET #:
S-2.05



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

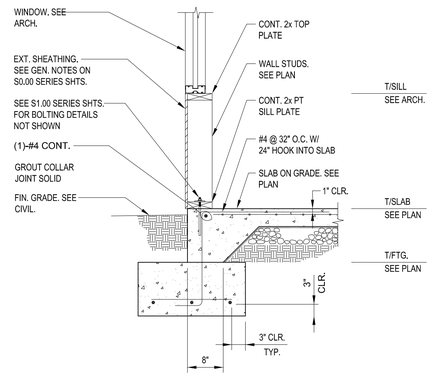
1 TYP. PERIMETER BRICK WALL



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

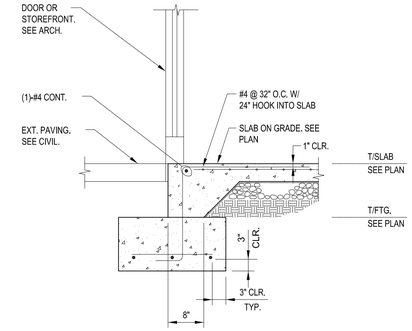
2 TYP. EXTERIOR SHEAR WALL



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

3 TYP. PERIMETER BRICK AT WINDOW



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

4 TYP. PERIMETER AT OPENING

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

5 PERIMETER BRICK WALL AT INTERIOR WALL

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

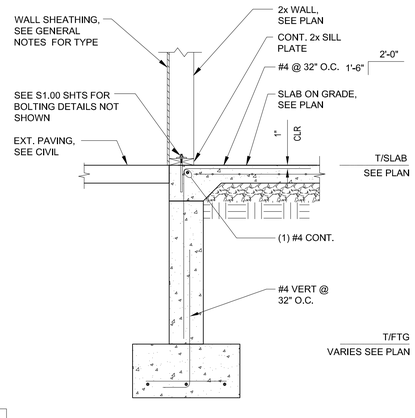
6 TYPICAL LOAD BRG. INTERIOR WALL

7 NOT USED

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

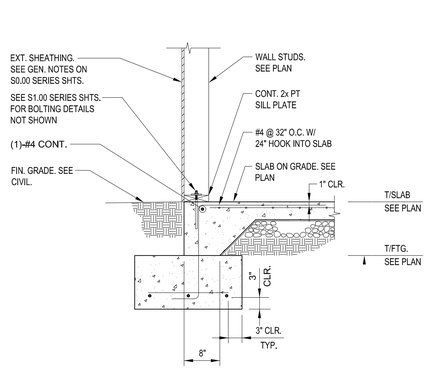
8 TYP. INTERIOR WALL AT SHEAR WALL



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

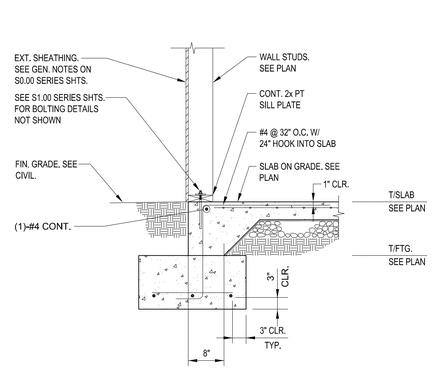
9 EXTERIOR WALL AT STEPPED FOOTING



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

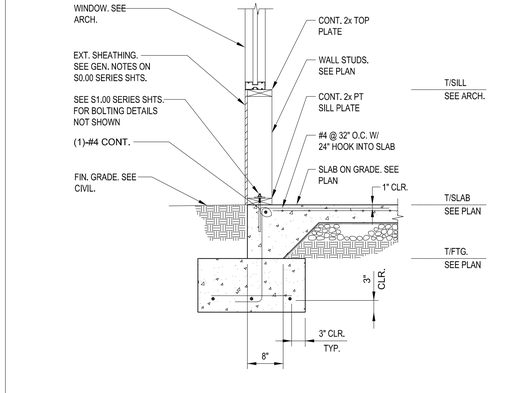
10 TYP. PERIMETER BRICK WALL



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

11 TYP. EXTERIOR SHEAR WALL



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

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

12 TYP. PERIMETER BRICK AT WINDOW

JDH STRUCTURAL ENGINEERS, PLLC
19545 GREENTREE WAY - SUITE B
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NC CERTIFICATE OF LICENSURE # P-1593

NORTH CAROLINA PROFESSIONAL SEAL 28481 ENGINEER JOSEPH D. HERNANDEZ

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Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
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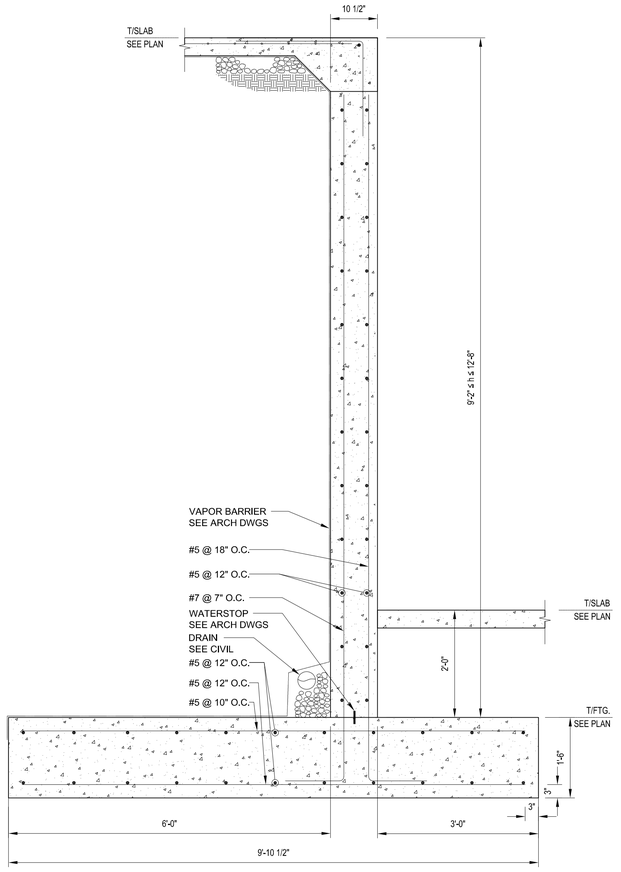
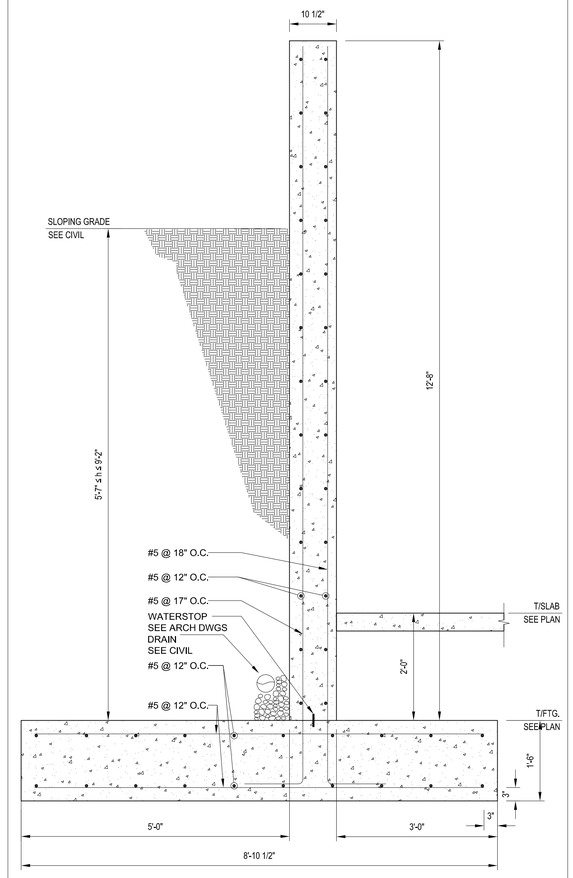
DWG DECRIPTION :
FOUNDATION SECTIONS

SHEET #:
S-3.00



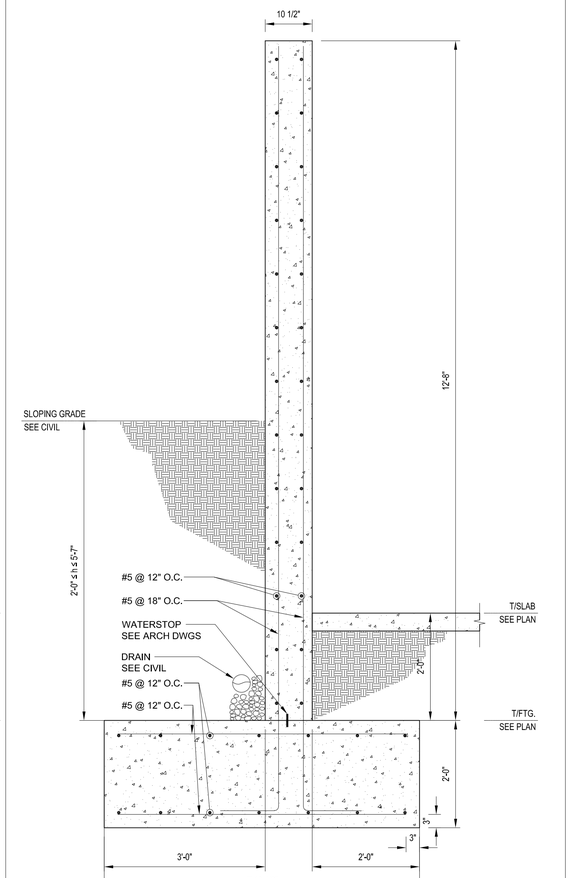
SCALE: 3/4" = 1'-0"

1 RETAINING WALL 1



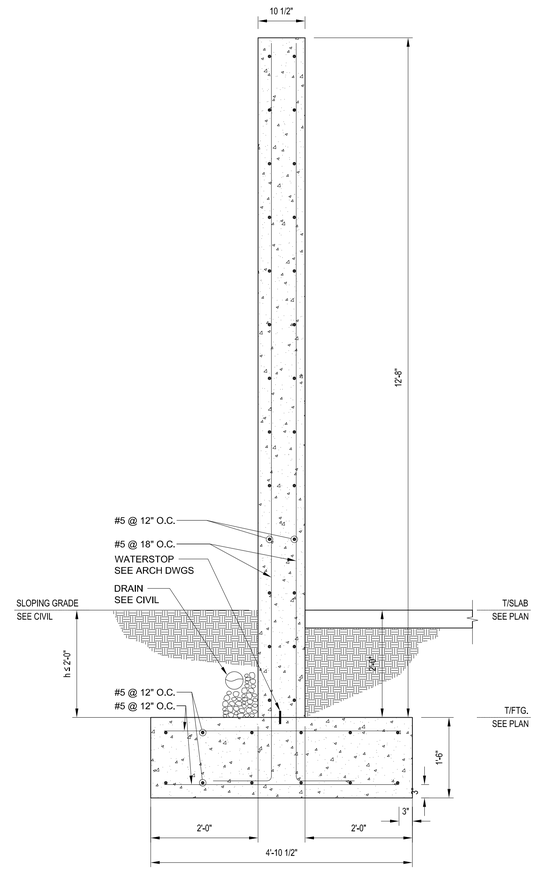
SCALE: 3/4" = 1'-0"

2 RETAINING WALL 2



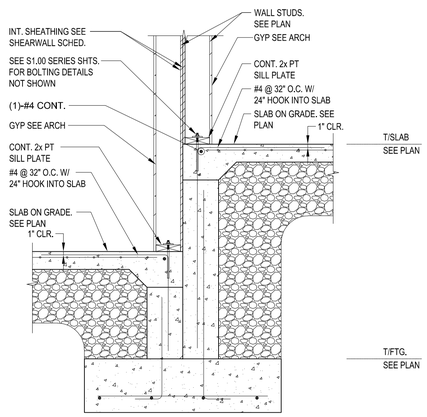
SCALE: 3/4" = 1'-0"

3 RETAINING WALL 3



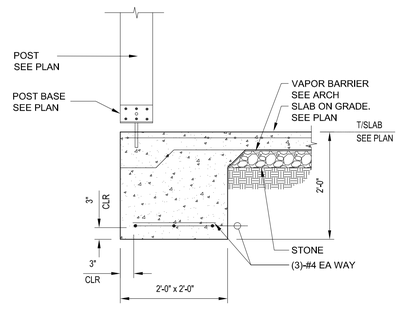
SCALE: 3/4" = 1'-0"

4 RETAINING WALL 4



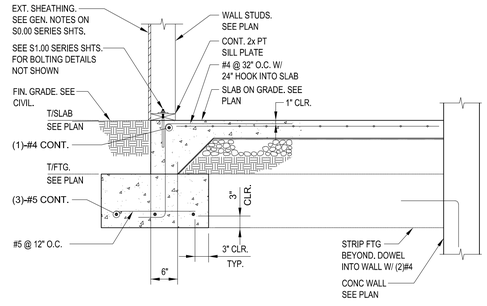
SCALE: 3/4" = 1'-0"

5 FOUNDATION WALL SECTION



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

6 FOUNDATION WALL SECTION



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

7 FOUNDATION WALL SECTION

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ISSUE DATE: 09/27/24
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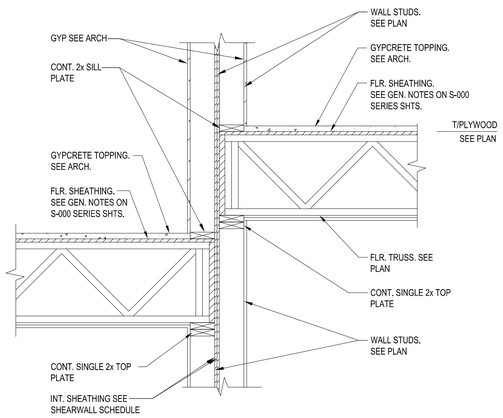
DWG DECRIPTION :
FOUNDATION
SECTIONS

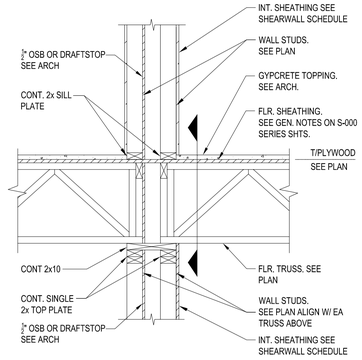
SHEET #:
S-3.01

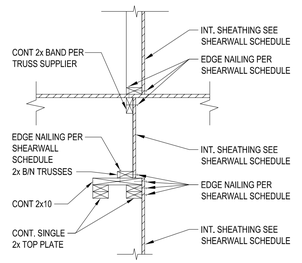


SCALE: 3/4" = 1'-0"

1 TYP. LOAD BRG. DEMISING WALLS

2 NOT USED





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

3 TYP. LOAD BRG. DEMISING WALLS

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

5 TYP. INTERIOR LOAD BRG. WALLS

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

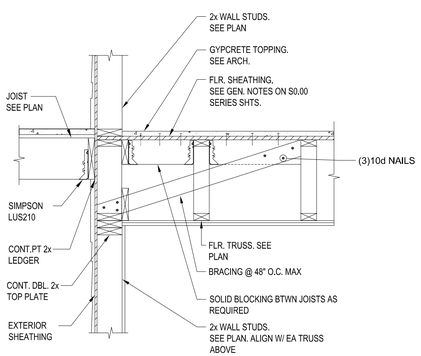
6 PERIMETER WALL AT MECH ROOM

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

7 PERIMETER WALL

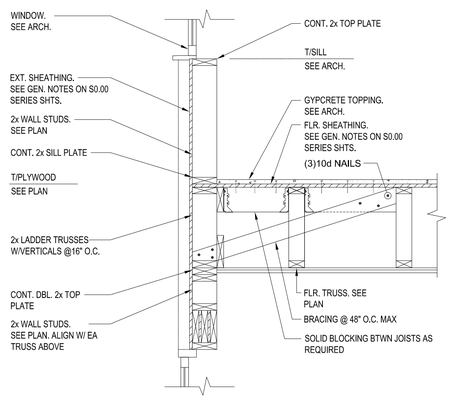
SCALE: 3/4" = 1'-0"

8 PERIMETER WALL



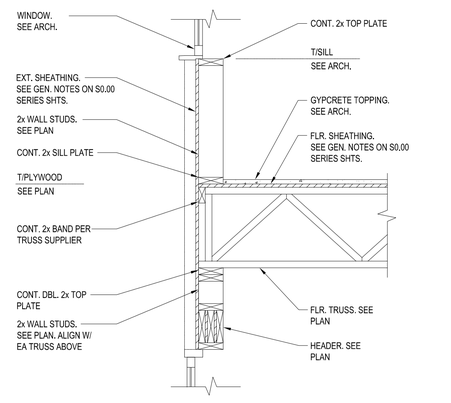
SCALE: 3/4" = 1'-0"

9 BALCONY SECTION



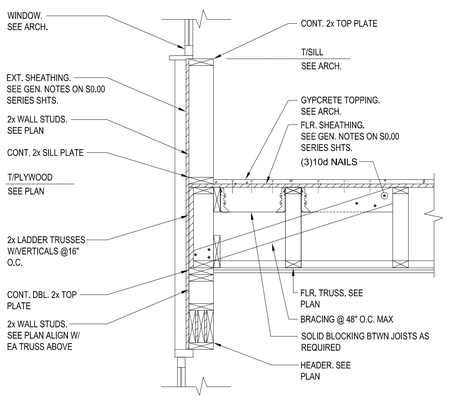
SCALE: 3/4" = 1'-0"

10 PERIMETER WALL



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

11 PERIMETER WALL



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

12 PERIMETER WALL AT WINDOW

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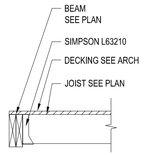
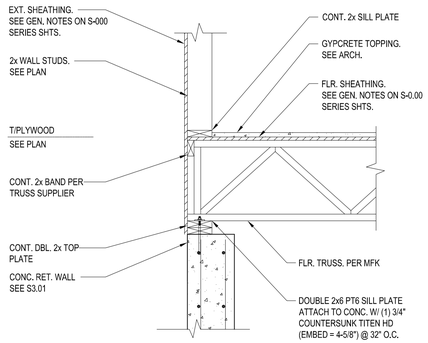
DWG DECRIPTION :
FLOOR FRAMING SECTIONS

SHEET #:
S-4.00



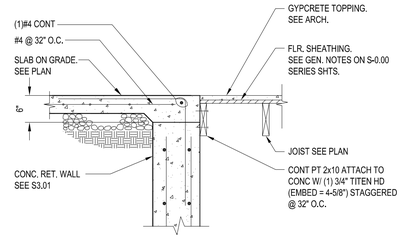
SCALE: 3/4" = 1'-0"

1 TYPICAL DECK FRAMING



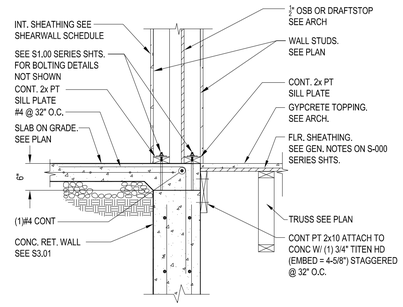
SCALE: 3/4" = 1'-0"

2 SECTION



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

3 SECTION



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

4 SECTION

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

5 FRAMING SECTION

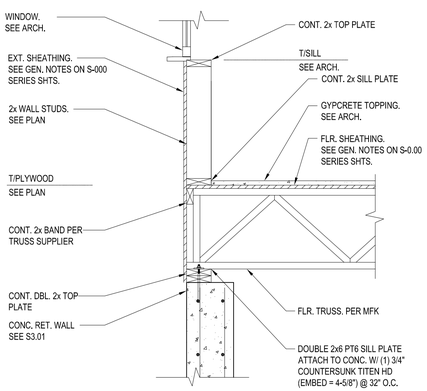
SCALE: 3/4" = 1'-0"

6 SECTION

7 NOT USED

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

8 FRAMING SECTION



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

9 SECTION

JDH STRUCTURAL ENGINEERS, PLLC
19545 GREENTREE WAY, SUITE B
CORNELIUS, NORTH CAROLINA 28031
phone 704.997.7072 fax 980.312.6520
http://jdhengineers.com
NC CERTIFICATE OF LICENSURE # P-1593

NORTH CAROLINA PROFESSIONAL SEAL 28481 ENGINEER JOSEPH D. HERNANDEZ

06.13.2025

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

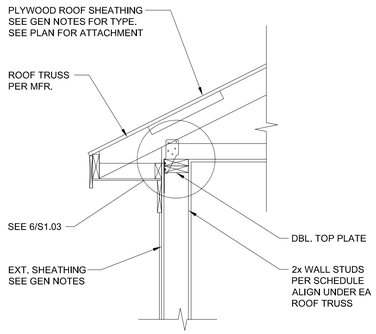
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

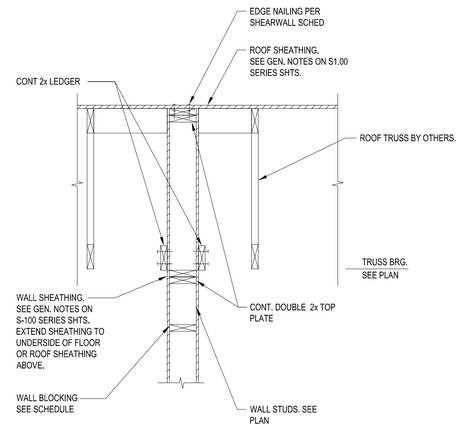
DWG DECRIPTION :
FLOOR FRAMING
SECTIONS

SHEET #:
S-4.01



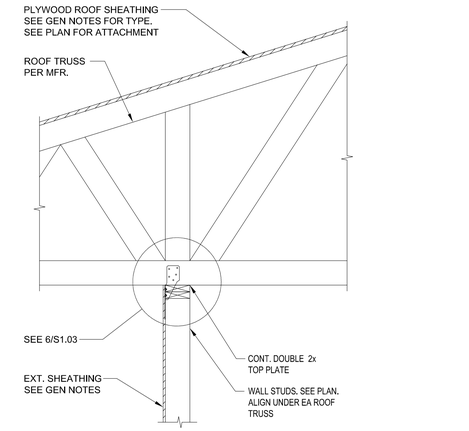
SCALE: 3/4" = 1'-0"

1 TYPICAL TRUSS BEARING



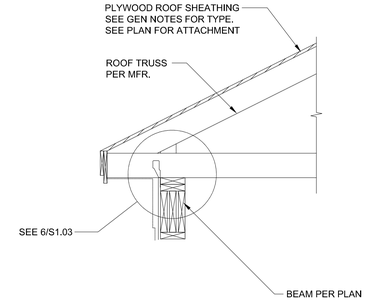
SCALE: 3/4" = 1'-0"

2 INTERIOR SHEAR WALL



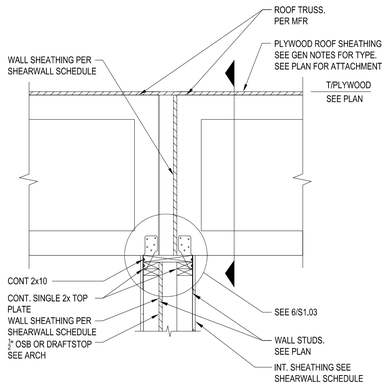
SCALE: 3/4" = 1'-0"

3 INTERIOR TRUSS BEARING

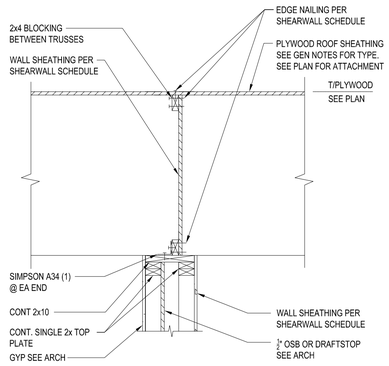


SCALE: 3/4" = 1'-0"

4 TRUSS BEARING ON BEAM



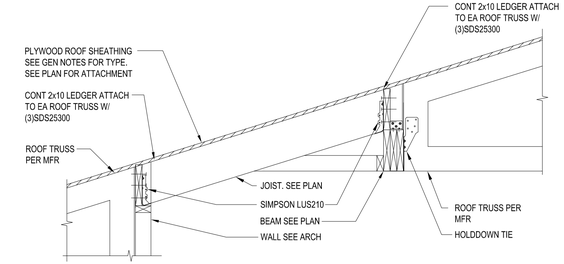
TYP. AT STUDS & TRUSSES



TYP. INBETWEEN STUDS & TRUSSES

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

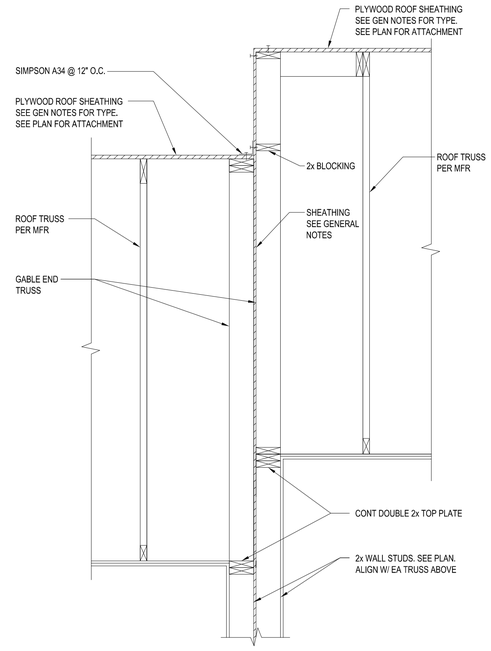
5 TRUSS BEARING SECTION DETAIL



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

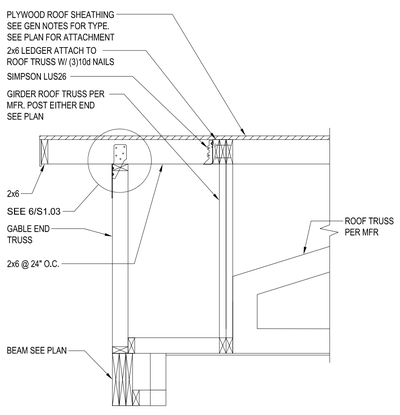
6 ROOF TRUSS SECTION

REF 7/A6.6



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

7 ROOF TRUSS SECTION



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

8 ROOF TRUSS SECTION

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DRAWN BY:
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DWG DECRIPTION :
ROOF FRAMING
SECTIONS

SHEET #:
S-5.00