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WALL FASTENING SCHEDULE					
CONNECTION: (NAIL SIZE AND POSITION EXAGGER FOR ILLUSTRATIVE PURPOSES)		FASTENER: MIN. NOMINAL LENGTH IN INCHES x MIN. NOMINAL NAIL DIA. IN INCHES		QUANTITY PER CONNECTION OR SPACING BETWEEN FASTENERS (INCHES ON CENTER)	
TOP OR SOLE PLATE TO STUD (FACE NAIL)		3-1/2" x 0.162" NAIL (16d COMMON)		2	
		3" x 0.131" NAILS		3	
		3" x 0.120" NAILS		4	
		3" x 0.148" NAIL (10d COMMON)		16" O.C.	
DOUBLE 2x4 TOP PLATE		3-1/2" x 0.162" NAIL (16d COMMON)		12" O.C.	
		3" x 0.131" NAILS			
		3" x 0.120" NAILS		12" O.C.	
		SEE WOOD BASE PLATE ATTACHMENT SCHEDULE ON S-402			
	INTERIOR WALL SILL PLATE TO CONCRETE BEARING	HLTI X-CF72P28S23 POWDER ACTUATED FASTENERS W/23MM WASHERS		3'-0" O.C.	
	INTERIOR WALL SILL PLATE TO WOOD BEARING	3" x 0.131" NAIL		SEE WOOD BASE PLATE ATTACHMENT SCHEDULE ON SHEET S-402	
	STUD TO TOP OR SOLE PLATE (TOE-NAILED)		3" x 0.131" NAIL		1'-0" O.C.
			3-1/2" x 0.162" NAIL (16d COMMON)		3
3" x 0.131" NAILS			4		
3" x 0.120" NAILS					
CAPTOP PLATE LAPs AND INTERSECTIONS		3-1/2" x 0.162" NAIL (16d COMMON)		2 EACH SIDE OF LAP	
		3" x 0.131" NAILS		3 EACH SIDE OF LAP	
		3" x 0.120" NAILS			
		3" x 0.148" NAIL (10d COMMON)		12" O.C.	
DOUBLE STUD		3" x 0.131" NAILS		8" O.C.	
		3" x 0.120" NAILS			
		3-1/2" x 0.162" NAIL (16d COMMON)		24" O.C.	
		3" x 0.131" NAILS		16" O.C.	
CORNER STUDS		3" x 0.120" NAILS		12" O.C.	
		3" x 0.131" NAILS		(2) ROWS AT 6" O.C. UPPER PLATE TO LOWER PLATE (2) ROWS AT 6" O.C. LOWER PLATE TO HEADER	
		3" x 0.120" NAILS			
		ROOF TOP PLATES TO HEADER		3" x 0.131" NAILS	

FLOOR FASTENING SCHEDULE				
CONNECTION: (NAIL SIZE AND POSITION EXAGGER FOR ILLUSTRATIVE PURPOSES)		FASTENER: MIN. NOMINAL LENGTH IN INCHES x MIN. NOMINAL NAIL DIA. IN INCHES		QUANTITY PER CONNECTION OR SPACING BETWEEN FASTENERS (INCHES ON CENTER)
JOIST TO SILL OR GIRDER (TOE-NAILED)		FLOOR TRUSS TO TOP PLATE		3" x 0.148" NAIL (10d COMMON)
				3" x 0.131" NAILS
				3" x 0.120" NAILS
				3" x 0.148" NAIL (10d COMMON)
BLOCKING TO JOIST (LISTED NUMBER OF FASTENERS AT EACH END)		2-1/2" x 0.131" NAIL (0.131"x3" COMMON)		2
		3" x 0.131" NAILS		3
		3" x 0.120" NAILS		4
		3" x 0.148" NAIL (10d COMMON)		3
BLOCKING BETWEEN JOIST OR RAFTER TO TOP PLATE (TOE-NAILED)		3" x 0.131" NAILS		4
		3" x 0.120" NAILS		3
		3-1/2" x 0.162" NAIL (16d COMMON)		3
		3" x 0.131" NAILS		4
STRONG BACK W/ 2x4 BLOCK NAILS AT TOP, BOTTOM, AND WEB CROSSING		3" x 0.131" NAILS		3
		3" x 0.120" NAILS		4
		3-1/2" x 0.162" NAIL (16d COMMON)		3
		3" x 0.131" NAILS		4
LEDGER STRIP		3-1/2" x 0.162" NAIL (16d COMMON)		3
		3" x 0.131" NAILS		4
		3" x 0.120" NAILS		3
		3-1/2" x 0.162" NAIL (16d COMMON)		5
JOIST TO RIM JOIST		3" x 0.131" NAILS		6
		3" x 0.120" NAILS		3
		2-1/2" x 0.113" NAIL (0.131"x3" BOX)		6" O.C.
		3-1/2" x 0.162" NAIL (16d COMMON)		8" O.C.
3" x 0.131" NAILS		6" O.C.		

ROOF FASTENING SCHEDULE				
CONNECTION: (NAIL SIZE AND POSITION EXAGGER FOR ILLUSTRATIVE PURPOSES)		FASTENER: MIN. NOMINAL LENGTH IN INCHES x MIN. NOMINAL NAIL DIA. IN INCHES		QUANTITY PER CONNECTION OR SPACING BETWEEN FASTENERS (INCHES ON CENTER)
CEILING JOIST TO PLATE		3-1/2" x 0.162" NAIL (16d COMMON)		3
		3" x 0.131" NAILS		5
		3" x 0.120" NAILS		3
		2-1/2" x 0.131" NAIL (0.131"x3" COMMON)		3
ROOF RAFTER TO PLATE (TOE-NAILED)		3-1/2" x 0.162" NAIL (16d COMMON)		3
		3" x 0.131" NAILS		4
		3" x 0.120" NAILS		3
		3" x 0.148" NAIL (10d COMMON)		3
JACK RAFTER TO HIP (TOE-NAILED)		3-1/2" x 0.162" NAIL (16d COMMON)		2
		3" x 0.148" NAIL (10d COMMON)		3
		3" x 0.131" NAILS		4
		3" x 0.120" NAILS		4
JACK RAFTER TO HIP (FACE-NAILED)		3-1/2" x 0.162" NAIL (16d COMMON)		2
		3" x 0.148" NAIL (10d COMMON)		3
		3" x 0.131" NAILS		4
		3" x 0.120" NAILS		4
ROOF RAFTER TO RIDGE BEAM (FACE NAILED)		3-1/2" x 0.162" NAIL (16d COMMON)		2
		3" x 0.131" NAILS		3
		3" x 0.120" NAILS		4
		(ONLY THE ATTACHMENT OF THE TOP RAFTER IS ILLUSTRATED)		
ROOF RAFTER TO RIDGE BEAM (TOE-NAILED)		3-1/2" x 0.162" NAIL (16d COMMON)		2
		3" x 0.131" NAILS		3
		3" x 0.120" NAILS		4

ALLOWABLE WOOD PRESERVATIVE SYSTEMS AND REQUIRED CORROSION PROTECTION			
LOCATION/USE	ALLOWABLE PRESERVATIVE - MIN. RETENTION (PCF)	MIN. CORROSION PROTECTION REQ'D (2)	FASTENERS
SILL PLATES (ABOVE GROUND)	DOT AND POLYMER BINDER - 0.51 PCF (3) INORGANIC BORON (SBL) - SEE NOTE 1	STEEL CONNECTORS STANDARD G90 ZINC GALVANIZED COATING	FASTENERS STANDARD G90 ZINC GALVANIZED COATING
	ALKALINE COPPER QUAT (ACQ-C&D) (NO AMMONIA) - 0.15 PCF		
	COPPER AZOLE (CA-B) - 0.10 PCF MICRONIZED COPPER QUAT (MCQ) - 0.15 PCF	STEEL LESS THAN 14 GA. ASTM A653, TYPE G185 ZINC GALVANIZED HOT-DIPPED COATING OR STEEL 14 GAUGE AND THICKER HOT-DIPPED GALVANIZED AFTER FABRICATION WITH MINIMUM AVERAGE COATING OF 2.0 oz/sq. ft. PER ASTM A123	
EXTERIOR LUMBER ABOVE GROUND (JOISTS, DECKING, LEDGERS, ETC.)	ALKALINE COPPER QUAT (ACQ-C&D) (NO AMMONIA) - 0.10 PCF		
	COPPER AZOLE (CA-B) - 0.10 PCF		
	MICRONIZED COPPER QUAT (MCQ) - 0.15 PCF		
FIRE RETARDANT TREATED LUMBER (FRT) (4)	FRX AND THERMEX-FR (TM)		
	DRICON (TM)		
	PYRO-GUARD (TM)		
EXTERIOR LUMBER IN CONTACT WITH GROUND OR FRESH WATER OR EXPOSED TO SALT WATER	ALKALINE COPPER QUAT (ACQ-C&D) (NO AMMONIA) - 0.10 PCF		
	COPPER AZOLE (CA-B) - 0.21 PCF		
	MICRONIZED COPPER QUAT (MCQ) - 0.34 PCF	STAINLESS STEEL TYPES 303,304,305 OR 316	
NOTES:			
1. SBL MAY BE USED ABOVE GROUND WHERE CONTINUOUSLY PROTECTED FROM EXPOSURE TO LIQUID WATER IN APPLICATIONS SUCH AS SILL PLATES OR OTHER ENCLOSED STRUCTURAL FRAMING AT RETENTIONS (BOLTS BASIS) OF 0.11 PCF OR 0.28 PCF WHERE FORMOSAN TERMITES ARE CONFIRMED.			
2. CORROSION PROTECTION OF FASTENERS SHALL MATCH CORROSION PROTECTION OF STEEL ACCESSORY BEING ATTACHED. DO NOT USE STAINLESS STEEL WITH HDG CORROSION PROTECTION.			
3. NOT TO BE USED IN AREAS OF FORMOSAN TERMITES.			
4. DESIGN VALUE FOR FASTENERS USED WITH FRT LUMBER SHALL BE MULTIPLIED BY A 0.90 ADJUSTMENT FACTOR.			
5. GENERAL CONTRACTOR SHALL PROVIDE LUMBER PRESERVATIVE, STEEL ACCESSORY AND FASTENER SUBMITTALS IN ACCORDANCE WITH THE SCHEDULE FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.			

BUILDING SHRINKAGE AND SETTLEMENT SCHEDULE				
FRAMED FLOOR	SECOND	THIRD	FOURTH	ROOF
TOTAL BUILDING MOVEMENT	3/8"	3/4"	1-1/4"	1-1/2"

NOTES:			
1. VALUES ARE BASED ON ACCEPTED ENGINEERING PRACTICES AND TOLERANCES FOR WOOD FRAMING CONSTRUCTION. WEATHER AND OTHER ENVIRONMENTAL CONDITIONS MAY AFFECT ACTUAL SHRINKAGE VALUES.			
2. VALUES CONSIDER SHRINKAGE OF WOOD FRAMING (STUDS/PLATES), TAKE UP OF FRAMING (CLOSING OF GAPS), AND CREEP (LONG TERM MOVEMENT UNDER SUSTAINED LOADING).			
3. PLUMBER TO PROVIDE (1) CODE APPROVED EXPANSION JOINT AT EACH FLOOR ON ALL VERTICAL PVC RISERS WITH A 1" CONNECTION PENETRATING A 2x STUD TO COMPENSATE FOR BUILDING MOVEMENT. INSTALL PER MANUFACTURER'S SPECIFICATIONS.			

JACK AND KING STUD SCHEDULE										
OPENING	ROOF BEARING ABOVE	ROOF AND 1 FLR BEARING ABOVE	ROOF AND 2 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE AT BUILDING-1					
EXTERIOR WALLS - TYPE E1										
0'-0" UP TO 6'-6"	1.81 S	1.81 S	1.81 S	1.81 S	1.81 S					
EXTERIOR WALLS - TYPE E2/E3										
0'-0" UP TO 6'-6"	1.81 S	1.81 S	1.81 S	1.82 S	1.82 S					
CORRIDOR WALLS - TYPE C1										
0'-0" UP TO 4'-0"	1.81 S	1.81 S	1.81 S	1.81 S	1.81 S					
4'-1" UP TO 6'-6"	1.81 S	1.81 S	1.82 S	1.82 S	1.82 S					
INTERIOR WALLS - TYPE I1										
0'-0" UP TO 3'-6"	--	1.81 S	1.81 S	1.81 S	2.81 S					
INTERIOR WALLS - TYPE I2										
0'-0" UP TO 3'-6"	--	1.81 S	1.81 S	1.81 S	1.81 S					
NOTES:										
1. TYPICAL UNLESS NOTED OTHERWISE ON PLANS										
2. J = JACK UNDER HEADER										
S = FULL HEIGHT STUD NAILED TO JACK ALONGSIDE OF JACK										
3. ALL JACKS AND STUDS TO BE 2x SPF #2 GRADE OR BETTER										
4. ALL JACKS AND STUDS TO BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.										
5. FOR FLUSH BEAMS WITH NO COLUMNS LABELED ON THE PLAN, USE THE TOTAL NUMBER OF JACKS STUDS SHOWN IN THE SCHEDULE ABOVE. EXCEPT LOCATE THEM ALL UNDER THE BEAM, BLOCKED AS REQUIRED										

BEARING WALL STUD SCHEDULE - SPF #1/#2											
LEVELS SUPPORTED	FLR TO FLR HEIGHT	EXTERIOR - F E1 (1)	E2	CORRIDOR - F C1 (1)	INTERIOR - P I1 (1)	I2	I3	U1 (1)	U2	U3	WET WALL
ROOF	-8'-1 1/8"	26/16	26/16	26/12	24/16	-	0	26/16	26/16	26/16	
ROOF + 1 FLR ABOVE	-9'-11 7/8"	26/16	26/16	26/12	24/120	26/12	26/12	26/16	26/16	26/12	
ROOF + 2 FLR ABOVE	-9'-11 7/8"	26/16	26/12	26/12	24/120	26/12	26/12	26/16	26/12	26/120	SEE NOTE 7
ROOF + 3 FLR ABOVE	-9'-11 7/8"	26/16	26/12	26/12	224/127	26/12	26/120	26/16	26/12	26/120	
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-0"	26/16	26/12	26/12	324/12	26/12	26/120	26/16	26/12	26/120	
LEGEND:											
24/16 = 2x4 AT 16" O.C.					224/127 = 2x4 AT 12" O.C., TRIPLE STUD UNDER TRUSS						
24/12 = 2x4 AT 12" O.C.					26/16 = 2x6 AT 12" O.C.						
24/120 = 2x4 AT 12" O.C., DOUBLE STUD UNDER TRUSS					26/16 = 2x6 AT 16" O.C.						
224/12 = 2x4 AT 12" O.C.					26/12 = 2x6 AT 12" O.C.						
26/120 = 2x6 AT 12" O.C.					26/120 = 2x6 AT 12" O.C., DOUBLE STUD UNDER TRUSS						
NOTES:											
1. TYPICAL UNLESS NOTED OTHERWISE ON PLANS.											
2. SCHEDULE IS BASED ON A NOMINAL 10'-8" FLOOR-TO-FLOOR HEIGHT, UNLESS NOTED OTHERWISE.											
3. AT PLATFORM FRAMED WALLS, ALL STUDS SHALL ALIGN WITHIN 2" OF TRUSSES ABOVE WHERE STUDS ARE SPACED AT 12" O.C. AT FULL STORY FRAMED WALLS, IF A DOUBLE EVERY OTHER STUD IS SPECIFIED, DOUBLE STUD SHALL OCCUR CLOSEST TO THE TRUSS.											
4. DOUBLE AND TRIPLE STUDS SHALL BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.											
5. NON-BEARING INTERIOR WALL STUDS MAY BE SPF-STUD GRADE 2x4 AT 24" O.C.											
6. INSTALL BLOCKING WITHIN THE MIDDLE THIRD OF THE STUD HEIGHT AT ALL BEARING WALL PRIOR TO WALL SUPPORTING AIR WEIGHT, COORDINATE LOCATION WITH DRYWALL INSTALLATION.											
7. STUDS TRING AT 2x6 WET WALLS TO BE SINGLE STUD TO MATCH ADJACENT 2x4 WALL STUD SPACING.											
8. TYPICAL FLOOR STUD HEIGHT IS EQUAL TO = ACTUAL FLOOR STUD HEIGHT - SHEATHING THICKNESS - # OF TOP AND BOTTOM PLATES - PLATE THICKNESS (MINUS FLOOR TRUSS DEPTH, IF EQUAL TO TRUSS FRAMED).											
9. TYPICAL TOP LEVEL STUD HEIGHT (SUPPORTING ROOF ONLY) IS EQUAL TO = TRUSS BEARING HEIGHT - # OF TOP PLATES x PLATE THICKNESS											
F. FULL STORY FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS											
P. PLATFORM FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS											

	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
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A																			
	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

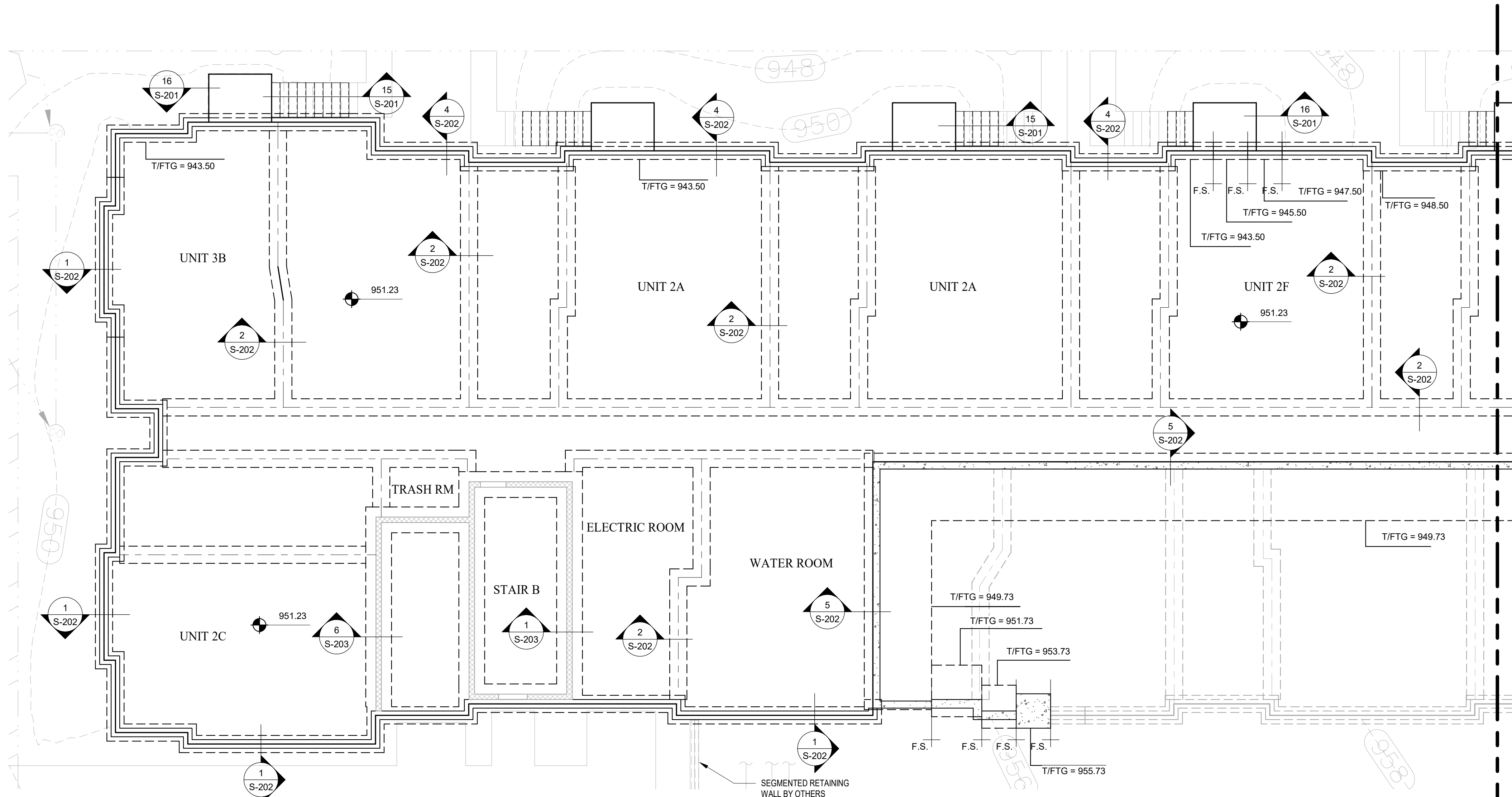
DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION									
GRADE 60 UNCOATED REINFORCEMENT, NORMAL-WEIGHT CONCRETE									
BAR SIZE	f'c = 3,000 psi		f'c = 4,000 psi		f'c = 5,000 psi		f'c = 6,000 psi		
	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	
#3	9	6	8	6	7	6	6	6	
#4	11	8	10	7	9	6	8	6	
#5	14	10	12	9	11	8	10	7	
#6	17	12	15	10	13	9	12	9	
#7	20	14	17	12	15	11	14	10	
#8	22	16	19	14	17	12	16	11	
#9	25	18	22	15	20	14	18	13	
#10	28	20	25	17	22	16	20	14	
#11	31	22	27	19	24	17	22	16	
NOTES:									
1. Ldh = DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (INCHES)									
2. Ldh = Lhb UNLESS CONDITIONS OF NOTE 3 ARE SATISFIED									
3. Ldh = 0.7 Lhb FOR #11 BARS AND SMALLER WHEN COVER (NORMAL TO PLANE OF HOOK) IS NOT LESS THAN 2-1/2" INCHES AND FOR 90° HOOKS COVER ON BAR EXTENSION BEYOND HOOK IS NOT LESS THAN 2 INCHES									
4. HOOKS ARE NOT CONSIDERED EFFECTIVE FOR DEVELOPING BARS IN COMPRESSION.									

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION									
GRADE 60 EPOXY COATED REINFORCEMENT, NORMAL-WEIGHT CONCRETE									
BAR SIZE	f'c = 3,000 psi		f'c = 4,000 psi		f'c = 5,000 psi		f'c = 6,000 psi		
	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	Lhb	0.7Lhb	
#3	10	7	9	6	8	6	7	6	
#4	14	10	12	8	11	8	10	7	
#5	17	12	15	10	13	9	12	9	
#6	20	14	18	12	16	11	14	10	
#7	24	17	20	14	18	13	17	12	
#8	27	19	23	16	21	15	19	14	
#9	30	21	26	18	23	17	21	15	
#10	34	24	29	21	26	19	24	17	
#11	38	26	33	23	29	21	27	19	
NOTES:									
1. Ldh = DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (INCHES)									
2. Ldh = Lhb UNLESS CONDITIONS OF NOTE 3 ARE SATISFIED									
3. Ldh = 0.7 Lhb FOR #11 BARS AND SMALLER WHEN COVER (NORMAL TO PLANE OF HOOK) IS NOT LESS THAN 2-1/2" INCHES AND FOR 90° HOOKS COVER ON BAR EXTENSION BEYOND HOOK IS NOT LESS THAN 2 INCHES									
4. HOOKS ARE NOT CONSIDERED EFFECTIVE FOR DEVELOPING BARS IN COMPRESSION.									

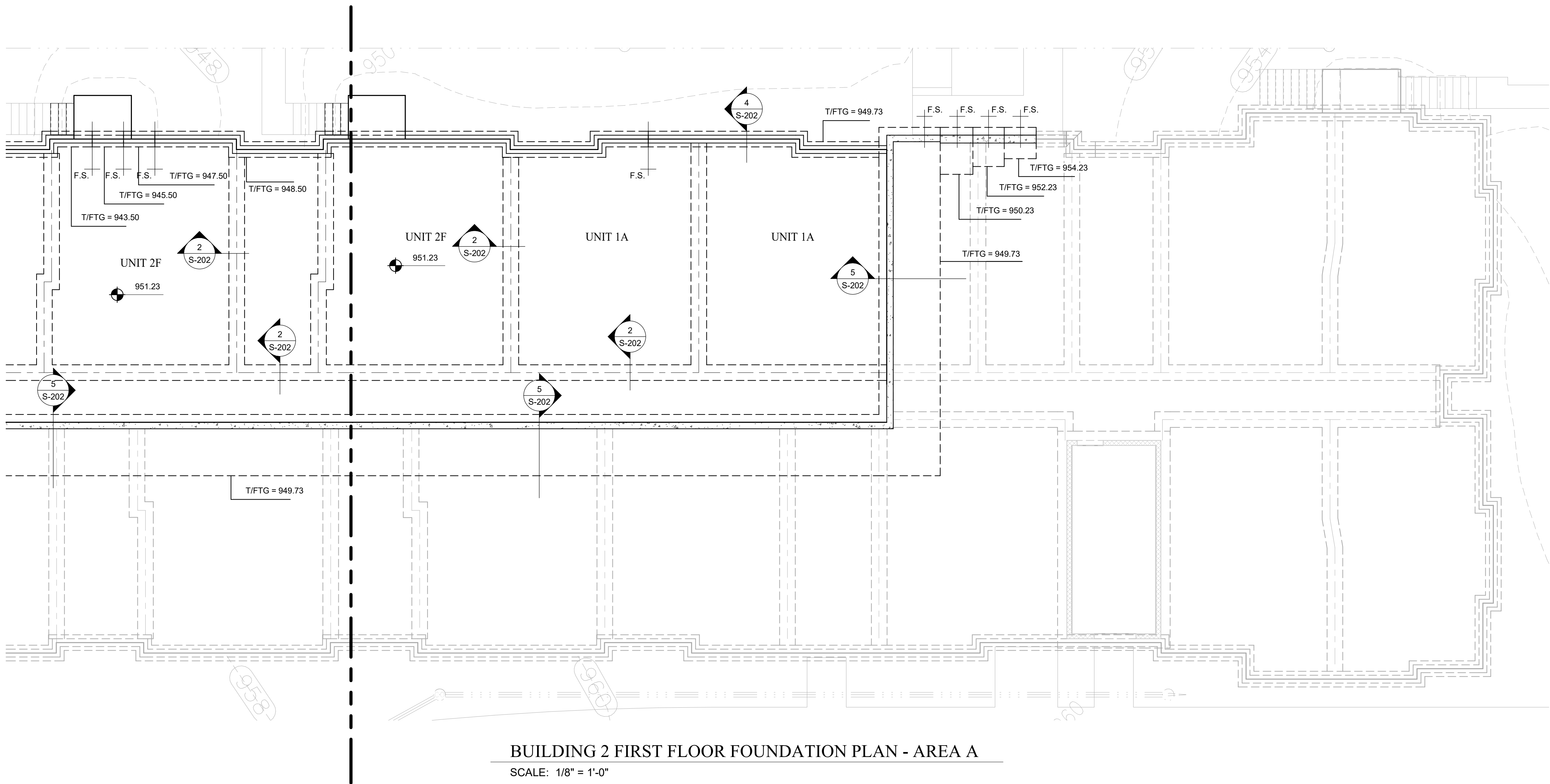
DEVELOPMENT LENGTHS IN COMPRESSION (IN INCHES)						
BAR SIZE	f'c = 3.0 ksi	f'c = 3.5 ksi	f'c = 4.0 ksi	f'c = 4.5 ksi	f'c = 5.0 ksi	f'c = 6.0 ksi
#4	9	8	8	8	8	8
#5	11	11	10	9	9	9
#6	14	13	12	12	12	12
#7	17	16	15	14	14	14
#8	20	18	17	16	16	16
#9	22	21	19	18	18	18
#10	25	23	22	21	21	21
#11	28	26	25	23	23	23
#14	31	29	27	26	26	26

TENSION DEVELOPMENT AND LAP SPICE LENGTHS FOR UNCOATED BARS																					
BAR SIZE	LAP CLASS	f'c = 3,000 psi				f'c = 4,000 psi				f'c = 4,500 psi				f'c = 5,000 psi				f'c = 6,000 psi			
		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
		CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2
#3	A	22	33	17	25	19	28	15	22	18	27	14	21	17	25	13	20	16	23	12	18
	B	28	42	22	33	25	37	19	28	23	35	18	27	22	33	17	25	20	30	16	23
#4	A	29	43	22	33	25	37	19	29	24	35	18	27	23	34	17	26	21	31	16	24
	B	38	56	29	43	33	49	25	37	31	46	24	35	29	44	23	34	27	40	21	31
#5	A	36	54	28	42	31	47	24	36	30	44	23	34	28	42	22	32	26	38	20	30
	B	47	70	36	54	41	61	31	47	38	57	30	44	36	54	28	42	33	50	26	38
#6	A	43	65	33	50	37	56	29	43	35	53	27	41	34	50	26	39	31	46	24	35
	B	56	84	43	65	49	73	37	56	46	69	35	53	44	65	34	50	40	59	31	46
#7	A	63	94	48	72	54	81	42	63	51	77	40	59	49	73	38	56	45	67	34	51
	B	81	122	63	94	71	106	54	81	67	100	51	77	63	95	49	73	58	86	45	67
#8	A	72	107	55	83	62	93	48	72	59	88	45	68	56	83	43	64	51	76	39	59
	B	93	139	72	107	81	121	62	93	76	114	59	88	72	108	56	83	66	99	51	76
#9	A	81	121	62	93	70	105	54	81	66	99	51	76	63	94	48	72	57	86	44	66
	B	105	157	81	121	91	136	70	105	86	128	66	99	81	122	63	94	74	111	57	86
#10	A	91	136	70	105	79	118	61	91	74	111	57	86	81	106	54	81	64	96	50	74
	B	118	177	91	136	102	153	79	118	96	144	74	111	92	137	71	106	84	125	64	96
#11	A	101	151	78	116	87	131	67	101	82	123	64	95	78	117	60	90	71	107	55	82
	B	131	196	101	151	114	170	87	131	107	160	82	123	102	152	78	117	93	139	71	107
NOTES:																					
1. TABULATED VALUES ARE BASED ON GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE.																					
2. TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPICE LENGTHS ARE BASED ON ACI318																					
3. CASES 1 AND 2, WHICH DEPEND ON THE TYPE OF STRUCTURAL ELEMENT, CONCRETE COVER, AND THE CENTER-TO-CENTER SPACING OF THE BARS, ARE DEFINED AS:																					
BEAMS OR COLUMNS		CASE 1		COVER AT LEAST 1db AND c < c. SPACING AT LEAST 2 db																	
		CASE 2		COVER LESS THAN 1db AND c < c. SPACING AT LEAST 2 db																	
ALL OTHERS		CASE 1		COVER AT LEAST 1db AND c < c. SPACING AT LEAST 3 db																	
		CASE 2		COVER LESS THAN 1db AND c < c. SPACING AT LEAST 3 db																	
4. LAP CLASS A VALUES ARE THE REQUIRED TENSION DEVELOPMENT LENGTHS. Ld: LAP SPICE LENGTHS ARE MULTIPLES OF TENSION DEVELOPMENT LENGTHS; CLASS A - 1.0Ld AND CLASS B - 1.3Ld																					
5. "TOP BARS" ARE DEFINED PER ACI HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPICE. "OTHER BARS" ARE ALL BARS FOR WHICH THIS DOES NOT APPLY.																					
6. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3																					
7. WHEN TENSION LAPPING SMALLER DIAMETER BAR WITH LARGER DIAMETER BAR, USE THE LAP LENGTH OF THE LARGER BARS.																					

TENSION DEVELOPMENT AND LAP SPICE LENGTHS FOR EPOXY COATED BARS																					
BAR SIZE	LAP CLASS	f'c = 3,000 psi				f'c = 4,000 psi				f'c = 4,500 psi				f'c = 5,000 psi				f'c = 6,000 psi			
		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
		CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2
#3	A	28	42	25	37	25	37	22	33	23	35	21	31	22	33	20	29	20	30	18	27
	B	37	55	33	49	32	48	28	42	30	45	27	40	29	43	25	38	26	39	23	34
#4	A	38	56	33	50	33	49	29	43	31	46	27	41	29	44	26	39	27	40	24	35
	B	49	73	43	65	42	63	37	56	40	60	35	53	38	57	34	50	35	52	31	46
#5	A	47	70	42	62	41	61	36	54	39	58	34	51	37	55	32	48	33	50	30	44
	B	61	91	54	81	53	79	47	70	50	75	44	66	47	71	42	63	43	65	38	57
#6	A	56	84	50	74	49	73	43	65	46	69	41	61	44	65	39	58	40	60	35	53
	B	73	109	65	97	63	95	56	84	60	89	53	79	57	85	50	75	52	78	46	68
#7	A	82	123	72	108	71	106	63	94	67	100	59	89	64	95	56	84	58	87	51	77
	B	106	159	94	141	92	138	81	122	87	130	77	115	83	124	73	109	75	113	67	100
#8	A	94	140	83	124	81	121	72	107	77	115	68	106	73	109	64	96	66	99	59	88
	B	122	182	107	161	105	158	93	139	99	149	88	131	94	141	83	125	86	129	76	114
#9	A	106	158	93	140	91	137	81	121	85	126	76	114	82	123	72	108	75	112	66	99
	B	137	205	121	181	119	178	105	161	112	162	99	148	106	159	94	140	97	145	86	128
#10	A	119	178	105	157	103	154	91	136	97	145	86	128	92	138	81	122	84	126	74	111
	B	154	231	136	204	134	200	118	177	126	189	111	167	120	179	106	158	109	164	96	144
#11	A	132	197	116	174	114	171	101	151	108	161	95	142	102	153	90	135	93	140	82	123
	B	171	257	151	226	148	222	131	196	140	210	123	185	139	199	117	175	121	182	107	160
NOTES:																					
1. TABULATED VALUES ARE BASED ON GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE.																					
2. TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPICE LENGTHS ARE BASED ON AC308.19.																					
3. CASES 1 AND 2, WHICH DEPEND ON THE TYPE OF STRUCTURAL ELEMENT, CONCRETE COVER, AND THE CENTER-TO-CENTER SPACING OF THE BARS, ARE DEFINED AS:																					
BEAMS OR COLUMNS		CASE 1	COVER AT LEAST 1db AND c < c _s . SPACING AT LEAST 2 db																		
		CASE 2	COVER LESS THAN 1db AND c < c _s . SPACING AT LEAST 2 db																		
ALL OTHERS		CASE 1	COVER AT LEAST 1db AND c < c _s . SPACING AT LEAST 3 db																		
		CASE 2	COVER LESS THAN 1db AND c < c _s . SPACING AT LEAST 3 db																		
4. LAP CLASS A VALUES ARE THE REQUIRED TENSION DEVELOPMENT LENGTHS. LAP CLASS B VALUES ARE THE REQUIRED TENSION DEVELOPMENT LENGTHS. LAP CLASS A < 10d AND CLASS B < 1.3d.																					
5. TOP BARS ARE DEFINED PER EACH HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPICE. "OTHER BARS" ARE ALL BARS FOR WHICH THIS DOES NOT APPLY.																					
6. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.																					
7. WHEN TENSION LAPPING SMALLER DIAMETER BAR WITH LARGER DIAMETER BAR, USE THE LAP LENGTH OF THE LARGER BARS.																					



BUILDING 2 FIRST FLOOR FOUNDATION PLAN - AREA B
SCALE: 1/8" = 1'-0"



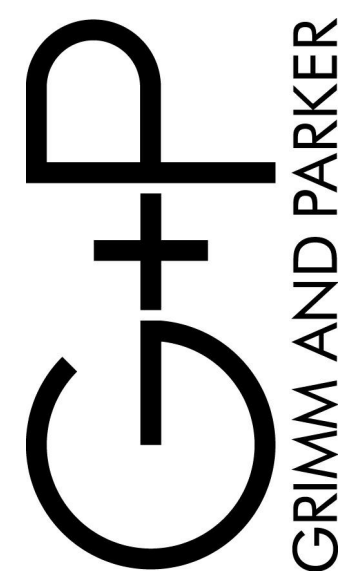
BUILDING 2 FIRST FLOOR FOUNDATION PLAN - AREA A
SCALE: 1/8" = 1'-0"



- FOUNDATION PLAN NOTES (S.O.G.):
- SEE PLAN FOR TOP OF SLAB ELEVATION, VERIFY WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS.
 - G.C. TO VERIFY ALL DIMENSIONS SHOWN WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
 - SLAB ON GRADE SHALL BE 3500 psi NORMAL WEIGHT CONCRETE, 4" THICK REINFORCED WITH #3 AT 18" O.C. W. PLACED AT MID-DEPTH ON POLYETHYLENE VAPOR BARRIER OVER WASHED CRUSHED STONE PER THE GEOTECHNICAL REPORT. SEE DETAIL 14 / S-201.
 - TOP OF FOOTING ELEVATIONS ARE AS NOTED ON THE PLANS. U.N.O. FOOTINGS SHALL BE CENTERED UNDER COLUMNS. U.N.O.
 - COORDINATE ALL UNDERGROUND UTILITIES POINT OF ENTRY INTO BUILDING WITH LATEST ARCHITECTURAL/MEP/CIVIL DRAWINGS PRIOR TO POURING FOOTINGS TO AVOID UNDERMINING FOOTINGS AFTER THEY ARE POURED. UTILITY INVERTS SHALL BE ABOVE TOP OF FOOTING ELEVATIONS. TYPICAL COORDINATE DRAINS, DEPRESSIONS, AND SLAB FOLDS WITH LATEST ARCHITECTURAL DRAWINGS.
 - SEE TYPICAL DETAILS ON S-201 FOR ADDITIONAL INFORMATION.
 - SHOWERS - HATCHED REGION SHOWN ON PLAN, PROVIDE 1 1/2" RECESS IN SLAB FOR ROLL-IN SHOWERS



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BUILDING 2 FIRST FLOOR FOUNDATION PLAN
ROANOKE GATEWAY
ROANOKE, VA 24002

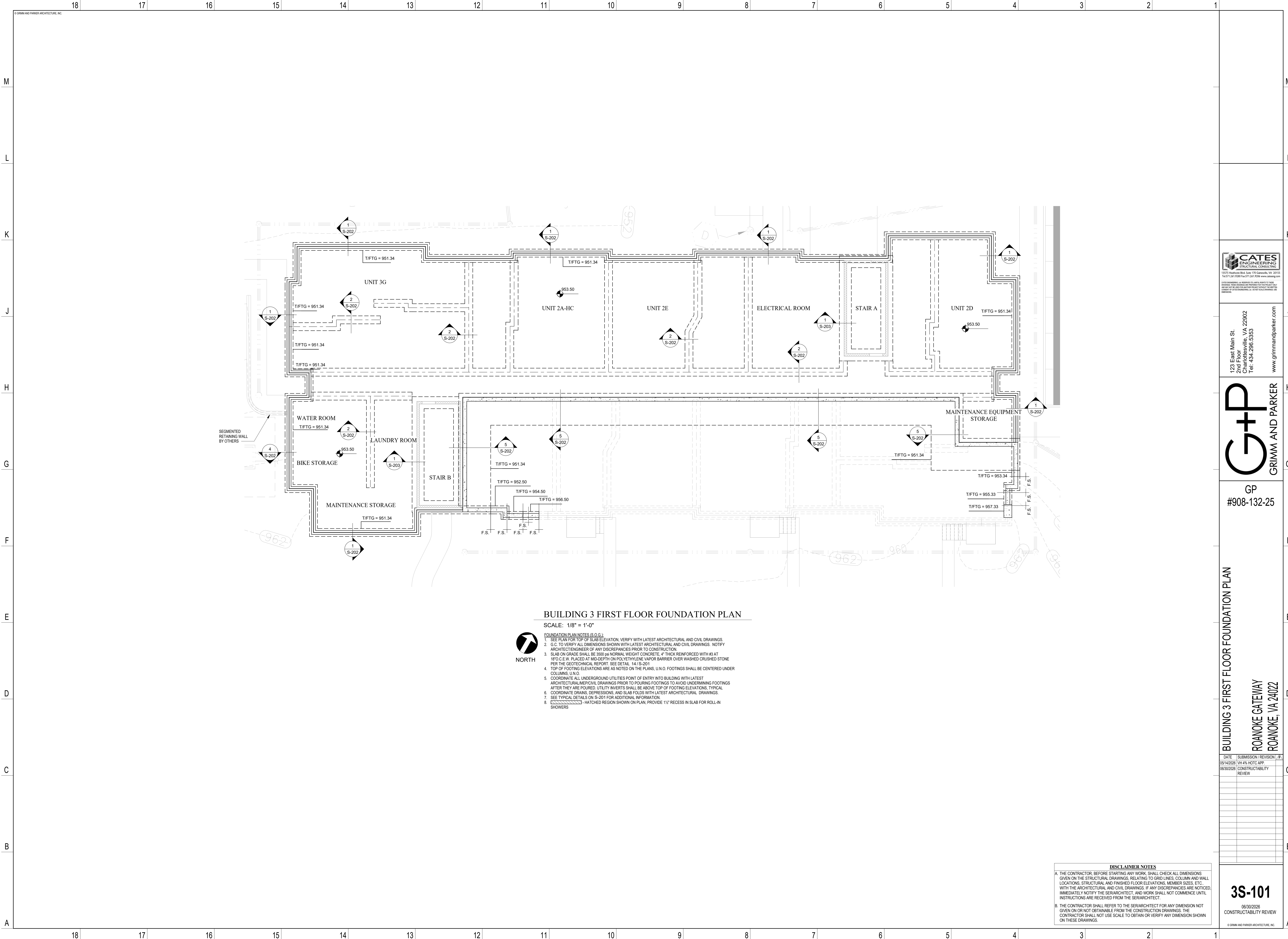
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05/14/2026	1st 4% HOTC APP
06/30/2026	CONSTRUCTABILITY REVIEW

DISCLAIMER NOTES

A. THE CONTRACTOR, BEFORE STARTING ANY WORK, SHALL CHECK ALL DIMENSIONS GIVEN ON THE STRUCTURAL DRAWINGS, RELATING TO GRID LINES, COLUMN AND WALL LOCATIONS, STRUCTURAL AND FINISHED FLOOR ELEVATIONS, MEMBER SIZES, ETC., WITH THE ARCHITECTURAL AND CIVIL DRAWINGS. IF ANY DISCREPANCIES ARE NOTICED, IMMEDIATELY NOTIFY THE SER/ARCHITECT, AND WORK SHALL NOT COMMENCE UNTIL INSTRUCTIONS ARE RECEIVED FROM THE SER/ARCHITECT.

B. THE CONTRACTOR SHALL REFER TO THE SER/ARCHITECT FOR ANY DIMENSION NOT GIVEN ON OR NOT OBTAINABLE FROM THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THESE DRAWINGS.

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BUILDING 3 FIRST FLOOR FOUNDATION PLAN

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



- FOUNDATION PLAN NOTES (S.O.G.):
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 - G.C. TO VERIFY ALL DIMENSIONS SHOWN WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
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 - SEE TYPICAL DETAILS ON S-201 FOR ADDITIONAL INFORMATION.
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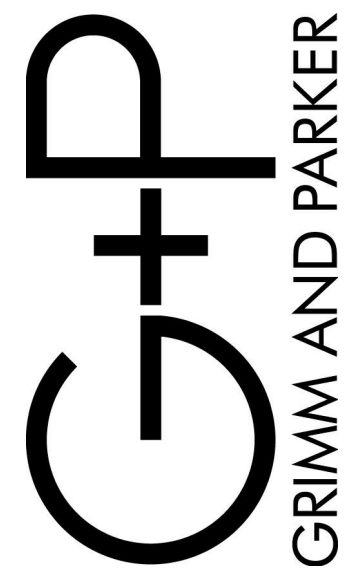
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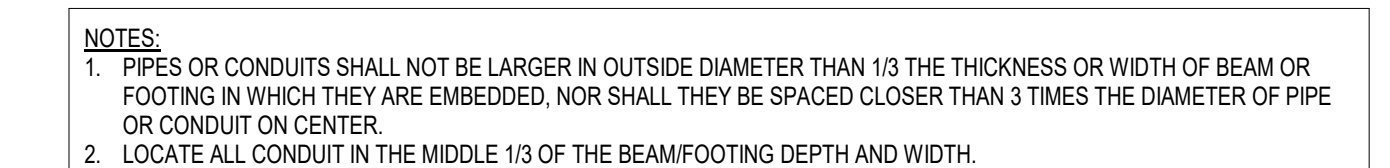


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BUILDING 3 FIRST FLOOR FOUNDATION PLAN
ROANOKE GATEWAY
ROANOKE, VA 24002

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06/30/2026
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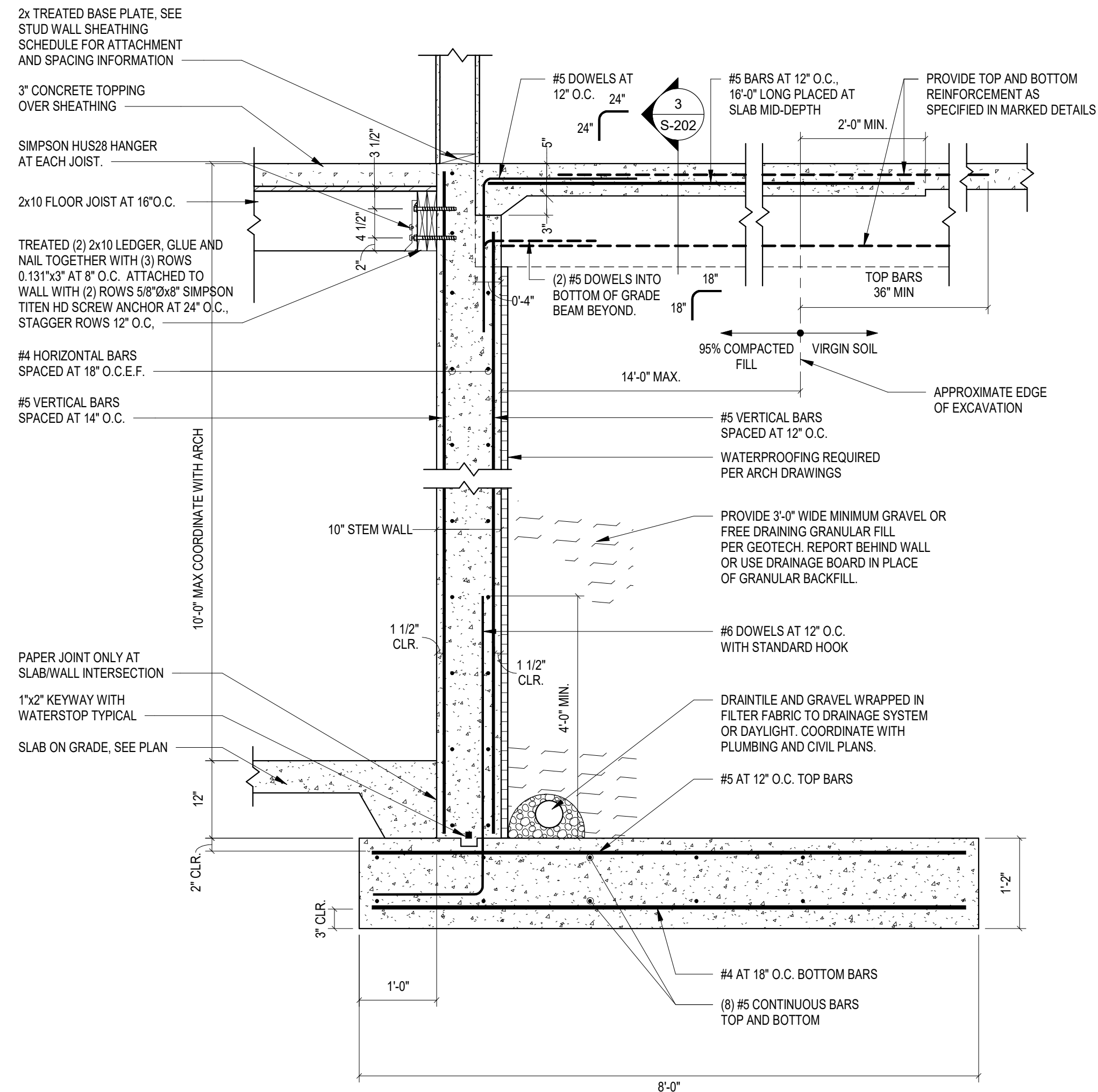
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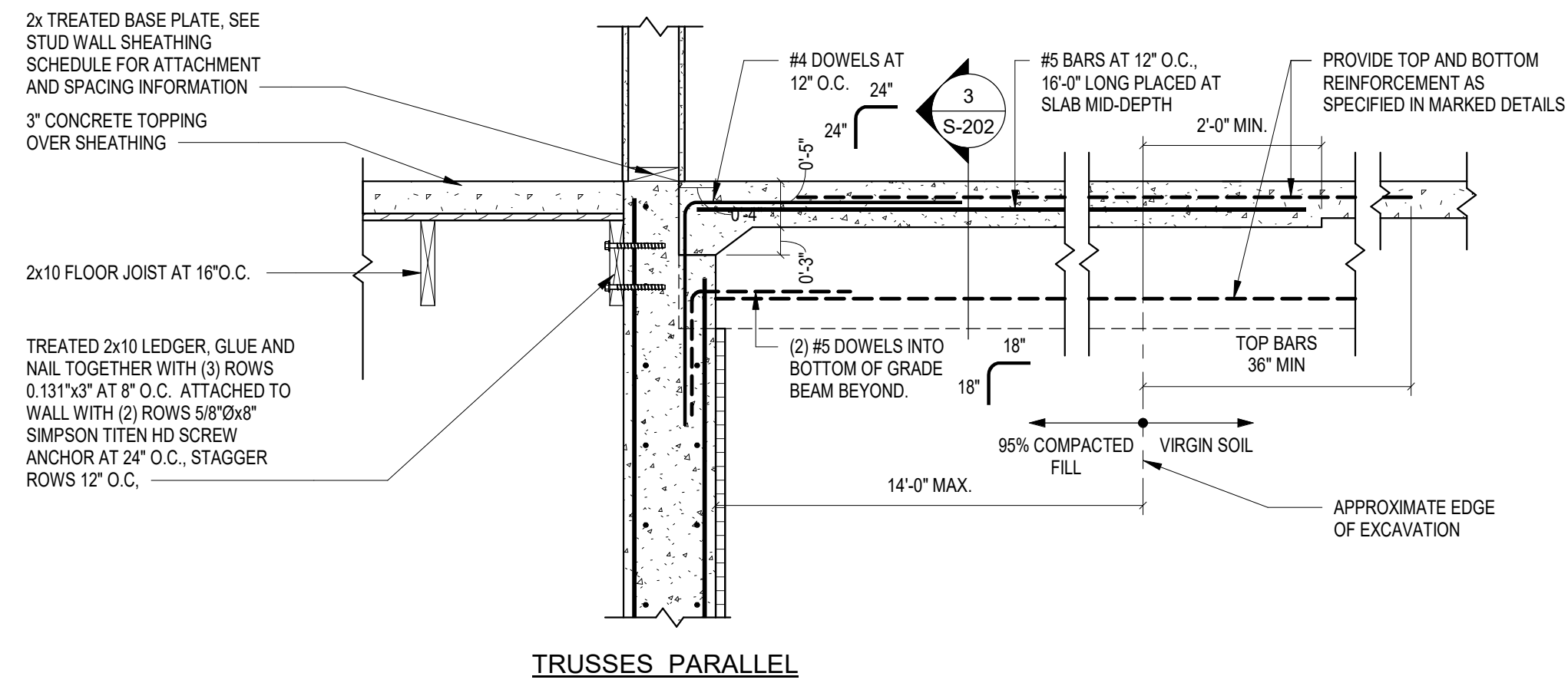
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TRUSSES PERPENDICULAR

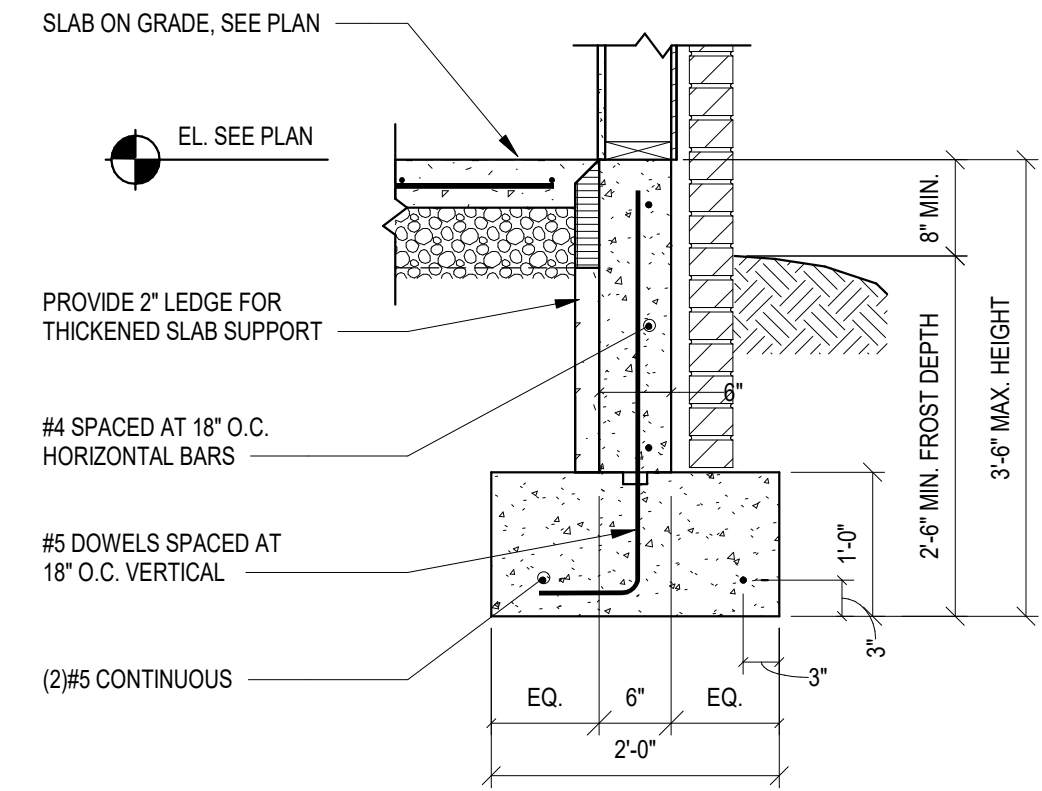


TRUSSES PARALLEL

- NOTES:
1. ASSUMED $f'_c = 3000$ PSI CONCRETE DESIGN STRENGTH
 2. COORDINATE PLUMBING PENETRATIONS WITH MEP DRAWINGS
 3. UNLESS WALL IS PROPERLY BRACED, 5'-6" MAXIMUM OF BACKFILL MAY BE PLACED AGAINST WALL BEFORE BOTTOM SLAB IS POURED.
 4. ASSUMED MAXIMUM ACTIVE SOIL PRESSURE = 45 PCF. ASSUMED MAXIMUM AT REST SOIL PRESSURE = 60 PCF
 5. NO HEAVY EQUIPMENT WITHIN 10'-0" BEHIND WALL. COMPACT THIS AREA BY HAND.
 6. ALL SOIL TO BE COMPACTED TO 95% MAXIMUM DENSITY AS VERIFIED BY THE GEOTECHNICAL ENGINEER. COMPACTION REPORTS SHALL BE PROVIDED TO S.E.R. FOR REVIEW.

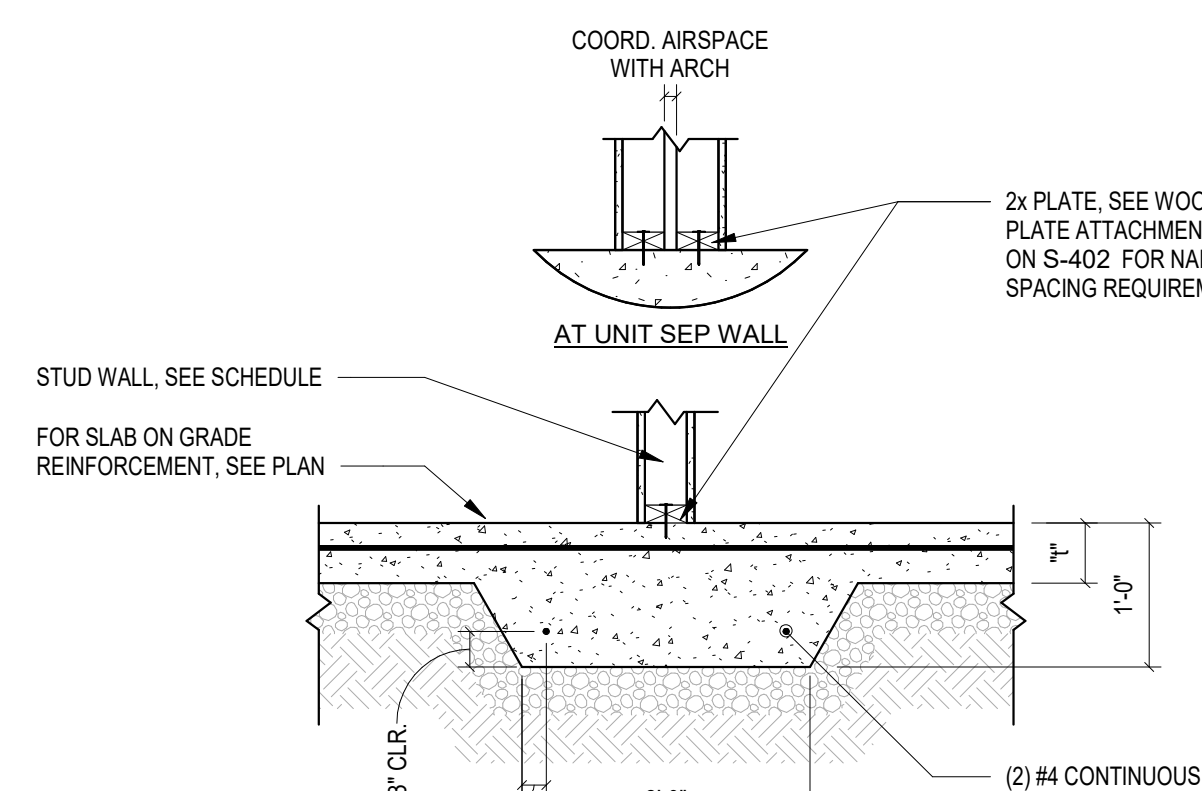
5 INTERIOR RETAINING WALL

S-202 SCALE: N.T.S.



1 EXTERIOR STEM WALL WITH BRICK LEDGE

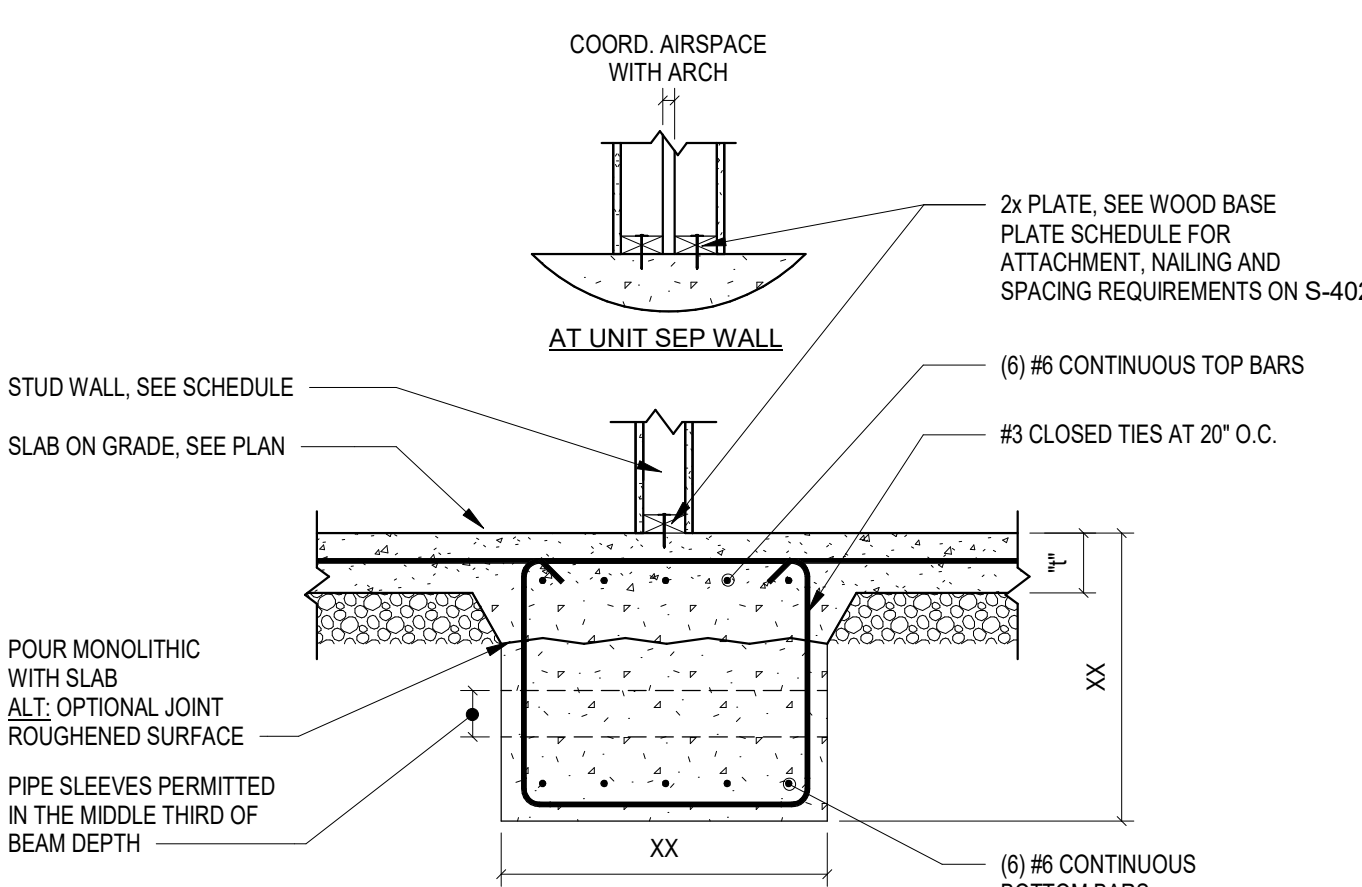
S-202 SCALE: N.T.S.



- NOTES:
1. "T" = SLAB THICKNESS, SEE PLAN
 2. THICKENED SLAB SUBGRADE SHALL BE VERIFIED BY GEOTECHNICAL ENGINEER FOR ALLOWABLE BEARING CAPACITY AND SUBGRADE MODULUS JUST PRIOR TO PLACING CONCRETE. PROVIDE REPORT TO S.E.R. FOR REVIEW AND APPROVAL.
 3. SLAB THICKNESS IS BASED ON THE SOIL MODULUS AND THE DESIGN METHODS PROPOSED BY THE U.S.ARM.Y. DOCUMENT TM-5-809-12.

2 THICKENED SLAB AT INT. BEARING WALL

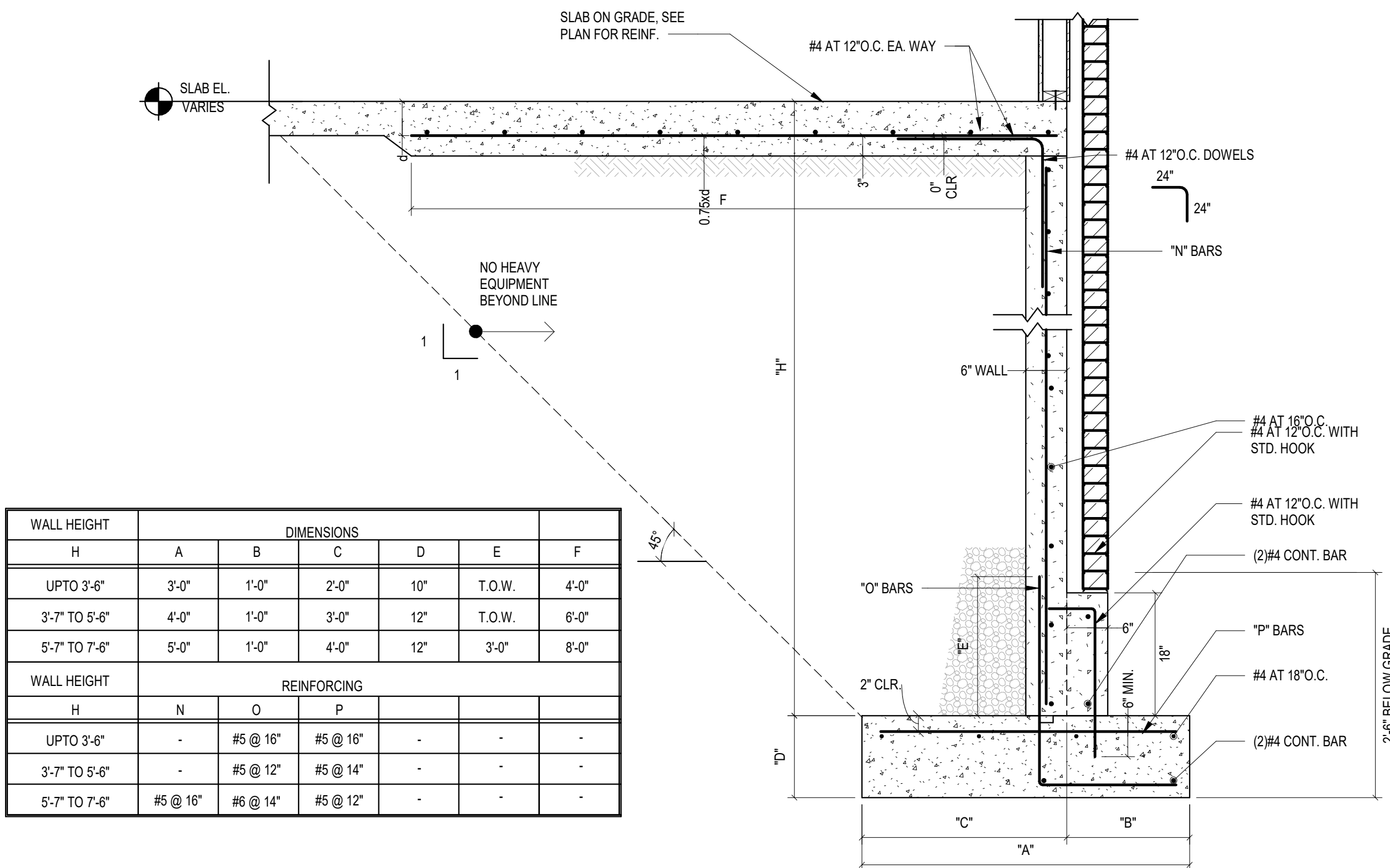
S-202 SCALE: N.T.S.



- NOTES:
1. "T" = SLAB THICKNESS, SEE PLAN
 2. PLUMBING SLEEVES THROUGH BEAM ARE PERMITTED UP TO 4"Ø. FOR LARGER SIZES, NOTIFY S.E.R. FOR REVIEW AND APPROVAL. ARRANGE REINFORCEMENT AROUND SLEEVES.

3 BEARING WALL GRADE BEAM

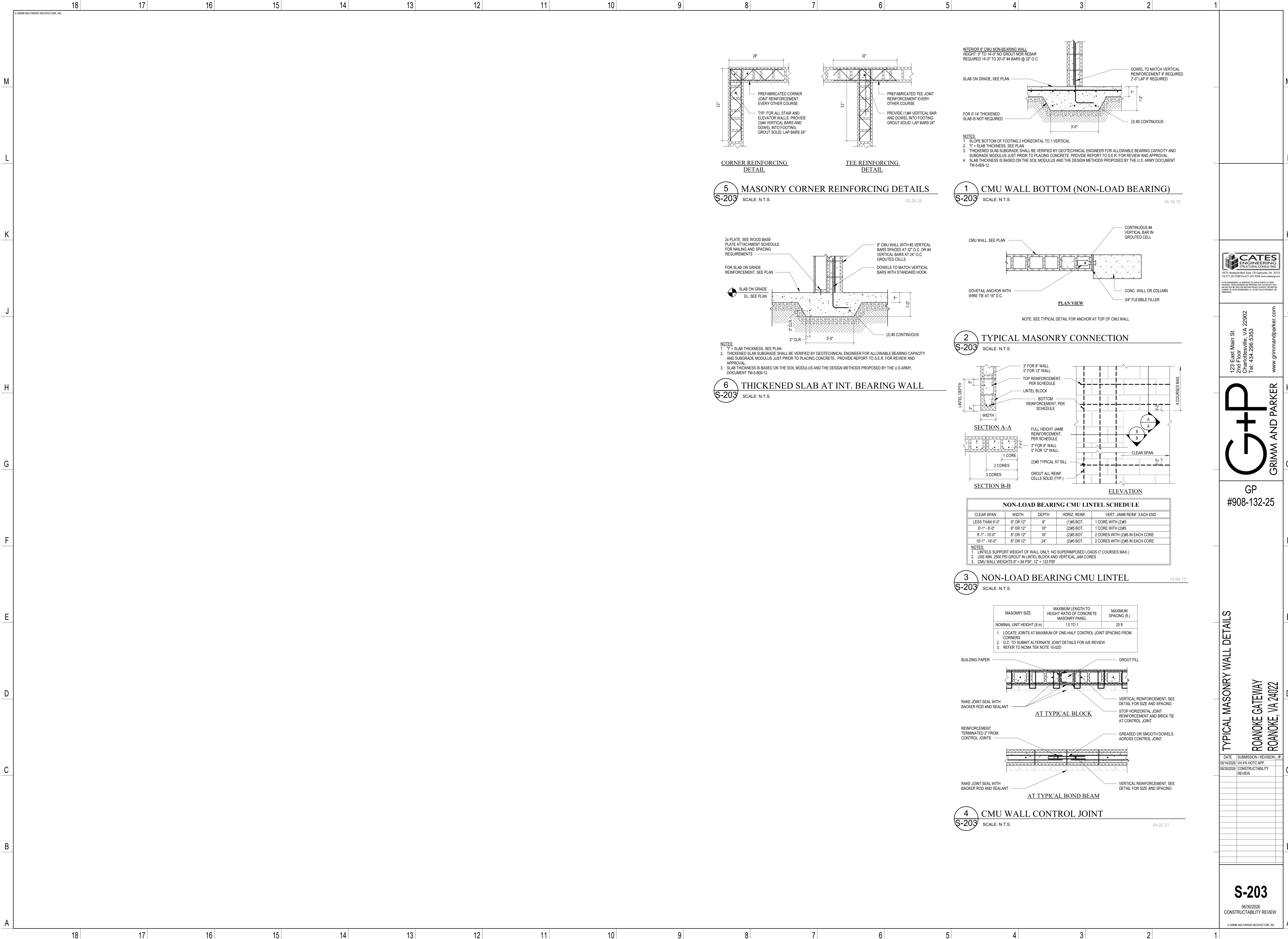
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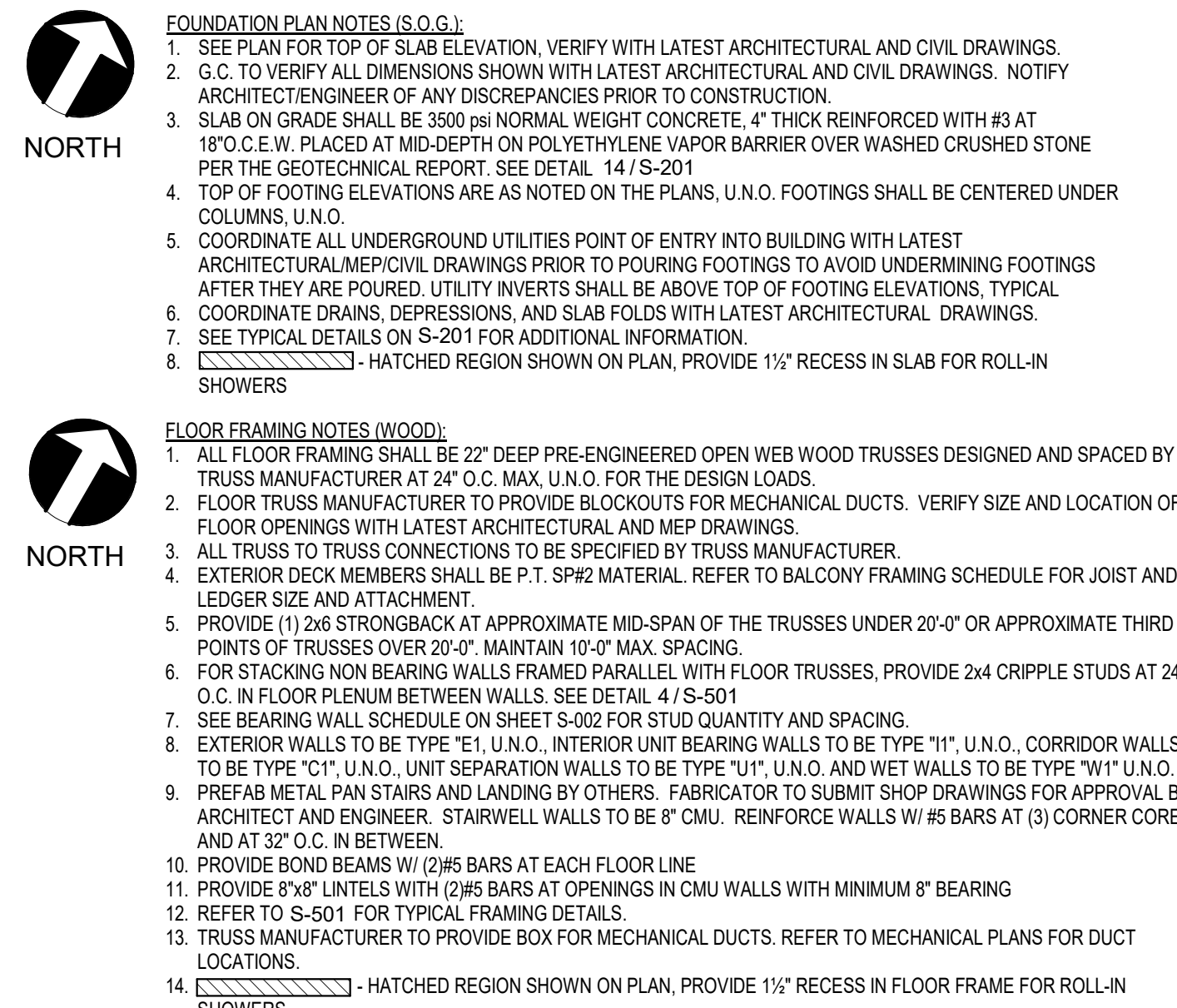


WALL HEIGHT	DIMENSIONS					
	A	B	C	D	E	F
UPTO 3'-6"	3'-0"	1'-0"	2'-0"	10"	T.O.W.	4'-0"
3'-7" TO 5'-6"	4'-0"	1'-0"	3'-0"	12"	T.O.W.	6'-0"
5'-7" TO 7'-6"	5'-0"	1'-0"	4'-0"	12"	3'-0"	8'-0"
WALL HEIGHT	REINFORCING					
	H	N	O	P		
UPTO 3'-6"	-	#5 @ 16"	#5 @ 16"	-	-	-
3'-7" TO 5'-6"	-	#5 @ 12"	#5 @ 14"	-	-	-
5'-7" TO 7'-6"	#5 @ 16"	#6 @ 14"	#5 @ 12"	-	-	-

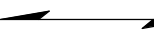
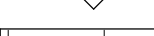
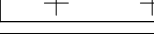
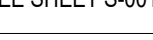
4 SECTION AT LOW GRADE WALL

S-202 SCALE: N.T.S.





FLOOR FRAMING LEGEND

		
DROPPED 2x HEADER	G.T.	GRIDER TRUSS
		
FLUSH 2x HEADER	TRUSS SPAN DIRECTION	WALL TYPE
		
INTERIOR UNIT BEARING WALL	ADDITIONAL LOADING SEE SHEET S-001	

WOOD TRUSS LEGEND (U.O.)

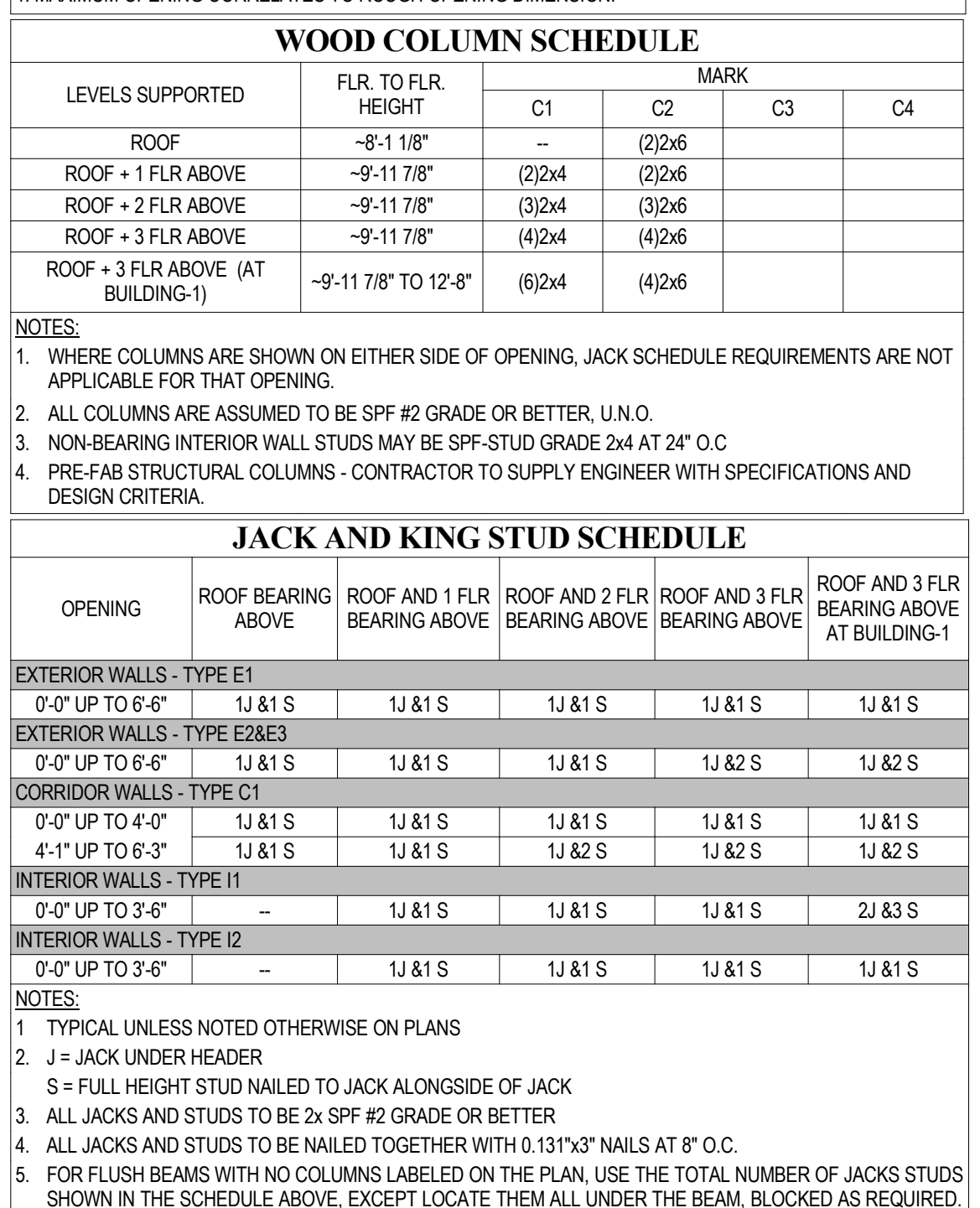
	TYPE	LOADING	HATCH
 TRUSS DEPTH(n) LIVE LOAD (PSF) B/C DEAD LOAD (PSF) T/C DEAD LOAD (PSF)	RESIDENTIAL	22T-4920/S	NONE
	PUBLIC AREA	22T-10020/S	[Pattern]
	LIGHT STORAGE/ MECH	22T-12520/S	[Pattern]

NOTES

1. AREAS ON PLAN INDICATE DIFFERENCES IN TRUSS DEPTH OR LOADING. SEE PLAN FOR TRUSS DESIGN CRITERIA.

TYPICAL FLOOR HEADERS (U.O.)

	LOCATION	MARK	MAXIMUM OPENING
1	EXTERIOR	3-28	UP TO 5'-0"
		3-210	5'-1" UP TO 6'-6"
2	INTERIOR	2-28	UP TO 3'-6"
		3-28	UP TO 4'-0"
3	CORRIDOR	3-210	4'-1" UP TO 6'-3"

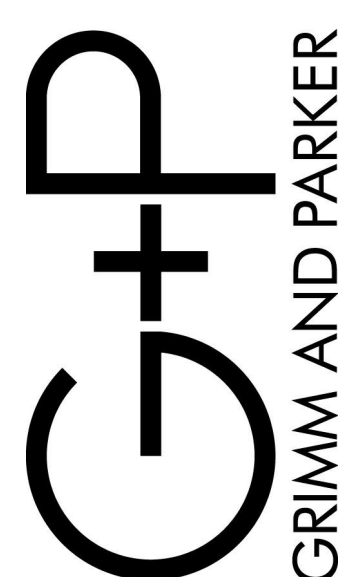
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BUILDING 2 SECOND FLOOR FOUNDATION / FRAMING

BUILDING 2 SECOND
PLAN
ROANOKE GATEWAY
ROANOKE, VA 24022

DATE	SUBMISSION/REVISION	#
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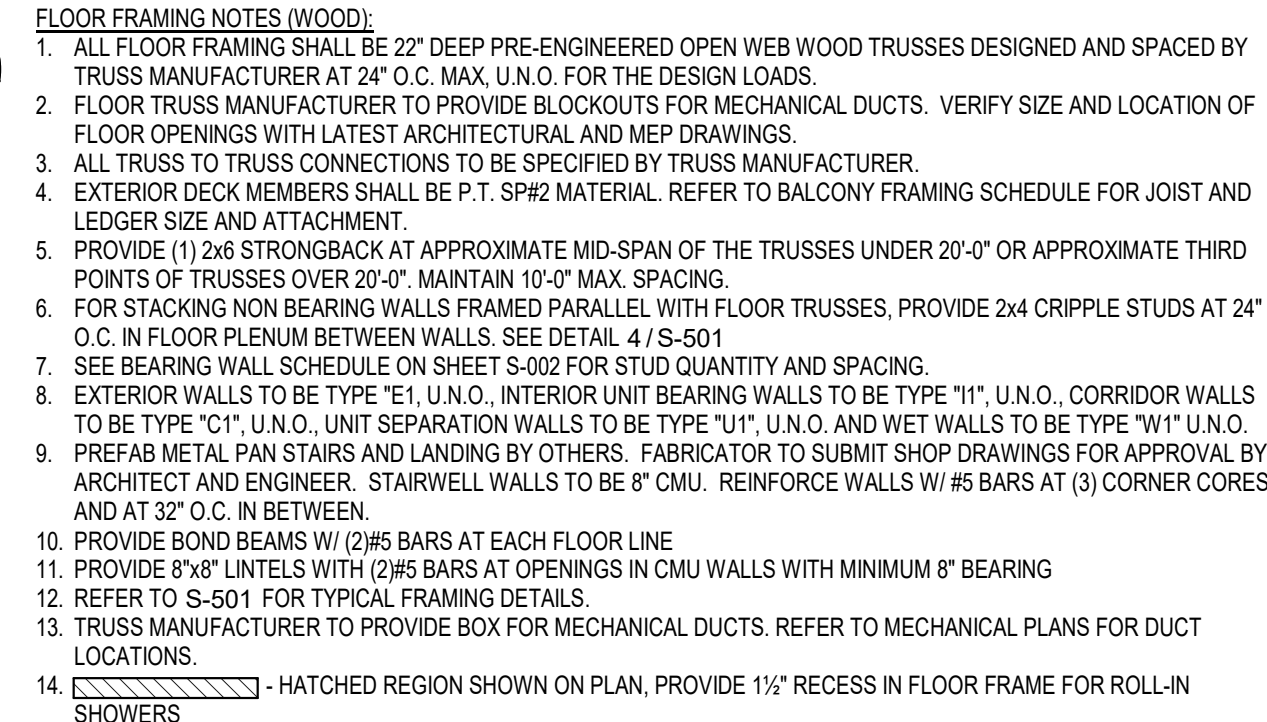
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2S-301

2001

06/30/2026
CONSTRUCTABILITY REVIEW

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



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

NOTES

1. TYPICAL UNLESS NOTED OTHERWISE ON PLANS
2. J = JACK UNDER HEADER
3. S = FULL HEIGHT STUD NAILED TO JACK ALONGSIDE OF JACK
4. ALL JACKS AND STUDS TO BE 2x SPF #2 GRADE OR BETTER
5. ALL JACKS AND STUDS TO BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.
6. FOR FLUSH BEAMS WITH NO COLUMNS LABELED ON THE PLAN, USE THE TOTAL NUMBER OF JACKS STUDS SHOWN IN THE SCHEDULE ABOVE, EXCEPT LOCATE THEM ALL UNDER THE BEAM, BLOCKED AS REQUIRED.

BEARING WALL STUD SCHEDULE - SPF #1/2											
LEVELS SUPPORTED	F.L.R TO HEIGHT	EXTERIOR - F EI (1)	EXTERIOR - E E2	CORRISOR - C C(1)	INTERIOR - I I(1)	D D3	UNIT SEPARATION - U U(1)	UNIT SEPARATION - U U2	UNIT SEPARATION - U U3	WET WALL	
ROOF	-8'-1 1/8"	26/16	26/16	26/12	24/12	--	0	26/16	26/16	26/16	
ROOF + 1 FLR ABOVE	-9'-11 7/8"	26/16	26/16	26/12	24/12	26/12	26/12	26/16	26/16	26/12	
ROOF + 2 FLR ABOVE	-9'-11 7/8"	26/16	26/16	26/12	24/12	26/12	26/12	26/16	26/16	26/12	
ROOF + 3 FLR ABOVE	-9'-11 7/8"	26/16	26/16	26/12	224/12	26/12	26/12	26/16	26/16	26/12	
ROOF + 3 FLR ABOVE (AT BUILDING-1) TO 12"-8"	-9'-11 7/8"	26/16	26/16	26/12	26/12	324/12	26/12	26/12	26/16	26/12	
LEGEND:											
24/16 = 2x4 AT 16" O.C.					224/12 = 2x4 AT 12" O.C., TRIPLE STUD UNDER TRUSS						
26/12 = 2x4 AT 12" O.C.					324/12 = (3) 2x4 AT 12" O.C.						
					26/16 = 2x6 AT 16" O.C.						
					24/12 = 2x4 AT 12" O.C.						
					26/12 = 2x6 AT 12" O.C., DOUBLE STUD UNDER TRUSS						
					224/12 = (2) 2x4 AT 12" O.C.						
					26/12 = 2x6 AT 12" O.C., DOUBLE STUD UNDER TRUSS						

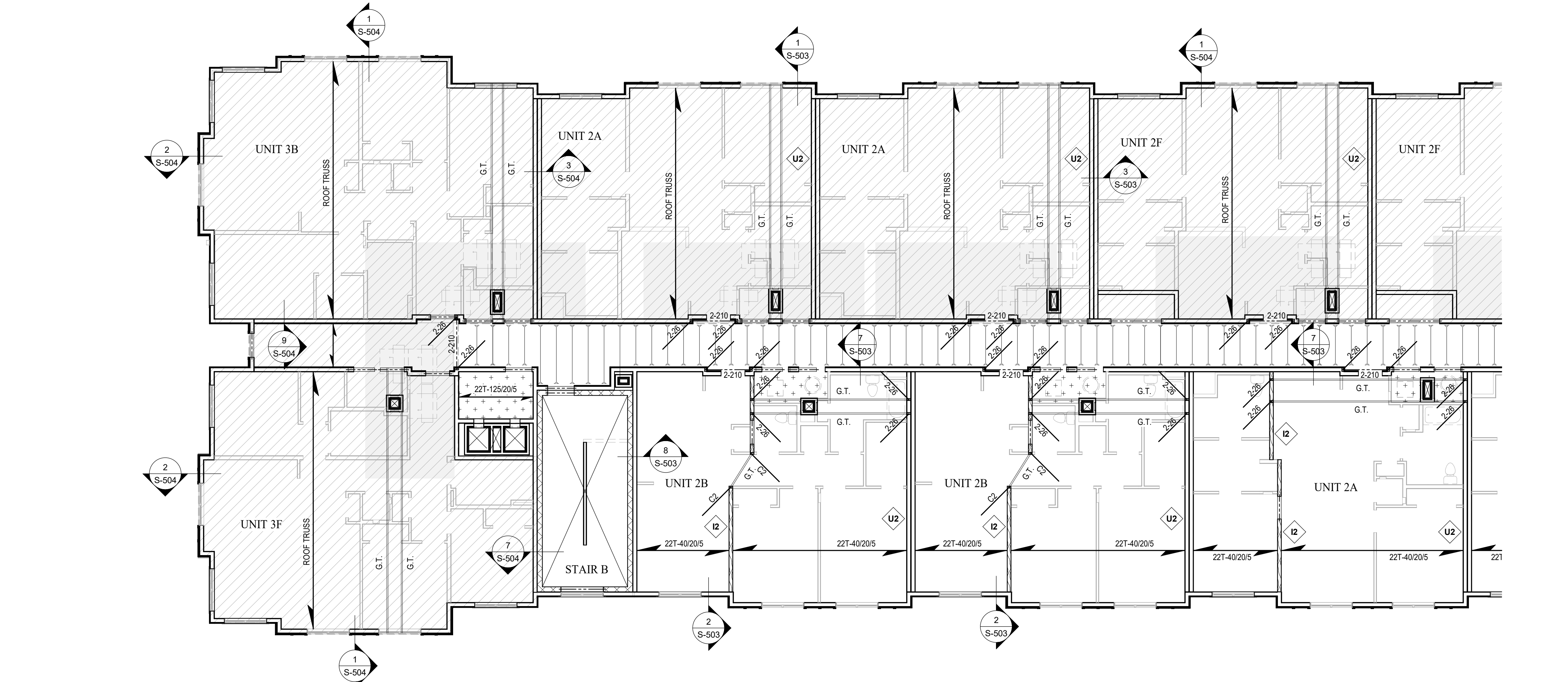
NOTES:

- T. TYPICAL UNLESS NOTED OTHERWISE ON PLANS.
- S. SCHEDULE IS BASED ON A NOMINAL 10" 48" FLOOR-TO-FLOOR HEIGHT, UNLESS NOTED OTHERWISE.
- AT PLATFORM FRAMED WALLS: ALL STUDS SHALL ALIGN WITH 2" OF TRUSSES ABOVE WHERE STUDS ARE SPACED AT 12" O.C. AT FULL STORY FRAMED WALLS: IF A DOUBLE EYEBROW STUD IS SPECIFIED, DOUBLE STUD SHALL OCCUR AT 12" O.C.
- DOUBLE AND TRIPLE STUDS SHALL BE NAILED TOGETHER WITH 131X17 NAILS AT 8" O.C.
- NON-BEARING INTERIOR WALL STUDS MAY BE SPF-S20 GRADE 24 AT 24" O.C.
- INSTALL BLOCKING WITHIN THE MIDDLE THIRD OF THE STUD HEIGHT AT ALL BEARING WALL PRIOR TO WALL SUPPORTING ANY FLOORING. COORDINATE LOCATION WITH THE INSTALLATION OF THE TRUSSES.
- STUD SPACING AT 246 WET WALLS TO BE SINGLE STUD TO MATCH ADJACENT 24" WALL STUD SPACING.
- TYPICAL FLOOR STUD HEIGHT (EQUAL TO = ACTUAL FLOOR-TO-FLOOR HEIGHT - SHEATHING THICKNESS - # OF TOP AND BOTTOM PLATE THICKNESS) MUST BE MAINTAINED IF PLATFORM FRAMED WALLS ARE USED.
- STUD TOP LEVEL STUD HEIGHT (SUPPORTING ROOF ONLY IS) EQUAL TO = TRUSS BEARING HEIGHT - # OF TOP PLATES x PLATE THICKNESS
- FULL STORY FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS
- PLATFORM FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS

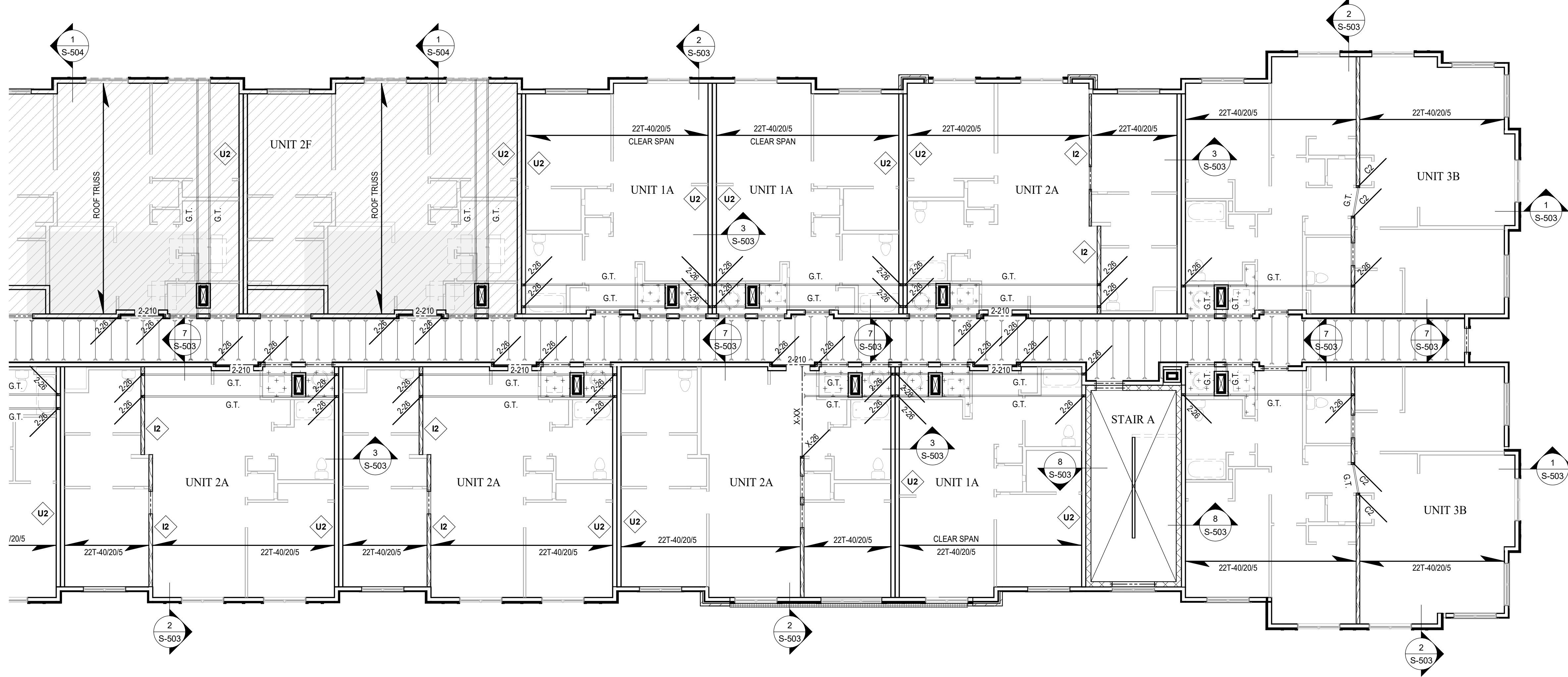
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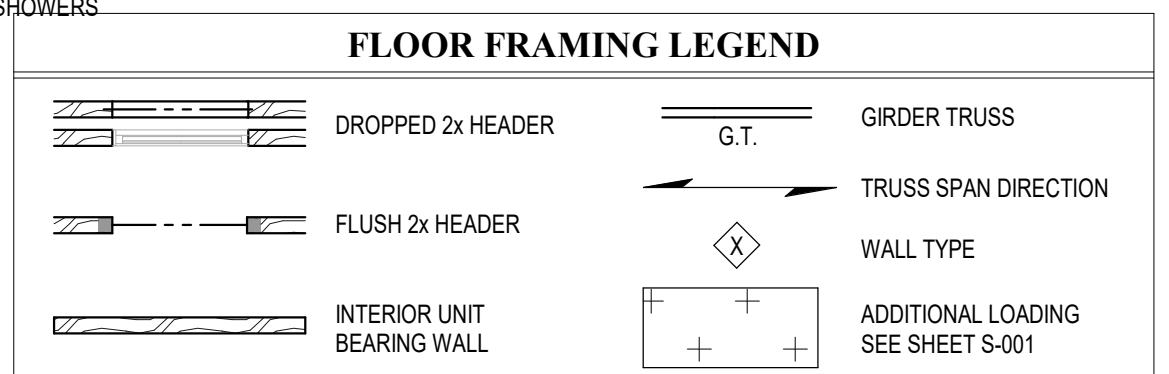
BUILDING 2 FOURTH FLOOR / LOW ROOF FRAMING PLAN - AREA B
SCALE: 1/8" = 1'-0"



BUILDING 2 FOURTH FLOOR / LOW ROOF FRAMING PLAN - AREA A
SCALE: 1/8" = 1'-0"



- FLOOR FRAMING NOTES (WOOD):**
- ALL FLOOR FRAMING SHALL BE 2" DEEP PRE-ENGINEERED OPEN WEB WOOD TRUSSES DESIGNED AND SPACED BY TRUSS MANUFACTURER AT 24" O.C. MAX. U.N.O. FOR THE DESIGN LOADS.
 - FLOOR TRUSS MANUFACTURER TO PROVIDE BLOCKOUTS FOR MECHANICAL DUCTS. VERIFY SIZE AND LOCATION OF FLOOR OPENINGS WITH LATEST ARCHITECTURAL AND MEP DRAWINGS.
 - ALL TRUSS TO TRUSS CONNECTIONS TO BE SPECIFIED BY TRUSS MANUFACTURER.
 - EXTERIOR DECK MEMBERS SHALL BE P.T. SP#2 MATERIAL. REFER TO BALCONY FRAMING SCHEDULE FOR JOIST AND LEDGER SIZE AND ATTACHMENT.
 - PROVIDE (1) 2x6 STRONGBACK AT APPROXIMATE MID-SPAN OF THE TRUSSES UNDER 20'-0" OR APPROXIMATE THIRD POINTS OF TRUSSES OVER 20'-0". MAINTAIN 10'-0" MAX. SPACING.
 - FOR STACKING NON BEARING WALLS FRAMED PARALLEL WITH FLOOR TRUSSES, PROVIDE 2x4 CRIPPLE STUDS AT 24" O.C. IN FLOOR PLENUM BETWEEN WALLS. SEE DETAIL 4/S-501
 - SEE BEARING WALL SCHEDULE ON SHEET S-502 FOR STUD QUANTITY AND SPACING.
 - EXTERIOR WALLS TO BE TYPE "E1" U.N.O. INTERIOR UNIT BEARING WALLS TO BE TYPE "U1" U.N.O. CORRIDOR WALLS TO BE TYPE "C1" U.N.O. UNIT SEPARATION WALLS TO BE TYPE "U1" U.N.O. AND WET WALLS TO BE TYPE "W1" U.N.O.
 - PREFAB METAL PAN STAIRS AND LANDING BY OTHERS. FABRICATOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY ARCHITECT AND ENGINEER. STAIRWELL WALLS TO BE 8" CMU. REINFORCE WALLS W/ #5 BARS AT (3) CORNER CORES AND AT 32" O.C. IN BETWEEN.
 - PROVIDE BOND BEAMS W/ (2) #5 BARS AT EACH FLOOR LINE.
 - PROVIDE 3"x4" LINTELS WITH (2) #5 BARS AT OPENINGS IN CMU WALLS WITH MINIMUM 8" BEARING.
 - REFER TO S-501 FOR TYPICAL FRAMING DETAILS.
 - TRUSS MANUFACTURER TO PROVIDE BOX FOR MECHANICAL DUCTS. REFER TO MECHANICAL PLANS FOR DUCT LOCATIONS.
 - HATCHED REGION SHOWN ON PLAN, PROVIDE 1 1/2" RECESS IN FLOOR FRAME FOR ROLL-IN SHOWERS.



WOOD TRUSS LEGEND (U.N.O.)

	TYPE	LOADING	HATCH
TRUSS DEPTH (in.)	RESIDENTIAL	22T-40/20/5	NONE
LIVE LOAD (PSF)	PUBLIC AREA	22T-100/20/5	
B/C DEAD LOAD (PSF)	LIGHT STORAGE/ MECH.	22T-125/20/5	
T/C DEAD LOAD (PSF)			

TYPICAL FLOOR HEADERS (U.N.O.)

LOCATION	MARK	MAXIMUM OPENING
1 EXTERIOR	3-28	UP TO 5'-0"
2 INTERIOR	3-210	5'-1" UP TO 6'-6"
3 CORRIDOR	2-28	UP TO 3'-6"
	3-28	UP TO 4'-0"
	3-210	4'-1" UP TO 6'-3"

WOOD COLUMN SCHEDULE

LEVELS SUPPORTED	FLR. TO FLR. HEIGHT	C1	C2	C3	C4
ROOF	-8'-1 1/8"	-	(2) 2x6		
ROOF + 1 FLR ABOVE	-9'-11 7/8"	(2) 2x4	(2) 2x6		
ROOF + 2 FLR ABOVE	-9'-11 7/8"	(3) 2x4	(3) 2x6		
ROOF + 3 FLR ABOVE	-9'-11 7/8"	(4) 2x4	(4) 2x6		
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-8"	(6) 2x4	(4) 2x6		

NOTES:

- WHERE COLUMNS ARE SHOWN ON EITHER SIDE OF OPENING, JACK SCHEDULE REQUIREMENTS ARE NOT APPLICABLE FOR THAT OPENING.
- ALL COLUMNS ARE ASSUMED TO BE SP#2 GRADE OR BETTER, U.N.O.
- NON-BEARING INTERIOR WALL STUDS MAY BE SP#2 STUD GRADE 2x4 AT 24" O.C.
- PREFAB STRUCTURAL COLUMNS - CONTRACTOR TO SUPPLY ENGINEER WITH SPECIFICATIONS AND DESIGN CRITERIA.

BEARING WALL STUD SCHEDULE - SP#1/#2

LEVELS SUPPORTED	FLR. TO FLR. HEIGHT	EXTERIOR - F E1 (1)	E2	CORRIDOR - F C1 (1)	INTERIOR - P I1 (1)	I2	I3	UNIT SEPARATION - F U1 (1)	U2	U3	WET WALL
ROOF	-8'-1 1/8"	2x16	2x16	2x12	2x16	--	0	2x16	2x16	2x16	
ROOF + 1 FLR ABOVE	-9'-11 7/8"	2x16	2x16	2x12	2x12/20	2x12	2x12	2x16	2x16	2x12	
ROOF + 2 FLR ABOVE	-9'-11 7/8"	2x16	2x12	2x12	2x12/20	2x12	2x12	2x16	2x16	2x12/20	SEE NOTE 7
ROOF + 3 FLR ABOVE	-9'-11 7/8"	2x16	2x12	2x12	2x12/121	2x12	2x12/20	2x16	2x16	2x12/20	
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-8"	2x16	2x12	2x12	3x12/12	2x12	2x12/20	2x16	2x16	2x12/20	

LEGEND:

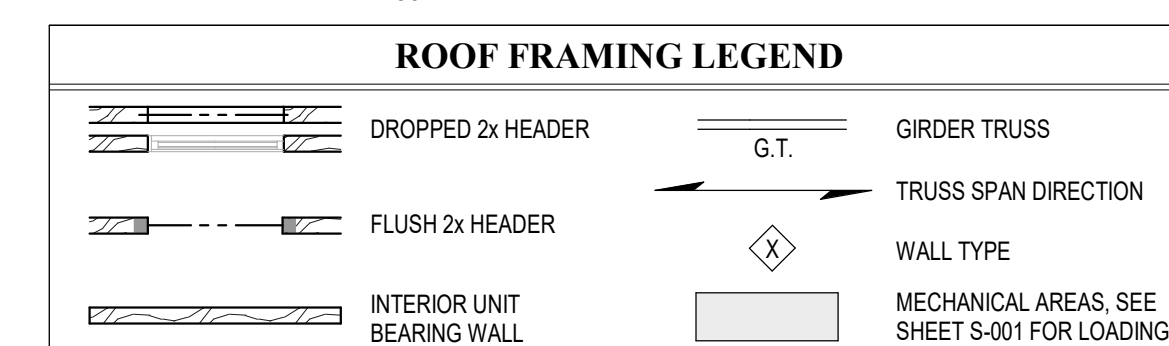
2x16 = 2x4 AT 16" O.C.
2x12 = 2x4 AT 12" O.C.
2x12/20 = 2x4 AT 12" O.C., DOUBLE STUD UNDER TRUSS
2x12 = 2x6 AT 12" O.C.
2x12/20 = 2x4 AT 12" O.C., DOUBLE STUD UNDER TRUSS

NOTES:

- TYPICAL UNLESS NOTED OTHERWISE ON PLANS.
- SCHEDULE IS BASED ON A NOMINAL 10'-8" FLOOR-TO-FLOOR HEIGHT, UNLESS NOTED OTHERWISE.
- AT PLATFORM FRAMED WALLS, ALL STUDS SHALL ALIGN WITHIN 7" OF TRUSSES ABOVE WHERE STUDS ARE SPACED AT 12" O.C. AT FULL STORY FRAMED WALLS, IF A DOUBLE EVERY OTHER STUD IS SPECIFIED, DOUBLE STUD SHALL OCCUR CLOSEST TO THE TRUSS.
- DOUBLE AND TRIPLE STUDS SHALL BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.
- NON-BEARING INTERIOR WALL STUDS MAY BE SP#2 STUD GRADE 2x4 AT 24" O.C.
- INSTALL BLOCCING WITHIN THE MIDDLE THIRD OF THE STUD HEIGHT AT ALL BEARING WALL PRIOR TO WALL SUPPORTING ANY WEIGHT, COORDINATE LOCATION WITH DRYWALL INSTALLATION.
- STUD SPACING AT 2x6 WET WALLS TO BE SINGLE STUD TO MATCH ADJACENT 2x4 WALL STUD SPACING.
- TYPICAL FLOOR STUD HEIGHT IS EQUAL TO = ACTUAL FLOOR-TO-FLOOR HEIGHT - SHEATHING THICKNESS - # OF TOP AND BOTTOM PLATES x PLATE THICKNESS, MINUS FLOOR TRUSS DEPTH, F PLATFORM FRAMED.
- TYPICAL TOP LEVEL STUD HEIGHT (SUPPORTING ROOF ONLY) IS EQUAL TO = TRUSS BEARING HEIGHT - # OF TOP PLATES x PLATE THICKNESS
- FULL STORY FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS
- PLATFORM FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS



- ROOF FRAMING NOTES (WOOD):**
- ALL ROOF FRAMING SHALL BE PRE-ENGINEERED ROOF TRUSSES DESIGNED AND SPACED BY TRUSS MANUFACTURER AT 24" O.C. MAX. FOR THE DESIGN LOADS, INCLUDING ROOF TOP MECHANICAL UNITS AS REQUIRED. ROOF TRUSSES TO HAVE MINIMUM 24" DEPTH.
 - ALL ROOF TRUSS BEARING POINTS SHALL BE ATTACHED TO THE BUILDING WITH TOE NAILS PER THE SCHEDULE AND SIMPSON H2.5T HURRICANE CLIPS OR EQUIVALENT. ADDITIONAL HOLDOWN ANCHORS MAY BE REQUIRED FOR GRIDER TRUSSES AND WILL BE IDENTIFIED DURING THE SHOP DRAWING REVIEW.
 - HOLDOWN ANCHORS ARE REQUIRED ON FLUSH BEAMS SUPPORTING ROOF TRUSSES AND WILL BE IDENTIFIED DURING THE SHOP DRAWING REVIEW. U.N.O. USE EITHER SIMPSON H6 OR TWO SIMPSON H2.5T ANCHORS AT EACH END OF BEAM.
 - SEE ARCHITECTURAL PLANS FOR LOCATION OF DRAFTSTOPPING WHERE REQUIRED.
 - ALL DOUBLE TOP PLATES WITH ROOF TRUSSES BEARING TO BE SP#1.
 - SEE BEARING WALL SCHEDULE ON SHEET S-502 FOR STUD QUANTITY AND SPACING.
 - PROVIDE 3"x4" LINTELS WITH (2) #5 BARS AT OPENINGS IN CMU WALLS WITH MINIMUM 8" BEARING.
 - TRUSS TO TRUSS CONNECTION TO BE SPECIFIED BY TRUSS MANUFACTURER.
 - SEE ROOF FRAMING DETAILS ON S-504.



TYPICAL ROOF HEADERS (U.N.O.)

LOCATION	MARK	MAXIMUM OPENING
1 EXTERIOR	3-28	UP TO 5'-0"
	3-210	5'-1" UP TO 6'-6"
2 CORRIDOR	3-28	UP TO 4'-0"
	3-210	4'-1" UP TO 6'-3"

NOTES:

- MAXIMUM OPENING CORRELATES TO ROUGH OPENING DIMENSION.

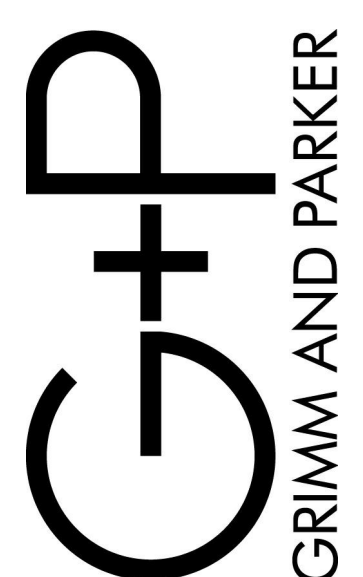
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BUILDING 2 FOURTH FLOOR / LOW ROOF FRAMING PLAN

ROANOKE GATEWAY
ROANOKE, VA 24022

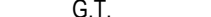
DATE	SUBMISSION / REVISION / A
05/14/2026	1st 4% HOTC APP
06/30/2026	CONSTRUCTIBILITY REVIEW

2S-303

06/30/2026
CONSTRUCTIBILITY REVIEW



- ROOF FRAMING NOTES (WOOD):
1. ALL ROOF FRAMING SHALL BE PREENGINEERED ROOF TRUSSES DESIGNED AND SPACED BY TRUSS MANUFACTURER. SEE TRUSS CONNECTION DETAIL S-400. MAX FOR THE DESIGN LOADS, INCLUDING ROOF MECHANICAL UNITS AS REQUIRED. ROOF TRUSSES TO HAVE MINIMUM 24" DEPTH.
 2. ALL TRUSS BEARINGS SHALL BE 4" MIN. OVER THE BEARING SURFACE. BUILDING WITH TIE WALLS PER THE SCHEDULE AND SIMPSON H2515 HURRICANE CLIPS OR EQUIVALENT. ADDITIONAL HOLDOWN ANCHORS MAY BE REQUIRED FOR GREATER TRUSSES AND WILL BE IDENTIFIED DURING THE ROOF DRAWING REVIEW.
 3. ALL TRUSS BEARINGS SHALL BE 4" MIN. OVER THE BEARING SURFACE. BUILDING WITH TIE WALLS PER THE SCHEDULE AND SIMPSON H2515 HURRICANE CLIPS OR EQUIVALENT. ADDITIONAL HOLDOWN ANCHORS MAY BE REQUIRED DURING THE ROOF DRAWING REVIEW. 1/2" UN. TO EITHER SIMPSON H2 OR TWO SIMPSON H2.5T ANCHORS AT EACH BEARING.
 4. SEE ARCHITECTURAL PLANS FOR LOCATION OF DRAFTS/TAPPING WHERE REQUIRED.
 5. ALL DOUBLE TIE PLATES WITH ROOF TRUSSES BEARING TO BE 3X12.
 6. BEARING WALL SCHEDULES SHALL BE 4" MIN. OVER THE BEARING SURFACE AND SPACING.
 7. PROVIDE 3X8 TIE LATHS WITH (2X6 BRAYS AT OPENINGS IN CMU WALLS WITH MINIMUM 8" BEARING.
 8. TRUSS TO TRUSS CONNECTIONS SHALL BE IDENTIFIED BY TRUSS MANUFACTURER.
 9. SEE ROOF FRAMING DETAILS ON S-504.

ROOF FRAMING LEGEND			
	DROPPED 2x HEADER		GIRDER TRUSS
	FLUSH 2x HEADER		TRUSS SPAN DIRECTION
	INTERIOR UNIT BEARING WALL		WALL TYPE
			MECHANICAL AREAS, SEE SHEET S-001 FOR LOADING

TYPICAL ROOF HEADERS (U.N.O.)

	LOCATION	MARK	MAXIMUM OPENING
1	EXTERIOR	3-28	UP TO 5'-0"
		3-210	5'-1" UP TO 6'-6"
2	CORRIDOR	3-28	UP TO 4'-0"
		3-210	4'-1" UP TO 6'-3"

NOTES

1. MAXIMUM OPENING CORRELATES TO ROUGH OPENING DIMENSION.

WOOD COLUMN SCHEDULE

LEVELS SUPPORTED	FLR TO FLR HEIGHT	MARK			
		C1	C2	C3	C4
ROOF	-8'-1 1/8"	--	(2)2x6		
ROOF + 1 FLR ABOVE	-9'-11 7/8"	(2)2x4	(2)2x6		
ROOF + 2 FLR ABOVE	-9'-11 7/8"	(3)2x4	(3)2x6		
ROOF + 3 FLR ABOVE	-9'-11 7/8"	(4)2x4	(4)2x6		
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-8"	(6)2x4	(4)2x6		

NOTE:

- NOTES:**
1. WHERE COLUMNS ARE SHOWN ON EITHER SIDE OF OPENING, JACK SCHEDULE REQUIREMENTS ARE NOT APPLICABLE FOR THAT OPENING.
 2. ALL COLUMNS ARE ASSUMED TO BE SPF #2 GRADE OR BETTER, U.N.O.
 3. NON-BEARING INTERIOR WALL STUDS MAY BE SPF-STUD GRADE 2x4 AT 24" O.C
 4. PRE-FAB STRUCTURAL COLUMNS - CONTRACTOR TO SUPPLY ENGINEER WITH SPECIFICATIONS AND DESIGN CRITERIA.

JACK AND KING STUD SCHEDULE

OPENING	ROOF BEARING ABOVE	ROOF AND 1 FLR BEARING ABOVE	ROOF AND 2 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE AT BUILDING-1
EXTERIOR WALLS - TYPE E1					
0'-0" UP TO 6'-6"	1.81 S	1.81 S	1.81 S	1.81 S	1.81 S
EXTERIOR WALLS - TYPE E2ES					
0'-0" UP TO 6'-6"	1.81 S	1.81 S	1.81 S	1.82 S	1.82 S
CORRIDOR WALLS - TYPE C1					
0'-0" UP TO 4'-0"	1.81 S	1.81 S	1.81 S	1.81 S	1.81 S
4'-0" UP TO 6'-3"	1.81 S	1.81 S	1.82 S	1.82 S	1.82 S
INTERIOR WALLS - TYPE I1					
0'-0" UP TO 3'-6"	-	-	1.81 S	1.81 S	2.83 S
INTERIOR WALLS - TYPE I2					
0'-0" UP TO 3'-6"	-	1.81 S	1.81 S	1.81 S	1.81 S

NOTE:

1. TYPICAL UNLESS NOTED OTHERWISE ON PLANS
2. J = JACK UNDER HEADER
3. S = FULL HEIGHT STUD NAILED TO JACK ALONGSIDE OF JACK
4. ALL JACKS AND STUDS TO BE 2x SPF #2 GRADE OR BETTER
5. ALL JACKS AND STUDS TO BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.
6. FOR FLUSH BEAMS WITH NO COLUMNS LABELED ON THE PLAN, USE THE TOTAL NUMBER OF JACKS STUDS SHOWN IN THE SCHEDULE ABOVE. EXCEPT LOCATE THEM ALL UNDER THE BEAM, BLOCKED AS REQUIRED.

BEARING WALL STUD SCHEDULE - SPF #1/#2

LEVELS SUPPORTED	FLR TO FLOOR HEIGHT	EXTERIOR F1	EXTERIOR F2	CORRIDOR F1	INTERIOR - P1	INTERIOR - P3	UNIT SEPARATION - F1	UNIT SEPARATION - F2	UNIT SEPARATION - F3	WET WALL
ROOF	-6'-1.18"	26/16	26/16	26/12	24/16	-	0	26/16	26/16	26/16
ROOF + 1 FLR ABOVE	-9'-11.78"	26/16	26/16	26/12	24/12	26/12	26/16	26/16	26/12	26/12
ROOF + 2 FLR ABOVE	-9'-11.78"	26/16	26/16	26/12	24/12	26/12	26/16	26/16	26/12	26/12
ROOF + 3 FLR ABOVE	-9'-11.78"	26/16	26/12	26/12	224/12	26/12	26/12	26/16	26/12	26/12
ROOF + 3 FLR ABOVE (AT BUILDING 1)	-9'-11.78" TO 12'-8"	26/16	26/12	26/12	324/12	26/12	26/12	26/16	26/12	26/12

LEGEND

LEGEND:

24/16 = 2x4 AT 16" O.C.	224/12T = 2x4 AT 12" O.C., TRIPLE STUD UNDER TRUSS
24/12 = 2x4 AT 12" O.C.	324/12 = (3) 2x4 AT 12" O.C.
24/12D = 2x4 AT 12" O.C., DOUBLE STUD UNDER TRUSS	26/16 = 2x6 AT 16" O.C.
224/12 = (2) 2x4 AT 12" O.C.	26/12 = 2x6 AT 12" O.C.
	26/12D = 2x6 AT 12" O.C., DOUBLE STUD UNDER TRUSS

NOTES:

- L. TYPICAL UNLESS NOTED OTHERWISE ON PLANS
- S. SCHEDULE IS BASED ON A NOMINAL 10'-8" FLOOR-TO-FLOOR HEIGHT, UNLESS NOTED OTHERWISE.
- A. AT PLATFORM FRAMED WALLS, ALL STUDS SHALL ALIGN WITH 2" OF TRUSSES ABOVE; WHEN STUDS ARE SPACED AT 24" O.C. AT FULL STORY FRAMED WALLS, IF A DOUBLE EIGHT STUD IS SPECIFIED, DOUBLE STUD SHALL OCCUR AT CLOSEST TO THE TRUSS
- D. DOUBLE AND TRIPLE STUDS SHALL BE NAILED TOGETHER WITH 1/31x39 NAILS AT 6" O.C.
- N. NON-BEARING INTERIOR WALL STUDS MAY BE SPF STUDS 2x4 OR 2x6 AT 24" O.C.
- M. WALLS WITH FLOORING WITH THE MIDDLE THIRD OF THE STUD HEIGHT AT ALL BEARING WALL PRIOR TO WALL SUPPORTING ANY WEIGHT, COORDINATE LOCATION WITH DRYWALL INSTALLATION.
- U. STUD SPACING AT 24w MET WALLS TO BE SINGLE STUD TO MATCH ADJACENT 24w WALL STUD SPACING.
- T. TOP OF STUD, STUD HEIGHT (TO TOP - ACTUAL FLOOR-TO-FLOOR HEIGHT - SHEATHING THICKNESS - # OF TOP AND BOTTOM PLATE PLATES THICKNESS) MINUS FLOOR FINISH WITH 1/4" PLATE FINISH.
- V. TYPICAL FULL STORY STUD HEIGHT (SUPPORTING ROOF ONLY) IS EQUAL TO : TRUSS BEARING HEIGHT - # OF TOP PLATES x PLATE THICKNESS
- F. FULL STORY FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS
- P. PLATFORM FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS

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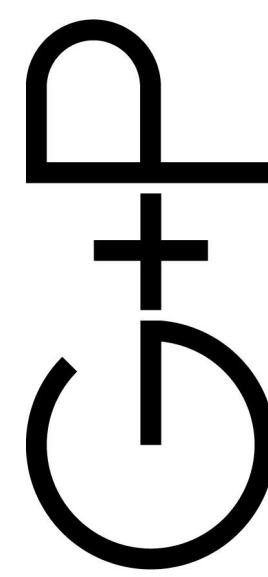
 **CATES**
ENGINEERING
STRUCTURAL CONSULTING

13575 Heathcote Blvd. Suite 170 Gainesville, VA 2015
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BUILDING 2 ROOF FRAMING PLAN

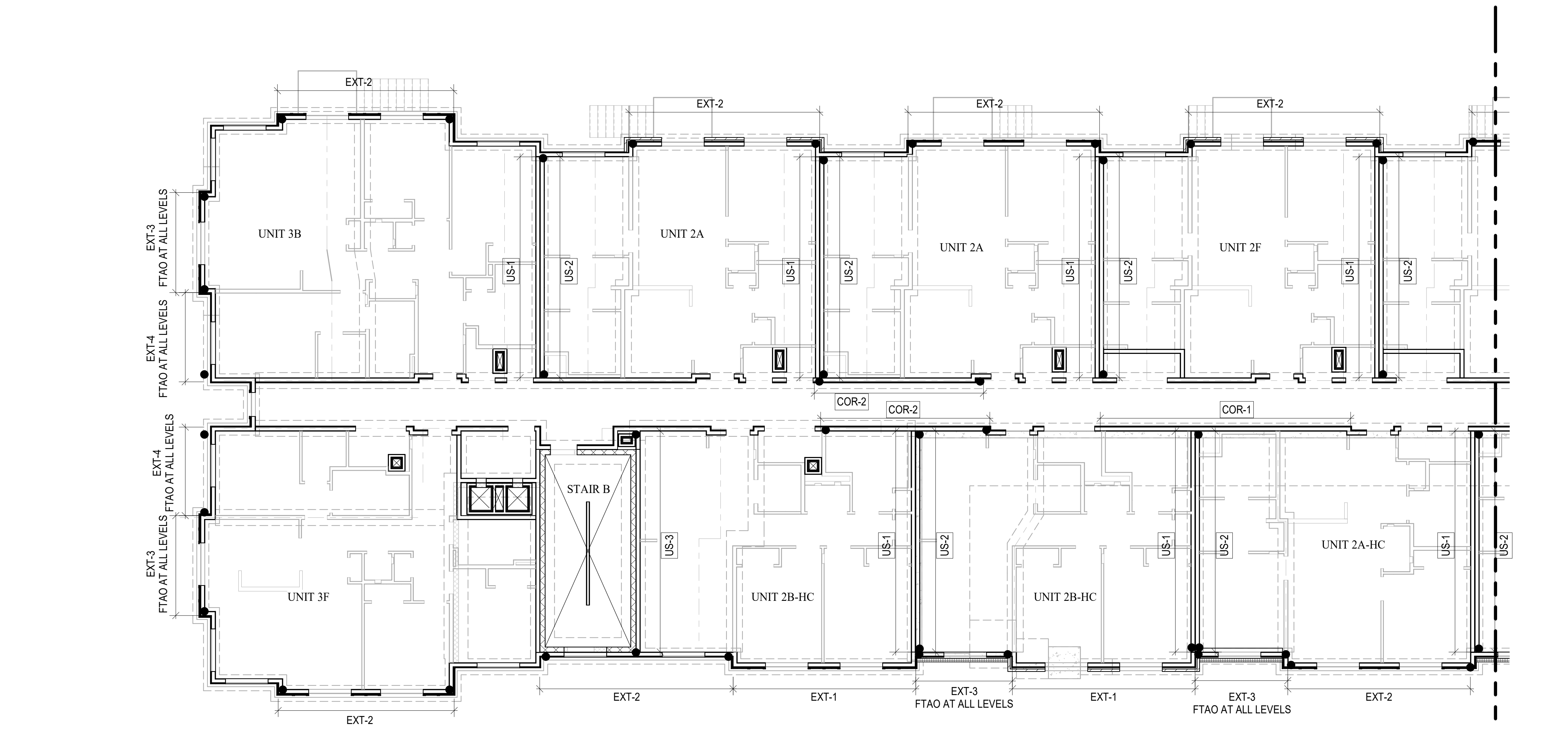
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ROANOKE, VA 24022

DATE	SUBMISSION / REVISION	
05/14/2026	VH 4% HOTC APP.	
06/30/2026	CONSTRUCTABILITY REVIEW	

2S-304

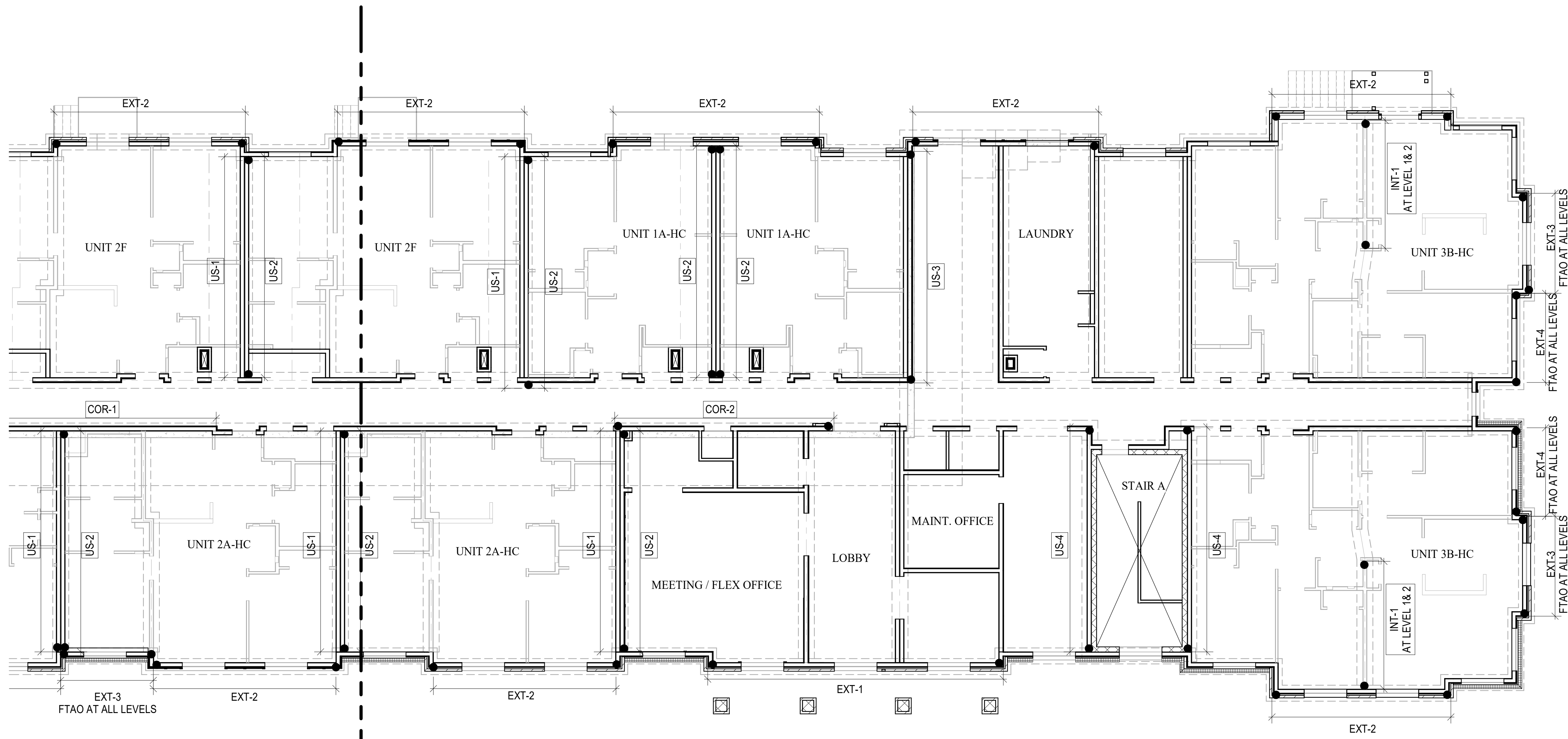
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CONSTRUCTABILITY REVIEW

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BUILDING 2 SHEAR WALL LAYOUT PLAN - AREA B

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



BUILDING 2 SHEAR WALL LAYOUT PLAN - AREA A

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

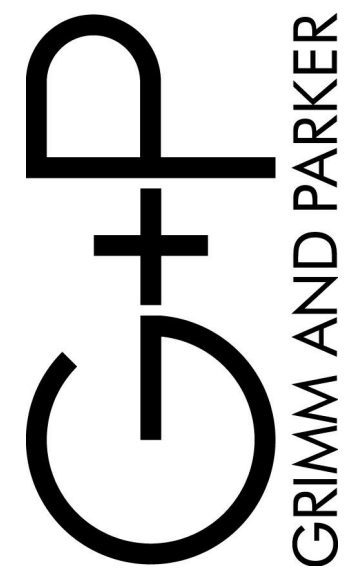


NORTH

- SHEAR WALL PLAN NOTES (WOOD):**
- EXT-X, INT-X, US-X, COR-X REFERS TO SHEAR WALL DESIGNATION ON LAYOUT PLAN. WALLS WITHOUT DESIGNATION HAVE NOT BEEN DESIGNED AS LATERAL FORCE RESISTING ELEMENTS.
 - EACH "HD" OR "AR" CALLOUT REPRESENTS A HOLDDOWN OR ANCHOR ROD LOCATION. RESPECTIVELY AT UNIT SEPARATION WALLS WHERE TWO "HD" CALLOUTS ARE INDICATED FOR ONE LOCATION, INSTALL (1) HOLDDOWN AT EACH OF THE TWO UNIT SEPARATION WALLS.
 - "g" DIMENSION IS SHOWN FOR WALL CORNER AND END ZONE COMPONENT AND CLADDING LOADS. REFER TO SHEET 1S-001R FOR LOADING.
 - "FTAO" INDICATES WALL DESIGNED FOR FORCE TRANSFER AROUND OPENINGS METHOD PER NATIONAL DESIGN SPECIFICATION.



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ROANOKE, VA 24022

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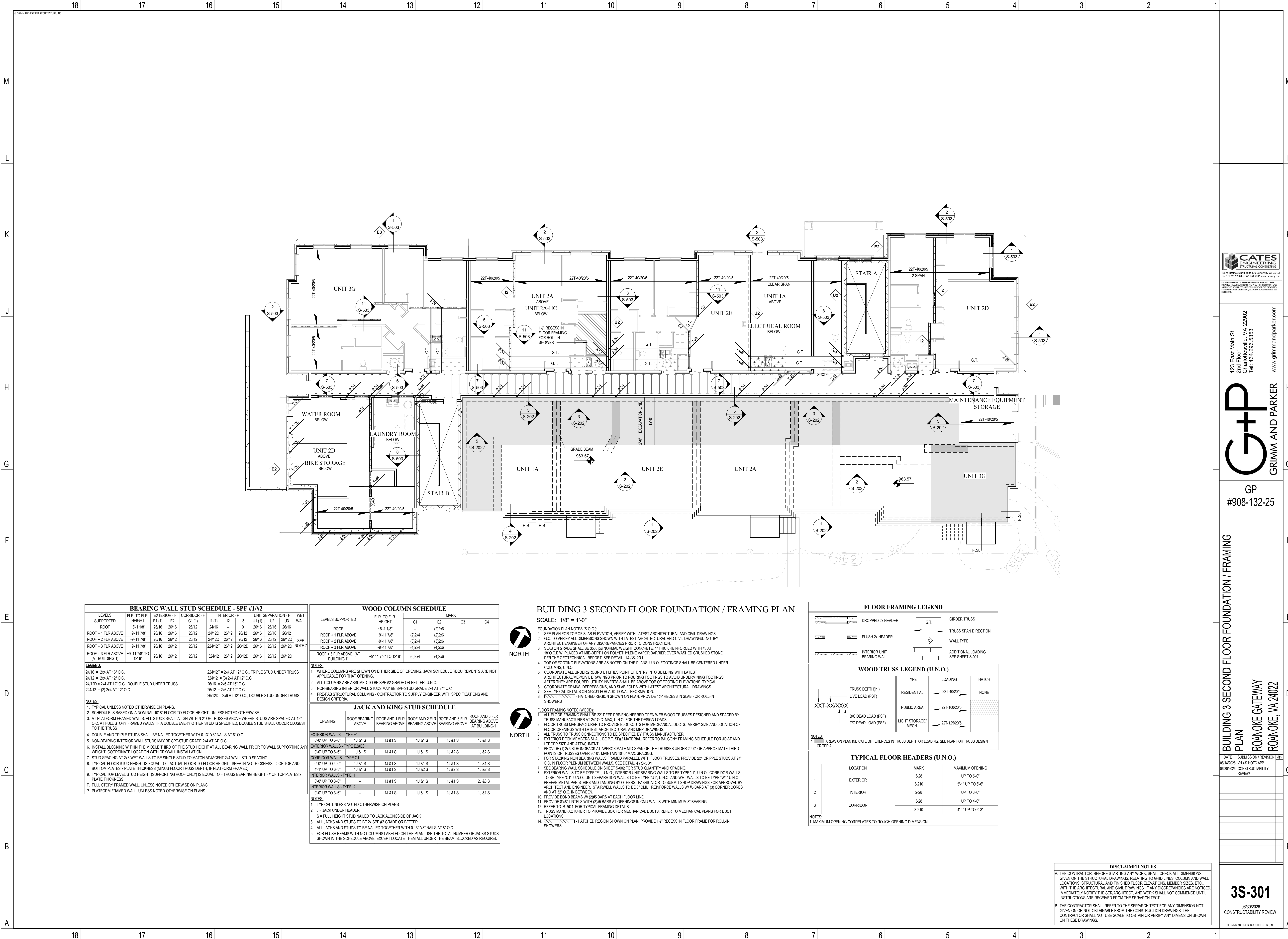
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B. THE CONTRACTOR SHALL REFER TO THE ARCHITECT FOR ANY DIMENSION NOT GIVEN ON OR NOT OBTAINABLE FROM THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THESE DRAWINGS.

2S-305

06/30/2026
CONSTRUCTABILITY REVIEW



BEARING WALL STUD SCHEDULE - SPF #1/#2											
LEVELS SUPPORTED	FLR. TO FLR. HEIGHT	EXTERIOR - F	EXTERIOR - F	CORRIDOR - F	INTERIOR - P	UNIT SEPARATION - F	WET WALL				
ROOF	-9'-1 1/8"	26/16	26/16	26/12	24/16	0	26/16	26/16	26/16	26/16	26/16
ROOF + 1 FLR ABOVE	-9'-11 7/8"	26/16	26/16	26/12	24/120	26/12	26/16	26/16	26/16	26/16	26/12
ROOF + 2 FLR ABOVE	-9'-11 7/8"	26/16	26/12	26/12	24/120	26/12	26/16	26/12	26/12	26/120	NOTE 7
ROOF + 3 FLR ABOVE	-9'-11 7/8"	26/16	26/12	26/12	224/121	26/12	26/16	26/12	26/12	26/120	NOTE 7
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-8"	26/16	26/12	26/12	324/12	26/12	26/120	26/16	26/12	26/120	

LEGEND:
24/16 = 2x4 AT 16" O.C.
24/12 = 2x4 AT 12" O.C.
24/120 = 2x4 AT 12" O.C., DOUBLE STUD UNDER TRUSS
224/12 = (2) 2x4 AT 12" O.C.
324/12 = 2x6 AT 12" O.C., DOUBLE STUD UNDER TRUSS
26/12 = 2x6 AT 12" O.C.
26/120 = 2x6 AT 12" O.C., DOUBLE STUD UNDER TRUSS

NOTES:
1. TYPICAL UNLESS NOTED OTHERWISE ON PLANS.
2. SCHEDULE IS BASED ON A NOMINAL 10'-8" FLOOR-TO-FLOOR HEIGHT, UNLESS NOTED OTHERWISE.
3. AT PLATFORM FRAMED WALLS: ALL STUDS SHALL ALIGN WITHIN 2" OF TRUSSES ABOVE WHERE STUDS ARE SPACED AT 12" O.C. AT FULL STORY FRAMED WALLS: IF A DOUBLE EVERY OTHER STUD IS SPECIFIED, DOUBLE STUD SHALL OCCUR CLOSEST TO THE TRUSS.
4. DOUBLE AND TRIPLE STUDS SHALL BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.
5. NON-BEARING INTERIOR WALL STUDS MAY BE SPF-2 STUD GRADE 2x4 AT 24" O.C.
6. INSTALL BLOCKING WITHIN THE MIDDLE THIRD OF THE STUD HEIGHT AT ALL BEARING WALL PRIOR TO WALL SUPPORTING ANY WEIGHT, COORDINATE LOCATION WITH DRYWALL INSTALLATION.
7. STUD SPACING AT 2x6 WET WALLS TO BE SINGLE STUD TO MATCH ADJACENT 2x4 WALL STUD SPACING.
8. TYPICAL FLOOR STUD HEIGHT IS EQUAL TO = ACTUAL FLOOR-TO-FLOOR HEIGHT - SHEATHING THICKNESS - # OF TOP AND BOTTOM PLATES x PLATE THICKNESS (MINUS FLOOR TRUSS DEPTH, IF PLATFORM FRAMED).
9. TYPICAL TOP LEVEL STUD HEIGHT (SUPPORTING ROOF ONLY) IS EQUAL TO = TRUSS BEARING HEIGHT - # OF TOP PLATES x PLATE THICKNESS
F. FULL STORY FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS
P. PLATFORM FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS

WOOD COLUMN SCHEDULE						
LEVELS SUPPORTED	FLR. TO FLR. HEIGHT	C1	C2	C3	C4	MARK
ROOF	-9'-1 1/8"	-	(2)x6			
ROOF + 1 FLR ABOVE	-9'-11 7/8"	(2)x4	(2)x6			
ROOF + 2 FLR ABOVE	-9'-11 7/8"	(3)x4	(3)x6			
ROOF + 3 FLR ABOVE	-9'-11 7/8"	(4)x4	(4)x6			
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-8"	(6)x4	(4)x6			

NOTES:
1. WHERE COLUMNS ARE SHOWN ON EITHER SIDE OF OPENING, JACK SCHEDULE REQUIREMENTS ARE NOT APPLICABLE FOR THAT OPENING.
2. ALL COLUMNS ARE ASSUMED TO BE SPF #2 GRADE OR BETTER, U.N.O.
3. NON-BEARING INTERIOR WALL STUDS MAY BE SPF-2 STUD GRADE 2x4 AT 24" O.C.
4. PRE-FAB STRUCTURAL COLUMNS - CONTRACTOR TO SUPPLY ENGINEER WITH SPECIFICATIONS AND DESIGN CRITERIA

JACK AND KING STUD SCHEDULE						
OPENING	ROOF BEARING ABOVE	ROOF AND 1 FLR BEARING ABOVE	ROOF AND 2 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE AT BUILDING-1	
EXTERIOR WALLS - TYPE E1						
0'-0" UP TO 6'-6"	1J 81 S	1J 81 S	1J 81 S	1J 81 S	1J 81 S	
EXTERIOR WALLS - TYPE E2/E3						
0'-0" UP TO 6'-6"	1J 81 S	1J 81 S	1J 82 S	1J 82 S	1J 82 S	
CORRIDOR WALLS - TYPE C1						
0'-0" UP TO 4'-0"	1J 81 S	1J 81 S	1J 81 S	1J 81 S	1J 81 S	
4'-1" UP TO 6'-3"	1J 81 S	1J 81 S	1J 82 S	1J 82 S	1J 82 S	
INTERIOR WALLS - TYPE I1						
0'-0" UP TO 7'-6"	-	1J 81 S	1J 81 S	1J 81 S	2J 83 S	
INTERIOR WALLS - TYPE I2						
0'-0" UP TO 3'-6"	-	1J 81 S	1J 81 S	1J 81 S	1J 81 S	

NOTES:
1. TYPICAL UNLESS NOTED OTHERWISE ON PLANS
2. J = JACK UNDER HEADER
S = FULL HEIGHT STUD NAILED TO JACK ALONGSIDE OF JACK
3. ALL JACKS AND STUDS TO BE 2x SPF #2 GRADE OR BETTER
4. ALL JACKS AND STUDS TO BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.
5. FOR FLUSH BEAMS WITH NO COLUMNS LABELED ON THE PLAN, USE THE TOTAL NUMBER OF JACKS STUDS SHOWN IN THE SCHEDULE ABOVE, EXCEPT LOCATE THEM ALL UNDER THE BEAM, BLOCKED AS REQUIRED.

BUILDING 3 SECOND FLOOR FOUNDATION / FRAMING PLAN

- SCALE: 1/8" = 1'-0"
- FOUNDATION PLAN NOTES (S.O.G.):
- SEE PLAN FOR TOP OF SLAB ELEVATION, VERIFY WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS.
 - G.C. TO VERIFY ALL DIMENSIONS SHOWN WITH LATEST ARCHITECTURAL AND CIVIL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
 - SLAB ON GRADE SHALL BE 3000 psi NORMAL WEIGHT CONCRETE, 4" THICK REINFORCED WITH #3 AT 18" O.C. E.W. PLACED AT MID-DEPTH ON POLYETHYLENE VAPOR BARRIER OVER WASHED CRUSHED STONE PER THE GEOTECHNICAL REPORT. SEE DETAIL 14 / S-201
 - TOP OF FOOTING ELEVATIONS ARE AS NOTED ON THE PLANS, U.N.O. FOOTINGS SHALL BE CENTERED UNDER COLUMNS, U.N.O.
 - COORDINATE ALL UNDERGROUND UTILITIES POINT OF ENTRY INTO BUILDING WITH LATEST ARCHITECTURAL/MER/CIVIL DRAWINGS PRIOR TO POURING FOOTINGS TO AVOID UNDERMINING FOOTINGS AFTER THEY ARE POURED. UTILITY INVERTS SHALL BE ABOVE TOP OF FOOTING ELEVATIONS, TYPICAL.
 - COORDINATE DRAIN, DEPRESSIONS, AND SLAB FOLDS WITH LATEST ARCHITECTURAL DRAWINGS.
 - SEE TYPICAL DETAILS ON S-201 FOR ADDITIONAL INFORMATION.
 - 1/2" RECESS IN SLAB FOR ROLL-IN SHOWERS
- FLOOR FRAMING NOTES (WOOD):
- ALL FLOOR FRAMING SHALL BE 22" DEEP PRE-ENGINEERED OPEN WEB WOOD TRUSSES DESIGNED AND SPACED BY TRUSS MANUFACTURER AT 24" O.C. MAX. U.N.O. FOR THE DESIGN LOADS.
 - FLOOR TRUSS MANUFACTURER TO PROVIDE BLOCKOUTS FOR MECHANICAL DUCTS. VERIFY SIZE AND LOCATION OF FLOOR OPENINGS WITH LATEST ARCHITECTURAL AND MER DRAWINGS.
 - ALL TRUSSES TO TRUSS CONNECTIONS TO BE SPECIFIED BY TRUSS MANUFACTURER.
 - EXTERIOR DECK MEMBERS SHALL BE P.T. SPW2 MATERIAL. REFER TO BALCONY FRAMING SCHEDULE FOR JOIST AND LEDGER SIZE AND ATTACHMENT.
 - PROVIDE (1) 2x6 STRONGBACK AT APPROXIMATE MID-SPAN OF THE TRUSSES UNDER 20'-0" OR APPROXIMATE THIRD POINTS OF TRUSSES OVER 20'-0". MAINTAIN 10'-0" MAX. SPACING.
 - FOR STACKING NON-BEARING WALLS FRAMED PARALLEL WITH FLOOR TRUSSES, PROVIDE 2x4 CRIPPLE STUDS AT 24" O.C. IN FLOOR PLENUM BETWEEN WALLS. SEE DETAIL 4 / S-501.
 - SEE BEARING WALL SCHEDULE ON SHEET S-502 FOR STUD QUANTITY AND SPACING.
 - EXTERIOR WALLS TO BE TYPE "E1" U.N.O. INTERIOR UNIT BEARING WALLS TO BE TYPE "I1" U.N.O. CORRIDOR WALLS TO BE TYPE "C1" U.N.O. UNIT SEPARATION WALLS TO BE TYPE "U1" U.N.O. AND WET WALLS TO BE TYPE "W1" U.N.O.
 - PREFAB METAL PAN STAIRS AND LANDING BY OTHERS. FABRICATOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY ARCHITECT AND ENGINEER. STAIRWELL WALLS TO BE 2" CMU. REINFORCE WALLS W/ #5 BARS AT (3) CORNER CORES AND AT 32" O.C. IN BETWEEN.
 - PROVIDE BOND BEAMS W/ (2) #6 BARS AT EACH FLOOR LINE.
 - PROVIDE 2"x4" LINTELS WITH (2) #6 BARS AT OPENINGS IN CMU WALLS WITH MINIMUM 8" BEARING.
 - REFER TO S-501 FOR TYPICAL FRAMING DETAILS.
 - TRUSS MANUFACTURER TO PROVIDE BOX FOR MECHANICAL DUCTS. REFER TO MECHANICAL PLANS FOR DUCT LOCATIONS.
 - 1/2" RECESS IN SLAB FOR ROLL-IN SHOWERS

FLOOR FRAMING LEGEND

	G.T.	GRIDDER TRUSS
		TRUSS SPAN DIRECTION
		WALL TYPE
		ADDITIONAL LOADING SEE SHEET S-501

WOOD TRUSS LEGEND (U.N.O.)

	TYPE	LOADING	HATCH
	RESIDENTIAL	22T-40/20/5	NONE
	PUBLIC AREA	22T-100/20/5	
	LIGHT STORAGE/ MECH.	22T-125/20/5	+

NOTES:
1. AREAS ON PLAN INDICATE DIFFERENCES IN TRUSS DEPTH OR LOADING. SEE PLAN FOR TRUSS DESIGN CRITERIA.

TYPICAL FLOOR HEADERS (U.N.O.)

	LOCATION	MARK	MAXIMUM OPENING
1	EXTERIOR	3-28	UP TO 5'-0"
		3-210	5'-1" UP TO 6'-6"
2	INTERIOR	2-28	UP TO 3'-6"
		3-28	UP TO 4'-0"
3	CORRIDOR	3-28	UP TO 4'-0"
		3-210	4'-1" UP TO 6'-3"

NOTES:
1. MAXIMUM OPENING CORRELATES TO ROUGH OPENING DIMENSION.

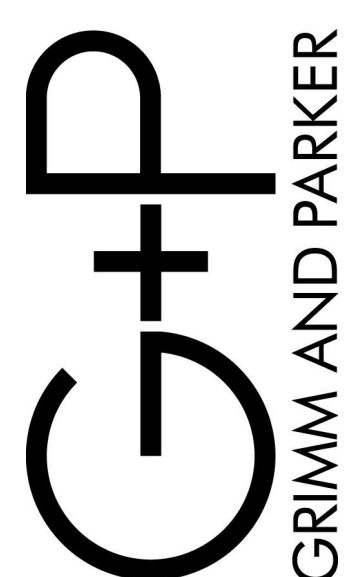
DISCLAIMER NOTES

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B. THE CONTRACTOR SHALL REFER TO THE ARCHITECT/ENGINEER FOR ANY DIMENSION NOT GIVEN ON OR NOT OBTAINABLE FROM THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THESE DRAWINGS.

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GP
#908-132-25

BUILDING 3 SECOND FLOOR FOUNDATION / FRAMING PLAN

ROANOKE GATEWAY
ROANOKE, VA 24002

DATE: 05/14/2028 SUBMISSION / REVISION: 1A

05/14/2028 1VH 4% HOTIC APP

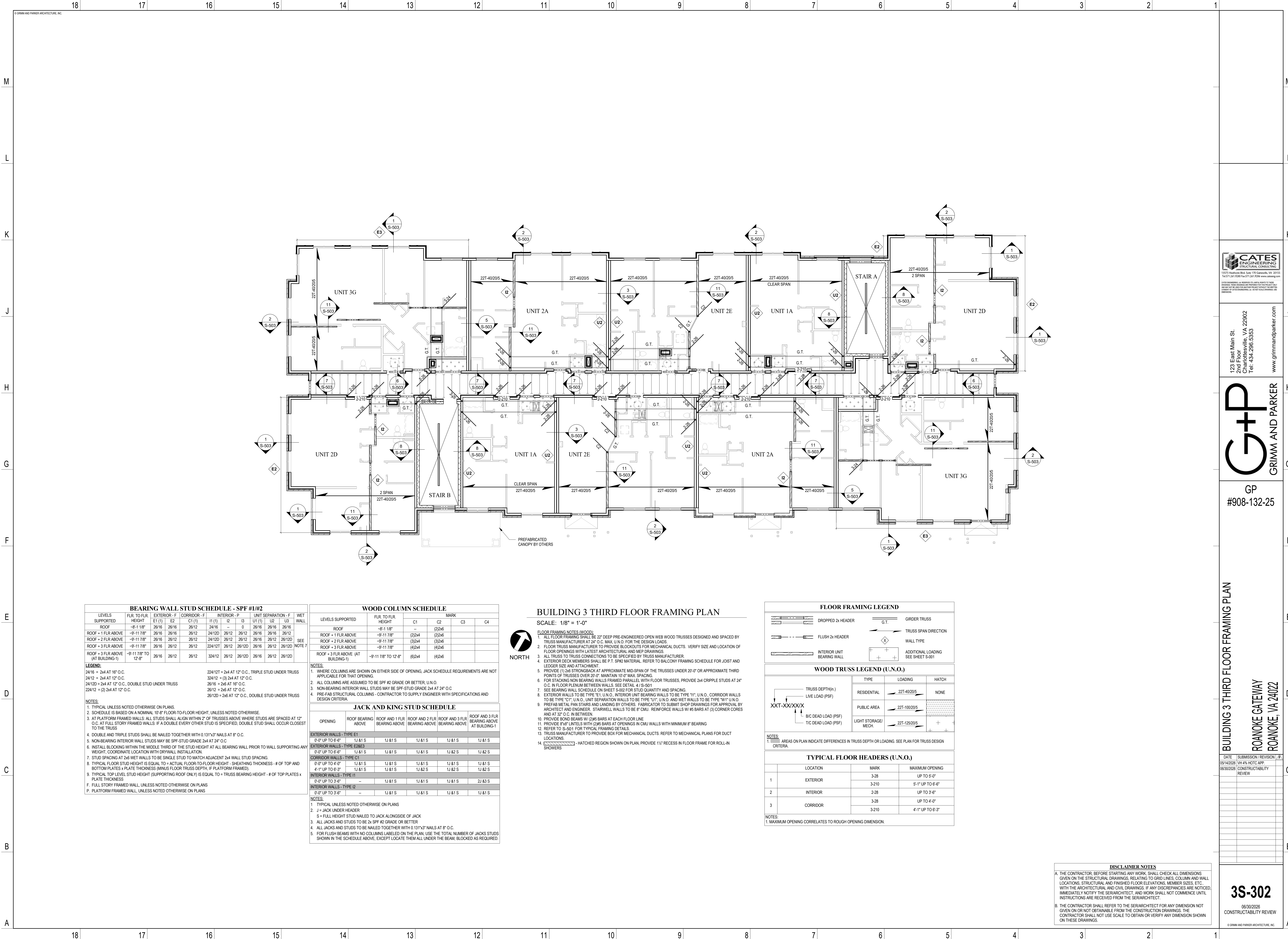
06/30/2028 CONSTRUCTIONABILITY REVIEW

3S-301

06/30/2026

CONSTRUCTIONABILITY REVIEW

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BEARING WALL STUD SCHEDULE - SPF #1/#2											
LEVELS SUPPORTED	FLR. TO FLR. HEIGHT	EXTERIOR - F	EXTERIOR - F	CORRIDOR - F	INTERIOR - P	UNIT SEPARATION - F	WET WALL				
		E1 (1)	E2	C1 (1)	I1 (1)	I2	I3	U1 (1)	U2	U3	
ROOF	-9'-11 7/8"	26/16	26/16	26/12	24/16	26/12	26/16	26/16	26/16	26/16	
ROOF + 1 FLR ABOVE	-9'-11 7/8"	26/16	26/16	26/12	24/120	26/12	26/16	26/16	26/16	26/12	SEE NOTE 7
ROOF + 2 FLR ABOVE	-9'-11 7/8"	26/16	26/12	26/12	24/120	26/12	26/16	26/12	26/12	26/120	
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-6"	26/16	26/12	26/12	224/121	26/12	26/120	26/16	26/12	26/120	

- LEGEND:**
- 24/16 = 2x4 AT 16" O.C.
 - 24/12 = 2x4 AT 12" O.C.
 - 24/120 = 2x4 AT 12" O.C., DOUBLE STUD UNDER TRUSS
 - 224/12 = (2) 2x4 AT 12" O.C.
- NOTES:**
- TYPICAL UNLESS NOTED OTHERWISE ON PLANS.
 - SCHEDULE IS BASED ON A NOMINAL 10'-6" FLOOR-TO-FLOOR HEIGHT, UNLESS NOTED OTHERWISE.
 - AT PLATFORM FRAMED WALLS: ALL STUDS SHALL ALIGN WITHIN 2" OF TRUSSES ABOVE WHERE STUDS ARE SPACED AT 12" O.C. AT FULL STORY FRAMED WALLS. IF A DOUBLE EVERY OTHER STUD IS SPECIFIED, DOUBLE STUD SHALL OCCUR CLOSEST TO THE TRUSS.
 - DOUBLE AND TRIPLE STUDS SHALL BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.
 - NON-BEARING INTERIOR WALL STUDS MAY BE SPF-2 STUD GRADE 2x4 AT 24" O.C.
 - INSTALL BLOCKING WITHIN THE MIDDLE THIRD OF THE STUD HEIGHT AT ALL BEARING WALL PRIOR TO WALL SUPPORTING ANY WEIGHT. COORDINATE LOCATION WITH DRYWALL INSTALLATION.
 - STUD SPACING AT 2x6 WET WALLS TO BE SINGLE STUD TO MATCH ADJACENT 2x4 WALL STUD SPACING.
 - TYPICAL FLOOR STUD HEIGHT IS EQUAL TO = ACTUAL FLOOR-TO-FLOOR HEIGHT - SHEATHING THICKNESS - # OF TOP AND BOTTOM PLATES x PLATE THICKNESS (MINUS FLOOR TRUSS DEPTH, IF PLATFORM FRAMED).
 - TYPICAL TOP LEVEL STUD HEIGHT (SUPPORTING ROOF ONLY) IS EQUAL TO = TRUSS BEARING HEIGHT - # OF TOP PLATES x PLATE THICKNESS.
 - FULL STORY FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS.
 - PLATFORM FRAMED WALL, UNLESS NOTED OTHERWISE ON PLANS.

WOOD COLUMN SCHEDULE						
LEVELS SUPPORTED	FLR. TO FLR. HEIGHT	C1	C2	C3	C4	
ROOF	-9'-11 7/8"	-	(2)2x6			
ROOF + 1 FLR ABOVE	-9'-11 7/8"	(2)2x4	(3)2x6			
ROOF + 2 FLR ABOVE	-9'-11 7/8"	(3)2x4	(3)2x6			
ROOF + 3 FLR ABOVE	-9'-11 7/8"	(4)2x4	(4)2x6			
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-6"	(6)2x4	(4)2x6			

JACK AND KING STUD SCHEDULE						
OPENING	ROOF BEARING ABOVE	ROOF AND 1 FLR BEARING ABOVE	ROOF AND 2 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE AT BUILDING-1	
EXTERIOR WALLS - TYPE E1						
0'-0" UP TO 6'-6"	1J 81 S	1J 81 S	1J 81 S	1J 81 S	1J 81 S	
EXTERIOR WALLS - TYPE E2/E3						
0'-0" UP TO 6'-6"	1J 81 S	1J 81 S	1J 81 S	1J 82 S	1J 82 S	
CORRIDOR WALLS - TYPE C1						
0'-0" UP TO 4'-0"	1J 81 S	1J 81 S	1J 81 S	1J 81 S	1J 81 S	
4'-1" UP TO 6'-3"	1J 81 S	1J 81 S	1J 82 S	1J 82 S	1J 82 S	
INTERIOR WALLS - TYPE I1						
0'-0" UP TO 7'-6"	-	1J 81 S	1J 81 S	1J 81 S	2J 83 S	
INTERIOR WALLS - TYPE I2						
0'-0" UP TO 3'-6"	-	1J 81 S	1J 81 S	1J 81 S	1J 81 S	

- NOTES:**
- TYPICAL UNLESS NOTED OTHERWISE ON PLANS
 - J = JACK UNDER HEADER
 - S = FULL HEIGHT STUD NAILED TO JACK ALONGSIDE OF JACK
 - ALL JACKS AND STUDS TO BE 2x SPF #2 GRADE OR BETTER
 - ALL JACKS AND STUDS TO BE NAILED TOGETHER WITH 0.131"x3" NAILS AT 8" O.C.
 - FOR FLUSH BEAMS WITH NO COLUMNS LABELED ON THE PLAN, USE THE TOTAL NUMBER OF JACKS STUDS SHOWN IN THE SCHEDULE ABOVE, EXCEPT LOCATE THEM ALL UNDER THE BEAM, BLOCKED AS REQUIRED.

BUILDING 3 THIRD FLOOR FRAMING PLAN

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

- FLOOR FRAMING NOTES (WOOD):**
- ALL FLOOR FRAMING SHALL BE 22" DEEP PRE-ENGINEERED OPEN WEB WOOD TRUSSES DESIGNED AND SPACED BY TRUSS MANUFACTURER AT 24" O.C. MAX. U.N.O. FOR THE DESIGN LOADS.
 - FLOOR TRUSS MANUFACTURER TO PROVIDE BLOCKOUTS FOR MECHANICAL DUCTS. VERIFY SIZE AND LOCATION OF FLOOR OPENINGS WITH LATEST ARCHITECTURAL AND MEP DRAWINGS.
 - ALL TRUSSES TO TRUSS CONNECTIONS TO BE SPECIFIED BY TRUSS MANUFACTURER.
 - EXTERIOR DECK MEMBERS SHALL BE P.T. SPW2 MATERIAL. REFER TO BALCONY FRAMING SCHEDULE FOR JOIST AND LEDGER SIZE AND ATTACHMENT.
 - PROVIDE (1) 2x6 STRONGBACK AT APPROXIMATE MID-SPAN OF THE TRUSSES UNDER 20'-0" OR APPROXIMATE THIRD POINTS OF TRUSSES OVER 20'-0". MAINTAIN 10'-0" MAX. SPACING.
 - FOR STACKING NON-BEARING WALLS FRAMED PARALLEL WITH FLOOR TRUSSES, PROVIDE 2x4 CRIPPLE STUDS AT 24" O.C. IN FLOOR PLENUM BETWEEN WALLS. SEE DETAIL 4/S-501.
 - SEE BEARING WALL SCHEDULE ON SHEET S-502 FOR STUD QUANTITY AND SPACING.
 - EXTERIOR WALLS TO BE TYPE "E1" U.N.O., INTERIOR UNIT BEARING WALLS TO BE TYPE "U1", U.N.O., CORRIDOR WALLS TO BE TYPE "C1", U.N.O., UNIT SEPARATION WALLS TO BE TYPE "U1", U.N.O. AND WET WALLS TO BE TYPE "W1" U.N.O.
 - PREFAB METAL PAN STAIRS AND LANDING BY OTHERS. FABRICATOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY ARCHITECT AND ENGINEER. STAIRWELL WALLS TO BE 8" CMU. REINFORCE WALLS W/ #5 BARS AT (3) CORNER CORES AND AT 32" O.C. IN BETWEEN.
 - PROVIDE BOND BEAMS W/ (2) #5 BARS AT EACH FLOOR LINE.
 - PROVIDE 6"x8" LINTELS WITH (2) #5 BARS AT OPENINGS IN CMU WALLS WITH MINIMUM 8" BEARING.
 - REFER TO S-501 FOR TYPICAL FRAMING DETAILS.
 - TRUSS MANUFACTURER TO PROVIDE BOX FOR MECHANICAL DUCTS. REFER TO MECHANICAL PLANS FOR DUCT LOCATIONS.
 - HATCHED REGION SHOWN ON PLAN, PROVIDE 1/2" RECESS IN FLOOR FRAME FOR ROLL-IN SHOWERS.

FLOOR FRAMING LEGEND

--- DROPPED 2x4 HEADER

--- FLUSH 2x4 HEADER

--- INTERIOR UNIT BEARING WALL

G.T.

ORDER TRUSS

TRUSS SPAN DIRECTION

WALL TYPE

ADDITIONAL LOADING SEE SHEET S-501

WOOD TRUSS LEGEND (U.N.O.)

	TYPE	LOADING	HATCH
TRUSS DEPTH (in.)	RESIDENTIAL	22T-40/20/5	NONE
	PUBLIC AREA	22T-100/20/5	
LIVE LOAD (PSF)	LIGHT STORAGE/ MECH.	B/C DEAD LOAD (PSF)	
		T/C DEAD LOAD (PSF)	
		22T-125/20/5	

NOTES:

- AREAS ON PLAN INDICATE DIFFERENCES IN TRUSS DEPTH OR LOADING. SEE PLAN FOR TRUSS DESIGN CRITERIA.

TYPICAL FLOOR HEADERS (U.N.O.)

	LOCATION	MARK	MAXIMUM OPENING
1	EXTERIOR	3-28	UP TO 5'-0"
		3-210	5'-1" UP TO 6'-6"
2	INTERIOR	2-28	UP TO 3'-6"
		3-28	UP TO 4'-0"
3	CORRIDOR	3-210	4'-1" UP TO 6'-3"

NOTES:

- MAXIMUM OPENING CORRELATES TO ROUGH OPENING DIMENSION.

DISCLAIMER NOTES

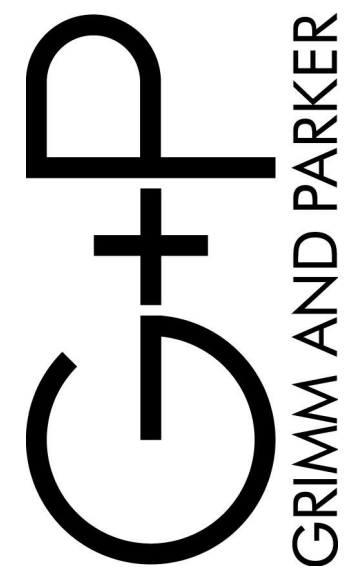
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B. THE CONTRACTOR SHALL REFER TO THE ARCHITECT FOR ANY DIMENSION NOT GIVEN ON OR NOT OBTAINABLE FROM THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THESE DRAWINGS.



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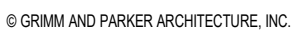
GP
#908-132-25

BUILDING 3 THIRD FLOOR FRAMING PLAN
ROANOKE GATEWAY
ROANOKE, VA 24002

DATE	SUBMISSION / REVISION	BY
05/14/2028	1H 4% HOTIC APP	
06/30/2028	CONSTRUCTION REVIEW	

3S-302

06/30/2026
CONSTRUCTABILITY REVIEW



DISCLAIMER NOTES

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B. THE CONTRACTOR SHALL REFER TO THE SER/ARCHITECT FOR ANY DIMENSION NOT GIVEN ON OR NOT OBTAINABLE FROM THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THESE DRAWINGS.



WOOD COLUMN SCHEDULE					
LEVELS SUPPORTED	FLR TO FLR HEIGHT	C1	C2	C3	C4
ROOF	-8'-1 1/8"	--	(2)2x6		
ROOF + 1 FLR ABOVE	-9'-11 7/8"	(2)2x4	(2)2x6		
ROOF + 2 FLR ABOVE	-9'-11 7/8"	(3)2x4	(3)2x6		
ROOF + 3 FLR ABOVE	-9'-11 7/8"	(6)2x4	(4)2x6		
ROOF + 3 FLR ABOVE (AT BUILDING-1)	-9'-11 7/8" TO 12'-8"	(6)2x4	(4)2x6		

NOTES:

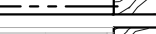
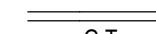
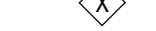
- WHERE COLUMN-1 ARE SHOWN ON EITHER SIDE OF OPENING, JACK SCHEDULE REQUIREMENTS ARE NOT APPLICABLE FOR THAT OPENING.
- ALL JOISTS ARE ASSUMED TO BE SPF #2 GRADE OR BETTER, U.N.O.
- NON-BEARING INTERIOR WALL STUDS MAY BE SPF STUD GRADE 2x4 AT 24" O.C
- PRE-FAB STRUCTURAL COLUMNS - CONTRACTOR TO SUPPLY ENGINEER WITH SPECIFICATIONS AND DESIGN CRITERIA.

JACK AND KING STUD SCHEDULE					
OPENING	ROOF BEARING ABOVE	ROOF AND 1 FLR BEARING ABOVE	ROOF AND 2 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE	ROOF AND 3 FLR BEARING ABOVE AT BUILDING-1
EXTERIOR WALLS - TYPE E1					
0'-0" UP TO 6'-4"	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S
EXTERIOR WALLS - TYPE E2/E3					
0'-0" UP TO 6'-4"	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S	1,8 x 2 S	1,8 x 2 S
CORRIDOR WALLS - TYPE C1					
0'-0" UP TO 4'-0"	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S
4'-1" UP TO 6'-3"	1,8 x 1 S	1,8 x 1 S	1,8 x 2 S	1,8 x 2 S	1,8 x 2 S
INTERIOR WALLS - TYPE I1					
0'-0" UP TO 3'-6"	--	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S	2,8 x 3 S
INTERIOR WALLS - TYPE I2					
0'-0" UP TO 3'-6"	--	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S	1,8 x 1 S

NOTES:

- TYPICAL UNLESS NOTED OTHERWISE ON PLANS
- J = JACK UNDER HEADER
- S = FULL HEIGHT STUD NAILED TO JACK ALONGSIDE OF JACK
- ALL JACKS AND STUDS TO BE 2" SPF OR GRADE 2 OR BETTER
- ALL JACKS AND STUDS TO BE NAILED TOGETHER WITH 0.131x2" NAILS AT 8" O.C
- FOR FLUSH BEAMS WITH NO COLUMNS LABELED ON THE PLAN, USE THE TOTAL NUMBER OF JACKS STUDS SHOWN IN THE SCHEDULE ABOVE, EXCEPT LOCATE THEM ALL UNDER THE BEAM, BLOCKED AS REQUIRED.

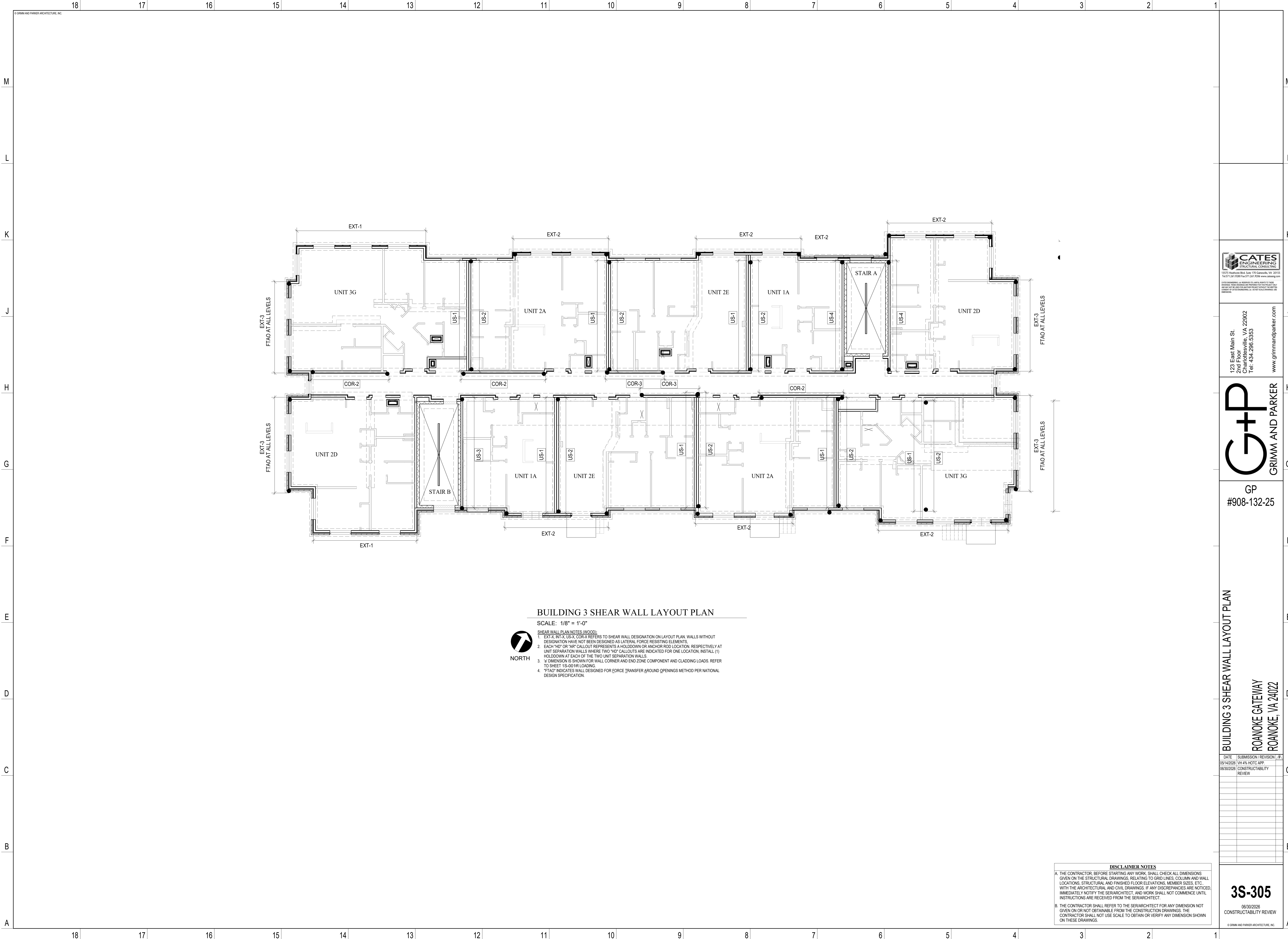
NORTH

ROOF FRAMING LEGEND			
	DROPPED 2x HEADER		GIRDER TRUSS
	FLUSH 2x HEADER		TRUSS SPAN DIRECTION
	INTERIOR UNIT BEARING WALL		WALL TYPE
			MECHANICAL AREAS, SEE SHEET S-001 FOR LOADING

TYPICAL ROOF HEADERS (U.N.O.)			
	LOCATION	MARK	MAXIMUM OPENING
1	EXTERIOR	3-28	UP TO 5'-0"
		3-210	5'-1" UP TO 6'-6"
2	CORRIDOR	3-28	UP TO 4'-0"
		3-210	4'-1" UP TO 6'-3"

NOTES:
 1. MAXIMUM OPENING CORRELATES TO ROUGH OPENING DIMENSION.

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BUILDING 3 SHEAR WALL LAYOUT PLAN

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



NORTH

- SHEAR WALL PLAN NOTES (WOOD):**
- EXT-X, INT-X, US-X, COR-X REFERS TO SHEAR WALL DESIGNATION ON LAYOUT PLAN. WALLS WITHOUT DESIGNATION HAVE NOT BEEN DESIGNED AS LATERAL FORCE RESISTING ELEMENTS.
 - EACH "HD" OR "AR" CALLOUT REPRESENTS A HOLDDOWN OR ANCHOR ROD LOCATION. RESPECTIVELY AT UNIT SEPARATION WALLS WHERE TWO "HD" CALLOUTS ARE INDICATED FOR ONE LOCATION, INSTALL (1) HOLDDOWN AT EACH OF THE TWO UNIT SEPARATION WALLS.
 - "g" DIMENSION IS SHOWN FOR WALL CORNER AND END ZONE COMPONENT AND CLADDING LOADS. REFER TO SHEET 1S-001R/L FOR LOADING.
 - "FTAO" INDICATES WALL DESIGNED FOR FORCE TRANSFER AROUND OPENINGS METHOD PER NATIONAL DESIGN SPECIFICATION.

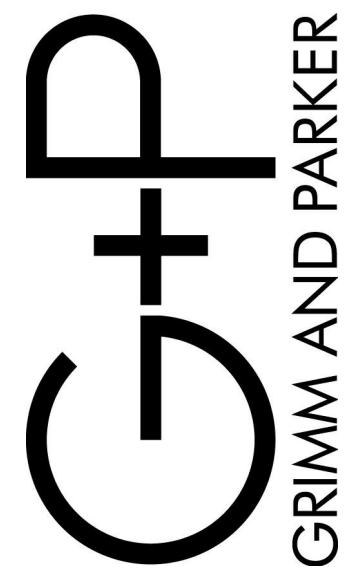
DISCLAIMER NOTES

A. THE CONTRACTOR, BEFORE STARTING ANY WORK, SHALL CHECK ALL DIMENSIONS GIVEN ON THE STRUCTURAL DRAWINGS, RELATING TO GRID LINES, COLUMN AND WALL LOCATIONS, STRUCTURAL AND FINISHED FLOOR ELEVATIONS, MEMBER SIZES, ETC., WITH THE ARCHITECTURAL AND CIVIL DRAWINGS. IF ANY DISCREPANCIES ARE NOTICED, IMMEDIATELY NOTIFY THE SER/ARCHITECT, AND WORK SHALL NOT COMMENCE UNTIL INSTRUCTIONS ARE RECEIVED FROM THE SER/ARCHITECT.

B. THE CONTRACTOR SHALL REFER TO THE SER/ARCHITECT FOR ANY DIMENSION NOT GIVEN ON OR NOT OBTAINABLE FROM THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THESE DRAWINGS.



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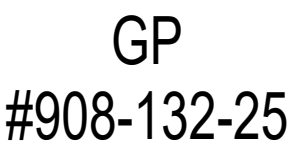
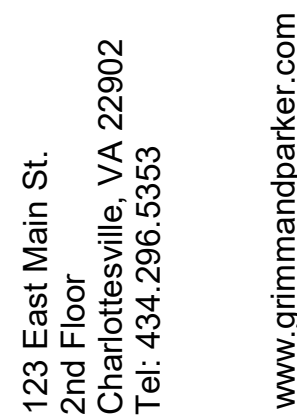
GP
#908-132-25

BUILDING 3 SHEAR WALL LAYOUT PLAN
ROANOKE GATEWAY
ROANOKE, VA 24022

DATE	SUBMISSION / REVISION / A
05/14/2026	VH 4% HOTC APP
06/30/2026	CONSTRUCTABILITY REVIEW

3S-305

06/30/2026
CONSTRUCTABILITY REVIEW



DATE	SUBMISSION / REVISION	
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06/30/2026	CONSTRUCTABILITY REVIEW	

06/30/2026
CONSTRUCTABILITY REVIEW

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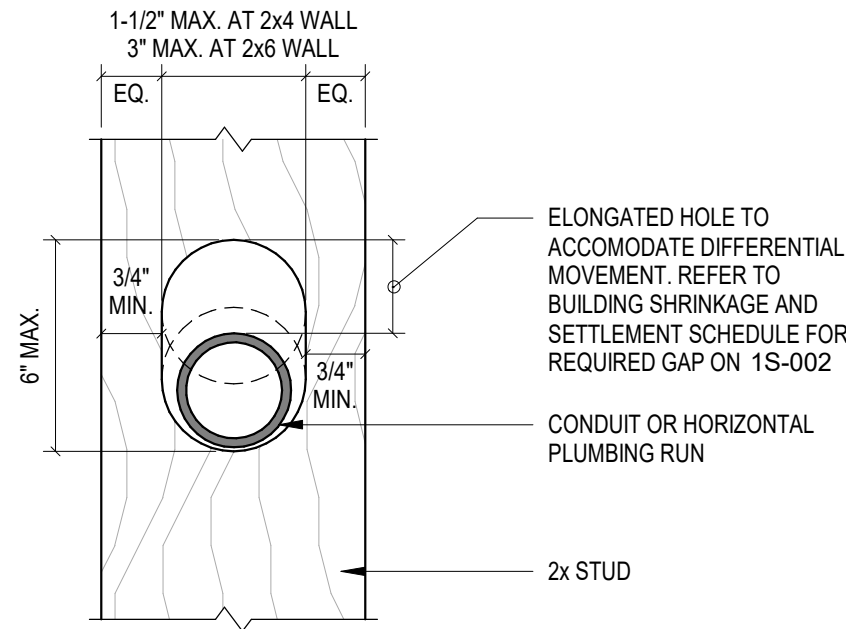
12

S-501

ELONGATED HOLE DETAIL

11.05.17

SCALE: N.T.S.



INTERNATIONAL BUILDING CODE

SECTION 2308.5.8 CUTTING AND NOTCHING

IN EXTERIOR WALLS AND BEARING PARTITIONS, A WOOD STUD SHALL NOT BE CUT OR NOTCHED IN EXCESS OF 25 PERCENT OF ITS DEPTH. IN NON BEARING PARTITIONS THAT DO NOT SUPPORT LOADS OTHER THAN THE WEIGHT OF THE PARTITION, A STUD SHALL NOT BE CUT OR NOTCHED IN EXCESS OF 40 PERCENT OF ITS DEPTH.

*SECTION 2308.5.10 BORED HOLES

THE DIAMETER OF BORED HOLES IN WOOD STUDS SHALL NOT EXCEED 40 PERCENT OF THE STUD DEPTH. THE DIAMETER OF BORED HOLES IN WOOD STUDS SHALL NOT EXCEED 60 PERCENT OF THE STUD DEPTH IN NON BEARING PARTITIONS. THE DIAMETER OF BORED HOLES IN WOOD STUDS SHALL NOT EXCEED 60 PERCENT OF THE STUD DEPTH IN ANY WALL WHERE EACH STUD IS DOUBLED. PROVIDED THAT NOT MORE THAN TWO SUCH SUCCESSIVE DOUBLE STUDS ARE SO BORED. THE EDGE OF THE BORED HOLE SHALL NOT BE CLOSER THAN 58 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.

9

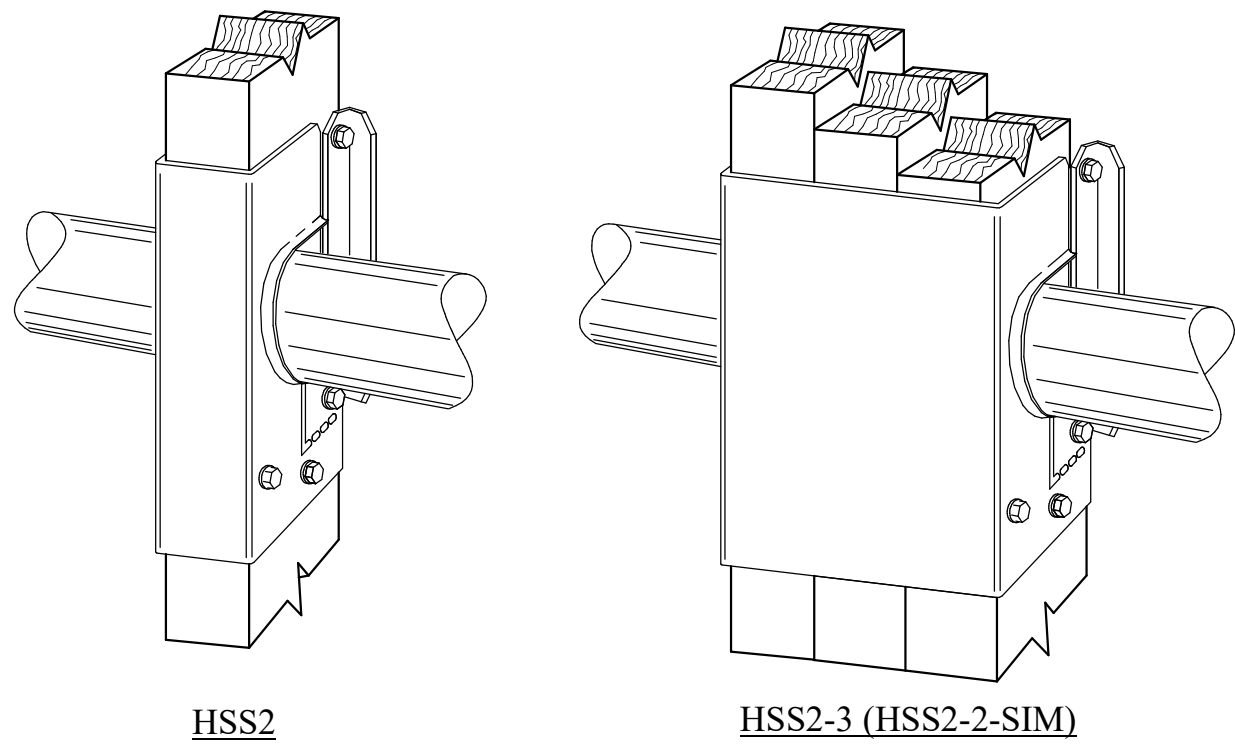
S-501

ALLOWABLE STUD NOTCH AND BORINGS

02.01.18

SCALE: N.T.S.

STUDS	SIMPSON MODEL NUMBER	FASTENERS
2x	HSS2-SDWS1.5	12-SDS 1/4"x1-1/2"
(2) 2x	HSS2-2-SDWS3	12-SDS 1/4"x3"
(3) 2x	HSS2-3-SDWS3	12-SDS 1/4"x3"



- NOTES:
- SS STUD SHOES MAY BE ACCEPTABLE IN LIMITED CIRCUMSTANCES. CONTACT SER FOR EVALUATION PRIOR TO INSTALLATION.
 - STUD SHOES ARE NEEDED WHERE LIMITS OF STUD BORING ARE EXCEEDED.
 - SHOES SHALL BE INSTALLED PER MANUFACTURERS GUIDELINES
 - IF MORE THAN 2 ADJACENT STUDS ARE OVERBORED, CONTACT SER FOR EVALUATION
 - FOR USE AT BOTTOM TWO LEVELS OF FRAMING ONLY

10

S-501

STRUCTURAL REPAIR FOR OVERBORED STUDS

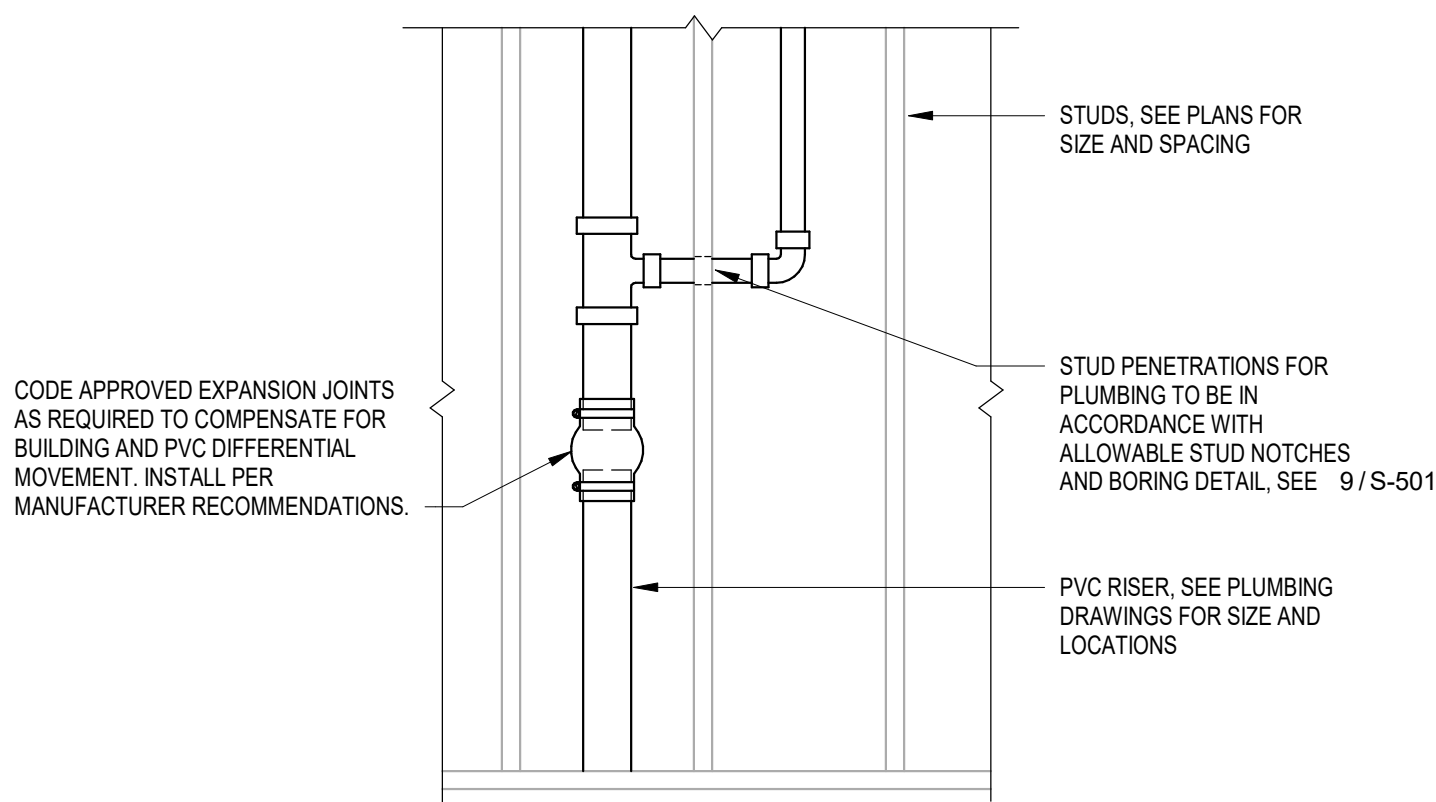
02.01.18

SCALE: N.T.S.

PVC THERMAL MOVEMENT SCHEDULE		
FRAMED LEVEL	REFERENCE ELEVATION (FT.)	EXPANSION/ CONTRACTION (IN.)
ROOF	52.1	1.27
4TH FLOOR	43.1	1.05
3RD	32.4	0.79
2ND	21.4	0.52
1ST	10.7	0.26

NOTES:

- VALUES BASED ON 70 DEGREE TEMPERATURE DIFFERENCE
- VALUES BASED ON COEFFICIENT OF THERMAL EXPANSION OF 2.9e-5in./in./°F



CONTRACTOR OPTION: THE CONTRACTOR MAY ROUTE THE PVC PIPING IN THE CEILING TRUSS SPACE AND/OR PROVIDE ELONGATED HOLES AND OMIT THE EXPANSION FITTINGS. SEE 12 / S-501

11

S-501

PVC PIPE/BLDG SETTLEMENT DETAIL

11.14.22

SCALE: N.T.S.

- NOTES:
- LOCATE STRONGBACKS AT APPROXIMATE MID SPAN OF TRUSSES UNDER 20'-0" OR AT APPROXIMATE THIRD POINTS OF TRUSSES UNDER 30'-0". MAINTAIN 10'-0" MAXIMUM SPACING.
 - WHERE REQUIRED, SPLICE STRONGBACKS 4'-0" MINIMUM AND ATTACH TOGETHER WITH (12) 0.131"x3" NAILS EQUALLY SPACED.
 - CONTINUE STRONGBACKS TO PERPENDICULAR WALLS AND ATTACH TO VERTICAL 2x4 BLOCKS.
 - INSTALL STRONGBACKS TIGHT TO BOTTOM CHORD WHENEVER POSSIBLE.

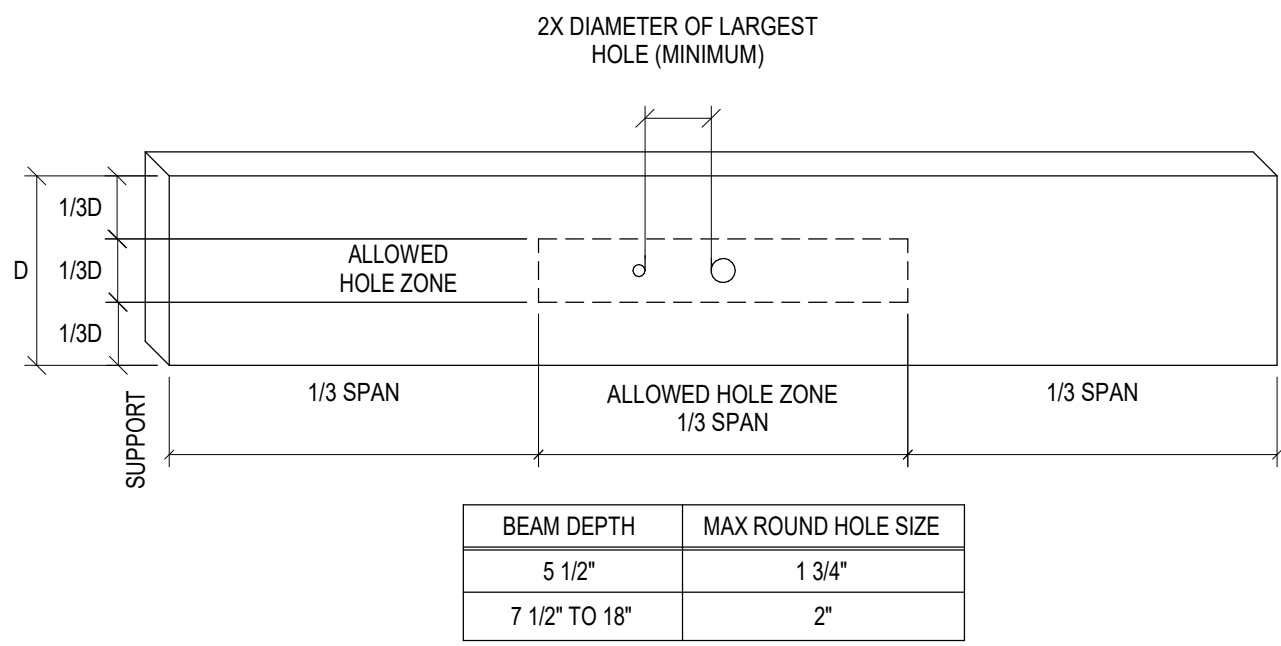
5

S-501

TYPICAL STRONGBACK DETAIL

02.01.18

SCALE: N.T.S.



- GENERAL NOTES:
- DIAGRAM IS FOR UNIFORMLY LOADED BEAM ONLY.
 - RECTANGULAR HOLES ARE NOT ALLOWED

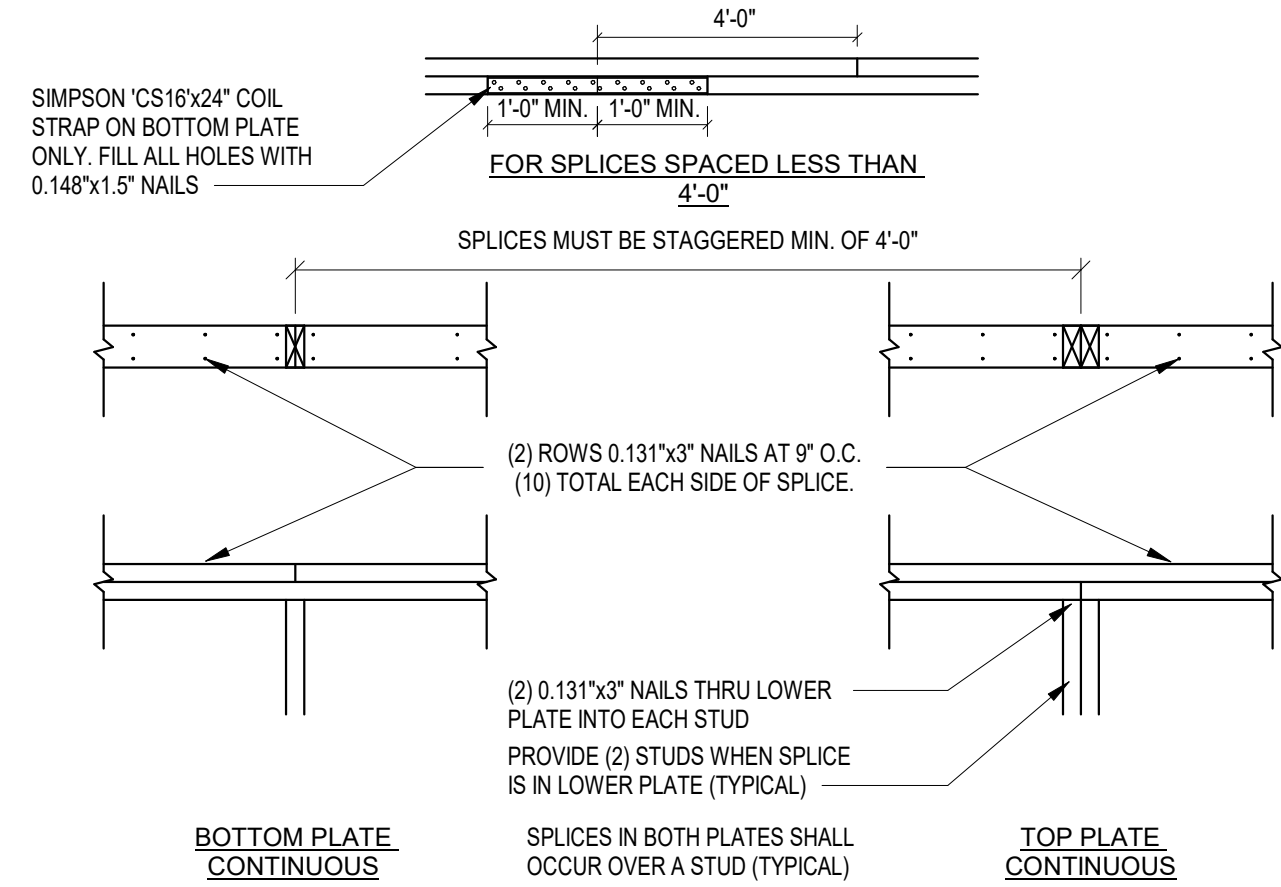
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S-501

ALLOWABLE HOLE GUIDE FOR BEAM OR HEADER

01.06.21

SCALE: N.T.S.



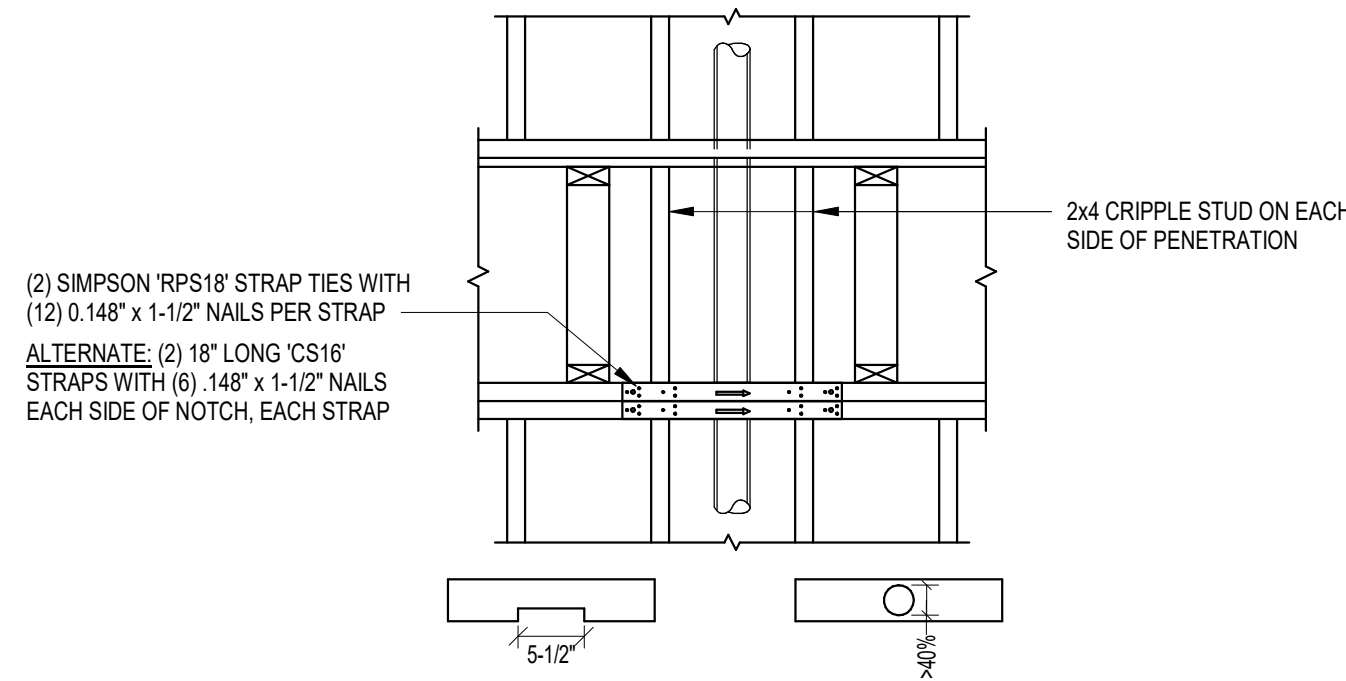
7

S-501

TYPICAL TOP PLATE SPLICE

02.22.17

SCALE: N.T.S.



8

S-501

TOP PLATE PENETRATIONS

11.21.22

SCALE: N.T.S.

AT BEARING WALLS AND SHEAR WALLS

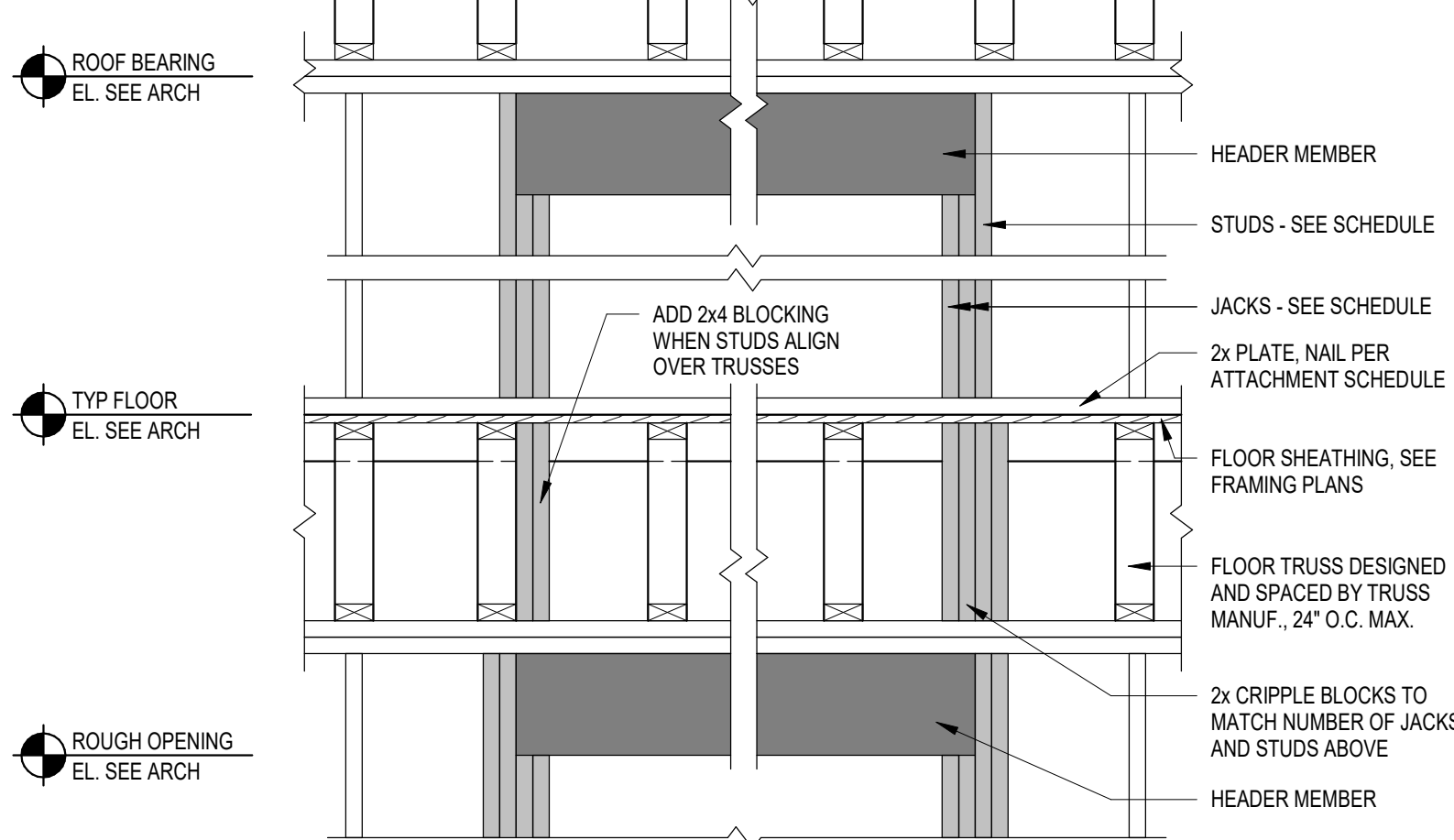
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S-501

EXTERIOR WALL CRIPPLE AT TRUSS ENDS

02.01.18

SCALE: N.T.S.



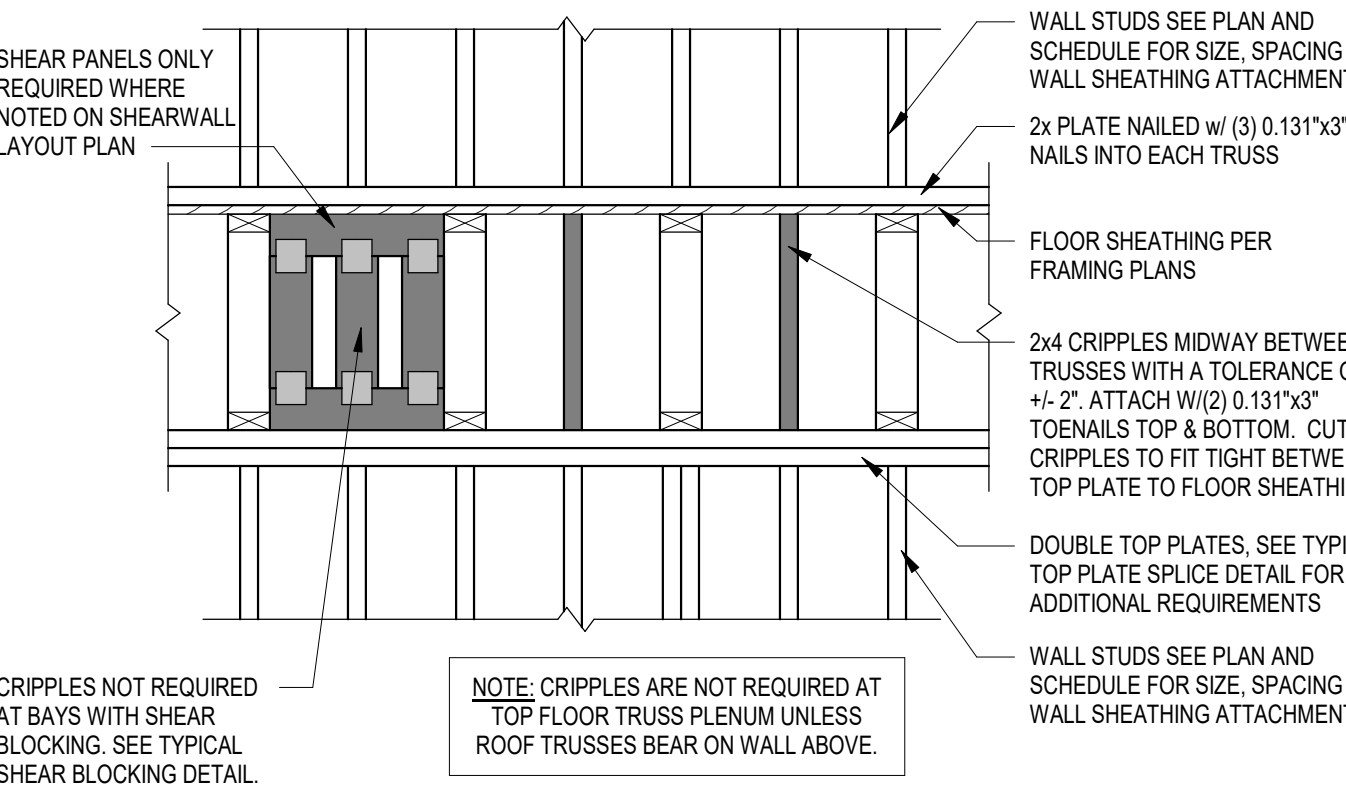
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S-501

TYPICAL HEADER FRAMING DETAIL

01.06.21

SCALE: N.T.S.



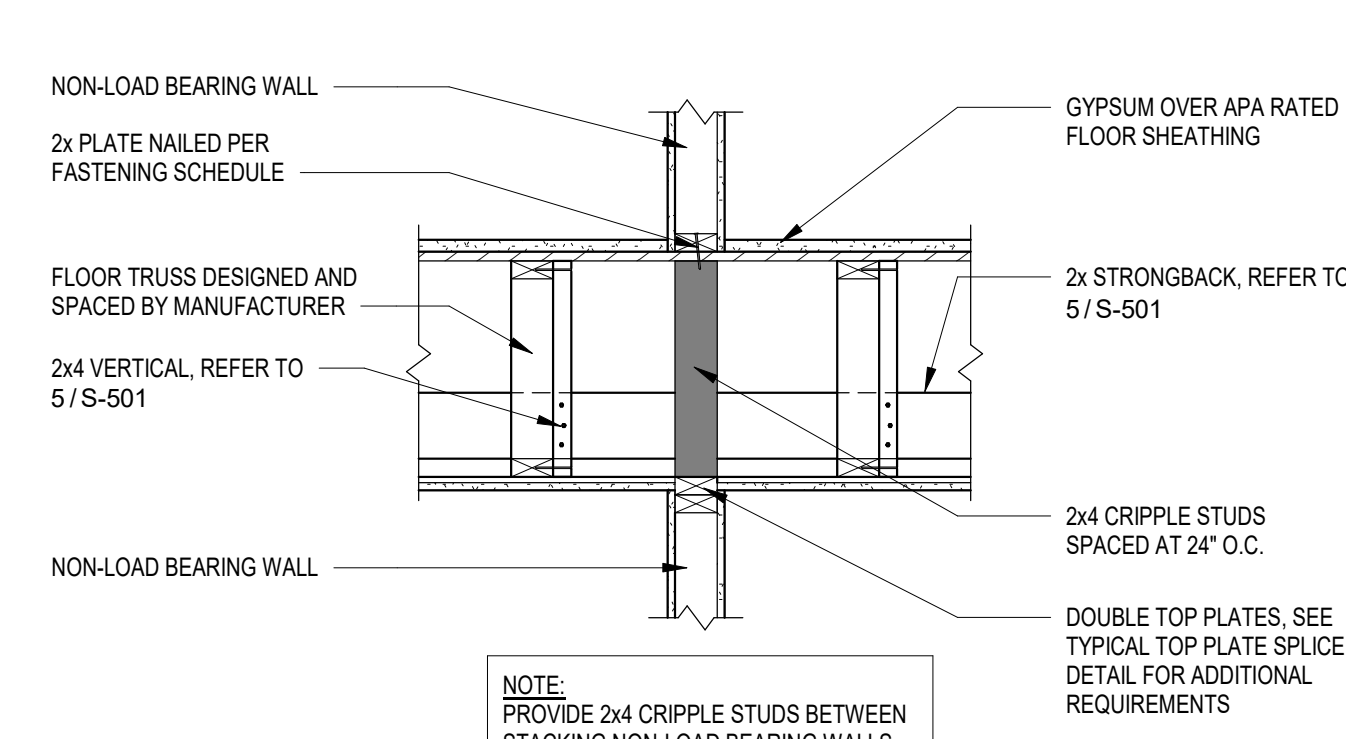
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S-501

INT. UNIT BEARING WALL CRIPPLE DETAIL

10.17.17

SCALE: N.T.S.



4

S-501

NON-BEARING WALL CRIPPLE DETAIL

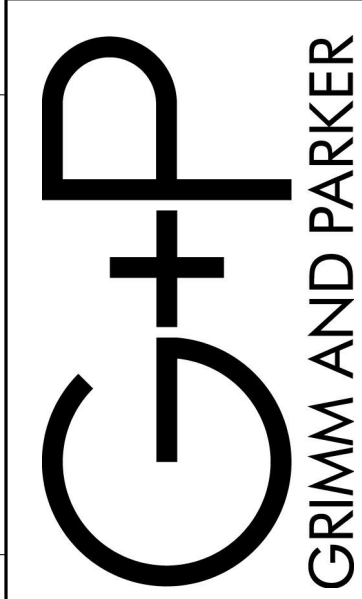
10.31.23

SCALE: N.T.S.

AT BEARING WALLS AND SHEAR WALLS



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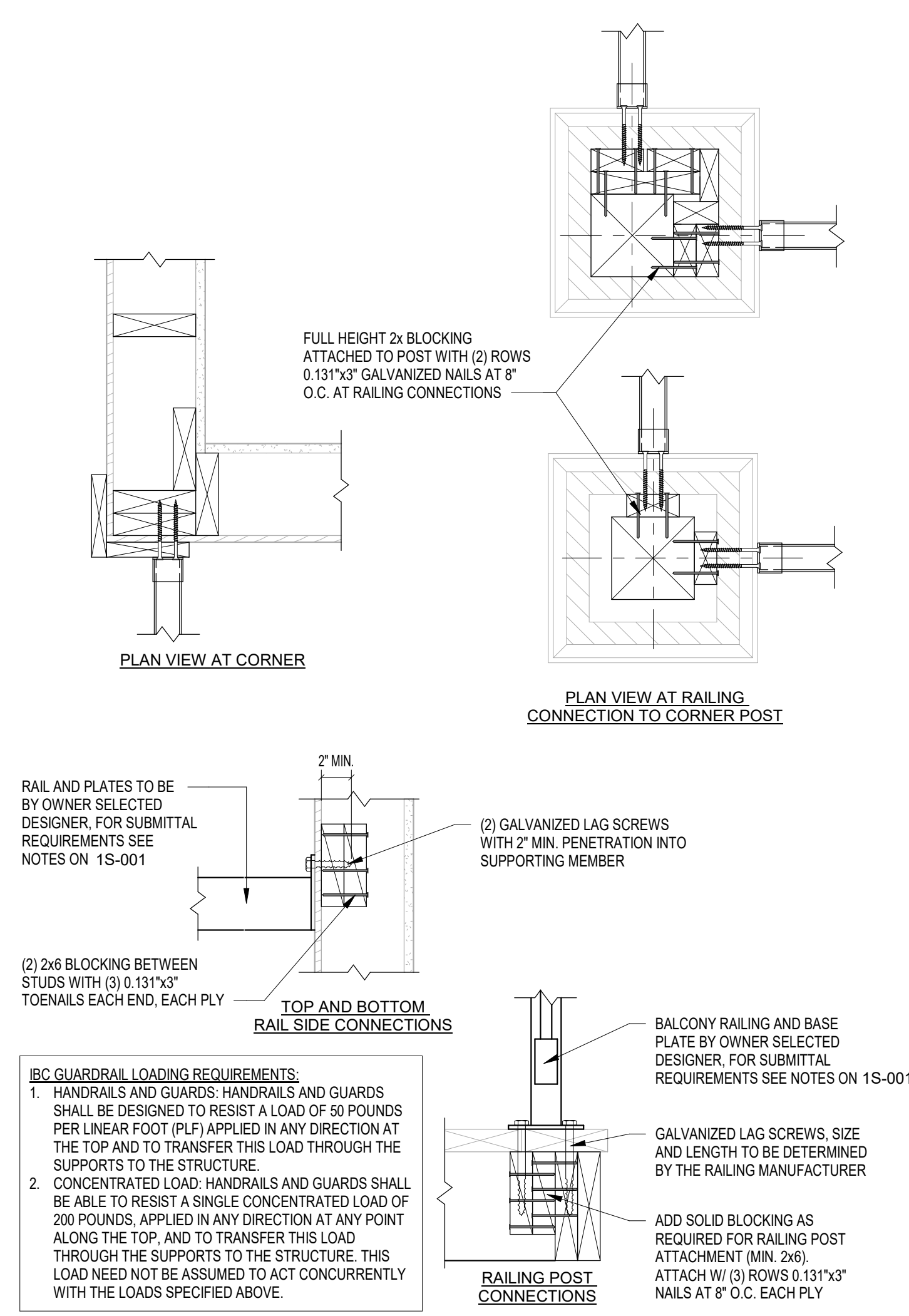


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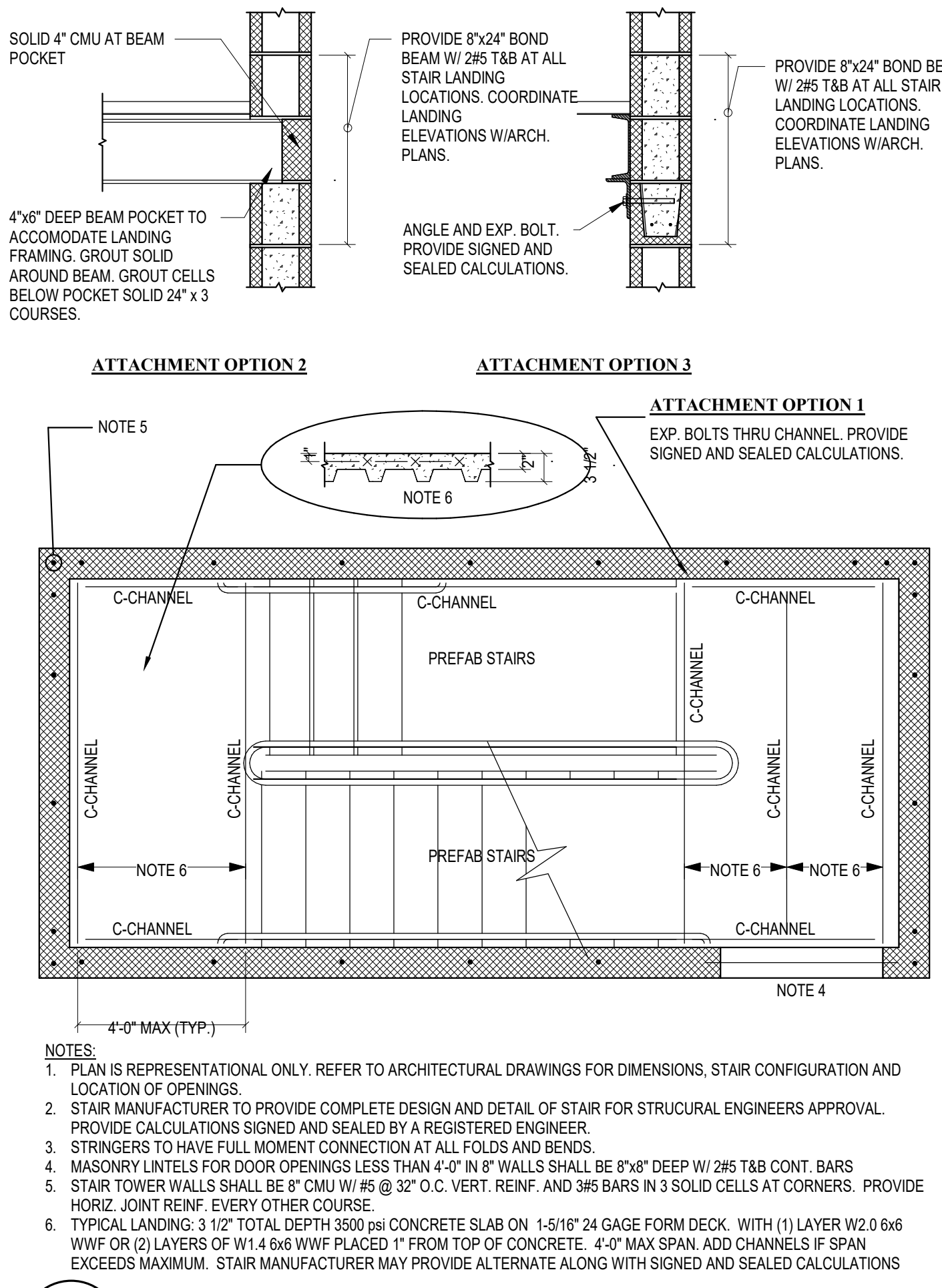
TYPICAL WOOD FRAMING DETAILS
ROANOKE GATEWAY
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DATE	SUBMISSION / REVISION / A
05/14/2026	VH 4% HOTIC APP
06/30/2026	CONSTRUCTABILITY REVIEW

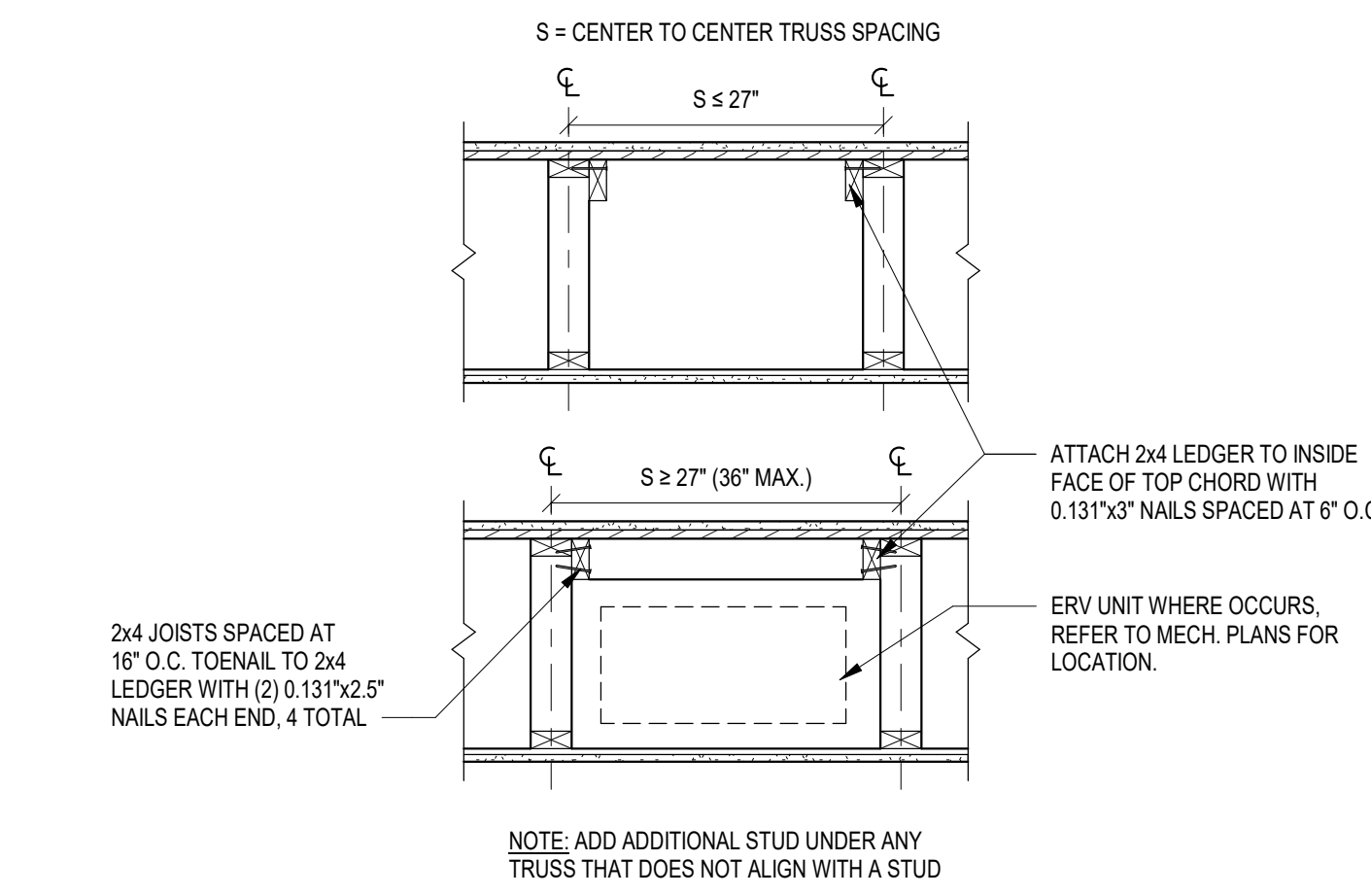
S-501
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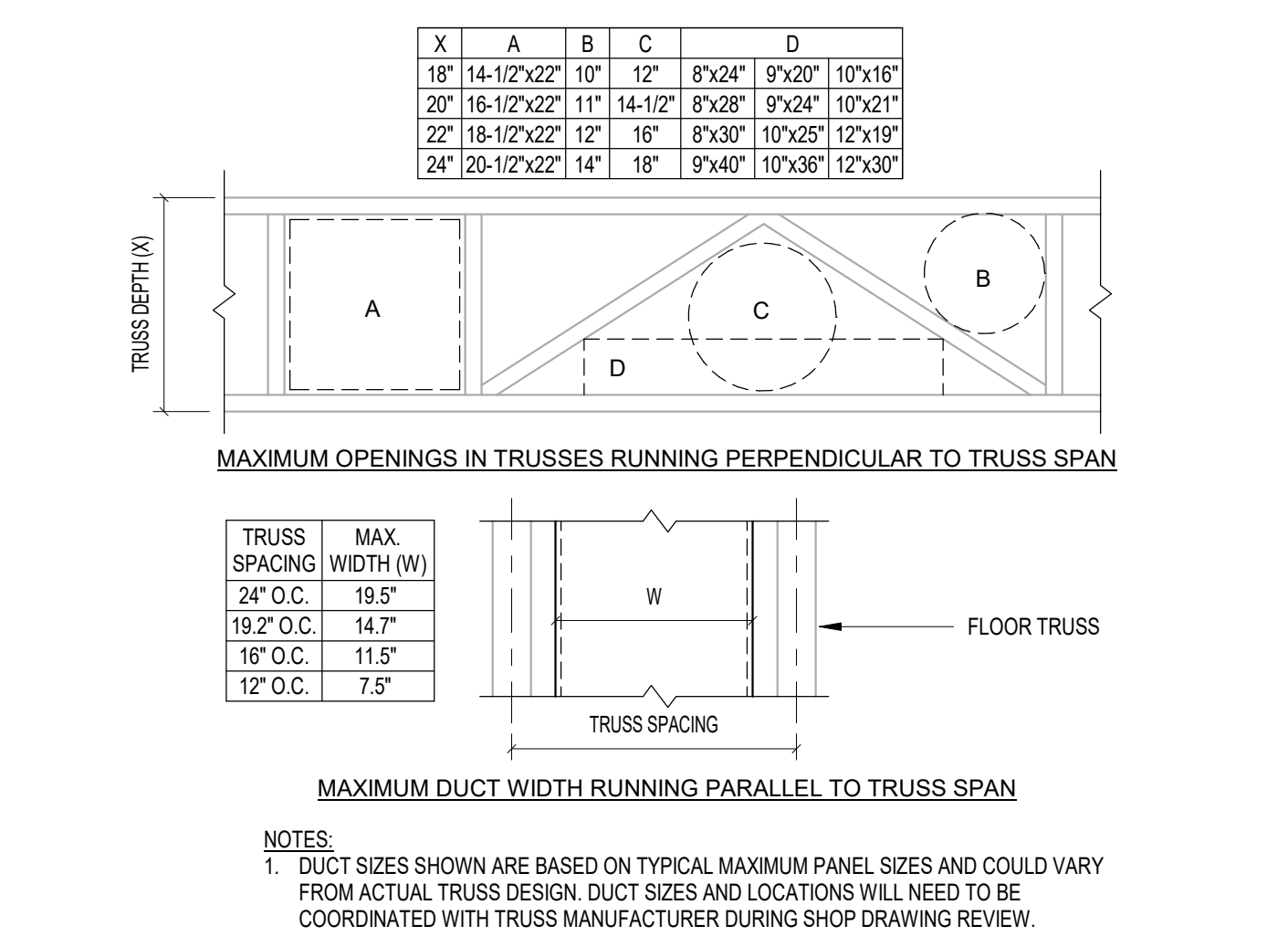
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S-502 **BALCONY GUARDRAIL CONNECTION DETAIL**
SCALE: N.T.S. 01.06.21



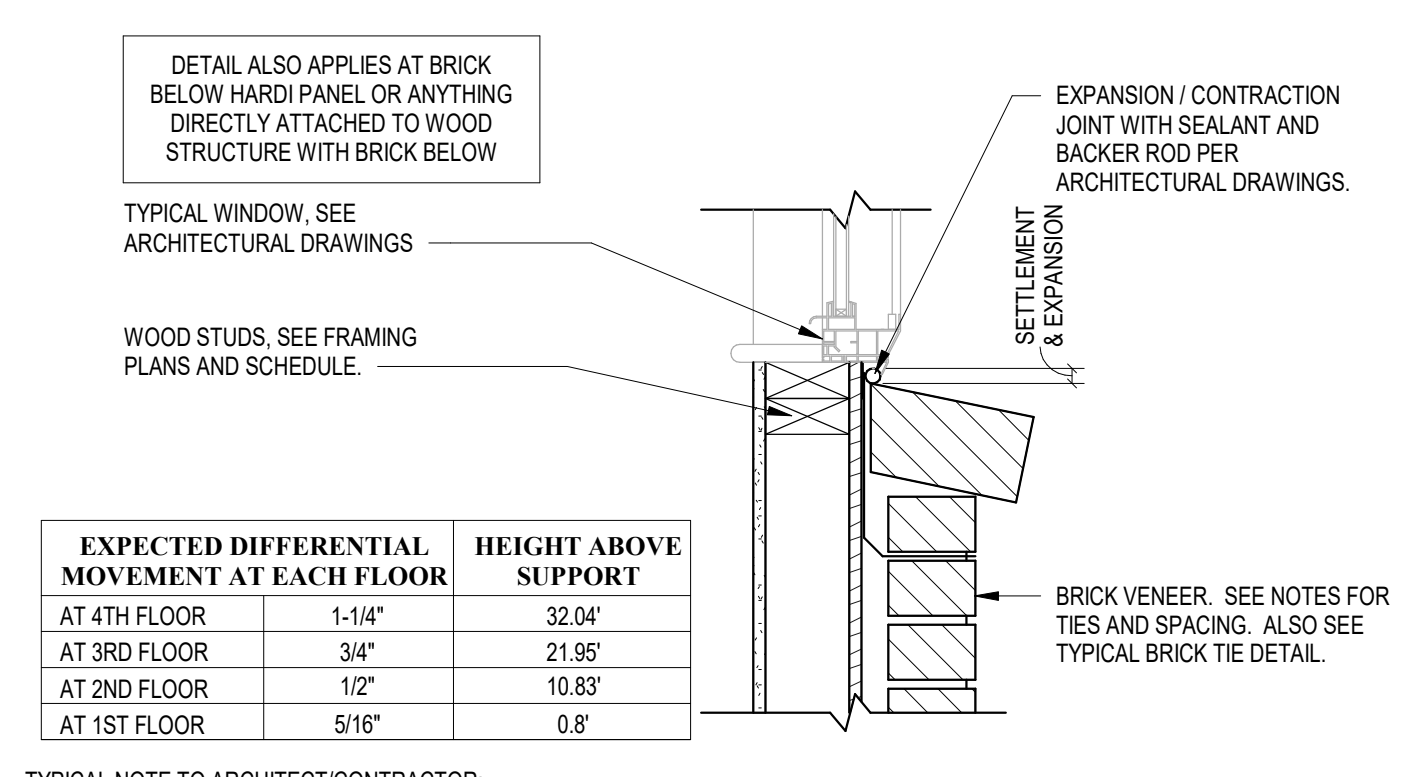
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S-502 **TYPICAL CMU STAIR TOWER**
SCALE: N.T.S.



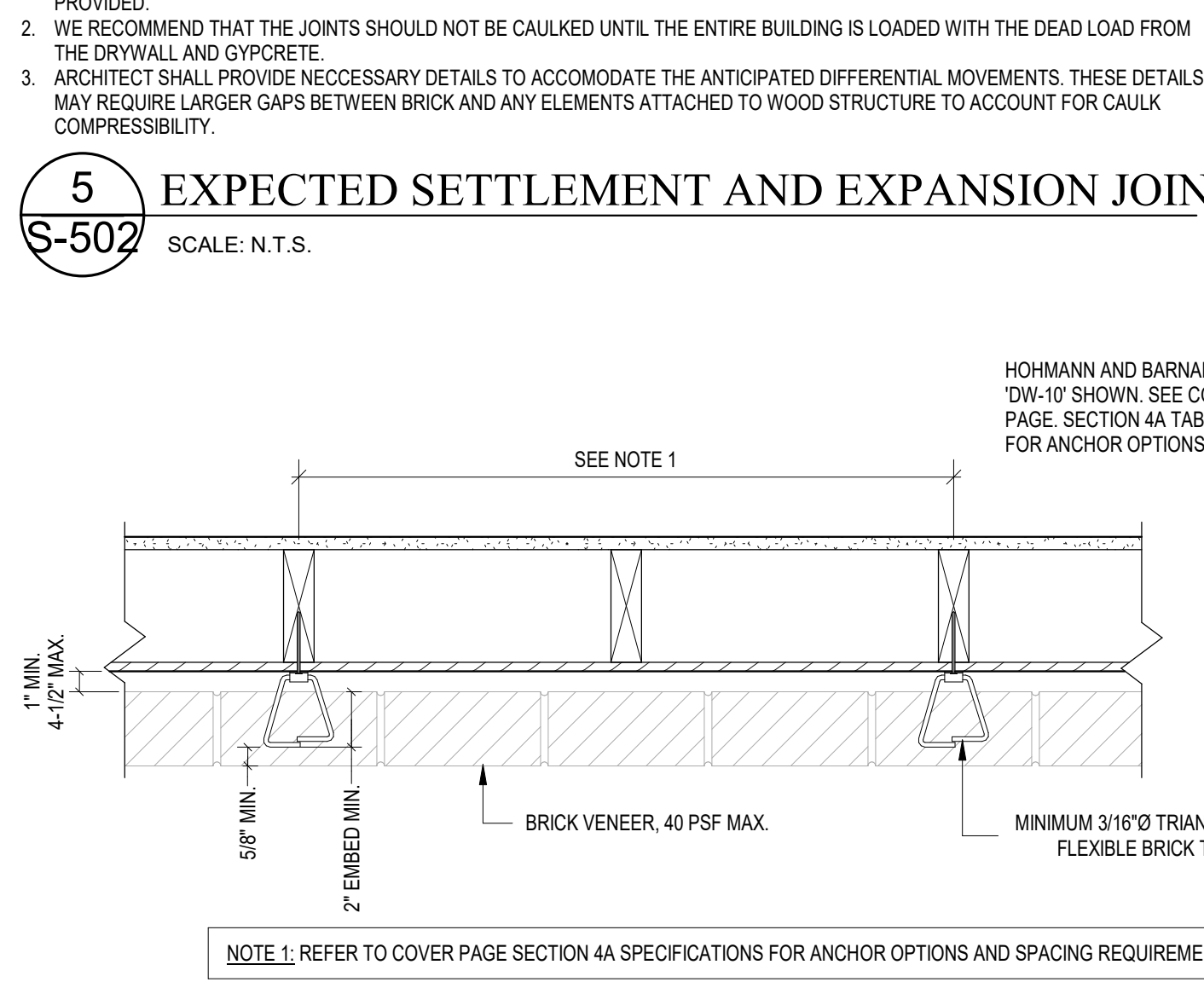
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S-502 **TRUSSES SPACED AT GREATER THAN 24\"/>**



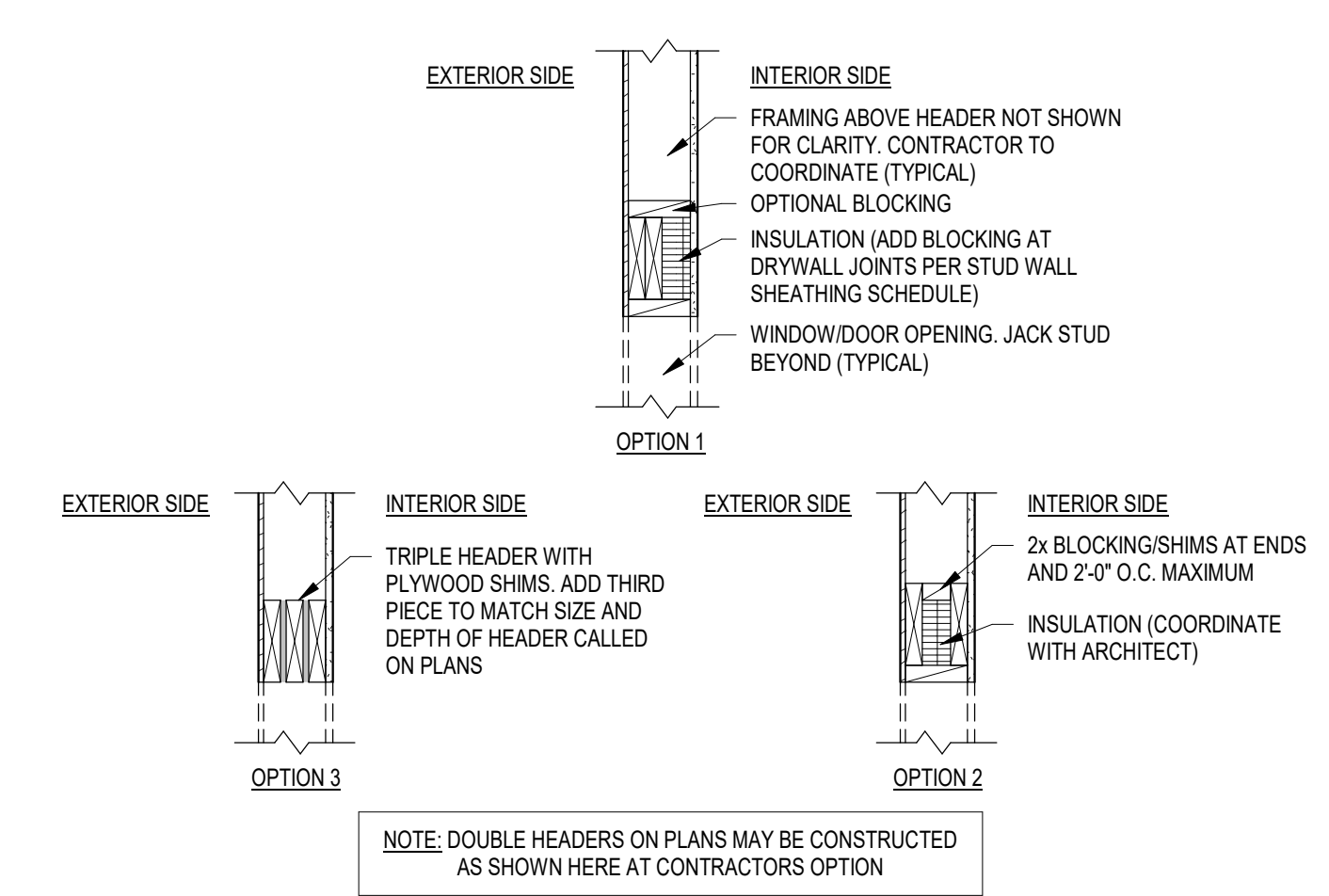
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S-502 **TRUSS OPENING GUIDELINES**
SCALE: N.T.S. 09.01.2020



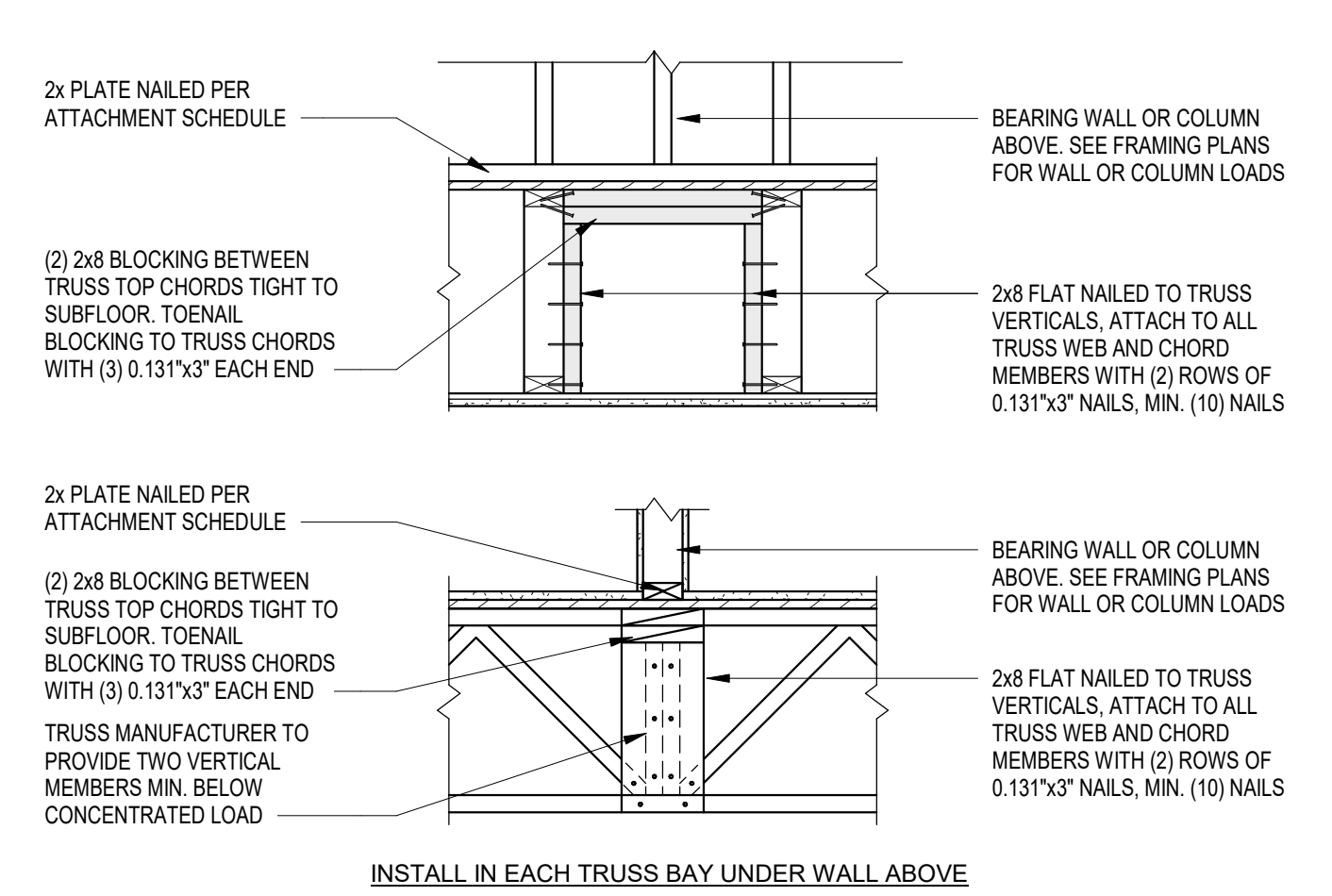
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S-502 **EXPECTED SETTLEMENT AND EXPANSION JOINT**
SCALE: N.T.S.



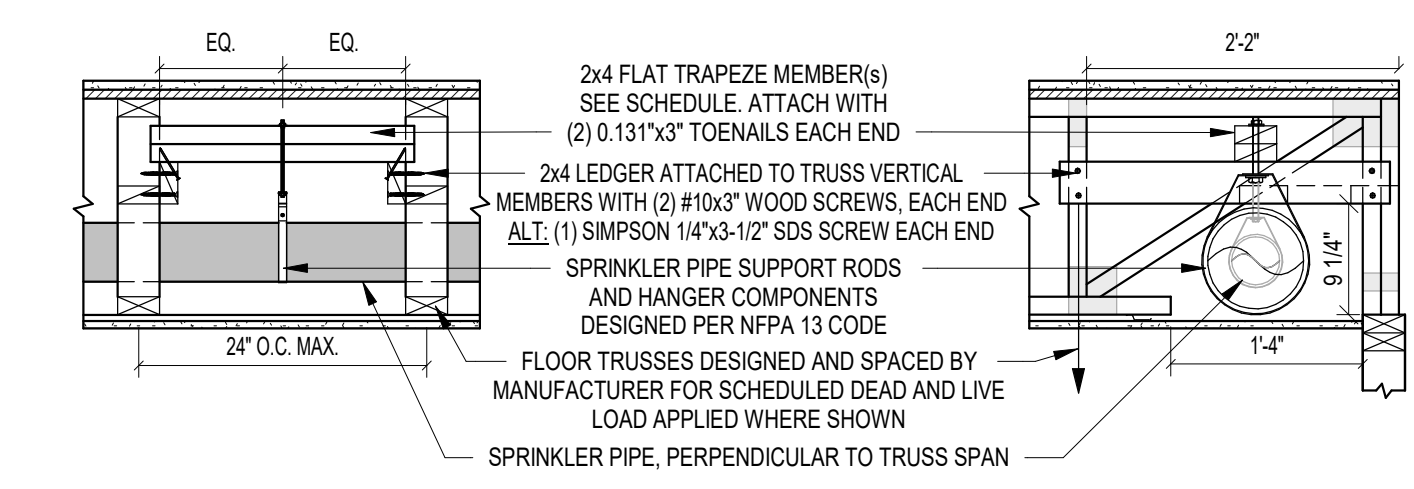
6
S-502 **ADJUSTABLE BRICK ANCHOR - WOOD STUD BACKUP**
SCALE: N.T.S. 01.27.25



7
S-502 **2-PLY HEADER OPTIONS FOR 2x6 WALLS**
SCALE: N.T.S. 01.06.21



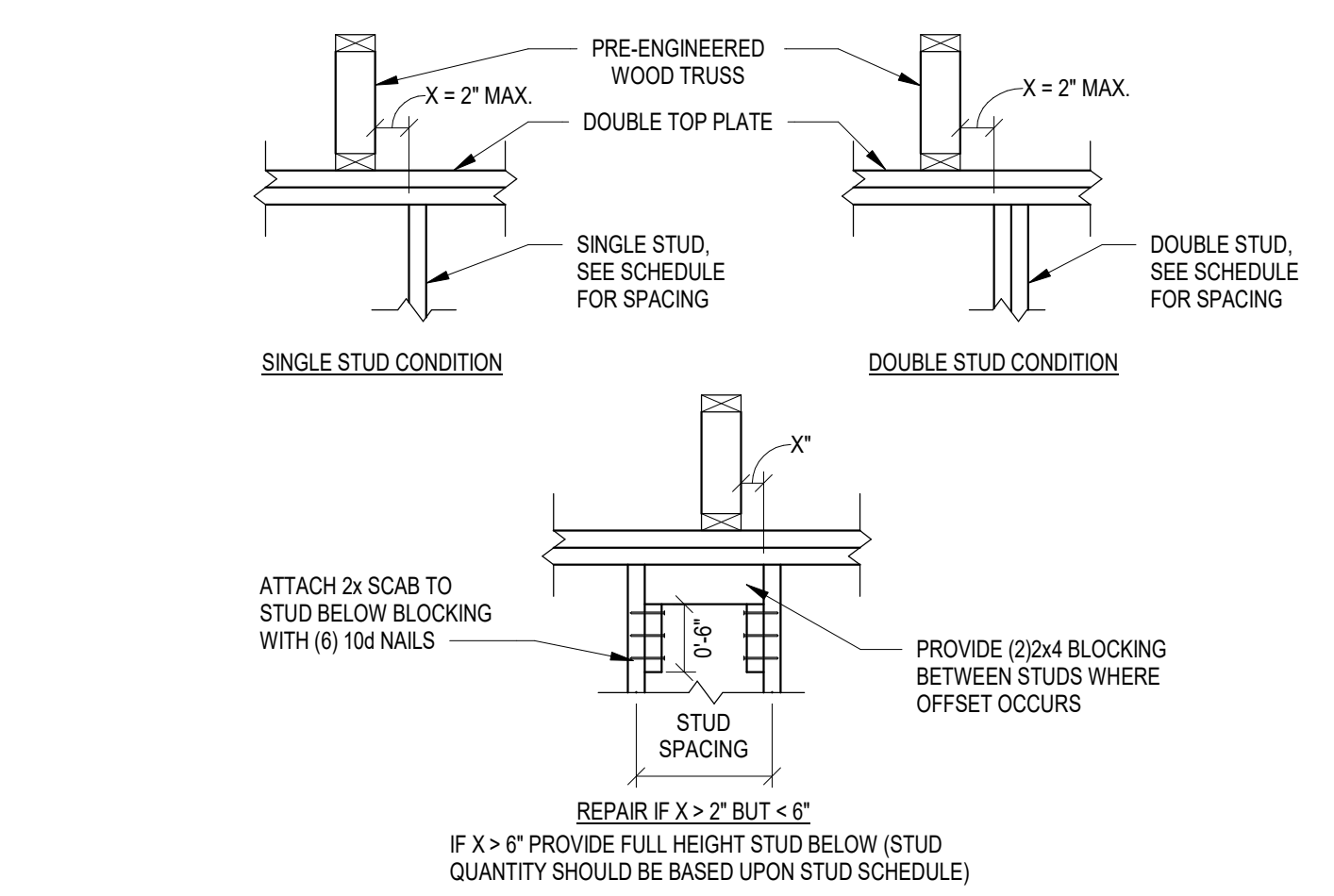
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S-502 **TRUSS SUPPORTING BEARING WALL ABOVE**
SCALE: N.T.S. 05.09.17



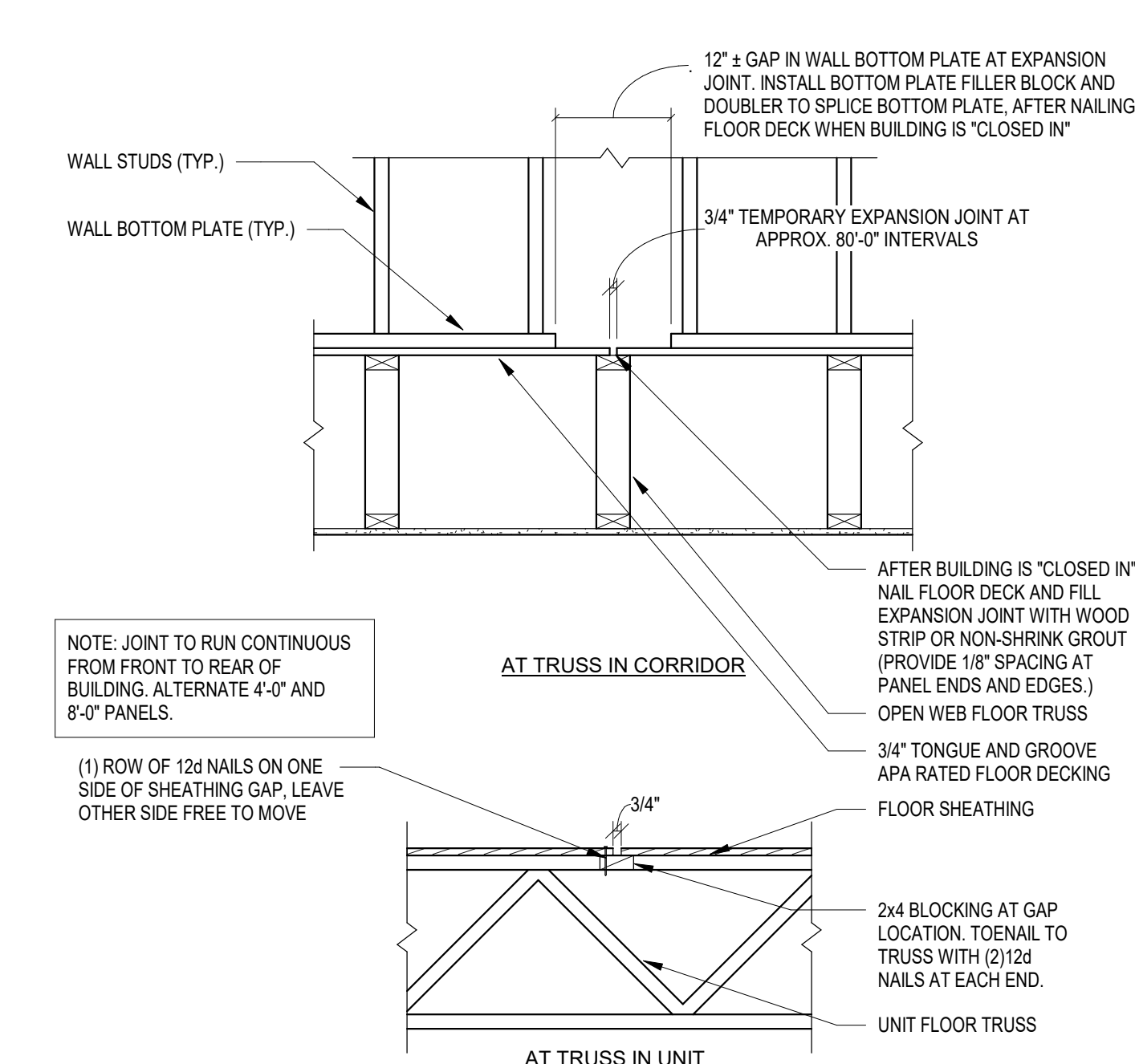
SCHEDULE 40/10 - SPRINKLER PIPE LOADING													
PIPE INSIDE DIA. (INCHES)	WET PIPE WT (PLF)	HANGER SPACING	DEAD LOAD REACTION (1)		LIVE LOAD REACTION (2)		TOTAL LOAD REACTION	TRAPEZE MEMBER	POINT LOAD ON TRUSS				
			SCH. 40	SCH. 10	(FEET)	SCH. 40			SCH. 10	(LBS)	SCH. 40	SCH. 10	SCH. 40
4.0	15.40	11.78	14.0	250	165	250	480	415	244	244	65	80	40
5.0	23.47	17.30	14.0	329	242	250	579	492	244	244	65	85	60
6.0	31.69	23.03	14.0	444	322	250	684	572	244	244	65	110	80
8.0	47.70	40.08	14.0	668	561	250	918	811	224	244	65	170	140

NOTES:
1. THE DEAD LOADS FROM THE SPRINKLER HANGERS SHALL BE APPLIED ANYWHERE ALONG THE TOP OR BOTTOM CHORD MEMBER AND ARE IN ADDITION TO ALL OTHER LOADING REQUIREMENTS.
2. IN ADDITION, TRUSSES SHALL ALSO BE DESIGNED FOR A SHORT TERM (CH=2.0), 250 POUND LIVE LOAD APPLIED AT THE HANGER LOCATION ANYWHERE ALONG THE TOP OR BOTTOM CHORD MEMBERS, NON CONCURRENT WITH ANY OTHER LIVE LOADS.
3. TRAPEZE AND LEDGER MEMBERS SHALL BE SP#2 OR BETTER.
4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE, NOTIFY AND OBTAIN ANY REQUIRED DESIGN MODIFICATIONS FROM THE TRUSS MANUFACTURER FOR HANGER LOADS OR CONDITIONS WHERE PIPES RUN PARALLEL WITH TRUSSES WHICH WILL REQUIRE MORE THAN ONE HANGER ALONG ITS LENGTH.

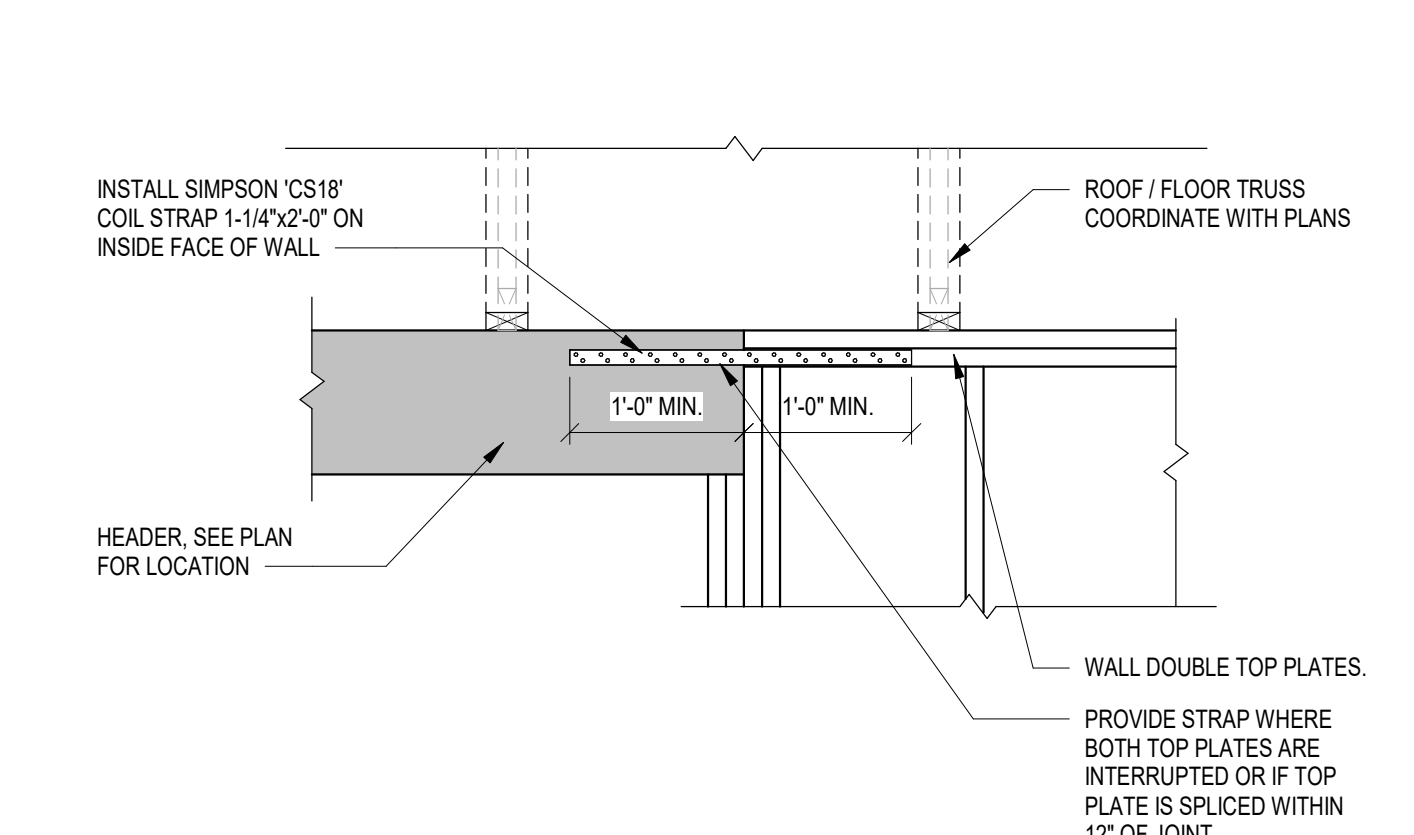
1
S-502 **SPRINKLER PIPE MAIN LINE LOADING**
SCALE: N.T.S. 09.30.21



2
S-502 **GUIDE FOR MAXIMUM TRUSS OFFSET**
SCALE: N.T.S. WHERE STUDS SPACED AT 12\"/>



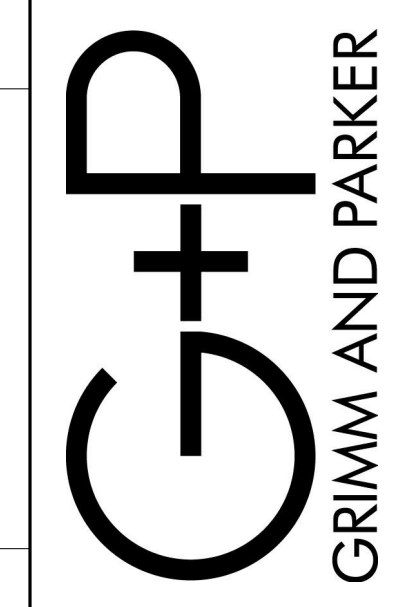
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S-502 **TEMPORARY FLOOR SHEATHING EXPANSION JOINT**
SCALE: N.T.S.



4
S-502 **STRAP WHERE EXT. WALL TOP PLATES INTERRUPTED**
SCALE: N.T.S. 04.08.24



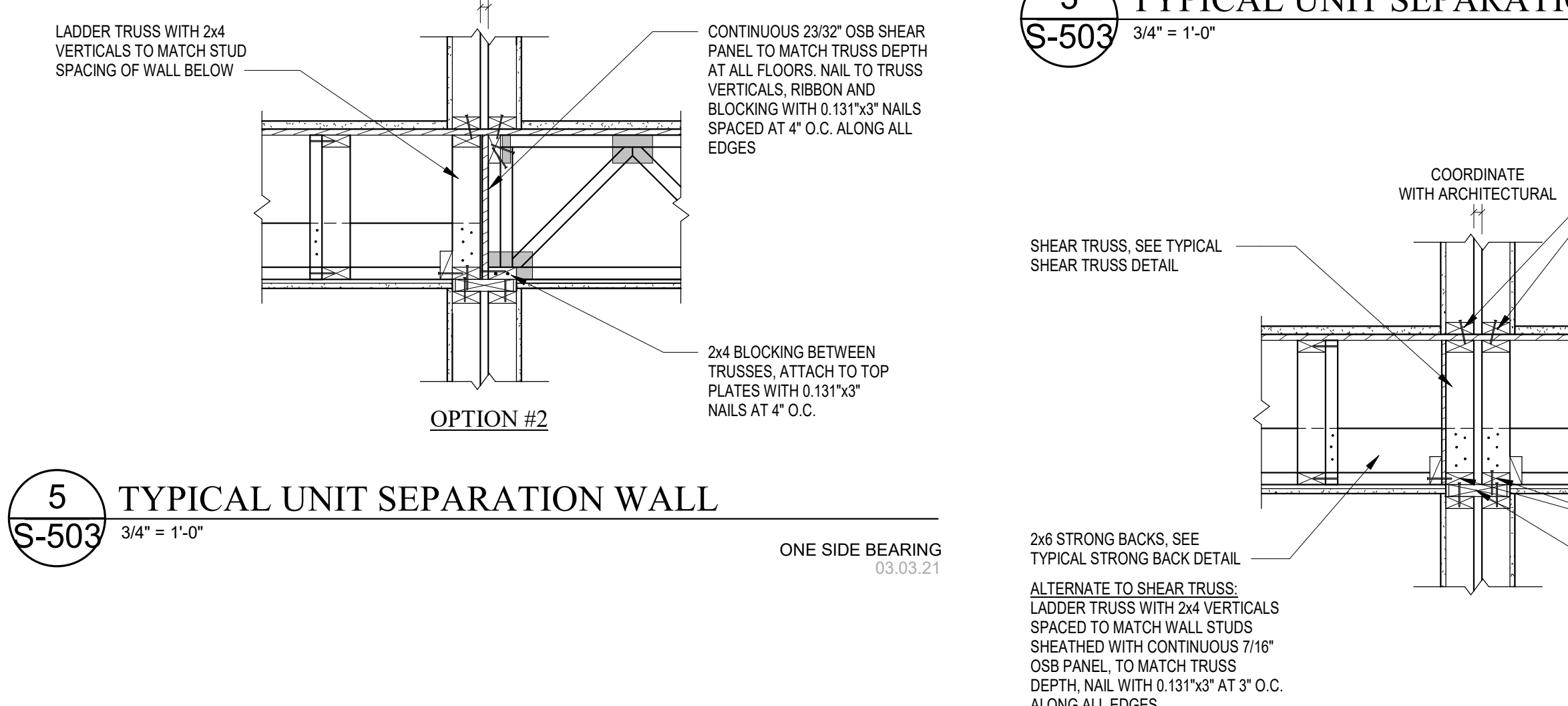
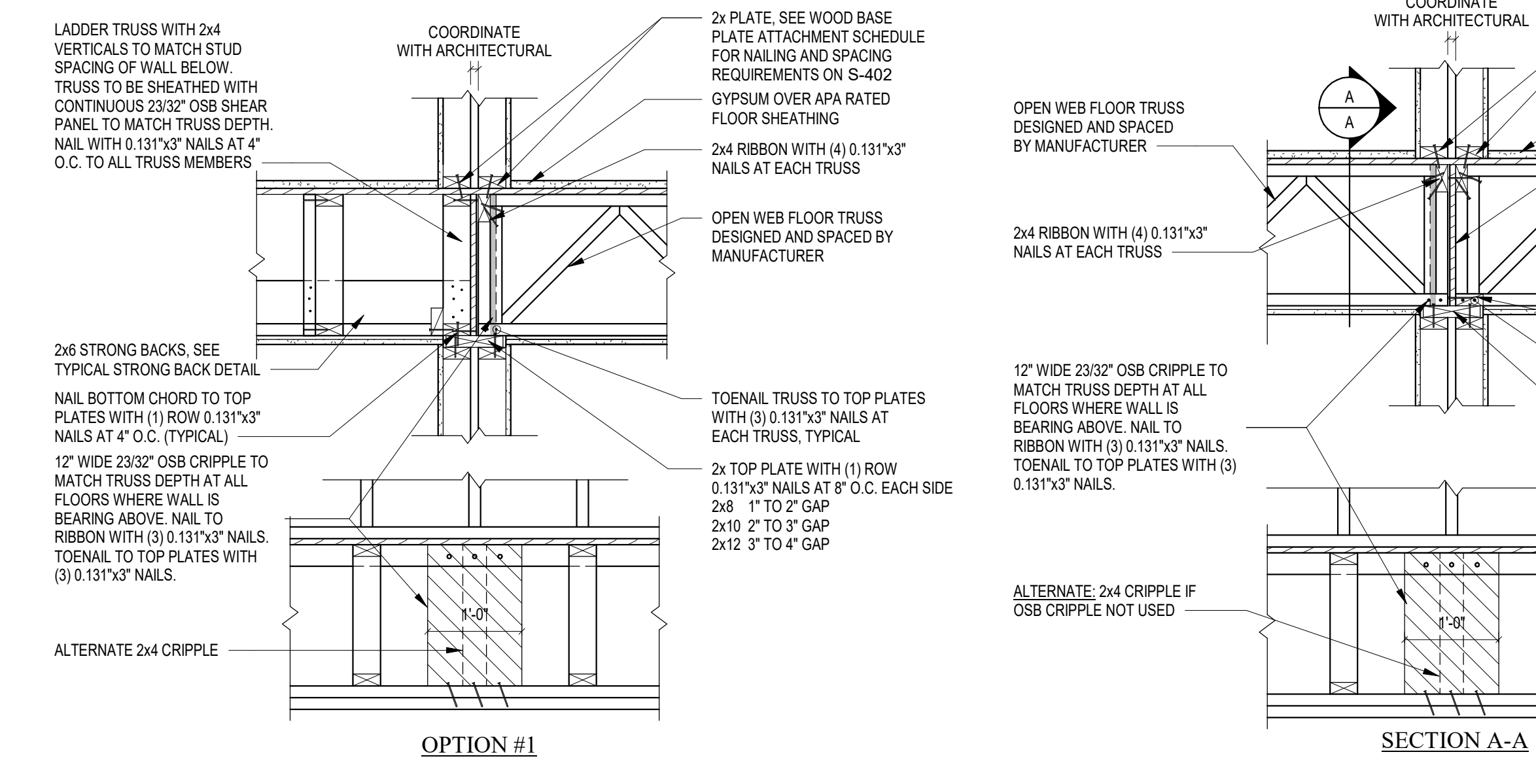
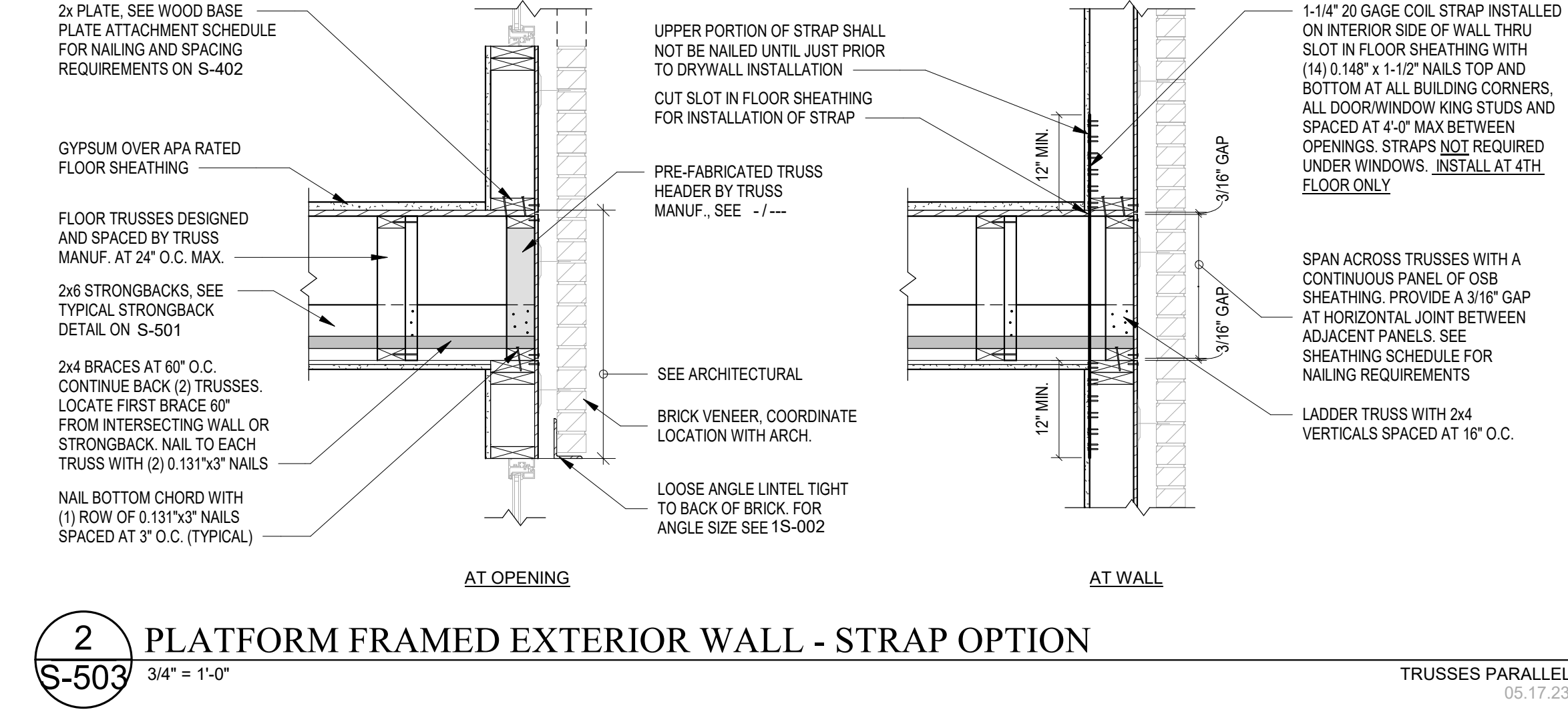
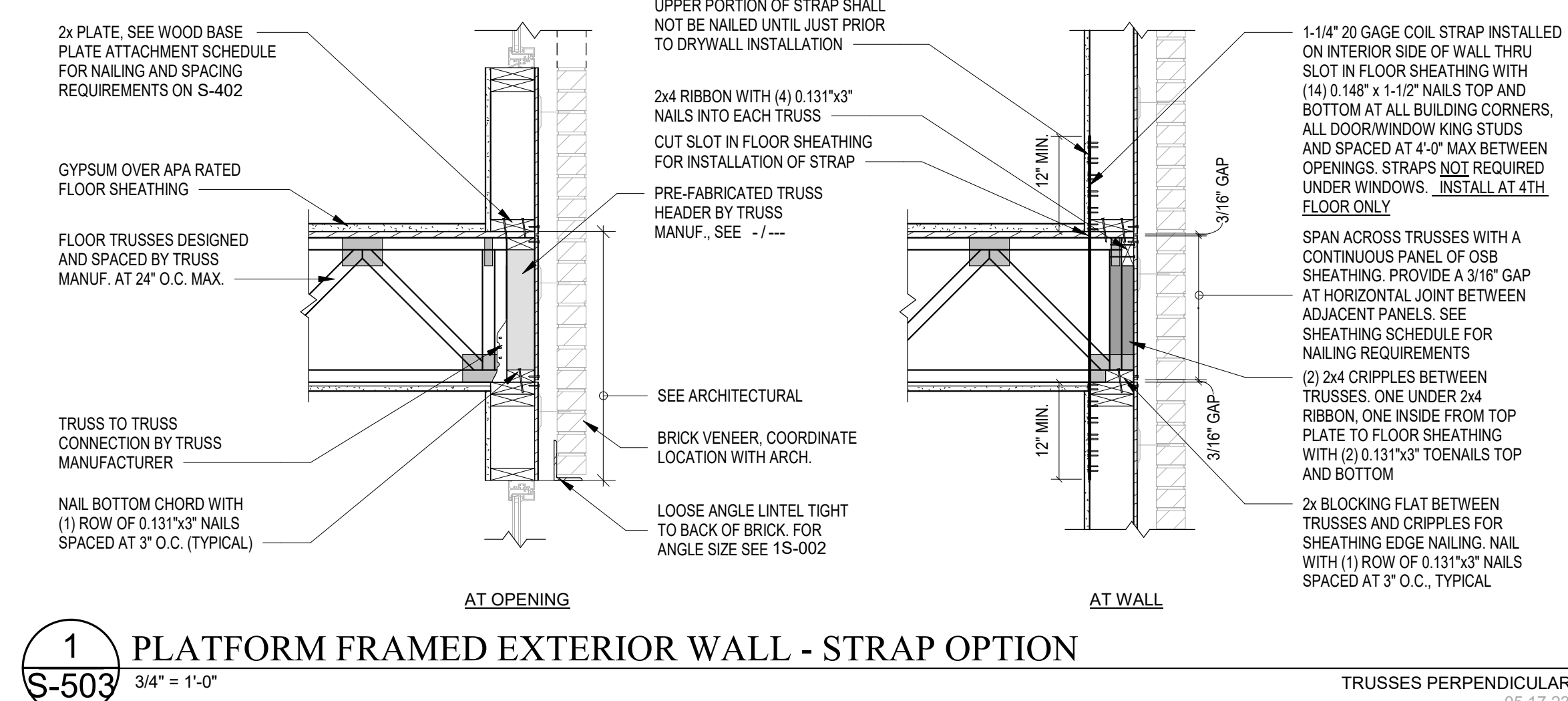
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TYPICAL WOOD FRAMING DETAILS
ROANOKE GATEWAY
ROANOKE, VA 24022

DATE	SUBMISSION / REVISION / A
05/14/2026	VH 4% HOTIC APP
06/30/2026	CONSTRUCTABILITY REVIEW



ROUGH OPENING	ENDNAILS FROM KING STUDS TO ROOF HEADER	HARDWARE FROM TOP PLATES TO KING STUDS	FIGURE
≤4'-4"	(4) 0.131x3"	N/A	
≤6'-4"	(6) 0.131x3"	N/A	
≤9'-4"	(8) 0.131x3"	SIMPSON H6 OR (2) SIMPSON SDWC15600 SCREWS	3 OR 4

NOTES: SEE 1S-002SCHEDULE FOR TOP PLATE TO HEADER NAILING REQUIREMENTS

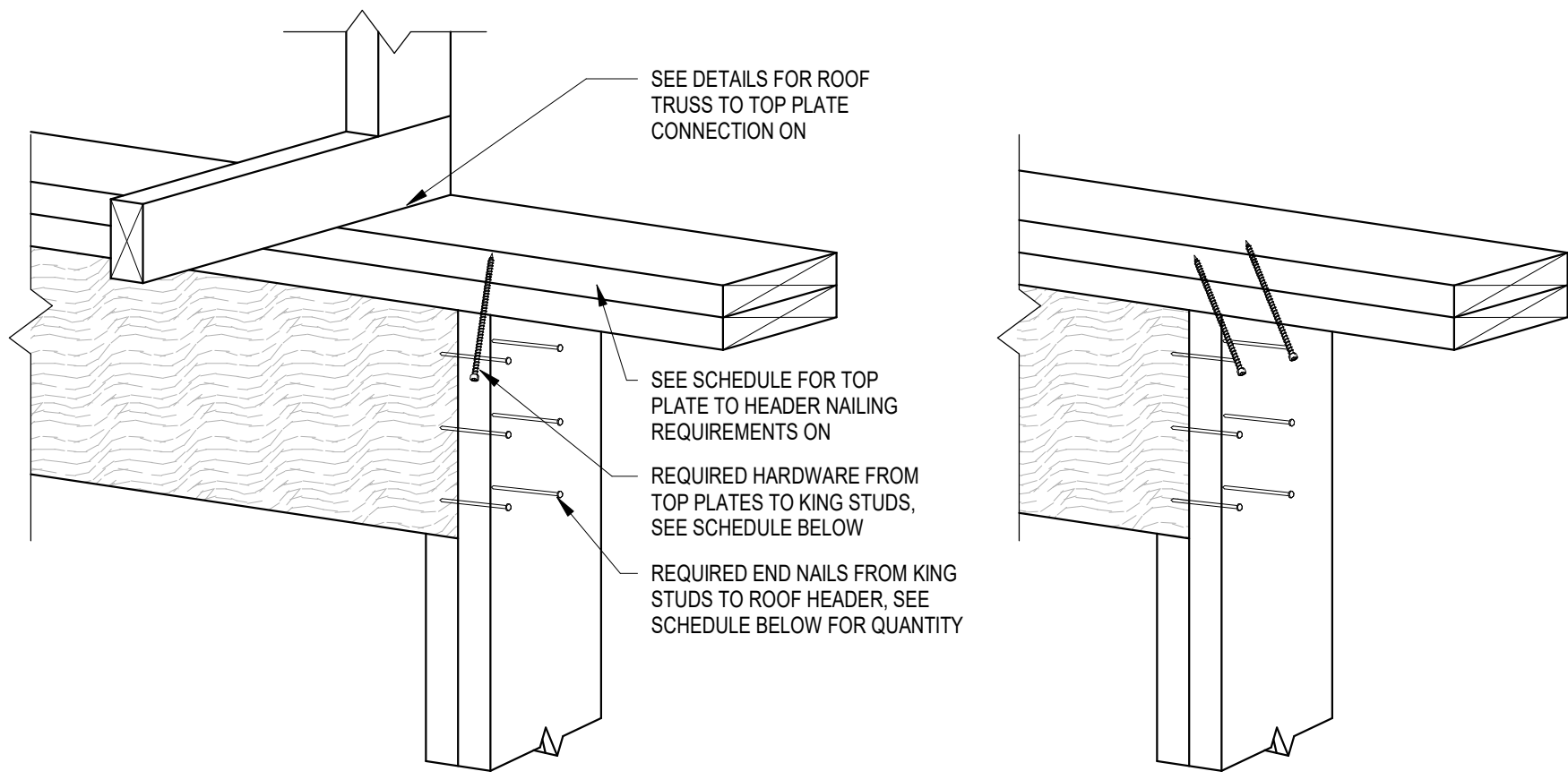


FIGURE 2

FIGURE 4

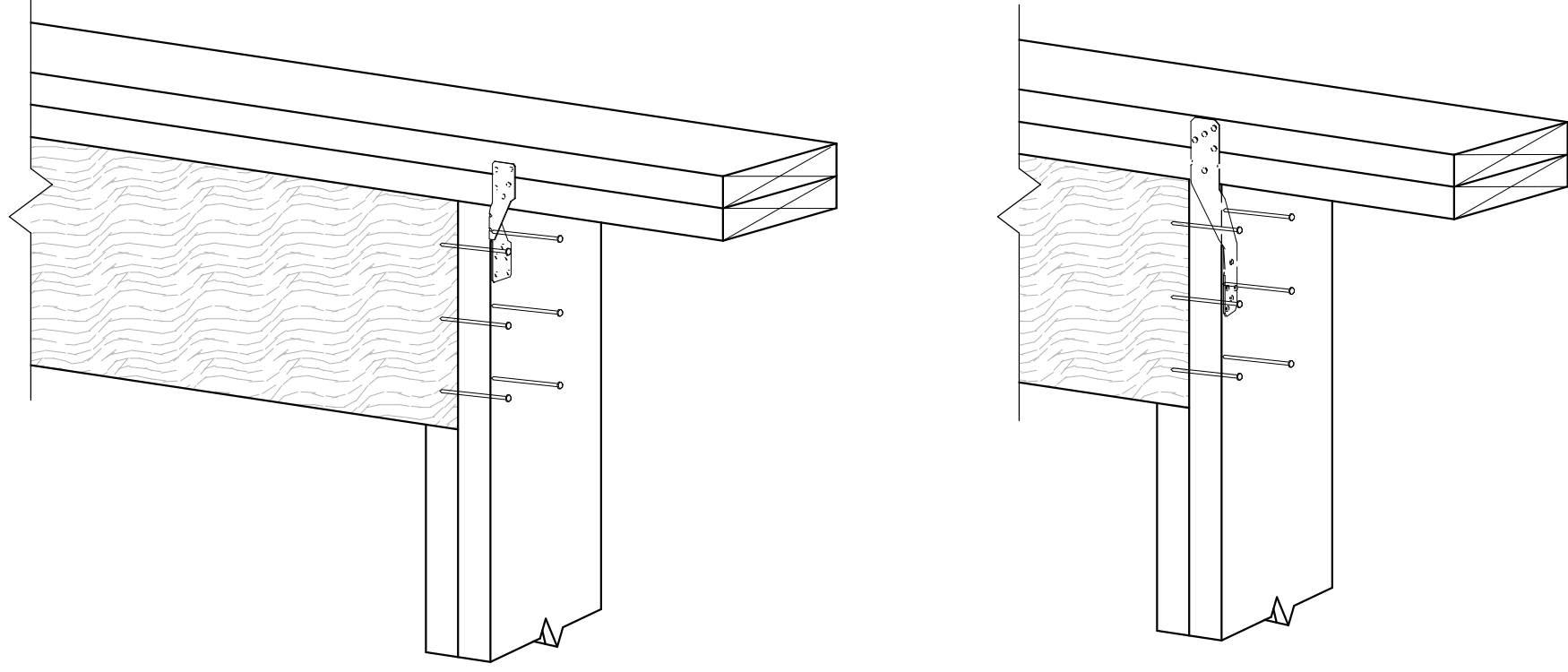
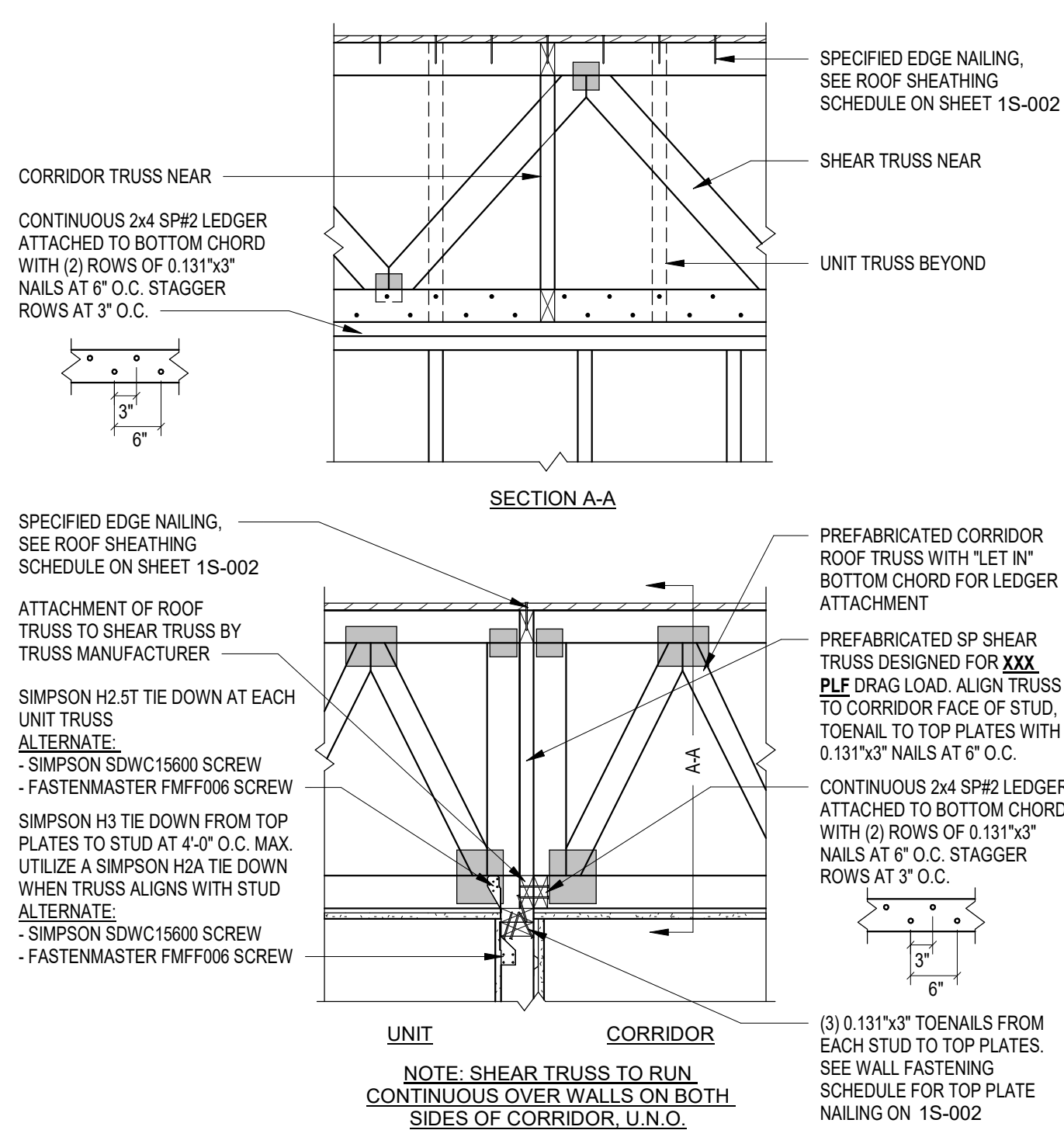


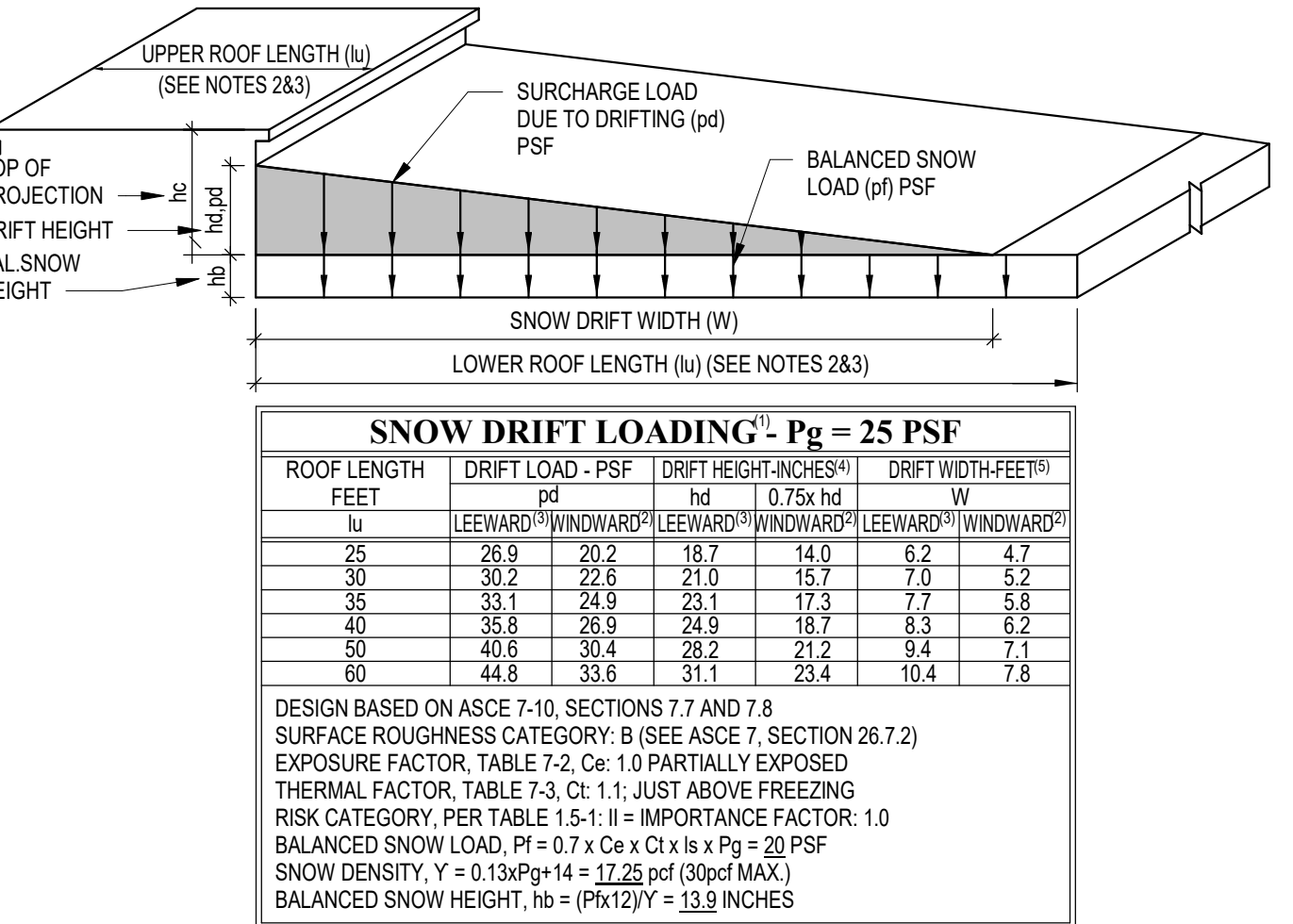
FIGURE 1

FIGURE 3

11 ROOF TRUSS UPLIFT CONDITIONS
S-504 SCALE: N.T.S.

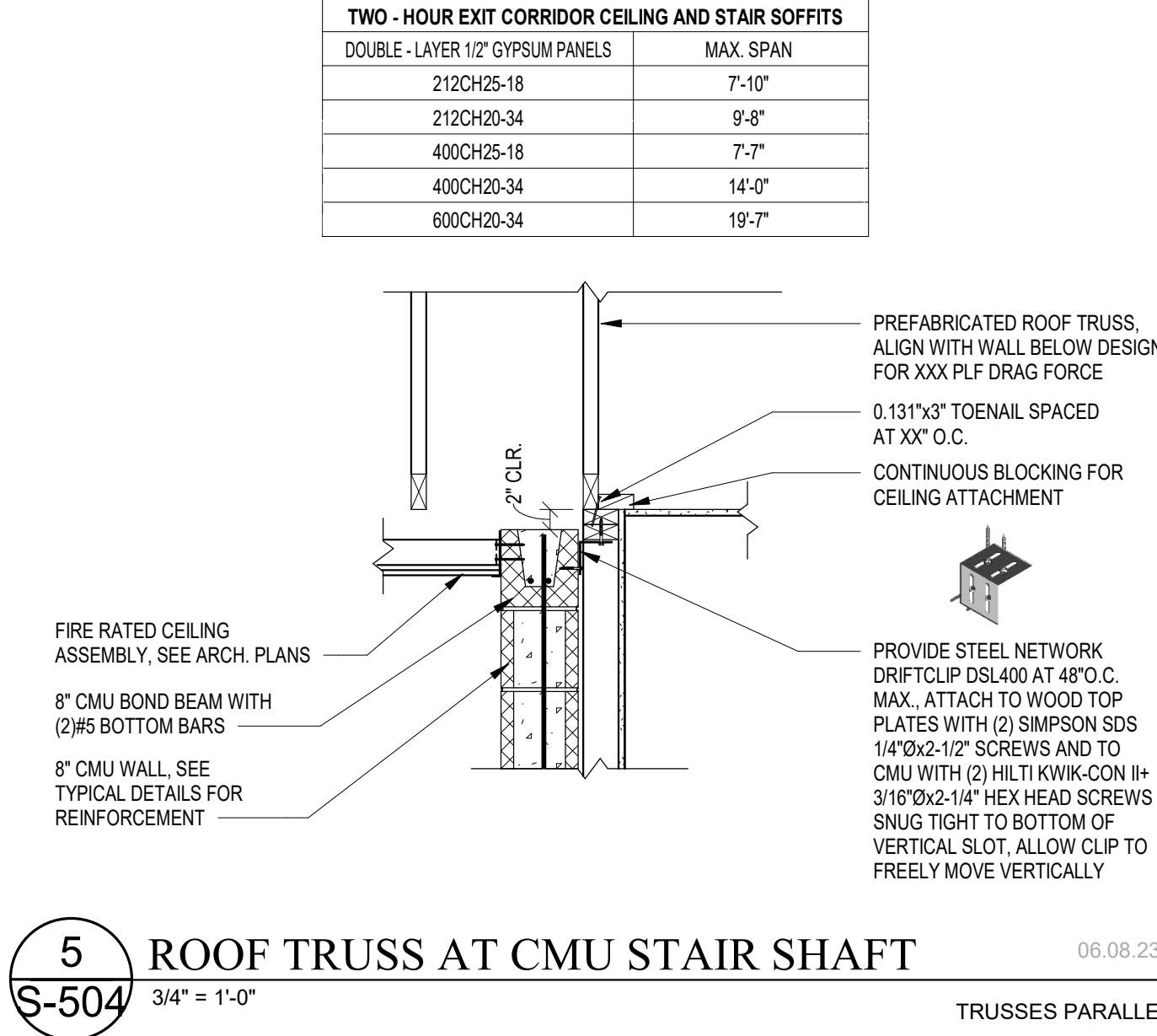


9 ROOF FRAMING AT 2x4 CORRIDOR WALL
S-504 3/4" = 1'-0" 03.02.2020 WITH SHEAR TRUSS

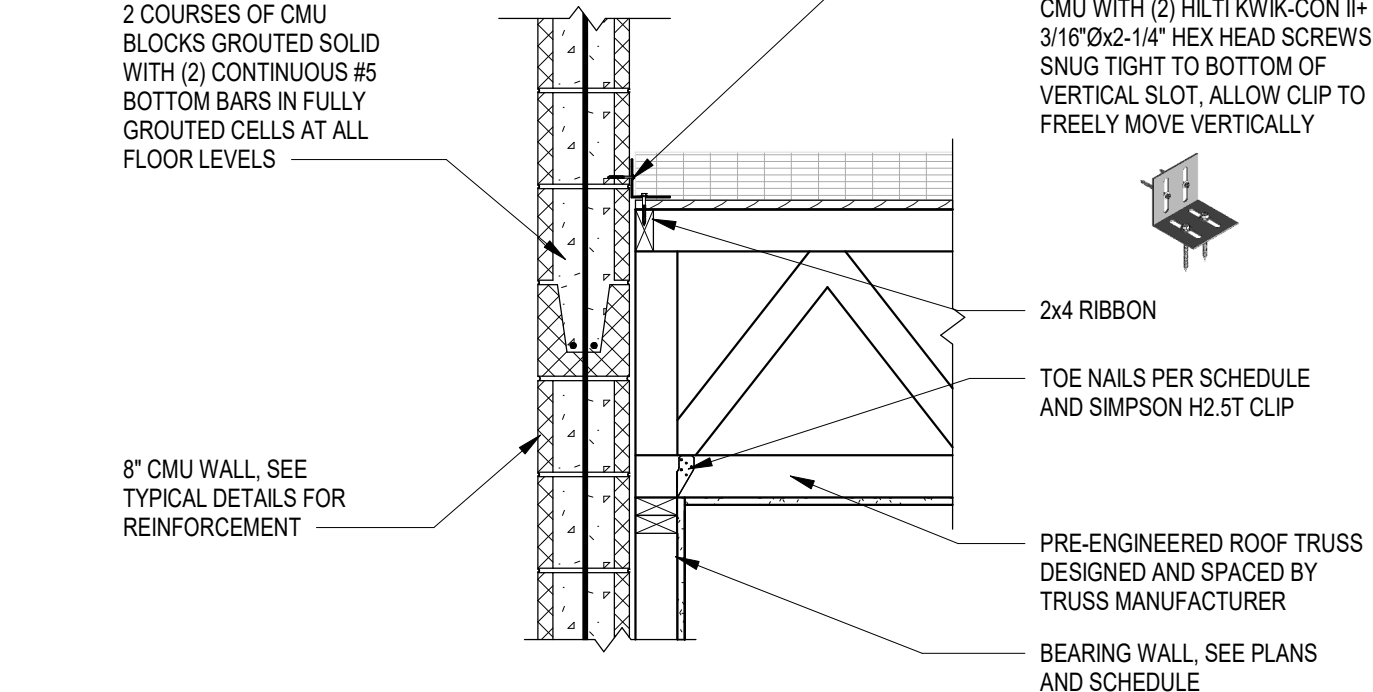


- NOTES:
- If h_{drift} is LESS THAN 0.2', DRIFT LOADS ARE NOT REQUIRED TO BE APPLIED.
 - FOR PARAPET WALLS: USE WINDWARD DRIFT LOADS WITH L_u EQUAL TO THE LENGTH OF THE LOWER ROOF.
 - FOR ROOF PROJECTIONS: L_u SHALL BE TAKEN EQUAL TO THE GREATER OF THE LENGTH OF THE ROOF ON EITHER SIDE OF THE PROJECTION.
 - FOR LOWER ROOF STRUCTURES: USE L_u EQUAL TO THE UPPER ROOF FOR LEEWARD DRIFTS AND L_u EQUAL TO THE LOWER ROOF FOR WINDWARD DRIFTS. LARGER OF THE 2 DRIFT HEIGHTS SHALL BE USED FOR DESIGN. SEE SECTION 7.7.1.
 - THIS CHART ASSUMES h_d IS EQUAL TO OR LESS THAN h_c . IF h_d EXCEEDS h_c , THE DRIFT WIDTH, W , SHALL EQUAL $4h_d/2h_c$ AND THE DRIFT HEIGHT SHALL EQUAL h_c . HOWEVER, THE DRIFT WIDTH SHALL NOT BE GREATER THAN $8h_c$.
 - IF THE DRIFT WIDTH, W , EXCEEDS THE WIDTH OF THE LOWER ROOF, THE DRIFT SHALL BE TRUNCATED AT THE FAR EDGE OF THE ROOF AND NOT REDUCED TO ZERO THREE.
 - SEE ASCE 7, FIGURE 7.9 FOR CALCULATION OF DRIFT HEIGHT, h_d .

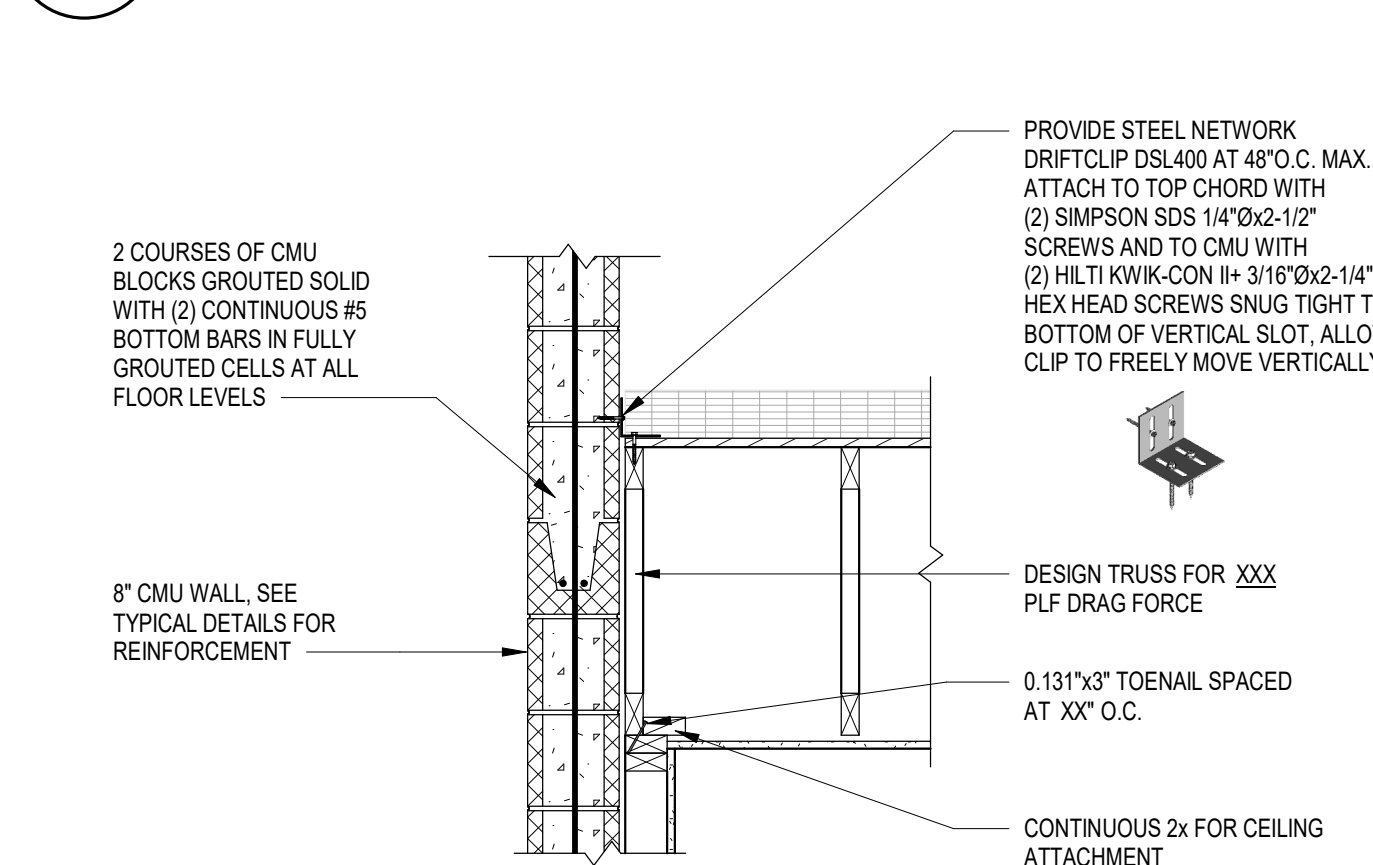
10 SNOW DRIFT LOADING - LOWER ROOFS AND PARAPETS
S-504 SCALE: N.T.S. GROUND SNOW LOAD, Pg = 25 PSF



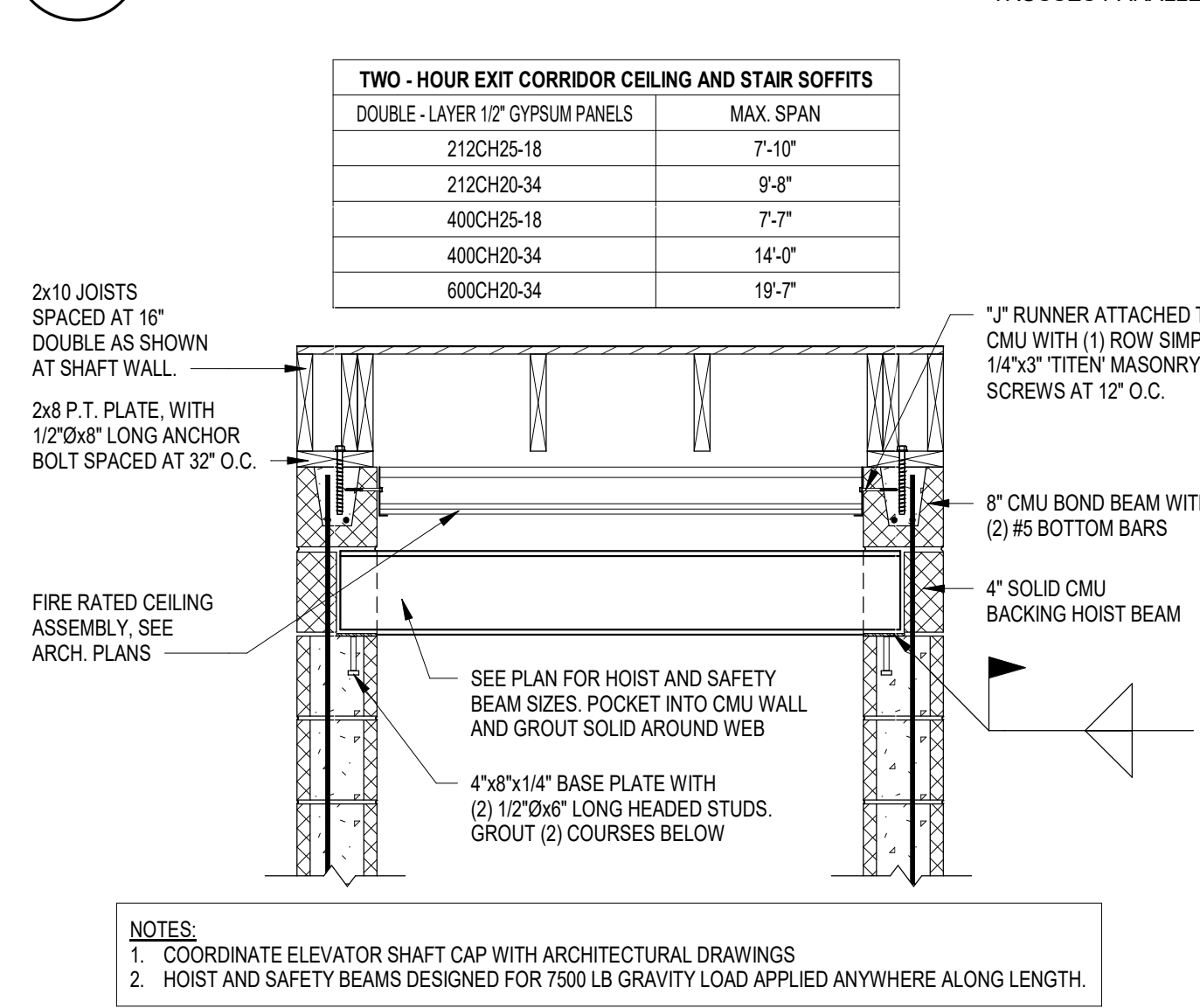
5 ROOF TRUSS AT CMU STAIR SHAFT
S-504 3/4" = 1'-0" 06.08.23 TRUSSES PARALLEL



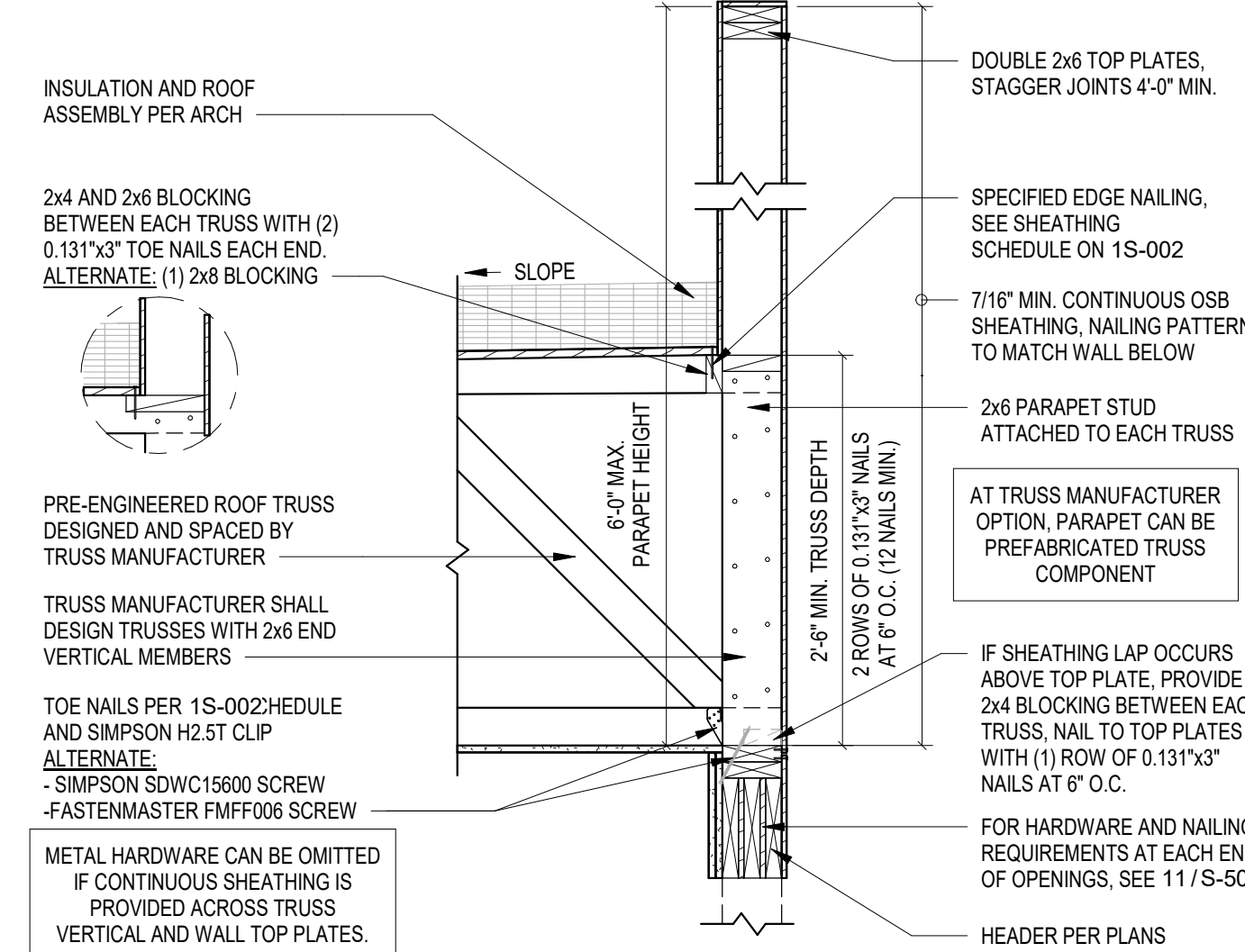
6 ROOF TRUSS TO CMU WALL
S-504 3/4" = 1'-0" 02.17.25 TRUSSES PERPENDICULAR



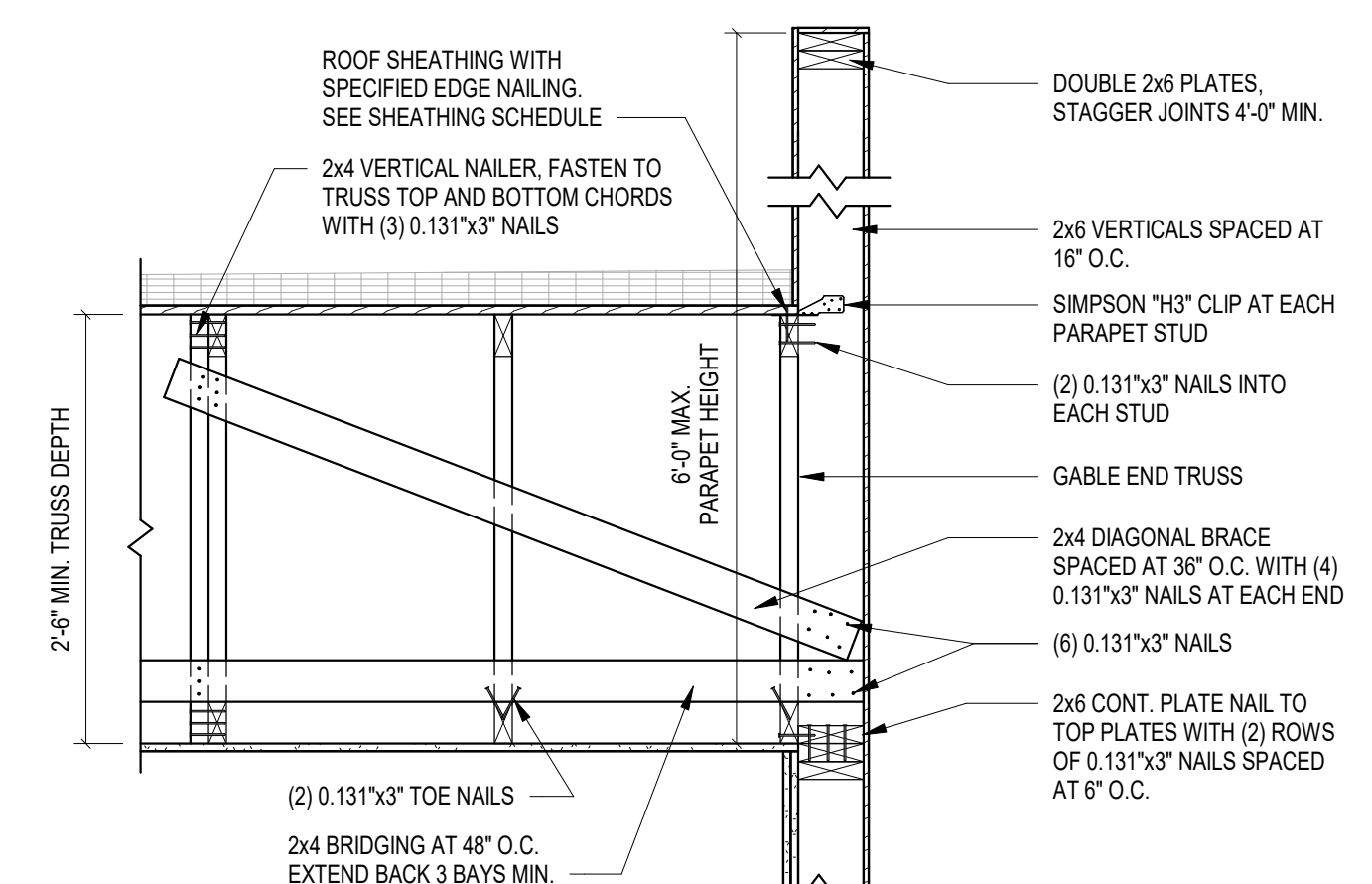
7 ROOF TRUSS TO CMU WALL
S-504 3/4" = 1'-0" 02.17.25 TRUSSES PARALLEL



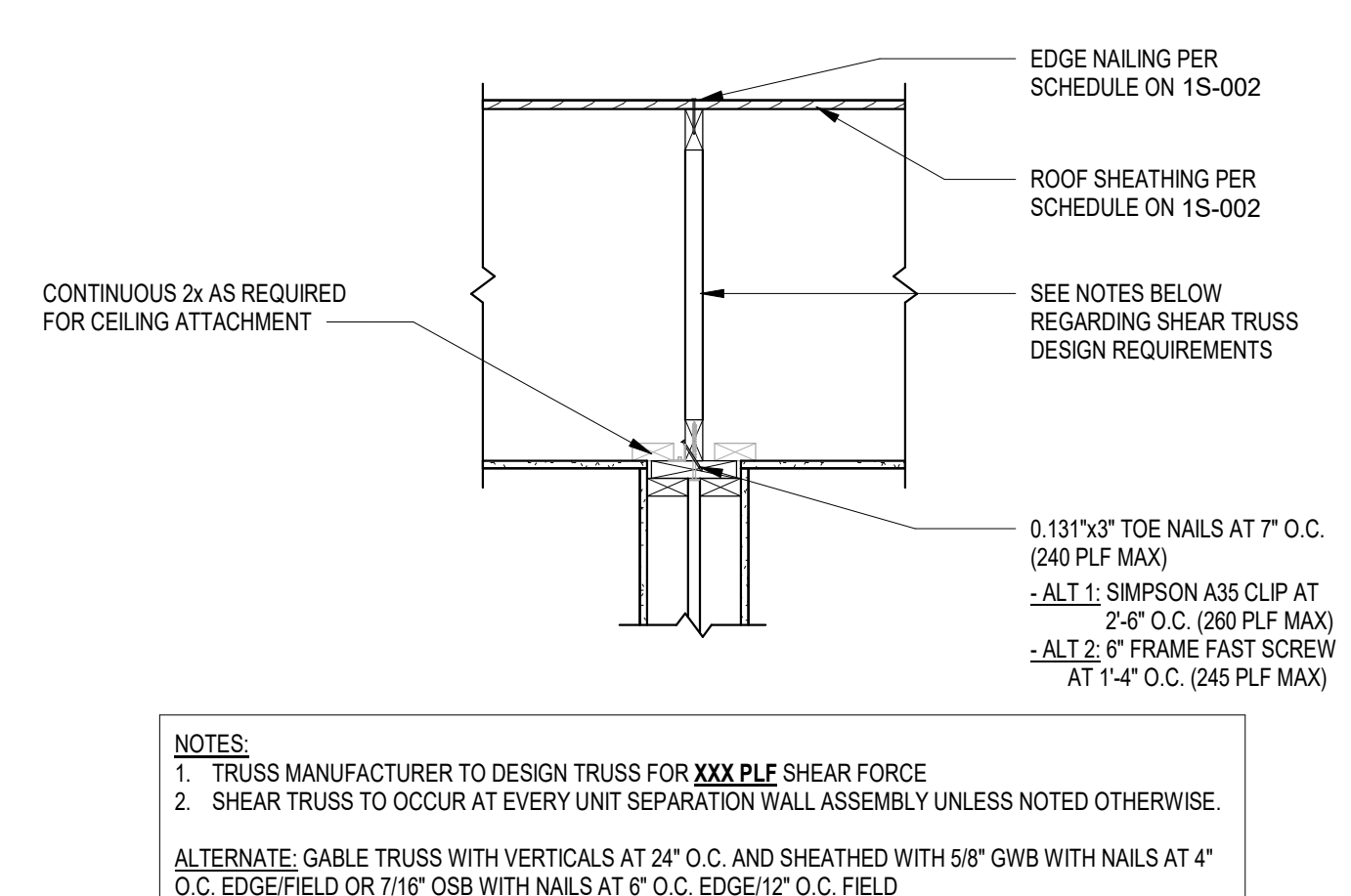
8 TYPICAL ELEVATOR SHAFT CAP
S-504 3/4" = 1'-0" 06.17.26



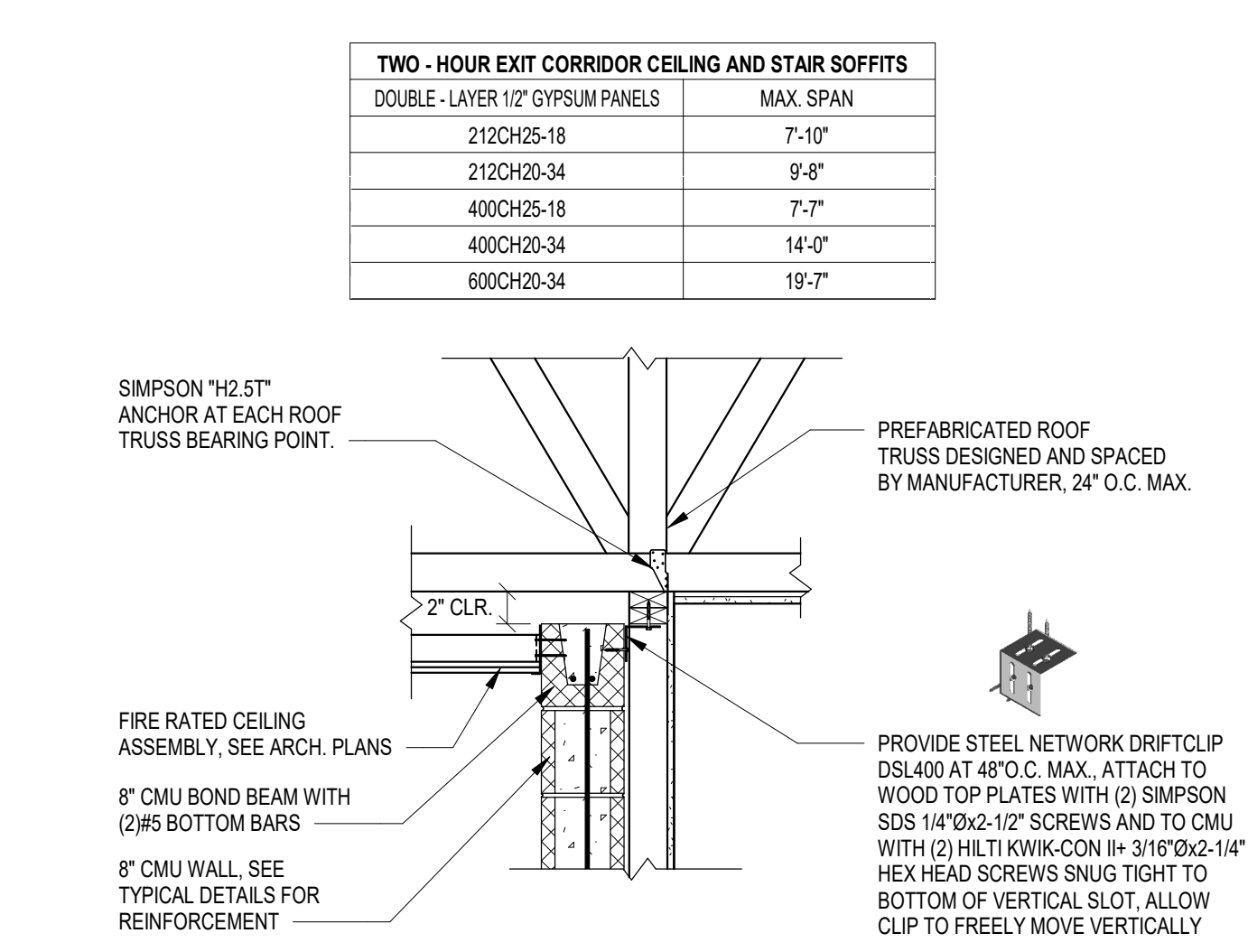
1 TYPICAL ROOF PARAPET
S-504 3/4" = 1'-0" TRUSSES PERPENDICULAR



2 TYPICAL ROOF PARAPET
S-504 3/4" = 1'-0" TRUSSES PARALLEL



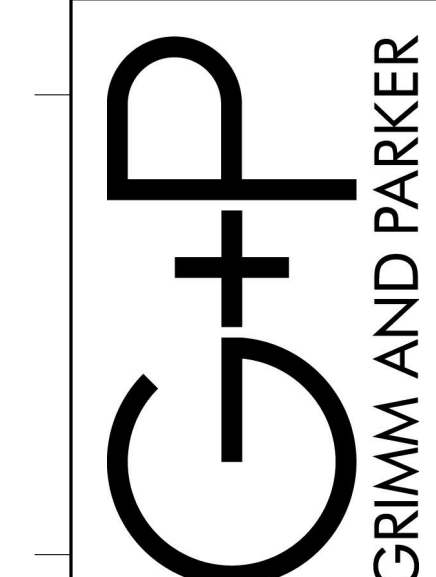
3 SHEAR TRUSS AT UNIT SEPARATION WALL
S-504 3/4" = 1'-0"



4 ROOF TRUSS AT CMU STAIR SHAFT
S-504 3/4" = 1'-0" 06.08.23 TRUSSES PERPENDICULAR



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GP
#908-132-25

ROOF FRAMING DETAILS
ROANOKE GATEWAY
ROANOKE, VA 24002

DATE	SUBMISSION / REVISION	BY
05/14/2026	1st 4% HOTC APP	
06/30/2026	CONSTRUCTABILITY REVIEW	