Revision Schedule		
Revision Number	Revision Description	Revision Date
0	ISSUED FOR PERMITTING	1/23/25

GENERAL NOTES:

1. ALL CONSTRUCTION AND DESIGN SHALL CONFORM TO THE 2023 FBC (8TH ED)
2.. THE STRUCTURAL DRAWINGS SHALL BE UTILIZED IN CONJUNCTION WITH OTHER CONSULTANTS' DRAWINGS.
3. THE STRUCTURAL DRAWINGS ARE INTENDED FOR THE STRUCTURE TO ACT AS WHOLE ONCE CONSTRUCTION IS COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE SAFETY AND STABILITY (I,E, TEMPORARY BRACING IF REQUIRED) DURING CONSTRUCTION AS A RESULT OF CONSTRUCTIONS METHODS AND SEQUENCES.
4. THE CONTRACTOR SHALL FIELD VERITY ALL EXISTING STRUCTURES. THE ENGINEER SHALL BE NOTIFIED ON ANY DISCREPANCY BETWEEN THE EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS.
5. DESIGN CRITERIA
   A. CODE: 2023 FBC (8TH ED)
   B. LOADS AND DESIGN CRITERIA: THE FOLLOWING LOADS AND CRITERIA WERE USED IN ADDITION TO THE DEAD LOAD OF THE STRUCTURE.
      LIVE LOADS:
      LIVE LOADS PROVIDED BY SUPPLIER

SOIL CRITERIA:

ALLOWABLE SOIL BEARING	2000 PSF
PASSIVE PRESSURE	150 PCF
FRICTION COEFFICIENT	0.35

WIND CRITERIA:

WIND SPEED:	130 MPH (3-SECOND GUST)
CATEGORY:	II
EXPOSURE	B
COMPONENTS AND CLADDING	
ZONE 1	10.8 / -42.5 PSF
ZONE 2	10.8 / -56-1 PSF
ZONE 3	10.8 / -76.3 PSF
ZONE 4	22/7 / -24.9 PSF
ZONE 5	22.7 / -27.7 PSF

CONCRETE

1. ALL CONCRETE DESIGNED PER CURRENT EDITION OF AC1 318
2. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:
   A. FOUNDATION WALLS, PIERS, AND FOOTINGS 3000 PSI
   B. SLAB ON CARE: 3000 PSI
   C. ALL OTHER CONCRETE 3000 PSI
3. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A NORMAL AIR DENSITY OF 145 PSF.
4. PROVIDE CONSTRUCTION JOINTS WHERE SHOWN, OMIT NONE AND ADD NONE WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT / ENGINEER.SUBMIT DRAWINGS SHOWING ALL PROPOSED CONSTRUCTION JOINT LOCATIONS FOR APPROVAL PRIOR TO PREPARATIONS OF AFFECTED REINFORCEMENT SHOP DRAWINGS
5. MINIMUM ELAPSED TIME BETWEEN ADJACENT CONCRETE PLACEMENTS SHALL BE 48 HOURS
6. CONCRETE MIX DESIGN FOR EACH TYPE AND STRENGTH OF CONCRETE SPECIFIED SHALL BE SUBMITTED FOR ARCHITECT / ENGINEER REVIEW 30 DAYS
   PRIOR TO PLACEMENT OF CONCRETE
7. ALL REINFORCING STEEL ASTM A615 GRADE 60, ALL WELDED WIRE FABRIC ASTM A185

REINFORCING

1. ALL BAR REINFORCEMENT SHALL BE CONFORM TO ASTM 615 GRADE 60.
2. WELD WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185
3. CLEARANCE OF MAIN REINFORCEMENT FROM ADJACENT SHALL BE CONFORM TO THE FOLLOWING (UNLESS OTHERWISE SHOWN IN DETAIL).
   A. UNFORMED SURFACES IN CONTACT WITH GROUND (FOOTING OR WALL BOTTOM).....3"
   B. SLAB ON GRADE .....2 1/2"
   C. FORMED SURFACE IN CONTACT WITH GROUND OR EXPOSED TO WEATHER (WALLS, PIERS).....2"
   D. IN ALL CASES, CLEARANCE NOT LESS THAN DIAMETER OF BARS.
   NOTE: MAXIMUM DEVIATION FROM THESE REQUIREMENTS SHALL BE + 1/4" FOR SECTIONS 10" OR LESS AND +1/2" FOR SECTIONS OVER 10" THICK.
4. REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON DRAW5
5. WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS OR SIMILAR TO THAT SHOWN FOR MOST NEARLY SIMILAR SITUATION, AS DETERMINED BY THE ARCHITECT / ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN MINIMUM PERMITTED BY APPLICABLE CODES.
6. ALL WORKMANSHIP AND MATERIAL SHALL BE CONFOMED TO THE MANUAL OF STANDARD PRACTICE FOR DETAILINGREINFORCED CONCRETE STRUCTURES" (ACI-315)
7. ALL REINFORCEMENT SHALL BE INSPECTED AND APPROVED BY THE ARCHITECT/ENGINEER OR OWNER TESTING AGENCY BEFORE CONCRETE IS PLACED.
8. WHERE CONTINUOUS BARS ARE CALLED FOR THEY SHALL BE CONTINUOUSLY AROUND CORNERS, LAPPED AT NECESSARY SPLICES AND HOOKED AT CONTINUOUS ENDS.
9. WELDED WIRE FABRIC SHALL BE LAPPED ONE FULL MESH PANEL OR 6" MIN.
10. ALL REINFORCING SPLICES SHALL CONFORM TO THE TABLE(S) PROVIDED IN THE GENERAL NOTES FOR STRENGTH OF CONCRETE BUT IN NO CASE LESS THAN THE REQUIREMENTS OF THE LATEST EDITION OF ACI-318
11. SLABS AND WALLS SHALL NOT BE SLEEVED OR BOXED OUT OR HAVE THEIR REINFORCEMENT INTERRUPTED EXCEPT SPECIFICALLY NOTED ON THE DRAWINGS. PROVIDE ADDITIONAL REINFORCEMENT AROUND OPENINGS AS SHOWN IN THE DETAILS
12. SUBMIT CHECKED SHOP DRAWINGS TO THE ARCHITECT / ENGINEER FOR REVIEW PRIOR TO FABRICATION OF REINFORCEMENT.
13. BAR SUPPORTS SHALL BE GALVANIZED OR STAINLESS STEEL. BAR SUPPORTS IN CONTACT WITH EXPOSE SURFACE SHALL BE GALVANIZE AND PLASTIC TIPPED.

TERMITE PROTECTION NOTES

1. SOIL CHEMICAL BARRIER METHOD: A PERMANENT SIGHT THAT IDENTIFIES THE TERMITE TREATMENT PROVIDER AND NEED FOR RE-INSPECTION AND TREATMENT CONTRACT RENEWAL SHALL BE PROVIDED. THE SIGN SHALL BE POSTED NEAR THE WATER HEATER OR ELECTRICAL PANEL. FBC 1042.6
2. CONDENSATE AND ROOF DOWNSPOUT SHALL DISCHARGE AT LEAST 1'-0" AWAY FROM BUILDING SIDE WALLS FBC 1503.4.
3. IRRIGATION / SPRINKLERS SYSTEMS INCLUDING ALL RISERS AND SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1'-0" FORM BUILDING SIDES. FBC 1503.4.
4. TO PROVIDE FOR INSPECTION FOR TERMITE INFESTATION BETWEEN WALL COVERINGS AND FINAL EARTH GRADE SHALL NOT BE LESS THAN 6". EXCEPTION: PAINT AND DECORATIVE CEMENTIOUS FINISH LESS THAN 5/8" THICK ADHERED DIRECTLY TO FOUNDATION WALL. FBC 1816.11.
5. INITIAL TREATMENT SHALL BE DONE AFTER ALL EXCAVATION AND BACKFILL IS COMPLETE. FBC 1816.1.1.
6. SOIL DISTURBED AFTER THE INITIAL TREATMENT SHALL BE RETREATED INCLUDING SPACES BOXED OR FORMED. FBC 1816.1.2.
7. BOXED AREAS IN CONCRETE FLOOR FOR SUBSEQUENT INSTALLATION OF TRAPS, ECT. SHALL BE MADE WITH PERMANENT METAL OR PLASTIC FORMS, PERMANENT FORMS MUST BE OF A SIZE AND DEPTH WILL ELIMINATE THE DISTURBANCE OF SOIL AFTER THE INITIAL TREATMENT . FBC 8116.1.3
8. MINIMUM 6 MIL VAPOR RETARDER MUST BE INSTALLED TO PROTECT AGAINST RAINFALL DILUTION. IF RAINFALL OCCURS BEFORE VAPOR RETARDANT PLACEMENT, RE-TREATMENT IS REQUIRED. FBC 1816.4
9. CONCRETE OVERPOUR AND MORTAR ALONG THE FOUNDATION PERIMETER MUST BE REMOVED BEFORE EXTERIOR SOIL TREATMENT. FBC 1816.1.5.
10. SOIL TREATMENT MST BE APPLIED UNDER ALL EXTERIOR CONCRETE OR GRADE WITHIN 1'-0" OF THE STRUCTURE WALLS. FBC 1816.1.6.
11. AN EXTERIOR VERTICAL CHEMICAL BARRIER MUST BE INSTALLED AFTER CONSTRUCTION IS COMPLETE INCLUDING LANDSCAPING AND IRRIGATION. ANY SOIL DISTURBED AFTER THE VERTICAL BARRIER IS APPLIED SHALL BE RETREATED. FBC 1816.1.6.
12. ALL BUILDINGS ARE REQUIRED TO HAVE PRE-CONSTRUCTED TREATMENT . FBC 1816.1.6.

FOUNDATIONS

1. ALL FINISHED EXCAVATIONS AND BEARING GRADES SHALL BE INSPECTED AND APPROVED BY THE OWNER SOIL TESTING AGENCY BEFORE ANY CONCRETE IS PLACED
2. ALL FOUNDATION WALLS SHALL BE BRACED DURING THE OPERATION OF BACKFILLING AND COMPACTION. BRACING SHALL BE LEFT IN POSITION UNTIL PERMANENT RESTRAINTS ARE EFFECTIVE. BACKFILL NO FOUNDATION WALLS UNTIL PERMANENT LATERAL STRUCTURAL SUPPORT SYSTEM IS IN PLACE AND OF ADEQUATE STRENGTH TO WITHSTAND THE APPLIED LATERAL PRESSURES.
3. LOCATE ALL EXISTING BELOW GRADE UTILITIES. PROVIDE UTILITIES WITH POSITIVE PROTECTION AGAINST DAMAGE DUE TO SETTLEMENT AND CONSTRUCTION OPERATIONS
4. ALL FOOTING SUBGRADES AND ALL SLAB SUBGRADES SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT BASED ON LABORATORY DESIGNATION ASTM D1557.
5. COMBINED AND INDIVIDUAL FOOTINGS ARE DESIGNED TO BEAR ON UNIFORM SOIL CAPABLE OF SUPPORTING 2,000 PSF. CONTINUOUS FOOTINGS ARE DESIGNED TO BEAR ON SOIL CAPABLE OF SUPPORTING 2,000 PSF

FLOOR SLABS

1. FLOOR SLABS SHALL BE ON AT LEAST 4" OF RELATIVELY CLEAN GRANULAR MATERIAL SUCH AS SAND, SAND AND GRAVEL, OR CRUSHED STONE. GRANULAR MATERIAL SHALL HAVE 100% PASSING THE 1 1/2" SIEVE AND A MAXIMUM OF 10% PASSING THE NO. 200 SIEVE.
2. STRUCTURAL FILL SHALL BE PLACED IN THIN LOOSE LIFTS NOT EXCEEDING 12" IN THICKNESS AND COMPACTED WITH A HEAVY ROLLER. EACH LIFT SHALL BE THOROUGHLY COMPACTED WITH THE LABORATORY ROLLER TO PROVIDE DENSITIES TO AT LEAST 95% OF THE PROCTOR MAXIMUM DRY DENSITY. STRUCTURAL FILL SHALL CONSIST OF AN INORGANIC NON-PLASTIC, GRANULAR SOIL CONTAINING LESS THAN 10% MATERIAL PASSING THE 200 MESH SIEVE.

SLAB AND WALL REINFORCING LAP SPLICE LENGTHS

LAP SLICE LENGTHS FOR REINFORCING IN 4000 PSI CONCRETE AS FOLLOWS

BAR SIZE	TENSION SPLICE		DEVELOPMENT LENGTH
	TOP	OTHER	
#3	21"	15"	13"
#4	29"	20"	17"
#5	35"	25"	21"
#6	43"	31"	25"
#7	54"	39"	32"
#8	71'	51"	42"

LAP SPLICE LENGTHS FOR REINFORCING IN 3000 PSI CONCRETE AS FOLLOWS

BAR SIZE	TENSION SPLICE		DEVELOPMENT LENGTH
	TOP	OTHER	
#3	21"	15"	13"
#4	29"	20"	17"
#5	35"	25"	21"
#6	46"	33"	27"
#7	63"	45"	37"
#8	83"	59"	49"

NOTES:

1. LAPPED SPLICE LENGTHS BASED ON ASTM A-615, GRADE 60, REBAR
2. REINFORCING BARS CLASSIFIED AS TOP BARS WHEN MORE THAN 12" ON CONCRETE IS CAST BENEATH RESPECTIVE REINFORCING BAR.
3. COMPRESSION SPLICES SHALL PERMISSIBLE ONLY WHERE SPECIFICALLY NOTED ON THE DRAWINGS
4. TENSION SPLICES SHALL BE USED IN ALL BEAMS, SLABS, AND WALLS UNLESS OTHERWISE NOTED.
5. WHEN LAPPING LARGER BARS WITH SMALLER BARS, LAP LENGTH FOR SMALLER BAR SHALL GOVERN RESPECTIVE SPLICE.
6. SPLICE CONTINUOUS TOP REINFORCING BARS AT CENTER OF CLEAR SPAN WITH COMPRESSION SPLICES
7. SPLICE CONTINUOUS REINFORCING BARS AT CENTER OF SUPPORTING ELEMENT WITH COMPRESSION SPLICES

PRE-ENGINEERED METAL BUILDING FRAME:

1. THE COMPLETE DESIGN OF METAL BUILDING INCLUDING ALL COMPONENTS SHOWN OR NOTE SHOWN ON THE DRAWINGS SHALL BE ACCOMPLISHED BY THE BUILDING MANUFACTURER. SEE THE ARCHITECTURAL DRAWINGS FOR EAVE HEIGHTS AND WALL CONDITIONS.
2. THE DESIGN SHALL BE MADE BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE PROJECT IS CONSTRUCTED.
   THE BUILDING AND ALL OF ITS COMPONENTS SHALL BE DESIGNED FOR THE FOLLOWING DEAD AND LIVE LOADS
   A. ACTUAL WEIGHT OF STEEL STRUCTURE
   B. 5 PSF COLLATERAL LOAD IN ADDITION TO ACTUAL WEIGHT
   C. 20 PSF ROOF LIVE LOAD
   D. ANY ADDITIONAL LOADS AND REACTIONS THAT ARE SHOWN OR NOTED ON THE DRAWINGS, SEE PLAN NOTES.
   E. WIND LOADS AS REQUIRED BY CURRENT ADDITION OF THE FLORIDA BUILDING CODE
3. RIGID FRAME COLUMN BASES SHALL BE DESIGNED FOR A PIN CONNECTION,
4. THE DEFLECTION OF GIRTS AND PURLINS SHALL BE LIMITED TO 1/180 OF THE SPAN. DEFLECTION OF RIGID FRAMES SHALL BE LIMITED TO 1/360 OF THE SPAN. DEFLECTIONS SHALL BE BASED ON TOTAL LOAD (DEAD LOAD PLUS LIVE LOAD).
5. THE PREFABRICATED METAL BUILDING SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE ABOVE NOTES. THE PLANS AND DETAILS, SPECIFICATIONS TO BE IN ACCORDANCE WITH THE RECOMMENDED DESIGN PRACTICES MANUAL OF THE METAL BUILDING MANUFACTURES ASSOCIATION (MBMA) AND IN ACCORDANCE WITH MBMA SPECIFICATIONS

Columbia County Building Department
Plans Reviewed for Code Compliance
State of Florida

SHEET SCHEDULE			
SHEET NUMBER	SHEET NAME	REVISION	REVISION DATE
S-001	STRUCTURAL NOTES	0	1/23/25
S-002	FOUNDATION PLAN	0	1/23/25
S-003	FOUNDATION SECTIONS AND DETAILS	0	1/23/25

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GARY GILL LICENSE No 51942 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Gary Gill
Date: 2025.01.23 17:16:28 05'00'

FABRICATION SHOP

LAKE CITY, FL

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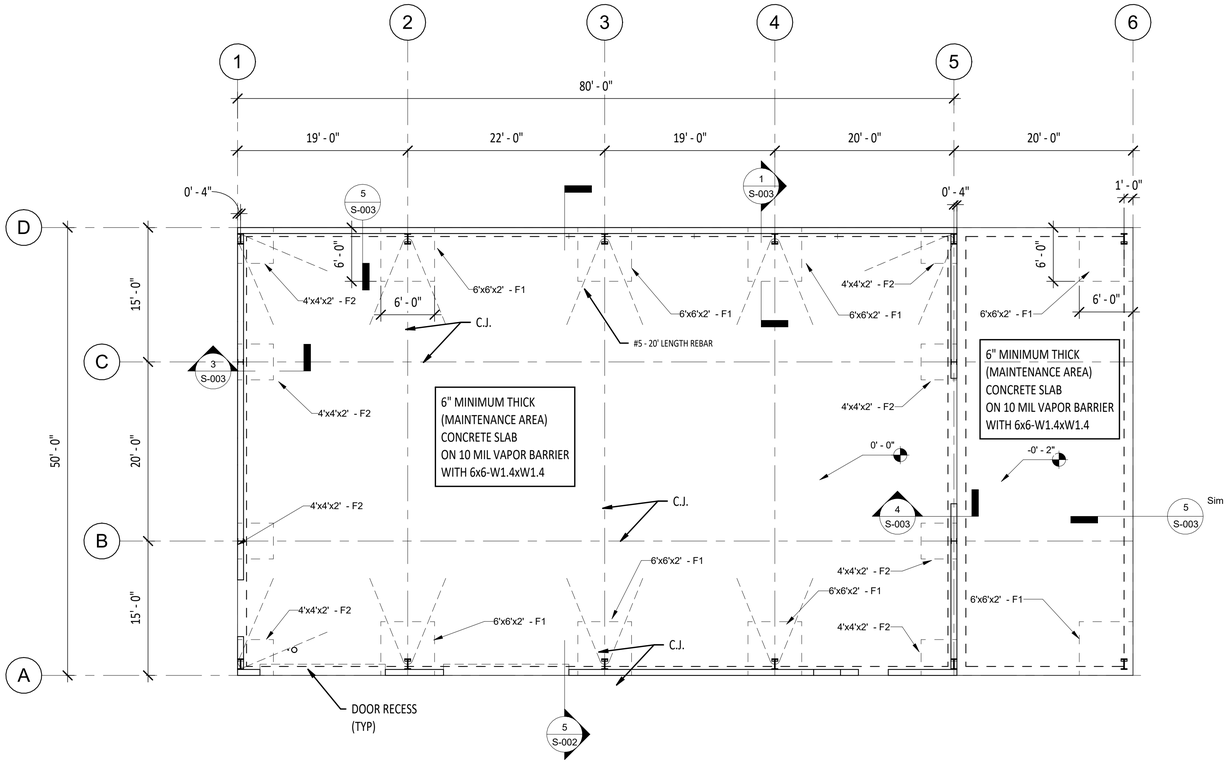
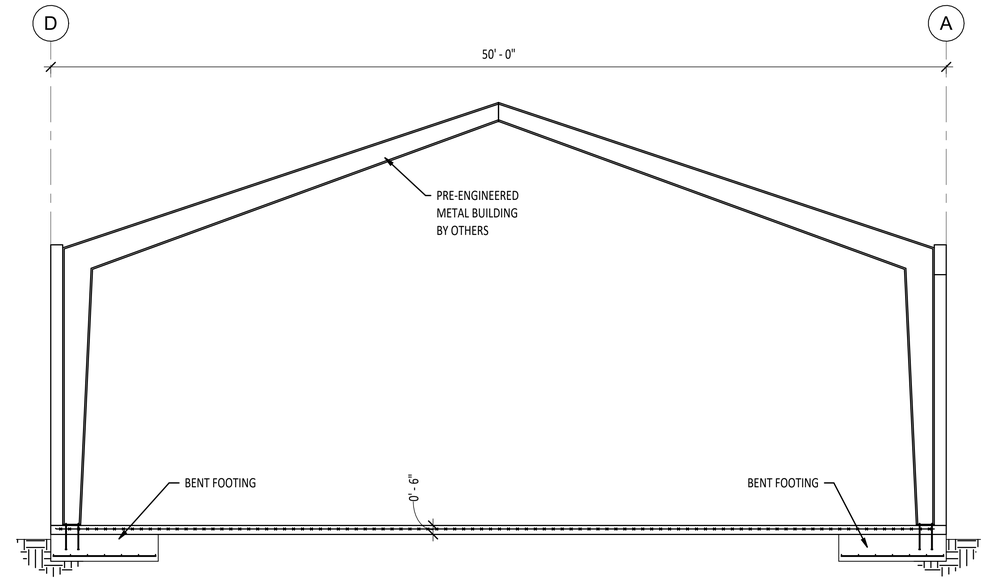
STRUCTURAL NOTES

PROJECT #:	DWG #:	REV #:
2452-091	S-001	0

Revision Schedule		
Revision Number	Revision Description	Revision Date
0	ISSUED FOR PERMITTING	1/23/25

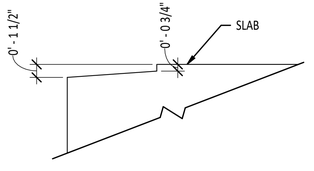


1 FOUNDATION PLAN
1/8" = 1'-0"

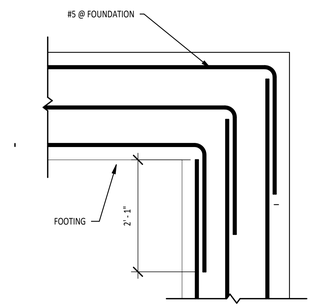


5 SECTION - BUILDING
1/4" = 1'-0"

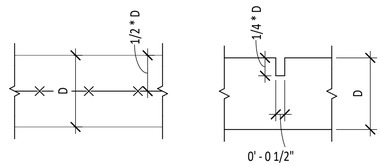
FOUNDATION SCHEDULE				
FOUNDATION MARK	SIZE	REBAR	ANCHOR BOLT SIZE	EMBED.
F-1	6'x6'x2'	#5 BOTTOM @ 12"O.C.E.W	3/4"	12"
F-2	4"x4'x2'	#5 BOTTOM @ 12"O.C.E.W	3/4"	12"



2 DOOR RECESS
1 1/2" = 1'-0"

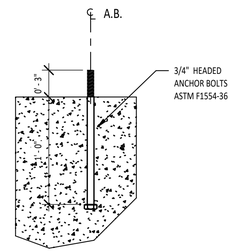


3 FOOTING SPLICE
3/4" = 1'-0"



SLAB THICKNESS, IN.	LESS THAN 3/4-INCH AGGREGATE; SPACING, FT	LARGER THAN 3/4-INCH AGGREGATE; SPACING, FT	SLUMP LESS THAN 4 INCHES:SPACING, FT
4	8	10	12
5	10	13	15
6	12	15	18

4 SLAB AND JOINT DETAIL
3" = 1'-0"



ANCHOR BOLTS FOR F-1 & F-2

6 HEADED ANCHOR BOLT DETAIL
1 1/2" = 1'-0"

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LAKE CITY, FL

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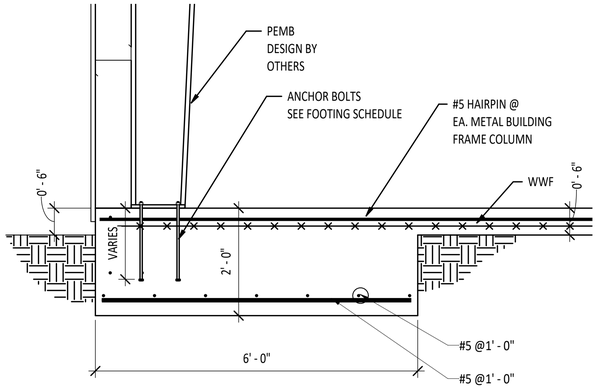
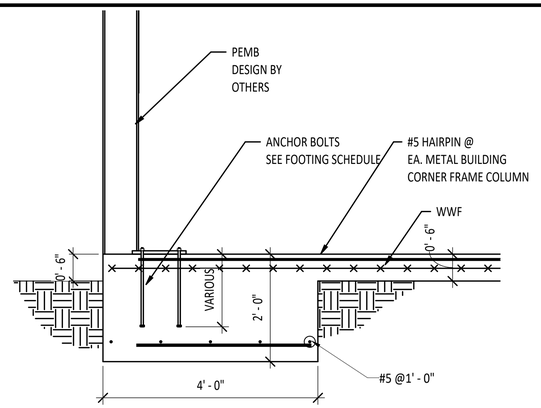
FOUNDATION PLAN

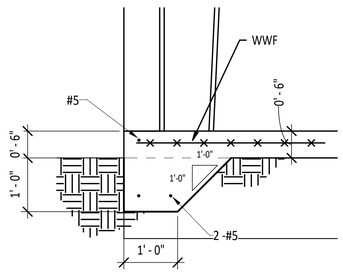
PROJECT #:	DWG #:	REV #:
2452-091	S-002	0



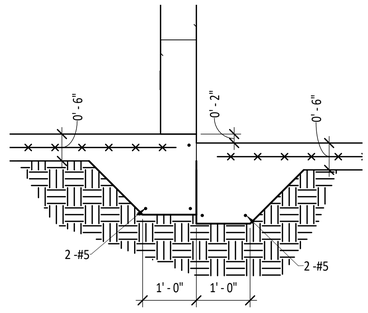
1 DETAIL - FOOTING F-1
3/4" = 1'-0"



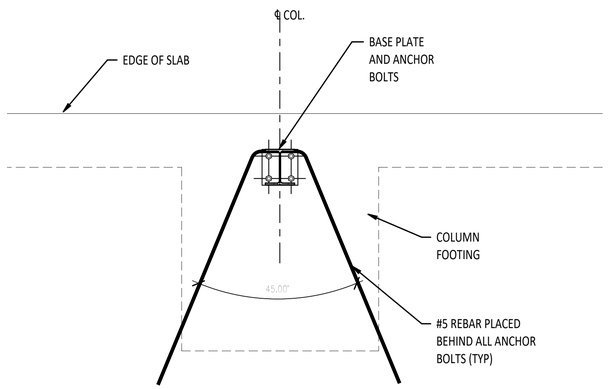
3 DETAIL - FOOTING F-2
3/4" = 1'-0"



5 DETAIL - SLAB EDGE
3/4" = 1'-0"



4 SECTION - SLAB ELEVATION CHANGE
3/4" = 1'-0"



2 HAIR PIN DETAIL
3/4" = 1'-0"

Revision Schedule		
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0	ISSUED FOR PERMITTING	1/23/25

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Gill Engineering Services, Inc.

FABRICATION SHOP

LAKE CITY, FL

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APPRD BY:	GG		

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FOUNDATION SECTIONS AND DETAILS

PROJECT #:	DWG #:	REV #:
2452-091	S-003	0