# THE STRUCTURAL DRAWINGS SHALL BE UTILIZED IN CONJUNCTION WITH OTHER CONSULTANTS

- 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. <u>DESIGN CRITERIA</u>
  - A. CODE: 2020 FBC (7TH ED)

LIVE LOADS:

B. LOADS AND DESIGN CRITERIA: THE FOLLOWING LOADS AND CRITERIA WERE USED IN ADDITION T THE DEAD LOAD OF THE STRUCTURE.

ROOF	20 PSF
SOIL CRITERIA:	
ALLOWABLE SOIL BEARING	2000 PSF
PASSIVE PRESSURE	150 PCF
FRICTION COEFFICIENT	0.35
WIND CRITERIA:	
WIND SPEED:	110 MPH (3-SECOND GUST)
CATEGORY:	1
EXPOSURE	C
INTERNAL PRESSURES:	=/- 0.18
CLADDING AND COMPONENTS	
ZONE 1	16.00 / -31.44 PSF
ZONE 2	16.00 / -36.36 PSF

16.00 / -43.73 PSF

26.53 / -28.74 PSF

26.54 / -35.38 PSF

#### **CONCRETE AND REINFORCING STEEL:**

1. ALL CONCRETE DESIGNED PER CURRENT EDITION OF AC1 318

ZONE 3

ZONE 4

ZONE 5

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

- ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A NORMAL AIR DENSITY OF 145 PSF.
- 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
- MINIMUM ELAPSED TIME BETWEEN ADJACENT CONCRETE PLACEMENTS SHALL BE 48 HOURS
- 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 STEEL:**

- ALL BAR REINFORCEMENT SHALL BE CONFORM TO ASTM 615 GRADE 60.
- WELD WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185
- 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)..... B. SLAB ON GRADE ..
- 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.
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE **INDICATED ON DRAWS**
- 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 CONFORMED TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI-315)
- 7. ALL REINFORCEMENT SHALL BE INSPECTED AND APPROVED BY THE ARCHITECT/ENGINEER OR OWNER TESTING AGENCY BEFORE CONCRETE IS PLACED.
- WHERE CONTINUOUS BARS ARE CALLED FOR THEY SHALL BE CONTINUOUSLY AROUND CORNERS, LAPPED AT NECESSARY SPLICES AND HOOKED AT CONTINUOUS ENDS.
- 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 A318
- 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.

#### **ADDITION CONCRETE ITEMS:**

SLAB AND WALL REINFORCING LAP SPLICE LENGTHS

LAP SLICE LENGTHS FOR REINFORCING IN 4000 PSI CONCRETE AS FOLLOWS **TENSION SPLICE** DEVELOPMENT LENGTH OTHER 13"

#### 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"

- 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.
- 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.

## **FLOOR SLABS:**

- 1. FLOOR SLABS SHALL BE ON AT LEAST 4" OF RELATIVELY CLEAN GRANULAR MATERIAL SUCH AS 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.

#### POST-INSTALLED REBAR:

- POST-INSTALLED REINFORCING BAR CONNECTIONS SHALL BE DESIGNED PER THE ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318). POST-INSTALLED REINFORCING BAR CONNECTIONS SHALL BE CONSIST OF HILTI EPOXY SYSTEMS OR EQUAL
- THE DESIGN OF STRAIGHT POST-INSTALLED REINFORCING BARS SHALL BE PREFORMED PER THE DEVELOPMENT AND SPLICE REQUIREMENTS OF THE ACI 318. THE POST-INSTALLED REINFORCING BAR SYSTEM IS AN ALTERNATIVE TO CAST-IN-PLACE REINFORCING BARS GOVERNED BY ACI 318 AND IBC CHAPTER 19.
- THE EPOXY SYSTEM SHALL BE TESTED IN ACCORDANCE WITH THE ICC-ES ACCEPTANCE CRITERIA FOR POST-INSTALLED EPOXY ANCHORS IN CONCRETE ELEMENTS (ACI 308), TABLE 3.8 TECHNICAL DATE SHALL BE PUBLISHED IN AN ICC-ES EVALUATION SERVICE REPORT SHOWING COMPLIANCE WITH IBC.
- 4. POST-INSTALLED REINFORCING BAR INSTALLATION SHALL BE PERFORMED BY PERSONNEL TRAINED TO INSTALL THE SYSTEM PER THE MANUFACTURED PRINTED INSTALLATION INSTRUCTION (MP1), AS INCLUDED IN THE ANCHOR PACKAGING.

### **COMPACTION REQUIREMENTS**

1. SUBGRADE SOILS AND STRUCTURAL FILL MATERIALS SHALL BE COMPACTED TO THE FOLLOWING PERCENTAGES OF THE ASTM D1557 MAXIMUM DRY DENSITY AT +/- 2% OPTIMUM MOISTURE CONTENT:

<u>MATERIAL</u>	MINIMUM PERCENT COMPACTION
STRUCTURAL FILL, IN THE BUILDING AREA	95
SUBBASE FOR SLAB SUPPORT	95
SUBGRADE BELOW STRUCTURAL FILL	95
MISCELLANEOUS BACKFILL	90

#### STRUCTURAL ALUMINUM

- 1. STRUCTURAL ALUMINUM SHALL BE DOMESTIC ALLOT 6061-T6, DESIGNED IN ACCORDANCE WITH THE ALUMINUM ASSOCIATION'S SPECIFICATION FOR ALUMINUM STRUCTURES, LATEST ADDITION
- 2. FASTENERS: UNLESS DETAILED OTHERWISE, ALL FASTENERS SHALL BE 316 STAINLESS STEEL. ALUMINUM

# WHERE SPECIFIED SHALL BE 2024-T4 OR 6061-T6 ALLOY.

- 3. ALL WELDING SHALL CONFORM WITH ASE D1.2, LATEST STRUCTURAL WELDING CODE ALUMINUM.
- 4. WHERE THE CONTACT OF DISSIMILAR METALS MAY CAUSE ELECTROLYSIS OR WHERE ALUMINUM WILL COME IN CONTACT WITH CONCRETE, MORTAR OR PLASTER, THE CONTACT SURFACE OF THE ALUMINUM SHALL BE COATED WITH 1 COAT JOF ZINC CHROMATE PRIMER AND ONE HEAVY COAT OF ALUMINUM PIGMENT ASPHALT PAINT.

SHEET SCHEDULE

REVISION | REVISION DATE

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

4/5/23

DESCRIPTION

ISSUED FOR CONSTRUCTION

**ISSUED FOR CONSTRUCTION** 

ISSUED FOR CONSTRUCTION

ISSUED FOR CONSTRUCTION

**ISSUED FOR CONSTRUCTION** 

ISSUED FOR CONSTRUCTION

**ISSUED FOR CONSTRUCTION** 

ISSUED FOR CONSTRUCTION

ISSUED FOR CONSTRUCTION

ISSUED FOR CONSTRUCTION

**ISSUED FOR CONSTRUCTION** 

ISSUED FOR CONSTRUCTION

ISSUED FOR CONSTRUCTION

SHEET NAME

STRUCTURAL NOTES

FOUNDATION PLAN

CONCRETE SECTIONS

BUILDING ELEVATION

ROOF FRAMING PLAN

FRAMING ELEVATIONS

FRAMING ELEVATIONS

FRONT AND REAR WALLS

DOOR TRUSSES AND FAN DECKS 0

ROOF PANEL AND SIDE

INTERIOR TRUSSES

SECTIONS

BULDING LAYOUT PLAN

SHEET NUMBER

S-003

S-006

S-010

SD-2

SD-3

	Revision Schedule		
Revision Number	Revision Description	Revision Date	
	ISSUED FOR CONSTRUCTION	4/5/23	



PRINTED COPIES OF THE DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFY ON ANY ELECTRONIC COPIES



0

Gary Gill

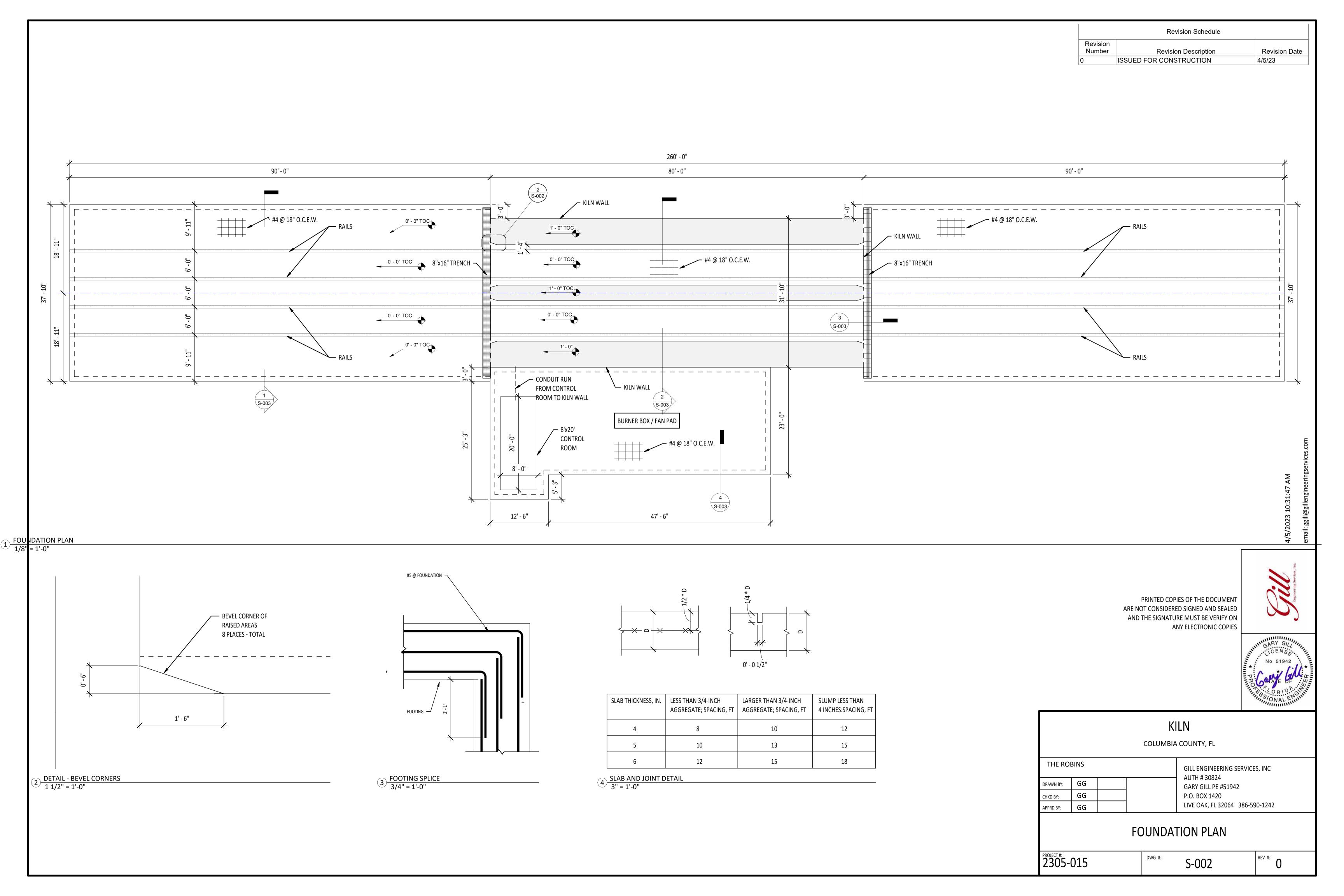
2023.001.20093

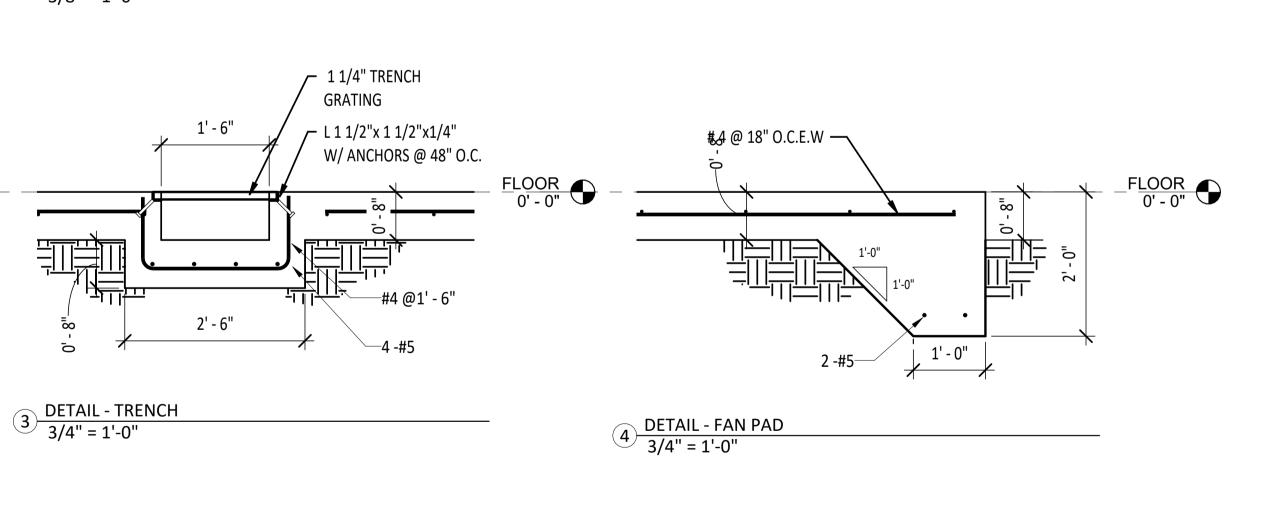
			KILN
		COL	UMBIA COUNTY, FL
THE RO	BINS		GILL ENGINEERING SERVICES, INC
AWN BY:	GG		AUTH # 30824  GARY GILL PE #51942
(D BY:	GG		P.O. BOX 1420
PRD BY:	GG		LIVE OAK, FL 32064 386-590-1242

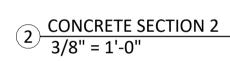
STRUCTURAL NOTES

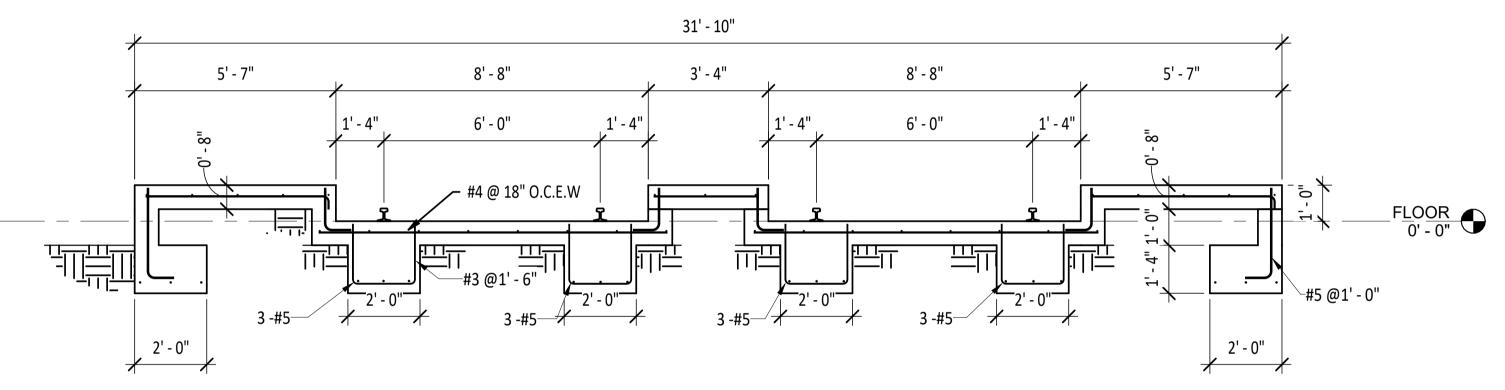
2305-015

S-001

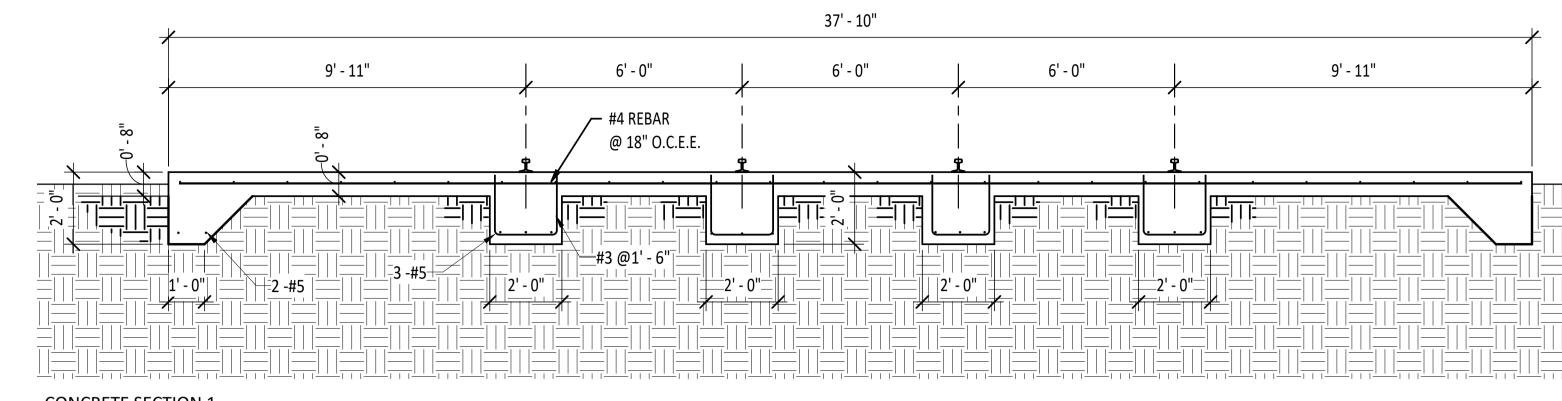








# 1 CONCRETE SECTION 1 3/8" = 1'-0"



Revision Schedule Revision Number **Revision Description Revision Date** ISSUED FOR CONSTRUCTION 4/5/23

KILN

COLUMBIA COUNTY, FL

CONCRETE SECTIONS

DWG #:

GILL ENGINEERING SERVICES, INC

426 SW COMMERCE DR 130-M

LAKE CITY, FL 32025 386-590-1242

REV #: 0

AUTH # 30824

S-003

GARY GILL PE #51942

THE ROBINS

DRAWN BY:

CHKD BY:

APPRD BY:

PROJECT #:

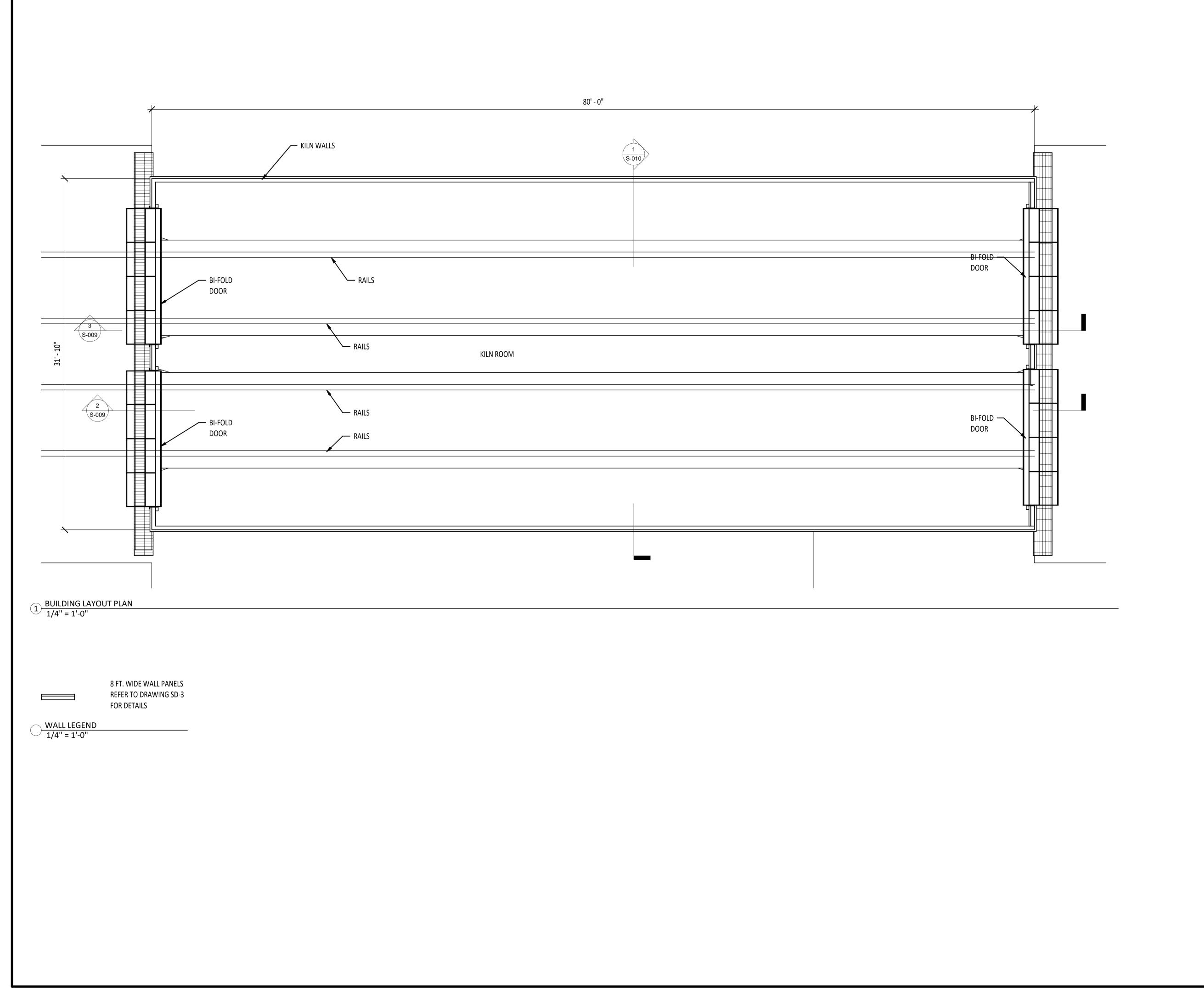
GG

GG

GG

2305-015





Revision Schedule

Revision Number Revision Description Revision Date

0 ISSUED FOR CONSTRUCTION 4/5/23

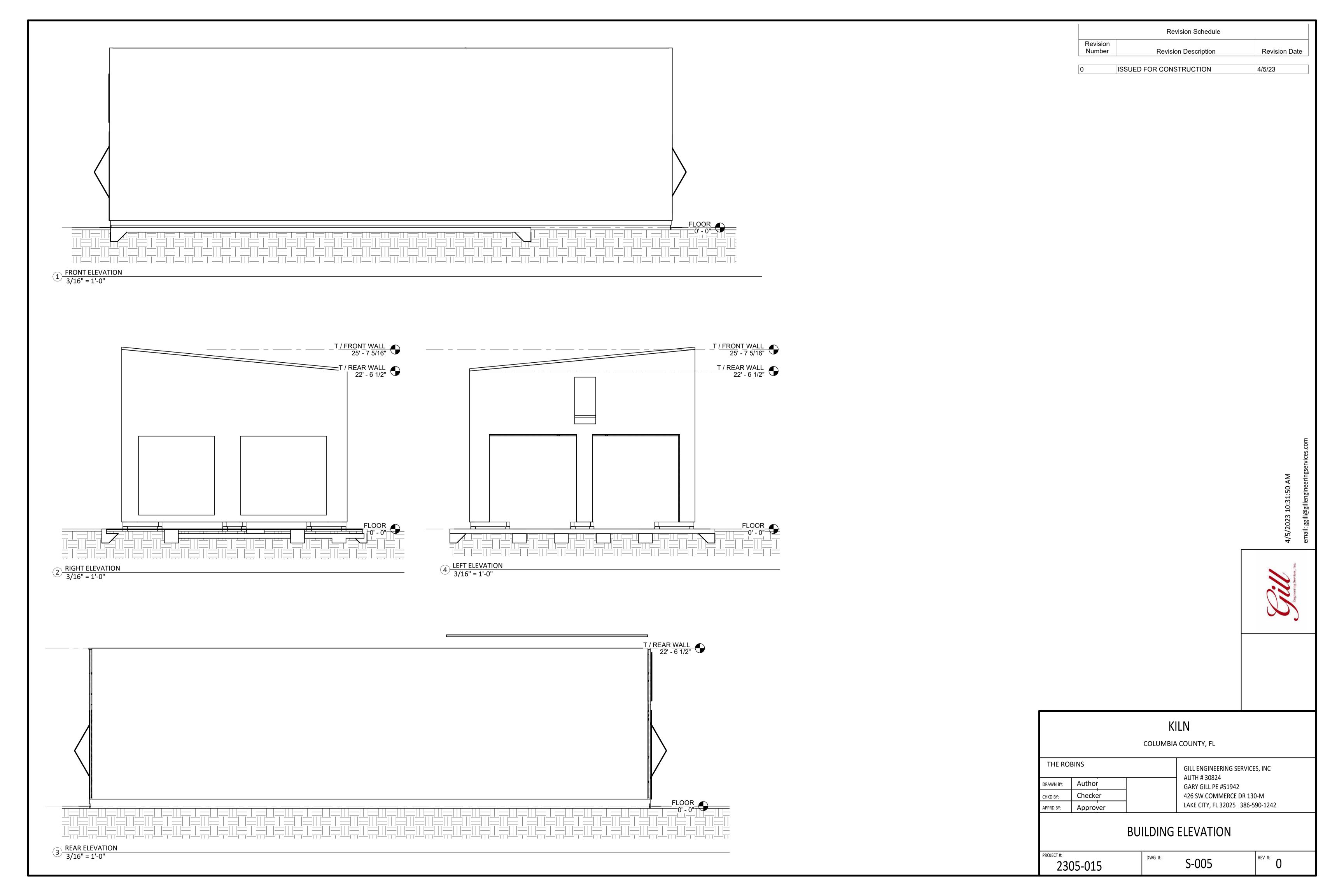
5/2023 10:31:48 AM

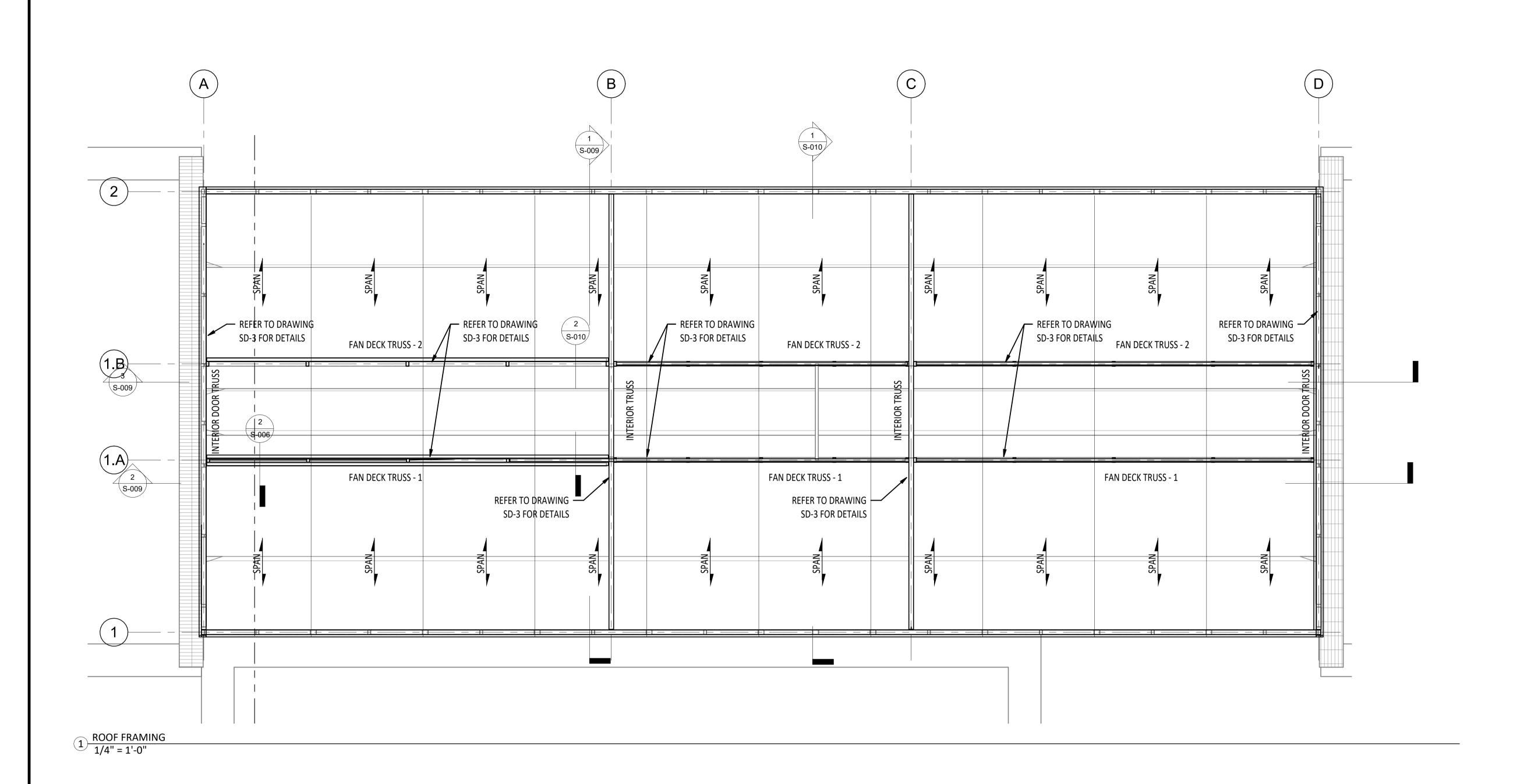


KILN					
	COLUMBIA COUNTY, FL				
THE ROBINS  DRAWN BY: Author			GILL ENGINEERING SERVICES, INC		
			AUTH # 30824 GARY GILL PE #51942		
CHKD BY:	Checker		426 SW COMMERCE DR 130-M		
APPRD BY:	Approver		LAKE CITY, FL 32025 386-590-1242		

BULDING LAYOUT PLAN

2305-015 DWG #: S-004 REV #: 0





Revision Schedule

Revision Number Revision Description Revision Date

0 ISSUED FOR CONSTRUCTION 4/5/23

4/5/2023 10:31:50 AM email: ggill@gillengineeringservices



		KI	LN
		COLUMBIA	COUNTY, FL
THE ROBINS			GILL ENGINEERING SERVICES, INC
DRAWN BY:	Author		AUTH # 30824 GARY GILL PE #51942
CHKD BY:	Checker		426 SW COMMERCE DR 130-M
APPRD BY:	Approver		LAKE CITY, FL 32025 386-590-1242

ROOF FRAMING PLAN

DWG #: S-006

REV #: 0

DETAIL ROOF CONNECTION @ FAN DECK

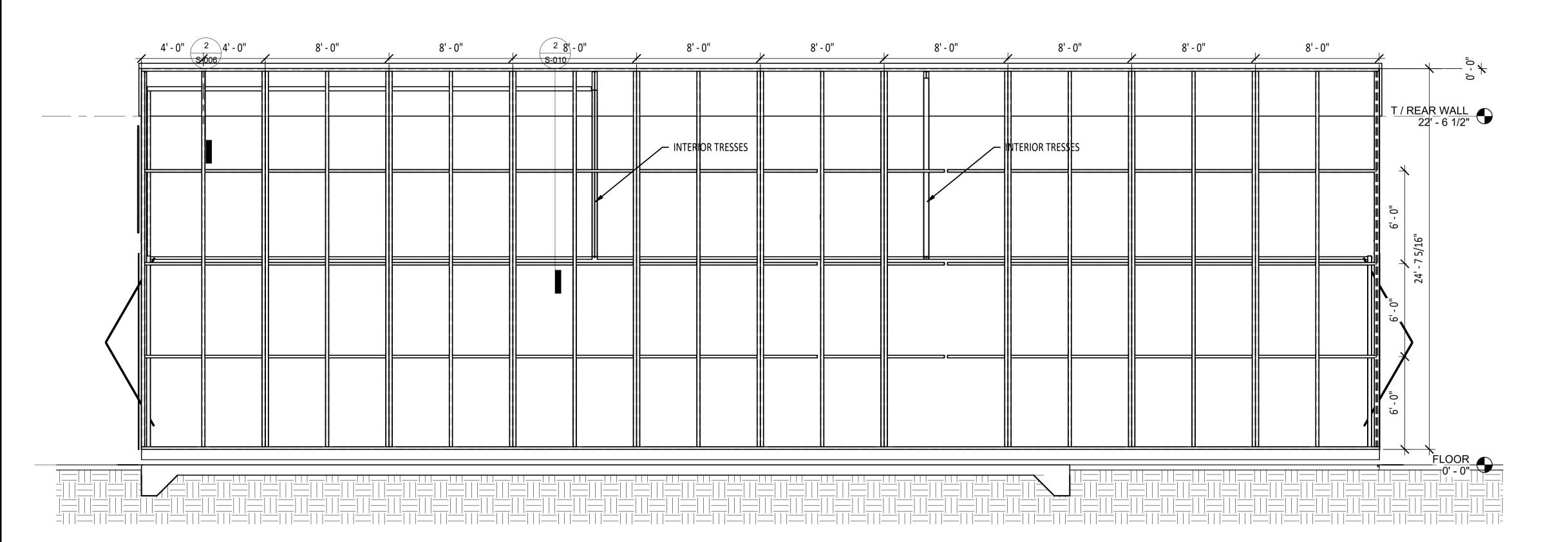
3/4" = 1'-0"

1 1/2"x1/4" TEK

FAN DECK

SCREWS @ 3 PLACES

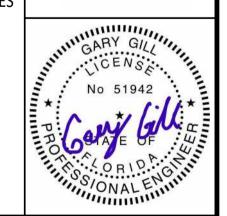
	Revision Schedule	
Revision Number	Revision Description	Revision Date
0	ISSUED FOR CONSTRUCTION	4/5/23

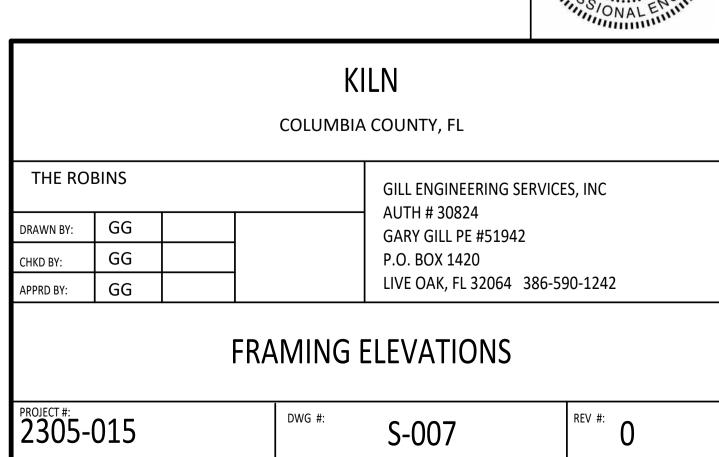


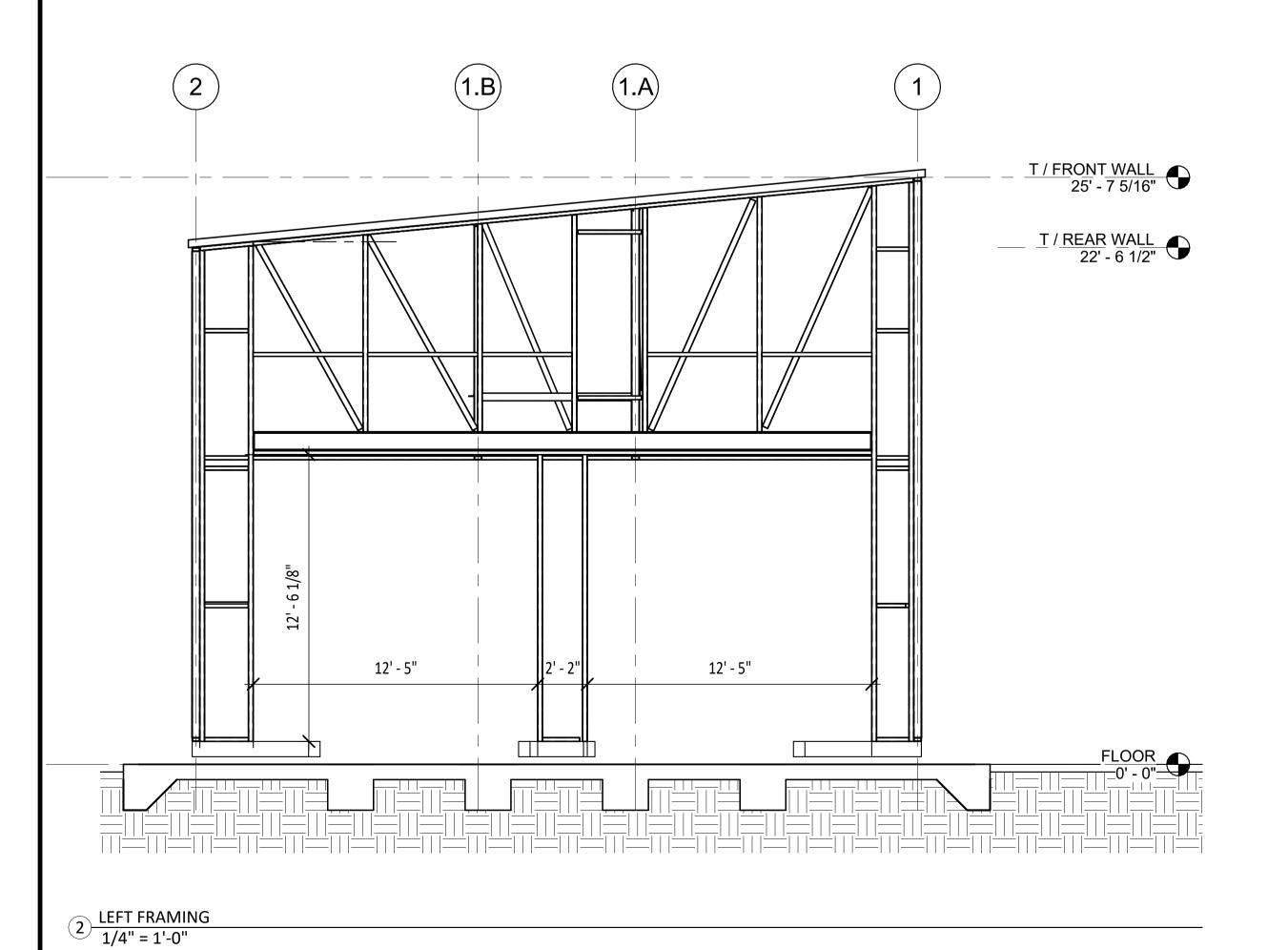
1 FRONT FRAMING
1/4" = 1'-0"

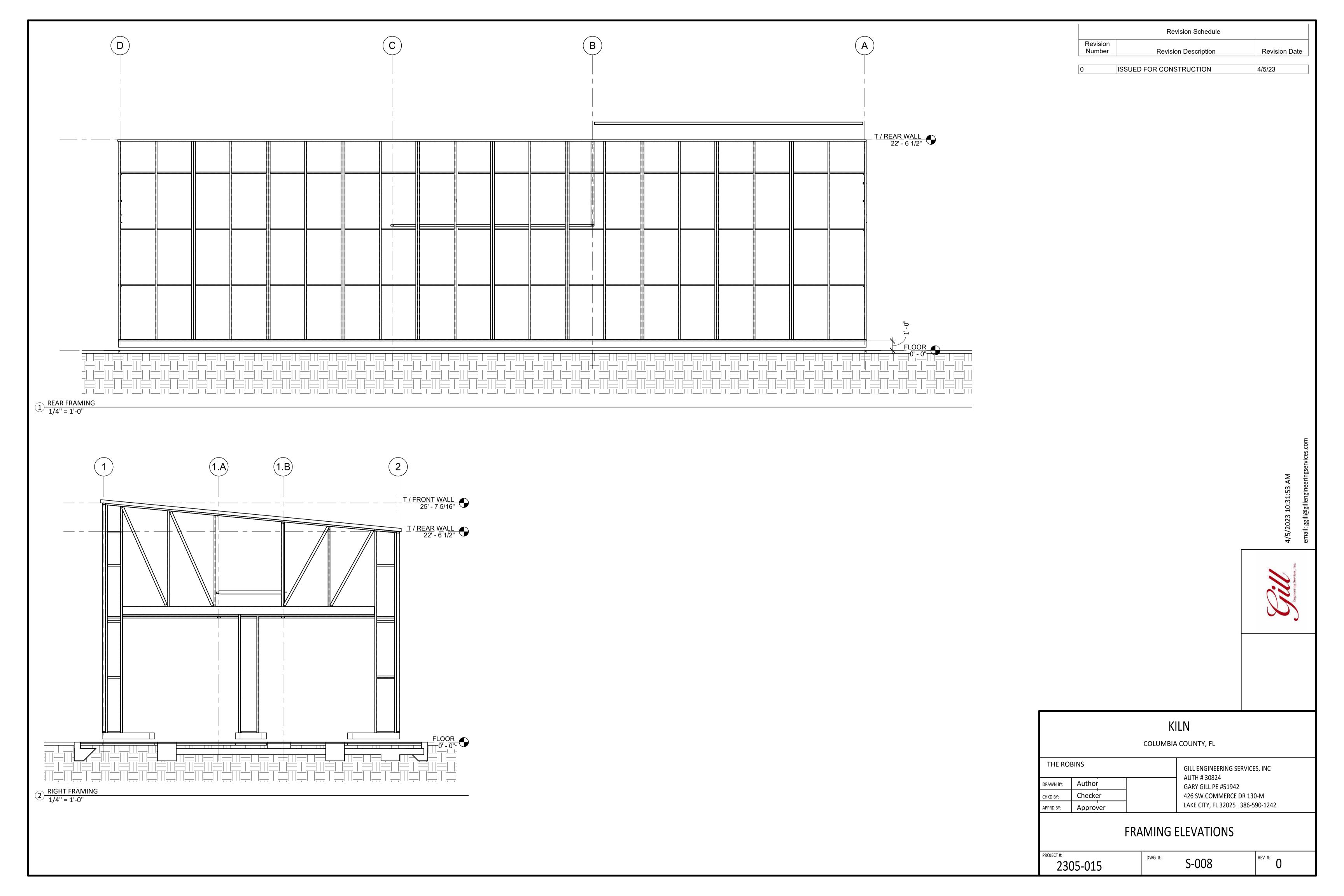


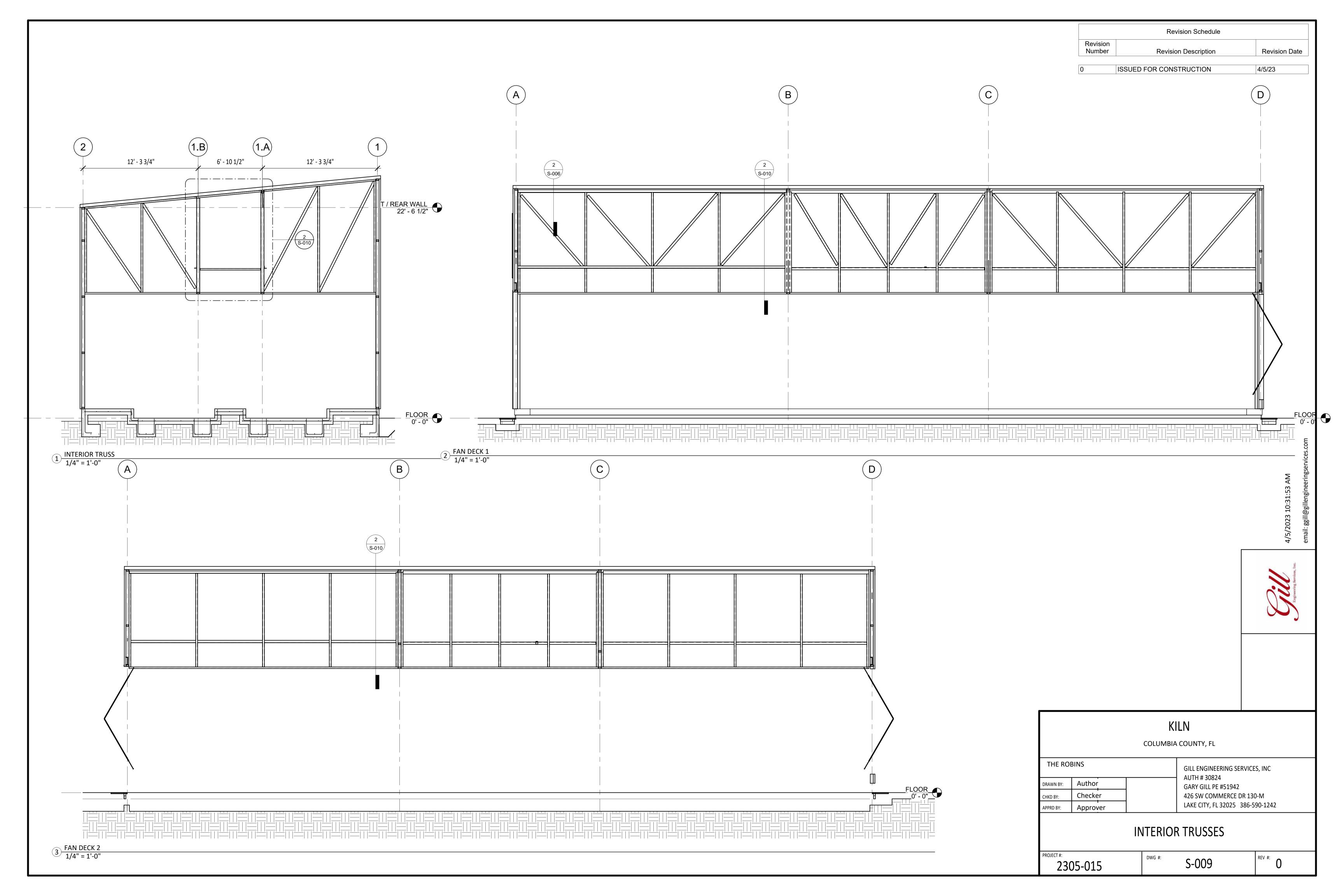
PRINTED COPIES OF THE DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFY ON ANY ELECTRONIC COPIES

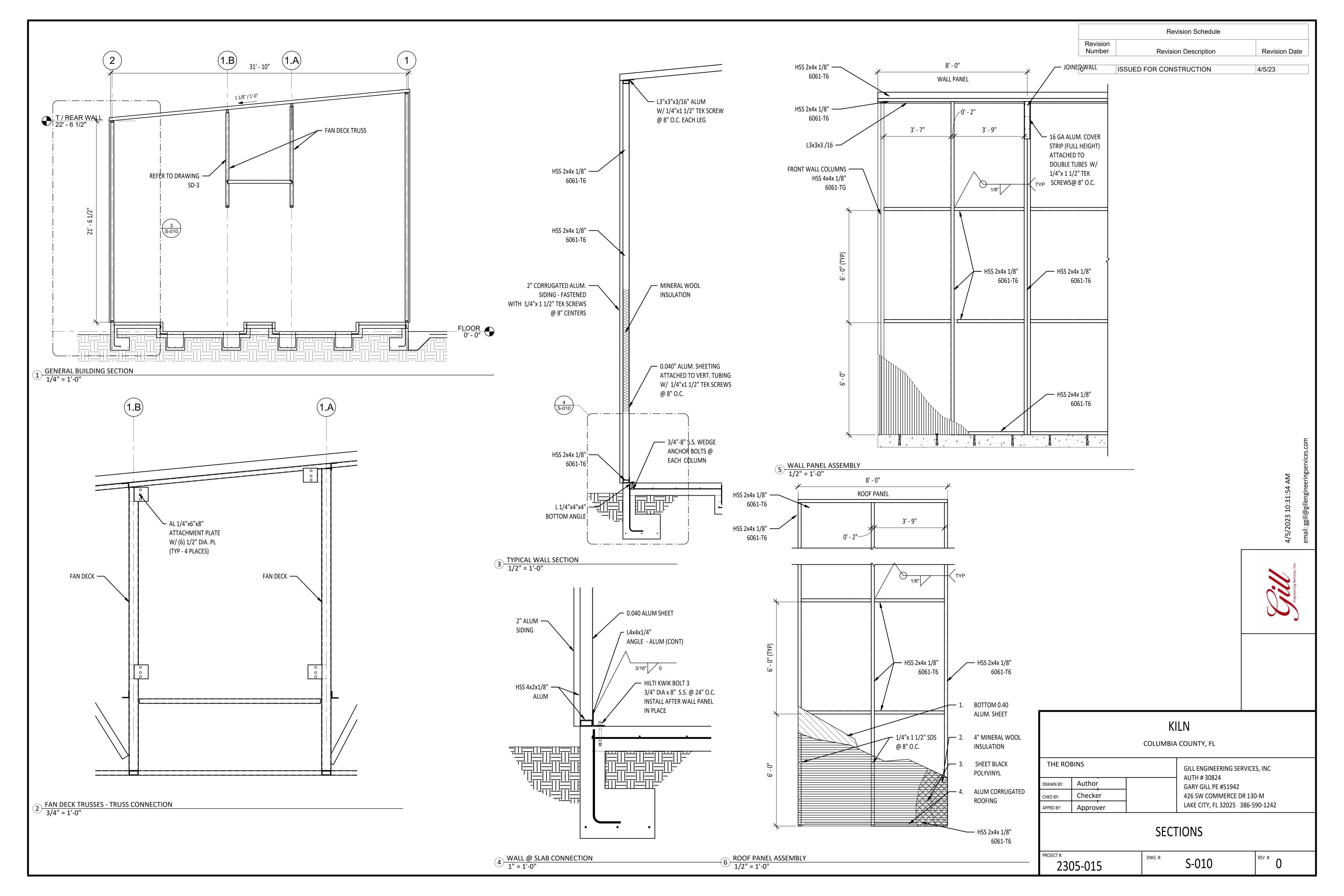


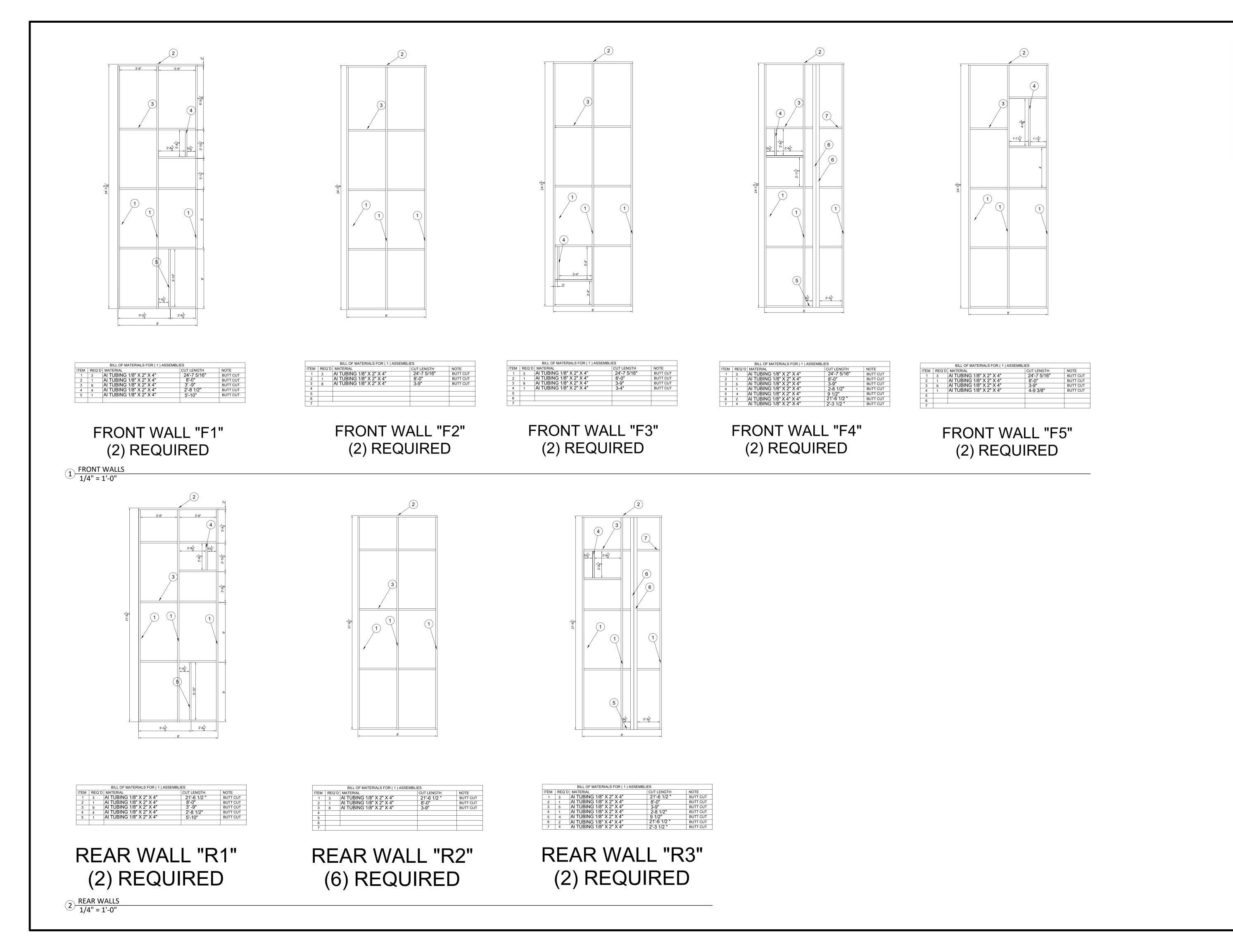










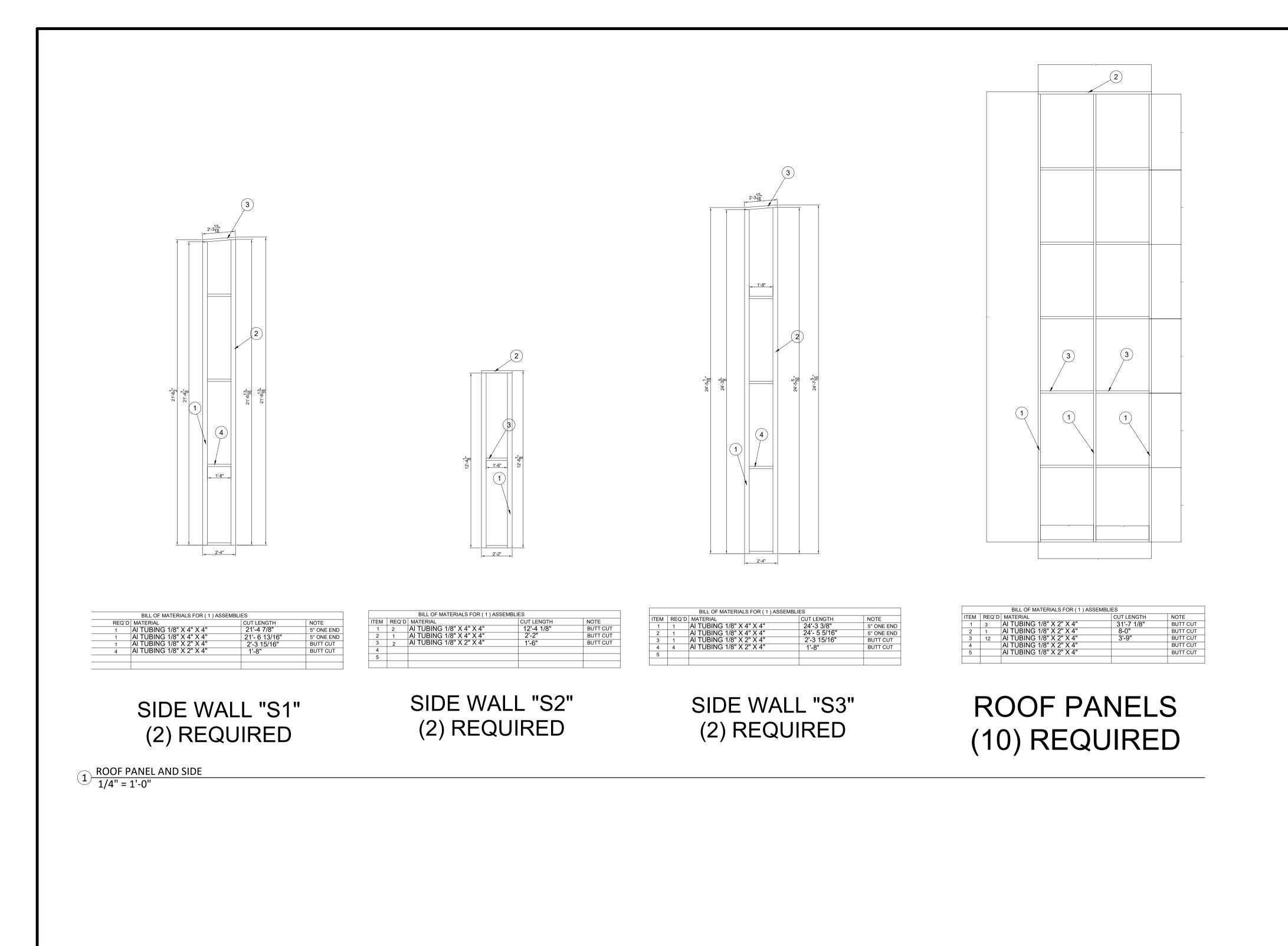


HUDSON,

COUNTY, PREPARED FOR: THE ROBINS COLUMBIA COUN

PROJECT:

**FRONT AND** 



Engineering Services, Inc.

GILL ENGINEERING SERVICES, INC. GARY GILL, P.E. 426 SW COMMERCE DR. SUITE 130 LAKE CITY, FL 32025

> PREPARED FOR: THE ROBINS COLUMBIA COUNTY, FL

**ESIGNS INC. HUDSON, N** 2601 WITHERS DRIVE HUDSON, NORTH CAROLINA, 28638 h: (828) 754-7001 Fax: (828) 754-7911

PROJECT:

ROOF PANEL AND SIDE

