#### I. <u>GENERAL NOTES</u>:

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE SEOR BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. DO NOT SCALE DRAWINGS.

HE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. ALL RETAINING WALLS TO BE TIED INTO ELEVATED FLOOR FRAMING SHOULD BE ASSUMED TO NEED TO BE BRACED DURING CONSTRUCTION UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.

ELECTRONIC VERSIONS OF THE STRUCTURAL DRAWINGS ARE THE SOLE, COPYRIGHTED PROPERTY OF SNELL ENGINEERING AND ARE NOT TO BE USED OR TRANSFERRED WITHOUT THE EXPRESS, WRITTEN PERMISSION OF SNELL ENGINEERING.

#### II. <u>DESIGN LOADS</u>:

THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE – BUILDING 7TH EDITION (2020). THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:

LIVE LOAD 20 PSF LIVE LOAD (CONCENTRATED-FLAT ROOF ONLY) - 300 LBS. DEAD LOAD LIVE LOAD LIVE LOAD (CONCENTRATED) 300 LBS. OVER 2"X2" AREA EQUIPMENT AND OBSERVATION AREA LIVE LOAD 100 PSF.

FLOORS AND OTHER SIMILAR SURFACES SHALL BE DESIGNED TO SUPPORT THE UNIFORMLY DISTRIBUTED LIVE LOADS OR CONCENTRATED LIVE LOADS SHOWN ABOVE, WHICHEVER PRODUCES THE GREATER LOAD EFFECT. DISTRIBUTED LOADS AND

25 PSF.

CONCENTRATED LOADS ARE NON-CONCURRENT UNLESS NOTED OTHERWISE. ASCE 7-16 ULTIMATE WIND SPEED 140 MPH ALLOWABLE WIND SPEED 108 MPH EXPOSURE C ENCLOSED STRUCTURE INTERNAL PRESSURE COEFFICIENT - +/- 0.18 RISK FACTOR II SEE WIND SCHEDULE FOR PRESSURES RISK CATEGORY SEISMIC IMPORTANCE FACTOR le SITE CLASS D SEISMIC DESIGN CATEGORY A Ss - 0.047 g S1 - 0.024 g Sds - 0.051 g Sd1 - 0.038 g

IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CONFIRM ALL FINAL WEIGHTS OF EQUIPMENT (MECHANICAL, CHILLED WATER, KITCHEN, SPA/POOL, (ETC.), CLADDING. FINISHES, ETC. PRIOR TO ERECTING STRUCTURE SUPPORTING THESE ITEMS, ALL WEIGHTS ACCOUNTED FOR IN THE STRUCTURAL DESIGN ARE LISTED ABOVE OR ON THE

### II. CONSTRUCTION ADMINISTRATION (SHOP DRAWINGS, RIFS):

SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC.

ANY COMPONENT NOTED AS "DELEGATED" SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA AND NOT BY THE SEOR. SIGNED AND SEALED DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT AND SEOR FOR REVIEW AS A SHOP DRAWING; CALCULATIONS WILL BE PROVIDED IF REQUESTED.

ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/SEOR, DRAWINGS SUBMITTED WITHOUT REVIEW NOTATION WILL BE RETURNED UNCHECKED. EVERY EFFORT WILL BE MADE TO RETURN THE SHOP DRAWINGS WITHIN TEN BUSINESS DAYS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT THE SHOP DRAWINGS ALLOWING FOR AN ADEQUATE REVIEW PERIOD. ALL SHOP DRAWINGS SHALL BE SUBMITTED IN DIGITAL FORMAT

IN ALL INSTANCES THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS AND ALL OTHER FORMS OF COMMUNICATION, UNLESS OTHERWISE SPECIFIED IN A REQUEST FOR INFORMATION (RFI) BY THE SEOR. EVERY EFFORT WILL BE MADE TO RETURN THE RFIS WITHIN TWO BUSINESS DAYS. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT, APPLICABLE CODES AND DESIGN CRITERIA, AND DETAILING OF ALL COMPONENTS NECESSARY TO ENSURE PROPER INSTALLATION OF THE COMPONENTS AND SYSTEM.

SHOP DRAWINGS SHOULD BE SUBMITTED FOR ALL COMPONENTS OF THE STRUCTURAL FRAMING SYSTEM, AS REQUIRED BY THE ARCHITECT, AND AS NOTED ELSEWHERE IN THESE NOTES, INCLUDING, BUT NOT LIMITED TO:

- a. CONCRETE MIX DESIGNS b. MASONRY BLOCK
- c. MASONRY BLOCK ACCESSORIES d. MASONRY REINFORCING
- e. CONCRETE REINFORCEMENT PRE-ENGINEERED STEEL STAIRS
- PRECAST CONCRETE COMPONENTS . ANY PROPOSED MANUFACTURER CHANGE FROM THE BASIS OF DESIGN

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL TRADES AND CONSULTANTS, CROSS REFERENCE THEIR DRAWINGS WITH THE OVERALL DESIGN, AND PROVIDE TO EACH A COMPLETE SET OF DRAWINGS AND SUBMITTALS TO ENSURE COMPATIBILITY OF CONSTRUCTION PER DESIGN INTENT.

#### IV. <u>FOUNDATIONS</u>:

ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF ON COMPACTED FILL OR COMPACTED NATIVE SOIL. BEFORE CONSTRUCTION COMMENCES AND IF REQUIRED BY THE JURISDICTION, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, AS WELL AS FIELD AND LABORATORY TESTS PERFORMED BY A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. THE ABOVE REPORT SHALL BE SUBMITTED TO THE SEOR FOR REVIEW BEFORE THE FOUNDATION CONSTRUCTION BEGINS.

#### V. SOIL COMPACTION:

FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE AS SPECIFIED ABOVE. SOIL COMPACTION SHALL MEET THE MORE STRINGENT OF THE CRITERIA LISTED BELOW OR AS SPECIFIED IN THE GEOTECHNICAL REPORT. REMOVE TOP-SOIL TO A MINIMUM DEPTH OF ONE FOOT OVER THE ENTIRE BUILDING AREA AND FIVE FEET BEYOND THE BUILDING LINES. COMPACT SUB-GRADE USING A VIBRATORY COMPACTER SUCH AS "VIBRATOW II" OR EQUIVALENT WITH A MINIMUM OF FOUR PASSES. PLACE AND COMPACT FILL MATERIAL TO FINISHED GRADE LEVEL IN LIFTS NOT EXCEEDING 12" THICK. SUB-GRADE AND EACH LIFT SHALL BE COMPACTED TO MINIMUM 95% MODIFIED PROCTOR DENSITY DETERMINED IN ACCORDANCE WITH ASTM. D-1557. VERIFICATION THAT THE COMPACTION REQUIREMENTS HAVE BEEN MET SHALL BE MADE BY AN INDEPENDENT GEOTECHNICAL CONSULTANT EMPLOYED BY THE OWNER AND APPROVED BY THE SEOR. LOCATIONS FAILING TO MEET THE REQUIREMENTS SHALL BE RECOMPACTED AND RETESTED AT THE CONTRACTORS' EXPENSE AND AS DIRECTED BY THE INDEPENDENT GEOTECHNICAL CONSULTANT.

#### VI. <u>FORMWORK AND SHORING</u>:

NO STRUCTURAL CONCRETE SHALL BE STRIPPED UNTIL IT HAS REACHED AT LEAST TWO-THIRDS OF THE 28 DAY DESIGN STRENGTH. DESIGN, ERECTION AND REMOVAL OF ALL FORMWORK, SHORES AND RESHORES SHALL MEET THE REQUIREMENTS SET FORTH IN ACI STANDARDS 347 AND 301.

NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS WITHOUT PREVIOUS APPROVAL OF THE EOR, EXCEPT THOSE PENETRATIONS SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHOULD SUBMIT DRAWINGS SHOWING: ANY LOCATION WHERE OPENINGS, PENETRATIONS, OR ANY PLACE MORE THAN 3 PIPES OR CONDUITS ARE LOCATED IN A SLAB SYSTEM; ANY LOCATION IN A BEAM OR COLUMN WHERE MORE THAN 4% OF THE MEMBER SECTION IS REMOVED IN ANY ORIENTATION.

#### VIII. PLUMBING SLEEVES:

MINIMUM SLEEVE SPACING SHALL BE THREE DIAMETERS CENTER TO CENTER OF THE LARGER SLEEVE OR 6" CLEAR BETWEEN SLEEVES, WHICHEVER IS GREATER. PRIOR TO CONSTRUCTION SLEEVE LOCATIONS AND SIZES SHALL BE APPROVED BY THE SEOR. CONDUITS, PIPES AND SLEEVES SHALL BE PLACED AND SPACED IN ACCORDANCE WITH ACI 318 6.3.

#### IX. REINFORCING STEEL

SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.

REINFORCING BARS SHOWN IN SECTIONS DEPICT TYPICAL CONFIGURATION AND ARE NOT SPECIFIC TO THE CONCRETE MEMBER CUT ON PLAN; SEE PLAN AND SCHEDULES FOR ALL BAR SIZE AND QUANTITIES. TAKE-OFFS AND QUANTITIES SHALL BE OBTAINED FROM THE SCHEDULES AND PLANS, NOT FROM SECTIONS. WHERE HOOKS, LAP LENGTHS, ETC. ARE SHOWN IN SECTIONS, ALL LENGTHS AND DETAILS SHALL MEET ACI REQUIREMENTS FOR REINFORCING DETAILS. HOOKS SHALL BE ORIENTED AS REQUIRED TO FIT WITHIN THE CONCRETE MEMBER.

### X. WELDED WIRE FABRIC:

A. TO CONFORM TO ASTM A-185, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. THE MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES.

#### XI. CONCRETE:

ALL CONCRETE SHALL MEET ACI 318 'BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE' AND ACI 301 'SPECIFICATIONS FOR STRUCTURAL CONCRETE', INCLUDING, BUT NOT LIMITED TO, MIX DESIGN, STRENGTH, COVER, PLACEMENT, CURING, TESTING, FORMS, FLATNESS, ETC. SEE THE ARCHITECTURAL SPECIFICATIONS AND PLANS FOR ANY ADDITIONAL REQUIREMENTS.

ALL CONCRETE SHALL BE AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:

#### 3000 PSI FOR FOUNDATIONS AND SLABS ON GRADE 4000 PSI FOR ALL OTHER STRUCTURAL CONCRETE

SUBMIT PROPOSED MIX DESIGN FOR EACH PORTION OF WORK PRIOR TO USE. ALL MIX DESIGNS SHALL BE ACCOMPANIED BY A MINIMUM OF 15 FIELD STRENGTH TEST RECORDS, AS NOTED IN ACI 301 4.2.3.2(A); NO OTHER DOCUMENTATION OF AVERAGE COMPRESSIVE STRENGTH WILL BE ACCEPTED WITHOUT PRIOR WRITTEN APPROVAL BY THE SEOR. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE. FOR ALL FLATWORK, AT LEAST 75% OF LARGE AGGREGATE SHALL CONSIST OF #57 STONE. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED.

ALL CONCRETE MIX DESIGNS SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE.

CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ALL STANDARDS AND SPECIFICATIONS, INCLUDING ALL ACI REQUIREMENTS.

THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. ALL SLABS SHALL BE CURED USING A DISSIPATING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1-D AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. AL SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE SEOR.

THE GENERAL CONTRACTOR SHALL NOTIFY THE SEOR A MINIMUM OF 48 HOURS PRIOR PLACEMENT OF ANY STRUCTURAL CONCRETE.

SEE PLAN NOTES FOR SPECIFIC COVER REQUIREMENTS. UNLESS NOTED OTHERWISE ON PLANS. THE FOLLOWING CONCRETE CLEAR COVER SHALL BE PROVIDED FOR ALL NON-

PRESTRESSED CONCRETE REINFORGEMENT PER A	CI 318:		
CONCRETE CAST AGAINST EARTH:	ALL BARS	_	3"
CONCRETE EXPOSED TO EARTH (FORMED FACE):	ALL BARS	-	2"
CONCRETE EXPOSED TO WEATHER:	#6 BARS AND GREATER	-	2"
	#5 BARS AND SMALLER	-	1 1/2
WHERE NOT EXPOSED TO EARTH OR WEATHER:			
SLABS, WALLS, AND JOISTS:	#14 & #18 BARS	-	1 1/2
	#11 BARS AND SMALLER	-	1"
BEAMS AND COLUMNS:	ALL BARS	-	1 1/2

CONCRETE TESTING: AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:

A) ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE." THE MAXIMUM SLUMP SHALL BE 4-6 INCHES, PRIOR TO ADDING A SUPER

B) ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED CYLINDER(S) QUANTITIES AND TEST AGE AS FOLLOWS: 1 AT 7 DAYS 2 AT 28 DAYS

ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE SEOR, IF REQUIRED, IF 28 DAY STRENGTH IS ACHIEVED. THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED. UPON RECEIPT, IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL COMPRESSIVE TEST RESULTS BE SENT TO THE SEOR, ARCHITECT OF RECORD, CONCRETE SUBCONTRACTOR, AND CONCRETE SUPPLIER.

POUR STRUCTURAL CONCRETE WITHIN THE FOLLOWING TOLERANCES: VARIATION FROM PLUMB: VARIATION FROM LEVEL IN TOPS OF PILASTERS: 1/8" IN 10'-0" VARIATION FOOTINGS: PLAN DIMENSIONS: +2", - 1/2"

THICKNESS:

### XII. NON-SHRINK GROUT

NON-SHRINK GROUT SHALL BE A HIGH-STRENGTH MORTAR OR GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS. THE GROUT IS TO BE NON-METALLIC. NON-CORROSIVE, CEMENT-BASED AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1107. IT SHALL BOND PERMANENTLY TO A CLEAN METAL BASEPLATE AND CONCRETE SUBSTRATE AND WILL NOT SHRINK IN ITS PLASTIC STATE, AS TESTED IN ACCORDANCE WITH ASTM C827.

### XIII. HOLLOW-CORE SLABS:

FLOORS SHALL BE PRESTRESSED CONCRETE HOLLOW-CORE SLABS DESIGNED IN ACCORDANCE WITH ACI 318-14 FOR THE DESIGN LOADS LISTED ABOVE.

SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED FOR ALL WORK AND SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

NO ALTERNATE PRODUCT SUBSTITUTION FOR HOLLOW-CORE SLABS WILL BE ACCEPTED.

### XIV. CHEMICAL ANCHORS:

SHALL BE AN EQUAL TWO-PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS SIMPSON SET-XP "STRUCTURAL ANCHORING ADHESIVE," HILTI HIT-HY 200, OR SEOR APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE. BRUSH AND BLOW OUT ALL HOLES.

#### XV. MASONRY WALLS

MASONRY UNITS SHALL MEET ASTM C-90 FOR HOLLOW LOAD BEARING TYPE MASONRY WITH UNIT STRENGTH OF 2000 PSI ON THE NET AREA (F'M = 2000 PSI). MORTAR SHALL BE TYPE "M" OR "S" AND MEET ASTM C-270. GROUT SHALL BE 3000 PSI MINIMUM COMPRESSIVE STRENGTH AND MEET ASTM C-476. PROVIDE HOOKED DOWELS IN FOOTINGS FOR ALL VERTICAL REINFORCING ABOVE. LAP SPLICES 48 BAR DIAMETERS.

MASONRY CONSTRUCTION SHALL BE LAID IN RUNNING BOND CONFIGURATION UNLESS OTHERWISE NOTED. AT ALL WALL INTERSECTIONS, AT LEAST FIFTY PERCENT OF THE MASONRY UNITS AT THE INTERFACE SHALL INTERLOCK.

BLOCK CELLS AS SHOWN ON PLANS SHALL BE GROUT FILLED WITH VERTICAL REINFORCING BARS. SEE PLAN NOTES FOR BAR SIZE AND SPACING. DOWELS SHALL BE USED TO PROVIDE CONTINUITY INTO THE STRUCTURE ABOVE AND/OR BELOW, UNLESS NOTED OTHERWISE. USE METAL LATH, MORTAR, OR SPECIAL UNITS TO CONFINE CONCRETE AND GROUT TO AREA REQUIRED. CELLS TO BE GROUT FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED, CONTINUOUS VERTICAL GROUT SPACE.

PROVIDE 9 GAUGE GALVANIZED HORIZONTAL JOINT REINFORCING (DUR-O-WALL OR SEOR APPROVED SUBSTITUTION) AT ALTERNATE BLOCK COURSES, BEGINNING 8" ABOVE FOOTINGS AND FLOOR LEVELS. MASONRY WALLS ABOVE OPENINGS SHALL BE REINFORCED AT THE SAME SPACING AS THE WALL WITH DOWELS HOOKED INTO THE BEAM OR LINTEL ABOVE THE OPENING.

AN INCREMENT OF GROUT HEIGHT WITHIN A TOTAL GROUT POUR. THE TOTAL HEIGHT OF MASONRY TO BE GROUTED PRIOR TO ERECTION XVIII: STEEL STAIRS: OF ADDITIONAL MASONRY. A GROUT POUR CONSISTS OF ONE OR MORE GROUT LIFTS. GROUT POURS SHALL SET FOR A MINIMUM OF 4 BEFORE ANY ADDITIONAL GROUT PLACEMENT.

GROUT SHALL HAVE A SLUMP BETWEEN 8 AND 11 INCHES, EXCEPT SELF-CONSOLIDATING GROUT. JOB-SITE PROPORTIONING OF SELF-CONSOLIDATING GROUT IS NOT PERMITTED.

#### MASONRY GROUTING REQUIREMENTS:

- A. FIELD-MIXED GROUT SHALL BE PLACED WITHIN 1-1/2 HOURS FROM INTRODUCING WATER INTO THE MIXTURE AND BEFORE THE INITIAL SET. B. GROUT SLUMP REQUIREMENTS:
- A. FOR GROUT SLUMP BETWEEN 8 AND 10 INCHES, THE MAXIMUM GROUT LIFT HEIGHT IS 5 FEET.
- B. FOR GROUT SLUMP BETWEEN 10 AND 11 INCHES, THE MAXIMUM GROUT LIFT HEIGHT IS 12.67 FEET.
- C. FOR SELF-CONSOLIDATING GROUT, THE GROUT LIFT HEIGHT SHALL NOT EXCEED THE GROUT POUR HEIGHT (24 FEET MAX.).
- C. GROUT LIFT HEIGHTS EXCEEDING 5 FEET SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. MASONRY MORTAR HAS CURED FOR AT LEAST 4 HOURS.
- B. GROUT SLUMP IS BETWEEN 10 AND 11 INCHES.

G. THE MAXIMUM POUR HEIGHT IS 24 FEET.

CONCRETE TIE-BEAM OR BOND BEAM IS NOTED.

- C. NO INTERMEDIATE BOND BEAMS ARE PLACED BETWEEN THE TOP AND BOTTOM OF THE GROUT LIFT HEIGHT.
- D. EACH GROUT LIFT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION AT THE TIME OF PLACEMENT. CONSOLIDATION IS NOT REQUIRED FOR SELF-CONSOLIDATING
- E. EACH GROUT LIFT SHALL BE RECONSOLIDATED BY MECHANICAL VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT HAS OCCURRED, AND BEFORE ADDING THE SUBSEQUENT GROUT LIFT. RECONSOLIDATION IS NOT REQUIRED FOR SELF-
- CONSOLIDATING GROUT. THE TIME BETWEEN PLACING GROUT LIFTS SHALL NOT EXCEED 1 HOUR.
- H. A GROUT KEY SHALL BE PROVIDED AT THE TOP OF EACH GROUT LIFT AND GROUT POUR. GROUT KEYS SHOULD BE FORMED BY TERMINATING THE GROUT 1-1/2 INCHES BELOW A MORTAR JOINT.

MASONRY WALLS MARKED AS "LOAD-BEARING" ARE DESIGNED TO CARRY GRAVITY FLOOR LOADS AND MUST BE CONSTRUCTED TO SUPPORT THE FLOOR SYSTEM, ON CURRENTLY WITH ALL OTHER LOAD-BEARING CONCRETE AND STEEL COLUMNS.

MASONRY WALLS MARKED AS "INFILL" ARE NOT DESIGNED TO CARRY GRAVITY FLOOR LOADS AND MUST BE CONSTRUCTED AFTER THE FLOOR SYSTEM, WITH ALL LOAD-BEARING COMPONENTS, HAVE BEEN INSTALLED AND THE FLOOR SYSTEM UNSHORED.

AT SILLS OF MASONRY OPENINGS IN LOAD-BEARING MASONRY WALLS, PROVIDE AN 8"

HORIZONTAL BAR, TYPICAL UNLESS NOTED OTHERWISE ON PLAN OR DETAILS. ALL WALLS EXCEEDING 16 FEET TALL SHALL HAVE A MID-HEIGHT DOUBLE-KNOCK OUT BLOCK, GROUTED SOLID WITH (2)#5 BARS CONT. IN EACH COURSE, UNLESS A

KNOCKOUT COURSE, GROUTED SOLID AND REINFORCED WITH 1 #5 CONTINUOUS

#### XVI: TIE BEAMS

BEAMS WITH THE PREFIX "TB" SHALL BE OF CONCRETE POURED AFTER THE MASONRY WALLS BELOW ARE IN PLACE AND ARE INTENDED TO BE FULLY SUPPORTED BY THE MASONRY WALL. REINFORCING SHALL BE CONTINUOUS THROUGH TIE BEAMS FOR THE FULL LENGTH OF THE MASONRY WALL WITH MINIMUM LAP SPLICES OF 48 BAR DIAMETERS AND BENT BARS AT CORNERS. USE METAL LATH, MORTAR, OR SPECIAL UNITS TO CONFINE CONCRETE TO AREA REQUIRED, IN ACCORDANCE WITH ACI 530.1, SECTION 4.3.3.3 (SOLID METAL OR FELT CAVITY CAPS ARE PROHIBITED). WHERE TIE BEAMS ARE NOTED AS KNOCK-OUT (K.O.) BLOCKS, KNOCK-OUT BLOCKS SHALL BE GROUT-FILLED AS SPECIFIED IN

UNLESS NOTED ON PLAN, DETAILED, OR SCHEDULED, AN 8"X16" CONCRETE TIE BEAM SHALL BE PROVIDED AT THE TOP OF ALL LOAD-BEARING MASONRY WALLS. THE TOP OF TIE BEAM SHALL BE AT THE TOP OF WALL ELEVATION AND REINFORCED WITH (2)#5 BARS TOP AND BOTTOM, WITH #3 STIRRUPS AT 24" O.C. MAX. WHERE A SLAB WITH A THICKNESS OF 10" OR GREATER BEARS ON THE MASONRY WALL, THE TIE BEAM MAY BE OMITTED, PROVIDED THE VERTICAL MASONRY REINFORCING IS HOOKED INTO THE SLAB.

#### XVII: MASONRY LINTELS/WALL OPENINGS:

ALL OPENINGS IN MASONRY WALLS SHALL BE SPANNED WITH A CONCRETE BEAM OR PRECAST CONCRETE LINTEL. THE BEAM OR LINTEL SHALL SPAN THE FULL WIDTH OF THE OPENING AS A CONTINUOUS WIDTH AND DEPTH UNLESS NOTED OTHERWISE ON THE

SEE PLANS AND SCHEDULE FOR LINTEL SIZE AND REINFORCING.

INSTALLATION.

ENGINEERED STEEL STAIR SYSTEM AND ALL CONNECTIONS OF THE SAME TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. SUBMIT SHOP DRAWINGS BEARING THE EMBOSSED SEAL AND THE SIGNATURE OF THE DELEGATED ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE CONFIGURATION OF THE STEEL STAIR SYSTEM SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. STEEL STAIR SYSTEM AND ALL CONNECTIONS SHALL BE DESIGNED FOR ALL APPLICABLE LOADS AS INDICATED ON THE PLANS AND IN THE BUILDING CODE. THE LOADS SHALL BE CLEARLY INDICATED ON ALL SHOP DRAWINGS. SHOP DRAWINGS SHALL SHOW AND SPECIFY ALL CONNECTIONS UTILIZED WITHIN THE STEEL STAIR SYSTEM AS WELL AS CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN ON THESE PLANS.

MINIMUM STAIR DESIGN LOADS: UNIFORM LIVE LOAD = 100 PSF CONCENTRATED LIVE LOAD = 300 LBS

SHOP DRAWINGS SHALL SHOW AND SPECIFY ALL CONNECTIONS (INCLUDING THE HANDRAIL) UTILIZED WITHIN THE STEEL STAIR SYSTEM AS WELL AS CONNECTIONS AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN ON THESE FAILURE TO PROVIDE ALL CONNECTIONS OF THE STEEL STAIR SYSTEM TO STRUCTURE SHALL BE CAUSE TO REJECT THE ENTIRE STAIR SUBMITTAL AND

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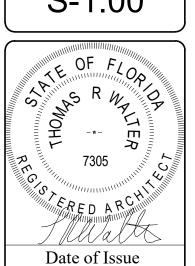
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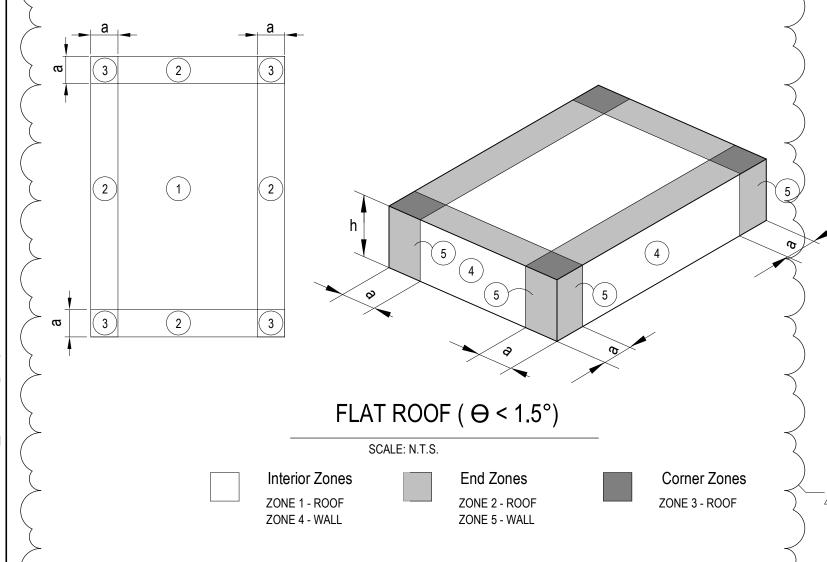
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# WIND LOAD SCHEDULE

_		SCHEDULE OF COMPONENTS AND CLADDING LOADS							
>	ZONE	ZONE DESCRIPTION	TRIBUTARY AREA (SF)	IN (PRESSURE) (+PSF)	OUT (PRESSURE) ( - PSF)				
>	1	ROOF INTERIOR ZONE	LESS THAN 20 20 - 100 MORE THAN 100	10.0 10.0 10.0	22.9 22.9 22.9				
,		ROOF EDGE ZONE	LESS THAN 20	10.0	26.5				
	2		20 - 100 MORE THAN 100	10.0 10.0	26.0 24.7				
,			LESS THAN 20	10.0	35.5				
	3	ROOF CORNER ZONE	20 - 100	10.0	32.4				
			MORE THAN 100	10.0	24.7				
,			LESS THAN 20	21.1	22.9				
$\setminus$	4	WALL INTERIOR ZONE	20 - 50	20.2	22.0				
			20 - 100 MODE THAN 400	19.0	20.8				
			MORE THAN 100	17.9	20.2				
7			LESS THAN 20	21.1	28.3				
$\geq$	_		20 - 50	20.2	26.5				
	5	WALL EDGE ZONE	20 - 100	19.0	23.8				
,			MORE THAN 100	17.9	22.0				

#### NOTE: WIND PRESSURES SHOWN ARE BASED ON Vasd

_		
-	CODE =	ASCE 7-16
	ULTIMATE WIND SPEED Vult =	140 MPH
_	ALLOWABLE WIND SPEED Vasd =	108 MPH
	RISK CATEGORY =	II.
	EXPOSURE =	В
	ENCLOSURE CLASSIFICATION =	ENCLOSED
	INTERNAL PRESSURE COEFFICIENT (GCpi) =	±0.18
	a =	10.0 FT
	2a =	20.0 FT



#### MASONRY WALL REINFORCING NOTES:

- USE (1) #5 VERT BAR IN FILLED CELLS @ 32" O.C.
- USE (1) #5 VERT BAR AT EACH SIDE OF OPENING UP TO 6'-0", (2) #5 VERT BAR AT EACH SIDE OF OPENING GREATER THAN 6'-0". S PER DETAIL 6/S-4.00.
- 3. USE (3) #5 VERT BARS @ CORNERS PER DETAIL 6/S-4.00.
- 4. AT THE CONTROL JOINTS IN MASONRY, REFER TO DETAIL 5/S-4.00. SEE STRUCTURAL DWGS FOR LOCATIONS.
- 5. FOR HORIZONTAL REINFORCING, USE 9 GA LADDER TYPE DUR-O-WALL @ 16" O.C. VERTICALLY.
- 6. FOR BOND BEAM CORNER REINFORCING, SEE DETAIL 4/S-4.00.
- 7. FOR WALLS WITH CLEAR HEIGHT GREATER THAN 16'-0", PROVIDE (2) #5 VERT BARS IN FILLED CELLS AT 16" O.C. PROVIDE (2) 8" K.O. BLOCKS WITH (1) #5 BAR IN EACH COURSE PER STRUCTURAL NOTES.

- SLAB ON GRADE SHALL BE A MINIMUM OF 6" CONCRETE SLAB ON GRADE REINFORCED WITH ONE LAYER OF 6x6 W2.9 x W2.9 WELDED WIRE FABRIC IN UPPER HALF OF SLAB (UNLESS INDICATED OTHERWISE). REFER TO STRUCTURAL NOTES
- THE CONCRETE SLAB SHALL BE CAST ON A VAPOR BARRIER (6 MIL MIN. THICKNESS) ON WELL COMPACTED, CLEAN,
- ELEVATIONS SHOWN ON THESE PLANS REFER TO 0'-0" REFERENCE ELEVATION (TOP OF GROUND FLOOR SLAB).
- COMMENCING CONSTRUCTION. FOR ADDITIONAL DIMENSIONAL INFORMATION NOT GIVEN HERE, REFER TO ARCH.
- 1/S-4.00. JOINT PATTERN SHALL BE 8 12 FEET O.C. MAX EACH WAY. SIDE FORMS SHALL BE USED FOR ALL FOOTING UNLESS IT CAN BE DEMONSTRATED THAT SOILS ARE STABLE ENOUGH TO
- MAINTAIN VERTICAL "FORM-CUT" DURING CONSTRUCTION. INSPECTOR TO VERIFY AND ADVISE.

SLAB ON GRADE CONTRACTION JOINTS (CJ) SHALL BE TOOLED OR SAWCUT WITHIN 6 HOURS OF POURING. SEE DETAIL

- PROVIDE 8" W x 12" D THICKENED CONCRETE EDGE REINFORCED WITH (1) #5 BAR CONTINUOUS AT ALL DOOR OPENINGS. COORDINATE FINAL GRADE ELEVATIONS WITH TOP / FOOTING ELEVATIONS AND CIVIL PLANS PRIOR TO COMMENCING CONSTRUCTION. VERIFY 6" MINIMUM FROM TOP OF FOOTING TO FINISHED GRADE.
- SEE DETAIL 1/S-4.00 FOR CONSTRUCTION JOINT DETAILS (SLAB COLD JOINTS, IF NEEDED).

## BUILDING & ACCESSORY STRUCTURES FOOTING SCHEDULE

MARK	SIZE		REINFORCING		REINFORCING	REMARKS	
	LENGTH	WIDTH	DEPTH	TOP	CENTER	воттом	
TE10	CONT.	1'-0"	1'-0"	-	-	(1) #5 BARS CONT.	THICKENED SLAB EDGE
SF20	CONT.	2'-0"	1'-0"	-	-	(2) #5 BARS CONT.	
SF30	CONT.	3'-0"	1'-0"	-	-	(3) #5 BARS CONT.	
FP10	10'-0"	4'-0"	2'-0"	-	-	(6) #5 BARS AT 12" O.C. EACH WAY	PYLON SIGN
FP20	2'-0"	2'-0"	1'-0"	-	-	(2) #5 BARS CONT. EACH WAY	COLUMN AT CONTROL ROOM
FP40	4'-0"	4'-0"	1'-0"	-	-	(4) #5 BARS CONT. EACH WAY	COLUMN AT TUNNEL ENTRY

- 1. THE BOTTOM OF ALL FOOTINGS SHALL BE (1'-0") MIN. BELOW FINISHED EARTH GRADE.
- TOP OF ALL INTERIOR FOOTINGS SHALL BE (8") MIN. BELOW FINISHED FLOOR UNLESS NOTED OTHERWISE.
   REFER TO STRUCTURAL FOUNDATION SITE PLAN FOR FOOTING SIZES FOR CANOPIES, PYLON SIGN & SITE SIGNAGE.

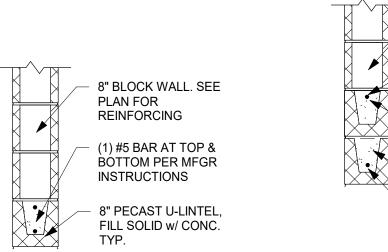
8" BLOCK WALL. SEE

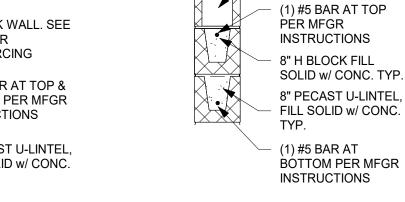
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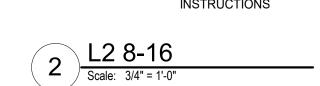
# MASONRY LINTEL SCHEDULE

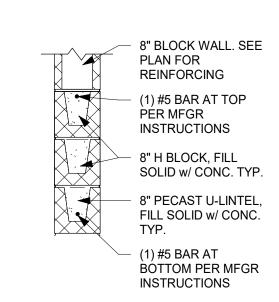
MARK	LOCATION	TYPE	REMARKS
L-1	DOOR & WINDOWS	8 - 8"	8" DEEP FILLED IN MASONRY LINTEL w/ #5 TOP & BOTTOM REINFORCING
L-2	DOOR & WINDOWS	8 - 16"	16" DEEP FILLED IN MASONRY LINTEL w/ #5 TOP & BOTTOM REINFORCING
L-3	DOOR & WINDOWS	8 - 24"	24" DEEP FILLED IN MASONRY LINTEL w/ #5 TOP & BOTTOM REINFORCING
L-4	DOOR & WINDOWS	8 - 48"	48" DEEP FILLED IN MASONRY LINTEL w/ #5 TOP & BOTTOM REINFORCING

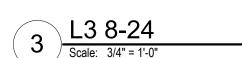
- 1. PER MFGR'S INSTUCTIONS, PROVIDE MINIMIUM 3" +/- 1/2" BEARING AT EACH END.
- 2. LINTEL MAY ACT AS COMPOSITE WITH BOND BEAMS AT THE FLOOR AND/OR ROOF LEVELS.

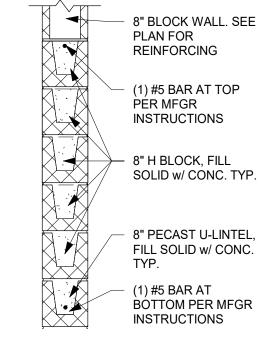


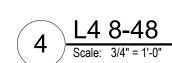












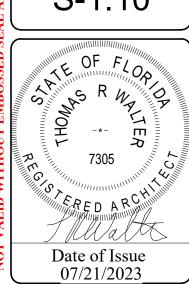


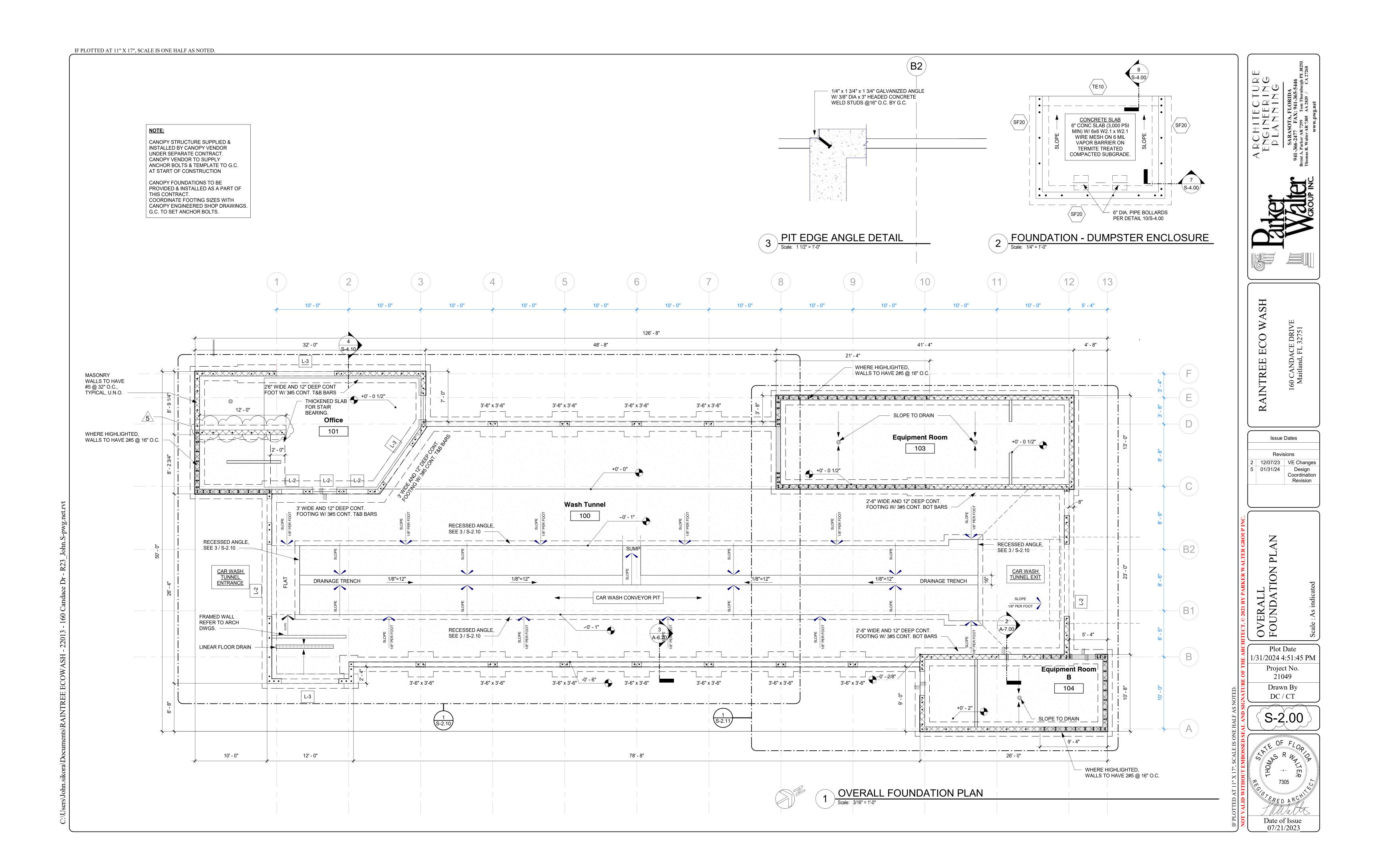
Issue Dates Revisions 05/17/23 Comments

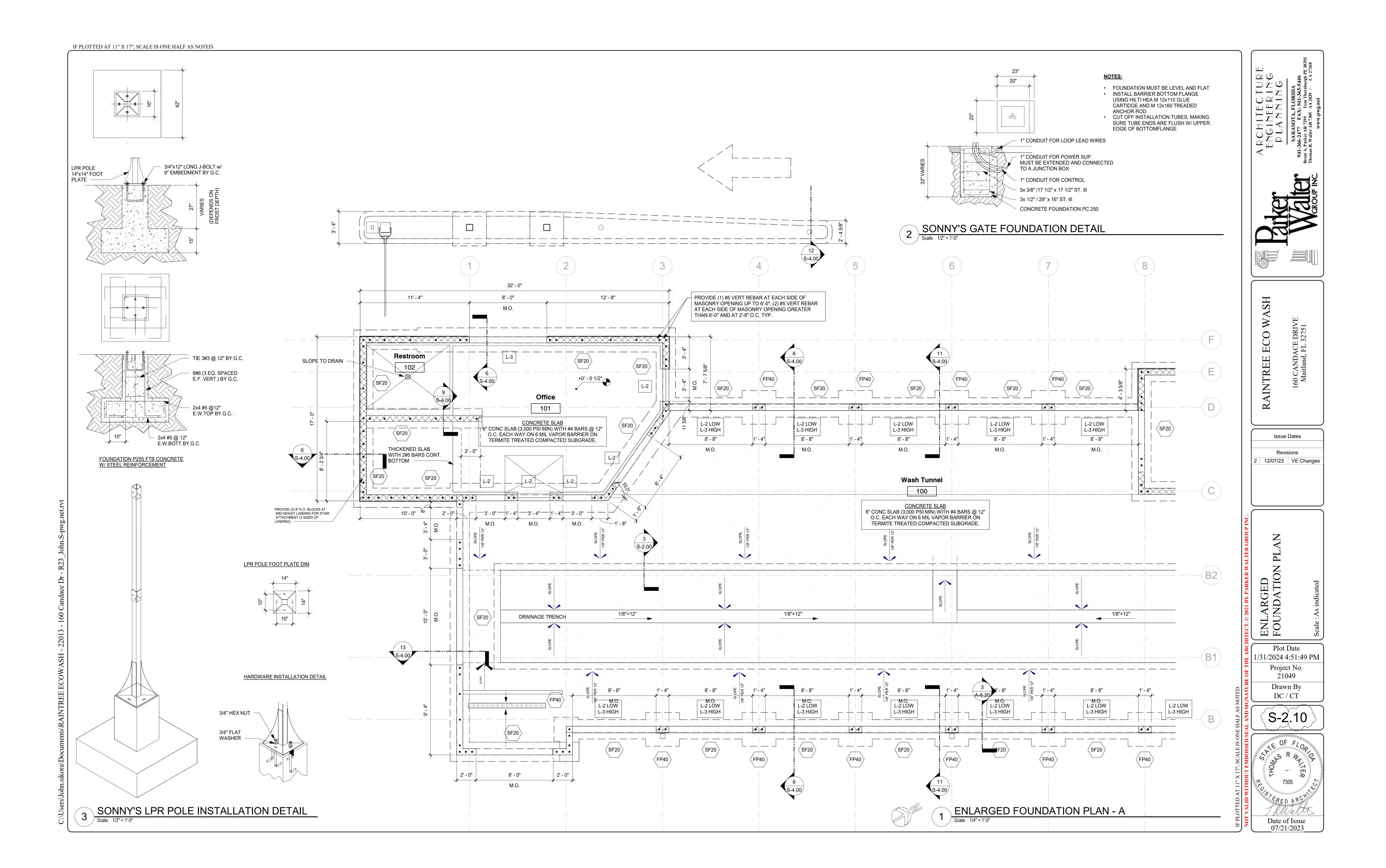
SCHEDULES A

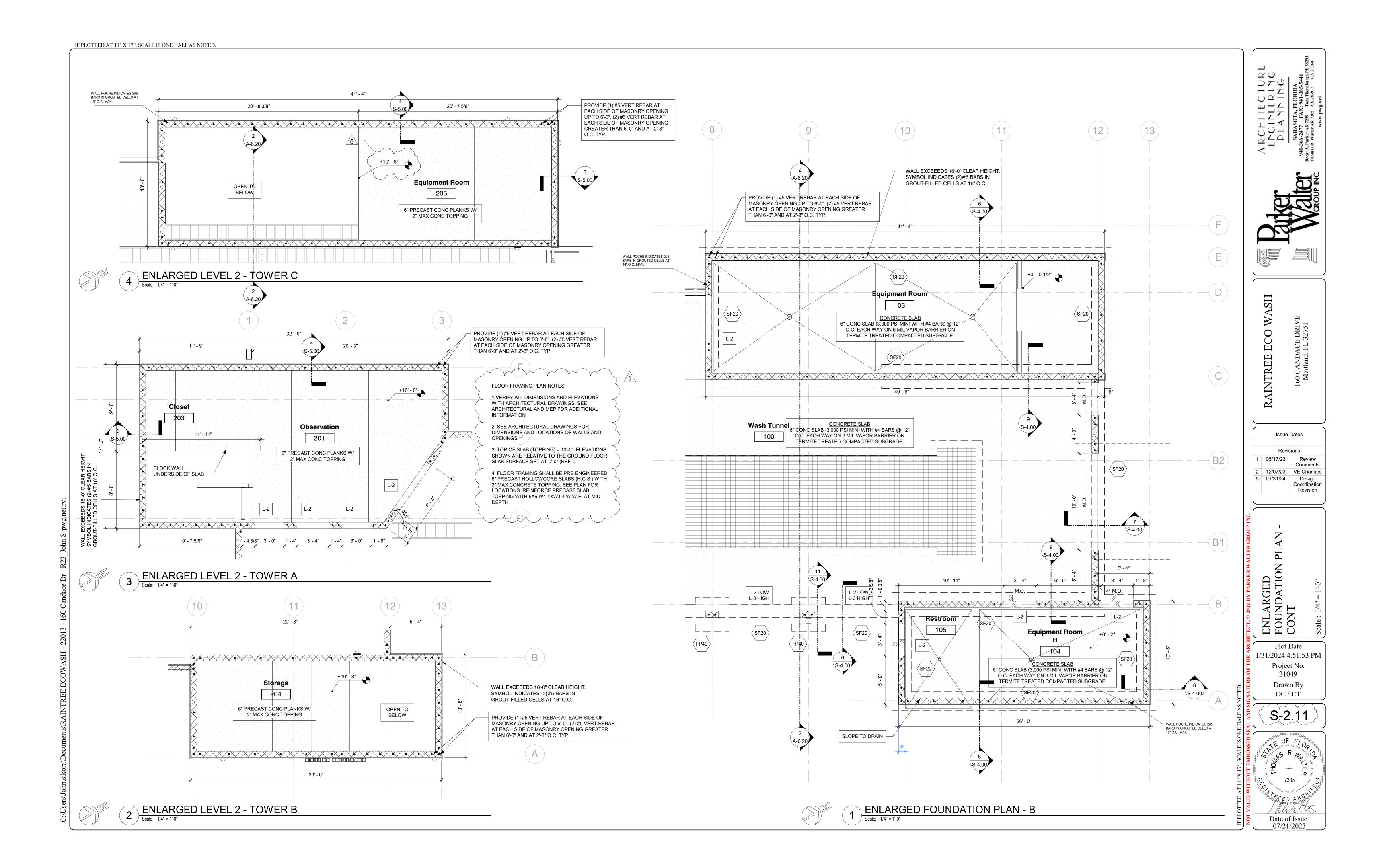
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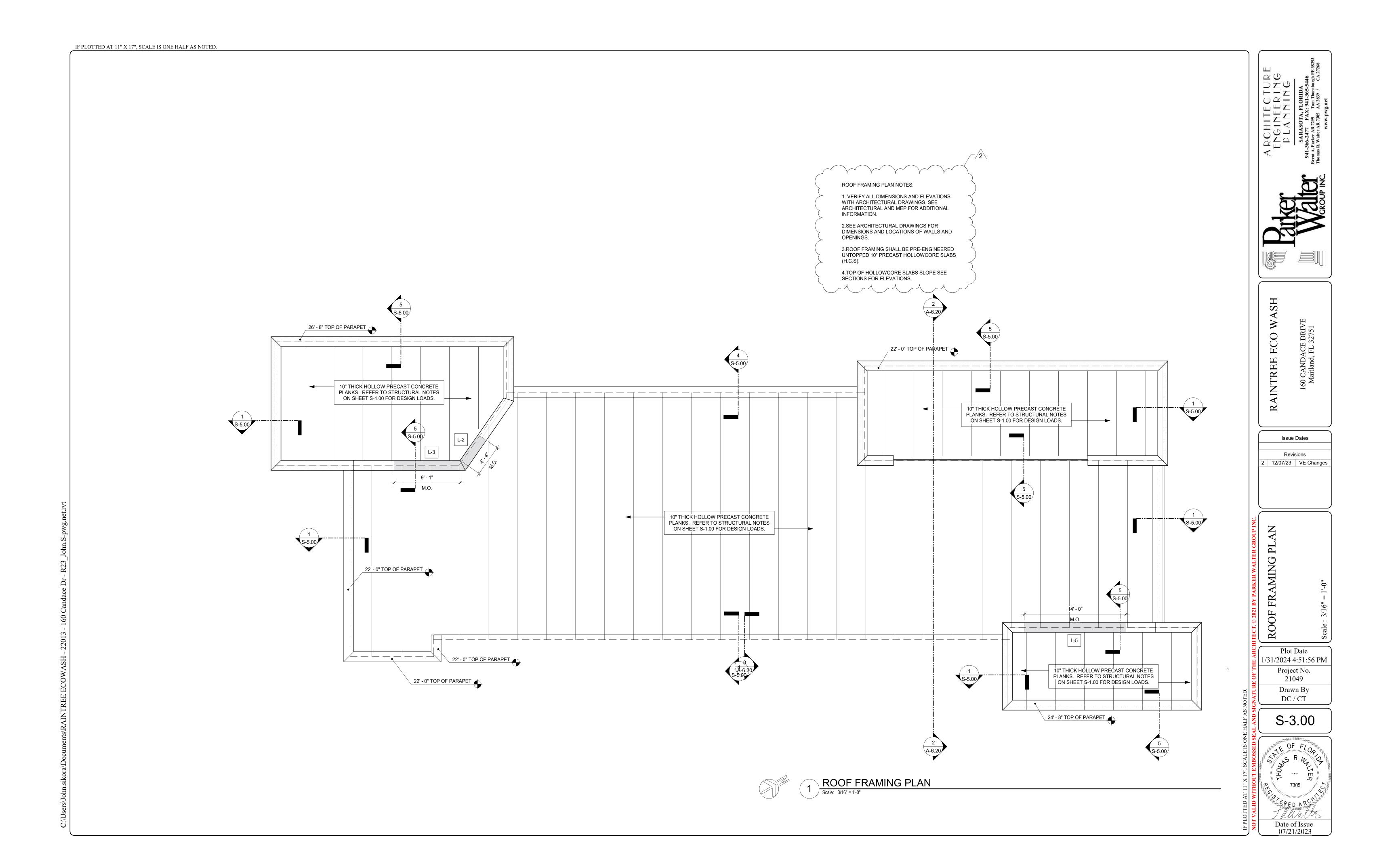
S-1.10

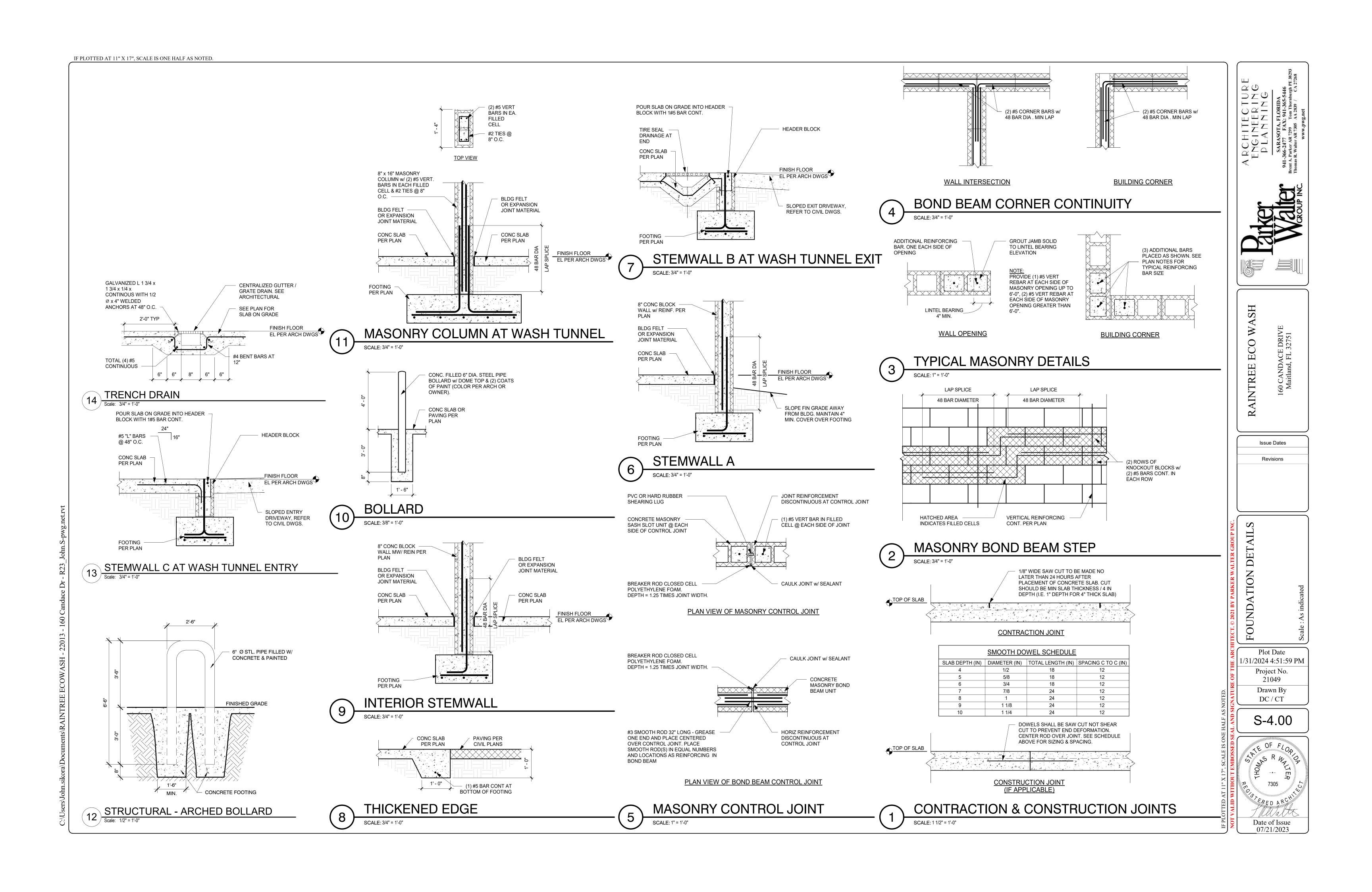


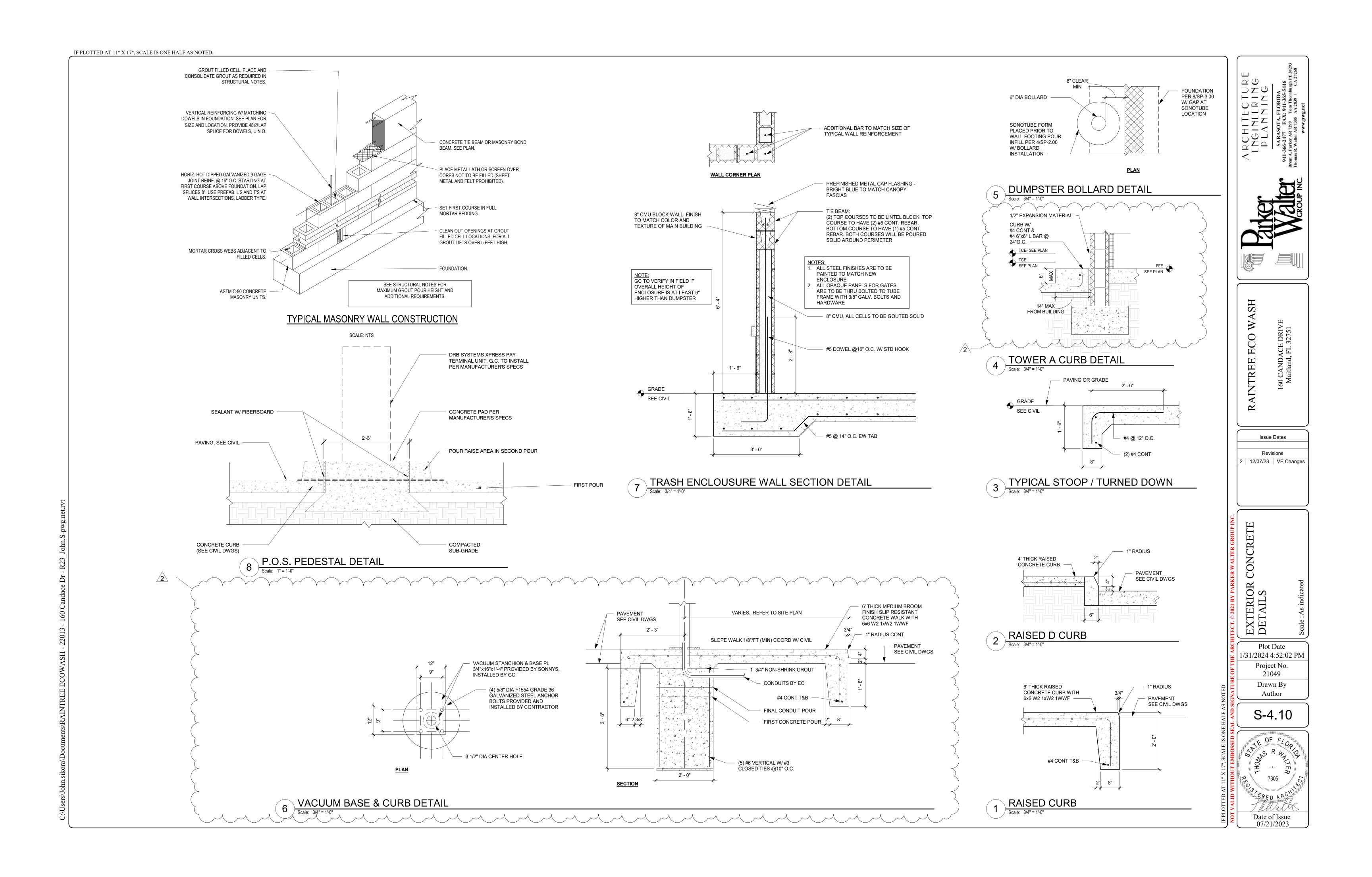


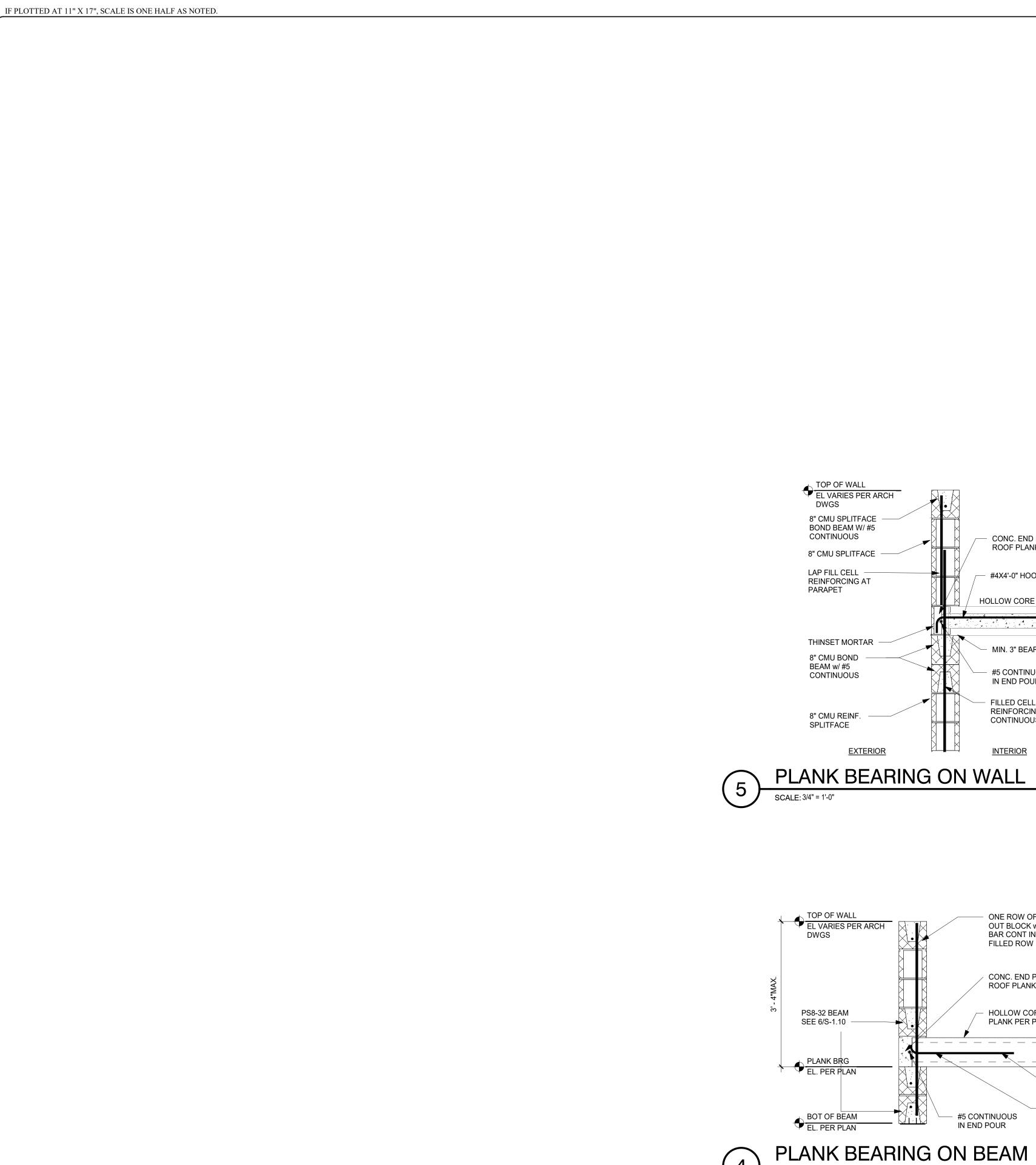












TOP OF WALL
EL VARIES PER ARCH ONE ROW OF KNOCK OUT BLOCK w/ (1) #5 BAR CONT IN GROUT FILLED ROW PS8-48 BEAM SEE 7/S-1.0 HOLLOW CORE PLANK PER PLAN PLANK BRG
EL. PER PLAN L6x6x3/8 CONT ANGLE w/ 3/4"X6" SIMPSON TITEN HD AT 2'-0" O.C. TO THE MASONRY WALL AND SIMPSON DIA50S DROP-IN ANCHORS TO THE HOLLOWCORE PLANK AT 2'-0" O.C. BOT OF BEAM
EL. PER PLAN

PLANK EDGE BEARING ON BEAM

- CONC. END POUR TO TIE ROOF PLANKS INTO CMU WALL

HOLLOW CORE ROOF PLANKS

MIN. 3" BEARING

- #5 CONTINUOUS

FILLED CELL VERTICAL REINFORCING #5

ONE ROW OF KNOCK OUT BLOCK w/ (1) #5 BAR CONT IN GROUT

CONC. END POUR TO TIE ROOF PLANKS INTO CMU WALL

#4X4'-0" HOOKED BAR AT KEY WAYS

- #4 @ 48" O.C. MAX. GROUTED IN CORE (ONE

PER PLANK)

FILLED ROW

**HOLLOW CORE** 

#5 CONTINUOUS

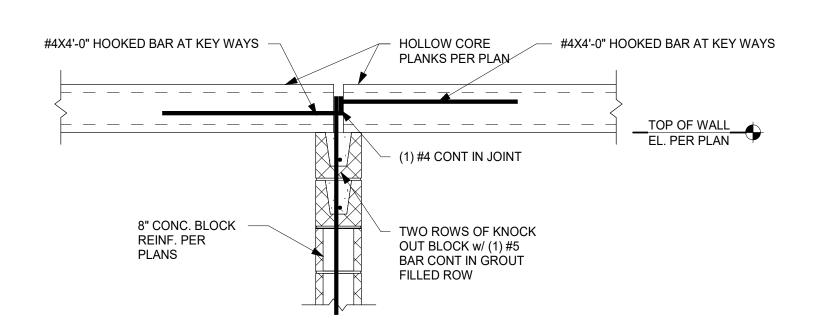
PLANK PER PLAN

IN END POUR

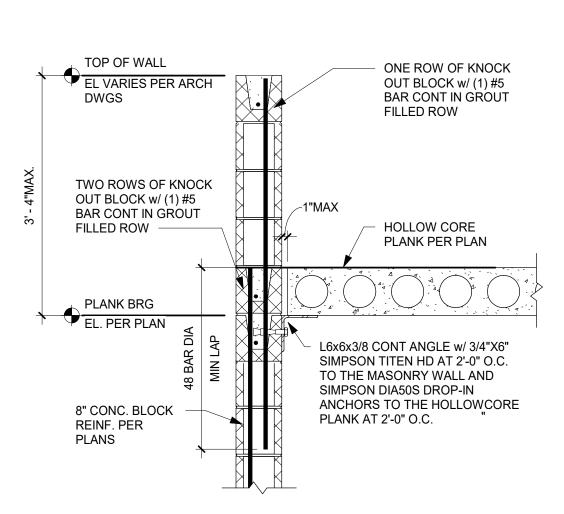
CONTINUOUS

<u>INTERIOR</u>

#4X4'-0" HOOKED BAR AT KEY WAYS



PLANK BEARING ON INTERIOR WALL



PLANK EDGE BEARING ON WALL



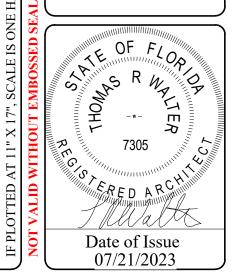
ECO WASH 160 CANDACE DRIVE Maitland, FL 32751 RAINTREE

Issue Dates Revisions

ROOF FRAMING DETAILS Plot Date

1/31/2024 4:52:04 PM Project No. 21049 Drawn By DC / CT

S-5.00



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

