

ABBREVIATIONS:

AB	- ANCHOR BOLT	L	- ANGLE
ALT	- ALTERNATE	LG	- LONG
APPROX	- APPROXIMATELY	LP	- LONG POINT
ARCH	- ARCHITECTURAL	LLV	- LONG LEG VERTICAL
B	- BOTTOM	LLH	- LONG LEG HORIZONTAL
BLDG	- BUILDING	MFR	- MANUFACTURER
BM	- BEAM	MAS	- MASONRY
BOTT	- BOTTOM	MO	- MASONRY OPENING
BRG	- BEARING	MATL	- MATERIAL
BRDG	- BRIDGING	MAX	- MAXIMUM
CB	- CONCRETE BEAM	MB	- MASONRY BEAM
CIC	- CENTER TO CENTER	MECH	- MECHANICAL
CH	- CHANNEL	MEP	- MECHANICAL/ELECTRICAL/PLUMBING
CIP	- CAST IN PLACE	MF	- MONOLITHIC POUR
CJ	- CONTROL JOINT	MTL	- METAL
CS	- CENTERLINE	MIN	- MINIMUM
CLR	- CLEAR	MISC	- MISCELLANEOUS
CMU	- CONCRETE MASONRY UNIT	N	- NEW
COL	- COLUMN	NIC	- NOT IN CONTRACT
CONC	- CONCRETE	NTS	- NOT TO SCALE
CONFG	- CONFIGURATION	OIC	- ON CENTER
CONT	- CONTINUOUS	OPNS	- OPENINGS
CONTR	- CONTRACTOR	PART	- PARTITION
CORR	- CORRUGATED	PC	- PILE CAP
CTR	- CENTER	PL	- PLATE
DBL	- DOUBLE	PLF	- POUNDS PER LINEAR FOOT
DET	- DETAIL	PSF	- POUNDS PER SQUARE FOOT
DI	- DIAMETER	PSI	- POUNDS PER INCH
DM	- DIMENSION	PT	- POST TENSION/PRESSURE TREATED
DN	- DOWN	R	- RISER
DR	- DOOR	REIN	- REINFORCED
DWG	- DRAWING	REM	- REMAINDER
EA	- EACH	REQD	- REQUIRED
EAC	- EACH FACE	REV	- REVISION/REVISION
EJ	- EXPANSION JOINT	RM	- ROOM
EL	- ELEVATION	RO	- ROUGH OPENING
ELECT	- ELECTRICAL	ROMT	- REQUIREMENT
ELEV	- ELEVATOR	SCHED	- SCHEDULE
EDG	- EDGE OF SLAB	SECT	- SECTION
EQ	- EQUAL	SIM	- SIMILAR
EW	- EACH WAY	SJ	- SAWCUT JOINT
E	- EXISTING	SL	- SLOPE
EXP	- EXPANSION	SQ	- SQUARE
Fr	- FORCE	SP	- SPIRAL
FIN	- FINISH	SS	- STAINLESS STEEL
FLR	- FLOOR	STD	- STANDARD
FND	- FOUNDATION	SW	- SHEARWALL/SHORT WAY
FOM	- FACE OF MASONRY	STL	- STEEL
FS	- FAR SIDE	STRUCT	- STRUCTURAL
FT	- FOOT	SYM	- SYMMETRICAL
FTG	- FOOTING	TB	- THE BEAM
GA	- GAGE	TC	- TIE COLUMN
GALV	- GALVANIZED	TE	- THICKENED EDGE
HC	- HOLLOW CORE	THK	- THICK
HDC	- HOT DIPPED GALVANIZED	THU	- THRU OUT
HORIZ	- HORIZONTAL	TOC	- TOP OF CONCRETE
HP	- HIGH POINT	T	- TOP
IJ	- ISOLATION JOINT	TEMP	- TEMPERATURE
INFO	- INFORMATION	TRS	- TOP OF STEEL/SLAB
INT	- INTERIOR	TO	- TREAD
JT	- JOINT	TYP	- TYPICAL
JK	- JOINT	UNO	- UNLESS NOTED OTHERWISE
K	- KIPS	VERT	- VERTICAL
K/FT	- KIPS PER FOOT	W	- WITH
KJ	- CONST JOINT/KEYSTONE JOIST	WD	- WOOD
		WWF	- WELDED WIRE FABRIC

MISCELLANEOUS NOTES:

THE PROJECT OWNER / DEVELOPPER SHALL DESIGNATE A CONTACT PERSON WHO HAS THE AUTHORITY TO ACT ON BEHALF OF THE OWNER TO COORDINATE AND PROVIDE CONSISTENCY FOR ALL THE PLANS REQUIRED FOR THE PROJECT INCLUDING LANDSCAPING, GRADING, PEDESTRIAN PROTECTION, ARCHITECTURE, STRUCTURAL, ELECTRICAL, MECHANICAL AND PLUMBING.

GENERAL STRUCTURAL NOTES

(A) GENERAL REQUIREMENTS

- CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE FLORIDA BUILDING CODE 2023 (FBC) & HIGH VELOCITY WITH THE HURRICANE ZONE SECTIONS AS WELL AS ASCE 7-22 FOR WIND STANDARD.
- THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS ISSUED BY THE ENGINEER.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE PRIOR TO ORDERING ANY MATERIAL AND/OR COMMENCING WORK AND SHALL REPORT IN WRITING ANY DISCREPANCIES TO "CAPE DESIGN ENGINEERING" HEREINAFTER CALLED "THE ENGINEER".
- THE CONTRACTOR SHALL FULLY PROTECT ALL ADJACENT PROPERTIES BEFORE COMMENCING ANY WORK.
- CONTRACTOR SHALL PROVIDE BARRICADES AND PEDESTRIAN PROTECTION AS REQUIRED BY STATE AND LOCAL CODES.
- CONTRACTOR SHALL CONSULT WITH REPRESENTATIVES OF CITY AND UTILITY COMPANIES CONCERNING AVAILABLE FACILITIES BEFORE COMMENCING WORK OR CONNECTING TO SEWER, PIPING OR WIRING, ETC., AND REPORT ANY PROBLEMS TO THE ENGINEER.
- OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL INSTALL TEMPORARY TOILETS BEFORE START OF JOB.
- DRAWINGS TAKE PRECEDENCE OVER SPECIFICATIONS, DETAILED DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE OVER GENERAL DRAWINGS AND SPECIFICATIONS.
- TYPICAL DETAILS SHOWN SHALL APPLY WHERE NO SPECIAL DETAIL IS SHOWN.
- WRITTEN DIMENSIONS, NOT SCALED DIMENSIONS, SHALL BE USED.
- WHERE A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION, OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL ALSO APPLY FOR ALL LIKE OR SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
- TEMPORARY ERECTION BRACING AND SHORING SHALL BE PROVIDED AS REQUIRED ON ALL BEAMS, WALLS, ETC., ADEQUATE TO PROVIDE FULL STRUCTURAL STABILITY AND SAFETY. BRACING SHALL NOT BE REMOVED UNTIL THE ELEMENTS ARE FULLY CONNECTED AND ARE CAPABLE OF SUPPORTING THE DESIGN LOADS.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- ALL A.S.T.M. SPECIFICATIONS NOTED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE A.S.T.M.
- THE ENTIRE CONSTRUCTION SHALL COMPLY WITH STRUCTURAL INTEGRITY REQUIREMENTS ON ACI 318-19 CODE ARTICLE 7.13.
- ALL REFERENCED STANDARDS REFER TO THE EDITION ENFORCED AT THE TIME THESE PLANS AND SPECIFICATIONS ARE ISSUED FOR PERMIT.
- THE GENERAL CONTRACTOR SHALL RESTRICT AND PROPERLY ISOLATE ALL CONSTRUCTION EQUIPMENT AND LOADS FROM INDUING OR TRANSMITTING VIBRATIONS TO THE STRUCTURE DURING CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL ACCUMULATED WATER FROM EXCAVATIONS AND DEWATERING OPERATIONS, PREVENTING INCONVENIENCE TO THE WORK AND/OR DAMAGE TO THE STRUCTURAL ELEMENTS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING HIS CONSTRUCTION DOCUMENTS WITH ANY REVISED DRAWINGS AND SPECIFICATIONS, FIELD ORDERS, CHANGE ORDERS AND CLARIFICATION SKETCHES ISSUED DURING THE COURSE OF CONSTRUCTION.
- "BY OTHERS" DENOTES LABOR AND MATERIALS BY OTHERS. HOWEVER THE GENERAL CONTRACTOR SHALL PROVIDE COORDINATION AND FREE ACCESS FOR SUCH WORK.
- "N.I.C." STANDS FOR "NOT IN CONTRACT"; THE OWNER SHALL BE RESPONSIBLE FOR COORDINATING A TIME SCHEDULE OF THE BASE CONTRACT WITH THE N.I.C. TRADES.
- TEMPORARY BRACING SHALL BE PROVIDED AS REQUIRED TO HOLD ALL COMPONENTS OF THE STRUCTURE IN PLACE UNTIL FINAL SUPPORT IS PROPERLY ANCHORED AND SECURED.
- THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES, INCLUDING WATER AND POWER NECESSARY FOR PROPER EXECUTION OF THE WORK SHOWN OR INDICATED ON THESE DRAWINGS. ALL MATERIALS SHALL BE NEW AND WORKMANSHIP SHALL BE OF GOOD QUALITY. ALL WORKMEN AND SUBCONTRACTORS SHALL BE SKILLED IN THEIR TRADE.
- THE PREMISES SHALL BE KEPT FROM ACCUMULATION OF WASTE MATERIALS, AND DEBRIS. AT THE END OF THE JOB, THE CONTRACTOR SHALL REMOVE ALL RUBBISH, SURPLUS MATERIALS AND TOOLS, AND HE SHALL LEAVE THE BUILDING BROOM CLEAN.
- SHOP DRAWINGS ARE AN AID FOR FABRICATION AND FIELD INSTALLATION, AND ARE SUPERSEDED BY THE STRUCTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.
- THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL BEFORE FABRICATION OR ERECTION OR ANY STRUCTURAL SYSTEM.
- THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH FIVE (5) COPIES OF SHOP DRAWINGS ALLOWING A MINIMUM OF TWO (2) WEEKS FOR REVIEW AND ACCEPTANCE. THE REVIEW OF SHOP DRAWINGS IS ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. THIS REVIEW DOES NOT GUARANTEE, IN ANY WAY, THAT THE SHOP DRAWINGS ARE CORRECT, NOR DOES IT IMPLY THAT THEY SUPERSEDE THE STRUCTURAL DRAWINGS.
- STRUCTURAL DRAWINGS SHALL BE WORKED TOGETHER WITH ARCHITECTURAL, AIR CONDITIONING, MECHANICAL AND ELECTRICAL DRAWINGS TO LOCATE DERESSED SLAB, SLOPES, DRAINS, OUTLETS RECESSES, OPENINGS RELIEFS, BOLT SETTINGS, SLEEVES, ETC. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
- USE STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER DRAWINGS. COORDINATE THE WORK OF OTHER TRADES INCLUDING, BUT NOT LIMITED TO THE REQUIREMENTS FOR SLEEVES, INSERTS, HOLES, HANGERS AND ANCHOR.
- ELEVATIONS ON THE STRUCTURAL DRAWINGS ARE NOTED AS (+/- 0'-0") REFERENCED TO THE FINISHED FIRST FLOOR ELEVATION DATUM. REFER TO THE CIVIL DRAWINGS FOR ACTUAL DATUM ELEVATION.
- DETAILS ENTITLED OR NOTES AS "TYPICAL" APPLY NOT ONLY WHERE SPECIFICALLY INDICATED OR REFERENCED, BUT ALSO IN ALL OTHER CASES WHERE THE NATURE OF CONSTRUCTION REQUIRES THEIR USE. DETERMINE APPLICABILITY OR TYPICAL DETAILS FROM DESCRIPTIVE TITLES OR FROM SIMILARITY OF CONSTRUCTION CONDITION TO ANOTHER CONDITION WHERE THE DETAILS IS SPECIFICALLY INDICATED OR REFERENCED.
- JOB SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN OFFICIAL INSPECTION, UNLESS SPECIFICALLY CONTRACTED FOR. "THRESHOLD" INSPECTIONS AS REQUIRED BY THE LOCAL BUILDING DEPARTMENT SHALL BE UNDER A SEPARATE CONTRACT.

(B) DESIGN CRITERIA

- STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE FOLLOWING CODES AND SPECIFICATIONS:
 - FLORIDA BUILDING CODE 2023 (FBC).
 - ASCE 7-22, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
 - ACI 318-19, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
 - DESIGN LOAD CRITERIA:
 - LIVE LOADS (UNIFORM) ROOF (NON-GREEN, INACCESSIBLE BY PUBLIC) 20 PSF
 - DEAD LOADS PREFABRICATED RESTROOM BUILDING PUMP 54.6 KIP 0.1 KIP
- NOTE: LIVE LOAD REDUCTION WAS USED IN THE DESIGN OF THIS STRUCTURE.
- | | TYPICAL |
|---|---------|
| BASIC WIND SPEED, V | 159 MPH |
| OCCUPANCY CATEGORY | I |
| WIND DIRECTIONALITY FACTOR, K _d | 0.85 |
| WIND EXPOSURE CATEGORY | C |
| GUST EFFECT FACTOR, G | 0.85 |
| INTERNAL PRESSURE COEFFICIENTS, Gc _p | ±0.18 |
- NOTES:
 -STRENGTH DESIGN BASED ON 700-YEAR MEAN RECURRENCE INTERVAL.
 -DEFLECTION (SERVICEABILITY) DESIGN BASED ON 50-YEAR MEAN RECURRENCE INTERVAL.

(C) CONCRETE

- CODE:**
- ALL CONCRETE SHALL BE MIXED, FORMED, FINISHED, CURED, AND PROTECTED IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE PORTLAND CEMENT ASSOCIATION (PCA) AND THE AMERICAN CONCRETE INSTITUTE (ACI 318-19).
 - FORMWORK SHALL COMPLY WITH "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK" (ACI 347R).
 - IN ORDER TO PREVENT SEGREGATION OF THE AGGREGATES, CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL, SUCH AS IN WALLS, COLUMNS AND DROPPED CAPITALS. USE HOPPERS, CHUTES OR TRUNKS OF VARYING LENGTH SUCH THAT FREE UNCONFINED FALL OF THE CONCRETE DOES NOT EXCEED FOUR (4) FEET. SUFFICIENT NUMBER OF THESE TOOLS SHALL BE USED TO ENSURE THAT THE CONCRETE IS LEVEL AT ALL TIMES.
 - TRANSPORTING, PLACING, VIBRATING, CURING AND DEPOSITING OF CONCRETE SHALL COMPLY WITH THE ACI 301.
 - NO WATER SHALL BE ADDED TO THE CONCRETE MIX AT THE JOB SITE.
 - CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS:
 SLAB ON GRADE: 3000 PSI (U.O.N.)
 FOUNDATION: 3000 PSI (U.O.N.)
- MIX:**
- PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE II, MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE AS SPECIFIED ON THE DETAIL DRAWINGS.
 - MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF ANY CONCRETE WORK.

STRUCTURAL SPECIAL INSPECTION NOTES:

- (NON-THRESHOLD BUILDINGS)
- GENERAL
 - SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC), CHAPTER 17, AS APPLICABLE TO THE STRUCTURAL SYSTEMS USED IN THIS PROJECT.
 - THIS STRUCTURE DOES NOT MEET THE DEFINITION OF A THRESHOLD BUILDING PER FBC SECTION 110.8, THEREFORE A THRESHOLD INSPECTION PLAN AND THRESHOLD INSPECTOR ARE NOT REQUIRED.
 - SPECIAL INSPECTIONS IDENTIFIED HEREIN ARE REQUIRED DUE TO THE USE OF ENGINEERED STRUCTURAL SYSTEMS AND/OR MATERIALS REGULATED BY FBC CHAPTER 17.
 - SPECIAL INSPECTOR QUALIFICATIONS
 - SPECIAL INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED SPECIAL INSPECTOR APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ).
 - THE SPECIAL INSPECTOR SHALL BE INDEPENDENT OF THE CONTRACTOR AND SHALL HAVE APPROPRIATE CERTIFICATIONS AND EXPERIENCE FOR THE INSPECTED WORK.
 - REQUIRED STRUCTURAL SPECIAL INSPECTIONS
 SPECIAL INSPECTIONS ARE REQUIRED FOR THE FOLLOWING STRUCTURAL ELEMENTS, WHEN APPLICABLE:
 - CONCRETE CONSTRUCTION
 - VERIFICATION OF REINFORCING STEEL SIZE, SPACING, PLACEMENT, AND ANCHORAGE PRIOR TO CONCRETE PLACEMENT.
 - VERIFICATION OF CONCRETE PLACEMENT, CONSOLIDATION, AND CURING.
 - VERIFICATION OF CONCRETE STRENGTH TESTING (SAMPLING AND TEST REPORTS).
 - STRUCTURAL STEEL CONSTRUCTION
 - VERIFICATION OF MATERIAL IDENTIFICATION AND INSTALLATION.
 - INSPECTION OF BOLTED CONNECTIONS FOR PROPER BOLT TYPE, INSTALLATION, AND TIGHTENING.
 - INSPECTION OF WELDED CONNECTIONS, INCLUDING WELDING PROCEDURES, WELDER QUALIFICATIONS, AND VISUAL INSPECTION OF COMPLETED WELDS.
 - NONDESTRUCTIVE TESTING (NDT) ONLY IF SPECIFICALLY REQUIRED BY THE CONSTRUCTION DOCUMENTS.
 - COLD-FORMED STEEL FRAMING
 - INSPECTION OF MEMBER SIZES, SPACING, AND FASTENING.
 - VERIFICATION OF CONNECTIONS TO SUPPORTING STRUCTURAL ELEMENTS.
 - VERIFICATION OF BRACING, ANCHORS, AND HOLD-DOWNS.
 - WOOD STRUCTURAL ELEMENTS (ENGINEERED WOOD ONLY)
 - INSPECTION OF ENGINEERED WOOD PRODUCTS, INCLUDING TRUSSES, SHEAR WALLS, HOLD-DOWNS, AND ANCHORS.
 - VERIFICATION OF CONNECTOR TYPES, SIZES, AND INSTALLATION.
 - TRUSS INSPECTIONS SHALL COMPLY WITH APPROVED TRUSS SHOP DRAWINGS.
 - DEEP FOUNDATIONS (SPECIALTY FOUNDATIONS IF APPLICABLE)
 - INSPECTION OF PILE INSTALLATION, DRILLED SHAFTS, OR OTHER SPECIALTY FOUNDATION SYSTEMS IN ACCORDANCE WITH APPROVED PLANS AND GEOTECHNICAL RECOMMENDATIONS.
 - OBSERVATION FREQUENCY
 - SPECIAL INSPECTIONS SHALL BE PERIODIC, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - CONTINUOUS INSPECTION IS NOT REQUIRED UNLESS SPECIFICALLY STATED.
 - REPORTING REQUIREMENTS
 - THE SPECIAL INSPECTOR SHALL SUBMIT WRITTEN INSPECTION REPORTS TO THE BUILDING OFFICIAL, ENGINEER OF RECORD (EOR), AND OWNER AT INTERVALS REQUIRED BY THE AHJ.
 - ANY DISCREPANCIES OR NONCONFORMING WORK SHALL BE REPORTED IMMEDIATELY TO THE CONTRACTOR AND EOR FOR CORRECTIVE ACTION.
 - A FINAL SIGNED AND SEALED SPECIAL INSPECTION REPORT SHALL BE SUBMITTED PRIOR TO FINAL INSPECTION AND CERTIFICATE OF OCCUPANCY.
 - CONTRACTOR RESPONSIBILITIES
 - THE CONTRACTOR SHALL NOTIFY THE SPECIAL INSPECTOR IN ADVANCE OF WORK REQUIRING INSPECTION.
 - WORK REQUIRING SPECIAL INSPECTION SHALL NOT PROCEED WITHOUT THE SPECIAL INSPECTOR PRESENT WHEN REQUIRED.
 - CORRECTIVE WORK SHALL BE RE-INSPECTED AND DOCUMENTED.
 - ENGINEER OF RECORD
 - THE ENGINEER OF RECORD SHALL REVIEW SPECIAL INSPECTION REPORTS AND PROVIDE CLARIFICATION OR DIRECTION AS REQUIRED TO MAINTAIN COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE FLORIDA BUILDING CODE.

SPECIAL INSPECTION MATRIX:

STRUCTURAL ELEMENT	CODE REFERENCE	INSPECTION TYPE	FREQUENCY
REINFORCING STEEL	FBC 1705.3	VISUAL VERIFICATION PRIOR TO PLACEMENT	PERIODIC
CONCRETE PLACEMENT	FBC 1705.3	PLACEMENT & CONSOLIDATION	PERIODIC
CONCRETE STRENGTH TESTING	FBC 1705.3	REVIEW OF TEST REPORTS	PERIODIC
STRUCTURAL STEEL - BOLTED CONNECTIONS	FBC 1705.2	BOLT TYPE & INSTALLATION	PERIODIC
STRUCTURAL STEEL - WELDED CONNECTIONS	FBC 1705.2	VISUAL WELD INSPECTION	PERIODIC
COLD-FORMED STEEL FRAMING	FBC 1705.1.2	MEMBER SIZE, SPACING, FASTENING	PERIODIC
ENGINEERED WOOD ELEMENTS	FBC 1705.1.1	HARDWARE & LOAD PATH	PERIODIC
TRUSS INSTALLATION	FBC 1705.1.1	CONFORMANCE TO SHOP DRAWINGS	PERIODIC
ANCHORS (STRUCTURAL LOADS)	FBC 1705.1.3	INSTALLATION & TESTING	PERIODIC
FINAL STRUCTURAL INSPECTION	FBC 1704	SUMMARY COMPLIANCE REVIEW	FINAL

(E) REINFORCEMENT STEEL

- REINFORCING SHALL BE DEFORMED BILLET-STEEL BARS CONFORMING TO A615 A706, GRADE 60.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND IT SHALL BE SUPPORTED ON SLAB BOLSTERS. USE FLAT SHEETS ONLY.
- REINFORCEMENT SHALL BE COLD BENT AND SHALL NOT BE WELDED WITHOUT WRITTEN APPROVAL FROM THE RESPONSIBLE SUN ENGINEERING CIVIL ENGINEER.
- REINFORCEMENT SHALL BE CLEANED SO AS TO BE FREE OF OIL, DIRT, LOOSE RUST, SCALE OR OTHER COATINGS THAT WOULD DESTROY OR REDUCE THE BOND.
- ALL REINFORCING SHALL BE DETAILED AND FABRICATED FOLLOWING THE REQUIREMENTS OF ACI 315. PLACING OF REBARS SHALL CONFORM TO "CRSI RECOMMENDED PRACTICES FOR PLACING REINFORCING BARS."
- REBAR SHOP FABRICATION DRAWINGS TO BE PROVIDED FOR REVIEW BY ENGINEER PRIOR TO FABRICATION.
- ALL REINFORCING BARS SHALL BE SECURELY HELD IN PLACE DURING CONCRETE POURING. IF REQUIRED, ADDITIONAL BARS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR THE BARS.
- ALL REINFORCEMENT SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.
- NO DEVIATION FROM THE STRUCTURAL PLANS SHALL BE PERMITTED WITHOUT WRITTEN CONSENT OF THE STRUCTURAL ENGINEER. ALL REINFORCING DETAILS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL.
- BAR SUPPORTS SHALL BE PLASTIC TIPPED FOR EXPOSED CONCRETE. LEGS OF FOUNDATION CHAIRS SHALL BE HOT-DIPPED GALVANIZED. PLASTIC "DONUT" SPACERS SHALL BE REQUIRED FOR STEEL AGAINST FORMS IN CONCRETE BEAMS AND WALLS.
- ALL WALLS AND COLUMNS SHALL BE DOWELED INTO BOTTOM OF FOOTINGS, WALLS, BEAMS, OR SLABS WITH BARS OF SAME SIZE AND SPACING AS THE BARS ABOVE. USE A 30-BAR DMM LAP EXCEPT WHERE SPECIFICALLY INDICATED. SHEAR WALLS SHALL BE LAPPED AS INDICATED ON PLANS.
- VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE FOR TOP BARS IN SPANDREL BEAMS, WALLS, REGULAR BEAMS, GRADE BEAMS, ETC. (UNLESS NOTED OTHERWISE) SHALL BE AT CENTER OF SPAN; BOTTOM BARS SHALL BE SPLICED AT THE SUPPORT.
- THE GENERAL CONTRACTOR AND STEEL DETAILER MUST MINIMIZE THE NUMBER OF STRUCTURAL COLUMN BAR SPLICES (LAP OR MECHANICAL) BY PLACING BAR LIFTS WITH A MINIMUM OF TWO-STORY HEIGHT. VERIFY WITH ENGINEER OF RECORD PRIOR TO FABRICATION.
- CUTTING BARS WITH THE USE OF A TORCH IS NOT PERMITTED.
- FIELD-BENDING OF BARS WITH THE USE OF A TORCH IS NOT PERMITTED.
- REINFORCING IS DENOTED ON PLANS AS FOLLOWS:
 BOTTOM BARS ----- (DASHED LINE)
 TOP BARS ----- (SOLID LINE)
- REINFORCING ALLOWANCE: THE CONTRACTOR SHALL PROVIDE 20 TONS OF IN-PLACE STEEL REINFORCEMENT FOR THE ENGINEER TO USE AT HIS DISCRETION DURING CONSTRUCTION. THE CONTRACTOR SHALL GIVE CREDIT TO THE OWNER FOR ANY UNUSED PORTION OF THIS ALLOWANCE AT THE END OF THE PROJECT.
- CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION TO ALL EXPOSED DOWEL BARS AT PILE CAPS. IF BARS CORRODE DUE TO LONG EXPOSURE TO THE WEATHER, DOWELS SHALL BE CLEANED BY SANDBLASTING OR ANY OTHER ENGINEER APPROVED MEANS. TO INSURE ITS INTEGRITY, CONTRACTOR SHALL HAVE THE OPTION OF USING EPOXY COATING BARS OR GALVANIZED BARS.

REINFORCEMENT COVER:

	MINIMUM COVER	TOLERANCE ±
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"	3/8"
EXPOSED TO EARTH OR WEATHER:		
NO. 5 AND SMALLER BARS	2"	1/4"
NO. 6 AND LARGER BARS	3"	1/4"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:		
BALCONIES AND ROOF SLABS	1"	1/8"
STRUCTURAL SLABS AND WALLS	3/4"	1/8"
BEAMS AND COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS AND SPIRALS)	1-1/2"	1/4"
SLABS ON GRADE	2"	1/4"
TOP	3"	1/4"
BOTTOM BARS	2"	1/4"

REINFORCEMENT CONTINUITY:

- UNLESS SHOWN OTHERWISE ON THE DESIGN DRAWINGS, ALL REINFORCEMENT SHALL BE PLACED CONTINUOUS BY LAP SPLICING, UNLESS DETAILED OTHERWISE ON DESIGN DRAWINGS ALL LAP SPLICES SHALL HAVE A MINIMUM LENGTH OF 36 BAR DIAMETERS. TERMINATE CONTINUOUS BAR ENDS WITH A STANDARD 90-DEGREE HOOK, U.O.N.

(D) SHOP DRAWINGS AND OTHER SUBMITTALS

- REVIEW OF SUBMITTALS BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AS PRESENTED BY THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF QUANTITIES OR DIMENSIONS WILL BE MADE. ONLY THOSE SUBMITTALS REQUIRED BY THE CONTRACT DOCUMENTS WILL BE REVIEWED. ALL OTHERS WILL BE RETURNED WITHOUT COMMENTS.
- BEFORE SUBMITTING THE FIRST SHOP DRAWING, THE CONTRACTOR SHALL PROVIDE THE STRUCTURAL ENGINEER WITH THE SHOP DRAWING SUBMITTAL SCHEDULE CONSISTENT WITH THE FOLLOWING CRITERIA:
 - ALLOW SUFFICIENT TIME FOR TRANSIT AND PROCESSING BEFORE FABRICATION. THE STRUCTURAL ENGINEER WILL REVIEW A SUBMITTAL WITHIN AN AVERAGE OF 21 CALENDAR DAYS AFTER THE DATE IN WHICH IT WAS RECEIVED.
 - SCHEDULE AND SUBMIT SHOP DRAWINGS FOR SPECIFIC COMPONENTS IN SIMILAR CONDITION, SUCH AS COLUMNS, FOOTINGS, ETC., IN THEIR ENTIRETY. SHOP DRAWINGS FOR SIMILAR FLOORS SHALL BE SUBMITTED IN THE SAME PACKAGE.
 - SUBMIT SHOP DRAWINGS IN A TIMELY MANNER.
- REVIEW OF SHOP DRAWINGS IS LIMITED WITHIN THE SCOPE OF BASIC SERVICES TO TWO (2) REVIEWS PER SUBMITTAL (I.E. INITIAL SUBMITTAL, REVIEW AND ONE RESUBMITTAL). IF NECESSARY, REVIEW OF ADDITIONAL RESUBMITTALS WILL BE CONSIDERED ADDITIONAL SERVICES, FOR WHICH THE CONTRACTOR MAY BE HELD RESPONSIBLE. COMPENSATION OF ADDITIONAL SERVICES TO MAINTAIN COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE FLORIDA BUILDING CODE.
- ALL SUBMITTALS SHALL BE ACCOMPANIED WITH A LETTER OF TRANSMITTAL. DO NOT COMBINE DIFFERENT SUBMITTALS IN THE SAME TRANSMITTAL.
- ALL SHOP DRAWINGS MUST BEAR EVIDENCE OF THE CONTRACTOR'S APPROVAL PRIOR TO SUBMITTING THEM TO THE ARCHITECT/ENGINEER.
- SUBMIT FIVE COPIES/PRINTS TO THE ARCHITECT/ENGINEER FOR REVIEW. THE REVIEWER WILL RETAIN ONE COPY AFTER THE REVIEW.
- ALL CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS MUST BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS MUST BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. THIS SECOND REVIEW BY THE ARCHITECT/ENGINEER WILL BE LIMITED TO THE ITEMS CAUSING THE RE-SUBMITTAL.
- DO NOT REPRODUCE THE STRUCTURAL CONTRACT DOCUMENTS FOR USE AS SHOP DRAWINGS.
- SHOP DRAWINGS NOT MEETING THE ABOVE CRITERIA OR SUBMITTED AFTER FABRICATION WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW.
- SEE NOTES BELOW FOR ADDITIONAL CRITERIA APPLICABLE TO SHOP DRAWINGS REQUIRING ENGINEERING INPUT BY A SPECIALTY ENGINEER.

(E) SHOP DRAWINGS REQUIRING ENGINEERING INPUT BY SPECIALTY ENGINEER

- SPECIALTY ENGINEER:
 - DEFINITION - A FLORIDA REGISTERED PROFESSIONAL ENGINEER, NOT THE STRUCTURAL ENGINEER OF RECORD, WHO SPECIALIZES IN AND WHO UNDERTAKES THE DESIGN OF STRUCTURAL COMPONENTS OR STRUCTURAL SYSTEMS INCLUDED IN A SPECIFIC SUBMITTAL PREPARED FOR THIS PROJECT.
 - SHALL BE:
 - AN EMPLOYEE OR OFFICER OF A FABRICATOR.
 - AN EMPLOYEE OR OFFICER OF AN ENTITY SUPPLYING COMPONENTS TO A FABRICATOR.
 - AN INDEPENDENT CONSULTANT RETAINED BY THE FABRICATOR OR HIS SUPPLIER.
- SUBMISSIONS AND RE-SUBMISSIONS FOR CUSTOM DESIGNED, MANUFACTURED OR FABRICATED LOAD-CARRYING ITEMS AND CUSTOM FABRICATED ITEMS WHICH ARE REQUIRED BY CODES OR STANDARDS TO RESIST FORCES AND STRESSES, INCLUDING THEIR CONNECTIONS, ANCHORAGES AND ATTACHMENTS REQUIRE A SPECIALTY ENGINEER.
 - THE FOLLOWING SYSTEMS AND COMPONENTS, AS A MINIMUM, REQUIRE FABRICATION AND ERECTION DRAWINGS WITH INPUT BY A SPECIALTY ENGINEER: ALUMINUM OR LIGHT GAGE STEEL EXTERIOR WALL SYSTEMS, PREFABRICATED STEEL STAIRS, RAILINGS, PRECAST CONCRETE COMPONENTS, POST-TENSIONING SYSTEMS, PREFABRICATED WOOD COMPONENTS, OPEN WEB STEEL JOISTS, SHORING AND RE-SHORING
 - FOR EACH CATEGORY OF SHOP DRAWINGS REQUIRING INPUT FROM A SPECIALTY ENGINEER, THE CONTRACTOR SHALL ATTACH TO THE FIRST SHOP DRAWING SUBMITTAL A SIGNED AND SEALED LETTER FROM THE RESPONSIBLE SPECIALTY ENGINEER STATING: "I CERTIFY THAT THE DESIGN AND DRAFTING OF THE SHOP DRAWINGS WHICH ARE SIGNED AND SEALED BY ME WERE PREPARED UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE THE SHOP DRAWINGS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE CONTRACT DOCUMENTS."
 - SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES. LIST THE DESIGN CRITERIA AND SHOW ALL DETAILS AND PLANS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCTS UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
 - SHOP DRAWINGS AND CALCULATIONS REQUIRE THE IMPRESSED SEAL, DATE AND SIGNATURE OF THE SPECIALTY ENGINEER. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BEAR THE IMPRESSED SEAL AND SIGNATURE OF THE SPECIALTY ENGINEER AS AN INDICATION THAT HE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. SEALS DO NOT REQUIRE SIGNATURE AND SEAL. THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED BLUE LINE PRINT FOR RECORD.
 - DRAWINGS PREPARED SOLELY TO SERVE AS A GUIDE FOR FABRICATION AND INSTALLATION SUCH AS REINFORCING STEEL, SHOP DRAWINGS OR STRUCTURAL STEEL ERECTION DRAWINGS AND REQUIRING NO ENGINEERING INPUT DO NOT REQUIRE THE SEAL OF A SPECIALTY ENGINEER.
 - CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL OF A SPECIALTY ENGINEER.
 - REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING:
 - THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.
 - THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE SPECIALTY ENGINEER.
 - THAT THE SPECIALTY ENGINEER HAS UNDERSTOOD THE DESIGN INTEND AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.)
 - THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.)
 - SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED.

(F) FOUNDATION NOTES:

- FOUNDATIONS WERE DESIGNED FOLLOWING THE RECOMMENDATIONS OF UES, AS STATED IN THEIR SOIL REPORT NUMBER A 25153.01192.000 DATED 2026-14-01.
- THE MAXIMUM ALLOWABLE SOIL BEARING CAPACITY AND MODULUS OF SUBGRADE FOR SHALLOW FOUNDATIONS ARE 2,500 PSF AND 100 PCI RESPECTIVELY PER UES SOILS REPORT. THE CONTRACTOR SHALL VERIFY THE CODE MINIMUM SOIL REQUIREMENT IS MET.
- ALL FOUNDATION CONCRETE SHALL BE CAST IN THE DRY. THE DEWATERING OPERATION SHALL BE DONE IN SUCH A WAY THAT GROUND WATER LEVELS OUTSIDE THE SITE WILL BE MAINTAINED TO AVOID SETTLEMENT AND DAMAGE TO NEARBY BUILDINGS AND STRUCTURES.
- FILL AND BACKFILL SHALL BE PLACED AROUND FOUNDATIONS AS SOON AS THE PROGRESS OF WORK PERMITS, BUT NO MORE THAN 78 DAYS. FILL AND BACKFILL SHALL BE DEPOSITED IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN THICKNESS. BROUGHT TO NEAR OPTIMUM MOISTURE CONTENT IN PLACE AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. BACKFILL SHALL BE BROUGHT TO THE GRADE LINE AS INDICATED ON THE DRAWINGS AND GRADED TO DRAIN AWAY FROM THE STRUCTURES. NO BACKFILLING SHALL BE PERFORMED UNTIL THE WORK HAS BEEN INSPECTED AND APPROVED. A MINIMUM 4 FT EXCAVATION BELOW FOUNDATION IS REQUIRED.
- ALL RE-COMPACTED SOIL SHALL BE TO 95% DENSITY PER ASTM-1557. MOISTURE CONDITIONED 1 TO 3 PERCENT ABOVE OPTIMUM PRIOR TO PLACEMENT OF FILL.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY INTERPRETATION THAT THE SUBSURFACE CONDITIONS DESCRIBED IN THE TEST BORING LOGS OCCUR CONSISTENTLY THROUGHOUT THE JOB SITE. TEST BORINGS ARE INCLUDED ONLY TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION AND REPRESENT SOIL CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND AT THE PARTICULAR TIMES THEY WERE TAKEN.
- GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SHORING, SHEETING AND BRACING OF EXCAVATIONS.
- EXCAVATION OF FOOTINGS AND GRADE BEAMS SHALL FINISHED BY HAND SHOVEL.
- IN NO CASE SHALL TRUCKS, BULLDOZERS OR OTHER HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION WALL UNLESS APPROVED BY THE ENGINEER.
- GENERAL CONTRACTOR SHALL INSTALL ALL PIPE SLEEVES, BOXED OPENINGS, ANCHOR BOLTS, ETC., AS REQUIRED FOR THE VARIOUS TRADES. WALL POCKETS TO RECEIVE BEAMS AND SLABS SHALL BE PROVIDED AS REQUIRED FOR THE SUPER-STRUCTURE. SHOP DRAWINGS SHOWING THE POSITION OF OPENINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
- ALL REINFORCING STEEL USED IN FOUNDATION WORK SHALL COMPLY WITH ASTM A615 (S1), GRADE 60. SEE "REINFORCING STEEL" UNDER "GENERAL NOTES".
- THE SOIL ENGINEER OR HIS REPRESENTATIVE OR THE OWNERS QUALIFIED REPRESENTATIVE SHALL INSPECT ALL SUBGRADE PREPARATION WORK PRIOR TO THE PLACEMENT

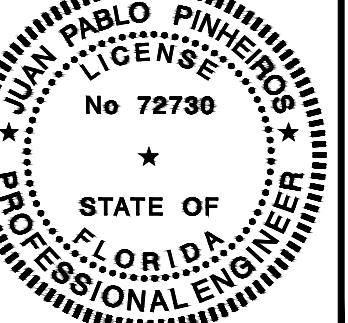
REV	DESCRIPTION

COACH FENN PARK IMPROVEMENT
2306 AVE L, FORT PIERCE, FLORIDA 34950
CITY OF FORT PIERCE

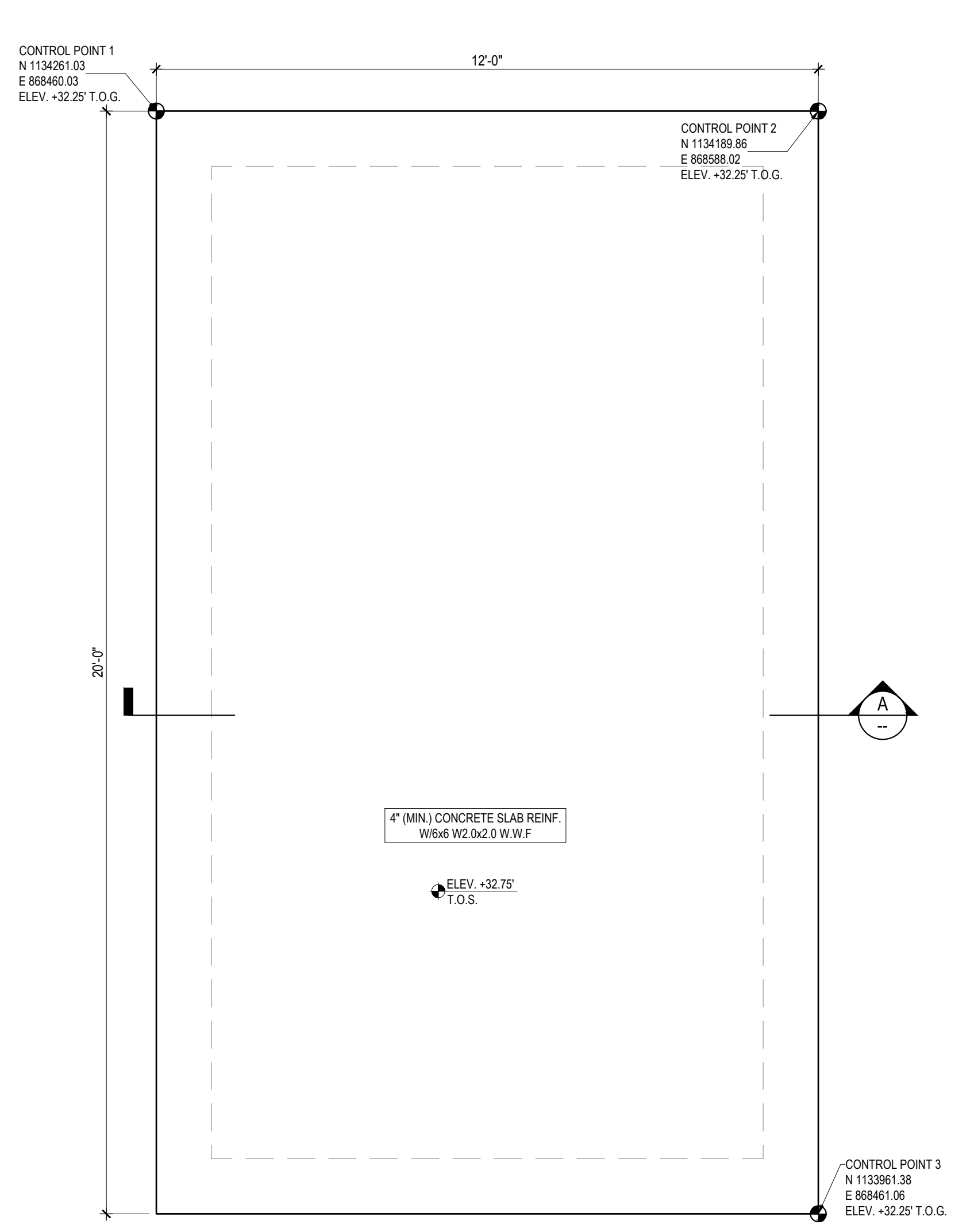
FLOOR PLANS AND SECTIONS

BY PROFESSIONAL JUDGMENT AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

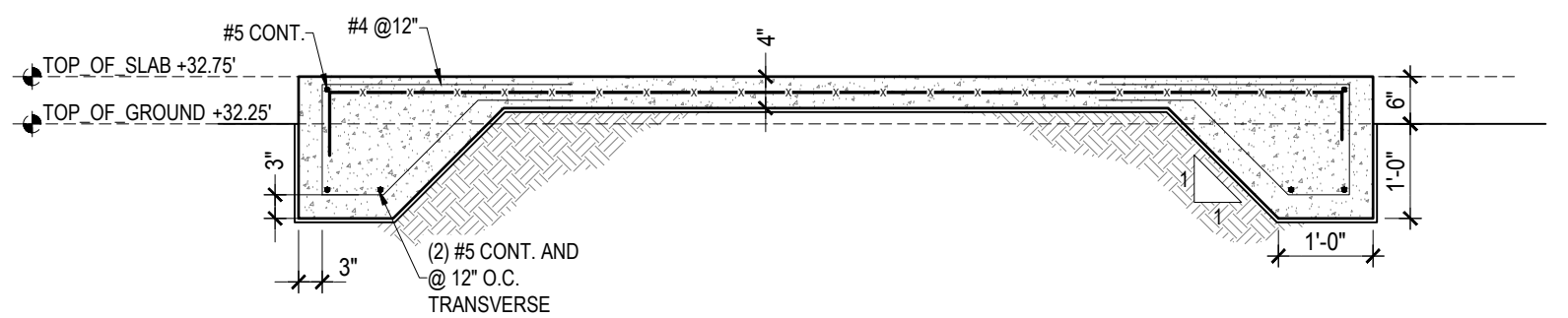
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CDE # 160263
DATE 02/16/2026
DRAWN L. BECK
DESIGN J. PINHEIROS
CHECK M. CHARMBURY
FILE STRUCTURAL.dwg



PLAN VIEW CONC. PAVILION FOUNDATION
1/2" = 1'-0"

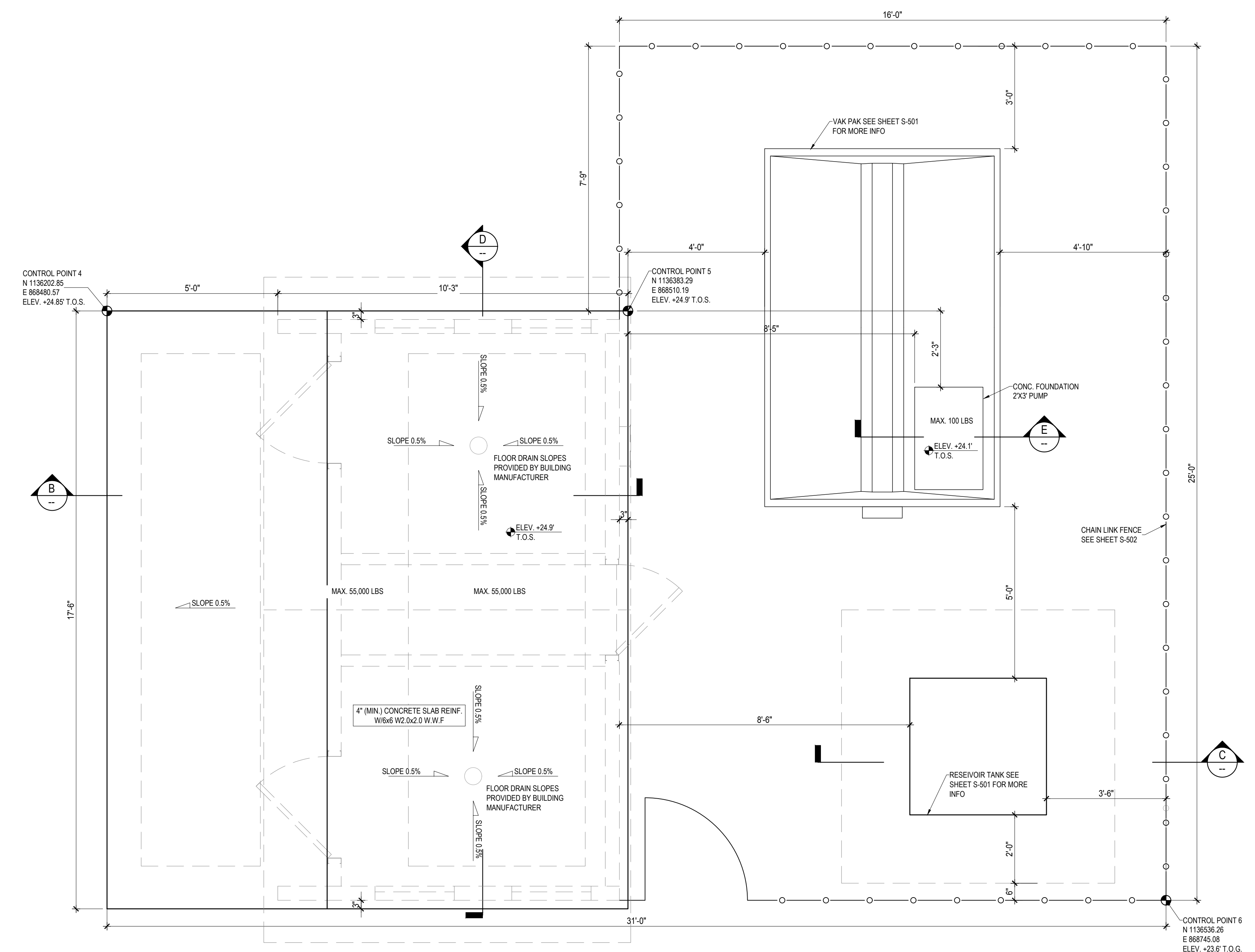


SECTION A
1/2" = 1'-0"

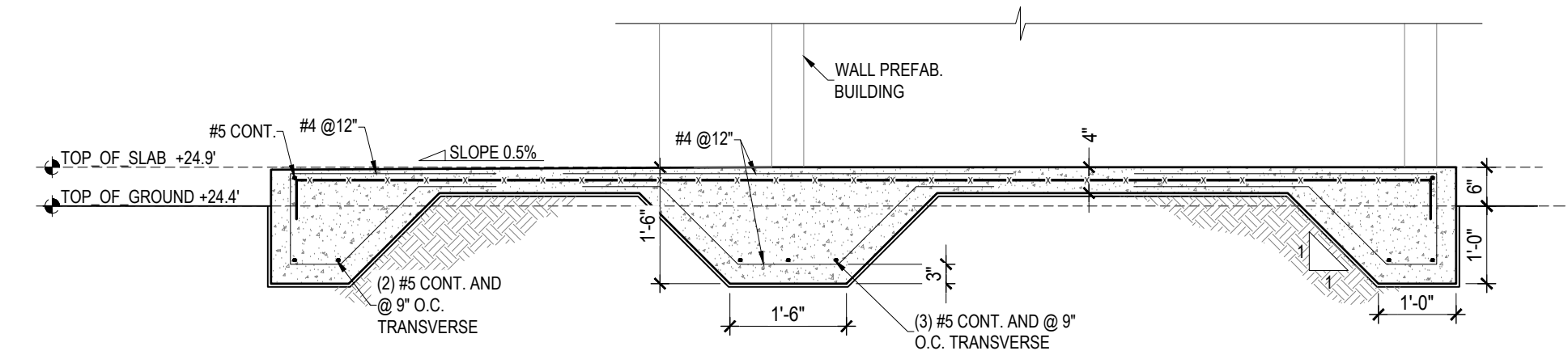
- NOTES:**
1. ALL DIMENSION SHALL BE FIELD VERIFIED.
 2. G.C. TO COORDINATE TOP OF FOUNDATIONS LOCATIONS WITH ALL TRADES PRIOR TO EXCAVATION & NOTIFY ENG. OF ANY DISCREPANCIES.
 3. G.C. IS RESPONSIBLE FOR COORDINATION OF STRUCTURAL PLANS WITH M.E.P. OR ANY OTHER PROJECT PLANS/DRAWINGS THAT WOULD IMPACT THE STRUCTURAL LAYOUT AND OR DESIGN. STRUCTURAL ENGINEER IS TO BE NOTIFIED OF DISCREPANCIES (IF ANY) PRIOR TO COMMENCEMENT OF WORK DELINEATED HEREIN.

REFERENCE DRAWINGS:

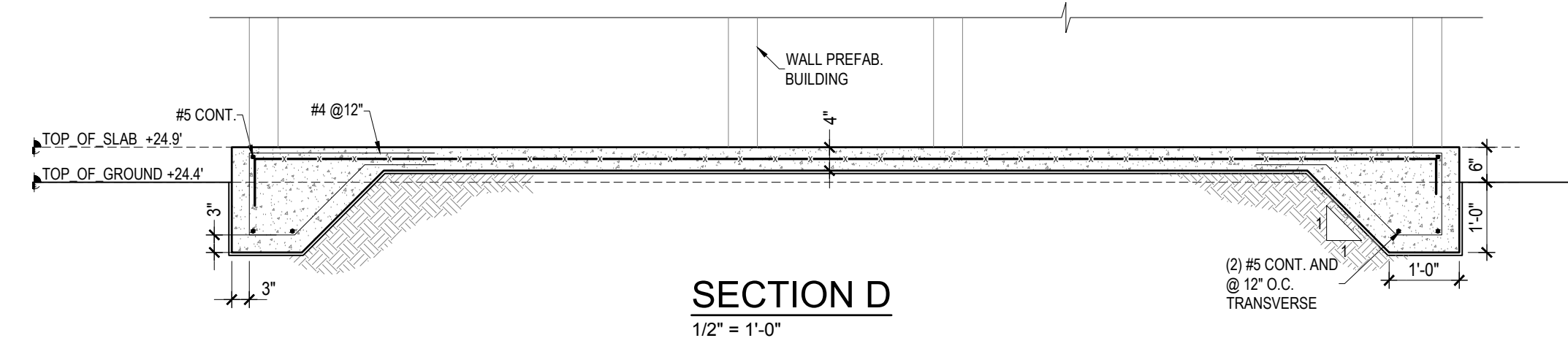
- | | |
|-----------|--|
| SEE S-001 | ABBREVIATIONS AND GENERAL NOTES |
| SEE S-100 | GENERAL NOTES & SITE PLAN |
| SEE S-101 | FLOOR PLANS & SECTIONS |
| SEE S-102 | CLADDING & ELEVATIONS PREFABRICATED BUILDING |
| SEE S-501 | VAK PAK & TANK DETAILS |
| SEE S-502 | CHAIN LINK FENCE DETAILS |



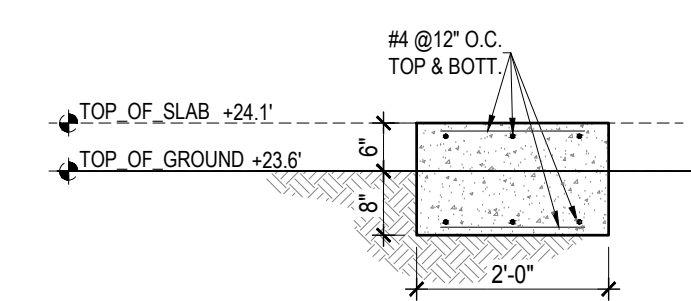
PLAN VIEW CONC. RESTROOM FOUNDATION
1/2" = 1'-0"



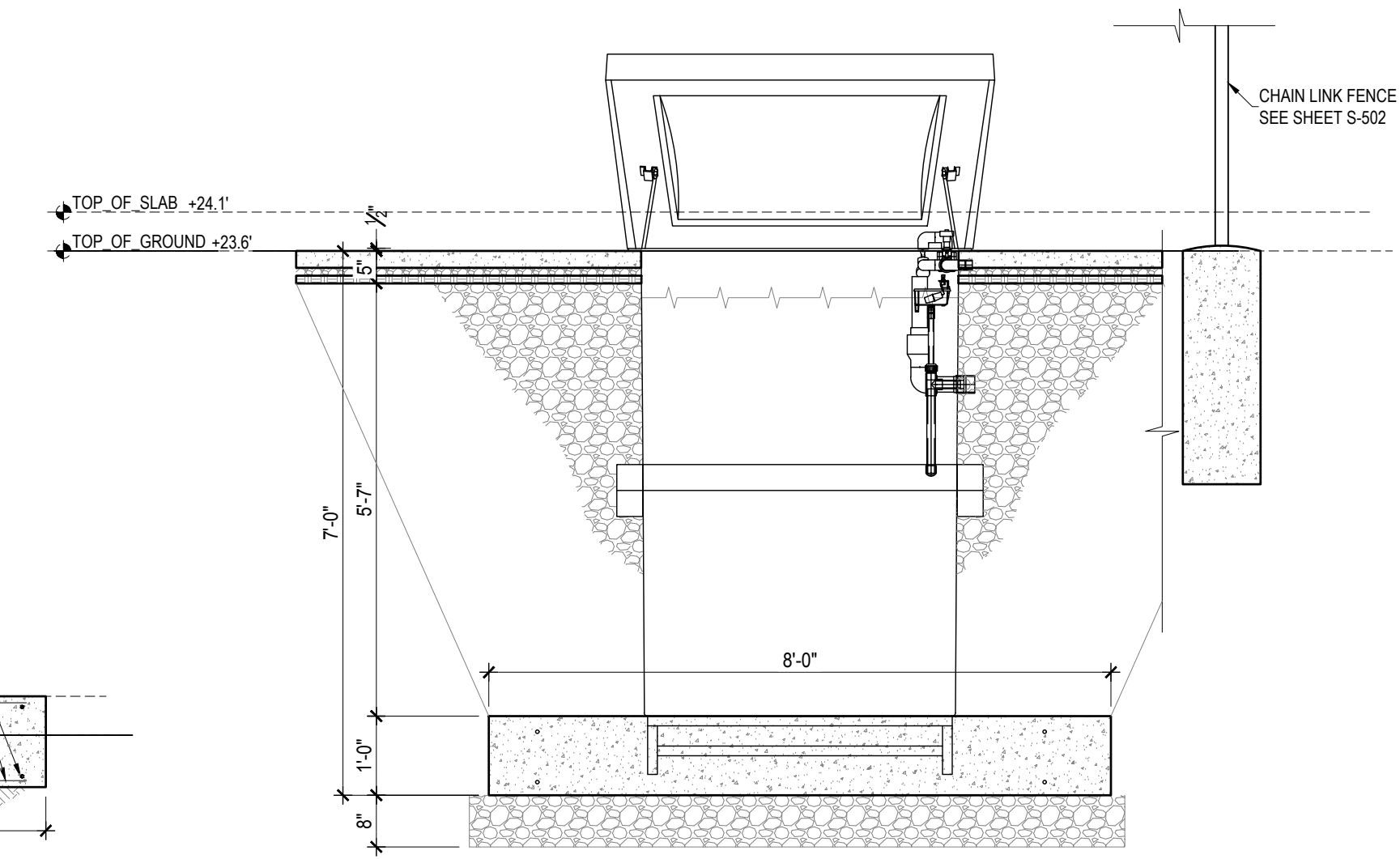
SECTION B
1/2" = 1'-0"



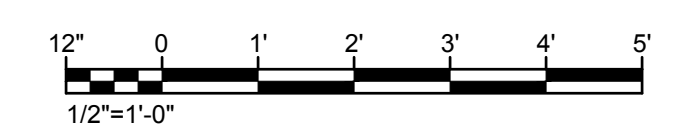
SECTION D
1/2" = 1'-0"



SECTION E
1/2" = 1'-0"



SECTION C
1/2" = 1'-0"



DATE

DESCRIPTION

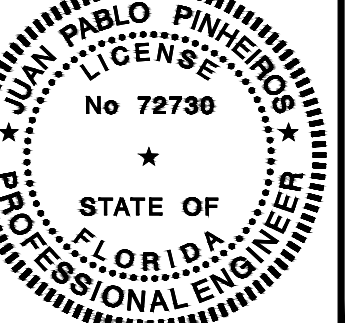
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 CITY OF FORT PIERCE

VAK PAK & TANK DETAILS

BY PROFESSIONAL JUDGMENT AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

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DATE: 02/16/2026
 DRAWN: L. BECK
 DESIGN: J. PINHEIROS
 CHECK: M. CHARMBURY
 FILE: STRUCTURAL.dwg

S-501

TENSION EMBEDMENT LENGTH (with std. hook) SCHEDULE

BAR SIZE	f _c = 3000 psi		f _c = 4000 psi		f _c = 5000 psi		f _c = 6000 psi		f _c = 7000 psi		f _c = 8000 psi	
	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT
#4	12"	8"	10"	7"	9"	6"	9"	6"	9"	6"	9"	6"
#5	14"	10"	13"	9"	12"	8"	10"	7"	10"	7"	10"	7"
#6	17"	12"	14"	10"	13"	9"	13"	9"	12"	8"	12"	8"
#7	20"	14"	17"	12"	16"	11"	14"	10"	13"	9"	13"	9"
#8	23"	16"	20"	14"	17"	12"	16"	11"	16"	11"	14"	10"
#9	26"	18"	21"	15"	20"	14"	19"	13"	17"	12"	16"	11"
#10	28"	20"	24"	17"	23"	16"	20"	14"	19"	13"	17"	12"
#11	31"	22"	27"	19"	24"	17"	23"	16"	21"	15"	20"	14"

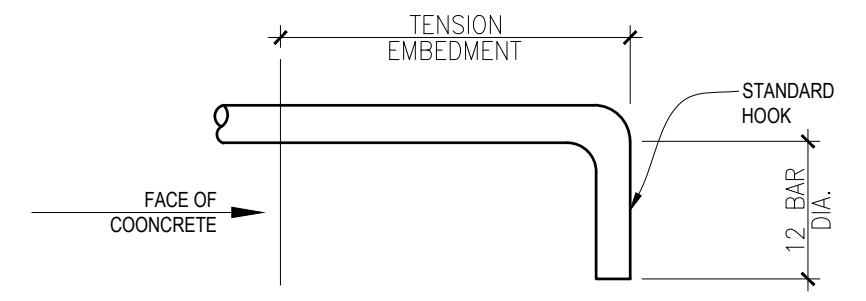


TABLE #2
TENSION LAP SPLICES, 1.3Ld (TIE MEMBERS NOT INCLUDED)

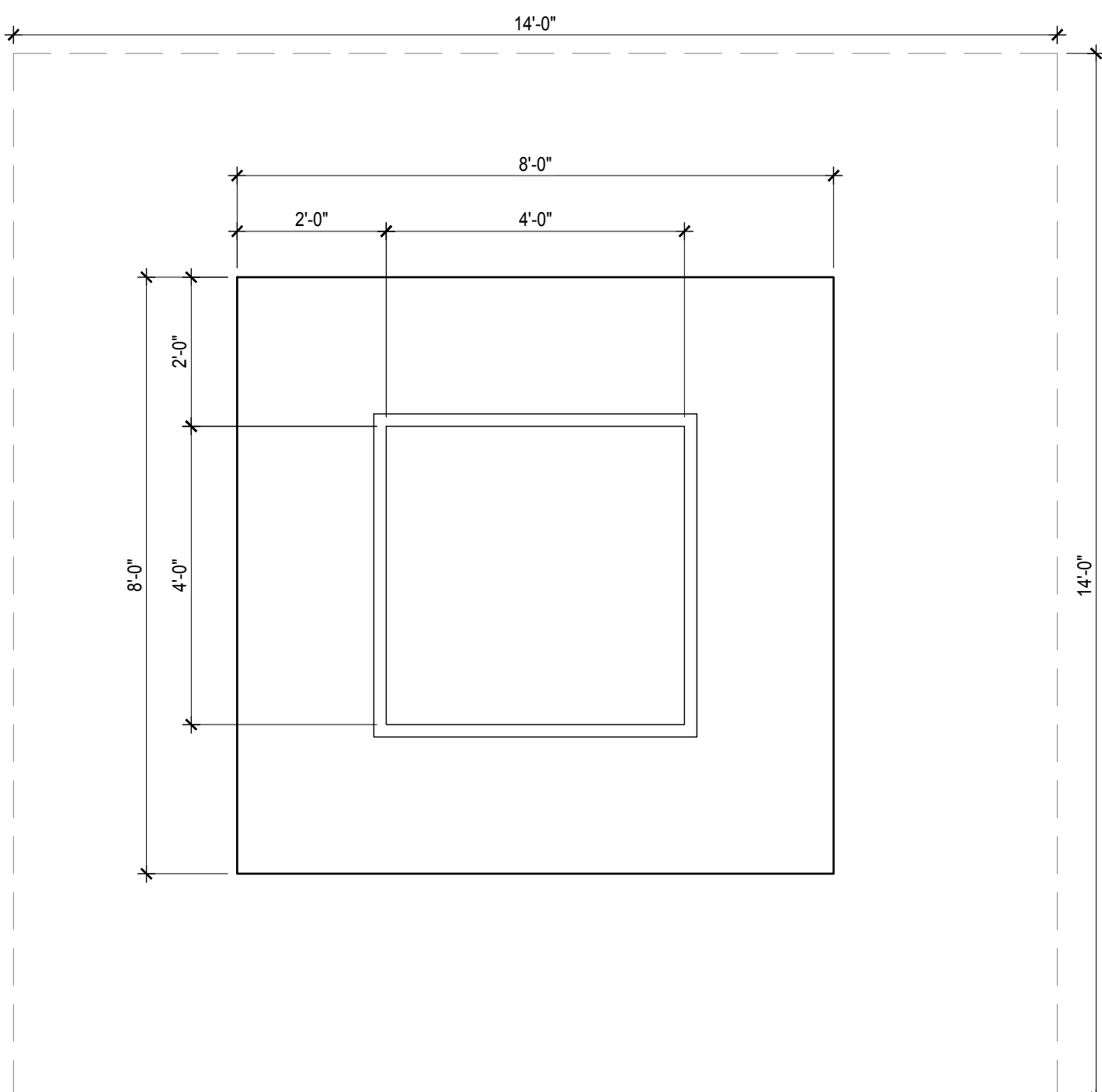
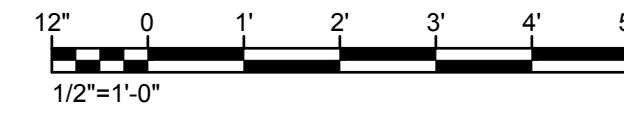
BAR SIZE		CASE 1										CASE 2																																																											
		lengths (in) per concrete strength (psi)										lengths (in) per concrete strength (psi)																																																											
		3000	4000	5000	6000	7000	8000	9000	10000 & ABOVE	3000	4000	5000	6000	7000	8000	9000	10000 & ABOVE																																																						
#3	O	22	19	17	16	16	16	16	32	28	25	23	21	21	20	19	#3	O	25	22	19	18	16	16	15	14	#4	O	29	25	22	20	19	18	17	16	43	37	33	31	28	28	25	24	#4	T	37	32	29	26	25	23	23	21	56	48	43	40	37	37	33	32									
	T	47	40	36	33	31	29	28	26	70	60	54	49	46	45	42		39	T	43	37	33	32	28	28	25		24																																											
#5	O	36	31	28	25	24	22	21	20	54	47	42	38	35	34	32	30	#5	O	41	36	32	30	27	26	24	23	#6	O	43	37	33	31	28	26	25	24	64	56	50	46	42	41	38	36	#6	T	56	48	43	40	37	34	33	32	84	72	65	59	55	54	50	47								
	T	63	54	49	44	41	38	37	36	94	81	73	66	61	59	55	52		T	54	47	42	39	35	34	32	30																																												
#7	O	63	54	49	44	41	38	37	36	94	81	73	66	61	59	55	52	#7	O	72	62	55	51	47	44	42	39	107	93	83	76	70	67	63	59	#8	O	81	70	63	57	53	49	47	45	121	105	94	85	79	75	71	67	#8	T	81	70	63	58	53	50	49	47	122	106	94	86	80	77	72	68
	T	93	80	72	66	61	57	55	51	139	121	108	98	91	88	82	77		T	93	80	72	66	61	57	55	51	139	121	108	98	91	88	82	77																																				
#9	O	81	70	63	57	53	49	47	45	121	105	94	85	79	75	71	67	#9	O	105	91	81	74	69	64	62	59	157	136	122	111	103	98	93	88	#10	O	91	79	70	64	59	56	54	51	136	118	105	96	89	84	80	76	#10	T	105	91	81	74	69	64	62	59	157	136	122	111	103	98	93	88
	T	118	102	91	83	77	72	71	67	177	153	137	125	116	110	104	99		T	101	87	78	71	66	62	59	56	151	131	117	107	99	93	88	84																																				
#11	O	101	87	78	71	66	62	59	56	151	131	117	107	99	93	88	84	#11	O	131	113	101	93	86	80	77	73	196	170	152	139	128	121	115	110	#14	O	124	107	96	88	81	76	72	68	#14	T	161	139	125	115	106	99	94	89																

- SEE NOTE #1
- NOTES:
- LAP SPLICES NOT PERMITTED, USE WELDED SPLICES OR MECHANICAL CONNECTION ACCORDING WITH A.C.I. 318, 12.14.3
 - O= OTHERS BARS; T= TOP BARS
 - ALL TABLE LENGTHS ARE IN INCHES. TABULATED VALUES ARE FOR GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE
 - CASE 1: BEAMS OR COLUMNS-COVER AT LEAST 1.0 d_b AND C-C. SPACING AT LEAST 2.0 d_b
 ALL OTHERS-COVER AT LEAST 1.0 d_b AND C-C. SPACING AT LEAST 3.0 d_b
 - CASE 2: BEAMS OR COLUMNS-COVER LESS THAN 1.0 d_b OR C-C. SPACING LESS THAN 2.0 d_b
 ALL OTHERS-COVER LESS THAN 1.0 d_b OR C-C. SPACING LESS THAN 3.0 d_b
 - TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS
 - FOR LIGHT WEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3

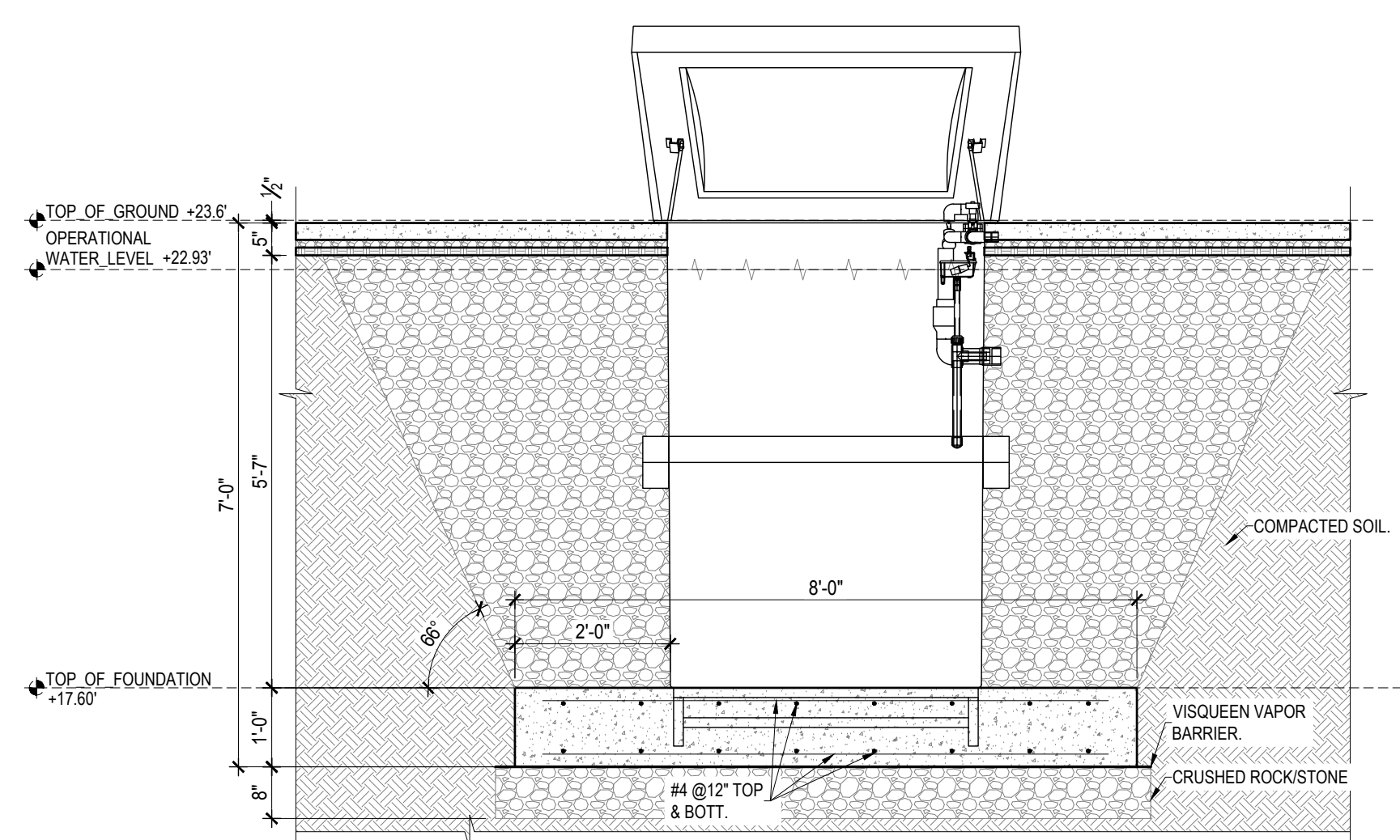
TABLE #5
TENSION DEVELOPMENT LENGTH, L_d

BAR SIZE		CASE 1										CASE 2																											
		lengths (in) per concrete strength (psi)										lengths (in) per concrete strength (psi)																											
		3000	4000	5000	6000	7000	8000	9000	10000 & ABOVE	3000	4000	5000	6000	7000	8000	9000	10000 & ABOVE																						
#3	O	17	15	13	12	12	12	12	12	#3	O	25	22	19	18	16	16	15	14	#4	O	22	19	17	16	15	14	13	12	#4	T	43	37	33	32	28	28	25	24
	T	29	25	22	21	19	19	17	16		T	43	37	33	32	28	28	25	24																				
#5	O	28	24	22	20	18	17	16	15	#5	O	41	36	32	30	27	26	24	23	#6	O	33	29	26	24	22	21	19	18	#6	T	54	47	42	39	35	34	32	30
	T	36	31	28	26	24	23	21	20		T	54	47	42	39	35	34	32	30																				
#7	O	48	42	37	34	32	30	28	27	#7	O	72	63	56	51	47	45	42	40	#8	O	43	37	33	32	28	28	25	24	#8	T	64	56	50	46	42	41	38	36
	T	63	54	49	45	41	39	37	36		T	72	63	56	51	47	45	42	40																				
#8	O	55	48	43	39	36	34	32	30	#8	O	82	71	64	59	54	51	48	45	#9	O	62	54	48	44	41	38	36	34	#9	T	94	81	73	67	61	59	55	52
	T	72	62	55	51	47	45	42	39		T	107	93	83	77	70	67	63	59																				
#9	O	62	54	48	44	41	38	36	34	#9	O	93	81	72	66	61	57	54	51	#10	O	81	70	63	58	53	50	47	45	#10	T	121	105	94	86	79	75	71	67
	T	70	61	54	50	46	43	41	39		T	105	91	81	74	69	64	61	58																				
#10	O	91	79	70	65	59	56	54	51	#10	O	136	118	105	97	89	84	80	76	#11	O	76	67	60	55	51	48	45	43	#11	T	116	101	90	82	76	71	67	64
	T	101	87	78	72	66	63	59	56		T	151	131	117	107	99	93	88	84																				
#11	O	93	81	72	66	61	57	54	51	#11	O	139	121	108	99	91	86	81	77	#14	O	121	105	94	86	79	75	71	67	#14	T	181	157	140	129	119	112	106	101
	T	121	105	94	86	79	75	71	67		T	181	157	140	129	119	112	106	101																				
#18	O	124	107	96	88	81	76	72	68	#18	O	186	161	144	132	122	114	107	102	#18	T	161	139	125	115	106	99	94	89	#18	T	241	209	187	172	158	149	140	133

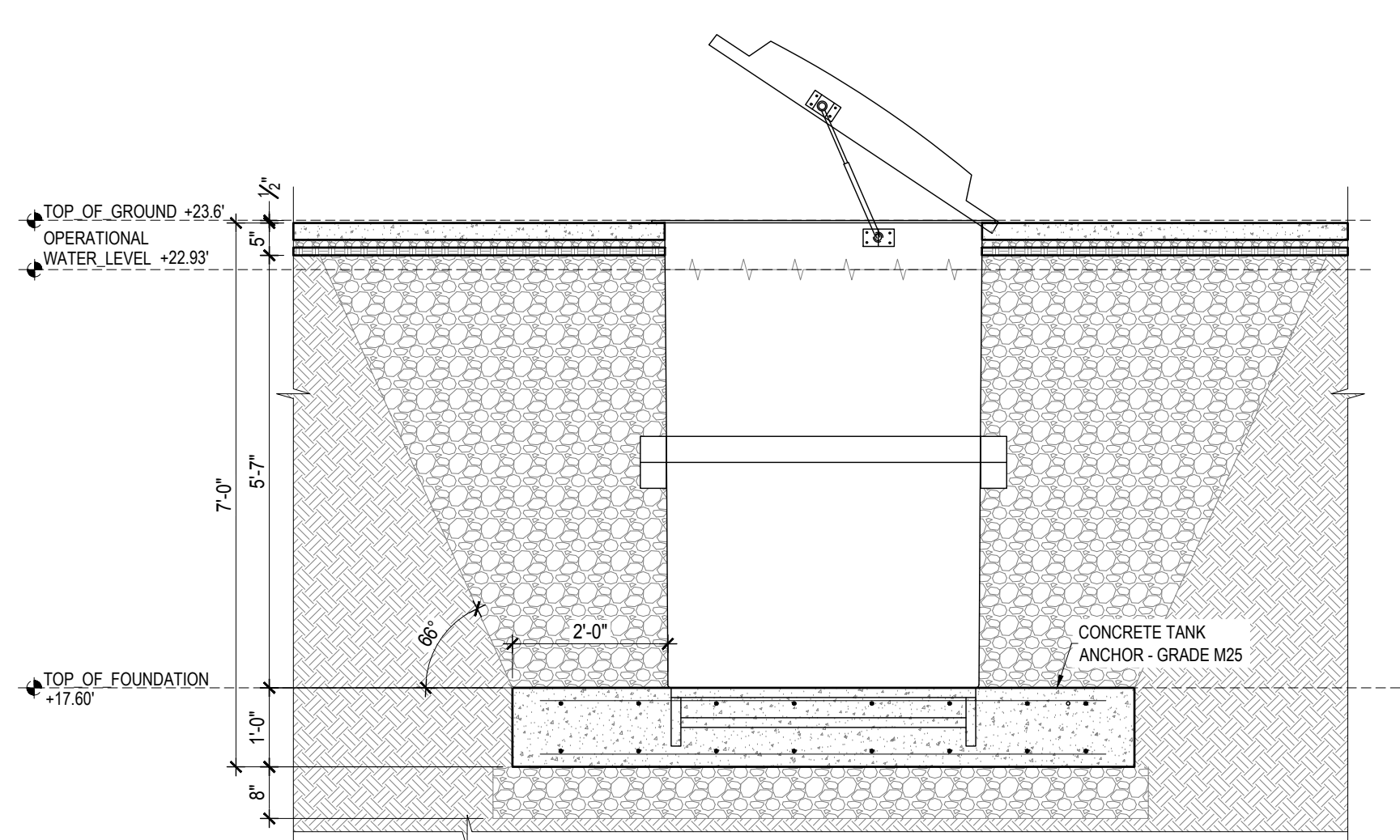
- NOTES:
- O= OTHERS BARS; T= TOP BARS
 - ALL TABLE LENGTHS ARE IN INCHES. TABULATED VALUES ARE FOR GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE
 - CASE 1: BEAMS OR COLUMNS-COVER AT LEAST 1.0 d_b AND C-C. SPACING AT LEAST 2.0 d_b
 ALL OTHERS-COVER AT LEAST 1.0 d_b AND C-C. SPACING AT LEAST 3.0 d_b
 - CASE 2: BEAMS OR COLUMNS-COVER LESS THAN 1.0 d_b OR C-C. SPACING LESS THAN 2.0 d_b
 ALL OTHERS-COVER LESS THAN 1.0 d_b OR C-C. SPACING LESS THAN 3.0 d_b
 - TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS
 - FOR LIGHT WEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3



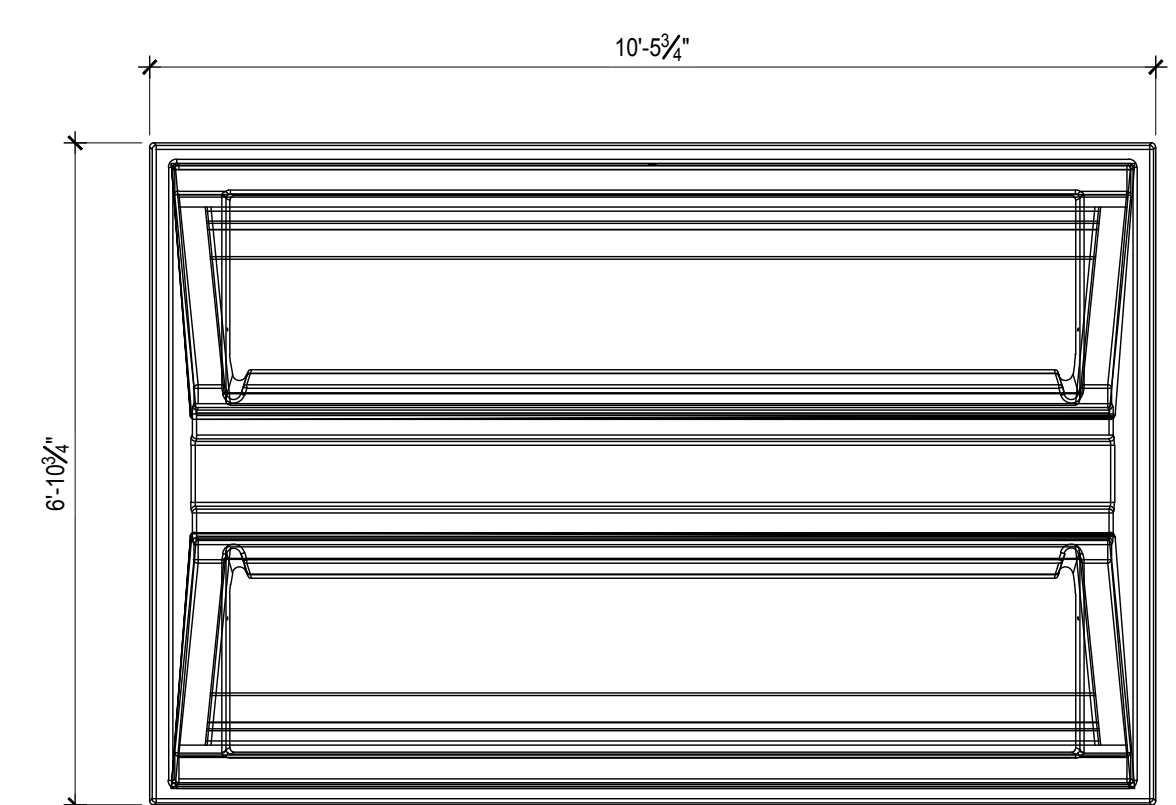
PLAN VIEW COLLECTOR TANK
 1/2" = 1'-0"



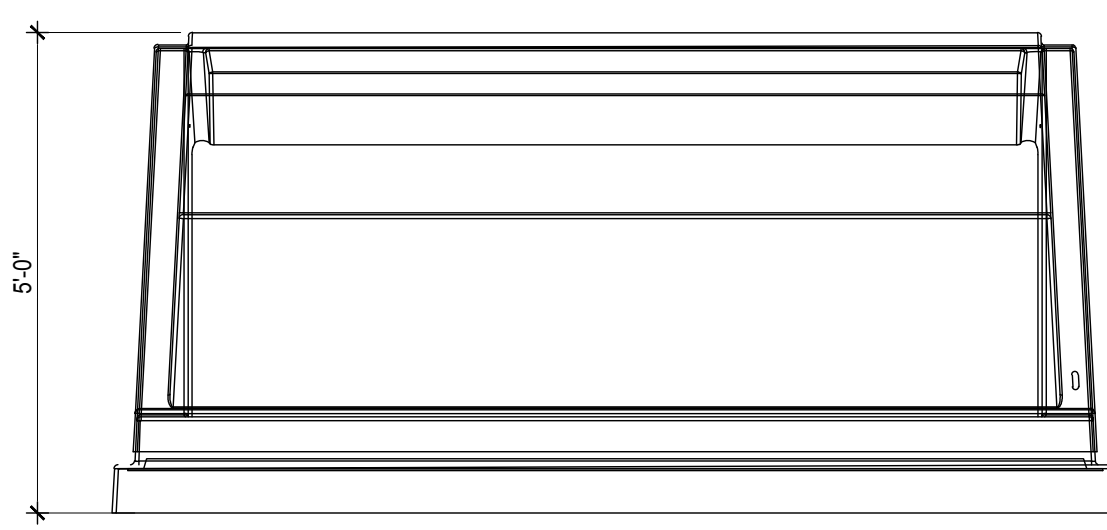
FRONT ELEVATION COLLECTOR TANK
 1/2" = 1'-0"



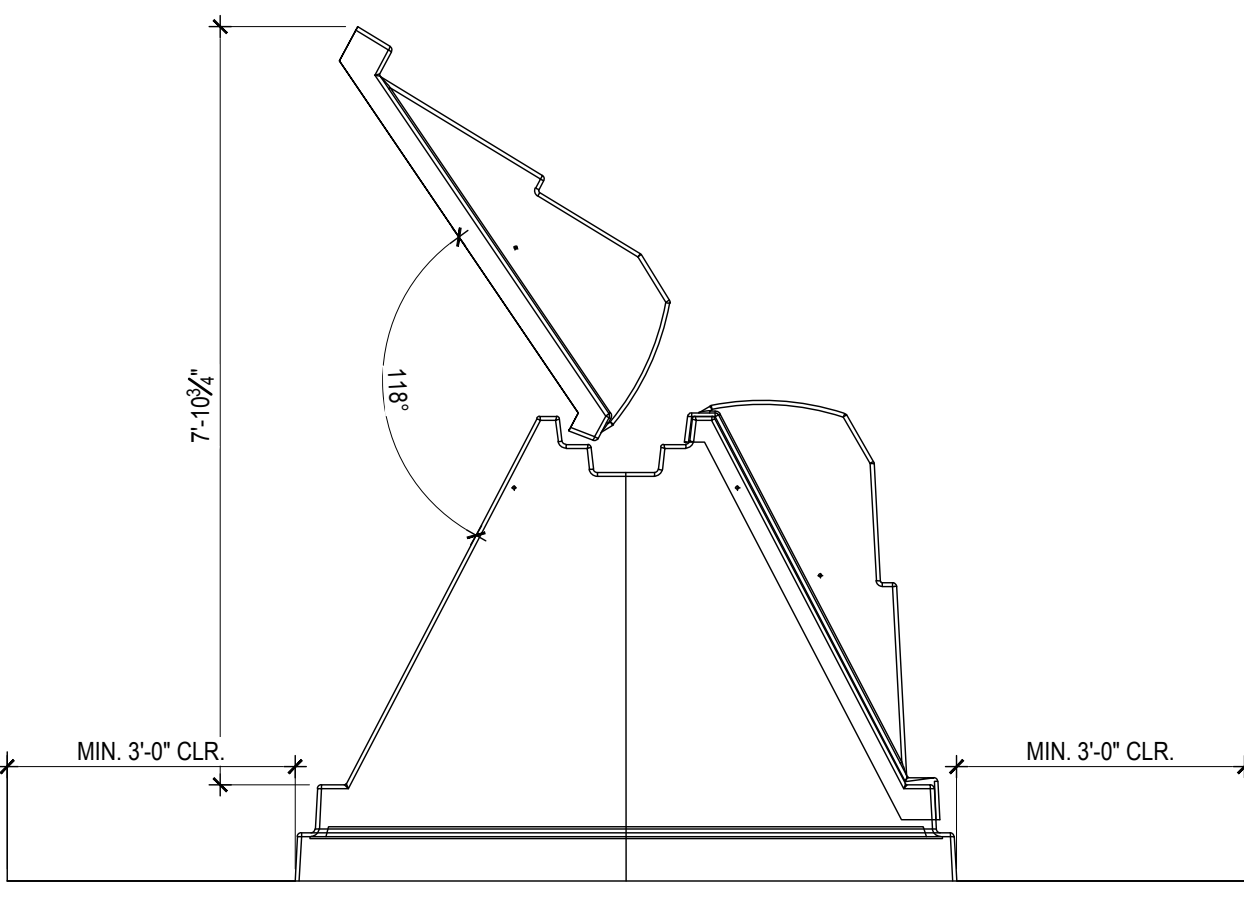
SIDE ELEVATION COLLECTOR TANK
 1/2" = 1'-0"



PLAN VIEW VAK PAK
 1/2" = 1'-0"



FRONT ELEVATION VAK PAK
 1/2" = 1'-0"



SIDE ELEVATION VAK PAK
 1/2" = 1'-0"

- REFERENCE DRAWINGS:**
- SEE S-001 ABBREVIATIONS AND GENERAL NOTES
 - SEE S-100 GENERAL NOTES & SITE PLAN
 - SEE S-101 FLOOR PLANS & SECTIONS
 - SEE S-102 CLADDING & ELEVATIONS PREFABRICATED BUILDING
 - SEE S-501 VAK PAK & TANK DETAILS
 - SEE S-502 CHAIN LINK FENCE DETAILS

REV	DATE	DESCRIPTION

COACH FENN PARK IMPROVEMENT
 2306 AVE L, FORT PIERCE, FLORIDA 34950
 CITY OF FORT PIERCE

CLADDING & ELEVATIONS PREFABRICATED BUILDING

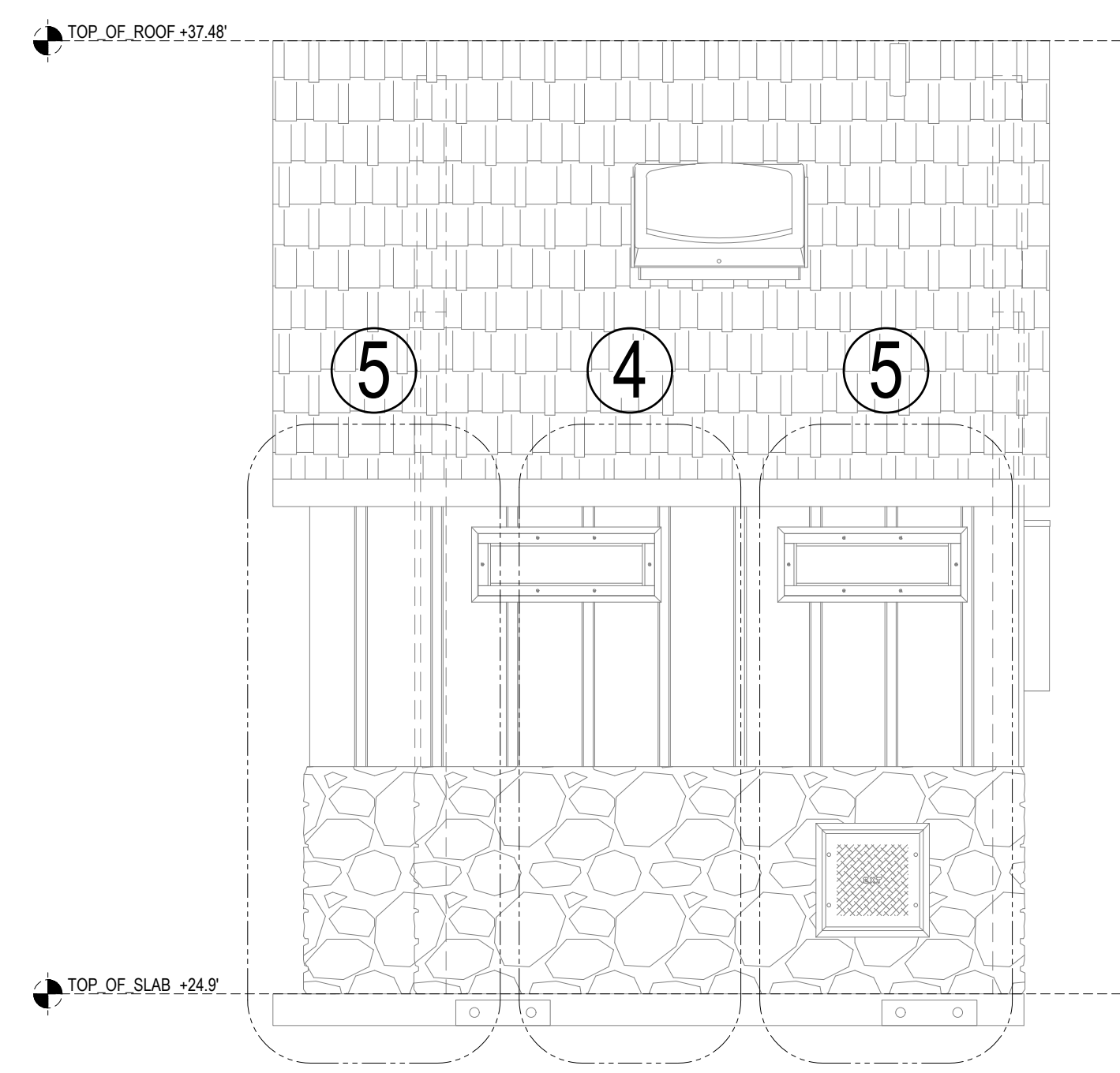
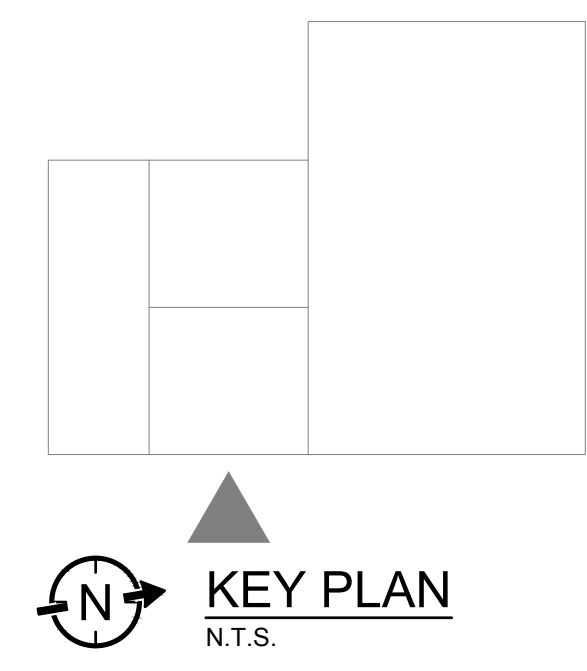
AS A PROFESSIONAL ENGINEER AND THE BEST OF MY KNOWLEDGE AND BELIEF, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE 2023.

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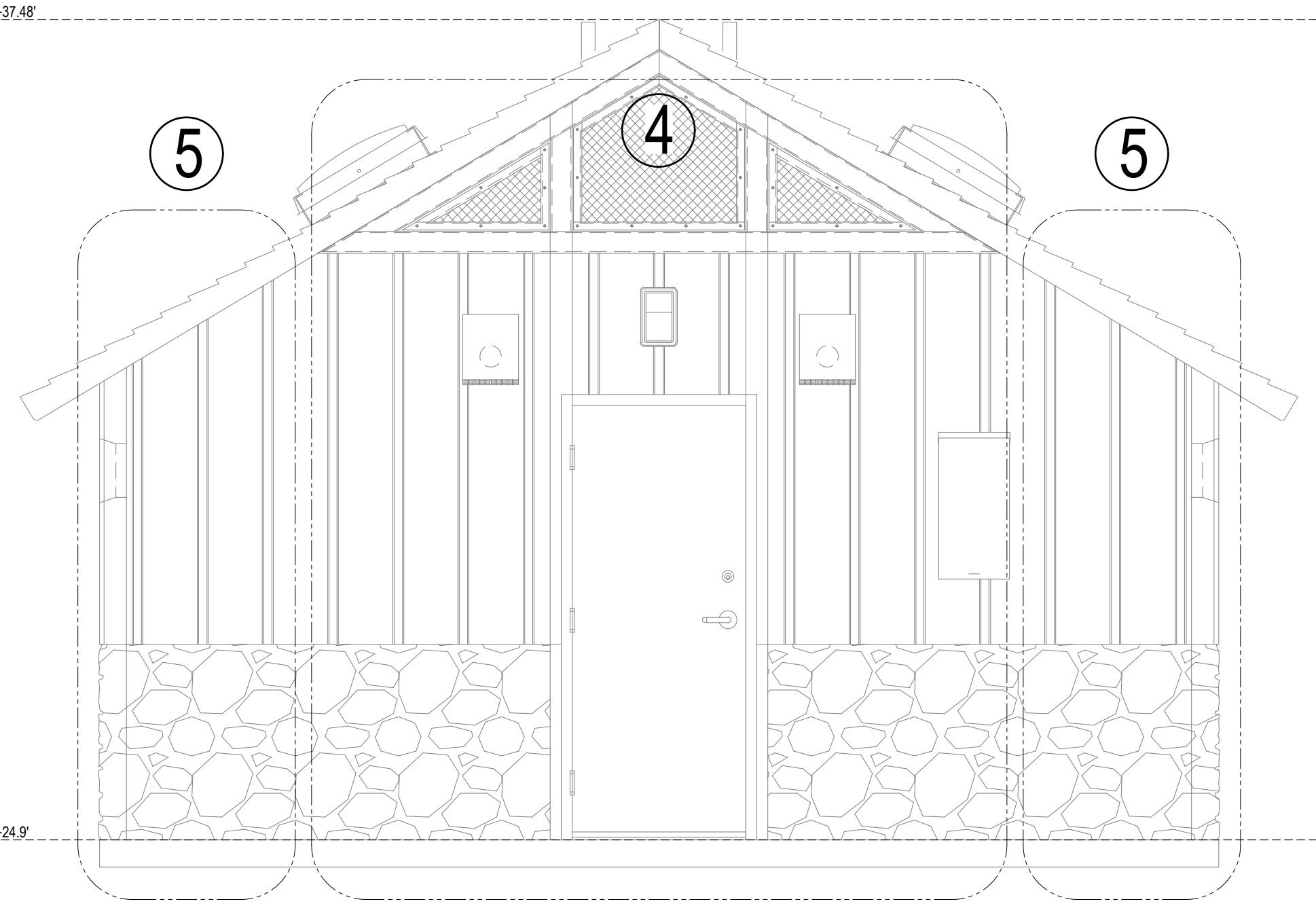
JUNIOR PABLO PINHEIROS
 LICENSE
 No 72730
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

CODE # 160263
 DATE 02/16/2026
 DRAWN L. BECK
 DESIGN J. PINHEIROS
 CHECK M. CHARMBURY
 FILE STRUCTURAL.dwg

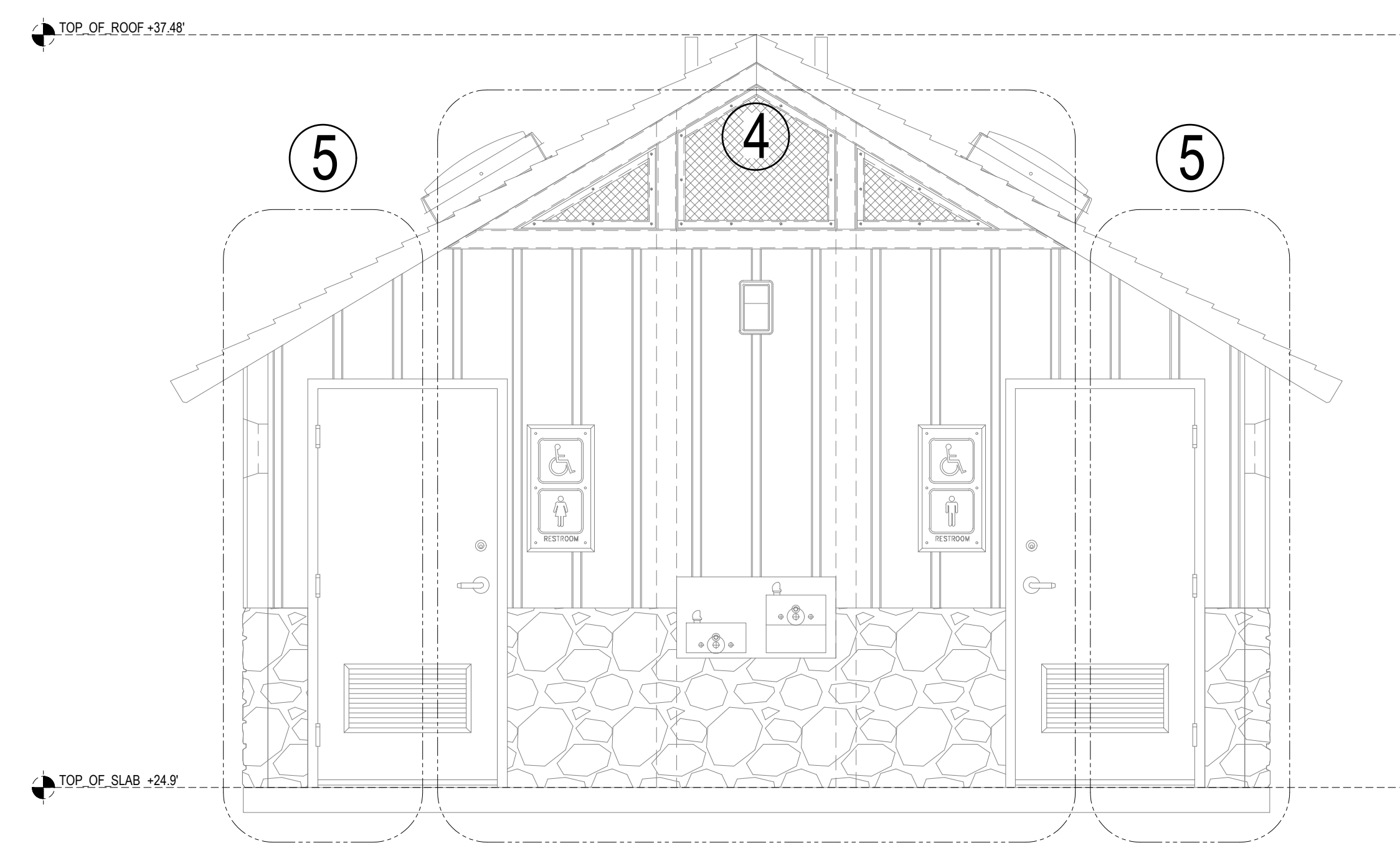
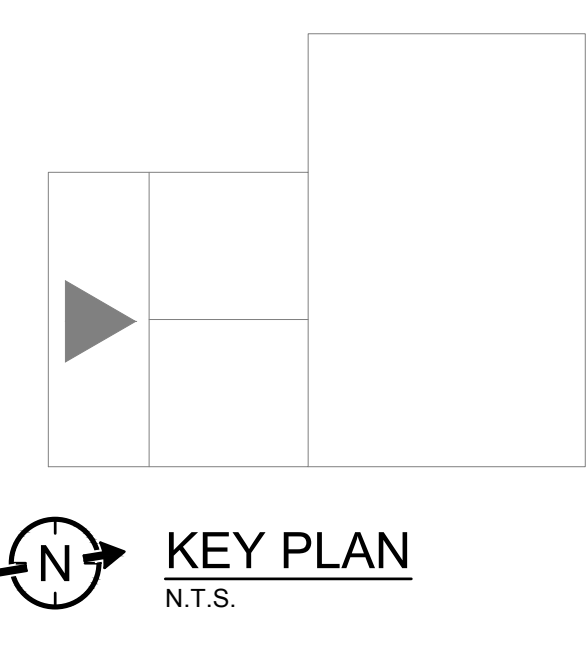
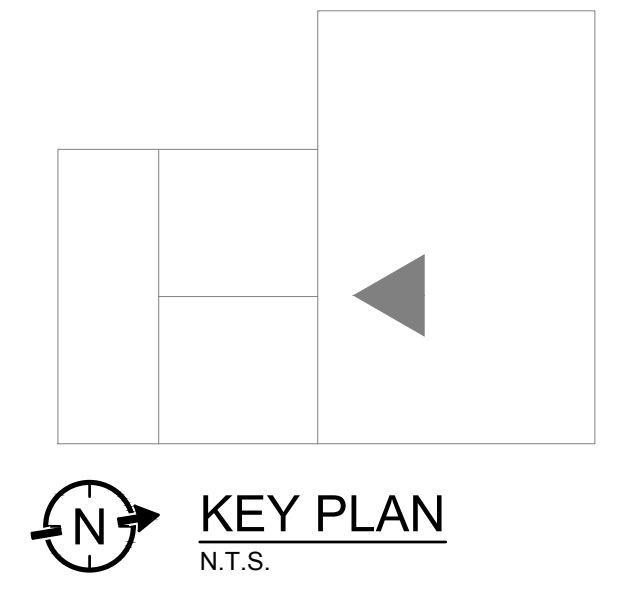
S-102



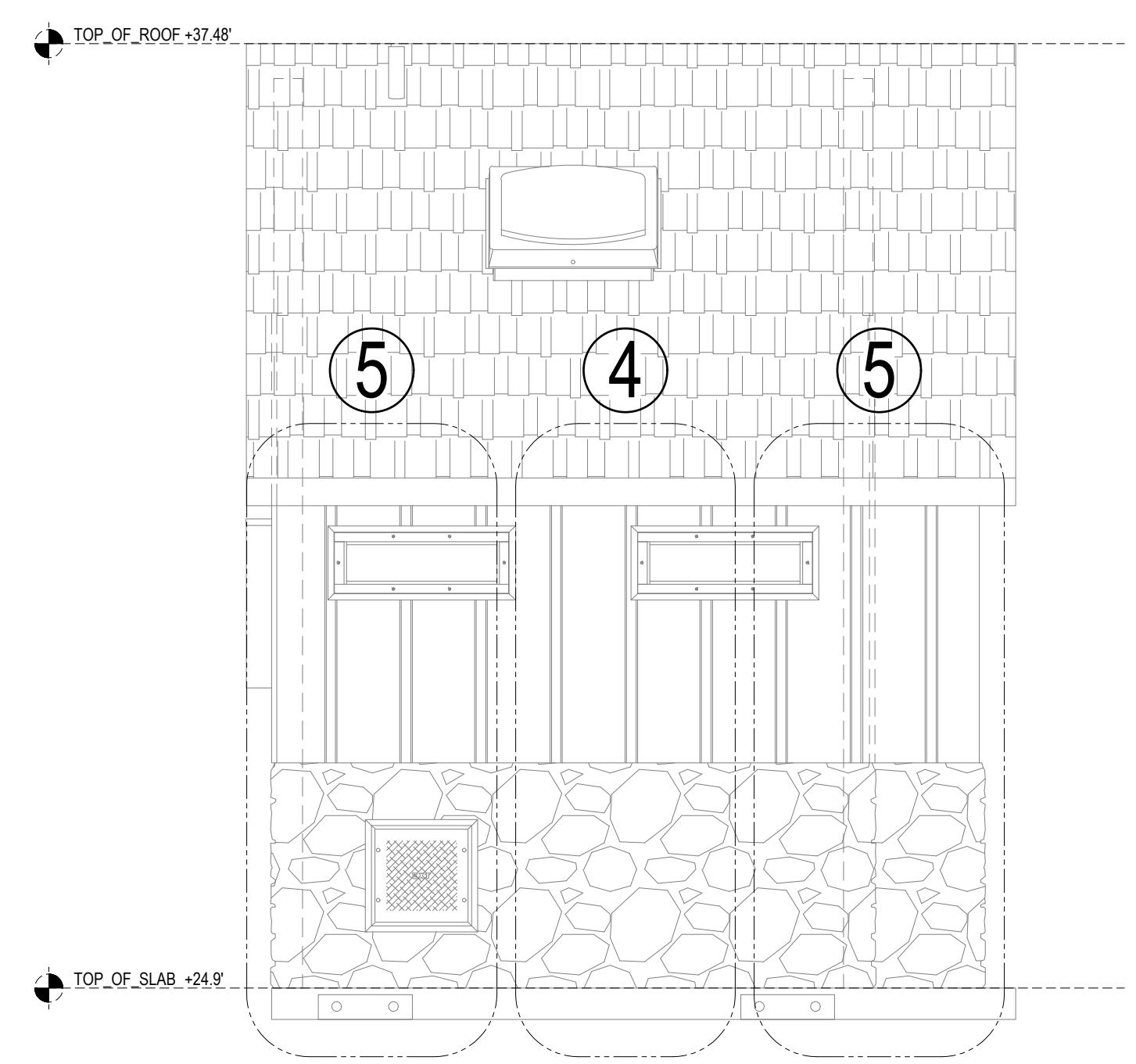
EAST ELEVATION
1/2" = 1'-0"



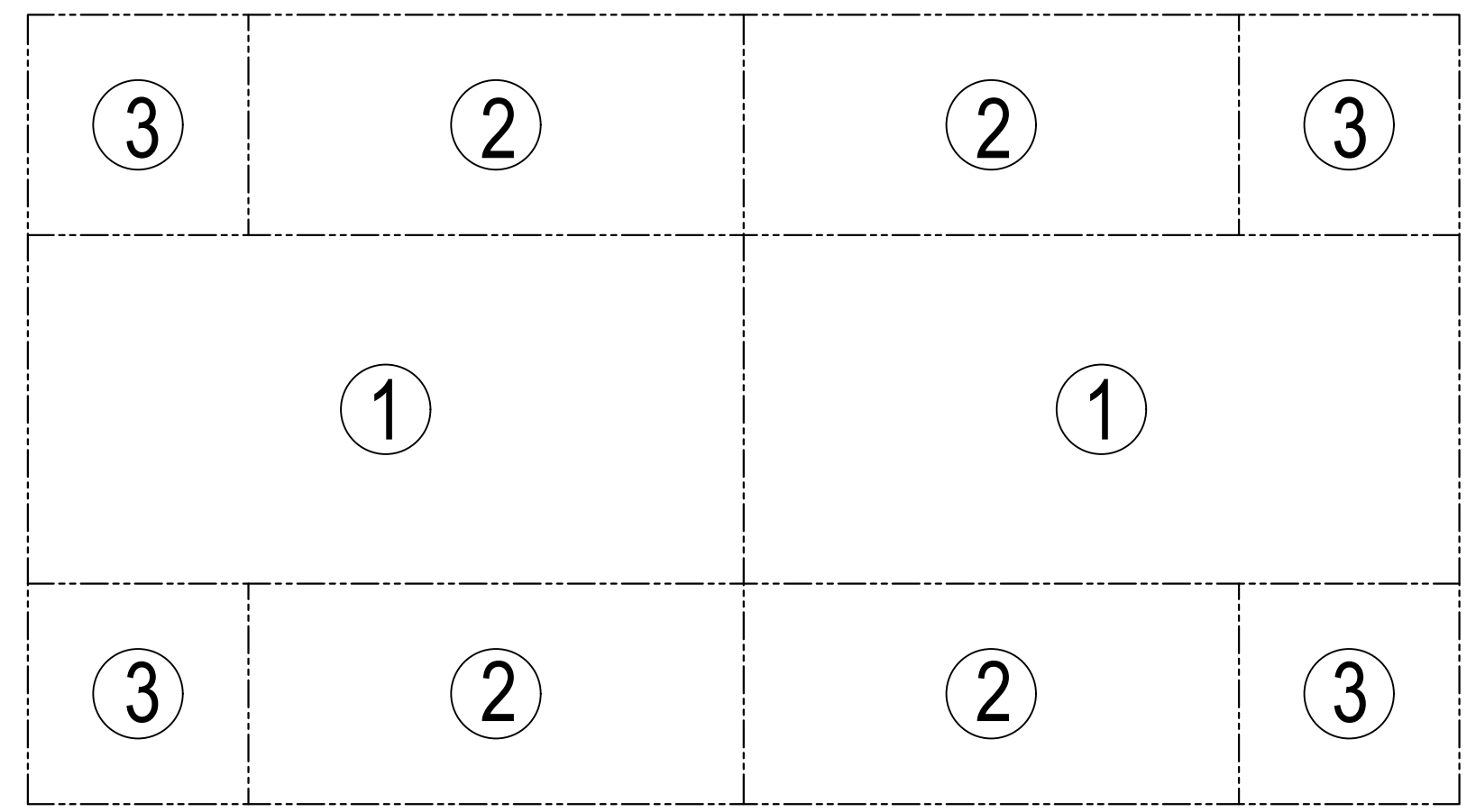
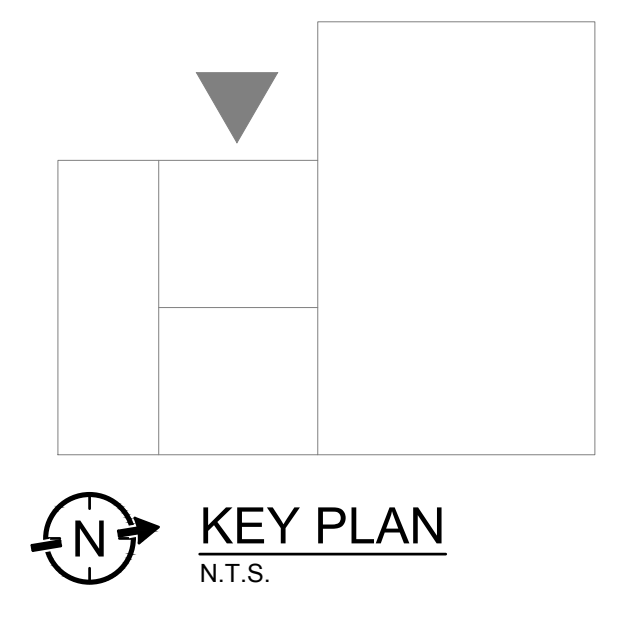
NORTH ELEVATION
1/2" = 1'-0"



SOUTH ELEVATION
1/2" = 1'-0"



WEST ELEVATION
1/2" = 1'-0"



ZONES	DOOR AND WINDOW PRESSURES (PSF) WIND SPEED 159 MPH				WALLS	
	WINDOWS 10 S.F.		DOORS 15 S.F.		POSITIVE	NEGATIVE
ZONE 4	+55.3 P.S.F.	-60 P.S.F.	+53.8 P.S.F.	-58.5 P.S.F.	+51.3 P.S.F.	-56.0 P.S.F.
ZONE 5	+55.3 P.S.F.	-74 P.S.F.	+53.8 P.S.F.	-71.1 P.S.F.	+51.3 P.S.F.	-66.1 P.S.F.

- NOTES:**
- IT IS ACCEPTABLE TO USE THE WIND PRESSURES CALCULATED WITH $K_d=0.85$ (WIND DIRECTIONALITY FACTOR) IF WINDOWS AND DOORS WERE DESIGNED NOT USING ALLOWABLE STRESS METHOD.
 - WHEN ALLOWABLE STRESS METHOD HAS BEEN USED TO DESIGN WINDOWS/DOORS, IT IS ACCEPTABLE TO USE $K_d=0.85$ IF THE VALUES FOR WINDOWS/DOORS MATERIALS ALLOWABLE STRESSES HAVE NOT BEEN INCREASED DURING THE DESIGN (ASCE-7-10). THIS SHALL BE SPECIFICALLY STATED IN THE WINDOWS/DOORS SHOP DRAWINGS.
 - IN ALL OTHER CASES IT IS NECESSARY TO USE THE WIND PRESSURES VALUES CALCULATED WITH $K_d=1.0$.
 - IT IS REQUIRED THAT WINDOWS/DOORS SHOP DRAWINGS SIGNED AND SEALED BY A FLORIDA REGISTERED P.E. ARE SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER OF RECORD.
 - WIND PRESSURES SHOWN ARE ULTIMATE WIND PRESSURES (DIVIDE BY 1.6 TO OBTAIN ALLOWABLE STRESS PRESSURES).
 - NEGATIVE PRESSURE OR SUCTION IS DEFINE TO ACT OUTWARD NORMAL TO BUILDING SURFACE. "POSITIVE PRESSURE" IS DEFINE TO ACT INWARD NORMAL TO BUILDING SURFACE.

DESIGN ULTIMATE WIND PRESSURES FOR GABLE ROOF				
BASIC WIND PRESSURE $a=3'-0"$ ALL ROOFS FOR THIS DESIGN				
AREA	SURFACE PRESSURE (PSF) WIND SPEED 159 MPH			
	10 SF	20 SF	50 SF	100 SF
ZONE 1	-92.7 P.S.F.	-78.6 P.S.F.	-60.0 P.S.F.	-45.9 P.S.F.
ZONE 2	-102.1 P.S.F.	-91.2 P.S.F.	-76.9 P.S.F.	-66.1 P.S.F.
ZONE 3	-125.5 P.S.F.	-109.2 P.S.F.	-87.8 P.S.F.	-71.5 P.S.F.
POSITIVE ALL ZONES	+50.6 P.S.F.	+46.2 P.S.F.	+40.5 P.S.F.	+36.2 P.S.F.

REFERENCE DRAWINGS:

SEE S-001 ABBREVIATIONS AND GENERAL NOTES
 SEE S-100 GENERAL NOTES & SITE PLAN
 SEE S-101 FLOOR PLANS & SECTIONS
 SEE S-102 CLADDING & ELEVATIONS PREFABRICATED BUILDING
 SEE S-501 VAK PAK & TANK DETAILS
 SEE S-502 CHAIN LINK FENCE DETAILS

