ABBREVIATIONS

AB

ACI

COL

EQ

EW

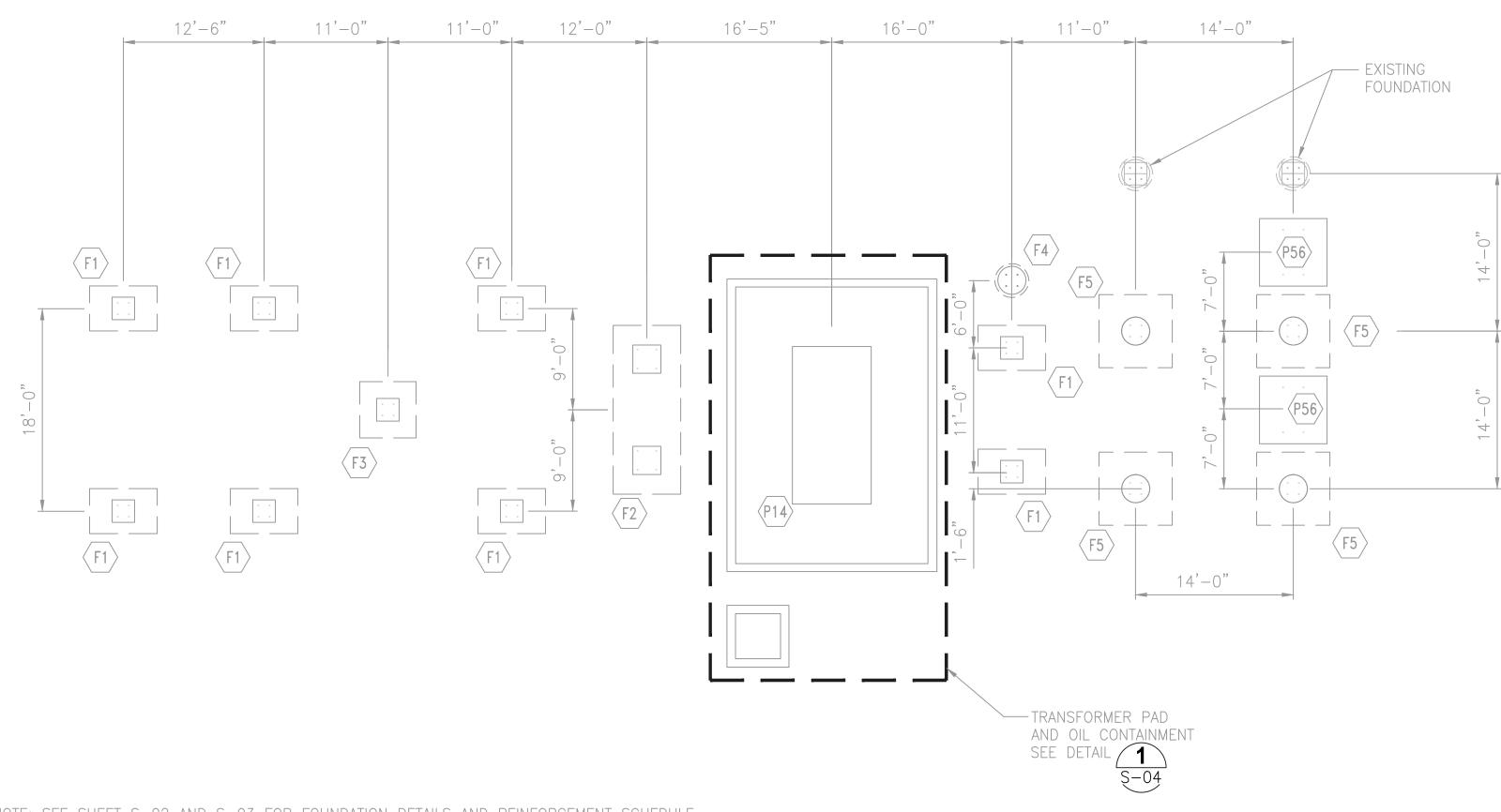
FBC

FIG

FIN

KIP

KSI



ALUM ALUMINUM ANCHOR BOLT AMERICAN CONCRETE INSTITUTE APP/APPRD APPROVE, APPROVED APPROX APPROXIMATE ASCE AMERICAN SOCIETY OF CIVIL ENGINEERS ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS BUILDING BOTT BOTTOM CAST-IN-PLACE CONSTRUCTION JOINT CLEARANCE COLUMN CONN CONNECTION CONCRETE CONT CRSI CONTINUOUS CONCRETE REINFORCING STEEL INSTITUTE CTRD DET CENTERED DETAIL DIAMETER DOWN DRAWING EACH ELEC ELECTRICAL ELEV/EL ELEVATION EQUAL EACH WAY EXIST EXISTING FLORIDA BUILDING CODE FDOT FLORIDA DEPARTMENT OF TRANSPORTATION FINISHED FLOOR ELEVATION FIGURE FINISHED FLOOR FLORIDA PLUMBING CODE FOOT GALLON GALV GALVANIZED GRADE GALVANIZED STEEL HORIZ HORIZONTAL HEADDED STUD HEIGHT INCH 1,000 POUND KIP PER SQUARE INCH

> LINEAR FEET MAXIMUM

MECHANICAL MANUFACTURER MINIMUM MISCELLANEOUS MILES PER HOUR MATERIAL NOT APPLICABLE NOT AVAILABLE N/AVAIL NOT IN CONTRACT NUMBER NOMINAL NOT TO SCALE NUMBER DESIGNATION ON CENTER OPPOSITE HAND OPPH OCCUPATIONAL SAFETY AND HEALTH OSHA ADMINISTRATION POUNDS LINEAL FEET POUNDS SQUARE FEET POUNDS SQUARE INCH RADIUS REQUIRED SLOPE SCHEDULE SHEET SIMILAR ST. JOHNS RIVER WATER SJRWMD MANAGEMENT DISTRICT SPECIFICATIONS, SPECIFIED SQUARE STAINLESS STEEL STANDARD STEEL TOP OF TOP AND BOTTOM THICK **TYPICAL** UNLESS NOTED OTHERWISE VERTICAL WEIGHT

MFR

MTL

N/A

NTS

PSF

RAD

REQ

SHT

SPEC

VERT

NOTE: SEE SHEET S-02 AND S-03 FOR FOUNDATION DETAILS AND REINFORCEMENT SCHEDULE.

FOUNDATION NOTES:

- FOUNDATION DESIGN BASED ON: MAXIMUM ALLOWABLE BEARING PRESSURE 2500 PSF MINIMUM DEPTH.
- CONCRETE WORK SHALL CONFORM TO ACI SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI 301 LATEST EDITION.
- STEEL WORK SHALL CONFORM TO THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS ALLOWABLE STRESS DESIGN AND LOAD RESISTANCE FACTOR DESIGN.
- 4. CONCRETE TESTING FOR QUALITY IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE FREQUENCY AND TYPES OF TESTING SHALL BE DETERMINED BY THE OWNER.
- 5. EARTH WALLS SHALL BE PROTECTED FROM CAVE-INS AND INTRUSION OF WATER. (IF NECESSARY, PROTECTION SHALL BE VIA TEMPORARY STEEL LINER. LINER SHALL BE REMOVED AS CONCRETE IS POURED)
- 6. ALL WATER SHALL BE PUMPED FROM EXCAVATION BEFORE CONCRETE IS POURED; OTHERWISE CONCRETE SHALL BE PLACED VIA UNDERWATER TREMIE.
- 7. ALL CONCRETE POURS MADE WHEN TEMPERATURES RANGE BETWEEN 50°F AND 90°F, CAN BE MADE WITHOUT SPECIAL PROVISIONS.
- 8. CONCRETE SHALL BE MADE FROM TYPE I OR III CEMENT. CONCRETE FOR FOUNDATIONS, PIERS, WALLS, AND PADS SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 P.S.I. AT 28 DAY TEST. CONCRETE FOR POLE FOUNDATION SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 P.S.I. AT 28 DAY TEST.
- 9. ALL REINFORCING STEEL SHALL BE NEW BILLET, 60 KSI DEFORMED BARS (ASTM A-615).
- 10. ALL DETAILING, FABRICATION, PLACING AND SUPPORTING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI 318-08 AND C.R.S.I.
- 11. ALL REINFORCING AND ANCHOR BOLTS SHALL BE RIGIDLY SECURED IN POSITION BY TEMPLATE PRIOR TO THE PLACING 30. THE POLE FOUNDATION CONTRACTOR SHALL HAVE BEEN ENGAGED IN THE SUCCESSFUL INSTALLATION OF DEEP OF CONCRETE.
- 12. ALL CONCRETE SHALL HAVE A MAXIMUM 4" SLUMP (UNLESS APPROVED ADMIXTURES ARE USED).
- 13. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT (UNO): (A) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH (B) CONCRETE EXPOSED TO EARTH AND WEATHER (C) POLE FOUNDATION
- 14. ALL REINFORCEMENT AND WELDED WIRE FABRIC SHALL BE FREE OF RUST, DIRT, OIL AND MILL SCALE PRIOR TO PLACEMENT OF CONCRETE.

DESIGNED RDH

CHECKED WL

DRAWN

- 15. ALL ANCHOR BOLTS SHALL BE ASTM A-36, WITH (2) ASTM A-307 HEAVY HEX NUTS AND (2) FW OR ASTM A615-GR75, WITH (2) ASTM A-563 HEAVY HEX NUTS AND (2) FW EACH, AND SHALL BE GALVANIZED ACCORDING TO ASTM A-123, UNLESS NOTED OTHERWISE.
- 16. PORTLAND CEMENT SHALL CONFORM TO ASTM C150.

REVISIONS

LTR. DATE

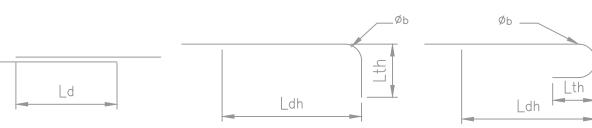
- 17. AGGREGATE FOR CONCRETE SHALL CONFORM TO ASTM C33, SIZE #57.
- 18. PROVIDE BAR SUPPORTS, SPACERS, AND OTHER ACCESSORIES AS REQUIRED BY THE LATEST CRSI MANUAL OF STANDARD PRACTICE.

- 20. PROVIDE HOOKS AT DISCONTINUOUS ENDS OF TOP BARS.
- 21. ONLY CONCRETE ABOVE THE GROUNDLINE SHALL BE FORMED.
- 22. ALL EXPOSED EDGES OF THE CONCRETE FOUNDATION SHALL BE BEVELED 3/4". ALL BACKFILL MUST BE COMPACTED
- 23. SLAB ON GRADE FOUNDATIONS TO BE PLACED ON A MINIMUM OF
- 24. 1'-0" OF COMPACTED STRUCTURAL FILL. THOROUGHLY COMPACT THE
- SELECT GRANULAR FILL TO THE ACCEPTANCE OF THE OWNER. 25. SHORING MAY BE NECESSARY FOR FOOTING CONSTRUCTION IF HORIZONTAL CLEARANCE TO EXISTING
- STRUCTURES DOES NOT ALLOW FOR A 2:1 EXCAVATION SLOPE TO THE BOTTOM OF FOOTING ELEVATION. 26. POLE FOUNDATIONS ARE DESIGNED AND ASSUMED TO BE CAST-IN-PLACE CONCRETE DRILLED SHAFT, DEEP
- FOUNDATIONS. 27. VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES.
- 28. DO NOT SCALE DRAWINGS. 29. THE ELEVATIONS ON THE SURVEY ARE GIVEN FOR THE TOP OF ROCK, NOT SOIL. THERE IS TYPICALLY 4" TO 6" OF ROCK ON TOP OF THE SOIL. TOP OF FOUNDATIONS SHALL BE AT EL. 105.4 WITH TOP OF ROCK 4"
- BELOW THE TOP OF FOUNDATION. FOUNDATIONS FOR AT LEAST THREE YEARS.
- 31. WIND LOADS CALCULATION ARE IN ACCORDANCE WITH ASCE 7-05. THE WIND VELOCITY: 110 MPH,
- IMPORTANCE FACTOR I=1.15 AND EXPOSURE "C" MIN. COVER (IN) 32. COMPACT BEARING SOIL TO A MINIMUM OF 95% FOR SLAB ON GRADE.
 - 33. REMOVE FREE STANDING WATER FROM EXCAVATIONS BEFORE PLACING CONCRETE. POLE FOUNDATION CONCRETE SHALL BE PLACED IN SUCH A MANNER AS TO ENSURE THE EXCLUSION OF ANY FOREIGN MATTER AND TO SECURE A FULL-SIZED SHAFT. CONCRETE SHALL NOT BE PLACED THROUGH WATER EXCEPT WHERE A TREMIE OR OTHER APPROVED METHOD IS USED.
 - 34. IF CASING WILL BE SELECTED, CYLINDER CASING SHALL BE OF SUFFICIENT STRENGTH AND RIGIDITY TO WITHSTAND ALL INSTALLATION STRESSES, TO PREVENT COLLAPSE DUE TO SOIL OR HYDROSTATIC PRESSURE.
 - 35. THE MAXIMUM PERMISSIBLE VARIATION OF THE CENTER OF PILE FROM THE REQUIRED LOCATION IS 2 INCHES AT THE GROUND SURFACE. NO PILE SHALL BE OUT OF REQUIRED AXIAL ALIGNMENT BY MORE THAN 2
 - PERCENT. 36. THE CONTRACTOR MAY CHANGE THE DESIGNED DIAMETER AND LENGTH OF THE DEEP FOUNDATION DURING TO COMPENSATE FOR UNANTICIPATED SOIL CONDITION. REVIEW AND WRITTEN APPROVAL SHALL BE REQUIRED PRIOR TO ANY CHANGES.
 - 37. IN CASE THE FOUNDATION WILL BE INSTALLED BY THE "WET CONSTRUCTION METHOD," FDOT SUPPLEMENTAL SPECIFICATION 455 SHALL BE CONFIRMED.

- 38. NON-SHRINK, NON-METALLIC GROUT SHALL MEET THE REQUIREMENTS OF ASTM C-1107 GRADE B. THE MINIMUM COMPRESSIVE STRENGTH SHALL BE 7000 PSI AT 28 DAYS. "DAYTON SUPERIOR" 1107 ADVANTAGE GROUT IS RECOMMENDED.
- 39. SEE DWGS. SO2 & SO3 FOR FOUNDATION DETAILS.
- 40. ANCHOR BOLT SIZES AND PATTERNS ARE BASED ON EQUIPMENT AND WIND LOADS. IF PROPOSED ANCHOR BOLT SIZES AND/OR PATTERNS DIFFER FROM THOSE INDICATED ON THE CONTRACT DRAWINGS, PLEASE NOTIFY THE ENGINEER OF RECORD AND PROVIDE FOR REVIEW SIGNED AND SEALED CALCULATIONS FOR THE PROPOSED ANCHOR BOLTS.

41. REBAR SPLICE AND HOOK SCHEDULE

	Ld (CL	ASS A)	Ld (CLASS B)		STD HOOK LENGTH			
REBAR	F'c	PSI	F'c PSI		90°		180°	
SIZE	3000	4000	3000	4000	Ldh	Lth	Ldh	Lth
#3	17"	15"	22"	20"	6"	6"	6"	4"
#4	22"	19"	27"	25"	8"	8"	8"	4"
#5	28"	24"	37"	32"	10"	10"	10"	5"
#6	33"	29"	43"	38"	12"	12"	12"	6"
#7	48"	42"	63"	55"	14"	14"	14"	7"
#8	55"	48"	72"	63"	16"	15"	16"	8"
#9	62"	54"	81"	71"	18"	19"	18"	11"
#10	70"	61"	91"	80"	20"	21"	20"	12"
#11	73"	67"	95"	87"	22"	23"	22"	13"





GRAPHIC SCALE

SCALE IN FEFT

FOUNDATION PLAN

	00/12	
CERTIFICATE OF AUTHORIZATION #1841	DATE	PROJECT NO.
APPROVED BY	AUG 2009	07602-032
	SCALE	DWG. NO.
WENJUN LI	1-1/2"-1	S-01
P.E. # 56104	, = .	

WAUCHULA SUBSTATION EXPANSION WAUCHULA, FLORIDA