STRUCTURAL DESIGN CRITERIA

D-1 CODES: 2017 FLORIDA BUILDING CODE, BUILDING

D-3 ULTIMATE DESIGN WIND SPEED, Vult: 160 MPH (3 SECOND GUST)
NOMINAL DESIGN WIND SPEED, Vasd: 124 MPH (3 SECOND GUST)
RISK CATEGORY: II
WIND EXPOSURE CATEGORY: C
FIXTURE HEIGHT, H: 20.00 FT & 25.00 FT
FREE STANDING LATTICE STRUCTURE
FORCE COEFFICIENT: CF = +/- 1.20
ASSUMPTIONS:
A. ALL PRE-MANUFACTURED MAIN WIND FORCE RESISTING COMPONENTS, I.E. TRUSSES SHALL BE DESIGNED TO RESIST MAIN WIND FORCE RESISTING DESIGN FORCES, AS SPECIFIED ON PLAN AND SHALL BE IN AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

D-4 SEISMIC: ZONE 0

D-5 FLOOD DESIGN DATA: ZONE X

D-6 GEOTECHNICAL REPORT
ASSUMED ALLOWABLE LATTERAL SOIL BEARING CAPACITY 150 PSF/F. IF CONDITIONS DO NOT PERMIT ASSUMED CAPACITY, NOTIFY ENGINEER OF RECORD.

GENERAL NOTES

G-1 REVIEW ALL PROJECT DOCUMENTS PRIOR TO FABRICATION AND START OF CONSTRUCTION. REPORT ANY DISCREPANCIES TO ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH WORK.

G-3 IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITY LINES FROM ALL DAMAGE DURING CONSTRUCTION.

G-4 NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR OTHERWISE REDUCED IN SIZE OR STRENGTH WITHOUT PRIOR APPROVAL IN WRITING FROM THE STRUCTURAL ENGINEER.

G-5 COORDINATE STRUCTURAL AND OTHER DRAWINGS THAT ARE PART OF THE CONTRACT DOCUMENTS FOR ANCHORED, EMBEDDED OR SUPPORTED ITEMS WHICH MAY AFFECT THE STRUCTURAL DRAWINGS (I.E. MECHANICAL, ELECTRICAL, PLUMBING, DUCTWORK, ETC.)

G-6 ALL DETAILS AND SECTIONS ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT EXCEPT WHERE A SEPARATE DETAIL IS SHOWN.

G-7 THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO PROVIDE ALL NECESSARY DETAILS TO CONSTRUCT A COMPLETE STRUCTURE. WHEN SPECIFIC INFORMATION IS MISSING OR IS IN CONFLICT. THE CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.

G-8 THE ENGINEER SHALL NOT BE RESPONSIBLE FOR LAYOUT, DIMENSIONAL ERRORS OR DISCREPANCIES RESULTING FROM THE REPRODUCTION AND USE OF CONTRACT DRAWINGS FOR ERECTION AND SHOP DRAWINGS. USE OF CONTRACT DRAWINGS REPRODUCED IN WHOLE OR ANY PART IN SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR NOR SUBCONTRACTORS FROM THEIR RESPONSIBILITY TO ACCURATELY LAYOUT, COORDINATE, DETAIL, FABRICATE AND INSTALL A COMPLETE STRUCTURE.

G-9 REVIEW ALL SHOP DRAWINGS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND FOR COMPLETENESS AND ANSWER ALL CONTRACTOR RELATED QUESTIONS. STAMP AND INITIAL ALL SHEETS PRIOR TO SUBMITTING SHOP DRAWINGS TO ARCHITECT/ENGINEER FOR REVIEW. NON-COMPLIANCE WITH THIS REQUIREMENT WILL RESULT IN REJECTION OF SUBMITTAL.

SHALLOW FOUNDATIONS

SF-1 SOIL TO BE STRIPPED, COMPACTED AND TESTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOILS ENGINEER AND PROJECT SPECIFICATIONS.

SF-2 CENTER ALL FOOTINGS UNDER THEIR RESPECTIVE COLUMNS OR WALLS UNLESS OTHERWISE SHOWN ON PLANS. MAXIMUM MISPLACEMENT OR ECCENTRICITY - 2". TOLERANCE FOR MISLOCATION OF COLUMN DOWELS OR ANCHOR BOLTS TO BE PER ACI OR AISC STANDARDS.

SF-3 HORIZONTAL JOINTS IN FOOTINGS WILL NOT BE PERMITTED.

SF-4 COORDINATE PLUMBING LINES WITH FOOTING LOCATIONS FOR INTERFERENCE. INDIVIDUAL FOOTINGS CAN BE LOWERED WITH THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. CONTINUOUS WALL FOOTINGS SHOULD BE STEPPED AS DETAILED ON THE DRAWINGS.

SF-5 EXCAVATING UNDER OR NEAR IN-PLACE FOOTINGS/FOUNDATIONS WHICH DISTURBS THE COMPACTED SOIL BENEATH THE FOOTINGS/FOUNDATIONS WILL NOT BE PERMITTED.

SF-6 REINFORCING SHALL BE SUPPORTED ON PRECUTS CONCRETE PADS. DOWELS FOR COLUMNS AND FILLED CELLS SHALL BE SECURED IN PLACE PRIOR TO POURING CONCRETE. USE TEMPLATES FOR SETTING COLUMN DOWELS AND ANCHOR BOLTS.

REINFORCED CONCRETE

RC-1 ALL CONCRETE DESIGN AND PLACEMENT SHALL BE IN STRICT ACCORDANCE WITH THE ACI "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," ACI 318 - LATEST EDITION.

RC-3 STRUCTURAL CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS AND SHALL DEVELOP THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:

FOOTINGS	3000 PSI
ALL OTHER CONCRETE	3000 PSI

RC-5 STRUCTURAL CONCRETE SHALL CONFORM TO ACI 301 - LATEST EDITION SPECIFICATIONS

RC-6 USE REGULAR WEIGHT CONCRETE.

RC-7 STRUCTURAL CONCRETE SHALL CONFORM TO ACI 301 AND HAVE THE FOLLOWING SLUMPS & AGGREGATE REQUIREMENTS:

LOCATION	SLUMP	MAX. AGGREGATE
FOOTINGS	4"±1"	ASTM #57

RC-8 MAXIMUM WATER TO CEMENT RATIO WHEN NO BACK-UP DATA IS AVAILABLE:
a) 3000 PSI, 28 DAY COMPRESSIVE STRENGTH; W/C RATIO 0.58 MAXIMUM (NON-AIR ENTRAINED), 0.47 MAXIMUM (AIR ENTRAINED)

RC-9 FLYASH, WHEN USED, SHALL BE LIMITED TO 20% OF THE CEMENTITIOUS MATERIAL. DO NOT USE FOR EXPOSED SLABS

RC-10 SUBMIT COPIES OF CONCRETE MIX DESIGN TO ENGINEER FOR APPROVAL INFORMATION SHALL INCLUDE:
a) INTENDED USAGE AND LOCATION FOR EACH TYPE
b) MIX DESIGN FOR EACH TYPE
c) CEMENT CONTENT IN POUNDS-PER-CUBIC YARD
d) COARSE AND FINE AGGREGATE IN POUNDS/CUBIC YARD
e) WATER CEMENT RATIO BY WEIGHT
f) CEMENT TYPE AND MANUFACTURER
g) SLUMP RANGE
h) AIR CONTENT
i) ADMIXTURE TYPE AND MANUFACTURER
j) PERCENT ADMIXTURE BY WEIGHT
k) STRENGTH TEST DATA REQUIRED TO ESTABLISH MIX DESIGN
l) COMPLETE DETAIL AND PLACING SHOP DRAWINGS FOR ALL REINFORCING STEEL INCLUDING ACCESSORIES THAT HAVE BEEN REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR

RC-11 ALL REINFORCEMENT SHALL BE FASTENED AND SECURED TOGETHER TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR THE PLACING OF CONCRETE

RC-12 THE USE OF JITTERBUGS TO CONSOLIDATE CONCRETE WILL NOT BE PERMITTED.

RC-13 ALL PUMPED CONCRETE WITH #57 AGGREGATE IS TO CONTAIN A HIGH RANGE WATER REDUCING AGENT. MINIMUM SIZE OF DISCHARGE TO BE 4" I.D.

RC-14 A 2" I.D. DISCHARGE MAY BE USED WITH #8 AGGREGATE. USE PLASTICIZER ADMIXTURE IF NECESSARY TO INCREASE SLUMPS BEYOND THAT NOTED ABOVE.

RC-16 ALL REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND INSTALLED IN ACCORDANCE WITH ACI 318 AND ACI DETAILING MANUAL, ACI-315 LATEST EDITION.

RC-17 REINFORCEMENT WITH RUST, MILL SCALE OR A COMBINATION OF BOTH SHALL BE CONSIDERED SATISFACTORY, PROVIDED THE MINIMUM DIMENSIONS (INCLUDING HEIGHT OF DEFORMATIONS) AND WEIGHT OF A HAND-WIRE-BRUSHED TEST SPECIMEN ARE NOT LESS THAN APPLICABLE SPECIFICATION REQUIREMENTS IN THE ASTM STANDARDS REFERENCE IN ACI 318

RC-19 LAP CONTINUOUS REINF. AS NOTED IN LAP SPLICE SCHEDULE OR MIN 40 BAR DIA. LAP CONT. BOTTOM STEEL OVER SUPPORT AND CONT. TOP STEEL AT MIDSPAN UNLESS OTHERWISE SPECIFIED.

RC-21 PROVIDE THE FOLLOWING CONCRETE COVERAGES OVER REINFORCING:
FOOTINGS / GRADE BEAMS: 3" CLR-BOTTOM AND UNFORMED EDGES

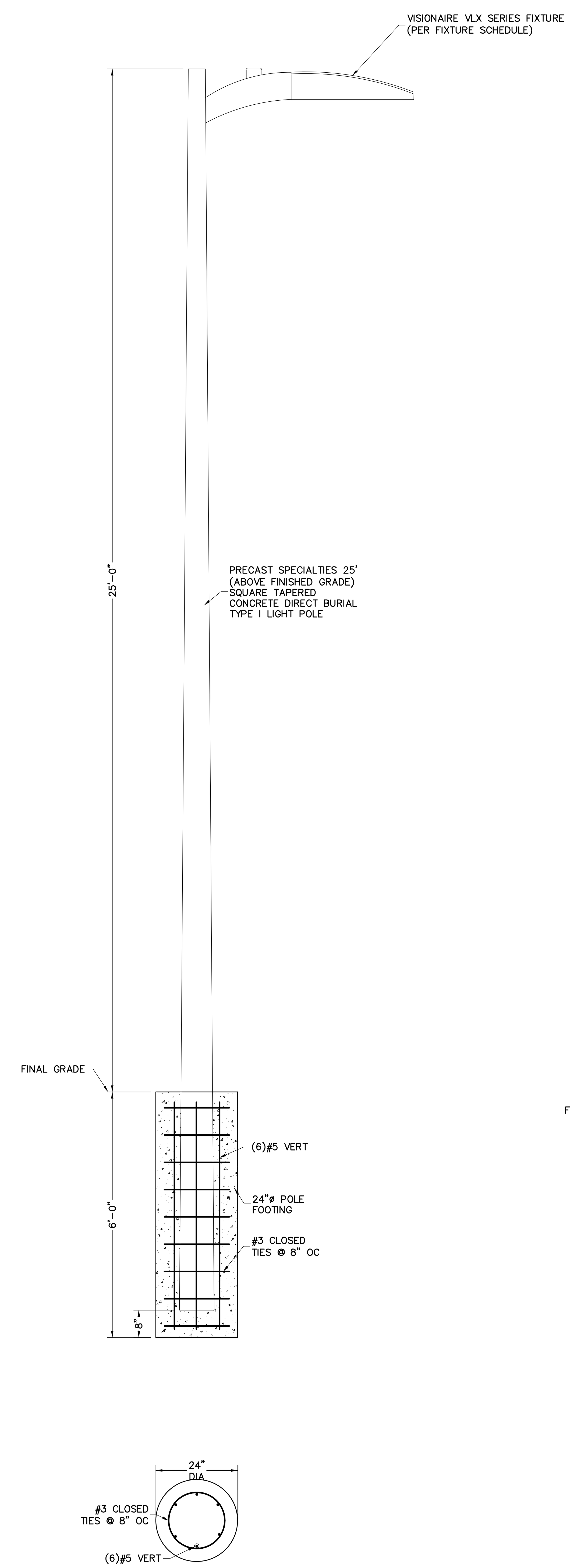
RC-23 NO REINFORCING BARS SHALL BE CUT TO ACCOMMODATE THE INSTALLATION OF ANCHORS, EMBEDS OR OTHER ITEMS.

RC-24 USE THE STRUCTURAL DRAWINGS INCLUDING REVISIONS AND ADDENDA IN CONJUNCTION WITH REVIEWED SHOP DRAWINGS FOR PLACEMENT OF REINFORCING.

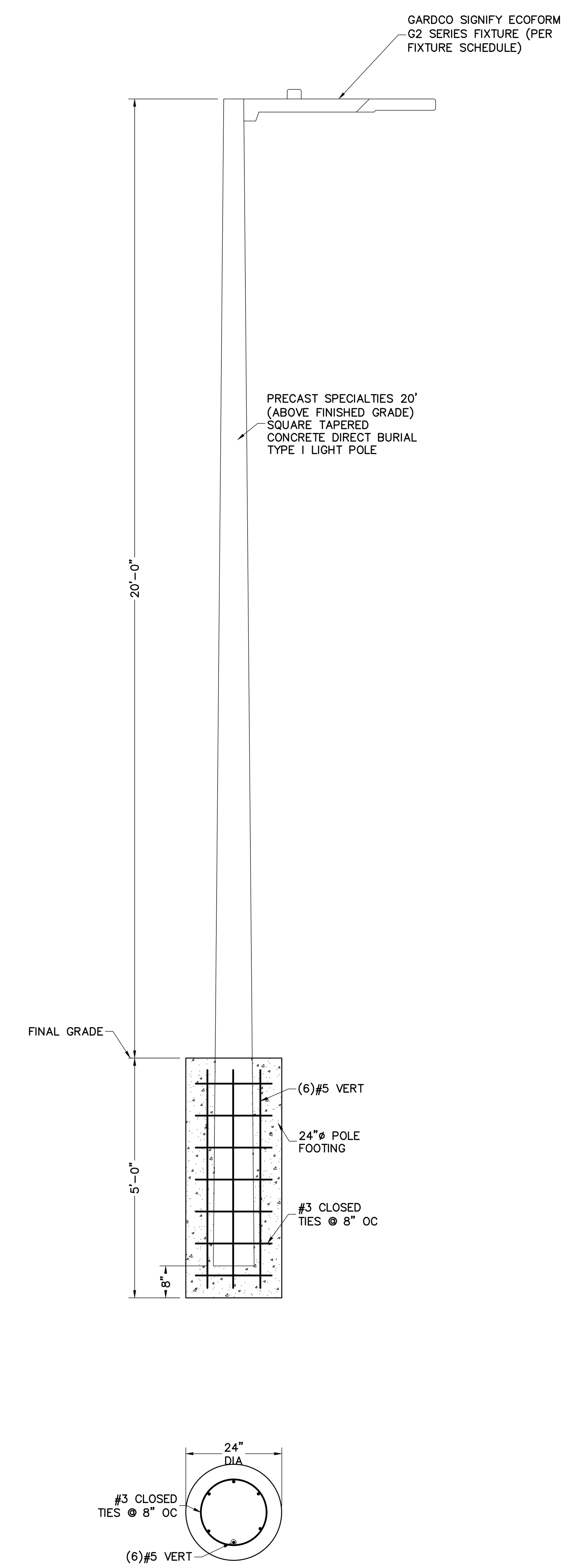
RC-26 ALL EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE PRIOR TO CONCRETE PLACEMENT.

RC-27 THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FOR PROVIDING THE CONSTRUCTION OF ALL FORMWORK IN ACCORDANCE WITH ACI 347.

RC-28 PLACE CONCRETE PER ACI 304. USE INTERNAL MECHANICAL VIBRATION FOR ALL CONCRETE. LIMIT MAXIMUM FREE FALL DROP OF CONCRETE TO 6'-0" FOR #57 AGGREGATE AND 8'-0" FOR #8 AGGREGATE. ALL PRECAUTIONS SHOULD BE TAKEN TO AVOID SEGREGATION OF CONCRETE DURING PLACEMENT.



(A) 25' POLE FOUNDATION
SCALE 1/2"=1'-0"



(B) 20' POLE FOUNDATION
SCALE 1/2"=1'-0"

MARK	REVISION	DATE

DRAWING	18182-NOTE
DESIGNED	W.P.S.
DRAWN	A.R.M.
CHECKED	W.P.S.
SCALE	AS NOTED
DATE	8/28/2019

SCHULKE, BITTLE & STODDARD, L.L.C.
CIVIL & STRUCTURAL ENGINEERING · LAND PLANNING · ENVIRONMENTAL PERMITTING
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TEL 772/770-9622 FAX 772/770-9496 EMAIL info@sbsengineers.com

NOTES, SPECIFICATIONS AND DETAILS

PROPOSED LIGHT STANDARDS FOR:
COS AIRPORT PICKLEBALL
AIRPORT DRIVE EAST
INDIAN RIVER COUNTY

ENGINEER CERTIFICATION
☐ JOSEPH W. SCHULKE FL. REG. NO. 47048
☐ JODAH B. BITTLE FL. REG. NO. 57396
☐ WILLIAM P. STODDARD FL. REG. NO. 57605

DATE:

SHEET
S1.0

PROJECT NO.
18-182