WATER PARK PROJECT 533 QUAD CABANA BUILDINGS

1000 UNIVERSAL STUDIOS PLAZA ORLANDO, FLORIDA 32819

DESIGN STATEMENT & CODE SUMMARY

DESIGN STATEMENT: THIS IS A LEVEL 3 NEW CABANA CONSTRUCTION WHICH HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2014 FIFTH EDITION FLORIDA BUILDING CODE

TYPE OF CONSTRUCTION: - VB

SMALL ASSEMBLY - A3

PROJECT SUMMARY & SCOPE

THE PRIMARY USE FOR THE CABANA BUILDINGS IN THIS CONSTRUCTION DOCUMENTS PACKAGE IS FOR THE EXPRESS USE OF THE GUESTS IN THE WATER PARK,

Risk Category

GENERAL NOTES

Components & Cladding

DRAWING INDEX

- COYER SHEET, GENERAL CODE, & SCOPE
- BUILDING LOCATION PARK PLAN
- QUAD CABANA PLANS
- QUAD CABANA ELEVATIONS
- QUAD CABANA SECTIONS
- STRUCTURAL NOTES & FOOTING LAYOUTS
- STRUCTURAL DETAILS

Vineland Road Universal Orlando Sandlake Road

VICINITY MAP RA N.I.C. **BOH**

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KEY PLAN

ALL FINISHES CLASS 'A' PER CONTRACT

APPLICABLE CODES

FLORIDA BUILDING CODE 2014 FIFTH EDITION / NATIONAL ELECTRICAL CODE 2011 EDITION 2014 FIFTH EDITION \ FLORIDA FIRE PREVENTION CODE BASED ON 2012 NFPA 14 101 FLORIDA PLUMBING CODE 2014 FIFTH EDITION

GENERAL

- LIVE LOAD ROOF 20 PSF
- NOMINAL DESIGN WIND SPEED - ULTIMATE DESIGN WIND LOAD 141MPH 3 SEC
- ALL WORK TO BE IN STRICT ACCORDANCE WITH THE FLORIDA BUILDING CODE & LOCAL CODES. LATEST EDITION.
- ONLY WRITTEN CHANGES APPROVED BY THE ENGINEER SHALL BE
- PERMITTED. 5) PIPES THRU STRUCTURAL ELEMENTS SHALL BE SLEEVED W/ STEEL PIPE OF

- UMENTS, THE CONTRACTOR IS RESPONSIBLE FOR ANY COORDINATION BETWEEN SUB-CONTRACTOR, VENDORS, ETC. AS NECESSARY TO COMPLETE THE WORK IN ACCORD-ANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS AND OWNER-CONTRACTOR AGREE-MENT. IN THE CASE OF INCONSISTENCIES OR DISCREPANCIES BETWEEN THE DRAWINGS,
- THE MOST STRINGENT NOTE OR CONDITION SHALL APPLY. . FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR/ SUB CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED IF NOTIFICATION IS NOT PROVIDED TO THE ARCHITECT IN A TIMELY MANNER.

I. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY NOTIFY THE ARCHITECT OF ANY CONFLICTS, ERRORS OR OMISSIONS IN THESE CONSTRUCTION CONTRACT DOC-

- 3. OSHA REQUIREMENTS SHALL BE INCORPORATED INTO THE SCOPE OF WORK EVEN THOUGH THEY ARE NOT LISTED SEPARATELY. IN ACCORDANCE WITH COUNTY, STATE AND 4. THESE GENERAL NOTES SHALL APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHER-
- WISE NOTED. THE GENERAL CONRACTOR AND SUB CONTRACTORS SHALL ALSO REFER-ENCE THE NOTES ON EACH DRAWING SHEET AND INCORPORATE SUCH INTO THE SCOPE OF THE WORK, 5. ALL FINISHES MUST MEET FLAME SPREAD RATINGS AND SMOKE DEVELOPED RATIO REQUIREMENTS, FOR SPRINKLERED SPACES CLASS C/III (76-200 SMOKE DEVELOPED
- RATIO), FOR UNSPRINKLERED SPACES: CLASS A/I (0-25 SMOKE DEVELOPED RATIO), ABOVE CEILING SPACES: NON - COMBUSTIBLE MATERIALS ONLY, IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO SUBMIT SPREAD RATING INFORMATION TO THE LOCAL BUILDING OFFICIAL IF SO REQUESTED.

6. A PORTABLE FIRE EXTINGUISHER WITH A RATING AS DIRECTED BY THE FIRE DEPARTMENT

- FIELD INSPECTOR SHALL BE PROVIDED IF DIRECTED BY THE FIRE OFFICIAL THE ARCHITECT HAS ENDEAVORED TO SPECIFY AND/OR INDICATE MATERIALS THAT DO NOT CONTAIN HAZARDOUS MATERIALS OR ITEMS IN VIOLATION OF APPLICABLE CODES AND LAWS OR REASONABLE BUILDING PRACTICES. ALL CONTRACTORS, SUBCONTRACTORS AND VENDORS SHALL LIKEWISE ENDEAVOR TO PROVIDE MATERIALS THAT DO NOT CONTAIN HAZARDOUS COMPONENTS. NOTIFY THE ARCHITECT OF ANY MATERIALS SPECIFIED OR INDICATED FOR USE ON THE PROJECT
- SITE WHICH CONTAIN HAZARDOUS MATERIALS AND/OR ASBESTOS. 8. ALL LABOR, MATERIALS, FINISHED EQUIPMENT AND THE FINAL FINISHED PROJECT AS INDICATED BY THE PLANS, SPECIFICATIONS, AND OTHER CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR AS PER GOVERNING STATE AND LOCAL CODES AND ANY AND ALL OTHER REGULATIONS AND CODES HAVING LOCAL JURISDICTION, AND ALL WORK AS REQUIRED BY INSPECTION AGENCIES HAVING JURISDICTION.
- 9. NOT USED. 10. THESE DRAWINGS AND RELATED DOCUMENTS DETAIL THE WORK FOR THIS SPECIFIC LOC-ATION AND PROJECT, THESE DOCUMENTS REMAIN THE PROPERTY OF THE DESIGN PROF-ESSIONAL AND MAY NOT BE USED FOR ANY OTHER PROJECT OR PURPOSE WITHOUT WRITTEN AUTHORIZATION OF THE ARCHITECT.
- 11. DO NOT SCALE DRAWINGS. 12. DIMENSIONS ARE TO FINISH TO FINISH FACE OR CENTERLINE OF COLUMN UNLESS OTHER-WISE NOTED.

CONSTRUCTION NOTES:

- 1) ALL WORK TO BE IN STRICT ACCORDANCE WITH THE ACI 318-09
- MIS DESIGN CRITERIA: ALL CONC. TYPE 1 PORTLAND CEMENT. (ASTM C 150 TYPE 1) COMPRESSIVE STRENGTH @ 28 DAYS SHALL BE 3000 PSI FOR SLABS AND FOOTINGS AND 3000 PSI ELSEWHERE (U.N.O.)
- MAXIMUM WATER-CEMENT RATIO BY WEIGHT FOLLOWS: SPECIFIED COMPRESSIVE STRENGTH (PSI) 3000 3000 0.67 0.46 NON-AIR ENTRAINED CONC. 0.54 0.46 AIR ENTRAINED CONCRETE.
- SLUMP-SLAB ON GRADE = 5" OTHER = 3''WATER - POTABLE CHLORIDE - NONE
- 3) PROVIDE NORMAL WEIGHT AGGREGATES IN COMPLIANCE WITH THE REQUIREMENTS OF ASTM C 33
- 4) DESIGN BASED ON MIN. ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSI
- ORGANIC MATERIAL REMOVED AND SOIL COMPACTED. 6) FIBROUS REINFORCING SHALL BE 100 PERCENT VIRGIN POLYPROPYLENE FIBRILATED FIBERS CONTAINING NO REPROCESSED CLEFIN MATERIALS AND SPECIFICALLY MANUFACTURED TO AN OPTIMUM GRADATION FOR USE AS CONCRETE SECONDARY REINFORCEMENT. VOLUME PER CUBIC YARD SHALL

5) PREPARATION OF THE SUB-GRADE TO CONSIST OF HAVING ALL DELETERIOUS

STRUCTURAL GENERAL NOTES:

- STRUCTURAL WORK SHALL BE IN ACCORDANCE WITH THE 2014 FBC FIFTH EDITION VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION, NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR INCONSISTENCIES
- 1.3 DO NOT SCALE DRAWINGS NOT USED,
- 1.5 SEE ARCHITECTURAL, AND STRUCTURAL BUILDING FABRICATION DRAWINGS FOR ANCHORED, SUPPORTED AND EMBEDDED ITEMS WHICH AFFECT THE STRUCTURAL WORK. YERIFY DETAILS AND DIMENSIONS WITH ANY EQUIPMENT PURCHASED.
- NOT USED.
- NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR OTHERWISE ALTERED UNLESS APPROVED IN WRITING BY THE ARCHITECT. FOR ACTUAL ELEVATION OF FIRST FLOOR EL, 100'-0" IS REFERENCED,
- AN INDEPENDENT TESTING LABORATORY WILL BE RETAINED BY OWNER TO VERIFY SOIL COMPACTION, WELDING, CONCRETE STRENGTHS AND OTHER REQUIRE-MENTS, NOTIFY AND COOPERATE WITH LAB. LAB SHALL SEND A COPY OF THE REPORTS DIRECTLY TO THE ARCHITECT.
- 1.10 NO CHANGES IN CONSTRUCTION FROM THAT SHOWN IN THE APPROVED SHOP DRAWINGS SHALL BE MADE WITHOUT THE SPECIFIC SRITTEN APPROVAL OF THE OWNER AND CONTRACTOR. SUBMITTALS SHALL CONFORM TO REQUIREMENTS OF CONTRACT DOCUMENTS, AND SHALL BE CHECKED AND MARKED "APPROVED" BY CONTRACTOR PRIOR
- TO SUBMITTAL NON-CONFORMING SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
- DESIGN DATA LIVE LOADS: ROOF ATTIC
- DEAD LOADS: ROOF COLLATERAL 5 PSF
- 2.3 WIND YELOCITY 140 MPH 30 SEC GUST 2.4 ALLOWABLE SOIL PRESSURE 2500 PSF
- REMOVE ORGANIC MATERIAL AND UNSATISFACTORY SOIL, FILL WITH CLEAN SANDY SOIL SOIL UNDER FOOTINGS AND SLABS SHALL BE PREPARED PER ENGINEER SPECIFICATIONS.
- 3.3 REMOYE FREE WATER FROM EXCAYATIONS BEFORE PLACING CONCRETE. 3.4 PLACE CONCRETE FOR FOOTINGS AND GRADE SLABS ON A 6-MIL POLYETHYLENE FILM VAPOR BARRIER INSTALLED ON COMPACTED SOIL,
- MASONRY UNITS NOT USED CONCRETE AND REINFORCING
- CONCRETE WORK SHALL CONFORM TO ACI SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING (ACI 301-07) 5.2 CAST-IN-PLACE CONCRETE 28 DAY COMPRESSIVE STRENGTHS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED. FOUNDATIONS 3000 PSI SLABS & COLUMNS 3000 PSI
- 5.3 PROVIDE CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS, UNLESS OTHERWISE NOTED: SLABS 3/4" FOOTINGS 3" SLABS, JOISTS AND BEAMS SHALL HAVE NO HORIZONTAL JOINTS, STOPS IN CONCRETE WORK SHALL BE MADE AT CENTER OF SPAN
- WITH VERTICAL BULKHEADS. REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60, LATEST REVISION. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-615 LATEST EDITION
- 5.7 PROVIDE PLASTIC TIPPED BAR SUPPORTS IN ACCORDANCE IN THE ACI DETAILING MANUAL, ACI 315, LATEST REVISION 5.8 LENGTH OF LAP SPLICES AND BAR EMBEDMENT SHALL SHALL BE 40 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- 5.10 NOT USED FORMWORK SHORING SHALL BE DESIGNED IN ACCORDANCE TO THE 2010 FLORIDA BUILDING CODE. USE STANDARD CURE
- STRUCTURAL STEEL SEE ENGINEER DRAWINGS AND DETAIL SHEETS.
- STEEL JOISTS NOT USED 3.4 PLACE CONCRETE FOR FOOTINGS AND GRADE SLABS ON A 6-MIL POLLYETHYLENE FILM VAPOR BARRIER INSTALLED ON COMPACTED SOIL,
- ENGINEERED METAL ALL STRUCTURAL MILL SECTIONS AND WELDED PLATE SECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE AISC SPECIFICATIONS OF THE
- ALL COLD-FORMED STEEL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH AISC SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS COLD FORMED STRUCTURAL STEEL
- ALL COLD-FORMED STRUCTURAL STEEL MEMBERS (LIGHT GAGE METAL STUDS) SHALL BE TYPE, SIZE, GAGE AND SPACING AS SHOWN ON ARCHITECURAL AND STRUCTURAL PLANS 9.2 ALL COLD FORMED STRUCTURAL STEEL MEMBERS SHALL BE IN ACCORDANCE WITH ASTM 446 WITH Fy = 40 KSI
- 9.3 WELDING SHALL BE IN ACCORDANCE WITH AWS DI.3 9,4 PRIOR TO FABRICATION, SUBMIT ENGINEERED SHOP DRAWINGS, INCLUDING BRACING AND CONNECTION DETAILS TO ARCHITECT FOR REVIEW
- EXPANSION ANCHORS SHALL BE HILTI "KWIK BOLT" OR ACCEPTED SUBSTITUTE, INSTALL IN ACCORDANCE WIHT THE MFR INSTRUCTIONS THE CONTRACTOR SHALL BRACE ALL CONSTRUCTION AGAINST GRAVITY, LATERAL AND UPLIFT LOADS UNTIL STRUCTURE IS COMPLETE. 10.3 ALL CONSTRUCTION SHALL BE INACCORDANCE WITH LATEST "FLORIDA BUILDING CODE" EDITION

NOTE: ELECTRICAL, POWER AND DATA IN AREA DEVELOPMENT PACKAGE

SHOW LIGHING IN AREA DEVELOPMENT PACKAGE SHEETS PW SL-711 THROUGH PW SL-728

- 1) ALL WOOD FRAMING AND PRE-ENGINEERED WOOD TRUSSES SHALL BE DESIGNED, DETAILED, AND FABRICATED IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION.
- 2) THE WOOD TRUSSES SHALL BE SIZED AND DETAILED TO FIT THE DIMENSIONS AND LOADS INDICATED. ALL DESIGN SHALL BE IN ACCORDANCE WITH ALLOWABLE VALUES AND SECTION PROPERTIES ASSIGNED AND APPROVED BY THE BUILDING CODE. DESIGN CALCULATIONS SIGNED AND SEALED BY THE ENGINEER FOR APPROVAL
- PERMANENT BRIDGING PERPENDICULAR TO THE SPAN OF THE TRUSSES SHALL BE PROVIDED AS REQUIRED BY THE TRUSS MANUFACTURER. TRUSS MANUFACTURER SHALL PROVIDE STATEMENT THAT BOTTOM CHORD OF ROOF TRUSSES ARE BRACED DURING UPLIFT CONDITIONS.
- FOR STRUCTURAL LUMBER, PROVIDE THE PRESCRIBED GRADE. SOUTHERN PINE SURFACES DRY USED AT 19% MAX MC GRADE #2
- PROVIDE GALVANIZED METAL HANGERS AND FRAMING ANCHORS OF THE SIZE AND TYPE RECOMMENDED BY THE MANUFACTURER. FOR EACH USE RECOMMENDED NAILS. (SIMPSON STRONG TIE CONNECTORS OR EQUIVALENT) OTHER MANUFACTURER WITH UL LISTED, AND APPROVED CONNECTORS OF SIMILAR TYPE AND DESIGN MAY BE
- 6) ALL BOLTS USED FOR WOOD CONSTRUCTION SHALL BE A MINIMUM OF 1/2" DIAMETER (ASTM A-307)
- PROVIDE FRAMING MEMBERS OF SIZES AND OF SPACINGS SHOWN OR, IF NOT SHOWN, COMPLY WITH THE RECOMMENDATIONS OF THE "MANUAL FOR HOUSE FRAMING" OF THE NATIONAL FOREST PRODUCTS ASSOCIATION. DO NOT SPLICE STRUCTURAL MEMBERS BETWEEN SUPPORTS.
- 8) ANCHORS AND NAILS SHOWN SHALL COMPLY WITH THE RECOMMENDED NAILING SCHEDULE FROM THE FLORIDA BUILDING

FRAMING NOTES:

RATING AS SHOWN ON THE DRAWINGS.

LOAD BEARING PARTITIONS.

FRAMING:

- , ALL WOOD FRAMING SHALL BE FABRICATED AND INSTALLED PER AITC AND TPI AND "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION" LATEST
- 2. ALL STRUCTURAL WOOD MEMBERS SHALL HAVE A MINIUMUM EXTREME FIBER STRESS IN BENDING (FB) = 1200 PSI 3. UNLESS OTHERWISE NOTED, THE FOLLOWING MINIMUM LUMBER GRADES SHALL
- a. STRUCTURAL LIGHT FRAMING SIZE 2" TO 4" THICK x 2" TO 4" WIDE NO. 2 OR
- b. STUDS SIZE 2" TO 4" THICK x 2" TO 6" WIDE STUD GRADE c. STRUCTURAL JOISTS AND PLANKS SIZE 2" TO 4" THICK \times 5" OR WODER - NO.
- d. LIGHT FRAMING SIZE 2" TO 4" THICK \times 2" TO 4" WIDE NO. 2 OR BETTER. 4. STUDS SHALL BE DOUBLED AT ALL ANGLES, CORNERS AND AROUND ALL OPN'GS 5. PLACE A SINGLE 2x SOLE PLATE AT THE BOTTOM AND A DOUBLE PLATE AT THE TOP OF ALL LOAD BEARING STUD WALLS, ATTACH ALL EXTERIOR WALLS AND INTERIOR LOAD BEARING WALLS TO SLAB WITH 1/2" x 8" MIN J-BOLTS OR 1/2" DIA, x 4" MIN, EMBEDMENT HILTI KWIK BOLT AT 4'-0" ANCHORED WITH SIMPSON MAS MUDSILL ANCHORS EXCEPT AT WALL ENDS AND OPENINGS ALL OTHER INTERIOR NON-LOAD BEARING WALLS MAY BE ATTACHED WITH HILTI DNT2 POWER DRIVEN FASTENERS WITH 1/8" DIA. \times 5/64" THICK WASHERS AT 10" ON CENTER. 6. PLYWOOD SHEATHING SHALL BE APA STRUCTURAL I, GROUP I SIZE AND SPAN
- 7, WALL SHEATHING SHALL BE: a, AT INTERIOR WALL PROVIDE 1/2" OR 5/8" GYPSUM WALLBOARD (SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS) EACH SIDE OF STUDS, PROVIDE SOLID 2X BLOCKING AT ALL SHEET EDGES, BLOCKING IS NOT REQUIRED AT NON-

WEATHER PROTECTION:

ALL ROOF DECKS SHALL BE COVERED WITH APPROVED ROOF COVERINGS IN ACCORDANCE WITH CURRENT FLORIDA BUILDING CODE ROOF ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THIS CODE AND THE APPROVED MANUFACTURERS INSTALLATION INSTRUCTIONS SUCH THAT THE ROOF ASSEMBLY SHALL PROTECT THE BUILDING AND STRUCTURE, FOR ROOF SLOPES OF 4:12 (33% SLOPE) OR GREATER UNDERLAYMENT SHALL COMPLY WITH ASTM D 226 TYPE II OR ASTM D 4869 TYPE IV OR ASTM D 6757 AND SHALL BE ONE LAYER APPLIED IN THE FOLLOWING MANNER UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2 INCHES (51 MM) FASTENED WITH 1 INCH (25MM) ROUND PLASTIC CAP, METAL CAP NAILS OR NAILS AND TIN-TABS ATTACHED TO A NAILABLE DECK WITH TWO STAGGERED ROWS IN TEH FIELD OF THE SHEET WITH A MAXIMUM FASTENER SPACING OF 12 INCHES (305MM) OC AND ONE ROW AT THE OVERLAPS FASTENED 6" 152MM) OC SYNTHETIC UNDERLAYMENT SHALL BE FASTENED IN ACCORDANCE WITH THIS SECTION AND THE MANUFACTURERES RECOMMENDATIONS END LAP SHALL BE OFFSET

103.6.3 WATER RESISTIVE BARRIERS WATER RESISTIVE BARRIERS SHALL BE INSTALLED AS REQUIRED IN SECTION R103.2 AND WHERE APPLIED OVER WOOD BASED SHEATHING SHALL INCLUDE A WATER RESISTIVE VAPOR PERMEABLE BARRIER WITH A PERFORMANCE AT LEAST EQUIVALENT TO TWO LAYERS OF GRADE D PAPER. THE INDIVIDUAL LAYERS SHALL BE INSTALLED INDEPENDENTLY SUCH THAT EACH LAYER PROVIDES A SEPARATE CINTINUOUS PLANE AND ANY FLASHING INSTALLED IN ACCORDANCE WITH SECTION R703.8, INTENDED TO DRAIN TO THE WATER RESISTIVE BARRIER IS DIRECTED BETWEEN THE LAYERS, EXCEPTION: WHERE THE WATER RESISTIVE BARRIER THAT IS APPLIED OVER WOOD-BASED SHEATING HAS A WATER RESISTANCE EQUAL TO

OR GREATER THAN THAT OF 60 MINTUES GRADE D PAPER AND IS SEPARATED FROM TEH EXTERIOR FINISH BY AN INTERVENING SUB-

ALL METAL FLAGHING SHALL BE CORROGION REGISTANT AND THICKNESS TO BE NOT LESS THAN DESCRIBED IN FLORIDA BUILDING CODE TABLE R903.2.1 FLASHING NOT REQUIRED AT HIP AND RIDGE JUNCTIONS.

STANTIALLY NON WATER ABSORBING LAYER OR DESIGNED DRAINAGE SPACE.

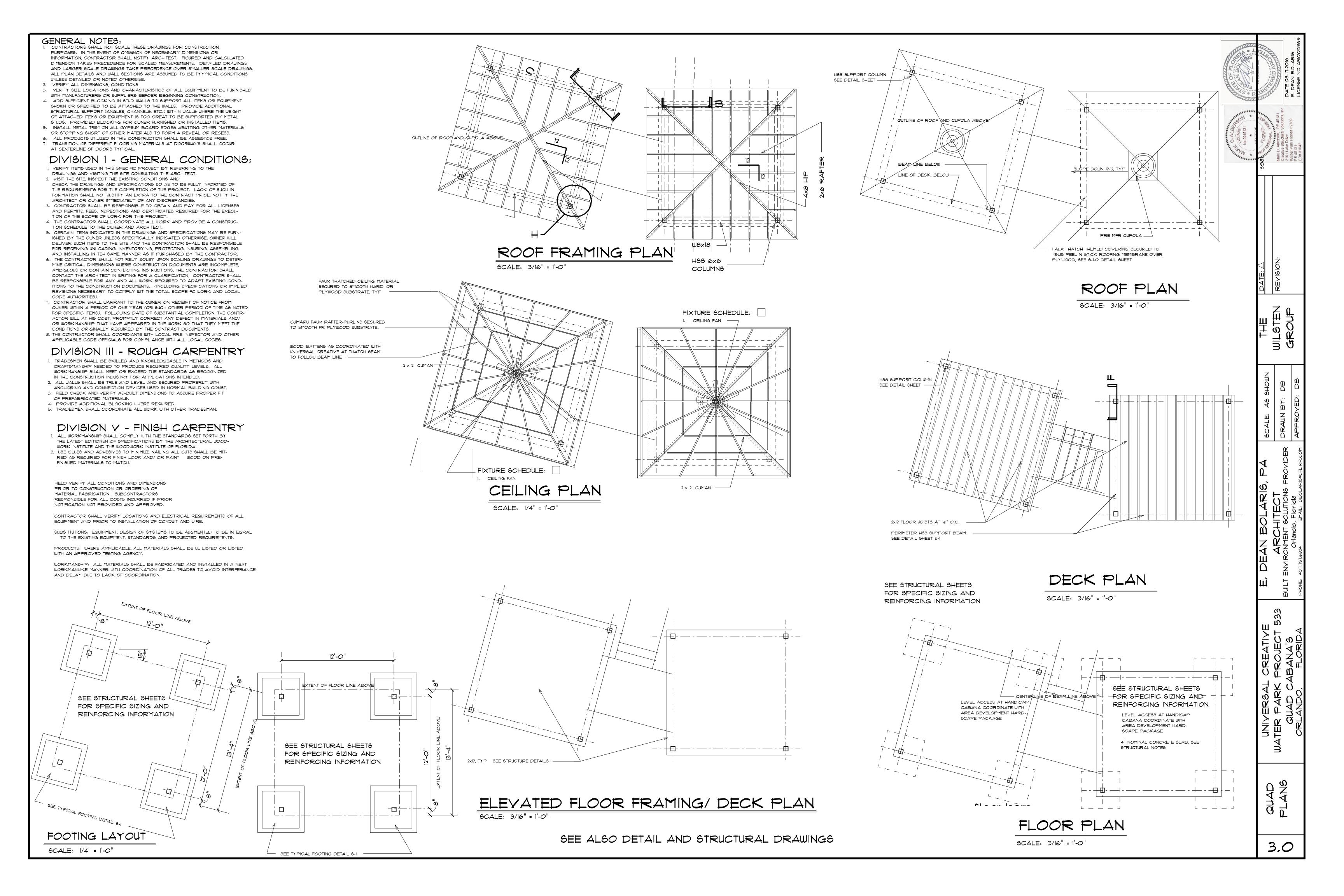


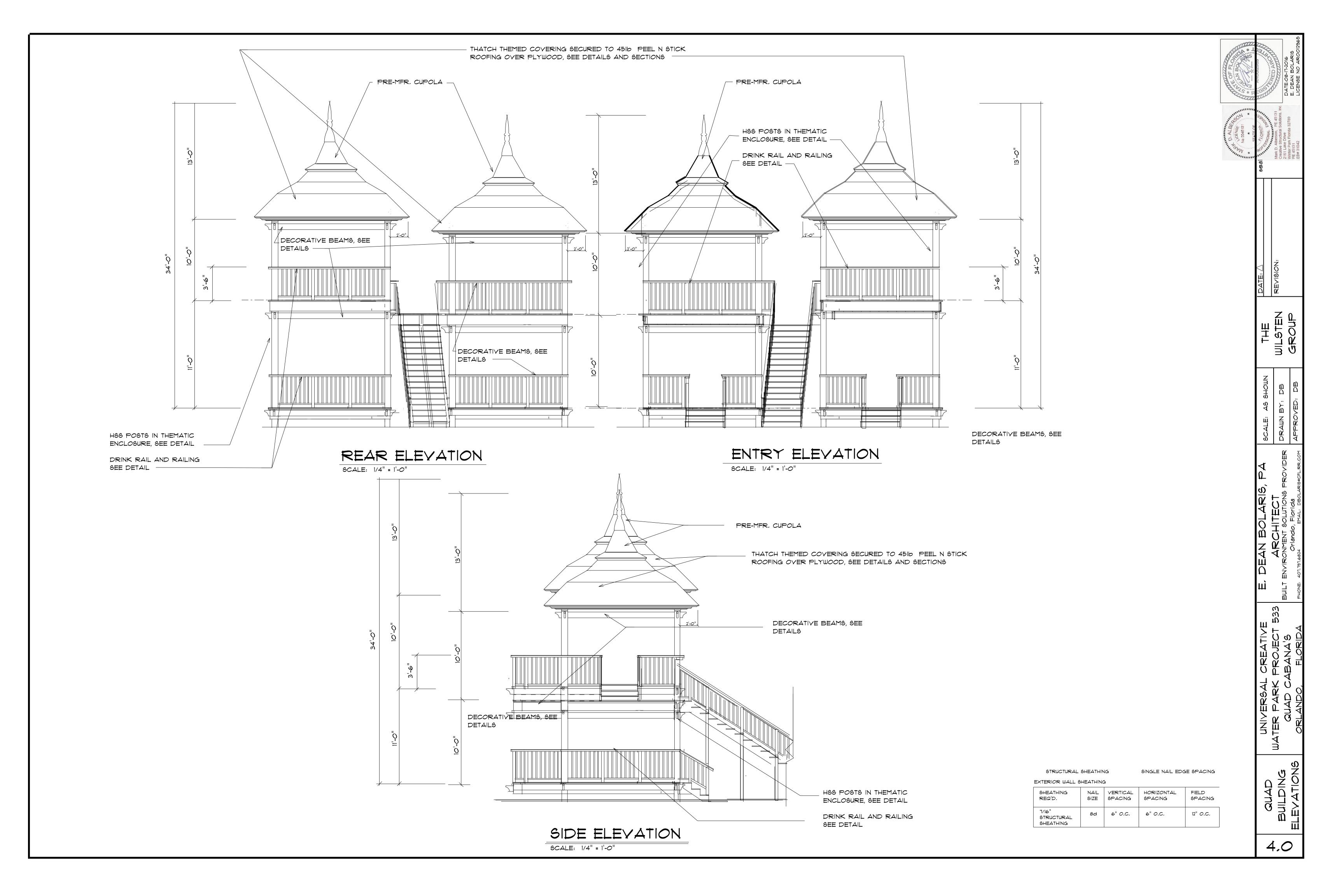
Cabana Breakout by # and Type

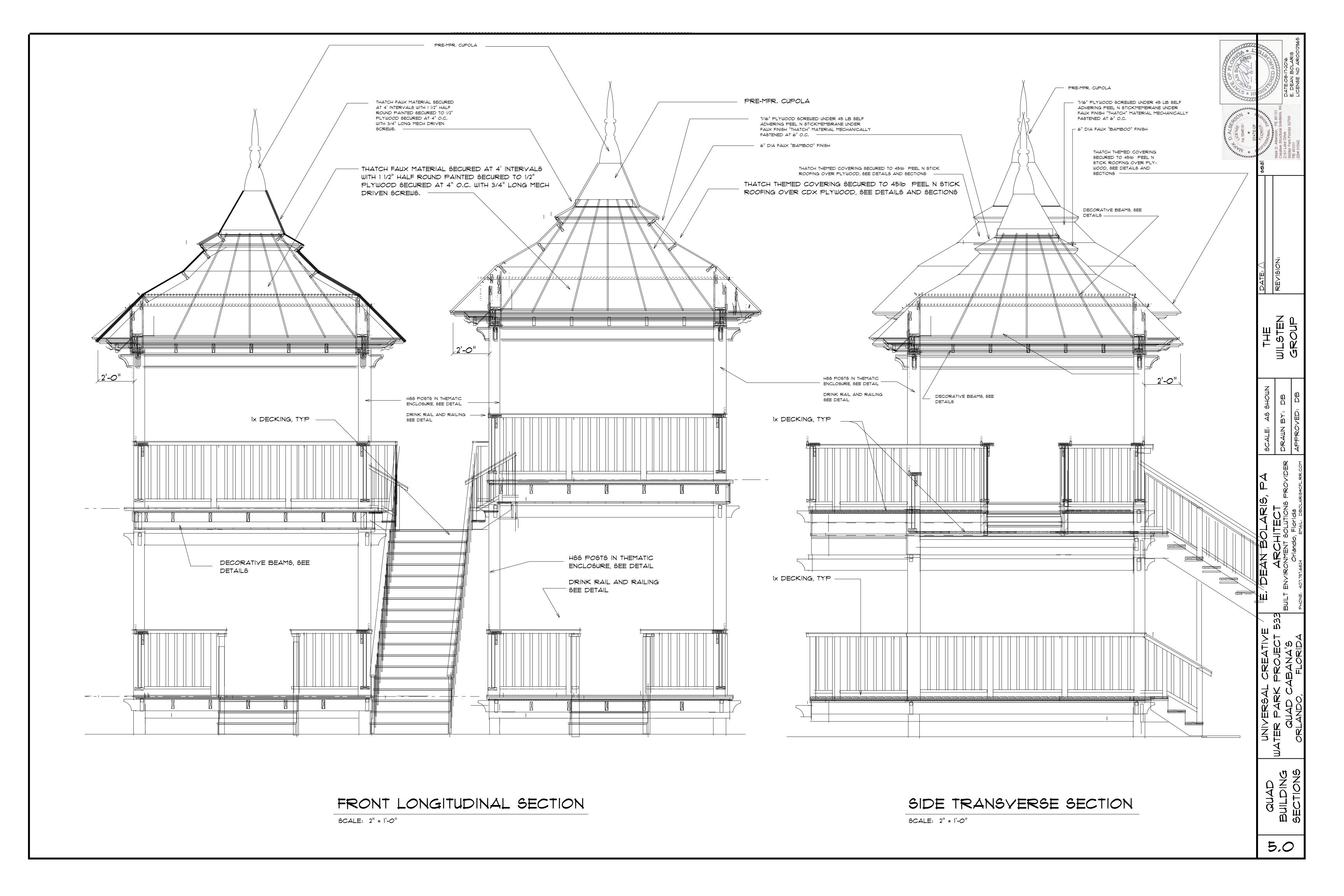
THE WILSTEN (Based on Area Develoment Paving Plans)

#	Туре	ADA	Tube Storage
CA1	Single	Х	
CA2	Single	х	
CA3	Double	х	
CA4	Double	х	
CA5	Single	х	
CA6	Single		
CA7	Single	х	
CA8	Single		
CA9	Double		
CA10	Double		
CA11	Double	х	
CA12	Double	х	
CA13	Double	Х	
CA14	Double	Х	
CA15	Double	Х	
CA16	Double	х	
CA17	Double		х
CA18	Double		Х
CA19	Double		Х
CA20	Double		X
CA21	Double		Х
CA22	Double		х
CA23	Single		х
CA24	Double	Х	
CA25	Double		
CA26	Double		
CA27	Double		
CA28	Single		
CA29	Double		
CA30	Double		
CC1	Family	х	
CC2	Family		









STRUCTURAL DESIGN CRITERIA

D-ICODES:-FLORIDA BUILDING CODE 2014 5TH EDITION

ASCE 7-10 D-2DESIGN LIVE LOADS: ROOF 16 PSF

D-3DESIGN WIND SPEED (ULTIMATE PER ASCE 7-10):135 MPH

RISK CATEGORY: II ENCLOSURE CLASSIFICATION: OPEN EXPOSURE CATEGORY:C INTERNAL PRESSURE: (GCPI)N/A

COMPONENTS & CLADDING DESIGN PRESSURE:SEE DIAGRAM

D-4ALLOWABLE SOIL BEARING PRESSURE:3000 PSF

REPORT NUMBER: DATED:DECEMBER 22, 2014

BASED ON REPORT MADE BY:PROFESSIONAL SERVICE INDUSTRIES

FLOORS 80 PSF

G-IREVIEW ALL PROJECT DOCUMENTS PRIOR TO FABRICATION AND START OF CONSTRUCTION, REPORT ANY DISCREPANCIES TO ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH WORK, DIMENSIONS RELATING TO EXISTING CONSTRUCTION ARE TO BE FIELD VERIFIED.

TO ENSURE THE SAFETY AND STABILITY OF THE BUILDING AND ITS COMPONENT PARTS DURING THE CONSTRUCTION PHASE OF THE PROJECT.

G-2THE STRUCTURE IS DESIGNED TO BE VIABLE IN ITS FINAL, FULLY ERECTED CONFIGURATION, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY

G-3THE EXTENT OF UNDERGROUND UTILITIES IS UNKNOWN, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING CONSTRUCTION DURING EXCAYATION.

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

G-5COORDINATE STRUCTURAL AND OTHER DRAWINGS THAT ARE PART OF THE CONTRACT DOCUMENTS FOR ANCHORED, EMBEDDED OR SUP-PORTED ITEMS WHICH MAY AFFECT THE STRUCTURAL DRAWINGS.

G-6ALL 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-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 CONTRACTOR SHALL USE A SIMILAR DETAIL AND/OR THE MORE COSTLY ITEM OF CONFLICT, THE CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER,

G-8THE 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 IN PART IN SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OR SUBCONTRACTORS FROM THEIR RESPONSIBILITY TO ACCURATELY LAYOUT, COORDINATE, DETAIL, FABRICATE AND INSTALL A COMPLETE STRUCTURE.

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

G-105HOP DRAWING SUBMITTALS SHALL BE CONSISTENT WITH THE SPECIFICATIONS, ADDITIONAL SETS OF SHOP DRAWINGS OTHER THAN THOSE REQUIRED WILL BE DISCARDED.

SHALLOW FOUNDATIONS

6F-16OIL SHALL BE STRIPPED, COMPACTED, AND TESTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT,

6F-2CENTER 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-3HORIZONTAL JOINTS IN FOOTINGS ARE NOT PERMITTED.

6F-4WHERE VERTICAL CONSTRUCTION JOINTS OCCUR IN CONTINUOUS FOOTINGS, PROVIDE A MINIMUM OF ONE CONTINUOUS 2" x 4" KEYWAY ACROSS JOINT FOR EACH 12" OF DEPTH.

5F-5CONTRACTOR TO NOTIFY ENGINEER IF SOIL CONDITIONS ARE UNCOVERED THAT PREVENTS THE REQUIRED SOIL BEARING PRESSURE

6F-6COORDINATE PLUMBING LINES WITH FOOTING LOCATIONS FOR INTERFERENCE, INDIVIDUAL FOOTINGS SHALL BE LOWERED WITH THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. CONTINUOUS WALL FOOTINGS SHOULD BE STEPPED AS DETAILED ON THE DRAWINGS.

6F-TEXCAVATING UNDER OR NEAR IN-PLACE FOOTINGS/FOUNDATIONS WHICH DISTURBS THE COMPACTED SOIL BENEATH THE FOOTINGS/ FOUNDATIONS SHALL NOT BE PERMITTED.

6F-8REINFORCING SHALL BE SUPPORTED ON PRECAST CONCRETE PADS, DOWELS FOR COLUMNS AND FILLED CELLS SHALL BE SECURED IN PLACE PRIOR TO PLACING CONCRETE. USE TEMPLATES FOR SETTING COLUMN DOWELS AND ANCHOR BOLTS

> SEE STRUCTURAL SHEETS FOR SPECIFIC SIZING AND

FOOTING LAYOUT

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

REINFORCING INFORMATION

REINFORCED CONCRETE

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

RC-25TRUCTURAL CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.

RC-3USE NORMAL WEIGHT CONCRETE, SUBMIT DESIGN MIX FOR REVIEW PRIOR TO PLACEMENT OF CONCRETE, ALL MIX DESIGNS SHALL CLEARLY

RC-46TRUCTURAL CONCRETE SHALL HAVE *51 OR *89 COURSE AGGREGATE WITH A SLUMP RANGE OF 3" TO 5", HIGHER SLUMPS ARE ACCEPT-ABLE WITH THE ADDITION OF A HIGH RANGE WATER REDUCING ADMIXTURE (SUPERPLASTICIZER), CONCRETE FOR SLABS-ON-GRADE SHALL HAVE #51 COURSE AGGREGATE WITH A SLUMP RANGE OF 3" TO 5", HIGHER SLUMPS ARE ACCEPTABLE WITH THE ADDITION OF A HIGH RANGE

RC-5FLYASH, WHEN USED, SHALL BE LIMITED TO 20% OF THE CEMENTITIOUS MATERIAL.

RC-6ALL PUMPED CONCRETE WITH *57 AGGREGATE SHALL CONTAIN A HIGH RANGE WATER REDUCING AGENT, MINIMUM SIZE OF DISCHARGE TO

RC-1ALL PUMPED CONCRETE WITH #89 AGGREGATE SHALL CONTAIN A HIGH RANGE WATER REDUCING AGENT, MINIMUM SIZE OF DISCHARGE TO

RC-8CHAMFER ALL EDGES OF EXPOSED CONCRETE 3/4" UNLESS NOTED OTHERWISE.

RC-9ALL REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND INSTALLED IN ACCORDANCE WITH ACI 318 AND ACI DETAILING MANUAL, ACI-315 MOST CURRENT EDITIONS.

RC-IOREINFORCING STEEL SHALL BE NEW DEFORMED BARS THAT ARE FREE FROM RUST, SCALE AND OIL AND CONFORM TO ASTM AGIS, GRADE 60, WITH MINIMUM YIELD STRENGTH = 60,000 PSI.

RC-116HOP DRAWINGS FOR PLACEMENT SHALL BE SUBMITTED FOR REVIEW PRIOR TO REBAR FABRICATION.

RC-12WELDED WIRE FABRIC SHALL CONFORM TO ASTM-A185.

ENGINEER PRIOR TO PLACING CONCRETE

5'x1'x1'd CONCRETE PAD CENTERED AND PLACED APPROXIMATELY 3 TO CENTERLINE FROM FACE OF CABANA, YERIFY WITH FINAL

12'-0"

EXTENT OF FLOOR LINE ABOV

SEE STRUCTURAL SHEETS FOR SPECIFIC SIZING AND REINFORCING INFORMATION

SEE TYPICAL FOOTING DETAIL 5-0

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GRADING AND STAIR PLAN

INDICATE INTENDED USE AND LOCATION.

WATER REDUCING ADMIXTURE (SUPERPLASTICIZER),

RC-13LAP CONTINUOUS REINFORCING 24 INCHES UNLESS NOTED OTHERWISE. LAP CONTINUOUS BOTTOM STEEL OVER SUPPORT AND CONTINUOUS TOP STEEL AT MIDSPAN UNLESS OTHERWISE SPECIFIED.

RC-14TERMINATE ALL DISCONTINUOUS TOP BARS WITH STANDARD 90 DEGREE HOOK (PLACED VERTICALLY) UNLESS NOTED OTHERWISE.

RC-15AT CHANGES IN DIRECTION OF CONCRETE WALLS, BEAMS & STRIP FOOTINGS, PROVIDE CORNER BARS OF SAME SIZE AND QUANTITY (U.N.O.) AS HORIZONTAL STEEL. REFER TO TYPICAL DETAIL.

RC-16PROVIDE THE FOLLOWING CONCRETE COVERAGES OVER REINFORCING (U.N.O.): FOOTINGS:BOTTOM AND SIDES3" CLR.

RC-ITFOOTING SIZES SHOWN ARE FOR FOOTINGS CONSTRUCTED WITH SIDE FORMS. IF SOIL MATERIAL CAN HOLD A VERTICAL SHAPE, THE SOIL CAN BE USED AS AN EARTH FORM PROVIDED OVERALL FOOTING WIDTH IS INCREASED 4", AND CODE COVER INCREASED BY 2". ALL SLOUGHED MATERIAL SHALL BE REMOVED FROM EXCAVATION BEFORE AND DURING PLACEMENT OF CONCRETE,

RC-18USE THE STRUCTURAL DRAWINGS, INCLUDING REVISIONS AND ADDENDA, IN CONJUNCTION WITH REVIEWED SHOP DRAWINGS FOR PLACEMENT

RC-19NO REINFORCING BARS SHALL BE CUT TO ACCOMMODATE THE INSTALLATION OF ANCHORS, EMBEDS OR OTHER ITEMS.

RC-20ALL EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE PRIOR TO CONCRETE PLACEMENT.

RC-2IPLACEMENT OF CONDUIT AND PIPES IN CONCRETE SHALL CONFORM TO ACI 318 (6.3).

RC-22PLACE CONCRETE PER ACI 304, USE INTERNAL MECHANICAL YIBRATION FOR ALL CONCRETE, LIMIT MAXIMUM FREE FALL DROP OF COLUMN OR WALL CONCRETE TO 6'-0" FOR *51 AGGREGATE AND 8'-0" FOR *89 AGGREGATE, IN SLABS, BEAMS, FOOTINGS, ETC., LIMIT FREE FALL DROP TO 3'-O". ALL PRECAUTIONS SHALL BE TAKEN TO AVOID SEGREGATION OF CONCRETE DURING PLACEMENT.

RC-23ADHE6IVE ANCHORS SHALL CONFORM TO THE LATEST ACI 355,4 AND PROVIDE THE FOLLOWING MINIMUM STRENGTHS FOR 3/4" A301 THREADED ROD: UNCRACKED CONCRETE BOND STRENGTH OF 1385 PSI AND CRACKED CONCRETE BOND STRENGTH OF 110 PSI. INSTALLATION SHALL BE BY QUALIFIED PERSONNEL AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPIL),

RC-24SAMPLING AND TESTING OF SPECIMENS FOR FIELD QUALITY CONTROL SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY. SAMPLES OF FRESH CONCRETE SHALL BE OBTAINED ACCORDING TO ASTM C172, ONE SET OF SAMPLES FOR EACH DAY'S PLACEMENT EXCEEDING 5 CUBIC YARDS, PLUS ONE SET FOR EACH ADDITIONAL 25 CUBIC YARDS, TESTING SHALL BE:

B.CONCRETE TEMP: A6TM C 1064; TE6T HOURLY WHEN AIR TEMPERATURE IS 40 DEGREES F AND BELOW AND WHEN 85 DEGREES

C.COMPRESSIVE TEST SPECIMENS: ASTM C31: CAST AND LABORATORY CURE FOUR STANDARD CYLINDER SPECIMENS FOR

EACH SAMPLE,

- HSS COL RC-25CONTINUOUSLY CURE FRESH CONCRETE IN A MOIST ENVIRONMENT FOR SEVEN DAYS, SUBMIT CURING METHOD FOR APPROVAL BY THE ENCASE COLUMN & BASE PLATE, REINF W/ 4 #5 YERT #3 TIES @ 8" OC MAX 1'-2" SQUARE X 3/4" BASE PLATE $\bar{\ }$ 1 1/2" NON SHRINK GROUT DRILL & EPOXY GROUT 6" +/-12 x 12 CABANAS 4'x4'x1' REBAR WITH 5 - #5 EW T & B

EDITION AND THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," 2005 EDITION.

5-2ALL STRUCTURAL "W" SHAPES TO CONFORM TO ASTM A992 WITH MINIMUM YIELD STRENGTH OF 50 KGI, ANGLES, CHANNELS AND PLATES \$HALD CONFORM TO ASTM A36 WITH A MINIMUM YIELD STRENGTH OF 36 KSI.

STEEL PIPE SHALL CONFORM TO ASTM A501 OR A53, TYPES E OR S, GRADE B, WITH A MINIMUM YIELD STRENGTH OF 35 KSI.

SQUARE AND RECTANGULAR STEEL TUBES (HSS SECTIONS) SHALL CONFORM TO ASTM A500, GRADE B, WITH A MINIMUM YIELD STRENGTH OF 46 KSI.

5-IFABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC "MANUAL OF STEEL CONSTRUCTION," THIRTEEN 🛍 🚡

6-3ALL HIGH-STRENGTH BOLTS SHALL MEET THE REQUIREMENTS OF THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490

6-4UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE 3/4" DIAMETER A325 AND SHALL BE BEARING TYPE CONNECTIONS.

6-5USE MIN, 3/4" A325F BOLTS WITH CLASS A CONTACT SURFACE FOR SLIP CRITICAL CONNECTIONS AS DESIGNATED ON PLANS BY A325 S.C.

5-6ALL ANCHOR RODS CAST IN CONCRETE SHALL CONFORM TO ASTM F1554 GRADE 36.

6-1ALL SHOP AND FIELD WELDING SHALL BE DONE BY CURRENTLY QUALIFIED WELDERS IN ACCORDANCE WITH AWS DI.1 "STRUCTURAL WELDING CODE," LATEST EDITION.

6-8USE ETOXX LOW HYDROGEN ELECTRODES FOR ALL WELDING UNLESS NOTED OTHERWISE, GRIND SMOOTH ALL EXPOSED WELDS,

5-9SUBMIT STRUCTURAL STEEL SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION, CLEARLY SHOW ALL PIECE MARKS, CONNECTIONS AND ERECTION DRAWINGS, ANY SPLICES NOT SHOWN ON CONTRACT DRAWINGS ARE TO BE CLEARLY NOTED FOR APPROVAL,

WD-I ALL WOOD CONSTRUCTION AND CONNECTIONS SHALL CONFORM TO AITC "AMERICAN INSTITUTE OF TIMBER CONSTRUCTION" MANUAL, LATEST EDITION, AND THE "NATIONAL DESIGN SPECIFICATIONS" FOR WOOD CONSTRUCTION, LATEST EDITION, AND FLORIDA BUILDING CODE 2014 EDITION,

WD-2 ALL MEMBER SIZES ARE TO BE AS SHOWN ON DRAWINGS AND PROVIDE THE FOLLOWING MINIMUM PROPERTIES:

STRUCTURAL FRAMING#2 SOUTHERN PINE

FINISHED FLOORING AND EXPOSED TRIM CUMARU

WD-3ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

ALL BOLTS CONNECTION WOOD MEMBERS SHALL BE HOT-DIPPED GALVANIZED AND SHALL CONFORM TO ASTM A307. USE WASHERS BETWEEN WOOD AND ALL BOLT HEADS AND NUTS EXCEPT HEADS OF CARRIAGE BOLT.

ALL METAL WOOD CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG TIE CO., OR APPROVED EQUAL, A, CONNECTORS FOR PRESSURE TREATED WOOD OR WET SERVICE USE, SHALL BE GALVANIZED (G185) 1.85 OZ. OF ZINC PER SQUARE FOOT OF SURFACE AREA (HOT-DIPPED GALVANIZED PER ASTM A653 TOTAL BOTH SIDES), THESE CONNECTORS REQUIRE HOT-DIP GALVANIZED FASTENERS PER ASTM A153.

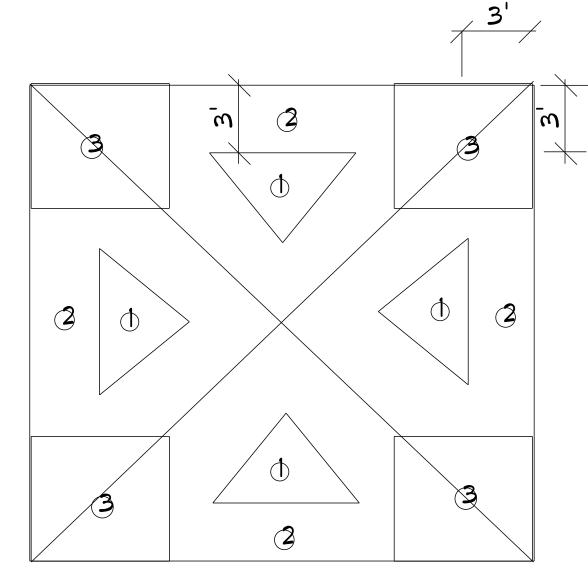
ROOF PLYWOOD SHALL BE 19/32" APA RATED SHEATHING, EXPOSURE 1, 40/20 SPAN RATING WITH 10d NAILS @ 4" O.C. MAXIMUM AT ALL SUPPORTED EDGES, SPACE NAILS 6" O.C. ALONG INTERMEDIATE FRAMING MEMBERS,

FLOOR UNDERLAYMENT PLYWOOD SHALL BE 15/32" APA RATED SHEATHING, EXPOSURE 1, 32/16 SPAN RATING WITH 8d NAILS @ 6" O.C. MAXIMUM AT ALL SUPPORTED EDGES, SPACE NAILS 6" O.C. ALONG INTERMEDIATE FRAMING MEMBERS,

FASTENENERS FOR SHEATING SHALL BE HOT-DIP GALVANIZED RING SHANK FASTENERS.

DECK: THICKNESSSES AS INDICATED IN DETAILS

FASTENING: 8d HAND DRIVEN OR GUN NAILS 6" O.C. @ EDGES AND 12" O.C. FIELD



NOMINAL GROSS UPLIFT/ PRESSURE (0.6

19 PSF 30 PSF 38 PSF

14 PSF 21 PSF 28 PSF

TYPICAL FOOTING

12 x 22 CABANAS 4'-6"x4'-6" x 1'-0" REIMB WITH 5-#5EW T & B

RUCTUR, NOTES

5-0

