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GENERAL STRUCTURAL NOTES

GENERAL: DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE TYPICAL AND APPLY TO SIMILAR SITUATIONS ELSEWHERE, EXCEPT AS OTHERWISE INDICATED.

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

CONTRACTOR SHALL LOCATE ALL BURIED UTILITIES PRIOR TO EXCAVATION FOR BUILDING FOUNDATIONS. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF POTENTIAL CONFLICTS BETWEEN FOUNDATIONS AND BURIED UTILITIES.

CODE REQUIREMENTS: THE BUILDING STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE 5TH EDITION. FOLLOW ALL APPLICABLE PROVISIONS FOR ALL PHASES OF CONSTRUCTION.

TEMPORARY CONDITIONS: PROVIDE ADEQUATE BRACING, SHORING, AND OTHER TEMPORARY SUPPORTS AS REQUIRED TO SAFELY COMPLETE THE WORK. THE STRUCTURE SHOWN ON THE DRAWINGS HAS BEEN DESIGNED FOR STABILITY UNDER FINAL CONFIGURATION ONLY.

DESIGN CRITERIA: DESIGN WAS BASED ON STRENGTH AND DEFLECTION CRITERIA OF THE 2014 FLORIDA BUILDING CODE. IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LIVE LOADS WERE USED FOR DESIGN:

ROOF:	20 PSF LL	30 PSF SDL
WIND SPEED	140 MPH	PER CHAPTER 26 ASCE 7-10
	108 MPH	NOMINAL
RISK CATEGORY	II	
EXPOSURE	C	
INTERNAL PRESSURE COEFF	+/- 0.18	ENCLOSED

OPENINGS BELOW 60 FEET SHALL BE PROTECTED FROM WIND BORNE DEBRIS PER FBC 2014 AND ASCE 7-10 REQUIREMENTS.

FOUNDATIONS: FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL RECOMMENDATIONS IN THE REPORT PREPARED BY: UNIVERSAL ENGINEERING SCIENCES, PROJECT NUMBER: 0130.1700117.0000 DATED: APRIL 19, 2017 WITH AN ALLOWABLE SOIL BEARING PRESSURE FOR SHALLOW FOUNDATIONS OF 2,500 PSF. CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS SPECIFIED IN, THE GEOTECHNICAL REPORT INCLUDING, BUT NOT LIMITED TO, SUBGRADE PREPARATIONS AND FOUNDATION INSTALLATION. THE GEOTECHNICAL ENGINEER SHALL EXAMINE THE EXCAVATION TO VERIFY SOIL CONDITIONS AND BEARING PRESSURE PRIOR TO PLACEMENT OF CONCRETE.

CONCRETE: REINFORCED CONCRETE CONSTRUCTION SHALL CONFORM TO THE FBC AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39, AND SHALL BE AS FOLLOWS:

f'c	ABS W/C	USE
3000 PSI	0.58	FOUNDATIONS/SLAB ON GRADE

CEMENT SHALL CONFORM TO ASTM C150, TYPE 1.. FLY ASH CONFORMING TO ASTM C618, TYPE F OR TYPE C, MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA. COARSE AGGREGATE SHALL CONFORM TO ASTM C33 WITH A MAXIMUM SIZE OF 3/4". FINE AGGREGATE SHALL BE CLEAN, DURABLE, NATURAL SAND CONFORMING TO ASTM C33.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, FOR DEFORMED BAR AND ASTM A185 FOR SMOOTH WELDED WIRE FABRIC (WWF). UNLESS OTHERWISE NOTED. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE.

ALL DETAILING AND ACCESSORIES SHALL CONFORM TO ACI DETAILING MANUAL SP-66. PROVIDE CHAIRS, SPACERS, BOLSTERS, AND ITEMS IN CONTACT WITH FORMS WITH HOT-DIP GALVANIZED LEGS OR PLASTIC LEGS. ACCURATELY POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT BY FORMWORK CONSTRUCTION OR CONCRETE PLACEMENT OPERATIONS. "WET-STICKING" OF REINFORCING IS PROHIBITED.

REQUIRED CONCRETE COVER FOR REINFORCING STEEL (UNLESS NOTED OTHERWISE):

FOOTINGS	3" BOTTOM AND SIDES, 2" TOP
SLABS	3/4"
COLUMNS	1-1/2" TO TIES, 2" TOP
BEAMS	1-1/2" TO STIRRUPS
WALLS	1-1/2"

LAP SPLICE CONTINUOUS VERTICAL OR HORIZONTAL BARS IN CONCRETE MEMBERS IN ACCORDANCE WITH ACI 318, LATEST EDITION, FOR CLASS "B" TENSION LAP SPLICES. DO NOT SPLICE CONTINUOUS TOP BARS IN BEAMS AT ENDS OF CLEAR SPANS. DO NOT SPLICE CONTINUOUS BOTTOM BARS IN BEAMS IN CLEAR SPANS BETWEEN SUPPORTS. SHOW ALL SPLICES ON SHOP DRAWINGS. SPLICE LOCATIONS AND METHODS SUBJECT TO APPROVAL OF STRUCTURAL ENGINEER.

AT SLAB RE-ENTRANT CORNERS, PROVIDE (2) #5 X 4'-0" DIAGONAL BARS. AT SLAB AND WALL OPENINGS PROVIDE A MINIMUM OF (2) #5 BARS ALL FOUR SIDES AND DIAGONALLY; EXTEND THESE BARS A LAP DISTANCE OR A MINIMUM OF 24" PAST THE OPENING OR HOOK BARS IF DISCONTINUOUS.

DOWEL ALL WALLS AND COLUMNS TO FOOTINGS WITH BAR SIZE AND SPACING TO MATCH VERTICAL REINFORCING UNLESS OTHERWISE SHOWN.

SLABS ON GRADE: PREPARE SUBGRADE AS PER THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT. CHAIR WIRE FABRIC DURING CONCRETE PLACEMENT TO INSURE PROPER POSITION IN SLAB. USE VAPOR RETARDED UNDER ALL ENCLOSED INTERIOR SPACES, PER ARCHITECTURAL DRAWINGS.

PLACE CRACK CONTROL JOINTS AS SHOWN ON PLAN OR AT 12 FEET MAXIMUM FOR 4" SLAB, OR 15 FEET MAXIMUM FOR 6" SLAB.JOINT SPACING SHALL NOT EXCEED A 2 TO 1 WIDTH TO LENGTH RATIO. CONTRACTOR SHALL SUBMIT A CONTROL JOINT LAYOUT FOR ENGINEER'S AND ARCHITECT'S REVIEW PRIOR TO CONCRETE PLACEMENT. LOCATE CONTROL JOINTS AT COLUMN LINES AND RE-ENTRANT CORNERS TYPICAL.

FOR 4" THICK SLABS ON GRADE, PROVIDE 6X6 W1.4XW1.4 WELDED WIRE FABRIC OR 1.5 POUNDS PER CUBIC YARD OF MICRO SYNTHETIC FIBERS (FRC MONO-150 OR EQUAL), UNLESS NOTED OTHERWISE.

CONCRETE ACCESSORIES: HEADED SHEAR STUDS SHALL BE NELSON HEADED ANCHORS WITH FLUXED ENDS OR APPROVED EQUAL. DEFORMED BAR ANCHORS (DBA) SHALL BE NELSON, TYPE D2L OR APPROVED. STUDS AND DBA SHALL BE AUTOMATICALLY END WELDED WITH THE MANUFACTURER'S STANDARD EQUIPMENT IN ACCORDANCE WITH THEIR RECOMMENDATIONS. HAND WELDING NOT PERMITTED.

PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION. ACCURATELY POSITION, SUPPORT, AND SECURE EMBEDDED ITEMS AGAINST DISPLACEMENT BY FORMWORK CONSTRUCTION OR CONCRETE PLACEMENT OPERATIONS. SECURELY ATTACH EMBEDDED ITEMS TO FORMWORK PRIOR TO START OF CONCRETE PLACEMENT. "WET-STICKING" OF EMBEDDED ITEMS IS PROHIBITED. NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 7 DAYS AFTER CASTING.

WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHOULD BE CLEANED AND ROUGHENED TO A MINIMUM 1/4" AMPLITUDE.

MECHANICAL ANCHORS: MECHANICAL ANCHORS SHALL HAVE THE ICC ES EVALUATION REPORT INDICATING CONFORMANCE WITH CURRENT APPLICABLE ICC ES ACCEPTANCE CRITERIA. MECHANICAL ANCHORS SHALL BE EXPANSION TYPE OR SCREW TYPE AS NOTED ON THE DRAWINGS.

EXPANSION STYLE ANCHORS SHALL BE TORQUE-CONTROLLED, WITH IMPACT SECTION TO PREVENT THREAD DAMAGE. COMPLETE WITH REQUIRED NUTS AND WASHERS. PROVIDE ANCHORS WITH LENGTH IDENTIFICATION MARKINGS CONFORMING TO ICC ES AC01 OR ICC ES AC193. TYPE AND SIZE AS INDICATED ON DRAWINGS.

SCREW STYLE ANCHORS SHALL BE ONE PIECE CARBON STEEL SCREW ANCHOR WITH FINISHED HEX HEAD WITH INTEGRAL WASHER, DOUBLE LEAD THREAD, CUT THREAD TIP, SHORT TELESCOPIN UNDERSIDE OF HEAD. PROVIDE ANCHORS WITH HEAD STAMPED WITH DIAMETER, LENGTH, GRADE AND SIZE AS INDICATED ON DRAWINGS.

UNLESS OTHERWISE NOTED, PROVIDE CARBON STEEL ANCHORS, ZINC PLATED IN ACCORDANCE WITH ASTM B633 OR HOT-DIPPED GALVANIZED ACCORDING TO ASTM A153. PERMANENTLY EXPOSED ANCHORS SHALL BE STAINLESS STEEL. USE 316 STAINLESS STEEL FOR MECHANICAL EQUIPMENT AND FOR ALUMINUM AND FIBERGLASS STRUCTURES AND ASSEMBLIES.

ACCEPTABLE MECHANICAL ANCHORS FOR ANCHORAGE TO CONCRETE SHALL BE AS FOLLOWS, OR AS NOTED ON THE DRAWINGS:

1. HILTI KWIK HUS EZ AND KWIK HUS EZ-I SCREW ANCHORS PER ICC ESR-3027
2. HILTI KWIK BOLT TZ EXPANSION ANCHORS PER ICC ESR-1917
3. HILTI KWIK BOLT 3 EXPANSION ANCHORS PER ICC ESR-2302
4. POWERS WEDGE BOLT SCREW ANCHOR PER ICC ESR-2526
5. POWERS POWER-STUD+SD1 EXPANSION ANCHOR PER ICC ESR-2818
6. SIMPSON TITEN HD SCREW ANCHOR PER ICC ESR-2713
7. SIMPSON WEDGE ALL STRONG BOLT 2 PER ICC ESR-3037

MINIMUM EMBEDDED DEPTH OF CONCRETE ANCHORS SHALL BE AS FOLLOWS, OR AS NOTED ON THE DRAWINGS:
1. 1/2" DIAMETER – 3 3/4" EMBEDMENT
2. 5/8" DIAMETER – 5" EMBEDMENT
3. 3/4" DIAMETER – 5 3/4" EMBEDMENT

FOR ANCHORAGE TO SOLID GROUTED CMU PROVIDE ONE OF THE FOLLOWING ANCHORS, OR AS NOTED ON THE DRAWINGS:
1. HILTI KWIK BOLT 3 EXPANSION ANCHORS PER ICC ESR-1385
2. POWERS WEDGE BOLT SCREW ANCHOR PER ICC ESR-1678
3. POWERS POWER STUD+SD1 EXPANSION ANCHOR PER ICC ESR-2966
4. SIMPSON TITEN HD SCREW ANCHOR PER ICC ESR-1056

MINIMUM EMBEDMENT FOR SOLID GROUTED CMU ANCHORS SHALL BE AS FOLLOWS, OR AS NOTED ON THE DRAWINGS: ANCHORS NOT ALLOWED WITHIN 1 1/2" OF HEAD JOINTS
1. 1/2" DIAMETER – 3 3/4" EMBEDMENT
2. 5/8" DIAMETER – 5" EMBEDMENT
3. 3/4" DIAMETER – 5 3/4" EMBEDMENT

IDENTIFY POSITION OF REINFORCING STEEL AND OTHER EMBEDDED ITEMS PRIOR TO DRILLING HOLES FOR ANCHORS. EXERCISE CARE IN CORING OR DRILLING TO AVOID DAMAGING EXISTING REINFORCING OR EMBEDDED ITEMS. NOTIFY THE ENGINEER IF REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED DURING DRILLING.

SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. SUBSTITUTIONS WILL BE EVALUATED BY THEIR ICC ESR. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS

ADHESIVE ANCHORS: ADHESIVE ANCHORS (EPOXY STYLE) SHALL HAVE THE ICC ES EVALUATION REPORT INDICATING CONFORMANCE WITH CURRENT APPLICABLE ICC ES ACCEPTANCE CRITERIA. ADHESIVE SHALL BE MOISTURE INSENSITIVE, ALLOWING INSTALLATIONS IN DAMP OR WATER-FILLED HOLES. ADHESIVE SHALL HAVE A FULL-CURE LOAD OF 2 HOURS OR LESS AT 70°F.

ACCEPTABLE ADHESIVE IN FOUNDATIONS, SLAB ON GRADE, COLUMNS AND WALLS ARE HILTI HY-200 OR POWERS AC100+ GOLD. IN BEAMS AND ELEVATED SLABS ARE HILTI RE500-V3 OR POWERS PE1000+.

THREADED STUDS SHALL CONFORM TO ASTM A36, UNLESS NOTED OTHERWISE. PERMANENTLY EXPOSED STUDS SHALL BE STAINLESS STEEL. NUTS AND WASHERS SHALL CONFORM TO SAME SPECIFICATION AS THE SUPPLIED ANCHOR RODS.

INSTALLATION SHALL BE IN CONFORMANCE WITH MANUFACTURER'S PRINTED LITERATURE. INSTALLATION SHALL ALSO INCLUDE BRUSHING AND CLEANING OF DRILLED HOLES WITH COMPRESSED AIR AS INSTRUCTED. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE. EMBEDMENT SHALL BE AS INDICATED ON THE STRUCTURAL DRAWINGS.

IDENTIFY POSITION OF REINFORCING STEEL AND OTHER EMBEDDED ITEMS PRIOR TO DRILLING HOLES FOR ANCHORS. EXERCISE CARE IN CORING OR DRILLING TO AVOID DAMAGING EXISTING REINFORCING OR EMBEDDED ITEMS. NOTIFY THE ENGINEER IF REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED DURING DRILLING.

SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. SUBSTITUTIONS WILL BE EVALUATED BY THEIR ICC ESR. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS

MASONRY WALLS: CONSTRUCTION AND ACCESORIES SHALL CONFORM TO THE FBC AND TMS 602/ ACI 530.1/ ASCE 6 IN ADDTION TO TMS 602/ ACI 530.1/ ASCE 5. MASONRY UNITS SHALL MEET ASTM C90, TYPE 2. ASSEMBLIES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF f'm= 1500. MORTAR SHALL BE TYPE "M" OR "S" AND MEET ASTM C270. GROUT SHALL BE 2000 PSI MINIMUM COMPRESSIVE STRENGTH AND MEET ASTM C476. GROUT SHALL CONSIST OF A MIXTURE OF CEMENTITIOUS MATERIALS AND AGGREGATE TO WHICH SUFFICIENT WATER HAS BEEN ADDED TO CAUSE THE MIXTURE TO FLOW WITHOUT SEGREGATION OF THE CONSTITUENTS. ALL CELLS CONTAINING VERTICAL BARS, BOND BEAMS, AND ALL CELLS BELOW GRADE SHALL BE FILLED WITH GROUT. MAXIMUM HEIGHT OF GROUT POUR ALLOWED IS 4'-0" UNLESS CLEAN OUT OPENING IS PROVIDED AT BOTTOM OF CELLS TO BE FILLED. LOCATE CLEAN-OUT OPENINGS IN AREAS NOT EXPOSED TO VIEW.

UNLESS NOTED OTHERWISE EIGHT INCH MASONRY WALLS SHALL BE PARTIALLY REINFORCED MASONRY WALL CONSTRUCTION WITH #5 AT 48 INCH O.C. IN GROUT FILLED CELLS. ADD (1) #5 REINFORCING BAR EACH SIDE OF OPENINGS EXCEEDING 3 FEET.

PROVIDE REINFORCING BARS AT CORNERS, INTERSECTIONS, AND EACH SIDE OF OPENINGS. PROVIDE (2) REINFORCING BARS EACH SIDE OF OPENINGS OVER 4 FEET WIDE, AND AS SHOWN ON THE PLANS. PROVIDE HOOKED DOWELS INTO FOOTINGS AND STRUCTURE ABOVE AND/OR BELOW TO PROVIDE CONTINUITY. PROVIDE 9 GAGE GALVANIZED HORIZONTAL JOINT REINFORCING (DUR-O WAL OR ENGINEER-APPROVED EQUAL) AT 16" O.C.

DO NOT PLACE CONDUITS, PIPES, ETC., IN CELLS WITH VERTICAL REINFORCING. DO NOT RUN CONDUITS, PIPES, ETC., HORIZONTALLY IN CMU WALLS PARALLEL TO LENGTH OF WALL. WHERE MASONRY WALLS ABUT CONCRETE COLUMNS TO BE PLACED PRIOR TO ERECTION OF MASONRY WALLS, PROVIDE DOVETAIL SLOTS BETWEEN COLUMN AND WALLS AND GROUT THE CMU CELL CONTAINING THE DOVETAIL ANCHORS. OTHERWISE, EXTEND CMU HORIZONTAL JOINT REINFORCING THROUGH CONCRETE COLUMN.

CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE MASONRY CONSTRUCTION AT LOCATIONS INDICATED ON THE ARCHITECTURAL DRAWINGS. HORIZONTAL WALL REINFORCING SHALL BE STOPPED EACH SIDE OF CONTROL JOINTS. SEE ARCHITECTURAL DRAWINGS FOR SEALANT REQUIREMENTS AT CONTROL JOINTS.

USE METAL LATH OR WIRE SCREEN FOR CAVITY CAPS. SHEET METAL, FELT, BUILDING PAPER, OR LIKE MATERIALS ARE PROHIBITED.

PRECAST CONCRETE LINTELS: UNLESS INDICATED OTHERWISE, ALL LINTELS TO BE "U" TYPE PRECAST CONCRETE LINTELS UNITS EQUAL TO UNITS MANUFACTURED BY CAST CRETE CORP. AND PRESTRESSED (AND ADDITIONALLY REINFORCED AS REQUIRED) IN ACCORDANCE WITH CAST CRETE CORP. "DESIGN MANUAL", LATEST EDITION, FOR SPAN AND LOADING CONDITION RELATIVE TO LINTEL LOCATION.

LINTEL SIZE IF NOT SHOWN ON THE PLANS SHALL BE 8F8 FOR OPENINGS LESS THAN 6 FEET, 8F16-1B/1T FOR OPENINGS 6 FEET TO 10 FEET, AND 8F24-1B/2T FOR OPENINGS 10 FEET TO 14 FEET. PROVIDE 8" MINIMUM BEARING FOR LINTELS UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL: STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

W-SHAPES	ASTM A992
CHANNELS, PLATES AND ANGLES	ASTM A36
RECTANGULAR AND SQUARE TUBES	ASTM A500 GRADE B (Fy = 46KSI)
ROUND HSS	ASTM A500 GRADE B (Fy = 42KSI)
PIPES	ASTM A53 GRADE B (Fy = 35KSI)

DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE "AISC" SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

BOLTS SHALL CONFORM TO THE ASTM SPECIFICATION FOR A325 OR A490, HIGH STRENGTH BOLTS.

WELDING SHALL CONFORM TO THE AWS CODES FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. WELDS SHALL BE MADE USING E70XX ELECTRODES AND SHALL BE 3/16" MINIMUM UNLESS OTHERWISE NOTED. WELDING SHALL BE BY AWS CERTIFIED WELDERS. PREQUALIFIED WELDING PROCEDURES ARE TO BE USED, UNLESS AWS QUALIFICATION IS SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION.

STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZING IS INDICATED ON THE DRAWINGS.

ALL BOLTED CONNECTIONS SHALL CONSIST OF A MINIMUM 3/4 INCH DIAMETER ASTM A325 HIGH STRENGTH BOLTS. BEAM CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR FOR THE REACTIONS SHOWN ON THE PLANS. IF NOT SHOWN, THE FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS TO SUPPORT AN END REACTION OF 1/2 THE ALLOWABLE UNIFORM LOAD CAPACITY WITH A MINIMUM OF 2 BOLTS.

SHEAR STUD CONNECTORS: HEADED STUD CONNECTORS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE", SECTION 7 - STUD WELDING. STUDS SHALL BE TYPE 'B', HEADED STUDS HAVING A MINIMUM TENSILE STRENGTH OF 60,000 PSI AND SHALL BE OF LENGTH AND DIAMETER SHOWN ON STRUCTURAL DRAWINGS.

ANCHOR RODS: UNLESS INDICATED OTHERWISE ON THE DRAWINGS, ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 AND THE SIZE SHALL BE 3/4 DIA. AND SHALL EMBED INTO THE CONCRETE FOUNDATION A DISTANCE OF 1'-0" WITH A HEAVY HEX NUT AT THE EMBEDDED END.

STEEL JOISTS: STEEL JOISTS SHALL BE THE SIZE AND SPACING AS SHOWN ON THE STRUCTURAL DRAWINGS AND SHALL BE DESIGNED, FABRICATED, INSTALLED AND BRIDGED IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE SPECIFICATIONS. ENDS OF ALL BRIDGING LINES TERMINATING AT WALLS OR BEAMS SHALL BE ANCHORED THERETO AT TOP AND BOTTOM CHORDS. THE JOIST MANUFACTURER SHALL PROVIDE DESIGN CALCULATIONS FOR UPLIFT, EITHER CONFIRMING THE SJI BRIDGING REQUIREMENT OR PROVIDING A DESIGN ADEQUATE FOR THE UPLIFT.

JOIST SIZES INDICATED ON PLANS ARE FOR STANDARD UNIFORM LOADING CONDITIONS INCLUDING DEAD, LIVE, AND POSITIVE WIND PRESSURES. JOISTS SHALL BE DESIGNED FOR ALL ADDITIONAL LOADS FROM ROOF TOP MECHANICAL UNITS, SUSPENDED EQUIPMENT, SUSPENDED WALL LOADS, OR AS INDICATED ON PLANS. JOISTS SHALL BE SPECIFICALLY DESIGNED FOR WIND UPLIFT.

STEEL JOISTS SHALL BE DESIGNED TO WITHSTAND THE FOLLOWING LOADS, UNLESS NOTED OTHERWISE:
180 PLF DEAD LOAD
120 PLF LIVE LOAD
300 LB (ROOF LIVE LOAD) POINT LOAD AT ANY LOCATION ON THE TOP CHORD
NEGATIVE WIND PRESSURES IN ACCORDANCE WITH COMPONENT AND CLADDING DIAGRAM USING 5 PSF DEAD LOAD FOR NET UPLIFT FORCE
ANY ADDITIONAL LOADS AS INDICATED ON PLANS

SUBMIT COMPLETE SHOP DRAWINGS AND CALCULATIONS, SIGNED AND SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF FLORIDA, SUBSTANTIATING ALL STRENGTH, BRIDGING, AND SERVICEABILITY CRITERIA.

STEEL ROOF DECK: STEEL ROOF DECK SHALL BE GALVANIZED AND CONFORM TO ASTM A653, STRUCTURAL QUALITY. THE GALVANIZED COATING SHALL CONFORM TO ASTM A653 G60; OR G90 WHERE LEFT PERMANENTLY EXPOSED TO WEATHER. ATTACHMENTS, CLOSURES ETC. SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

DECK WELDING SHALL BE 5/8" EFFECTIVE DIAMETER PUDDLE WELDS AT 12"O.C. AT TRANSVERSE AND PERIMETER SUPPORTS, 16" O.C. AT LONGITUDINAL SUPPORTS, AND MECHANICALLY FASTEN SIDE LAP CONNECTIONS USING #10 SELF TAPPING SCREW AT 16" O.C. UNLESS NOTED

LIGHT-GAGE STEEL STUDS: STEEL STUDS SHALL BE C-STUDS WITH A MINIMUM YIELD OF 33,000 PSI FOR 18 AND 20 GAUGE, AND 50,000 PSI FOR 14 AND 16 GAUGE. STUDS SHALL BE OF THE SIZE, GAUGE, AND SPACING SHOWN ON THE DRAWINGS. PROVIDE BRIDGING IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS ADEQUATE FOR DEVELOPMENT OF THE FULL MOMENT CAPACITY OF THE STUDS. FOR LOAD-BEARING STUDS, TRACK SHALL BE OVERSIZE TO PROVIDE FULL STUD BEARING. SCREWS SHALL BE ELCO DRIL-FLEX, HILTI KWIK-FLEX, OR APPROVED.

LIGHT GAUGE EXTERIOR METAL FRAMING: DESIGN AND MANUFACTURE LIGHT GAUGE METAL FRAMING, INCLUDING ALL CONNECTIONS, ANCHORAGE HARDWARE, AND FASTENERS IN ACCORDANCE WITH REQUIREMENTS OF AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS (LATEST EDITION) OR THE AISI LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR COLD-FORMED STEEL STRUCTURAL MEMBERS (LATEST EDITION) AND THE RECOMMENDATIONS OF THE LIGHT GAUGE METAL WALL FRAMING MANUFACTURER.

STEEL STUDS AND RUNNER TRACK MEMBERS SHALL CONFORM TO ASTM A446 GRADE C (MINIMUM YIELD POINT 40,000 PSI) WITH HOT DIPPED GALVANIZED COATING CONFORMING TO ASTM A525 (CLASS G90).

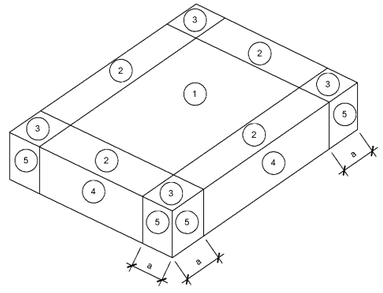
ALL FRAMING MEMBERS SHALL BE CUT SQUARELY. MEMBERS SHALL BE HELD FIRMLY IN PLACE UNTIL PROPERLY JOINED. JOINING OF MEMBERS SHALL BE MADE WITH SELF-DRILLING SCREWS OR WELDING. WIRE TYING OF FRAMING MEMBERS SHALL NOT BE PERMITTED. ATTACHMENT OF MATERIALS TO FRAMING MEMBERS SHALL BE MADE WITH SELF DRILLING SCREWS.

STUDS SHALL SIT SQUARELY IN THE TOP AND BOTTOM RUNNER TRACKS WITH FIRM ABUTMENT AGAINST TRACK WELDS. STUDS SHALL BE PLUMB AND SECURELY FASTENED TO THE FLANGES OF BOTH TOP AND BOTTOM RUNNER TRACKS.

SUBMIT COMPLETE SHOP DRAWINGS AND DESIGN CALCULATIONS, PREPARED, SIGNED, AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA, SUBSTANTIATING ALL STRENGTH AND SERVICEABILITY CRITERIA.

ALLOWABLE WIND PRESSURES (PSF)					
ZONE			TRIBUTARY AREA		
			10 SF	50 SF	100 SF
ROOF	INTERIOR	1	10 / -26	10 / -24	10 / -23
	EDGE	2	23 / -43	21 / -32	20 / -28
	CORNER	3	23 / -43	21 / -32	20 / -28
WALL	INTERIOR	4	23 / -25	21 / -23	20 / -22
	CORNER	5	23 / -31	21 / -26	20 / -24

a= 5 ft



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REVISIONS

NO.	DATE	DESCRIPTION

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GENERAL NOTES

S1.0