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GENERAL STRUCTURAL NOTES

GENERAL

- THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT, DESIGN AND EXTENT OF THE WORK AND ARE PARTIALLY DIAGRAMMATIC. THEY ARE NOT INTENDED TO BE SCALED FOR DIMENSIONS, MEASUREMENTS, OR TO SERVE AS SHOP DRAWINGS OR PORTIONS THEREOF.
- ALL DETAILS AND SECTIONS SHOWN 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 DIFFERENT DETAIL OR SECTION IS SHOWN.
- PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR AND ALL THE SUBCONTRACTORS SHALL VERIFY ALL GRADES, LINES, LEVELS, DIMENSIONS AND COORDINATE EXISTING CONDITIONS AT THE JOB SITE WITH THE PLANS AND SPECIFICATIONS. THEY SHALL REPORT ANY INCONSISTENCIES OR ERRORS IN THE ABOVE TO THE ARCHITECT/ENGINEER BEFORE COMMENCING WORK. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL LAY OUT THEIR WORK FROM ESTABLISHED REFERENCE POINTS AND BE RESPONSIBLE FOR ALL LINES, ELEVATIONS AND MEASUREMENTS IN CONNECTION WITH THEIR WORK.
- IF ANY ERRORS OR OMISSIONS APPEAR IN THE DRAWINGS, GENERAL NOTES OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF SUCH OMISSION OR ERROR PRIOR TO PROCEEDING WITH ANY WORK WHICH APPEARS IN QUESTION. IN THE EVENT OF THE CONTRACTOR'S FAILING TO GIVE SUCH AN ADVANCED NOTICE, HE SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS OR OMISSIONS AND THE COST OF RECTIFYING THE SAME.
- THE CONTRACTOR SHALL USE THE STRUCTURAL DRAWINGS AND SPECIFICATIONS TOGETHER WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND OTHER TRADE DRAWINGS AND SHOP DRAWINGS, TO LOCATE DEPRESED SLABS, SLOPES, DRAINS, OUTLETS, RECESSES, OPENINGS, BOLT SETTING, SLEEVES, DIMENSIONS, ETC. NOTIFY ARCHITECT/ENGINEER, IN WRITING, OF ANY POTENTIAL CONFLICTS BEFORE PROCEEDING WITH THE WORK.

SHOP DRAWINGS AND DELEGATED ENGINEERING

- ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR ARCHITECT'S REVIEW ONLY AFTER THEY HAVE BEEN THOROUGHLY REVIEWED BY THE CONTRACTOR FOR CONSTRUCTION METHODS, DIMENSIONS AND OTHER TRADE REQUIREMENTS, AND STAMPED WITH THE CONTRACTOR'S APPROVAL STAMP. THE ARCHITECT ASSURES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES, ENGINEERING DESIGN OR DELEGATED ENGINEERING. ANY ERRORS OR OMISSIONS MUST BE MADE GOOD BY THE CONTRACTOR, IRRESPECTIVE OF RECEIPT, CHECKING OR REVIEW OF DRAWINGS BY THE ENGINEER AND EVEN THOUGH WORK IS DONE IN ACCORDANCE WITH SUCH DRAWINGS.
- BEFORE STRUCTURAL INSPECTIONS CAN BE MADE ON A PORTION OF THE STRUCTURE, ALL RELATED SHOP DRAWINGS, DELEGATED ENGINEERING, PRODUCT APPROVAL, MANUFACTURER'S DATA AND OTHER RELATED INFORMATION, MUST BE REVIEWED AND ACCEPTED BY THE ARCHITECT-OF-RECORD AND APPROVED BY THE BUILDING DEPARTMENT.
- SHOP DRAWINGS SHALL CONTAIN ALL INFORMATION SHOWN ON THE STRUCTURAL PLANS (RELATED TO THE DELEGATED DESIGN) INCLUDING ALL DESIGN LOADS, IN ADDITION TO THE INFORMATION REQUIRED BY THE DELEGATED ENGINEER'S DESIGN.
- ARCHITECT WILL REVIEW ALL SUBMITTED SHOP DRAWINGS, PREPARED AND SIGNED AND SEALED BY THE CONTRACTOR'S DELEGATED ENGINEER, ONLY FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT, REQUIRED LOADING AND COORDINATION WITH THE STRUCTURAL DESIGN.
- CONTRACTOR SHALL SUBMIT TO THE ARCHITECT TWO SETS OF BLUE PRINTS OF THE STRUCTURAL SHOP DRAWINGS FOR ARCHITECT REVIEW. BEFORE STARTING FABRICATION, THE ARCHITECT WILL RETURN ONE MARKED UP AND STAMPED COPY TO THE CONTRACTOR. THE MARKED-UP COPY SHALL BE USED TO MAKE THE PRINTS REQUIRED FOR SHOP DRAWING DISTRIBUTION.

CONSTRUCTION MEANS AND METHODS

- THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE OR PROCEDURES, SAFETY PRECAUTIONS, SHORES, RESHORES, LATERAL BRACING AND PROGRAMS IN CONNECTION WITH THE PROJECT, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. OUR SERVICES DO NOT GUARANTEE WORK ASSURE LIABILITY FOR THE JOB SAFETY, TEMPORARY SHORING AND BRACING AND THE PERFORMANCE OF THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE AND SHALL COMPLY WITH THE SAFETY REQUIREMENTS OF THE 2004 FLORIDA BUILDING CODE AND APPLICABLE LOCAL, STATE AND FEDERAL LAWS.
- PROVIDE ALL SHORING, BRACING AND SHEETING AS REQUIRED FOR SAFETY, STRUCTURAL STABILITY AND FOR THE PROPER EXECUTION OF THE WORK. REMOVE WHEN WORK IS COMPLETED.
- PROVIDE AND MAINTAIN GUARD LIGHTS AT ALL BARRICADES, RAILINGS, OBSTRUCTIONS IN THE STREETS, ROADS OR SIDEWALKS AND ALL TRENCHES OR PITS ADJACENT TO PUBLIC WALKS OR ROADS.
- AT ALL TIMES, PROVIDE PROTECTION AGAINST WEATHER (RAIN, WIND, STORMS OR THE SUN), SO AS TO MAINTAIN ALL WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM INJURY OR DAMAGE.
- AT THE END OF THE DAYS WORK, COVER ALL WORK LIKELY TO BE DAMAGED. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PAY FOR ALL DAMAGES TO ADJACENT STRUCTURES, SIDEWALKS AND TO STREETS OR OTHER PUBLIC PROPERTY OR PUBLIC UTILITIES.

STRUCTURAL DESIGN CRITERIA

- THE DESIGN COMPLIES WITH THE REQUIREMENTS OF THE 2004 FLORIDA BUILDING CODE - SECTION 1604 AND OTHER REFERENCED CODES AND SPECIFICATIONS. ALL CODES AND SPECIFICATIONS SHALL BE LATEST EDITION AT TIME OF PERMIT.
- WIND LOAD CRITERIA:
BASED ON ANSI/ASCE 7-97, BASIC WIND VELOCITY 100 MPH.
- ROOF DESIGN LOADS:
SUPERIMPOSED DEAD LOADS: 20 PSF
SUPERIMPOSED LIVE LOADS: 20 PSF
- FLOOR DESIGN LOADS:
SUPERIMPOSED DEAD LOADS: 25 PSF
SUPERIMPOSED LIVE LOADS:
RESIDENTIAL 40 PSF
BALCONIES 60 PSF
- WIND NET UPLIFT: ARE AS INDICATED ON PLANS

FOUNDATIONS: (SPAD FOOTINGS)

- FOUNDATIONS ARE DESIGNED TO BEAR ON WELL COMPACTED GRADE OR CLEAN FILL OF AN ALLOWABLE BEARING CAPACITY OF 1,000 PSF MINIMUM. FOR REQUISITE SOIL BEARING CAPACITIES GREATER THAN 1,000 PSF, A CERTIFIED TESTING LABORATORY SHALL BE ENGAGED BY THE OWNER TO VERIFY THE REQUIRED BEARING CAPACITY WAS OBTAINED. SAID SOIL CAPACITY SHALL BE CERTIFIED AND TESTED BY A FLORIDA REGISTERED FOUNDATION ENGINEER, PRIOR TO CASTING OF CONCRETE IN THE FOOTINGS.
- NATURAL GRADE (OR FILL) BELOW FOOTINGS SHALL BE COMPACTED TO 98% MODIFIED PROCTOR (ASTM D-1557).
- TOP OF WALL FTINGS TO BE AT THE SAME ELEVATION AS TOP OF COLUMN PAD FOOTING. STEP WALL FOOTING FROM HIGHER COLUMN FOOTING TO THE LOWER ONE IS DETAILED ON THE PLANS.
- BOTTOM OF ALL FOOTINGS TO BE A MINIMUM 1'-6" BELOW THE TOP OF CONCRETE SLAB ON GDE. (UNLESS OTHERWISE NOTED) OR MINIMUM 1'-0" BELOW FINISHED GRADE, WHICHEVER IS LOWER. IN THE EVENT THAT THE SLAB STEPS ON EACH SIDING THE FOOTING, THE FOOTING SHALL BE 1'-6" BELOW TOP OF THE LOWER SLAB.
- REINFORCING IN THE CONTINUOUS WALL FOOTINGS (MONOLITHIC AND NON-MONOLITHIC) SHALL BE SPLICED 40 BAR DIAMETERS MINIMUM AND SHALL EXTEND CONTINUOUSLY THRU ALL FOOTING PADS.
- ALL LONGITUDINAL REBARS IN THE CONTINUOUS WALL FOOTINGS, SHALL BE CONTINUOUS BENTS AND CORNERS BY BENDING THE REBARS 40 BAR DIAMETERS AROUND THE CORNERS OR ADDING MATCHING CORNER BARS, EXTENDING 40 BAR DIAMETERS INTO FOOTING EACH SIDE OF CORNER OR BENT.
- ALL FOOTINGS SHALL BE 12" MINIMUM THICKNESS.

CONCRETE SLABS ON GRADE

- ALL INTERIOR AND EXTERIOR SLABS AND WALKWAYS AS SHOWN ON THE STRUCTURAL ARCHITECTURAL PLANS, SHALL BE FOUR INCHES THICK MINIMUM REINFORCED WITH 6 X 6 - 1/4" X 1/4" WELDED WIRE FABRIC (UNLESS OTHERWISE NOTED).
- ALL SLABS ON GDE TO BE CONSTRUCTED IN ACCORDANCE WITH LATEST A.C.I. - "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (A.C.I. - 302.1R).
- JOINTS SHALL BE PROVIDED IN ALL INTERIOR SLABS ON GRADE AT LOC. INDICATED ON E PLANS DIVIDING THE SLAB INTO SQUARE PANELS NOT TO EXCEED 20 X 20 FT. SIZE. CAST SLAB IN LONG ALTERNATE STRIPS. PROVIDE A CONTRACTION JOINT BETWEEN EACH STRIP. SEE PLAN FOR SAW-CUT, CONTRACTION AND ISATION JOINT DETAILS.
- PROVIDE SAW-C JOINTS AT ALL SIDEWALKS AT A MAXIMUM SPACING OF FIVE FEET ON CENTERS AND ISOLATION JOINTS AT 20 FEET O.C. (U.O.N.).
- FILL MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12" AND COMPACTED TO 98% MODIFIED PROCTOR (ASTM D-1557) WITHIN A DISTANCE OF 3 FEET FROM ALL FOOTING EDGES. TAKE AT LEAST ONE DENSITY TEST FOR CH 1,600 SQ. FT. OF AREA AND 12" BELOW SURFACE. SEND RESULTS OF THE TEST TO OWNER, ARCHITECT AND ENGINEER.

CONCRETE AND REINFORCING

- CONCRETE DESK AND REINFORCEMENT IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (A.C.I. 308 - LATEST EDITION) AND WITH "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" - (C.I. 305 - LATEST EDITION).
- ALL CONCRETE REINFORCEMENT IN ACCORDANCE WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING" (A.C.I. 301 - LATEST EDITION), "PRODUCTION OF CONCRETE, DELIVERY, PLACING AND CURING TO BE IN ACCORDANCE WITH "WEATHER CONCRETING" (A.C.I. 305R - LATEST EDITION).
- ALL CONCRETE TO BE REGULAR WEIGHT WITH A DESIGN STRENGTH OF 3,000 P.S.I. AT 28 DAYS. MAXIMUM SLUMP 5".
- ALL REINFORCING TO BE NEW BILLET STEEL CONFORMING TO THE LATEST A.S.T.M. A-6 GRADE 60, FABRICATED IN ACCORDANCE WITH C.R.S.I. MANUAL OF STANDARD PRACTICES AND PLACED IN ACCORDANCE WITH A.C.I. 305 AND C.R.S.I. MANUAL STANDARD PRACTICE.
- CONCRETE COVER UNLESS OTHERWISE DETAILED ON DRAWINGS:
FOOTINGS: (BOTTOM) 3"
(TOP & SIDES) 2"
SLABS ON GRADE: CENTERED W/SLAB
- BEAM REINFORCEMENT: LAPPED 3/4" BAR DIAMETER OR MINIMUM 16 INCHES. BOTTOM BARS SPLICED ONLY AT SUPPORTS, TOP BARS SPLICED ONLY AT MID-SPAN. ALL TOP BARS HOOKED AT NONCONTINUOUS EDGES (U.O.N.). ALL HOOKS TO BE STANDARD 90 DEGREE HOOKS AS REQUIRED (U.O.N.).
- ADDED REINFORCEMENT: PROVIDE ADDITIONAL CORNER BARS BENT 3/4" INCHES MINIMUM EACH WAY AT 1" AND 1" CORNERS IN OUTER FACES OF ALL BEAMS TO TIE ALL HORIZONTAL BARS (TOP, BOTTOM AND INTERMEDIATE REBAR).
- SEE PLAN FOR MINIMUM SIZE CONCRETE TIE BARS REQUIREMENTS.

