<u>DESIGN CRITERIA</u>

DESIGN BASED THE PROVISIONS OF THE FLORIDA BUILDING CODE 2014 EDITION.

A. <u>DESIGN LOADS:</u>

LL= 30 PSF SDL= 25 PSF

B. WIND LOADS: ASCE 7-10 BASIC WIND SPEED V= 170 MPH EXPOSURE CATEGORY = C INTERNAL PRESSURE COEF = GCPl = ±0.18 KD (DIRECTIONALITY) = 1,0 RISK CATEGORY = II

GENERAL:

- ALL MATERIALS SHALL BE NEW, OF GOOD QUALITY AND THE CONSTRUCTION SHALL BE PERFORMED BY WORKERS SKILLED IN THEIR TRADE AND IN ACCORDANCE WITH RECOMMENDED PRACTICE.
- 2. NO DIMENSIONS SHALL BE SCALED FROM DRAWINGS.
- GENERAL CONTRACTOR SHALL CHECK, REVIEW AND VERIFY ALL PLANS, DIMENSIONS AND SITE CONDITIONS PRIOR TO CONSTRUCTION, ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS OR ANY VARIATIONS NEEDED IN ORDER TO CONFORM TO CODES, RULES AND REGULATIONS SHALL BE NOTIFIED IN WRITING TO THE ENGINEER. ANY SUCH DISCREPANCIES, OMISSIONS, OR VARIATIONS NOT REPORTED DURING THE BIDDING PERIOD SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR WHO SHALL PERFORM THE CORRECTED WORK AS PER THE ENGINEER'S INSTRUCTIONS.
- THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS ISSUED BY THE ARCHITECT.
- 5. STRUCTURAL DRAWINGS SHALL BE WORKED TOGETHER WITH ARCHITECTURAL, AIR CONDITIONING, MECHANICAL AND ELECTRICAL DRAWINGS TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OUTLETS, OPENINGS, REGLETS, BOLT SETTINGS, SLEEVES, ETC, DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT-ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 6. GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL BEFORE FABRICATION OR ERECTION OF ANY STRUCTURAL
- 1. GENERAL CONTRACTOR SHALL RESTRICT AND PROPERLY ISOLATE ALL CONSTRUCTION EQUIPMENT AND LOADS FROM INDUCING OR TRANSMITTING VIBRATIONS TO THE STRUCTURE DURING CONSTRUCTION.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL ACCUMULATED WATER FROM CUTTING OR CLEANING OPERATIONS IN SUCH A WAY AS TO NOT CAUSE INCONVENIENCE TO THE WORK AND DAMAGE TO THE STRUCTURAL ELEMENTS.
- 9. WHEN PERFORMING WORK BELOW GRADE, CARE SHALL BE TAKEN TO AVOID DAMAGING ANY EXISTING UTILITIES. ALL UNKNOWN UTILITIES DISCOVERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT-ENGINEER. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPORTED TO ALL AFFECTED PARTIES, INCLUDING THE ARCHITECT-ENGINEER
- 10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING HIS CONSTRUCTION DOCUMENTS WITH ANY REVISED DRAWINGS AND SPECS, FIELD ORDERS, CHANGE ORDERS AND CLARIFICATION SKETCHES ISSUED DURING THE COURSE OF CONSTRUCTION.
- 11. "BY OTHERS" DENOTES LABOR AND MATERIALS BY OTHERS, HOWEVER THE GENERAL CONTRACTOR SHALL PROVIDE COORDINATION AND FREE ACCESS FOR THE WORK.
- "NIC" DENOTES NOT IN CONTRACT. THE OWNER SHALL BE RESPONSIBLE FOR COORDINATING A TIME SCHEDULE OF THE BASE CONTRACT WITH THE "NIC" TRADES,
- 13. TYPICAL DETAILS AND NOTES ON THESE DRAWINGS SHALL APPLY UNLESS SPECIFICALLY NOTED OTHERWISE, CONSTRUCTION DETAILS AND SECTIONS NOT COMPLETELY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS AND SECTIONS SHOWN OR NOTED FOR SIMILAR CONDITIONS.
- 14. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAYATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION, IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT.
- 15. TEMPORARY BRACING SHALL BE PROVIDED AS REQUIRED TO HOLD ALL COMPONENTS OF THE STRUCTURE IN PLACE UNTIL FINAL SUPPORT IS SECURELY ANCHORED.
- 16. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES OF EVERY KIND, INCLUDING WATER AND POWER. NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHOWN OR INDICATED ON THESE DRAWINGS, ALL MATERIAL SHALL BE NEW. MATERIALS AND WORKMANSHIP SHALL OF GOOD QUALITY, ALL WORKMEN AND SUBCONTRACTORS SHALL BE SKILLED IN THEIR TRADE.
- 17. THE CONTRACTOR SHALL ADEQUATELY PROTECT HIS WORK, ADJACENT PROPERTY AND THE PUBLIC, AND BE RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLECT.
- 18. THE PREMISES SHALL BE KEPT FREE FROM ACCUMULATION OF WATER, MATERIALS, AND DEBRIS, AND AT THE END OF THE JOB THE CONTRACTOR SHALL REMOVE ALL RUBBISH, SURPLUS MATERIALS, AND TOOLS AND LEAVE THE BUILDING BROOM CLEAN.
- 19. JOB SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN OFFICIAL INSPECTION, UNLESS SPECIFICALLY CONTRACTED FOR "SPECIAL" INSPECTIONS AS REQUIRED BY THE LOCAL BUILDING DEPARTMENT SHALL BE UNDER A SEPARATE CONTRACT.
- 20. SHOP DRAWINGS ARE AN AID FOR FIELD PLACEMENT AND ARE SUPERSEDED BY THE STRUCTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.
- 21. THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH ONE COPY OF SHOP DRAWINGS A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT. THE REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. THIS REVIEW DOES NOT GUARANTEE IN ANY WAY THAT THE SHOP DRAWINGS ARE CORRECT NOR DOES IT INFER THAT THEY SUPERSEDE THE STRUCTURAL DRAWINGS.

FOUNDATION AND CONCRETE SLAB ON FILL:

- SELECTED FILL MATERIALS SHALL BE CLEAN CRUSHED LIMESTONE (3" MAXIMUM PARTICLE) OR CLEAN FINE SAND. THE FILL PLACEMENT SHOULD OCCUR IN THE DRY AND COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1551), FOLLOW SOIL LAB RECOMMENDATIONS FOR THE METHODS AND PROCEDURES. ALL FILL WORK SHALL BE SUPERVISED BY A SOIL LAB REPRESENTATIVE. ALL TOP SOIL SHALL BE REMOVED BEFORE STARTING FILLING OPERATIONS.
- ALL INTERIOR SLABS AS WELL AS WALKWAY SLABS ON GRADE ADJACENT TO THE BUILDING SHALL BE PLACED OVER 6 MIL POLYETHYLENE SHEETING BETWEEN SOIL AND BOTTOM OF SLAB.
- WELDED WIRE FABRIC SHALL CONFORM WITH ASTM A185-Ø7 "STANDARD SPECIFICATIONS FOR WELDED WIRE FABRIC FOR CONCRETE REINFORCEMENT".

FOUNDATION AND CONCRETE SLAB ON FILL (CONT.):

- 4. SAW CUT CONTROL JOINTS SHALL BE SAWED AS SOON AS THE CONCRETE IS HARD ENOUGH NOT TO BE TORN OR DAMAGED BY THE BLADE.
- 5. COLUMNS, BEAMS, AND WALLS OR ANY OTHER STRUCTURAL MEMBER PENETRATING SLABS ON FILL SHALL BE ISOLATED BY PRE-MOLDED JOINT FILLER (1/2" THICK) COMPLYING WITH ASTM Ø1752, TYPE1.
- 6. JOINTS SHALL BE SEALED WHERE INDICATED BY THE ARCHITECTURAL DRAWINGS AND FILLER AND SEALANT MATERIAL SHALL FOLLOW SPECS.
- 1. SOIL UNDER NEW SLAB SHALL HAVE TREATMENT PROTECTION AGAINST SUBTERRANEAN TERMITES A CERTIFICATE OF COMPLETION SHALL BE 166UED TO THE BUILDING DEPARTMENT BY A LICENSED COMPANY.
- 8. FOUNDATION HAS BEEN DESIGNED FOR A MAXIMUM ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF AND WITHIN THE PARAMETERS OF THE GEOTECHNICAL SOIL REPORT by NELCO TESTING AND ENGINEERING SERVICES, INC. DATED SEPTEMBER 30, 2015 (REPORT No. B-1509201) FOLLOW GEOTHENICAL REPORT RECOMMENDATIONS AND SITE PREPARATION IN ALL ASPECTS.
- 9. IN SIDEWALKS AND WALKWAYS, LOCATE ISOLATION JOINTS AT 20 FT O.C. MAXIMUM. SCORE AND TOOL BETWEEN ISOLATION JOINTS IN EQUAL BAYS
- MAXIMUM SPACING OF CONTROL JOINTS (I.E. SAWCUT JOINT OR CONSTRUCTION JOINT) SHALL BE AS SET IN THE TABLE BELOW, OR AS NOTED ON PLANS. THE MORE STRINGENT SHALL APPLY. PATTERNS SHALL BE APPROXIMATELY SQUARE WITH A RATIO OF LONG SIDE TO SHORT SIDE NOT EXCEEDING 1.5 TO 1.

SLAB THICKNESS (IN.)	* ¾" OR LARGER AGGREGATE SPACING (FT.)
4	12
5	13
6	14
1 AND GREATER	15

CONCRETE:

BEAMS....

- ALL REINFORCED CONCRETE DESIGN SHALL BE IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
- ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301-10).

3.	CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOW
	. FOUNDATIONS
	. SLAB ON FILL 3,000 PSI
	. COLUMNS4,000 PS
	• • • • • • • • • • • • • • • • • • • •

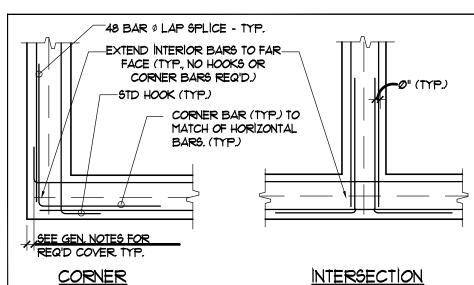
STRUCTURAL SLAB....... 4,000 PSI

CONCRETE FORMWORK", (ACI 347-04).

COMPLY WITH ACT 301 - 10.

- * ALL CONCRETE EXPOSED TO WEATHER SHALL BE MINIMUM OF 4,000 PSI WITH *0.4* WATER/CEMENT RATIO.
- MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL

- PRIOR TO COMMENCEMENT OF ANY CONCRETE WORK. 5. NO ADMIXTURE SHALL BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF
- 6. FORMWORK SHALL COMPLY WITH "RECOMMENDED PRACTICE FOR
- THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFE ADEQUATE SHORING RE-SHORING, BRACING AND FORMWORK, GENERAL CONTRACTOR SHALL CONTRACT A STATE OF FLORIDA REGISTERED ENGINEER TO PREPARE SHORING AND RE-SHORING PLANS AND THEY SHOULD BE SUBMITTED TO THE ENFORCEMENT AGENCY FOR RECORD KEEPING,
- THE OWNER SHALL CONTRACT AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ENGINEER TO PERFORM CONCRETE CYLINDER TESTS AS FOLLOWS: FOUR CYLINDER TEST PER ANY DAY'S POUR LESS THAN 50
- TRANSPORTING, PLACING, CURING AND DEPOSITING OF CONCRETE SHALL
- 10. NO WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.
- 11. VERTICAL CONSTRUCTION JOINTS USING APPROVED BULKHEADS MAY BE MADE AT CENTER OF BEAM OR SLAB SPANS WHERE STOP IN CONCRETE WORK IS NECESSARY, FOR ADDITIONAL REINFORCING AT CONSTRUCTION JOINTS SEE DETAILS. ANY OTHER CONSTRUCTION JOINT REQUESTED BY THE GENERAL CONTRACTOR SHALL BE SHOWN ON THE SHOP DRAWINGS FOR THE ENGINEER'S REVIEW.
- REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING CONCRETE.
- 13. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (AS IN WALLS, COLUMNS, AND DROP CAPITALS) SO AS TO CAUSE SEGREGATION OF AGGREGATES. USE HOPPERS, CHUTES OR TRUNKS OF VARYING LENGTHS SO THAT THE FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 5 FEET, AND A SUFFICIENT NUMBER SHALL BE USED TO ENSURE THE CONCRETE IS BEING KEPT LEVEL AT ALL TIMES.
- REINFORCEMENT IN WALL, FOOTING, AND BEAMS SHALL BE CONTINUOUS AND LAPPED 48 BAR Ø AT SPLÍCE UNLESS OTHERWISE NOTED. HOOK AND LAP ALL CORNER AND INTERSECTING BARS, (SEE REINF, DEVELOPMENT DETAIL).



REINF, DEVELOPMENT DETAIL

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED BARS, FREE FROM LOOSE RUST AND SCALE CONFORMING TO ASTM A615/A615M-Ø1, FY=6ØKS1, U.O.N.

CRSI "RECOMMENDED PRACTICES FOR PLACING REINFORCING BARS".

- ALL REINFORCING SHALL BE DETAILED AND FABRICATED FOLLOWING THE REQUIREMENTS OF ACI 244. PLACING OF REBARS SHALL CONFORM TO
- MINIMUM CONCRETE COVER ON REINFORCING STEEL FOR NON-PRESTRESSED CONCRETE SHALL BE AS FOLLOWS, U.O.N.:

	MİNIMUM COVER	TOLERANCE + OR -
CAST AGAINST AND PERMANENTLY		
EXPOSED TO EARTH:	3"	3/8"
EXPOSED TO EARTH OR WEATHER NO. 5	4.4	
AND SMALLER BARS:	1 1/2"	3/8"
NO. 6 AND LARGER BARS:	2"	3/8"
NOT EXPOSED TO WEATHER OR		
IN CONTACT WITH GROUND:	4	4
ROOF SLAB	1"	1/8"
STRUCTURAL SLAB AND WALLS	1"	1/8"
BEAMS AND COLUMNS		
(PRIMARY REINFORCEMENT, TIES,		
STIRRUPS AND SPIRALS)	1 1/2"	3/8"
SLABS ON GRADE	1 1/2"	1/4"

- NO DEVIATION FROM THE STRUCTURAL PLANS SHALL BE PERMITTED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE STRUCTURAL ENGINEER. ALL REINFORCING DETAILS TO BE SUBMITTED TO THE ENGINEER FOR HIS APPROVAL
- ALL REINFORCING BARS SHALL BE SECURELY HELD IN PLACE DURING CONCRETE PLACEMENT. IF REQUIRED, ADDITIONAL BARS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR THE BARS
- BARS SUPPORTS SHALL BE PLASTIC TIPPED FOR EXPOSED CONCRETE. PLASTIC "DONUT" SPACERS WILL BE REQUIRED FOR STEEL AGAINST FORMS IN CONCRETE BEAMS AND WALLS IF FIELD CONDITIONS WARRANT.
- 1. WELDED WIRE FABRIC SHALL CONFORM WITH ASTM A 185 AND IT SHALL BE SUPPORTED ON SLAB BOLSTERS.
- 8. ALL REINFORCING BARS MARKED CONTINUOUS SHALL BE LAPPED 30 DIA AT SPLICES AND CORNERS UNLESS OTHERWISE NOTED. LAP CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AS REQUIRED. TERMINATE CONTINUOUS BARS AT NON-CONTINUOUS ENDS WITH STANDARD HOOKS,
- ALL WALLS AND COLUMNS SHALL BE DOWELED INTO FOOTINGS, WALLS, BEAMS, OR SLABS WITH BARS OF THE SAME SIZE AND SPACING AS THE BARS ABOVE, USE A (30) BAR DIAMETER LAP EXCEPT WHERE SPECIFICALLY INDICATED.
- VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE BARS IN SPANDRELS, WALLS, BEAMS, GRADE BEAMS ETC. (UNLESS OTHERWISE NOTED) AS FOLLOWS: TOP BARS AT CENTER LINE OF SPAN ± BOTTOM BARS AT THE SUPPORT.
- REINFORCING ALLOWANCE: THE CONTRACTOR SHALL PROVIDE 15 TONS OF STEEL REINFORCEMENT FOR THE ENGINEER TO USE AT HIS DISCRETION DURING CONSTRUCTION OF THE PROJECT. THE CONTRACTOR TO REIMBURSE THE OWNER FOR THE UNUSED PORTION.

REINFORCED MASONRY LOAD BEARING:

- LAY UP ALL 8" MASONRY UNITS PRIOR TO CONSTRUCTION OF THE SUPPORTED MEMBERS FOR THE SAME STORY. USE TYPE M MORTAR IN BEARING WALLS. LAY UP UNITS IN RUNNING BOND.
- MASONRY CONSTRUCTION MATERIALS AND INSPECTIONS SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES (ACI 530-11, ASCE 7-10,TMS 402-08), SPECIFICATIONS FOR MASONRY STRUCTURES. ((ACI 530.1-1). ASCE 7-10,TMS 602-05) ASTM C476-02, ASTM C1019-03 AND NCMA 107.
- 3. BLOCK SHALL NOT TO BE MOISTENED BEFORE GROUTING.
- USE CONCRETE MASONRY UNITS CONFORMING TO ASTM C90 GRADE N MASONRY UNITS SHALL DEVELOP A MINIMUM COMPRESSIVE PRISM STRENGTH (Fim) OF 1,900 P.S.I., AND THE AVERAGE OF 3 UNITS 1,500 P.S.I. MORTAR TO BE TYPE M CONFORMING TO ASTM C270, MASONRY UNITS SHALL BE A MIN. OF 50% SOLID.
- 5. TEST ONE SET OF MASONRY UNITS IN ADVANCE OF BEGINNING OPERATIONS AND ONE SET DURING CONSTRUCTION FOR EACH 3000 SQ/FT. OF WALL AREA. SAMPLE FROM ACTUAL FIELD UNITS.
- MORTAR SHALL COMPLY WITH ASTM C270, TYPE "M" FOR TYPICAL WALLS. (COMPRESSIVE STRENGHT=2500 PSI). SITE TESTED MORTAR CUBES SHALL ACHIEVE A MINIMUM OF 80% OF THE DESIGN COMPRESSIVE STRENGTH)
- USE 2500 PSI PUMP MIX READY MIX GROUT MADE WITH MAX, COURSE AGGREGATE 3/8" AND 8" TO 11" SLUMP, TEST SAMPLES FOR COMPRESSIVE STRENGTH TEST EVERY 30 YARDS OR EACH DAYS GROUTING.
- REINFORCING SPLICES TO BE 48 BAR DIAMETER FOR #5 BARS OR SMALLER OR 50 BAR DIAMETER FOR *6 BARS AND LARGER. USE GROUTED CELLS WITH #5 VERTICAL AT WALL INTERSECTIONS, EACH SIDE OF OPENINGS IN THE WALL AND AT THE ENDS OF WALLS. USE 1 #5 IN FILLED CELL, U.O.N.
- 10. USE BAR SPACERS IN EVERY 6th COURSE WHERE CELLS ARE TO BE GROUTED.
- PROVIDE CLEAN OUT OPENINGS FOR EACH GROUTED CELL.
- 12. USE ASTM A 615 GRADE 60 REINFORCING STEEL.
- 13. IN HIGH LIFT GROUTING USE A MAX, LIFT OF 4'-0" MIN 1/2 HOUR AND MAX 1 HOUR BETWEEN LIFTS. YIBRATE EACH LIFT AND RECONSOLIDATE PREVIOUS LIFT AFTER PLACING NEXT LIFT.
- ENGINEER OR ARCHITECT IN ACCORDANCE WITH ACI 531. 15. WHERE ANCHOR BOLTS ARE SET IN MASONRY WALL, FILL BLOCK CELLS

REINFORCED MASONRY WALL CONSTRUCTION SHALL BE INSPECTED BY AN

- WITH GROUT FOR BOLTED COURSE, ONE COURSE ABOVE AND TWO COURSES BELOW ANCHOR ELEVATION. 16. USE PRESSURE TREATED WOOD IN CONTACT WITH MASONRY.
- PROVIDE POURED IN PLACE LINTELS OR HEADERS OVER ALL MASONRY OPENINGS NOT FLUSH WITH STRUCTURAL FRAME.

18. ALL MASONRY CROSS WEBS SHALL BE FULLY BONDED IN MORTAR

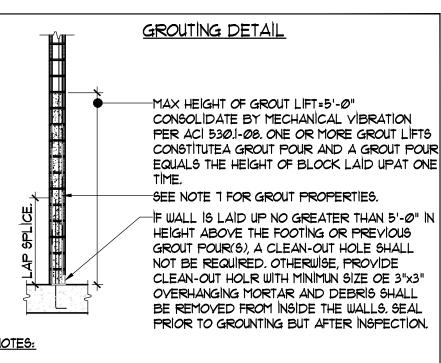
AROUND CELLS TO BE GROUTED.

- 19. REINFORCE WALLS WITH LADDER TYPE (ASTM A-153, *9 GAGE WIRE) DEFORMED REINFORCEMENT EQUAL TO DUR-O-WALL IN BED JOINTS AT 16" O.C. UNO., MEAGURED VERTICALLY, PLACE PER MFR'S INSTRUCTIONS, LAP HORIZONTAL JOINT REINFORCING 6" MIN.
- 20. GROUT PLACEMENT STOPPED FOR (1) ONE HOUR OR MORE SHOULD BE STOPPED 11/2" BELLOW THE TOP OF THE MASONRY UNIT TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.

- 21. TEMPORARY BRACING AND SHORING OF WALLS TO PROVIDE STABILITY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 22. DO NOT APPLY UNIFORM LOADS TO MASONRY WALLS FOR (3) THREE
- 23. DO NOT APPLY CONCENTRATED LOADS TO MASONRY WALLS FOR (1)
- 24. EXTEND ALL VERTICAL WALL REINFORCEMENT TO WITHIN 2" OF TOP OF WALL OR BEAM UNLESS NOTED OTHERWISE, TERMINATE REINFORCING WITH STANDARD ACT 90 DEGREE HOOK IF ROOF JOIST AND/ OR TRUSSES BEAR ON TOP OF WALL AND THERE IS NOT PARAPET, IF PARAPET EXISTS, HOOK IS NOT REQUIRED.
- 25. MAXIMUM CONTROL JOINT SPACING FOR CONCRETE MASONRY UNITS.



26. GROUT FOR FILL CELLS SHALL BE PLACED IN CONFORMANCE WITH ACI 530.1.08 AND AS INDICATED BELOW:



- DO NOT GROUT UNTIL MORTAR HAS SET SUFFICIENTLY TO WITHSTAND THE PRESSURE OF THE GROUT, WAIT NOT LESS THAN 24 HOURS,
- PLACE GROUT WITHIN 90 MINUTES FROM INTRODUCING WATER IN THE MIXTURE AND PRIOR TO INITIAL SET.
- MAXIMUM WALL HEIGHT LAID UP AT ONE TIME SHALL BE 12'-0" FOR COARSE GROUT \$ 24'-Ø" FOR FINE GROUT, GROUT IN LIFTS NOT EXCEEDING 5'-0" UNTIL THE GROUT POUR HAS REACHED THE TOP OF THE WALL. A GROUT POUR CONSIST OF ONE OR MORE LIFTS.
- . THE MINIMUM CONTINUOUS UNOBSTRUCTED CLEAR AREA IN CELL TO RECEIVE GROUT MUST BE NOT LESS THAN 3"x3" MORTAR FINS MUST BE REMOVED AS BLOCK PLACEMENT PROCEEDS, MORTAR DROPPINGS MUST BE KEPT OUT OF CELLS WHICH ARE TO BE GROUTED.

STRUCTURAL STEEL

- 1. IFABRICATED AND ERECT STRUCTURAL STEEL IN CONFORMANCE WITH SPECIFICATION SECTION 05120, AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", WITH COMMENTARY, AND ALL OSHA
- 2. STRUCTURAL STEEL SHAPES SHALL BE FABRICATED FROM THE FOLLOWING MATERIALS:
- A. ROLLED W and WT SHAPES: ASTM A992, GRADE 50.
- B. POLLED M, S, C and MC SHAPES AND ANGLES: ASTM A36, fy=36 ksi.
- C. PLATES AND BARS: ASTM A36, fy=36 ksi.
- D. COLD-FORMED HOLLOW STRUCTURAL SECTIONS (HSS): ROUND SECTIONS: ASTM A500, GRADE C, fy=46 ksi. SQUARE AND RECTANGULAR SECTIONS: ASTM A500, GRADE B, fy=46 ksi.
- E. STEEL PIPE: ASTM A53, TYPE E or S, GRADE B, fy=35 ksi.
- 3. ALL SHOP AND FIELD WELDING SHALL CONFORM TO THE AWS DI.I STRUCTURAL WELDING CODE BY THE AMERICAN SOCIETY. USE ETW SERIES WELDING ELECTRODES, U.O.N. WHERE NECESSARY, REMOVE GALVANIZING OR PRIMER PRIOR TO WELDING.
- 4. DO NOT SPLICE STRUCTURAL STEEL MEMBERS EXCEPT WHERE INDICATED ON THE
- 5. REFER TO ARCHITECTURAL DRAWINGS AND PROJECT SPECIFICATIONS FOR PAINTING AND FIREPROOFING OF STRUCTURAL STEEL, DO NOT PAINT STEEL SURFACES IN CONTACT WITH CONCRETE OR FIREPROOFING.
- 6. BOLTED STRUCTURAL CONNECTIONS: UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE 3/4" Ø ASTM A325. TYPE N. BOLTS INDICATED LESS THAN 5/8" Ø SHALL BE ASTM A3ØT. DETERMINE TENSION
- 1. USING EITHER LOAD INDICATOR WASHERS OR TENSION-CONTROL BOLTS.
- 8. BRACE AND MAINTAIN ALL STEEL IN ALIGMENT UNTIL OTHER PARTS OF CONSTRUCTION NECESSARY FOR PERMANET SUPPORT ARE COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TEMPORARY SHORING AS REQUIRED FOR THE STABILITY OF STEEL FRAME UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN COMPLETED AND BUILDING IS ENCLOSED.
- 9. GROUT FOR COLUMN BASE PLATES AND PRESENT BEARING PLATES SHALL BE NON-SHRINK, NON METALLIC GROUT (5000 PSI MIN.).
- 10. SUBMIT SHOP DRAWINGS INDICATING ALL SHOP AND ERECTION DETAILS INCLUDING PROFILES, SIZES, SPACING AND LOCATIONS OF STRUCTURAL MEMBERS, CONNECTION ATTACHMENTS, FASTENERS, LOADS AND TOLERANCES.
- 11. ALL STEEL EXPOSED TO WATER SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 FOR MEMBERS AND ASTM A153 FOR CONNECTION ELEMENTS.
- 12, STRUCTURAL STEEL SHALL RECEIVE A SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) WHERE EXPOSED TO VIEW. ALL OTHER AREAS, INCLUDING THOSE WHICH WILL RECEIVE SPRAY-ON FIRE PROTECTION, OR WHERE HEADED STUDS ARE TO BE WELDED, SHALL NOT BE PRIMED,

13. QUALIFICATIONS FOR WELDING WORK: QUALFY WELDING PROCEDURES AND WELDING

OPERATORS IN ACCORDANCE WITH AWS "QUALIFICATIONS" REQUIREMENTS, WELDERS

SHALL HAVE CURRENTS EVIDENCE OF PASSING THE APPROPIATE AWS QUALIFICATION TEST. THE ENGINEER MAY REQUEST SUCH EVIDENCE AT ANY TIME DURING THE PROJECT

STEEL JOISTS

. SUBMIT FOR REVIEW SHOP DRAWINGS OF JOIST DETAILS FOR FABRICATION AND ERECTION PRIOR TO FABRICATING

2. A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE

CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER. 3. ALL DESIGN, FABRICATION AND ERECTION OF STEEL JOISTS AND BRIDGING SHALL BE IN STRICT ACCORDANCE

WITH THE CURRENT SPECIFICATIONS OF STEEL JOISTS INSTITUTE AND RECOMMENDED CODE OF STANDARD PRACTICE. 4. THE ENDS OF ALL BRIDGING LINES TERMINATING AT WALLS OR BEAMS SHALL BE ANCHORED TO THE WALL OR

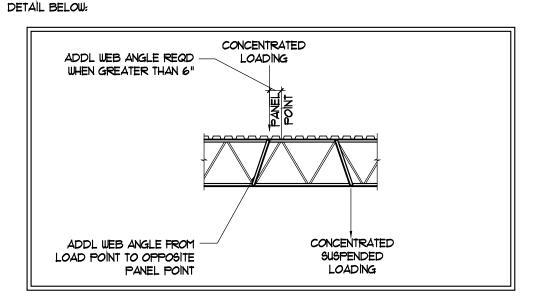
5. ALL STEEL JOISTS ARE TO BE CAMBERED AS SPECIFIED BY STEEL JOIST INSTITUTE.

6. PROVIDE BOTTOM AND/OR TOP CHORD EXTENSIONS AS SHOWN ON DRAWINGS.

7. UNLESS NOTED OTHERWISE. MINIMUM JOIST BEARING SHALL BE $2\frac{1}{2}$ " FOR K-SERIES JOISTS, 4" FOR LH, DHL AND SLH 15-18, AND 6" FOR 9LH 19-25 ON A STEEL MEMBER OR EMBED PLATE.

8. BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE SIZE AND SPACING REQUIREMENTS OF THE SJI STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS, ALL JOISTS 40'-0" OR LONGER REQUIRE A ROW OF BOLTED BRIDGING TO BE IN PLACE BEFORE SLACKENING OF HOISTING LINES, OTHER JOIST REQUIRE SIMILAR BRIDGING (CONSULT LATEST SJI SPECIFICATIONS).

9. ALL HANGERS, CURBS, AND / OR ROOFTOP FRAMES TO SUPPORT MECHANICAL EQUIPMENT, ETC. TO BE SUPPORTED BY THE JOISTS SHALL BE LOCATED AT THE PANEL POINTS OF THE JOISTS, IF THE CONCENTRATED LOAD MUST BE LOCATED FURTHER THAN 6" FROM A PANEL POINT, PROVIDE JOISTS STIFFENERS, L2X2X3/16 JOISTS STIFFENERS MUST BE INSTALLED FROM LOAD TO OPPOSITE CHORD PANEL POINT BEFORE LOAD IS APPLIED. SEE



10. CONTRACTOR TO FURNISH BAR JOIST CERTIFICATIONS SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION.

11. FOR NET UPLIFT SEE NET UPLIFT PLAN, PROVIDE UPLIFT BRIDGING,

12. ALL ITEMS SUSPENDED FROM JOISTS (I.E. CATWALKS, BALCONIES, OPERABLE PARTITIONS, ETC.) SHALL BE INSTALLED AFTER DEAD LOAD HAS BEEN APPLIED.

13. BOLTED TIE JOISTS (BTJ) ARE USED IN STEEL FRAMES WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS, JOIST(S) AT COLUMN LINES SHALL BE FIELD BOLTED AT THE COLUMNS WITH TWO 1/2" & BOLTS TO PROVIDE LATERAL STABILITY DURING CONSTRUCTION.

14. STEEL JOISTS SHALL RECEIVE SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) WHERE EXPOSED TO VIEW ALL OTHER AREAS INCLUDING THOSE WHICH WILL RECEIVE SPRAY-ON FIRE PROTECTION, SHOULD NOT BE PRIMED.

IN SUCH A WAY THAT CAMBER OF THE JOIST WILL NOT CAUSE A PROBLEM INSTALLING THE METAL 16. IN THE EVENT THAT FIRE SPRINKLERS ARE REQUIRED FOR THIS PROJECT THE STEEL FABRICATOR SHALL PROVIDE A DIMENSIONED JOIST BRIDGING AND JOIST GIRDER BOTTOM CHORD BRACE PLAN ALONG WITH DETAILS TO THE SPRINKLER CONTRACTOR. THE FABRICATOR AND SPRINKLER

CONTRACTOR SHALL COORDINATE WITH EACH OTHER TO ENSURE THAT ANY CONFLICTS ARE

15. ANY STEEL JOIST WITHIN A 4'-O" DISTANCE FROM A PARALLEL SUPPORT SHALL BE FABRICATED

MECHANICAL FASTENERS:

RESOLVED BEFORE ANY FABRICATION BEGINS.

ALL ANCHORS SHALL PROVIDE EQUAL OR GREATER STRUCTURAL LOAD CAPACITIES (ALLOWABLE OR ULTIMATE) THAN THOSE SPECIFIED BELOW, WHERE ALTERNATE SYSTEMS PREFERRED, THE CONTRACTOR SHALL ENSURE THE ALTERNATE SYSTEM CAN PROVIDE SUCH LOADS, AND SHALL CONTACT THE ENGINEER TO ADVISE SUCH CHANGES. THE CONTRACTOR MUST ALSO PROVIDE LOAD TABLES, OR OTHER LITERATURE WHICH SPECIFIES SUCH CAPACITIES, AT THE ENGINEER'S, ARCHITECT'S, OR OWNER'S REQUEST,

EXPANSION ANCHORS: "WEDGE ALL" BY SIMPSON, OR "POWER-BOLT" BY RAWL

<u>ADHESIVE ANCHORS:</u> "EPOXY TIE"(SET, ET, ETF) BY SIMPSON. OR "POWER-FAST" BY RAWL

MASONRY SCREWS: 'TÎTEN" BY SÎMPSON, OR "TAPPER" BY RAWL

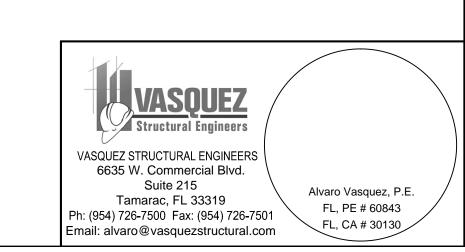
POWDER ACTUATED FASTENERS (PAF): POWDER ACTUATED FASTENERS BY SIMPSON, OR "PINS" BY RAWL

ALL FASTENERS SHALL BE INSTALLED AS SPECIFIED BY THE MANUFACTURER, WHERE EMBEDMENT DEPTH, SPACING, EDGE DISTANCE, OR END DISTANCE IS NOT SPECIFIED, THE MORE STRINGENT SPECIFIED BY EACH FASTENER'S MANUFACTURER SHALL BE USED. ALL FASTENERS SHALL COMPLY WITH THE REQUIREMENTS SET BY THE GOVERNING BUILDING CODE.

PRE-FABRICATED WOOD TRUSSES:

WIND UPLIFT = SEE ROOF FRAMING PLAN

- 1. TO BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE, THE TRUSS PLATE INSTITUTE AND ARCHITECTURAL-STRUCTURAL DRAWINGS. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION SUPERIMPOSED LOADS SHALL BE AS FOLLOWS: ROOF: TOP CHORD: 15 P.S.F. BOTTOM CHORD: 10 P.S.F.
- SPECIALTY ENGINEER SHALL USE OVERSTRESSING OF WOOD FOR WIND DESIGN OF WOOD TRUSS MEMBERS ONLY. DO NOT OVERSTRESS PLATES, AS PER ASCE 1-10.
- CONCENTRATED LOADS ON TRUSSES: ANY SINGLE PANEL POINT OF THE LOWER CHORD OF ROOF TRUSSES OR ANY POINT OF OTHER PRIMARY STRUCTURAL MEMBERS SUPPORTING ROOFS SHALL BE CAPABLE OF SAFELY CARRYING A SUSPENDED, CONCENTRATED LOAD OF NOT LESS THAN 200 POUNDS (896 N) IN ADDITION TO DEAD LOAD.



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GENERAL NOTES

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