DESIGN LIVE LOADS:

ROOF LIVE LOAD: FLORIDA BUILDING CODE SIXTH EDITION (2017) (REF. 2015 IBC) Section 1609 ASCE 7-10)
UNIFORM LOAD (on Horizontal Projection) ---------- 20*R1*R2 PSF
(Where R1 and R2 are Factors per FLORIDA BUILDING CODE FIFTH EDITION (2017), Section 1607.11)

CONCENTRATED LOAD (All Roof Surfaces) ---------- 300 LBS

CONCENTRATED LOAD (Primary Roof Member Exposed to a Work Floor,
Single Panel Pt of Truss B/chord or Any Point along Primary Member)
OVER MANUFACTURING, STORAGE OR REPAIR AREA ---------- 2000 LBS
OVER ALL OTHER OCCUPANCIES ---------- 300 LBS

FLOOR LIVE LOAD: (SLAB ON GRADE) ---------- 150 PSF

PLATFORM LIVE LOAD: ---------- 100 PSF

SNOW: FLORIDA BUILDING CODE SIXTH EDITION (2017) (REF. 2015 IBC) Section 1608 - ASCE 7-10)
SNOW EXPOSURE FACTOR, Ce ---------- 1.0
THERMAL FACTOR, Ct ---------- 1.0
IMPORTANCE FACTOR, I(SNOW LOADS) ---------- 1.0
50-YEAR RECURRENCE GROUND SNOW LOAD, Pg ---------- 0 PSF

WIND LOADS: FLORIDA BUILDING CODE SIXTH EDITION (2017) Section 1608 - ASCE 7-10)
BASIC DESIGN WIND VELOCITY ---------- 140 MPH
OCCUPANCY CATEGORY ---------- II
EXPOSURE CATEGORY ---------- B
IMPORTANCE FACTOR, I(WIND LOADS) ---------- 1.0
INTERNAL PRESSURE COEFFICIENTS ---------- +/- 0.18
DESIGN WIND PRESSURES FOR EXTERIOR COMPONENT AND CLADDING MATERIALS

ROOF (STRENGTH LEVEL)
ZONE 1 ---------- +21 PSF/-51 PSF
ZONE 2 ---------- +21 PSF/-86 PSF
ZONE 3 ---------- +21 PSF/-130 PSF
WALLS
ZONE 4 ---------- +47 PSF/-51 PSF
ZONE 5 ---------- +47 PSF/-63 PSF

SEISMIC DESIGN: FLORIDA BUILDING CODE SIXTH EDITION (2017) (REF. 2015 IBC) Section 1608 - ASCE 7-10
SITE CLASS (REPORT) ---------- A
MAPPED SPECTRAL ACCELERATION AT 0.2 sec, Ss ---------- 0.063 g
MAPPED SPECTRAL ACCELERATION AT 1.0 sec, S1 ---------- 0.032 g
SITE COEFFICIENT, Fa ---------- 1.6
SITE COEFFICIENT, Fv ---------- 2.4
SOIL MODIFIED SHORT PERIOD
SPECTRAL RESPONSE ACCELERATION, SMs ---------- 0.101 g
SOIL MODIFIED LONG PERIOD
SPECTRAL RESPONSE ACCELERATION, SM1 ---------- 0.078 g
SHORT PERIOD SPECTRAL RESPONSE ACCELERATION, SDs ---------- 0.067 g
LONG PERIOD SPECTRAL RESPONSE ACCELERATION, SD1 ---------- 0.052 g
OCCUPANCY CATEGORY ---------- II
SEISMIC DESIGN CATEGORY ---------- A
IMPORTANCE FACTOR, I ---------- 1.0

SEISMIC FORCE-RESISTING SYSTEM:

BEARING WALL SYSTEM:
INTERMEDIATE REINFORCED MASONRY SHEARWALLS

RESPONSE MODIFICATION FACTOR,R ---------- 6.5
SYSTEM OVERSTRENGTH FACTOR,OMEGA ---------- 3
DEFLECTION AMPLIFICATION FACTOR,Cd ---------- 4
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

GENERAL NOTES:

1. THESE DRAWINGS SHALL BE USED WITH ARCHITECTURAL AND OTHER CONTRACT DOCUMENTS. DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SIXTH EDITION (2017) (REF. 2015 IBC)

2. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING OF THE STRUCTURE AND COMPONENTS UNTIL ALL COMPONENTS ARE ERECTED AND ALL CONNECTIONS ARE FULLY MADE. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FRAMING IS COMPLETED AND ALL MASONRY CONSTRUCTION AT PERIMETER IS COMPLETED AND THE ROOF DECK CONNECTIONS ARE COMPLETED. CONTRACTOR SHALL BRACE ALL WALLS DURING CONSTRUCTION AGAINST WIND OR CONSTRUCTION LOADS.

3. THE GENERAL CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL OPENINGS THROUGH ROOFS, FLOORS AND WALLS. VERIFY WITH THE TENANT, ARCHITECT AND VARIOUS TRADES AS REQUIRED. OPENINGS NOT SO VERIFIED SHALL BE MODIFIED, IF REQUIRED, AT NO ADDITIONAL COST.

4. EQUIPMENT PADS SHALL BE PROVIDED BY THE MECHANICAL, ELECTRICAL, OR PLUMBING CONTRACTORS REQUIRING THE PAD.

5. CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

6. THE GENERAL CONTRACTOR SHALL VERIFY ALL NEW AND EXISTING DIMENSIONS PRIOR TO FABRICATION OF ANY STRUCTURAL COMPONENTS. NOTIFY ARCHITECT IMMEDIATELY IF DIMENSIONAL CONFLICTS EXIST.

CONCRETE TESTING

1. TESTING AGENCY: OWNER WILL EMPLOY AND PAY FOR A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. SAMPLING AND TESTING FOR QUALITY CONTROL MAY INCLUDE THOSE SPECIFIED IN THIS ARTICLE.

2. TESTING SERVICES: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:

A. TESTING FREQUENCY: OBTAIN AT LEAST ONE COMPOSITE SAMPLE FOR EACH 100 CU. YD. OR FRACTION THEREOF OF EACH CONCRETE MIX PLACED EACH DAY.

B. WHEN FREQUENCY OF TESTING WILL PROVIDE FEWER THAN FIVE COMPRESSIVE-STRENGTH TESTS FOR EACH CONCRETE MIX, TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED.

3. SLUMP: ASTM C143; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.

4. AIR CONTENT: ASTM C231, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ASTM C 173, VOLUMETRIC METHOD, FOR STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX.

5. CONCRETE TEMPERATURE: ASTM C1064; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEGREES AND BELOW AND WHEN 80 DEGREES AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.

6. UNIT WEIGHT: ASTM C567, FRESH UNIT WEIGHT OF STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX.

7. COMPRESSION TEST SPECIMENS: ASTM C31/C31M; CAST AND LABORATORY CURE ONE SET OF FIVE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.

A. CAST AND FIELD CURE ONE SET OF FIVE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.

B. TWO CYLINDERS SHALL BE BROKEN AT 7 AND TWO AT 28 DAYS. THE FIFTH CYLINDER SHALL BE HELD IN RESERVE AND BROKEN AT THE DIRECTION OF THE STRUCTURAL ENGINEER.

C. WHEN STRENGTH OF FIELD-CURED CYLINDERS IS LESS THAN 85 PERCENT OF COMPANION LABORATORY-CURED CYLINDERS, CONTRACTOR SHALL EVALUATE OPERATIONS AND PROVIDE CORRECTIVE PROCEDURES FOR PROTECTING AND CURING IN-PLACE CONCRETE.

D. STRENGTH OF EACH CONCRETE MIX WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI.

E. TEST RESULTS SHALL BE REPORTED IN WRITING TO ARCHITECT, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTING AGENCY, LOCATION OF CONCRETE BATCH IN WORK, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-AND 28-DAY TESTS.

8. NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BY ARCHITECT BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF CONCRETE.

9. ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAINMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY ARCHITECT. TESTING AND INSPECTING AGENCY MAY CONDUCT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLYING WITH ASTM C42 OR BY OTHER METHODS AS DIRECTED BY ARCHITECT.

SHOP DRAWINGS:

1. SUBMIT SHOP DRAWINGS ON ALL MATERIALS FOR REVIEW BEFORE FABRICATION. THE CONTRACT DRAWINGS SHALL NOT BE USED AS BASE DRAWINGS FOR SHOP DRAWINGS. SHOP DRAWINGS SUBMITTED FOR REVIEW WHICH WERE PREPARED WITH CONTRACT DRAWINGS USED AS BASE DRAWINGS WILL BE REJECTED.

2. ALL SUBMITTALS TO ENGINEER FOR REVIEW SHALL BE PREVIOUSLY REVIEWED BY THE CONTRACTOR, WITH HIS APPROVAL STAMPED ON THE DRAWINGS, DATED AND SIGNED. SUBMITTALS NOT CONFORMING SHALL BE SUFFICIENT REASON FOR REJECTION BY THE ENGINEER.

REINFORCING STEEL:

1. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, AND SHALL BE GRADE 60. REINFORCING STEEL THAT IS TO BE WELDED OR OTHERWISE INDICATED, SHALL BE ASTM A 706 GRADE 60.

2. WELDED WIRE FABRIC SHALL BE NEW BILLET STEEL, COLD DRAWN CONFORMING TO THE ASTM SPECIFICATIONS A 185 AND A 82.

3. BAR SUPPORTS, DESIGN, DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE CODE AND DETAILING MANUAL, LATEST EDITION. SUPPORT ALL REINFORCING ON METAL CHAIRS OR BOLSTERS.

4. ALL REINFORCING STEEL LAPS FOR MASONRY SHALL BE AS INDICATED IN THE SCHEDULE BELOW UNLESS NOTED OTHERWISE, 18" MINIMUM. USE CORNER BARS IN BOND BEAMS AND AT CORNERS OF EACH RUN OF LONGITUDINAL REINFORCING. CORNER BARS SHALL BE THE SAME SIZE AND SPACING AS LONGITUDINAL BARS. OVERLAP STEPS IN BOND BEAMS BY 8 FEET.

5. ALL REINFORCING STEEL LAPS FOR CONCRETE REINFORCING SHALL BE CONSIDERED A CLASS B SPLICE UNLESS NOTED OTHERWISE, 16" MINIMUM.

CONCRETE:

1. PROVIDE MINIMUM CONCRETE COVER FOR ALL REINFORCING IN ACCORDANCE WITH ACI 117.

2. ALL AGGREGATES SHALL CONFORM TO ASTM C33 WITH A MAXIMUM COARSE AGGREGATE SIZE OF 1" (NO. 57 STONE) FOR SLABS-ON-GRADE AND FOOTINGS AND A MAXIMUM COARSE AGGREGATE SIZE OF 3/4" (NO. 67) FOR ALL OTHER CONCRETE. ALL MATERIALS SHALL BE PROPORTIONED TO PRODUCE A WELL GRADED MIXTURE OF HIGH DENSITY AND MAXIMUM WORKABILITY.

3. FLY ASH SHALL CONFORM TO ASTM C 618, CLASS C OR F AND SHALL BE LIMITED, BY WEIGHT, TO A MAXIMUM 0F 20% OF THE TOTAL CEMENT PLUS FLY ASH. OTHER POZZOLAN MATERIALS SHALL NOT BE PERMITTED WITH OUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

4. THE MAXIMUM WATER TO CEMENTITIOUS MATERIALS RATIO SHALL BE, AS SPECIFIED BELOW, FOR THE RESPECTIVE LOCATIONS.

INTERIOR CONDITION ---------- 0.50
EXTERIOR CONDITION ---------- 0.45

5. ALL CONCRETE SHALL BE NORMAL WEIGHT (N.W.) WITH A MAXIMUM UNIT WEIGHT OF 150 POUNDS PER CUBIC FOOT AND SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH, AS SPECIFIED BELOW, FOR THE RESPECTIVE LOCATIONS.

FOOTINGS ---------- 3,000 PSI N.W.
SLABS-ON-GRADE (INTERIOR) ---------- 3,500 PSI N.W.
SLABS-ON-GRADE (EXTERIOR) ---------- 4,000 PSI N.W.
CONCRETE (NOT OTHERWISE SPECIFIED) ---------- 4,000 PSI N.W.

6. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED (6%, +/- 1%).

7. MIX DESIGNS SHALL BE SUBMITTED FOR APPROVAL IN CONFORMANCE WITH ACI 301. SUBMITTALS NOT CONFORMING WILL BE REJECTED. CONCRETE SHALL BE PLACED ONLY WITH AN APPROVED MIX DESIGN FOR THE LOCATION TO BE USED.

8. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS, UNLESS OTHERWISE NOTED ON THE CONTRACT DRAWINGS OR IN THE SPECIFICATIONS. COORDINATE CONCRETE WORK WITH OTHER TRADES BEFORE BEGINNING WORK. VIBRATE ALL CONCRETE PLACED IN FOOTING EXCAVATIONS. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ARCHITECT ANY REQUIREMENTS BY THE OWNER, OR VARIOUS TRADES FOR TRENCHES, PITS, INSERT ITEMS, OPENINGS, ETC. WHICH MAY BE REQUIRED IN THE FLOOR SLABS BEFORE PLACING CONCRETE.

9. ALL COLD WEATHER CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 306R, COLD WEATHER CONCRETING. HOT WEATHER CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 305R, HOT WEATHER CONCRETING.

10. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER FAR ENOUGH IN ADVANCE OF THE TIME EACH CONCRETE POUR IS TO BE MADE TO ALLOW AMPLE TIME TO CHECK THE LAYOUT OF THE STEEL BEFORE BEGINNING THE ACTUAL POUR, BUT NOT IN ADVANCE OF THE TIME THAT 90% OF THE STEEL FOR THAT POUR HAS BEEN PLACED.

WOOD CONSTRUCTION:

1. MAXIMUM DEFLECTION FOR WOOD TRUSSES IS L/240 FOR MAXIMUM DEAD PLUS LIVE LOAD AND L/360 FOR MAXIMUM LIVE LOAD.

2. ALL FRAMED LUMBER SHALL BE SOUTHERN YELLOW PINE (SYP) NO. 1/2 OR BETTER FOR STUDS AND TOP PLATES AND SOUTHERN YELLOW PINE (SYP) NO. 2 OR BETTER FOR BOTTOM PLATES, LINTELS, BEAMS, JOISTS, AND RAFTERS UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ALL EXTERIOR EXPOSED WOOD FRAMING SHALL BE PRESSURE TREATED (PTL) SOUTHERN YELLOW PINE (SYP) NO. 2 OR BETTER. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2005 EDITION OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (NDS) BY THE AMERICAN FOREST & PAPER ASSOCIATION (AF&PA). MINIMUM ALLOWABLE STRESS VALUES ARE AS LISTED IN "DESIGN VALUES FOR WOOD CONSTRUCTION - NDS SUPPLEMENT".

3. DESIGN AND FABRICATION OF ALL PREMANUFACTURED WOOD TRUSSES SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION" BY AF&PA, "TIMBER CONSTRUCTION STANDARDS" BY AITC AND "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCION" (ANSI/TPI 1) BY TPI. ALL LUMBER SHALL BE SOUTHERN YELLOW PINE NO. 2 OR BETTER (NO. 3 FOR WEB MEMBERS).

4. THE TRUSS DESIGN CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND SHALL BEAR THE NAME AND SEAL OF A PROFESSIONAL ENGINEER LICENSED IN FLORIDA. SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS ON ALL MATERIALS FOR REVIEW BEFORE FABRICATION. ALL SUBMITTALS SHALL BE PREVIOUSLY REVIEWED BY THE CONTRACTOR, WITH HIS APPROVAL STAMPED ON THE DRAWINGS, DATED AND SIGNED. SUBMITTALS NOT CONFORMING SHALL BE SUFFICIENT REASON FOR REJECTION.

5. PREMANUFACTURED WOOD TRUSSES SHALL BE BRACED BOTH TEMPORARILY DURING CONSTRUCTION AND PERMANENTLY IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE PUBLICATION "BUILDING COMPONENT SAFTEY INFORMATION, GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING METAL PLATE CONNECTED WOOD TRUSSES" BCSI 1-03 FROM THE WOOD TRUSS COUNCIL OF AMERICA (WTCA) AND THE TRUSS PLATE INSTITUTE AND AS REQUIRED BY THE DESIGN OF THE TRUSSES. A COPY OF BCSI 1-03 SHALL BE KEPT AT THE JOBSITE AT ALL TIMES FOR REVIEW AND REFERRAL.

5. CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, PROCEDURES AND SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

6. FOR LOADBEARING WALLS 9' TO 12' TALL - INSTALL ONE ROW OF WOOD BLOCKING AT STUD MID-HEIGHT. FOR LOADBEARING WALLS OVER 12' TO 16' TALL - INSTALL TWO ROWS OF WOOD BLOCKING AT STUD THIRD POINTS.

7. WOOD TRUSS BRACING:

A) PROVIDE PERMANENT DIAGONAL 2 X 4 BRACING AT EACH END OF EACH GROUP OF TRUSSES IN THE PLANE OF EACH WEB MEMBER WHICH REQUIRES CONTINUOUS LATERAL BRACING BY TRUSS DESIGN. PROVIDE PERMANENT TOP CHORD AND BOTTOM CHORD LATERAL BRACING MEMBERS 2X4'S AT 10 FEET ON CENTERS.

B) PROVIDE PERMANENT 2X4 DIAGONAL BRACING ON BOTTOM CHORDS AT EACH END OF EACH GROUP OF TRUSSES.

C) ATTACH ALL BRACING WITH TWO 16d NAILS AT EACH MEMBER. EACH BRACING MEMBER SHALL BE A MINIMUM OF 8' LONG AND SPAN A MINIMUM OF FOUR TRUSSES. LAP BRACING MEMBERS OVER AT LEAST TWO TRUSSES.

8. ROOF SHEATHING AND ATTACHMENT:

A) ROOF SHEATHING IS 3/4" APA RATED SHEATHING, EXPOSURE 1.

B) STAGGER END BUTT JOINTS OF PLYWOOD ROOF SHEATHING PANELS BY 4'-0". BLOCK ALL UNSUPPORTED EDGES.

C) NAILING PATTERN: USE 8d NAILS (0.131"x3")
1) 6" oc AT SUPPORTED PLYWOOD PANEL EDGES OF UNBLOCKED ROOF SHEATHING
2) 4" oc AT SUPPORTED PLYWOOD PANEL EDGES OF BLOCKED ROOF SHEATHING
3) 12" oc ALONG EACH INTERMEDIATE SUPPORT OF EACH PLYWOOD PANEL
4) 4" oc AT PERIMETER BLOCKING, PERIMETER TRUSSES, AND SHEARWALLS

MASONRY:

1. LIGHT AGGREGATE, HOLLOW CONCRETE MASONRY UNITS SHALL CONFORM TO THE STANDARD SPECIFICATION FOR HOLLOW CONCRETE MASONRY UNITS ASTM C-90. THE CONCRETE MASONRY UNITS SHALL BE GRADE N-II WITH A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI ON THE NET CONCRETE MASONRY AREA, AVERAGE OF THREE UNITS, WITH AN ASSUMED COMPRESSIVE STRENGTH OF MASONRY, fm', OF 1500 PSI MINIMUM. SUBMIT EVIDENCE IN WRITING TO THE ARCHITECT TO SUBSTANTIATE THESE VALUES.

2. USE TYPE S MORTAR WITH A MINIMUM AVERAGE 28-DAY COMPRESSIVE STRENGTH OF 1800 PSI. TYPE S MORTAR SHALL CONFORM TO ASTM C270. MORTAR SHALL BE PCL (PORTLAND CEMENT SHALL COMPLY WITH ASTM C150 TYPE I OR III AND HYDRATED LIME SHALL COMPLY WITH ASTM C207) OR MORTAR CEMENT ASTM C 1329, TYPE S. DO NOT USE MASONRY CEMENT.

3. THE ACI BUILDING CODE REQUIREMENTS FOR MASONRY CONSTRUCTION (ACI 530/ASCE 5) SHALL APPLY FOR ALL CONCRETE MASONRY UNITS CONSTRUCTION AND ALL BRICK MASONRY CONSTRUCTION. ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE "SPECIFICATIONS FOR COLD WEATHER MASONRY CONSTRUCTION". CONTROL JOINT SPACING FOR CMU CONSTRUCTION SHALL NOT EXCEED THAT RECOMMENDED BY NCMA FOR THE HEIGHT AND THICKNESS OF THE WALL FOR GRADE N-II CONCRETE MASONRY, 24' MAXIMUM. DO NOT EXTEND CONTROL JOINTS THROUGH MASONRY LINTELS.

4. HOLLOW CONCRETE MASONRY UNITS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS AND WEBS. USE HORIZONTAL JOINT REINFORCEMENT AT 16" OC IN ALL CMU WALLS.

5. USE FINE AGGREGATE GROUT WHERE SPACE TO BE FILLED IS LESS THAN 2 INCHES IN ANY DIMENSION, OTHERWISE USE COARSE AGGREGATE GROUT. AGGREGATES FOR MASONRY GROUT SHALL CONFORM TO ASTM C 404. COURSE AGGREGATE SHALL BE ASTM C33, NO. 8 OR NO. 89 WITH A MAXIMUM 3/8" AGGREGATE SIZE. MASONRY GROUT SHALL CONFORM TO THE VOLUME PROPORTIONS OF TABLE 1, ASTM C476. TROUTING TO BE IN 4' LIFTS WITH VIBRATION MAXIMUM LIFT IS 10'-8" CLEANOUTS ARE REQUIRED GROUT FOR HOLLOW MASONRY UNITS SHALL CONFORM TO ASTM C 476 WITH AN 10" TO 11" SLUMP. NO HORIZONTAL BOND BEAM REINFORCEMENT IN THE LIFT EXCEPT AT TOP.

6. FILL ALL CELLS OF ALL CONCRETE MASONRY UNITS SOLID WITH GROUT BELOW GRADE.

7. USE CORNER BARS IN BOND BEAMS AND AT CORNERS OF EACH RUN OF LONGITUDINAL REINFORCING. CORNER BARS SHALL BE THE SAME SIZE AND SPACING AS LONGITUDINAL BARS. OVERLAP STEPS IN BOND BEAMS BY 8 FEET.

8. ALL VERTICAL REINFORCING SHALL BE ACCURATELY LOCATED WITH VERTICAL REINFORCING BAR POSITIONERS IN THE CELLS AND BED JOINTS. LOCATE PER MANUFACTURERS RECOMMENDATIONS.

9 ALL MASONRY SHALL BE LAID IN RUNNING BOND UNLESS OTHERWISE SHOWN.

FOUNDATION:

1. THE REPORTED MAXIMUM NET ALLOWABLE BEARING PRESSURE USED IN DESIGN IS 2000 PSF ON SUITABLE RESIDUAL SOIL OR PROPERLY COMPACTED STRUCTURAL FILL FOR WALL AND COLUMN FOOTINGS. STRUCTURAL FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8" AND COMPACTED TO A MINIMUM OF 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-698). THE UPPER 12" OF STRUCTURAL FILL DIRECTLY BENEATH FLOOR SLABS SHALL BE COMPACTED TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. ADDITIONAL FILL PLACEMENT REQUIREMENTS ARE A PART OF THE SPECIFICATIONS. THE GEOTECHNICAL INVESTIGATION IS REPORTED BY GROUND DOWN ENGINEERING PROJECT No. 19-219, DATED 9/03/2019. ALL FILL MATERIAL SHALL BE PLACED UNDER THE SUPERVISION AND CONTROL OF AN INDEPENDENT TESTING LABORATORY. THE INDEPENDENT SOILSTESTING LABORATORY SHALL VERIFY IN WRITING THAT THE MINIMUM SAFE ALLOWABLE SOIL BEARING PRESSURE IS AVAILABLE BEFORE FOUNDATIONS ARE PLACED. IN THE EVENT THAT THE DESIGN ALLOWABLE BEARING PRESSURE IS NOT A AVAILABLE, THE ENGINEER SHALL BE NOTIFIED AND THE SOIL CONDITION AND FOUNDATION SHALL BE EVALUATED AND FOOTING SIZES ADJUSTED IF REQUIRED.

REFER TO THE GEOTECHNICAL REPORT FOR FURTHER INFORMATION ON PREPARING THE SITE BEFORE ANY FOUNDATION WORK.

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SEALS

L. DEAN ARP, JR.
LICENSE
No.56632
STATE OF FLORIDA
PROFESSIONAL ENGINEER
9/10/19

REVISIONS

REV.	DESCRIPTION

DATE

6-07-2019
AEI #19082

SHEET NAME

STRUCTURAL GENERAL NOTES

SHEET NUMBER

STRUCTURAL

S0