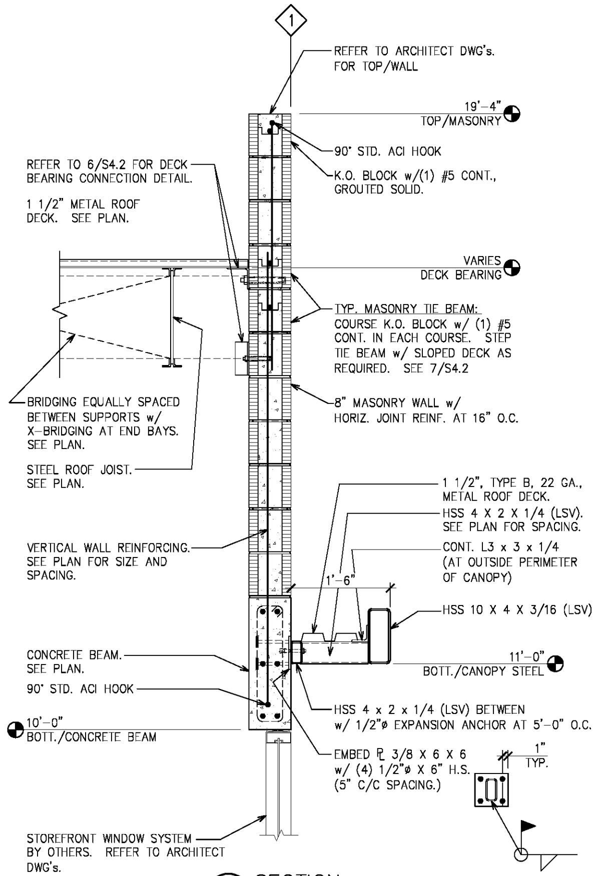


2 SECTION
SCALE: 3/4" = 1'-0"

MISCELLANEOUS

1. THE STRUCTURAL SYSTEM IS UNSTABLE UNTIL ALL CONNECTIONS HAVE BEEN MADE AND ALL CONCRETE HAS REACHED ITS MINIMUM DESIGN STRENGTH, AS SHOWN IN THE STRUCTURAL DOCUMENTS.
2. CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION TO ENSURE THE SAFETY OF THE BUILDING UNTIL STRUCTURAL SYSTEM IS COMPLETED. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, SHORING, GUYS OR TIE-DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
3. APPLICABLE BUILDING CODE: 2014 FLORIDA BUILDING CODE, 5th EDITION.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE, 5th EDITION.
5. DESIGN GRAVITY LOADS:

AREA	SUPERIMPOSED LIVE LOAD
ROOF	20 PSF
FLOOR	100 PSF (SLAB-ON-GROUND)

AREA	DEAD LOAD
ROOF	20 PSF

6. ULTIMATE DESIGN WIND SPEED = 130 MPH (ASCE 7)
   ASD NOMINAL DESIGN WIND SPEED = 101 MPH
   RISK CATEGORY II, REFER TO 3/S5.1 FOR WIND PRESSURES AND MORE INFO.
7. SEISMIC DESIGN: N/A
8. SNOW DESIGN: N/A
9. FLOOD DESIGN: N/A
10. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. DO NOT SCALE DRAWINGS.
11. CONTACT ENGINEER WITH ANY QUESTIONS OR DISCREPANCIES FOUND ON DRAWINGS.
12. SUBMIT SHOP DRAWINGS AS REQUIRED HEREIN. ALLOW FOR TWO WEEKS REVIEW TIME AFTER RECEIPT OF SUBMITTALS BY THIS FIRM. ALL SUBMITTALS SHALL BE CHECKED AND SIGNED BY THE GENERAL CONTRACTOR AND SIGNED/SEALED BY THE SPECIALTY ENGINEER, WHERE SPECIFIED HEREIN.
13. CONTRACTOR SHALL NOT BE RELIEVED FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS OR MIX DESIGNS BY THE ENGINEER'S REVIEW THEREOF.

SITE WORK

1. A SUBSURFACE INVESTIGATION AND REPORT SHALL BE PROVIDED BY THE OWNER PRIOR TO COMMENCEMENT OF WORK TO VERIFY ASSUMED SOIL BEARING PRESSURE. ALL SITE PREPARATION SHALL BE DONE IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT.
2. ASSUMED SOIL BEARING PRESSURE = 2,000 PSF.
3. TESTING MAY INCLUDE, BUT IS NOT LIMITED TO, DENSITY TESTS, AUGER BORINGS, OR STANDARD PENETRATION BORINGS.
4. A COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
5. THE TESTING LABORATORY SHALL SPECIFY SOIL PREPARATION PROCEDURES AND COMPACTION REQUIREMENTS NECESSARY TO OBTAIN THE DESIGN SOIL BEARING PRESSURE.
6. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE.
7. THE SIDES OF FOOTINGS MAY BE EARTH-FORMED IF THE EXCAVATION CAN BE KEPT VERTICAL, CLEAN, AND STABLE; OTHERWISE, PLYWOOD FORMS MUST BE USED.

CAST IN PLACE CONCRETE

1. CONCRETE TO BE NORMAL WEIGHT WITH THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS:
   a) FOOTINGS..........................3000 PSI
   b) SLAB-ON-GRADE................3000 PSI
   c) BEAMS AND COLUMNS........4000 PSI
2. CONCRETE SHALL BE READYMIX PER ASTM C94:
   a) PORTLAND CEMENT – ASTM C150
   b) AGGREGATES – ASTM C33 (3/4" MAX)
   c) NO CALCIUM CHLORIDE
   d) AIR ENTRAINING – ASTM C260
   e) WATER REDUCING – ASTM C494
   f) FLYASH – ASTM C618 CLASS F (20% MAXIMUM BY WEIGHT)
   g) WATER – CLEAN AND POTABLE
3. REINFORCING STEEL: ASTM A615 GRADE 60.
4. REQUIRED SLUMP RANGE = 3" TO 5".
5. WELDED WIRE FABRIC: ASTM A-185. FURNISH IN SHEETS, NOT ROLLS.
6. MOISTURE BARRIER: 15 MIL POLYETHYLENE. LAP 6" AND TAPE ALL JOINTS.
7. CODES AND STANDARDS: (CURRENT EDITION)
   ACI 301 "SPEC FOR STRUCTURAL CONCRETE FOR BUILDINGS."
   ACI 305 "RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING."
   ACI 318 "BLDG. CODE REQUIREMENTS FOR REINF. CONCRETE."
   ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."
8. MINIMUM LAP SPLICE = 30 BAR DIAMETERS UNLESS NOTED OTHERWISE.
9. PROVIDE PROPERLY TIED SPACERS, CHAIRS, BOLSTERS, ETC, AS REQUIRED AND NECESSARY TO ASSEMBLE, PLACE AND SUPPORT ALL REINFORCING IN PLACE. USE WIRE BAR TYPE SUPPORTS COMPLYING WITH CRSI RECOMMENDATIONS. USE PLASTIC TIP LEGS ON ALL EXPOSED SURFACES.
10. CONTRACTOR SHALL VERIFY EMBEDDED ITEMS, INCLUDING BUT NOT LIMITED TO ANCHOR BOLTS, BOLT CLUSTERS, WELD PLATES, ETC..., BEFORE PLACING CONCRETE. NOTIFY ENGINEER OF ANY CONFLICTS WITH REBAR.
11. SEE ARCHITECTURAL DRAWINGS FOR REQUIRED CONCRETE FINISHES.
12. ALL CONCRETE SHALL BE CURED IMMEDIATELY AFTER FINISHING OPERATIONS IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS:
   a) APPLY A 30% SOLIDS LIQUID MEMBRANE FORMING CHEMICAL CURING COMPOUND IN ACCORDANCE WITH ASTM C-309.
   b) PROVIDE CONTINUOUS MOISTURE TO CONCRETE IN ACCORDANCE WITH ACI 301.
13. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE PROPER DESIGN AND CONSTRUCTION OF ALL FORMWORK, SHORING, AND RESHORING. DESIGN SHALL BE PERFORMED BY A LICENSED FLORIDA ENGINEER.
14. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING CONCRETE TESTS ON SITE.
   a) CYLINDER STRENGTH TESTS – ASTM C39; ONE SET OF FOUR CYLINDERS FOR EACH 50 CUBIC YARDS OR FRACTION THEREOF. TEST ONE CYLINDER AT 7 DAYS AND TWO AT 28 DAYS. HOLD THE FINAL CYLINDER IN RESERVE.
   b) SLUMP TESTS – ASTM C143
15. ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
16. RESTRICT THE ADDITION OF MIX WATER AT THE JOB SITE. DO NOT ADD WATER WITHOUT THE APPROVAL OF THE GENERAL CONTRACTOR AND DO NOT EXCEED SLUMP LIMITATIONS OR TOTAL ALLOWABLE WATER TO CEMENT RATIO. USE COLD WATER FROM THE TRUCK TANK AND REMIX TO ACHIEVE CONSISTENCY. TEST REPORTS SHALL INDICATE QUANTITY OF WATER ADDED AT THE JOB SITE. ALL TESTS SHALL BE PREPARED AFTER THE ADDITION OF WATER TO THE MIX.
17. REINFORCING BAR COVER:
   a) FOOTINGS 3"
18. CONCRETE SHALL BE PLACED WITHIN 90 MINUTES OF BATCH TIME.
19. WHERE BAR LENGTHS ARE GIVEN ON DRAWINGS, LENGTH OF HOOK, IF REQUIRED, IS NOT INCLUDED.
20. PROVIDE COMMERCIAL FORM COATING COMPOUNDS THAT WILL NOT BOND, STAIN, OR ADVERSELY AFFECT CONCRETE SURFACES. WET FORMS BEFORE PLACING CONCRETE.
21. ALL CONCRETE SHALL BE CONSOLIDATED IN PLACE USING INTERNAL VIBRATORS.
22. REPAIR AND PATCH DEFECTIVE AREAS WITH CEMENT MORTAR IMMEDIATELY AFTER REMOVAL OF FORMS, EXCEPT WHERE REINFORCING IS VISIBLE. CONTACT STRUCTURAL ENGINEER FOR EVALUATION OF EXPOSED REINFORCING.
23. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS, AND WALLS UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.
24. PROVIDE CORNER BARS AT ALL BEAM AND WALL FOOTING CORNERS TO MATCH HORIZONTAL BARS.
25. SUBMITTALS:
   a) SUBMIT PROPOSED CONCRETE MIX DESIGN PRIOR TO CONSTRUCTION, INCLUDING BACKUP DATA IN ACCORDANCE WITH ACI 301-99 CHAPTER 4, SECTION 4.2.3, EXCLUDING SECTION 4.2.3.4B.
   b) SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZE, AND LOCATION. INCLUDE BAR LISTS AND BEND DIAGRAMS.
   c) SUBMIT FORMWORK AND SHORING DRAWINGS TO LOCAL BUILDING DEPARTMENT WHEN REQUIRED BY FLORIDA THRESHOLD LAW.
26. STEP AND SLOPE ALL WALKWAYS AWAY FROM THE BUILDING.

MASONRY

1. HOLLOW LOAD BEARING UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE II. MINIMUM NET COMPRESSIVE UNIT STRENGTH = 1900 PSI. (NET AREA COMPRESSIVE MASONRY STRENGTH f'm = 1500 PSI).
2. MORTAR SHALL BE TYPE M OR S AND CONFORM TO ASTM C270 (PROPORTION OR PROPERTY SPECIFICATION).
3. COARSE GROUT SHALL CONFORM TO ASTM C476:
   a) 3000 PSI AT 28 DAYS.
   b) 1/4" MAXIMUM AGGREGATE.
   c) 8" – 11" SLUMP.
4. CODES AND STANDARDS:
   ACI 530/ASCE 5 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
   ACI 530.1/ASCE 6 "SPECIFICATIONS FOR MASONRY STRUCTURES"
5. A REINFORCED CONCRETE TIE BEAM SHALL BE PROVIDED AT ALL WALLS SHOWN ON THE STRUCTURAL DRAWINGS AT THE ROOF AND AT TOP OF ANY PARAPET WALL. USE GALVANIZED MESH TYPE CELL CAPS. PROVIDE CORNER BARS AT ALL BEAM CORNERS TO MATCH HORIZONTAL BARS.
6. VERTICAL BARS SHALL BE HELD IN POSITION AT THE TOP AND BOTTOM OF BAR AND AT 8'-0" O.C. MAXIMUM WITH A MINIMUM CLEARANCE OF 1/2" FROM MASONRY. THE CLEAR DISTANCE BETWEEN BARS SHALL NOT BE LESS THAN ONE BAR DIAMETER, NOR LESS THAN 1". CENTER BARS IN WALLS U.N.O.
7. VERTICAL REINFORCING SHALL BE AS SHOWN ON THE DRAWINGS. FILL CELLS WITH COARSE GROUT AS SPECIFIED. PROVIDE ACI 90 DEGREE STANDARD HOOKS INTO FOOTING AND ROOF TIE BEAM. LAP SPLICE VERTICAL REINFORCEMENT ABOVE FOOTING. MAINTAIN VERTICAL REINFORCING SHOWN ON PLANS ABOVE AND BELOW MASONRY OPENINGS EXCEEDING 10'-0" CLEAR. CONTINUE FOUNDATION DOWELS BELOW ALL MASONRY OPENINGS.
8. ALL REINFORCED FILL CELLS ARE TO BE CLEAN AND FREE OF ANY FOREIGN MATERIAL OR DEBRIS. REMOVE ANY FOREIGN MATERIAL FROM FILL CELLS, INCLUDING POLYSTYRENE INSULATING INSERTS, PRIOR TO GROUT POUR.
9. REINFORCING BARS SHALL BE STRAIGHT EXCEPT FOR BENDS AROUND CORNERS AND WHERE BENDS OR HOOKS ARE DETAILED ON THE PLANS.
11. PROVIDE CONTINUOUS HORIZONTAL WALL REINFORCING 9 GA. GALVANIZED LADDER TYPE DUR-O-WALL (OR EQUIVALENT) AT 16" O.C.
12. PROVIDE HORIZONTAL JOINT REINFORCEMENT AT DOORS AND WINDOWS FOR FIRST AND SECOND BLOCK COURSE ABOVE AND BELOW APERTURES. RUN REINFORCING CONTINUOUS OR EXTEND TWO FEET FROM APERTURE EDGE.
13. WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AT SPLICES AND SHALL CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT IN THE LAPPED DISTANCE.
14. CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM COURSE OF MASONRY IN EACH GROUT POUR WHEN THE POUR HEIGHT EXCEEDS 5'. CLEANOUTS TO BE SAW-CUT 3" X 3".
15. GROUT POUR HEIGHT SHALL NOT EXCEED 24'. PLACE GROUT IN 5' MAX. LIFTS HEIGHTS.
16. CONSOLIDATE GROUT POURS AT THE TIME OF PLACEMENT BY MECHANICAL MEANS AND RECONSOLIDATE AFTER INITIAL WATER LOSS AND SETTLEMENT.
17. PLACE ALL MASONRY IN RUNNING BOND WITH 3/8" MORTAR JOINTS. PROVIDE COMPLETE COVERAGE FACE SHELL MORTAR BEDDING, HORIZONTAL AND VERTICAL. FULLY MORTAR WEBS IN ALL COURSES OF PIERS, COLUMNS, AND PILASTERS AND ADJACENT TO GROUTED CELLS.
18. SEE DRAWINGS FOR MASONRY CONTROL JOINT LOCATIONS. SPACE AT 26'-0" O.C. AT EXTERIOR WALLS.
19. MASONRY INSPECTION SHALL BE PROVIDED BY A QUALIFIED AGENT IN ACCORDANCE WITH ACI 530.1-1.6. INSPECTION SERVICES SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE WORK IN PROGRESS AS WELL AS MATERIALS, EQUIPMENT, AND PROCEDURES.
20. SUBMITTALS:
   a) SUBMIT PROPOSED GROUT MIX DESIGN PRIOR TO CONSTRUCTION.
   b) SUBMIT PROPOSED MORTAR MIX DESIGN PRIOR TO CONSTRUCTION.
   c) SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZE, AND LOCATION. INCLUDE BAR LISTS AND BEND DIAGRAMS.
   d) SUBMIT COMPRESSIVE STRENGTH TESTS OF PROPOSED MASONRY UNITS PRIOR TO CONSTRUCTION. MASONRY UNITS ARE TO BE TESTED IN ACCORDANCE WITH ASTM C140.
21. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING TESTS:
   a) SAMPLE AND TEST GROUT IN ACCORDANCE WITH ASTM C1019 FOR EACH 5000 SQ. FT. OF MASONRY.
   b) SLUMP TESTS – ASTM C143.
22. PROVIDE 8" DEEP PRECAST REINFORCED CONCRETE LINTELS OVER ALL MASONRY OPENINGS NOT SHOWN TO HAVE A STRUCTURAL BEAM. MINIMUM END BEARING = 8". LINTEL WIDTH TO MATCH MASONRY WIDTH.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION, EXCEPT CHAPTER 4.2.1, CODE OF STANDARD PRACTICE.
2. WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIETY, AWS D1.1. ALL WELDING SHALL BE PERFORMED USING E70XX, LOW HYDROGEN ELECTRODES, U.N.O. ELECTRODES ARE TO BE PROTECTED FROM MOISTURE.
3. ALL CONNECTIONS TO BE DOUBLE ANGLE FRAMED BEAM CONNECTION PER AISC UNLESS NOTED OTHERWISE. ALL BOLTS TO BE 3/4" DIAMETER UNLESS NOTED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED. WELDS ARE TO BE EQUAL IN STRENGTH TO BOLTS. ALL FIELD CONNECTIONS ARE TO BE BOLTED WITH ASTM A325N OR A490 BOLTS (BEARING TYPE BOLTS WITH THREADS IN THE SHEAR PLANE) INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS. ALL BOLTS SHALL BE TIGHTENED SNUG TIGHT UNLESS OTHERWISE NOTED. DESIGN CONNECTIONS FOR THE LARGER OF EITHER THE SHEAR SHOWN ON THE DRAWINGS, (INDICATED AS "V =K" AT ENDS OF MEMBER) OR 55% OF THE MAXIMUM SHEAR (V IN KIPS) LISTED IN THE TABLES FOR "ALLOWABLE UNIFORM LOADS IN KIPS FOR BEAMS LATERALLY SUPPORTED" AT THE BOTTOM OF EACH PAGE IN THE "PROPERTIES AND REACTION VALUES", PART 2 OF THE LATEST EDITION OF THE AISC "MANUAL OF STEEL CONSTRUCTION".
4. SIZE AND USE OF HOLES: SEE AISC TABLE J3.1 U.N.O.
   a) OVERSIZED OR LONG-SLOTTED HOLES ARE NOT PERMITTED U.N.O. MAXIMUM HOLE DIAMETER = BOLT DIAMETER + 1/16".
   b) LARGER HOLES ARE PERMITTED IN STANDARD COLUMN BASE PLATES. MAXIMUM HOLE DIAMETER = BOLT DIAMETER + 3/8". HARDENED WASHERS, TO COVER THE LARGER HOLE, SHALL BE PROVIDED.
   c) LARGER HOLES ARE NOT PERMITTED IN WIND FRAME COLUMN BASE PLATES. MAXIMUM HOLE DIAMETER = BOLT DIAMETER + 1/16".
   d) SLOTTED HOLES: A PLATE WASHER OR A CONTINUOUS BAR WITH STANDARD HOLES, HAVING A SIZE SUFFICIENT TO COMPLETELY COVER THE SLOT AFTER INSTALLATION, AND A MIN. OF 5/16" THICK SHALL BE PROVIDED. TACK WELD NUT TO BOLT AFTER ERECTION.
5. ALL STEEL BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER (WITHIN THE MILL TOLERANCE) LOCATED ABOVE THE HORIZONTAL CENTERLINE BETWEEN THE END CONNECTIONS.
6. VERIFY THE EXACT SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION OF MATERIALS.
7. SHOP PAINT – METAL ALKYD-OIL PRIMER, ANY OF THE FOLLOWING: SEE ARCHITECT FOR PREFERRED COLOR.

MANUFACTURER	DESIGNATION
PORTER	NO. 298
MOBILE	NO. 13F812
TINEMEC	NO. 1009
AMERON	NO. 5102 AMERCOAT

   SHOP PAINT ALL SURFACES OF STEEL EXCEPT ANCHOR BOLTS AND SURFACES TO BE FIELD WELDED. APPLY PAINT IN ACCORDANCE WITH SSPC-PA1, SHOP, FIELD AND MAINTENANCE PAINTING. APPLY PAINT IN SUFFICIENT VOLUME OR COATS TO PROVIDE A MINIMUM DRY FILM THICKNESS OF AT LEAST 3 MILS BUT NOT MORE THAN 5 MILS.
8. SURFACE PREPARATION: PREPARE STEEL SURFACE IN ACCORDANCE WITH SSPC-SP3 POWER TOOL CLEANING. ANY METHOD IN CONFORMANCE WITH AN SSPC SPECIFICATION OF HIGHER QUALITY THAN LISTED WILL BE ACCEPTABLE. AT OPTION OF CONTRACTOR, WHEELABRATOR MAY BE USED FOR PREPARATION OF STEEL SURFACES, PROVIDING RESULTANT SURFACE IS EQUAL IN ALL RESPECTS TO THOSE REQUIRED.
9. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING TESTS.
   a) VISUALLY INSPECT ALL STEEL MEMBERS AND CONNECTIONS.
   b) TEST 50 PERCENT OF FULL PENETRATION WELDS.
10. ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
11. STRUCTURAL STEEL SHAPES, TEES – ASTM A992.
12. STRUCTURAL STEEL ANGLES, CHANNELS, PLATES, BARS – ASTM A36.
13. STRUCTURAL STEEL TUBING – ASTM A500 GRADE B.
14. STEEL PIPE – ASTM A53 GRADE B.
15. ANCHOR BOLTS – F1554 GRADE 36.
16. OPENINGS THROUGH STEEL BEAMS SHALL BE PROVIDED AS DETAILED ON THE DRAWINGS. ALL SUCH OPENINGS SHALL BE MACHINE CUT IN THE SHOP. ALL RECTANGULAR OPENINGS SHALL HAVE A CORNER RADIUS OF 2 TIMES THE WEB THICKNESS, 1/2" MINIMUM.
17. COLUMN SPLICES SHALL BE DESIGNED IN ACCORDANCE WITH TABLE A-7, PAGE 11-A12 OF THE AISC "STRUCTURAL STEEL DETAILING" MANUAL.
18. NO SPLICES SHALL BE PERMITTED IN ANY STRUCTURAL STEEL MEMBER UNLESS SHOWN ON APPROVED SHOP DRAWINGS.
19. STEEL STAIRS SHALL BE DESIGNED FOR 100 PSF LIVE LOAD BY A LICENSED ENGINEER, RETAINED BY THE STEEL FABRICATOR.
20. SUBMITTALS: CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS SHOWING ALL STRUCTURAL STEEL LAYOUTS AND DETAILS, SIZES OF MEMBERS, TYPE OF STEEL, CONNECTION DETAILS, WELDS, BOLTS, ETC., AS REQUIRED TO FABRICATE AND ERECT ALL STRUCTURAL STEEL FRAMING. ALL CONNECTIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BY THE DETAILER AND SUBMITTED ON SHOP DRAWINGS, SIGNED AND SEALED BY A REGISTERED FLORIDA ENGINEER. STEEL STAIRS SHALL ALSO BE SUBMITTED ON SEALED DRAWINGS.
21. NON-SHRINK GROUT SHALL BE: NONMETALLIC SHRINKAGE-RESISTANT GROUT, PREMIXED, NONMETALLIC, NONCORROSIVE, NONSTAINING PRODUCT CONTAINING SELECTED SILICA SANDS, PORTLAND CEMENT, SHRINKAGE COMPENSATING AGENTS, PLASTICIZING AND WATER-REDUCING AGENTS, COMPLYING WITH CE-CRD-C621.
22. NO FIELD WELDING OF GALVANIZED MEMBERS IS PERMITTED.
23. ERECTION
   a) BEFORE ERECTION, THE CONTRACTOR IS TO REMOVE ALL MUD, DIRT OR OTHER FOREIGN MATTER, WHICH ACCUMULATES DURING HANDLING AND STORAGE.
   b) DRIFTING TO ENLARGE UNFAIR HOLES WILL NOT BE PERMITTED. DRILL SUCH HOLES TO ACCOMMODATE THE NEXT LARGER SIZE FASTENER, WHERE POSSIBLE.
   c) AFTER ERECTION, CLEAN FIELD WELDS, BOLTED CONNECTIONS, AND ABRADED AREAS WHERE SHOP COAT HAS BEEN DAMAGED. SPOT AND PRIME AREAS USING SAME MATERIAL AS SHOP COAT.
   d) SET ALL MEMBERS SO THAT, IN THEIR FINAL LOCATION, LEVEL, PLUMBNESS AND ALIGNMENT ARE WITHIN THE TOLERANCES PRESCRIBED BY AISC CODE.

OPEN WEB STEEL JOISTS AND JOIST GIRDERS (NOTED "JOISTS" HEREIN)

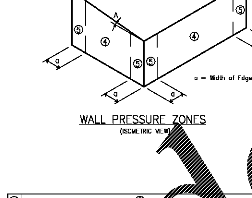
1. STEEL JOIST MANUFACTURER SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE.
2. STEEL JOISTS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE AISC STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS K-SERIES.
3. SEE STANDARD JOIST SPECIFICATIONS FOR CAMBER REQUIREMENTS.
4. VERIFY THE EXACT LOCATION AND WEIGHT OF ALL MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION OF JOISTS.
5. ALL HANGERS TO SUPPORT MECHANICAL EQUIPMENT, ETC., TO BE SUPPORTED BY THE TOP OR BOTTOM CHORD OF JOISTS SHALL BE LOCATED AT THE PANEL POINT OF THE JOIST. IF HANGERS MUST BE LOCATED IN BETWEEN PANEL POINTS, PROVIDE JOIST STIFFENER AS INDICATED IN DETAILS. ALL HANGERS TO BE LOCATED AT THE CENTERLINE OF THE BOTTOM CHORD MEMBER.
6. PROVIDE BOTTOM CHORD CEILING EXTENSIONS WHERE REQUIRED BY ARCHITECT.
7. JOIST MANUFACTURER SHALL DESIGN ROOF JOISTS AND BRIDGING FOR THE NET WIND LOAD UPLIFT INDICATED ON THE DRAWINGS. PROVIDE UPLIFT BRIDGING AT FIRST JOIST PANEL POINTS ACCORDING TO S.J.I.
8. WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS, A BAR JOIST SHALL BE FIELD-BOLTED AT COLUMNS TO PROVIDE LATERAL STABILITY.
9. JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE DESIGN AND SPACING REQUIREMENTS OF THE SJI STANDARD SPECIFICATIONS. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS. REFER TO SJI STANDARD SPECIFICATIONS FOR SPECIAL BRIDGING AND ERECTION REQUIREMENTS FOR SPANS OF 40' OR MORE.
10. RIGID X-BRIDGING AS SHOWN ON THE PLANS SHALL BE BOLTED OR WELDED AT THE INTERSECTION OF THE TWO ANGLES BETWEEN JOISTS.
11. JOISTS, JOIST GIRDERS, AND ACCESSORIES SHALL HAVE ONE SHOP COAT OF PAINT MEETING THE MINIMUM PERFORMANCE REQUIREMENTS OF THE LATEST SJI SPECIFICATIONS. SEE ARCHITECT FOR PREFERRED COLOR.
12. SEE PLAN FOR ANY CONCENTRATED LOADS OR UNUSUAL CONDITIONS. ALL JOISTS SUBJECT TO SPECIAL LOADS OR CONDITIONS SHALL BE CONSIDERED "SPECIAL JOISTS".
13. SUBMITTALS: CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS SHOWING JOISTS, BRIDGING, AND ALL CONNECTIONS. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED FLORIDA ENGINEER.
14. JOIST DESIGN ENGINEER MUST BE PROVIDED WITH A COPY OF THESE DRAWINGS AND SPECIFICATIONS.

METAL DECKING

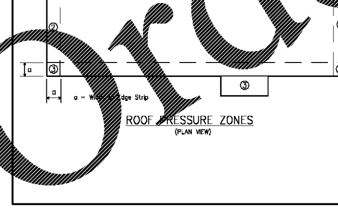
1. ALL METAL DECK SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL DECK INSTITUTE.
2. METAL ROOF DECK SHALL BE 1 1/2" DEEP, 22 GA. WIDE RIB TYPE B AND GALVANIZED.
3. MINIMUM FASTENING OF ROOF DECK WITH (5) 5/8" DIA. PUDDLE WELDS AT EACH SUPPORT PER 36" WIDTH AND 4-#10 TEK SCREW AT MIDSPAN OF SIDELAPS. SEE PLANS FOR ADDITIONAL FASTENING.
4. MINIMUM FASTENING AT BUILDING PERIMETER OF DECK SHALL BE 5/8" DIAMETER PUDDLE WELDS AT 6" O.C.
5. INSTALL ALL DECKING 3 SPAN CONTINUOUS.
6. DO NOT HANG OR ATTACH DUCTWORK, CONDUIT, PIPING, EQUIPMENT, CEILINGS, ETC. FROM METAL DECKING.
7. ALL ROOF DECK OPENING 10" DIAMETER OR LARGER ARE TO HAVE SUPPORT ANGLES PER TYPICAL DECK OPENING DETAIL, INCLUDING OPENINGS FOR ROOF SUMP PANS.
8. SUBMITTALS: CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS SHOWING LAYOUT OF DECK, TYPE OF DECK, ALL CONNECTIONS INCLUDING END WELDS, SEAM WELDS, INTERMEDIATE WELDS, AND ALL ACCESSORY MATERIAL SUCH AS CLOSURES, SUMPS FOR DRAINS, ETC.
9. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO VISUALLY INSPECT ALL DECK WELDS AND FASTENERS.

COLD-FORM STEEL FRAMING

1. ALL STEEL FRAMING SHALL CONFORM TO "THE SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION, BY THE AISI.
2. WELDED CONNECTIONS SHALL CONFORM TO "CODE FOR WELDING IN BUILDING CONSTRUCTION, D1.0" BY THE AWS.
3. ASTM A-568 STANDARD SPECIFICATION FOR GENERAL REQUIREMENTS FOR STEEL, CARBON AND HIGH STRENGTH LOW-ALLOY HOT ROLLED SHEET AND COLD ROLLED SHEET.
4. ALL STEEL FRAMING SHALL BE INSTALLED BY PERSONNEL EXPERIENCED IN LIGHT GAUGE STEEL FRAMING INSTALLATION.
5. WHERE STEEL FRAMING MEMBERS ARE COMPONENTS OF ASSEMBLIES INDICATED FOR A FIRE-RESISTANCE RATING, INCLUDING THOSE REQUIRED FOR COMPLIANCE WITH GOVERNING REGULATIONS, PROVIDE MEMBERS WHICH HAVE BEEN APPROVED BY GOVERNING AUTHORITIES HAVING JURISDICTION.
6. PROTECT LIGHT GAUGE STEEL FRAMING MEMBERS FROM RUSTING AND DAMAGE. DELIVER TO PROJECT SITE IN BUNDLES, FULLY IDENTIFIED WITH NAME, BRAND, TYPE AND GRADE. STORE OFF GROUND IN A DRY VENTILATED SPACE OR PROTECT WITH SUITABLE WATERPROOF COVERINGS.
7. WITH EACH TYPE OF STEEL FRAMING REQUIRED, PROVIDE MANUFACTURER'S STANDARD STEEL RUNNERS (TRACKS), BLOCKING, LINTELS, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS, AND ACCESSORIES AS RECOMMENDED BY MANUFACTURER FOR APPLICATIONS INDICATED, AS NEEDED TO PROVIDE A COMPLETE STEEL FRAMING SYSTEM.
8. FABRICATE METAL FRAMING COMPONENTS OF STRUCTURAL QUALITY SHEET STEEL WITH A MINIMUM YIELD POINT OF 50,000 PSI FOR STUDS, AND 33,000 PSI FOR RUNNERS; ASTM A653.
9. PROVIDE GALVANIZED FINISH TO METAL FRAMING COMPONENTS COMPLYING WITH ASTM A525 WITH A G60 COATING.
10. INSTALL CONTINUOUS TRACKS SIZED TO MATCH STUD DEPTH. ALIGN TRACKS ACCURATELY TO LAYOUT AT BASE AND TOPS OF STUDS. PROVIDE FASTENERS AT CORNERS AND ENDS OF TRACKS.
11. FRAME BOTH SIDES OF EXPANSION AND CONTROL JOINTS, AS SHOWN FOR THE WALL SYSTEM, WITH SEPARATE STUDS AND DO NOT BRIDGE THE JOINT WITH COMPONENTS OF THE STUD SYSTEM.
12. WHERE REQUIRED, TEMPORARY BRACING SHALL BE PROVIDED UNTIL ERECTION IS COMPLETED.
13. RESISTANCE TO BENDING AND ROTATION ABOUT THE MINOR AXIS SHALL BE PROVIDED BY MECHANICAL LATERAL BRACING WHERE REQUIRED.
14. ATTACHMENTS OF SIMILAR COMPONENTS SHALL BE DONE BY WELDING, SCREW ATTACHMENT, OR BOLTING. WIRE TYING OF FRAMING COMPONENTS SHALL NOT BE PERMITTED.
15. WELDING OF MEMBERS LIGHTER THAN 18 GAUGE SHALL NOT BE PERMITTED.
16. SPLICES SHALL NOT BE PERMITTED.
17. MINIMUM NUMBER OF EQUALLY SPACED HORIZONTAL WALL BRIDGING FOR THE HEIGHTS SHOWN:
   UP TO 10' – 1 ROW
   10' TO 14' – 2 ROWS
   ABOVE 14' – AT 4' CENTERS
18. FOR WELDED CONNECTIONS, FUSION WELDING IS RECOMMENDED WITH A DIRECT CURRENT WELDER OF 200 OR MORE AMPERE CAPACITY. USE A HEAT OF 60 TO 90 AMPERES (DEPENDING ON THE GAUGE OF METAL) ALONG WITH ASTM E60 ELECTRODES.



WALL PRESSURE ZONES
(ISOMETRIC VIEW)



ROOF PRESSURE ZONES
(PLAN VIEW)

BUILDING DATA

ULTIMATE WIND SPEED (mph): (FIGURE 1609)	130	INTERNAL PRESSURE COEFFICIENT: (Enclosed Building per ASCE 7-10)	+/- 0.18
WIND LOAD FACTOR:	[illegible]	WIDTH OF EDGE STRIP (Feet):	4.0
RISK CATEGORY: (TABLE 1604.5)	II	WIND EXPOSURE CATEGORY:	B
ROOF ANGLE (A) (Degrees)	A<7.0	DEAD LOAD RESISTING UPLIFT (0.6D in psf):	10.0

DESIGN WIND LOADS – COMPONENTS & CLADDING (Values per ASD)

ROOF					WALL			
ZONE	AREA (sf)	DESIGN PRESSURE (psf) Positive	Negative	Net Uplift	ZONE	AREA (sf)	DESIGN PRESSURE (psf) Positive	Negative
1	10.0	10.00	−19.81	−10.001	4	10.0	18.13	−19.64
1	20.0	10.00	−19.30	−10.00	4	20.0	17.33	−18.84
1	50.0	10.00	−18.64	−10.00	4	50.0	16.26	−17.78
1	100.0	10.00	−18.13	−10.00	4	100.0	15.46	−16.97
2	10.0	10.00	−33.24	−23.24	5	10.0	18.13	−24.17
2	20.0	10.00	−29.70	−19.70	5	20.0	17.33	−22.57
2	50.0	10.00	−25.02	−15.02	5	50.0	16.26	−20.44
2	100.0	10.00	−21.49	−11.49	5	100.0	15.46	−18.84
3	10.0	10.00	−50.02	−40.02				
3	20.0	10.00	−41.43	−31.43				
3	50.0	10.00	−30.08	−20.08				
3	100.0	10.00	−21.49	−11.49				

Notes:
1) For effective areas between those given above the load may be interpolated, otherwise use the load associated with the lower effective area.
2) Plus and minus signs signify pressures acting toward and away from the building surfaces, respectively.
3) See pressure zone diagrams above for corresponding zones.

1 DESIGN WIND CRITERIA (ASD DESIGN)
NOT TO SCALE

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TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

no.	date	revision descriptions

STARBUCKS
SHELL CONSTRUCTION
2500 MONUMENT ROAD
JACKSONVILLE, FL

12.13.17
date

17047
comm. no.

STRUCTURAL NOTES

S5.1