



CONTRACTOR TO NOTIFY A/E IF MECHANICAL UNITS EXCEED WEIGHTS INDICATED

STRUCTURAL NOTES

GENERAL NOTES

- The governing Code for this Project is the Florida Building Code, 2010. This Code prescribes which edition of each referenced standard applies to this Project.
- To the best of our knowledge, the Structural Drawings and these Specification Notes comply with the applicable requirements of the governing Building Code.
- Construction is to comply with the requirements of the governing Building Code and all other applicable Federal, State, and Local Codes, Standards, Regulations and Laws.
- The Structural Documents are to be used in conjunction with the Architectural Documents. If a conflict exists, the more stringent governs.
- See the Structural Inspection Plan for inspection requirements.
- Details labeled "typical" apply to all situations that are the same or similar to those specifically referenced, whether or not they are keyed in at each location. Questions regarding the applicability of typical details shall be resolved by the Architect.
- Openings shown on Structural Drawings are only pictorial. See the Architectural and M.E.P. drawings for the size and location of openings in the structure.
- Contractors who discover discrepancies, omissions or variations in the Contract Documents during bidding shall immediately notify the Architect. The Architect will resolve the condition and issue a written clarification.
- The General Contractor shall coordinate all Contract Documents with field conditions and dimensions and Project Shop Drawings prior to construction. Do not scale drawings; use only printed dimensions. Report any discrepancies in writing to the Architect prior to proceeding with work. Do not change size or location of structural members without written instructions from the Structural Engineer of Record.
- The Contractor shall protect adjacent property, his own work and the public from harm. The Contractor is solely responsible for construction means and methods, and jobsite safety including all OSHA requirements.
- The Structure is designed to be structurally sound when completed. Prior to completion, the Contractor is responsible for stability and temporary bracing, including, but not limited to, masonry walls. Wherever the Contractor is unsure of these requirements, the Contractor shall retain a Florida Licensed Engineer to design and inspect the temporary bracing and stability of the structure.

OCCUPANCY	LIVE LOAD	DEAD LOAD
Roof	20 psf	10 psf
Stairs	100 psf	5 psf
Mechanical Platform	125 psf	10 psf

Design superimposed dead loads listed above do not include masonry walls or other concentrated loads. See architectural drawings for these loads.

Design Wind Loads

Governing Code	ASCE7-10
Basic Wind Speed	V = 130 mph
Building Risk Category	II
Directionality Factor	Kd = 0.85
Exposure - MWFRS	B
Components and Cladding	B
Internal Pressure Coefficient	Gcpi = 0.18
Mean Roof Height	132 feet

	Ultimate	Service
Component & Cladding Pressure on new Penthouse Louver openings is:	+45/-78 psf	+27/-47
Component & Cladding Pressure on interior wall Louver openings is:	+43/-43 psf	+26/-26

SHOP DRAWINGS AND OTHER SUBMITTALS

- Refer to Architectural Drawings or Specifications for submittal procedures and requirements. Incomplete submittals will be returned without review.
- Submit specific components, such as columns, footings, etc., in a single package. Submit similar floors together.
- On first submittal, clearly flag and cloud all differences from the Contract Documents. On resubmittals, flag and cloud all changes and additions to previous submittal; only clouded items will be reviewed.
- Submittals for special structural, load-carrying items that are required by Codes or Standards to resist forces must be prepared by, or under the direct supervision of, a Delegated Engineer. Examples include Exterior Enduse Systems.
- A Delegated Engineer is defined as a Florida Licensed Engineer who specializes in and undertakes the design of Structural Components or Structural Systems included in a specific submittal prepared for this Project and is an employee or officer of, or consultant to, the Contractor or Fabricator responsible for the submittal. The Delegated Engineer shall sign, seal and date the submittal, including calculations and drawings. See Specifications for more specific criteria.

- The Trade Contractor is responsible for confirming and correlating dimensions at the job sites, for tolerances, clearances, quantities, fabrication processes and techniques of construction, coordination of the work with other trades and full compliance with the Contract Documents.
- The General Contractor/Construction Manager shall review and approve submittals and shall sign and date each drawing prior to submitting to the Architect. This approval is to confirm that the Submittal is complete, complies with the Submittal Requirements and is coordinated with field dimensions, other trades, erection sequencing and constructability.
- The Structural Engineer reviews submittals to confirm that the submittal is in general conformance with the design concept presented in the Contract Documents. Quantities and dimensions are not checked. Notations on submittals do not authorize changes to the contract sum. Checking of the submittal by the Structural Engineer shall not relieve the Contractor of responsibility for deviations from the Contract Documents and from errors or omissions in the submittal.
- In addition to the above, the Structural Engineer's review of Delegated Engineer submittals is limited to verifying that the specified structural submittal has been furnished, signed and sealed by the Delegated Engineer and that the Delegated Engineer has understood the design intent and used the specified Structural Criteria. No detailed check of calculations will be made. The Delegated Engineer is solely responsible for his/her design, including but not limited to the accuracy of his/her calculations and compliance with the applicable codes and standards.
- CAD files of Structural Drawings may be used as an aid in preparing Shop Drawings only upon the Contractor signing an Agreement. When CAD files or copies of the Structural Drawings are made available, it is under the following conditions:
 - All information contained in the CAD files or copies of the Structural Drawings are instruments of service of the Architect/Engineer and shall not be used for other projects, additions to the Project or the completion of the Project by others. CAD files and copies of the Structural Drawings remain the property of Bliss & Nytray, Inc. and in no case shall their transfer be considered a sale;
 - CAD files or copies of the Structural Drawings are not Contract Documents. In the event of a conflict, the Structural Drawings shall govern;
 - The use of CAD files or copies of the Structural Drawings shall not in any way relieve the Contractor's responsibility for proper checking and coordination of dimensions, details, sizes and quantities of materials as required for the preparation of complete and accurate Shop Drawings; and
 - The Contractor shall revise all references to Contract Document sheet numbers and section marks and shall remove information that is not required for their work from the CAD files or copies of the Structural Drawings, including the Title Block.
- Dimensions in the CAD files may not be precise and, in some cases, have been intentionally altered for presentation purposes. Do not scale dimensions electronically or otherwise.

CONCRETE MASONRY

- Construct masonry in accordance with ACI 530/ASCE 5, "Building Code Requirements for Concrete Masonry Structures"; and ACI 530.1/ASCE 6, "Specifications for the Design and Construction of Load-Bearing Concrete Masonry".
- The structure consists of a skeleton frame. Erect masonry after structural framing supporting the level above is in place. Secure masonry to columns with galvanized dovetail anchors (or approved equal) in every second course. Do not pour tie columns until all shoring and re-shoring in that story has been removed.
- Use 50% solid, nominal 8x8x16, concrete masonry units conforming to ASTM C90. Block net area compressive strength shall be 1900 psi. Determine the min. Fm of 1500 p.s.i. by the unit test method or prism method. Lay up units in running bond. Sawcut units which are not in multiples of 8". Units shall be at least 8" long. Bond corners by lapping ends 8" in successive vertical courses. Design of walls is based on a Fm of 1500 psi.
- Use Type S mortar in accordance with ASTM C270 except use Type M mortar below grade. Head and bed joints shall be 3/8" for the thickness of the face shell. Webs are to be fully mortared in all courses of piers, columns and pilasters; in the starting course; and where an adjacent cell is to be grouted. Remove mortar protrusions extending 1/2" or more into cells to be grouted.
- Use standard (9 gauge) horizontal joint reinforcing in every other course. Joint reinforcing and anchors in exterior walls shall conform to ASTM A 153 Class B2, with a coating thickness of 1.50 oz/sf; conform to ASTM A 641 in interior walls. Overlap discontinuous ends 6". Use prefabricated corners and tees. Use truss type, except use ladder type in walls with vertical reinforcing.
- Use fine grout conforming to ASTM C-476, with a minimum compressive strength of 2500 psi in 28 days. Aggregate to conform to ASTM C404 for fine grout, with slump of 8" to 10". Grout all masonry containing reinforcing, all cells of 4 hour rated walls, and where indicated on the drawings. Allow mortar to cure 24 hours prior to grouting. Provide cleanout openings at the base of cells containing reinforcing steel to clean the cell and to tie the vertical bar to the dowel. In high-lift grouting, use 6" (max.) lifts, with 1/2 hour to 1 hour between lifts. Vibrate each lift and reconsolidate the previous lift.
- Use ASTM A-615 Grade 60 reinforcing steel. Reinforce walls where indicated on the drawings and at all intersections, each side of openings and at the ends of walls. Use bar spacers at 10 ft. o.c. where grout pour height exceeds 10 ft..
- Reinforced masonry wall construction shall be inspected by an Engineer or Architect in accordance with ACI 530.1/ASCE 6.

- Where anchor bolts, wedge anchors or anchors set in epoxy are set in a masonry wall, fill cells with grout for bolted course, one course above and two courses below.
- Provide lintels or headers with min. 8" bearing over all masonry openings.
- Use pressure-treated wood for wood in contact with masonry.

EXPANSION ANCHORS

- Use wedge-type expansion anchors such as the Hilli Kwik Bolt III, ITW Ramset Red Head Trubolt Wedge, Powers Power-Stud, Simpson Strong-Tie Wedge-All or accepted equivalent. Follow manufacturer's specifications for use and installation.
- Confirm the absence of reinforcing steel by drilling a 1/4" diameter pilot hole for each anchor. Do not cut reinforcing steel without approval of the Structural Engineer.
- Provide anchor embedment, spacing and edge distance as shown on the Drawings.

CHEMICAL ADHESIVE FOR ANCHORING REINFORCING BARS, THREADED BARS AND ANCHOR BOLTS

- Use an epoxy, acrylic or polyester resin adhesive system such as the Hilli HI HY150, ITW Ramset/Red Head Epon A7 or C6 Injection System, Powers Power-Fast + System, Simpson Strong-Tie AT or ET, Allied Fastener Allied +, or accepted equivalent. Follow Manufacturer's Specifications for use and Installation.
- Confirm the absence of reinforcing steel by drilling a 1/4" diameter pilot hole for each anchor. Do not cut reinforcing steel without approval of the Structural Engineer.
- Refer to manufacturer's installation instructions for appropriate drill size. Thoroughly clean hole including removal of dust prior to filling with epoxy.
- Provide anchor embedment, spacing and edge distance as shown on the Drawings.
- Threaded rods are A-36 galvanized steel, u.o.n.

STRUCTURAL STEEL

- Fabricate and erect structural steel in conformance with AISC "Specification for Structural Steel Buildings", with Commentary, AISC "Code of Standard Practice for Steel Buildings and Bridges", AISC "Specification for Structural Joints Using ASTM A325 and A490 Bolts, including Commentary" and all OSHA requirements.
- Submit, to the Architect, complete fabrication and erection drawings, details or connections changed or proposed by the fabricator shall be signed, sealed and dated by the Delegated Engineer.
- Fabricate structural steel shapes from the following materials:
 - Rolled W and WT Shapes: ASTM A992, Grade 50.
 - Rolled M, S, C and MC Shapes and Angles: ASTM A36.
 - Plates and Bars: ASTM A36.
 - Steel Pipe: ASTM A53, type E or S, Grade B.
- All shop and field welding procedures and personnel shall conform to AWS D1.1 Structural Welding Code-Steel. Use E70 series welding electrodes, u.o.n. Where necessary, remove galvanizing or primer prior to welding.
- All structural bolts to be A325.
 - Typical bolts used in structural connections for this Project are 3/4" diameter A325N.
 - Tighten bearing-type bolts (A-325N, A-325X, A-490N, and A-490X) to the snug tight condition as follows:
 - Bolts shall be placed in all holes, with washers positioned as required and nuts threaded to complete the assembly.
 - Compacting the joint to the snug-tight condition shall progress systematically from the most rigid part of the joint.
 - The snug-tightened condition is the lightness that is attained with a few impacts of an impact wrench or the full effort of an ironworker using an ordinary spud wrench.
 - More than one cycle through the bolt pattern may be required to achieve the snug-tightened joint.

END OF SECTION

CHEMICAL ADHESIVE FOR ANCHORING REINFORCING BARS, THREADED BARS AND ANCHOR BOLTS

- Use A-307 bolts for all erection bolts and bolts less than 3/4" diameter, u.o.n. Anchor rods shall be ASTM F1554 Grade 55 with supplementary requirement S1.
- Setting base and bearing plates: clean concrete and masonry bearing surface of bond-reducing materials and clean bottom of base and bearing plate.
 - Set base or bearing plate on wedges or other adjusting devices.
 - Tighten anchor rods after structural steel frame has been plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of base or bearing plate prior to packing with grout.
 - Pack or pour non-shrink grout solidly between bearing surface and base or bearing plate. Ensure that no voids remain. Finish exposed surfaces, protect grout and allow to cure.
 - For proprietary grout materials, comply with manufacturer's instructions.
- Base plates must be grouted a minimum of 72 hours prior to placing concrete slabs on supporting steel structure.
- Cut, drill, or punch holes perpendicular to metal surfaces. Ream holes that must be enlarged to admit bolts as permitted by Architect. Do not enlarge unfair holes by burning or using drift pins.
- Space filler beams equally between supports, u.o.n.
- Do not splice structural steel members except where indicated on the drawings.
- Steel erector to furnish and install temporary bracing as necessary to provide a stable structure during construction.
- See Architectural and Mechanical Drawings for miscellaneous steel not shown on the Structural Drawings.
- Refer to Architectural Drawings for painting and fireproofing of structural steel. In the absence of other instructions, paint all non-galvanized steel with a lead and chromate free steel primer. Do not paint steel surfaces in contact with concrete or to be fireproofed.

STEEL FLOOR GRATING

- Metal Bar Grating to comply with NAAMM MBG 531 "Metal Bar Grating Manual". Comply with manufacturer's written instructions for installation.
- Steel Bars for grating are to conform to ASTM A36, ASTM A1011 or ASTM A1018. Steel wire rod to conform to ASTM A510.
- Grating to be carbon steel McNichols type CW or equal with 1-1/4"x3/16" steel bars welded with 1-3/16" bar spacing and 4" crossbar spacing. Grating to be hot dip galvanized after manufacture with a coating weight not less than 1.8 oz/sq. ft.
- The steel grating has been designed to support a uniform construction load, unshored, of 125 p.s.f., u.o.n.
- Fasten grating to each support structure using McNichols Type GFSS-1 fastener with galvanized body and stainless A304 steel bracket and A302 screw or equal. Fasteners are to be spaced a maximum of 18 inches on center to all supporting structure.
- Manufacture and install steel grating for a minimum single span condition. Multiple spans are acceptable.
- Provide grating with steel bar edge strips enclosing each section of grating so that individual bars are not free at edges of panels.
- Contractor to field verify grating dimensions to match project conditions.



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TO THE BEST OF MY KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES.



Leon County - Bank of America Bldg. Stair Pressurization

12062 Drawn By: TLC
Project Code Checked By: CSC

6 JUNE 2012
Date

Construction Documents

SCALE: 1/8"=1'-0"

- Revisions
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EXISTING PLAN

Tallahassee Florida

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