BUILDING CODES AND SPECIFICATIONS

FLORIDA BUILDING CODE (2020), 7TH EDITION

- 2. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 318
 3. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES ACI 530, ASCE 5/TMS 402
- 3. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES ACI 530, ASCE 5/TMS 402
 4. SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AISC 360 EDITION.

STRUCTURAL WELDING CODE D1.1 (AMERICAN WELDING SOCIETY)

DESIGN LOADS

<u>LIVE LOADS:</u> ROOF LOAD......

ROOF LOAD......20 PSF

DESIGN WIND SPEED, 120 MPH, ASCE 7-16

WIND LOAD CRITERIA:

V = 120 MPH EXPOSURE = C

INTERNAL PRESSURE COEFFICIENT = +0.18/-0.18 ENCLOSED

RISK CATAGORY II

3. <u>DEAD LOADS (ROOF):</u>
STRUCTURE_____SELF WEIGHT
MECHANICAL/ELECTRICAL/PLUMBING 10 PSF

4. <u>OTHER LOADS</u>

CEILING & MISC

CONTRACTOR SHALL SUBMIT CUT SHEETS FOR ALL EQUIPMENT INCLUDING NOT LIMITED TO HVAC PACKAGE UNITS, AIR HANDLERS, GENERATORS AND CHILLERS. INFORMATION SHALL INCLUDE WEIGHT AND ANY SPECIAL SUPPORT REQUIREMENTS. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR DETAILS RELATING TO ROOF MOUNTED EQUIPMENT CURBS. PRIOR TO ROOF JOIST FABRICATION.

DRAWINGS AND SPECIFICATIONS

DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS NOT GIVEN.

- 2. ADVISE ARCHITECT OF DIMENSIONAL DISCREPANCIES BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION OF AFFECTED FLEMENTS
- 3. VERIFY ALL EXISTING FIELD CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION.
- 4. THESE DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THOSE OF OTHER TRADES INCLUDING BUT NOT LIMITED TO ARCHITECTURAL, MECHANICAL, CIVIL, ETC. REFER TO DRAWINGS OF OTHER TRADES FOR DETAILS RELATING TO THE STRUCTURAL COMPONENTS.
- 5. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONTRACT DOCUMENTS AND SHALL AT ONCE REPORT TO THE ENGINEER ANY ERROR, INCONSISTENCY OR OMISSION HE MAY DISCOVER. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT FOR RESOLUTION PRIOR TO COMMENCING WORK ON ITEMS AFFECTED.
- 6. THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE AS BINDING AS IF REQUIRED UNLESS IT IS CONSISTENT THEREWITH AND IS REASONABLY INFERABLE THEREFROM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.
- 7. IN THE CASE OF CONFLICTING INFORMATION, THE CONTRACTOR SHALL ASSUME THE MORE COSTLY ALTERNATE, UNLESS DIRECTED OTHERWISE IN WRITING.
- 8. IN THE CASE OF AMBIGUOUS OR MISSING INFORMATION, THE CONTRACTOR SHALL ASSUME A MEMBER SIZE, QUANTITY OR QUALITY CONSISTENT WITH SIMILAR AREAS IN THE PROJECT, UNLESS DIRECTED OTHERWISE IN WRITING.
- 9. THE CONTRACTOR SHALL NOT BE COMPENSATED FOR THE ADDITION OF STRUCTURAL COMPONENTS WHEN THE OMISSION, MISLABELING OR OTHER DEFICIENCY SHOULD HAVE BEEN NOTED DURING THE BIDDING PHASE, AND BROUGHT TO THE ARCHITECTS ATTENTION.
- 10. THESE GENERAL STRUCTURAL NOTES ARE INTENDED TO EMPHASIZE CERTAIN INFORMATION MORE COMPLETELY DISCUSSED IN THE BOUND SPECIFICATIONS. THE CONTRACTOR SHOULD BE FAMILIAR WITH THE REQUIREMENTS AS STATED IN THE SPECIFICATIONS.
- 11. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK AT ANY TIME WITHOUT CONTRACT DOCUMENTS OR, WHERE REQUIRED, APPROVED SHOP DRAWINGS, PRODUCT DATA OR SAMPLES FOR SUCH PORTION OF THE WORK.

SHOP DRAWINGS

- 1. NO STRUCTURAL DRAWINGS SHALL BE REPRODUCED FOR USE AS SHOP DRAWINGS.
- 2. ALL DIMENSIONAL COORDINATION SHALL BE DONE BY THE CONTRACTOR AND/OR HIS
- 3. DETAILER SHALL CHECK ALL ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL ATTACHMENTS, CLIPS, OPENINGS, OR DUCT WORK AFFECTING STRUCTURAL MEMBERS. ALL ITEMS SHALL BE SHOWN ON SHOP DRAWINGS.
- 4. SHOP DRAWINGS SHALL BE SUBMITTED TO ALLOW SUFFICIENT TIME FOR PROCESSING. TYPICAL TURN AROUND TIME IS 5-10 BUSINESS DAYS, BUT MAY EXTEND LONGER FOR REVIEW OF MULTIPLE DISCIPLINES. SIX (6) SETS OF SHOP DRAWINGS SHALL BE SUBMITTED FOR
- 5. PROVIDE SUFFICIENT SPACE ON SHOP DRAWINGS NEAR TITLE BOX FOR STAMPS AND ENGINEERS COMMENTS.
- 6. THE SHOP DRAWINGS SHALL BEAR INITIALS OF DETAILER'S CHECKER AND CONTRACTOR PRIOR TO SUBMISSION.
- 7. COMPLETED ERECTION PLANS SHALL BE SUBMITTED PRIOR TO OR IN CONJUNCTION WITH DETAIL DRAWINGS. BUT IN NO CASE SHALL DETAIL DRAWINGS BE SUBMITTED PRIOR TO ERECTION PLANS.
- 8. CONTRACTOR SHALL HAVE SHOP DRAWINGS WHICH HAVE BEEN SATISFACTORILY REVIEWED BY THE ARCHITECT AND/OR ENGINEER AND CONFIRMED BY THE CONTRACTOR BEFORE PROCEEDING WITH ANY WORK.

CONSTRUCTION SAFETY

- 1. THESE DRAWINGS DO NOT INCLUDE PROVISIONS TO SATISFY SAFETY REQUIREMENTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING SAFETY DURING CONSTRUCTION, AND FOR CONFORMANCE TO ALL APPLICABLE OSHA STANDARDS. JOB SITE VISITS BY ENGINEER SHALL NOT CONSTITUTE APPROVAL, AWARENESS OR LIABILITY FOR ANY HAZARDOUS
- 2. DO NOT OVERLOAD ONE SEGMENT OR SPAN OF A BEAM CONTINUOUS OVER SEVERAL SUPPORTS. BEAMS SHOULD BE LOADED AS GRADUALLY AND EVENLY AS POSSIBLE UNTIL THE FULL LOAD IS IN PLACE.
- 3. ERECTION SEQUENCE SHALL BE DETERMINED BY THE CONTRACTOR, AND SHALL NOT CAUSE OVER STRESS OR EXCESSIVE DEFORMATION OF STRUCTURAL MEMBERS.

VALUE ENGINEERING

1. ANY CHANGES TO THE STRUCTURE SHALL HAVE BEEN REVIEWED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO COMMENCING WORK ON ITEMS AFFECTED.

FIELD MODIFICATIONS

- ANY CHANGES TO THE STRUCTURE SHALL HAVE BEEN REVIEWED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO COMMENCING WORK ON ITEMS AFFECTED. ANY CHANGES MADE WITHOUT PRIOR APPROVAL ARE SUBJECT TO REVIEW BY THE ENGINEER.
- 2. CONTRACTOR SHALL PROVIDE SKETCHES, PHOTOGRAPHS AND WRITTEN DESCRIPTION OF EACH DEVIATION FROM THE PLANS FOR THE ENGINEER'S REVIEW.

FOUNDATIONS

- 1. MAXIMUM NET SOIL BEARING PRESSURE USED FOR DESIGN......2500 PSF
- 2. NOTIFY ENGINEER IF FOOTING EXCAVATION REVEALS UNSUITABLE OR UNSTABLE SOILS, OR MATERIALS OR CONDITIONS NOT PREVIOUSLY ANTICIPATED.
- 3. CONSIDER THE POSSIBLE IMPACT OF GROUNDWATER ON CONSTRUCTION TECHNIQUES USING THE REPORT, SEASONAL VARIATIONS, ANY OTHER SITE INDICATORS AND YOUR OWN JUDGMENT.
- 4. REFER TO GEOTECHINCAL REPORT:
- UNIVERSAL ENGINEERING SCIENCES, UES REPORT #1968742, JULY 28, 2022

PORTLAND CEMENT CONCRETE

1. CONCRETE QUALITY AND PLACEMENT: FOUNDATIONS, 3000 PSI, 3" TO 5" SLUMP

FILLED CELLS IN BLOCK, 3000 PSI, 8" TO 11" SLUMP, 3/8" PEA GRAVEL BEAMS AND COLUMNS, 4000 PSI, 3" TO 5" SLUMP SLABS ON GRADE/ DECK, 3500 PSI, 3" TO 5" SLUMP

- A) FLY ASH SHALL NOT EXCEED 20 PER CENT BY WEIGHT OF TOTAL CEMENT CONTENT, IF USED.
- B) SLUMP LIMITS SHALL BE STRICTLY ADHERED TO. USE SUPERPLASTICIZER TO INCREASE WORKABILITY, AT CONTRACTORS OPTION.
- C) MAXIMUM MIXING TIME (FROM BATCHING TO PLACEMENT) AIR TEMP LESS THAN 85°F, 90
- D) MIX DESIGN SHALL BE SUBMITTED FOR APPROVAL.
- E) CONCRETE CYLINDER TESTING & REPORTS ARE TO BE FURNISHED BY SUBCONTRACTOR.

MINUTES AIR TEMP 85°F TO 90°F, 75 MINUTES AIR TEMP OVER 90°F, 60 MINUTES

- 2. MINIMUM COVERAGE
- A. FOOTINGS, 3 IN. TO BOTTOM AND UNFORMED SIDES, 2 IN. TO FORMED SIDES

B. OTHER, 2 IN. TO MAIN REINFORCING, 1 1/2 IN. TO TIES AND STIRRUPS

- 3. COORDINATE DRAWINGS OF ALL TRADES FOR REQUIRED EMBEDS, OPENINGS AND ACCESSORIES NOT SHOWN HEREIN.
- 4. ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE BY STANDARD ACCESSORIES DURING CONCRETE PLACEMENT.
- 5. BARS SHALL BE GRADE 60 CONFORMING TO ASTM A615.
- 6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- 7. DETAIL AND FABRICATE REINFORCEMENT IN ACCORDANCE WITH "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315.
- 8. PROVIDE MINIMUM LAP SPLICE OF 30 BAR DIAMETERS, BUT NOT LESS THAN 24 INCHES, FOR ALL REINFORCING BARS, UNLESS NOTED OTHERWISE. STAGGER SPLICES IN ADJACENT BARS AT LEAST 24 INCHES, EXCEPT IN BEAMS AND COLUMNS.
- 9. IN WALL FOOTINGS, GRADE BEAMS AND BOND BEAMS, PROVIDE BENT BARS AT CORNERS AND
- 10. EXPOSED EDGES OF BEAMS AND COLUMNS SHALL BE CHAMFERED 3/4 IN. U.N.O. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ANCHOR SLOTS IN COLUMNS, BEAMS AND CONCRETE SLABS

CONCRETE SLAB ON GRADE

. MINIMUM THICKNESS.....4" INTERIOR (6" AT SHOWROOM AREAS), 4" EXTERIOR WALKWAYS (REFER TO FOUNDATION PLAN FOR ACTUAL SLAB THICKNESS.

INTERSECTIONS OF THE SAME NUMBER AND SIZE AS THE STRAIGHT BARS.

- 2. MAXIMUM AGGREGATE SIZE.....1 IN.
- 3. ENTRAINED AIR CONTENT.....4.5
- 4. FILL SAW CUTS WITH ELASTOMERIC SEALANT AFTER CLEANING WITH COMPRESSED
- 5. WELDED WIRE FABRIC SHALL BE WWF 6X6-W1.4XW1.4 IN FLAT SHEETS, UNLESS OTHERWISE NOTED, CONFORMING TO ASTM A185.
- 6. PLACE WELDED WIRE FABRIC CENTERED IN DEPTH OF SLAB-ON-GRADE UNLESS NOTED OTHERWISE. LAP ALL MESH JOINTS TWO FULL MESHES.
- 7. INTERRUPT TYPICAL SLAB REINFORCEMENT AT ALL CONSTRUCTION AND EXPANSION JOINTS. SEE SPECIFIC DETAILS FOR ANY DOWELS REQUIRED FOR SHEAR TRANSFER.
- 8. INTERRUPT TYPICAL SLAB REINFORCEMENT AT ALL CONSTRUCTION AND EXPANSION
- JOINTS. SEE SPECIFIC DETAILS FOR ANY DOWELS REQUIRED FOR SHEAR TRANSFER.

 CUT EVERY OTHER WIRE ALONG THE LINE OF SAW CUT CONTROL JOINTS PRIOR TO

PLACING CONCRETE. MAKE SAW CUTS WITHIN 12 HOURS OF CONCRETE PLACEMENT,

OR AS SOON AS CUTS CAN BE MADE WITHOUT RAVELING.

10. PROVIDE 1/2 IN. PREFORMED EXPANSION JOINT MATERIAL WHERE SLAB ABUTS

VERTICAL SURFACES SUCH AS WALLS AND COLUMNS.

- 11. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEPRESSED AREAS IN
- SLABS WHICH ARE NOT SHOWN OR DIMENSIONED ON STRUCTURAL DRAWINGS.

PROVIDE 10 MIL VAPOR BARRIER UNDER ALL SLAB-ON-GRADE IN ENCLOSED SPACE.

- 13. APPLY CURING COMPOUND TO SLAB WITHIN TWO HOURS OF COMPLETION OF FINISHING OPERATIONS. USE LIQUID MEMBRANE FORMING COMPOUND COMPLYING
- WITH ASTM C309 TYPE 1 CLASS A. FOLLOW MANUFACTURERS INSTRUCTIONS.

 14. CONFIRM THAT CURING COMPOUND WILL NOT INTERFERE WITH BONDING OF ANY
- APPLIED FLOOR SURFACE. IF SO, USE WET BURLAP AND TRICKLE HOSES.

 15. IT IS RECOMMENDED THAT THE SLABS BE CAST IN LONG STRIPS, AND SAW CUT
- TRANSVERSELY, IN ORDER TO MINIMIZE SHRINKAGE CRACKING.

DRILL-IN BOLTS, SCREWS AND DOWELS

- 1. EPOXY BOLTS SHALL BE ASTM A307 THREADED BOLTS WITH NUTS AND WASHERS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE "EPOXY TIE SET" ANCHORS BY SIMPSON STRONG-TIE OR EQUAL.
- 2. ANCHORING ADHESIVE SHALL BE A TWO COMPONENT SOLID EPOXY BASED SYSTEM SUPPLIED IN MANUFACTURER'S STANDARD SIDE BY SIDE CARTRIDGE AND DISPENSED THROUGH A STATIC MIXING NOZZLE SUPPLIED BY THE MANUFACTURER. EPOXY SHALL MEET THE MINIMUM REQUIREMENTS OF ASTM C 881 SPECIFICATION FOR TYPE I, II, IV AND V, GRADE 3, CLASS B, C AND D AND MUST DEVELOP A MINIMUM 12,650 PSI COMPRESSIVE YIELD STRENGTH AFTER 7
- 3. EXPANSION BOLTS SHALL BE "WEDGE ALL" ANCHORS BY SIMPSON STRONG TIE OR EQUAL.
- 4. EXPANSION BOLTS SHALL BE NON BOTTOM BEARING, WEDGE STYLE EXPANSION ANCHOR FOR USE IN SOLID CONCRETE OR GROUT FILLED MASONRY WITH A ONE PIECE NON CORROSIVE CLIP FOR UNIFORM HOLDING CAPACITY THAT INCREASES AS TENSION IS APPLIED. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 5. MASONRY SCREWS SHALL BE 1/4" DIAMETER WITH 1 1/2" MINIMUM EMBEDMENT INSTALLED IN DRILLED HOLES USING AN APPROPRIATE BIT DIAMETER.
- 6. SCREWS SHALL BE MADE FROM TEN HUNDRED SERIES COLD ROLLED STEEL AND SHALL BE FLUOROCARBON COATED. PROVIDE "TITAN" SCREWS BY SIMPSON STRONG TIE OR EQUAL.
- 7. DRILL IN REBAR DOWELS SHALL BE SET USING A TWO PART EPOXY AS DESCRIBED ABOVE.

METAL ROOF DECK

- 1. ROOF DECK SYSTEM SHALL BE TYPE B (SEE PLANS FOR GAUGE) AS IDENTIFIED BY THE STEEL DECK INSTITUTE. ROOF DECKING SHALL BE 1.50 INCHES DEEP AND SHALL BE DESIGNED IN ACCORDANCE WITH ROOF DECK SPECIFICATIONS OF THE STEEL DECK INSTITUTE. UNLESS NOTED OTHERWISE
- 2. THE DECK SHALL BE CAPABLE OF SUPPORTING A UNIFORMLY DISTRIBUTED LIVE LOAD OF 20 POUNDS PER SQUARE FOOT WITH THE LIVE LOAD DEFLECTION NOT TO EXCEED L/240 OF THE SPAN LENGTH CENTER TO CENTER OF SUPPORTS AND WITH A UNIFORMLY DISTRIBUTED DEAD LOAD OF 25 POUNDS PER SQUARE FOOT WITHOUT EXCEEDING A UNIT STRESS OF 20,000 POUNDS PER SQUARE INCH.
- 3. STEEL SHALL BE ASTM A-611 GRADE C WITH A MINIMUM YIELD STRENGTH OF 33,000 POUNDS PER SQUARE INCH.
- 4. WELDING WASHERS SHALL BE USED FOR ALL DECK UNITS WITH A METAL THICKNESS LESS THAN 0.028 INCHES.
- 5. ROOF DECK SHALL BE LAID OUT SUCH THAT DECKING SHALL SPAN THREE SPANS WITHOUT INTERRUPTION.
- 6. DECKING AND ACCESSORIES SHALL BE GALVANIZED MIN. G90
- DECKING SHALL BE WELDED TO SUPPORT ATTACHMENT PATTERN. SEE ROOF FRAMING PLAN FOR MORE INFORMATION.
- 8. PROVIDE ALL EAVE PLATES, RIDGE PLATES, AND OTHER PIECES TO ENSURE A WEATHER TIGHT ASSEMBLY.
- 9. TOUCH UP ALL WELDS AND ABRASIONS WITH RUST INHIBITIVE PRIMER MATCHING IN COLOR.
- 10. DECK AND SUPPORTING MEMBERS DAMAGED BY EXCESS WELDING HEAT SHALL BE REPAIRED OR REPLACED AS DETERMINED BY ENGINEER.

COLD - FORMED METAL FRAMING

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH AISI, SPECIFICATION FOR DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, 2007 EDITION.
- 2. WITH EACH TYPE OF METAL FRAMING REQUIRED, PROVIDE MANUFACTURER'S STANDARD STEEL RUNNERS, BRIDGING, LINTELS, CLIP ANGLES, FASTENERS AND ACCESSORIES AS NEEDED TO COMPLETE METAL FRAMING SYSTEM.
- 3. ALL FRAMING COMPONENTS SHALL BE PLUMBED, ALIGNED AND LEVELED.
- 4. ALL STRUCTURAL MEMBERS SHALL BE GALVANIZED MEETING ASTM A525, G60 REQUIREMENTS. ALL WELDS SHALL BE TOUCHED UP WITH A ZINC RICH PAINT. ALL STRUCTURAL MEMBERS SHALL BE FORMED FROM CORROSION RESISTANT STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A446, WITH A MINIMUM YIELD STRENGTH OF 40,000 PSI FOR STUDS AND GRADE A, 33,000 PSI FOR RUNNERS.
- 5. ALL STUDS SHALL BE "C" SHAPED 6", 16 GA. U.N.O. W/ FLANGE RETURN LIP. ALL STUD WALLS SHALL BE LATERALLY BRACED WITH COLD FORMED CHANNELS SPACED AT 4'-0" ON CENTER, MAXIMUM. LATERAL BRACING ATTACHMENTS SHALL BE WITH SELF DRILLING SCREWS OR WELDING.
- 6. TEMPORARY BRACING, WHERE REQUIRED, SHALL BE PROVIDED UNTIL ERECTION IS
- 7. SUBMIT SHOP DRAWINGS & CALCULATIONS SIGNED & SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. DRAWINGS SHALL IDENTIFY & LOCATE ALL COMPONENTS & SHALL SPECIFY MEMBER SIZES, BRACING & ALL OTHER NECESSARY FABRICATION & ERECTION INFORMATION.

STRUCTURAL STEEL

- 1. ALL HOT ROLLED STEEL BEAMS & COLUMNS SHALL CONFORM TO ASTM A992 GRADE 50. PLATES, BARS, CHANNELS, RODS AND ANGLES SHALL CONFORM TO ASTM A36.
- 2. STEEL PIPE SHALL CONFORM TO ASTM A53, GRADE B, FY=35 KSI.
- 3. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B.
- 4. ALL WELDS SHALL BE MADE WITH E70 LOW HYDROGEN ELECTRODES, BY QUALIFIED WELDERS AS PER AWS D1.1 REQUIREMENTS.
- 5. ALL BOLTS, EXCEPT ANCHOR BOLTS, SHALL BE HIGH STRENGTH ASTM A325, 3/4 IN. DIA., UNLESS NOTED OTHERWISE. USE HARDENED WASHERS UNDER TURNED ELEMENTS. BEARING TYPE BOLTS MAY BE USED FOR FIELD, BOLTS EXCEPT AT WIND FRAMES WHERE "SLIP CRITICAL" TYPE BOLTS SHALL BE USED.
- 6. CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY BRACING, SHORING AND GUYING OF THE FRAMING AGAINST WIND, CONSTRUCTION LOADS OR OTHER TEMPORARY FORCES UNTIL SUCH PROTECTION IS NO LONGER REQUIRED FOR THE SAFE SUPPORT OF THE STRUCTURE.
- 7. RETURN ALL WELDS AT CORNERS TWICE THE NOMINAL WELD SIZE MINIMUM.
- 8. PROVIDE HOLES FOR BLOCKING BOLTS AS SHOWN IN ARCHITECTURAL DRAWINGS.

11. ALL BEAMS SHALL BE FABRICATED AND ERECTED WITH NATURAL CAMBER UP.

- 9. ANCHOR BOLTS SHALL BE FURNISHED WITH HEAVY HEX NUTS AND FLAT WASHERS, AND SHALL BE ASTM A36 ROUND STOCK OR ASTM A307.
- 10. ALL COPES, BLOCKS, CUTOUTS AND OTHER CUTTING OF STRUCTURAL MEMBERS SHALL HAVE ALL REENTRANT CORNERS SHAPED NOTCH FREE TO A RADIUS OF 1/2 IN. MINIMUM.
- 12. ALL STRUCTURAL STEEL SHALL RECEIVE TWO SHOP COATS OF PRIMER PAINT CONFORMING TO THE PERFORMANCE REQUIREMENTS OF FEDERAL SPECIFICATION TT-P-636 OR EQUAL. ALL
- 13. FRAMING CONNECTIONS SHALL BE AISC TYPE 2 DOUBLE ANGLE BOLTED CONNECTIONS, U.N.O.. SELECT CONNECTIONS TO SUPPORT 1.2 TIMES ONE HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE UNIFORM LOAD CONSTANTS, PART 2 OF THE AISC MANUAL, FOR THE SPAN AND GRADE OF STEEL SPECIFIED.

MEMBERS TO BE SPRAYED WITH FIRE PROOFING MATERIALS SHALL NOT BE PAINTED.

- 14. ENDS OF COLUMNS SHALL BE MILLED TO BEAR AT ALL SPLICES AND ATTACHMENT OF BASE PLATES.
- 15. STRUCTURAL OPENINGS, SUPPORTS, ANCHORS, ETC. AROUND OR AFFECTED BY MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT SHALL BE VERIFIED WITH THE EQUIPMENT PURCHASED BEFORE PROCEEDING WITH STRUCTURAL WORK AFFECTED.
- 16. WELDS NOT OTHERWISE DESIGNATED SHALL BE 1/4 IN. MINIMUM FILLET.
- 17. UNLESS DETAILED ELSEWHERE IN THE DRAWINGS, OPENINGS IN ROOF DECKING LARGER THAN 1 SF SHALL BE FRAMED BY ANGLES 4X4X1/4 LEG DOWN, BEARING ON A JOIST AT EACH END. COPE VERTICAL LEG 4 IN. EACH END. WELD ADDITIONAL ANGLES OF THE SAME SIZE TO FORM A RECTANGLE OF THE APPROPRIATE SIZE.
- 18. ADHESIVE EPOXY ANCHOR WHERE USED SHALL BE HILTI HIT HY 150 INJECTION ADHESIVE ANCHOR SYSTEM OR RAMSET EPCON, C6. CONTRACTOR TO STRICTLY FOLLOW MANUFACTURER'S INSTALLATION GUIDELINES.
- 19. ALL REMAINING STEEL CONNECTIONS TO BE PROVIDED BY OTHERS TO RESIST 20K LOAD IN ALL DIRECTIONS.

CONCRETE MASONRY UNITS

- 1. BLOCKS SHALL BE HOLLOW LOAD BEARING MASONRY UNITS GRADE N, TYPE II, CONFORMING TO ASTM C90-96A. THE MINIMUM NET AREA COMPRESSIVE STRENGTH OF MASONRY SHALL BE F'M = 1500 PSI.
- ASSEMBLY ABOVE GRADE WORK MORTAR SHALL BE: TYPE S (2000 PSI AT 28 DAYS). BELOW GRADE WORK MORTAR SHALL BE TYPE M (2500 PSI AT 28 DAYS).
- 3. PREFABRICATED HORIZONTAL JOINT REINFORCEMENT SHALL BE TRUSS TYPE W/ 9 GAGE SIDE RAILS FABRICATED FROM HIGH STRENGTH COLD DRAWN WIRE CONFORMING TO ASTM A82 AND SHALL BE GALVANIZED AFTER FABRICATION.
- 4. PLACE JOINT REINFORCEMENT IN ALTERNATE COURSES IN ALL WALLS. PLACE THREE ROWS @ 8 INCHES O.C. IMMEDIATELY ABOVE ALL WALL OPENINGS, AND AT THE TOP OF ALL WALLS. LAP SIDE RAILS AT LEAST 6 INCHES AT SPLICES.
- 5. PROVIDE ALL SPECIAL LINTEL, KNOCK OUT, JAMB BLOCK AND OTHER REQUIRED TO COMPLETE THE WALLS AS SHOWN. USE MASONRY SAWS TO CUT BLOCK AS REQUIRED.
- 6. BRACE FOUNDATION WALLS BEFORE BACK FILLING AGAINST THEM TO PREVENT OVER STRESSING, BUCKLING OR ROTATION OF THE WALLS. BRACE ALL WALLS AGAINST WIND, CONSTRUCTION LOADS OR OTHER TEMPORARY FORCES UNTIL SUCH PROTECTION IS NO LONGER REQUIRED FOR THE SAFE SUPPORT OF THE WALL. BRACE DESIGN SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- 7. PROVIDE 8 INCHES X 8 INCHES PRE CAST CONCRETE LINTEL OVER ALL OPENINGS, WHERE STEEL OR OTHER LINTELS ARE NOT SPECIFIED. PROVIDE CLEAN OUTS/INSPECTION PORTS FOR FILLING CELLS IN GROUT POUR HEIGHT EXCEEDING 5 FEET.
- 8. IN ADDITION TO REQUIREMENTS ELSEWHERE IN THE DRAWINGS FOR FILLING CELLS, FILL CELLS WITH CONCRETE AND ONE #5 BAR AT A MAXIMUM SPACING OF 4'-0", U.N.O. FILL FIRST CELL EACH SIDE OF ANY OPENING, AND FILL FIRST CELL AT END OF WALL & OF ALL CORNERS.
- 9. EXTEND AND HOOK VERTICAL BARS INTO FOOTING, AND EXTEND INTO AND HOOK BARS INTO TOP OF WALL BOND BEAM OR TIE BEAM.
- 10. ALL VERTICAL BARS SHALL BE SECURELY TIED TO THE LOWER BAR AT ANY SPLICES, ESPECIALLY AT THE FOOTING DOWELS. BARS SHALL BE SECURED IN THEIR PROPER POSITIONS WITHIN THE CELLS BY WIRE TIES, REBAR POSITIONERS OR BY OTHER APPROVED METHODS.
- 11. PROVIDE CONTROL JOINTS IN ACCORDANCE WITH DETAILS ON DWGS.
- 12. CONTROL JOINT SPACING ALONG A STRAIGHT WALL SHALL NOT EXCEED 20 FT. NOR 3 TIMES THE WALL HEIGHT. USE PREFORMED NEOPRENE JOINT STRIPS AND STANDARD SASH BLOCK. LOCATE CONTROL JOINTS NEAR OPENINGS, CHANGES IN WALL HEIGHT, OR CHANGES IN GEOMETRY. WHERE POSSIBLE.

Michael Borremans

orremans ♠N: c=US, st=Florida, l=Weeki Wachee, o=Michael Borremans, =Michael Borremans, mail=mike@myasci.com eason: This Item Has Been Electronically Signed And Sealed By Michael Borremans . STATE OF Ising A Digital Signature And Date. Printed Copies Of This **Document Are Not Considered** igned And Sealed And The ignature Must Be Verified On ny Electronic Copies Date: 2022.10.20 14:53:25

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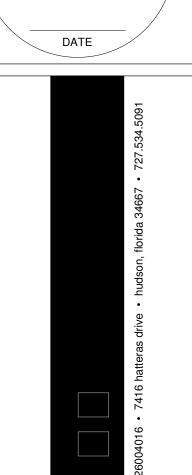
Advanced Structural Consulting, Inc. FL. Reg. #73068 Cert. Au. #29659 730 S. Sterling Ave. Suite #101 Tampa, FL 33609 Phone (813) 374-1344

To the best of engineer's knowledge. plans and specifications comply with Florida Building code 2020, Section 1609 for 120 mph wind zone. This drawing is signed and sealed for structural portions of the drawing only. All architectural, electrical, mechanical, and site details shown are for reference only and are not covered under engineer's seal. It is the contractors responsibility to review all drawings prior to beginning of construction. Any discrepancies between field conditions, other design professional's shop

discrepancies between field conditions, other design professional's shop drawings, contractor's construction methods and these signed and sealed drawings need to be brought to the attention of the engineer of record prior to construction. Engineer of Record is only responsible for the structural integrity of the project only. Advanced Structural Consulting, Inc. is not responsible for any dimensional information shown on these drawings. Contractor is responsible to verify all dimensional information prior to construction. Engineer of Record is only responsible for the proposed structural changes, if any, to the existing structure shown on these drawings. Advanced Structural Consulting, Inc. is not responsible for the existing structural components. These drawings are valid for 12 months after date signed and sealed or until Florida Building Code requirements

ADVANCED STRUCTURAL

PERMIT SUBMITTAL



8 W. US Highway 90 - Lake City, F

Structural Notes

Project number 2022.01

S000

January 27, 2022

120 MPH, EXP. C IMPACT RATING REQUIRED? WIND PRESSURE CHART **COMPONENTS AND** CLADDING THIS PLAN HAS BEEN DESIGNED TO COMPLY WITH ALL + .6h + (W3) PROVISIONS OF THE FLORIDA BUILDING CODE 7TH ED., 2020 (W3) INCLUSIVE OF ASCE7-16 WIND PROVISIONS FOR AN ULTIMATE DESIGN 3 SECOND GUST OF 120 MPH (93 MPH, NOMINAL WIND DESIGN). AS DEFINED IN SECTION 1609.2, DEFINITION (2), THIS STRUCTURE MEETS THE REQUIREMENTS OF AN ENCLOSED BUILDING AND HAS BEEN DESIGNED WITH AN INTERNAL PRESSURE COEFFICIENT OF +.18 AND -.18. COMPLIES WITH WIND SPEED MAPS AS ADOPTED BY COUNTY JURISDICTION. (BUILDING CATEGORY II) EXPOSURE CATEGORY = C h = 30'W1) WALLS (W2)|(W1)|EFFECTIVE DESIGN WIND PRESSURES (PSF) FT² -25.1 +23.1 -30.9 +22.1 -24.1 -29.0 +21.2 -22.1 -26.1 100+ +20.2 -21.7 -25.1 (MOST CONSERVATIVE CONDITIONS) (W₁) +20 AND -21.2 (W₁) +20 AND -36.8 (W2) +20 AND -48.6 (W4) (W3) +20 AND -66.2 ROUND UP TO THE HIGHER PRESSURE

a = LESSER OF 10% OF LEAST HORIZONTAL DIM. OR .4h BUT NOT < EITHER 4% OF LEAST HORIZONTAL DIMEN. OR 3FT.

h = MEAN ROOF HEIGHT (FT), EXCEPT THAT THE EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES < 10 DEGREES.

PRESSURES ARE NET PRESSURES

GENERAL STRUCTURAL NOTES:

CAST-IN-PLACE CONCRETE

- I. ALL CAST IN PLACE CONCRETE WORK INCLUDES REINFORCING STEEL AND RELATED WORK SHOWN INCLUDING FORMWORK, SETTING ANCHOR BOLTS, PLATES, FRAMES, DOWELS FOR MASONRY OR OTHER ITEMS EMBEDDED IN CONCRETE.
- 2. APPLICATION STANDARDS:
- ACI# TITLE STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION.
- GROUND GRANULATED BLAST FURNACE SLAG. STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
- GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION. GUIDE FOR MEASURING MIXING, TRANSPORTING AND PLACING CONCRETE. 304.2R PLACING CONCRETE BY PUMPING METHODS.
- 305R HOT WEATHER CONCRETING.
- 306R COLD WEATHER CONCRETING. 308 STANDARD PRACTICE FOR CURING CONCRETE.
- 309R GUIDE FOR CONSOLIDATION OF CONCRETE.
- MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
- RECOMMENDED PRACTICE FOR CONCRETE FORMWORK.
- CRSI NUMBERTITLE
- 63 RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS.
- 3. CONCRETE MATERIALS
- A) PORTLAND CEMENT: ASTM C 150, TYPE I B) AGGREGATES: NORMAL WEIGHT CONCRETE, COARSE AND FINE, ASTM C33
- C) AIR-ENTRAINING: ASTM C260
- D) WATER REDUCING: ASTM C494, TYPE A E) WATER: FRESH, CLEAN AND POTABLE
- F) NO ACCELERATORS, RETARDERS OR ADMIXTURES CONTAINING CHLORIDES WILL BE PERMITTED G) FLY-ASH: ASTM C618, CLASS F, 20% MAX. BY WEIGHT. DO NOT USE FOR EXPOSED SLABS
- H) SUPER PLASTICIZER: ASTM C494, TYPE F OR G. WHERE AUTHORIZED BY THE ENGINEER. I) GROUND GRANULATED BLAST FURNACE SLAG CEMENT: ASTM C989, 50% MAX. BY
- J) MAX. AGGREGATE SIZE: FOOTINGS = #57, OTHERS #67
- 4. REINFORCING MATERIALS

OR ARCHITECTURAL CONCRETE.

- A) DEFORMED BARS: ASTM A615, GRADE 60
- B) SMOOTH DOWELS: ASTM A615, PLAIN BARS, MIN.YIELD STRENGTH OF 60,000 PSI. C) WELDED WIRE FABRIC: ASTM A185, PLAIN WIRE FABRIC IN FLAT SHEETS ONLY.
- D) ACCESSORIES TO CONFORM TO ACI 315.
- E) CONCRETE SURFACES ARE EXPOSED, MAKE THOSE PORTIONS OF ALL ACCESSORIES IN CONTACT WITH THE CONCRETE SURFACE OR WITHIN 1/2 INCH THEREOF, OF PLASTIC OR STAINLESS STEEL.

- 6. CONCRETE MUST BE BATCHED, MIXED AND TRANSPORTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR READY MIXED CONCRETE ASTM C94.
- 7. REQUIRED SLUMP = 4 PLUS OR MINUS ONE INCH.
- 8. CONCRETE MUST BE PLACED WITHIN 90 MINUTES OF BATCH TIME. WHEN AIR TEMPERATURE IS BETWEEN 85 AND 90 DEGREES F, REDUCE MIXING AND DELIVERY TIME TO 75 MINUTES. WHEN AIR TEMPERATURE IS HIGHER THAN 90 DEGREES F, REDUCE MIXING AND DELIVERY TIME TO 60
- 9. DO NOT ADD WATER AT THE JOB SITE WITHOUT APPROVAL OF THE PROJECT SUPERINTENDENT. DO NOT EXCEED THE SLUMP LIMITATION. USE ONLY COLD WATER FROM THE TRUCK TANK. ANY ADDED WATER MUST BE INDICATED ON THE DELIVERY TICKET PLUS THE NAME OF THE PERSON AUTHORIZING. TEST CYLINDERS SHALL BE TAKEN AFTER THE ADDITION OF WATER.
- 10. LAP SPLICE ALL BARS 48 DIAMETERS MINIMUM UNLESS OTHERWISE SHOWN OR NOTED.
- 11. PROVIDE CORNER BARS AT ALL WALL FOOTING, WALL & BEAM CORNERS. SIZE AND NUMBER TO MATCH HORIZONTAL BARS.
- 12. PROVIDE FOUNDATION DOWELS TO MATCH SIZE AND NUMBER OF VERTICAL BARS. EMBED
- A) 3" ABOVE BOTTOM OF FOOTINGS
- B) 6" ABOVE BOTTOM OF PILE CAPS
- 13. ALL REINFORCEMENT SHALL BE FASTENED AND SECURED TOGETHER TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR THE PLACING OF CONCRETE.
- 14. REINFORCING BAR COVER:
- A) FOOTINGS 2" (TOP), 3" (SIDES AND BOTTOM) B) COLUMNS AND BEAMS 1 1/2" (2" BELOW GRADE LVL)
- C) SLABS 3/4" (INTERIOR), 1 1/2" (EXTERIOR)
- 15. WHERE BAR LENGTHS ARE GIVEN ON THE DRAWINGS, LENGTH OF HOOK, IF REQUIRED, IS NOT INCLUDED.
- 16. SELECT PROPORTIONS IN ACCORDANCE WITH ACI 301 TO PROVIDE CONCRETE CAPABLE OF BEING PLACED WITHOUT EXCESSIVE SEGREGATION AND WITH ACCEPTABLE FINISHING PROPERTIES, DURABILITY, SURFACE HARDENERS, APPEARANCE, AND STRENGTH REQUIREMENTS REQUIRED BY THESE SPECIFICATIONS.
- 17. CHAIR WELDED WIRE FABRIC REINFORCING AT 3'0" ON CENTER MAXIMUM IN EACH DIRECTION.
- 18. MAXIMUM WATER TO CEMENT RATIO WHEN NO BACK-UP DATA IS AVAILABLE: A) 4000 PSI. 28 DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.44 MAXIMUM (NON AIR ENTRAINED), 0.36 MAXIMUM (AIR ENTRAINED). B) 3000 PSÍ, 28 DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.58 MAXIMUM (NON AIR ENTRAINED), 0.47 MAXIMUM (AIR ENTRAINED).

CAST-IN-PLACE CONCRETE (CONTINUED)

- 19. DATA TO BE SUBMITTED:
- A) INTENDED USAGE AND LOCATION FOR EACH TYPE
- B) MIX DESIGN FOR EACH TYPE C) CEMENT CONTENT IN POUNDS-PER-CUBIC YARD
- D) COARSE AND FINE AGGREGATE IN POUNDS/CUBIC YARD E) WATER CEMENT RATIO BY WEIGHT
- F) CEMENT TYPE AND MANUFACTURER
- G) SLUMP RANGE

SIZE BY TWO INCHES.

- H) AIR CONTENT ADMIXTURE TYPE AND MANUFACTURER
- J) PERCENT ADMIXTURE BY WEIGHT K) STRENGTH TEST DATA REQUIRED TO ESTABLISH MIX DESIGN. L) COMPLETE DETAIL AND PLACING SHOP DRAWINGS FOR ALL REINFORCING STEEL
- INCLUDING ACCESSORIES THAT HAVE BEEN REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR. INCLUDE ALL REQUIRED DIMENSIONS AND ELEVATIONS (IE. TOP OF CONCRETE).
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CONSTRUCTION OF ALL A) FORMWORK, SHORING AND RESHORING IN ACCORDANCE WITH ACI 347. FORM AND SHORING DESIGN BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF B) EARTH CUTS MAY BE USED AS FORMS FOR FOOTING VERTICAL SURFACES: INCREASE
- SUBMIT FORM WORK AND SHORING DRAWINGS TO LOCAL BUILDING DEPARTMENT WHEN
- REQUIRED BY FLORIDA THRESHOLD LAW.
- CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS MUST BE MADE AND LOCATED TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE. A) NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN BEAMS, GIRDERS AND
- B) LOCATION OF ANY CONSTRUCTION JOINT NOT SHOWN IS SUBJECT TO REVIEW AND ACCEPTANCE BY ENGINEER.
- INTERNAL VIBRATION, PROPERLY APPLIED IS THE REQUIRED METHOD OF CONSOLIDATING 24 PLASTIC CONCRETE.
- PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS 25 UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, AND SLAB RECESSES AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED. NO SLEEVE, OPENINGS, OR

INSERT MAY BE PLACED IN BEAMS, JOISTS, OR COLUMN UNLESS APPROVED BY THE

- CONTRACTOR SHALL VERIFY EMBEDDED ITEMS INCLUDING, BUT NOT LIMITED TO, ANCHOR
- 27. BOLTS, BOLT CLUSTERS, WELD PLATES, ETC., BEFORE PLACING CONCRETE. NOTIFY ENGINEER OF ANY CONFLICTS WITH REBAR.
- SEE ARCHITECTURAL DRAWINGS FOR REQUIRED CONCRETE FINISHES.
- SLOPE ALL WALKWAYS AND BALCONIES TO DRAIN AWAY FROM THE BUILDING.
- ALL BUILDING FLOOR AND SITE SLABS-ON-GRADE SHALL BE 4" MINIMUM THICKNESS. A) REINFORCED WITH 6X6, W1.4 X W1.4 W.W.F.
- B) PLACED ON 10 MIL POLYETHYLENE VAPOR BARRIER. LAP 6" AND TAPE ALL JOINTS. C) SAW CUT CONTROL JOINTS @ LESS THAN OR EQUAL TO 20'0" EACH WAY.
- 30. D) PROVIDE HOUSEKEEPING PADS AS REQUIRED.
- E) SEE DRAWINGS FOR ANY ADDITIONAL CONDITIONS.

TESTING:

- A) A QUALIFIED TESTING LAB SHALL BE RETAINED TO PERFORM QUALITY CONTROL WORK AND ON SITE TESTING.
- B) AIR TEST: ASTM C231
- C) SLUMP TEST: ASTM 143 D) MOLD AND CURE TEST CYLINDERS (ASTM C31) AND TEST CYLINDERS FOR STRENGTH
- (ASTM C39). TAKE ONE TEST: FOUR CYLINDERS FOR EACH DAYS POUR OF 50 CUBIC YARDS. OR FRACTION THEREOF. TEST ONE CYLINDER AT 7 DAYS, TWO AT 28 DAYS AND ONE HOLD. TEST CYLINDER SAMPLES SHALL BE TAKEN AT THE POINT OF DISCHARGE WHEN USING A
- E) ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO THE OWNER, ENGINEER, ARCHITECT AND GENERAL CONTRACTOR.
- 32. CONTRACTOR SHALL PROVIDE FLATNESS AND LEVELNESS IN CONCRETE SLABS PER ACI 302.1R, FIG. 8.15.1.1 MINIMUM REQUIRED "F" NUMBERS FOR TYPE OF SLAB USE. REFER TO ACI 117 FOR FLOOR TOLERANCES.
- REPAIR ANY CRACKS OR DEFECTIVE AREAS THAT WILL RESTORE THE AFFECTED SURFACE OR AREAS TO THEIR FULL DESIGN STRENGTH AND APPEARANCE. CONTACT THE STRUCTURAL ENGINEER FOR ADVICE AND EVALUATION.
- ACCEPTANCE OF THE STRUCTURE WILL BE MADE IN CONFORMANCE WITH ACI 301.



Digitally signed by Michael DN: c=US, st=Florida, l=Weeki

To the best of engineer's knowledge. plans and specifications comply with

Reason: This Item Has Been Electronically Signed And Sealed By Michael Borremans Using A Digital Signature And

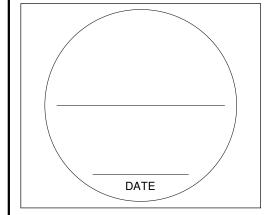
Borremans

Date. Printed Copies Of This Document Are Not Considered Signed And Sealed And The Signature Must Be Verified On Any Electronic Copies Date: 2022.10.20 14:53:44

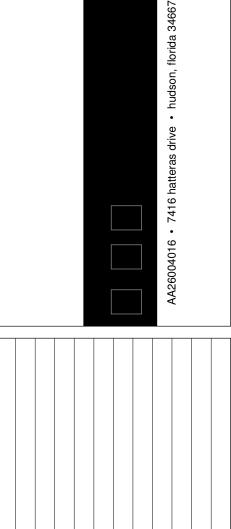
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Michael Borremans Advanced Structural Consulting, Inc. FL. Reg. #73068 Cert. Au. #29659 730 S. Sterling Ave. Suite #101 Tampa, FL 33609 ADVANCED STRUCTURAL Phone (813) 374-1344 THESE DRAWINGS ARE THE PROPERTY OF ADVANCED STRUCTURAL CONSULTING, INC. ANY REPRODUCTION OR UNAUTHORIZED USE IS PROHIBITED.

Florida Building code 2020, Section 1609 for 120 mph wind zone. This drawing is signed and sealed for structural portions of the drawing only. All architectural, electrical, mechanical, and site details shown are for reference only and are not covered under engineer's seal. It is the contractors responsibility to review all drawings prior to beginning of construction. Any discrepancies between field conditions, other design professional's shop drawings, contractor's construction methods and these signed and sealed drawings need to be brought to the attention of the engineer of record prior to construction. Engineer of Record is only responsible for the structural integrity of the project only. Advanced Structural Consulting, Inc. is not responsible for any dimensional information shown on these drawings Contractor is responsible to verify all dimensional information prior to construction. Engineer of Record is only responsible for the proposed structural changes, if any, to the existing structure shown on these drawings. Advanced Structural Consulting, Inc. is not responsible for the existing structural components. These drawings are valid for 12 months after date signed and sealed or until Florida Building Code requirements



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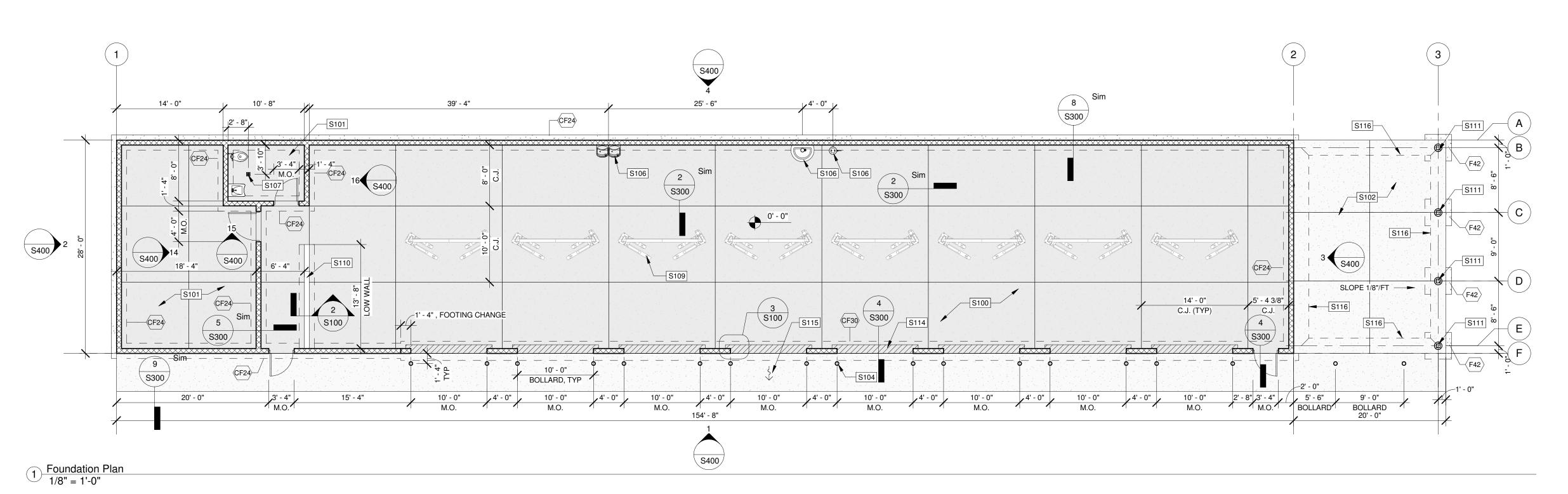
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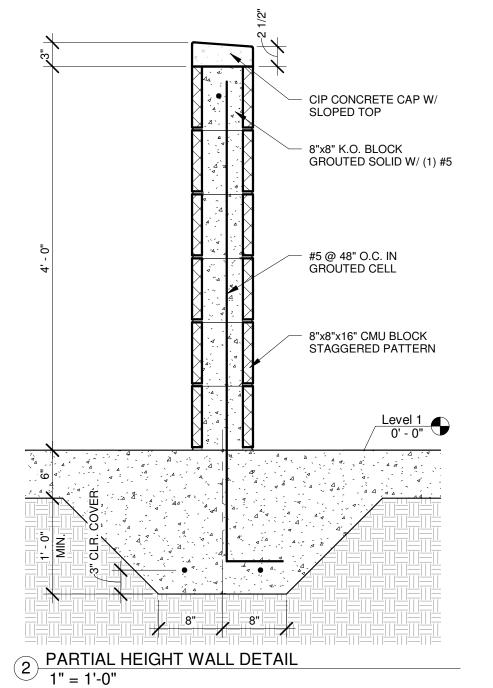
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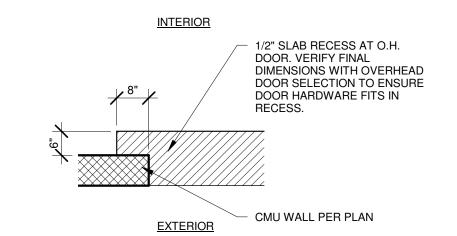
Project number

2022.01 January 27, 2022

	FOUNDATION SCHEDULE					
				ELEV. T/O		
MARK	WIDTH	LENGTH	THICK	FTG.	REINFORCEMENT	
CF24	2' - 0"	CONTINUOUS	1' - 0"	-2' - 0"	(3) #5 CONT / #3 @ 16" O.C. TRANSVERSE	
CF30	2' - 6"	CONTINUOUS	1' - 0"	-2' - 0"	(5) #5 EACH WAY	
F42	3' - 6"	3' - 6"	1' - 4"	-2' - 0"	(5) #5 EACH WAY	







3 Slab Recess at O.H. Door 1/2" = 1'-0"

GENERAL NOTES

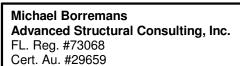
- CONTRACTOR TO COORDINATE THE INSTALLATION OF ALL UNDERSLAB CONDUITS, PIPES, AND AIR LINES FOR LIFTS AND ALIGNMENT RACKS.
- VERTICAL WALL CONTROL JOINTS SHALL BE SPACED NOT TO EXCEED 20'-0" O.C. LOCATE JOINTS ADJACENT TO OPENINGS, WALL INTERSECTIONS, OR CHANGES IN ELEVATION. COORDINATE LOCATIONS W/ ARCHITECT.
- REVIEW AND COORDINATE ALL UNDERSLAB WORK WITH SUB-TRADES, I.E. UNDERSLAB PLUMBING, ELECTRICAL AND
- MECHANICAL ITEMS. REFER TO FLOOR PLAN, EXTERIOR ELEVATIONS AND MECHANICAL PLANS FOR LOCATIONS OF WALL OPENINGS
- LOCATED ABOVE FINISHED FLOOR. ALL CMU WALLS SHALL HAVE No. 9 HORIZONTAL JOINT REINFORCING AT EVERY 2ND COURSE (16")
- ALL LINTELS ARE 8F16-2B UNLESS OTHERWISE NOTED.

KEY NOTES

KEYNOTE NON-SEQUENCE NUMBERING IS INTENTIONAL. ONLY KEYNOTES LISTED BELOW ARE UTILIZED FOR THIS DRAWING.

- S100 6" THICK 3000 PSI REINFORCED CONCRETE SLAB W/6x6xW2.9xW2.9 WWF ON 6 MIL VAPOR BARRIER ON CLEAN COMPACTED FILL W/TERMITE TREATMENT.
- S101 4" THICK 3000 PSI REINFORCED CONCRETE SLAB W/6x6xW2.9xW2.9 WWF ON 6 MIL VAPOR BARRIER ON CLEAN COMPACTED FILL W/TERMITE TREATMENT.
- S102 6" THICK 3000 PSI REINFORCED CONCRETE SLAB W/6x6xW2.9xW2.9 WWF ON 6 MIL VAPOR BARRIER. SLOPE CONCRETE APRON/SIDEWALK AWAY FROM BUILDING. COORDINATE WITH CIVIL DRAWINGS FOR T.O. PAVEMENT ELEVATIONS. BROOM FINISH.
- S104 CONCRETE FILLED STEEL BOLLARD. REFER TO DETAIL.
- S106 PLUMBING FIXTURE. REFER TO PLUMBING DRAWINGS.
- S107 FLOOR DRAIN. REFER TO PLUMBING DRAWINGS.
- S109 ABOVE GROUND LIFT. COORDINATE INSTALLATION WITH EQUIPMENT
- S110 PARTIAL HEIGHT CMU WALL. REFER TO DETAIL.
- S111 PRE-ENGINEERED ALUM. CANOPY COLUMN TO FOUNDATION BELOW. ENCASE WITH COCRETE FILLED SONO TUBE TO 48" A.F.F. OR USE CONCRETE FILLED STEEL BOLLARDS TO PROTECT COLUMN.
- S114 RECESS SLAB AT ALL OVERHEAD DOORS PER DETAIL.
- S115 SLOPE EXTERIOR SLAB PER CIVIL DRAWINGS.
- S116 THICKENED SLAB EDGE AT PERIMETER OF SLAB. 12"x12" WITH (2) #5





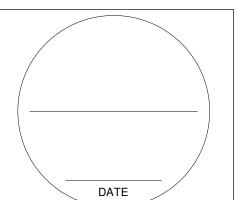
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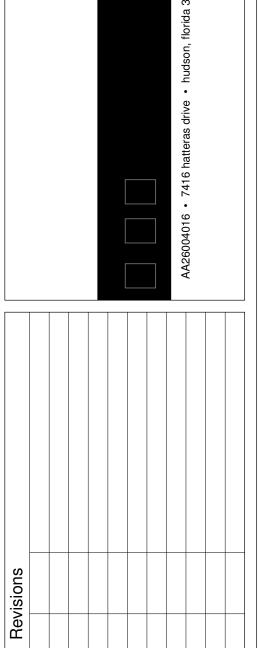
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only and are not covered under engineer's seal. It is the contractors responsibility to review all drawings prior to beginning of construction. Any discrepancies between field conditions, other design professional's shop drawings, contractor's construction methods and these signed and sealed drawings need to be brought to the attention of the engineer of record prior to construction. Engineer of Record is only responsible for the structural integrity of the project only. Advanced Structural Consulting, Inc. is not responsible for any dimensional information shown on these drawings. Contractor is responsible to verify all dimensional information prior to construction. Engineer of Record is only responsible for the proposed structural changes, if any, to the existing structure shown on these drawings. Advanced Structural Consulting, Inc. is not responsible for the existing structural components. These drawings are valid for 12 months after date signed and sealed or until Florida Building Code requirements

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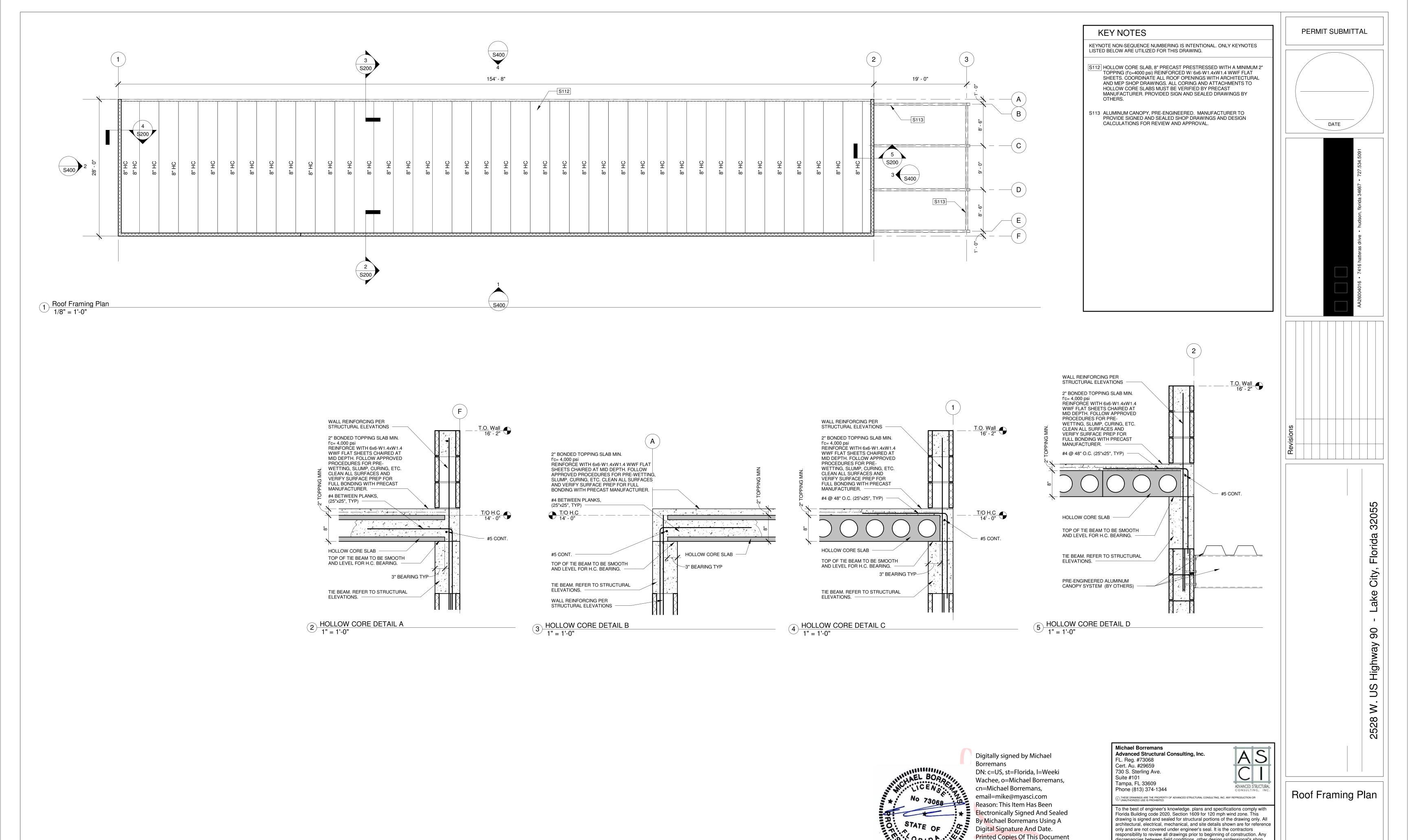
Wachee, o=Michael Borremans, cn=Michael Borremans, email=mike@myasci.com Reason: This Item Has Been Sealed By Michael Borremans Using A Digital Signature And Date. Printed Copies Of This **Document Are Not Considered** Signed And Sealed And The Signature Must Be Verified On Any Electronic Copies Date: 2022.10.20 14:54:03

ADVANCED STRUCTURAL

Foundation Plan

2022.01 Project number January 27, 2022

S100



2022.01 Project number January 27, 2022

discrepancies between field conditions, other design professional's shop

drawings, contractor's construction methods and these signed and sealed

drawings need to be brought to the attention of the engineer of record prior

to construction. Engineer of Record is only responsible for the structural

integrity of the project only. Advanced Structural Consulting, Inc. is not

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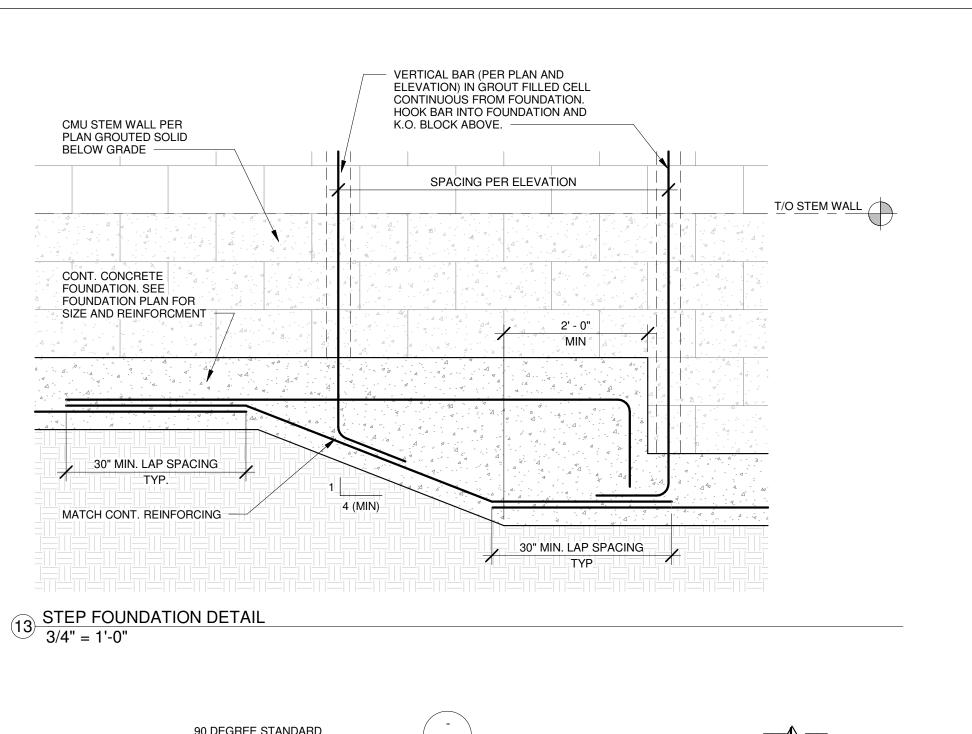
Contractor is responsible to verify all dimensional information prior to construction. Engineer of Record is only responsible for the proposed structural changes, if any, to the existing structure shown on these drawings. Advanced Structural Consulting, Inc. is not responsible for the existing structural components. These drawings are valid for 12 months after date signed and sealed or until Florida Building Code requirements

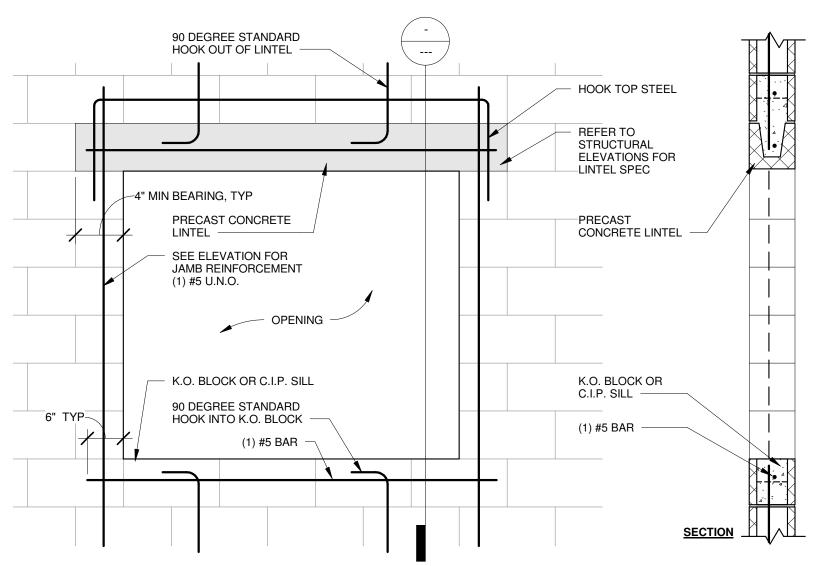
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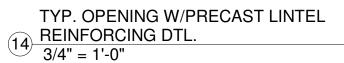
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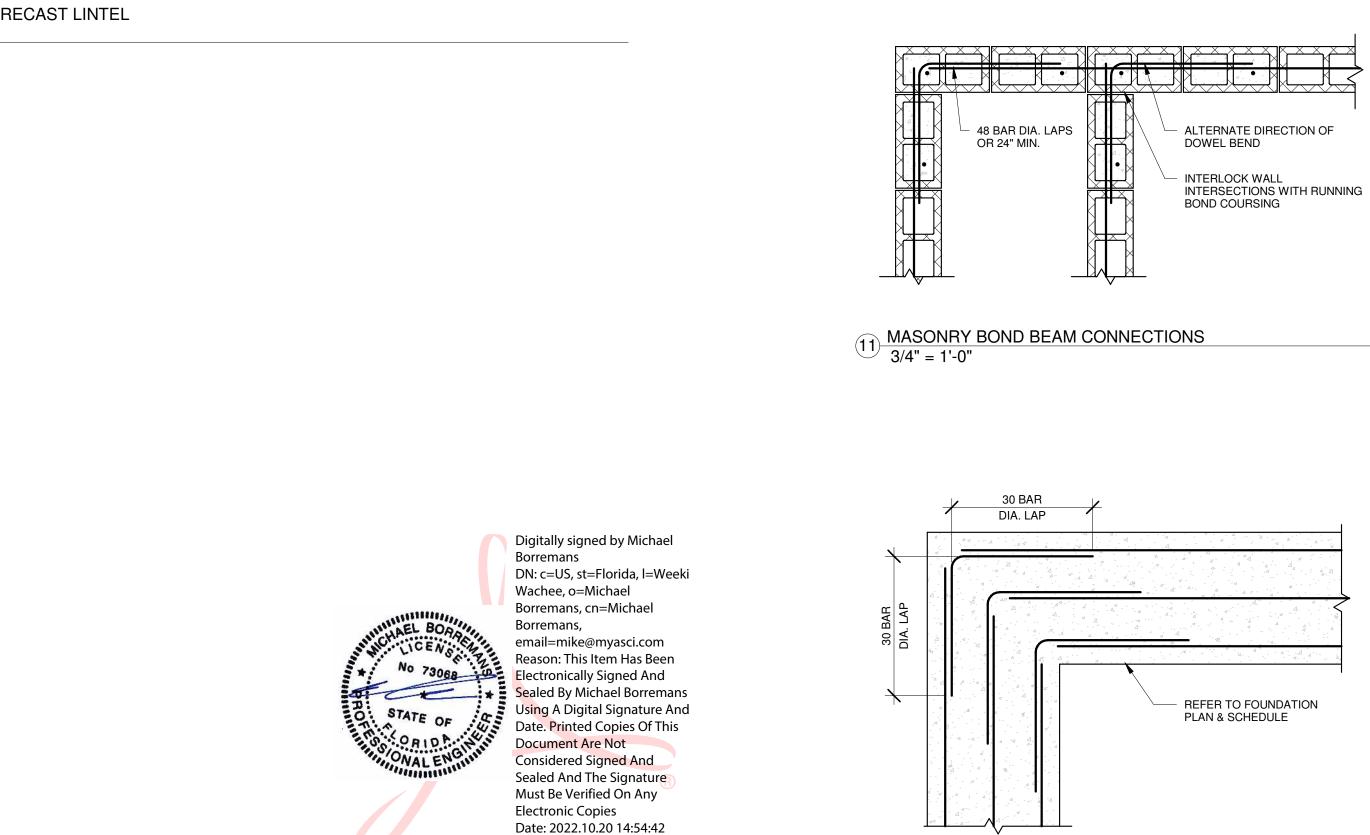
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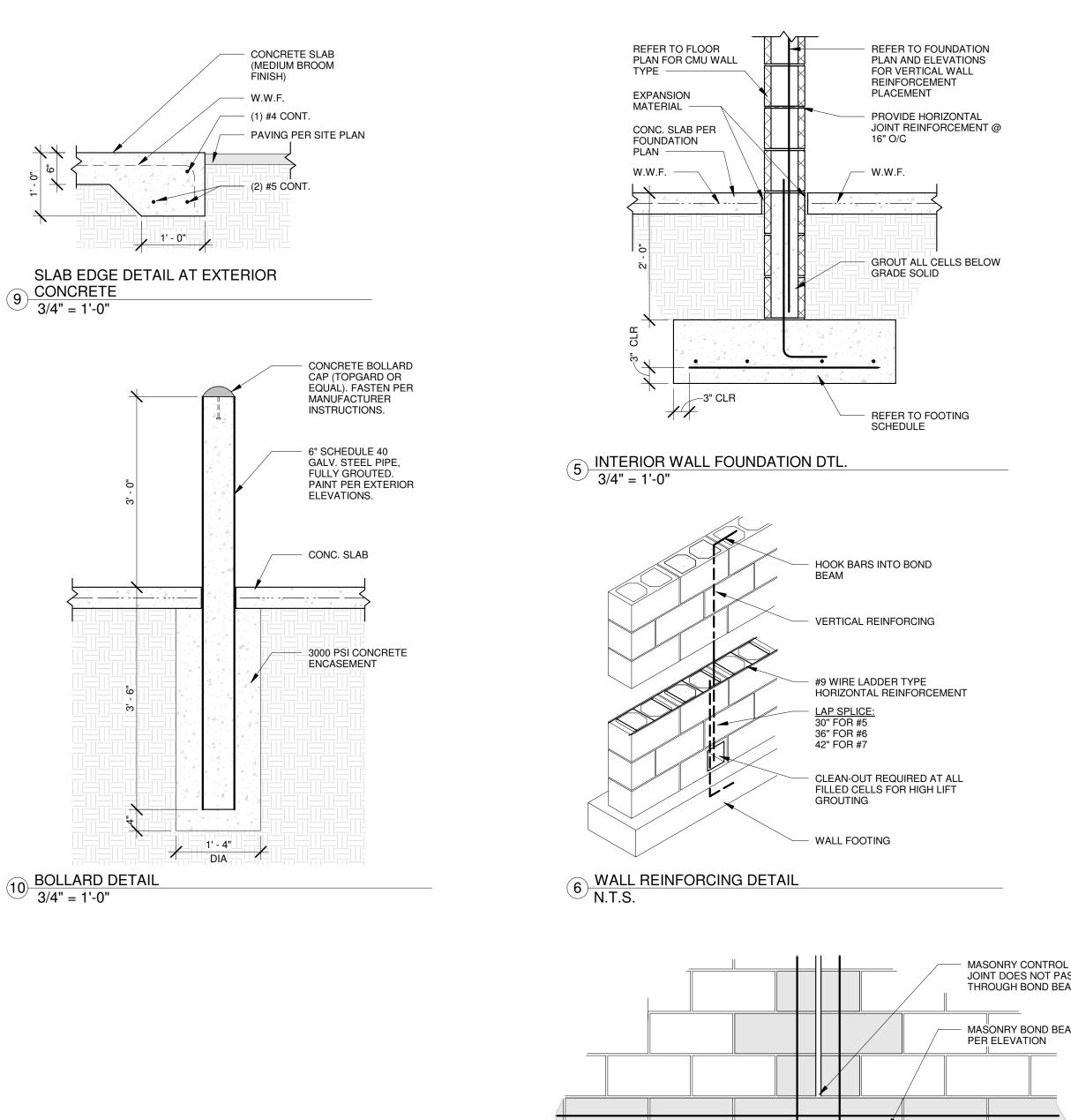


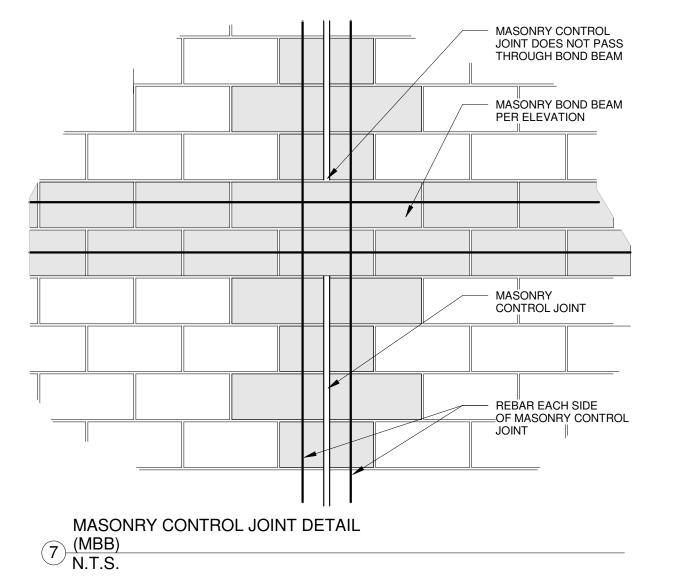


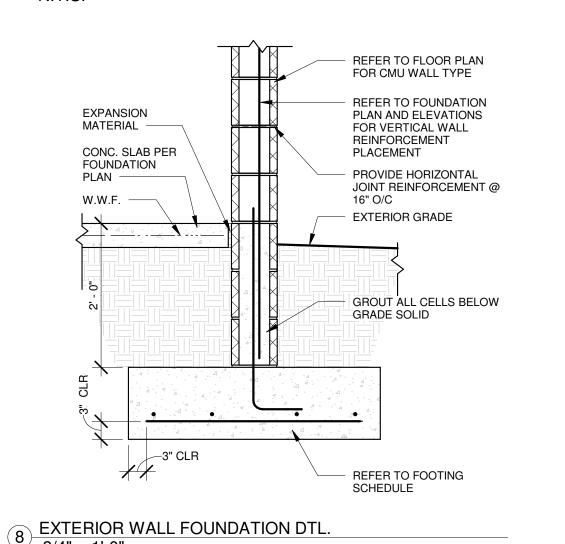


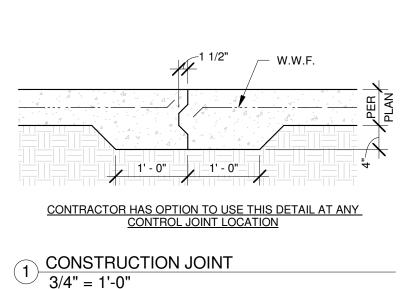
 $\begin{array}{c}
\hline
12 & CORNER BAR DETAIL AT FOUNDATION \\
\hline
3/4" = 1'-0"
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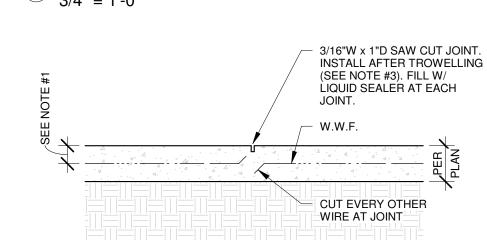
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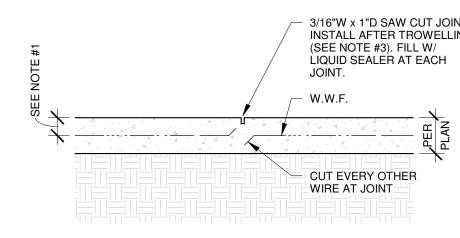


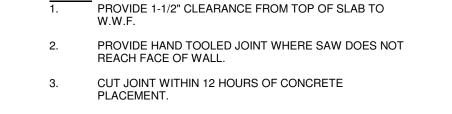


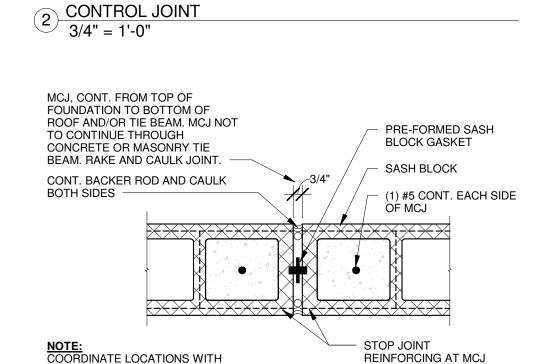


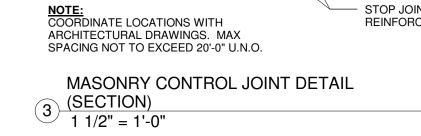


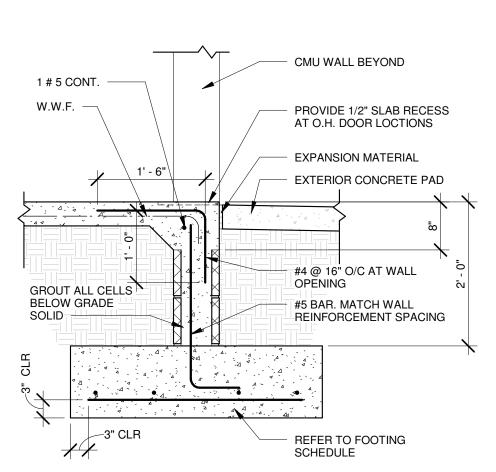






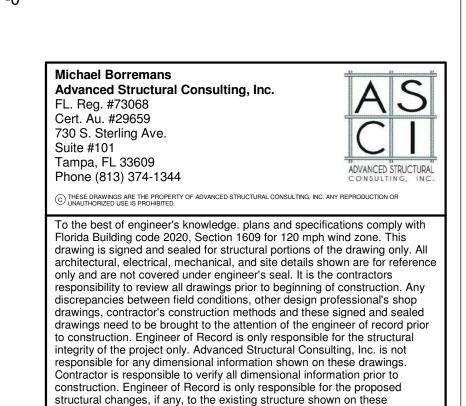






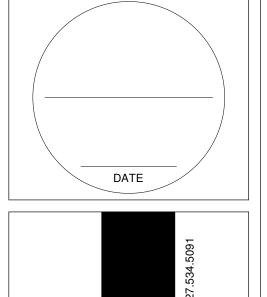
EXTERIOR WALL FOUNDATION AT <u>OPENING DTL.</u> 3/4" = 1'-0"

change.

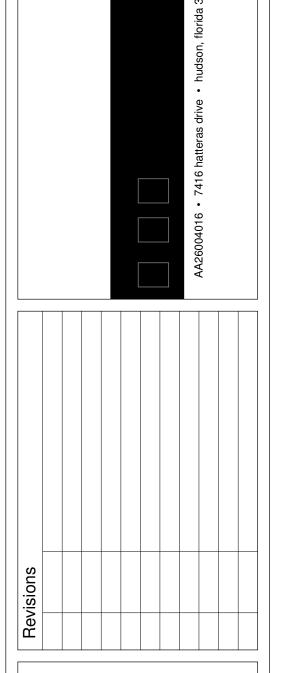


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32055 Florida City, ake. 90 Highway NS

Structural Details

2022.01 Project number January 27, 2022

