

GENERAL NOTES:  
MISCELLANEOUS

- 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.
- 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 THE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- CONTRACTOR TO SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE BUILDING DURING CONSTRUCTION.
- APPLICABLE BUILDING CODE: 8<sup>TH</sup> EDITION (2023) FLORIDA BUILDING CODE.
- GRAVITY DESIGN LOADS:

AREA	SUPERIMPOSED LIVE LOAD	TOTAL DEAD LOAD
SURCHARGE	100 PSF	0

- WIND DESIGN CRITERIA:  
ULTIMATE WIND SPEED:  $V_{ULT} = 165$  MPH (3 SECOND GUST)  
EQUIVALENT NOMINAL BASIC WIND SPEED  $V_{ASD} = 128$  MPH (3 SECOND GUST)  
RISK CATEGORY = I  
EXPOSURE CATEGORY = C  
OPEN BUILDING INTERNAL PRESSURE COEFFICIENT,  $GC_{PI} = +/-0.0$   
WIND BORNE DEBRIS REGION  
HIGH VELOCITY HURRICANE ZONE (HVHZ)
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REFERENCED BUILDING CODE.
- COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. DO NOT SCALE DRAWINGS.
- CONTACT ENGINEER WITH ANY QUESTIONS OR DISCREPANCIES FOUND ON DRAWINGS.
- SECTIONS AND DETAILS ARE REFERENCED IN TYPICAL LOCATIONS BUT ALSO APPLY TO ALL OTHER SIMILAR CONDITIONS.
- BUILDING EXPANSION JOINTS (EI), WHERE SHOWN, WILL EXPAND AND CONTRACT OVER THE LIFE OF THE BUILDING. JOINT SEALANTS AND COVERS MUST ACCOMMODATE THIS MOVEMENT.
- CONTRACTOR TO VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- 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 DELEGATED ENGINEER, WHERE SPECIFIED HEREIN.
- CONTRACTOR SHALL NOT BE RELIEVED FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS OR MIX DESIGNS BY THE ENGINEER'S REVIEW THEREOF.
- ANY CHANGES TO THE STRUCTURE SHALL HAVE BEEN REVIEWED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO COMMENCING WORK ON ITEMS AFFECTED.
- CONTRACTOR SHALL NOTIFY THIS OFFICE WHEN THE STRUCTURAL SYSTEM IS SUBSTANTIALLY COMPLETED, AND BEFORE SHEATHING, CEILINGS, OR ROOFING IS INSTALLED.

SITE WORK

- PRESUMPTIVE LOAD BEARING CAPACITIES OBTAINED FROM THE FBC SECTION 1806 HAVE BEEN USED FOR THE DESIGN OF THE FOUNDATION. SOIL HAVE BEEN ASSUMED ONE OF THESE TYPES: SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL AND CLAYEY GRAVEL (SW, SP, SM, SC, GM AND GC), WITH A BEARING CAPACITY OF 2000 PSF. IF UPON EXCAVATION OTHER MATERIALS OR CONDITIONS ARE ENCOUNTERED STOP WORK ( IN THIS AREA) AND NOTIFY ENGINEER IMMEDIATELY. PRIOR TO THE INSTALLATION OF ANY FOOTING FOUNDATION SYSTEM, THE BUILDING OFFICIAL SHALL BE PROVIDED WITH A STATEMENT OF ALLOWABLE BEARING CAPACITY FROM THE DESIGNER OF RECORD. SAID STATEMENT SHALL CLEARLY IDENTIFY THE ALLOWABLE IN-PLACE BEARING CAPACITY OF THE BUILDING PAD FOR THE NEW BUILDING OR ADDITION AND VERIFY THE EXISTING SOIL CONDITIONS.
- A QUALIFIED TESTING LABORATORY SHALL BE RETAINED BY THE CONTRACTOR TO PERFORM THE FOLLOWING MINIMUM TESTS. REFER TO SOILS REPORT FOR ANY ADDITIONAL TESTING.
  - ONE DENSITY TEST FOR EACH 2,000 SQUARE FEET OF COMPACTED SUBGRADE AND COMPACTED FILL.
  - ONE DENSITY TEST AT EACH COLUMN FOOTING.
  - ONE DENSITY TEST PER 50 FEET OF WALL FOOTING.
- ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
- EXERCISE CARE WHEN COMPACTING NEAR ADJACENT STRUCTURES. FOLLOW THE RECOMMENDATIONS IN THE SOILS REPORT AND DOCUMENT EXISTING CONDITIONS WITH PHOTOGRAPHS PRIOR TO STARTING WORK.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITY LINES, TANKS, ETC. WITHIN THE CONSTRUCTION AREA AND RELOCATE THEM AS DIRECTED BY THE CIVIL ENGINEER.

DELEGATED ENGINEER:

- WHERE NOTED HEREIN, A LICENSED PROFESSIONAL (DELEGATED) ENGINEER SHALL BE RETAINED TO DESIGN THE PRODUCT OR ASSEMBLY.
- THE DELEGATED ENGINEER SHALL BE EXPERIENCED IN THE DESIGN OF THE REFERENCED PRODUCT OR ASSEMBLY.
- THE DELEGATED ENGINEER MUST BE PROVIDED WITH A COPY OF THESE DRAWINGS AND SPECIFICATIONS.
- IT IS THE DELEGATED ENGINEER'S RESPONSIBILITY TO REVIEW THE ENGINEER OF RECORD'S WRITTEN ENGINEERING REQUIREMENTS AND AUTHORIZATION FOR THE DELEGATED ENGINEERING DOCUMENT TO DETERMINE THE APPROPRIATE SCOPE OF ENGINEERING.
- THE DELEGATED ENGINEERING DOCUMENT SHALL COMPLY WITH THE WRITTEN ENGINEERING REQUIREMENTS RECEIVED FROM THE ENGINEER OF RECORD, THEY SHALL INCLUDE THE PROJECT IDENTIFICATION AND THE CRITERIA USED AS A BASIS FOR ITS PREPARATION. IF A DELEGATED ENGINEER DETERMINES THERE ARE DETAILS, FEATURES OR UNANTICIPATED PROJECT LIMITS WHICH CONFLICT WITH THE WRITTEN ENGINEERING REQUIREMENTS PROVIDED BY THE ENGINEER OF RECORD, THE DELEGATED ENGINEER SHALL TIMELY CONTACT THE ENGINEER OF RECORD FOR RESOLUTION OF CONFLICTS.
- THE DELEGATED ENGINEER SHALL FORWARD THE DELEGATED ENGINEERING DOCUMENT TO THE ENGINEER OF RECORD FOR REVIEW. ALL FINAL DELEGATED ENGINEERING DOCUMENTS REQUIRE THE IMPRESSED SEAL AND SIGNATURE OF THE DELEGATED ENGINEER AND INCLUDE:
  - DRAWINGS INTRODUCING ENGINEERING INPUT SUCH AS DEFINING THE CONFIGURATION OR STRUCTURAL CAPACITY OF STRUCTURAL COMPONENTS ND/OR THEIR ASSEMBLY INTO STRUCTURAL SYSTEMS
  - CALCULATIONS.

CAST IN PLACE CONCRETE :

- 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.
- APPLICABLE STANDARDS

ACI NUMBER	TITLE
117	STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION
226	GROUND GRANULATED BLAST-FURNACE SLAG
301	STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
302	GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION
304	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
315	MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES
318	BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
347	RECOMMENDED PRACTICE FOR CONCRETE FORMWORK
CRSI NUMBER	TITLE
63	RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS

- CONCRETE MATERIALS
  - PORTLAND CEMENT - ASTM C 150, TYPE I
  - AGGREGATES - NORMAL WEIGHT CONCRETE, COARSE AND FINE, ASTM C33. STRUCTURAL LIGHT WEIGHT ASTM C330.
  - AIR-ENTRAINING - ASTM C260
  - WATER REDUCING - ASTM C494, TYPE A
  - WATER - FRESH, CLEAN AND POTABLE
  - NO ACCELERATORS, RETARDERS OR ADMIXTURES CONTAINING CHLORIDES WILL BE PERMITTED
  - FLY-ASH - ASTM C618, CLASS F, 20% MAXIMUM OF CEMENTITIOUS MATERIAL BY WEIGHT. DO NOT USE FOR EXPOSED SLABS OR ARCHITECTURAL CONCRETE.
  - SUPER PLASTICIZER - ASTM C494, TYPE F OR G, WHERE AUTHORIZED BY THE ENGINEER.
  - GROUND GRANULATED BLAST-FURNACE SLAG CEMENT - ASTM C989, 50% MAXIMUM BY WEIGHT.
  - MAXIMUM AGGREGATE SIZE - FOOTINGS = #57, OTHERS #67
- REINFORCING MATERIALS
  - DEFORMED BARS - ASTM A615, GRADE 60
  - SMOOTH DOWELS - ASTM A615, PLAIN BARS, MINIMUM YIELD STRENGTH OF 60,000 PSI.

- WELDED WIRE FABRIC - ASTM A1064, PLAIN WIRE FABRIC IN FLAT SHEETS ONLY.
- ACCESSORIES TO CONFORM TO ACI 315.
- WHERE 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.
- PROVIDE THE FOLLOWING MINIMUM CONCRETE STRENGTHS AT 28 DAYS:
  - FOOTINGS, SLAB-ON-GRADE-----3000 PSI
  - MASONRY WALL BEAMS, TIE COLUMNS-----3000 PSI
  - FORMED COLUMNS, WALLS, BEAMS & SLABS-----4000 PSI
- CONCRETE MUST BE BATCHED, MIXED AND TRANSPORTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR READY-MIXED CONCRETE ASTM C94.
- REQUIRED SLUMP = 4 PLUS OR MINUS ONE INCH.
- 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 MINUTES.
- 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.
- LAP SPlice REINFORCING PER CONCRETE LAP SCHEDULE MINIMUM UNLESS OTHERWISE SHOWN OR NOTED.
- PROVIDE CORNER BARS AT ALL WALL FOOTING, WALL AND BEAM CORNERS. SIZE AND NUMBER TO MATCH HORIZONTAL BARS.
- PROVIDE FOUNDATION DOWELS TO MATCH SIZE AND NUMBER OF VERTICAL BARS. EMBED DOWELS TO:
  - 3" ABOVE BOTTOM OF FOOTINGS.
  - 6" ABOVE BOTTOM OF PILE CAPS
- REINFORCEMENT SHALL BE FASTENED AND SECURED TOGETHER TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR THE PLACING OF CONCRETE.
- REINFORCING BAR COVER
  - FOOTINGS 2" (TOP), 3" (SIDES AND BOTTOM)
  - COLUMNS AND BEAMS 1-1/2"
  - SLABS 3/4" (INTERIOR), 1-1/2" (EXTERIOR)
- WHERE BAR LENGTHS ARE GIVEN ON THE DRAWINGS, LENGTH OF HOOK, IF REQUIRED, IS NOT INCLUDED.
- 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.
- CHAIR WELDED WIRE FABRIC REINFORCING AT 3'-0" ON CENTER MAXIMUM IN EACH DIRECTION.
- MAXIMUM WATER TO CEMENT RATIO WHEN NO BACK-UP DATA IS AVAILABLE:
  - 4000 PSI, 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.44 MAXIMUM (NON-AIR-ENTRAINED), 0.36 MAXIMUM (AIR-ENTRAINED).
  - 3000 PSI, 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.58 MAXIMUM (NON-AIR-ENTRAINED), 0.47 MAXIMUM (AIR-ENTRAINED).
- DATA TO BE SUBMITTED:
  - INTENDED USAGE AND LOCATION FOR EACH TYPE
  - MIX DESIGN FOR EACH TYPE
  - CEMENT CONTENT IN POUNDS-PER-CUBIC YARD
  - COARSE AND FINE AGGREGATE IN POUNDS/CUBIC YARD
  - WATER CEMENT RATIO BY WEIGHT
  - CEMENT TYPE AND MANUFACTURER
  - SLUMP RANGE
  - AIR CONTENT
  - ADMIXTURE TYPE AND MANUFACTURER
  - PERCENT ADMIXTURE BY WEIGHT
  - STRENGTH TEST DATA REQUIRED TO ESTABLISH MIX DESIGN.
  - 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 FORMWORK, SHORING AND RE-SHORING IN ACCORDANCE WITH ACI 347.
  - FORM AND SHORING DESIGN BY A P.E. REGISTERED IN THE STATE OF FLORIDA.
- 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.
  - NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN BEAMS, GIRDERS AND SLABS.
  - 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 PLASTIC CONCRETE.
- PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS 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 ENGINEER.
- 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.
- ALL EXPOSED CONCRETE SURFACES TO BE IN ACCORDANCE WITH ACI 301 SECTION 5.3.3.(C).
- SEE ARCHITECTURAL DRAWINGS FOR REQUIRED CONCRETE FINISHES.
- SLOPE WALKWAYS AND BALCONIES TO DRAIN AWAY FROM THE BUILDING.
- BUILDING FLOOR AND SITE SLABS-ON-GRADE SHALL BE 4" MINIMUM THICKNESS, UNLESS NOTED OTHERWISE.
  - REINFORCED WITH 6X6 - W1.4 X W1.4 W.W.F.
  - PLACED ON 10 MIL POLYETHYLENE VAPOR RETARDER. LAP 6" AND TAPE ALL JOINTS.
  - SAW-CUT CONTROL JOINTS @ LESS THAN OR EQUAL TO 15'-0" EACH WAY.
  - PROVIDE HOUSEKEEPING PADS AS REQUIRED.
  - SEE DRAWINGS FOR ANY ADDITIONAL CONDITIONS.

- TESTING
  - A QUALIFIED TESTING LAB SHALL BE RETAINED BY THE CONTRACTOR TO PERFORM QUALITY CONTROL WORK AND ON-SITE TESTING.
  - SLUMP TEST - ASTM 143
  - MOLD AND CURE TEST CYLINDERS (ASTM C-31) AND TEST CYLINDERS FOR STRENGTH (ASTM C39). TAKE ONE TEST - THREE CYLINDERS FOR EACH DAYS POUR OF 100 CUBIC YARDS, OR FRACTION THEREOF. TEST ONE CYLINDER AT 7 DAYS, TWO AT 28 DAYS. TEST CYLINDER SAMPLES SHALL BE TAKEN AT THE POINT OF DISCHARGE WHEN USING A PUMP.
  - ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO THE OWNER, ENGINEER, ARCHITECT AND GENERAL CONTRACTOR.
- CONTRACTOR SHALL PROVIDE FLATNESS AND LEVELNESS IN CONCRETE SLABS PER ACI 302.1R, FIG. 10.7 MINIMUM REQUIRED "F" NUMBERS FOR TYPE OF SLAB USE. REFER TO ACI 117 FOR FLOOR TOLERANCES.
- REPAIR ANY CRACKS OR EFFECTIVE 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.
- ALL CAST-IN-PLACE CONCRETE MUST BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT A RELATIVELY CONSTANT TEMPERATURE FOR A MINIMUM OF 7 DAYS FOLLOWING THE PLACING OF THE CONCRETE BY THE USE OF A WATER SPRAY, WATER SATURATED FABRIC, MOISTURE RETAINING MEMBRANE OR LIQUID CURING COMPOUND.
- CURE SLABS-ON-GRADE FOR THE FIRST 72 HOURS BY THE USE OF:
  - FOG SPRAYING
  - PONDING
  - SPRINKLING
  - CONTINUOUSLY WET ABSORPTIVE MATS OR FABRIC
  - CONTINUE CURING BY USE OF MOISTURE RETAINING COVER UNTIL CONCRETE HAS OBTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH.
  - OR LIQUID CURING COMPOUND AFTER FINISHING PROCESS IS COMPLETED.
  - CONCRETE WET CURE TIME TO BE 7 DAYS MINIMUM AT 50 DEGREES MINIMUM TEMPERATURE.
- SUBMIT MATERIALS AND METHOD OF CURING FOR REVIEW.
- DO NOT USE MOISTURE RETAINING CURING COMPOUNDS FOR CURING SURFACES TO RECEIVE CARPET, FLEXIBLE FLOORING, CERAMIC TILED FLOORS OR OTHER SPECIFIED FLOOR SYSTEMS, UNLESS IT HAS BEEN DEMONSTRATED THAT SUCH COMPOUNDS WILL NOT PREVENT BOND.
- DO NOT PERMIT CONCRETE NOT FULLY CURED TO BE EXPOSED TO EXCESSIVE TEMPERATURE CHANGES OR HIGH WINDS.
- POUR ALL GROUND SLABS ON 10 MIL MINIMUM VAPOR RETARDER IN COMPLIANCE WITH ASTM E1745, LAPPED 6" MINIMUM AND FULLY TAPED.
- EQUIPMENT MADE OF ALUMINUM OR ALUMINUM ALLOYS, SHALL NOT BE USED FOR PUMP LINES, TREMIES, OR CHUTES OTHER THAN SHORT CHUTES SUCH AS THOSE USED TO CONVEY CONCRETE FROM A TRUCK MIXER.
- THE CODE PROHIBITS THE USE OF ALUMINUM (CONDUIT, PIPES, ETC.) IN STRUCTURAL CONCRETE UNLESS IT IS EFFECTIVELY COATED OR COVERED.

DRILL-IN BOLTS, SCREWS AND DOWELS

- ADHESIVE DOWELING RODS/BOLTS SHALL BE CARBON STEEL THREADED ROD CONFORMING TO ISO 898 5.8 WITH A MINIMUM TENSILE STRENGTH OF 72.5 KSI (500MPA) AND A MINIMUM YIELD OF 58 KSI (400MPA). THREADED RODS WITH NUTS AND WASHERS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE HILTIHY 200 SAFE SET (ESR 3187) OR RE 500 S0 (ESR 2322) ANCHORS BY HILTI OR EQUAL.
- ANCHORING ADHESIVE SHALL BE A TWO-COMPONENT SYSTEM SUPPLIED IN MANUFACTURER'S STANDARD SIDE-BY-SIDE FOIL PACKAGE AND DISPENSED THROUGH A STATIC-MIXING NOZZLE SUPPLIED BY THE MANUFACTURER. ADHESIVE SHALL BE TESTED AND APPROVED TO MEET THE MINIMUM REQUIREMENTS OF ACI 355.4 FOR CRACKED AND UNCRACKED CONCRETE RECOGNITION.
- DRILL-IN REBAR DOWELS SHALL BE SET USING A TWO-PART ADHESIVE AS DESCRIBED ABOVE.
- EXPANSION BOLTS SHALL BE HILTI KB TZ (ESR 1917) OR EQUAL. BOLT SHALL MEET DUCTILITY REQUIREMENTS OF ACI 318 SECTION D1.

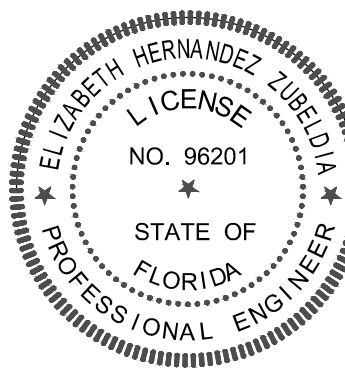
- EXPANSION BOLTS SHALL HAVE CARBON STEEL ANCHOR BODY AND NUT AND WASHER SHALL BE ELECTROPLATED ZINC COATING CONFORMING TO ASTM B633 TO A MINIMUM OF 5MM. THE STAINLESS STEEL ANCHOR BODY, NUT AND WASHER, AND EXPANSION SLEEVE SHALL CONFORM TO TYPE 316 STAINLESS STEEL. EXPANSION ANCHORS SHALL MEET THE MINIMUM REQUIREMENTS OF ACI 355.2 FOR CRACKED AND UNCRACKED CONCRETE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- MASONRY SCREWS SHALL BE 1/4" DIAMETER WITH 1-5/8" MINIMUM EMBEDMENT INSTALLED IN DRILLED HOLES USING AN APPROPRIATE BIT DIAMETER.
- SCREWS SHALL HAVE A BODY MADE OF CARBON STEEL AND SHALL BE HEAT TREATED AND SHALL HAVE 8MM ZINC COATING IN ACORDANCE WITH EN ISO 4042. PROVIDE HUS EZ (ESR 3027) SCREWS BY HILTI OR EQUAL.
- HEAVY-DUTY CONCRETE AND MASONRY SCREWS SHALL BE TESTED AND APPROVED TO MEET THE MINIMUM REQUIREMENTS OF ACI 355.2. HILTI KWICK HUS EZ (ESR-3027 FOR CONCRETE, ESR-3056 FOR GROUT FILLED MASONRY), HEAVY DUTY SCREWS BY HILTI OR EQUAL.
- THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THE ANCHORING PRODUCTS SPECIFIED. ARCOS TO RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO ARE TO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLATION.

MASONRY

- HOLLOW LOAD BEARING UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE II. MINIMUM NET COMPRESSIVE UNIT STRENGTH = 2000 PSI. (NET AREA COMPRESSIVE MASONRY STRENGTH F'M = 1500 PSI).
- MORTAR SHALL BE TYPE S AND CONFORM TO ASTM C270 (PROPORTION OR PROPERTY SPECIFICATION)WITH A MINIMUM AVAREGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1800 PSI.
- COARSE GROUT SHALL CONFORM TO ASTM C476:
  - 3000 PSI AT 28 DAYS.
  - 1/4" MAXIMUM AGGREGATE.
  - 8" - 11" SLUMP.
- CODES AND STANDARDS:
  - SPECIFICATIONS FOR MASONRY STRUCTURES - ACI 530-1/ASCE 6/ TMS 602 IS INCLUDED BY REFERENCE IN ITS ENTIRETY.
  - BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES - ACI 530/ ASCE 5/TMS 402.
- VERTICAL BARS SHALL BE CLEAR 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 EXCEED ONE BAR DIAMETER, OR MORE THAN 1". CENTER BARS IN WALLS U.N.O.
- VERTICAL REINFORCING SHALL BE AS SHOWN ON THE DRAWINGS. FILLCELLS WITH COARSE GROUT AS SPECIFIED. PROVIDE ACI 90 DEGREE STANDARD HOOKS INTO FOOTING AND ROOF TIE BEAM. LAP SPlice VERTICAL REINFORCEMENT ABOVE FOOTING AND ABOVE EACH FLOOR LEVEL UNLESS NOTED OTHERWISE. MAINTAIN VERTICAL REINFORCING SHOWN ON PLANS ABOVE AND BELOW MASONRY OPENINGS. CONTINUE FOUNDATION DOWELS BELOW ALL MASONRY OPENINGS.
- REINFORCED FILL CELLS ARE TO BE CLEAN AND FREE OF ANY FOREIGN MATERIAL OR DEBRIS. REMOVE ANY INSULATING MATERIAL FROM CELLS, INCLUDING POLYSTYRENE INSULATING INSERTS, PRIOR TO GROUT POUR.
- REINFORCING BARS SHALL BE STRAIGHT EXCEPT FOR BENDS AROUND CORNERS AND WHERE BENDS OR HOOKS ARE DETAILED ON THE PLANS.
- REINFORCING BARS SHALL BE LAPPED PER MASONRY LAP SCHEDULE MINIMUM (UNLESS OTHERWISE NOTED) WHERE SPLICED AND SHALL BE WIRED TOGETHER.
- WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICALS. DOWELS SHALL BE GROUTED INTO A CORE IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCEMENT.
- PROVIDE HORIZONTAL WALL REINFORCING (9 GA.) HOT DIPPED GALVANIZED LADDER TYPE DUR-O-WALL (OR EQUIVALENT) AT 16" O.C. JOINT REINFORCING SHALL CONFORM TO ASTM A-951.
- 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.
- 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 4" X 4".
- GROUT POUR HEIGHT SHALL NOT EXCEED 12'. PLACE GROUT IN 6' MAX. LIFTS HEIGHTS.
- CONSOLIDATE GROUT POURS AT THE TIME OF PLACEMENT BY MECHANICAL MEANS AND RECONSOLIDATE AFTER INITIAL WATER LOSS AND SETTLEMENT.
- ALL MASONRY FOUNDATION STEMWALLS AND RETAINING WALLS SHALL BE FULLY GROUTED.
- STORE BLOCKS ON PALLETS AND COVER WITH PLASTIC SHEETING.
- PLACE 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.
- MASONRY CONTROL JOINT SPACE AT 26'-0" O.C. AT EXTERIOR WALLS, UNLESS NOTED OTHERWISE.
- SUBMITTALS:
  - SUBMIT PROPOSED GROUT MIX DESIGN PRIOR TO CONSTRUCTION.
  - SUBMIT PROPOSED MORTAR MIX DESIGN PRIOR TO CONSTRUCTION.
  - SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZE, AND LOCATION. INCLUDE BAR LISTS AND BEND DIAGRAMS. INCLUDE ALL REQUIRED DIMENSIONS AND ELEVATIONS.
  - SUBMIT COMPRESSIVE STRENGTH TESTS OF PROPOSED MASONRY UNITS PRIOR TO CONSTRUCTION. MASONRY UNITS ARE TO BE TESTED IN ACCORDANCE WITH ASTM C140.
- A QUALIFIED TESTING LABORATORY SHALL BE RETAINED BY THE CONTRACTOR TO PERFORM THE FOLLOWING TESTS:
  - SAMPLE AND TEST GROUT IN ACCORDANCE WITH ASTM C1019 FOR EACH 5000 SQ. FT. OF MASONRY.
  - SLUMP TESTS - ASTM C143.
  - MASONRY PRISM TEST IN ACCORDANCE WITH ASTM C1314. PROVIDE ONE SET OF 3 PRISMS PRIOR TO CONSTRUCTION AND DURING CONSTRUCTION FOR EACH 5000 SQ. FT. OF WALL.
- TOPS OF PARTIALLY CONSTRUCTED WALLS SHALL BE COVERED WITH VISQUEEN WHENEVER RAIN OCCURS AND AT THE END OF THE WORK DAY.

SCOPE OF WORK:

NEW SITE WALL AS SHOWN

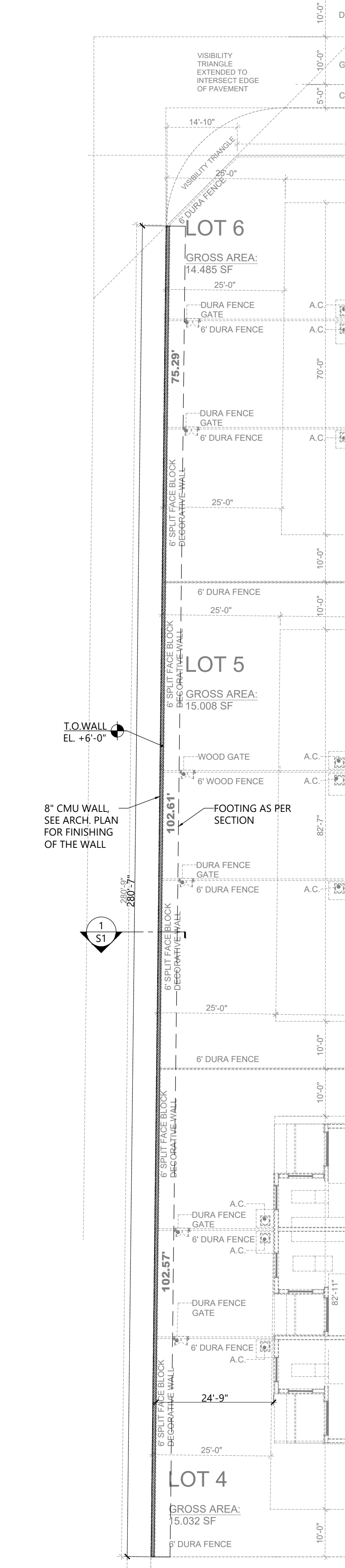


Revisions  
No.                      Date:

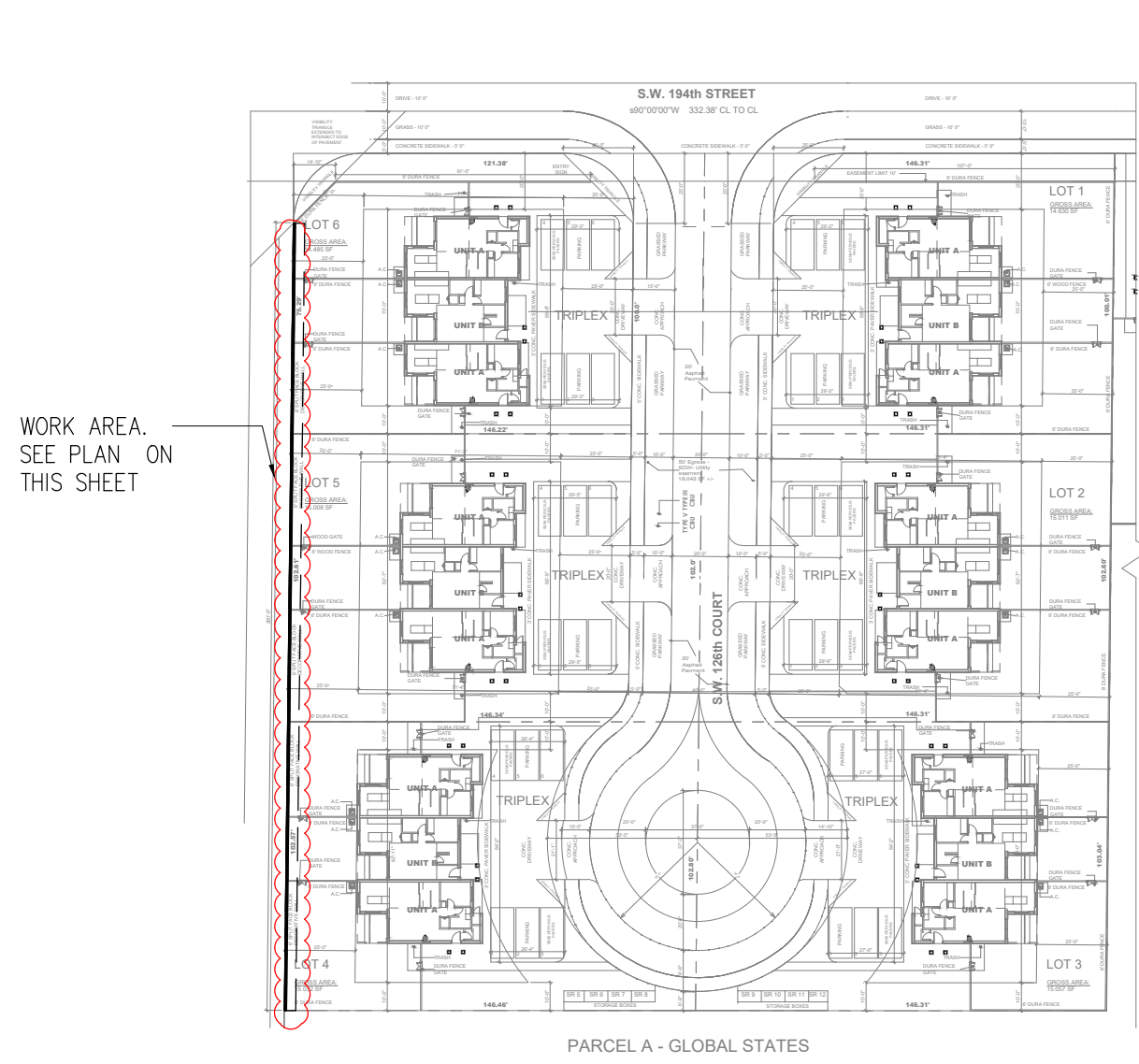
Drawn:                - Elizabeth  
Checked:            - Elizabeth  
Date:                03/14/2025

Sheet No.

50

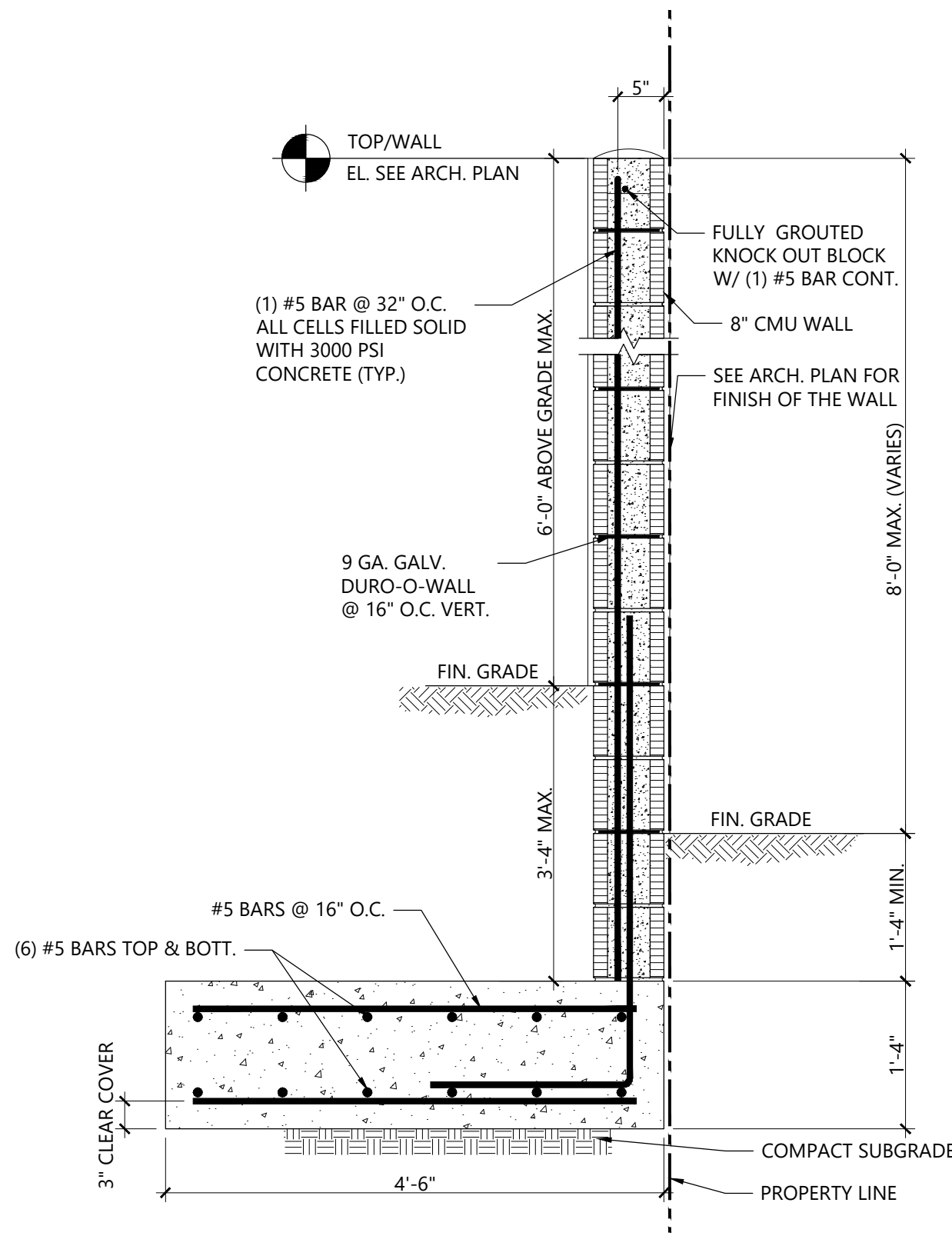


SITE WALL PLAN OF PROPERTY  
SCALE: N.T.S.



SITE PLAN GLOBAL STATE

SCALE: N.T.S.



PROPERTY LINE SITE WALL DETAIL  
SCALE: 3/4" = 1'-0"

MASONRY REINF.  
LAP SCHEDULE

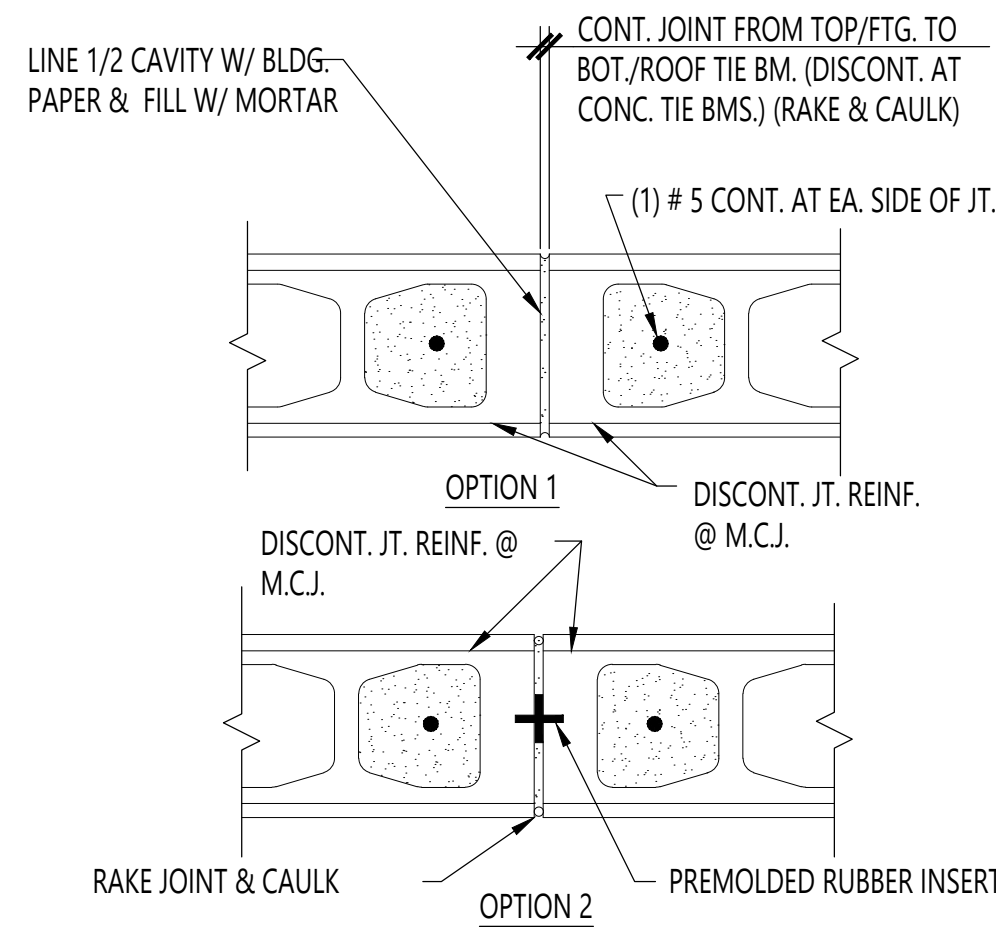
BAR SIZE	LAP LENGTH
#3 BAR	27"
#4 BAR	36"
#5 BAR	45"
#6 BAR	54"
#7 BAR	63"

FOUNDATION PLAN NOTES:

- TOP OF FOOTING SEE SECTION 1/S1
- MAINTAIN 12" MIN OF SOIL COVER ON TOP WALL FOOTING. STEP AS REQUIRED, VERIFY W/ ARCH. & FIELD CONDITIONS.
- COORDINATE ALL DIMENSIONS, ELEVATIONS, SLOPES, RECESSES & SLAB EDGES W/ ARCH. & CIVIL DWGS. SLOPE SLAB TO DRAINS PER ARCH/ PLUMBING DRAWINGS.
- REFER TO SHEET S0 FOR SPECIFICATIONS.

NOTES

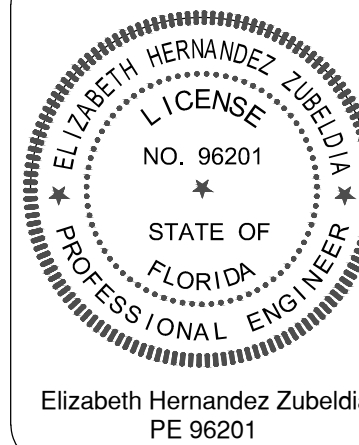
- EXTEND JOINT VERTICALLY FROM TOP OF FOOTING TO TOP WALL
- SPACE JOINTS PER SPECIFICATION NOTES SEE S0
- COORDINATE LOCATIONS OF JOINTS WITH ARCH. JOINT LOCATIONS.



MASONRY CONTROL JOINT  
SCALE: 3/4" = 1'-0"

ARCOS  
PROJECT & CONSULTING

231 SW 28th Ave. Delray Beach, FL 33445  
WEBSITE: www.ARCOSolutions.com



PROPOSED SITE WALL PLAN FOR  
SOUTHLAND PINES  
WORKFORCE HOUSING  
GLOBAL STATES  
SW 194 ST AT SE 127 AVENUE  
MIAMI DADE COUNTY, FLORIDA

Revisions  
No. Date:

Drawn: - Elizabeth  
Checked: - Elizabeth  
Date: 03/14/2025

Sheet No.

S1

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