

**STRUCTURAL ABBREVIATIONS**

AFF	ABOVE FINISH FLOOR	LL	LIVE LOAD
ADD'L	ADDITIONAL	LONG	LONGITUDINAL
ALT	ALTERNATE	LLH	LONG LEG HORIZONTAL
AB	ANCHOR BOLT(S)	LLV	LONG LEG VERTICAL
APPROX	APPROXIMATELY	LSH	LONG SIDE HORIZONTAL
ARCH	ARCHITECTURAL	MBM	METAL BUILDING MANUFACTURER
BRG	BEARING	MIN	MINIMUM
BOT	BOTTOM	MISC	MISCELLANEOUS
BLDG	BUILDING	NF	NEAR FACE
CTR	CENTERED	NS	NEAR SIDE
CL	CENTERLINE	NTS	NOT TO SCALE
CLR	CLEAR	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OPP	OPPOSITE
CONN CONNECTION(S)		OF	OUTSIDE FACE
CJ	CONSTRUCTION JOINT	OD	OUTSIDE DIAMETER
CONT	CONTINUOUS	PL	PLATE
DL	DEAD LOAD	LBS	POUNDS
DIA	DIAMETER	PCF	POUNDS PER CUBIC FOOT
DIM	DIMENSION	PCI	POUNDS PER CUBIC INCH
DWG	DRAWING	PSF	POUNDS PER SQUARE FOOT
EA	EACH	PSI	POUNDS PER SQUARE INCH
EF	EACH FACE	REINF	REINFORCING
EW	EACH WAY	REQ'D	REQUIRED
EHT	EAVE HEIGHT	RTU	ROOF TOP UNIT
EL	ELEVATION (HEIGHT)	SCHEDULE	SCHEDULE
EMBED	EMBEDMENT	SIM	SIMILAR
EQ	EQUAL	SOG	SLAB ON GRADE
EXIST	EXISTING	SQ	SQUARE
EXP	EXPANSION	SF	SQUARE FOOT
EXP JT	EXPANSION JOINT	STD	STANDARD
FS	FAR SIDE	STIFF	STIFFENER
FF	FINISHED FLOOR	STRUCT	STRUCTURAL
FTG	FOOTING	SYM	SYMMETRICAL
GA	GAUGE OR GAGE	TOF	TOP OF FOOTING
HORIZ	HORIZONTAL	TO SLAB	TOP OF SLAB
IN	INCH	TO STL	TOP OF STEEL
INFO	INFORMATION	TO WALL	TOP OF WALL
IF	INSIDE FACE	TYP	TYPICAL
K	KIPS	UNO	UNLESS NOTED OTHERWISE
KSF	KIPS PER SQUARE FOOT	VERT	VERTICAL
KSI	KIPS PER SQUARE INCH	WWF	WELDED WIRE FABRIC
		WF	WIDE FLANGE SHAPE
		WL	WIND LOAD

**6. QUALITY REQUIREMENTS:**

A. REFERENCE TO STANDARD SPECIFICATIONS OR CODES OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE STANDARDS IN EFFECT AS OF DATE OF THE CONTRACT DOCUMENTS, UNLESS OTHERWISE NOTED.  
 B. VERIFY DIMENSIONS AND CONDITIONS AT THE JOB SITE. ANY DISCREPANCIES BETWEEN THE CONDITIONS FOUND AND THOSE INDICATED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.  
 C. CONTRACTOR DESIGNED ELEMENTS SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER REGISTERED IN THE STATE OF TENNESSEE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, DESIGN LOAD DATA, SUPPORT REACTIONS, AND CERTIFICATION THAT ELEMENTS ARE DESIGNED FOR LOADS SPECIFIED IN THE CONTRACT DOCUMENTS OR IN THE BUILDING CODE. ALL DOCUMENTS NOTED SHALL BE SEALED BY THE LICENSED ENGINEER. THE FOLLOWING ELEMENTS AND THEIR CONNECTIONS SHALL BE BY THE CONTRACTOR'S STRUCTURAL ENGINEER:  
 - TEMPORARY BRACING AND SHORING

**B. REINFORCED CONCRETE**

**1. MATERIALS:**

A. SPECIFICATIONS: IN GENERAL, COMPLY WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, LATEST EDITION."  
 B. STRUCTURAL CONCRETE WILL BE:  
 CLASS 1, 3000 PSI FOOTINGS

C. ALL DEFORMED REINFORCING BARS: FY = 60,000

**2. CONTINGENCIES:**

A. PROVIDE SUPPORTS AS REQUIRED TO MAINTAIN ALIGNMENT OF SCHEDULED REINFORCING. SUCH SUPPORTS ARE TO BE REFLECTED IN THE BID.

**3. FOOTINGS PIERS:**

A. DOWELS IN FOOTINGS TO MATCH VERTICAL WALL REINFORCING.

4. SPLICES: UNLESS NOTED OTHERWISE, MINIMUM LAP SPLICE LENGTHS TO BE AS FOLLOWS:  
 A. BARS IN FOOTINGS, SLABS AND WALLS 48 BAR DIAMETERS

**5. CONSTRUCTION JOINTS:**

A. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER. CONSTRUCTION JOINTS ARE TO BE KEYS.

**6. CONCRETE COVER: UNLESS NOTED OTHERWISE, DETAIL REINFORCING TO PROVIDE CONCRETE COVER AS FOLLOWS:**

A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES  
 B. CONCRETE EXPOSED TO EARTH OR WEATHER:  
 #5 BARS AND SMALLER: 1 1/2 INCHES  
 OTHERS: 2 INCHES

**C. MASONRY**

**1. MATERIALS:**

A. CONCRETE BLOCK: ASTM C90 (HOLLOW) ASTM C145 (SOLID).  
 B. MORTAR: ASTM C270 TYPE S, MINIMUM COMPRESSIVE STRENGTH: 1800 PSI PROPERTY SPECIFICATIONS.  
 C. BOND BEAM AND CORE FILL: ASTM C476, COARSE TYPE.  
 D. JOINT REINFORCING: MILL GALVANIZED FINISH, 9 GAGE MINIMUM SIDE WIRES AND CROSS WIRES, EXCEPT USE 3/16 INCH DIAMETER SIDE WIRES WHERE "HEAVY-WEIGHT" IS REQUIRED.  
 E. BAR REINFORCING: ASTM A615, GRADE 60.

**2. REINFORCED MASONRY: WHERE VERTICAL BARS ARE TO BE GROUTED INTO CORES, THE FOLLOWING REQUIREMENTS APPLY:**

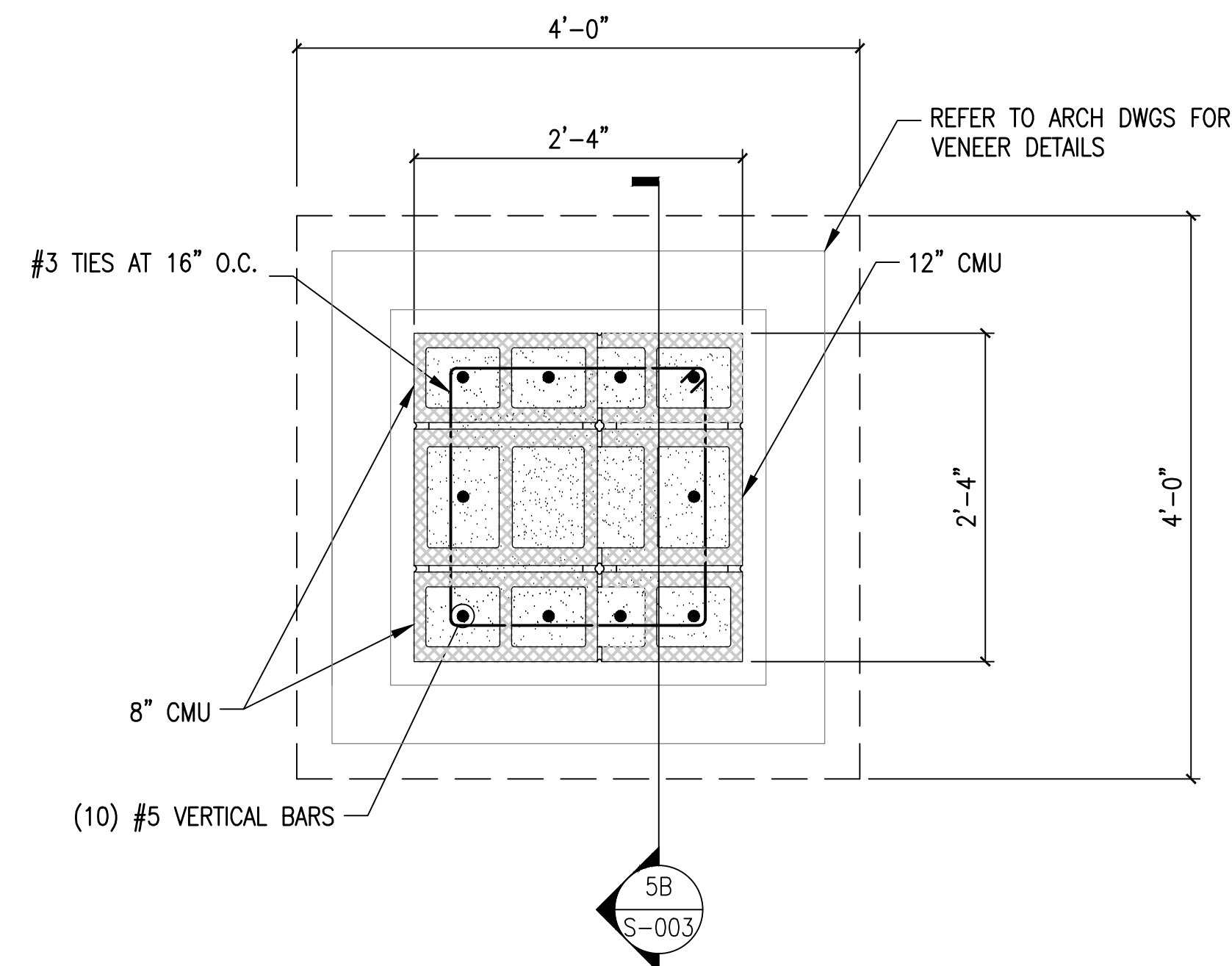
A. PROVIDE DOWELS FROM CONCRETE BELOW, SAME SIZE AND SPACING AS WALL BARS.  
 B. PROVIDE A CONTINUOUS VERTICAL CAVITY, FREE OF MORTAR DROPPINGS.  
 C. PROVIDE REBAR ALIGNMENT DEVICES AT A MAXIMUM SPACING OF 192 BAR DIAMETERS (MINIMUM 2 PER BAR).  
 D. AT SPLICES IN VERTICAL BARS, PROVIDE MECHANICAL COUPLERS OR 48 BAR DIAMETER LAP.  
 E. MAXIMUM HEIGHT OF GROUT LIFT = 4'-0".

**3. MISCELLANEOUS:**

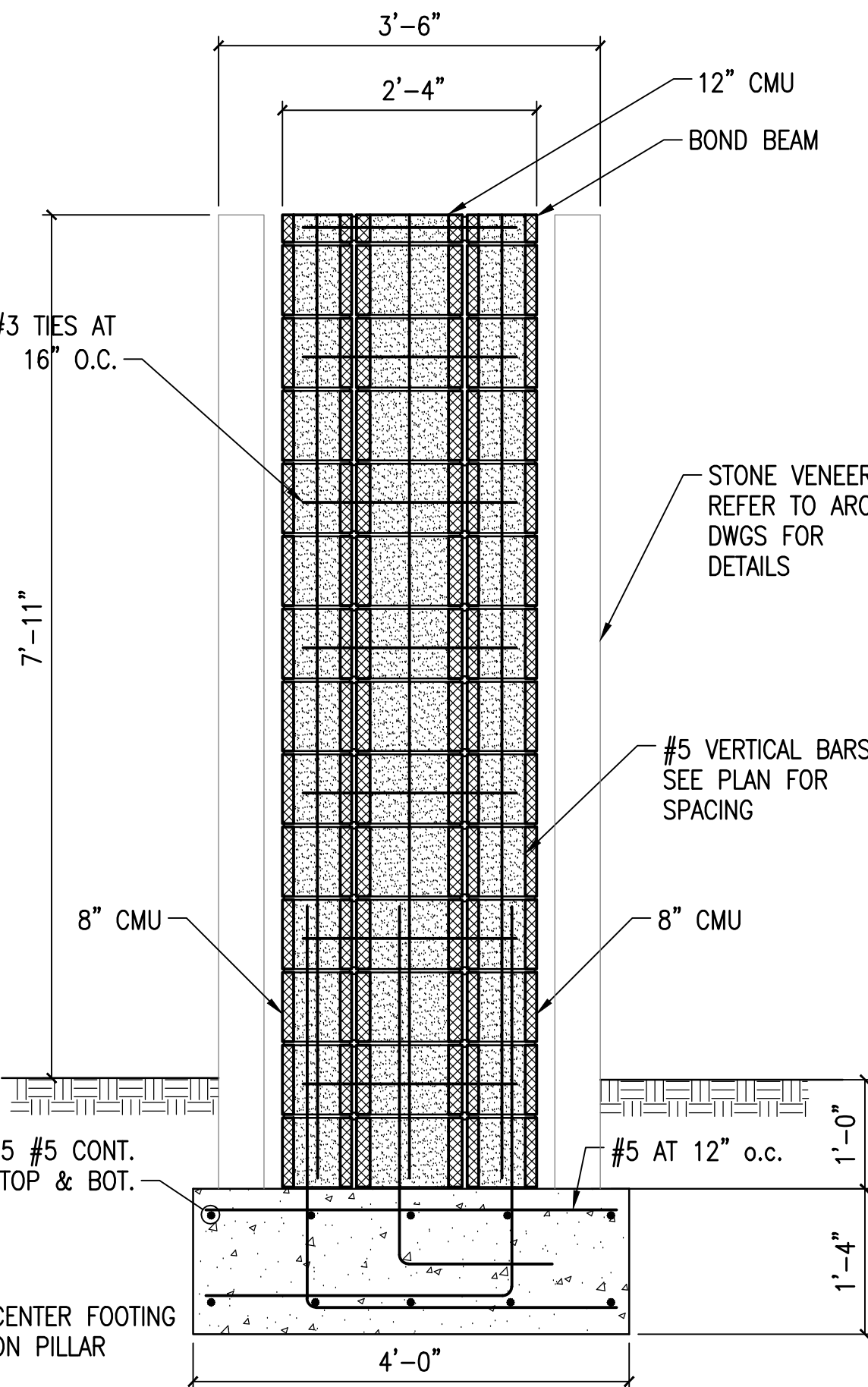
A. VERTICAL COLLAR JOINTS TO BE FILLED SOLID WITH MORTAR.  
 B. PROVIDE 100% SOLID BEARING, MINIMUM THREE COURSES UNDER BEAMS, ONE COURSE UNDER JOISTS, UNLESS DETAILED OTHERWISE.  
 C. FILL CORE SOLID AROUND ANCHOR BOLTS.  
 D. SET WELD PLATES IN BOND BEAMS AFTER THE GROUT IS PLACED, BUT WHILE IT IS STILL PLASTIC.  
 E. HOLLOW MASONRY UNITS TO BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS SHALL ALSO BE BEDDED IN ALL COURSES OF PIERS AND PILASTERS, AND IN THE STARTING COURSE ON FOOTINGS, AND WHEN ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED WITH CONCRETE OR GROUT. SOLID UNITS TO BE LAID WITH FULL HEAD AND BED JOINTS.  
 F. PROVIDE JOINT REINFORCING AT 16 INCHES, EXCEPT AS NOTED.  
 G. LAP JOINT REINFORCING 6 INCHES FOR STANDARD, 15 INCHES FOR HEAVY WEIGHT.  
 H. GROUT CMU 100% SOLID

**FOUNDATION NOTES**

1. FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE SOIL BEARING CAPACITY OF 2,000 PSF, TO BE VERIFIED IN THE FIELD BY THE SOILS ENGINEER. THE CONTRACTOR'S SOILS ENGINEER SHALL ALSO VERIFY THAT THE SOIL IS SUITABLE FOR PLACEMENT OF THE FOUNDATION SYSTEM AND THAT MAXIMUM SETTLEMENT IS 1" AND MAXIMUM DIFFERENTIAL SETTLEMENT IS 1/2".  
 2. EXCAVATIONS ARE ASSUMED TO BE LAID BACK TO A 1.5H TO 1.0V SLOPE IF REQUIRED; SHEETING OR SHORING TO BE INSTALLED TO MAINTAIN THE 1.5 TO 1 SLOPE. KEEP ALL EXCAVATIONS FREE OF WATER.  
 3. FIELD VERIFY EXISTING DIMENSIONS AND CONDITIONS.  
 4. LOCATE ALL UTILITIES AND TRENCHES PRIOR TO CONSTRUCTION.



**5D PLAN - SIGN 3**  
 1"=1'-0" S-DET102



**5B SECTION - SIGN 3**  
 3/4"=1'-0" S-DET102

**DESIGN LOADS**

- DESIGN CODE**: IBC-2012
- WIND LOADS**:
  - A. WIND SPEED: 115 MPH
  - B. IMPORTANCE FACTOR: 1.0
  - C. WIND EXPOSURE: C
- GRAVITY LOADS**:
  - A. SELFWEIGHT OF STRUCTURE
- SEISMIC LOADS**:
  - A. SS: 0.884 g
  - S1: 0.312 g
  - SDS: 0.676 g
  - SD1: 0.369 g
  - B. SEISMIC USE GROUP: I
  - C. SEISMIC DESIGN CATEGORY: B
  - D. IMPORTANCE FACTOR: 1.0
  - E. SOIL PROFILE TYPE: D

**A. GENERAL**

**1. GENERAL:**  
 THE STRUCTURAL COMPONENTS ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THEY ARE FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO INSURE THE SAFETY OF THE STRUCTURAL COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE DOWNS WHICH MIGHT BE NECESSARY.

**2. SAFETY:**  
 IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.

**3. DISCREPANCIES:**  
 SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE STRUCTURAL NOTES, THE SPECIFICATIONS, OTHER CONTRACT DOCUMENTS, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN. REQUEST CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

**4. SECTION & DETAIL REFERENCE:**  
 WHEN A SECTION OR A DETAIL IS REFERENCED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS, REGARDLESS OF WHETHER IT IS REFERENCED OR NOT, UNLESS NOTED OTHERWISE.

**5. SUBMITTALS:**  
 A. SUBMITTALS SHALL BE REVIEWED BY CONTRACTOR PRIOR TO SUBMITTING TO ARCHITECT.  
 B. SUBMITTALS WILL BE REVIEWED BY THE STRUCTURAL ENGINEER FOR GENERAL CONFORMANCE WITH THE PRINCIPLES AND CONTRACT DOCUMENTS OF THE PROJECT. CONTRACTOR IS NOT RELIEVED FROM HIS SOLE RESPONSIBILITY REGARDING CHECKING OF DIMENSIONS, QUANTITIES, COORDINATION OF THE WORK OF ALL TRADES, CORRELATION OF DESIGN DOCUMENTS THAT MAY CONTAIN CONTRADICTORY INFORMATION AND FOR INFORMATION THAT PERTAINS TO THE FABRICATION, CONSTRUCTION PROCESSES AND/OR SAFETY REQUIREMENTS.

REVISIONS:


PROJECT #: 24922.00  
 DATE: MARCH 30, 2016  
 DRAWN BY: MCP  
 DESIGNER: MCP  
 CHECKED BY: YAS

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CITY OF LAKELAND, TN  
 GATEWAY MONUMENT SIGNS

SCALE:

SHEET NUMBER:

**S-003**

DESCRIPTION:  
 STRUCTURAL NOTES  
 AND SIGN 3 DETAILS