1. GENERAL NOTES:

1. GENERAL BUILDING CODE: INTERNATIONAL BUILDING CODE, 2009 EDITION.
2. CONCRETE:
   BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-05).
3. MASONRY:
   A) SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-05).
   B) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-05).
4. STRUCTURAL STEEL:
   SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN, NINTH EDITION, JUNE 1, 1989, AND SUPPLEMENT NUMBER 1, DECEMBER 17, 2001 AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
5. STEEL DECK:
   STEEL DECK INSTITUTE DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, ROOF DECKS AND CELLULAR METAL FLOOR DECK WITH ELECTRICAL DISTRIBUTION (1992).
6. LIGTHGAGE METAL FRAMING:
   SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, 1996 EDITION, AMERICAN IRON AND STEEL INSTITUTE.
7. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE DRAWINGS OF OTHER CONSULTANTS AND TRADES. THE CONTRACTOR SHALL COORDINATE THE VARIDUS REQUIREMENTS.
8. DO NOT SCALE THESE DRAWINGS.
9. ALL DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS, UNLESS NOTED.
10. CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO FABRICATION/CONSTRUCTION. THE STRUCTURAL ENGINEER AND ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO FABRICATION/CONSTRUCTION.

2. DESIGN LOADS (UNFACTORED):

1. DEAD LOADS:
   ANY CHANGES IN CONSTRUCTION MATERIALS FROM THOSE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE REPORTED BY THE GENERAL CONTRACTOR TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF LOAD-CARRYING CAPACITY OF THE STRUCTURE.
2. LIVE LOADS:
   LIVE LOAD REDUCTIONS HAVE BEEN APPLIED ON MEMBERS SUPPORTING MORE THAN 150 SQUARE FEET, EXCEPT FOR FLOORS IN PLACES OF PUBLIC ASSEMBLY AND FOR LIVE LOADS GREATER THAN 100 POUNDS PER SQUARE FOOT, IN ACCORDANCE WITH THE BUILDING CODE NOTED ABOVE.

   ROOF----------20 PSF
3. WIND LOADS:
   A) BASIC WIND SPEED (3-SECOND GUST)----------100 MPH
   B) WIND IMPORTANCE FACTOR----------1.15
   C) BUILDING CATEGORY----------II
   D) WIND EXPOSURE----------B
   E) INTERNAL PRESSURE COEFFICIENT----------+/- 0.18

3. FOUNDATION NOTES:

1. FOUNDATIN DESIGN HAS BEEN BASED ON ASSUMEND BEARING PRESSURES. THE CONTRACTOR SHALL ENGAGE A LOCAL GEOTECHNICAL ENGINEER TO VERIFY THAT THE EXPOSED BEARING MATERIAL IS CAPABLE OF SUPPORTING THE NOTED PRESSURES.
2. ASSUMED MAXIMUM ALLOWABLE BEARING PRESSURE:
   2000 POUNDS PER SQUARE FOOT
3. ALL FOUNDATION BEARING SURFACES SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE TO INSURE THEIR COMPLIANCE WITH PRESSURES NOTED. ALL BOTTOM ELEVATIONS ARE ESTIMATED AND MAY BE ADJUSTED IN THE FIELD BY THE GEOTECHNICAL ENGINEER.
4. ALL AREAS TO HAVE SLABS ON GRADE SHALL BE PROOF ROLLED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT UNDER OBSERVATION OF THE GEOTECHNICAL ENGINEER AND APPROVED PRIOR TO PREPARATION FOR CONCRETE PLACEMENT.
5. COMPACTED FILL WITHIN THE BUILDING AREA (AND EXTENDING 10'-0" OUTSIDE THE EXTERIOR BUILDING LINE) SHALL MEET THE REQUIREMENTS NOTED IN THE GEOTECHNICAL REPORT.

4. CONCRETE NOTES:

1. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS, MAXIMUM W/C, AIR CONTENT AND SLUMP:

STRENGTH	TYPE	W/C	AIR	SLUMP	USE
4000 PSI	NORMAL WT.	0.57	4% TO 6%	3" TO 5"	TYPICAL

2. PEDESTAL, COLUMN AND WALL VERTICAL REINFORCING: DOWEL TO FOUNDATION WITH HOOKED BARS OF SAME SIZE AND SPACING AS VERTICAL REINFORCING.
3. EARTH SUPPORTED SLABS: 8" THICK, REINFORCED WITH 6X6 W2.9/W2.9 WWF AT MID-DEPTH OF SLAB, UNLESS NOTED.
4. CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.

5. REINFORCING STEEL NOTES:

1. REINFORCING BARS: ASTM A615 GRADE 60.
2. WELDED WIRE FABRIC (WWF): ASTM A185. MINIMUM LAP AND EMBEDMENT TO BE THE GREATER OF ONE CROSS WIRE SPACING PLUS 2 INCHES OR 6 INCHES.
3. REINFORCING STEEL SHOWN IN SECTIONS OF BEAMS, WALLS AND COLUMNS IS A SCHEMATIC INDICATION THAT REINFORCING EXISTS. SEE SCHEDULES, SECTION NOTES AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.
4. REINFORCING BAR PLACING ACCESSORIES IN ACCORDANCE WITH ACI MANUAL OF STANDARD PRACTICE. WHERE CONCRETE IS EXPOSED IN FINISHED BUILDING, PROVIDE ACCESSORIES WITH RUSTPROOF LEGS. WHERE CONCRETE IS SAND-BLASTED OR BUSH-HAMMERED, PROVIDE ACCESSORIES OF STAINLESS STEEL.
5. DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315. REINFORCEMENT SHALL NOT BE WELDED UNLESS NOTED OR APPROVED BY THE ENGINEER.
6. ALL SPLICES SHALL BE CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.
7. ALL REINFORCING MARKED "CONTINUOUS" SHALL BE SPLICED WITH CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.
8. CONCRETE COVERAGE OF REINFORCEMENT:

   FOOTINGS----------3" BOTTOM & SIDES
   WALLS----------1-1/2"
   PEDESTALS----------1-1/2" CLEAR OF TIES
9. FIELD BENDING OF CONCRETE REINFORCING STEEL IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

6. STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL: ASTM A992, GRADE 50, WIDE FLANGE SHAPES; ASTM A36 ELSEWHERE.
2. STEEL TUBING: ASTM A500, GRADE B.
3. WELDED CONNECTIONS: E70XX ELECTRODES, MINIMUM SIZE FILLET WELD 3/16".
4. ANCHOR BOLTS: ASTM A307, NON-HEADED TYPE UNLESS OTHERWISE INDICATED.
5. HEADED STUDS: ASTM A108, GRADE 1015 OR 1020, COLD-FINISHED CARBON STEEL WITH DIMENSIONS COMPLYING WITH AISC.
6. BOLTED CONNECTIONS: BEARING TYPE A325-N AND SLIP-CRITICAL TYPE A325-SC IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". BOLTS THROUGH 4" WIDE BEAM FLANGES SHALL BE 5/8" DIAMETER. OTHER BOLTS SHALL BE 3/4" DIAMETER. USE SLIP-CRITICAL CONNECTIONS FOR WIND FRAMES, MOMENT CONNECTIONS, SKYLIGHT FRAMING AND OTHER CONNECTIONS NOTED AS SLIP-CRITICAL. USE SNUG TIGHT BEARING CONNECTIONS FOR ALL OTHER BOLTED CONNECTIONS.
7. BOLTS SHOWN IN SECTIONS AND DETAILS ARE A SCHEMATIC INDICATION THAT BOLTS MAY BE USED. ACTUAL NUMBER, UNLESS SPECIFIED, TO BE IN ACCORDANCE WITH AISC.
8. FABRICATE AND ERECT ALL STRUCTURAL STEEL IN ACCORDANCE WITH AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
9. THE STEEL FRAME IS "NON-SELF-SUPPORTING." ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL REQUIRED CONNECTIONS OR ELEMENTS ARE IN PLACE.

7. METAL DECK NOTES:

1. DECK PROPERTIES AND ATTACHMENTS SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE.
2. DECK SHALL BE CONTINUED OVER THREE OR MORE SPANS.
3. VENTED ROOF DECK: WIDE RIB TYPE "WR", STEEL ROOF DECK, 22 GAGE, 1-1/2" DEEP, VENTED, GALVANIZED.
4. FORM DECK: 2" THICK CONCRETE SLAB ON NON-COMPOSITE STEEL FORM DECK, 22 GAGE, 9/16" DEEP WITH 6X6 W2.1/W2.1 WWF AT MID-DEPTH (2-1/2" TOTAL THICKNESS).

8. MASONRY NOTES:

1. MASONRY CONSTRUCTION SHALL CONFORM TO ACI 530.1-95 SPECIFICATION.
2. MASONRY UNIT STRENGTH (f'm) SHALL BE 1500 PSI AT 28 DAYS.
3. MASONRY GROUT FILL SHALL CONFORM TO ASTM C 476. GROUT EITHER FINE (SAND) OR COURSE (SAND + #76 STONE) AGGREGATE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI. MASONRY CONCRETE FILL SHALL CONFORM TO THE REQUIREMENTS NOTEDTE UNDER "CONCRETE" IN THE GENERAL NOTES.
4. GROUTING
   A) ALL BOND BEAMS SHALL BE FILLED WITH GROUT AND REINFORCED AS INDICATED ON THE DRAWINGS (DETAILS OR SCHEDULES). MORTAR FILL IS NOT PERMITTED.
   B) ALL MASONRY WALL CELLS OR CAVITIES INDICATED AS REINFORCED SHALL BE GROUTED FOR THE FULL HEIGHT OF THE WALL, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. UN-REINFORCED WALLS INDICATED AS GROUTED SHALL BE GROUTED FULL HEIGHT, UNLESS SPECIFICALLY NOTED OTHERWISE. MORTAR FILL IS NOT PERMITTED.
   C) ALL MASONRY CELLS OR CAVITIES BELOW GRADE SHALL BE GROUTED SOLID UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. MORTAR FILL IS NOT PERMITTED.
   D) VERTICAL GROUTING SHALL BE LOW LIFT OR HIGH LIFT AS FOLLOWS:
      i. LOW LIFT GROUTING SHALL BE USED FOR ALL CAVITY WALLS AND MAY BE USED FOR ALL WALLS AT THE OPTION OF THE CONTRACTOR. LIFTS SHALL NOT EXCEED 4'0" IN HEIGHT.
      ii. HIGH LIFT GROUTING IS PERMISSIBLE ONLY FOR FILLING OF CELLULAR MASONRY UNITS AND SHALL NOT EXCEED ONE STORY IN HEIGHT. CLEAN OUT HOLES SHALL BE PROVIDED AT THE BASE OF EACH GROUTED CELL.
5. MORTAR SHALL CONFORM TO ASTM C 270. MORTAR SHALL TYPE "S" AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH 1800 PSI.
6. ALL MASONRY SHALL BE RUNNING BOND, UNLESS NOTED.
7. ALL BLOCK CELLS AND CAVITIES BELOW GRADE SHALL BE FILLED WITH CONCRETE OR GROUT.
8. REINFORCING
   A) ALL BARS MARKED "CONTINOUS" SHALL BE LAPPED A MINIMUM OF 48 BAR DIAMETERS AT ALL SPLICES. UNLESS NOTED OTHERWISE, ALL WALL/FOOTING DOWELS SHALL BE LAPPED 48 BAR DIAMETERS OR 34", WHICHEVER IS GREATEST.
   B) FOUNDATION DOWELS MAY SLOPE A MAXIMUM OF 1:6 TO ALIGN WITH WALL CAVITIES OR VERTICAL CMU CORES. GREATER SLOPES WILL REQUIRE REPLACEMENT OF THE FOUNDATION DOWELS.
   C) SPLICED REINFORCING SHALL BE LAPPED UNDER "REINFORCING" ABOVE OR AS SHOWN ON DRAWINGS, WHICHEVER IS GREATEST. ALL SPLICES SHALL BE WIRED TOGETHER.
   D) VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEARANCE OF 3/4" FROM MASONRY AND SHALL BE HELD IN POSITION TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 4'-0". ACCESSORIES FOR SUCH SUPPORT SHALL BE USED PROVIDE "AA WIRE PRODUCTS COMPANY" (OR APPROVED EQUAL) REBAR POSITIIONER AA225 OR AA239 FOR VERTICAL BARS AND AA2 FOR HORIZONTAL BARS OR APPROVED EQUAL PRODUCTS DECK FROM OTHER SUPPLIERS.
   E) HORIZONTAL JOINT REINFORCING SHALL BE LAPPED NO LESS THAN 6" ALL SPLICES, INCLUDING CORNERS AND TEES WHERE NO CONTROL JOINT IS USED.
   F) ALL HORIZONTAL JOINT REINFORCING SHALL STOP AT CONTROL JOINTS.
   G) HORIZONTAL REINFORCING IN BOND BEAMS SHALL BE CONTINUOUS THROUGH CONTROL JOINTS.
9. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DETAILS OF MASONRY CONTROL JOINTS.
10. WHEN REINFORCING IS SPECIFIED, PROVIDE AT EACH SIDE OF CONTROL JOINTS, OPENINGS AND WALL ENDS.
11. ALL MASONRY WALLS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES IN THE FINAL CONSTRUCTED CONFIGURATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BRACE THE WALLS FOR VERTICAL AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF CONSTRUCTION.
12. PROVIDE HORIZONTAL TRUSS-TYPE JOINT REINFORCEMENT AT 16" O.C., U.N.O.

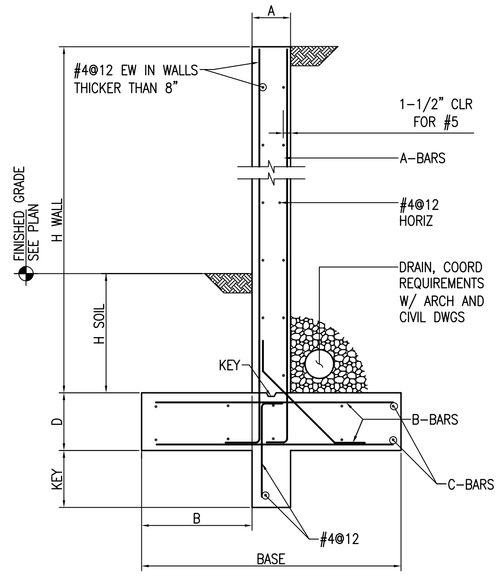
9. LIGHTGAGE PREFABRICATED METAL TRUSS NOTES:

1. ALL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", 1980 EDITION.
2. ALL FRAMING MEMBERS SHALL BE FORMED FROM CORROSION-RESISTANT STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A446, WITH A MINIMUM YIELD STRENGTH OF 33 KSI OR 50 KSI AS INDICATED.
3. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS REQUIRED FOR AN ANGULAR FIT TIGHT AGAINST ABUTTING MEMBERS.
4. CUTTING OF STEEL FRAMING MEMBERS MAY BE DONE WITH A SAW OR CUTTING SHEARS. TORCH CUTTING OF LOAD BEARING MEMBERS IS NOT PERMITTED.
5. WHERE MANUFACTURER'S RECOMMENDATIONS FOR ERECTION, ATTACHMENT, ASSEMBLY, BRACING ALIGNMENT OR OTHER REQUIREMENTS ARE MORE STRINGENT THAN INDICATED IN THESE DRAWINGS OR THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS
6. FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL PREFABRICATED LIGHTGAUGE METAL TRUSS FRAMING AND SHALL RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ALABAMA. THE ENGINEER SHALL SEAL AND SIGN BOTH CALCULATIONS AND SHOP BRAWINGS.
7. TRUSS MANUFACTURER SHALL DESIGN FOR THE FOLLOWING SUPERIMPOSED LOADS:

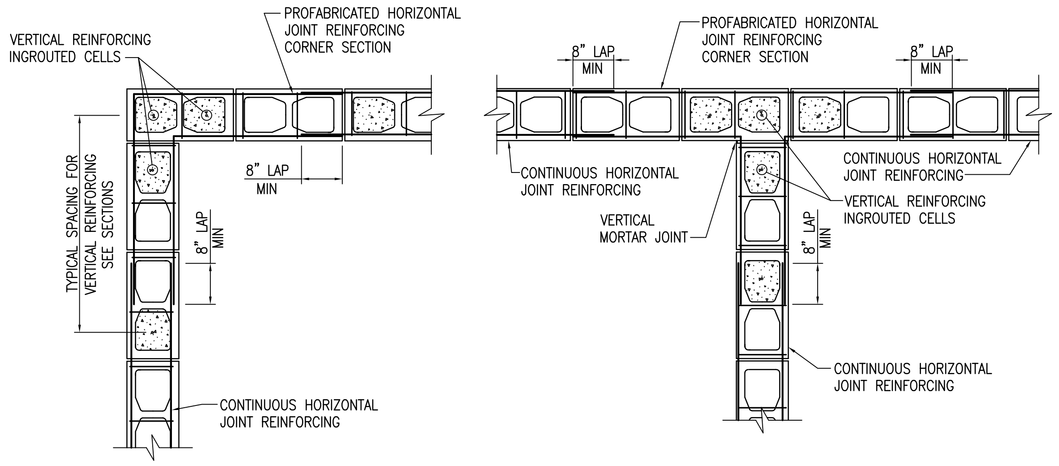
   TOP CHORD DEAD LOAD----------15 PSF
   BOTTOM CHORD DEAD LOAD----------10 PSF
   TOP CHORD LIVE LOAD----------20 PSF
8. DESIGN ROOF TRUSSES TO RESIST THE FOLLOWING WIND UPLIFT PRESSURES:
   A) EDGE ZONES (REGIONS WITHIN 2 DISTANCE OF ROOF EDGE) - 18.9 PSF.
   B) CORNER ZONES (REGIONS WITHIN 2 DISTANCE OF TWO INTERSECTING ROOF EDGES) - 29.1 PSF.
   C) INTERIOR ZONES (REGIONS THAT ARE NOT EDGE OR CORNER ZONES) - 12.5 PSF.
   D) DISTANCE A - 10 FT.
9. IN ADDITION TO THE ABOVE LOADS, TRUSSES SHALL BE DESIGNED FOR CONCENTRATED LOADS HUNG FROM OR SUPPORTED ON TRUSSES. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR LOADING INFORMATION AND LOCATION. LOADING AS REQUIRED BY OTHER SUBCONTRACTORS, SUCH AS FIRE PROTECTION, SHALL BE COORDINATED BY THE GENERAL CONTRACTOR.
10. SUBMIT CALCULATIONS AND SHOP DRAWINGS FOR DETAILS, FABRICATION, AND ERECTION OF LIGHTGAGE METAL TRUSS FRAMING DRAWINGS SHALL INCLUDE LAYOUT, SPACING, TYPE, MATERIAL/MEMBER PROPERTIES, TEMPORARY BRACING, PERMANENT BRACING, AND ALL DETAILS OF CONNECTIONS FOR ALL LIGHTGAGE STEEL FRAMING INDICATED ON THE STRUCTURAL DRAWINGS.
11. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION. DRAWINGS SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH THE OTHER TRADES.
12. ALL TEMPORARY AND PERMANENT BRACING MEMBERS AND CONNECTIONS REQUIRED FOR PREFABRICATED LIGHTGAGE METAL TRUSS SHALL BE DESIGNED AND DETAILED ON THE TRUSS MANUFACTURER'S ERECTION PLANS. BRACING MEMBERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
13. TEMPORARY BRACING SHALL NOT IMPOSE ANY FORCE ON THE SUPPORTING STRUCTURE.

    PERMANENT BRACING FORCES SHALL BE TRANSFERRED TO THE ROOF DIAPHRAGM BY THE BRACING DESIGN PROVIDED BY THE TRUSS MANUFACTURER.
14. ROOF DECK ATTACHMENT, UNLESS NOTED:
    #12 BUILDEX SCREWS ON A 36/4 PATTERN WITH 3#10 BUILDEX SCREW SIDELAP FASTENERS PER SPAN.

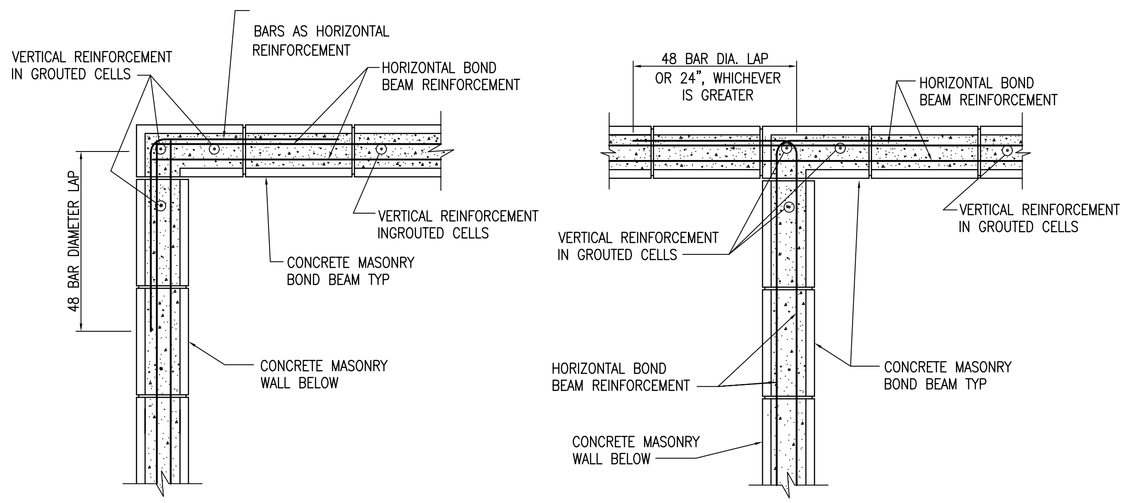
30 PCF & 2000 PSF BEARING									
Hwall	A	B	BASE	D	K	A-BARS	B-BARS	C-BARS	Hsoil
3'-0"	8"	8"	2'-0"	1'-0"	NR	#4@12	#4@12	5#4	1'-0"
4'-0"	8"	8"	2'-0"	1'-0"	NR	#4@12	#4@12	5#4	1'-0"
5'-0"	8"	1'-0"	2'-8"	1'-0"	NR	#4@12	#4@12	5#4	1'-0"
6'-0"	8"	1'-6"	3'-10"	1'-0"	NR	#4@12	#4@12	5#4	1'-0"



RETAINING WALL SECTION



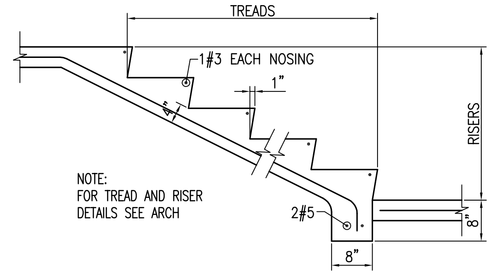
TYPICAL WALL CORNER REINFORCING DETAIL



TYPICAL BOND BEAM CORNER REINFORCING DETAILS

MASONRY LINTEL SCHEDULE		
MAXIMUM OPENING WIDTH	LINTEL DIMENSIONS & REINFORCING	
	DEPTH	8" WALL
2'-0"	8	
4'-0"	8	1#4 BOT
6'-0"	8	1#4 BOT & 1#4 TOP
8'-0"	16	1#6 BOT & 1#4 TOP
10'-0"	16	2#7 BOT & 1#4 TOP
12'-0"	24	2#7 BOT & 2#7 TOP

1. DO NOT USE THIS SCHEDULE IF CONCENTRATED LOAD IS LOAD IS APPPLIED TO THE LINTEL AT A HEIGHT LESS THAN HALF THE SPAN ABOVE THE LINTEL, OR IF THE HEIGHT OF BRICK ABOVE THE LINTEL EXCEEDS TEN FOOT
2. PROVIDE 8" MINIMUM BEARING FOR ALL LINTELS



TYPICAL STAIR ON GRADE

Revisions	Date

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CAVHCS
Central Alabama Veterans Health Care System

Approved:	Approved:	Drawing Title	Project Title: MODIFY FIRE BAY, B-15, CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM, TUSKEGEE, ALABAMA	Date: 6/14/11	Veterans Administration
Approved:	Approved:			Project No.: 619-10-455	
Approved:	Approved:	Safety Officer	Building Number: 15 / Checked: CCM / Drawn: ACM	DRAWING NO.: S1.1 Dwg. 8 Of 16	
Approved:	Approved:	Clinical Representative	Location: East Campus, Tuskegee, AL		

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