

GENERAL NOTES

DESIGN PARAMETERS

1. BUILDING CODE: 2009 INTERNATIONAL BUILDING CODE	
2. DEAD LOADS:	
A. FLOOR FINISH	SEE LIST OF MATERIALS
B. PARTITION WALLS	125 PSF (UNIFORM)
C. CEILING	10 PSF*
D. ROOF FINISH	
E. ROOF LOADS	
F. WIND LOADS:	
1. WIND SPEED (3 SECOND GUST)	90 MPH
2. IMPORTANCE FACTOR	1.0
3. EXPOSURE CLASSIFICATION	C
4. INTERNAL PRESSURE COEFFICIENT	0.18
6. SEISMIC LOADS:	
A. SEISMIC RESPONSE ACCELERATION	0.188
B. SHORT PERIOD, S _v ACCELERATION	0.069
C. 1-SECOND PERIOD, S _{v1} ACCELERATION	0.179
D. SPECTRAL RESPONSE COEFFICIENT	0.111
E. SITE CLASS	D
F. IMPORTANCE FACTOR	1.0
G. SEISMIC DESIGN CATEGORY	3
H. RESPONSE MODIFICATION FACTOR, R	3
I. RESPONSE AMPLIFICATION FACTOR, W	3
K. SYSTEM OVER-STRENGTH FACTOR, W _o	3
L. SYSTEM OVER-STRENGTH FACTOR, C _d	3
M. DAMPING COEFFICIENT	EQUIVALENT LATERAL FORCE

GENERAL

- STRUCTURAL DRAWINGS ARE NOT SINGLE-DRAWING DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND DRAWINGS FROM OTHER DISCIPLINES. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE DRAWINGS AND FIELD WORK. STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.
- ALL STRUCTURAL ELEMENTS OF THE PROJECT HAVE BEEN DESIGNED BY THE STRUCTURAL ENGINEER TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY DETAILS AND CONNECTIONS TO RESIST THE LATERAL FORCES AND TO VERIFY THAT THE LATERAL FORCE RESISTING SYSTEM IS COMPLETELY THE SAME AS THAT SHOWN ON THE DRAWINGS.
- THE SIZE AND LOCATION OF EQUIPMENT PANS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL BE SHOWN ON THE DRAWINGS. ALL PENETRATIONS SHALL BE SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS. ALL PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.
- PRIOR TO FABRICATION AND/OR ERECTION OF ANY MATERIALS, THE CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS AND SHALL REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER OF RECORD OR THE ARCHITECT IMMEDIATELY. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE APPROVED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
 - A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
 - THE ENGINEER SHALL NOT HAVE CONTROL, NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PARTICIPATING IN THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

DIVISION 2 - FOUNDATIONS

- FOOTINGS ARE DESIGNED FOR AN ASSUMED NET ALLOWABLE BEARING PRESSURE OF 1,500 PSF. CONTRACTOR TO VERIFY WITH CONTRACTOR PROVIDED ENGINEER PRIOR TO CONSTRUCTION.
- PROVIDE A MINIMUM OF A 4-INCH CLEAN, FREE-DRAINING GRANULAR SUBBASE FILL BELOW ALL INTERIOR SLAB-ON-GRADE UNLESS NOTED OR DETAILED OTHERWISE. SUBBASE SHALL MEET GRADATION REQUIREMENTS OF ASTM C-33 SIZE NO. 67, UNLESS SPECIFICALLY NOTED OTHERWISE.

DIVISION 3 - CONCRETE

- ALL CONCRETE SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 308.1.
- CONTRACTOR SHALL FOLLOW ACI 308.1 FOR COLD WEATHER CONCRETE PLACEMENT AND CURING GUIDELINES.
- ARRANGEMENTS AND DETAIL OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF PUBLICATION 98-96, "ACI DETAILING MANUAL AND ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE." REINFORCING BARS SHALL BE LAPPED WITH MINIMUM LAP LENGTHS AS LISTED IN THE LAP LENGTH SCHEDULE. WHERE REQUIRED IN REINFORCING, SHORTER LAPS MAY BE ACCEPTABLE IF SPECIFIC LOCATIONS OF ALTERNATE LAPS ARE SHOWN ON THE REINFORCING PLACEMENT DRAWINGS AND CALCULATIONS ARE SUBMITTED BY A REGISTERED PROFESSIONAL ENGINEER. REINFORCING BARS SHALL BE LAPPED WITH THE FOLLOWING LAP LENGTHS:
 - CONCRETE DO NOT YIELD STICK DOWN.
 - ALL WELDED WIRE FABRIC SHALL BE LAPPED A MINIMUM OF 12" AT THE SPOES AND RIGS.
 - LOCATIONS AND SIZES OF OPENINGS, SLEEVES, ETC. REQUIRED FOR OTHER TRADES MUST BE VERIFIED BY THESE TRADES BEFORE PLACING CONCRETE.
 - ALL SLOTS, SLEEVES, TRENCHES AND OTHER EMBEDDED ITEMS SHALL BE SET AND SECURED AGAINST MOVEMENT BEFORE THE CONCRETE IS PLACED. SEE ARCHITECTURAL, ELECTRICAL, MECHANICAL, PLUMBING, AND VENDOR DRAWINGS FOR SIZES, AND LOCATIONS OF ALL STRIP FOOTINGS, CORNER BARS SHALL BE PROVIDED FOR ALL HORIZONTAL REINFORCING BARS AT THE INTERSECTIONS AND CORNERS OF ALL STRIP FOOTINGS. CONNECT MINIMUM LAP LENGTHS SHALL BE AS INDICATED ABOVE UNLESS NOTED OTHERWISE.

BAR SIZE	TOP BARS**	OTHER
#3	1-5'	1-4'
#4	1-11'	1-5'
#5	2-4'	1-10'
#6	2-10'	2-2'
#7	4-2'	3-4'
#8	5-10'	4-6'
#9	7-2'	5-6'

CONCRETE ELEMENT	f _c (PSI)
CONCRETE ELEMENT	3,000
FOOTINGS AND STEEL WALLS	3,000
INTERIOR SLAB-ON-GRADE	4,000
EXTERIOR EXPOSED CONCRETE (AIR ENTRAINED)	4,000
WALLS	4,000

REINFORCING ELEMENT	ASTM	F _y (KSI)	F _t (KSI)
REINFORCING	A615	60	90
WELDED AND BENT REINFORCING	A706	60	90
WELDED WIRE REINFORCING SMOOTH	A432	65	75
WELDED WIRE REINFORCING DEFORMED	A607	70	90

CONCRETE ELEMENT	LOCATION	COVER (IN)
COLUMNS, GIRDERS, AND BEAMS		1 1/2
CONCRETE CAST AGAINST EARTH		3
CONCRETE CAST IN FORMS EXPOSED TO WEATHER OR EARTH		2
CONCRETE CAST ON VOID FORMS WITH INSULATION OR IN WOOD FORMWORK		1 1/2
JOISTS		1
SLABS OR WALLS NOT EXPOSED TO WEATHER		1

DIVISION 5 - STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL MEET THE FOLLOWING MINIMUM YIELD STRENGTHS:
 - WIRE FABRIC: 60 KSI
 - OTHER SHAPES, BARS, PLATES AND ROHS: 36 (KSI) / 48 (KSI) / 50 (KSI) / 60 (KSI)
 - STRUCTURAL STEEL TUBING: 48 (KSI)
 - STRUCTURAL STEEL PIPE: 35 (KSI) / 43 (KSI) / 50 (KSI) / 60 (KSI)
 - ANCHOR BOLTS: 36 (KSI)
- BOLTS FOR STEEL BEAM AND COLUMN CONNECTIONS SHALL BE 3/4" DIAMETER ASTM A505 HIGH-STRENGTH BOLTS INSTALLED SNUG TIGHT. UNLESS OTHERWISE NOTED ON THE DRAWINGS, THEY SHALL BE THE SIZE AND TYPE NOTED. ALL WELDING OF STRUCTURAL STEEL SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF AWS D1.1 CORRESPONDING TO THE ABS SPECIFICATION USED. AND ALL WELDS INCLUDING WELDS IN CONNECTIONS WITH WELDED WIRE REINFORCING SHALL BE FILED WELDS. FILED WELDS ARE NOT INDICATED ON WELD SYMBOLS. FILED SIZE SHALL BE 1/16TH INCH SMALLER THAN THICKNESS OF THINNER MATERIALS BEING JOINED.
- PROVIDE DOUBLE NUTS AND DOUBLE WASHERS FOR STEEL COLUMN ANCHOR BOLTS TO ALLOW FOR ADJUSTMENT IN BASE PLATE ELEVATION. DRAWINGS SHALL INDICATE CURVATURE DATA AND HULL PENETRATION SPACE LOCATIONS.
- TOUCH UP ALL FIELD WELDS ON GALVANIZED SURFACES WITH GALVANIZING REPAIR PAINT.
- REFERENCE SPECIFICATIONS FOR MISC. STEEL REQUIREMENTS NOT SHOWN ON STRUCTURAL PLANS.
- CONTRACT DOCUMENTS, SHOP DRAWINGS, DETAILING THE CONFIGURATIONS AND FABRICATION DETAILS ALONG WITH CALCULATIONS, SEALED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED TO PRACTICE IN THE STATE IN WHICH THE PROJECT IS LOCATED, SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW.
- THE MINIMUM DESIGN LOAD FOR ANY CONNECTION SHALL BE 6 WPS (ASD) OR 10 KIPS (LRFD), WHICHEVER IS THE BEAM REACTION(S) SHOWN ON THE PLANS. FRAMES ARE NOT SET & APPROVED AND COLUMN ANCHOR BOLTS ARE DESIGNED FOR A COMPLETED CONSTRUCTION ONLY. VERTICAL ROOF DECK BEAM TO COLUMN MOMENT CONNECTIONS, PARTIAL BRACES, AND DIAGONAL BRACES ARE REQUIRED TO PROVIDE LATERAL STABILITY FOR THE FRAME AND BUILDING. THIS INCLUDES RESISTANCE TO WIND AND SEISMIC FORCES DURING AND AFTER CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN STABILITY UNTIL THE LATERAL FORCE RESISTING SYSTEM FOR THE BUILDING IS COMPLETE.
- FIELD CUTTING SHALL BE DONE UNDER THE SUPERVISION OF THE STRUCTURAL ENGINEER OF RECORD. ALL CUTTING SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. ALL PERTINENT INFORMATION INCLUDING PENETRATION SHAPE, SIZE, LOCATION AND METHOD OF CUTTING OPENINGS.

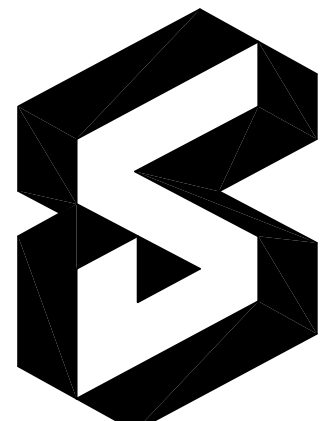
SPECIAL INSPECTIONS

- SPECIAL INSPECTION SHALL BE PROVIDED BY THE CONTRACTOR ACCORDING TO SECTION 7104 OF IBC 2009. THE APPROVED SPECIAL INSPECTOR SHALL DEMONSTRATE COMPETENCE FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OF OPERATION REQUIRING SPECIAL INSPECTION. THE SPECIAL INSPECTOR SHALL SUBMIT REPORTS TO THE OWNER, THE BUILDING OFFICIAL, THE ARCHITECT, THE STRUCTURAL ENGINEER OF RECORD, AND TO THE CONTRACTOR. THE SPECIAL INSPECTOR SHALL SIGN OFF ON THE DRAWINGS TO THE BEST OF HIS OR HER KNOWLEDGE IN CONFORMANCE WITH THE APPROVED PLANS AND SHALL PROVIDE ACCESS TO THE SPECIAL INSPECTOR'S RECORDS TO THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER OR NOT THE WORK REQUIRING SPECIAL INSPECTION WAS TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SHALL PROVIDE ACCESS TO THE SPECIAL INSPECTOR'S RECORDS TO THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. ACCESS TO APPROVED PLANS SHALL BE PROVIDED SO THAT THE SPECIAL INSPECTOR HAS THE TO BECOME FAMILIAR WITH THE PROJECT.
- SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING CONSTRUCTION DOCUMENTS FOR ADDITIONAL NON-STRUCTURAL SPECIAL INSPECTION ITEMS.
- IN ACCORDANCE WITH IBC CHAPTER 17, THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS AND TESTING:
 - SPECIAL INSPECTION AND VERIFICATION OF CONCRETE CONSTRUCTION
 - SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT.	--	X
INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 8B.	--	--
INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	X	--
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE.	--	X
VERIFIED USE OF REQUIRED DESIGN MIX.	--	X
AT THE TIME THE FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	--
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	--
INSPECTION FOR MAINTNANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	--	X
INSPECTION OF PRESTRESSED CONCRETE:		
A) APPLICATION OF PRESTRESSING FORCES.	X	--
B) SEISMIC FORCE RESISTING SYSTEM.	X	--
C) PRECAST CONCRETE MEMBERS.	--	X
VERIFICATION OF READY MIX CONCRETE STRENGTH PRIOR TO STRESSING TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	--	X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	--	X

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
VERIFICATION OF SOILS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	--	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	--	X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	--	X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	--
PRIOR TO PLACEMENT OF COMPACTED FILL, OBTAIN SUBGRADE AND VERIFY THAT SLOPES HAVE BEEN PREPARED PROPERLY.	--	X

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		
A) IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	--	X
B) MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	--	X
INSPECTION OF HIGH STRENGTH BOLLING:		
A) SNUG-TIGHT JOINTS.	--	X
B) PRE-TENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TURNS OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	--	X
C) PRE-TENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	--
MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:		
A) FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	--	X
B) FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	--	X
C) MANUFACTURER'S CERTIFIED TEST REPORTS.	--	X
MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
A) IDENTIFICATION MARKINGS TO CONFORM TO AISC SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	--	X
B) MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	--	X
INSPECTION OF WELDING STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:		
A) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	X	--
B) MULTIPASS FILET WELDS.	X	--
C) SINGLE PASS FILET WELDS - 5/16"	X	--
D) PLUG AND SLOT WELDS.	X	--
E) SINGLE-PASS FILET WELDS - 5/16"	--	X
F) FLOOR AND ROOF DECK WELDS.	--	X
INSPECTION OF WELDING REINFORCING STEEL:		
A) VERIFICATION OF WEARABILITY OF REINFORCING STEEL, OTHER THAN ASTM A706.	--	X
B) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN MEMBER AND SPECIAL MOMENT TRAPES AND BOUNDARY SHEAR REINFORCEMENT.	X	--
C) SHEAR REINFORCEMENT.	X	--
D) OTHER REINFORCING STEEL.	--	X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:		
A) DETAILS SUCH AS BRACING AND STIFFENING.	--	X
B) MEMBER LOCATIONS.	--	X
C) APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	--	X

REVISIONS	DATE
	
Dept. of Veterans Affairs Medical Center 1011 Honor Heights Drive Muskogee, OK 74401	

APPROVED: Medical Center Director	APPROVED: Chief VCS
APPROVED: Assoc. Medical Center Director	APPROVED: Safety Manager
APPROVED: Chief of Staff	APPROVED: Industrial Hygienist
APPROVED: Chief, Engineering	APPROVED: Safety Manager

APPROVED: Inspection Control Items	DRAWING TITLE
APPROVED: President April 2010	623-15-102
APPROVED: General Notes	Building No. 24
APPROVED: Contract No. 62315102-E1	PROJECT TITLE
APPROVED: Location	Upgrade Canteen Refrigeration & Dishwashing
APPROVED: Drawn By: B. Short	DESIGNED BY:
APPROVED: Checked By:	CHECKED BY:
APPROVED: Scale: NTS	DRAWING NO. S1
APPROVED: Date: 06JUN2014	DATE: 2 OF 8