

**GENERAL NOTES:**

**DESIGN CRITERIA:**

- BUILDING CODE - 2015 INTERNATIONAL BUILDING CODE W/ LOCAL AMENDMENTS
- EXISTING ROOF DEAD LOAD = 20 PSF  
MINIMUM ROOF LIVE LOAD = 20 PSF
  - GROUND SNOW LOAD,  $P_g$  = 5 PSF
  - WIND LOADS:  
- ULTIMATE WIND SPEED,  $V_{ult}$  (3 SEC. GUST) = 115 MPH  
- NOMINAL DESIGN WIND SPEED,  $V_{nd}$  = 84 MPH  
- RISK CATEGORY = II  
- WIND EXPOSURE = C  
- BUILDING CATEGORY = ENCLOSED, SIMPLE DIAPHRAGM
  - SEISMIC:  
- RISK CATEGORY = II  
- SEISMIC IMPORTANCE FACTOR,  $I_e$  = 1.0  
- MAPPED SPECTRAL RESPONSE COEFFICIENTS  
     $S_{DS}$  = 0.081  
     $S_{D1}$  = 0.029  
- SITE CLASS (ASSUMED) = D  
- DESIGN SPECTRAL RESPONSE COEFFICIENTS  
     $S_{DS}$  = 0.086  
     $S_{D1}$  = 0.046  
- SEISMIC DESIGN CATEGORY = A

**SUBGRADE PREPARATION NOTE**

- ALL EXPOSED AND/OR DISTURBED CONCRETE GRANULAR BASE AREAS SHALL BE COMPACTED TO A MINIMUM DEPTH OF 8" AND TO A MINIMUM OF 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D 1557 AT OPTIMUM MOISTURE CONTENT. ALL SUBGRADE SOIL AREAS EXPOSED BY EXCAVATIONS AND GRADING SHALL BE COMPACTED TO A MINIMUM DEPTH OF 12" AND TO A MINIMUM OF 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D 1557 AT OPTIMUM MOISTURE CONTENT. FILL WHERE REQUIRED SHALL BE PLACED IN LIFTS NOT TO EXCEED 8" LOOSE MEASURE AND SHALL BE COMPACTED AS OUTLINED ABOVE. THE ON SITE TESTING COMPANY SHALL PROVIDE TESTING AND INSPECTION OF THE SOIL WORK PRIOR TO PLACING CONCRETE.

**CONCRETE:**

- ALL CONCRETE SHALL BE NORMAL-WEIGHT (DENSITY=145 PCF) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:  
ALL CONCRETE (U.N.O.).....3000psi
- THE SLUMP OF ALL CONCRETE SHALL NOT EXCEED 4" UNLESS A HIGH RANGE WATER-REDUCING ADMIXTURE IS USED. THE SLUMP OF CONCRETE PRIOR TO ADDITION OF A HIGH-RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 4". THE SLUMP OF CONCRETE CONTAINING A HIGH RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 10".
- ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED WITH BETWEEN 4% AND 8%, AIR CONTENT.
- THE COARSE AGGREGATE SIZE SHALL BE #57 OR LARGER.
- THE MINIMUM PORTLAND CEMENT CONTENT (ASTM C150) OF ALL CONCRETE SHALL CONFORM TO THE FOLLOWING TABLE (FLY ASH NOT PERMITTED):

SPECIFIED COMPRESSIVE STRENGTH (psi)	NON AIR-ENTRAINED CONCRETE (lbs.)	AIR-ENTRAINED CONCRETE (lbs.)
3000	470	517

- THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW A MINIMUM OF ONE WEEK PRIOR TO THE PLACEMENT OF ANY CONCRETE. THE CONCRETE MIX DESIGNS SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS FOR EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD.
- CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
- CONCRETE REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A105.
- ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL.
- ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".
- THE MINIMUM CONCRETE CLEAR COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE:  
FORMED SURFACE IN CONTACT WITH THE GROUND.....3 IN.  
#5 BARS AND SMALLER.....1 1/2 IN.  
SLABS, WALLS, AND JOISTS.....3/4 IN.  
#11 BARS AND SMALLER.....3/4 IN.

**STRUCTURAL STEEL:**

- STEEL SHALL CONFORM TO THE FOLLOWING GRADES:  
WIDE FLANGE SHAPES A492 OR A572 GR. 50 (Fy = 50)  
CHANNELS, ANGLES, PLATES, ETC. (UNO) A36 (Fy = 36)  
STRUCTURAL TUBE AS100 (Fy = 46)  
STEEL PIPE A53 (Fy = 35)  
THREADED RODS F1554, A36 OR A307  
BOLTS A325  
WELDING ELECTRODES E70XX
- ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (360-05), EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.
- ALL STRUCTURAL STEEL TO HAVE A SHOP GRADE PRIMER UNLESS NOTED OTHERWISE.

**EXISTING CONSTRUCTION:**

- WORK SHOWN IS NEW UNLESS CALLED OUT AS EXISTING.
- EXISTING CONSTRUCTION SHOWN IS BASED UPON ASSUMED CONDITIONS AND CAN BE USED FOR BIDDING PURPOSES. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS, ELEVATIONS, AND MEMBER SIZES PRIOR TO CONSTRUCTION OR MATERIAL PURCHASE. THE CONTRACTOR SHALL NOTIFY THE PROFESSIONAL OF RECORD IN WRITING OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK.
- THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING CONSTRUCTION SHALL BE PERFORMED WITH GREAT CARE IN ORDER TO NOT JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL FEATURES NOT INDICATED FOR REMOVAL, INTERFERE WITH THE NEW WORK, THE PROFESSIONAL OF RECORD SHALL BE IMMEDIATELY NOTIFIED AND PRIOR WRITTEN APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OR MODIFICATION OF MEMBERS.
- THE CONTRACTOR SHALL PROMPTLY REPAIR DAMAGE CAUSED DURING CONSTRUCTION WITH SIMILAR MATERIALS AND WORKMANSHIP.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF ALL DEMOLITION WORK AND FOR PROVIDING ALL NECESSARY TEMPORARY SHORINGS, BRACINGS AND PROTECTION AS NECESSARY FOR SAFETY, STABILITY AND PROTECTION OF ALL BUILDING ELEMENTS AND STRUCTURE DURING CONSTRUCTION AND DEMOLITION.

**MISCELLANEOUS:**

- NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.
- STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
- NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.
- DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.
- THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE PROFESSIONAL OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
- ANY DETAIL TITLED AS A TYPICAL DETAIL IS APPLICABLE THROUGHOUT THE DESIGN DRAWINGS. THESE DETAILS ARE DEFINED AS GENERAL STANDARDS THAT ARE USUALLY NOT IDENTIFIED BY SPECIFIC REFERENCE WITHIN THE DRAWINGS. THESE DETAILS MAY BE MODIFIED OR SUPERSEDED BY SPECIFIC DETAILS THAT ARE REFERENCED WITHIN THE DRAWINGS.
- THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON THE STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

**SPECIAL INSPECTIONS:**

- THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE THE REQUIRED SPECIAL INSPECTIONS DURING CONSTRUCTION.
- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:  
A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.  
B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL-OF-RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL-OF-RECORD, UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.  
C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.
- WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF OTHER SPECIFIED TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.
- STRUCTURAL OBSERVATION (AS DEFINED IN CHAPTER 17 OF THE BUILDING CODE) IS NOT REQUIRED, UNLESS SPECIFICALLY REQUIRED BY THE BUILDING OFFICIAL.
- SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING TABLES:

SPECIAL INSPECTION		
STEEL CONSTRUCTION:		
VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL		AISC LRFD Sec. M2.5
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	ASTM A-6 OR ASTM A-568
2. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	AISC ASD Sec. A3.6; AISC LRFD Sec. A3.5
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	---	
3. INSPECTION OF WELDING:		
A. SINGLE-PASS FILLET WELDS ≤ 5/16"	PERIODIC	AWS D11
ADHESIVE ANCHORS/REINFORCEMENT:		
VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD
1. DURING PLACEMENT OF ADHESIVE ANCHORS OR REINFORCEMENT EMBEDDED WITH ADHESIVE (AS SPECIFIED ON THE CONSTRUCTION DOCUMENTS) IN MASONRY AND CONCRETE:	PERIODIC	MANUFACTURERS INSTALLATION INSTRUCTIONS
A. SIZE AND EMBEDMENT OF ANCHORS/REINF.	PERIODIC	
B. ANCHORS/REINFORCEMENT INSTALLED PER MANUFACTURERS RECOMMENDATIONS.	PERIODIC	

**CONTRACTOR NOTE**

PRIOR TO MODIFYING THE EXISTING CONCRETE SLAB CONSTRUCTION IN ANY WAY INCLUDING BUT NOT LIMITED TO CUTTING, DRILLING, OR ROUTING, THE GENERAL CONTRACTOR SHALL OBSERVE EXISTING CONCRETE SLAB(S) THROUGHOUT THE PLANNED AREA OF WORK AND SUBMIT EVIDENCE TO THE PROJECT ARCHITECT/ENGINEER OF RECORD ILLUSTRATING THE TYPE(S) OF SLAB CONSTRUCTION, I.E. "SLAB ON GRADE," "REINFORCED STRUCTURAL CONCRETE," ETC. THE SLAB CONSTRUCTION SHALL NOT BE MODIFIED UNTIL THE ARCHITECT/ENGINEER OF RECORD PROVIDES RESPECTIVE WRITTEN DIRECTION.

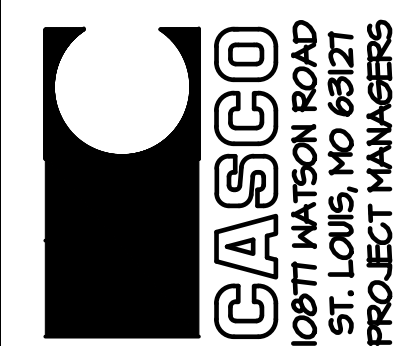
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11/02/17 5/15/14 MP TEV MP



CASCO DIVERSIFIED CORPORATION  
ENGINEERING FIRM  
LICENSE #F-1545  
EXPIRES 08/31/18

PROFESSIONAL OF RECORD

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drawing

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