

H
G
F
E
D
C
B
A

GENERAL CRITERIA:

1. THIS DESIGN MAY BE USED AS A STAND ALONE PACKAGE OR AS PART OF A LARGER DRAWING PACKAGE. ENGINEERING REVIEW AND APPROVAL SHALL BE OBTAINED FOR SITE-SPECIFIC CONDITIONS.
2. PLAN AND SECTIONS ARE SHOWN ON SHEETS ST-D5020-3-2 AND ST-D5020-3-3.
3. ANY DISCREPANCIES SHALL BE REPORTED TO THE RESPONSIBLE ENGINEER PRIOR TO CONSTRUCTION.
4. DO NOT SCALE DRAWINGS TO DETERMINE DIMENSIONS.
5. NEW CONSTRUCTION SHALL BE COORDINATED WITH EXISTING SITE CONDITIONS.
6. THE PROJECT SHALL TAKE ALL NECESSARY PRECAUTIONS TO LOCATE AND PROTECT CONCEALED CONDUITS, PLUMBING, OR OTHER UTILITIES.
7. WHERE DIMENSIONS OR SPACINGS SHOWN ON SHEETS ST-D5020-3-2 AND ST-D5020-3-3 ARE NOT SPECIFIED, SUCH AS ANCHORS FOR HOUSEKEEPING PAD, SUBCONTRACTOR SHALL MAKE NECESSARY FIELD MEASUREMENTS AND PROVIDE REQUIRED DIMENSIONS.
8. SHEET NUMBERING AND CALL-OUT REFERENCING WILL NEED TO BE UPDATED TO FOLLOW LANL STANDARDS AND INTEGRATE INTO DRAWING PACKAGES.
9. THIS STANDARD IS NOT APPLICABLE TO MCC'S THAT DO NOT MEET ALL THE CRITERIA, DIMENSIONS, ETC. CONTAINED IN THESE DRAWINGS.

DESIGN CRITERIA:

1. APPLICABLE CODES AND STANDARDS:
 - A. INTERNATIONAL BUILDING CODE (IBC) 2009
 - B. AMERICAN SOCIETY OF CIVIL ENGINEERS - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES 2005 (ASCE 7-05).
 - C. AMERICAN CONCRETE INSTITUTE - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-08).
 - D. LANL ENGINEERING STANDARDS MANUAL STD-342-100.
2. THIS DESIGN IS FOR ML-3/ML-4. FOR ML-1 AND ML-2 ADDITIONAL REQUIREMENTS MAY BE REQUIRED.
3. STRUCTURE PERFORMANCE CATEGORY: PC-2
4. CALCULATIONS:

CALC-12-00-000-000-0016-S
5. DESIGN LOADS:
 - A. DEAD LOADS: SELF WEIGHT OF MCC
 - B. SEISMIC DESIGN BASED ON LANL ESM CHAPTER 5 SECTION II REV 6. SEISMIC DESIGN PARAMETERS:

SDS = 0.75g
I = 1.5
R = 1.5

MATERIAL CRITERIA:

1. CONCRETE:
 - A. CONCRETE WORK PER LANL MASTER SPEC FOR REINFORCED CONCRETE.
 - B. CONCRETE COMPRESSIVE STRENGTH (28 DAY): $f'c = 4000$ PSI
 - C. 4% TO 6% ENTRAINED AIR
 - D. 3/4" AGGREGATE TOPSIZE
 - E. ALL CONCRETE SHALL BE REINFORCED AS INDICATED ON SHEET 3.
 - F. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
 - G. REINFORCING STEEL SHALL BE CONTINUOUS U.N.O.
 - H. PROVIDE WOOD FLOAT FINISH FREE OF DEPRESSIONS
2. POST-INSTALLED ANCHORS:
 - A. POST-INSTALLED ANCHORS PER LANL MASTER SPEC(S) FOR NORMAL CONFIDENCE POST-INSTALLED ANCHORS.
 - B. POST-INSTALLED ANCHORS SHALL BE INSTALLED IN COMPLIANCE THE MANUFACTURER'S INSTALLATION GUIDELINES AND ICC REPORT.
 - C. EMBEDMENTS SHOWN ON THE DRAWINGS ARE MINIMUM EMBEDMENT DEPTHS.
 - D. POST-INSTALLED ANCHORS SHALL NOT CONFLICT OR DAMAGE CONCRETE REBAR.
3. MOTOR CONTROL CENTER:
 - A. WEIGHT OF MCC AND BUS BARS MAY NOT EXCEED 600 LBS.
 - B. MCC WILL BE MOUNTED ON THE BASEMENT OR FIRST FLOOR AT GRADE LEVEL.
 - C. INSTALL PER MANUFACTURER'S INSTRUCTIONS USING ADDITIONAL HARDWARE RECOMMENDED BY MANUFACTURER.

NOTES FOR DESIGNER:
(DO NOT INCLUDE ON CONSTRUCTION DRAWING)

1. EDIT TO BE PROJECT SPECIFIC
2. COMPLY WITH CURRENT EDITION OF LANL DRAFTING MANUAL FOR CALL-OUTS PROTOCOL AND LOCATION OF SCHEDULES/MATERIAL.
3. ASSIGN AN APPROPRIATE DRAWING NUMBER PER CURRENT EDITION OF LANL DRAFTING MANUAL PROTOCOL FOR DETAILS.

NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP	
ENGINEERING STANDARDS PROGRAM										
MOTOR CONTROL CENTER ANCHORAGE					DRAWN	S. THOMSON				
GENERAL NOTES					DESIGN	S. THOMSON				
					CHECKED	S. KOTHARI				
BLDG : XXXX					DATE	1/2/2013				
SUBMITTED					APPROVED FOR RELEASE					
DISCIPLINE POC: DOUGLAS VOLKMAN					STANDARDS MANAGER: TOBIN ORUCH					
S-0001					1 OF 3					
CLASSIFICATION: UNCLASSIFIED					REVIEWER: E. J. SEAWALT			DATE: 1/2/2013		
PROJECT ID					DRAWING NO			REV		
					ST-D5020-3			0		