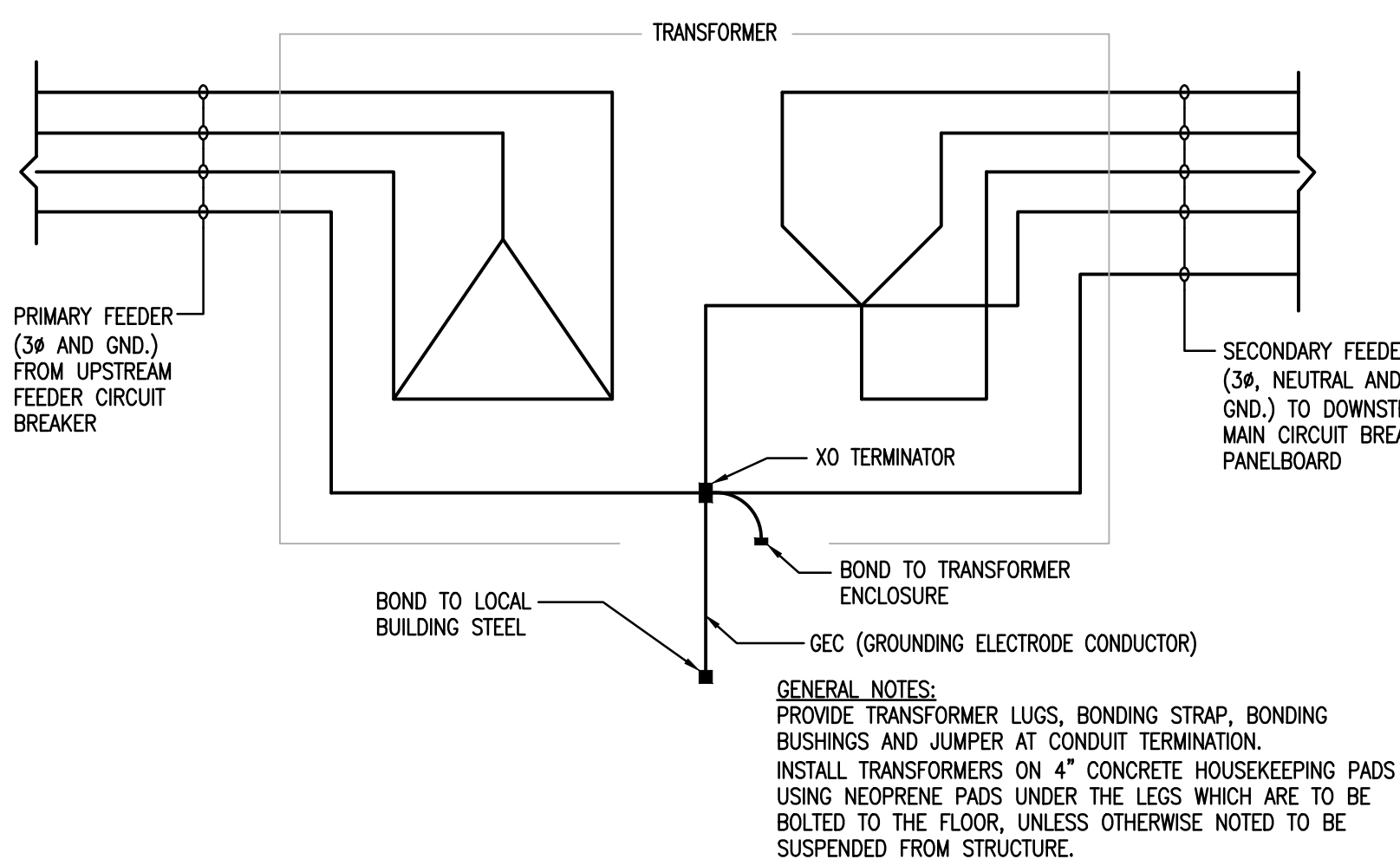


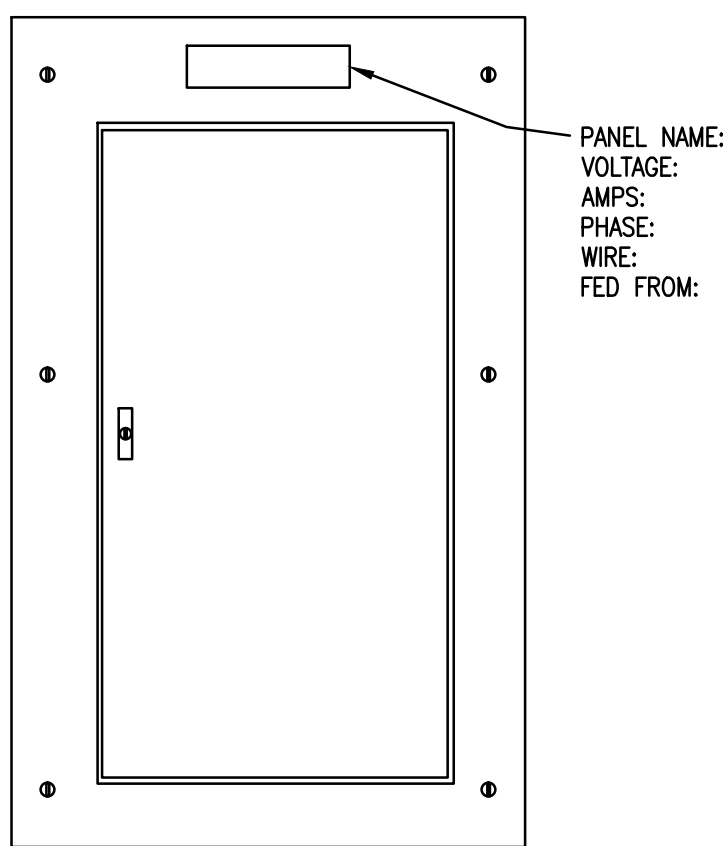
A
B
C
D
E
F

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
one quarter inch = one foot
one eighth inch = one foot

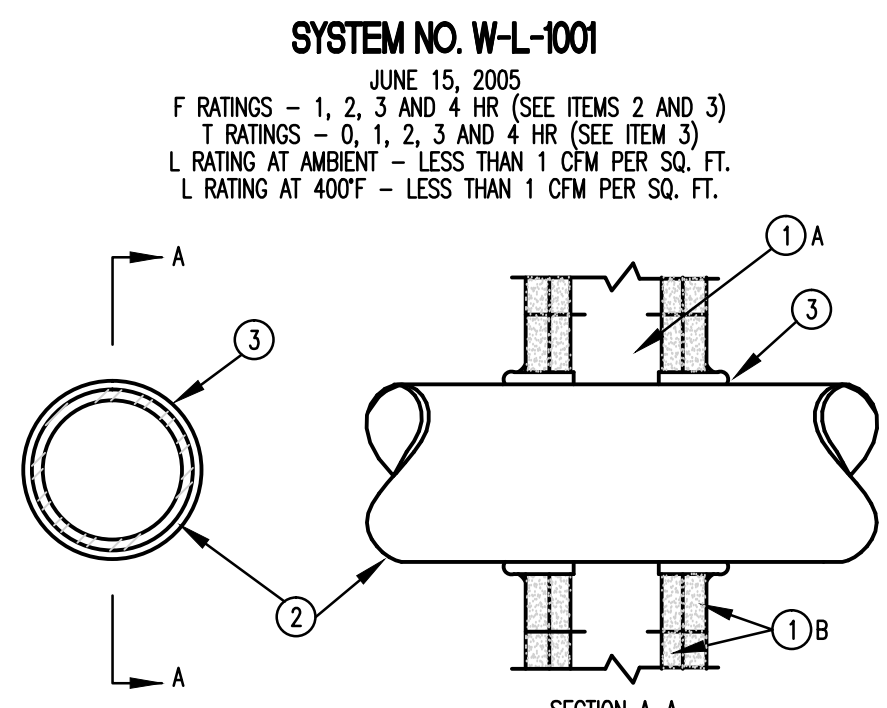
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① Dry Type Transformer Detail
SCALE: N.T.S.



② Electrical Panel Designation Detail
SCALE: N.T.S.



- WALL ASSEMBLY - THE 1, 2, 3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. OC.
 - GYPSUM BOARD* - NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIM OF OPENING IS 26 IN.
- THROUGH-PENETRANT - ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN. OF 0 IN. (POINT CONTACT) TO MAX 2 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
 - STEEL PIPE - NOM 24 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE - NOM 24 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM. 12 IN. DIAM (OR SMALLER) OR CLASS SO (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.
 - CONDUIT - NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT OR NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
 - COPPER TUBING - NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - COPPER PIPE - NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
 - THROUGH PENETRATING PRODUCT* - FLEXIBLE METAL PIPING. THE FOLLOWING TYPES OF STEEL FLEXIBLE METAL GAS PIPING MAY BE USED:
 - NOM 2 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. OMEGA FLEX, INC.
 - NOM 1 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. GASTIT, DIV OF TITEX CORP.
 - NOM 1 IN. DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. WARD MFG, INC.
- FILL VOID OR CAVITY MATERIAL* - CAULK OR SEALANT - MIN. 5/8, 1-1/4, 1-7/8 AND 2-1/2 IN. THICKNESS OF CAULK FOR 1, 2, 3 AND 4 HR RATED ASSEMBLIES, RESPECTIVELY, APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN. 1/4 IN. DIAM BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

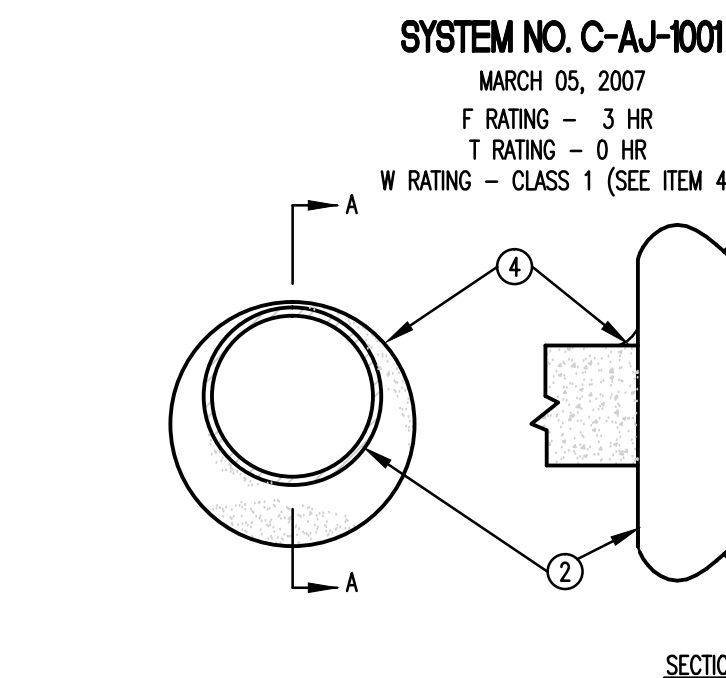
MAX PIPE OR CONDUIT DIAM IN.	F RATING, HR.	T RATING, HR.
1	1 OR 2	0+ 1 OR 2
1	3 OR 4	3 OR 4
4	3 OR 4	0
6	3 OR 4	0
12	OR 2	0

*WHEN COPPER PIPE IS USED, T RATING IS 0 HR.

3M COMPANY - TYPE CP 25WB+ OR FB-3000 WT

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③ Fire Stopping Detail System No. W-L-1001
SCALE: N.T.S.



- FLOOR OR WALL ASSEMBLY - MIN 4-1/2 IN. THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF CIRCULAR THROUGH OPENING IS 32-1/2 IN.
SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- THROUGH - PENETRANT - ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN. (POINT CONTACT) TO MAX 1-3/8 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
 - STEEL PIPE - NOM 30 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE - NOM 30 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - CONDUIT - NOM 6 IN. DIAM (OR SMALLER) RIGID STEEL CONDUIT.
 - CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
- PACKING MATERIAL* - POLYETHYLENE BACKER ROD OR NOM 1 IN. THICKNESS OF TIGHTLY-PACKED CERAMIC (ALUMINA SILICA) FIBER BLANKET, MINERAL-WOOL BATT OR GLASS FIBER INSULATION MATERIAL USED AS A PERMANENT FORMAL. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM 4). AS AN ALTERNATE WHEN MAX PIPE SIZE IS 10 IN. DIAM AND WHEN MAX ANNULAR SPACE IS 1 IN., A MIN 1 IN. THICKNESS OF TIGHTLY-PACKED CERAMIC FIBER BLANKET OF MINERAL-WOOL BATT PACKING MATERIAL MAY BE RECESSED MIN 1/2 IN. FROM BOTTOM SURFACE OF FLOOR OR FROM EITHER SIDE OF WALL.
- FILL, VOID OR CAVITY MATERIALS* - CAULK - APPLIED TO FILL THE ANNULAR SPACE TO THE MIN THICKNESS SHOWN IN THE FOLLOWING TABLE:

MAX PIPE DIAM IN.	MAX ANNULAR SPACE IN.	PACKING MATERIAL TYPE (A)	MIN. CAULK THICK IN.
10	1	BR, GF, OF OR MW	1/2 (B)
10	1	GF OR MW	1/2 (C)
30	2-1/2	BR, GF, OF OR MW	1 (B)

- (A) BR= POLYETHYLENE BACKER ROD.
GF= CERAMIC FIBER BLANKET.
MW= GLASS FIBER INSULATION.
OF= MINERAL-WOOL BATT.
- (B) CAULK INSTALLED FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL.
- (C) CAULK INSTALLED FLUSH WITH BOTTOM SURFACE OF FLOOR OR ONE SURFACE OF SOLID (NON-CONCRETE BLOCK) WALL.

3M COMPANY - TYPE CP 25WB+ OR FB-3000 WT

(NOTE - W RATINGS APPLIES ONLY WHEN FB-3000 WT IS USED.)

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• BEARING THE UL CLASSIFICATION MARKING.

④ Fire Stopping Detail System No. C-AJ-1001
SCALE: N.T.S.

GENERAL NOTES

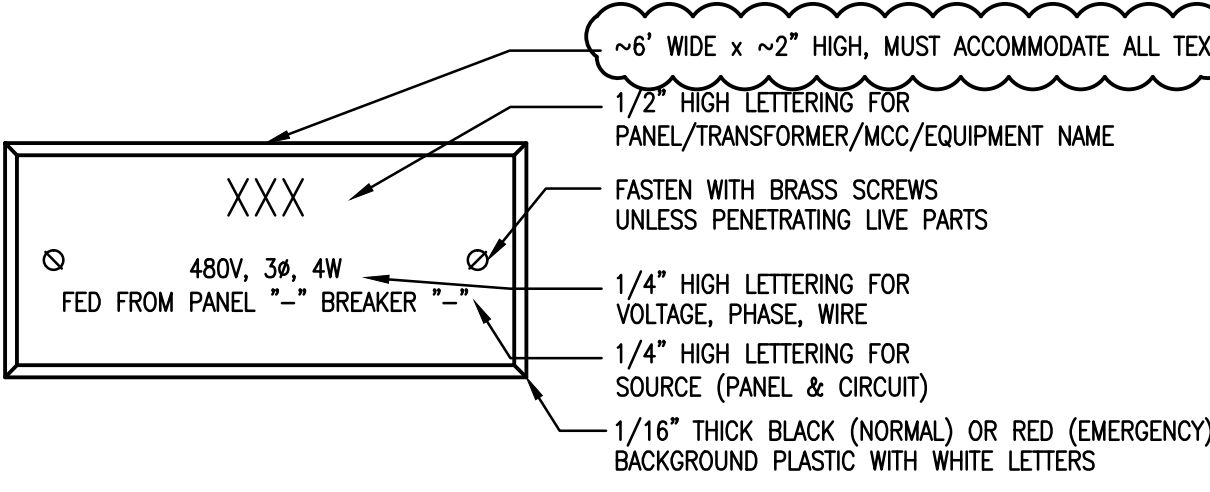
- ALL WORK SHALL CONFORM TO THE LATEST ADOPTED NATIONAL ELECTRICAL CODE, STATE CODE, LOCAL AUTHORITY REQUIREMENTS, VA TIL GUIDELINES, VA HANDBOOKS, AND SPECIFICATIONS.
- THE CONTRACTOR SHALL VISIT THE PREMISES AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL DETAILS OF THE WORK AND WORKING CONDITIONS. VERIFY ALL FIELD CONDITIONS AND ADVISE THE ENGINEER OF ANY DISCREPANCY THAT MAY PREVENT OR HINDER THE SPECIFIED WORK FROM BEING COMPLETED.
- THE CONTRACTOR SHALL STUDY THE STRUCTURE AND FINISH CONDITIONS AFFECTING HIS WORK AND SHALL COORDINATE HIS WORK ACCORDINGLY. THE CONTRACTOR SHALL PROVIDE ALL ACCESSORIES, HANGERS, AND ANCHORS AS NECESSARY TO MEET SUCH CONDITIONS WITHOUT ANY ADDITIONAL COST TO THE GOVT.
- PRIOR TO ACCOMPLISHING ANY WORK IN ANY AREA, ALL WORK, ESPECIALLY OUTAGES, SHALL BE COORDINATED AND SCHEDULED AHEAD OF TIME WITH WRITTEN APPROVAL FROM THE GOVERNMENT.
- PROPERLY SUPPORT ALL WORK AND EQUIPMENT INSTALLED UNDER THIS CONTRACT. STUDY ALL DRAWINGS, MANUFACTURER'S INSTRUCTIONS, AND CATALOG DATA TO DETERMINE HOW EQUIPMENT ACCESSORIES, AND RELATED ITEMS ARE TO BE SUPPORTED, MOUNTED, OR SUSPENDED. PROVIDE ALL BOLTS, INSERTS, BRACKETS, STRUCTURAL SUPPORTS, AND ACCESSORIES FOR PROPER SUPPORT OF EQUIPMENT FURNISHED UNDER THIS CONTRACT.
- ALL WORK SHOWN LIGHT AND SOLID IS EXISTING TO REMAIN, UON. ALL WORK SHOWN BOLD AND SOLID IS NEW, UON. ALL WORK SHOWN BOLD AND DASHED IS EXISTING TO BE DEMOLISHED AND/OR REPLACED, UON.
- UNLESS INDICATED AS NEW, TO BE DEMOLISHED, TO BE REPLACED, OR TO BE GUTTED, ALL ITEMS ARE EXISTING TO REMAIN.
- THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT SHOW ALL POSSIBLE CONDITIONS. THE INSTALLATION SHALL BE FULLY COORDINATED WITH ALL EXISTING ARCHITECTURAL AND STRUCTURAL ELEMENTS. CONTRACTOR SHALL FIELD VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND ALLOW FOR ALL OFFSETS, REROUTING, ETC. AT NO ADDITIONAL COST TO THE GOVERNMENT. SHOULD THE CONTRACTOR ENCOUNTER ANY EXISTING EQUIPMENT, PIPING, DUCTWORK, ELECTRICAL, ETC. THAT INTERFERES WITH NEW WORK INSTALLATION, THEY SHALL REMOVE, RELOCATE AND REINSTALL SAME AT NO ADDITIONAL COST TO THE GOVERNMENT.
- IT IS TO BE NOTED THAT THE NAMES OF PANELS, ETC. HAS CHANGED MULTIPLE TIMES OVER TIME AND THE LATEST NOMENCLATURE SHALL BE USED, AS INDICATED ON THESE DRAWINGS, UNLESS OTHERWISE SPECIFIED.
- MARK CIRCUIT BREAKERS UPSTREAM AS SPARE, WHERE FEEDER AND ASSOCIATED EQUIPMENT HAS BEEN DEMOLISHED UNDER THIS PROJECT.
- CONTRACTOR TO TAKE AND DOWN AND REPLACE EXISTING CEILINGS AS REQUIRED TO FACILITATE NEW CONDUIT/WIRING INSTALLATION THAT IS PART OF THIS PROJECT.
- CONTRACTOR TO PATCH ALL HOLES IN FLOOR/WALLS/CEILINGS, THAT WERE CREATED AS A RESULT OF THIS PROJECT, WITH APPROPRIATE MATERIALS.
- CONTRACTOR TO PROVIDE NEW 300PSF CONCRETE REINFORCED HOUSEKEEPING PADS FOR ALL NEW ATS's, TRANSFORMERS, UPS's AND OTHER FLOOR MOUNTED EQUIPMENT THAT IS PART OF THIS PROJECT. PADS SHALL BE 4" HIGH AND EXTEND 6" BEYOND THE FOOTPRINT OF THE EQUIPMENT.
- CONTRACTOR SHALL SUBMIT COORDINATION DRAWINGS FOR ALL WORK, INCLUDING CONDUIT ROUTINGS, TO BE INSTALLED UNDER THIS PROJECT CONTRACT. COORDINATION DRAWINGS SHALL INDICATE ALL STRUCTURE, EQUIPMENT AND ROUTING OF PIPING, DUCTWORK, ELECTRICAL, CONTROLS, SPRINKLERS AND FIRE ALARM SYSTEM. NO WORK SHALL BE COMMENCED PRIOR TO RECEIPT OF APPROVAL COORDINATION DRAWINGS FROM COR. COORDINATION DRAWINGS SHALL BE AT SCALES OF 1/4" = 1'-0" AND INCLUDE PLANS AND ELEVATIONS.
- CONTRACTOR SHALL CONFORM TO ICRA AND LSM REQUIREMENTS OF THIS PROJECT AS MANDATED BY VA INFECTION CONTROL AND SAFETY DEPARTMENT. ALL DEMOLISHED EQUIPMENT SHALL FOLLOW THE VA GEMS GUIDELINES. CONTRACTOR SHALL UTILIZE A EDGE GUARD OR EQUAL INFECTION CONTROL CONTAMINANT WALL SOLUTION.
- ALL RENOVATION WORK IN THIS PROJECT SHALL RESULT IN A SYSTEM THAT IS COMPLETE AND FULLY OPERATIONAL WITHOUT MISSING ANCILLARY COMPONENTS.
- ALL NEW CONDUITS SHALL BE INSTALLED TIGHT TO DECK OR AS HIGH AS POSSIBLE.
- CONTRACTOR TO PROVIDE ARC FLASH LABELING FOR ALL NEW EQUIPMENT PROVIDED UNDER THIS PROJECT.
- CURRENT INJECTION TESTING IS REQUIRED FOR ALL BREAKERS, 200 AMP AND LARGER, PROVIDED UNDER THIS PROJECT, ALONG WITH A FULL REPORT.
- INFRARED SCANNING IS REQUIRED FOR ALL NEW OR RE-TERMINATED FEEDERS UNDER THIS PROJECT, ALONG WITH A FULL REPORT.

ABBREVIATIONS

TYPE	DESCRIPTION
AFC	ABOVE FINISHED COUNTER
AFF	ABOVE FINISHED FLOOR
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CB	CIRCUIT BREAKER
CON	CONTRACTOR
COR	CONTRACTING OFFICER'S REPRESENTATIVE
DIS	DISCONNECT
ECB	ENCLOSED CIRCUIT BREAKER
ETBD	EXISTING TO BE DEMOLISHED
ETBG	EXISTING TO BE GUTTED (SPUCE AND BECOME J-BOX)
ETBR	EXISTING TO BE REPLACED (WITH NEW IN SAME OR IN NEW LOCATION AS NOTED)
ETR	EXISTING TO REMAIN
FVNR	FULL VOLTAGE NON REVERSING
JB, J-BOX	JUNCTION BOX
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MTS	MANUAL TRANSFER SWITCH
N/C	NOT CONNECTED
NEC	NATIONAL ELECTRICAL CODE
NEW	NEW EQUIPMENT OR NEW LOCATION OF NEW EQUIPMENT AS NOTED
NTS	NOT TO SCALE
OC	ON CENTER
PB, P-BOX	PULL BOX
SWGR	SWITCHGEAR
T	TRANSFORMER
TC	TIME CLOCK
TYP	TYPICAL
UON	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
W	WATTS
XFMR	TRANSFORMER

NAMEPLATE NOTES

- ALL SWITCHGEAR, SWITCHBOARDS, DISTRIBUTION PANELS, PANELBOARDS, LOADCENTERS, ENCLOSED CIRCUIT BREAKERS, DISCONNECTS, CONTACTORS, TIME CLOCKS, SWITCHGEAR BRANCH BREAKERS, DISTRIBUTION PANEL BRANCH BREAKERS, SWITCHGEAR BRANCH BREAKERS, SWITCHBOARD BRANCH BREAKERS, ETC., NOTED WITHIN THESE DOCUMENTS, SHALL HAVE EXISTING NAMEPLATES REMOVED AND REPLACED WITH NEW NAMEPLATES PER THE DETAILS IN THESE DRAWINGS. WHERE MULTIPLE NAMES HAVE BEEN LISTED FOR THE SAME PIECE OF ELECTRICAL EQUIPMENT OVER TIME, USE THE LATEST NOMENCLATURE (I.E. USE ILE17 IN LIEU OF LSC). IF THERE IS ANY QUESTION AS TO THE LATEST NOMENCLATURE, VERIFY WITH VA COR PRIOR TO ORDERING.



⑤ Switchboard/ATS/Transformer/Panelboard Nameplate Detail
SCALE: N.T.S.

SYMBOL LEGEND

TYPE	DESCRIPTION
T	DRY TYPE TRANSFORMER. REFER TO RISER DIAGRAMS FOR ADDITIONAL INFORMATION.
XXX	SURFACE MOUNTED PANELBOARD/SWITCHBOARD 480/277 VOLT. DESIGNATION AS NOTED. REFER TO PANEL/SWITCHBOARD SCHEDULES FOR ADDITIONAL INFORMATION.
XXX	FLUSH MOUNTED PANELBOARD, 480/277 VOLT. DESIGNATION AS NOTED. REFER TO PANEL/SWITCHBOARD SCHEDULES FOR ADDITIONAL INFORMATION.
XXX	SURFACE MOUNTED PANELBOARD/SWITCHBOARD 208/120 VOLT. DESIGNATION AS NOTED. REFER TO PANEL/SWITCHBOARD SCHEDULES FOR ADDITIONAL INFORMATION.
XXX	FLUSH MOUNTED PANELBOARD, 208/120 VOLT. DESIGNATION AS NOTED. REFER TO PANEL/SWITCHBOARD SCHEDULES FOR ADDITIONAL INFORMATION.
□	HEAVY DUTY FUSED DISCONNECT SWITCH. DESIGNATION AS NOTED. REFER TO RISER DIAGRAMS FOR ADDITIONAL INFORMATION.
⊗	MOTOR CONTROLLER. DESIGNATION AS NOTED. REFER TO RISER DIAGRAMS FOR ADDITIONAL INFORMATION.
□	ENCLOSED CIRCUIT BREAKER. DESIGNATION AS NOTED. REFER TO RISER DIAGRAMS FOR ADDITIONAL INFORMATION.
□	MOTOR CONTROL CENTER SECTION. REFER TO THE MCC SCHEDULES AND RISER DIAGRAMS FOR ADDITIONAL INFORMATION.
①	FEEDER NUMBER. REFER TO THE FEEDER SCHEDULE FOR ADDITIONAL INFORMATION.

SEISMIC AND WIND REQUIREMENTS FOR ELECTRICAL SYSTEMS INFORMATION FOR IBC/ASCE 7

- ALL ROOF CURBS/ ROOF RAILS INCLUDING THEIR ATTACHMENT TO THE EQUIPMENT AND STRUCTURE MUST BE EVALUATED FOR WIND LOADING. WHERE SEISMIC RESTRAINT IS REQUIRED, THE MORE DEMANDING FORCE OF WIND AND SEISMIC MUST BE USED. SEE SEISMIC INFORMATION CONTAINED IN THE CIVIL DRAWINGS AND SPECIFICATIONS FOR SITE SPECIFIC INFORMATION ON SEISMIC DESIGN CATEGORY.
- USE APPLICABLE TABLE BELOW TO DETERMINE SEISMIC RESTRAINT REQUIREMENTS FOR EACH ELECTRICAL COMPONENT.
- FOR ALL COMPONENTS REQUIRING SEISMIC RESTRAINT, THE COMPONENT SUPPORTS AND ATTACHMENTS SHALL BE DESIGNED BY A REGISTERED DESIGN PROFESSIONAL.
- WHERE SEISMIC RESTRAINT IS REQUIRED, HOUSEKEEPING PADS NEEDED FOR THE INSTALLATION OF EQUIPMENT UNDER THIS CONTRACT MUST BE DESIGNED BY THE SEISMIC ENGINEER. DO NOT POUR ANY HOUSEKEEPING PADS PRIOR TO THE RECEIPT OF THE SEISMIC SUBMITTAL.
- SEISMIC RESTRAINTS FOR CONDUIT AND CABLE TRAY MUST BE SHOWN ON LAYOUT DRAWINGS SHOWING SPECIFIC RESTRAINT LOCATIONS ALONG WITH ACCOMPANYING DETAILS AND CALCULATIONS.

SEISMIC DESIGN CATEGORIES C

COMPONENT IDENTIFICATION	SEISMIC RESTRAINT REQUIREMENT	COMPONENT IMPORTANCE FACTOR (Ip)		SEISMIC RESTRAINT REQUIREMENT	ASCE 7-05 REFERENCE
		1.0	1.5		
ROOF MOUNTED	NOT REQUIRED	13.1.4.3	RESTRRAIN ALL	13.1.4.3	
FLOOR MOUNTED	NOT REQUIRED	13.1.4.3	RESTRRAIN ALL	13.1.4.3	
WALL MOUNTED	NOT REQUIRED	13.1.4.3	RESTRRAIN ALL	13.1.4.3	
COMPONENT SUPPORTS	NOT REQUIRED	13.1.4.3	RESTRRAIN ALL	13.6.5	
SUSPENDED EQUIPMENT	NOT REQUIRED	13.1.4.3	RESTRRAIN ALL	13.1.4.3	
SINGLE CONDUIT	NOT REQUIRED	13.1.4.3	>2" (SEE NOTE 1 & 2)	13.6.8.2.b	
CABLE TRAY, TRAPEZOID CONDUIT	NOT REQUIRED	13.1.4.3	>2" RESTRAIN IF ANY CONDUIT ON TRAPEZOID >2" RESTRAIN IF TOTAL WEIGHT OF CONDUIT ON TRAPEZOID > 10 LBS/FT (SEE NOTE 2)	13.6.8.3.1	C-8-CH13-48-R
COMPONENT CERTIFICATION (SEE NOTE 3)	NOT REQUIRED	13.2.2	REQUIRED	13.2.2	
PENDANT LIGHTS	REQUIRED	SEE NOTE 4	REQUIRED	SEE NOTE 4	

- NOTES:
- ALL NON-STEEL CONDUIT (I.E. - PVC) MUST BE RESTRAINED.
 - RESTRAINT IS NOT REQUIRED IF SUSPENDED 12 IN. OR LESS FROM THE STRUCTURE AND THE HANGERS ARE DETAILED TO AVOID SIGNIFICANT BENDING OF THE HANGERS AND THEIR ATTACHMENTS AND PROVISIONS ARE MADE FOR PIPING TO ACCOMMODATE EXPECTED DEFLECTIONS.
 - COMPONENT CERTIFICATION MUST BE SUPPLIED BY THE EQUIPMENT MANUFACTURERS AT TIME OF SUBMITTAL FOR REVIEW BY ENGINEER OF RECORD.
 - THE RESTRAINT OF PENDANT LIGHTS IS GOVERNED BY "CISCA-04 FOR SEISMIC ZONES" (CEILING AND INTERIOR SYSTEMS CONSTRUCTION ASSOCIATION).

SEQUENCE OF OPERATION

- IN GENERAL, THE PRIORITY 1 LOADS ARE CURRENTLY SERVED FROM UNIT SUB 1A.
- IN GENERAL, THE PRIORITY 2 LOADS ARE CURRENTLY SERVED FROM UNIT SUB 1B.
- IN GENERAL, THE PRIORITY 3 LOADS ARE CURRENTLY SERVED FROM UNIT SUB 2A.
- IN GENERAL, THE PRIORITY 4 LOADS ARE CURRENTLY SERVED FROM UNIT SUB 2B.
- THE GENERATOR SWITCHGEAR HAS MOTORIZED INPUT BREAKERS THAT CLOSE TO THE BUSS UPON NORMAL POWER LOSS AND UPON GENERATORS SYNCHRONIZING TO THE BUSS. THE UNIT SUB MAIN UTILITY BREAKERS THEN OPEN AND THE UNIT SUB MAIN GENERATOR BREAKERS CLOSE TO THE BUSS, AND ACT AS ATS'S, PER PRIORITY WITH TIME DELAYS.

BID DEDUCTS

- STATEMENT OF BID DEDUCT ITEM(S)
- A. BASE BID ITEM 1, WORK INCLUDES ALL MATERIALS, LABOR, TOOLS, AND EQUIPMENT TO COMPLETE PROJECT 534-16-101, CORRECT SECONDARY DEFICIENCIES, AT THE RALPH H. JOHNSON VAMC, CHARLESTON, SC. THE PROJECT SHALL BE COMPLETED IN ACCORDANCE WITH ALL CONSTRUCTION SPECIFICATIONS AND DRAWINGS.
- B. DEDUCTIVE ALTERNATES:
- THE ALTERNATES BELOW ARE ALL DEDUCTS TO THE BASE BID LISTED IN PRIORITY ORDER. DEDUCTS LISTED BELOW ARE TO BE BROKEN OUT SEPARATELY ON THE BID FORM.
- BID DEDUCT #1: CONTRACTOR SHALL PERFORM ALL WORK AS DESCRIBED IN BID ITEM 1 (BASE BID) EXCEPT DEDUCT ALL WORK ASSOCIATED WITH DEDUCT 1. DEDUCT 1 INCLUDES: ALL WORK ASSOCIATED WITH THE NEW DOOR AND WALL PARTITION FOR ROOM #2207B.
 - BID DEDUCT #2: CONTRACTOR SHALL PERFORM ALL WORK AS DESCRIBED IN BID ITEM 1 (BASE BID) EXCEPT DEDUCT ALL WORK ASSOCIATED WITH DEDUCT 1 AND ALL WORK ASSOCIATED WITH DEDUCT 2. DEDUCT 2 INCLUDES: ALL WORK ASSOCIATED WITH REPLACING THE LIGHTING IN CHILLER ROOM #C105.
 - BID DEDUCT #3: CONTRACTOR SHALL PERFORM ALL WORK AS DESCRIBED IN BID ITEM 1 (BASE BID) EXCEPT DEDUCT ALL WORK ASSOCIATED WITH DEDUCT 1, DEDUCT 2, AND ALL WORK ASSOCIATED WITH DEDUCT 3. DEDUCT 3 INCLUDES: ALL WORK ASSOCIATED WITH REPLACING PANEL 11ER, PANEL 11ES, TRANSFORMER 1-11ER AND PANEL 11ES.
 - BID DEDUCT #4: CONTRACTOR SHALL PERFORM ALL WORK AS DESCRIBED IN BID ITEM 1 (BASE BID) EXCEPT DEDUCT ALL WORK ASSOCIATED WITH DEDUCT 1, DEDUCT 2, DEDUCT 3 AND ALL WORK ASSOCIATED WITH DEDUCT 4. DEDUCT 4 INCLUDES: ALL WORK ASSOCIATED WITH THE NEW UPS-2UPS.
 - BID DEDUCT #5: CONTRACTOR SHALL PERFORM ALL WORK AS DESCRIBED IN BID ITEM 1 (BASE BID) EXCEPT DEDUCT ALL WORK ASSOCIATED WITH DEDUCT 1, DEDUCT 2, DEDUCT 3, DEDUCT 4 AND ALL WORK ASSOCIATED WITH DEDUCT 5. DEDUCT 5 INCLUDES: ALL WORK ASSOCIATED WITH REPLACING CE #2C-2E.

UNIT PRICING

- STATEMENT OF UNIT PRICING ITEM(S)
- A. UNIT PRICING:
- UNIT PRICING LINE ITEM #1: CONTRACTOR SHALL PROVIDE UNIT COST FOR ALL WORK ASSOCIATED WITH DEMOLISHING A SINGLE 30A/2P NEMA RECEPTACLE UTILIZED FOR FORMER FLOOR BUETING MACHINES IN CORRIDORS, INCLUDING DEMOLISHING BRANCH CIRCUIT WIRING BACK TO SOURCE, REPLACING DEDICATED 30A/2P BRANCH BREAKER IN GIVEN PANEL WITH (2) 20A/1P BRANCH BREAKERS AND PROVIDING STAINLESS STEEL BLANK COVERPLATE OVER FORMER RECEPTACLE.
 - UNIT PRICING LINE ITEM #2: CONTRACTOR SHALL PROVIDE UNIT COST FOR ALL WORK ASSOCIATED WITH MODIFYING A SINGLE ELECTRICAL ROOM INCLUDING DEMOLISHING THE LAY-IN CEILING, RESUPPORTING ANY RECESSED ITEMS IN CEILINGS SUCH AS LIGHT FIXTURES, HVAC DIFFUSERS, ETC., MODIFYING FIRE SPRINKLER HEADS TO BE UPRIGHT IN LIEU OF RECESSED DOWNWARD, PATCHING ANY HOLES/VOIDS IN WALLS/FLOORS WITH APPROPRIATE FIRESTOPPING OR MORTAR COMPOUNDS, PROVIDING SLEEVES AROUND ANY UNPROTECTED LOW VOLTAGE WIRING PENETRATIONS IN WALLS/FLOORS, DEMOLISHING ANY ARROUNDING LIEU OR LOW VOLTAGE WIRING AN ESTIMATED 150 LINEAR FEET EACH, CORRECTING ANY OPEN JUNCTION BOXES WITHIN THE ROOM, AND RESUPPORTING ANY CONDUITS/BOXES THAT MAY NOT BE ADEQUATELY SUPPORTED.

ALLOWANCE

REFER TO THE DIVISION 01 SPECIFICATIONS FOR ALLOWANCE QUANTITY AND DESCRIPTION TO BE INCLUDED IN THE BID.

100% FINAL CONSTRUCTION DOCUMENTS

ADDENDUM #1 Construction Documents (CD2) Construction Documents (CD1) Design Development (DD) Schematic (SI) Revisions	08/25/2017 04/10/2017 03/17/2017 10/05/2016 03/21/2016 Date
CONSULTANTS: Quality Consulting Engineers, LLC 6277-600 Carolina Commons Drive #350 d.jones@qualityconsultingengineers.com 803.207.5450 QCE ENGINEERING LICENSE #4298, QCE PROJ #15030	
ARCHITECT/ENGINEERS: Atriax, pllc 102 3rd Avenue, NE PO Box 1629, Hickory, NC 28603 T: 828.315.9962 F: 828.315.9964 NC Engineering License No.: P-0214 NC Architectural License No.: 51254	
Drawing Title ELECTRICAL - COVER SHEET	Project Title DESIGN FOR CORRECT SECONDARY ELECTRICAL DEFICIENCIES
Approved Project Manager Reza Tabatabaei, P.E.	Location RALPH H. JOHNSON VAMC CHARLESTON, SC
Approved Chief Engineer Jeffrey A. Sage, CFM	Date 4/10/2017
Checked DAJ	Drawn DAJ
Project Number 534-16-101	
Building Number 1	
Drawing Number E-001	
Dwg. 3 of 20	
Office of Construction and Facilities Management Department of Veterans Affairs	