

4) Primary voltage cable to be 15kV 500 kCM CU URD.

and smooth the edges of the knockout.

All construction to be in compliance with CMP's Construction Standards and the latest edition of the National Electrical Safety Code.

Conduit shall be a minimum of 5" Schedule 40 PVC or equivalent.

7) All 90 degree bends shall be galvanized long sweep bends. Conduit bell ends required at splice boxes, transformer bases and switch cabinets. Bell ends to be flushed with

The Contractor is required to notify CMP by calling the Line Supervisor at telephone

number 791-1020 at least 72 hours before trench excavation begins.

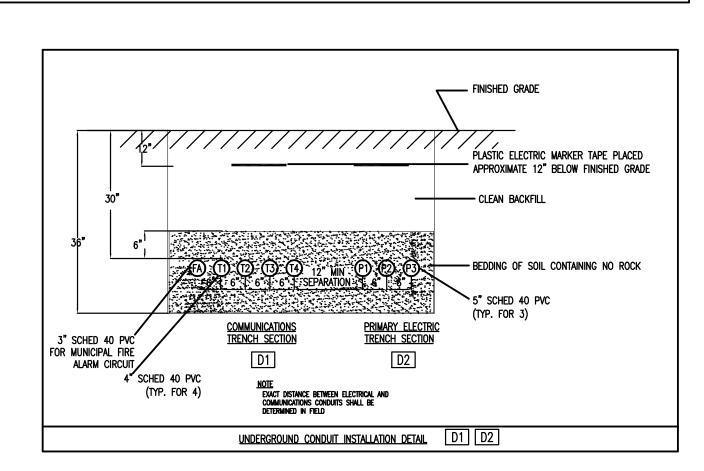
MAIN HOLE DETAIL

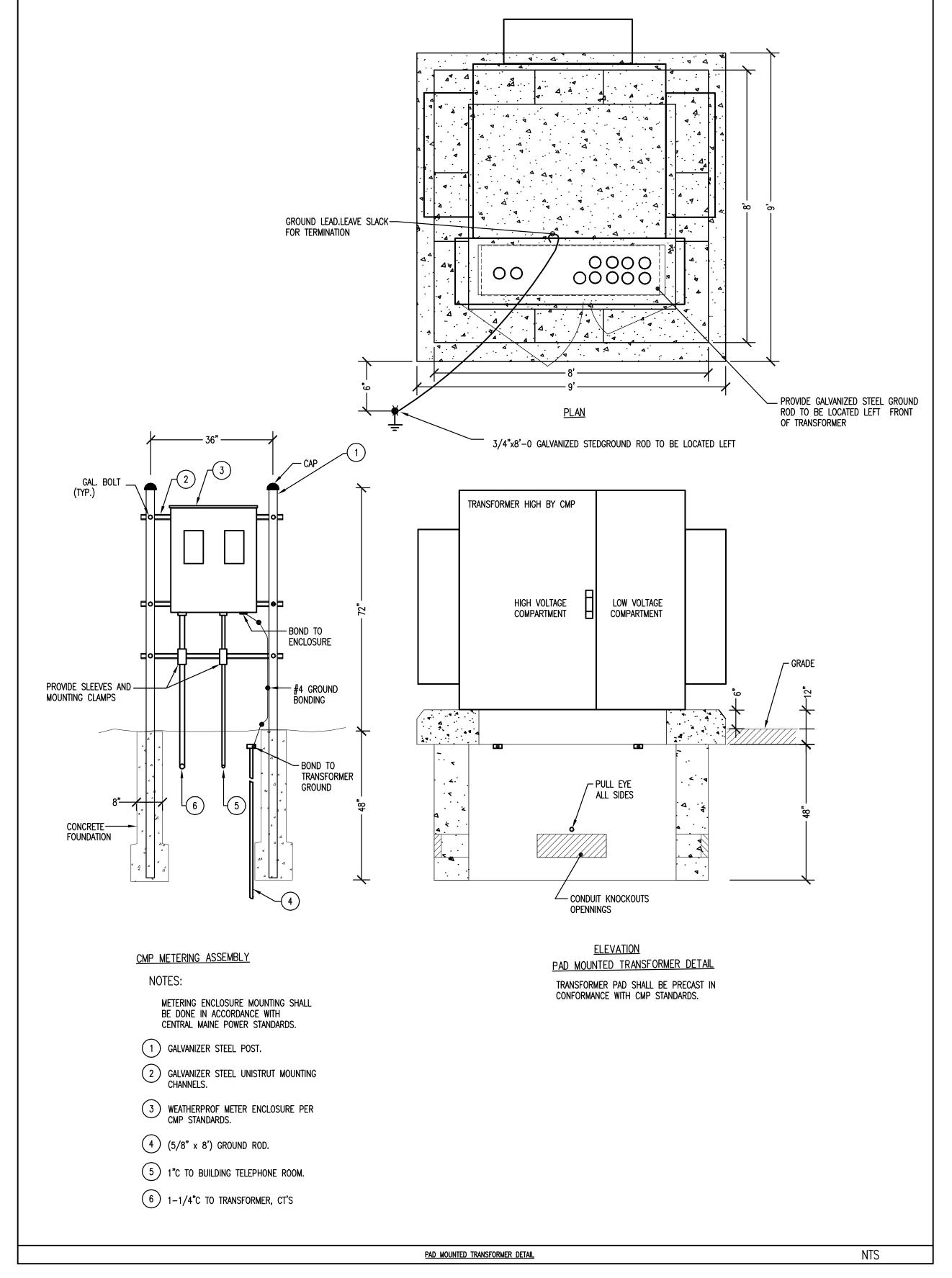
Conduits shall be properly pitched to drain into transformer foundations, manholes or splice boxes. Three inches per 100 feet minimum slope.

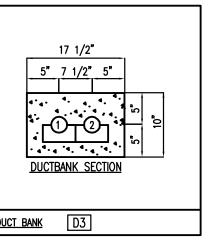
Conduits entering concrete structures shall be set back from the inside wall 1 to 2 inches and the space within the knockout surrounding the conduits completely filled

with mortar to prevent soil from entering structure. Inside the structure the mortar shall be finished and beveled from the conduit ends to the inside wall face to cover

<u>TMH/TMH</u>



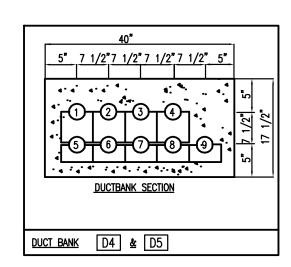


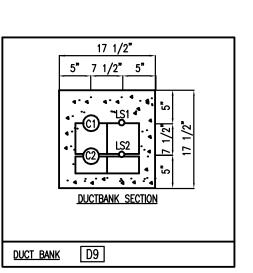


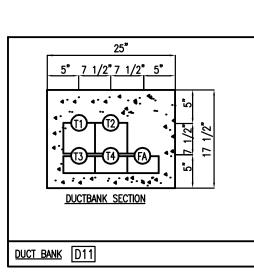
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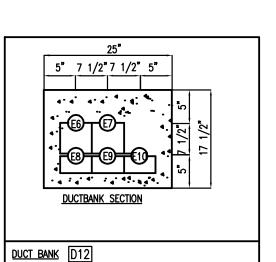
DUCTBANK SECTION

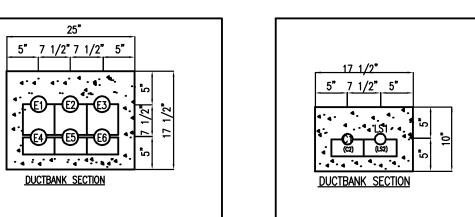
DUCT BANK D6

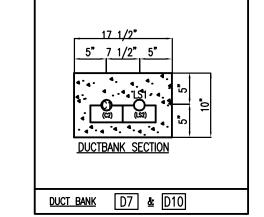


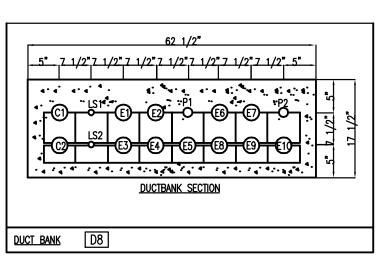












UNDER GROUND CONDUIT DUCT BANK GENERAL NOTES: 1 ALL UNDER GROUND CONDUITS SHALL BE PVC SCHEDULE 40. CONDUITS ENTERING MANHOLE EXTENDING OUT 5'-0" FROM WALL SHALL BE RIGID GALVANIZED STEEL. PROVIDE STEEL TO PLASTIC ADAPTER FITTINGS.

- 2 CONDUITS ENTERING BUILDING EXTENDING OUT 5'-0" FROM FOUNDATION WALL SHALL BE RIGID GALVANIZED STEEL. PROVIDE WATERTIGHT SLEEVES THRU FOUNDATION WALLS
- 3 ELBOWS AND OFFSETS GREATER THAN 30° SHALL BE RIGID GALVANIZED STEEL. PROVIDE STEEL TO PLASTIC ADAPTER FITTINGS.
- 4 CONDUITS SHALL BE PLACED ON PLASTIC SPACERS 4'-0" ON CENTER.
- 5 UNDER GROUND DUCT BANK SHALL BE SET A MINIMUM DEPTH OF 30" BELOW GRADE
- 6 ALL UNDER GROUND DUCT BANKS SHALL BE ENCASED IN REINFORCED CONCRETE. REINFORCING IRON SHALL BE DETERMINED BY A STRUCTURAL ENGINEER. RED DYE SHALL BE ADDED TO CONCRETE MIXTURE. REINFORCING IRON SHALL BE INTERFACED WITH BUILDING FOUNDATION WALLS TO MINIMIZE SHEERING.
- 7 REFER TO SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
- 8 ALL UNDERGROUND DUCT BANKS SHALL BE COORDINATED WITH NEW AND EXISINTG UTILITIES. REFER TO CIVIL DRAWINGS

DUCT BANK DESIGNATION	CONDUIT DESIGNATION	DESCRIPTION	CONDUIT SIZE	CONTENTS	NOTES
	(1)	TELECOMMUNICATION CONDUIT	4"	PROVIDE NYTRON PULLCORD	
D1	(12)	TELECOMMUNICATION CONDUIT	4"	PROVIDE NYTRON PULLCORD	
	(13)	TELECOMMUNICATION CONDUIT	4"	PROVIDE NYTRON PULLCORD	
	<u>(14)</u>	TELECOMMUNICATION CONDUIT	4"	PROVIDE NYTRON PULLCORD	
	(FA)	CITY OF PORTLAND FIRE ALARM MASTER BOX CIRCUIT	3"	IMSA CABLE-(2) 4 CONDUCTOR #12 CABLES	
	(P1)	PRIMARY SERVICE CONDUIT	5"	PROVIDE NYTRON PULLCORD	(1)
D2	P2	PRIMARY SERVICE CONDUIT	5"	PROVIDE NYTRON PULLCORD	1
	P3	PRIMARY SERVICE CONDUIT	5"	TROUBL WINGH FOLLOWS	
		PRIMART SERVICE CONDUIT			(1)
D3	(1)	PRIMARY SERVICE CONDUIT	5"	PROVIDE NYTRON PULLCORD	(1)
	2	PRIMARY SERVICE CONDUIT	5"	PROVIDE NYTRON PULLCORD	(1)
D4	(1)	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	(2)	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	3	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	4	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	5	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	6	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	7	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	8	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	9)	SECONDARY SERVICE ENTRANCE FEEDERS	4"	4-#600KCMIL	2
	(1)	FUTURE SERVICE ENTRANCE FEEDERS	4"	PROVIDE NYTRON PULLCORD	3
	2	FUTURE SERVICE ENTRANCE FEEDERS	4"	PROVIDE NYTRON PULLCORD	3
	3	FUTURE SERVICE ENTRANCE FEEDERS	4"	PROVIDE NYTRON PULLCORD	3
D5	4	FUTURE SERVICE ENTRANCE FEEDERS	4"	PROVIDE NYTRON PULLCORD	
					(3)
	(5)	FUTURE SERVICE ENTRANCE FEEDERS	4"	PROVIDE NYTRON PULLCORD	(3)
	6	FUTURE SERVICE ENTRANCE FEEDERS	4"	PROVIDE NYTRON PULLCORD	(3)
	(7)	FUTURE SERVICE ENTRANCE FEEDERS	4"	PROVIDE NYTRON PULLCORD	(3)
	(8)	FUTURE SERVICE ENTRANCE FEEDERS	4"	PROVIDE NYTRON PULLCORD	3
	9	FUTURE SERVICE ENTRANCE FEEDERS	4*	PROVIDE NYTRON PULLCORD	3
	E1)	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350 KCMIL-G	
	£2)	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350 KCMIL-G	
	E3)	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350 KCMIL-G	
D6			4"		
	(E4)	EMERGENCY GENERATOR FEEDERS		4-#600KCMIL & 1-#350 KCMIL-G	
	(E5)	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350 KCMIL-G	
	P1	GENERATOR ENCLOSURE POWER PANEL FEEDER	2"	4-#1, & 1-#8G	
	(1)	GENERATOR CONTROLS	4"	WIRING PER GENERATOR MANUFACTURE	
	(SI)	LIFE SAFETY CIRCUIT	1"	2-#10, & 1-#10G	
	(1)	GENERATOR CONTROLS	4*	WIRING PER GENERATOR MANUFACTURE	
	(2)	FUTURE GENERATOR #2 CONTROLS	4"	WIRING PER GENERATOR MANUFACTURE	4
	(SI)	LIFE SAFETY CIRCUIT	1"	2-#10, & 1-#10G	
D8			1"	EMPTY CONDUIT FOR FUTURE	
	(52)	LIFE SAFETY CIRCUIT			
	(E1)	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350KCNIL-G	
	(2)	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350KCNIL-G	
	E3)	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350KCNIL-G	
	E4	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350KCNIL-G	
	E5	EMERGENCY GENERATOR FEEDERS	4"	4-#600KCMIL & 1-#350KCNIL-G	
	P1	GENERATOR ENCLOSURE #1 POWER PANEL FEEDER	2"	4-#1, & 1-#8G	
	<u>E6</u>	FUTURE GENERATOR #2	4"	EMPTY CONDUIT FOR FUTURE	4
	E8)	FUTURE GENERATOR #2	4"	EMPTY CONDUIT FOR FUTURE	4
	£7)	FUTURE GENERATOR #2	4"	EMPTY CONDUIT FOR FUTURE	4
	E9	FUTURE GENERATOR #2	4"	EMPTY CONDUIT FOR FUTURE	4
	£10	FUTURE GENERATOR #2	4"	EMPTY CONDUIT FOR FUTURE	4
		-			_
	P2)	FUTURE GENERATOR ENCLOSURE POWER PANEL FEEDER	2"	EMPTY CONDUIT FOR FUTURE	4
	(1)	GENERATOR CONTROLS	4"	WIRING PER GENERATOR MANUFACTURE	
	(2)	FUTURE GENERATOR #2 CONTROLS	4"	EMPTY CONDUIT FOR FUTURE	4
D9	(SI)	LIFE SAFETY CIRCUIT	1"	2-#10, & 1-#10G	
	(S2)	LIFE SAFETY CIRCUIT	1"	EMPTY CONDUIT FOR FUTURE	(4
	(E)	CIMIDE AFAIFRATOR CONTROL C	. 10	ENDTY CONDUCT FOR THE	4
D10	(2)	FUTURE GENERATOR CONTROLS	4"	EMPTY CONDUIT FOR FUTURE	
D11	(LS2)	FUTURE LIFE SAFETY CIRCUIT	1"	EMPTY CONDUIT FOR FUTURE	4
	(1)	TELECOMMUNICATION CONDUIT	4"		
	(12)	TELECOMMUNICATION CONDUIT	4"		
	(13)	TELECOMMUNICATION CONDUIT	4"		
	<u>T4</u>)	TELECOMMUNICATION CONDUIT	4"		
	(FA)	CITY OF PORTLAND FIRE ALARM MASTER BOX CIRCUIT	3"	(2) 4 CONDUCTOR #12 INISA CABLES	
D12	<u>(E6)</u>	FUTURE GENERATOR #2	4*	EMPTY CONDUIT FOR FUTURE	4
	E8)	FUTURE GENERATOR #2	4"	EMPTY CONDUIT FOR FUTURE	4
	E7	FUTURE GENERATOR #2	4"	EMPTY CONDUIT FOR FUTURE	4
	E9	FUTURE GENERATOR #2	4"	EMPTY CONDUIT FOR FUTURE	4

. SEAL CONDUITS (4) CONDUIT STUB CAPPED BELOW GRADE FOR FUTURE GENERATOR.

SEAL CONDUITS BOTH ENDS TO PREVENT WATER AND

RODENT ENTRY

Consultant CIVIL ENGINEER DeLuca-Hoffman Associates, I 778 Main Street, Suite 8 South Portland, ME 04106 Phone: (207) 775-1121 Fax:(207) 879-0896 Consultant ASSOCIATE ARCHITECT/STRUCTURAL ENGINEER 144 Fore Street P.O. Box 618 Portland, Maine 04104 Phone: (207) 772-3846 Fax: (207) 772-1070

Revisions

Consultant MECHANICAL/ELECTRICAL ENGINEER Bard, Rao + Athanas Consulting Engineers, LLC The Arsenal on the Charles 311 Arsenal Street Watertown, MA 02472-5789 Phone: 617.254.0016 Fax: 617.924.9339

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Consultant

CONSTRUCTION MANAGER Gilbane Building Company 7 Jackson Walkway Providence, Rhode Island 02903 Phone: (401) 456-5905 Fax: (401) 456-5516 Consultant

FOOD SERVICE Inman Foodservice, LLC 1808 West End Ave. Suite 1400 Nashville, TN 37203 Phone: (615) 321-5591 Fax: (615) 321-5689 It is the responsibility of the Construction Manager/General Contractor and all Sub-Contractors to verify all dimensions and

accept conditions of prior work by related trades before proceeding with any work.

11/10/06 Final—Issued for Constructic

Francis

Cauffman

Foley

Hoffmann

2120 Arch Street Francis Cauffman Foley Hoffmann Philadelphia, PA 19103 215-568-8250 Architects Ltd.

Project Title

Mercy Health Care System of Maine

FORE RIVER SHORT STAY HOSPITAL



Project Number F05-4898 Drawing Title and Number ELECTRICAL SITE DETAILS

E6-4