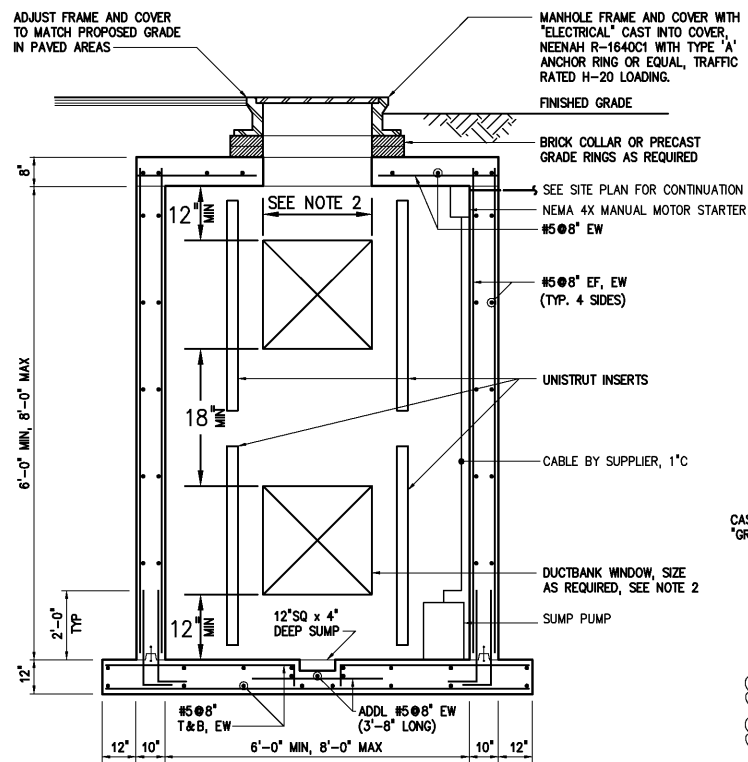


TYPICAL ELECTRICAL MANHOLE - SECTIONAL PLAN

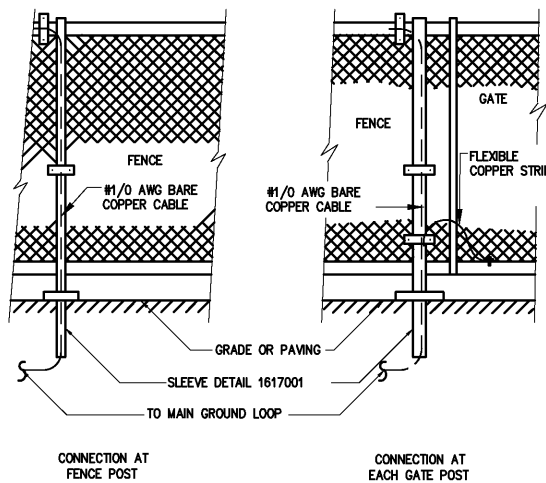


ELECTRICAL MANHOLE NOTES:

- 1 NOT USED
- 2 DUCTBANK WINDOW WIDTH SHALL BE LIMITED TO ONE-THIRD (1/3) OF THE WALL WIDTH, I.E. 2'-0" FOR A 6'-0" WALL.
- 3 PRECAST MANHOLES MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE MANHOLE SHOWN AT THE CONTRACTOR'S OPTION. PRECAST MANHOLES SHALL BE RATED FOR H-20 TRAFFIC LOADS. SEE SPECIFICATIONS FOR GENERAL REQUIREMENTS FOR PRECAST UTILITY STRUCTURES.

TYPICAL ELECTRICAL MANHOLE - SECTION

1611802

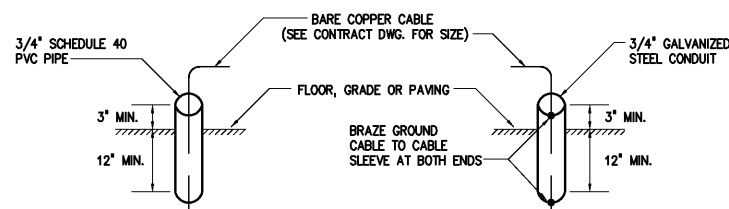


NOTES:

- 1 SUB-STATIONS WITH PRIMARY AND SECONDARY FEEDERS RUN IN CONDUIT, CABLE TRAY OR BUS DUCT SHALL HAVE EVERY OTHER FENCE POST GROUNDED.
- 2 SUB-STATIONS WITH OPEN WIRING INSTALLED ON INCOMING LINE OR TERMINATING STRUCTURES OR WITH OPEN WIRING ON SECONDARY DISTRIBUTION STRUCTURES SHALL HAVE EVERY FENCE POST GROUNDED.

FENCE GROUNDING INSTALLATION DETAIL

1617002

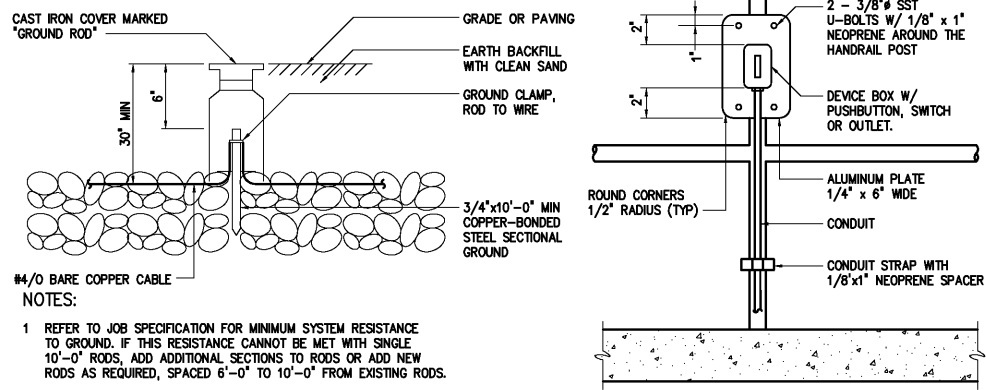


PREFERRED SLEEVE INSTALLATION

ALTERNATIVE SLEEVE INSTALLATION

GROUND CABLE SLEEVE INSTALLATION

1617001



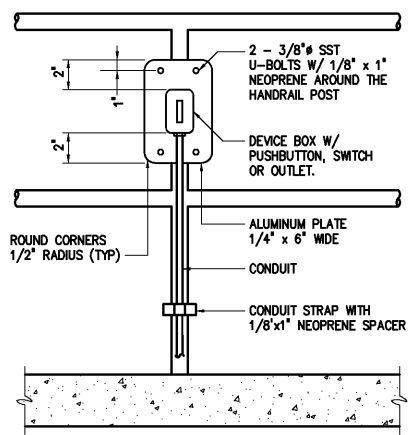
#4/0 BARE COPPER CABLE

NOTES:

- 1 REFER TO JOB SPECIFICATION FOR MINIMUM SYSTEM RESISTANCE TO GROUND. IF THIS RESISTANCE CANNOT BE MET WITH SINGLE 10'-0" RODS, ADD ADDITIONAL SECTIONS TO RODS OR ADD NEW RODS AS REQUIRED, SPACED 6'-0" TO 10'-0" FROM EXISTING RODS.

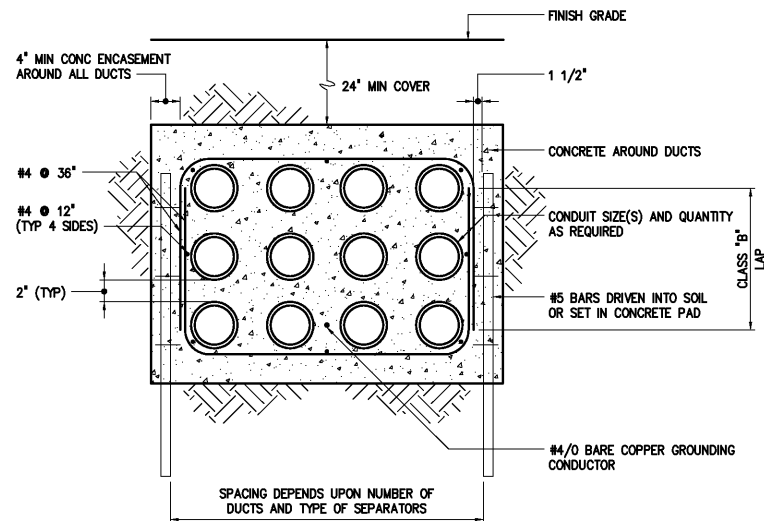
ELECTRICAL INSTALLATION DETAIL  
GROUND ROD ASSEMBLY

1617003



HANDRAIL MOUNTED  
PUSHBUTTON, SWITCH OR OUTLET

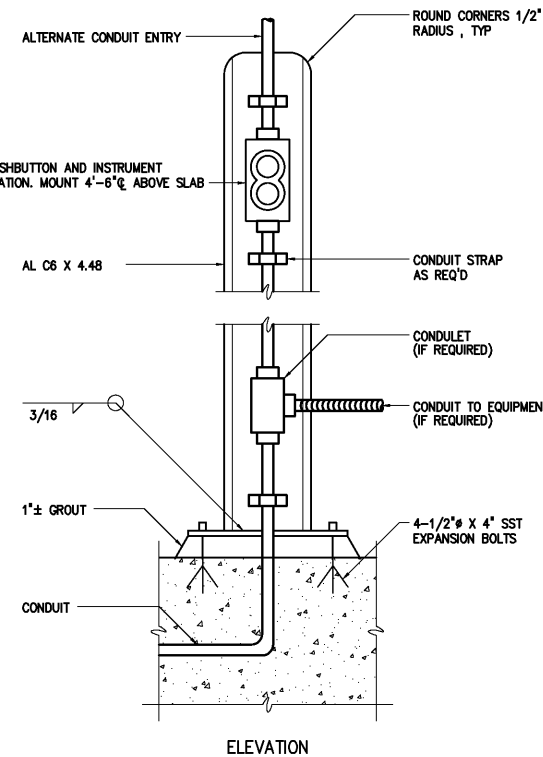
1613003



TYPICAL DUCT BANK DETAIL

1611801

5/8" AL PLATE  
9/16" HOLES, TYP



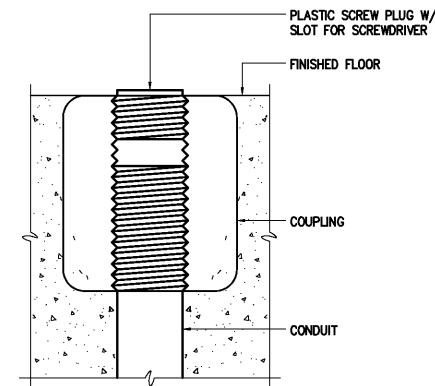
ELEVATION

NOTES:

- 1 COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
- 2 SUPPLY 1'-2" DIAMETER X 2'-6" DEEP FOUNDATION WHERE MOUNTING SURFACE IS NOT AVAILABLE.
- 3 USE SST WASHERS, NUTS AND BOLTS FOR MOUNTING DEVICES.

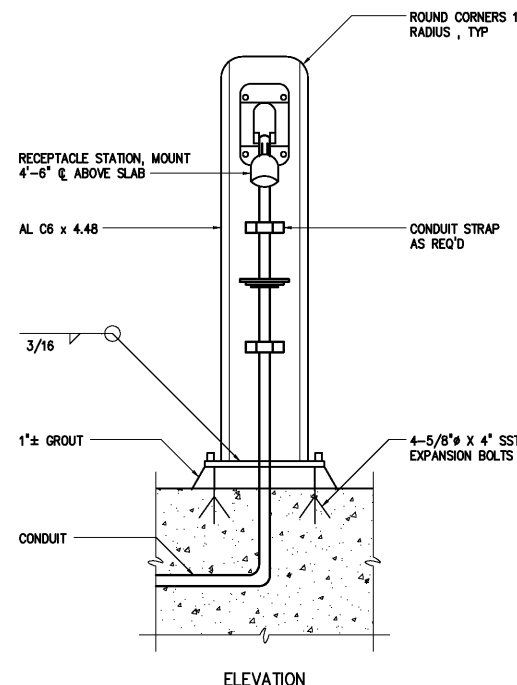
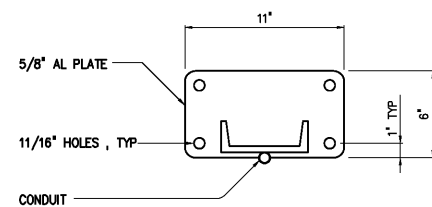
TYPICAL PUSHBUTTON STATION AND INSTRUMENT INSTALLATION DETAIL

1613001



CONDUIT, FLOOR STUB-UP

1611101



ELEVATION

NOTES:

- 1 COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
- 2 CONSTRUCT 1'-6" DIA X 2'-6" DEEP CONCRETE FOUNDATION WHERE NO CONCRETE SLAB EXISTS.
- 3 USE SST WASHERS, NUTS AND BOLTS FOR MOUNTING DEVICES.

LARGE RECEPTACLE SUPPORT AND MOUNTING

1613002

				DESIGNED	H & S
				DRAWN	H & S
				CHECKED	
3	AS BUILT	OCT 2007	RLT	PROJ. ENGR.	H & S
2	CONSTRUCTION	MAR 2004	RLT		
1	REGULATORY APPROVAL	NOV 2003	RLT		
NO.	ISSUED FOR	DATE	BY	APPROVED	

THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY ROBERT S. DIFIORE, SEAL NO. 22769

THIS DOCUMENT ORIGINALLY ISSUED FOR CONSTRUCTION AND SEALED BY RONALD L. TAYLOR, SEAL NO. 024649

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**CITY OF ROANOKE**  
VIRGINIA  
REGIONAL WATER POLLUTION CONTROL PLANT  
PROCESS TRAIN IMPROVEMENTS

MISCELLANEOUS STANDARD DETAILS

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	DATE	MARCH 2004
	H & S JOB NUMBER	30788B
	CONTRACT NUMBER	B
	DRAWING NUMBER	D15