

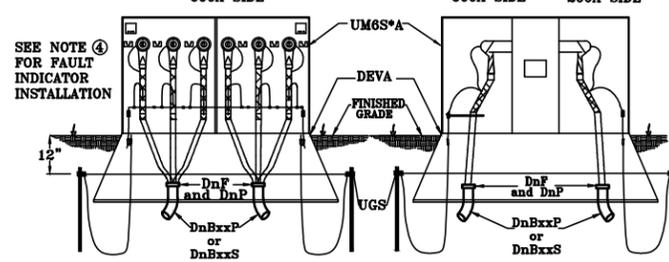
NOTES (CONTINUED):

8) THIS DRAWING SHOWS AN EXISTING SWITCH GEAR WITH CABLE INSTALLED WITH MATERIAL LIST ON RIGHT.

9) CONTRACTOR TO OBTAIN OUTAGE OF SWITCH GEAR PRIOR TO DOING ANY WORK.

10) CONTRACTOR TO INSTALL 3", 5" AND 6" CONDUIT INTO EXISTING AS SPECIFIED IN SPECIFICATIONS CAP AND PULLS ALL CONDUITS.

11) ALL GROUNDING CONNECTIONS AND TERMINATORS SHALL BE INSPECTED TO DETERMINE CONDITION OF CONNECTIONS BY THE CONTRACTOR REPORT FINDING.



NOTES:

- BENDS SHALL BE INSTALLED PER FIELD CONDITION.
- SPARES NOT SHOWN.
- INSTALL ELBOW ARRESTERS AT NORMAL OPEN SWITCH LOCATIONS ON 600A SIDE.
- SEE C30-1010 FOR FAULT INDICATOR LOCATION.
- FOR VAULT INSTALLATIONS ONLY, INSTALL LIDS - DEVAL
- GROUND GRID INSTALLED 12" FROM VAULT AND 12" BELOW GRADE.
- CONTRACTOR IS ADVISED THIS SPECIFICATION INDICATES WHAT IS INSIDE AN EXISTING ENERGIZED SWITCH GEAR THAT IS TO BE WORKED IN BY THE CONTRACTOR.

THE ASSEMBLY CODE UTAB1 - BUSHING INSERT, 15KV 200 Amps WAS ELIMINATED AFTER S&C ADDED THE BUSHING INSERT OPTION TO ALL NEW PME SWITCHGEAR! THE UTAB1 OPTION IS STILL AVAILABLE FOR USE AS A REPLACEMENT OPTION.

CODE	QTY	DESCRIPTION
DEVA	1	Vault, Air Switch
DnBxxP	**	Bend, PVC
DnBxxS	**	Bend, Steel
DnF	**	Bell Fitting, PVC
DnP	**	Plug, PVC
UI15n	**	Faulted Circuit Indicator
UFnSMU	**	Fuse Unit, 15KV, SMU 20
UM6S*A	1	Switch, Pad mounted
UGS#	1	Grounding, Switchgear
UT15AE	**	Arrester, Elbow, 9KV
UT15En	**	Elbow, 15KV

n is dependent on size
 * 2(2-way) or 3(3-way)
 ** qty is dependent on application
 xx bend angle dependent on field condition, (typically 45°)
 # V for vault only, E for switchgear only

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	3Ø 15kV AIR SWITCH MODULE ASSEMBLY	DATE: 4-22-07 Page 1 of 3 C30-0013
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Item Code	Description 1	Description 2	Qty
284 100 00120	EXTENDER, 1Ø TRF VAULT	44" X 44" X 9" W/25" X 25" OPEN	1
284 101 00010	VAULT, AIR SWITCH	74" X 76" X 36" (FIBER-CRETE)	1
284 101 00020	VAULT, 1Ø TRF/FUSE CAN	44" X 44" X 36" (FIBER-CRETE)	1
284 101 00030	VAULT, 3Ø PULL CAN	22" X 22" X 36" (FIBER-CRETE)	1
284 101 00040	VAULT, 3Ø FUSE CAN	49" X 29" X 36" (FIBER-CRETE)	1
284 101 00100	EXTENDER, AIR SWITCH VAULT	74" X 76" X 36" (FIBER-CRETE)	1
NON	CRUSHED LIMESTONE		
NON	VAULT, 12.47KV PRL METERING	56" X 56" X 20"	
NON	LID, AIR SWITCH VAULT	2-PIECE DESIGN W/HARDWARE	

Assembly	Item Code	Description 1	Description 2	Qty
DnBxxP: BEND, PVC	DnBxxP	285 101 00025	ELBOW, 30" R PVC 90 DEG 3"	STANDARD RADIUS SCH 40
	DnBxxP	285 101 00030	ELBOW, 30" R PVC 45 DEG 3"	SCH 40
DnBxxS: BEND, 3" STEEL	DnBxxS	285 101 00110	ELBOW, 30" R STL 90 DEG 3"	GALVANIZED
	DnBxxS	285 101 00120	ELBOW, 30" R STL 45 DEG 3"	GALVANIZED

Item Code	Description 1	Description 2	Qty
285 101 00140	ELBOW, 30" R STL 90 DEG 3"	GALVANIZED	
285 102 00040	COUPLING, PVC 3"	LONG LINE SCH 40	

Item Code	Description 1	Description 2	Qty
285 101 00160	ELBOW, 30" R STL 90 DEG 3"	GALVANIZED	
285 101 00170	ELBOW, 30" R STL 45 DEG 3"	GALVANIZED	
285 101 00180	ELBOW, 30" R STL 90 DEG 3"	GALVANIZED	
285 102 00110	COUPLING, PVC 5"	LONG LINE SCH 40	

Item Code	Description 1	Description 2	Qty
285 103 00040	BELL FITTING, PVC 3"	SCH 40 & SCH 80	
285 103 00060	BELL FITTING, PVC 5"	SCH 40 & SCH 80	
285 103 00100	BELL FITTING, PVC 6"	SCH 40 & SCH 80	

Item Code	Description 1	Description 2	Qty
285 103 00030	PLUG, PVC 3"	WITH PULL TAB	
285 103 00070	PLUG, PVC 5"	WITH PULL TAB	
285 103 00090	PLUG, PVC 6"	WITH PULL TAB	

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	3Ø 15kV AIR SWITCH MODULE ASSEMBLY	DATE: 10-22-06 Page 1 of 1 C30-0013
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Item Code	Description 1	Description 2	Qty
289 105 00030	FUSE UNIT, SMU20, 15KV	25K	1
289 105 00040	FUSE UNIT, SMU20, 15KV	50K	1
289 105 00050	FUSE UNIT, SMU20, 15KV	80K	1
289 105 00060	FUSE UNIT, SMU20, 15KV	100K	1
289 105 00070	FUSE UNIT, SMU20, 15KV	140K	1
289 105 00080	FUSE UNIT, SMU20, 15KV	200K	1

Item Code	Description 1	Description 2	UGS	UGSV	UGSE
280 107 00070	CU BASE SD	4/0 7-STR	75	45	30
285 155 00010	GROUND ROD, COPPER CLAD	5/8" X 10'	4	4	4
284 199 00184	CLAMP, CABLE TO FLAT COND	4Ø SOL - 250 MCM CU	4	-	-
286 100 00280	CONNECTOR, WEDGE CU	4/0 STR (7) - 4/0 STR (7)	4	2	2
284 100 00320	CONNECTOR, WEDGE CU	4/0 STR (7) - 5/8" ROD	4	4	-
286 101 00010	SHELL, WEDGE AMP	WHITE	8	4	4
284 199 00220	BREAK-AWAY	1/0-4/0 STR X 1/0 - 4/0 STR	12	-	12

Item Code	Description 1	Description 2	Qty
283 199 00210	GUARD, WIRE	SPRAL	4
284 120 00010	FAULT INDICATOR, 1/0 - 4/0 15KV		1
284 120 00020	FAULT INDICATOR, 750 - 1000 15KV		3
284 120 00030	INDICATOR CABLE, 3 TO 1	10 FOOT	1
284 120 00040	INDICATOR CABLE, 1 TO 1	6 FOOT	1
284 120 00050	TIES, CABLE	SMALL	4
284 120 00060	CLIP	ADHESIVE BACKED	4

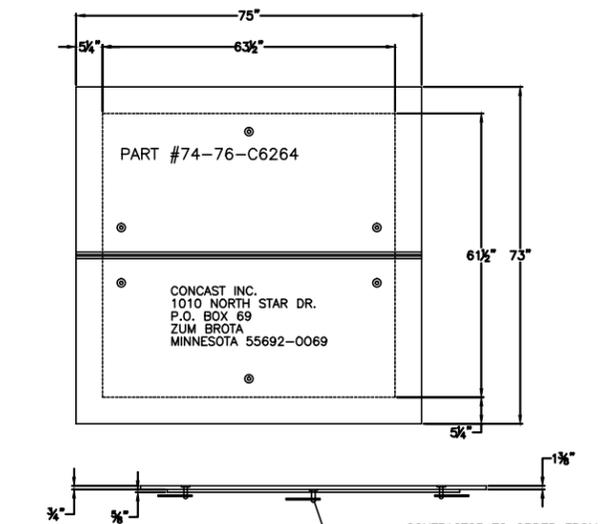
Item Code	Description 1	Description 2	Qty
NON	3PH, 2-WAY AUTOMATED SWITCH	15KV 600A	1
NON	3PH, 3-WAY AUTOMATED SWITCH	15KV 600A	1
284 200 00050	3PH, 2 WAY	8.3/15KV, 600A	1
284 200 00080	3PH, 3-WAY	8.3/15KV, 600A	1
284 199 00010	SIGN NOTICE/OBSTSTRUCTION	8" X 5"	2
287 109 00240	PADLOCK, BRONZE	W/1-1/2" SHACKLE	4

Item Code	Description 1	Description 2	Qty
284 117 00090	INSERT, LOADBREAK BUSHING	15KV, 200A	1

Item Code	Description 1	Description 2	Qty
284 118 00020	ARRESTER, ELBOW	9/10 KV	1
284 118 00030	ARRESTER, PARKING STAND	9/10 KV	1
284 118 00040	ARRESTER, BUSHING INSERT	9/10KV	1
285 199 00220	CONNECTOR, BREAKAWAY CU	1/0 - 4/0 STR	1

Item Code	Description 1	Description 2	Qty
284 109 00010	FUSE, ELBOW 8KV	30A	1
284 117 00020	ELBOW, FUSED 8.3KV 200A	1/0 STR AL 175-220 MIL	1
284 117 00030	ELBOW, 15KV 200A	1/0 STR AL 175-220 MIL	1
284 117 00051	ELBOW, 15KV 200A EXTENDED	1/0 STR AL 175-220 MIL	1
284 117 00040	ELBOW, 15KV 200A	4/0 STR AL 175-220 MIL	1
284 117 00041	ELBOW, 15KV 200A EXTENDED	4/0 STR AL 175-220 MIL	1
284 117 00065	ELBOW, 15KV 600A W/LRTP	750 MCM STR AL 175-220 MIL	1
284 117 00066	ELBOW, 15KV 600A EXTENDED	750 MCM STR AL 175-220 MIL	1
284 117 00095	ELBOW, 15KV 600A W/LRTP	1000 MCM STR AL 175-220 MIL	1
284 117 00096	ELBOW, 15KV 600A EXTENDED	1000 MCM STR AL 175-220 MIL	1
284 117 00400	ELBOW, 15KV 600A	4/0 STR AL 175-220 MIL	1
284 117 00450	KTY CABLE JACKET SEAL	1/0-4/0 (1.05"-1.50")	1
284 117 00440	KTY CABLE JACKET SEAL	250-1000 MCM (1.30"-2.67")	1
285 199 00100	CABLE CLEANER	QUARTS	.01
284 199 00120	CAP, INSULATED W/GROUND	15KV 200A	1

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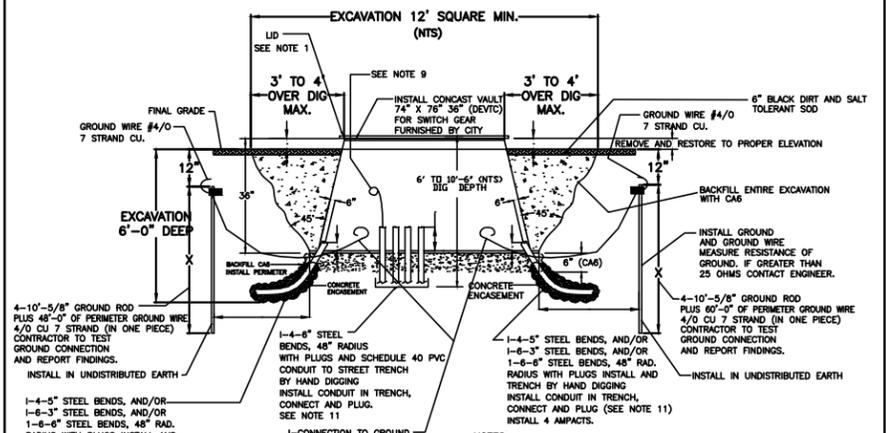


MATERIAL: FIBERCRETE (REQUIRED - 10)

CONTRACTOR TO ORDER FROM ELECTRO TECH
 ATTN: JAMES FLEMING
 1478 McCORMICK PLACE
 WHEATON, IL 60187
 PHONE: 1-800-544-4285

NOTES:
 1) INSTALL THIS COVER OVER SWITCH GEAR VAULT UNTIL SWITCH IS INSTALLED.
 2) RETURN COVER TO CITY OF NAPERVILLE'S STOCK ROOM.
 3) CONTRACTOR TO FURNISH LID.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	SWITCH GEAR VAULT COVER (50 LBS.) (CONSTRUCTION SPECIFICATION)	DATE: 05-01-05 Page 1 of 1 60468-110
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NOTES:

- INSTALL LID OVER OPENING FURNISHED BY CONTRACTOR.
- ESTIMATED WEIGHT - 700 LBS TO 800 LBS.
- VAULT MATERIAL - FIBERCRETE FORMED.
- INSTALL TOP OF VAULT 6" ABOVE FINAL GRADE.
- INSTALL GALVANIZED STEEL ELBOWS INTO VAULT. CONTACT CITY ELECTRICAL ENGINEER FOR LOCATION OF THE ELBOWS IN THE VAULT AND ORIENTATION OF VAULT.
- INSTALL 4-5/8" DIA. X 10'-0" LONG GROUND RODS FOR EACH VAULT. LOCATE ONE ROD AT EACH OF THE CORNERS. INSTALL 1 FOOT FROM THE CORNER. GROUND ROD TO BE DRIVEN 12" BELOW FINISHED GRADE.
- INSTALL PERIMETER GROUND WIRE #4/0, 7 STRANDS COPPER AND ATTACH TO 4 RODS. (ONE CONTINUOUS PIECE, APPROXIMATELY 60' OF WIRE)
- ALL MATERIALS INSTALLED SHALL BE FURNISHED BY CITY OF NAPERVILLE OR CONTRACTOR AS NEW AT EACH LOCATION USED MATERIALS ARE NOT ACCEPTABLE
- INSTALL MULE TAPE OR #12 COPPER WIRE THIN INTO VAULT AND TIE OFF TO LID AND LEAVE TAIL TO CONNECT TOO.
- TEST GROUNDS TO 25 OHMS (REPORT FINDINGS).
- CONTACT ON SITE INSPECTOR FOR ORIENTATION ONLY.
- TESTING EQUIPMENT BY CONTRACTOR.
- TESTING RESULTS TO BE GIVEN TO THE CITY IN WRITTEN FORM.
- VAULT, GROUND MATERIALS, PLASTIC AND STEEL BENDS AND GROUND WIRE FURNISHED BY CITY, INSTALLED BY CONTRACTOR.
- CUT VAULT TO INSTALL CONDUIT AS REQUIRED.
- SEE SPEC. C30-6332 FOR VAULT EXTENDER.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	INSTALL NEW SWITCH GEAR VAULT	DATE: 05-01-05 Page 1 of 1 60468-120
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PROJECT TITLE ROUTE 59 ROAD IMPROVEMENTS			
PROJECT DESCRIPTION DETAILS AND STANDARDS			
ENGINEER BCC	DRAFTING DATE 5-11-12	MAP # 4211,4212,4223	SCALE N.T.S.
DESIGN BY DL	DRAWN BY PSM	AT&T JOINT AGREEMENT # N/A	PROJECT # EU-12
CHECKED BY	APPROVED BY	CAD FILE 0060648001D19.DWG	SHEET # 19 OF 63
Naperville		Department of Public Utilities Electric Division	
		WORK REQUEST # 60468	