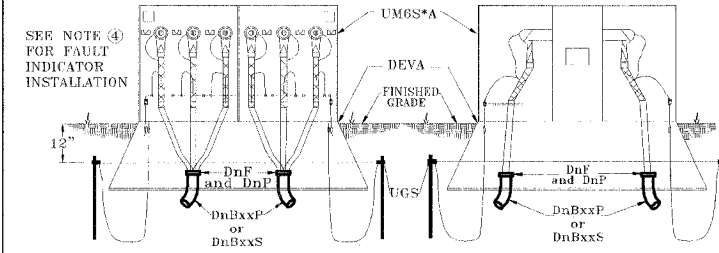


NOTES (CONTINUED):

- THIS DRAWING SHOWS AN EXISTING SWITCH GEAR WITH CAREFULLY INSTALLED WITH MATERIAL LIST ON RIGHT.
- CONTRACTOR TO OBTAIN OUTAGE OF SWITCH GEAR PRIOR TO DOING ANY WORK.
- CONTRACTOR TO INSTALL 3", 5" AND 6" CONDUIT INTO EXISTING AS SPECIFIED IN SPECIFICATIONS CAP AND PLUGS A.L., CONDUITS.
- ALL GROUNDING CONNECTIONS AND TERMINATORS SHALL BE INSPECTED TO DETERMINE CONDITION OF CONNECTIONS BY THE CONTRACTOR REPORT FINDING.



ASSEMBLY CODES

CODE	QTY	DESCRIPTION
DEVA	1	Vault, Air Switch
DnBxxP	**	Bend, PVC
DnBxxS	**	Bend, Steel
DnF	**	Bell Fitting, PVC
DnP	**	Plug, PVC
U15n	**	Faulted Circuit Indicator
U15SMU	**	Fuse Unit, 15kV, SMU 20
UMGS*A	1	Switch, Pad mounted
UGS#	1	Grounding, Switchgear
U15AL	**	Arrester, Elbow, 9kV
U15En	**	Elbow, 15kV

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

DEVA: VAULT, AIR SWITCH

Item Code	Description 1	Description 2	TE	A	TC	PC	F	AE	M	AL
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
284 100 00120	EXTENDER, 1/2 TRF VAULT	44" X 44" X 8" W/25" X 25" OPEN	1							
284 101 00010	VAULT, AIR SWITCH	7' X 7' X 36" (FIBER-CRETE)	1							
284 101 00020	VAULT, 1/2 TRF / FUSE CAN	44" X 44" X 32" (FIBER-CRETE)	1							
284 101 00030	VAULT, 3/4 PLUG CAN	23" X 69" X 36" (FIBER-CRETE)	1							
284 101 00040	VAULT, 3/4 FUSE CAN	49" X 69" X 36" (FIBER-CRETE)	1							
284 101 00100	EXTENDER, AIR SWITCH VAULT	74" X 70" X 30" (FIBER-CRETE)	1							
NON	CA-6	CRUSHED LIMESTONE								
NON	VAULT, 12.47KV FIB. METERING	56" X 56" X 30" (FIBER CRETE)								
NON	LD, AIR SWITCH VAULT	2-PIECE DESIGN W/HARDWARE								

DnBxxP: BEND, PVC

Assembly	Item Code	Description 1	Description 2	Qty
D3B10P	285 101 00025	ELBOW, PVC 30 DEG 3"	STANDARD RADIUS SCH 40	1
D3B45P	285 101 00030	ELBOW, 30" R PVC 45 DEG 3"	SCH 40	1
D3B90P	285 101 00040	ELBOW, 36" R PVC 90 DEG 3"	SCH 40	1
D5B10P	285 101 00080	ELBOW, 36" R PVC 30 DEG 5"	SCH 40	1
D5B45P	285 101 00090	ELBOW, 36" R PVC 45 DEG 5"	SCH 40	1
D5B90P	285 101 00100	ELBOW, 36" R PVC 90 DEG 5"	SCH 40	1
D6B10P	285 101 00220	ELBOW, 48" R PVC 30 DEG 6"	SCH 40	1
D6B45P	285 101 00230	ELBOW, 48" R PVC 45 DEG 6"	SCH 40	1
D6B90P	285 101 00240	ELBOW, 48" R PVC 90 DEG 6"	SCH 40	1

D3BxxS: BEND, 3" STEEL

Item Code	Description 1	Description 2	D3B90S
Qty	Qty	Qty	Qty
285 101 00140	ELBOW 30" R STL 90 DEG 3"	GALVANIZED	1
285 102 00040	COUPLING, PVC 3"	LONG LINE SCH 40	1

D5BxxS: BEND, 5" STEEL

Item Code	Description 1	Description 2	D5B30S	D5B45S	D5B90S
Qty	Qty	Qty	Qty	Qty	Qty
285 101 00180	ELBOW, 36" R STL 30 DEG 5"	GALVANIZED	1		
285 101 00170	ELBOW, 36" R STL 45 DEG 5"	GALVANIZED	1		
285 101 00190	ELBOW, 36" R STL 90 DEG 5"	GALVANIZED	1		
285 102 00110	COUPLING, PVC 5"	LONG LINE SCH 40	1		

D6BxxS: BEND, 6" STEEL

Item Code	Description 1	Description 2	D6B11S	D6B22S	D6B30S	D6B45S	D6B90S
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
285 101 00186	ELBOW, 48" R STL 11 DEG 6"	GALVANIZED	1				
285 101 00188	ELBOW, 48" R STL 22.5 DEG 6"	GALVANIZED	1				
285 101 00190	ELBOW, 48" R STL 30 DEG 6"	GALVANIZED	1				
285 101 00200	ELBOW, 48" R STL 45 DEG 6"	GALVANIZED	1				
285 101 00210	ELBOW, 48" R STL 90 DEG 6"	GALVANIZED	1				
285 102 00140	COUPLING, PVC 6"	LONG LINE SCH 40	1				

DnF: BELL FITTING, PVC

Item Code	Description 1	Description 2	DnF	DnF	DnF
Qty	Qty	Qty	Qty	Qty	Qty
285 103 00040	BELL FITTING, PVC 3"	SCH 40 & SCH 60	1		
285 103 00080	BELL FITTING, PVC 5"	SCH 40 & SCH 60	1		
285 103 00100	BELL FITTING, PVC 6"	SCH 40 & SCH 60	1		

DnP: PLUG, PVC

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

NAPERVILLE PUBLIC UTILITIES DEPARTMENT
 ELECTRIC STANDARDS

3φ 15kV AIR SWITCH MODULE ASSEMBLY

DATE: 10-22-06
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NAPERVILLE PUBLIC UTILITIES DEPARTMENT
 ELECTRIC STANDARDS

3φ 15kV AIR SWITCH MODULE ASSEMBLY

DATE: 10-22-06
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F.A. RTE. 2552	SECTION 00-0014-00-PV	COUNTY DUPAGE	TOTAL SHEETS 563	SHEET NO. 270
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
CONTRACT 63024				

UTASMU: FUSE UNIT, 15KV, SMU20

Item Code	Description 1	Description 2	Qty	Qty	Qty	Qty	Qty	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	65K	1					
289 105 00060	FUSE UNIT, SMU20, 15KV	80K	1					
289 105 00070	FUSE UNIT, SMU20, 15KV	100K	1					
289 105 00080	FUSE UNIT, SMU20, 15KV	140K	1					
289 105 00090	FUSE UNIT, SMU20, 15KV	200K	1					

UGS: GROUNDING, SWITCHGEAR

Item Code	Description 1	Description 2	UGS	UGS	UGS
Qty	Qty	Qty	Qty	Qty	Qty
280 107 00070	CU BASE SD	4/0 7-STR	75	45	30
283 155 00010	GROUND ROD, COPPER CLAD	5/8" X 10'	4	4	-
291 100 00044	CLAMP, CABLE TO PLAT GND	#6 SDL - 250 MCM CU	4	-	4
286 100 00260	CONNECTOR, WEDGE CU	4/0 STR (7) - 4/0 STR (7)	4	2	2
286 100 00220	CONNECTOR, WEDGE CU	4/0 STR (7) - 5/8" ROD	4	4	-
285 101 00010	SHELL, WEDGE AMP	WHITE	0	4	4
285 199 00220	BREAK-AWAY	1/0-4/0 STR X 1/0 - 4/0 STR	12	-	12

U15n: FAULTED CIRCUIT INDICATOR

Item Code	Description 1	Description 2	U15	U15	U15
Qty	Qty	Qty	Qty	Qty	Qty
283 199 00210	CHARD, WIRE	SPIRAL	4	8	-
284 120 00010	FAULT INDICATOR, 1/0 - 4/0 15KV	-	-	8	-
284 120 00020	FAULT INDICATOR, 750 - 1000 15KV	-	-	3	-
284 120 00030	INDICATOR CABLE, 3 TO 1	10 FOOT	-	1	1
284 120 00040	INDICATOR CABLE, 1 TO 1	2 FOOT	-	1	1
284 120 00050	THES. CABLE	SMALL	4	6	6
284 120 00060	CLIP	ADHESIVE BACKED	4	6	6

UMGS*A: SWITCH, PAD MOUNTED

Item Code	Description 1	Description 2	2A	3A	2AA	3AA
Qty	Qty	Qty	Qty	Qty	Qty	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	6.3/15KV, 600A	1			
284 200 00060	3PH, 3-WAY	6.3/15KV, 600A				1
284 199 00310	SIGN NOTICE/OBSTRUCTION	8" X 5"	2	2	2	2
287 109 00240	PADLOCK, BRONZE	W/1-1/2" SHACKLE	4	5	5	5

UTAB: BUSHING INSERT, 15KV 200

Item Code	Description 1	Description 2	Qty
284 117 00080	INSERT, LEAD-BREAK BUSHING	15KV, 300A	1

*THIS OPTION IS STILL AVAILABLE FOR USE AS REPLACEMENTS.

U15A: ARRESTER, ELBOW, 9KV

Item Code	Description 1	Description 2	U15A
Qty	Qty	Qty	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	9/10 kV	1
286 199 00220	CONNECTOR, BREAKAWAY CU	1/0 - 4/0 STR	1

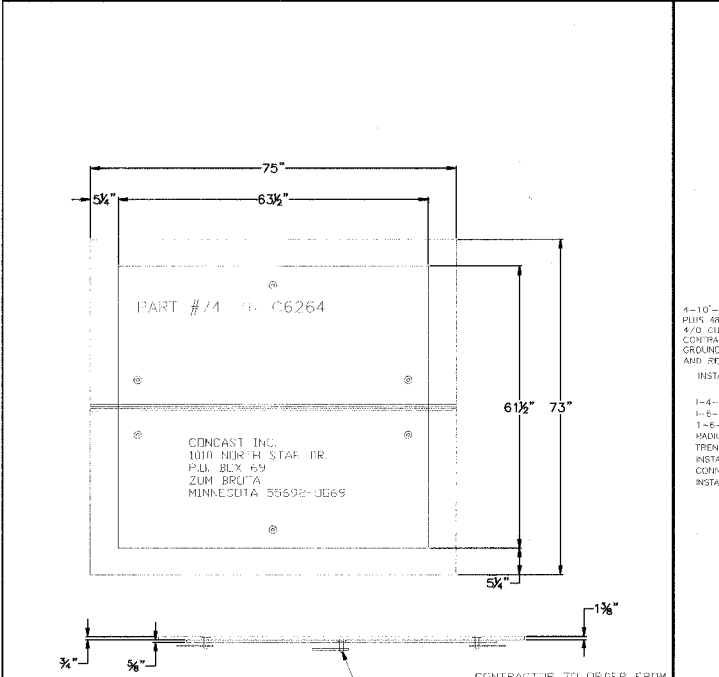
UT15E: ELBOW, 15KV

Item Code	Description 1	Description 2	10	10F	40	406	C75	C89	10	40	75	99
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
284 119 00010	FUSE, ELBOW 8KV	30A										
284 117 00020	ELBOW, FUSED 8.3KV 300A	1/0 STR AL 175-220 MIL										
284 117 00030	ELBOW, 15KV 200A	1/0 STR AL 175-220 MIL										
284 117 00031	ELBOW, 15KV 200A EXTENDED	1/0 STR AL 175-220 MIL										
284 117 00040	ELBOW, 15KV 200A	4/0 STR AL 175-220 MIL										
284 117 00041	ELBOW, 15KV 200A EXTENDED	4/0 STR AL 175-220 MIL										
284 117 00065	ELBOW, 15KV 600A, W/LETP	750 MCM STR AL 175-220 MIL										
284 117 00066	ELBOW, 15KV 600A EXTENDED	750 MCM STR AL 175-220 MIL										
284 117 00095	ELBOW, 15KV 600A, W/LETP	1000 MCM STR AL 175-220 MIL										
284 117 00096	ELBOW, 15KV 600A EXTENDED	1000 MCM STR AL 175-220 MIL										
284 117 00100	ELBOW, 15KV 600A	4/0 STR AL 175-220 MIL										
284 117 00430	KIT CABLE JACKET SEAL	1/0-4/0 (0.85"-1.50")										
284 117 00440	KIT CABLE JACKET SEAL	250-1000 MCM (1.30"-2.67")										
255 198 00100	CABLE CLEANER	QUARTS	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
284 199 00120	CAP, INSULATED W/GROUND	15KV 200A										

NAPERVILLE PUBLIC UTILITIES DEPARTMENT
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3φ 15kV AIR SWITCH MODULE ASSEMBLY

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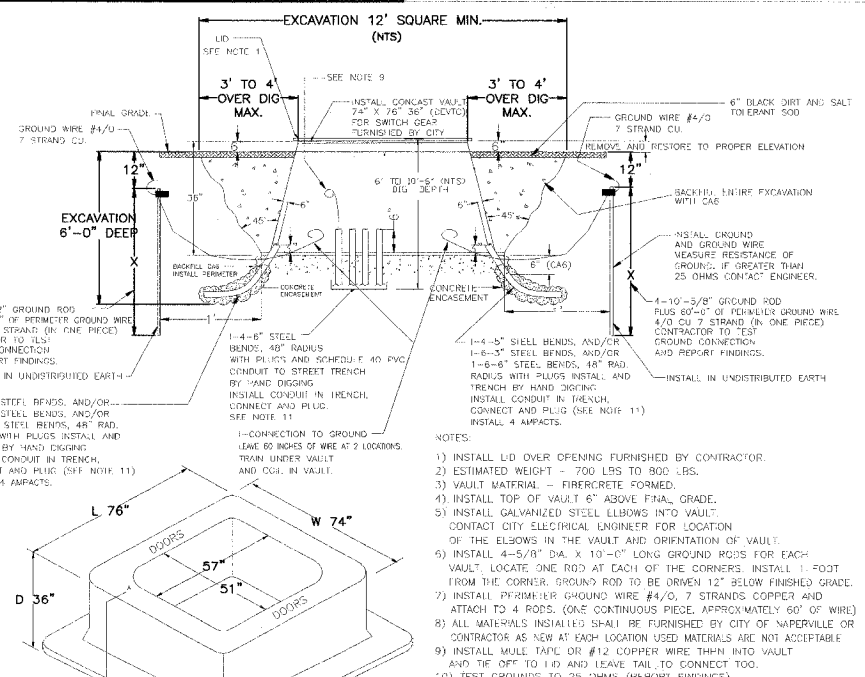
MATERIAL: FIBERCRETE (REQUIRED - 10)

NOTE:
 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 LD.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT
 ELECTRIC STANDARDS

SWITCH GEAR VAULT COVER (50 LBS.) (CONSTRUCTION SPECIFICATION)

DATE: 05-01-06
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EXCAVATION 12' SQUARE MIN. (MIS)

NOTE:
 1) INSTALL LID OVER OPENING FURNISHED BY CONTRACTOR.
 2) ESTIMATED WEIGHT - 700 LBS TO 800 LBS.
 3) VAULT MATERIAL - FIBERCRETE FORMED.
 4) INSTALL TOP OF VAULT 6" ABOVE FIN. GRADE.
 5) INSTALL GALVANIZED STEEL ELBOWS INTO VAULT. CONTACT CITY ELECTRICAL ENGINEER FOR LOCATION OF THE ELBOWS IN THE VAULT AND ORIENTATION OF VAULT.
 6) INSTALL 4-5/8" DIA. X 10'-0" LONG GROUND RODS FOR EACH VAULT. LOCATE ONE ROD AT EACH OF THE CORNERS. INSTALL 1'-0" FROM THE CORNER. GROUND ROD TO BE DRIVEN 12" BELOW FINISHED GRADE.
 7) INSTALL PERIMETER GROUND WIRE #4/0, 7 STRANDS COPPER AND ATTACH TO 4 RODS. (ONE CONTINUOUS PIECE, APPROXIMATELY 60' OF WIRE)
 8) ALL MATERIALS INSTALLED SHALL BE FURNISHED BY CITY OF NAPERVILLE OR CONTRACTOR AS NEW AT EACH LOCATION USED MATERIALS ARE NOT ACCEPTABLE
 9) INSTALL WALK TAPE OR #12 COPPER WIRE TAPE INTO VAULT AND BE OFF TO 1-0 AND LEAVE TAIL TO CONNECT TOG.
 10) TEST GROUNDS TO 25 OHMS (REPORT FINDINGS).
 11) BENDS SHALL BE INSTALLED PER FIELD CONDITIONS USE 11", 22", 30", 45" AND 90" STEEL BENDS.
 12) CONTACT ON SITE INSPECTOR FOR ORIENTATION ONLY.
 13) TESTING EQUIPMENT BY CONTRACTOR.
 14) TESTING RESULTS TO BE GIVEN TO THE CITY IN WRITTEN FORM.
 15) VAULT, GROUND MATERIALS, PLASTIC AND STEEL BENDS AND GROUND WIRE FURNISHED BY CITY, INSTALLED BY CONTRACTOR.
 16) CUT VAULT TO INSTALL CONDUIT AS REQUIRED.
 17) SEE SPEC. C30-6332 FOR VAULT EXTENDER.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT
 ELECTRIC STANDARDS

INSTALL NEW SWITCH GEAR VAULT (CONSTRUCTION SPECIFICATION)

DATE: 05-01-06
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WF# INFORMATION

WF# 59481 WASHINGTON ST. 75TH TO OLYMPIUS DR., EAST SIDE	JOB 1 EU-73	PROJECT TITLE 75TH ST. AND WASHINGTON ST. ROAD IMPROVEMENTS	MAP NO.: -	CAD FILE: 005627001029.DWG
WF# 59482 75TH WASHINGTON ST. TO OLYMPIUS DR., NORTH SIDE	JOB 2 EU-73	PROJECT DESCRIPTION TRENCH SECTION DETAILS	DRAWN BY: JK, PM	PROJECT NO.: EU12-06-03 E123
WF# 59484 75TH WASHINGTON ST. TO CLYDE DR., SOUTH SIDE	JOB 3 EU-73	DATE 4-08	ISSUED	COMPLETED BY:
WF# 5948				