

Hammer Substation /Bill of Material/ Bus & Switches

Item #	Total Quantity	Section	Description	Vendor	Part #	Codale Price	Codale Part #	HD Supply Price	HD Part #	Northern Power Price	NP Part #
4	1	Major Equipment	46 kV Vertical Break Airbreak Switch, 600 Amps, Horizontal Mount			\$6,990.00	Pascor VBPA 46/1200	\$6,597.62	Hubbell AVR-04812-SIP	\$6,100.00	Cleveland
5A	3	Major Equipment	46 kV Power Fuse Mounting, 300 Amps, right-Angle Style, Porcelan Insulators, Type SMD-2C	S & C	186865R 2	\$7,140.00		\$8,022.48		\$7,515.00	
5B	6	Major Equipment	46 kV Power Fuse Unit, 175 E, Strandard Speed, Type SMD-2C (3 spares)	S & C	465175R 3	\$8,580.00		\$9,640.44		\$9,030.00	
5C	3	Major Equipment	46 kV Power Fuse Unit end Fittings, spare, right-angle style mounting, Tytre SMD-2C	S & C	3032R1	\$1,710.00		\$1,943.19		\$1,800.00	
6	3	Major Equipment	15 kV Regulator Bypass Switch, Non-sequenced, 1200 Amps, Porcelain Insulators, Type NL	S & C	33602	\$11,280.00		\$12,674.16		\$11,880.00	
8	10	Major Equipment	9 kV Surge Arrester, 7.65 kV MCOV, Metal Oxide, Riser Pole, Type PVR	Ohio Brass	221608-7314	\$412.40		\$426.50		\$390.00	
9A	1	Major Equipment	15 kV Extra Heavy Duty Fuse Cutout, 110 kv Bil, 100 Amps, Type XS with Parallel Groove Clampss	S & C	89021R1 0-D	\$57.53	Chance C710112P	\$80.77	MPS 89021R 10-BD	\$75.00	
9B	1	Major Equipment	15 kV Extra Heavy Duty Fuse Tube including Cap, Type XS	S & C	89521R1 0	\$27.65	Chance T7100112T	\$80.77	MPS 89521R 10-BD		
9C	2	Major Equipment	Positrol Fuse Link, 3 Amps, Standard Speed	S & C	64003	\$13.00		\$13.30		\$10.00	Chance

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11	3	Major Equipment	7.2 kV Voltage Transformer, 110 kv Bil, 60:1 Voltage Ratio, Single Busging, Type JVW-5	GE	765X0300 51	\$3,045.00	Or Ritz 122030010 .60320 VZF15-20 \$2970.00			\$2,250.00	Ritz
12	1	Major Equipment	15 kV Center Break "VEE" Airbreak Switch, 1200 Amps, Horizontal Mounting			\$5,225.00	Pascor CBSA 15/1200			\$3,675.00	Bridgas
13	24	Major Equipment	15 kV Hook-stick Disconnect switch, 110 kV Bil, 600 Amps, Porclelain Insulators, Vertical Mounting	S & C	14722 /14722E	\$10,920.00	Porclelain/ Polmer /\$9,480.00	\$12,133.44		\$11,520.00	
15A	12	Major Equipment	15 kV Fuse Mounting, 110 kV Bil, 400 Amps, Vertical Style, Porcelain Insulators, Type SM-5	S & C	190602R 2	\$9,900.00		\$11,000.04		\$10,440.00	
15B	12	Major Equipment	15 kV Fuse Holder, Type SM-5	S & C	86152R2	\$9,120.00		\$10,133.28		\$9,600.00	
15C	12	Major Equipment	15 kV Fuse Unit, 400 E, Standard Speed, Type SM-5	S & C	132600R 4	\$2,172.00		\$2,413.32		\$2,292.00	
			Sub Total All Items			\$76,592.58		\$75,159.31		\$76,577.00	
			Sub Total Lowest Bid Item			\$60,907.18		\$0.00		\$12,425.00	
20	52	Insulators / Bus & Conductor Connectors	25 kV Station Post Insulator, 3" Bolt Circle Top & Bottom, 14" High, Upright, Gray	LAPP	315208- 70	\$5,790.20	Ohio Brass 232686 3001	\$2,458.04		\$2,860.00	
21	18	Insulators / Bus & Conductor Connectors	Terminal Connector, Offset, 477 KCM AAC to 4 HP, Comression	DMC	CPLK9432 D04770S	\$494.46		\$577.08		\$513.00	

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22	9	Insulators / Bus & Conductor Connectors	Terminal Connector, Exansion, 2" SPS Aluminum Tube to 4HP, Center Formed, Compress	DMC	PLK2600 D32E2	\$3,778.92		\$4,259.52		\$1,008.00	
23	3	Insulators / Bus & Conductor Connectors	Terminal Connector, 90 Angle, 2"SPS Aluminum Tube to 2 HP, Compression	DMC	PLK1875 D32	\$183.33		\$218.55		\$194.25	
24	3	Insulators / Bus & Conductor Connectors	Terminal Connector, Side Formed, 2" SPS Aluminum Tube to 2 HP, Compression	DMC	PLK1885 D32	\$170.46		\$202.95		\$180.00	
25	3	Insulators / Bus & Conductor Connectors	Expansion Joint, 2" SPS Aluminum Tube to 2" SPS Aluminum Tube, Compression	DMC	PLK2810 D32	\$1,328.76		\$1,596.15		\$1,386.00	
26	16	Insulators / Bus & Conductor Connectors	45 degree Elbow, 2" SPS Aluminum Tube to 2" SPS Aluminum Tube, Compression	DMC	PLK1400 D32E2	\$871.84		\$1,036.48		\$848.00	
27	6	Insulators / Bus & Conductor Connectors	Parallel Tee Connector, 2" SPS Aluminum Tube to 4 HP, Compression	DMC	PLK1100 D32E5	\$354.78		\$422.70		\$372.00	
28	6	Insulators / Bus & Conductor Connectors	90 degree Elbow, 2" SPS Aluminum Tube to 2" SPS Aluminum Tube, Compression	DMC	PLK1400 D32E4	\$354.78		\$427.50		\$372.00	
29	15	Insulators / Bus & Conductor Connectors	Terminal Connector, Center Formed, 2" SPS Aluminum Tube to 4 HP, Compression	DMC	PLK1850 D32A	\$817.50		\$972.60		\$870.00	
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31	30	Insulators / Bus & Conductor Connectors	Termial Connector, Offset, 1272 KCM ACC to 4 HP, Compression	DMC	CPLK9432 D12720S	\$1,215.30		\$1,399.20		\$1,245.00	
32	36	Insulators / Bus & Conductor Connectors	Bus Support, Slip Type, 2" SPS Aluminum Tube, 3" & 5" Bolts circle, 2-3/4" Base to Bus Center Line Height	DMC	PLK2200 D32E12	\$2,597.40		\$2,921.76		\$585.00	
	36	Insulators / Bus & Conductor Connectors	With Stainless Steel Bolt Package for 3" Bolt Circle (1/2"0-13UNC x 1.5)	DMC	PLK8010C 0815	\$577.44		\$655.20			
33	12	Insulators / Bus & Conductor Connectors	Round End Cap, 2" SPS Aluminum Tube, Compression	DMC	PLK1360 D32	\$368.88		\$432.36		\$340.00	
34	6	Insulators / Bus & Conductor Connectors	Tee Connector, 15 degree Angle, 2" SPS Aluminum Tube to 2: SPS Aluminum Tube, Compression	DMC	PLK1500 D3232E2	\$418.14		\$499.50		\$444.00	
35	6	Insulators / Bus & Conductor Connectors	Tee Connector, 0 degree Angle, 2" SPS Aluminum to 2" SPS Aluminum Tube, Compression	DMC	PLK1500 D3232E1	\$418.14		\$499.50		\$444.00	
36	6	Insulators / Bus & Conductor Connectors	Long Bus Splice, 2" SPS Aluminum Tube to 2" SPS Aluminum Tube, Compression	DMC	PLK1001 D32	\$205.38		\$240.18		\$216.00	
37	24	Insulators / Bus & Conductor Connectors	Parallel Tee Connector, 2" SPS Aluminum Tube to 2 HP, Compression	DMC	PLK1200 D32E1	\$1,032.96		\$1,222.56		\$1,080.00	

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38	75	Insulators / Bus & Conductor Connectors	Terminal Connector, Offset, 477 KCM AAC to 2 HP, Compression	DMC	CPLK9202 D04770S	\$1,903.50		\$2,160.00		\$1,968.75	
39	9	Insulators / Bus & Conductor Connectors	Terminal Connector, 45 degree Angle, 477 KCM AAC to 2 HP, Compression	DMC	CPLK9204 D04770S	\$261.00		\$305.46		\$272.25	
40	12	Insulators / Bus & Conductor Connectors	Terminal Connector, Side Formed, 1" SPS Aluminum Tube to 2 HP, Compression	DMC	PLK1885 D16	\$531.24		\$629.28		\$564.00	
41	36	Insulators / Bus & Conductor Connectors	90 degree Elbow, 1" SPS Aluminum Tube to 1" SPS Aluminum Tube, Compression	DMC	PLK1400 D16E4	\$1,668.60		\$1,929.96		\$1,758.60	
42											
43	9	Insulators / Bus & Conductor Connectors	Terminal Connector, 90 degree Angle, 477 KCM AAC to 4 HP, Compression	DMC	CPLK9439 D04770S	\$295.20		\$335.61		\$299.25	
44	3	Insulators / Bus & Conductor Connectors	Conductor Insulating Tape, Heat-Shrinkable, 25 feet per Roll	RayChem	OLIT-M	\$142.50		\$111.94	Raychem HVBT-2R		
45	12	Insulators / Bus & Conductor Connectors	Terminal Connector, 90 degree Angle, 1" SPS Aluminum Tube to 2 HP, Compression	DMC	PLK1875 D16	\$574.80		\$682.08		\$606.24	
46	12	Insulators / Bus & Conductor Connectors	Parallel Tee Connector, 1" SPS Aluminum Tube to 2 HP, Compression	DMC	PLK1200 D16E1	\$496.20		\$585.96		\$580.80	

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47	9	Insulators / Bus & Conductor Connectors	Terminal Connector, 477 KCM AAC to 2 HP, Compression	Anderson	VAUL-800-12BN	\$82.80		\$98.00		\$117.00	
48	9	Insulators / Bus & Conductor Connectors	15 kV Cold-Shrink Termination Kit, Silicone Rubber, 500 KCM to 1000 KCM Conductor Range, 1.05" to 1.80" cable Insulation Outside Diameter range, 4 Skirt, 12.25" Long	3M	7655-S-4	\$857.70		\$877.32		\$945.00	
49	18	Insulators / Bus & Conductor Connectors	Cable Mounting Bracket, 1.45" to 1.95" Cable Outside Diameter Range	3M	MB-5	\$466.20		\$803.70		\$630.00	
50	9	Insulators / Bus & Conductor Connectors	Terminal Connector, Center Formed, # 2 AWG AAC to 1 HP, Compression	DMC	CPLK9100 D00002S	\$128.97		\$150.84		\$144.00	
51	6	Insulators / Bus & Conductor Connectors	Duct Plug, Triplex, 6" to 6.22" Conduct Inside Diameter Range, 1.73" to 1.92" cable outside Diameter Range	Tyco	110988	\$403.50				\$1,050.00	
52	3	Insulators / Bus & Conductor Connectors	Bus Support, Fixed Type, 2" SPS Aluminum Tube, 3" & 5" Bolts circle, 2-3/4" Base to Bus Center Line Height	DMC	PLK2210 D32E12	\$197.31		\$235.50	PLK223 OD32E1 2	\$207.00	
	3	Insulators / Bus & Conductor Connectors	With Stainless Steel Bolt Package for 3" Bolt Circle (1/2"0-13UNC x 1.5)	DMC	PLK8010C 0815	\$52.29		\$60.09		\$57.00	
53	3	Insulators / Bus & Conductor Connectors	Termial Connector, Offset, #2 AWG AAC to 2 HP, Compression	DMC	CPLK9202 D00002S	\$67.74		\$81.72		\$73.50	

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54	1	Insulators / Bus & Conductor Connectors	Long Ball Stud, 3" Shank Length x 5/8" Diameter Shank, 1/2"-13UNC Thread	Chance	T6002364	\$37.90		\$43.28		\$50.00	
55	1	Insulators / Bus & Conductor Connectors	Hot Line Clamp, 5/8"Main, #2 AWG AAC Conductor Tap, Aluminum	Anderson	AH-4	\$8.85		\$9.95		\$10.00	
56	1	Insulators / Bus & Conductor Connectors	Cable Support, Single conductor, #2 AWG AAC, 3" Bolt Circle, Bolted	Anderson	ACS63	\$33.50		\$37.49		\$38.00	
57	1	Insulators / Bus & Conductor Connectors	Three Position Bracket, 12" Long, Galvanized	Joslyn	P613	\$100.00				\$40.00	
58	12	Insulators / Bus & Conductor Connectors	Bus Support, Slip Type, 1" SPS Aluminum Tube, 3" Bolts circle, 2" Base to Bus Center Line Height	DMC	PLK2200 D16E1	\$630.36		\$749.28		\$672.00	
	12	Insulators / Bus & Conductor Connectors	With Stainless Steel Bolt Package for 3" Bolt Circle (1/2"0-13UNC x 1.5)	DMC	PLK8010C 0815	\$184.32		\$218.40		\$204.00	
59	1	Insulators / Bus & Conductor Connectors	Duct Plug, Blank, 5.82" to 6.37" Conduct Inside Diameter Range,	Tyco	566534	\$81.60				\$175.00	
			Sub Total All Items			\$30,184.75		\$30,147.69		\$23,419.64	
			Sub Total Lowest Bid Item			\$24,152.05		\$2,569.98		\$40.00	
70	620 ft	Bus / Conductor	2"SPS Aluminum Tube, Schedule 40, 40' Long, 2.375" Outside Diameter, 1,234 Amps	ALCOA	200-S40-Y T6	\$2,154.50	No Min.	\$2,994.60		\$2015 /\$2860	Min. order of 880'

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71	180 ft	Bus / Conductor	1"SPS Aluminum Tube, Schedule 40, 40' Long, 1.315" Outside Diameter, 681 Amps	ALCOA	100-S40-T6	\$317.70	No Min.	\$446.40		\$300.6 / \$1469.6	Min. order of 880'
73	60 ft	Bus / Conductor	1272 KCM AAC Conductor, 61 Strands, "Narcissus", 1.300" Diameter, 1,169 Amps	Southwire		\$259.50		\$285.00		\$348.00	
74	180 ft	Bus / Conductor	477 KCM AAC Conductor, 19 Strand, "Cosmos", 0.792" Diameter, 639 Amps	Southwire		\$387.00		\$405.00		\$684.00	
75	580 ft	Bus / Conductor	1/0 AWG AAC Conductor, 7 Strand, "Poppy", 0.368" Diameter, 247 Amps	Southwire		\$313.20		\$3,190.00		\$580.00	
76	30 ft	Bus / Conductor	#2 AWG AAC Conductor, 7 Strand, "Iris", 0.292" Diameter, 185 Amps	Southwire		\$20.70		\$217.50		\$33.00	
78	250	Bus / Conductor	3/8" EHS Steel Shield Wire, 7 Strand, 15,400 lbs	Cal-wire		\$100.96		\$100.00		\$137 / \$275 on 500' roll	
79	4,500 ft	Bus / Conductor	750 KCM Under Ground Cable, 15 kV Aluminum Conductor, Jacketed, 61 Strand, 24 - #12 AWG Neutral, 0.968" O Bare Wire, 1.383" O Over insulation, 1.798" O Complete Cable, 468 Amps (in Duct) (Quantity is only to Utility Vault)	Southwire		\$30,411.00				\$45,000.00	
			Sub Total All Items			\$33,964.56		\$7,638.50		\$46,645.00	
			Sub Total Lowest Bid Item			\$33,964.56		\$0.00		\$0.00	
80	3	Conductor Deadend Assembly	Y-Clevis to Ball, Hot-Line, Galvanized Forged Steel,(30,000 lbs)	Anderson	HYBC-30	\$69.42		\$52.53		\$84.00	

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81	3	Conductor Deadend Assembly	Suspension Insulator, Polymer, 28.6" Long, Socket - Ground fitting & Ball - Line Fitting, 12 Shed (25,000 lbs)	Ohio Brass	511003-2301	\$279.45		\$314.40		\$375.00	
82	3	Conductor Deadend Assembly	Socket to Y-Clevis, Galvanized Ductile iron (30,000 lbs)	Anderson	SYC-30	\$56.55		\$54.27		\$66.00	
86	3	Conductor Insulator Assembly	Mounting Stud, 3/4"0 x 1-13/16" Bolt, Galvanized Steel	LAPP	301614	\$10.95	Chance DF 19M3	\$10.44		\$15.00	
87	3	Conductor Insulator Assembly	Clamp Top Clamp, 0.50" to 1.06" Conductor Range, Aluminum	LAPP	47113	\$23.79	Chance TSC 106	\$51.15		\$45.00	
88	3	Shield Wire Deadend Assembly	Anchor Shackle, 5/8"0 Pin, Galvanized Forged Steel (30,000lbs)	Anderson	AS-25	\$20.85		\$14.70		\$30.00	
89	3	Shield Wire Deadend Assembly	Quadrant Strain Clamp, 3/8" EHS Steel, Galvanized Ductile Iron (19,000 lbs)	Anderson	SWDE-55-N	\$113.79		\$96.15		\$135.00	
			Sub Total All Items			\$574.80		\$593.64		\$750.00	
			Sub Total Lowest Bid Item			\$303.24		\$228.09		\$0.00	
208	100 ft	Cables	1/C - 4/0 AWG Copper Conductor, 7 Strands, 600 Volts, RHH/RHW-2, 0.673" Outside Diameter, 260 Amps, Black	Southwire		\$537.50					

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210	1000 ft	Cables	4/C - #10 AWG Copper Control Cable, Non-Shelded, 600 Volts, Okonite FMR Insulation, 90 c Rating, 0.58: outside Diameter, Color coding per ICEA Method 1 Table E-1 (BK, GN, RD, WH)	Okonite	202-10-2454	\$2,480.00					
						\$3,017.50		\$0.00		\$0.00	
250	1	Miscellaneous	Double Throw Safety Switch, 100 Amp, 240 VAC, 3 pole, NEMA-3R, 30.5" H x 10.25" W x 6.93" D	Square D	DTU323R B	\$631.00	SIEMENS / DTNF323R				
250A	1	Miscellaneous	Rain Proof Bolt - on Hub, 2" Conduit	Square D	B200	\$5.00	Siemens /ECHS200				
251	1	Miscellaneous	AC Load Center, Single Phase, Three-wire, 100 AMP, 120/240 VAC, NEMA 3R Enclosure with Door, 20 Spaces, Bottom Feed, 22.06" H x 14.75" W x 4.52" D, with factory installed 100 Amp Main Breaker (QOM100VH), Ground Bar Kit (PK15GTA) & QO Branch Breakers as follows:	Square D	QO120M 100RB	\$101.50	Siemens /PW1624L 1125CU 125 Amp / \$27.18				
	8	Miscellaneous	Plug-in Circuit Breakers, Type QO, Single pole, 20 amps, 120/240 Volt, 10K Air	Square D	QO120	\$34.00	Sieman Q120				
	4	Miscellaneous	Plug-in Circuit Breakers, Type QO, two- pole, 30 amps, 120/240 Volt, 10K Air	Square D	QO230	\$40.00	Sieman Q230				
	4	Miscellaneous	Blank								

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252	1	Miscellaneous	Junction Box, 18" H x 18" W x 10" D, NEMA Type 3R, Galvanized, 19" x 13" Mounting on 4 - 0.34 x 0.50" Slots	Hoffman	A18R181 10HCR	\$187.00					
	1	Miscellaneous	With Internal Perforated Panel, 15" x 15"	Hoffman	A18P18P P	\$29.90					
262	2	Miscellaneous	Terminal Block, 6 Point, Washerhead Screws, Type EB25	GE	EB25B06	\$36.80					
283	1	Miscellaneous	Fuse Block, 3 Pole, 30 Amps, 250 Volt	Bussman	H25030-3S	\$18.20					
285	6	Miscellaneous	General Purpose Fuse, 10 amp, 250 Volt	Bussman	NON-10	\$16.74					
290	4	Miscellaneous	Channel Nut with Spring, 5/16"0-18UNC Thread, Electro-Galvanized Finish, for Junction Boxes	Unistrut	P1007-EG	\$13.50	T & B #B1400HS-10EG / A100-5/16" /\$5.53				
291	4	Miscellaneous	Hex Head Cap Screws, 5/16"0 x 1-1/4", Electro-Galvanized Finish, for Junction Boxes	Unistrut	HHCS031 125EG	\$0.24	Dottie MB51634 5/16" x 3/4"				
370	8	Miscellaneous	Warning Sign, "Danger - High Voltage", 10" H x 14" W, Premium Fiberglass (B-120 Material)	Brady	47005	\$138.36					
371	8	Miscellaneous	Warning Sign, "Danger - No Trespassing", 10" H x 14" W, Premium Fiberglass (B-120 Material)	Brady	95365	\$112.94					

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BT1	339	Miscellaneous	Hex Head Bolts Assembly, 1/2"-13NC x 2", Stainless Steel, Including Bronze Nut, I Belleville washer & 2 round washers			\$2,100.00		\$976.32	Mt. Hood 110055		
BT2	177	Miscellaneous	Hex Head Bolts Assembly, 1/2"-13NC x 2 1/2 ", Stainless Steel, Including Bronze Nut, I Belleville washer & 2 round washers			\$725.00		\$614.00	Mt. Hood 110056		
BT8	24	Miscellaneous	Hex Head Cap Screw, 1/2"-13NC x 1",with Lock washer, Stainless Steel			\$75.00		\$8.64	Mt. Hood		
BT10	208	Miscellaneous	Hex Head Cap Screw, 1/2"-13NC x 1 -1/8",with Lock washer, Grade 5 Galvanized Steel			\$235.00		\$74.88	Mt.Hood		
BT11		Miscellaneous	Hex Head Cap Screw, 5/8"-13NC x 1 ",with Lock washer, Grade 5 Galvanized Steel								
			Sub Total All Items			\$4,500.18		\$1,673.84		\$0.00	
			Sub Total Lowest Bid Item			\$1,365.18		\$1,673.84		\$0.00	
400	100 ft	RMC/PVC Conduit Material	3/4" Rigid Metal Conduit (RMC), Galvanized, 1.050" Outside Diameter, 0.836" inside diameter, 10' Length	Wheatland Tube		\$178.58	*				
401C	8	RMC/PVC Conduit Material	3/4" Rigid Metal Conduit (RMC), Coupling, Threaded, Galvanized	NEC	HOF/CG/075	\$6.94	*				
402A	4	RMC/PVC Conduit Material	3/4" Rigid Metal Conduit (RMC), Elbow 90 degree, Standard Radius (4.5"), Threaded, Galvanized	NEC	HOF/GE/075	\$11.95	*				

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403H	2	RMC/PVC Conduit Material	3/4" Rigid Metal Conduit (RMC), Hub Water Tight, Insulated & Gasket	Appleton (SECT CF-2)	HUB-75D	\$8.19	Crouse-H ST-2				
403N	2	RMC/PVC Conduit Material	3/4" Rigid Metal Conduit (RMC), Close Nipple, 1 3/8" Long Threaded, Galvanized	Wheatland Tube		\$1.26					
405	180 ft	RMC/PVC Conduit Material	3/4" PVC Conduit with integral Bell, Schedule 40, 1.050 " Outside Diameter, 20' Length	Carlton	49007-020	\$43.54					
406A	8	RMC/PVC Conduit Material	3/4 " PVC Conduit to 3/4" Rigid Metal Conduit (RMC) Male Adapter	Carlton	E943E	\$1.56					
406C	14	RMC/PVC Conduit Material	3/4" PVC Conduit coupling, Standard	Carlton	E940E	\$1.49					
407A	2	RMC/PVC Conduit Material	3/4" PVC Conduit Elbow, 90 degree, Standard Radius (4.5"), with integral Bell, Schedule 40	Carlton	UA9AEB	\$0.78					
408A	2	RMC/PVC Conduit Material	3/4" PVC Conduit Elbow, 45 degree, Standard Radius (4.5"), with integral Bell, Schedule 41	Carlton	UA7AEB	\$0.76					
410	300 ft	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), Galvanized, 1.315" Outside Diameter, 1.063" inside diameter, 10' Length	Wheatland Tube		\$504.49					
411C	75	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), Coupling, Threaded, Galvanized	NEC	HOF/CG/100	\$96.30					
411U	3	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), Union, Threaded, Galvanized	Appleton (SECT CF-2)	EC-100	\$93.75	Crouse -H UNY305				

Item #	Total Quantity	Section	Description	Vendor	Part #	Codale Price	Codale Part #	HD Supply Price	HD Part #	Northern Power Price	NP Part #
412B	27	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), Elbow 90 degree, 18" Radius (4.5"), Threaded, Galvanized	Nec	HOF/GE/1009018	\$123.69					
413B	29	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), Bushing, Malleable Iron	Appleton (SECT CF-2)	BU100	\$97.92	T & B BU403				
413H	29	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), Hub Water Tight, Insulated & Gasket	Appleton (SECT CF-2)	Hub-100D	\$145.69	Crouse-H ST-3				
413U	4	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), Pipe Clamp, Hot-Dipped Galvanized	Unistrut	P1113-HG	\$3.07	T & B 702-0EG				
414A	2	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), "LB" Body, FM8, Grayloy-iron	Appleton (SECT A)	LB38	\$42.38	Crouse-H LB38				
414A	2	RMC/PVC Conduit Material	1" FM8 Conduit Body Cover, Cast, Grayloy-Iron	Appleton (SECT A)	380F	\$10.73	Crouse-H 370SG				
414A	2	RMC/PVC Conduit Material	1" FM8 Conduit Body Gasket, Sold Neoprene	Appleton (SECT A)	Gask853 N	^	^				
414C	1	RMC/PVC Conduit Material	1" Rigid Metal Conduit (RMC), "LL" Body, FM8, Grayloy-iron	Appleton (SECT A)	LL39	\$21.19	Crouse-H LL38				
414C	1	RMC/PVC Conduit Material	1" FM8 Conduit Body Cover, Cast, Grayloy-Iron	Appleton (SECT A)	380F	\$5.36	Crouse-H 370SG				
414C	1	RMC/PVC Conduit Material	1" FM8 Conduit Body Gasket, Sold Neoprene	Appleton (SECT A)	Gask853 N	^	^				
415	1,820 ft	RMC/PVC Conduit Material	1" PVC Conduit with integral Bell, Schedule 40, 1.315 " Outside Diameter, 20' Length	Carlson	49008-020	\$683.54		\$655.20			

Item #	Total Quantity	Section	Description	Vendor	Part #	Codale Price	Codale Part #	HD Supply Price	HD Part #	Northern Power Price	NP Part #
416A	39	RMC/PVC Conduit Material	1 " PVC Conduit to 1" Rigid Metal Conduit (RMC) Male Adapter	Carlton	E943F	\$9.57		\$12.48			
416C	54	RMC/PVC Conduit Material	1" PVC Conduit coupling, Standard	Carlton	E940F	\$8.88		\$8.10			
416P	16	RMC/PVC Conduit Material	1" PVC Conduit End Cap	Carlton	E958F	\$12.54		\$12.48			
417B	20	RMC/PVC Conduit Material	1" PVC Conduit Elbow, 90 degree, 18" Radius , with integral Bell, Schedule 40	Carlton	UA9CFB	\$92.04		\$16.80			
418B	8	RMC/PVC Conduit Material	1" PVC Conduit Elbow, 45 degree, 18" Radius , with integral Bell, Schedule 41	Carlton	UA7CFB	\$4.70		\$4.72			
420	10 ft	RMC/PVC Conduit Material	2" Rigid Metal Conduit (RMC), Galvanized, 2.375" Outside Diameter, 2.083" inside diameter, 10' or 20' Length	Wheatland Tube		\$32.85					
423B	2	RMC/PVC Conduit Material	2" Rigid Metal Conduit (RMC), Bushing, Malleable Iron	Appleton (SECT CF-2)	BU200	\$4.35	Raco 1108				
423H	2	RMC/PVC Conduit Material	2" Rigid Metal Conduit (RMC), Hub Water Tight, Insulated & Gasket	Appleton (SECT CF-2)	Hub-200D	\$18.59	Crouse-H ST-6				
423U	1	RMC/PVC Conduit Material	2" Rigid Metal Conduit (RMC), Pipe Clamp, Hot-Dipped Galvanized	Unistrut	P1117-HG	\$1.15	T & B 702-2EG				
423W	1	RMC/PVC Conduit Material	2" Service Entrance Cap, Threaded, 6 Knockouts, Aluminum	Appleton (SECT EF)	F200	\$7.83	Arlington 145				
424C	1	RMC/PVC Conduit Material	2" Rigid Metal Conduit (RMC), "LL" Body, FM8, Grayloy-iron	Appleton (SECT A)	LL68	\$72.69	Crouse-H LL68				

Item #	Total Quantity	Section	Description	Vendor	Part #	Codale Price	Codale Part #	HD Supply Price	HD Part #	Northern Power Price	NP Part #
424C	1	RMC/PVC Conduit Material	2" FM8 Conduit Body Cover, Cast, Grayloy-Iron	Appleton (SECT A)	680F	\$10.73	Crouse-H 670				
424C	1	RMC/PVC Conduit Material	2" FM8 Conduit Body Gasket, Open Neoprene	Appleton (SECT A)	Gask806 N	\$5.90	Crouse-H Gask576				
424D	1	RMC/PVC Conduit Material	2" Rigid Metal Conduit (RMC), "LR" Body, FM8, Grayloy-iron	Appleton (SECT A)	LR68	\$72.69	Crouse-H LR68				
424D	1	RMC/PVC Conduit Material	2" FM8 Conduit Body Cover, Cast, Grayloy-Iron	Appleton (SECT A)	680F	\$10.73	Crouse-H 670				
424D	1	RMC/PVC Conduit Material	2" FM8 Conduit Body Gasket, Open Neoprene	Appleton (SECT A)	Gask806 N	\$5.90	Crouse-H Gask576				
424H	6	RMC/PVC Conduit Material	2" Hang-on Conduit Hanger with bolts for Item 208 (Drill Mounting Hole for 1/2" Bolt)	Appleton (SECT CH)	H200WB	\$5.30	B-Line BL1450				
	20		Stand Off Bracket 18"			\$344.72	Wilcox WA18DB				
	20		3" Straps			\$30.31	T & B 702-3EG				
			Sub Total All Items			\$2,834.63		\$709.78		\$0.00	
			Sub Total Lowest Bid Item			\$2,037.63		\$692.58		\$0.00	
L01	4	Lighting (LGT)	Substation Luminaire, High Presure Sodium, 400 Watt, 120 Volt, Top Lens	Holophane	SU2A-400HP-12-TL-Lamp	\$3,722.22	Holophane SU2A40024 TLS-67533	\$4,058.36			
L02	4	Lighting (LGT)	Bracket Arm Assembly, 20.56" Long, 5" x 5" Mounting Pattern with 7/16" Holes (with Luminaire) (#07233)	Holophane	SU2A-400HP-12-TL-Lamp	^		^			

Item #	Total Quantity	Section	Description	Vendor	Part #	Codale Price	Codale Part #	HD Supply Price	HD Part #	Northern Power Price	NP Part #
L03	4	Lighting (LGT)	Lamp, High Pressure Sodium, 400 Watt, 120 Volt (with Luminaire)	Holophane	SU2A-400HP-12-TL-Lamp	^		^			
L04	8	Lighting (LGT)	1" to 3/4" Rigid Metal Conduit (RCM) Reducer Bushing, Threaded Steel	Appleton (SECT CF-2)	RB100-75	\$8.54	Dottie R354				
L05	2	Lighting (LGT)	Single-Gang Cast Device Box, 2.81" Wide x 4.56" High x 2.69" Deep, 2-3/4" Unitlets, NEMA-3R	Appleton (SECT B)	FDC-1-75	\$10.81	Red Dot DS-4 8 4-in Round w/5 3/4				
L06	2	Lighting (LGT)	Single-Gang Cast Device Box Cover, Blank with gasket, NEMA-3R		FSK-1B-C	\$1.05	Orbit 1BC				
L07	2	Lighting (LGT)	Single-Gang Cast Device Box, 2.81" Wide x 4.56" High x 2.69" Deep, 3-1" Unitlets, NEMA-3R	Appleton (SECT B)	FDCC-1-100	\$9.33	Red Dot IHD3-3				
L08	2	Lighting (LGT)	Single-Gang Cast Device Box Extension, 1.00" Deep	Appleton (SECT B)	FS-1EXT	\$4.74	Red Dot				
L09	2	Lighting (LGT)	Duplex Receptacle, 20 Amp, 125 VAC, 2-pole, 3-wire, Industrial Grade, Ivory	Leviton	5362-1	\$5.37	Hubbell 5362I				
L10	2	Lighting (LGT)	Wet Location Single-Gang Cast Device Box Cover, Duplex Receptacle with Gasker, NEMA-3R	Appleton (SECT B)	FSK-WRD	\$4.18	Red Dot CCDV				
L11	4	Lighting (LGT)	Channel Nut with Spring, 1/4"0-20UNC Thread, Electro Galvanized Finish	Unistrut	P1006-1420-EG	\$7.02	B-Line				
L12	4	Lighting (LGT)	Hex Head Cap Screw, 1/4"0 x 1-1/2", Electro Galvanized Finish	Unistrut	HHCS025 150EG	\$0.24	Dottie MB14112				

Item #	Total Quantity	Section	Description	Vendor	Part #	Codale Price	Codale Part #	HD Supply Price	HD Part #	Northern Power Price	NP Part #
L13	2	Lighting (LGT)	Single-Gang Cast Device Box, 2.81" Wide x 4.56" High x 2.69" Deep, 1-3/4" Unitlets, NEMA-3R	Appleton (SECT B)	FD-1-75	\$41.15					
L14	2	Lighting (LGT)	Toggle Switch, Single-pole, 20 Amp, 120 VAC, Industrial Grade, Ivory	Leviton	1221-21	\$6.02					
L15	2	Lighting (LGT)	Wet Location Single-Gang Cast Device Box Cover, Toggle Switch with Gasket, NEMA-3R	Appleton (SECT B)	FSK-WT2	\$3.80	Red Dot CCSV				
			Sub Total All Items			\$3,824.47		\$4,058.36		\$0.00	
			Sub Total Lowest Bid Item			\$3,824.47		\$0.00		\$0.00	
						Total					
Codale was low bid on 128 items out of 149 items bided for a total of \$128,206.63											
HD Supply was low bid on 15 items out of 76 items bided for a total of \$3,490.65											
Northern Power was low bid on 6 items out of 68 items bided for a total of \$12,465.00											
Total for low bid items is \$144,162.28											
Total for Codale all Items bided was \$155,493.47											
Total savings of \$11,331.19 if the vendors will let us award low bid items rather than the whole material list											