

SECTION 260620 – SCHEDULES FOR ELECTRICAL DISTRIBUTION EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes the schedules for electrical distribution equipment.

1.2 SUBMITTALS FOR REVIEW

- A. Refer to the specific equipment section for submittals required.

1.3 EXTRA MATERIALS

- A. Refer to the specific equipment section for extra materials required.

1.4 MAINTENANCE MATERIALS

- A. Refer to the specific equipment section for maintenance materials required.

PART 2 - PRODUCTS

2.1 SCHEDULES FOR ELECTRICAL DISTRIBUTION EQUIPMENT

- A. Refer to Schedules attached to the following pages.

PART 3 - EXECUTION

3.1 STANDARD BRANCH CIRCUIT WIRE SIZING TABLE

A. Sizing Table:

STANDARD BRANCH CIRCUIT WIRE SIZING TABLE			
BREAKER TRIP RATING	1-POLE BREAKER	2-POLE BREAKER	3-POLE BREAKER
15-20A	2#12 + 1#12 GND IN 3/4" CONDUIT	3#12 + 1#12 GND IN 3/4" CONDUIT	4#12 + 1#12 GND IN 3/4" CONDUIT
25-30A	2#10 + 1#10 GND IN 3/4" CONDUIT	3#10 + 1#10 GND IN 3/4" CONDUIT	4#10 + 1#10 GND IN 3/4" CONDUIT
35-40A	2#8 + 1#10 GND IN 3/4" CONDUIT	3#8 + 1#10 GND IN 3/4" CONDUIT	4#8 + 1#10 GND IN 3/4" CONDUIT
45-50A	2#6 + 1#10 GND IN 3/4" CONDUIT	3#6 + 1#10 GND IN 3/4" CONDUIT	4#6 + 1#10 GND IN 1" CONDUIT
60-70A	2#4 + 1#8 GND IN 1" CONDUIT	3#4 + 1#8 GND IN 1-1/4" CONDUIT	4#4 + 1#8 GND IN 1-1/4" CONDUIT
80A	2#3 + 1#8 GND IN 1" CONDUIT	3#3 + 1#8 GND IN 1-1/4" CONDUIT	4#3 + 1#8 GND IN 1-1/4" CONDUIT
90A	N/A	3#2 + 1#8 GND IN 1-1/4" CONDUIT	4#2 + 1#8 GND IN 1-1/4" CONDUIT
100-110A	N/A	3#1 + 1#6 GND IN 1-1/2" CONDUIT	4#1 + 1#6 GND IN 1-1/2" CONDUIT

B. Table Notes:

1. Unless otherwise indicated, refer to this schedule for wire and conduit size for all circuits with identified breaker trip ratings.
2. Provide neutral conductor for 2 and 3 pole circuits as indicated above if the equipment requires a neutral.

DISTRIBUTION PANEL			Bus:	600A	Additional Notes	
			Main Type:	600A Main Breaker	100% Neutral with Ground Bus	
MDP			Features:	E	Customer Meter	
			Volts:	277/480V, 3PH, 4W	Service Entrance Rated	
			Space:	As Shown		
			AIC:	65,000		
			Mounting:	Surface		
CKT.	Breaker		Type	Description	KVA	Notes
	Amp	Pole				
1	60	3	T	TVSS H1	-	1,2
2	150	3	E	Panel LP1 (via T-LP1)	71.4	2,6
3	90	3	E	Panel LP2 (via T-LP2)	37.6	2,6
4	150	3	E	Panel LP3 (via T-LP3)	63.4	2,6
5	20	3	T	MP Field 1 - Musco Pole S1	11.1	3
6	20	3	T	MP Field 1 - Musco Pole S2	11.1	3
7	20	3	T	MP Field 1 - Musco Pole S3	11.1	3
9	20	3	T	MP Field 1 - Musco Pole S4	11.1	3
10	20	3	T	MP Field 2 - Musco Pole S6	11.1	3
11	20	3	T	MP Field 2 - Musco Pole S5	11.1	3
12	20	3	T	MP Field 2 - Musco Pole S3	11.1	3
13	20	3	T	MP Field 2 - Musco Pole S4	11.1	3
14	20	1	T	Pole Mounted Site Ltg - Circuit 1	1.3	3
15	20	1	T	Pole Mounted Site Ltg - Circuit 2	1.3	3
16	20	1	T	Flagpole Ltg	1.0	3
17	20	1	T	Spare		
18	20	3	T	Spare		
19	100	3	E	Spare		
20	225	3	E	Spare		
21	100	3		Prepared Space		
22	225	3		Prepared Space		
23	225	3		Prepared Space		
Total Connected Load KVA:					264.8	

PANEL			Bus:	300A Main Breaker	Additional Panel Notes										
LP1			Volts:	120/208V, 3PH, 4W		100% Neutral with Ground Bus									
			Poles:	42 + 42		Integral TVSS L3									
			AIC:	42,000											
			Mounting:	Surface		Fed From: Distribution Panel MDP via T-LP1									
Section 1 of 2															
CKT.	Breaker		Description	Notes	Load						Notes	Description	Breaker		CKT.
	Amp	Pole			A		B		C				Pole	Amp	
1	20	1	Ltg - Interior		1.4	0.5						Rec - Concessions Counter	1	20	2
3	20	1	Ltg - Exterior				0.2	0.5				Rec - Concessions Counter	1	20	4
5	20	1	Spare							0.5		Rec - Concessions Counter	1	20	6
7	20	1	BAS Panel		0.5	0.5						Rec - Concessions Counter	1	20	8
9	25	2	CU-1/AC-1				2.3	0.5				Rec - Concessions Counter	1	20	10
11									2.3	0.6		Dishwasher	1	20	12
13	20	2	EUH-3 - Concessions		1.5	0.2						Rec - Concessions	1	20	14
15							1.5	0.2				Rec - Concessions	1	20	16
17	20	2	EUH-2 - Storage						1.5	1.2	4	Rec - Freezer	1	20	18
19					1.5	1.0					4	Rec - Cooler	1	20	20
21	20	2	EUH-1 - Mechanical				1.5	0.9				Rec - Concessions, Exterior N	1	20	22
23									1.5	0.9		Rec - Restrooms	1	20	24
25	15	1	GF-1 - Mechanical		1.2	1.1						Rec - Storage, Exterior SW	1	20	26
27	15	3	HRU-1 - Mechanical				0.8	1.4				Rec - Mech, Elec, Exterior SE	1	20	28
29									0.8	0.7		Rec - Trainer	1	20	30
31					0.8	1.2						Hand Dryer - Women	1	20	32
33	20	2	EWB-1 - Restroom				1.5	1.2				Hand Dryer - Men	1	20	34
35									1.5	0.5	7	FACP	1	20	36
37	20	2	EWB-2 - Trainer		1.5	1.0						Access Control & Door Hardware Power	1	20	38
39							1.5	0.5				Athletic Lighting Control Cabinet	1	20	40
41	15	1	EF-2 - Concessions						0.2	1.0		Spare	1	20	42
					24.8		24.0		22.6		Total Connected Load KVA: 71.4 KVA				
					Phase Totals										

PANEL		Bus:	300A Main Breaker	Additional Panel Notes											
LP1		Volts:	120/208V, 3PH, 4W	100% Neutral with Ground Bus											
		Poles:	42 + 42	Integral TVSS L3											
		AIC:	42,000												
		Mounting:	Surface	Fed From: Distribution Panel MDP via T-LP1											
Section 2 of 2															
CKT.	Breaker		Description	Notes	Load						Notes	Description	Breaker		CKT.
	Amp	Pole			A		B		C				Pole	Amp	
43	15	1	Water Heater DWH-1 - Mechanical		0.5	1.0						Rec - AV/Data Rack	1	20	44
45	15	1	Circ Pump CP-1 - Mechanical				0.1	1.0				Rec - AV/Data Rack	1	20	46
47	20	1	Rec - Musco Pole #S4	3					0.4	1.0		Rec - AV/Data Rack	1	20	48
49	20	1	Rec - Musco Pole #S6	3	0.4	1.0						Rec - AV/Data Rack	1	20	50
51	20	1	Rec - JV Softball	3			0.4								52
53															54
55															56
57															58
59										4.0	2	MP Field #1 Pressbox Load Center LC1	2	100	60
61						4.0									62
63								4.0			2	MP Field #2 Pressbox Load Center LC2	2	100	64
65										4.0					66
67	25	2	Spare			4.0					2	Softball Pressbox Load Center LC3	2	100	68
69								4.0							70
71	15	1	Spare									Spare	2	20	72
73	20	1	Spare												74
75	20	1	Spare									Spare	2	100	76
77	20	1	Spare												78
79	20	1	Spare									Spare	3	15	80
81	20	1	Spare												82
83	20	1	Spare	4											84
					24.8		24.0		22.6		Total Connected Load KVA: 71.4 KVA				
					Phase Totals										

EASTERN LANCASTER COUNTY SCHOOL DISTRICT
GARDEN SPOT ATHLETICS CAMPUS

D E PROJECT #250540

PANEL			Bus:	175A Main Breaker	Additional Panel Notes										
LP2			Volts:	120/208V, 3PH, 4W	100% Neutral with Ground Bus										
			Poles:	54	Integral TVSS L3										
			AIC:	10,000											
			Mounting:	Surface	Fed From: Distribution Panel MDP via T-LP2										
CKT.	Breaker		Description	Notes	Load						Notes	Description	Breaker		CKT.
	Amp	Pole			A		B		C				Pole	Amp	
1	20	1	Ltg - Interior		0.9	0.5						Rec - Storage, Exterior N	1	20	2
3	20	1	Ltg - Exterior				0.2	0.4				Rec - Storage E	1	20	4
5	20	1	Spare							0.5		Rec - Storage, Exterior E	1	20	6
7	20	1	Overhead Door North		1.0	0.4						Rec - Storage S	1	20	8
9	20	1	Overhead Door Center				1.0	0.7				Rec - Mech, Storage, Exterior W	1	20	10
11	20	1	Overhead Door South						1.0	0.5		Rec - Storage, Exterior W	1	20	12
13	20	2	EWH-6 - Mechanical		1.5	0.7						Rec - Restrooms, Exterior S	1	20	14
15							1.5	0.5				Rec - Data Rack	1	20	16
17	20	2	EWH-5 - Interior Restroom						1.5	1.0		Access Control & Door Hardware Power	1	20	18
19					1.5	0.5					7	FACP	1	20	20
21	20	2	EWH-4 - Exterior Restroom West				1.5	2.0				Inst. Water Heater EWH-2 - Interior Restroom	2	25	22
23									1.5	2.0					24
25	20	2	EWH-3 - Exterior Restroom East		1.5	2.0						Inst. Water Heater EWH-2 - Exterior Restroom West	2	25	26
27							1.5	2.0							28
29	15	1	EF-7 - Storage						0.8	2.0		Inst. Water Heater EWH-2 - Exterior Restroom East	2	25	30
31	15	1	EF-6 - Mechanical		0.1	2.0									32
33	15	1	Infrared Heat - IR-1				0.2	1.0				Water Heater DWH-3 - Mechanical	2	15	34
35	15	1	Infrared Heat - IR-2						0.2	1.0					36
37	20	1	BAS Panel		0.5										38
39															40
41															42
43	15	1	Spare									Spare	2	15	44
45	20	1	Spare												46
47	20	1	Spare									Spare	2	20	48
49	20	1	Spare												50
51	20	1	Spare									Spare	2	25	52
53	20	1	Spare	4											54
					13.1		12.5		12.0		Total Connected Load KVA: 37.6 KVA				
					Phase Totals										

PANEL			Bus:	300A Main Breaker	Additional Panel Notes										
LP3			Volts:	120/208V, 3PH, 4W		100% Neutral with Ground Bus									
			Poles:	42 + 42		Integral TVSS L3									
			AIC:	10,000											
			Mounting:	Surface		Fed From: Distribution Panel MDP via T-LP3									
Section 1 of 2															
CKT.	Breaker		Description	Notes	Load						Notes	Description	Breaker		CKT.
	Amp	Pole			A		B		C				Pole	Amp	
1	20	1	Ltg - Ground Floor & Mezz		1.2	0.9						Rec - Lobby, Exterior NE	1	20	2
3	20	1	Ltg - Indoor Turf Field North				0.9	0.6			4	Rec - Water Cooler	1	20	4
5	20	1	Ltg - Indoor Turf Field Center						0.9	0.6	4	Rec - Water Cooler	1	20	6
7	20	1	Ltg - Indoor Turf Field South		0.9	0.7						Rec - Turf Field, Exterior W	1	20	8
9	20	1	Ltg - Exterior				0.4	0.7				Rec - Turf Field, Exterior N	1	20	10
11	20	1	Spare							0.5		Rec - Turf Field, Exterior N	1	20	12
13	20	1	Overhead Door - Turf Field West		1.0	0.4						Rec - Turf Field E	1	20	14
15	20	1	Overhead Door - Turf Field Center				1.0	0.5				Rec - Turf Field, Exterior S	1	20	16
17	20	1	Overhead Door - Turf Field East						1.0	0.5		Rec - Turf Field, Exterior S	1	20	18
19	20	1	Overhead Door - Athletics Storage Exterior		1.0	0.9						Rec - Athletics Storage	1	20	20
21	20	1	Overhead Door - Athletics Storage Interior				1.0	1.1				Rec - Athletics Storage, Storage	1	20	22
23	20	1	Motorized Batting Cage Hoist North						0.8	0.7		Rec - Office	1	20	24
25	20	1	Motorized Batting Cage Hoist South		0.8	0.7						Rec - Restrooms, Exterior E	1	20	26
27	20	1	Rec - Floorbox Mezz				0.2	0.2				Rec - Floorbox Mezz	1	20	28
29	20	1	Rec - Floorbox Mezz						0.2	0.2		Rec - Floorbox Mezz	1	20	30
31	20	1	Rec - Floorbox Mezz		0.2	0.2						Rec - Floorbox Mezz	1	20	32
33	20	1	Rec - Floorbox Mezz				0.2	0.2				Rec - Floorbox Mezz	1	20	34
35	20	1	Rec - Floorbox Mezz						0.2	0.2		Rec - Floorbox Mezz	1	20	36
37	20	1	Rec - Floorbox Mezz		0.2	0.2						Rec - Floorbox Mezz	1	20	38
39	20	1	Rec - Floorbox Mezz				0.2	0.2				Rec - Floorbox Mezz	1	20	40
41	20	1	Rec - Floorbox Mezz						0.2	0.2		Rec - Floorbox Mezz	1	20	42
					22.8		20.8		19.8		Total Connected Load KVA: 63.4 KVA				
					Phase Totals										

PANEL			Bus:	300A Main Breaker	Additional Panel Notes										
LP3			Volts:	120/208V, 3PH, 4W		100% Neutral with Ground Bus									
			Poles:	42 + 42		Integral TVSS L3									
			AIC:	10,000											
			Mounting:	Surface		Fed From: Distribution Panel MDP via T-LP3									
Section 2 of 2															
CKT.	Breaker		Description	Notes	Load						Notes	Description	Breaker		CKT.
	Amp	Pole			A		B		C				Pole	Amp	
43	20	1	Rec - Mezz		0.5	0.1						EF-10 - JC	1	15	44
45	20	1	Rec - Mezz				0.5	1.5				EWB-7 - Toilet Room	2	20	46
47	20	1	Rec - Mezz						0.7	1.5					48
49	20	1	Rec - Data Rack		0.5	1.5						EWB-8 - Toilet Room	2	20	50
51	20	1	FACP	7			0.5	1.5							52
53	20	1	Access Control & Door Hardware						1.0	1.5		EWB-9 - Exterior Toilet Room	2	20	54
55	15	2	CU-2/HP-1		1.2	1.5									56
57							1.2	1.5				EUH-4 - Athletics Storage	2	20	58
59	15	1	GF-2A						1.2	1.5					60
61	15	1	GF-2B		1.2	1.5						EUH-5 - Athletics Storage	2	20	62
63	15	1	GF-3A				1.2	1.5							64
65	15	1	GF-3B						1.2	1.0		Water Heater DWH-3 - JC	2	15	66
67	20	1	BAS Panel		0.5	1.0									68
69	15	1	Spare					2.0				Inst. Water Heater EWH-2 - Toilet Room	2	25	70
71	20	1	Spare							2.0					72
73	20	1	Spare			2.0						Inst. Water Heater EWH-2 - Toilet Room	2	25	74
75	20	1	Spare					2.0							76
77	15	2	Spare							2.0		Inst. Water Heater EWH-2 - Exterior Tilt Rm	2	25	78
79						2.0									80
81	20	2	Spare									Spare	2	25	82
83															84
					22.8		20.8		19.8		Total Connected Load KVA: 63.4 KVA				
					Phase Totals										

PANEL NOTES	
1	Provide conductors, overcurrent device and exact placement as recommended by the TVSS manufacturer.
2	Refer to Power Riser Diagram for wire and conduit sizes.
3	Refer to Site Plan for wire and conduit sizes.
4	Provide groundfault breaker for personal protection.
5	Provide groundfault breaker for equipment protection.
6	Provide a permanently fastened pad lockable breaker accessory for servicing.
7	Provide Space Age Electronics Model ELOCK-FA for breaker to lock in the ON position and identify breaker.
8	Provide a handle to lock in the on position.
9	Provide 2#10 + 1#10 gnd in 3/4" conduit for voltage drop.
10	Provide 2#8 + 1#8 gnd in 1" conduit for voltage drop.
11	Provide electronic trip breaker with Long Time, Short Time, and Instantaneous adjustments.
12	
13	

SWITCHBOARD/DISTRIBUTION PANEL BREAKER TYPES	
T	Thermal Magnetic
E	Electronic Trip with Long Time, Short Time, Instantaneous Setting Adjustments
ZSI	Zone-Selective Interlocking
EP	Energy/Power Trip Unit with Long Time, Short Time, Instantaneous Setting Adjustments, Zone Selective Interlock, Breaker Status Display & Modbus Wired Communications
GF	Ground Fault Protection
ST	Shunt Trip breaker accessory
HC	Permanently fastened pad lockable breaker accessory for servicing
AERS	Arc Energy Reduction Switch per NEC 240.87