

LIGHTING FIXTURE/POLE CONFIGURATION LEGEND

POLE NO.	DESCRIPTION	REMARKS
F1	TWELVE (12) LUMINAIRES MOUNTED ON 80 FT. HIGH ON AN 80 FT. LENGTH, ROUND GALVANIZED STEEL POLE.	TOTAL OF (12) LUMINAIRES, THREE GROUPS OF FOUR (4) UNITS EACH – (CONTROL ZONES #1, 2 AND 3)
F2	SIMILAR TO POLE NO. "F1", EXCEPT THIRTEEN (13) LIMAIRES ON POLE.	TOTAL OF (13) LUMINAIRES, TWO GROUPS OF FOUR (4) UNITS EACH AND ONE GROUP OF FIVE UNITS. – (CONTROL ZONES #1, 3 AND 2 RESPECTIVELY) (CONTROL ZONES #1, 2 AND 3)
F3	SAME NUMBER OF LUMINAIRES AND WITH CONFIGURATION AS ON POLE NO. "F1".	SAME GROUPS AND CONTROL ZONES AS POLE NO. "F1".
F4	SIMILAR TO POLE NO. "F1", EXCEPT STRUCTURAL POLE FOR BACK-TO-BACK MOUNTING CONFIGURATION FOR TWO (2) ADDITIONAL LUMINAIRES AIMED AT PROPOSED TEMPORARY PARKING LOT.	TOTAL OF (14) LUMINAIRES, TWO GROUPS OF FOUR (4) UNITS EACH AND ONE GROUP OF FIVE UNITS. AND ONE GROUP OF TWO UNITS AIMED AT PARKING LOT – (CONTROL ZONES #1, 2, 3 AND 4 RESPECTIVELY).
F5	SAME NUMBER OF LUMINAIRES AND CONFIGURATION AS ON POLE NO. "F4".	TOTAL OF (15) LUMINAIRES, TWO GROUPS OF FOUR (4) UNITS EACH, ONE GROUP OF FIVE LUMINAIRES AND ONE GROUP OF TWO UNITS AIMED AT PARKING LOT. – (CONTROL ZONES #1, 2, 3 AND 4 RESPECTIVELY).
F6	SIMILAR TO POLES NO. "F4" & "F6", EXCEPT STRUCTURAL POLE FOR BACK-TO-BACK MOUNTING CONFIGURATION FOR WITHTWO (2) ADDITIONAL LUMINAIRES AIMED BACKWARDS TOWARDS AT PROPOSED TEMPORARY PARKING LOT.	SAME GROUPS AND CONTROL ZONES AS POLE NO. "F4".
T1	THREE (3) LUMINAIRES MOUNTED ON 40 FT. HIGH POLE ON AT 40 FT. LENGTH, ROUND GALVANIZED STEEL POLE.	TOTAL OF (3) LUMINAIRES, TWO UNITS ON EACH OF FOUS POLES ON SEPARATE CKT.; ONE UNIT ON EACH OF POLES ON "COMMON" CIRCUIT AND CONTROL ZONE. – (CONTROL ZONES #5 AND 6 RESPECTIVELY).
T2	THREE (3) LUMINAIRES MOUNTED ON 40 FT. HIGH ON AN 40 FT. LENGTH, ROUND GALVANIZED STEEL POLE.	SAME GROUPS AND CONTROL ZONES AS POLE NO. "T1".
T3	THREE (3) LUMINAIRES MOUNTED ON 40 FT. HIGH ON AN 40 FT. LENGTH, ROUND GALVANIZED STEEL POLE.	SAME GROUPS AND CONTROL ZONES AS POLE NO. "T1".
T4	THREE (3) LUMINAIRES MOUNTED ON 40 FT. HIGH ON AN 40 FT. LENGTH, ROUND GALVANIZED STEEL POLE.	SAME GROUPS AND CONTROL ZONES AS POLE NO. "T1".

FIXTURE SPECIFICATION

SYMBOL	DESCRIPTION
 T3 TOP1(2,4),(6,8) (ZONE 5 & 6)	LUMINAIRES SHALL BE MUSCO'S "LIGHT STRUCTURE GREEN SYSTEM " DELIVERED TO SITE, EACH IN "FIVE EASY PIECES" COMPONENTS (1. POLETOP LUMINAIRES LUMINAIRES ASSEMBLY, 2. WIRE HARNESS, 3. GALVANIZED STEEL POLE, 4. ELECTRICAL COMPONENTS AND 5. PRECAST CONCRETE BASE.) CONSTRUCTED WITH A DIE-CAST ALUMINUM HOUSING FOR PROTECTION OF REFLECTOR SYSTEM. LUMINAIRES SHALL BE FURNISHED WITH 1500W MZ METAL HALIDE LAMP WITH AVERAGE LUMENS/LAMP OF 134,000 RATED LAMP LIFE OF 5000 HOURS. AVERAGE LAMP TILT FACTOR SHALL BE 1.000 AND LAMPS SHALL BE WARRANTIED FOR TWO (2) YEARS, WITH THE FIRST YEAR INCLUDING LAMP AND LABOR, AND SECOND YEAR LAMPS ONLY; GUARANTEED OF AA CONSTANT LIGHT LEVEL OVER THE OVER THE LIFE OF THE LAMP. BALLAST SERVING EACH INDIVIDUAL LAMP SHALL BE REMOTELY LOCATED AWAY FROM LAMP IN NEMA 3R ENCLOSURE MOUNTED APPROXIMATELY 10 FEET ABOVE GRADE. ENCLOSURE IS FACTORY WIRED AND EQUIPPED WITH BALLAST, CAPACITORS, FUSING FOR EACH LUMINAIRE, LAMP CONTROL, WIRE ACCESSS HUB, POLE MOUNTING BRACKET, POLE I.D. LABLES ON FRONT COVER AND WIRING SCHEMATICS ON INSIDE OF HINGED DOOR COVER.

ALSO BE LOCATED IN THE ENCLOSURE. WIRE HARNESS COMPLETE WITH AN ABRASION PROTECTION SLEEVES, STRAIN RELIEF AND PLUG-IN CONNECTIONS FOR FAST, TROUBLE-FREE INSTALLATION.

LIGHTING NOTES

- FIXTURES FOR OWNER AND ARCHITECT'S APPROVAL PRIOR TO PURCHASE.
- ALL FIXTURE BALLAST SHALL BE HIGH POWER FACTOR (HPF), ELECTRONIC TYPE WHERE AVAILABLE.
- ALL LAMPS SHALL BE LOW-ENERGY TYPE FOR OPERATION ON 480 VOLT UNLESS OTHERWISE NOTED.

TRANSFORMER SCHEDULE

DESIGNATION	PRIMARY SERVICE CHARACTERISTICS	SECONDARY CHARACTERISTICS	LOAD SERVED	REMARKS
PT-1	13.2 KV, 3 PHASE, 3 WIRE + GRD. *	480 VOLTS, 3 PHASE 3 WIRE, DELTA + GRD.	TRACK & FIELD DISTRIBUTION	VA 300 KVA PAD MOUNTED UTILITY TRANSFORMER
PT-2	13.2 KV, 3 PHASE, 3 WIRE + GRD. *	480 VOLTS, 3 PHASE 3 WIRE, DELTA + GRD.	TENNIS COURT DISTRIBUTION	VA 112.5 KVA PAD MOUNTED UTILITY TRANSFORMER
ST-1	480 VOLT, 3 PHASE, 3 WIRE, DELTA + GRD.	120/208 VOLTS, 3 PHASE, 4 WIRE, WYE + GRD.	PANEL "LRP-1"	VA 15 KVA WALL MOUNTED DRY TYPE TRANSFORMER
ST-2	480 VOLT, 3 PHASE, 3 WIRE, DELTA + GRD.	120/208 VOLTS, 3 PHASE, 4 WIRE, WYE + GRD.	PANEL "LRP-2"	VA 15 KVA WALL MOUNTED DRY TYPE TRANSFORMER

(*) - ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING AVAILABLE PRIMARY SERVICE ON UTILITY POLE RED HOOK ROAD ADJACENT TO PROPERTY OR LOOP PRESENTLY SERVING PAD MOUNTED TRANSFORMERS ON SITE.

NOTE: REFER TO FEEDER SCHEDULE, THIS DRAWING FOR RELATED TRANSFORMER PRIMARY AND SECONDARY FEEDERS.

SERVICE SWITCH SCHEDULE

600 VOLTS RATING						SERVES	REMARKS
SW NUMBER	TYPE	AMPS	POLES	FLUX	DATE		
MS-1	-	600	3-SN	475		TRANSFORMER "PT-1"	-
MS-2	-	400	3-SN	350		TRANSFORMER "PT-2"	-
SS-1	-	400	3-SN	275	-	ATHLETIC FIELD LIGHTING PANEL "TFP-1"	-
SS-2	-	100	3-SN	100	-	ATHLETIC FIELD LIGHTING PANEL "TOP-1"	-

NOTE: SERVICE SWITCHES SHALL BE 100% SERVICE RATED.

WHILE EVERY ATTEMPT HAS BEEN MADE IN THE PREPARATION OF THIS PLAN TO AVOID MISTAKES, THE A/E CANNOT GUARANTEE AGAINST HUMAN ERROR. THE CONTRACTOR ON THE JOB MUST CHECK ALL DIMENSIONS, DETAILS, AND THE CONSTRUCTION SITE AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES NOTED ON THE DRAWINGS OR IN THE FIELD. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE A/E IS NOTIFIED.

PANEL DESIGNATION: "TFP1" (SECTION 1)		LOCATION: NEW ELECT. RM. "A", GRADE																						
SERVICE: 480 VOLTS, 3 PHASE, 3 WIRE, W/GRD BUS, 84 POLES																								
MAINS: 400 AMPS WITH 275 AMP MAIN BRKR.		MOUNTING: SURFACE																						
SERVICE TO:	<table><tr><td>$\frac{L1}{3}$</td><td>$\frac{L2}{3}$</td><td>$\frac{L3}{3}$</td><td>$\frac{N}{3}$</td><td>$\frac{G}{3}$</td></tr><tr><td>ØC</td><td>ØB</td><td>ØA</td><td>ØB</td><td>ØA</td></tr></table>	$\frac{L1}{3}$	$\frac{L2}{3}$	$\frac{L3}{3}$	$\frac{N}{3}$	$\frac{G}{3}$	ØC	ØB	ØA	ØB	ØA	WATTS	<table><tr><td>$\frac{L1}{3}$</td><td>$\frac{L2}{3}$</td><td>$\frac{L3}{3}$</td><td>$\frac{N}{3}$</td><td>$\frac{G}{3}$</td></tr><tr><td>ØA</td><td>ØB</td><td>ØC</td><td>ØB</td><td>ØA</td></tr></table>	$\frac{L1}{3}$	$\frac{L2}{3}$	$\frac{L3}{3}$	$\frac{N}{3}$	$\frac{G}{3}$	ØA	ØB	ØC	ØB	ØA	ITEM
$\frac{L1}{3}$	$\frac{L2}{3}$	$\frac{L3}{3}$	$\frac{N}{3}$	$\frac{G}{3}$																				
ØC	ØB	ØA	ØB	ØA																				
$\frac{L1}{3}$	$\frac{L2}{3}$	$\frac{L3}{3}$	$\frac{N}{3}$	$\frac{G}{3}$																				
ØA	ØB	ØC	ØB	ØA																				
POLE LIGHTING (4)	1 3P	2.1	3P	2	POLE LIGHTING (4)																			
FIXTURE	1 20	2.1	20	4	FIXTURE																			
"F1"	5 AMP 2.1	2.1	AMP	2	"F2"																			
POLE LIGHTING (4)	7 3P	2.1	3P	8	POLE LIGHTING (4)																			
FIXTURE	7 20	2.1	20	10	FIXTURE																			
"F1"	9 20	2.1	20	12	"F2"																			
POLE LIGHTING (4)	11 3P	2.1	3P	12	POLE LIGHTING (4)																			
FIXTURE	11 20	2.1	20	14	FIXTURE																			
"F1"	13 3P	2.1	3P	16	"F2"																			
POLE LIGHTING (4)	15 20	2.1	20	18	POLE LIGHTING (4)																			
FIXTURE	17 3P	2.1	3P	19	FIXTURE																			
"F1"	17 3P	2.1	3P	20	"F2"																			
POLE LIGHTING (4)	19 3P	2.1	3P	20	POLE LIGHTING (4)																			
FIXTURE	21 20	2.1	20	22	FIXTURE																			
"F4"	23 3P	2.1	3P	24	"F4"																			
POLE LIGHTING (4)	25 20	2.1	20	26	POLE LIGHTING (4)																			
FIXTURE	27 20	2.1	20	28	FIXTURE																			
"F4"	29 20	2.1	20	30	"F4"																			
POLE LIGHTING (4)	31 3P	2.1	3P	32	POLE LIGHTING (4)																			
FIXTURE	33 20	2.1	20	34	FIXTURE																			
"F4"	35 3P	2.1	3P	36	"F4"																			
POLE LIGHTING (4)	37 20	2.1	20	38	POLE LIGHTING (4)																			
FIXTURE	39 20	2.1	20	40	FIXTURE																			
"F5"	41 3P	2.1	3P	42	"F4"																			
SUBTOTALS 14.7 14.7 14.7		14.3 14.3 14.3																						
(REFER TO PANEL "TFP1" (SECTION 2) FOR CALCULATED LOADS)																								
TOTAL LOADS: KW PHASE A		CONNECTED LOAD:		=	KVA																			
KW PHASE B		DEMAND FACTOR:		=	KVA																			
KW PHASE C		DEMAND LOAD:		=	KVA																			
TOTAL CONN. LOAD: KW		DEM. LOAD X 1.25 SPARE:		=	KVA																			
		AMPS: (at 208V, 3PH)		=	A																			

PANEL DESIGNATION: "TFP1" (SECTION 2)		LOCATION: . NEW ELECT. RM. "A", GRADE	
SERVICE: 480 VOLTS, 3 PHASE, 3 WIRE, W/GRD BUS, 84 POLES			
MAINS: 400 AMPS WITH 275 AMP MAIN BRKR.		MOUNTING: SURFACE	
SERVICE TO:		WATTS	
	$\frac{0}{10}$ $\$		