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Allendale / Fairfax High School Track & Field

Allendale County School District

3581 ALLENDALE-FAIRFAX HW FAIRFAX, SOUTH CAROLINA

DESCRIPTION

03/09/20

PROJECT NO: FWA 2590.01 TOWN PROJECT NO:

ARE INSTRUMENTS OF SERVICE AND REMAIN THE PROPERTY OF THE FWA GROUP ARCHITECTS. UNAUTHORIZED DUPLICATION OR REUSE WITHOUT

COVER SHEET **GENERAL INFO**

ELECTRICAL NOTES AND SPECIFICATIONS:

- ELECTRICAL INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH THE PRESENTLY EFFECTIVE VERSION OF THE NATIONAL ELECTRIC CODE AND ALL OTHER APPLICABLE STATE OR LOCAL CODES, LAWS, AND ORDINANCES. WHERE ONE CODE DIFFERS FROM ANOTHER, THE MORE STRINGENT SHALL APPLY.
- THE WORD "CONTRACTOR" AS USED IN THE "ELECTRICAL SCOPE OF WORK" SHALL MEAN THE ELECTRICAL SUBCONTRACTOR
- THE CONTRACTOR SHALL OBTAIN ALL LICENSES, PERMITS, INSPECTIONS, AND CERTIFICATES OF APPROVAL FROM ALL AUTHORITIES HAVING JURISDICTION AND SHALL PAY ALL FEES REQUIRED FOR THE EXECUTION OF THIS WORK. SATISFACTORY EVIDENCE OF COMPLIANCE WITH THE REQUIREMENTS AND ALL CERTIFICATES OF INSPECTION SHALL BE DELIVERED TO THE OWNER PROMPTLY UPON REQUEST. THE CONTRACTOR SHALL ALSO PAY FOR ANY REQUIRED TEST(S) AND PROVIDE ALL NECESSARY LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO PERFORM THE TEST(S)
- ALL WORK SHALL BE PERFORMED IN A NEAT, CLEAN, AND ORDERLY MANNER. ALL WIRING AND RACEWAYS SHALL BE CONCEALED TO THE GREATEST
- THE CONTRACTOR SHALL SUPPLY ALL MATERIAL, EQUIPMENT, TOOLS, TRANSPORTATION, AND SUPERVISION TO PROVIDE A COMPLETE AND SATISFACTORILY OPERATING ELECTRICAL SYSTEM. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR STORING AND HANDLING ALL MATERIALS; THIS INCLUDES ANY OWNER SUPPLIED MATERIAL, FIXTURES OR EQUIPMENT
- ALL MATERIAL, EQUIPMENT, AND FIXTURES SHALL BE SPECIFICATION GRADE, NEW, AND U.L. LISTED FOR THE PURPOSE FOR WHICH IT IS USED.
- SHALL FURNISH A WRITTEN COPY OF THE GUARANTEE TO THE OWNER. CONTRACTOR SHALL SUPPLY ALL LABOR AND MATERIALS REQUIRED TO PERFORM ANY WARRANTY WORK AT NO CHARGE TO THE OWNER.
- 10. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TEMPORARY POWER AS REQUIRED FOR ALL TRADES DURING THE COURSE OF THE PROJECT. TEMPORARY LIGHTING SHALL BE ADEQUATE ENOUGH TO ENSURE WORKER SAFETY AND SHALL COMPLY WITH OSHA STANDARDS. UPON COMPLETION OF THE PROJECT THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL TEMPORARY LIGHTING AND POWER.
- 11. ALL CONDUCTORS SHALL BE 75 DEGREE C, 600 VOLT, TYPE THWN/THHN INSULATION COPPER CONDUCTOR UNLESS NOTED OTHERWISE. ALL CONDUCTORS INSTALLED BELOW GRADE SHALL HAVE TYPE THWN INSULATION.
- 12. ALL BRANCH CIRCUIT WIRING SHALL BE A MINIMUM OF #12 AWG UNLESS NOTED OTHERWISE. ANY CIRCUIT INDICATED TO BE LARGER THAN #12 AWG SHALL BE SIZED AS INDICATED FOR THE ENTIRE LENGTH OF THE CIRCUIT.
- 13. ALL BELOW GRADE CONDUCTORS SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
- 14. ALL CONDUCTORS INSTALLED ABOVE GRADE AND OUTDOORS SHALL BE IN SCHEDULE 80 PVC CONDUIT AS PERMITTED BY THE NATIONAL ELECTRIC CODE
- 15. ALL CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION SUCH AS MECHANICAL EQUIPMENT, MOTORS, TRANSFORMERS, AND THE LIKE, SHALL BE MADE
- 16. ALL INDOOR DISCONNECTS AND PANELS SHALL BE IN NEMA TYPE 1 ENCLOSURES, UNLESS NOTED OTHERWISE. ALL EXTERIOR DISCONNECTS, PANELS AND SIMILAR EQUIPMENT SHALL BE IN NEMA TYPE 3R ENCLOSURES UNLESS NOTED OTHERWISE. ALL EQUIPMENT SHALL HAVE THE APPROPRIATE VOLTAGÈ AND CURRENT RATINGS SUITABLE FOR THE APPLICATION. ALL DISCONNECTS/SAFETY SWITCHES SHALL BE TOTALLY ENCLOSED. HEAVY DUTY TYPE. AND BE HORSEPOWER RATED (IF APPLICABLE).
- 17. ALL WORK SHALL BE GROUNDED IN ACCORDANCE WITH NATIONAL ELECTRIC CODE REQUIREMENTS. A COMPLETE EQUIPMENT GROUNDING SYSTEM, CONSISTING OF A GREEN INSULATED COPPER WIRE, SHALL BE INSTALLED IN EVERY CONDUIT REGARDLESS OF USE.
- 18. ALL PANELBOARDS SHALL HAVE THEIR SCHEDULES TYPED AND INSTALLED INSIDE THE FRONT COVER
- 19. ALL ELECTRICAL EQUIPMENT (PANELBOARDS, EQUIPMENT DISCONNECTS, ETC.) SHALL BE CLEARLY IDENTIFIED WITH LAMINATED PLASTIC NAMEPLATES. ENGRAVE EQUIPMENT DESIGNATION (NAME) AND IDENTIFYING INFORMATION (VOLTAGE, PHASE, FED FROM) AS SHOWN ON THE PLANS IN ¼" HIGH LETTERS. ALL EQUIPMENT NAMEPLATES SHALL BE WHITE WITH RAISED BLACK LETTERS. NAMEPLATES SHALL BE ATTACHED TO THE FRONT OF EQUIPMENT ENCLOSURES, WHERE CLEARLY VISIBLE, WITH ADHESIVE AS WELL AS TWO SCREWS IN OPPOSITE ENDS.
- 20. ALL PANELBOARDS, DISCONNECTS, TRANSFORMERS, CIRCUIT BREAKERS, AND OTHER ELECTRICAL EQUIPMENT SHALL BE MANUFACTURED BY SIEMENS, SQUARE-D. GENERAL ELECTRIC. OR EATON CORPORATION. ALL EQUIPMENT PROVIDED ON A PROJECT SHALL BE OF THE SAME MANUFACTURER.
- INTERFERENCES WITH EXISTING SITE CONDITIONS. CONFLICTS BETWEEN EQUIPMENT AND/OR MATERIAL LOCATIONS THAT ARISE SHALL BE CORRECTED E THE CONTRACTOR AS DIRECTED BY THE ARCHITECT-ENGINEER AT NO ADDITIONAL COST TO THE OWNER
- BOXES, CONNECTORS, WIRE NUTS, BLANK COVERS, STRAPPING, FASTENERS, ETC.
- 24. THE CONTRACTOR SHALL ADHERE TO EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS WHEN INSTALLING EQUIPMENT. IF A CONFLICT EXISTS BETWEEN THESE DRAWINGS AND THE EQUIPMENT MANUFACTURER'S INSTRUCTIONS THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND AWAIT CLARIFICATION IN WRITING.
- 25. ALL SPLICES SHALL BE MADE IN APPROPRIATE JUNCTION BOXES. SPLICES IN CONDUCTOR SIZE AWG #10 OR SMALLER MAY BE MADE USING SPRING-LOCK CONNECTORS (WIRE-NUTS). SPLICES IN CONDUCTORS LARGER THAN AWG #10 SHALL BE MADE USING COMPRESSION TYPE CONNECTORS OR INSULATED TERMINAL BLOCKS SUCH AS THOSE MANUFACTURED BY POLARIS.
- 26. CONTRACTOR SHALL SUBMIT MANUFACTURER'S DATA SHEETS FOR MATERIALS AND EQUIPMENT TO THE ENGINEER FOR REVIEW AND APPROVAL.
- 27. PRODUCTS USED ON THIS PROJECT SHALL BE MANUFACTURED BY COMPANIES REGULARLY ENGAGED IN THE PRODUCTION OF SIMILAR PRODUCTS WITH A MINIMUM HISTORY OF THREE YEARS SUCCESSFUL PRODUCTION.
- 28. CONTRACTOR SHALL FURNISH THE OWNER A COMPLETE BOUND SET OF EQUIPMENT CATALOG SHEETS, MANUFACTURER'S SPECIFICATIONS AND SERVICE, AND OPERATING INSTRUCTIONS ON EQUIPMENT FURNISHED UNDER THIS DIVISION UPON COMPLETION OF WORK UNDER THIS DIVISION.
- 29. CONTRACTOR SHALL PROVIDE ONE SET OF 'AS-BUILT' DRAWINGS TO THE OWNER UPON COMPLETION OF CONSTRUCTION. THE AS-BUILT DRAWINGS SHALL BE CLEAN, LEGIBLE, NEAT, COMPILED IN AN ORDERLY MANNER, AND CONTAIN ALL WORK PERFORMED BY THE CONTRACTOR THAT DEVIATES FROM THE ORIGINAL CONTRACT DOCUMENTS.
- 30. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE EXACT EXTENT OF WORK TO BE PERFORMED PRIOR TO SUBMITTING BID.
- 31. BOXES SHALL BE PVC AND SHALL BE SIZED TO ACCOMMODATE WIRING, THE EQUIPMENT, OR APPARATUS TO BE INSTALLED AS REQUIRED BY NATIONAL ELECTRIC CODE.
- 32. WHERE MATERIAL IS CALLED OUT IN THE LEGEND BY MANUFACTURER, TYPE, OR CATALOG NUMBER, SUCH DESIGNATIONS ARE TO ESTABLISH STANDARDS OF DESIRED QUALITY. ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT AND
- 33. CONTRACTOR SHALL COORDINATE THE SERVICE INSTALLATION AND METERING ARRANGEMENT WITH THE LOCAL UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE METERING AND ANY ASSOCIATED FEES IMPOSED BY THE UTILITY.
- 34. THE GROUNDING ELECTRODE SYSTEM SHALL INCLUDE THE GROUND RODS AT A MINIMUM. THE GROUND RODS SHALL CONSIST OF 3/4" BY 10' COPPER CLAD STEEL GROUND RODS DRIVEN A MINIMUM OF 8' APART AND SHALL BE CONNECTED WITH A #6 AWG BARE COPPER CONDUCTOR. THE GROUND RODS SHALL BE LOCATED AS CLOSE TO PANEL AS PRACTICAL. THE TOP OF THE GROUND RODS SHALL BE LOCATED 18" BELOW FINISHED GRADE. REFER TO THE NATIONAL ELECTRIC CODE FOR ADDITIONAL REQUIREMENTS.
- 35. CONTRACTOR SHALL INCLUDE TIME AND EQUIPMENT COSTS AS REQUIRED TO ALLOW FOR ADJUSTMENT AND AIMING OF EACH INDIVIDUAL FIXTURE AFTER INITIAL INSTALLATION AND POWER HAS BEEN TURNED. CONTRACTOR SHALL INCLUDE ALL COSTS ASSOCIATED WITH HAVING THE MANUFACTURE ONSITE TO ENSURE PROPER ADJUSTMENT AND AIMING OF FIXTURES TO ACHIEVE PROPER LIGHT LEVELS ALONG THE TRACK.
- 36. NO EQUIPMENT SHALL BE OPERATED ON THE TRACK SURFACE AND THE TRACK SHALL NOT BE DISTURBED IN ANY WAY.
- 37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED DURING THE COURSE OF THE INSTALLATION OF THE ELECTRICAL WORK. THIS INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION LINES, DRAINAGE SYSTEMS, SOD, AND ANY UNDER-GROUND UTILITIES THAT MAY BECOME DAMAGED.
- 38. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A UTILITY LOCATING SERVICE COMPANY COME TO THE SITE AND MARK ALL UNDERGROUND UTILITY LINES PRIOR TO BEGINNING ANY PORTION OF THE ELECTRICAL SCOPE OF WORK. CONDUIT MUST BE ROUTED TO MISS EXISTING UNDERGROUND UTILITIES, IRRIGATION, DRAINAGE, ETC. HAND EXCAVATE IF NECESSARY.
- 39. CONSTRUCTION AND ALL TRENCH ROUTES SHALL BE COORDINATED WITH THE ALLENDALE COUNTY SCHOOL DISTRICT REPRESENTATIVE PRIOR TO STARTING EXCAVATION.
- 40. ALL CONDUCTORS SHALL BE ROUTED AT A MINIMUM OF 36" BELOW FINISHED GRADE IN SCHEDULE 40 PVC CONDUIT.
- 41. GROUP CONDUITS IN COMMON TRENCHES WHEREVER POSSIBLE.
- 42. ALL CONDUCTORS SHALL BE CONTINUOUS LENGTH FROM CONTACTOR TO LIGHT POLE UNLESS DESIGNATED JUNCTION BOXES ARE SHOWN. SPLICES MAY BE MADE IN THESE BOXES AS REQUIRED.
- 43. CONTRACTOR SHALL REVIEW THE CIVIL ENGINEERING TRACK CONSTRUCTION DOCUMENTS PREPARED BY CHA CONSULTING INC. AND TITLED "ALLENDALE FAIRFAX HIGH SCHOOL TRACK & FIELD FACILITY" AND DATED 09/25/2017. THESE DRAWINGS SHOW THE TRACK DRAINAGE, STORM SEWER AND IRRIGATION SYSTEMS AS WELL AS OTHER EXISTING UTILITIES THAT ARE TO BE AVOIDED DURING EXCAVATION. DRAWINGS CAN BE OBTAINED FROM THE SCHOOL DISTRICT'S REPRESENTATIVE.

PIXTURE SCH	KEDULE/		
TAG MANUFACTURER CATALOG NO.	VOLTS/	BALLAST	LAMPS COMMENTS
A EPHESUS BY EATON EPH-S8-VH-2N-BLK	480	/ / / /	640W LED MOUNT AT 50FT AFG; 90,000 LMNS LUMASPORT 8 W TYPE 2 5600K 80CRI MARROW DISTRIBUTION
BY EATON EPH-S8-VH-3N-BLK	480	ELECTRÓNIC	640W LED MOUNT AT 50FT AFG: 80,800 LMNS LUMASPORT 8 W/ TYPE 3 5600K 80CRI NARROW DISTRIBUTION
C EPHESUS EPH-S8-VH-4N-BLK	480	ELECTRONIC	640W LED MOUNT AT 50FT AFG; 90,000 LMNS LUMASPORT 8 W/ TYPE 4 5600K 800RI NARROW DISTRIBUTION
D EPHESUS BY EATON EPH-S8-VH-5N-BLK	480		640W LED MOUNT AT 50FT AFG; 90,000 LMNS LUMASPORT 8 W TYPE 5 5600K 80CR NARROW DISTRIBUTION
FIXTURE NOTES.			

SPECIFIED FIXITURE IS A NEW EATON PRODUCT TO BE RELEASED MAY OF 2020.

ALTERNATE/FIXTUBES/ARE ACCEPTABLE/WITH PRIOR APPROVAL! PRIOR APPBOVALS/MUST MYCLUDE A/ PHOTØMETRIC BÓINT BY POINT ANALYSIS OF/THE TRACK INDICATING/A 20 FOOT-CANDLE/AVERAGE/AT/3FT/ABOVE THE TRACK/WITH A MAX/MINY. BATIO OF 3:1 OR BETTER.

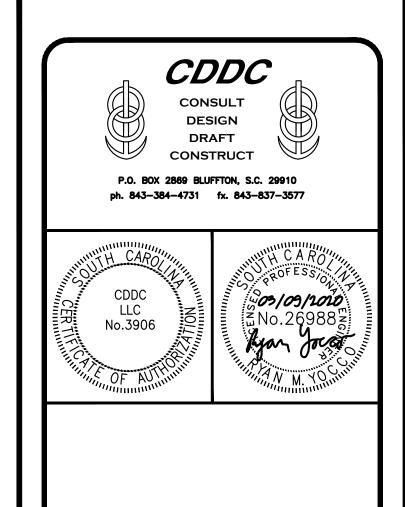
/	LIGHT POLE SCHEDULE
/	TAG MANUFACTURER CATALOG NO. COMMENTS
/	P1 CMT MC50-N-TC-BK/MOPXA-61-BK 50' DIRECT BURIAL PIBERGLASS POLE W (3) KIGHTS
/	P2 CMT ML50-N-TC-BK/MOPXA-(2)61-BK 50' DIRECT BURIAL FIBERGLASS POLE W/ (5) LIGHTS
/	P3 CM7 ML50-N-1C-BK/MOPXA-81-BK 50° DIRECT BURIAL FIBERGLASS P6 CM7 (4) LIGHTS

	<u>ELECTRICAL LEGEND</u>
	SURFACE MOUNTED PANELBOARD
	ELECTRIC METER
}	CIRCUITING, DEVICE OR EQUIPMENT
	TRACK LIGHTING POLE ASSEMBLY.
	PVC PULL BOX WITH GASKETED COVER LOCATED AT POLE BASE WHERE SHOWN. SIZE AS REQUIRED FOR CONDUITS ENTERING BOX. MOUNT TO 4X4 PRESSURE TREATED POST W/ BOTTOM OF BOX 6" ABOVE FINISHED GRADE. SEE MOUNTING DETAIL.
S _T	ROTARY DIAL TIMER SWITCH — 6 HOUR SETTING WITH HOLD. INTERMATIC MODEL #FD6HH OR EQUAL. PROVIDE WEATHERPROOF IN-USE COVER & PVC BACK TO LOCATE SWITCH IN.
1	

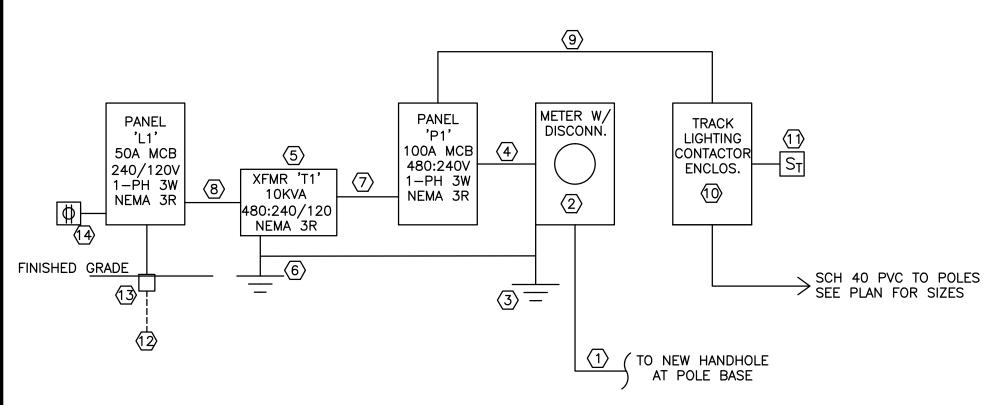
Poles 1- 4 have been installed and are operational. Contract for Completion of Track Lighting is for the wiring and installation of Poles 5 and 6. Poles and lights are to be MUSCO to match existing poles and fixtures per the submittal at the end of this document

100*	AMP	MCB	240	48	30	VOLT	1	PHA	SE	3	3 V	VIRE	S	SURFAC	E	NEMA	3R	18,000		AIC
			VA/P	HASE	GND	WIRE	TRIP		СКТ		CKT	•	TRIP	WIRE	GND	VA/PHASE				
TYPE	#	VA	Α	В		AWG#	AMPS	POLE	NO	АВ	NO	POLE	AMPS	AWG#		Α	В	TYPE	#	VA
POLE P1, CONTACTOR #1 C1-1,2	1 @	1407	1407		12	12	20	2	1	X	2	2	20	10	10	1407		POLE P4, CONTACTOR #2 C2-1,2	1 @	1407
	1 @	1407		1407		12			3	X	4			10			1407		1 @	
POLE P2, CONTACTOR #1 C1-3,4	1 @	2344	2344		12	12	20	2	5	Х	6	2	20	8	8	1875		POLE P5, CONTACTOR #2 C2-3,4	1 @	1875
	1 @	2344		2344		12			7	X	8			8			1875		1 @	1875
POLE P3, CONTACTOR #1 C1-5,6	1 @	1875	1875		10	10	20	2	9	X	10	2	20	10	10	1875		POLE P6, CONTACTOR #2 C2-5,6	1 @	1875
	1 @	1875		1875		10	1		11	X	12	222		10			1875		1 @	1875
XFMR 'T1' (PANEL 'L1')	1 @	1380	1380		SEER	RISER	30	2	13	X	14					0				
	1 @	180		180					15		16						0			
			0						17	X	18					0				
				0					19	X	20						0			
			0						21	X	22					0				
				0					23	X	24						0			
TOTAL A			7006					TOTAL	_ A	12	2163					5157				
TOTAL B				5806				TOTAL	В	10	0963						5157			
								TOTAL	VA	23	3126									
OTAL PANEL				48		AMPS -	Conne	cted												

50	AMP	MCB	120	24	40	VOLT	1	PHA	SE	3	V	/IRE	S	URFAC	E	NEMA	3R	10000		AIC
		VA/PHASE GN		GND	WIRE	TRIP		СКТ		CKT		TRIP	WIRE	GND	VA/P	HASE				
TYPE	#	VA	Α	В		AWG#	AMPS	POLE	NO	A E	NO	POLE	AMPS	AWG#		Α	В	TYPE	#	VA
										Щ										
EXISTING CKT #1	1 @	1200	1200		12	12	20	1	1	X	2	1	20			0		SPARE		
RECEPT ON BACKBD	1 @	180		180	12	12	20	1	3	X	4	1	20				0	SPARE		
CNTRL PWR TIMER SWITCH	1 @	180	180		12	12	20	1	5	X	6	1	20			0		SPARE		
SPARE				0			20	1	7	X	8	1	20				0	SPARE		
SPARE			0				20	1	9	Х	10	1	20			0		SPARE		
SPARE				0			20	1	11	Х	12	1	20				0	SPARE		
TOTAL A			1380			1		TOTAL	Α	1	380	•	1			0				4 1 E
TOTAL B				180				TOTAL	. В		180						0			
								TOTAL	VA	1	560									
TAL PANEL				7		AMPS -	Conne	cte d												



Revisions	
XXX	
Submittal	PERMIT SET
Drawn By RMY	Checked By RMY
Oate .	03/09/2020
Scale	AS SHOWN
Project Number	2005-MS-E1
Sheet [E001



ELECTRICAL INSTALLATION RISER DIAGRAM GENERAL NOTES:

1. PROVIDE HOT DIP GALVANIZED STEEL FASTENERS AND HARDWARE AS REQUIRED FOR MOUNTING EQUIPMENT TO BACKBOARD. SEE BACKBOARD DETAIL.

ELECTRICAL INSTALLATION RISER DIAGRAM KEYED NOTES:

ALL KEYED NOTES ARE REPRESENTED BY A 'T' SYMBOL.

- 1. PROVIDE 1.5" CONDUIT WITH (3) #1/0 AWG AL'S TO DOMINION ENERGY PROVIDED HAND-HOLE AT POLE BASE. SEE SITE PLAN FOR LOCATION.
- 2. 480-VOLT 100A 1-PHASE METER BASE WITH INTEGRAL DISCONNECT PROVIDED BY DOMINION ENERGY.
- 3. SEE 'SERVICE GROUNDING AND BONDING DETAIL'.
- 4. PROVIDE 1.5" CONDUIT WITH (3) #1/0 AWG AL'S.
- 5. PROVIDE 10KVA, 480V:240/120V, 1ø, 3W DRY-TYPE, 150° ALUMINUM WINDING, WALL-MOUNTED TRANSFORMER IN NEMA 3R ENCLOSURE. WALL MOUNT TRANSFORMER TO EQUIPMENT BACKBOARD; SEE BACKBOARD DETAIL.
- 6. PROVIDE #8 AWG CU AND BOND TO DRIVEN RODS.
- 7. PROVIDE 3/4" CONDUIT WITH (2) #10 AWG CU'S & (1) #10 AWG CU GROUND.
- 8. PROVIDE 3/4" CONDUIT WITH (3) #8 AWG CU'S & (1) #8 AWG CU GROUND.
- 9. PROVIDE (2) 1" CONDUITS TO CONTACTOR ENCLOSURE FOR BRANCH CIRCUITS. KEEP CONDUITS LESS THAN 24" TOTAL LENGTH TO AVOID DE-RATING OF CONDUCTORS. SEE PANEL SCHEDULE FOR WIRE SIZES.
- 10. PROVIDE LIGHTING CONTACTORS WITH ENCLOSURE FOR CONTROL OF TRACK LIGHTS AND LOCATE ON BACKBOARD ADJACENT TO PANEL. SEE CONTACTOR DETAIL.
- 11. PROVIDE TIME SWITCH FOR ON/OFF CONTROL OF LIGHTS.
- 12. RE-CONNECT EXISTING 2" SCH 40 PVC CONDUIT WITH 12/2 'UF' CABLE TO NEW PANEL. RE-CONNECT EXISTING CIRCUIT TO NEW 20A 1-POLE BREAKER IN PANEL.
- 13. PROVIDE A 12"X12"X6" PVC JUNCTION BOX, WITH TOP OF BOX INSTALLED FLUSH WITH FINISHED GRADE, AND EXTEND A NEW 2" SCH 40 PVC CONDUIT FROM BOX TO NEW PANEL LOCATION ON BACKBOARD. PROVIDE (3) #12 AWG CU'S THHN IN CONDUIT FOR EXTENSION OF EXISTING 12/2 'UF' CABLE TO NEW PANEL FOR RECONNECTION. IF CONDUIT HAS ADEQUATE LENGTH TO REACH NEW PANEL JUNCTION BOX SHALL BE OMITTED.
- 14. PROVIDE 20A 120-VOLT WEATHER RESISTANT GROUND FAULT CIRCUIT INTERRUPT DEVICE WITH WEATHERPROOF IN-USE COVER AND LOCATE IN PVC BACKBOX ON BACKBOARD ADJACENT TO PANEL 'L1'. CONNECT TO PANEL 'L1' WITH (3) #12 AWG CU'S IN 1/2" LIQUID-TIGHT.

SERVICE GROUNDING AND BONDING DETAIL

EXISTING SCE&G
TRANSFORMER
TO BE CHANGED
OUT

EXISTING METER & BASE
200A, 240V, 1ø
PANEL

EXISTING SCE&G
TRANSFORMER
TO BE CHANGED
OUT

EXISTING METER & BASE
200A, 240V, 1ø

ELECTRICAL DEMOLITION RISER DIAGRAM GENERAL NOTES:

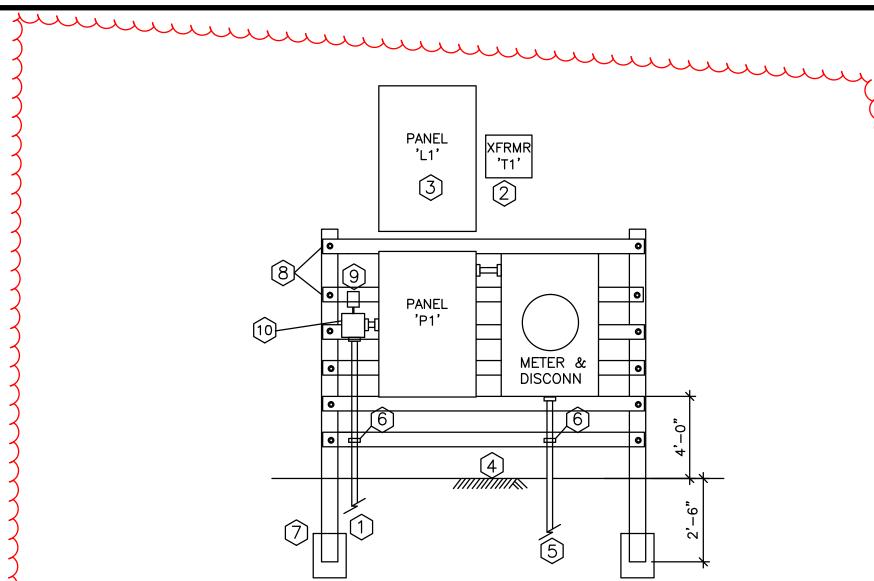
1. THE EXISTING 200A 240/120-VOLT SERIVCE SHALL BE DEMOLISHED AND REMOVED COMPLETE. THE (2) 20A 1-POLE BRANCH CIRCUITS SHALL REMAIN AND BE RE-CONNECTED TO THE NEW SERVICE.

ELECTRICAL DEMOLITION RISER DIAGRAM KEYED NOTES:

ALL KEYED NOTES ARE REPRESENTED BY A 'C SYMBOL.

- 1. DEMOLISH AND REMOVE EXISTING 200A 240/120V, 10, 3W METER. COORDINATE DEMOLITION WITH DOMINION ENERGY.
- 2. DEMOLISH AND REMOVE EXISTING 200A MCB, 240/120V, 1ø, 3W SQUARE D LOAD CENTER.
- 3. DEMOLISH AND REMOVE EXISTING WEATHERHEAD, 2 1/2" PVC CONDUIT FROM WEATHERHEAD TO METER BASE, ASSOCIATED WIRING AND SERVICE POLE.
- 4. EXISTING 2" SCH 40 PVC CONDUIT WITH 12/2 'UF' CABLE TO REMAIN 'AS IS' AND BE RECONNECTED TO NEW PANEL. CONDUIT IS ROUTED TO HANDHOLE INSIDE OF TRACK ACROSS FROM PANEL AND SERVES A RECEPTACLE.





GENERAL NOTES:

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING MATERIAL AND BUILDING NEW BACKBOARD. BACKBOARD SHALL BE KEPT AS SMALL AS POSSIBLE.
- 2. ENSURE METER BASE IS MOUNTED AT AN ELEVATION TO MEET DOMINION ENERGY'S REQUIREMENTS ABOVE FINISHED GRADE.

KEYED NOTES:

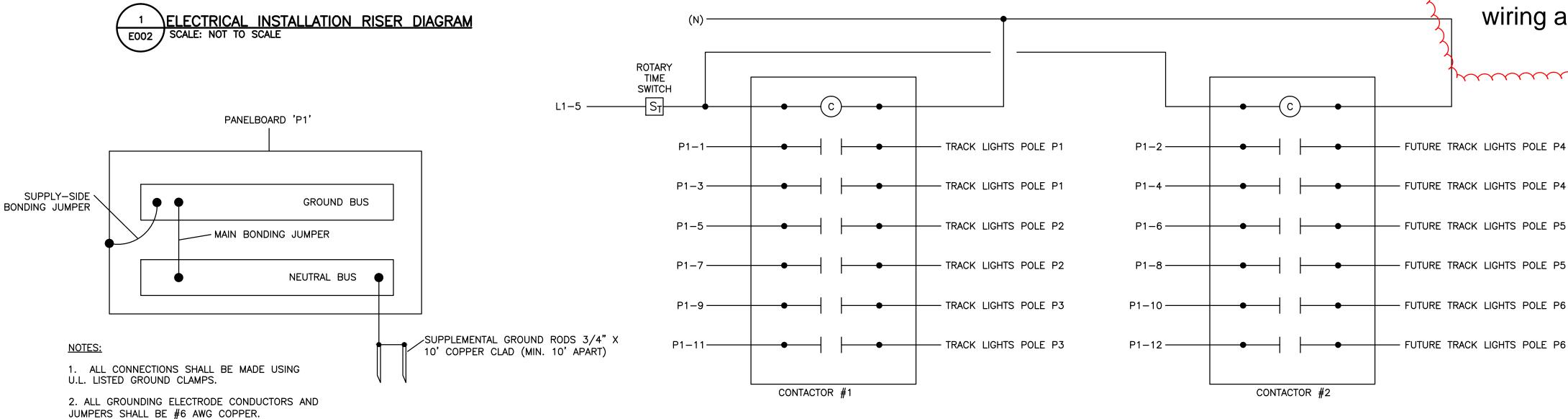
- 1 BRANCH CIRCUIT CONDUITS TO LIGHT POLES
- MOUNT 10 KVA TRANSFORMER ON BACK OF BACKBOARD ADJACENT TO PANEL 'L1'
- PANEL MOUNTED ON BACK OF BACKBOARD AND SHOWN ABOVE FOR CLARITY
- 4 FINISHED GRADE
- 5 SERVICE LATERAL TO HANDHOLE
- 6 TWO-HOLE CONDUIT STRAP AS REQURIED
- 7 6X6 PRESSURE TREATED POST W/ 80# OF SAC-CRETE; TYP. OF 2
- 8 2X6 PRESSURE TREATED BOARD; TYP. ALL CROSS MEMBERS LEAVE APPROXIMATELY A 1/2" GAP BETWEEN BOARDS PROVIDE QUANTITY AS REQUIRED BASED ON EQUIPMENT HEIGHT
- 9 TIMER SWITCH FOR CONTROL OF CONTACTORS
- PROVIDE 30A, 240V CONTACTOR WITH 120V COIL WITH ENOUGH CONTACTS FOR CONTROL OF CIRCUITS AS SHOWN ON 'LIGHTING CONTACTOR DETAIL.

3 EQUIPMENT BACKBOARD MOUNTING DETAIL — PANELBOARD 'L1/L2'

E002 SCALE: NOT TO SCALE

Panels have been installed and are operational.

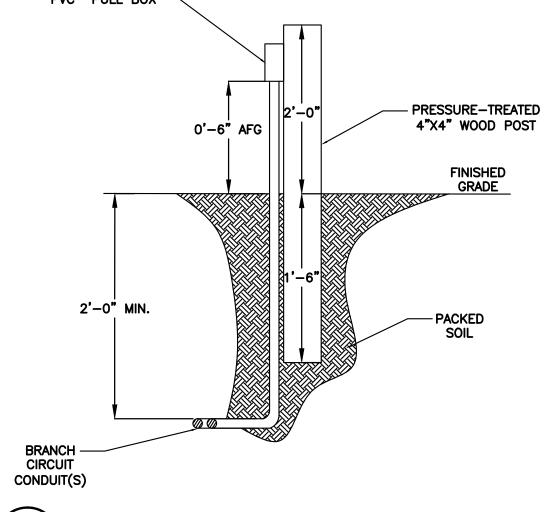
Contract for Completion of Track Lighting is for the wiring and installation of Poles 5 and 6



LIGHTING CONTACTOR NOTES;

- 1. PROVIDE QUANTITY OF 600V/30A RATED CONTACTS AS SHOWN AND 120V COIL.
- 2. PROVIDE NEMA 3R ENCLOSURE W/ COVER TO LOCATE CONTACTORS WITHIN.
- 3. PROVIDE ROTARY TIME SWITCH AS NOTED ON LEGEND IN NEMA 3R ENCLOSURE. TIME SWITCH SHALL CONTROL BOTH CONTACTORS
- 4. SEE PANEL SCHEDULE FOR WIRE SIZES.
- 5. CONTRACTOR SHALL WIRE LINE SIDE OF CONTACTOR #2 IN PREPARATION FOR FUTURE POLES.





6 PULL BOX MOUNTING DETAIL & POLE BASE E002 SCALE: NOT TO SCALE



CONSULT

DESIGN

DRAFT

CONSTRUCT

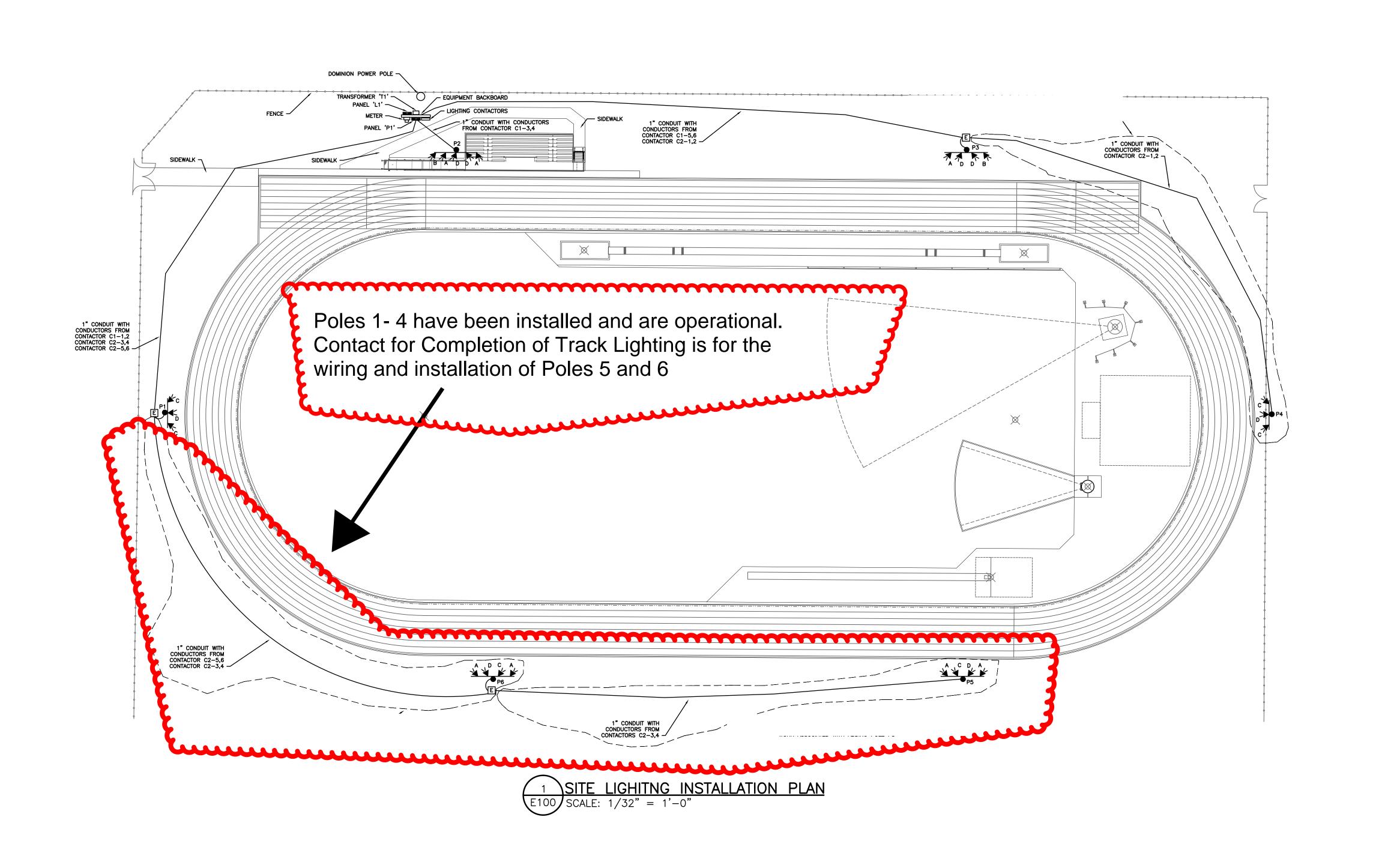
P.O. BOX 2869 BLUFFTON, S.C. 29910

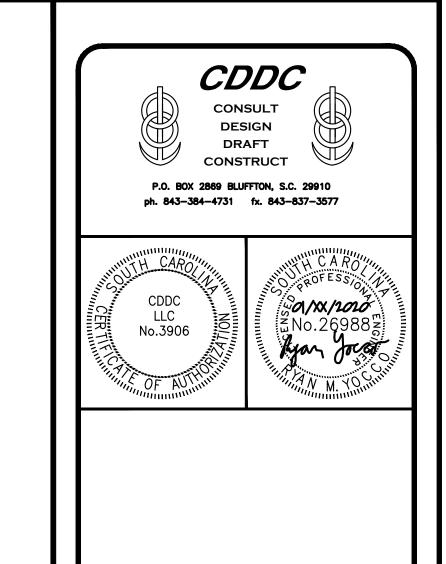
ph. 843-384-4731 fx. 843-837-3577

No.3906

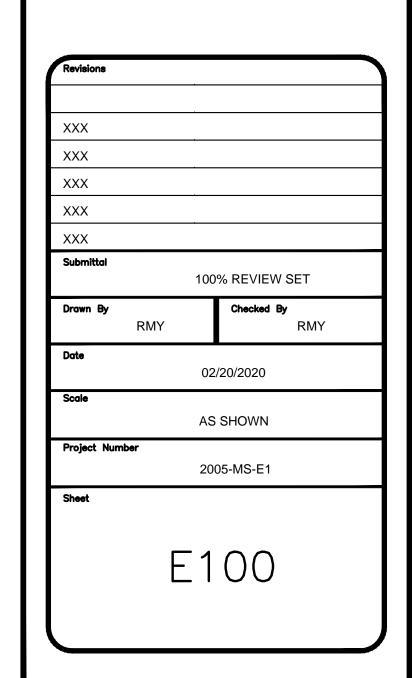
203/09/2020

Revisions		
XXX		
Submittal	PERMIT SET	
Drawn By	RMY Checked By	
Date	03/09/2020	
Scale	AS SHOWN	
Project Num	2005-MS-E1	
Sheet	E002	





NEW TRACK FACILITY FOR ALLENDALE COUNTY SCHOOL DISTRICT



Allendale Fairfax HS Track

Fairfax, SC

Lighting System

Pole / Fixture	Summary					
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
P1, P4	50'	50'	1	TLC-LED-600	0.58 kW	Α
		50'	2	TLC-LED-900	1.78 kW	Α
P2-P3	50'	50'	1	TLC-LED-600	0.58 kW	Α
		50'	3	TLC-LED-900	2.67 kW	Α
P5-P6	50'	50'	2	TLC-LED-600	1.16 kW	Α
		50'	2	TLC-LED-900	1.78 kW	Α
6			22		17.10 kW	

Circuit Summ	ary		
Circuit	Description	Load	Fixture Qty
Α	Track	17.1 kW	22

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>120,000	>120,000	>120,000	8
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	14

Light Level Summary

ı	Calculation Grid Summary												
ı	Grid Name	Calculation Metric			Circuits	Fixture Qty							
ш	Cria Hamo	Culculation Metric	Ave	Min	Max	Max/Min	Ave/Min	Onounto	i ixture Qty				
ı	Track	Horizontal Illuminance	20.7	12.7	34.8	2.74	1.63	Α	22				

From Hometown to Professional





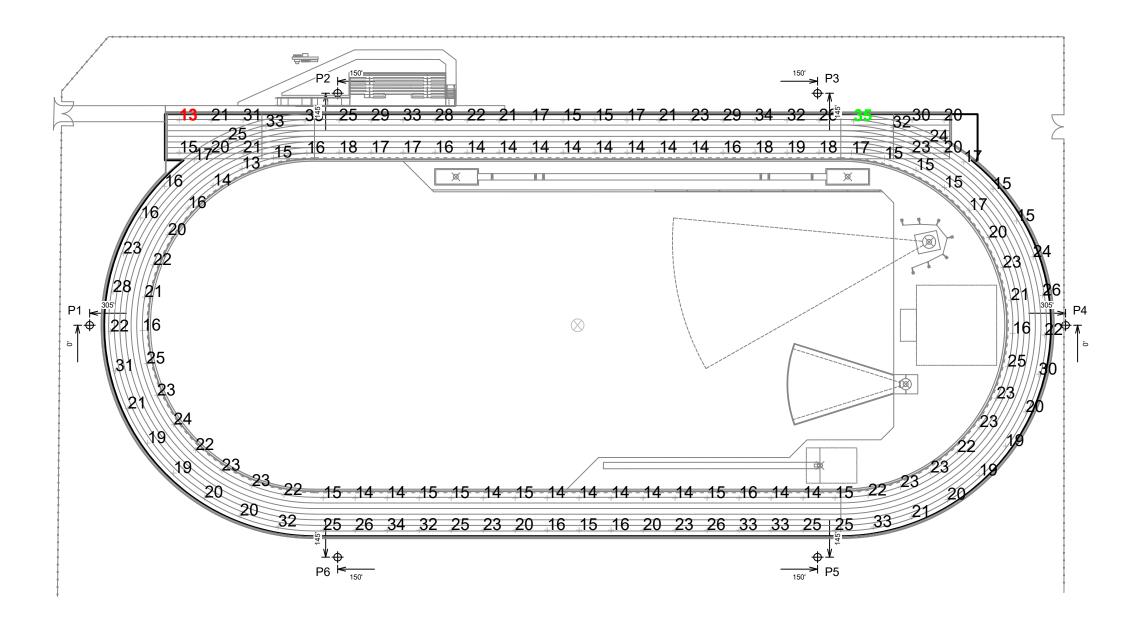






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EQI	UIPMENT LI	ST FOR	R AREAS SH	IOWN								
	P	ole		Luminaires								
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE Type	QTY / POLE	THIS GRID	OTHER GRIDS				
2	P1, P4	50'	-	50'	TLC-LED-900	2	2	0				
				50'	TLC-LED-600	1	1	0				
2	P2-P3	50'	-	50'	TLC-LED-600	1	1	0				
				50'	TLC-LED-900	3	3	0				
2	P5-P6	50'	-	50'	TLC-LED-900	2	2	0				
				50'	TLC-LED-600	2	2	0				
6			TOTALS			22	22	0				



Allendale Fairfax HS Track

Fairfax, SC



ILLUMINATION SUMMARY							
MAINTAINED HORIZONTAL FOOTCANDLES							
Entire Grid							
Guaranteed Average:	20						
Scan Average:	20.71						
Maximum:	34.8						
Minimum:	12.7						
Avg / Min:	1.63						
Guaranteed Max / Min:	3						
Max / Min:	2.74						
UG (adjacent pts):	0.00						
CU:	0.63						
No. of Points:	140						
LUMINAIRE INFORMATION							
Color / CRI: 5700K - 75 CRI							
Luminaire Output:	65,600 / 89,600 lumens						
No. of Luminaires:	22						
Total Load:	17.1 kW						
Lumen Maintenance							
Luminaire Type	L90 hrs	L80 hrs	L70 hrs				
TLC-LED-600	>120,000	>120,000	>120,000				
TLC-LED-900	>120,000	>120,000	>120,000				
Reported per TM-21-11. See luminaire datasheet for details.							

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

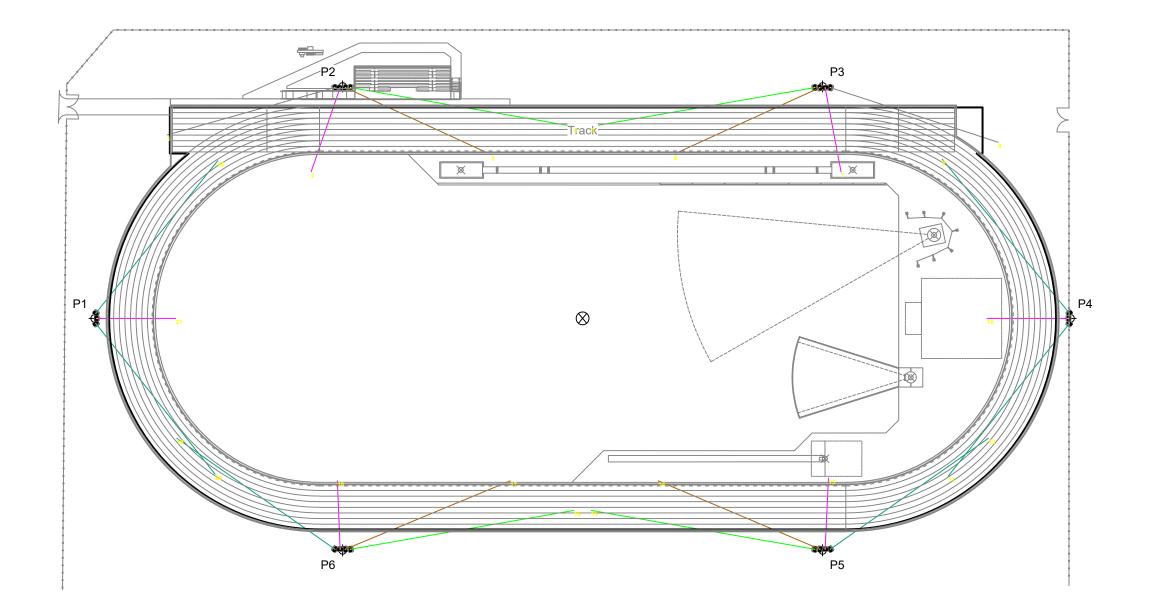
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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Pole location(s) \bigoplus dimensions are relative to 0,0 reference point(s) \bigotimes



Allendale Fairfax HS Track

Fairfax, SC

EQUIPMENT LAYOUT

INCLUDES: · Track

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN								
Pole			Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE Type	QTY / POLE		
2	P1, P4	50'	-	50'	TLC-LED-900	2		
				50'	TLC-LED-600	1		
2	P2-P3	50'	-	50'	TLC-LED-600	1		
				50'	TLC-LED-900	3		
2	P5-P6	50'	-	50'	TLC-LED-900	2		
				50'	TLC-LED-600	2		
6 TOTALS					22			

SINGLE LUMINAIRE AMPERAGE DRAW CHART									
Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)								
Single Phase Voltage	208	220 (60)	240 (60)	277 (60)	347 (60)	380	480 (60)		
TLC-LED-600	3.4	3.2	3.0	2.6	2.0	1.9	1.5		
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9	2.3		



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