

SPECIAL CALLED MEETING KINGSTON CITY COUNCIL
TUESDAY, NOVEMBER 12, 2021 – 2:00 P.M.
KINGSTON CITY HALL

The Kingston City Council met in a special called session on Friday, November 12, 2021 at 2:00 p.m. Mayor Tim Neal called the meeting to order. Council Member Tony Brown gave the Invocation and Vice Mayor Becky Humphreys led the pledge. Upon roll call the following members were present: Council Member Tony Brown, Council Member Randy Childs, Council Member Jeff Griffis, Vice- Mayor Becky Humphreys and Council Member Stephanie Wright. Staff present: City Manager David Bolling and City Clerk Kelly Jackson. Council Member Tara Stockton and City Attorney Jack McPherson were absent.

CITIZEN COMMENTS: None

PROCLAMATIONS/RESOLUTIONS-NONE

UNFINISHED BUSINESS-NONE

NEW BUSINESS

- A. **Consideration to rescind the motion authorizing the Mayor to enter in to an agreement with TRANE for lighting improvements at the Southwest Point Ballfields.**

A motion was made by Member Griffis, second by Vice Mayor Humphreys to rescind the motion authorizing the Mayor to enter in to an agreement with TRANE for lighting improvements at the Southwest Point Ballfields.


The motion passed with a unanimous roll call vote. 6 Ayes

- B. **Consideration of the proposals submitted by Rockwood Electric Utility to contract with Musco and Progression Electric for the lighting improvements at the Southwest Point Ballfields.**

A motion was made by Member Wright, second by Member Childs to authorize the City Manager to begin discussions with Rockwood Electric Utility on the proposals submitted by Rockwood Electric Utility to contract with Musco and Progression Electric for the lighting improvements at the Southwest Point Ballfields


Mayor Neal adjourned the meeting at 2:21 p.m.

APPROVED 12-14-2021



Tim Neal, Mayor

ATTEST:



City Clerk

PROGRESSION ELECTRIC COMPANY, LLC
P.O. BOX 9606
KNOXVILLE, TENNESSEE 37940
865-971-5432 Fax 865-971-5429
LIC# 42766, CLASS – CE, Exp. 09/30/22, UNLIMITED

Project: South West Point Soccer/ Baseball/ Softball MUSCO
Attn: Kendall Bear
Date: November 9, 2021

Kendall,

We propose to provide all labor and materials to install the sports field lighting at the referenced project per MUSCO drawings dated 05/26/21, specifications and the following:

- A total of fourteen sport light structures will be assembled and installed per MUSCO lighting drawings dated 05/26/21.
- All MUSCO equipment is to be furnished by others.
- Offloading poles and equipment will be by Progression. Staging area to be adjacent to fields.
- Excavation of drilled piers is included. Spoils to be disposed of on site.
- Power for light structures to be from new 480V service located adjacent to pole A1.
- MUSCO control panel will be installed on a rack provided by Progression located adjacent to pole A1.
- All new conduit and conductors for the lighting controls allowing for a complete functional system.
- Boring under existing sidewalks is included.
- Conduits and conductors to MUSCO pole base is included.
- Demo of existing sport light structures and removing from the site.
- We will have to have cranes and equipment around the field and on the track. We will do as little damage as possible but some damage and rutting is inevitable. We will remediate the earth areas to your satisfaction prior to leaving the site, but minor trench settling will be the owners to address later.
- Warranty will be provided by MUSCO.
- P&P bonds are not included. If required we bond with Travelers at a rate of 2%.
- Utility charges are not included.

Installation Price (Complete): \$161,975

Should you have any questions or require any additional information, please don't hesitate to call. Thank you.

Jay Wise
Office – 865-971-5432
Cell – 865-254-5103

Fort Southwest Point Park Ballfields
Kingston, TN
October 25, 2021

Sourcewell

Master Project: 199030, Contract Number: 071619-MSL, Expiration: 08/27/2023
Category: Sports lighting with related supplies and services

All purchase orders should note the following:
Sourcewell purchase – contract number: 071619-MSL

Quotation Price – Materials Only Delivered to Job Site

Softball (200' Radius)/Baseball (330'/335'/320') and Soccer (330' x 180) -\$ 385,000.00

*Sales tax, bonding, labor, and unloading of the equipment are not included.
Pricing furnished is effective for 30 days unless otherwise noted and is considered confidential.*

Light-Structure System™ with Total Light Control – TLC for LED™ technology

System Description

- 14 Pre-cast concrete bases with integrated lightning grounding
- 14 Galvanized steel poles
- Factory wired and tested remote electrical component enclosures
- Pole length, factory assembled wire harnesses
- 14 Factory wired poletop luminaire assemblies
- 78 Factory aimed and assembled luminaires, including BallTracker® luminaires
- UL Listed assemblies

Control Systems and Services

- Control-Link® control and monitoring system to provide remote on/off and dimming (high/medium/low) control and performance monitoring with 24/7 customer support

Operation and Warranty Services

- Product assurance and warranty program that covers materials and onsite labor, eliminating 100% of your maintenance costs for 25 years
- Support from Musco's Lighting Services Team – over 170 Team members dedicated to operating and maintaining your lighting system – plus a network of 1800+ contractors

Payment Terms

Musco's Credit Department will provide payment terms.

Email or fax a copy of the Purchase Order to Musco Sports Lighting, LLC:

Musco Sports Lighting, LLC
Attn: Amanda Hudnut
Fax: 800-374-6402
Email: musco.contracts@musco.com

All purchase orders should note the following:
Sourcewell purchase – contract number: 071619-MSL

Continued



Quote

Delivery Timing

8 - 12 weeks for delivery of materials to the job site from the time of order, submittal approval, and confirmation of order details including voltage, phase, and pole locations.

Due to the built-in custom light control per luminaire, pole locations need to be confirmed prior to production. Changes to pole locations after the product is sent to production could result in additional charges.

Notes

Quote is based on:

- Shipment of entire project together to one location.
- 208 Volt, 3 Phase electrical system requirement.
- Structural code and wind speed = 2012 IBC, 115 mph, Exposure C, Importance Factor 1.0.
- Owner is responsible for getting electrical power to the site, coordination with the utility, and any power company fees.
- Standard soil conditions – rock, bottomless, wet or unsuitable soil may require additional engineering, special installation methods and additional cost.
- Confirmation of pole locations prior to production.

Thank you for considering Musco for your lighting needs. Please contact me with any questions or if you need additional details.

Greg Gilley
Musco Sports Lighting, LLC
Phone: 641-660-2362
E-mail: greg.gilley@musco.com





Control System Summary

Project Specific Notes:

Project Information

Project #: 212636
Project Name: Fort Southwest Point Park Ballfields
Date: 10/12/21
Project Engineer: Connor Ramstead
Sales Representative: Greg Gilley
Control System Type: Control-Link™ Control and Monitoring System
Communication Type: PowerLine-ST
Scan: 212636A
Document ID: 212636P1V1-1012130737
Distribution Panel Location or ID: Fort Southwest Point Park Ballfields
Total # of Distribution Panel Locations for Project: 1
Design Voltage/Hertz/Phase: 208/60/3
Control Voltage: 120

Equipment Listing

DESCRIPTION	APPROXIMATE SIZE
1. Control and Monitoring Cabinet	24 X 72
2. Control and Monitoring Cabinet	24 X 48
	QTY: SIZE (AMPS)
Total Contactors	10 30 AMP
Total Contactors	4 60 AMP
Total Off/On/Auto Switches:	3

Materials Checklist

Contractor/Customer Supplied:

- ☐ A dedicated control circuit must be supplied per distribution panel location
 - If the control voltage is NOT available, a control transformer is required
- ☐ Electrical distribution panel to provide overcurrent protection for circuits
 - HID rated or D-curve circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- ☐ Wiring
 - See chart on page 2 for wiring requirements
 - Equipment grounding conductor and splices must be insulated (per circuit)
 - Lightning ground protection (per pole), if not Musco supplied
- ☐ Electrical conduit wireway system
 - Entrance hubs rated NEMA 4, must be die-cast zinc, PVC, or copper-free die-cast aluminum
- ☐ Mounting hardware for cabinets
- ☐ Breaker lock-on device to prevent unauthorized power interruption to control power and powerline connection (if present)
- ☐ Anti-corrosion compound to apply to ends of wire, if necessary

Call Control-Link Central™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation.

Note: Activation may take up to 1 1/2 hours.

IMPORTANT NOTES

- Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
- In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
- One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are 100% rated for the published continuous load. All contactors are 3 pole.
- If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
- A single control circuit must be supplied per control system.
- Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements.



Control System Summary

Fort Southwest Point Park Ballfields / 212636 - 212636A
Fort Southwest Point Park Ballfields - Page 3 of 4

SWITCHING SCHEDULE

Field/Zone Description	Zones
Baseball	1
Softball	2
Soccer	3

CONTROL POWER CONSUMPTION

120V Single Phase

VA loading of Musco Supplied Equipment	INRUSH: 4003.0
	SEALED: 439.8

CIRCUIT SUMMARY BY ZONE

POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
A1	Baseball	5	5	21.0	30	C1	1
A2	Baseball	5	5	21.0	30	C2	1
B1	Baseball	8	8	39.8	60	C3	1
B2	Baseball	8	8	39.8	60	C4	1
C1	Baseball	7	7	32.4	60	C5	1
C2	Baseball	7	7	32.4	60	C6	1
A3	Softball	4	4	13.5	30	C7	2
A4	Softball	4	4	15.0	30	C8	2
B3	Softball	5	5	25.0	30	C9	2
B4	Softball	5	5	25.0	30	C10	2
S1	Soccer	5	5	29.5	30	C11	3
S2	Soccer	5	5	29.5	30	C12	3
S3	Soccer	5	5	29.5	30	C13	3
S4	Soccer	5	5	29.5	30	C14	3

*Full Load Amps based on amps per driver.



Control System Summary

Fort Southwest Point Park Ballfields / 212636 - 212636A
Fort Southwest Point Park Ballfields - Page 4 of 4

PANEL SUMMARY						
CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)
1	1	C1	Pole A1	21.04		
1	1	C2	Pole A2	21.04		
1	1	C3	Pole B1	39.79		
1	1	C4	Pole B2	39.79		
1	1	C5	Pole C1	32.42		
1	1	C6	Pole C2	32.42		
1	1	C7	Pole A3	13.53		
1	1	C8	Pole A4	14.99		
1	1	C9	Pole B3	25.04		
1	1	C10	Pole B4	25.04		
1	1	C11	Pole S1	29.51		
1	1	C12	Pole S2	29.51		
2	1	C13	Pole S3	29.51		
2	1	C14	Pole S4	29.51		

ZONE SCHEDULE				
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	CIRCUIT DESCRIPTION	
			POLE ID	CONTACTOR ID
Zone 1	1	Baseball	A1	C1
			A2	C2
			B1	C3
			B2	C4
			C1	C5
			C2	C6
Zone 2	2	Softball	A3	C7
			A4	C8
			B3	C9
			B4	C10
Zone 3	3	Soccer	S1	C11
			S2	C12
			S3	C13
			S4	C14

Fort Southwest Point Park Ballfields

Kingston, TN

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1-A2	70'	70'	4	TLC-LED-1200	4.68 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
A3-A4	60'	60'	2	TLC-LED-1200	2.34 kW	B
		60'	1	TLC-LED-900	0.89 kW	B
		16'	1	TLC-BT-575	0.58 kW	B
B1	70'	70'	7	TLC-LED-1500	10.01 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
B2	80'	80'	7	TLC-LED-1500	10.01 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
B3-B4	70'	70'	4	TLC-LED-1500	5.72 kW	B
		16'	1	TLC-BT-575	0.58 kW	B
C1-C2	70'	70'	5	TLC-LED-1500	7.15 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
S1-S4	70'	70'	5	TLC-LED-1500	7.15 kW	C
14			78		97.08 kW	

Circuit Summary				
Circuit	Description	Load	Fixture Qty	
A	Baseball	48.28 kW	40	
B	Softball	20.2 kW	18	
C	Soccer	28.6 kW	20	

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>120,000	>120,000	>120,000	52
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	12
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	12
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	2

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Baseball (Infield)	Horizontal Illuminance	52.4	43	64	1.50	1.22	A	40
Baseball (Outfield)	Horizontal Illuminance	32.9	25	42	1.68	1.32	A	40
Soccer	Horizontal Illuminance	32.7	28	37	1.33	1.17	C	20
Softball (Infield)	Horizontal Illuminance	53.2	42	66	1.56	1.27	B	18
Softball (Outfield)	Horizontal Illuminance	31	20	42	2.10	1.55	B	18

From Hometown to Professional



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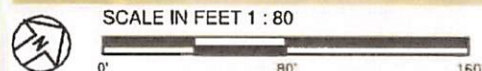
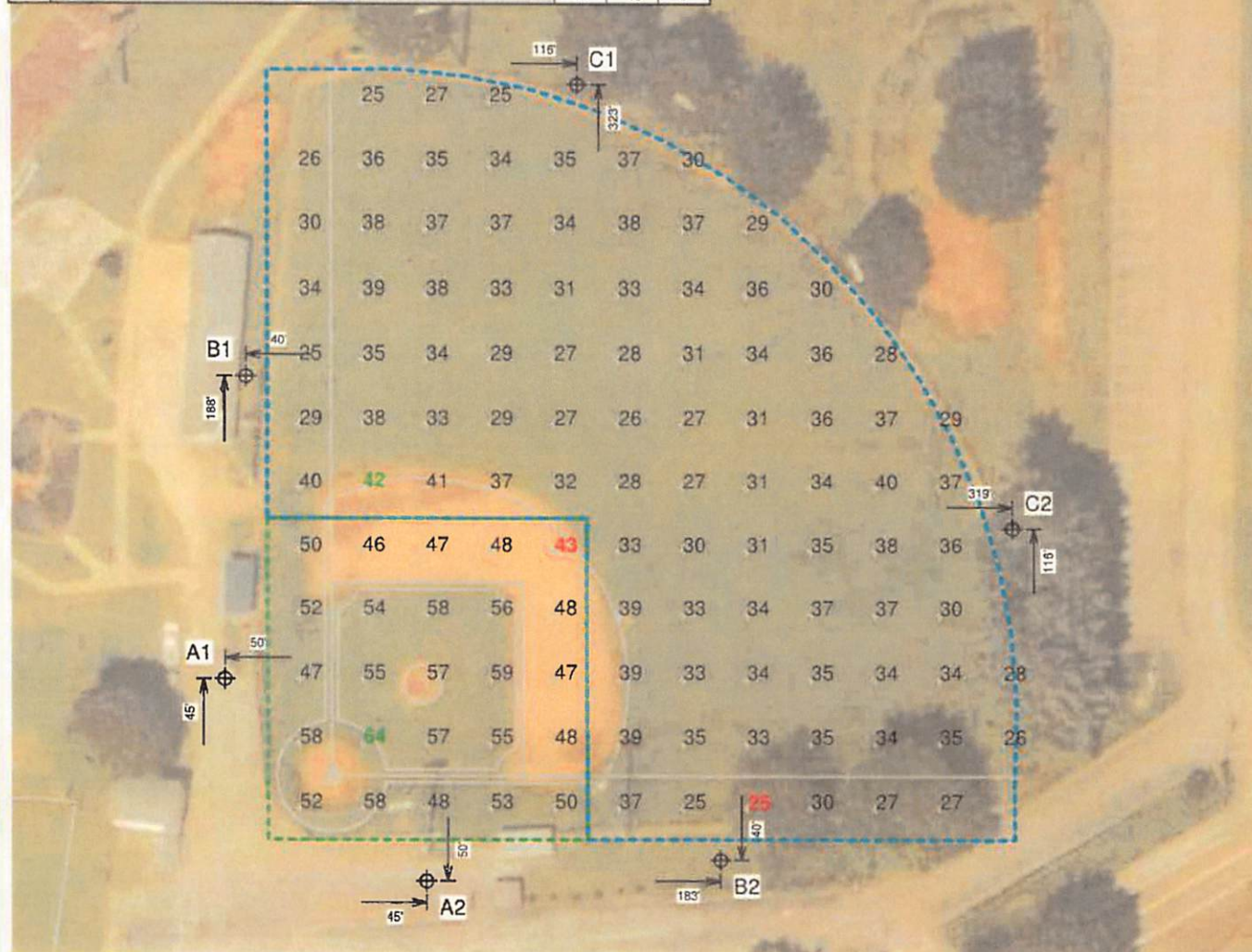
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PROJECT SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	70'	-	15.5'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	4	4	0
1	B1	70'	-	15.5'	TLC-BT-575	1	1	0
				70'	TLC-LED-1500	7	7	0
1	B2	80'	-	15.5'	TLC-BT-575	1	1	0
				80'	TLC-LED-1500	7	7	0
2	C1-C2	70'	-	15.5'	TLC-BT-575	2	2	0
				70'	TLC-LED-1500	5	5	0
6	TOTALS					40	40	0



Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \otimes

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Fort Southwest Point Park Ballfields Kingston, TN

GRID SUMMARY

Name: Baseball
Size: 330'/335'/320' - basepath 90'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Infield	Outfield
Guaranteed Average:	50	30
Scan Average:	52.36	32.88
Maximum:	64	42
Minimum:	43	25
Avg / Min:	1.22	1.33
Guaranteed Max / Min:	2	2.5
Max / Min:	1.50	1.68
UG (adjacent pts):	1.26	1.50
CU:	0.75	
No. of Points:	25	91

LUMINAIRE INFORMATION

Applied Circuits: A
No. of Luminaires: 40
Total Load: 48.28 kW

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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A3-A4	60'		60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1200	2	2	0
2	B3-B4	70'		15.5'	TLC-BT-575	1	1	0
				70'	TLC-LED-1500	4	4	0
4	TOTAL					18	18	0



Pole location(s) Ⓢ dimensions are relative to 0,0 reference point(s) ⊗

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Fort Southwest Point Park Ballfields Kingston,TN

GRID SUMMARY

Name: Softball
Size: 200'/200'/200' - basepath 60'
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Infield	Outfield
Guaranteed Average:	50	30
Scan Average:	53.23	30.98
Maximum:	66	42
Minimum:	42	20
Avg / Min:	1.26	1.55
Guaranteed Max / Min:	2	2.5
Max / Min:	1.56	2.10
UG (adjacent pts):	1.24	1.53
CU:	0.67	
No. of Points:	25	71

LUMINAIRE INFORMATION

Applied Circuits: B
No. of Luminaires: 18
Total Load: 20.2 kW

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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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires			
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID
4	S1-S4	70'	-	70'	TLC-LED-1500	5	5
4	TOTALS					20	20



Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: Connor Ramstead · File #212636A · 26-May-21

Fort Southwest Point Park Ballfields Kingston,TN

GRID SUMMARY

Name: Soccer
Size: 330' x 180'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	30
Scan Average:	32.67
Maximum:	37
Minimum:	28
Avg / Min:	1.16
Guaranteed Max / Min:	2.5
Max / Min:	1.33
UG (adjacent pts):	1.18
CU:	0.64
No. of Points:	66

LUMINAIRE INFORMATION

Applied Circuits: C
No. of Luminaires: 20
Total Load: 28.6 kW

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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

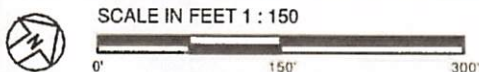


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ILLUMINATION SUMMARY

Fort Southwest Point Park Ballfields
Kingston, TN



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

ENGINEERED DESIGN By: Connor Ramstead · File #212636A · 26-May-21

EQUIPMENT LAYOUT

INCLUDES:

- Baseball
- Soccer
- Softball

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

Installation Requirements: Results assume $\pm 3\%$ 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	A1-A2	70'	-	15.5'	TLC-BT-575	1
				70'	TLC-LED-1200	4
2	A3-A4	60'	-	60'	TLC-LED-900	1
				15.5'	TLC-BT-575	1
				60'	TLC-LED-1200	2
1	B1	70'	-	15.5'	TLC-BT-575	1
1	B2	80'	-	70'	TLC-LED-1500	7
				15.5'	TLC-BT-575	1
2	B3-B4	70'	-	80'	TLC-LED-1500	7
				15.5'	TLC-BT-575	1
2	C1-C2	70'	-	70'	TLC-LED-1500	4
				15.5'	TLC-BT-575	2
4	S1-S4	70'	-	70'	TLC-LED-1500	5
				70'	TLC-LED-1500	5
14	TOTALS					78

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1500	8.5	8.1	7.4	6.4	5.1	4.7	3.7
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	4.0	3.0
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9	2.3



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EQUIPMENT LAYOUT

PRELIMINARY FOUNDATION AND POLE ASSEMBLY DRAWING

TABLE 1: POLE ASSEMBLY			
POLE ID	POLE HEIGHT ft (m)	# OF LUMINAIRES	ASSEMBLED POLE WEIGHT ¹ lb (kg)
A1	70 (21.3)	5	1440 (653)
A2	70 (21.3)	5	1440 (653)
A3	80 (24.4)	4	1047 (475)
A4	80 (24.4)	4	1047 (475)
B1	70 (21.3)	8	2490 (1129)
B2	80 (24.4)	8	3440 (1560)
B3	70 (21.3)	5	1650 (748)
B4	70 (21.3)	5	1650 (748)
C1	70 (21.3)	7	2011 (912)
C2	70 (21.3)	7	2011 (912)
S1	70 (21.3)	5	1831 (831)
S2	70 (21.3)	5	1831 (831)
S3	70 (21.3)	5	1831 (831)
S4	70 (21.3)	5	1831 (831)

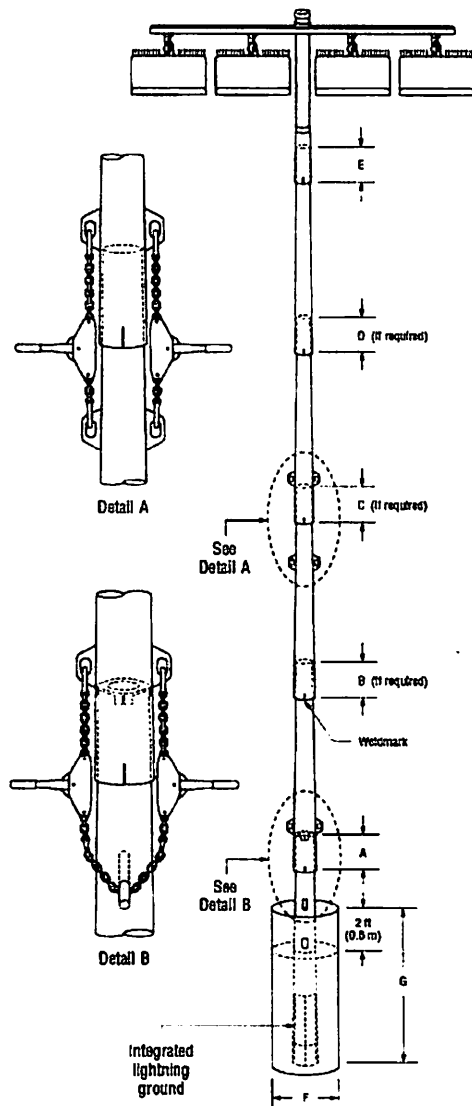
Pole Assembly Notes:

1. Steel pole should overlap concrete base and be seated tight with 1 1/2 ton come-alongs (contractor provided).
2. Align weldmarks on steel sections before assembling.
3. Assembled pole weight includes steel sections, crossarms, luminaires, and electrical components enclosures.
4. Section overlap must be pulled together until tight. Overlap measurement should be +/- 8 in (150 mm).
5. This document is not intended for use as an assembly instruction. See installation instructions: Light Structure System™ Lighting System for complete assembly procedure.

TABLE 2: FOUNDATION DETAILS							
POLE ID	CONCRETE BASE WEIGHT lb (kg)	BURIAL INFORMATION ^{1,4}		CONCRETE BACKFILL ^{1,2} yd ³ (m ³)	CUT BASE	LIGHTNING GROUND ⁶ SUPPLEMENTAL PROTECTION	
		F in (mm)	G ft (m)			TYPE	
A1	1880 (853)	30 (762)	10 (3.0)	1.2 (0.9)	NO	INTEGRATED ⁵	N/A
A2	1880 (853)	30 (762)	10 (3.0)	1.2 (0.9)	NO	INTEGRATED ⁵	N/A
A3	1870 (848)	30 (762)	10 (3.0)	1.2 (0.9)	NO	INTEGRATED ⁵	N/A
A4	1870 (848)	30 (762)	10 (3.0)	1.2 (0.9)	NO	INTEGRATED ⁵	N/A
B1	3780 (1715)	30 (762)	14 (4.3)	1.6 (1.2)	NO	INTEGRATED ⁵	N/A
B2	5300 (2404)	30 (762)	16 (4.9)	1.9 (1.2)	NO	INTEGRATED ⁵	N/A
B3	2720 (1234)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED ⁵	N/A
B4	2720 (1234)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED ⁵	N/A
C1	2770 (1256)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED ⁵	N/A
C2	2770 (1256)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED ⁵	N/A
S1	2770 (1256)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED ⁵	N/A
S2	2770 (1256)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED ⁵	N/A
S3	2770 (1256)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED ⁵	N/A
S4	2770 (1256)	30 (762)	12 (3.7)	1.5 (1.1)	NO	INTEGRATED ⁵	N/A

Foundation Notes:

1. Concrete backfill is calculated to 2 ft (0.6m) below grade (no overage included). Top 2 ft (0.6m) to be class 5 soil compacted to 95% density of surrounding undisturbed soil unless otherwise specified in stamped structural design.
2. Concrete backfill required 3000 psi (20 MPa) minimum.
3. Foundation design per 2012 IBC, 115 mph, exposure category C, variation STD (Risk Category II).
4. Assumes IBC class 5 soil.
5. Standard bases include integrated lightning protection. If bases are cut, supplemental lightning protection is required. Contact Musco for materials and instruction.
6. Lightning protection is a manufacturer installed concrete encased electrode and connector. Ground connection is made when concrete base is installed and footing is poured. No additional steps required.



R60-62-00_A