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COMPREHENSIVE SITE PLAN

Fort Worth Christian School Softball

North Richard Hills TX

Lighting System

Pole / Fixtur	e Summary					
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1	60'	60'	3	TLC-LED-900	2.67 kW	Α
		16'	1	TLC-BT-575	0.58 kW	Α
		40'	1	TLC-LED-400	0.40 kW	В
A2	60'	60'	3	TLC-LED-900	2.67 kW	Α
		16'	1	TLC-BT-575	0.58 kW	Α
		40'	2	TLC-LED-400	0.80 kW	В
B1	70'	70'	5	TLC-LED-1200	5.85 kW	Α
		16'	1	TLC-BT-575	0.58 kW	Α
B2	70'	70'	5	TLC-LED-1200	5.85 kW	Α
		16'	1	TLC-BT-575	0.58 kW	Α
		40'	2	TLC-LED-400	0.80 kW	В
T1-T4	60'	60'	2	TLC-LED-1200	2.34 kW	С
		60'	1	TLC-LED-900	0.89 kW	С
T5-T8	60'	60'	2	TLC-LED-1200	2.34 kW	D
		60'	1	TLC-LED-900	0.89 kW	D
12			49		47.18 kW	

Circuit Summary										
Circuit	Description	Load	Fixture Qty							
Α	Softball	19.34 kW	20							
В	Security	2.0 kW	5							
С	Tennis 1-4	12.92 kW	12							
D	Tennis 5-8	12.92 kW	12							

Fixture Type Summary											
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity				
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	26				
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	14				
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	4				
TLC-LED-400	LED 5700K - 75 CRI	400W	46,500	>120,000	>120,000	>120,000	5				

Light Level Summary

Calculation Grid Summary										
Grid Name	Calculation Metric			Ilumination			Circuits	Fixture Qty		
		Ave	Min	Max	Max/Min	Ave/Min				
Blanket Grid	Horizontal Illuminance	15.9	0	68	0.00		A,B,C,D	49		
Property Line Spill	Horizontal	0.01	0	0.08	0.00		A,B,C,D	49		
Softball (Infield)	Horizontal Illuminance	51.5	38	64	1.67	1.36	Α	20		
Softball (Outfield)	Horizontal Illuminance	35.2	21	46	2.20	1.68	Α	20		
Tennis 1-4	Horizontal Illuminance	54.7	35	68	1.93	1.56	С	12		
Tennis 5-8	Horizontal Illuminance	53.4	34	67	1.98	1.57	D	12		

From Hometown to Professional











EQUIPMENT LIST FOR AREAS SHOWN LOCATION SIZE 40' TLC-LED-400 TLC-LED-900 60' A2 15.5' TLC-BT-575 TLC-LED-400 40' TLC-LED-900 15.5' 70' TLC-BT-575 TLC-LED-1200 В2 70' 15.5' TLC-BT-575 0 TLC-LED-400 40' TLC-LED-1200 70' 4 36 32 39 28 42 42 39 36 29 23 30 33 37 36 35 33 29 36 36 35 36 35 36 51 38 39 39 31 47 63 57 40 41 39 34 51 56 63 64 45 41 40 34 56 52 38 37 23 61 51 30 28 26 SCALE IN FEET 1:40

Fort Worth Christian School Softball North Richard Hills TX

GRID SUMMARY Name: Softball Size: Irregular 192' / 207' / 183' Spacing: 20.0' x 20.0'

Height: 3.0' above grade

ILLUMINATION SUMMARY Infield Outfield **Guaranteed Average:** 35.19 Scan Average: 51.54 Maximum: 46 21 Minimum: 38 Avg / Min: 1.70 1.36 Guaranteed Max / Min: 2.5 Max / Min: 1.67 2.20 UG (adjacent pts): 1.30 1.59 CU: No. of Points: 67 25 Applied Circuits: A No. of Luminaires: 20

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

Total Load: 19.34 kW

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.



to 0,0 reference point(s) \otimes

EQUIPMENT LIST FOR AREAS SHOWN											
	Р	ole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE Type	QTY / POLE	THIS GRID	OTHER GRIDS			
4	T1-T4	60' -		60'	TLC-LED-900	1	1	0			
				60'	TLC-LED-1200	2	2	0			
4		12	12	0							



Fort Worth Christian School Softball North Richard Hills TX

GRID SUMMARY Name: Tennis 1-4 Size: 4 Court - 12' Spacing Spacing: 20.0' x 20.0' Height: 3.0' above grade

ILLUMINATION SUMMARY **Entire Grid Guaranteed Average:** Scan Average: 54.71 Maximum: 35 Minimum: Avg / Min: 1.54 Guaranteed Max / Min: Max / Min: 1.93 0.00 UG (adjacent pts): CU: 0.92 No. of Points: 60 Applied Circuits: C No. of Luminaires: 12 Total Load: 12.92 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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EQI	EQUIPMENT LIST FOR AREAS SHOWN											
	Р	ole		Luminaires								
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT								
4	T5-T8	60'	-	60'	TLC-LED-900	1	1	0				
				60'	TLC-LED-1200	2	2	0				
4		12	12	0								



Fort Worth Christian School Softball North Richard Hills TX

GRID SUMMARY Name: Tennis 5-8 Size: 4 Court - 12' Spacing Spacing: 20.0' x 20.0' Height: 3.0' above grade

ILLUMINATION S	UMMARY	
MAINTAINED HORIZONTA	AL FOOTCANDLES	
	Entire Grid	
Guaranteed Average:	50	
Scan Average:	53.42	
Maximum:	67	
Minimum:	34	
Avg / Min:	1.57	
Guaranteed Max / Min:	2	
Max / Min:	1.98	
UG (adjacent pts):	0.00	
CU:	0.90	
No. of Points:	60	
LUMINAIRE INFORMATIO	DN	
Applied Circuits:	D	
No. of Luminaires:	12	
Total Load:	12.92 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.



EQUIPMENT LIST FOR AREAS S					
Pole QTY LOCATION SIZE GRADE ELEVATION 1 A1 60' -	Comparison Com				
	40' TLC-LED-400 1 1 0 60' TLC-LED-900 3 3 0				
1 A2 60' -	15.5' TLC-BT-575 1 1 0 40' TLC-LED-400 2 2 0 60' TLC-LED-900 3 3 0				
1 B1 70' -	15.5' TLC-BT-575 1 1 0 70' TLC-LED-1200 5 5 0	I WOUNT I	The same of the sa	The second second	The second second
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8 T1-T8 60' -	60' TLC-LED-900 1 1 0 60' TLC-LED-1200 2 2 0	The second of		HERE BY P	2
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SCALE IN FEET 1:80					Pole location(s)

ENGINEERED DESIGN By: Scott Davis · File #216959B-blanket · 21-Oct-22

Fort Worth Christian School Softball North Richard Hills TX

Rame: Blanket Grid
Size: 685' x 460'
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY MAINTAINED HORIZONTAL FOOTCANDLES **Entire Grid** Scan Average: 15.93 Maximum: Minimum: 0 Avg / Min: Max / Min: UG (adjacent pts): 1141.47 CU: No. of Points: 782 LUMINAIRE INFORMATION Applied Circuits: A, B, C, D No. of Luminaires: 49 Total Load: 47.18 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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EQUIPMENT LIST FOR AREAS SHOWN LOCATION 40' TLC-LED-400 TLC-LED-900 TLC-BT-575 A2 60' 15.5' 40' TLC-LED-400 TLC-LED-900 15.5' 70' TLC-BT-575 TLC-LED-1200 В2 70' 15.5' TLC-BT-575 40' TLC-LED-400 TLC-LED-1200 70' TLC-LED-900 TLC-LED-1200 T1-T8 60' 60' 60' p.00 p.00 p.00 p.01 p.03 p.06 p.08 p.05 p.04 p.02 p.01 p.06 p.06 p.04 p.00 p.00 f T1 T2 A1 T8

ENGINEERED DESIGN By: Scott Davis · File #216959B-blanket · 21-Oct-22

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

Fort Worth Christian School Softball North Richard Hills TX

GRID SUMMARY

Name:
Spacing:
Height:
Name:
Spacing:
30.0'
3.0' above grade

ILLUMINATION SUMMARY HORIZONTAL FOOTCANDLES Entire Grid Scan Average: 0.0122 Maximum: 0.08 Minimum: 0.00 No. of Points: 48 LUMINAIRE INFORMATION Applied Circuits: A, B, C, D No. of Luminaires: 49 Total Load: 47.18 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty

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.

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Fort Worth Christian School Softball North Richard Hills TX

EQUIPMENT LAYOUT

INCLUDES:

· Blanket Grid · Softball

Tennis 1-4

Tennis 5-8

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.

EQ	EQUIPMENT LIST FOR AREAS SHOWN											
	Po	Luminaires										
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE						
1	A1	60'	-	15.5'	TLC-BT-575	1						
				40'	TLC-LED-400	1						
				60'	TLC-LED-900	3						
1	A2	60'	-	15.5'	TLC-BT-575	1						
				40'	TLC-LED-400	2						
				60'	TLC-LED-900	3						
1	B1	70'	-	15.5'	TLC-BT-575	1						
				70'	TLC-LED-1200	5						
1	B2	70'	-	15.5'	TLC-BT-575	1						
				40'	TLC-LED-400	2						
				70'	TLC-LED-1200	5						
8	T1-T8	60'	-	60'	TLC-LED-900	1						
				60'	TLC-LED-1200	2						
12			TOTAL	S		49						

SINGLE LUMINAIRE AMPERAGE DRAW CHART									
Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)								
Single Phase Voltage	208	220	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)		
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	4.0	3.0		
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9	2.3		
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5		
TLC-LED-400	2.3	2.2	2.0	1.7	1.4	1.3	1.0		



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

SCALE IN FEET 1:60