Lighting System

Pole / Fixture	e Summary					
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1	60'	60'	1	TLC-LED-1200	1.17 kW	А
		60'	2	TLC-LED-900	1.78 kW	А
		16'	1	TLC-BT-575	0.58 kW	А
		50'	1	TLC-LED-400	0.40 kW	E
A2	60'	60'	1	TLC-LED-1200	1.17 kW	А
		60'	2	TLC-LED-900	1.78 kW	А
		16'	1	TLC-BT-575	0.58 kW	А
		30'	1	CREE OSQ	0.13 kW	E
A3	70'	70'	4	TLC-LED-1200	4.68 kW	В
		16'	1	TLC-BT-575	0.58 kW	В
		50'	1	TLC-LED-400	0.40 kW	Е
A4	70'	70'	4	TLC-LED-1200	4.68 kW	В
		16'	1	TLC-BT-575	0.58 kW	В
		50'	2	TLC-LED-400	0.80 kW	Е
B1-B2	60'	60'	5	TLC-LED-1200	5.85 kW	А
		16'	1	TLC-BT-575	0.58 kW	А
B3	70'	70'	7	TLC-LED-1500	10.01 kW	В
		16'	1	TLC-BT-575	0.58 kW	В
		30'	1	CREE OSQ	0.13 kW	E
B4	70'	70'	8	TLC-LED-1500	11.44 kW	В
		16'	1	TLC-BT-575	0.58 kW	В
		50'	1	TLC-LED-400	0.40 kW	Е
C1-C2	70'	70'	6	TLC-LED-1500	8.58 kW	В
		16'	2	TLC-BT-575	1.15 kW	В
10			70		74.73 kW	

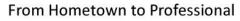
Circuit Summary					
Circuit	Description	Load	Fixture Qty		
A	Softball	19.9 kW	20		
В	Baseball 1	52.57 kW	43		
E	Security	2.26 kW	7		

Fixture Type Summary							
Туре	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	20
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>120,000	>120,000	>120,000	27
CREE OSQ	LED 5700K - 70 CRI	130W	16,599				2
TLC-LED-400	LED 5700K - 75 CRI	400W	46,500	>120,000	>120,000	>120,000	5
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	4
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	12

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric		Illumination					Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min	Circuits	
Baseball 1 Batting Cage	Horizontal	33.2	19	42	2.26	1.75	В	43
Baseball 1 LF Bullpen	Horizontal	18.2	12	31	2.67	1.52	В	43
Baseball 1 RF Bullpen	Horizontal	18.8	8	41	4.87	2.35	В	43
Baseball 1 (Infield)	Horizontal Illuminance	50.5	34	58	1.67	1.49	В	43
Baseball 1 (Outfield)	Horizontal Illuminance	32.5	21	48	2.33	1.55	В	43
Property line	Horizontal	0.06	0	0.48	0.00		A,B,C,D,E	70
Property line	Max Candela (by Fixture)	2051	152	13555	89.19	13.50	A,B,C,D,E	70
Property line	Max Vertical Illuminance Metric	0.11	0	0.80	2636.03		A,B,C,D,E	70
Security Blanket	Horizontal	0.60	0	11	0.00		E	7
Softball LF Bullpen	Horizontal	17.6	8	23	2.80	2.20	A	20
Softball RF Bullpen	Horizontal	25	23	29	1.25	1.09	A	20
Softball (Infield)	Horizontal Illuminance	50.3	34	62	1.85	1.48	A	20
Softball (Outfield)	Horizontal Illuminance	34.8	20	47	2.38	1.74	A	20

ENGINEERED DESIGN By: Isaac Sanders · File #205945B_r2 · 12-Jan-21





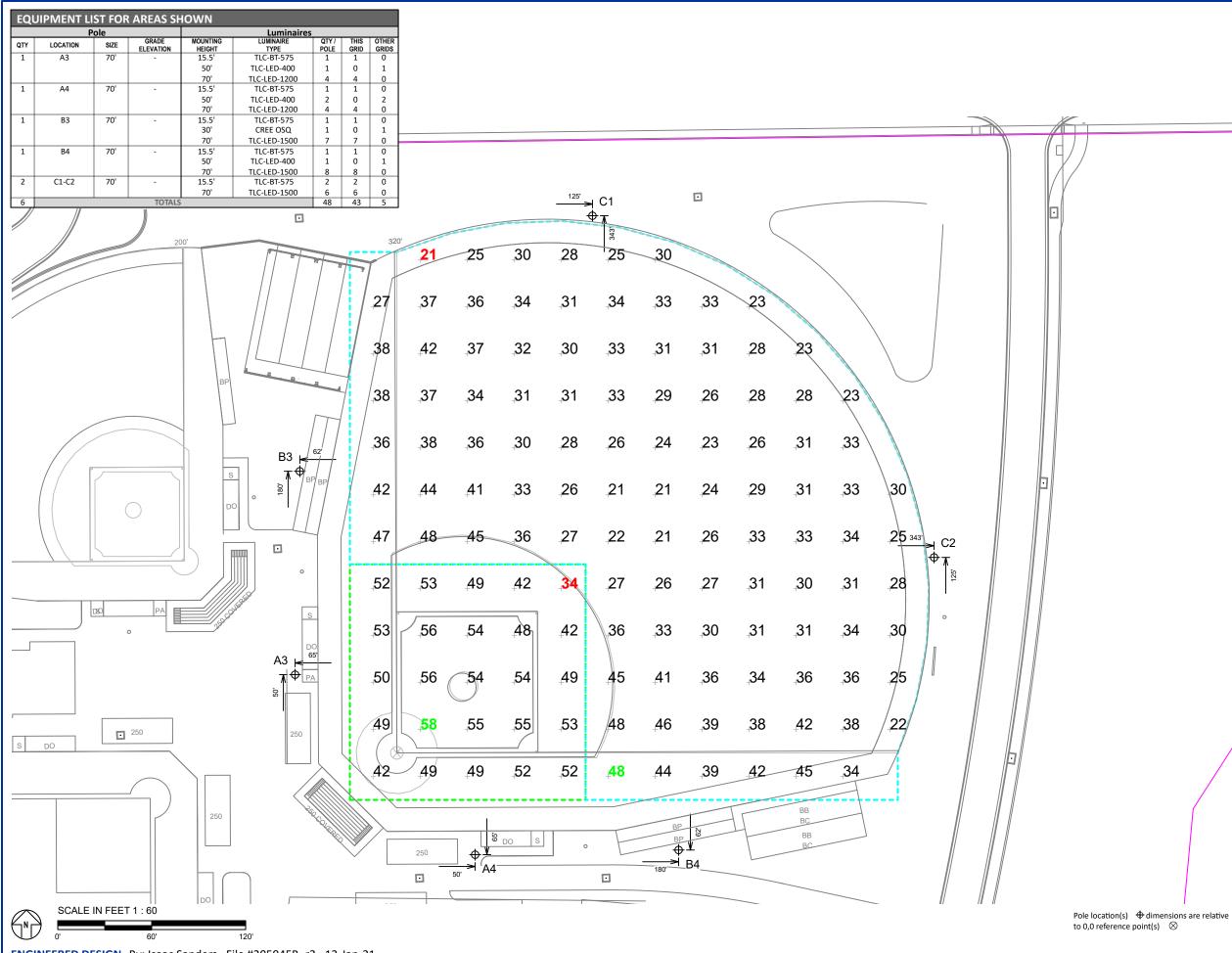
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PROJECT SUMMARY



1	GRID SUMMARY					
_	Name: Size: Spacing:	Baseball 1 320'/380'/320' - basepath 90' 30.0' x 30.0' 3.0' above grade				
•	ILLUMINATION S	UMMARY				
	MAINTAINED HORIZONTA	L FOOTCANDL	ES			
		Infield	Outfield			
	Guaranteed Average:	50	30			
	Scan Average:	50.5	32.5			
	Maximum:	58	48			
	Minimum:	34	21			
	Avg / Min:	1.47	1.56			
	Guaranteed Max / Min:	2	2.5			
	Max / Min:	1.67	2.33			
	UG (adjacent pts):	1.22	1.79			
	CU:	0.75				
	No. of Points:	25	105			
	LUMINAIRE INFORMATIO	N				
	Applied Circuits: No. of Luminaires: Total Load:	B 43 52.57 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.

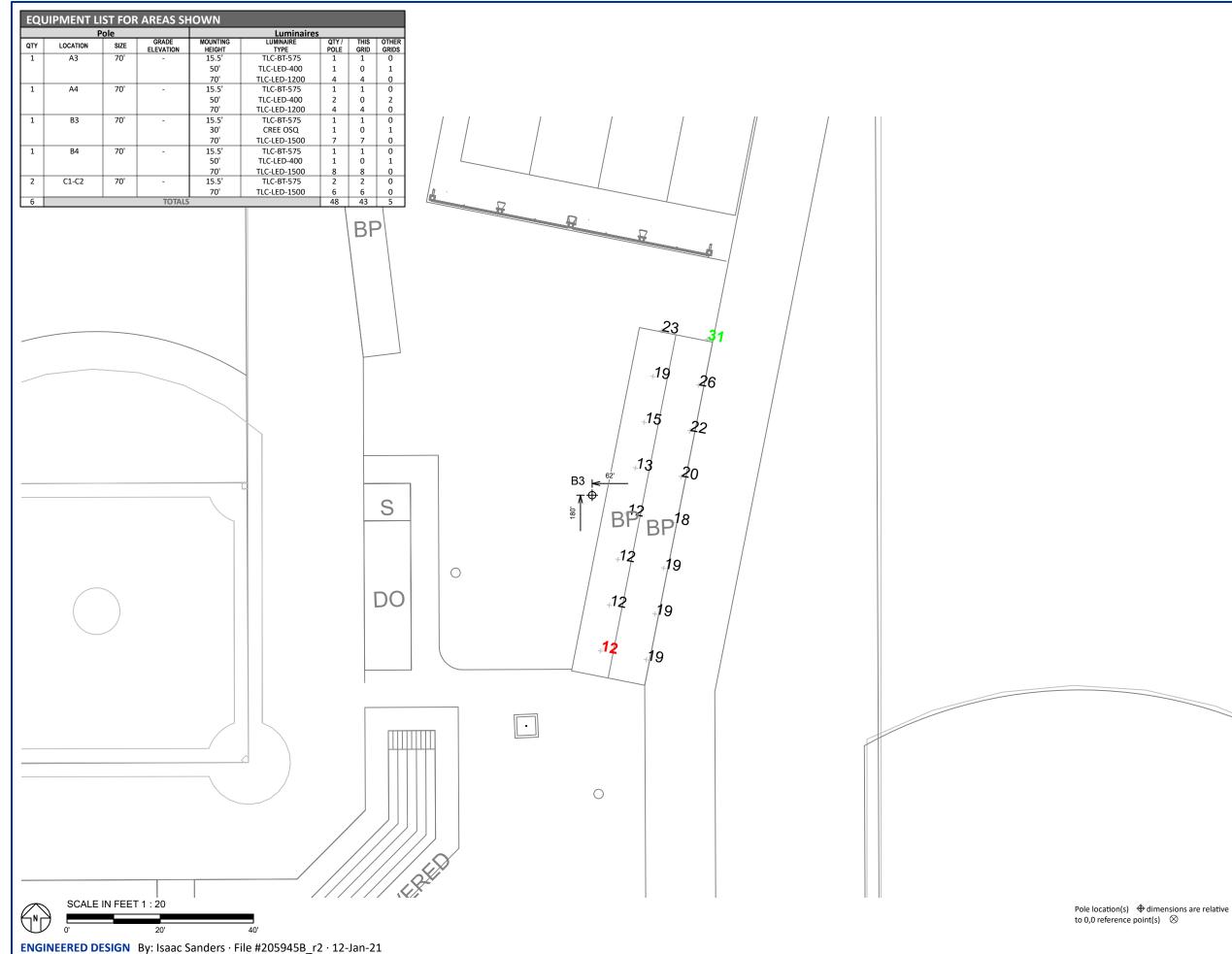
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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GRID SUMMARY	
Name:	Baseball 1 LF Bullpen
Size:	320'/380'/320' - basepath 90'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade
ILLUMINATION S	
MAINTAINED HORIZONTA	
	Entire Grid
Scan Average:	18.2
Maximum:	31
Minimum:	12
Avg / Min:	1.58
Max / Min:	2.67
UG (adjacent pts):	1.61
CU:	0.01
No. of Points:	16
LUMINAIRE INFORMATIO	N
Applied Circuits:	В
No. of Luminaires:	43
Total Load:	52.57 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.

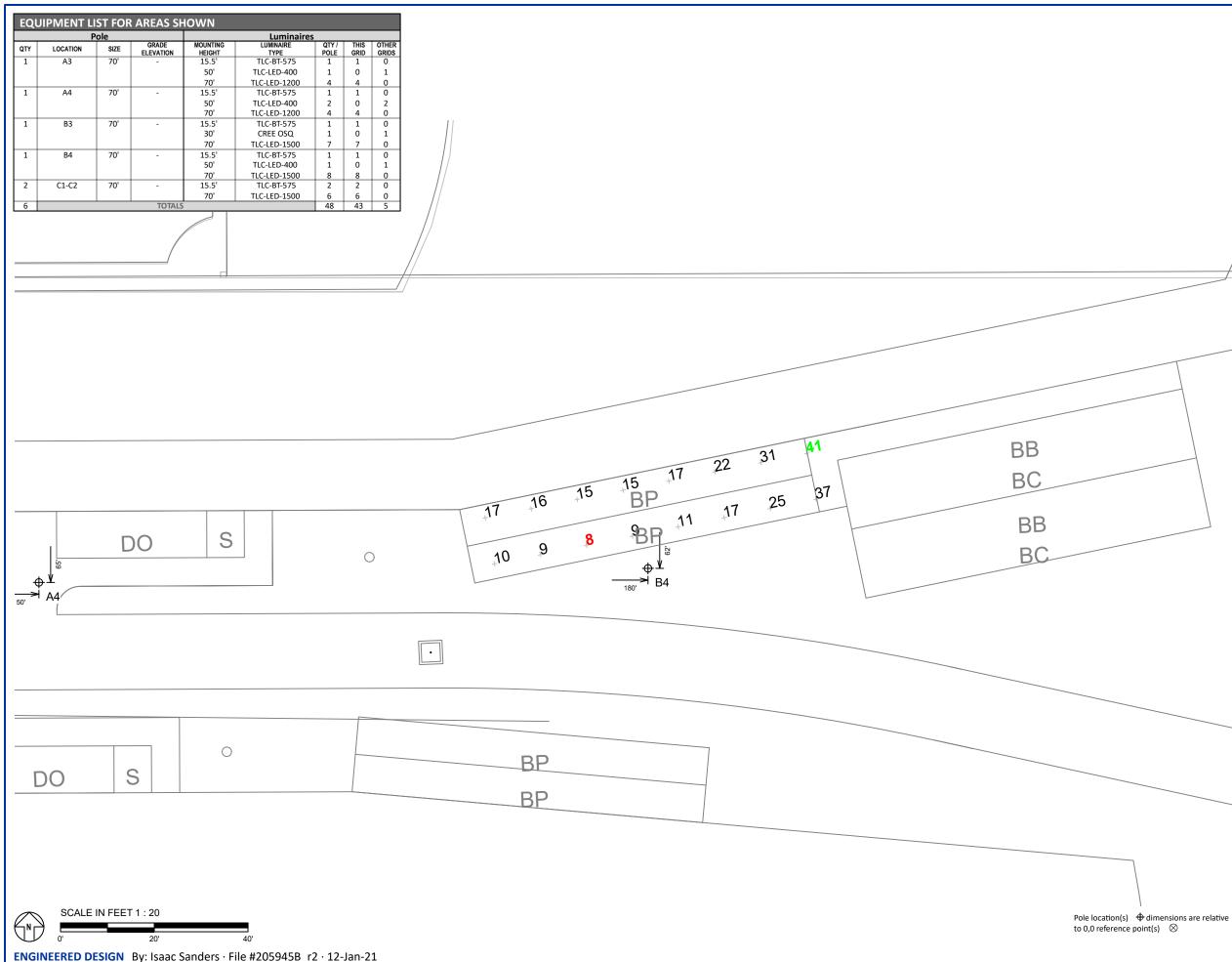
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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GRID SUMMARY	
Name:	Baseball 1 RF Bullpen
Size:	320'/380'/320' - basepath 90'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade
ILLUMINATION S	
MAINTAINED HORIZONTA	
	Entire Grid
Scan Average:	18.8
Maximum:	41
Minimum:	8
Avg / Min:	2.24
Max / Min:	4.87
UG (adjacent pts):	1.79
CU:	0.01
No. of Points:	16
LUMINAIRE INFORMATIO	N
Applied Circuits:	В
No. of Luminaires:	43
Total Load:	52.57 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.

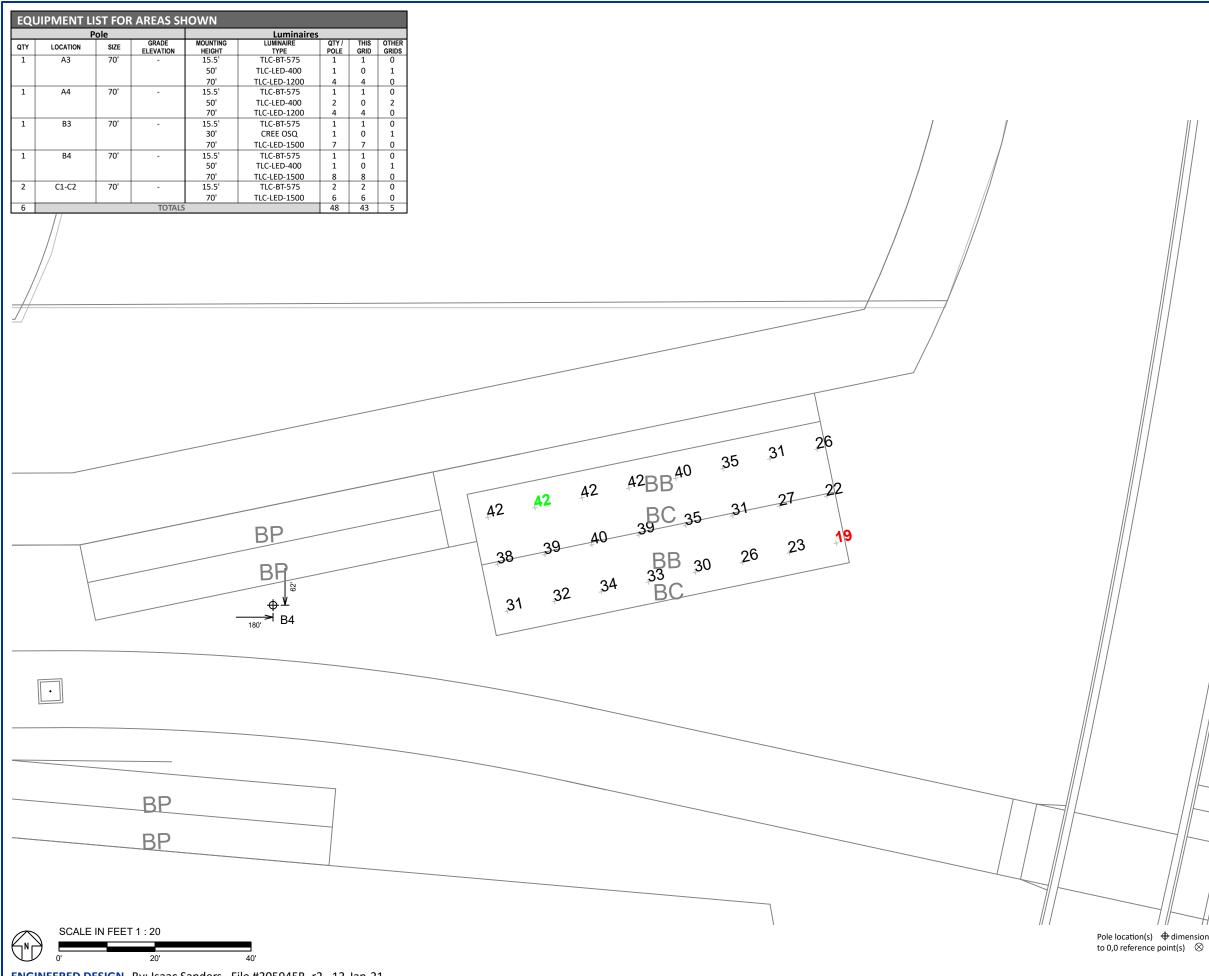
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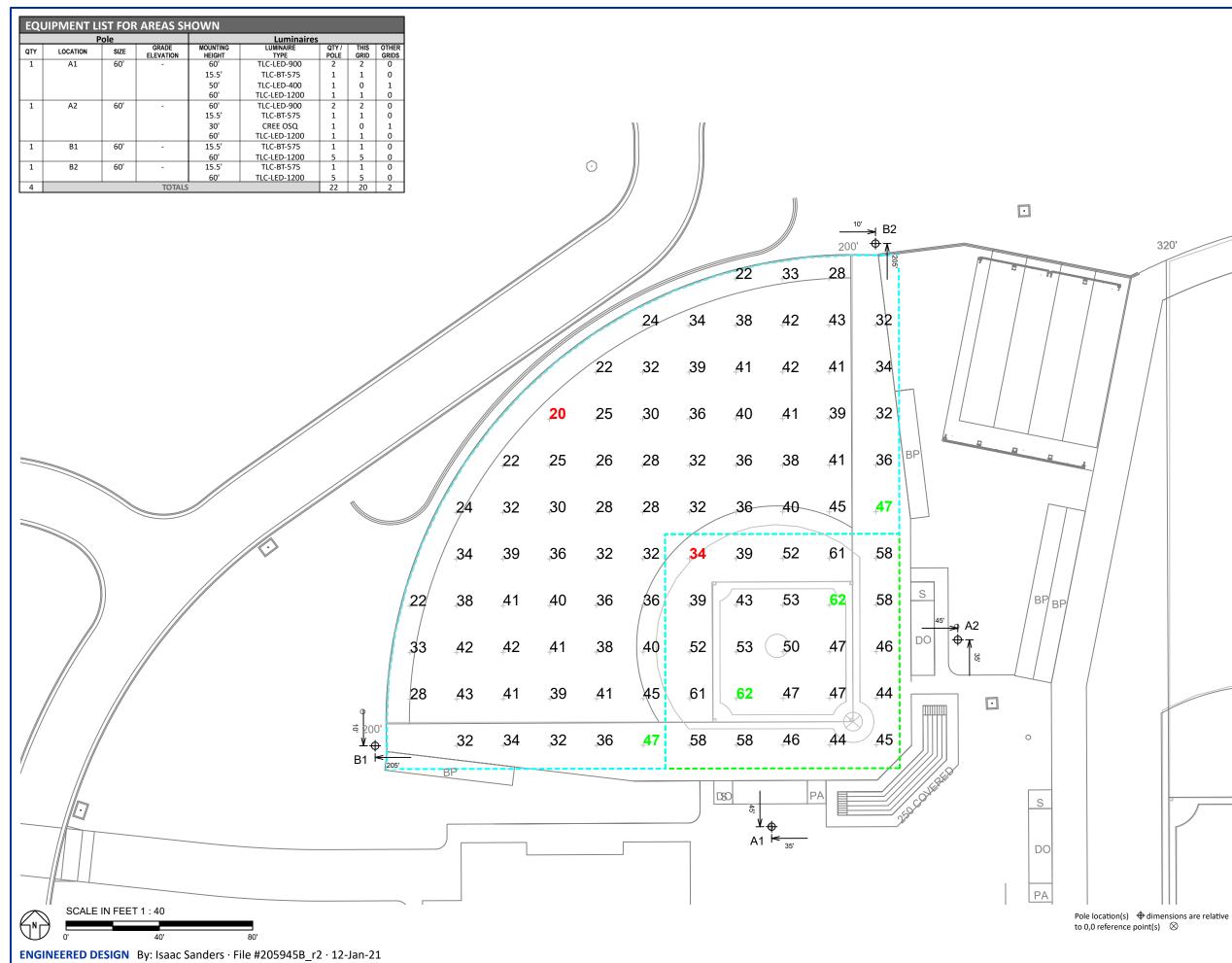
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Lees Summit Middle School Baseball Softball Lees Summit, MO

	Lees Summit, MO	
	GRID SUMMARY	
		Baseball 1 Batting Cage
	Size:	
	Spacing:	
	Height:	3.0' above grade
	ILLUMINATION S	UMMARY
	MAINTAINED HORIZONTA	
	Scan Average:	Entire Grid 33.2
	Maximum:	42
	Minimum:	19
	Avg / Min: Max / Min:	1.77 2.26
	UG (adjacent pts):	1.25
	CU:	0.01
	No. of Points: LUMINAIRE INFORMATIO	24
	Applied Circuits:	
	No. of Luminaires:	
	Total Load:	52.57 kW
	Guarantood Porforman	ce: The ILLUMINATION described
	above is guaranteed per	
	Warranty document and	includes a 0.95
	dirt depreciation factor.	
		ndividual field measurements may vary from edictions and should be taken
	in accordance with IESN	
	Electrical System Requi	rements: Refer to Amperage
		'Musco Control System Summary"
	for electrical sizing.	
		nts: Results assume ± 3% side of the driver and structures
	located within 3 feet (1r	
		RELEASE FOR
		ONSTRUCTION
		TED ON PLANS REVIEW
		ELOPMENT SERVICES
	LEE	'S SUMMIT, MISSOURI
		01/26/2021
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dimensions are relative		V V
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	GRID SUMMARY				
	Name:	Softball			
	Size:	200'/200'/2	00' - basepath 60'		
	Spacing:	20.0' x 20.0'			
	Height:	3.0' above g	rade		
	ILLUMINATION S	JMMARY			
	MAINTAINED HORIZONTA		FS		
		Infield	Outfield		
	Guaranteed Average:	50	30		
	Scan Average:	50.3	34.8		
	Maximum:	62	47		
	Minimum:	34	20		
_	Avg / Min:	1.49	1.79		
	Guaranteed Max / Min:	2	2.5		
	Max / Min:	1.85	2.38		
	UG (adjacent pts):	1.34	1.74		
	CU:	0.70			
	No. of Points:	25	71		
	LUMINAIRE INFORMATIO				
	Applied Circuits:				
	No. of Luminaires:	20			
	Total Load:	19.9 kW			
	above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor. Field Measurements: Individual field measurements may vary i				
	computer-calculated pre in accordance with IESN	edictions and			
	Electrical System Requin Draw Chart and/or the " 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.				

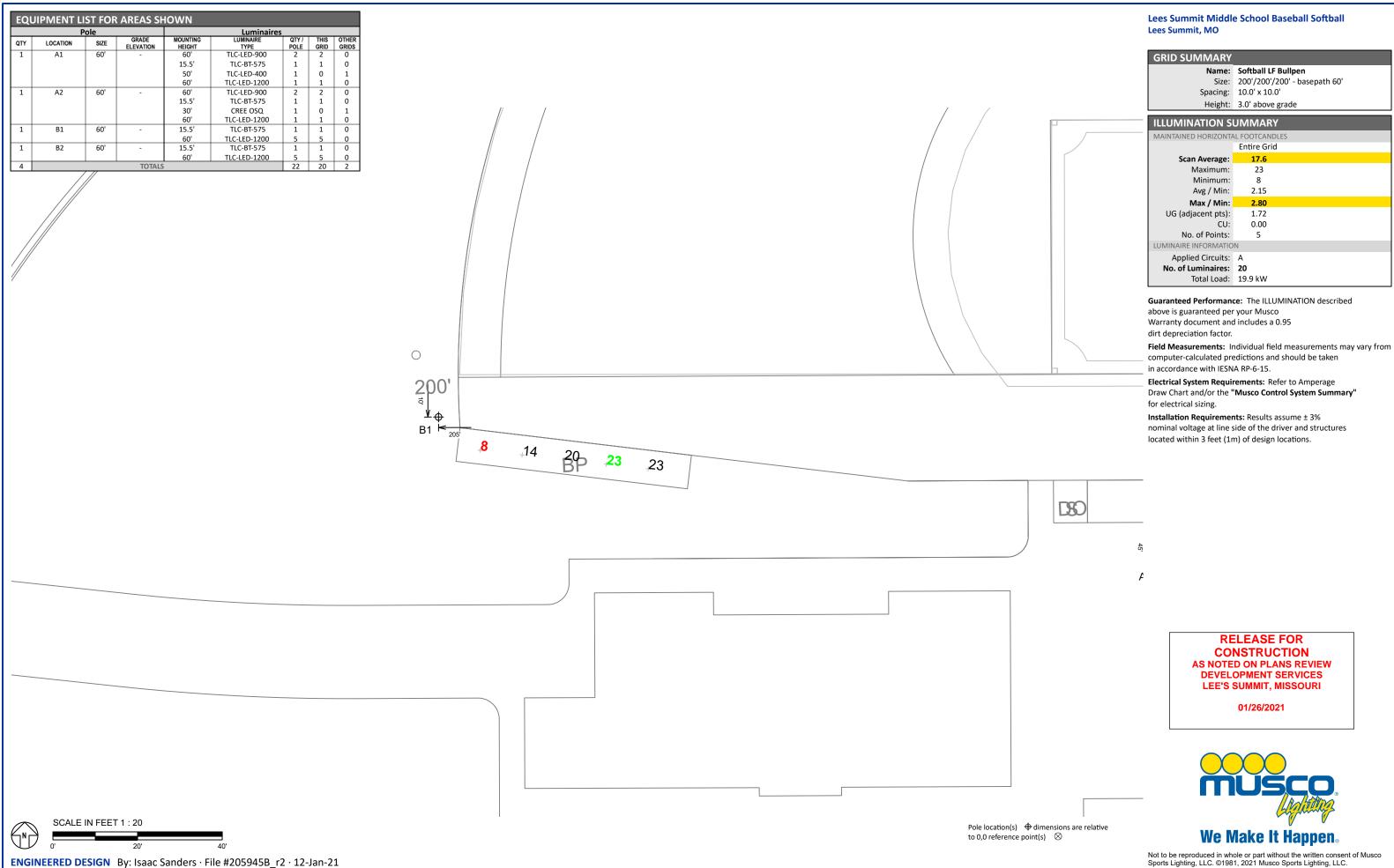


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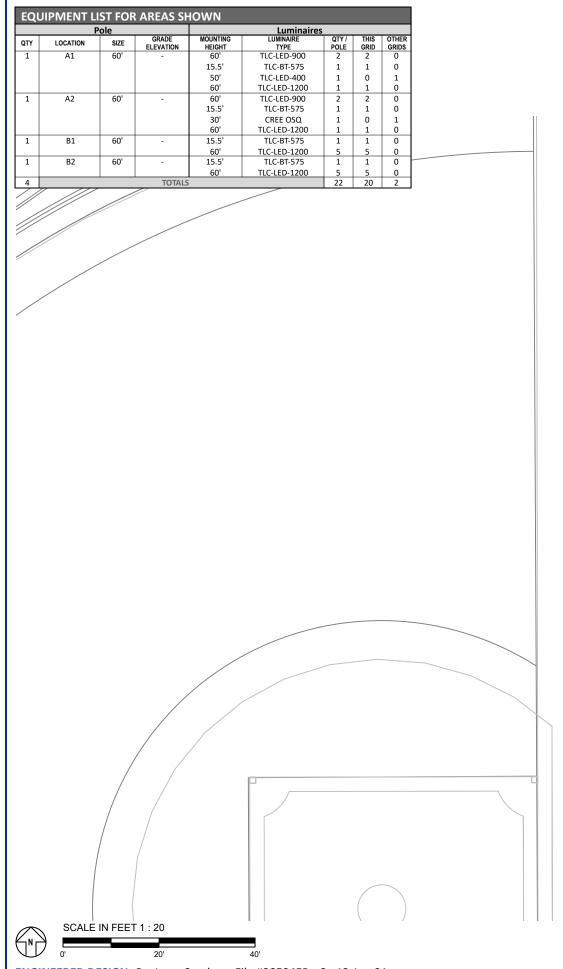
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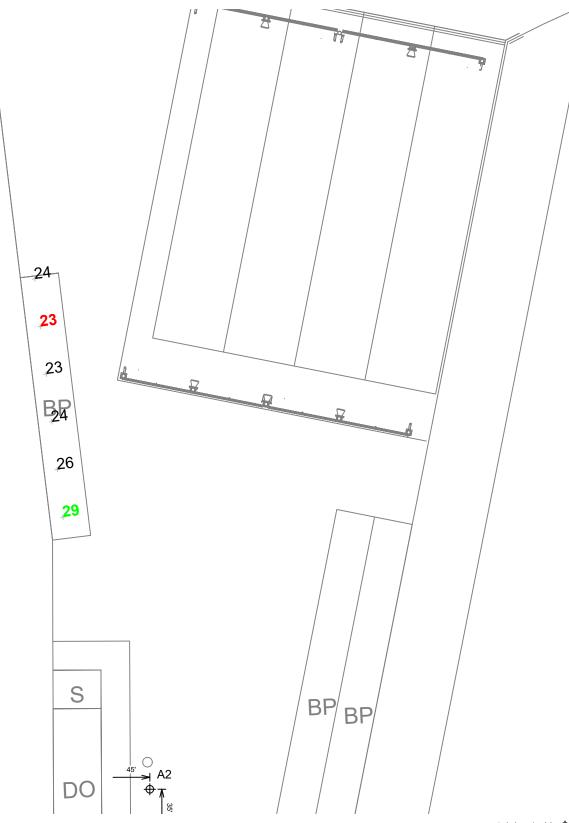


Lees Summit Middle School Baseball Softball Lees Summit, MO					
GRID SUMMARY					
Name:	Softball LF Bullpen				
Size:	200'/200'/200' - basepath 60'				
Spacing:	10.0' x 10.0'				
Height:	3.0' above grade				
 ILLUMINATION S					
MAINTAINED HORIZONTA					
	Entire Grid				
Scan Average:	17.6				
Maximum:	23				
Minimum:	8				
Avg / Min:	2.15				
Max / Min:	2.80				
IVIAX / IVIIII.	2.00				

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

nominal voltage at line side of the driver and structures





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

Lees Summit Middle School Baseball Softball Lees Summit, MO

GRID SUMMARY	
Name: Size: Spacing:	
Height:	3.0' above grade
ILLUMINATION S	UMMARY
MAINTAINED HORIZONTA	L FOOTCANDLES
	Entire Grid
Scan Average:	25.0
Maximum:	29
Minimum:	23
Avg / Min:	1.08
Max / Min:	1.25
UG (adjacent pts):	1.11
CU:	0.01
No. of Points:	6
LUMINAIRE INFORMATIO	N
Applied Circuits:	A
No. of Luminaires:	20
Total Load:	19.9 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.

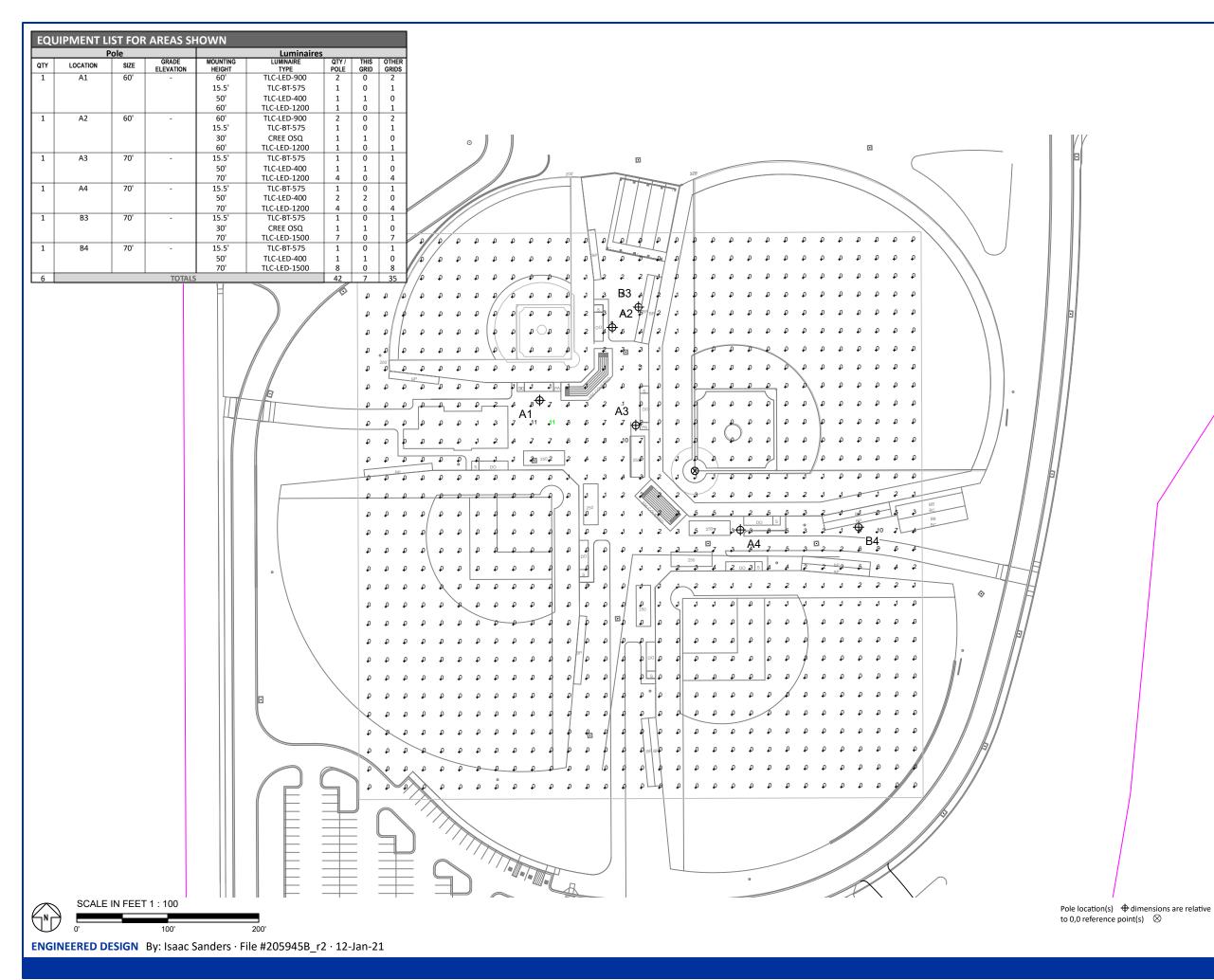
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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GRID SUMMARY	
Name:	Security Blanket
Spacing:	20.0' x 20.0'
Height:	3.0' above grade
	-
ILLUMINATION S	UMMARY
MAINTAINED HORIZONTA	L FOOTCANDLES
	Entire Grid
Scan Average:	0.6
Maximum:	11
Minimum:	0
Avg / Min:	-
Max / Min:	-
UG (adjacent pts):	518.85
CU:	0.98
No. of Points:	961
LUMINAIRE INFORMATIO	N
Applied Circuits:	E
No. of Luminaires:	7
Total Load:	2.26 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.

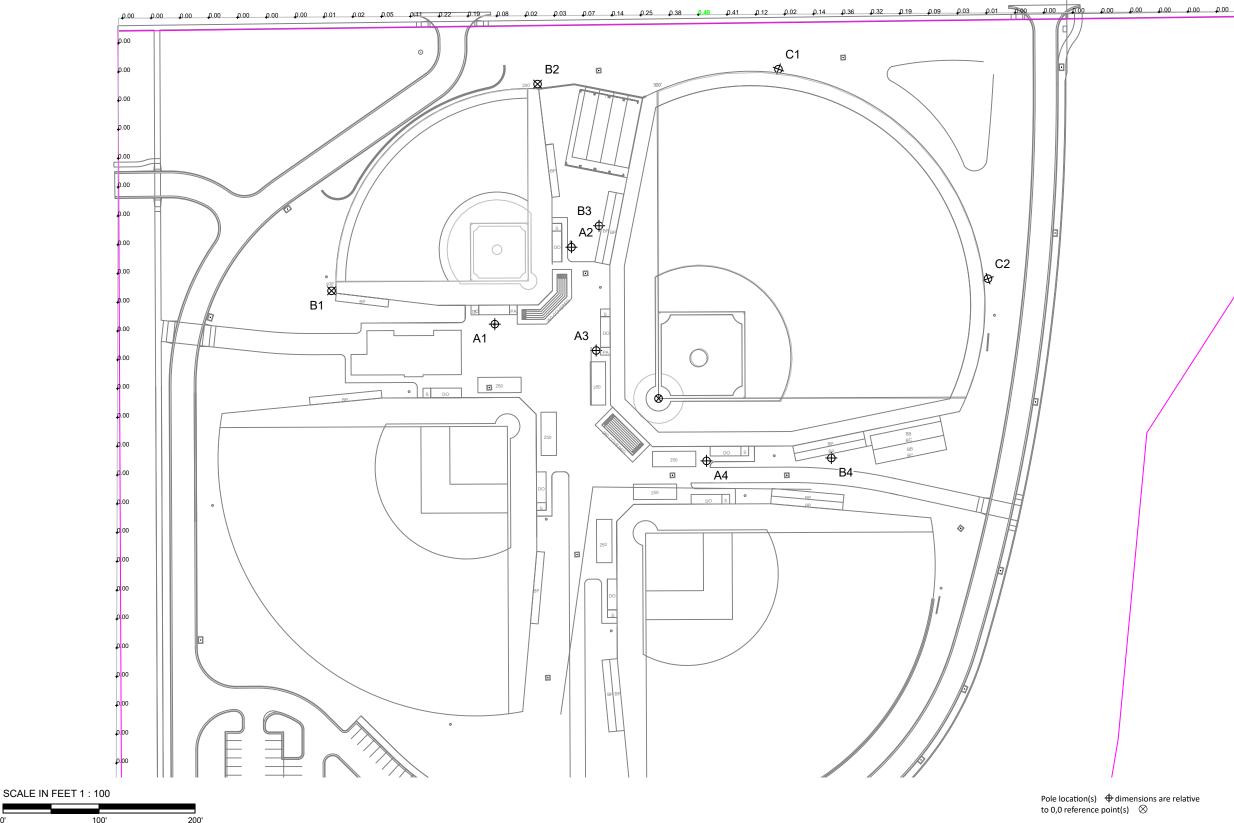
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Lees Summit Middle School Baseball Softball Lees Summit, MO

1					
	GRID SUMMARY				
	Name: Spacing: Height:	Property line 30.0' 3.0' above grade			
	ILLUMINATION SUMMARY HORIZONTAL FOOTCANDLES				
		Entire Grid			
	Scan Average:	0.056			
	Maximum:	0.48			
	Minimum:	0.00			
	No. of Points:	66			
	LUMINAIRE INFORMATION				
	Applied Circuits:	A, B, C, D, E			
	No. of Luminaires:	70			
	Total Load:	74.73 kW			

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

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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Lees Summit Middle School Baseball Softball Lees Summit, MO

	GRID SUMMARY				
	Name:	Property line			
	Spacing:	30.0'			
	Height:	3.0' above grade			
	ILLUMINATION SUMMARY				
	MAX VERTICAL FOOTCANDLES				
		Entire Grid			
	Scan Average:	0.114			
	Maximum:	0.80			
	Minimum:	0.00			
	No. of Points:	66			
	LUMINAIRE INFORMATIO	N			
	Applied Circuits:	A, B, C, D, E			
	No. of Luminaires:	70			
	Total Load:	74.73 kW			

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

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.

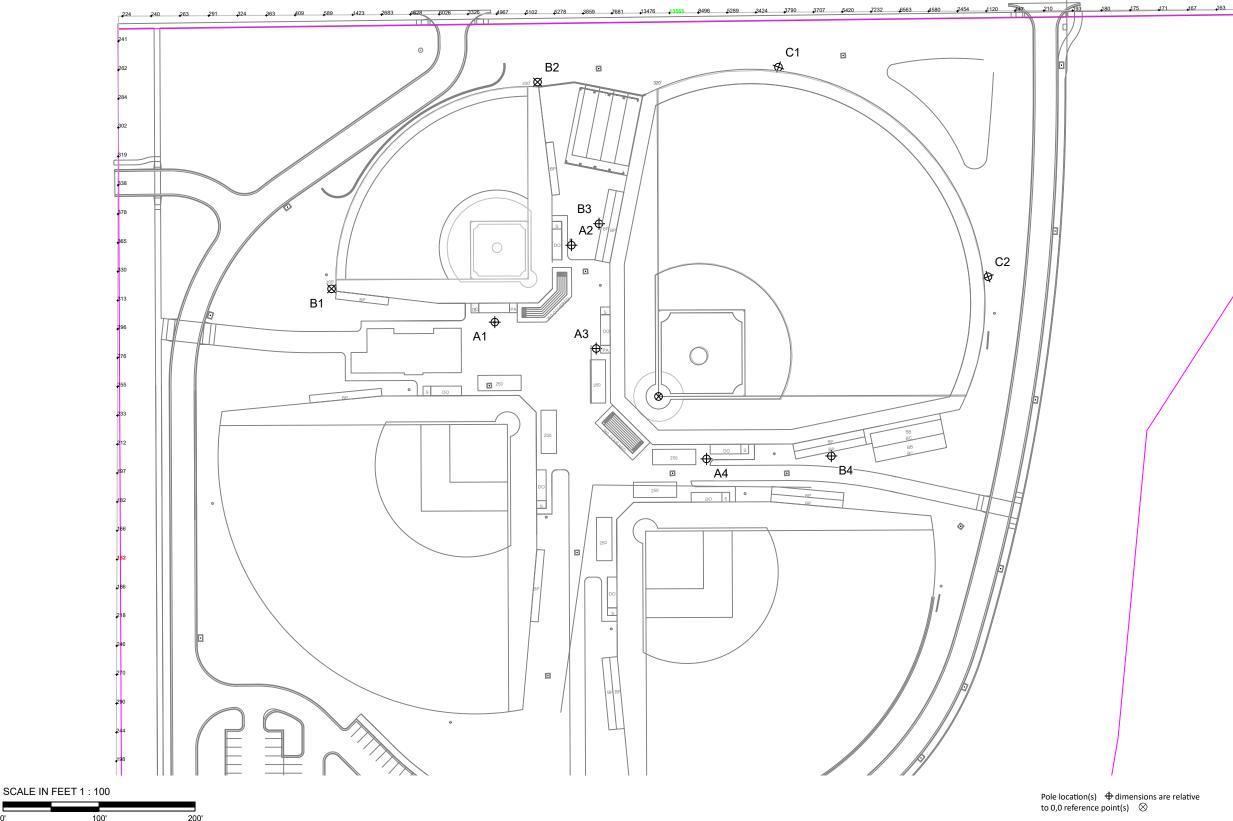
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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Lees Summit Middle School Baseball Softball Lees Summit, MO

GRID SUMMARY			
Name:	Property line		
Spacing:	30.0'		
Height:	3.0' above grade		
ILLUMINATION S	UMMARY		
CANDELA (PER FIXTURE)			
	Entire Grid		
Scan Average:	2051.468		
Maximum:	13554.72		
Minimum:	151.97		
No. of Points:	66		
LUMINAIRE INFORMATIO	N		
Applied Circuits:	A, B, C, D, E		
No. of Luminaires:	70		
Total Load:	74.73 kW		

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

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.

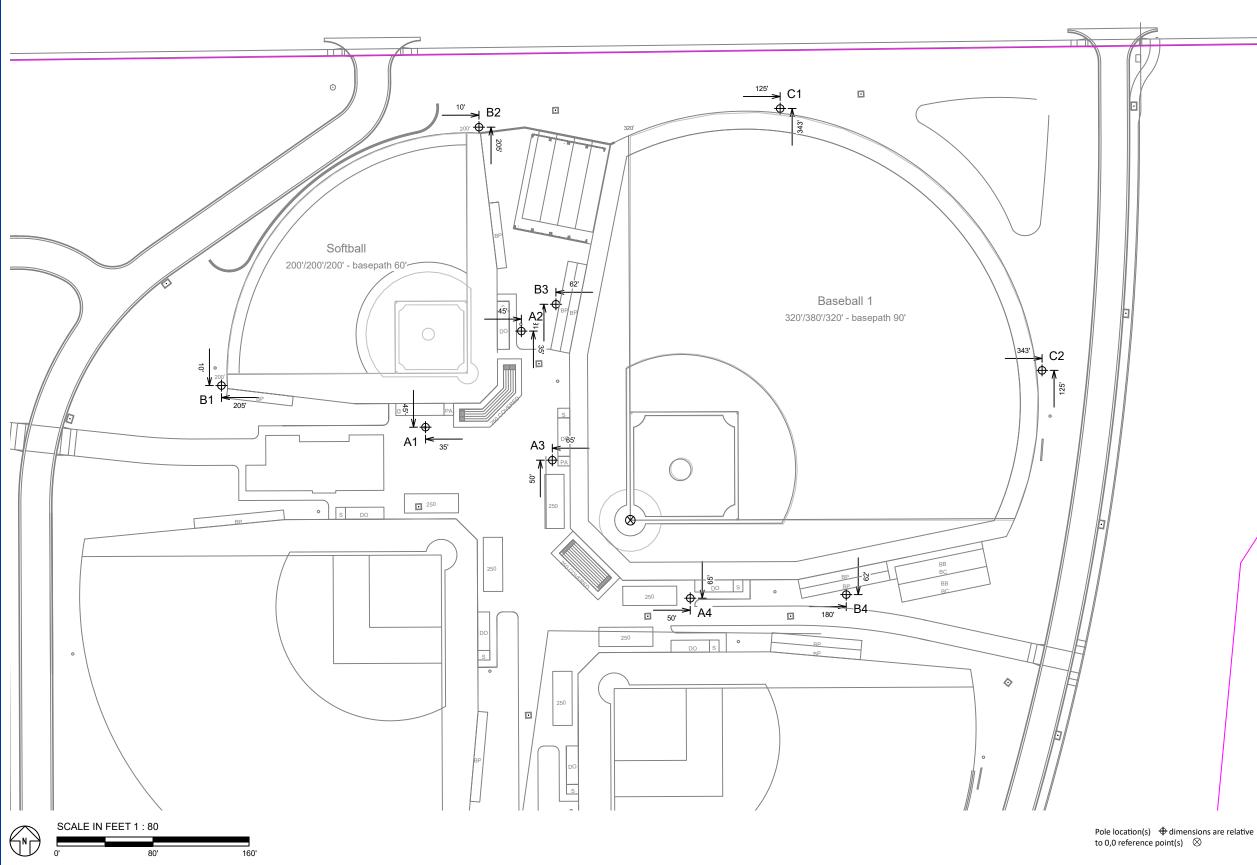
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Lees Summit Middle School Baseball Softball Lees Summit, MO

EQUIPMENT LAYOUT

- INCLUDES:
- · Baseball 1

· Softball

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	CLASS	GRADE ELEVATION	Mounting Luminaire Height Type		QTY / POLE		
1	A1	LSS60A	-	60'	TLC-LED-900	2		
				15.5'	TLC-BT-575	1		
				50'	TLC-LED-400	1		
				60'	TLC-LED-1200	1		
1	A2	LSS60A	-	60' TLC-LED-900		2		
				15.5'	TLC-BT-575	1		
				30'	CREE OSQ	1		
				60'	TLC-LED-1200	1		
1	A3	LSS70A	-	15.5'	TLC-BT-575	1		
				50'	TLC-LED-400	1		
				70' TLC-LED-1200		4		
1	A4	LSS70B	-	15.5'	TLC-BT-575	1		
				50'	TLC-LED-400	2		
				70'	TLC-LED-1200	4		
1	B1	LSS60A	-	15.5'	TLC-BT-575	1		
				60'	TLC-LED-1200	5		
1	B2	LSS60A	-	15.5'	TLC-BT-575	1		
				60'	TLC-LED-1200	5		
1	B3	LSS70C	-	15.5'	TLC-BT-575	1		
				30'	CREE OSQ	1		
				70'	TLC-LED-1500	7		
1	B4	LSS70C	-	15.5'	TLC-BT-575	1		
				50'	TLC-LED-400	1		
				70'	TLC-LED-1500	8		
2	C1-C2	LSS70C	-	15.5'	TLC-BT-575	2		
				70'	TLC-LED-1500	6		
10			TOTAL	S		70		

SINGLE LUMINAIRE AMPERAGE DRAW CHART Ballast Specifications Line Amperage Per Lu Line Amperage Per Luminaire (.90 min power factor) (max draw 208 220 240 277 247 280 480 a ala Dhasa Valta

Single Phase voltage	(60)	(60)	(60)	(60)	(60)	(60)	480 (60)
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	4.0	3.0
TLC-LED-1500	8.5	8.1	7.4	6.4	5.1	4.7	3.7
Cree OSQ	-	-	1	1	0.4	1	0.3
TLC-LED-400	2.3	2.2	2.0	1.7	1.4	1.3	1.0
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

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