

Musco Facility Operations Building

Oskaloosa, IA

Lighting System

Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Avg Load	Max Load	Circuit
M1-M13	--	15'	1	IES	0.00 kW	0.00 kW	B
P1-P2	50'	50'	2	TLC-LED-550	0.97 kW	1.08 kW	A
P3	50'	50'	3	TLC-LED-550	1.46 kW	1.62 kW	A
P4-P6	20'	20'	1	CREE OSQ	0.10 kW	0.10 kW	A
19			23		3.71 kW	4.09 kW	

Circuit Summary

Circuit	Description	Avg Load	Max Load	Fixture Qty
A	Parking	3.71 kW	4.09 kW	10
B	XSWP Cree Series	0.41 kW	0.41 kW	13

Fixture Type Summary

Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
(4) MDA SA 1400	(4)MDASA1400	32W	4,281	--	--	--	13
CREE OSQ	LED 4000K - 70 CRI	104W	11,486	--	--	--	3

Type	Source	Avg Wattage	Max Wattage	Constant Lumens	Application	Quantity
TLC-LED-550	LED 4500K - 75 CRI	486W	540W	56,381	100K	7

Single Luminaire Amperage Draw Chart

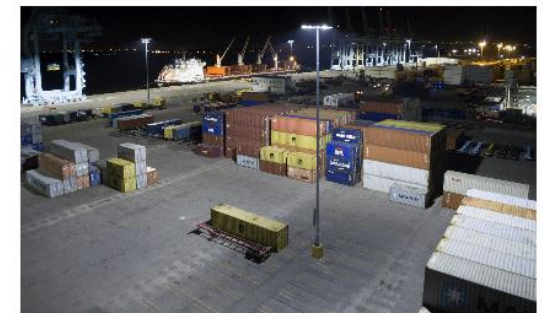
Driver (.90 min power factor)	Max Line Amperage Per Luminaire							
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)	
Single Phase Voltage								
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.8	1.4	
Other	-	-	-	-	-	-	-	
Cree OSQ	-	-	-	-	0.3	-	0.2	

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Asphalt / Gravel	Horizontal	5.58	1.40	12.1	8.58	3.99	A,B	23
Blanket Grid	Horizontal	3.52	0.02	12.1	717.55	176.00	A,B	23
Parking	Horizontal	2.99	1.23	5.94	4.81	2.43	A,B	23
Roadway	Max Candela (by Fixture)	607	13.2	3048	230.11	45.84	A,B	23

We Make It Happen®



We Make It Happen®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2023 Musco Sports Lighting, LLC.

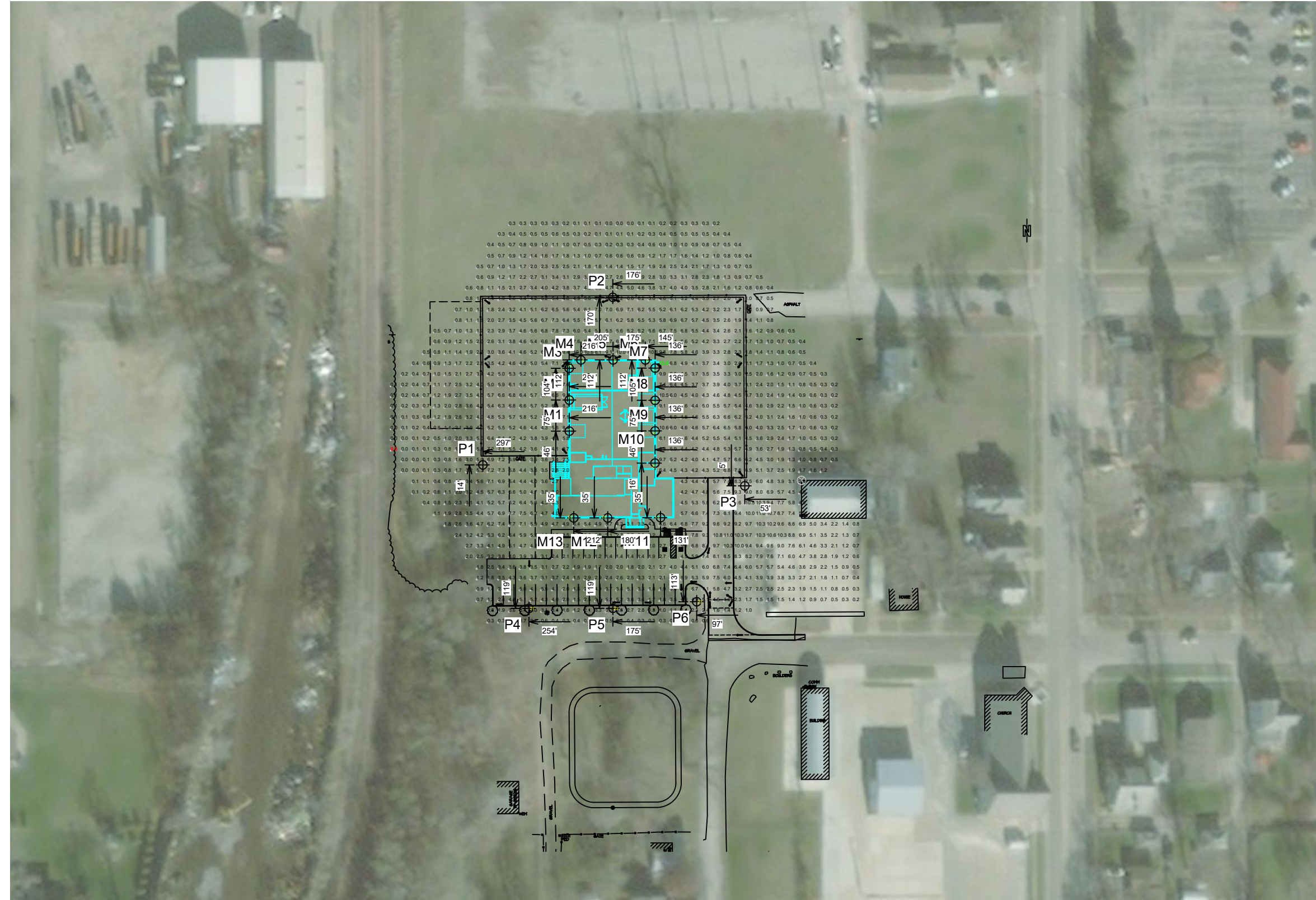
ENGINEERED DESIGN By: A.Hibler · File #222447C · 15-Feb-23

PROJECT SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
13	M1-M13	50'	15'	50'	XSRW-B-xx-BME-4L-40K-UL_PL13103-001A.ies	1	13	0	
2	P1-P2	50'	-	50'	TLC-LED-550	2	2	0	
1	P3	50'	-	50'	TLC-LED-550	2/1*	3	0	
3	P4-P6	20'	3'	23'	CREE OSQ	1	1	0	
19	TOTALS						23	23	0

* This structure utilizes a back-to-back mounting configuration



Musco Facility Operations Building

Oskaloosa, IA

GRID SUMMARY	
Name:	Blanket Grid
Size:	0' x 0'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

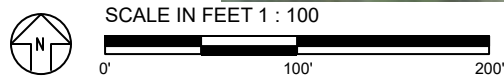
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	3.52
Maximum:	12.05
Minimum:	0.02
Avg / Min:	209.43
Max / Min:	717.55
UG (adjacent pts):	10.40
CU:	0.89
No. of Points:	1175
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
Design Usage Hours:	100,000
No. of Luminaires:	23
Avg Load:	4.12 kW
Max Load:	4.09 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.



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



We Make It Happen.

EQUIPMENT LIST FOR AREAS SHOWN

Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
13	M1-M13	50'	15'	50'	XSBW-B-xx-BME-4L-40K-UL_PL131103-001A.ies	1	13	0	
2	P1-P2	50'	-	50'	TLC-LED-550	2	2	0	
1	P3	50'	-	50'	TLC-LED-550	2/1*	3	0	
3	P4-P6	20'	3'	23'	CREE OSQ	1	1	0	
19	TOTALS						23	23	0

* This structure utilizes a back-to-back mounting configuration

Musco Facility Operations Building
Oskaloosa, IA

GRID SUMMARY	
Name:	Parking
Size:	0' x 0'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

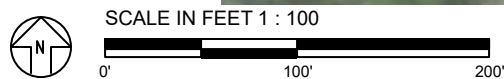
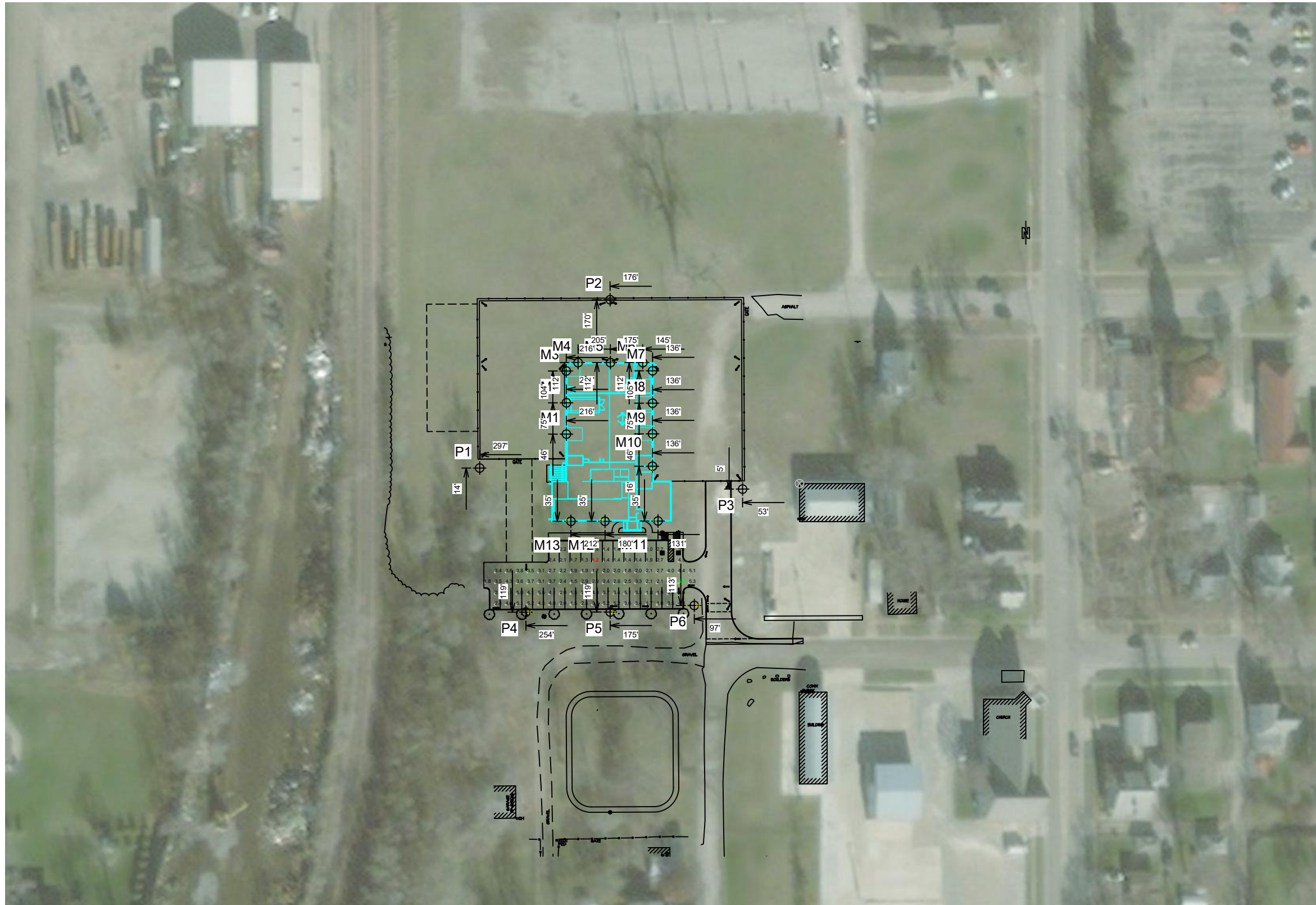
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	2.99
Maximum:	5.94
Minimum:	1.23
Avg / Min:	2.42
Max / Min:	4.81
UG (adjacent pts):	2.07
CU:	0.06
No. of Points:	100
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
Design Usage Hours:	100,000
No. of Luminaires:	23
Avg Load:	4.12 kW
Max Load:	4.09 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.



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



We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2023 Musco Sports Lighting, LLC.

EQUIPMENT LIST FOR AREAS SHOWN

Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
13	M1-M13	50'	15'	50'	XSBW-B-xx-BME-4L-40K-UL_PL13103-001A.ies	1	13	0	
2	P1-P2	50'	-	50'	TLC-LED-550	2	2	0	
1	P3	50'	-	50'	TLC-LED-550	2/1*	3	0	
3	P4-P6	20'	3'	23'	CREE OSQ	1	1	0	
19	TOTALS						23	23	0

* This structure utilizes a back-to-back mounting configuration

Musco Facility Operations Building

Oskaloosa, IA

GRID SUMMARY	
Name:	Asphalt / Gravel
Size:	0' x 0'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

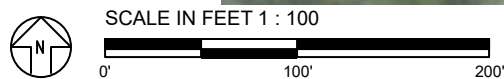
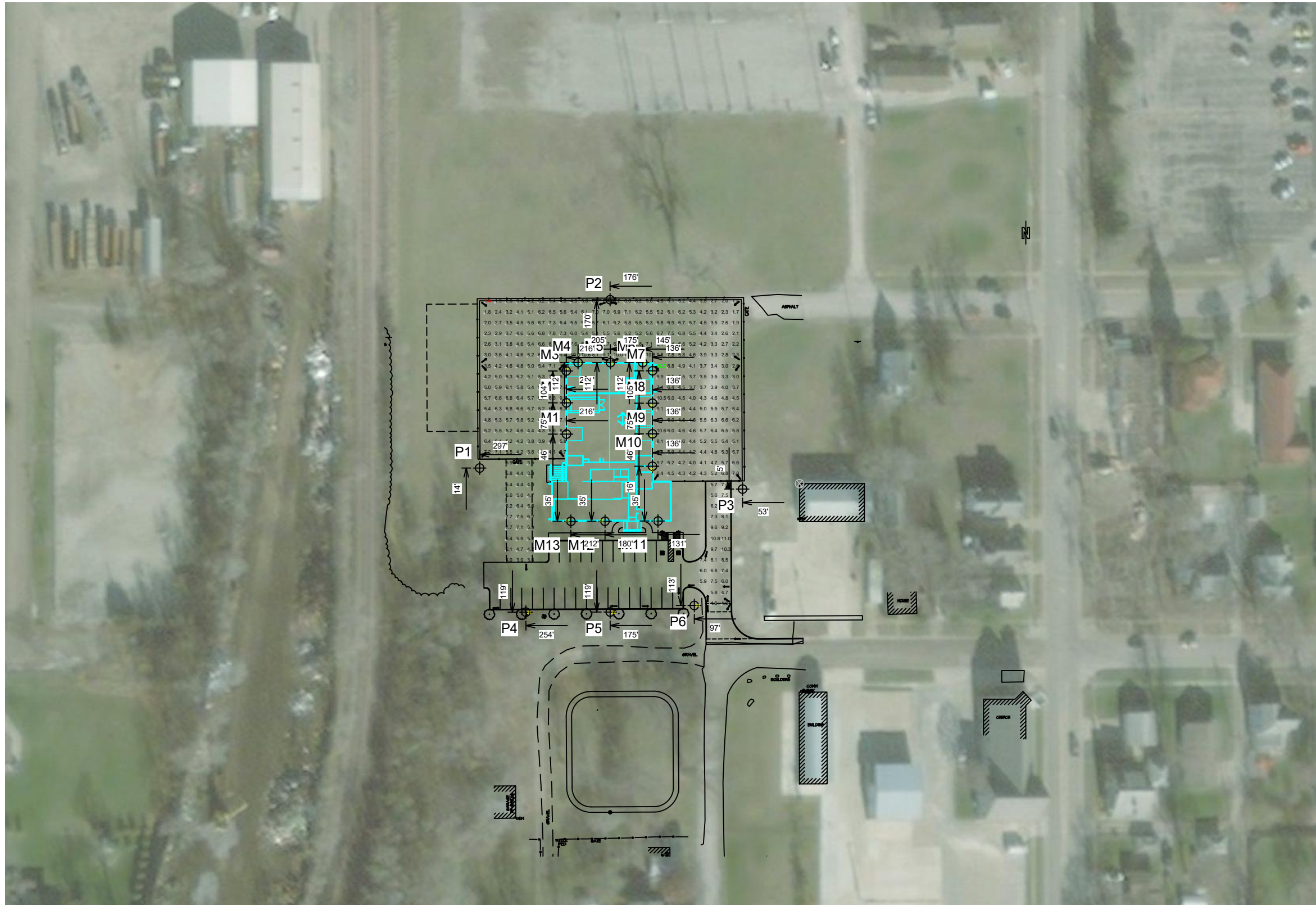
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	5.58
Maximum:	12.05
Minimum:	1.40
Avg / Min:	3.98
Max / Min:	8.58
UG (adjacent pts):	1.86
CU:	0.44
No. of Points:	361
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
Design Usage Hours:	100,000
No. of Luminaires:	23
Avg Load:	4.12 kW
Max Load:	4.09 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.



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



We Make It Happen.

Musco Facility Operations Building Oskaloosa, IA

EQUIPMENT LAYOUT

INCLUDES:
· Parking

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.

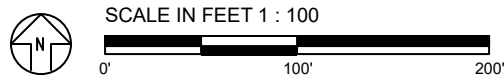
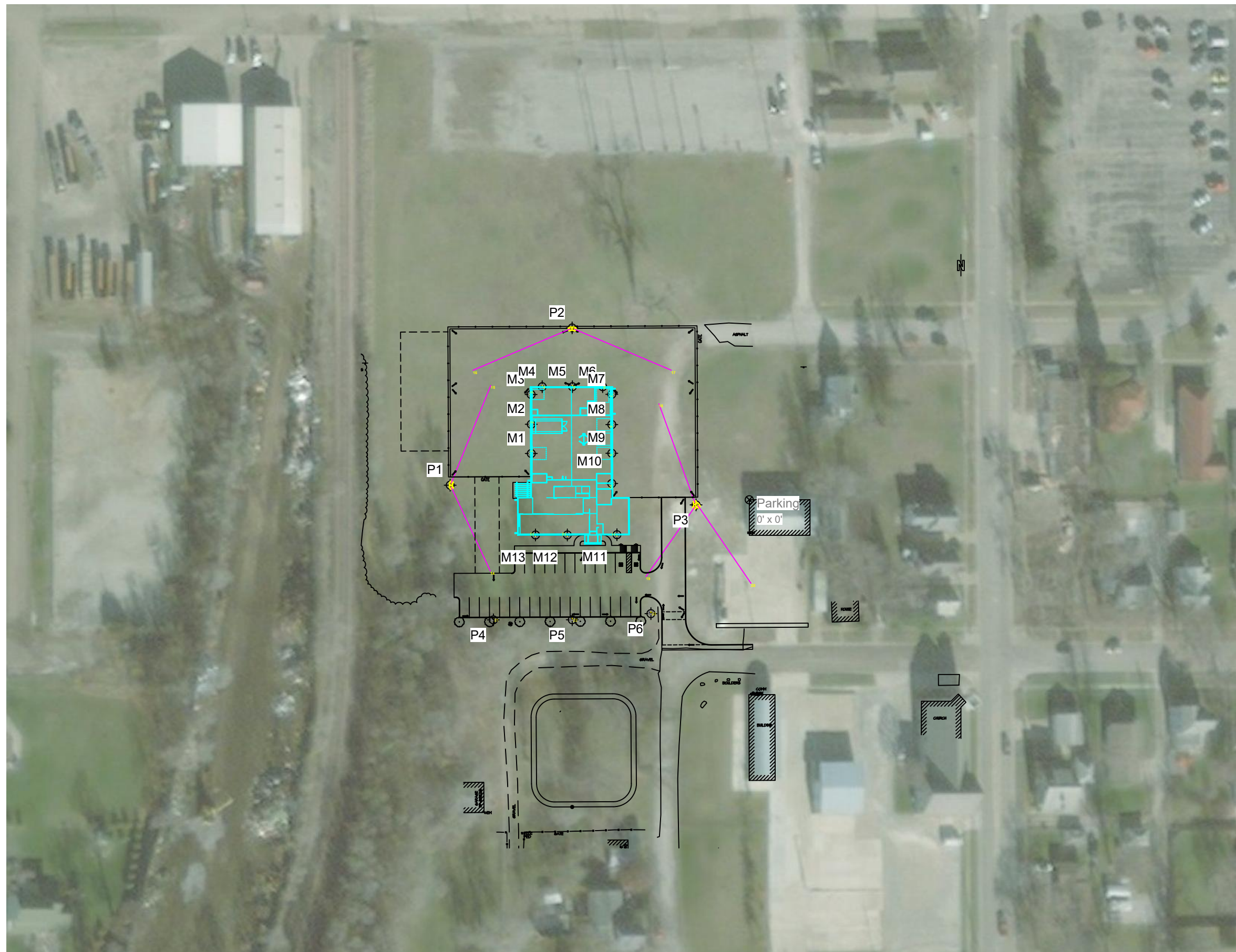
EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		Luminaires		QTY / POLE
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	
13	M1-M13	15'	15'	XSPW-15x-3ME-4L-40K-UL-PL13103-001	TLC-LED-550	2
2	P1-P2	50'	-	50'	TLC-LED-550	2/1*
1	P3	50'	-	50'	TLC-LED-550	2/1*
3	P4-P6	20'	3'	23'	CREE OSQ	1
19	TOTALS					23

* This structure utilizes a back-to-back mounting configuration

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Driver (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.4
Other	-	-	-	-	-	-
Cree OSQ	-	-	-	-	0.3	0.2



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

