

## **Appendix G**

### **MUSCO Light Spillage Maps**

# Marina High School Sports Fields

Marina, CA

## Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1	80'	80'	7	TLC-LED-900	6.23 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
A2	80'	80'	7	TLC-LED-900	6.23 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
		60'	1	TLC-LED-400	0.40 kW	C
B1	100'	100'	5	TLC-LED-1500	7.15 kW	B
		100'	1	TLC-LED-600	0.58 kW	B
		100'	7	TLC-LED-900	6.23 kW	B
		16'	3	TLC-BT-575	1.73 kW	B
B2	100'	100'	5	TLC-LED-1500	7.15 kW	B
		100'	1	TLC-LED-400	0.40 kW	B
		100'	7	TLC-LED-900	6.23 kW	B
		16'	3	TLC-BT-575	1.73 kW	B
C1	70'	70'	4	TLC-LED-900	3.56 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
D1	80'	80'	3	TLC-LED-1500	4.29 kW	B
		80'	6	TLC-LED-900	5.34 kW	B
		16'	2	TLC-BT-575	1.15 kW	B
		60'	1	TLC-LED-400	0.40 kW	D
D2	80'	80'	3	TLC-LED-1500	4.29 kW	B
		80'	6	TLC-LED-900	5.34 kW	B
		16'	2	TLC-BT-575	1.15 kW	B
		60'	1	TLC-LED-400	0.40 kW	D
		60'	1	TLC-LED-900	0.89 kW	D
<b>7</b>			<b>80</b>		<b>73.16 kW</b>	

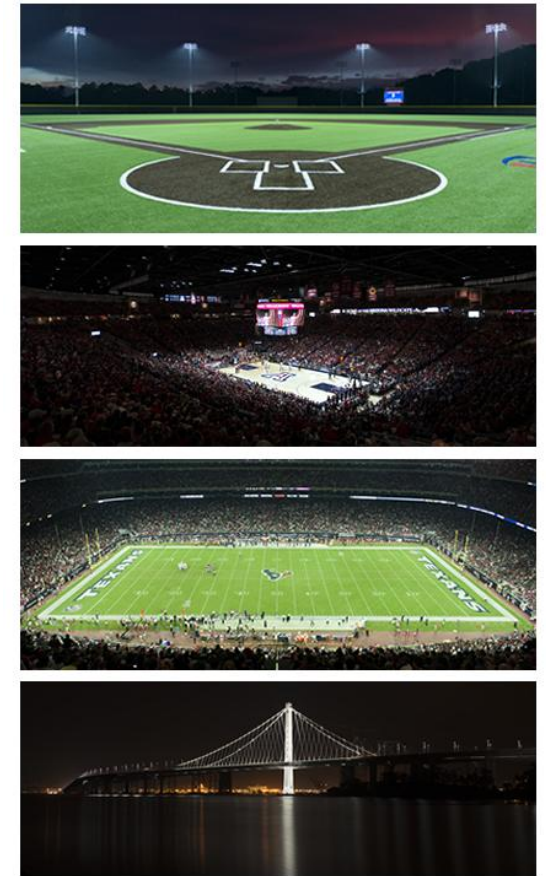
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Baseball	18.32 kW	22
B	BB/FB	52.75 kW	54
C	BB Egress	0.4 kW	1
D	FB Egress	1.69 kW	3

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	16
TLC-LED-400	LED 5700K - 75 CRI	400W	46,500	>120,000	>120,000	>120,000	4
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	45
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>120,000	>120,000	>120,000	1
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	14

## Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
BB Path of Egress	Horizontal	1.98	0	13	103316.30		C	1
Baseball Bleacher	Horizontal	8.42	4	12	3.23	2.11	C	1
Baseball Spill	Horizontal Illuminance	0	0	0.01	65.65		A,B,C,D	80
Baseball Spill	Max Candela Metric	392	39.6	712	17.96	9.90	A,B,C,D	80
Baseball Spill	Max Vertical Illuminance Metric	0.01	0	0.03	52.51		A,B,C,D	80
Baseball (Infield)	Horizontal Illuminance	50.8	39	58	1.47	1.30	A,B	76
Baseball (Outfield)	Horizontal Illuminance	41.6	25	53	2.15	1.66	A,B	76
Bullpen	Horizontal	21	20	22	1.14	1.05	A,B	76
FB Bleacher	Horizontal	5.99	4	9	2.24	1.50	D	3
FB Path of Egress	Horizontal	2.31	0	19	16372.90		D	3
Football	Horizontal Illuminance	42	32	50	1.57	1.31	B	54
Soccer	Horizontal Illuminance	43.1	33	50	1.49	1.31	B	54
Track	Horizontal	26.9	20	36	1.77	1.34	A,B	76

## From Hometown to Professional



EQUIPMENT LIST FOR AREAS SHOWN								
Pole			Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	80'	-	15.5'	TLC-BT-575	1	1	0
				80'	TLC-LED-900	7	7	0
1	A2	80'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-400	1	0	1
				80'	TLC-LED-900	7	7	0
1	B1	100'	-	100'	TLC-LED-900	7	7	0
				100'	TLC-LED-600	1	1	0
				15.5'	TLC-BT-575	3	3	0
				100'	TLC-LED-1500	5	5	0
				100'	TLC-LED-900	7	7	0
1	B2	100'	-	100'	TLC-LED-900	7	7	0
				100'	TLC-LED-400	1	1	0
				15.5'	TLC-BT-575	3	3	0
				100'	TLC-LED-1500	5	5	0
1	C1	70'	0'	15.5'	TLC-BT-575	2	2	0
1	D1	80'	-	80'	TLC-LED-900	6	6	0
				15.5'	TLC-BT-575	2	2	0
1	D2	80'	-	80'	TLC-LED-900	6	6	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-400	1	0	1
				60'	TLC-LED-900	1	0	1
7	TOTALS			80'	TLC-LED-900	3	3	0
				80'	TLC-LED-1500	3	3	0
7						80	76	4

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Baseball
Size:	Irregular 349' / 363' / 300'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

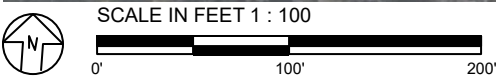
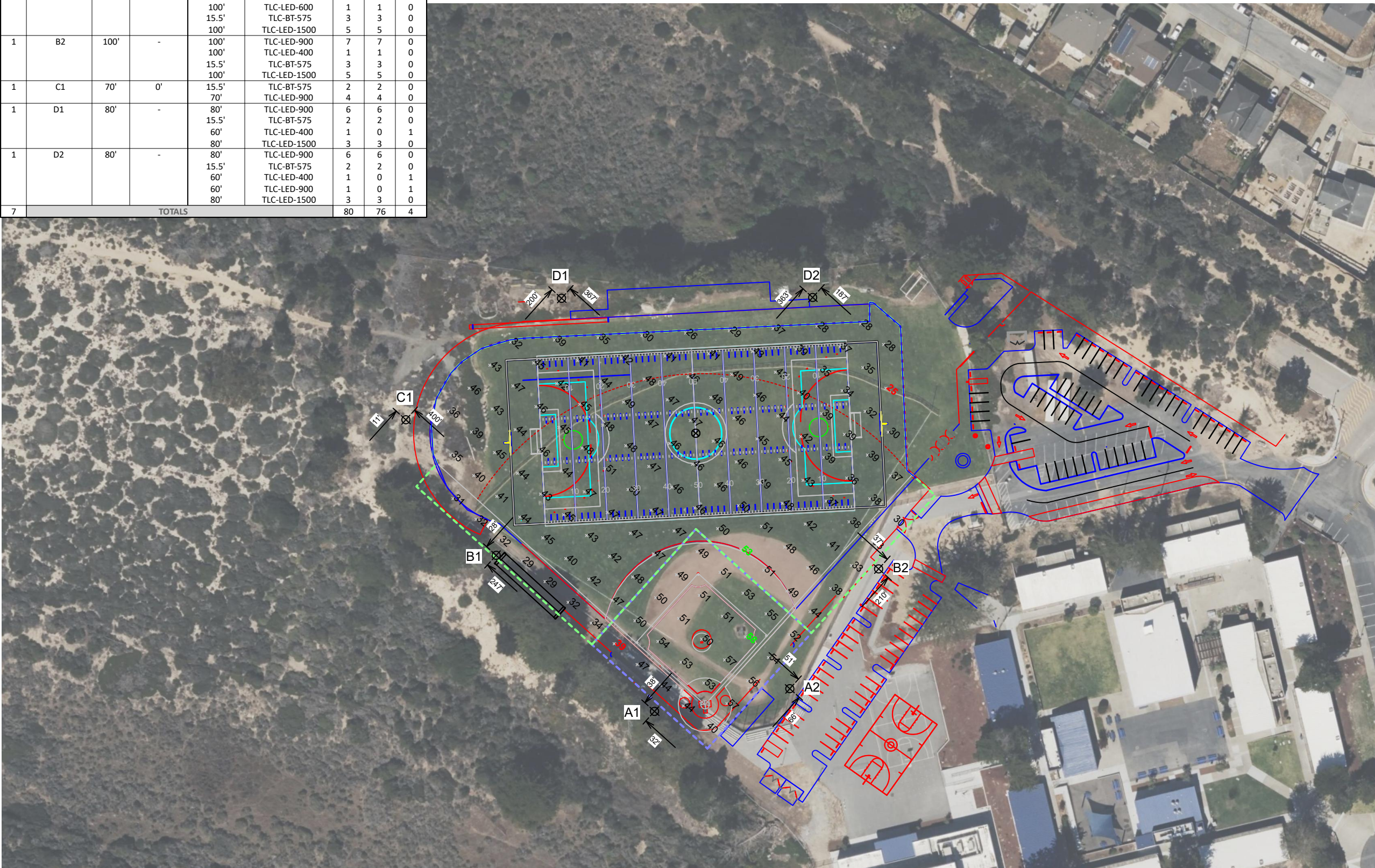
ILLUMINATION SUMMARY		
MAINTAINED HORIZONTAL FOOTCANDLES		
	Infield	Outfield
Guaranteed Average:	50	30
Scan Average:	50.79	41.61
Maximum:	58	53
Minimum:	39	25
Avg / Min:	1.30	1.68
Guaranteed Max / Min:	2	2.5
Max / Min:	1.47	2.15
UG (adjacent pts):	1.43	1.59
CU:	0.76	
No. of Points:	25	122
LUMINAIRE INFORMATION		
Applied Circuits:	A, B	
No. of Luminaires:	76	
Total Load:	71.07 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) ⊗



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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	B1	100'	0'	100'	TLC-LED-900	7	7	0
				100'	TLC-LED-600	1	1	0
				15.46'	TLC-BT-575	3	3	0
				100'	TLC-LED-1500	5	5	0
1	B2	100'	0'	100'	TLC-LED-900	7	7	0
				100'	TLC-LED-400	1	1	0
				15.46'	TLC-BT-575	3	3	0
				100'	TLC-LED-1500	5	5	0
1	D1	80'	0'	80'	TLC-LED-900	6	6	0
				15.46'	TLC-BT-575	2	2	0
				60'	TLC-LED-400	1	0	1
				80'	TLC-LED-1500	3	3	0
1	D2	80'	0'	80'	TLC-LED-900	6	6	0
				15.46'	TLC-BT-575	2	2	0
				60'	TLC-LED-400	1	0	1
				80'	TLC-LED-1500	3	3	0
4	TOTALS					57	54	3

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Soccer
Size:	300' x 165'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

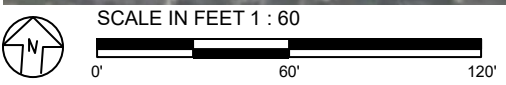
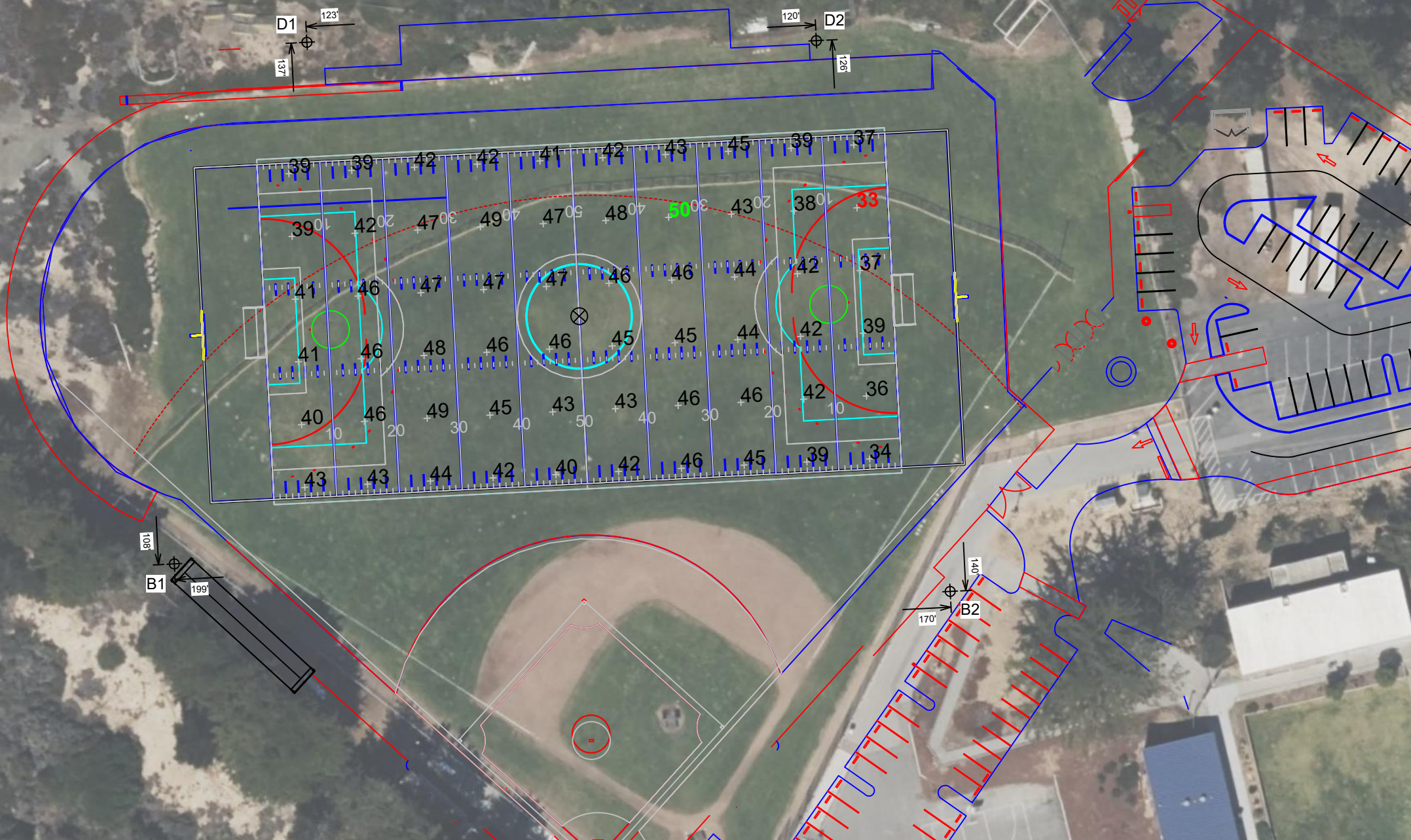
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	40
Scan Average:	43.09
Maximum:	50
Minimum:	33
Avg / Min:	1.29
Guaranteed Max / Min:	2
Max / Min:	1.49
UG (adjacent pts):	1.18
CU:	0.41
No. of Points:	60
LUMINAIRE INFORMATION	
Applied Circuits:	B
No. of Luminaires:	54
Total Load:	52.75 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) ⊗



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EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	B1	100'	0'	100'	TLC-LED-900	7	7	0	
				100'	TLC-LED-600	1	1	0	
				15.46'	TLC-BT-575	3	3	0	
				100'	TLC-LED-1500	5	5	0	
1	B2	100'	0'	100'	TLC-LED-900	7	7	0	
				100'	TLC-LED-400	1	1	0	
				15.46'	TLC-BT-575	3	3	0	
				100'	TLC-LED-1500	5	5	0	
1	D1	80'	0'	80'	TLC-LED-900	6	6	0	
				15.46'	TLC-BT-575	2	2	0	
				60'	TLC-LED-400	1	0	1	
				80'	TLC-LED-1500	3	3	0	
1	D2	80'	0'	80'	TLC-LED-900	6	6	0	
				15.46'	TLC-BT-575	2	2	0	
				60'	TLC-LED-400	1	0	1	
				60'	TLC-LED-900	1	0	1	
4	TOTALS					57	54	3	

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Football
Size:	360' x 160'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

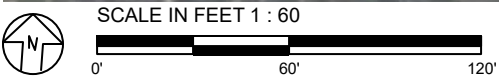
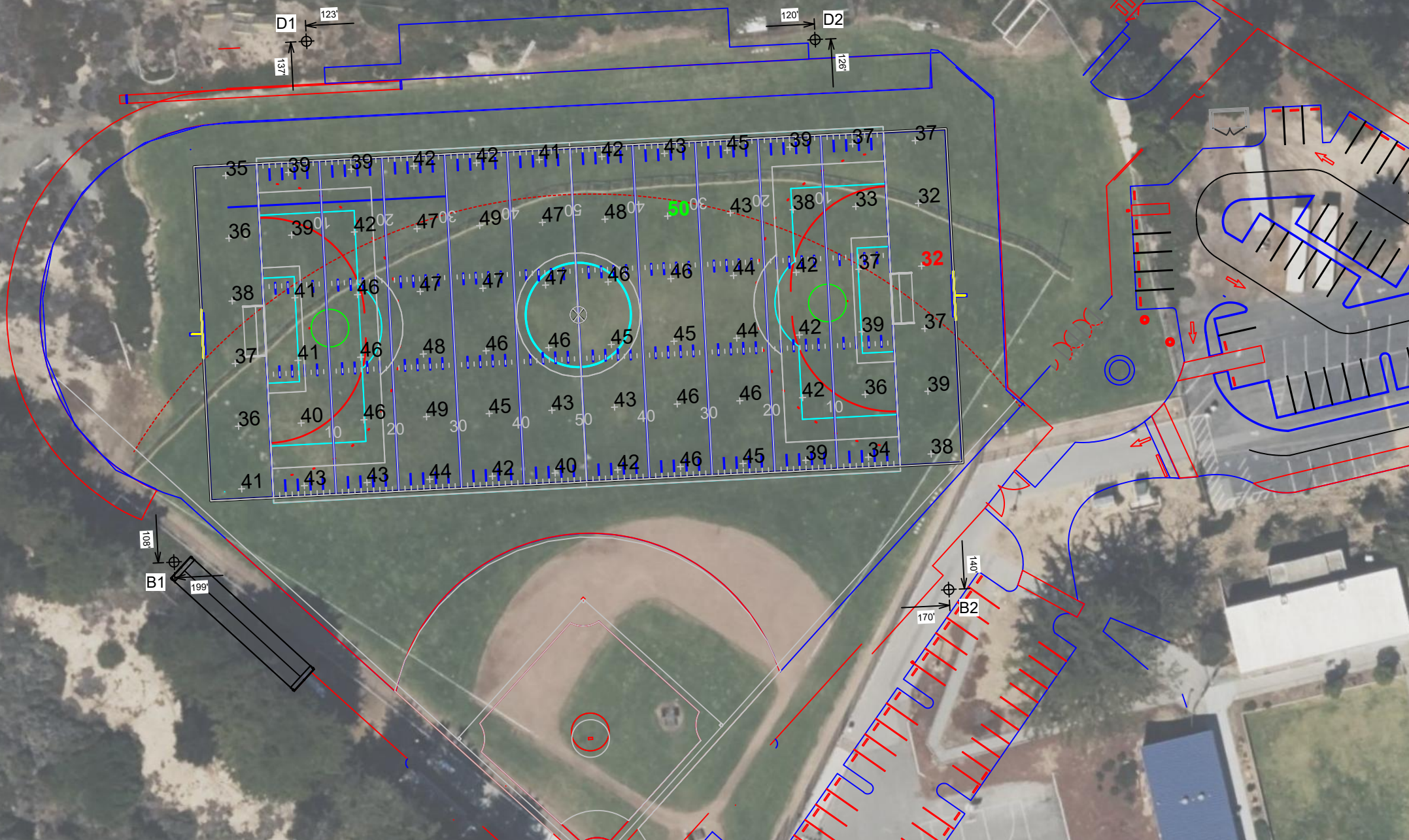
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	40
Scan Average:	41.98
Maximum:	50
Minimum:	32
Avg / Min:	1.32
Guaranteed Max / Min:	2
Max / Min:	1.57
UG (adjacent pts):	1.18
CU:	0.48
No. of Points:	72
LUMINAIRE INFORMATION	
Applied Circuits:	B
No. of Luminaires:	54
Total Load:	52.75 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) ⊗

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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
1	A2	80'	0'	15.46'	TLC-BT-575	1	0	1
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-900	7	0	7
1	TOTALS					9	1	8

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Baseball Bleacher
Size:	360' x 160'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

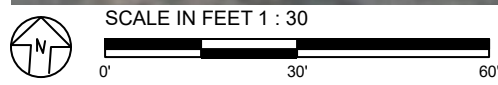
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	8.42
Maximum:	12
Minimum:	4
Avg / Min:	2.21
Max / Min:	3.23
UG (adjacent pts):	1.78
CU:	0.23
No. of Points:	12
LUMINAIRE INFORMATION	
Applied Circuits:	C
No. of Luminaires:	1
Total Load:	0.4 kW

**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								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A2	80'	0'	15.46'	TLC-BT-575	1	0	1
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-900	7	0	7
1	TOTALS					9	1	8

## Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	BB Path of Egress
Size:	360' x 160'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

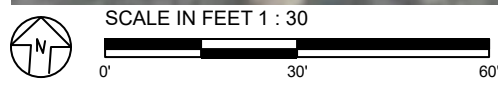
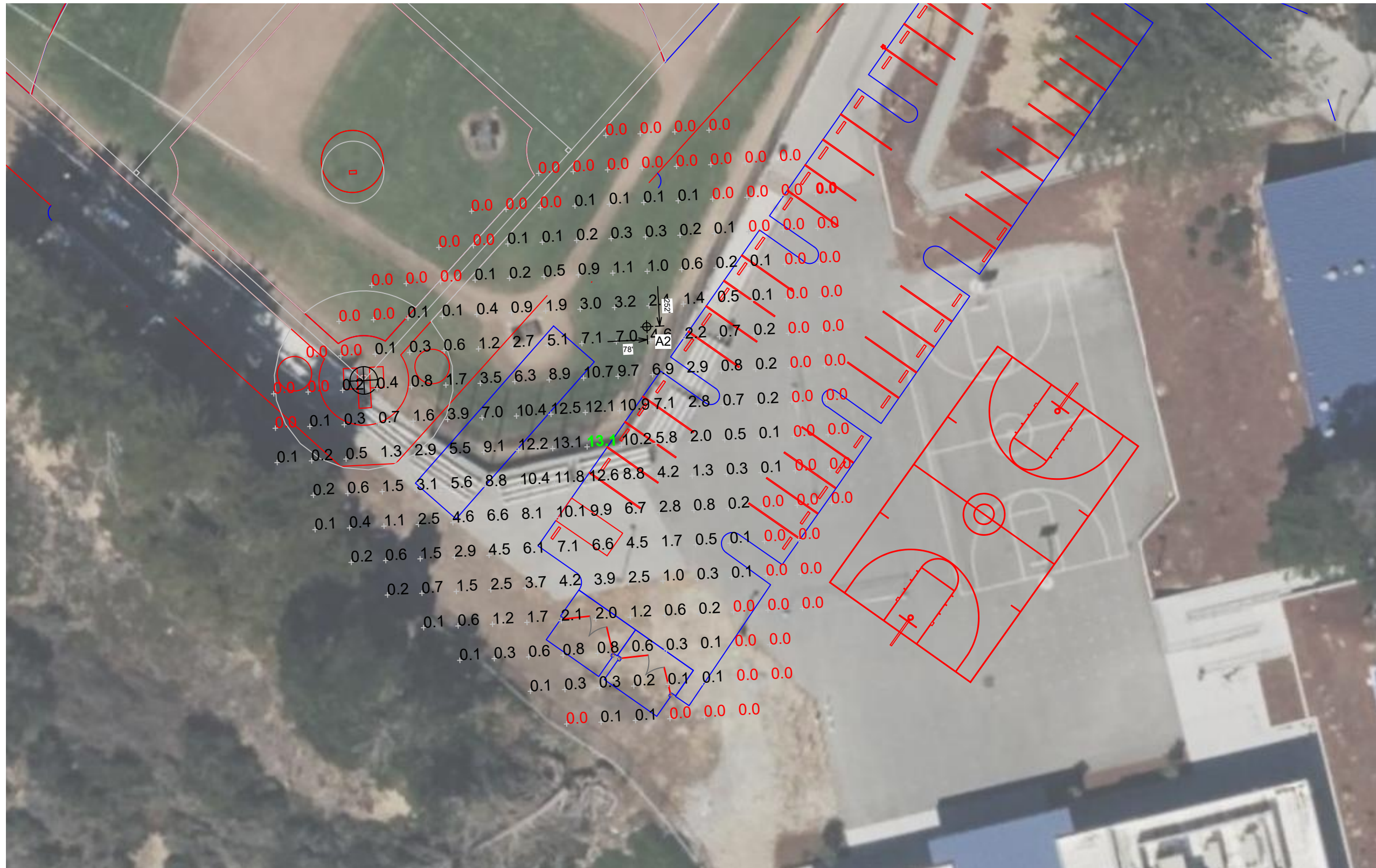
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	1.98
Maximum:	13
Minimum:	0
Avg / Min:	15640.05
Max / Min:	103316.25
UG (adjacent pts):	36.20
CU:	1.00
No. of Points:	226
LUMINAIRE INFORMATION	
Applied Circuits:	C
No. of Luminaires:	1
Total Load:	0.4 kW

**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) ⊗



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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	D1	80'	0'	80'	TLC-LED-900	6	0	6
				15.46'	TLC-BT-575	2	0	2
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-1500	3	0	3
1	D2	80'	0'	80'	TLC-LED-900	6	0	6
				15.46'	TLC-BT-575	2	0	2
				60'	TLC-LED-400	1	1	0
				60'	TLC-LED-900	1	1	0
2	TOTALS					25	3	22

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	FB Bleacher
Size:	360' x 160'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

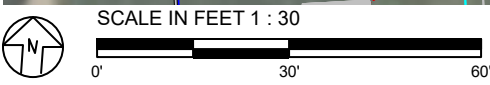
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	5.99
Maximum:	9
Minimum:	4
Avg / Min:	1.57
Max / Min:	2.24
UG (adjacent pts):	1.21
CU:	0.15
No. of Points:	48
LUMINAIRE INFORMATION	
Applied Circuits:	D
No. of Luminaires:	3
Total Load:	1.69 kW

**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) ⊗



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**EQUIPMENT LIST FOR AREAS SHOWN**

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	D1	80'	0'	80'	TLC-LED-900	6	0	6
				15.46'	TLC-BT-575	2	0	2
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-1500	3	0	3
1	D2	80'	0'	80'	TLC-LED-900	6	0	6
				15.46'	TLC-BT-575	2	0	2
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-1500	3	0	3
2	TOTALS					25	3	22

**Marina High School Sports Fields**

Marina, CA

GRID SUMMARY	
Name:	FB Path of Egress
Size:	360' x 160'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

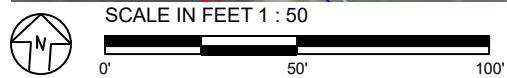
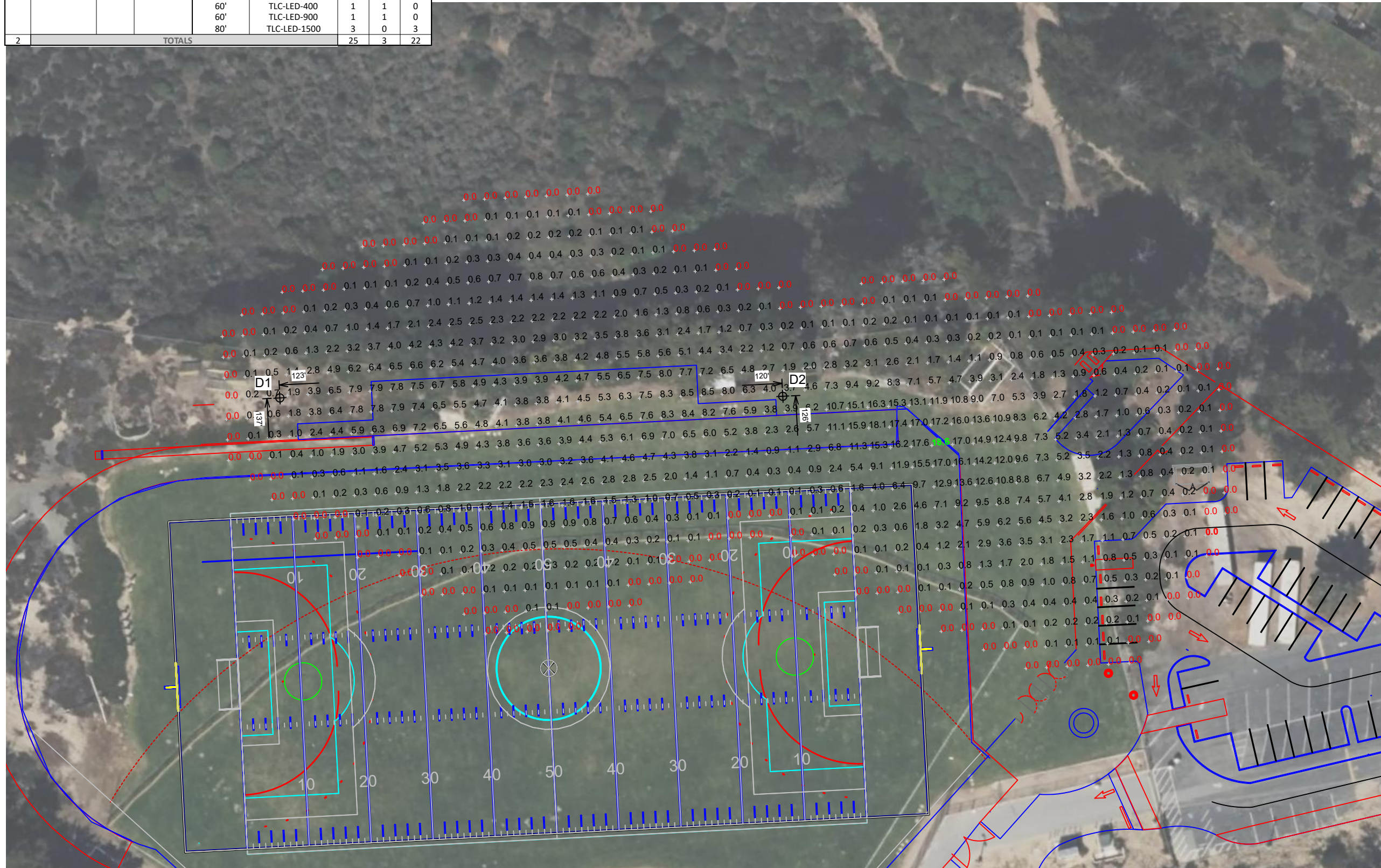
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	2.31
Maximum:	19
Minimum:	0
Avg / Min:	2036.12
Max / Min:	16372.90
UG (adjacent pts):	73.90
CU:	1.00
No. of Points:	807
LUMINAIRE INFORMATION	
Applied Circuits:	D
No. of Luminaires:	3
Total Load:	1.69 kW

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

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**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) ⊗

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**ILLUMINATION SUMMARY**

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Track
Size:	360' x 160'
Spacing:	15.0' x 15.0'
Height:	3.0' above grade

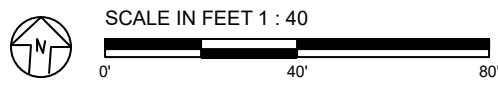
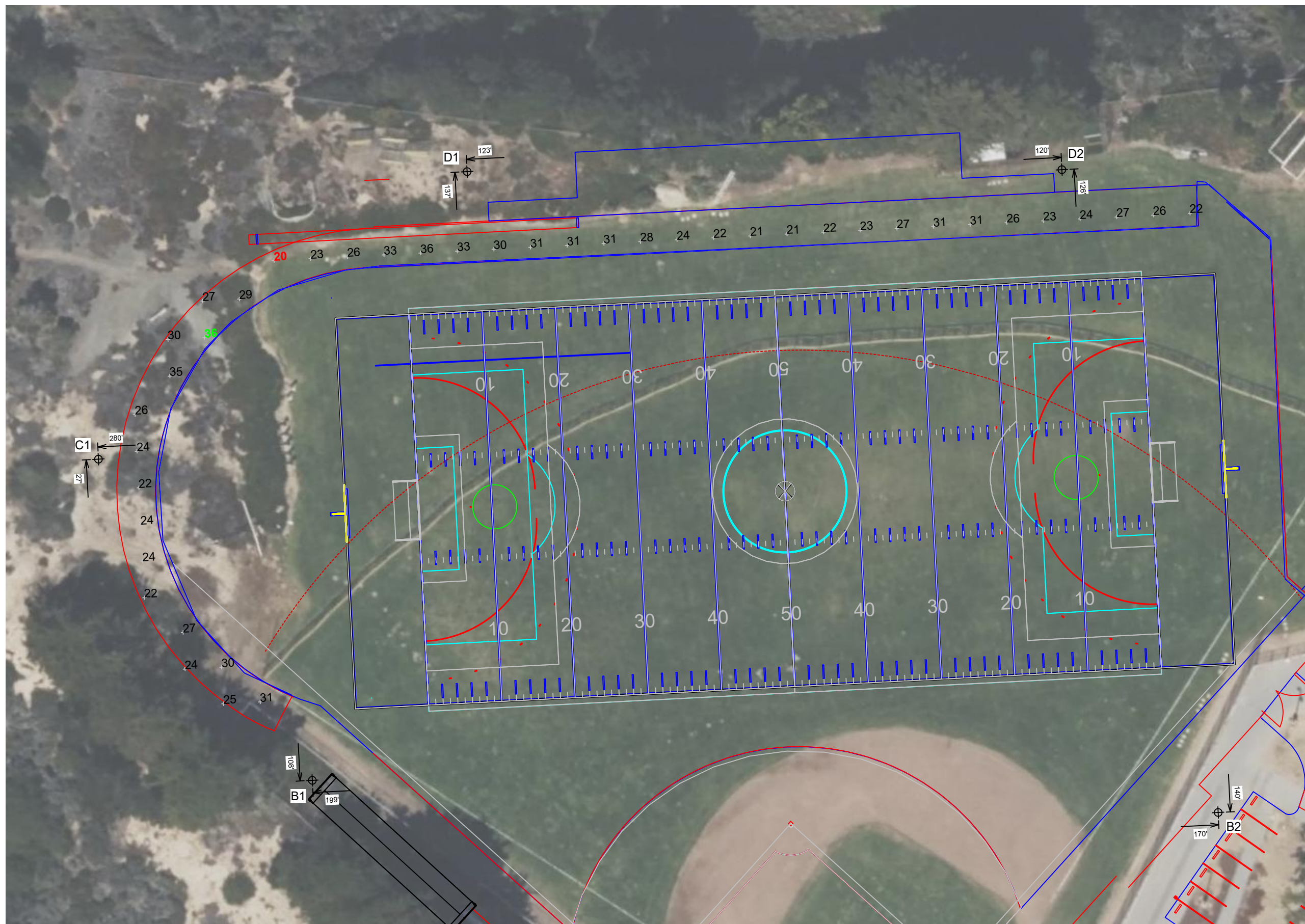
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	26.85
Maximum:	36
Minimum:	20
Avg / Min:	1.31
Max / Min:	1.77
UG (adjacent pts):	1.32
CU:	0.05
No. of Points:	42
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	76
Total Load:	71.07 kW

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



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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	
1	A1	80'	0'	15.46'	TLC-BT-575	1	1	0	
				80'	TLC-LED-900	7	7	0	
1	A2	80'	0'	15.46'	TLC-BT-575	1	1	0	
				60'	TLC-LED-400	1	0	1	
				80'	TLC-LED-900	7	7	0	
1	B1	100'	0'	100'	TLC-LED-900	7	7	0	
				100'	TLC-LED-600	1	1	0	
				15.46'	TLC-BT-575	3	3	0	
				100'	TLC-LED-1500	5	5	0	
1	B2	100'	0'	100'	TLC-LED-900	7	7	0	
				100'	TLC-LED-400	1	1	0	
				15.46'	TLC-BT-575	3	3	0	
				100'	TLC-LED-1500	5	5	0	
1	C1	70'	0'	15.46'	TLC-BT-575	2	2	0	
				70'	TLC-LED-900	4	4	0	
1	D1	80'	0'	80'	TLC-LED-900	6	6	0	
				15.46'	TLC-BT-575	2	2	0	
				60'	TLC-LED-400	1	0	1	
1	D2	80'	0'	80'	TLC-LED-900	3	3	0	
				80'	TLC-LED-900	6	6	0	
				15.46'	TLC-BT-575	2	2	0	
				60'	TLC-LED-400	1	0	1	
7	TOTALS			80'	TLC-LED-900	3	3	0	
				15.46'	TLC-BT-575	2	2	0	
				60'	TLC-LED-400	1	0	1	
				80'	TLC-LED-900	3	3	0	
7						80	76	4	

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Bullpen
Size:	360' x 160'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	20.98
Maximum:	22
Minimum:	20
Avg / Min:	1.06
Max / Min:	1.14
UG (adjacent pts):	1.14
CU:	0.00
No. of Points:	4
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	76
Total Load:	71.07 kW

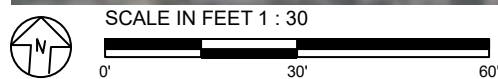


**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**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) ⊗



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# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Baseball Spill
Spacing:	30.0'
Height:	3.0' above grade

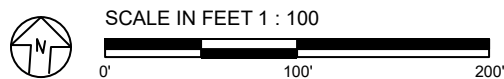
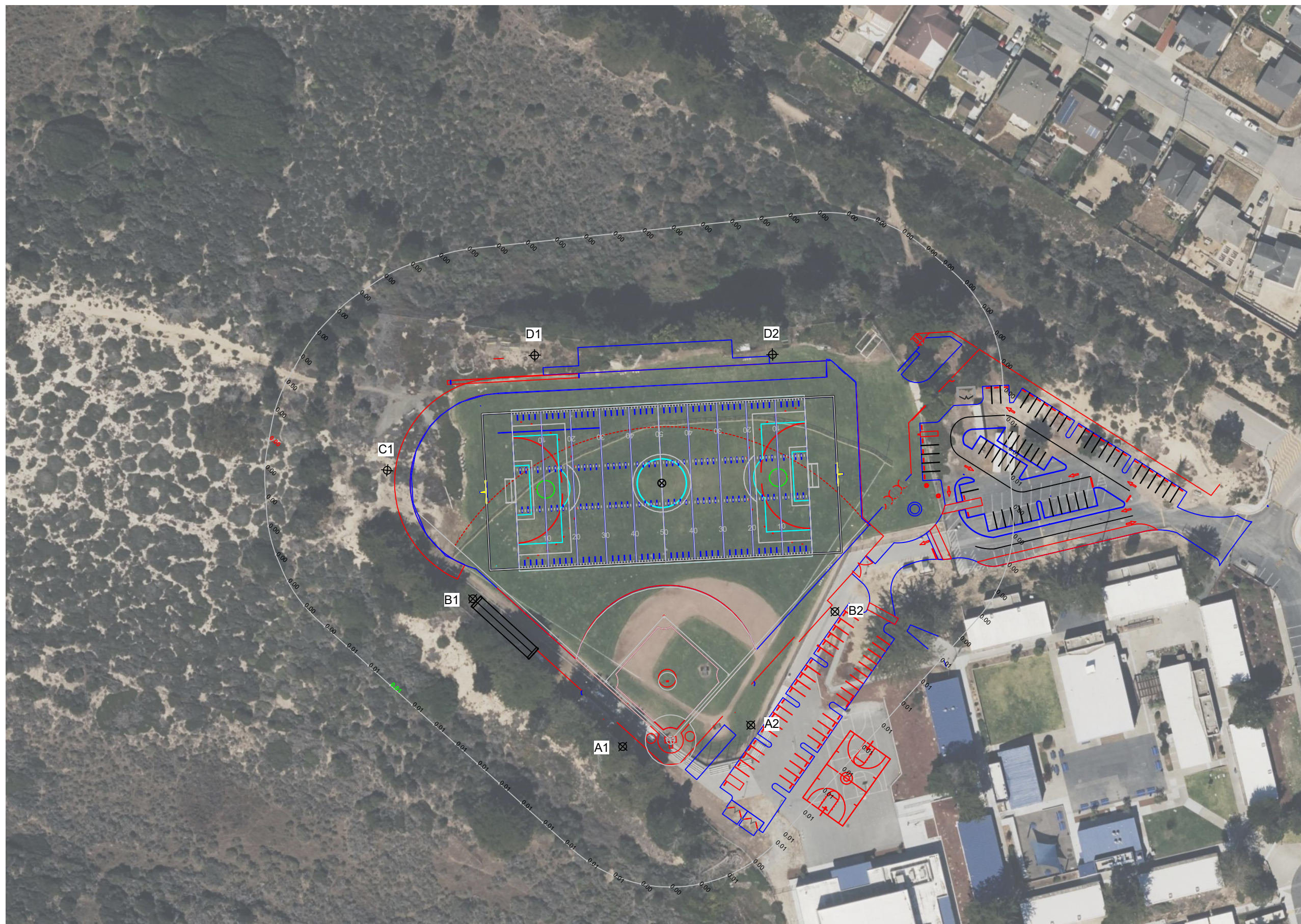
ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Scan Average:	Entire Grid 0.0046
Maximum:	0.01
Minimum:	0.00
No. of Points:	77
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C, D
No. of Luminaires:	80
Total Load:	73.16 kW

**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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**ILLUMINATION SUMMARY**

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Baseball Spill
Spacing:	30.0'
Height:	3.0' above grade

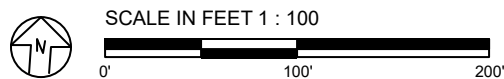
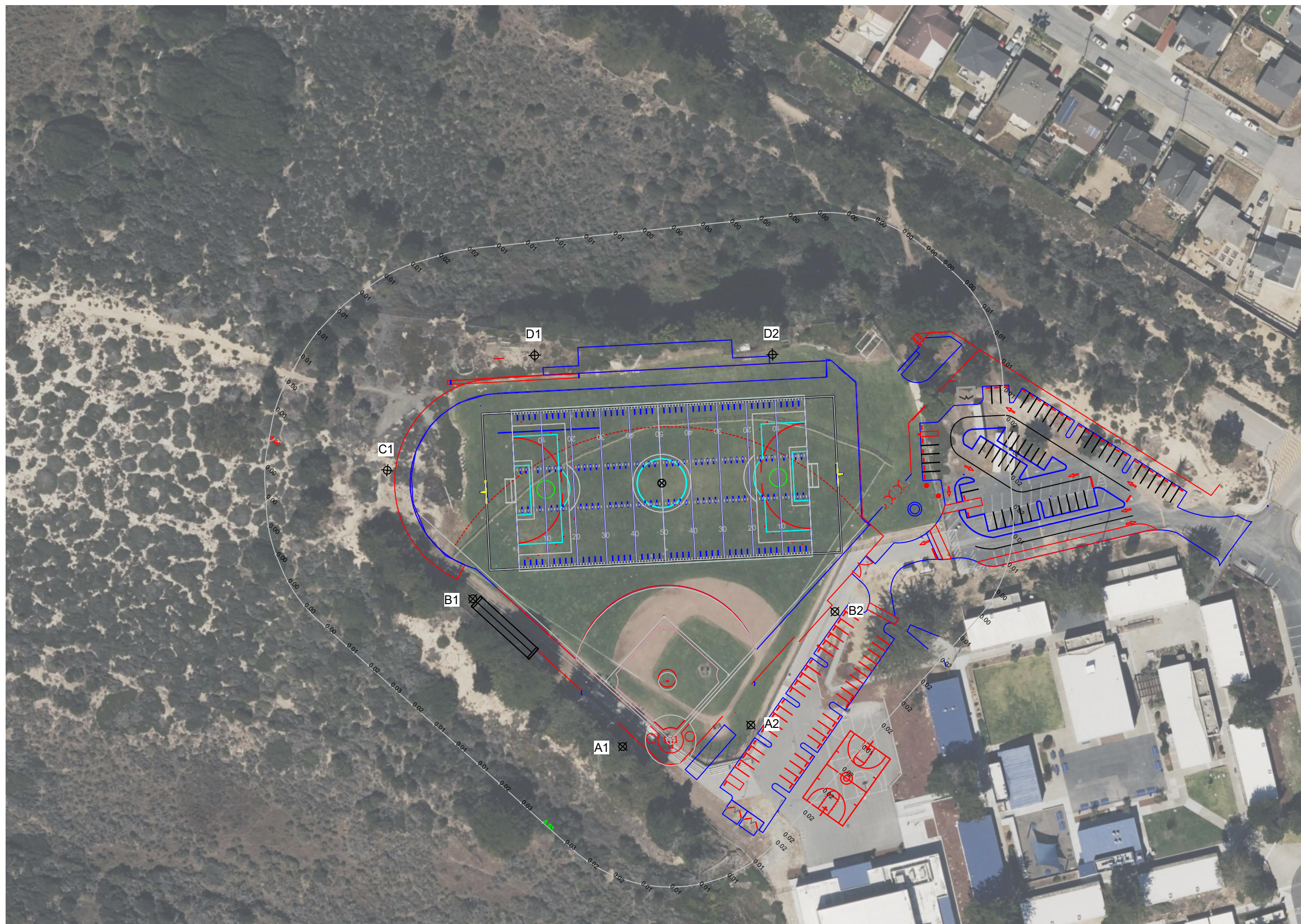
ILLUMINATION SUMMARY	
MAX VERTICAL FOOTCANDLES	
Scan Average:	Entire Grid 0.0114
Maximum:	0.03
Minimum:	0.00
No. of Points:	77
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C, D
No. of Luminaires:	80
Total Load:	73.16 kW

**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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**ILLUMINATION SUMMARY**

# Marina High School Sports Fields

Marina, CA

GRID SUMMARY	
Name:	Baseball Spill
Spacing:	30.0'
Height:	3.0' above grade

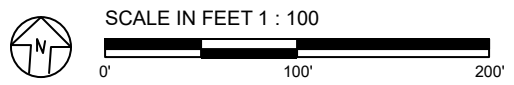
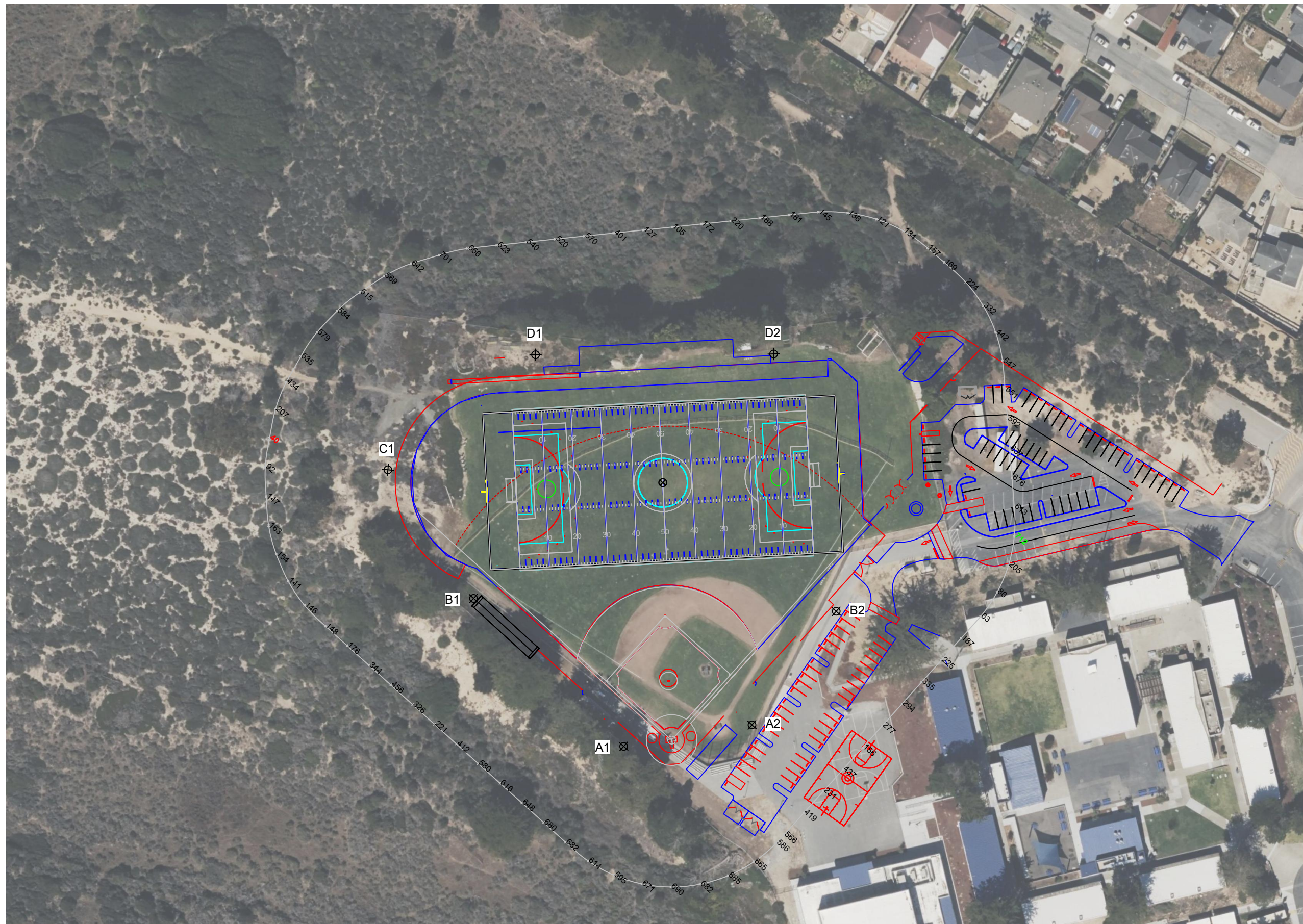
ILLUMINATION SUMMARY	
CANDELA (PER FIXTURE)	
Scan Average:	Entire Grid 392.1303
Maximum:	711.80
Minimum:	39.62
No. of Points:	77
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C, D
No. of Luminaires:	80
Total Load:	73.16 kW

**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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ILLUMINATION SUMMARY

# Marina High School Sports Fields

Marina, CA

## EQUIPMENT LAYOUT

### INCLUDES:

- Baseball
- Football
- Soccer

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

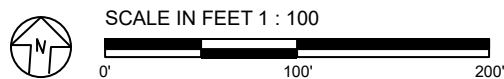
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

## EQUIPMENT LIST FOR AREAS SHOWN

QTY	Pole			Luminaires		
	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
1	A1	80'	-	15.5'	TLC-BT-575	1
				80'	TLC-LED-900	7
1	A2	80'	-	15.5'	TLC-BT-575	1
				60'	TLC-LED-400	1
				80'	TLC-LED-900	7
1	B1	100'	-	100'	TLC-LED-900	7
				100'	TLC-LED-600	1
				15.5'	TLC-BT-575	3
				100'	TLC-LED-1500	5
1	B2	100'	-	100'	TLC-LED-900	7
				100'	TLC-LED-400	1
				15.5'	TLC-BT-575	3
				100'	TLC-LED-1500	5
1	C1	70'	0'	15.5'	TLC-BT-575	2
				70'	TLC-LED-900	4
1	D1	80'	-	80'	TLC-LED-900	6
				15.5'	TLC-BT-575	2
				60'	TLC-LED-400	1
				80'	TLC-LED-1500	3
1	D2	80'	-	80'	TLC-LED-900	6
				15.5'	TLC-BT-575	2
				60'	TLC-LED-400	1
				60'	TLC-LED-900	1
				80'	TLC-LED-1500	3
7	TOTALS					80

## SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
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-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-LED-600	3.4	3.2	3.0	2.6	2.0	1.9	1.5
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5



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