

*Superior light control and long term reliability*

- Alignment
- Thermal Management
- LED Optic
- Housing Internal Environment

## Heat Sink

- Unique convective air cooling design
- High thermal conductivity, corrosion resistant construction
- Machined mounting surface for maximum heat transfer of the diode assembly
- Maintains low LED junction temperature during high wattage operation

## Lens

- Permanently sealed to keep optics away from harmful environmental elements
- Vented and filtered to adapt to environment
- Impact-resistant, tempered glass for strength

## Knuckle Assembly and Connection Plate

- Factory aimed to within 0.2 degree accuracy
- Maintains alignment in up to 150 mph winds
- Internal wiring protected from elements
- Completes integration of lighting to structural and electrical components

## Diode Assembly

- Custom high-power diode package
- Metal core printed circuit board

## Optics

- High-temperature rated materials for long life
- Multiple beam spreads to meet custom project requirements and provide maximum light control

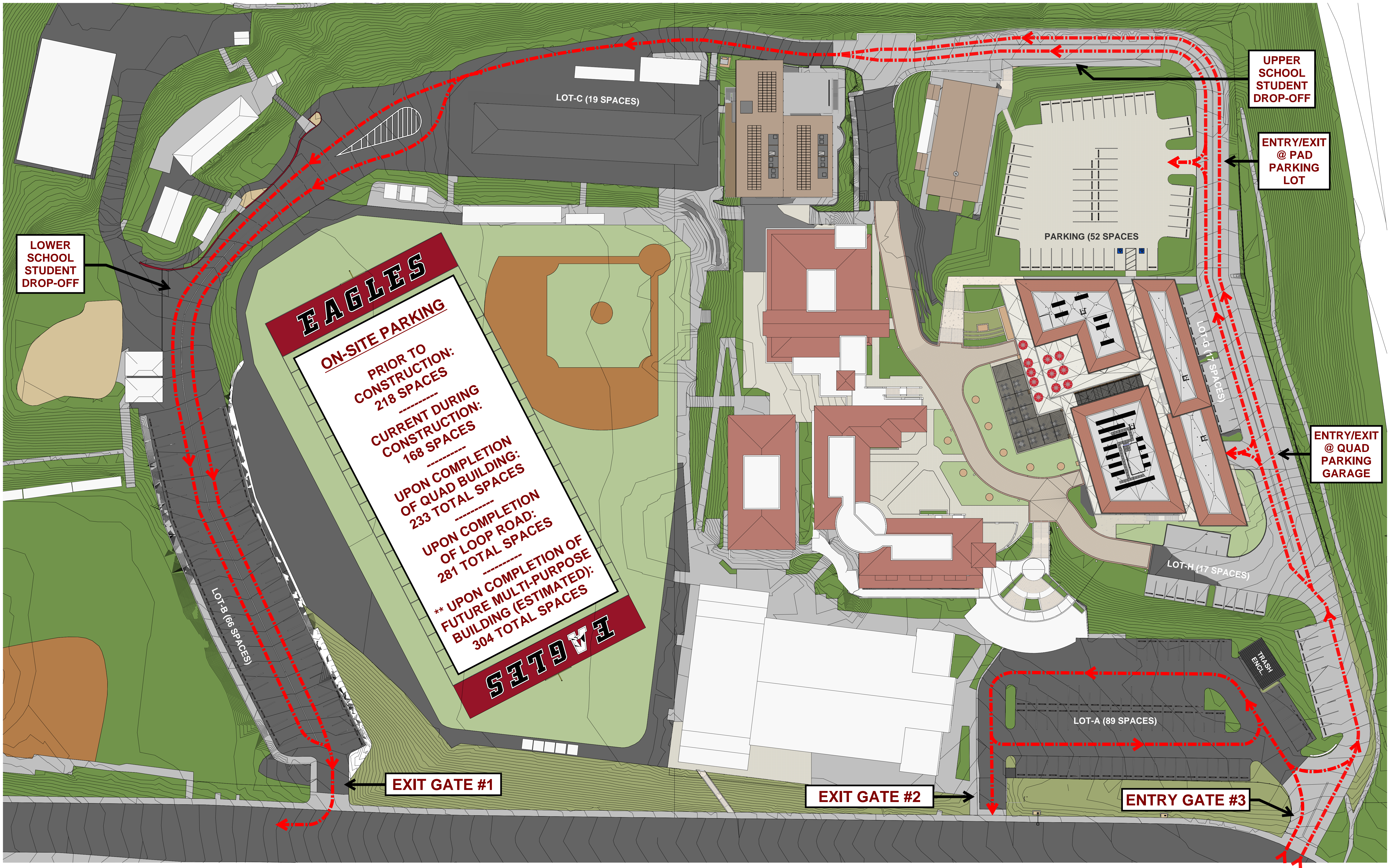
## Light Control Visor

- Multiple visor lengths and reflector options allow for precise light control
- Directs more light onto the field
- Dramatically reduces glare and spill
- Enhances on-field playability

## Total Light Control™ – TLC-LED-1200 Luminaire










SANTA FE CHRISTIAN SCHOOLS

SPORT FIELD LIGHTING



SANTA FE CHRISTIAN SCHOOLS

PHASE 1B & 1C

SPORT FIELD LIGHTING

OWNER

SANTA FE CHRISTIAN SCHOOLS  
838 ACADEMY DRIVE  
SOLANA BEACH, CA 92075  
P: 858.755.8900  
F: 858.755.2480

ASSESSOR'S PARCEL NUMBER (APN)

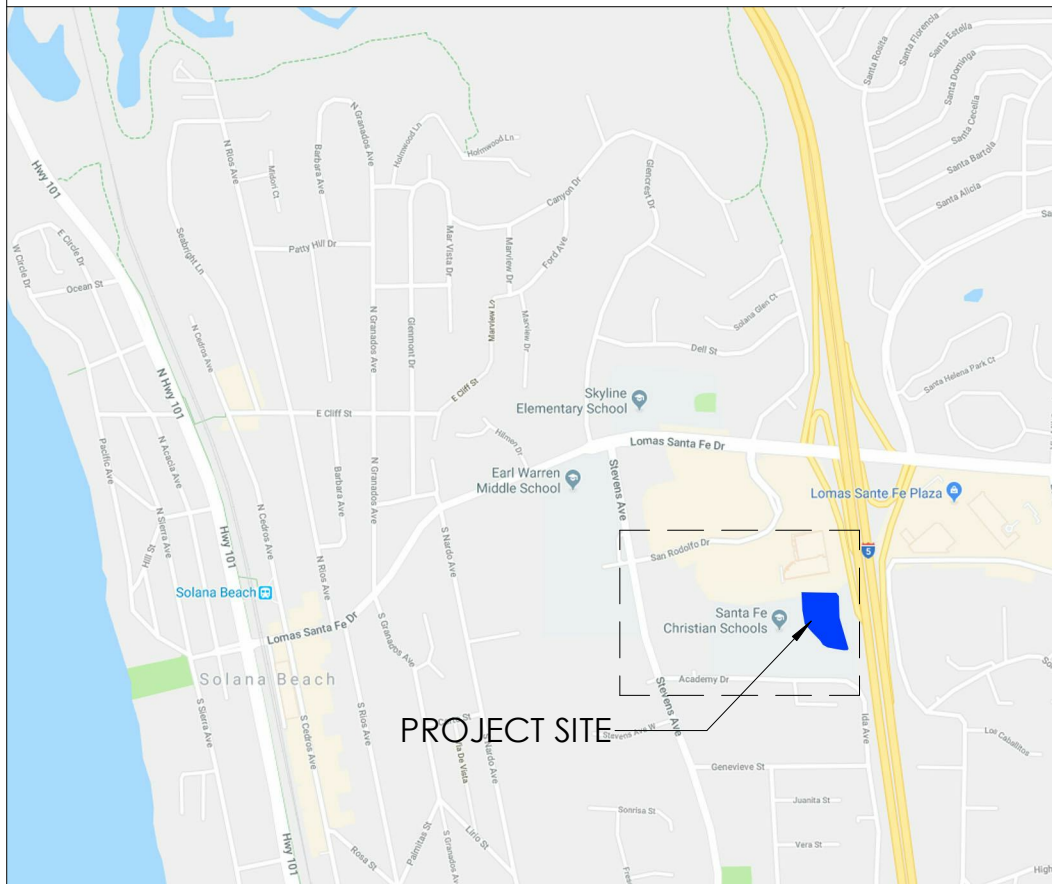
298-112-29-00  
298-112-30-00

ARCHITECT

Safdie Rabines Architects  
925 Fort Stockton Drive  
San Diego, CA 92103  
P: 619.297.6153  
F: 619.299.6072  
www.safdierabines.com

ENTITLEMENT PACKAGE

838 ACADEMY DRIVE, SOLANA BEACH, SAN DIEGO, CALIFORNIA 92075

PARKING COUNT	SHEET INDEX	PROJECT/PARCEL INFORMATION	PROPERTY OWNER																																																												
<table><tr><th colspan="5">PARKING PROVIDED - SPORT FIELD LIGHTING</th></tr><tr><th></th><th>STANDARD</th><th colspan="2">ACCESSIBLE</th><th>SUBTOTAL</th></tr><tr><th></th><th></th><th>CAR</th><th>VAN</th><th></th></tr><tr><td>PARKING LOT A</td><td>85</td><td>2</td><td>2</td><td>89</td></tr><tr><td>PARKING LOT B</td><td>63</td><td>2</td><td>1</td><td>66</td></tr><tr><td>PARKING LOT C</td><td>17</td><td>2</td><td>-</td><td>19</td></tr><tr><td>PARKING LOT D</td><td>49</td><td>2</td><td>1</td><td>52</td></tr><tr><td>PARKING LOT G</td><td>13</td><td>-</td><td>-</td><td>13</td></tr><tr><td>PARKING LOT H</td><td>15</td><td>1</td><td>1</td><td>17</td></tr><tr><td>PARKING GARAGE</td><td>23</td><td>1</td><td>1</td><td>25</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td>TOTAL (LOOP ROAD COMPLETION)</td><td>265</td><td>10</td><td>6</td><td>281</td></tr></table>	PARKING PROVIDED - SPORT FIELD LIGHTING						STANDARD	ACCESSIBLE		SUBTOTAL			CAR	VAN		PARKING LOT A	85	2	2	89	PARKING LOT B	63	2	1	66	PARKING LOT C	17	2	-	19	PARKING LOT D	49	2	1	52	PARKING LOT G	13	-	-	13	PARKING LOT H	15	1	1	17	PARKING GARAGE	23	1	1	25						TOTAL (LOOP ROAD COMPLETION)	265	10	6	281	<p>01 - GENERAL G.001      TITLE SHEET</p> <p>04 - ARCHITECTURE A.100      SPORT FIELD LIGHTING - SITE PLAN</p> <p>07 - LIGHTING L-001      PROJECT SUMMARY L-002      ILLUMINATION SUMMARY L-003      ILLUMINATION SUMMARY L-004      ILLUMINATION SUMMARY L-005      ILLUMINATION SUMMARY L-006      ILLUMINATION SUMMARY L-007      ILLUMINATION SUMMARY L-008      EQUIPMENT LAYOUT L-009      PROJECT SUMMARY L-010      ILLUMINATION SUMMARY L-011      ILLUMINATION SUMMARY L-012      ILLUMINATION SUMMARY L-013      ILLUMINATION SUMMARY L-014      EQUIPMENT LAYOUT SHEET TOTAL: 16</p>	<p><b>PROJECT SCOPE:</b> SPORT FIELD LIGHTING FOR THE FOOTBALL FIELD, SOCCER FIELD, BASEBALL FIELD &amp; SOFTBALL FIELD.</p> <p><b>PROJECT ADDRESS:</b> 838 ACADEMY DRIVE SOLANA BEACH SAN DIEGO, CA 92075</p> <p><b>ASSESSOR'S PARCEL NUMBERS:</b> 298-112-29-00, 298-112-30-00</p> <p><b>ZONING &amp; OVERLAY ZONES:</b> MHRd (MEDIUM-HIGH RESIDENTIAL) HILLSIDE OVERLAY ZONE</p> <p><b>LEGAL DESCRIPTION:</b> PARCEL 1: APN: 298-112-29-00</p> <p>THE NORTH HALF OF LOT 1, NORTHEAST QUARTER OF THE NORTHEAST QUARTER, SECTION 2, TOWNSHIP 14 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, CITY OF SOLANA BEACH, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY APPROVED JANUARY 18, 1876. EXCEPT THAT PORTION OF THE NORTH HALF OF LOT 1, NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 2, TOWNSHIP 14 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, LYING EASTERLY OF A LINE DESCRIBED AS FOLLOWS:</p> <p>BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 2, AS SHOWN ON L. S. MAP NO. 375, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY; THENCE ALONG THE NORTH LINE OF SAID SECTION 2, NORTH 89°06'50" WEST, 279.69 FEET TO A LINE WHICH BEARS NORTH 25°58' 24 EAST FROM A POINT BEING AT COORDINATES 7-302, 088.66 FEET AND X-1.691.37 FEET; THENCE ALONG SAID LINE SOUTH 25°58'24" WEST, 35.54 FEET TO THE LAST SAID POINT; THENCE SOUTH 8°41'11" EAST 175.07 FEET; THENCE SOUTH 16°43'24" EAST, 446.35 FEET; THENCE SOUTH 89°49'37" WEST 227.20 FEET; THENCE SOUTH 0°40'49" WEST 30.00 FEET TO THE SOUTH LINE OF SAID NORTH HALF OF LOT 1; THENCE ALONG SAID LINE, SOUTH 89°19'11 EAST 356.77 FEET TO THE SOUTHEAST CORNER OF SAID NORTH HALF OF LOT 1, AS SHOWN ON SAID L. S. MAP NO. 375.</p> <p>PARCEL 2: APN: 298-112-30-00</p> <p>THAT PORTION OF LOT 1, NORTHEAST QUARTER OF THE NORTHEAST QUARTER, SECTION 2, TOWNSHIP 14 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY APPROVED JANUARY 18, 1876, DESCRIBED AS FOLLOWS:</p> <p>BEGINNING AT A POINT ON THE NORTHERLY LINE OF SAID LOT 1, DISTANT ALONG SAID LINE NORTH 89°06'50" WEST 279.69 FROM THE NORTHEAST CORNER OF THE LAND DESCRIBED IN DEED TO THE STATE OF CALIFORNIA, RECORDED NOVEMBER 2, 1961, AS INSTRUMENT NO. 190255 OF OFFICIAL RECORDS; THENCE ALONG WESTERLY BOUNDARY OF SAID STATE LAND, SOUTH 25°58'24" WEST 35.54 FEET; THENCE SOUTH 8°41'11" EAST, 175.07 FEET; THENCE LEAVING SAID WESTERLY BOUNDARY NORTH 3°02'11" WEST 205.30 FEET TO THE POINT OF BEGINNING.</p> <p><b>JURISDICTIONAL AUTHORITIES:</b> CITY OF SOLANA BEACH</p> <p><b>EXISTING SITE AREA:</b> 16.31 ACRES (710,424 SF)</p> <p><b>SET BACK REQUIREMENTS:</b> MIN. FRONT SETBACK: 25' - 0" MIN. SIDE SETBACK: 5' - 0" MIN. STREET SIDE SETBACK: 10' - 0" MIN. REAR SETBACK: 25' - 0"</p>	<p><b>SANTA FE CHRISTIAN SCHOOL</b> 838 ACADEMY DRIVE, SOLANA BEACH, SAN DIEGO, CA 92075 (858) 755-8900</p> <p><b>PROJECT TEAM</b></p> <p><b>ARCHITECT</b> Safdie Rabines Architects 925 Fort Stockton Drive San Diego, CA 92103 (619) 297-6153</p> <p><b>LIGHTING</b> Musco Sports Lighting, LLC 3002 Dow Ave, Suite 504 Tustin, CA 92780 (858) 232-1620</p>
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		<p><b>VICINITY MAP</b></p> 																																																													

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TAAL SAFDIE  
LICENSE: C 24394

NOT FOR  
CONSTRUCTION

ISSUED FOR  
INFORMATION  
ONLY

REVISIONS		
No.	Description	Date
Issue Date                      Scale		
MARCH 16, 2022		
SRA Project Number		
1816		

TITLE SHEET

G.001







Santa Fe Christian School Football

Solana Beach,CA

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1-A2	80'	80'	1	TLC-LED-1200	1.17 kW	A
		80'	3	TLC-LED-900	2.67 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
B1	90'	90'	2	TLC-LED-1500	2.86 kW	A
		90'	2	TLC-LED-1500	2.86 kW	B
		90'	8	TLC-LED-900	7.12 kW	A
		90'	2	TLC-LED-900	1.78 kW	B
		16'	3	TLC-BT-575	1.73 kW	A
B2	90'	90'	1	TLC-LED-1200	1.17 kW	B
		90'	2	TLC-LED-1200	2.34 kW	A
		90'	1	TLC-LED-1500	1.43 kW	B
		90'	1	TLC-LED-1500	1.43 kW	A
		90'	6	TLC-LED-900	5.34 kW	A
		90'	2	TLC-LED-900	1.78 kW	B
C1	80'	16'	3	TLC-BT-575	1.73 kW	A
		80'	3	TLC-LED-1500	4.29 kW	A
		80'	1	TLC-LED-1500	1.43 kW	B
		80'	6	TLC-LED-900	5.34 kW	B
C2	80'	16'	2	TLC-BT-575	1.15 kW	A
		80'	1	TLC-LED-1500	1.43 kW	B
		80'	3	TLC-LED-1500	4.29 kW	A
		80'	4	TLC-LED-900	3.56 kW	B
		80'	2	TLC-LED-900	1.78 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
6			67		64.81 kW	

Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Baseball	44.03 kW	47
B	Football	20.78 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	14
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	36
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	5
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					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Baseball (Infield)	Horizontal Illuminance	54.2	38	68	1.80	1.43	A	47
Baseball (Outfield)	Horizontal Illuminance	32.8	21	50	2.38	1.56	A	47
Football	Horizontal Illuminance	50.6	31	61	1.97	1.63	B,A	67
Soccer	Horizontal Illuminance	50.7	32	62	1.91	1.58	B,A	67
Spill	Horizontal	0.01	0	0.05	0.00		A,B,C	67
Spill	Max Candela (by Fixture)	0	0	0	0.00		A,B,C	67
Spill	Max Vertical Illuminance Metric	0	0	0	0.00		A,B,C	67

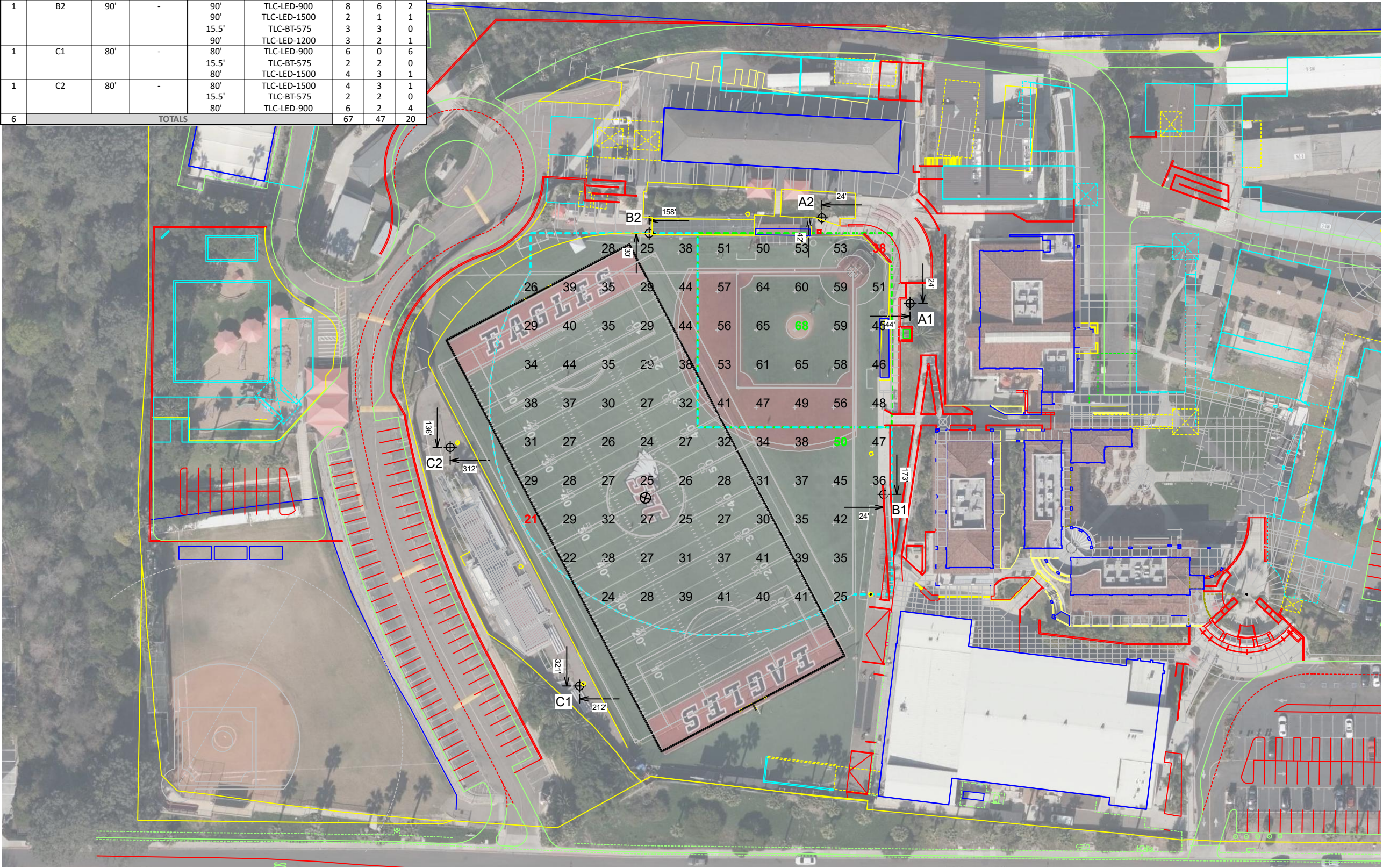
From Hometown to Professional



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	
2	A1-A2	80'	-	80'	TLC-LED-1200	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				80'	TLC-LED-900	3	3	0	
1	B1	90'	-	90'	TLC-LED-900	10	8	2	
				15.5'	TLC-BT-575	3	3	0	
				90'	TLC-LED-1500	4	2	2	
1	B2	90'	-	90'	TLC-LED-900	8	6	2	
				90'	TLC-LED-1500	2	1	1	
				15.5'	TLC-BT-575	3	3	0	
1	C1	80'	-	90'	TLC-LED-1200	3	2	1	
				80'	TLC-LED-900	6	0	6	
				15.5'	TLC-BT-575	2	2	0	
1	C2	80'	-	80'	TLC-LED-1500	4	3	1	
				15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-900	6	2	4	
6	TOTALS					67	47	20	



Santa Fe Christian School Football  
Solana Beach, CA

GRID SUMMARY	
Name:	Baseball
Size:	250'/325'/250' - basepath 90'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY		
MAINTAINED HORIZONTAL FOOTCANDLES		
	Infield	Outfield
Guaranteed Average:	50	50
Scan Average:	54.2	32.8
Maximum:	68	50
Minimum:	38	21
Avg / Min:	1.44	1.55
Guaranteed Max / Min:	2	2.5
Max / Min:	1.80	2.38
UG (adjacent pts):	1.41	1.61
CU:	0.69	
No. of Points:	25	67
LUMINAIRE INFORMATION		
Applied Circuits:	A	
No. of Luminaires:	47	
Total Load:	44.03 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.

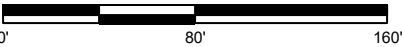


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ILLUMINATION SUMMARY

SCALE IN FEET 1 : 80



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



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	80'	0'	80'	TLC-LED-1200	1	1	0
				15.48'	TLC-BT-575	1	1	0
				80'	TLC-LED-900	3	3	0
1	B1	90'	0'	90'	TLC-LED-900	10	10	0
				15.48'	TLC-BT-575	3	3	0
				90'	TLC-LED-1500	4	4	0
1	B2	90'	0'	90'	TLC-LED-900	8	8	0
				90'	TLC-LED-1500	2	2	0
				15.48'	TLC-BT-575	3	3	0
1	C1	80'	0'	90'	TLC-LED-1200	3	3	0
				80'	TLC-LED-900	6	6	0
				15.48'	TLC-BT-575	2	2	0
1	C2	80'	0'	80'	TLC-LED-1500	4	4	0
				15.48'	TLC-BT-575	2	2	0
				80'	TLC-LED-900	6	6	0
6	TOTALS					67	67	0



Santa Fe Christian School Football  
Solana Beach, 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:	50
Scan Average:	50.6
Maximum:	61
Minimum:	31
Avg / Min:	1.63
Guaranteed Max / Min:	2
Max / Min:	1.97
UG (adjacent pts):	1.54
CU:	0.48
No. of Points:	72
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	67
Total Load:	64.81 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.

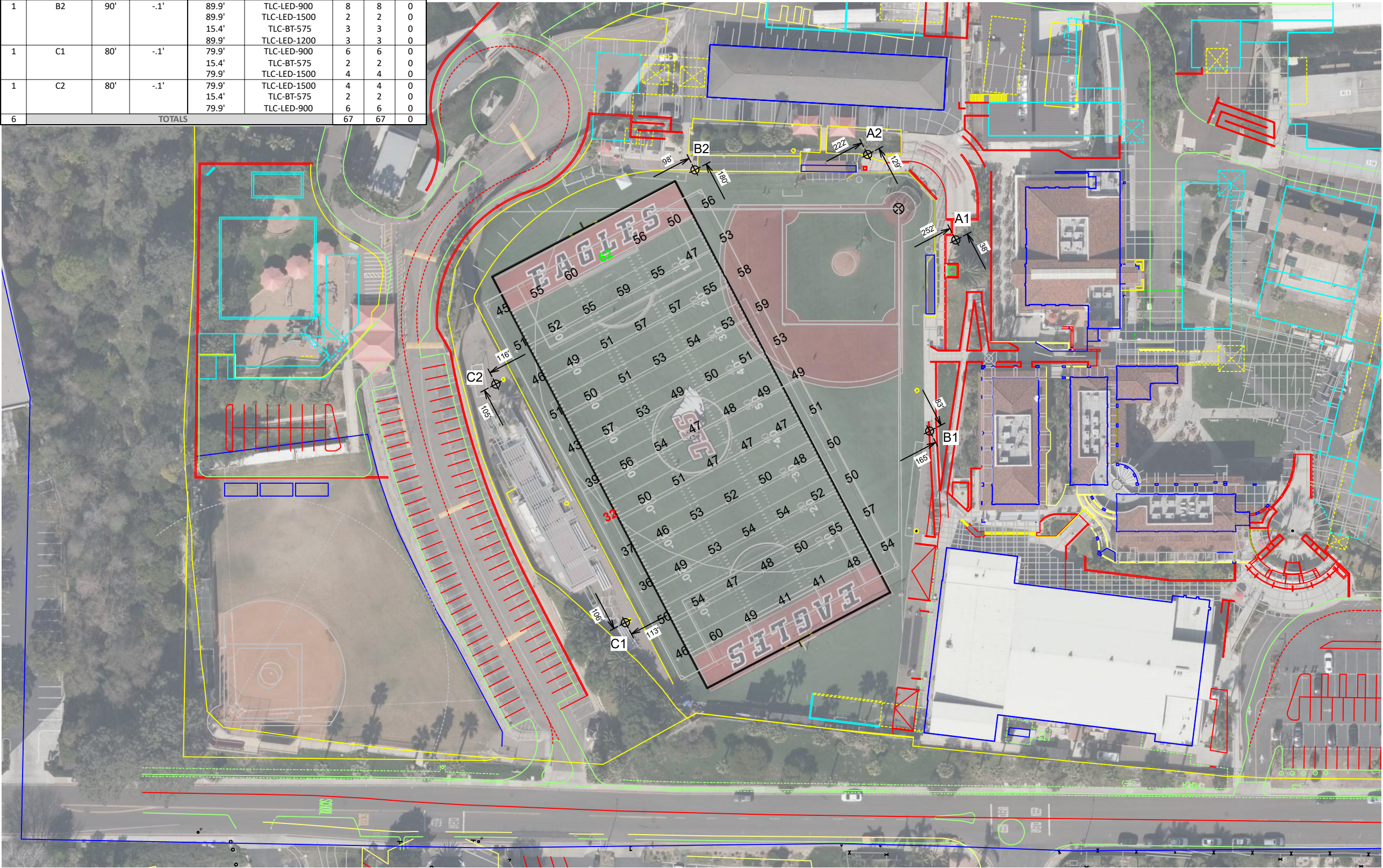


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ILLUMINATION SUMMARY



EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	80'	-.1'	79.9'	TLC-LED-1200	1	1	0
				15.4'	TLC-BT-575	1	1	0
				79.9'	TLC-LED-900	3	3	0
1	B1	90'	-.1'	89.9'	TLC-LED-900	10	10	0
				15.4'	TLC-BT-575	3	3	0
				89.9'	TLC-LED-1500	4	4	0
1	B2	90'	-.1'	89.9'	TLC-LED-900	8	8	0
				89.9'	TLC-LED-1500	2	2	0
				15.4'	TLC-BT-575	3	3	0
1	C1	80'	-.1'	89.9'	TLC-LED-1200	3	3	0
				79.9'	TLC-LED-900	6	6	0
				15.4'	TLC-BT-575	2	2	0
1	C2	80'	-.1'	79.9'	TLC-LED-1500	4	4	0
				15.4'	TLC-BT-575	2	2	0
				79.9'	TLC-LED-1500	4	4	0
6	TOTALS					67	67	0



## Santa Fe Christian School Football

Solana Beach, CA

GRID SUMMARY	
Name:	Soccer
Size:	330' x 190'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Guaranteed Average:	50
Scan Average:	50.7
Maximum:	62
Minimum:	32
Avg / Min:	1.56
Guaranteed Max / Min:	2
Max / Min:	1.91
UG (adjacent pts):	1.54
CU:	0.51
No. of Points:	77
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	67
Total Load:	64.81 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.

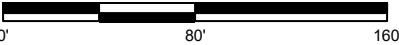


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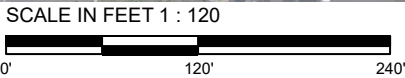
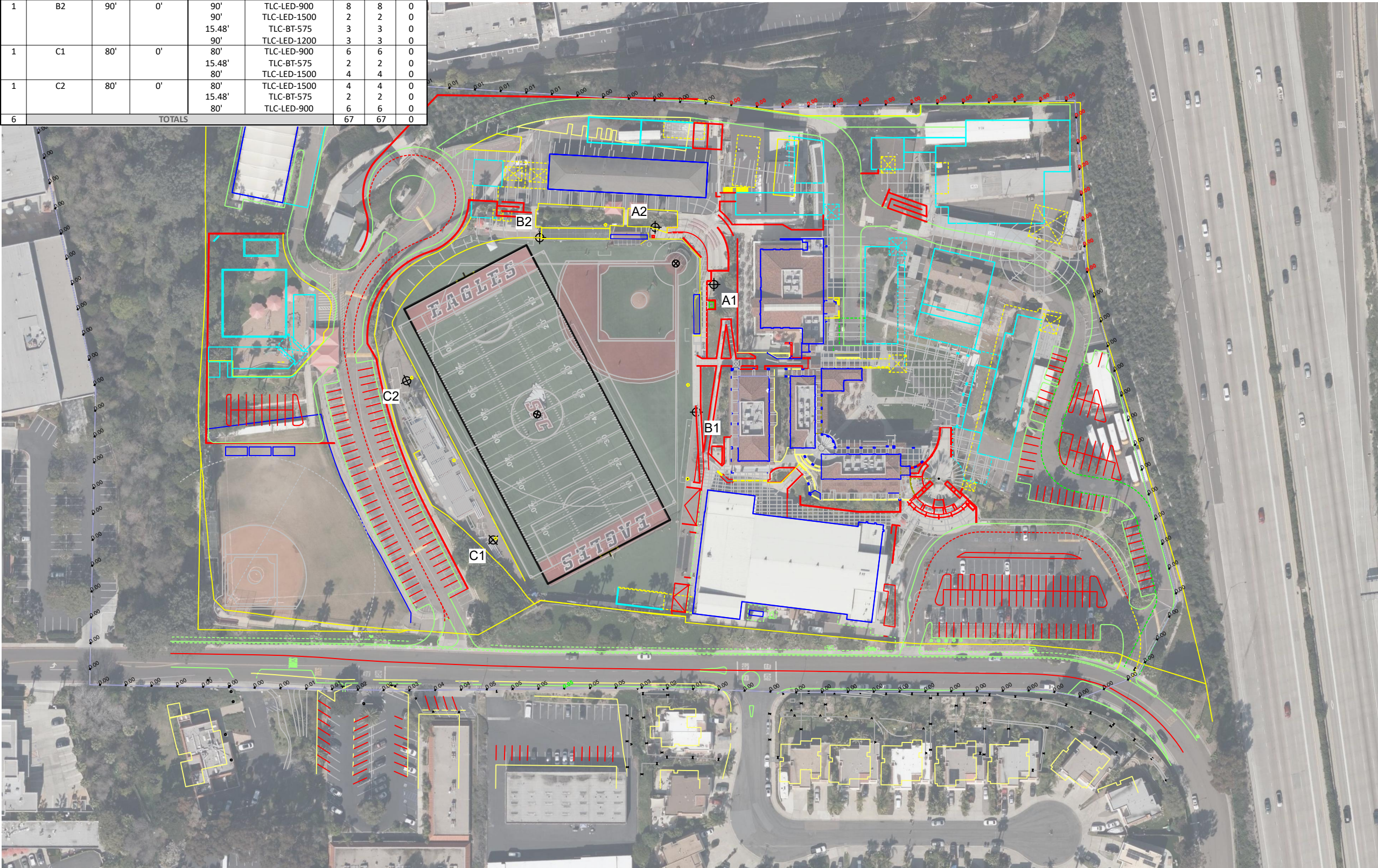
SCALE IN FEET 1 : 80



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



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	80'	0'	80'	TLC-LED-1200	1	1	0
				15.48'	TLC-BT-575	1	1	0
				80'	TLC-LED-900	3	3	0
1	B1	90'	0'	90'	TLC-LED-900	10	10	0
				15.48'	TLC-BT-575	3	3	0
				90'	TLC-LED-1500	4	4	0
1	B2	90'	0'	90'	TLC-LED-900	8	8	0
				90'	TLC-LED-1500	2	2	0
				15.48'	TLC-BT-575	3	3	0
				90'	TLC-LED-1200	3	3	0
				80'	TLC-LED-900	6	6	0
				15.48'	TLC-BT-575	2	2	0
1	C1	80'	0'	80'	TLC-LED-1500	4	4	0
				80'	TLC-LED-1500	4	4	0
				80'	TLC-LED-900	2	2	0
1	C2	80'	0'	80'	TLC-LED-1500	4	4	0
				15.48'	TLC-BT-575	2	2	0
				80'	TLC-LED-900	6	6	0
6	TOTALS					67	67	0



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

## Santa Fe Christian School Football

Solana Beach, CA

GRID SUMMARY	
Name:	Spill
Spacing:	30.0'
Height:	-50.9' above grade

ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Scan Average:	Entire Grid 0.005
Maximum:	0.05
Minimum:	0.00
No. of Points:	128
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C
No. of Luminaires:	67
Total Load:	64.81 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.



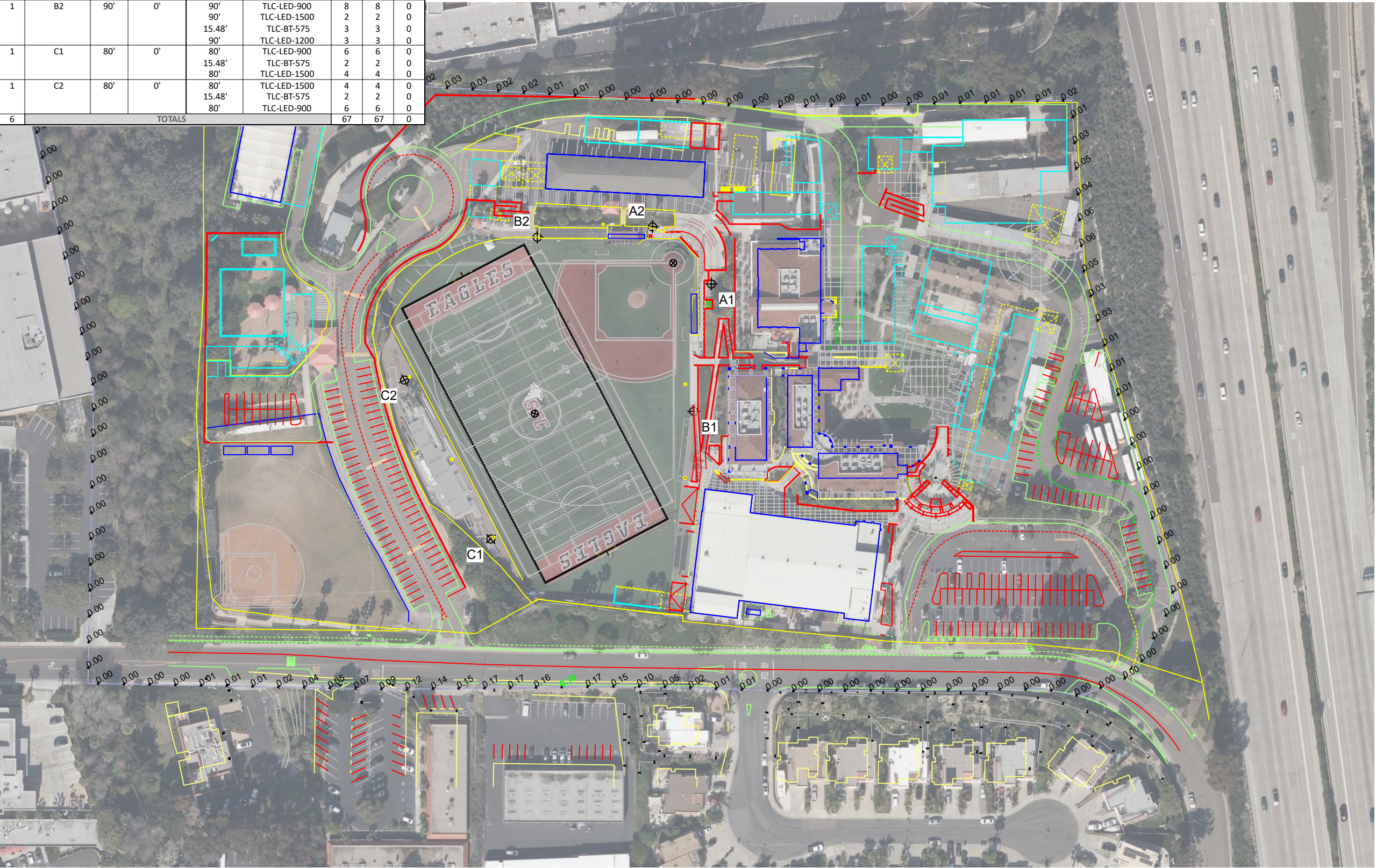
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## ILLUMINATION SUMMARY



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	80'	0'	80'	TLC-LED-1200	1	1	0
				15.48'	TLC-BT-575	1	1	0
				80'	TLC-LED-900	3	3	0
1	B1	90'	0'	90'	TLC-LED-900	10	10	0
				15.48'	TLC-BT-575	3	3	0
				90'	TLC-LED-1500	4	4	0
1	B2	90'	0'	90'	TLC-LED-900	8	8	0
				90'	TLC-LED-1500	2	2	0
				15.48'	TLC-BT-575	3	3	0
				90'	TLC-LED-1200	3	3	0
1	C1	80'	0'	80'	TLC-LED-900	6	6	0
				15.48'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	4	4	0
1	C2	80'	0'	80'	TLC-LED-1500	4	4	0
				15.48'	TLC-BT-575	2	2	0
				80'	TLC-LED-900	6	6	0
6	TOTALS					67	67	0



## Santa Fe Christian School Football

Solana Beach, CA

GRID SUMMARY	
Name:	Spill
Spacing:	30.0'
Height:	-50.9' above grade

ILLUMINATION SUMMARY	
MAX VERTICAL FOOTCANDLES	
Scan Average:	Entire Grid 0.021
Maximum:	0.18
Minimum:	0.00
No. of Points:	128
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C
No. of Luminaires:	67
Total Load:	64.81 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  $\pm 3\%$  nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



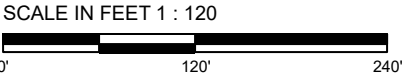
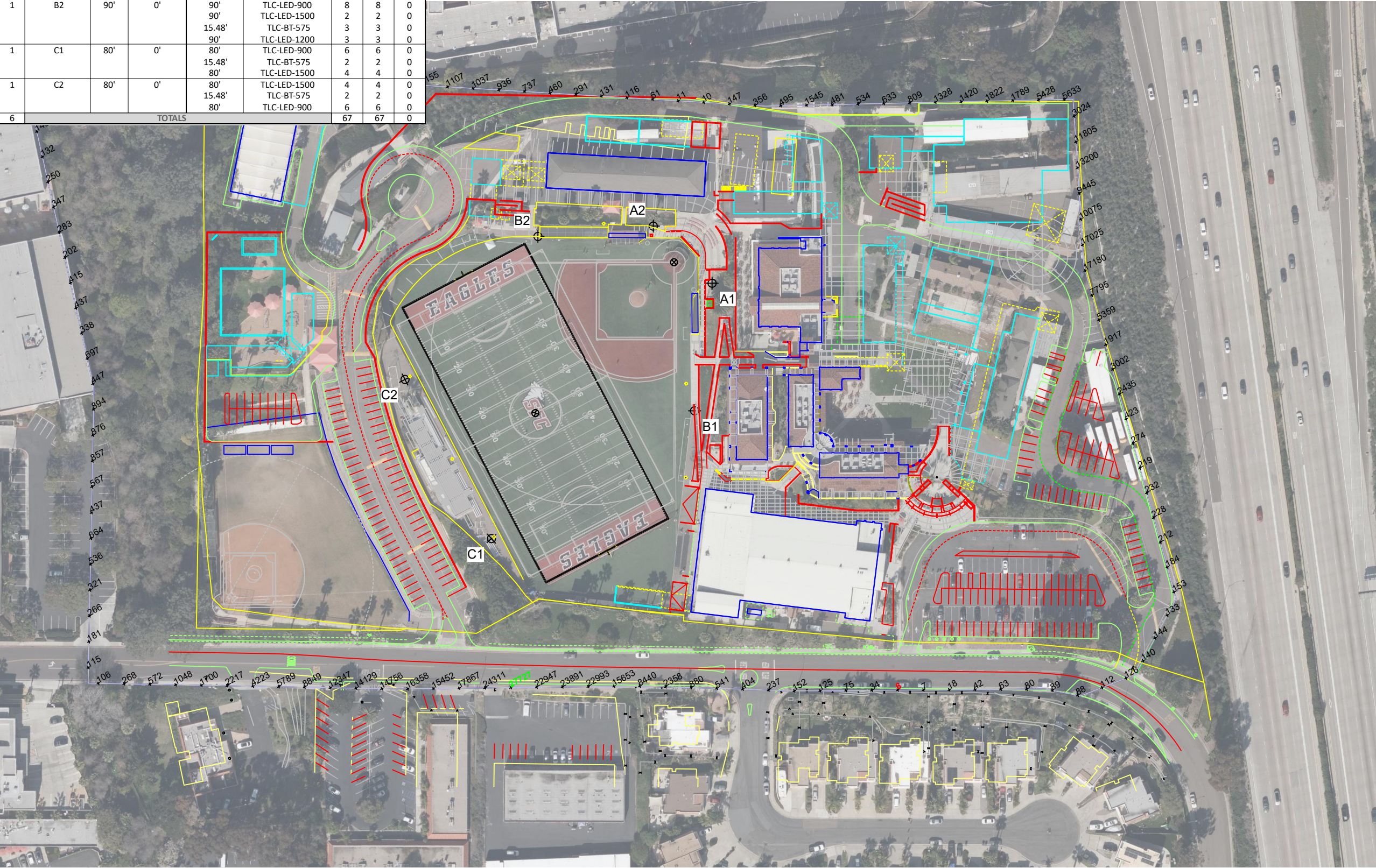
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### ILLUMINATION SUMMARY



EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	80'	0'	80'	TLC-LED-1200	1	1	0
				15.48'	TLC-BT-575	1	1	0
				80'	TLC-LED-900	3	3	0
1	B1	90'	0'	90'	TLC-LED-900	10	10	0
				15.48'	TLC-BT-575	3	3	0
				90'	TLC-LED-1500	4	4	0
1	B2	90'	0'	90'	TLC-LED-900	8	8	0
				90'	TLC-LED-1500	2	2	0
				15.48'	TLC-BT-575	3	3	0
				90'	TLC-LED-1200	3	3	0
1	C1	80'	0'	80'	TLC-LED-900	6	6	0
				15.48'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	4	4	0
1	C2	80'	0'	80'	TLC-LED-1500	4	4	0
				15.48'	TLC-BT-575	2	2	0
				80'	TLC-LED-900	6	6	0
6	TOTALS					67	67	0



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

## Santa Fe Christian School Football

Solana Beach, CA

GRID SUMMARY	
Name:	Spill
Spacing:	30.0'
Height:	-50.9' above grade

ILLUMINATION SUMMARY	
CANDELA (PER FIXTURE)	
Scan Average:	Entire Grid 3264.302
Maximum:	27726.97
Minimum:	6.19
No. of Points:	128
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C
No. of Luminaires:	67
Total Load:	64.81 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



Santa Fe Christian School Football  
Solana Beach, 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

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
2	A1-A2	80'	-	80'	TLC-LED-1200	1
				15.5'	TLC-BT-575	1
				80'	TLC-LED-900	3
1	B1	90'	-	90'	TLC-LED-900	10
				15.5'	TLC-BT-575	3
				90'	TLC-LED-1500	4
1	B2	90'	-	90'	TLC-LED-900	8
				90'	TLC-LED-1500	2
				15.5'	TLC-BT-575	3
1	C1	80'	-	90'	TLC-LED-1200	3
				80'	TLC-LED-900	6
				15.5'	TLC-BT-575	2
1	C2	80'	-	80'	TLC-LED-1500	4
				15.5'	TLC-BT-575	6
				80'	TLC-LED-900	4
6	TOTALS					67

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	8.5	8.1	7.4	6.4	5.1	4.7	3.7
TLC-LED-1500	8.5	8.1	7.4	6.4	5.1	4.7	3.7
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9	2.3
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



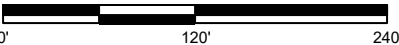
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EQUIPMENT LAYOUT



SCALE IN FEET 1 : 120



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



# Santa Fe Christian School Football

Solana Beach,CA

## Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A3-A4	60'	60'	3	TLC-LED-900	2.67 kW	C
		16'	1	TLC-BT-575	0.58 kW	C
B3	70'	70'	1	TLC-LED-1200	1.17 kW	C
		70'	2	TLC-LED-1500	2.86 kW	C
		70'	3	TLC-LED-900	2.67 kW	C
		16'	2	TLC-BT-575	1.15 kW	C
B4	70'	70'	1	TLC-LED-1500	1.43 kW	C
		70'	4	TLC-LED-900	3.56 kW	C
		16'	2	TLC-BT-575	1.15 kW	C
4			23		20.48 kW	

Circuit Summary			
Circuit	Description	Load	Fixture Qty
C	Softball	20.48 kW	23

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	3
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	13
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	6
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	1

## Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Softball (Infield)	Horizontal Illuminance	51.9	36	68	1.87	1.44	C	23
Softball (Outfield)	Horizontal Illuminance	32.2	19	40	2.12	1.69	C	23
Spill	Horizontal	0.19	0	3.43	0.00		A,B,C	23
Spill	Max Candela (by Fixture)	33048	0	290469	0.00		A,B,C	23
Spill	Max Vertical Illuminance Metric	0.51	0	7.46	0.00		A,B,C	23

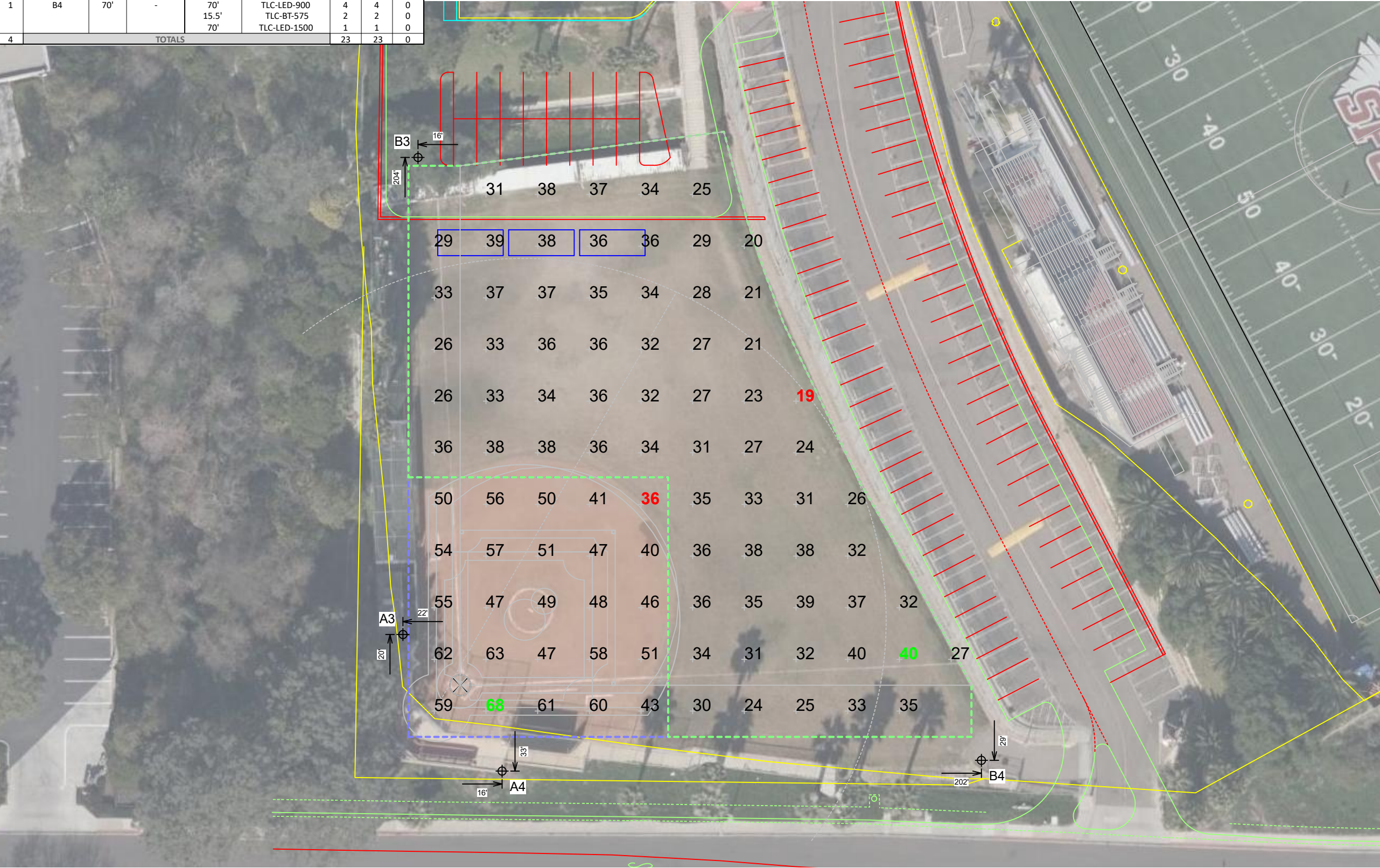
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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-900	3	3	0
1	B3	70'	-	70'	TLC-LED-900	3	3	0
				70'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				70'	TLC-LED-1500	2	2	0
				70'	TLC-LED-900	4	4	0
1	B4	70'	-	70'	TLC-BT-575	2	2	0
				15.5'	TLC-LED-1500	1	1	0
				70'	TLC-LED-900	2	2	0
4	TOTALS					23	23	0



# Santa Fe Christian School Football

Solana Beach, CA

GRID SUMMARY	
Name:	Softball
Size:	Irregular 201' / 184' / 198'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY		
MAINTAINED HORIZONTAL FOOTCANDLES		
	Infield	Outfield
Scan Average:	51.9	32.2
Maximum:	68	40
Minimum:	36	19
Avg / Min:	1.43	1.69
Max / Min:	1.87	2.12
UG (adjacent pts):	1.40	1.51
CU:	0.69	
No. of Points:	25	66
LUMINAIRE INFORMATION		
Applied Circuits:	C	
No. of Luminaires:	23	
Total Load:	20.48 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	OTHER GRIDS
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-900	3	3	0
1	B3	70'	-	70'	TLC-LED-900	3	3	0
				70'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				70'	TLC-LED-1500	2	2	0
				70'	TLC-LED-900	4	4	0
1	B4	70'	-	15.5'	TLC-BT-575	2	2	0
				70'	TLC-LED-1500	1	1	0
				70'	TLC-LED-1500	2	2	0
4	TOTALS					23	23	0



# Santa Fe Christian School Football

Solana Beach, CA

GRID SUMMARY	
Name:	Spill
Spacing:	30.0'
Height:	-50.9' above grade

ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Scan Average:	Entire Grid 0.185
Maximum:	3.43
Minimum:	0.00
No. of Points:	128
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C
No. of Luminaires:	23
Total Load:	20.48 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  $\pm 3\%$  nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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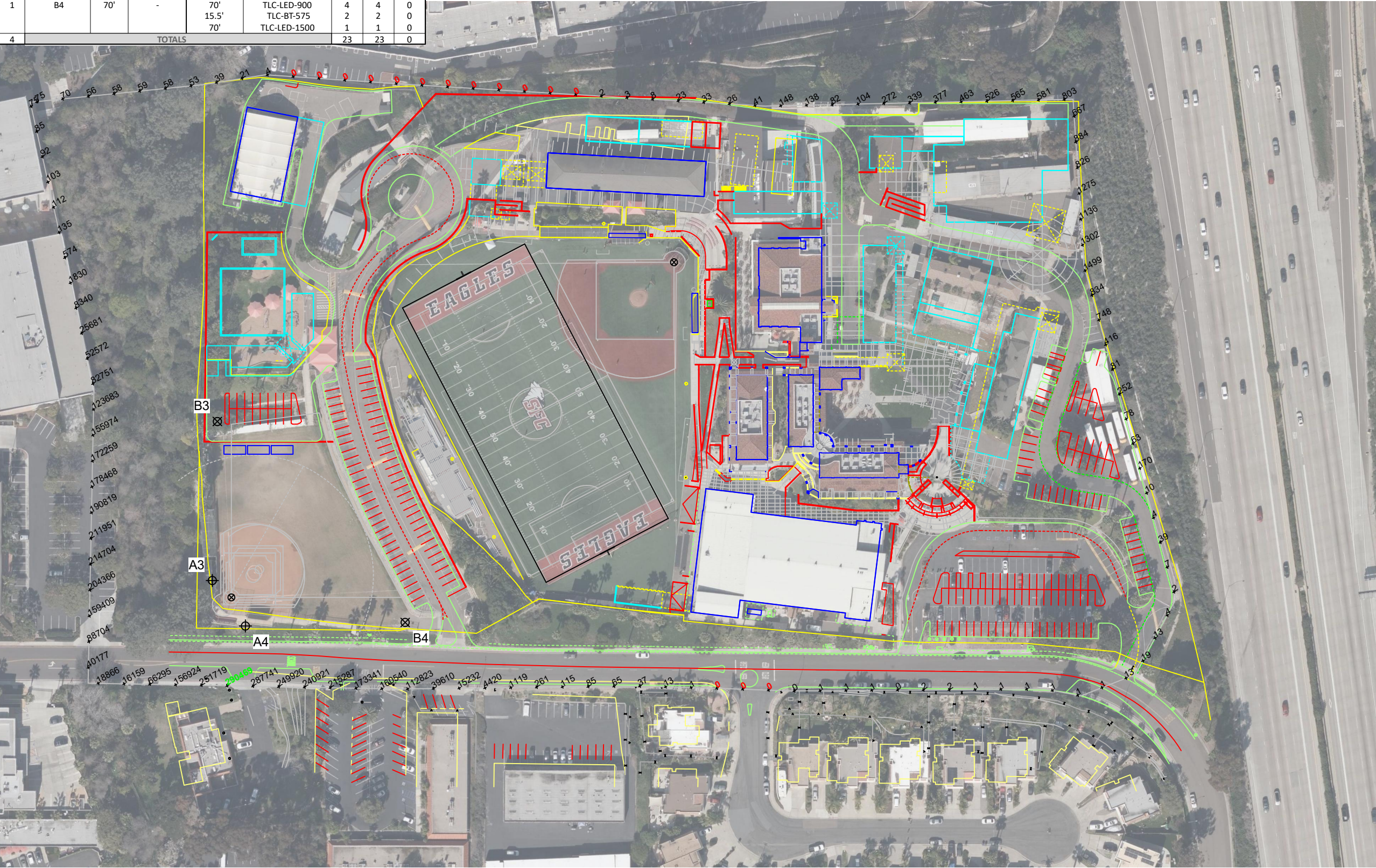
## ILLUMINATION SUMMARY







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'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-900	3	3	0
1	B3	70'	-	70'	TLC-LED-900	3	3	0
				70'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				70'	TLC-LED-1500	2	2	0
1	B4	70'	-	70'	TLC-LED-900	4	4	0
				15.5'	TLC-BT-575	2	2	0
				70'	TLC-LED-1500	1	1	0
				70'	TLC-LED-1500	2	2	0
4	TOTALS					23	23	0



Santa Fe Christian School Football  
Solana Beach, CA

GRID SUMMARY	
Name:	Spill
Spacing:	30.0'
Height:	-50.9' above grade

ILLUMINATION SUMMARY	
CANDELA (PER FIXTURE)	
Scan Average:	Entire Grid 33048.484
Maximum:	290468.63
Minimum:	0.00
No. of Points:	128
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C
No. of Luminaires:	23
Total Load:	20.48 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  $\pm 3\%$  nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY





**Santa Fe Christian School Football**  
Solana Beach, CA

**EQUIPMENT LAYOUT**

**INCLUDES:**  
· 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	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
2	A3-A4	60'	-	15.5'	TLC-BT-575	1
				60'	TLC-LED-900	3
1	B3	70'	-	70'	TLC-LED-900	3
				70'	TLC-LED-1200	1
				15.5'	TLC-BT-575	2
				70'	TLC-LED-1500	2
1	B4	70'	-	70'	TLC-LED-900	4
				15.5'	TLC-BT-575	2
				70'	TLC-LED-1500	1
4	TOTALS					23

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)	480 (60)
TLC-LED-1500		8.5	8.1	7.4	6.4	5.1	4.7
TLC-LED-900		5.3	5.0	4.6	4.0	3.2	2.9
TLC-BT-575		3.4	3.2	2.9	2.5	2.0	1.8
TLC-LED-1200		7.0	6.6	6.1	5.2	4.2	3.0

