
APPENDIX A

MUSCO LIGHTING PLANS

APPENDIX

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Sports Illustrated Stadium, Harrison, New Jersey, USA



UBS Arena, Elmont, New York, USA



Iowa Women of Achievement Bridge, Des Moines, Iowa, USA



Tottenham Hotspur FC Training Ground, Tottenham, London, UK

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA



Sales Representative: M.Higgins · Designed By: D.Lohman · Design No.: 211488E · July 09, 2025

LIGHTING SYSTEM

Structure/Fixture Summary								
Structure ID	Structure Height	Fixt. Attachment Ht.	Fixture Qty	Fixture Type	Design Load	Circuit		
A1	100'	100'	4	TLC-LED-1500	5.64 kW	A		
		100'	1	TLC-LED-900	0.88 kW	B		
		100'	1	TLC-LED-1500	1.41 kW	B		
		70'	1	TLC-RGBW	0.64 kW	E		
		45'	1	TLC-LED-550	0.54 kW	D		
		16'	2	TLC-BT-575	1.15 kW	A		
		16'	1	TLC-RGB-U	0.43 kW	F		
A2	80'	80'	2	TLC-LED-1500	2.82 kW	B		
		80'	4	TLC-LED-1500	5.64 kW	A		
		70'	1	TLC-RGBW	0.64 kW	E		
		45'	1	TLC-LED-550	0.54 kW	D		
		16'	1	TLC-RGB-U	0.43 kW	F		
		16'	2	TLC-BT-575	1.15 kW	A		
		A3	80'	80'	4	TLC-LED-1500	5.64 kW	A
				80'	2	TLC-LED-1500	2.82 kW	B
70'	1			TLC-RGBW	0.64 kW	E		
45'	1			TLC-LED-550	0.54 kW	C		
16'	1			TLC-RGB-U	0.43 kW	F		
16'	2			TLC-BT-575	1.15 kW	A		
A4	100'			100'	1	TLC-LED-1500	1.41 kW	B
				100'	1	TLC-LED-900	0.88 kW	B
		100'	4	TLC-LED-1500	5.64 kW	A		
		70'	1	TLC-RGBW	0.64 kW	E		
		45'	1	TLC-LED-550	0.54 kW	C		
		16'	2	TLC-BT-575	1.15 kW	A		
		16'	1	TLC-RGB-U	0.43 kW	F		
		A5-A6	80'	80'	1	TLC-RGBW	0.64 kW	P
		80'	4	TLC-LED-1500	5.64 kW	H		
		60'	1	TLC-LED-900	0.88 kW	H		
		16'	1	TLC-BT-575	0.57 kW	H		
A7-A8	70'	70'	1	TLC-LED-900	0.88 kW	I		
		70'	3	TLC-LED-1200	3.51 kW	I		
		16'	1	TLC-BT-575	0.57 kW	I		
		A9-A10	60'	60'	1	TLC-RGBW	0.64 kW	R
		60'	3	TLC-LED-900	2.64 kW	J		
		16'	1	TLC-BT-575	0.57 kW	J		
		A11-A12	60'	60'	3	TLC-LED-900	2.64 kW	K
		16'	1	TLC-BT-575	0.57 kW	K		
		B1	90'	90'	8	TLC-LED-1500	11.28 kW	A
				70'	2	TLC-RGBW	1.28 kW	E
45'	2			TLC-LED-550	1.08 kW	D		
16'	1			TLC-RGB-U	0.43 kW	F		
B2	100'			100'	8	TLC-LED-1500	11.28 kW	A
		70'	2	TLC-RGBW	1.28 kW	E		
		45'	2	TLC-LED-550	1.08 kW	C		
		16'	1	TLC-RGB-U	0.43 kW	F		
		B5-B6	80'	80'	2	TLC-LED-1500	2.82 kW	H
		80'	2	TLC-RGBW	1.28 kW	P		
		80'	4	TLC-LED-1200	4.68 kW	H		
		16'	1	TLC-BT-575	0.57 kW	H		
		B7	90'	90'	3	TLC-LED-1200	3.51 kW	L
		90'	2	TLC-LED-1500	2.82 kW	L		
		16'	1	TLC-BT-575	0.57 kW	L		
		B9	90'	90'	1	TLC-LED-900	0.88 kW	L
				90'	5	TLC-LED-1200	5.85 kW	L
90'	2			TLC-LED-1500	2.82 kW	L		
90'	1			TLC-RGBW	0.64 kW	R		
16'	1			TLC-RGB-U	0.43 kW	S		
16'	2			TLC-BT-575	1.15 kW	L		
B10	90'			90'	1	TLC-RGBW	0.64 kW	R
				90'	1	TLC-LED-900	0.89 kW	L
		90'	10	TLC-LED-1200	11.70 kW	L		
		16'	1	TLC-RGB-U	0.43 kW	S		
		16'	2	TLC-BT-575	1.15 kW	L		
		B11	90'	90'	2	TLC-LED-1500	2.82 kW	L
		90'	7	TLC-LED-1200	8.19 kW	L		
		70'	2	TLC-LED-550	1.05 kW	T		
		16'	2	TLC-BT-575	1.15 kW	L		
		C5	80'	80'	1	TLC-RGBW	0.64 kW	P
				80'	2	TLC-LED-1200	2.34 kW	L
80'	2			TLC-LED-1500	2.82 kW	L		
80'	2			TLC-LED-900	1.76 kW	H		
80'	2			TLC-LED-1200	2.34 kW	H		
16'	1			TLC-BT-575	0.57 kW	H		
16'	1			TLC-BT-575	0.57 kW	L		
16'	1			TLC-RGB-U	0.43 kW	Q		
C6	80'			80'	1	TLC-RGBW	0.64 kW	P
		80'	2	TLC-LED-1200	2.34 kW	H		
		80'	2	TLC-LED-900	1.76 kW	H		
		16'	1	TLC-BT-575	0.57 kW	H		
		16'	1	TLC-RGB-U	0.43 kW	Q		
		C8	80'	80'	3	TLC-LED-1200	3.51 kW	L
		16'	1	TLC-BT-575	0.57 kW	L		
		D5	80'	80'	1	TLC-LED-1500	1.41 kW	L
				80'	1	TLC-RGBW	0.64 kW	P
80'	2			TLC-LED-1200	2.34 kW	H		
80'	2			TLC-LED-900	1.76 kW	H		
80'	3			TLC-LED-1200	3.51 kW	L		
16'	1			TLC-BT-575	0.57 kW	L		
16'	1			TLC-RGB-U	0.43 kW	Q		
16'	2			TLC-BT-575	1.15 kW	H		
D6	80'	80'	1	TLC-RGBW	0.64 kW	P		
		80'	2	TLC-LED-1200	2.34 kW	H		
		80'	2	TLC-LED-900	1.76 kW	H		
		16'	2	TLC-BT-575	1.15 kW	H		
		16'	1	TLC-RGB-U	0.43 kW	Q		
		D8	90'	90'	2	TLC-LED-1200	2.34 kW	L
		90'	3	TLC-LED-1500	4.23 kW	L		
		16'	1	TLC-BT-575	0.57 kW	L		
		P1-P4	60'	60'	2	TLC-LED-1200	2.34 kW	G
		60'	2	TLC-LED-900	1.76 kW	G		
		16'	1	TLC-BT-575	0.57 kW	G		
		T1-T2	60'	60'	2	TLC-LED-550	1.08 kW	M
T3-T4	60'	60'	3	TLC-LED-900	2.64 kW	N		
		60'	2	TLC-LED-550	1.08 kW	M		
		T5-T6	60'	60'	3	TLC-LED-900	2.64 kW	O
		60'	3	TLC-LED-900	2.64 kW	N		
		T7-T8	60'	60'	3	TLC-LED-900	2.64 kW	O
38			278		267.64 kW			

*Fixtures in this design have dimmed output values to meet design specific needs.

Circuit Summary			
Circuit	Description	Design Load	Fixture Qty
A	Football	49.72 kW	40
B	Track	10.22 kW	8
C	Home Side Egress	2.16 kW	4
D	Visitor Side Egress	2.16 kW	4
E	RGBW	5.12 kW	8
F	RGBU	2.58 kW	6
G	Practice	18.70 kW	20
H	Varsity Baseball	50.19 kW	48
I	JV Baseball	9.93 kW	10
J	Varsity Softball	6.43 kW	8
K	JV Softball	6.43 kW	8
L	South Field Outfield	65.96 kW	60
M	Tennis 1	4.32 kW	8

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



Circuit Summary			
Circuit	Description	Design Load	Fixture Qty
N	Tennis 2-4	10.56 kW	12
O	Tennis 5-7	10.56 kW	12
P	Baseball RGBW	6.40 kW	10
Q	Baseball RGBU	1.72 kW	4
R	Softball RGBW	2.56 kW	4
S	Softball RGBU	0.86 kW	2
T	B11 Safe Dispersal Area	1.05 kW	2

Fixture Type Summary								
Type	Circuit	Source	Avg. Wattage	Avg. Lumens	L90	L80	L70	Quantity
TLC-BT-575	A	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8
TLC-BT-575	G	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	4
TLC-BT-575	H	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	10
TLC-BT-575	I	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	2
TLC-BT-575	J	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	2
TLC-BT-575	K	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	2
TLC-BT-575	L	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	11
TLC-LED-1200	G	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	8
TLC-LED-1200	H	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	16
TLC-LED-1200	I	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	6
TLC-LED-1200	L	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	35
TLC-LED-1500	A	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	32
TLC-LED-1500	B	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	6
TLC-LED-1500	H	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	12
TLC-LED-1500	L	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	12
TLC-LED-550	C	LED 5700K - 75 CRI	540W	67,000	>120,000	>120,000	>120,000	4
TLC-LED-550	D	LED 5700K - 75 CRI	540W	67,000	>120,000	>120,000	>120,000	4
TLC-LED-550	M	LED 5700K - 75 CRI	540W	67,000	>120,000	>120,000	>120,000	8
TLC-LED-550	T	LED 5700K - 75 CRI	527W	62,341	>120,000	>120,000	>120,000	2
TLC-LED-900	B	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	2
TLC-LED-900	G	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	8
TLC-LED-900	H	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	10
TLC-LED-900	I	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	2
TLC-LED-900	J	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	6
TLC-LED-900	K	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	6
TLC-LED-900	L	LED 5700K - 75 CRI	885W	96,800	>120,000	>120,000	>120,000	2
TLC-LED-900	N	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	12
TLC-LED-900	O	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	12
TLC-RGB-U	F	RED-GREEN (Shown)-BLUE	430W	16,000	21,300	>36,300	>36,300	6
TLC-RGB-U	Q	RED-GREEN (Shown)-BLUE	430W	16,000	21,300	>36,300	>36,300	4
TLC-RGB-U	S	RED-GREEN (Shown)-BLUE	430W	16,000	21,300	>36,300	>36,300	2
TLC-RGBW	E	LED 5700K - 75 CRI	640W	28,500	>120,000	>120,000	>120,000	8
TLC-RGBW	P	LED 5700K - 75 CRI	640W	28,500	>120,000	>120,000	>120,000	10
TLC-RGBW	R	LED 5700K - 75 CRI	640W	28,500	>120,000	>120,000	>120,000	4

Single Fixture Amperage Draw Chart								
Driver Specifications (.90 min power factor)			Line Amperage Per Fixture (max draw)					
Single Phase Voltage			208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
TLC-LED-1500			8.4	7.9	7.3	6.3	5.0	3.6
TLC-LED-1200			6.9	6.5	6.0	5.2	4.2	3.0
TLC-LED-900			5.3	5.0	4.6	4.0	3.2	2.3
TLC-BT-575			3.3	3.2	2.9	2.5	2.0	1.5
TLC-LED-550			3.2	3.0	2.8	2.4	1.9	1.4
TLC-RGB-U			3.0	2.9	2.6	2.3	1.8	1.3
TLC-RGBW			4.5	4.3	3.8	3.3	2.7	1.9

*Amp draw based on 100% fixture output, consult design specific datasheet for adjusted amperage draw chart

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination Ave					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
B11 Safe Dispersal Area	Horizontal Illuminance	4.42	1	8	5.38	2.95	T	2
Baseball RGBW (Infield)	Horizontal Illuminance	2.46	1	4	3.95	2.50	P	10
Baseball RGBW (Outfield)	Horizontal Illuminance	1.79	0	3	17.97	9.65	P	10
Football	Horizontal Illuminance	51.24	43	58	1.36	1.19	A	40
Football RGBW	Horizontal	2.04	1	3	3.16	1.91	E	8
Home Bleacher Egress Grid	Horizontal	8.46	1	28	19.30	5.80	C,D	8
Home Bleacher Egress Ramp	Horizontal	3.23	2	4	1.67	1.37	C,D	8
Home Bleacher Grid	Horizontal	13.03	6	18	2.82	2.02	A,B	48
Home Side Safe Dispersal Area	Horizontal	4.14	1	14	22.28	6.64	C,D	8
Idyllwild Dr Spill Horizontal Fc	Horizontal Illuminance	0.0389	0.00	0.14	-	-	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S	276
Idyllwild Dr Spill Vertical Fc	Max Vertical Illuminance Metric	0.0917	0.00	0.29	-	-	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S	276
JV Baseball (Infield)	Horizontal Illuminance	51.60	36	63	1.76	1.44	I,L	70
JV Baseball (Outfield)	Horizontal Illuminance	32.02	21	48	2.23	1.50	I,L	70
JV Softball (Infield)	Horizontal Illuminance	50.26	38	61	1.59	1.31	K,L	68
JV Softball (Outfield)	Horizontal Illuminance	30.52	23	43	1.92	1.35	K,L	68
N Ramona Blvd Spill Horizontal Fc	Horizontal Illuminance	0.0628	0.00	0.23	-	-	G,H,I,J,K,L,M,N,O,P,Q,R,S	206
N Ramona Blvd Spill Vertical Fc	Max Vertical Illuminance Metric	0.1162	0.00	0.44	-	-	G,H,I,J,K,L,M,N,O,P,Q,R,S	206
North Track D Zone	Horizontal	35.68	22	49	2.25	1.63	A,B	48
Placeworks Spill Line #1 @ 3ft.	Horizontal Illuminance	2.3260	0.00	19.49	13068.758	1559.464	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S	276
Placeworks Spill Line #2 @ 3ft	Horizontal Illuminance	1.0614	0.00	3.46	-	-	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S	276
Practice	Horizontal Illuminance	33.21	26	44	1.69	1.29	G	20
Shot Put-Discus Grid	Horizontal	10.58	0	28	71.52	26.92	G	20
Softball RGBW (Infield)	Horizontal Illuminance	3.88	1	7	12.54	6.55	R	4
Softball RGBW (Outfield)	Horizontal Illuminance	1.44	0	3	6.18	3.52	R	4
South Fields Outfield Grid	Horizontal	29.07	17	48	2.76	1.68	I,J,K,L	86
South Track D Zone	Horizontal	41.54	28	56	1.99	1.46	A,B	48
Spill at North Apartments Horizontal Fc	Horizontal Illuminance	0.1406	0.05	0.27	5.469	2.799	G,A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S	276
Spill at North Apartments Vertical Fc	Max Vertical Illuminance Metric	0.2185	0.10	0.38	3.979	2.263	G,A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S	276
Spill at Northwest Apartments Horizontal Fc	Horizontal Illuminance	0.0608	0.00	0.22	49.171	13.429	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S	276
Spill at Northwest Apartments Vertical Fc	Max Vertical Illuminance Metric	0.1386	0.01	0.40	31.619	10.962	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S	276
Tennis 1	Horizontal Illuminance	50.11	43	67	1.57	1.17	M	8
Tennis 2-4	Horizontal Illuminance	51.78	43	61	1.43	1.21	N	12
Tennis 5-7	Horizontal Illuminance	52.20	42	64	1.52	1.24	O	12
Tiger Ln Spill Horizontal Fc	Horizontal Illuminance	0.0077	0.00	0.03	-	-	G,H,I,J,K,L,M,N,O,P,Q,R,S,A,B,C,D,E,F	276
Tiger Ln Spill Vertical Fc	Max Vertical Illuminance Metric	0.0136	0.00	0.05	-	-	G,H,I,J,K,L,M,N,O,P,Q,R,S,A,B,C,D,E,F	276
Track	Horizontal Illuminance	29.89	13	48	3.53	2.22	A,B	48
Varsity Baseball (Infield)	Horizontal Illuminance	50.22	37	59	1.59	1.36	H	48
Varsity Baseball (Outfield)	Horizontal Illuminance	33.21	21	48	2.26	1.55	H	48

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination Ave					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Varsity Baseball LF Bullpen	Horizontal	33.28	20	43	2.18	1.70	H	48
Varsity Baseball RF Bullpen	Horizontal	30.94	14	41	2.81	2.14	H	48
Varsity Softball (Infield)	Horizontal Illuminance	52.94	42	63	1.48	1.25	J,L	68
Varsity Softball (Outfield)	Horizontal Illuminance	34.82	25	50	1.99	1.40	J,L	68
Visitor Bleacher Egress Grid	Horizontal	9.89	6	19	3.51	1.80	C,D	8
Visitor Bleacher Egress Ramp	Horizontal	3.17	2	4	1.84	1.41	C,D	8
Visitor Bleacher Grid	Horizontal	15.27	11	20	1.91	1.45	A,B	48

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Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	4	1
				100'	TLC-LED-900	1	0	1
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	4	2
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B2	100'	-	100'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	40	30

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, 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:	51.24
Maximum:	58
Minimum:	43
Avg/Min:	1.19
Guaranteed Max/Min:	2
Max/Min:	1.36
UG (adjacent pts):	1.20
CU:	0.53
No. of Points:	72
FIXTURE INFORMATION	
Applied Circuits:	A
No. of Fixtures:	40
Total Load:	49.72 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.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	0	5
				100'	TLC-LED-900	1	0	1
				70'	TLC-RGBW	1	1	0
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	0	6
				70'	TLC-RGBW	1	1	0
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	2	0
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B2	100'	-	100'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	2	0
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	8	62

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

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

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	2.04
Maximum:	3
Minimum:	1
Avg/Min:	1.91
Max/Min:	3.16
UG (adjacent pts):	2.76
CU:	0.61
No. of Points:	72
FIXTURE INFORMATION	
Applied Circuits:	E
No. of Fixtures:	8
Total Load:	5.12 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.

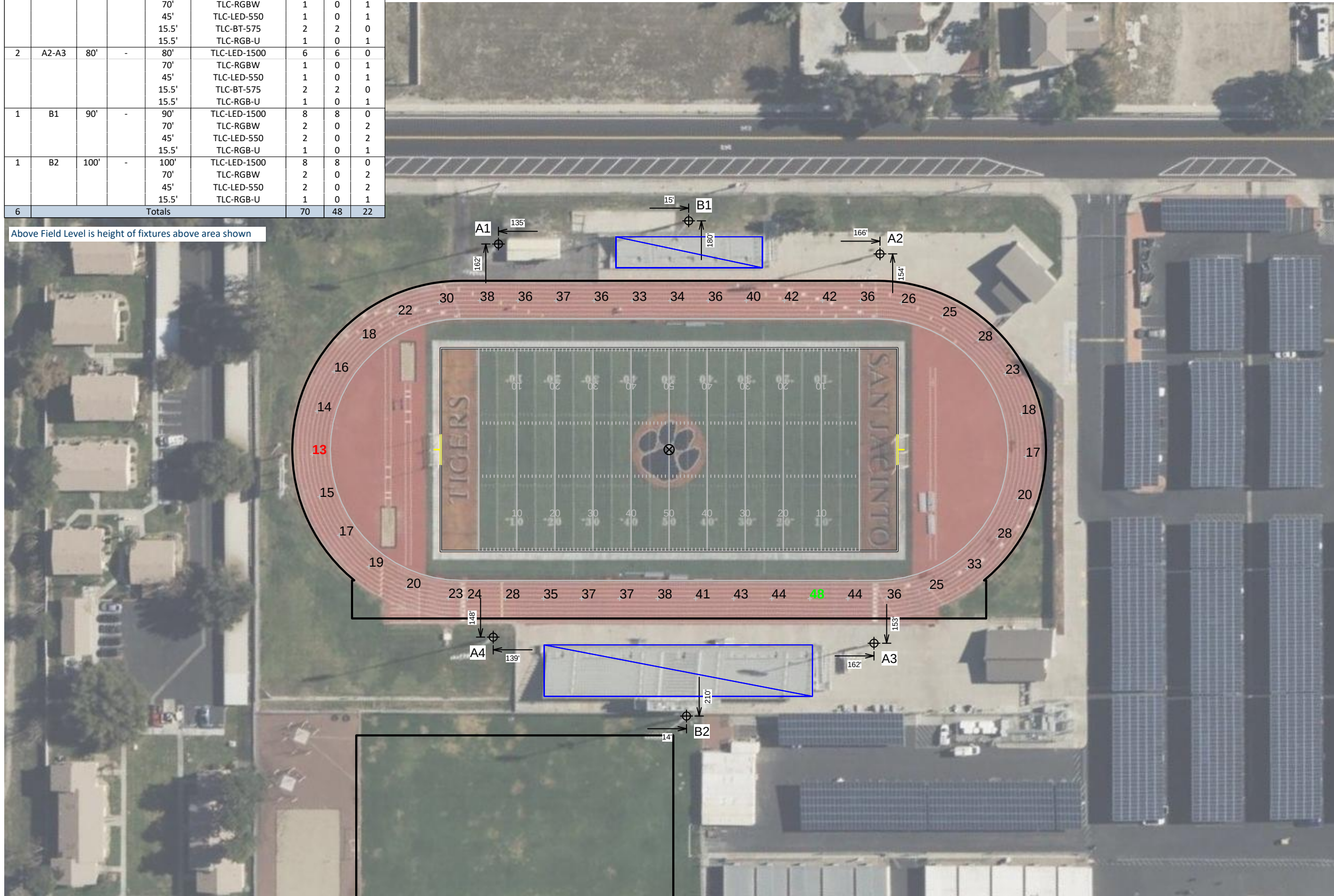
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	5	0
				100'	TLC-LED-900	1	1	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	6	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B2	100'	-	100'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	48	22

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: Track
Size: Irregular
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Guaranteed Average:	25
Scan Average:	29.89
Maximum:	48
Minimum:	13
Avg/Min:	2.22
Guaranteed Max/Min:	4
Max/Min:	3.53
UG (adjacent pts):	0.00
CU:	0.16
No. of Points:	44
FIXTURE INFORMATION	
Applied Circuits:	A,B
No. of Fixtures:	48
Total Load:	59.94 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.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A5-A6	80'	-	80'	TLC-LED-1500	4	4	0
				80'	TLC-RGBW	1	0	1
				60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
2	B5-B6	80'	-	80'	TLC-LED-1200	4	4	0
				80'	TLC-LED-1500	2	2	0
				80'	TLC-RGBW	2	0	2
				15.5'	TLC-BT-575	1	1	0
1	C5	80'	-	80'	TLC-LED-1200	2/2*	2	2
				80'	TLC-LED-1500	2*	0	2
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	1	1
				15.5'	TLC-RGB-U	1	0	1
1	C6	80'	-	80'	TLC-LED-1200	2	2	0
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	1	1	0
				15.5'	TLC-RGB-U	1	0	1
1	D5	80'	-	80'	TLC-LED-1200	2/3*	2	3
				80'	TLC-LED-1500	1*	0	1
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	3	2	1
				15.5'	TLC-RGB-U	1	0	1
1	D6	80'	-	80'	TLC-LED-1200	2	2	0
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
8	Totals					72	48	24

Above Field Level is height of fixtures above area shown
*This structure utilizes a back-to-back mounting configuration



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Varsity Baseball
Size:	Irregular 330'/352'/329'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

	MAINTAINED HORIZONTAL FOOTCANDLES	
	Infield	Outfield
Guaranteed Average:	50	30
Scan Average:	50.22	33.21
Maximum:	59	48
Minimum:	37	21
Avg/Min:	1.36	1.55
Guaranteed Max/Min:	2	2.5
Max/Min:	1.59	2.26
UG (adjacent pts):	1.20	1.51
CU:	0.67	
No. of Points:	25	98
FIXTURE INFORMATION		
Applied Circuits:	H	
No. of Fixtures:	48	
Total Load:	50.19 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.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A5-A6	80'	-	80'	TLC-LED-1500	4	4	0
				80'	TLC-RGBW	1	0	1
				60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
2	B5-B6	80'	-	80'	TLC-LED-1200	4	4	0
				80'	TLC-LED-1500	2	2	0
				80'	TLC-RGBW	2	0	2
				15.5'	TLC-BT-575	1	1	0
1	C5	80'	-	80'	TLC-LED-1200	2/2*	2	2
				80'	TLC-LED-1500	2*	0	2
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	1	1
				15.5'	TLC-RGB-U	1	0	1
1	C6	80'	-	80'	TLC-LED-1200	2	2	0
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	1	1	0
				15.5'	TLC-RGB-U	1	0	1
1	D5	80'	-	80'	TLC-LED-1200	2/3*	2	3
				80'	TLC-LED-1500	1*	0	1
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	3	2	1
				15.5'	TLC-RGB-U	1	0	1
1	D6	80'	-	80'	TLC-LED-1200	2	2	0
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
8	Totals					72	48	24

Above Field Level is height of fixtures above area shown

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



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Varsity Baseball RF Bullpen
Size:	Irregular 330'/352'/329'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	30.94
Maximum:	41
Minimum:	14
Avg/Min:	2.14
Max/Min:	2.81
UG (adjacent pts):	1.30
CU:	0.01
No. of Points:	18
FIXTURE INFORMATION	
Applied Circuits:	H
No. of Fixtures:	48
Total Load:	50.19 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.

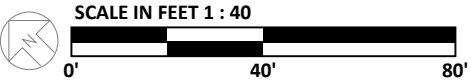
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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



Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A5-A6	80'	-	80'	TLC-LED-1500	4	4	0
				80'	TLC-RGBW	1	0	1
				60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
2	B5-B6	80'	-	80'	TLC-LED-1200	4	4	0
				80'	TLC-LED-1500	2	2	0
				80'	TLC-RGBW	2	0	2
				15.5'	TLC-BT-575	1	1	0
1	C5	80'	-	80'	TLC-LED-1200	2/2*	2	2
				80'	TLC-LED-1500	2*	0	2
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	1	1
				15.5'	TLC-RGB-U	1	0	1
1	C6	80'	-	80'	TLC-LED-1200	2	2	0
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	1	1	0
				15.5'	TLC-RGB-U	1	0	1
1	D5	80'	-	80'	TLC-LED-1200	2/3*	2	3
				80'	TLC-LED-1500	1*	0	1
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	3	2	1
				15.5'	TLC-RGB-U	1	0	1
1	D6	80'	-	80'	TLC-LED-1200	2	2	0
				80'	TLC-LED-900	2	2	0
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
8	Totals					72	48	24

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



ENGINEERED DESIGN By: D.Lohman • File #211488E • 09-Jul-25

Grid Summary	
Name:	Varsity Baseball LF Bullpen
Size:	Irregular 330'/352'/329'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	33.28
Maximum:	43
Minimum:	20
Avg/Min:	1.70
Max/Min:	2.18
UG (adjacent pts):	1.28
CU:	0.01
No. of Points:	16
FIXTURE INFORMATION	
Applied Circuits:	H
No. of Fixtures:	48
Total Load:	50.19 KW

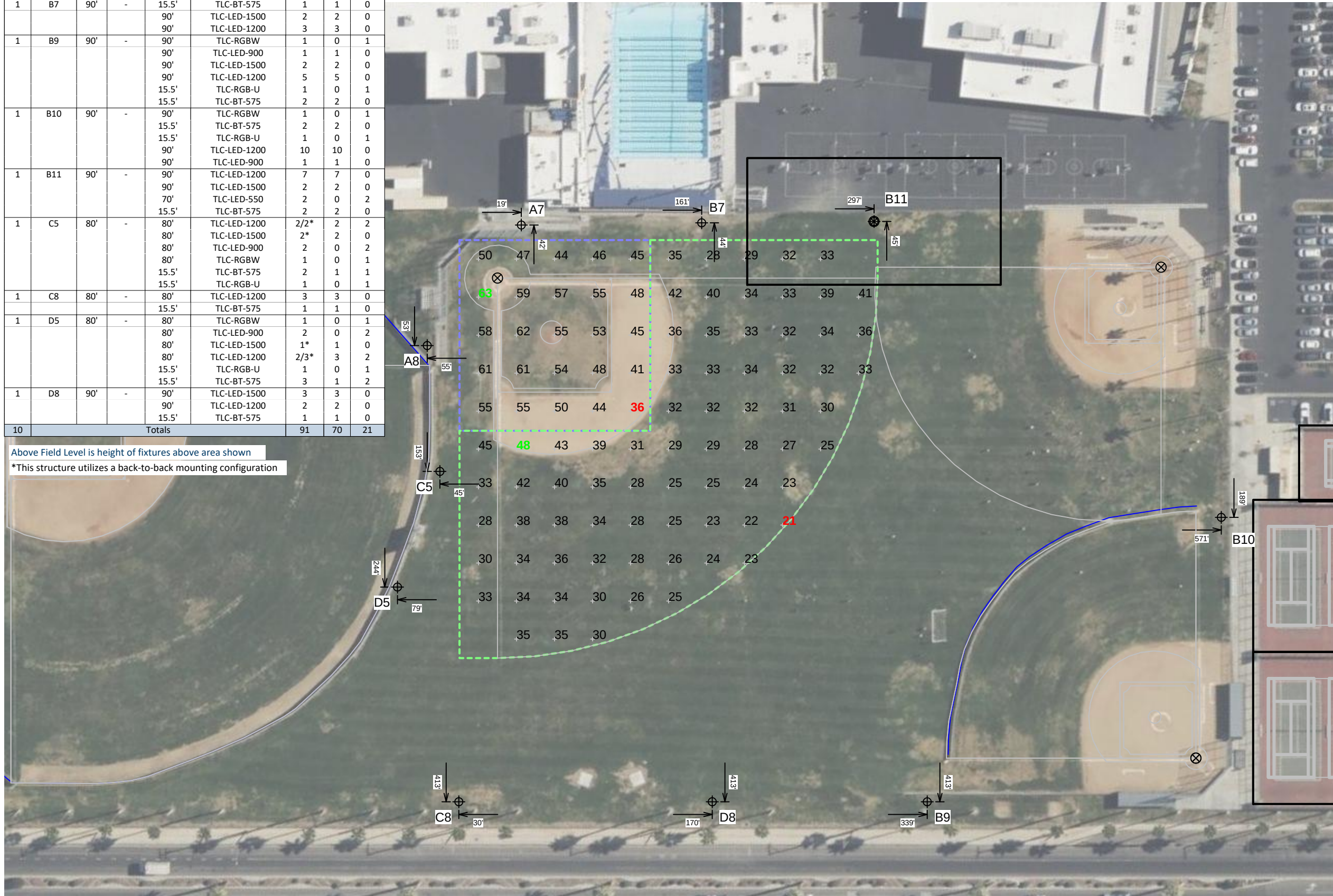
Installation Requirements: Results assume $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



ILLUMINATION SUMMARY

Equipment List For Areas Shown							
Structure				Fixtures			
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID
2	A7-A8	70'	-	70'	TLC-LED-1200	3	3
				70'	TLC-LED-900	1	1
				15.5'	TLC-BT-575	1	1
1	B7	90'	-	15.5'	TLC-BT-575	1	1
				90'	TLC-LED-1500	2	2
				90'	TLC-LED-1200	3	3
1	B9	90'	-	90'	TLC-RGBW	1	0
				90'	TLC-LED-900	1	1
				90'	TLC-LED-1500	2	2
				90'	TLC-LED-1200	5	5
				15.5'	TLC-RGB-U	1	0
				15.5'	TLC-BT-575	2	2
1	B10	90'	-	90'	TLC-RGBW	1	0
				15.5'	TLC-BT-575	2	2
				15.5'	TLC-RGB-U	1	0
				90'	TLC-LED-1200	10	10
				90'	TLC-LED-900	1	1
1	B11	90'	-	90'	TLC-LED-1200	7	7
				90'	TLC-LED-1500	2	2
				70'	TLC-LED-550	2	0
				15.5'	TLC-BT-575	2	2
1	C5	80'	-	80'	TLC-LED-1200	2/2*	2
				80'	TLC-LED-1500	2*	2
				80'	TLC-LED-900	2	0
				80'	TLC-RGBW	1	0
				15.5'	TLC-BT-575	2	1
				15.5'	TLC-RGB-U	1	0
1	C8	80'	-	80'	TLC-LED-1200	3	3
				15.5'	TLC-BT-575	1	1
1	D5	80'	-	80'	TLC-RGBW	1	0
				80'	TLC-LED-900	2	0
				80'	TLC-LED-1500	1*	1
				80'	TLC-LED-1200	2/3*	3
				15.5'	TLC-RGB-U	1	0
				15.5'	TLC-BT-575	3	1
1	D8	90'	-	90'	TLC-LED-1500	3	3
				90'	TLC-LED-1200	2	2
				15.5'	TLC-BT-575	1	1
10	Totals					91	70
						21	

Above Field Level is height of fixtures above area shown
*This structure utilizes a back-to-back mounting configuration



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	JV Baseball
Size:	300'/300'/300' - basepath 90'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary		
	MAINTAINED HORIZONTAL FOOTCANDLES	
	Infield	Outfield
Guaranteed Average:	50	30
Scan Average:	51.60	32.02
Maximum:	63	48
Minimum:	36	21
Avg/Min:	1.44	1.50
Guaranteed Max/Min:	2	2.5
Max/Min:	1.76	2.23
UG (adjacent pts):	1.29	1.41
CU:	0.35	
No. of Points:	25	73
FIXTURE INFORMATION		
Applied Circuits:	I,L	
No. of Fixtures:	70	
Total Load:	75.89 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.

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

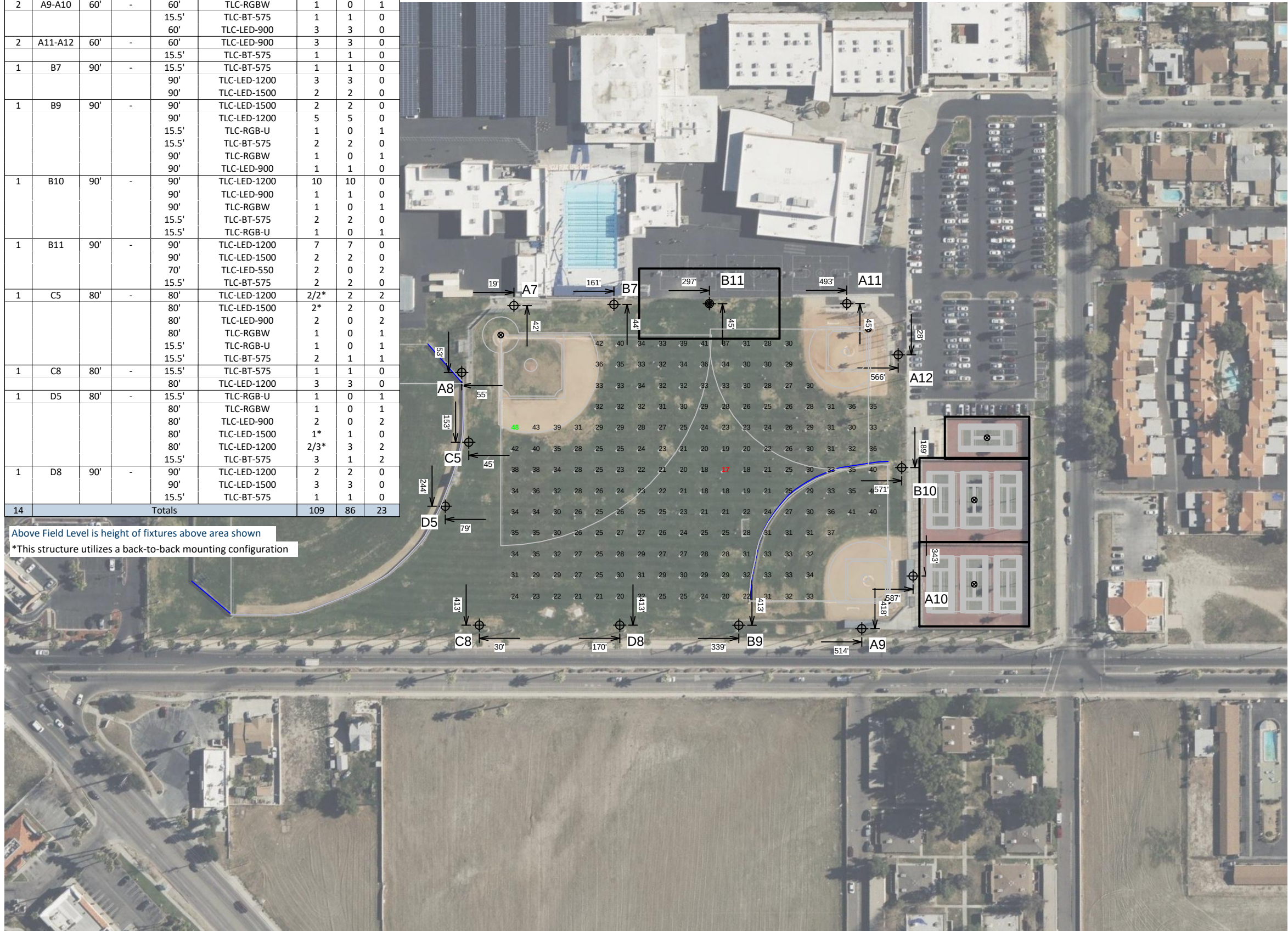
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



Equipment List For Areas Shown								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A7-A8	70'	-	70'	TLC-LED-1200	3	3	0
				70'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
2	A9-A10	60'	-	60'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-900	3	3	0
2	A11-A12	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	1	1	0
1	B7	90'	-	15.5'	TLC-BT-575	1	1	0
				90'	TLC-LED-1200	3	3	0
				90'	TLC-LED-1500	2	2	0
1	B9	90'	-	90'	TLC-LED-1500	2	2	0
				90'	TLC-LED-1200	5	5	0
				15.5'	TLC-RGB-U	1	0	1
				15.5'	TLC-BT-575	2	2	0
				90'	TLC-RGBW	1	0	1
				90'	TLC-LED-900	1	1	0
1	B10	90'	-	90'	TLC-LED-1200	10	10	0
				90'	TLC-LED-900	1	1	0
				90'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B11	90'	-	90'	TLC-LED-1200	7	7	0
				90'	TLC-LED-1500	2	2	0
				70'	TLC-LED-550	2	0	2
				15.5'	TLC-BT-575	2	2	0
1	C5	80'	-	80'	TLC-LED-1200	2/2*	2	2
				80'	TLC-LED-1500	2*	2	0
				80'	TLC-LED-900	2	0	2
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-RGB-U	1	0	1
				15.5'	TLC-BT-575	2	1	1
1	C8	80'	-	15.5'	TLC-BT-575	1	1	0
				80'	TLC-LED-1200	3	3	0
1	D5	80'	-	15.5'	TLC-RGB-U	1	0	1
				80'	TLC-RGBW	1	0	1
				80'	TLC-LED-900	2	0	2
				80'	TLC-LED-1500	1*	1	0
				80'	TLC-LED-1200	2/3*	3	2
				15.5'	TLC-BT-575	3	1	2
1	D8	90'	-	90'	TLC-LED-1200	2	2	0
				90'	TLC-LED-1500	3	3	0
				15.5'	TLC-BT-575	1	1	0
14	Totals					109	86	23

Above Field Level is height of fixtures above area shown

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



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	South Fields Outfield Grid
Size:	300'/300'/300' - basepath 90'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	29.07
Maximum:	48
Minimum:	17
Avg/Min:	1.68
Max/Min:	2.76
UG (adjacent pts):	1.49
CU:	0.48
No. of Points:	196
FIXTURE INFORMATION	
Applied Circuits:	I,J,K,L
No. of Fixtures:	86
Total Load:	88.75 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.

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

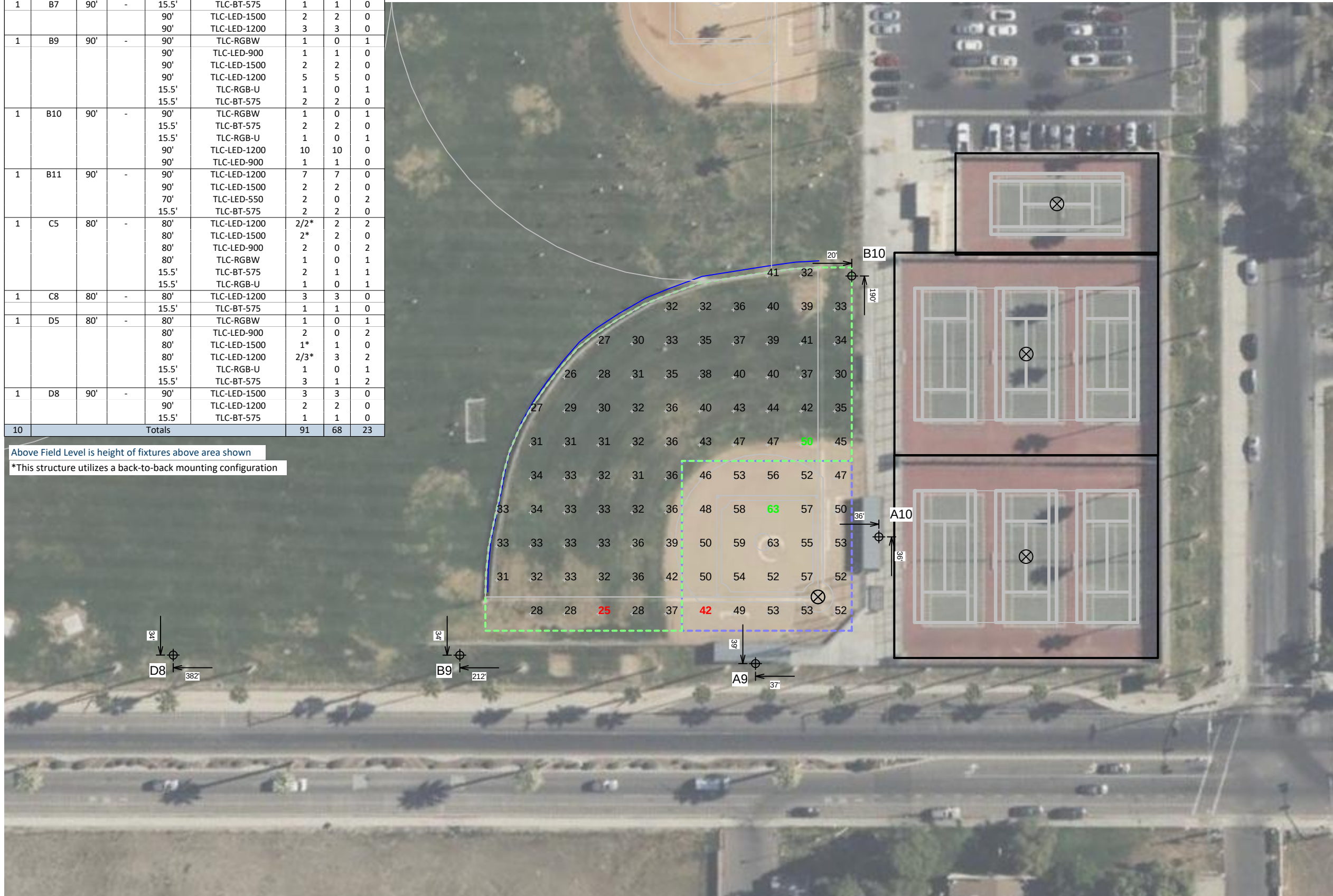
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



Equipment List For Areas Shown								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A9-A10	60'	-	60'	TLC-LED-900	3	3	0
				60'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	1	1	0
1	B7	90'	-	15.5'	TLC-BT-575	1	1	0
				90'	TLC-LED-1500	2	2	0
				90'	TLC-LED-1200	3	3	0
1	B9	90'	-	90'	TLC-RGBW	1	0	1
				90'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	2	2	0
				90'	TLC-LED-1200	5	5	0
				15.5'	TLC-RGB-U	1	0	1
				15.5'	TLC-BT-575	2	2	0
1	B10	90'	-	90'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
				90'	TLC-LED-1200	10	10	0
				90'	TLC-LED-900	1	1	0
1	B11	90'	-	90'	TLC-LED-1200	7	7	0
				90'	TLC-LED-1500	2	2	0
				70'	TLC-LED-550	2	0	2
				15.5'	TLC-BT-575	2	2	0
1	C5	80'	-	80'	TLC-LED-1200	2/2*	2	2
				80'	TLC-LED-1500	2*	2	0
				80'	TLC-LED-900	2	0	2
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	1	1
				15.5'	TLC-RGB-U	1	0	1
1	C8	80'	-	80'	TLC-LED-1200	3	3	0
				15.5'	TLC-BT-575	1	1	0
1	D5	80'	-	80'	TLC-RGBW	1	0	1
				80'	TLC-LED-900	2	0	2
				80'	TLC-LED-1500	1*	1	0
				80'	TLC-LED-1200	2/3*	3	2
				15.5'	TLC-RGB-U	1	0	1
				15.5'	TLC-BT-575	3	1	2
1	D8	90'	-	90'	TLC-LED-1500	3	3	0
				90'	TLC-LED-1200	2	2	0
				15.5'	TLC-BT-575	1	1	0
10	Totals					91	68	23

Above Field Level is height of fixtures above area shown

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



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Varsity Softball
Size:	Irregular 197'/205'/195'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

Illumination Summary		
	MAINTAINED HORIZONTAL FOOTCANDLES	
	Infield	Outfield
Guaranteed Average:	50	30
Scan Average:	52.94	34.82
Maximum:	63	50
Minimum:	42	25
Avg/Min:	1.25	1.40
Guaranteed Max/Min:	2	2.5
Max/Min:	1.48	1.99
UG (adjacent pts):	1.22	1.36
CU:	0.18	
No. of Points:	25	73
FIXTURE INFORMATION		
Applied Circuits:	J,L	
No. of Fixtures:	68	
Total Load:	72.39 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.

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

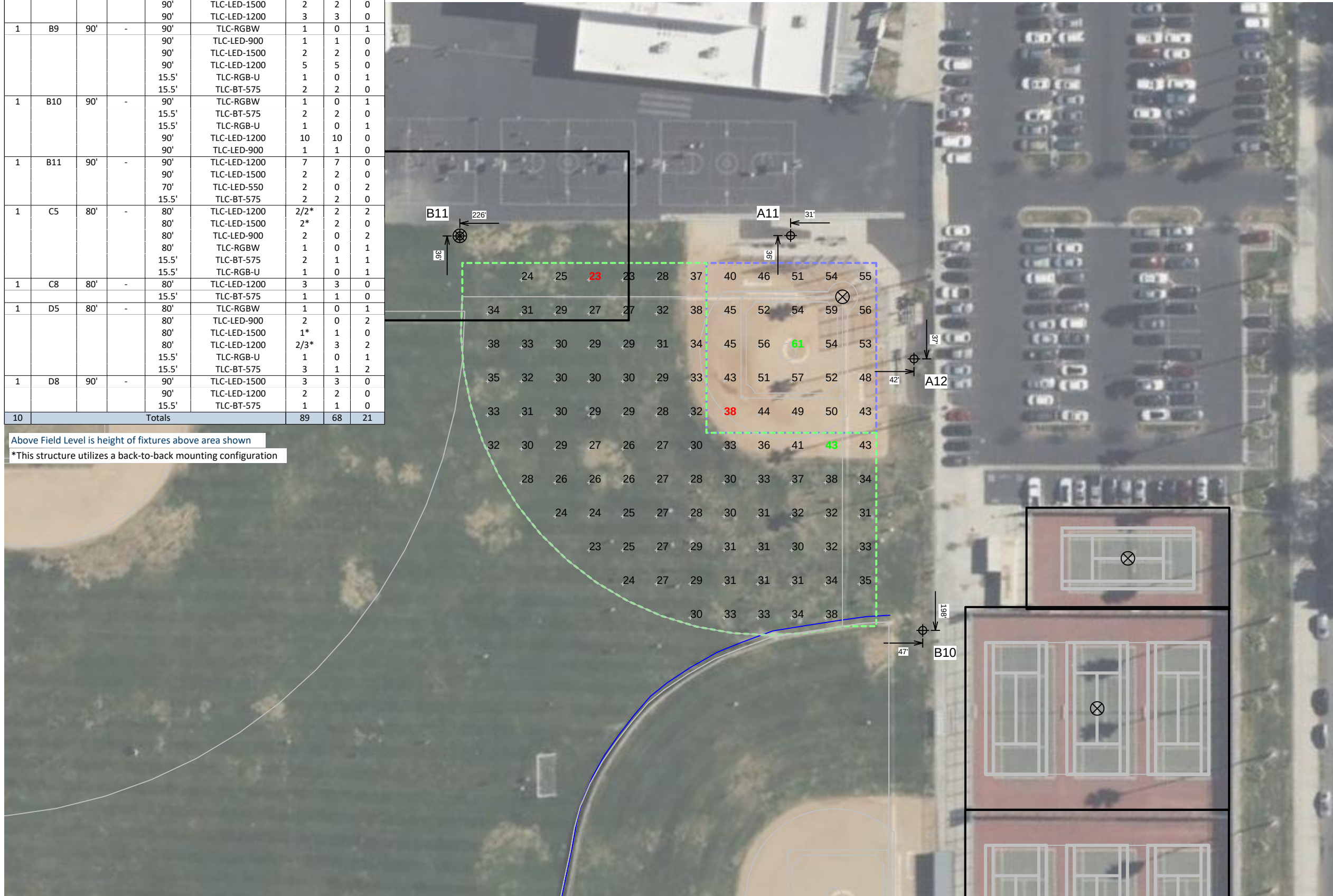
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



Equipment List For Areas Shown								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A11-A12	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	1	1	0
1	B7	90'	-	15.5'	TLC-BT-575	1	1	0
				90'	TLC-LED-1500	2	2	0
				90'	TLC-LED-1200	3	3	0
1	B9	90'	-	90'	TLC-RGBW	1	0	1
				90'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	2	2	0
				90'	TLC-LED-1200	5	5	0
				15.5'	TLC-RGB-U	1	0	1
				15.5'	TLC-BT-575	2	2	0
1	B10	90'	-	90'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
				90'	TLC-LED-1200	10	10	0
				90'	TLC-LED-900	1	1	0
1	B11	90'	-	90'	TLC-LED-1200	7	7	0
				90'	TLC-LED-1500	2	2	0
				70'	TLC-LED-550	2	0	2
				15.5'	TLC-BT-575	2	2	0
1	C5	80'	-	80'	TLC-LED-1200	2/2*	2	2
				80'	TLC-LED-1500	2*	2	0
				80'	TLC-LED-900	2	0	2
				80'	TLC-RGBW	1	0	1
				15.5'	TLC-BT-575	2	1	1
				15.5'	TLC-RGB-U	1	0	1
1	C8	80'	-	80'	TLC-LED-1200	3	3	0
				15.5'	TLC-BT-575	1	1	0
1	D5	80'	-	80'	TLC-RGBW	1	0	1
				80'	TLC-LED-900	2	0	2
				80'	TLC-LED-1500	1*	1	0
				80'	TLC-LED-1200	2/3*	3	2
				15.5'	TLC-RGB-U	1	0	1
				15.5'	TLC-BT-575	3	1	2
1	D8	90'	-	90'	TLC-LED-1500	3	3	0
				90'	TLC-LED-1200	2	2	0
				15.5'	TLC-BT-575	1	1	0
10	Totals					89	68	21

Above Field Level is height of fixtures above area shown

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



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: JV Softball
Size: 195'/225'/225' - basepath 60'
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

Illumination Summary

	MAINTAINED HORIZONTAL FOOTCANDLES	
	Infield	Outfield
Guaranteed Average:	50	30
Scan Average:	50.26	30.52
Maximum:	61	43
Minimum:	38	23
Avg/Min:	1.31	1.35
Guaranteed Max/Min:	2	2.5
Max/Min:	1.59	1.92
UG (adjacent pts):	1.24	1.35
CU:	0.18	
No. of Points:	25	89
FIXTURE INFORMATION		
Applied Circuits:	K,L	
No. of Fixtures:	68	
Total Load:	72.39 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.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
4	P1-P4	60'	-	60'	TLC-LED-1200	2	2	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
4	Totals					20	20	0

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Practice
Size:	250' x 175'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Guaranteed Average:	30
Scan Average:	33.21
Maximum:	44
Minimum:	26
Avg/Min:	1.29
Guaranteed Max/Min:	2.5
Max/Min:	1.69
UG (adjacent pts):	1.39
CU:	0.74
No. of Points:	54
FIXTURE INFORMATION	
Applied Circuits:	G
No. of Fixtures:	20
Total Load:	18.70 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.

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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Above Field Level is height of fixtures above area shown



A-16

ILLUMINATION SUMMARY

Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	T1-T2	60'	-	60'	TLC-LED-550	2	2	0
2	T3-T4	60'	-	60'	TLC-LED-550	2	2	0
				60'	TLC-LED-900	3	0	3
4				Totals		14	8	6

Diagram illustrating a tennis court layout with various dimensions and points of interest.

Dimensions:

- Top horizontal distance: 63'
- Top vertical distance: 28'
- Right vertical distance: 28'
- Bottom horizontal distance: 93'
- Bottom vertical distance: 28'
- Right vertical distance (lower): 30'
- Right vertical distance (lower): 65'

Points of Interest:

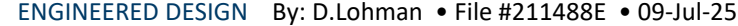
- T1 (Top Left)
- T2 (Top Right)
- T3 (Bottom Right)
- T4 (Bottom Left)

Internal Court Dimensions/Labels:

- Top row: 45, 47, 47, 45, 46
- Middle row: 58, 67, 63, 64, 49
- Bottom row: 45, 44, 44, 43, 44

Other Features:

- A central circle with an 'X' inside.
- A rectangular area with a grid pattern, possibly representing a net or a specific court section.



ILLUMINATION SUMMARY

Equipment List For Areas Shown								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	T3-T4	60'	-	60'	TLC-LED-550	2	0	2
				60'	TLC-LED-900	3	3	0
2	T5-T6	60'	-	60'	TLC-LED-900	6	3	3
4	Totals					22	12	10

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Tennis 2-4
Size:	3 Court - 12' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Guaranteed Average:	50
Scan Average:	51.78
Maximum:	61
Minimum:	43
Avg/Min:	1.21
Guaranteed Max/Min:	2
Max/Min:	1.43
UG (adjacent pts):	0.00
CU:	0.80
No. of Points:	45
FIXTURE INFORMATION	
Applied Circuits:	N
No. of Fixtures:	12
Total Load:	10.56 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.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	T5-T6	60'	-	60'	TLC-LED-900	6	3	3
2	T7-T8	60'	-	60'	TLC-LED-900	3	3	0
4	Totals					18	12	6

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Tennis 5-7
Size:	3 Court - 12' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid	
Guaranteed Average:	50
Scan Average:	52.20
Maximum:	64
Minimum:	42
Avg/Min:	1.24
Guaranteed Max/Min:	2
Max/Min:	1.52
UG (adjacent pts):	0.00
CU:	0.80
No. of Points:	45
FIXTURE INFORMATION	
Applied Circuits:	0
No. of Fixtures:	12
Total Load:	10.56 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.

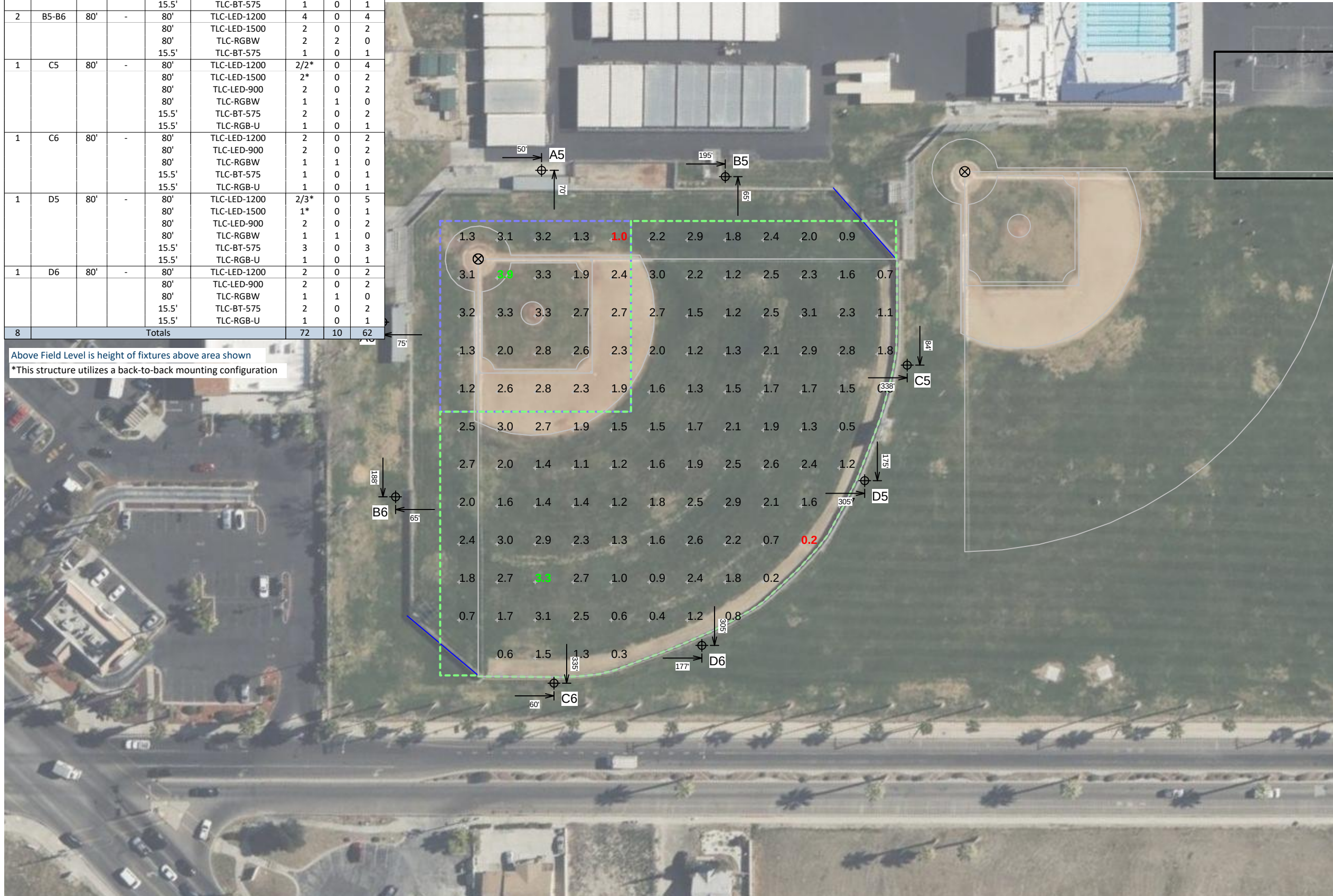
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A5-A6	80'	-	80'	TLC-LED-1500	4	0	4
				80'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	1	0	1
				15.5'	TLC-BT-575	1	0	1
2	B5-B6	80'	-	80'	TLC-LED-1200	4	0	4
				80'	TLC-LED-1500	2	0	2
				80'	TLC-RGBW	2	2	0
				15.5'	TLC-BT-575	1	0	1
1	C5	80'	-	80'	TLC-LED-1200	2/2*	0	4
				80'	TLC-LED-1500	2*	0	2
				80'	TLC-LED-900	2	0	2
				80'	TLC-RGBW	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	C6	80'	-	80'	TLC-LED-1200	2	0	2
				80'	TLC-LED-900	2	0	2
				80'	TLC-RGBW	1	1	0
				15.5'	TLC-BT-575	1	0	1
				15.5'	TLC-RGB-U	1	0	1
1	D5	80'	-	80'	TLC-LED-1200	2/3*	0	5
				80'	TLC-LED-1500	1*	0	1
				80'	TLC-LED-900	2	0	2
				80'	TLC-RGBW	1	1	0
				15.5'	TLC-BT-575	3	0	3
				15.5'	TLC-RGB-U	1	0	1
1	D6	80'	-	80'	TLC-LED-1200	2	0	2
				80'	TLC-LED-900	2	0	2
				80'	TLC-RGBW	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
8	Totals					72	10	62

Above Field Level is height of fixtures above area shown
*This structure utilizes a back-to-back mounting configuration



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: Baseball RGBW
Size: Irregular 330'/352'/329'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

Illumination Summary

	MAINTAINED HORIZONTAL FOOTCANDLES	
	Infield	Outfield
Scan Average:	2.46	1.79
Maximum:	4	3
Minimum:	1	0
Avg/Min:	2.50	9.65
Max/Min:	3.95	17.97
UG (adjacent pts):	2.55	8.36
CU:	0.88	
No. of Points:	25	98
FIXTURE INFORMATION		
Applied Circuits:	P	
No. of Fixtures:	10	
Total Load:	6.40 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.

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

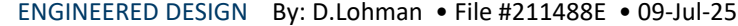
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A9-A10	60'	-	60'	TLC-LED-900	3	0	3
				60'	TLC-RGBW	1	1	0
				15.5'	TLC-BT-575	1	0	1
1	B9	90'	-	90'	TLC-LED-1200	5	0	5
				90'	TLC-LED-1500	2	0	2
				90'	TLC-LED-900	1	0	1
				90'	TLC-RGBW	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B10	90'	-	90'	TLC-LED-1200	10	0	10
				90'	TLC-LED-900	1	0	1
				90'	TLC-RGBW	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
4	Totals					37	4	33

This aerial map shows a residential development with a grid of lot numbers. The lots are arranged in a roughly rectangular shape, with a curved boundary on the left side. The lot numbers are as follows:

Row \ Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	4
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A-21

Grid Summary
Name: Softball RGBW
Size: Irregular 197'/205'/195'
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

MAINTAINED HORIZONTAL FOOTCANDLES		
	Infield	Outfield
Scan Average:	3.88	1.44
Maximum:	7	3
Minimum:	1	0
Avg/Min:	6.55	3.52
Max/Min:	12.54	6.18
UG (adjacent pts):	4.75	2.77
CU:	0.86	
No. of Points:	25	73
FIXTURE INFORMATION		
Applied Circuits:	R	
No. of Fixtures:	4	
Total Load:	2.56 kW	

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

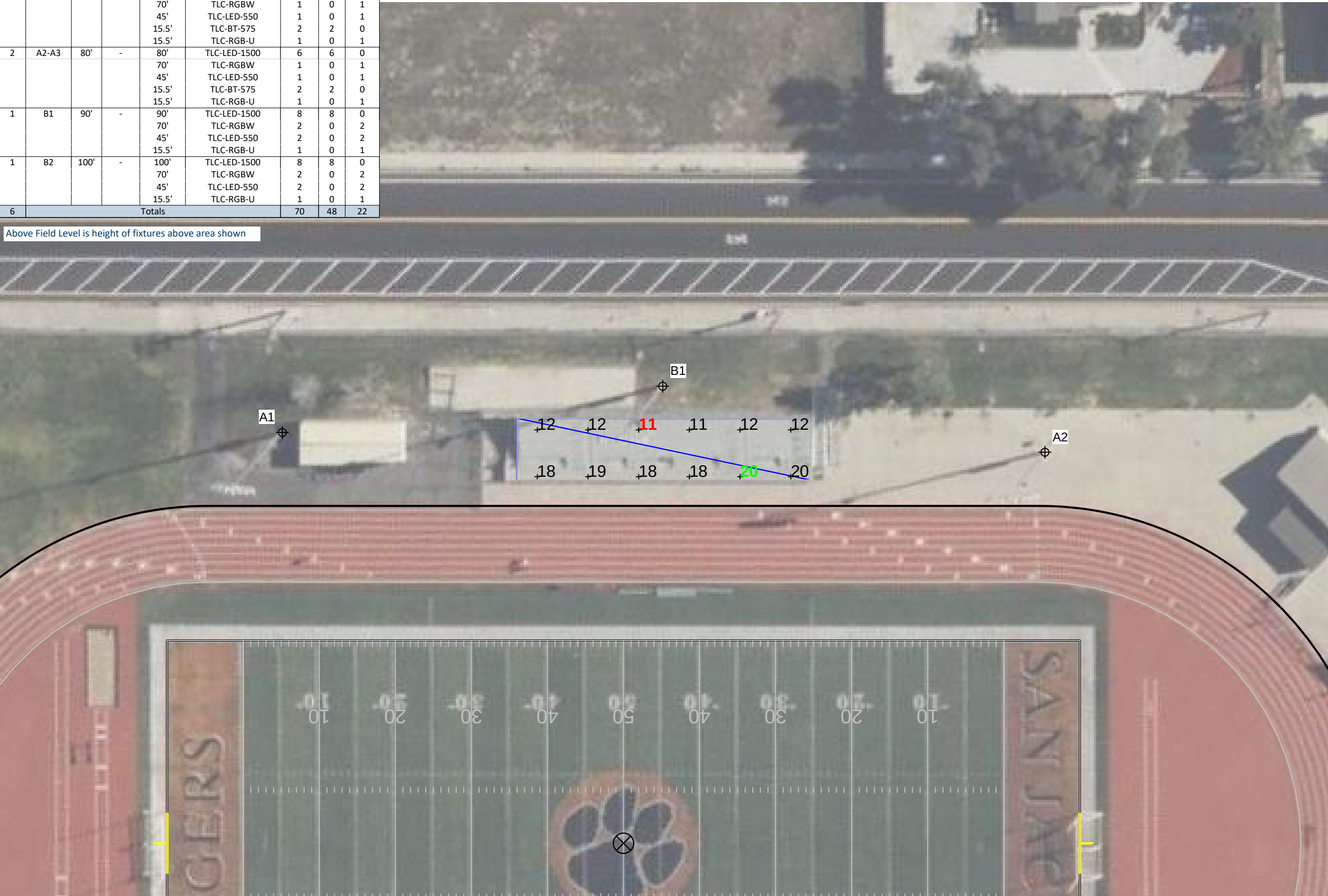


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ILLUMINATION SUMMARY

Equipment List For Areas Shown								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	5	0
				100'	TLC-LED-900	1	1	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	6	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
				1	B2	100'	-	100'
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	48	22

Above Field Level is height of fixtures above area shown





SCALE IN FEET 1 : 40

0'

40'

80'

ENGINEERED DESIGN By: D.Lohman • File #211488E • 09-Jul-25

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

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Visitor Bleacher Grid
Spacing:	20.0' x 20.0'

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	15.27
Maximum:	20
Minimum:	11
Avg/Min:	1.45
Max/Min:	1.91
UG (adjacent pts):	1.74
CU:	0.01
No. of Points:	12
FIXTURE INFORMATION	
Applied Circuits:	A,B
No. of Fixtures:	48
Total Load:	59.94 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.

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

				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	0	6
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B2	100'	-	100'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	8	62

Above Field Level is height of fixtures above area shown

A1 B1 A2

5.5	9.0	19.3	18.8	8.9	5.5
6.3	8.7	10.8	10.7	8.8	6.4

SCALE IN FEET 1 : 40



0' 40' 80'

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A-23

San Jacinto, CA

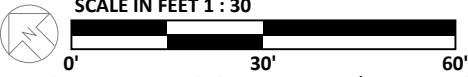
Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	9.89
Maximum:	19
Minimum:	6
Avg/Min:	1.80
Max/Min:	3.51
UG (adjacent pts):	2.16
CU:	0.06
No. of Points:	12
FIXTURE INFORMATION	
Applied Circuits:	C,D
No. of Fixtures:	8
Total Load:	4.32 kW

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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Above Field Level is height of fixtures above area shown



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

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ILLUMINATION SUMMARY

Equipment List For Areas Shown								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	5	0
				100'	TLC-LED-900	1	1	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	6	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
				1	B2	100'	-	100'
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
				6	Totals			

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Home Bleacher Grid
Spacing:	20.0' x 20.0'

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	13.03
Maximum:	18
Minimum:	6
Avg/Min:	2.02
Max/Min:	2.82
UG (adjacent pts):	1.90
CU:	0.01
No. of Points:	22
FIXTURE INFORMATION	
Applied Circuits:	A,B
No. of Fixtures:	48
Total Load:	59.94 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.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	0	5
				100'	TLC-LED-900	1	0	1
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	0	6
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B2	100'	-	100'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	8	62

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Home Bleacher Egress Grid
Spacing:	20.0' x 20.0'

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	8.46
Maximum:	28
Minimum:	1
Avg/Min:	5.80
Max/Min:	19.30
UG (adjacent pts):	5.64
CU:	0.09
No. of Points:	22
FIXTURE INFORMATION	
Applied Circuits:	C,D
No. of Fixtures:	8
Total Load:	4.32 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.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	0	5
				100'	TLC-LED-900	1	0	1
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	0	6
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
				1	B2	100'	-	100'
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	8	62

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Home Bleacher Egress Ramp
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	3.23
Maximum:	4
Minimum:	2
Avg/Min:	1.37
Max/Min:	1.67
UG (adjacent pts):	0.00
CU:	0.00
No. of Points:	6
FIXTURE INFORMATION	
Applied Circuits:	C,D
No. of Fixtures:	8
Total Load:	4.32 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.

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

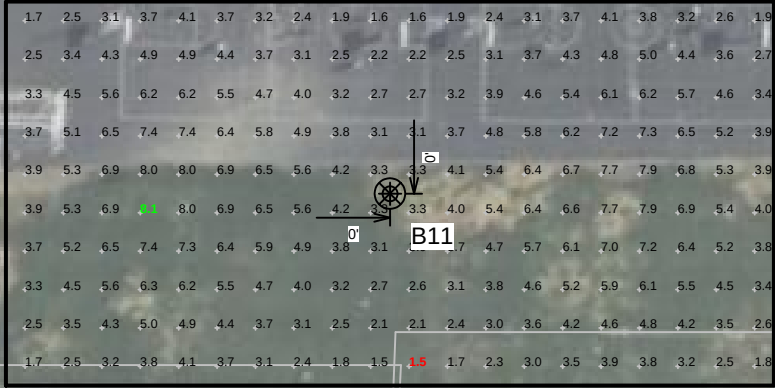
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



Equipment List For Areas Shown

Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
1	B11	90'	-	90'	TLC-LED-1200	7	0	7
				90'	TLC-LED-1500	2	0	2
				70'	TLC-LED-550	2	2	0
				15.5'	TLC-BT-575	2	0	2
1	Totals					13	2	11

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name:	B11 Safe Dispersal Area
Size:	200' x 100'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDELS	
Entire Grid	
Scan Average:	4.42
Maximum:	8
Minimum:	1
Avg/Min:	2.95
Max/Min:	5.38
UG (adjacent pts):	1.49
CU:	0.71
No. of Points:	200
FIXTURE INFORMATION	
Applied Circuits:	T
No. of Fixtures:	2
Total Load:	1.05 kW

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

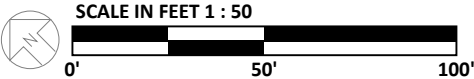
Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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) ⊗



Equipment List For Areas Shown								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	5	0
				100'	TLC-LED-900	1	1	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	6	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
				1	B2	100'	-	100'
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
				6	Totals			

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	North Track D Zone
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

Illumination Summary	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	35.68
Maximum:	49
Minimum:	22
Avg/Min:	1.63
Max/Min:	2.25
UG (adjacent pts):	1.42
CU:	0.06
No. of Points:	31
FIXTURE INFORMATION	
Applied Circuits:	A,B
No. of Fixtures:	48
Total Load:	59.94 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.

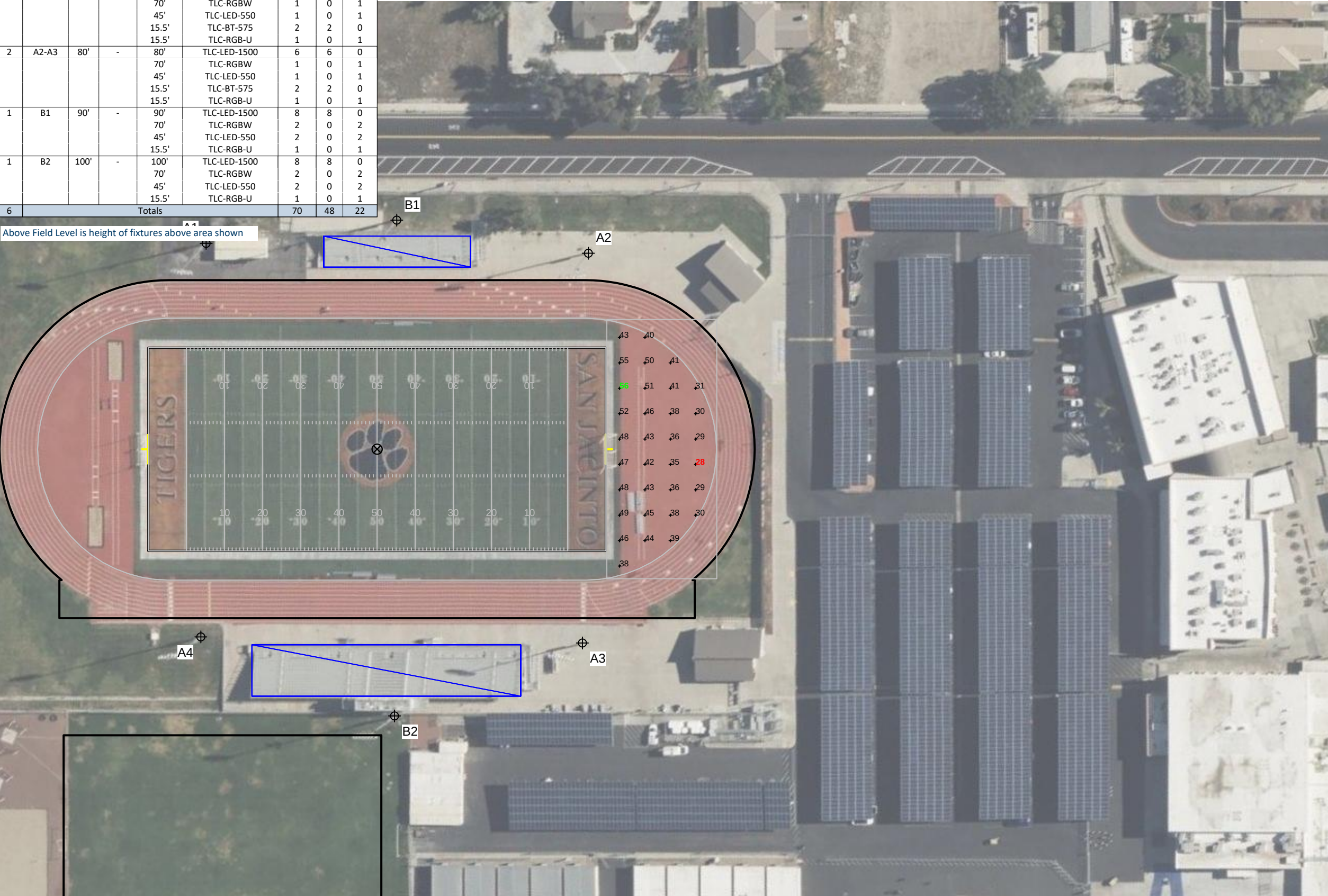
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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

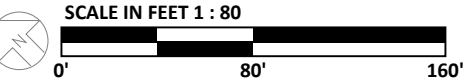


Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	5	0
				100'	TLC-LED-900	1	1	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	6	0
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	0	1
				15.5'	TLC-BT-575	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B2	100'	-	100'	TLC-LED-1500	8	8	0
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	0	2
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	48	22

Above Field Level is height of fixtures above area shown



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



ENGINEERED DESIGN By: D.Lohman • File #211488E • 09-Jul-25

A-30

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: South Track D Zone
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	41.54
Maximum:	56
Minimum:	28
Avg/Min:	1.46
Max/Min:	1.99
UG (adjacent pts):	1.33
CU:	0.07
No. of Points:	33
FIXTURE INFORMATION	
Applied Circuits:	A,B
No. of Fixtures:	48
Total Load:	59.94 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.

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.

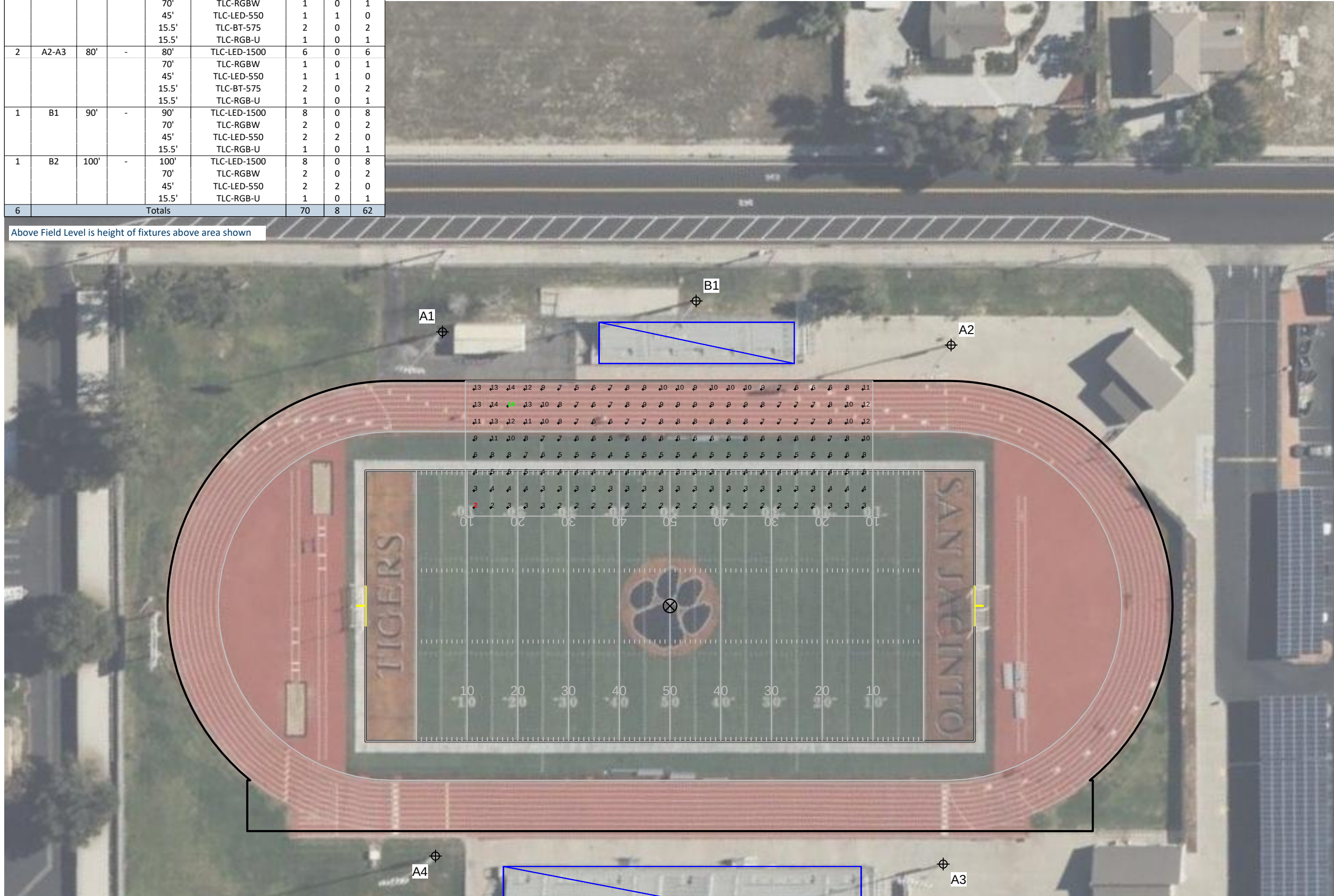


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ILLUMINATION SUMMARY

Equipment List For Areas Shown								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	0	5
				100'	TLC-LED-900	1	0	1
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	0	6
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
1	B2	100'	-	100'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
6	Totals					70	8	62

Above Field Level is height of fixtures above area shown



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Visitor Side Safe Dispersal Area
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

Illumination Summary	
	MAINTAINED HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	6.05
Maximum:	14
Minimum:	2
Avg/Min:	3.66
Max/Min:	8.37
UG (adjacent pts):	1.59
CU:	0.22
No. of Points:	192
FIXTURE INFORMATION	
Applied Circuits:	C,D
No. of Fixtures:	8
Total Load:	4.32 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.

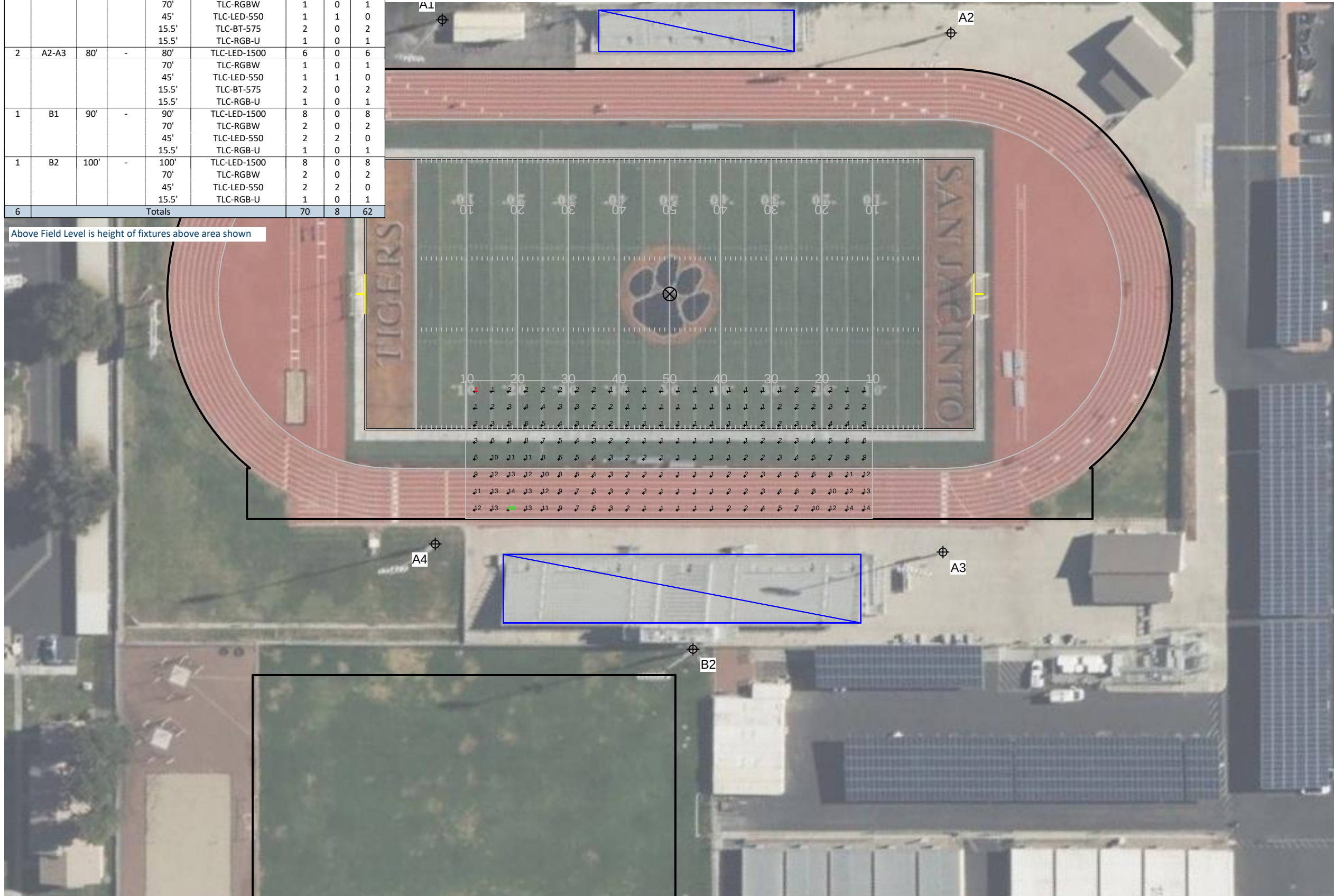
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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								
Structure				Fixtures				
QTY	STRUCTURE ID	SIZE	GRADE ELEVATION	ABOVE FIELD LEVEL	FIXTURE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	A1 A4	100'	-	100'	TLC-LED-1500	5	0	5
				100'	TLC-LED-900	1	0	1
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
2	A2-A3	80'	-	80'	TLC-LED-1500	6	0	6
				70'	TLC-RGBW	1	0	1
				45'	TLC-LED-550	1	1	0
				15.5'	TLC-BT-575	2	0	2
				15.5'	TLC-RGB-U	1	0	1
1	B1	90'	-	90'	TLC-LED-1500	8	0	8
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
				1	B2	100'	-	100'
				70'	TLC-RGBW	2	0	2
				45'	TLC-LED-550	2	2	0
				15.5'	TLC-RGB-U	1	0	1
				6	Totals			

Above Field Level is height of fixtures above area shown



SCALE IN FEET 1 : 60

0'

60'

120'

ENGINEERED DESIGN

By: D.Lohman • File #211488E • 09-Jul-25

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

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Home Side Safe Dispersal Area
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

Illumination Summary	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	4.14
Maximum:	14
Minimum:	1
Avg/Min:	6.64
Max/Min:	22.28
UG (adjacent pts):	1.89
CU:	0.15
No. of Points:	192
FIXTURE INFORMATION	
Applied Circuits:	C,D
No. of Fixtures:	8
Total Load:	4.32 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.

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

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Idyllwild Dr Spill Horizontal Fc
Spacing:	30.0'
Height:	3.0' above grade

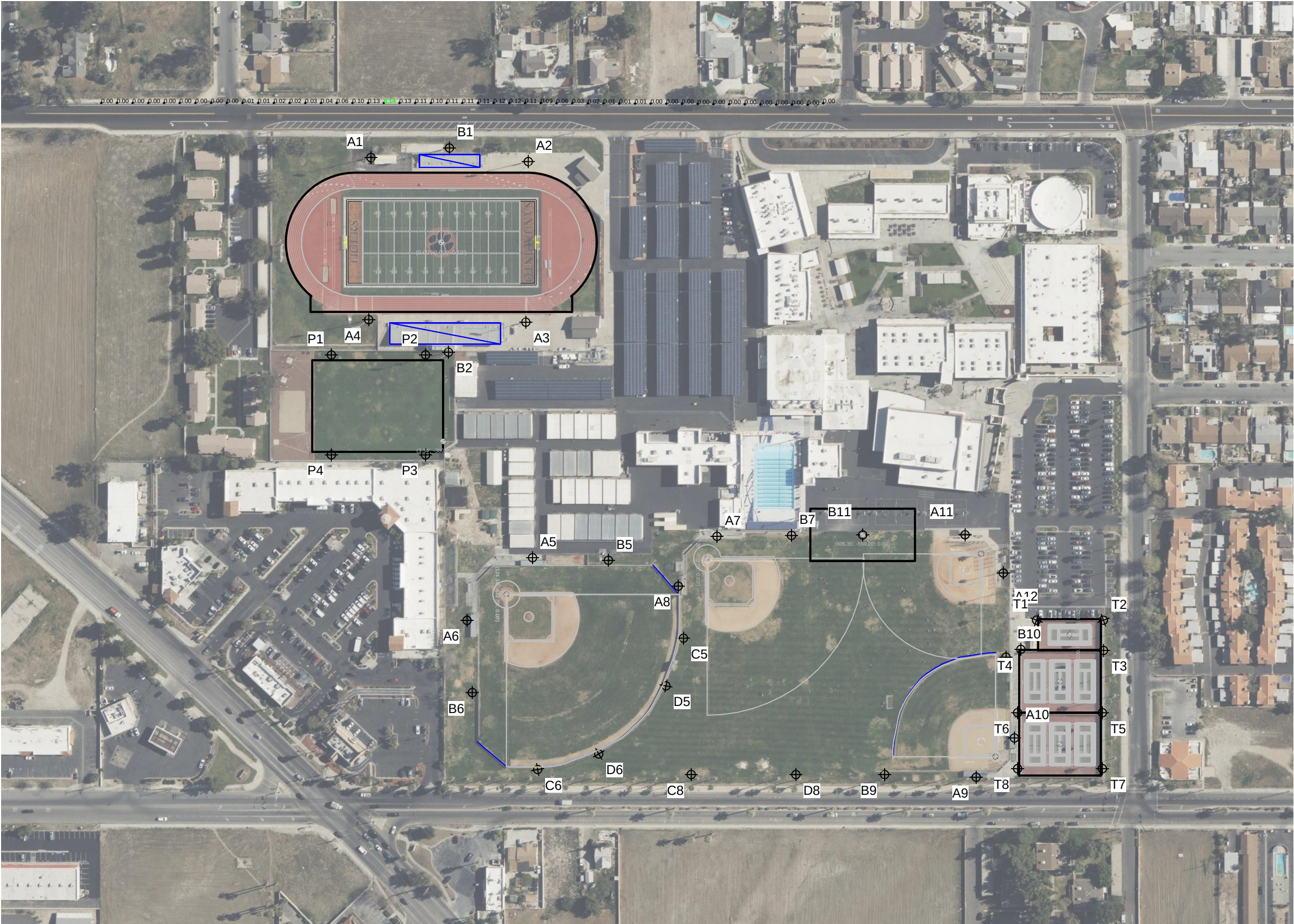
Illumination Summary	
	INITIAL HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	0.0389
Maximum:	0.14
Minimum:	0.00
CU:	0.00
No. of Points:	47
FIXTURE INFORMATION	
Applied Circuits:	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: Idyllwild Dr Spill Vertical Fc
Spacing: 30.0'
Height: 5.0' above grade

Illumination Summary

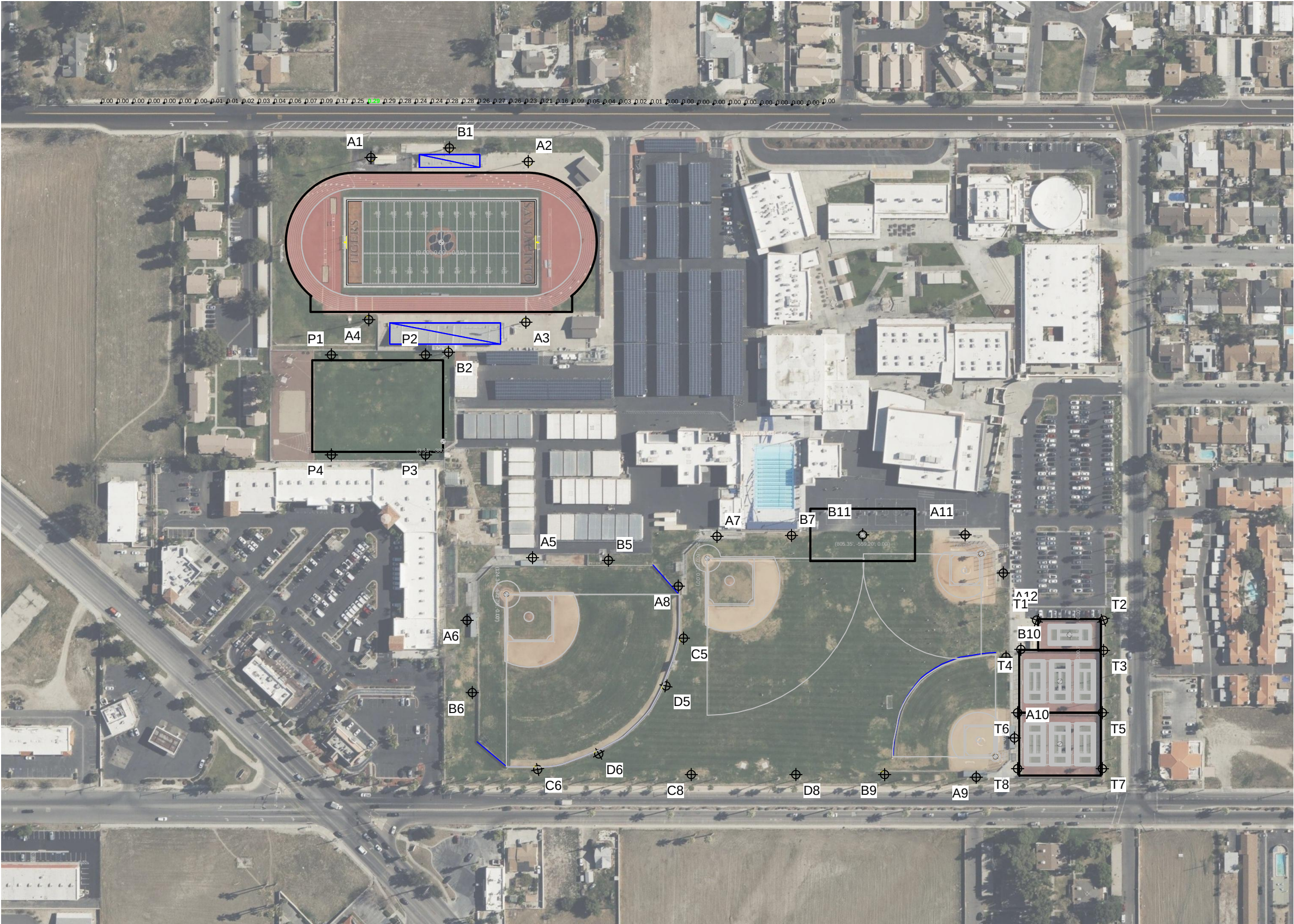
INITIAL MAX VERTICAL FOOTCANDLES	
Entire Grid	
Scan Average:	0.0917
Maximum:	0.29
Minimum:	0.00
CU:	0.00
No. of Points:	47
FIXTURE INFORMATION	
Applied Circuits:	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name:	Spill at Northwest Apartments Horizontal Fc
Spacing:	30.0'
Height:	3.0' above grade

Illumination Summary

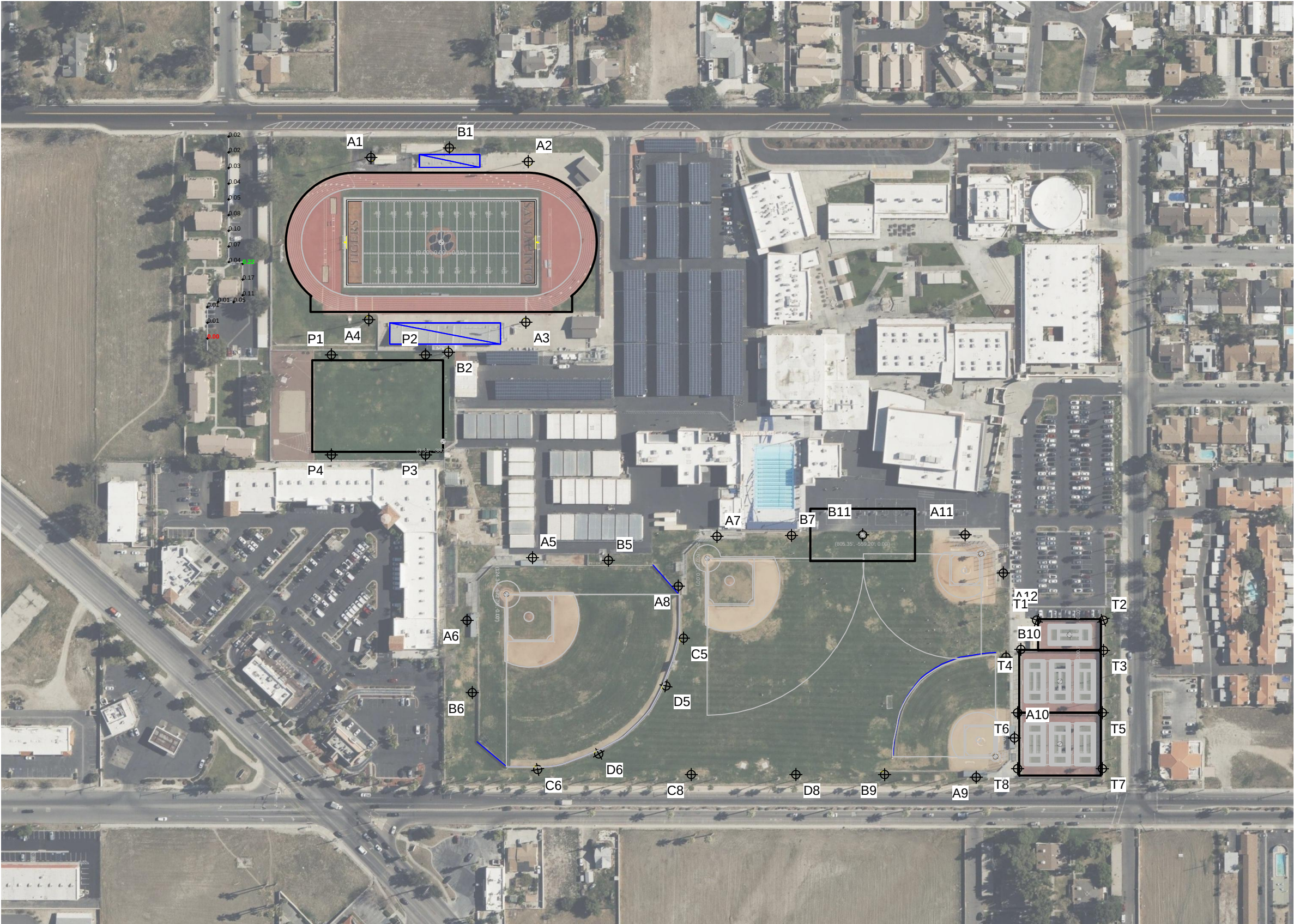
	INITIAL HORIZONTAL FOOTCANDLES
Entire Grid	
Scan Average:	0.0608
Maximum:	0.22
Minimum:	0.00
CU:	0.00
No. of Points:	17
FIXTURE INFORMATION	
Applied Circuits:	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.





SCALE IN FEET 1 : 200

0'

200'

400'

ENGINEERED DESIGN By: D.Lohman • File #211488E • 09-Jul-25

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



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ILLUMINATION SUMMARY

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: Spill at Northwest Apartments Vertical Fc
Spacing: 30.0'
Height: 5.0' above grade

Illumination Summary

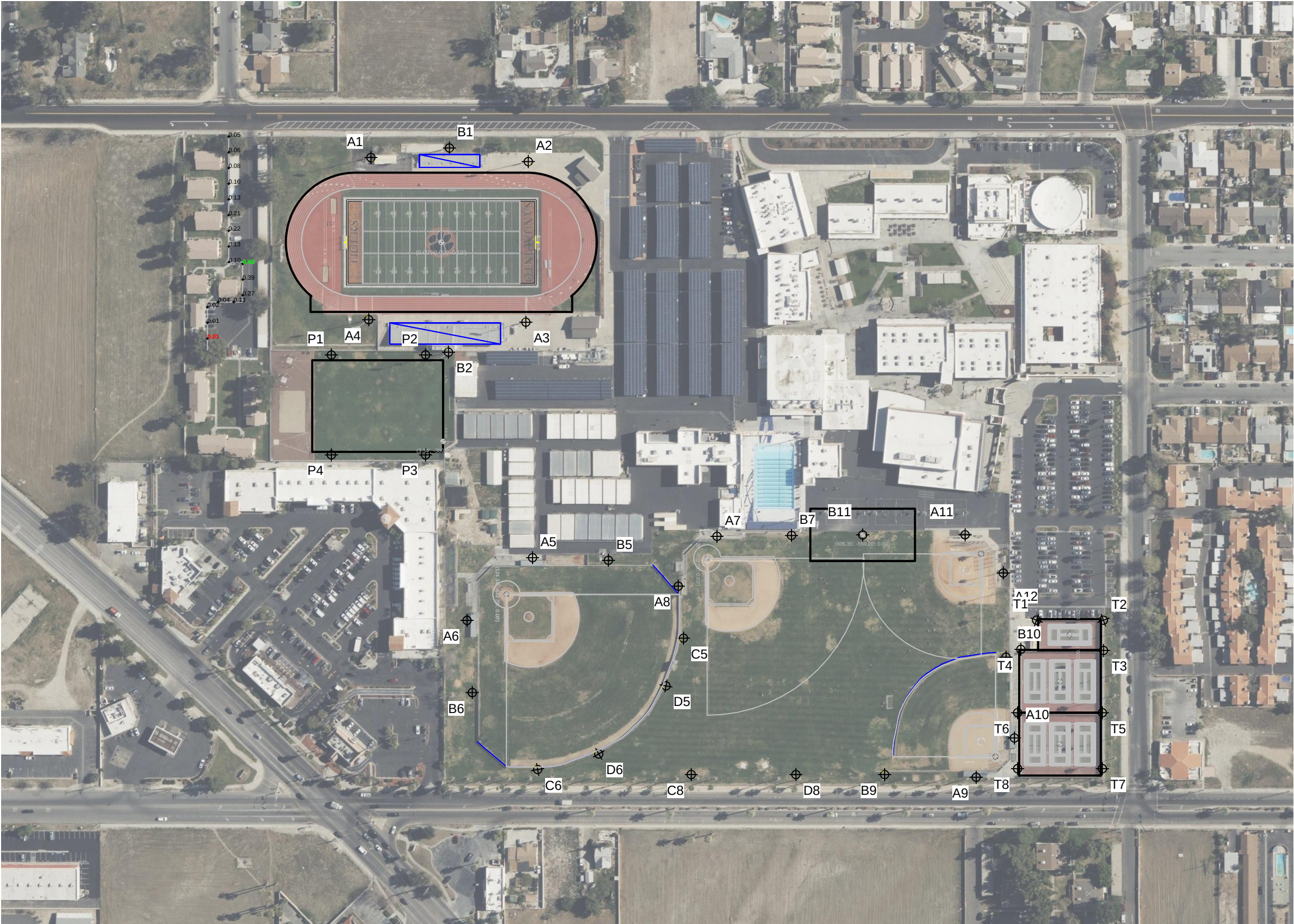
	INITIAL MAX VERTICAL FOOTCANDLES
Entire Grid	
Scan Average:	0.1386
Maximum:	0.40
Minimum:	0.01
CU:	0.00
No. of Points:	17
FIXTURE INFORMATION	
Applied Circuits:	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



SCALE IN FEET 1 : 200
0' 200' 400'
ENGINEERED DESIGN By: D.Lohman • File #211488E • 09-Jul-25

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



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ILLUMINATION SUMMARY

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: Spill at North Apartments Horizontal Fc
Spacing: 30.0'
Height: 3.0' above grade

Illumination Summary

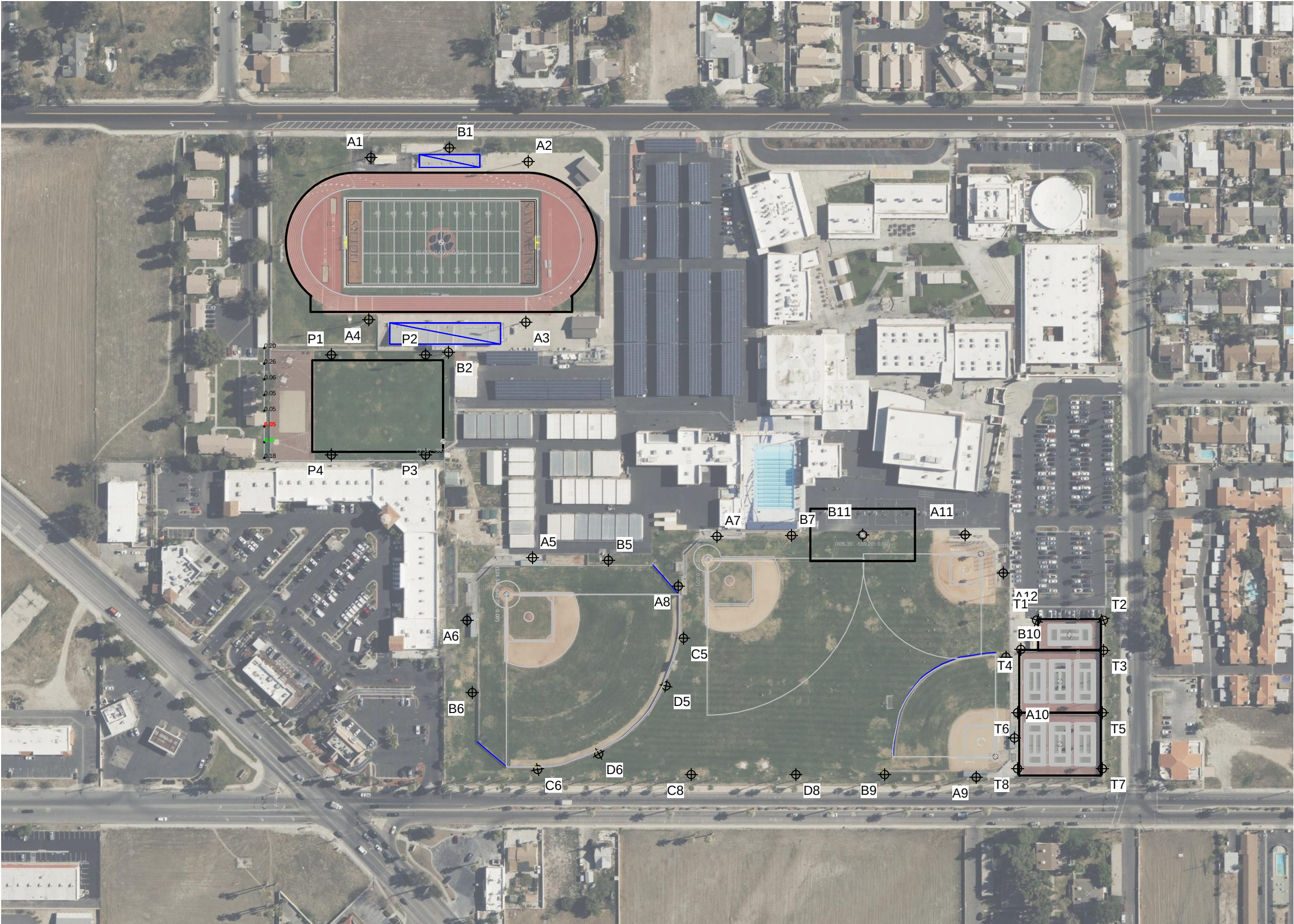
INITIAL HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	0.1406
Maximum:	0.27
Minimum:	0.05
CU:	0.00
No. of Points:	8
FIXTURE INFORMATION	
Applied Circuits:	G,A,B,C,D,E,F,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: Spill at North Apartments Vertical Fc
Spacing: 30.0'
Height: 5.0' above grade

Illumination Summary

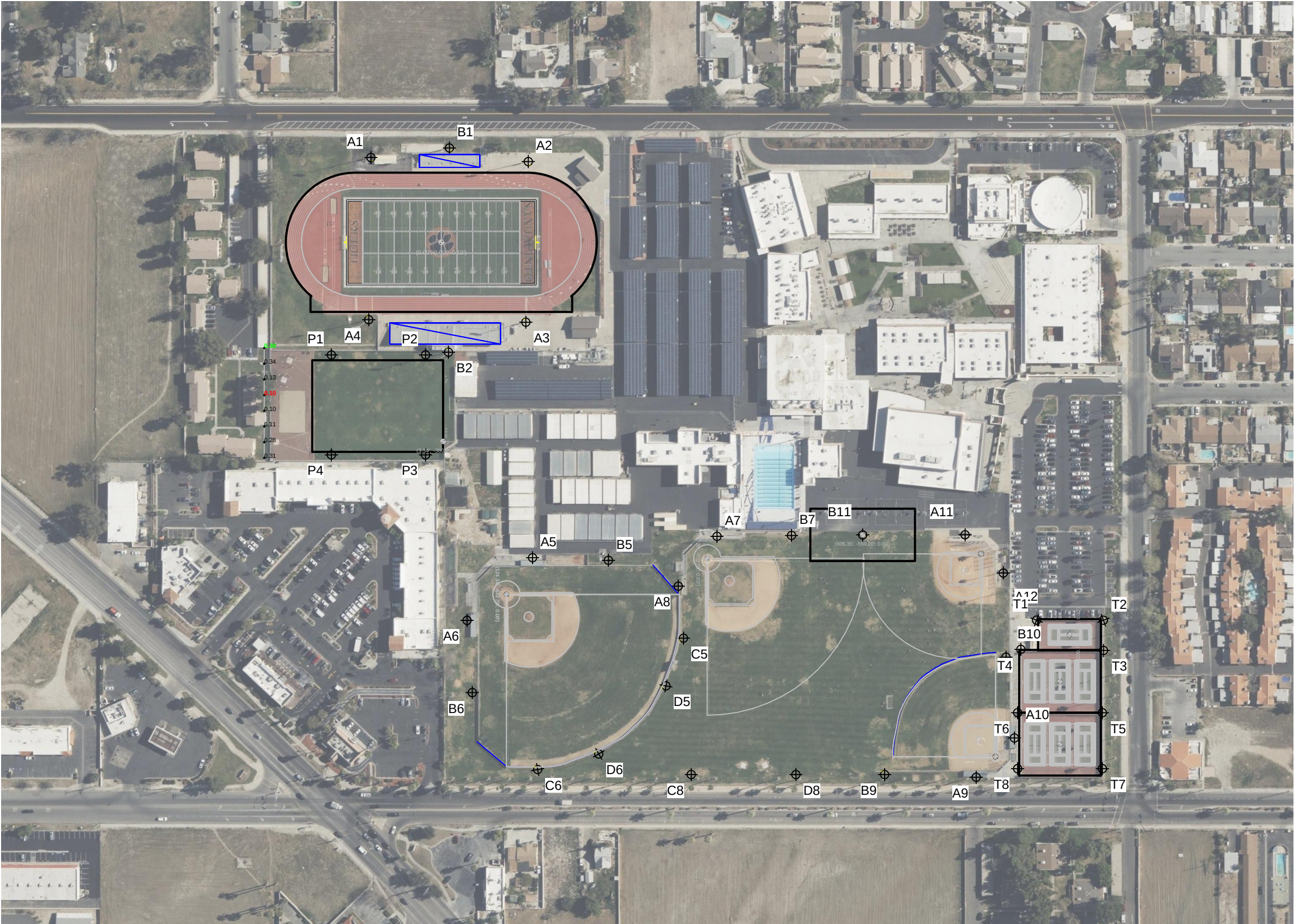
	INITIAL MAX VERTICAL FOOTCANDLES
Entire Grid	
Scan Average:	0.2185
Maximum:	0.38
Minimum:	0.10
CU:	0.00
No. of Points:	8
FIXTURE INFORMATION	
Applied Circuits:	G,A,B,C,D,E,F,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: N Ramona Blvd Spill Horizontal Fc
Spacing: 30.0'
Height: 3.0' above grade

Illumination Summary

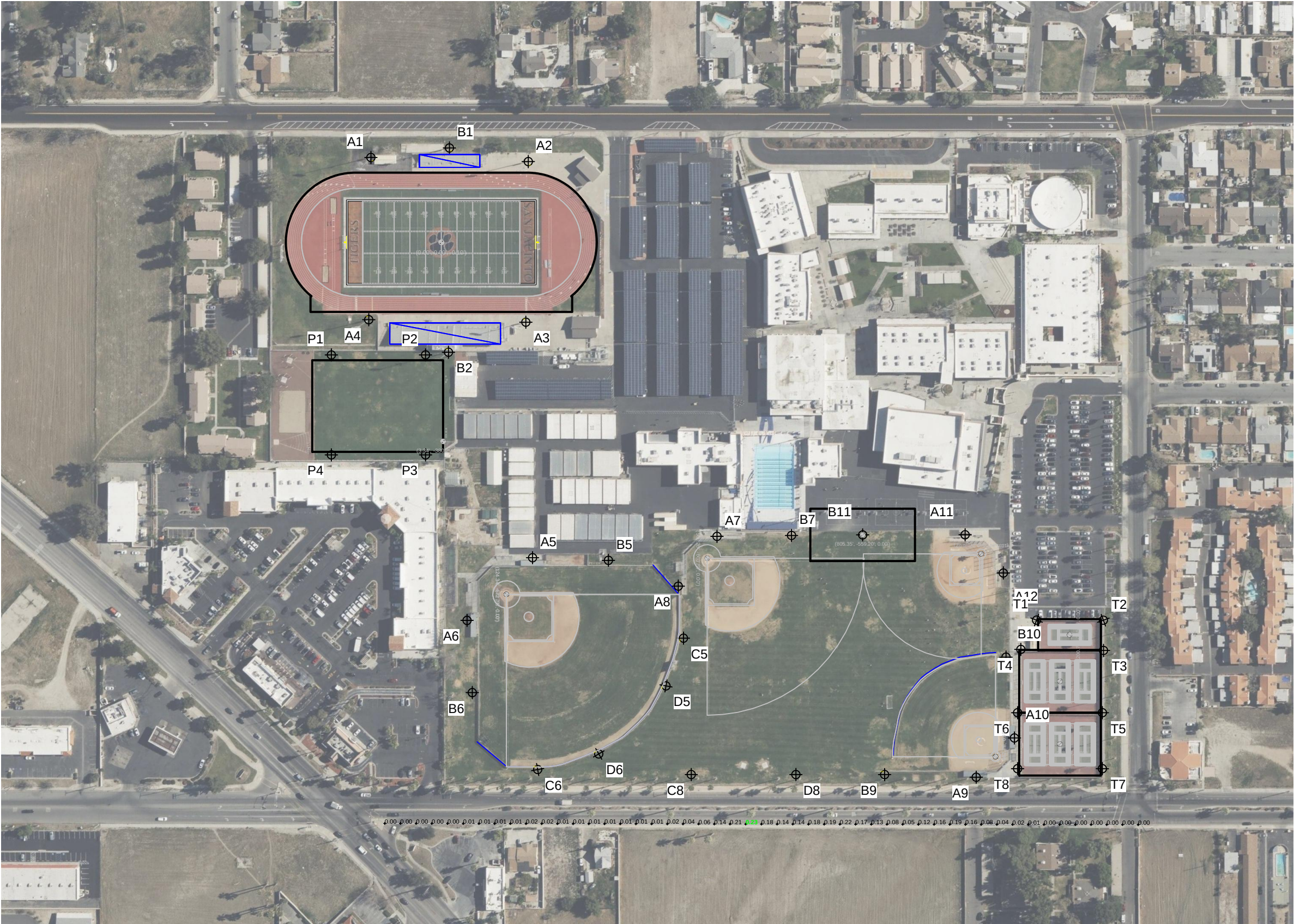
INITIAL HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	0.0628
Maximum:	0.23
Minimum:	0.00
CU:	0.00
No. of Points:	49
FIXTURE INFORMATION	
Applied Circuits:	G,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	206
Total Load:	194.62 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: N Ramona Blvd Spill Vertical Fc
Spacing: 30.0'
Height: 5.0' above grade

Illumination Summary

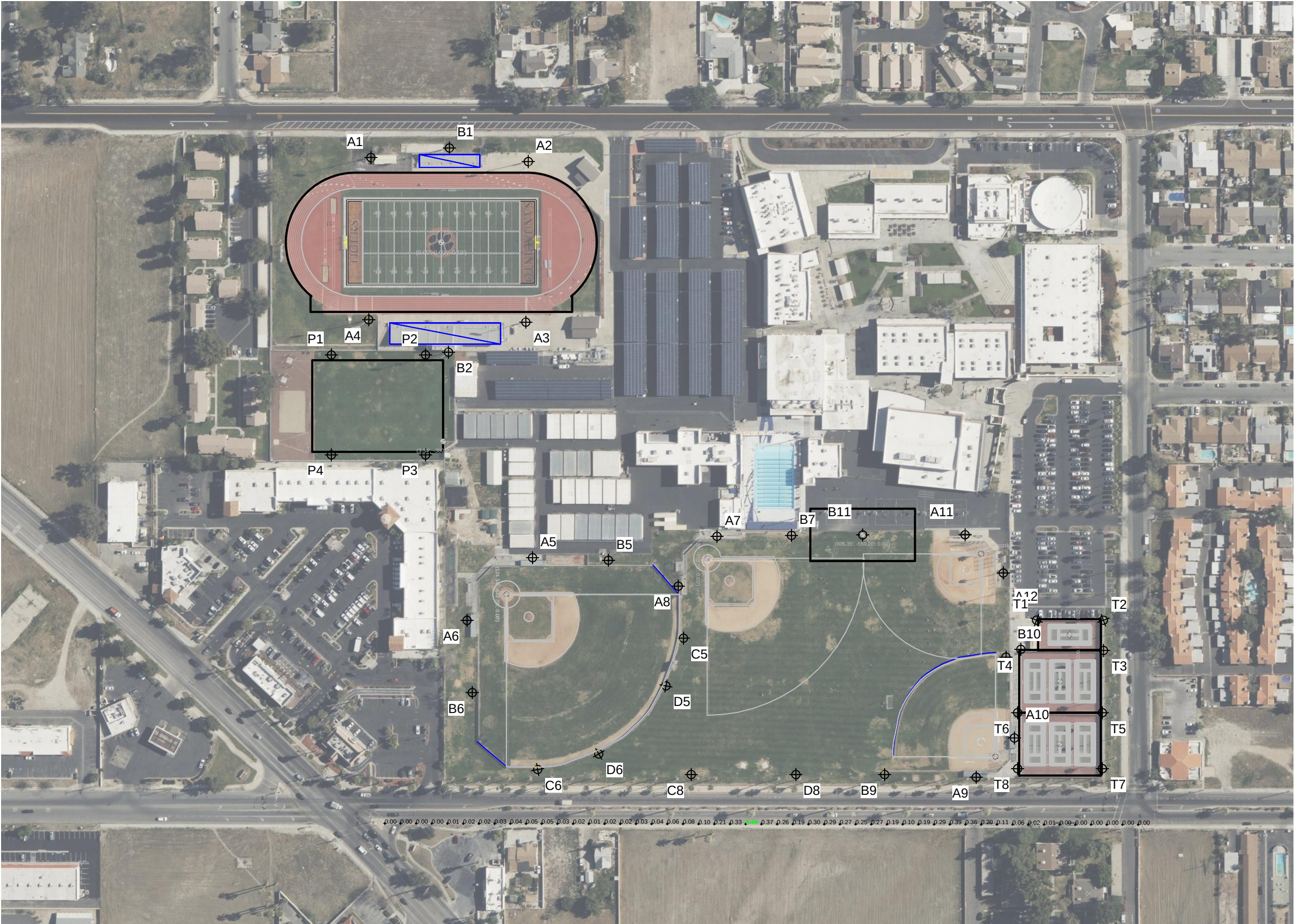
	INITIAL MAX VERTICAL FOOTCANDLES
Entire Grid	
Scan Average:	0.1162
Maximum:	0.44
Minimum:	0.00
CU:	0.00
No. of Points:	49
FIXTURE INFORMATION	
Applied Circuits:	G,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	206
Total Load:	194.62 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Tiger Ln Spill Horizontal Fc
Spacing:	30.0'
Height:	3.0' above grade

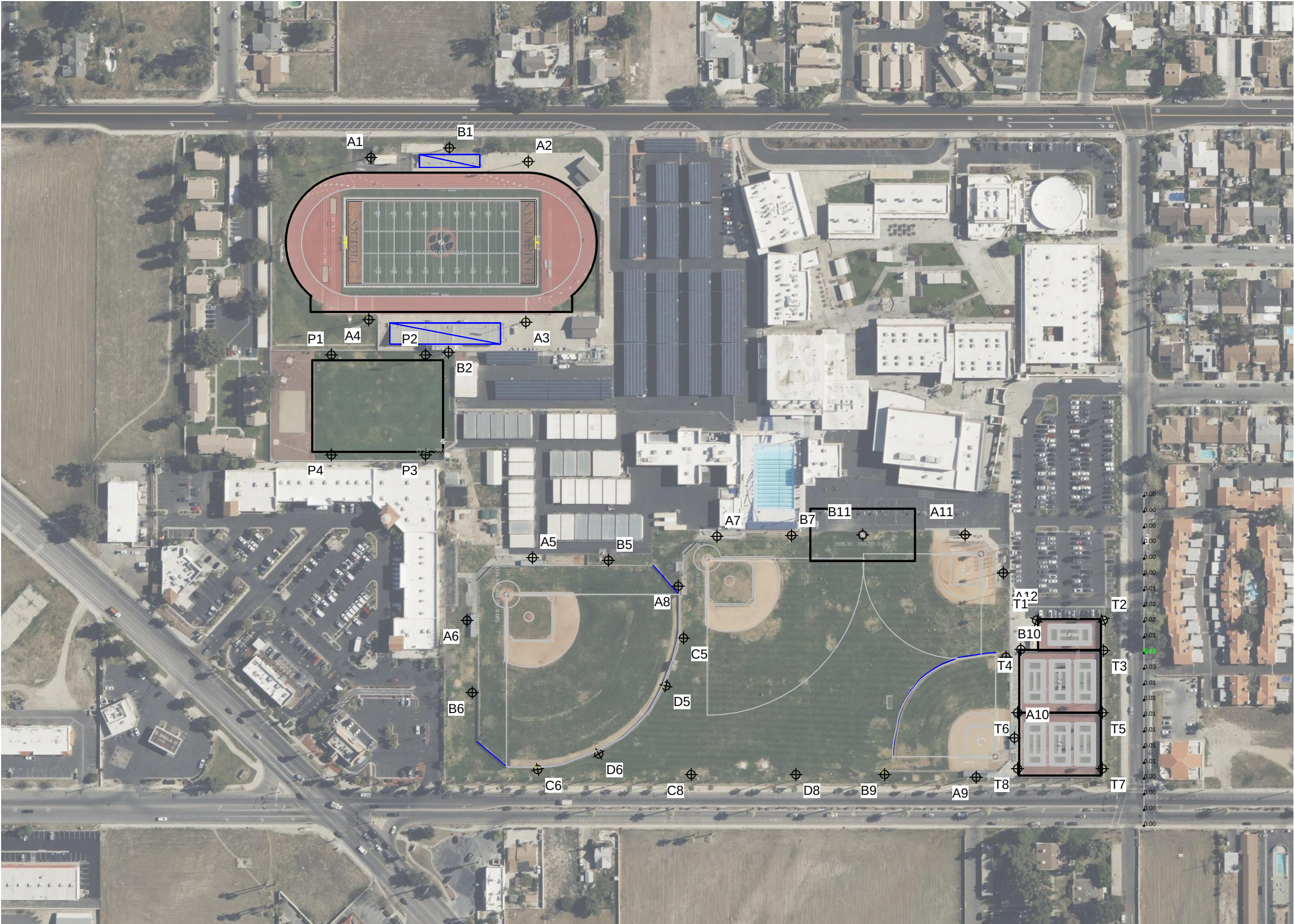
Illumination Summary	
	INITIAL HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	0.0077
Maximum:	0.03
Minimum:	0.00
CU:	0.00
No. of Points:	22
FIXTURE INFORMATION	
Applied Circuits:	G,H,I,J,K,L,M,N,O,P,Q,R,S,A,B,C,D,E,F
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.





SCALE IN FEET 1 : 200

0'

200'

400'

ENGINEERED DESIGN By: D.Lohman • File #211488E • 09-Jul-25

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



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ILLUMINATION SUMMARY

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Tiger Ln Spill Vertical Fc
Spacing:	30.0'
Height:	5.0' above grade

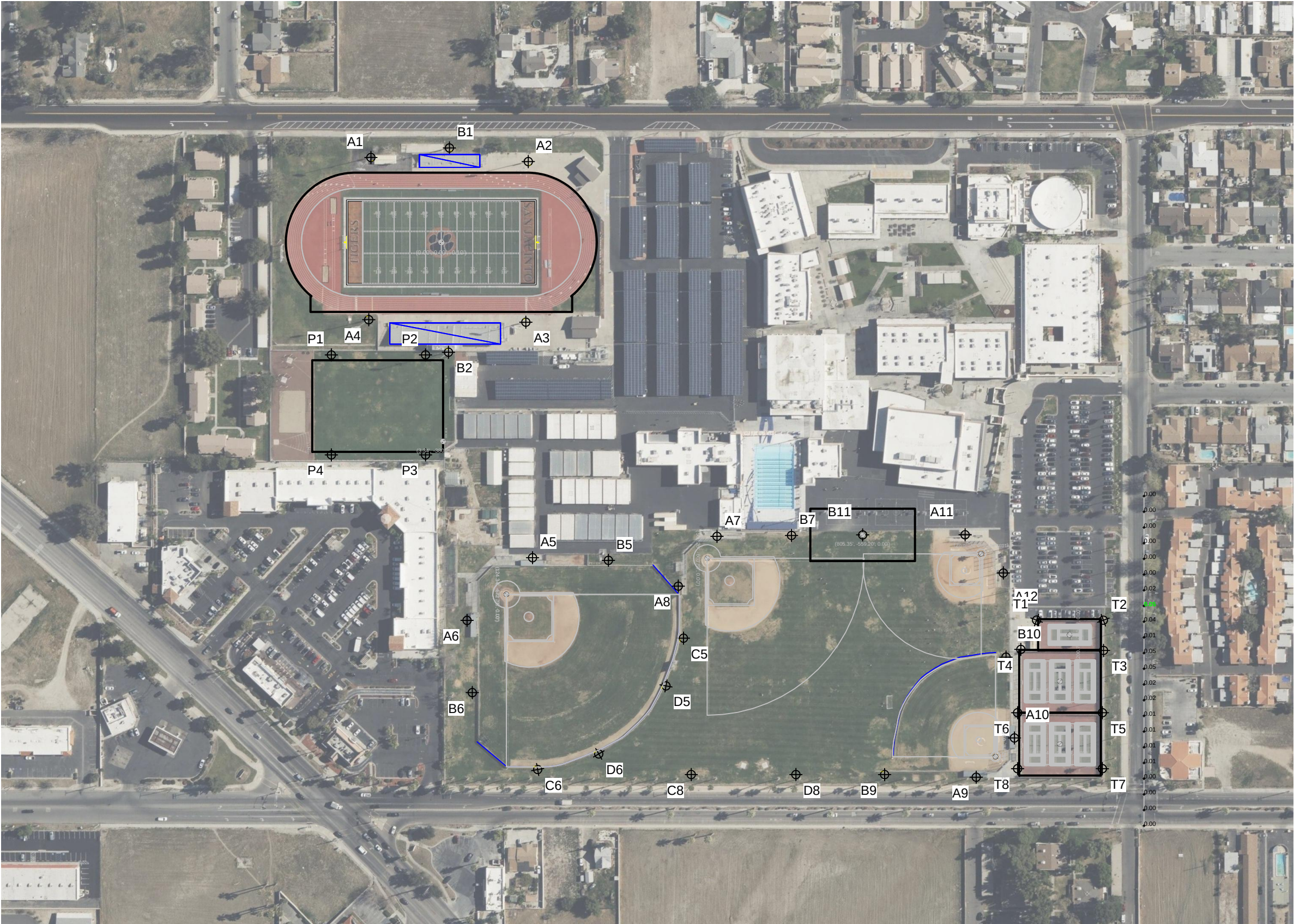
Illumination Summary	
	INITIAL MAX VERTICAL FOOTCANDLES
	Entire Grid
Scan Average:	0.0136
Maximum:	0.05
Minimum:	0.00
CU:	0.00
No. of Points:	22
FIXTURE INFORMATION	
Applied Circuits:	G,H,I,J,K,L,M,N,O,P,Q,R,S,A,B,C,D,E,F
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary	
Name:	Placeworks Spill Line #1 @ 3ft.
Spacing:	50.0'
Height:	3.0' above grade

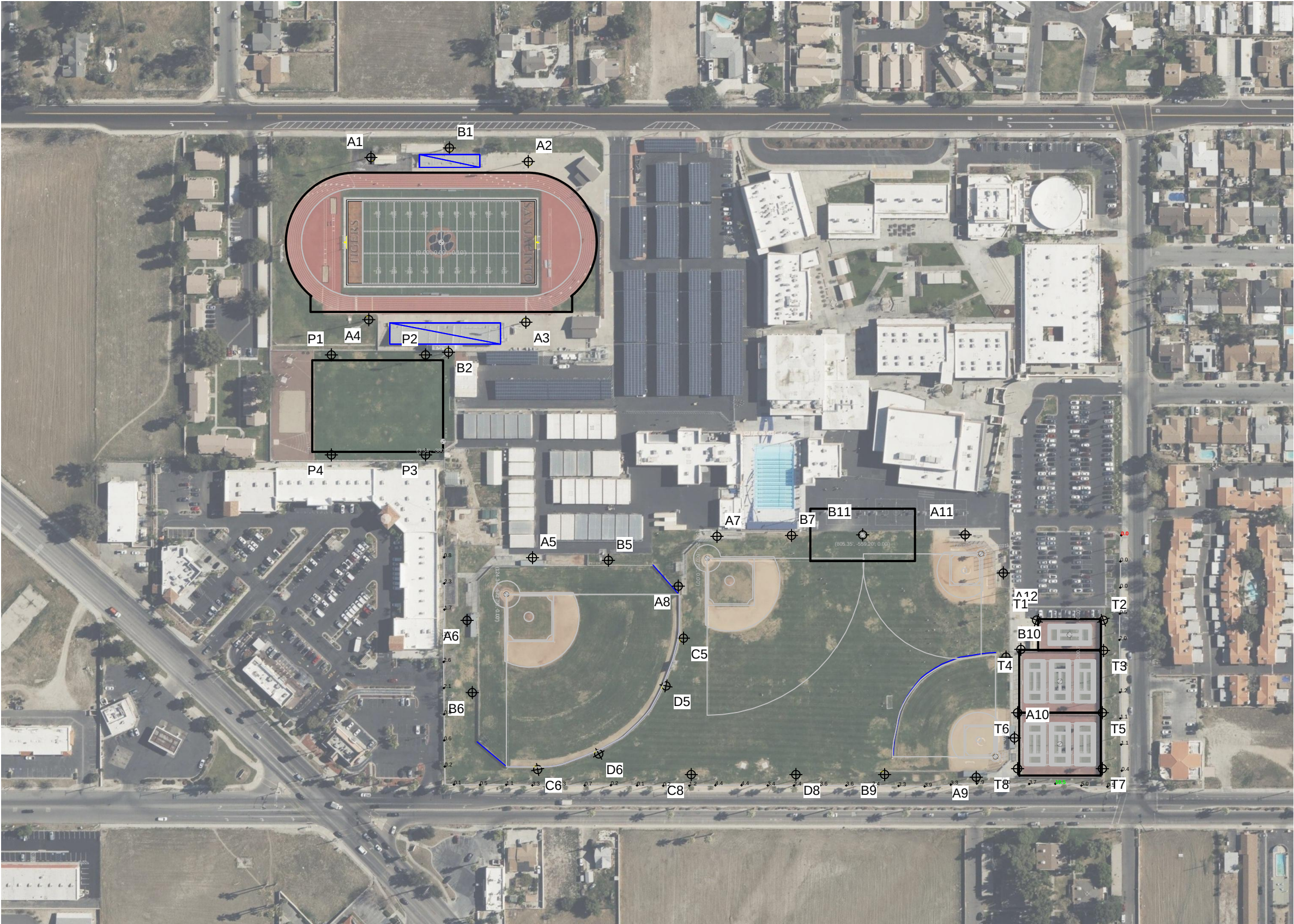
Illumination Summary	
	INITIAL HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	2.3260
Maximum:	19.49
Minimum:	0.00
CU:	0.01
No. of Points:	45
FIXTURE INFORMATION	
Applied Circuits:	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



SCALE IN FEET 1 : 200
0' 200' 400'
ENGINEERED DESIGN By: D.Lohman • File #211488E • 09-Jul-25

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



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ILLUMINATION SUMMARY

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Grid Summary

Name: **Placeworks Spill Line #2 @ 3ft**
Spacing: 30.0'
Height: 3.0' above grade

Illumination Summary

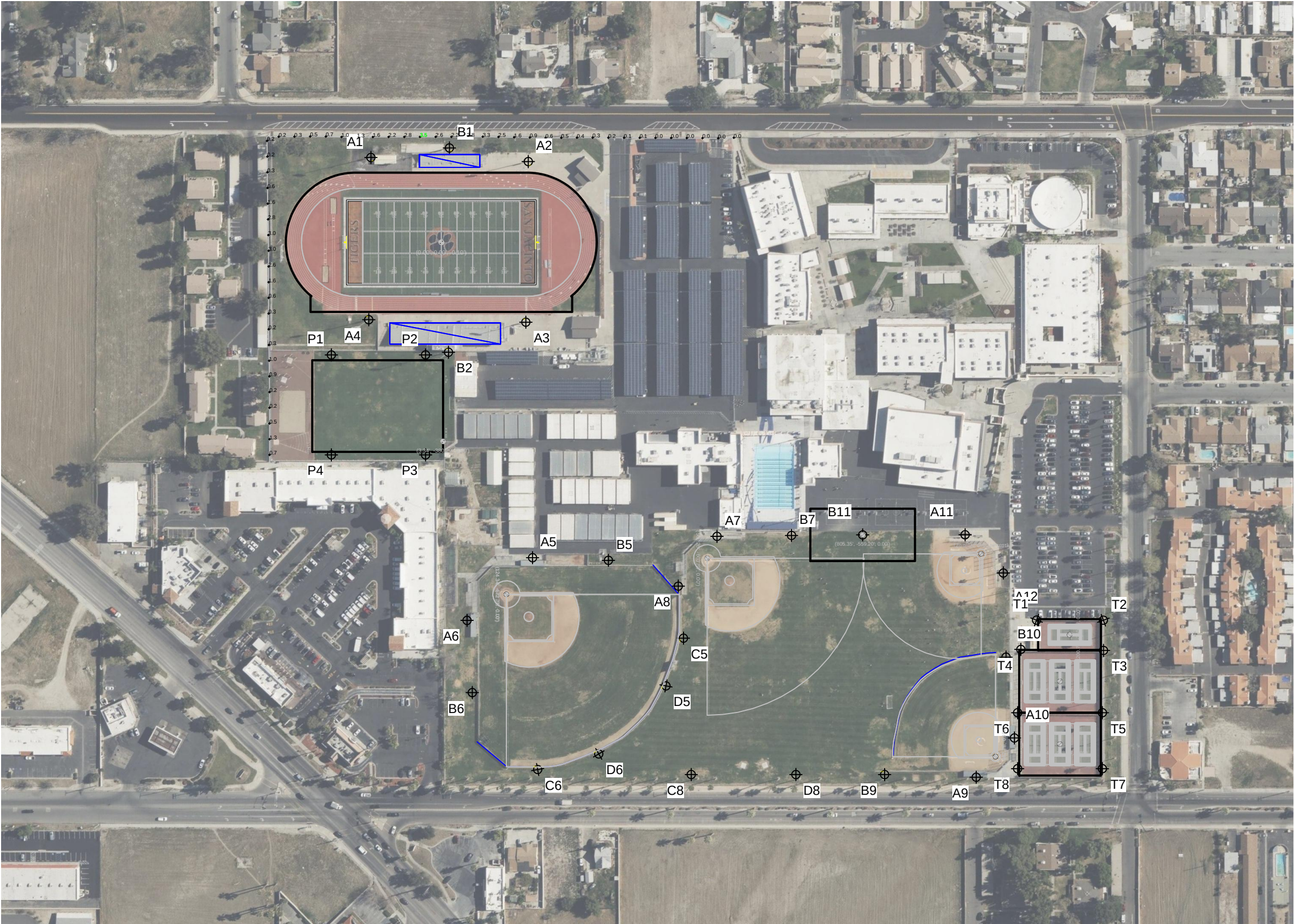
	INITIAL HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	1.0614
Maximum:	3.46
Minimum:	0.00
CU:	0.00
No. of Points:	51
FIXTURE INFORMATION	
Applied Circuits:	A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S
No. of Fixtures:	276
Total Load:	266.59 kW

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

Field Measurements: Individual field measurements may vary from computer-calculated predictions.

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.



San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Equipment Layout

- INCLUDES:
- B11 Safe Dispersal Area
 - Baseball RGBW
 - Football
 - JV Baseball
 - JV Softball
 - Practice
 - Softball RGBW
 - Tennis 1
 - Tennis 2-4
 - Tennis 5-7
 - Track
 - Varsity Baseball
 - Varsity 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						
QTY	Structure			Fixtures		
	STRUCTURE ID	SIZE	GLOBAL ELEVATION	ABOVE GLOBAL LEVEL	FIXTURE TYPE	QTY/POLE
2	A1 A4	100'	-	15.5'	TLC-RGB-U	1
				15.5'	TLC-BT-575	2
				70'	TLC-RGBW	1
				100'	TLC-LED-900	1
				100'	TLC-LED-1500	5
2	A2-A3	80'	-	45'	TLC-LED-550	1
				80'	TLC-LED-1500	6
				70'	TLC-RGBW	1
				15.5'	TLC-BT-575	2
				45'	TLC-LED-550	1
2	A5-A6	80'	-	15.5'	TLC-RGB-U	3
				80'	TLC-LED-1500	4
				80'	TLC-RGBW	1
				60'	TLC-LED-900	1
				15.5'	TLC-BT-575	1
2	A7-A8	70'	-	70'	TLC-LED-1200	3
				70'	TLC-LED-900	1
				15.5'	TLC-BT-575	1
				60'	TLC-LED-900	3
				15.5'	TLC-RGBW	1
2	A9-A10	60'	-	60'	TLC-LED-900	3
				15.5'	TLC-RGBW	1
				15.5'	TLC-BT-575	1
				60'	TLC-LED-900	3
				15.5'	TLC-RGBW	1
2	A11-A12	60'	-	70'	TLC-RGBW	2
				15.5'	TLC-RGB-U	1
				45'	TLC-LED-550	2
				90'	TLC-LED-1500	8
				15.5'	TLC-RGB-U	1
1	B1	90'	-	100'	TLC-LED-1500	8
				70'	TLC-RGBW	2
				45'	TLC-LED-550	2
				90'	TLC-LED-1500	8
				15.5'	TLC-RGBW	2
1	B2	100'	-	80'	TLC-LED-1500	2
				80'	TLC-RGBW	2
				15.5'	TLC-BT-575	1
				80'	TLC-LED-1200	4
				90'	TLC-LED-1500	2
2	B5-B6	80'	-	90'	TLC-LED-1500	2
				15.5'	TLC-BT-575	1
				80'	TLC-LED-1200	4
				90'	TLC-LED-1500	2
				15.5'	TLC-BT-575	1
1	B7	90'	-	90'	TLC-LED-900	1
				90'	TLC-LED-1200	3
				90'	TLC-LED-900	1
				90'	TLC-LED-1200	5
				90'	TLC-LED-1500	2
1	B9	90'	-	90'	TLC-RGBW	1
				15.5'	TLC-BT-575	2
				15.5'	TLC-RGB-U	1
				90'	TLC-LED-900	1
				15.5'	TLC-BT-575	2
1	B10	90'	-	90'	TLC-RGBW	1
				15.5'	TLC-BT-575	2
				15.5'	TLC-RGB-U	1
				90'	TLC-LED-1200	10
				90'	TLC-LED-900	1
1	B11	90'	-	90'	TLC-LED-1500	2
				15.5'	TLC-BT-575	2
				70'	TLC-LED-550	2
				70'	TLC-LED-1200	7
				80'	TLC-RGBW	1
1	C5	80'	-	15.5'	TLC-BT-575	2
				15.5'	TLC-RGB-U	1
				80'	TLC-LED-1500	1
				80'	TLC-LED-1200	2/2*
				80'	TLC-LED-900	2
1	C6	80'	-	15.5'	TLC-RGB-U	1
				15.5'	TLC-BT-575	1
				80'	TLC-RGBW	1
				80'	TLC-LED-900	2
				80'	TLC-LED-1200	1
1	C8	80'	-	15.5'	TLC-BT-575	1
				80'	TLC-LED-1200	3
				15.5'	TLC-RGB-U	1
				15.5'	TLC-BT-575	3
				80'	TLC-RGBW	1
1	D5	80'	-	80'	TLC-LED-900	1
				80'	TLC-LED-1500	2
				80'	TLC-LED-1200	1*
				80'	TLC-LED-900	2/3*
				80'	TLC-LED-1200	2
1	D6	80'	-	80'	TLC-LED-900	2
				15.5'	TLC-RGB-U	1
				15.5'	TLC-BT-575	2
				80'	TLC-RGBW	1
				90'	TLC-LED-1200	2
1	D8	90'	-	90'	TLC-LED-1500	3
				15.5'	TLC-BT-575	1
				90'	TLC-LED-1500	3
				15.5'	TLC-BT-575	1
				90'	TLC-LED-1500	1

*This structure utilizes a back-to-back mounting configuration
Above Global Level is height of fixtures above design (0,0,0)



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

San Jacinto High School Athletic Field Lighting Project

San Jacinto, CA

Equipment Layout

- INCLUDES:
- B11 Safe Dispersal Area
 - Baseball RGBW
 - Football
 - JV Baseball
 - JV Softball
 - Practice
 - Softball RGBW
 - Tennis 1
 - Tennis 2-4
 - Tennis 5-7
 - Track
 - Varsity Baseball
 - Varsity Softball

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.

Equipment List For Areas Shown						
QTY	Structure			Fixtures		
	STRUCTURE ID	SIZE	GLOBAL ELEVATION	ABOVE GLOBAL LEVEL	FIXTURE TYPE	QTY/POLE
4	P1-P4	60'	-	60'	TLC-LED-1200	2
				15.5'	TLC-BT-575	1
				60'	TLC-LED-900	2
2	T1-T2	60'	-	60'	TLC-LED-550	2
2	T3-T4	60'	-	60'	TLC-LED-900	3
2	T5-T6	60'	-	60'	TLC-LED-550	2
2	T5-T6	60'	-	60'	TLC-LED-900	6
2	T7-T8	60'	-	60'	TLC-LED-900	3
38	Totals					278

*This structure utilizes a back-to-back mounting configuration
Above Global Level is height of fixtures above design (0,0,0)

Single Fixture Amperage Draw Chart								
Driver Specifications (.90 min power factor)		Line Amperage Per Fixture (max draw)						
		208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
Single Phase Voltage		8.4	7.9	7.3	6.3	5.0	4.6	3.6
TLC-LED-1500		6.9	6.5	6.0	5.2	4.2	3.8	3.0
TLC-LED-1200		5.3	5.0	4.6	4.0	3.2	2.9	2.3
TLC-LED-900		3.3	3.2	2.9	2.5	2.0	1.8	1.5
TLC-BT-575		3.2	3.0	2.8	2.4	1.9	1.8	1.4
TLC-LED-550		3.0	2.9	2.6	2.3	1.8	1.6	1.3
TLC-RGB-U		4.5	4.3	3.8	3.3	2.7	2.5	1.9
TLC-RGBW								

*Amp draw based on 100% fixture output, consult design specific datasheet for adjusted amperage draw chart



APPENDIX B

AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY

APPENDIX

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The analysis of regional and localized construction emission impacts for the proposed project is based on the emissions calculated for the Patriot High School Stadium and Varsity Baseball Fields Improvements Project (Patriot HS Project) IS/MND for the Jurupa Unified School District (State Clearinghouse No. 2023080728). Due to the similarities between the Patriot HS Project and the San Jacinto High School Athletic Field Illumination Project (both field lighting projects that would result in a similar level of land disturbance), the Patriot HS Project emissions are used as a proxy for the proposed project to demonstrate less-than-significant impacts in the IS/MND.

The following files include the CalEEMod inputs, modeling outputs, and emissions calculations for the Patriot HS Project. Following these files, are the calculations made for the energy consumption of the San Jacinto High School Athletic Field Illumination Project.

Patriot HS Project Assumptions Worksheet

CalEEMod Inputs - Patriot High School Stadium and Varsity Baseball Fields Improvements Project, Construction

Name: Patriot High School Stadium and Varsity Baseball Fields Improvements Project
Project Number: JUSD-01
Project Location: 4355 Camino Real Jurupa Valley Riverside, CA 92509
County/Air Basin: Riverside-South Coast
Climate Zone: 10
Land Use Setting: Suburban
Gas Utility Company: Southern California Gas
Electric Utility Company: Southern California Edison
Air Basin: South Coast Air Basin
Air District: South Coast AQMD
SRA: 23 - Metropolitan Riverside

Project Site Acreage	50.00
Disturbed Site Acreage	1.65

Project Components				
Asphalt Demolition	Building SQFT	Tons		
Asphalt Demolition	5000	74		
Construction	Number of Stories	SQFT	Building Footprint	Acres
Restroom and Concessions Building	1	3,000	3,000	0.07
Pressbox	1	320	320	0.01
Ticket booth	1	320	320	0.01
TOTAL¹		3,640		0.08
Onsite Surface Work¹	Number of Stalls			
Landscaping		20,000	NA	0.46
Hardscape		48,450	NA	1.11
TOTAL ACREAGE				1.65

Notes

¹ Includes concrete pad for bleachers of 18,450 square feet and path of travel improvements of 10,000 square feet.

CalEEMod Land Use Inputs

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Building Square Feet	Landscape Area Square Feet	Special Landscape Area Square Feet
Educational	High School	3.64	1000 sqft	0.54	3,640	20,000	0
Parking	Other Non-Asphalt Surfaces	48.45	1000 sqft	1.11	48,450	0	0
				1.65			

Demolition Haul¹

Construction Activities	Amount to be Demolished (Tons) ¹	Haul Truck Capacity (CY) ¹	Haul Distance (miles) ¹	Total Trip Ends	Total Days	Trip Ends/Day
Asphalt Demolition	74	10	25	16	23	5

Notes

¹ Provided by District.

Soil Haul¹

Construction Activities	Volume (CY) ¹	Haul Truck Capacity (CY) ¹	Haul Distance (miles) ¹	Total Trip Ends	Total Days	Trip Ends/Day
Site Preparation (export)	20	10	25	4	1	4
Grading (export)	440	10	25	88	2	44
						48

Notes

¹ Provided by District.

Architectural Coating

Percent Painted

Interior Painted:	100%
Exterior Painted:	100%

SCAQMD Rule 1113

Interior Paint VOC content:	100	grams per liter
Exterior Paing VOC content:	100	grams per liter

Structures	Land Use Square Feet	CalEEMod Factor ²	Total Paintable Surface Area	Paintable Interior Area ¹	Paintable Exterior Area ¹
Non-Residential Structures					
High School	3,640	2.0	7,280	5,460	1,820
				5,460	1,820
Parking					
Other Non-Asphalt Surfaces	48,450	6%		-	2,907
					2,907

Notes

¹

CalEEMod methodology calculates the paintable interior and exterior areas by multiplying the total paintable surface area by 75 and 25 percent, respectively. Exclude square footage of modular buildings and shipping container storages since these type of structures do not usually require painting.

²

The program assumes the total surface for painting equals 2 times the floor square footage for nonresidential square footage defined by the user.

³ Assume CalEEMod default for 6% striping of non-asphalt surfaces.

CalEEMod Construction Measures

Water Exposed Surfaces	Frequency per day:	2	
	PM10:	55	% Reduction
	PM2.5:	55	% Reduction
Water Demolished Area	Frequency per day:	2	
	PM10:	36	% Reduction
	PM2.5:	36	% Reduction
Limit Vehicle Speeds on Unpaved Roads	Miles per hour speed limit:	25	
	PM10:	44	% Reduction
	PM25:	44	% Reduction
Sweep Paved Roads <i>SCAQMD Rule 1186</i>	PM10:	9	% Reduction
	PM25:	9	% Reduction

Pavement Volume to Weight Conversion

Component	Total SF of Area ¹	Assumed Thickness (foot) ²	Debris Volume (cu. ft)	Weight of Crushed Asphalt (lbs/cf) ³	AC Mass (lbs)	AC Mass (tons)
Asphalt Demolition	5,000	0.333	1,667	89	148,148	74.07
Total	5,000					74

¹ Based on aerial image of existing project site.

² Pavements and Surface Materials. Nonpoint Education for Municipal Officials, Technical Paper Number 8. University of Connecticut Cooperative Extension System, 1999.

³ CalRecycle. 2019. Solid Waste Cleanup Program Weights and Volumes for Project Estimates. <https://www.delmar.ca.us/DocumentCenter/View/5668/CalRecycle-Conversion-Table>

Construction Activities and Schedule Assumptions

Construction Schedule				
Construction Activities	Phase Type	Start Date	End Date	CalEEMod Duration (Workday)
Site Preparation	Site Preparation	6/1/2023	6/2/2023	2
Installation of Field Lighting and Score Board	Building Construction	6/1/2023	6/30/2024	282
Utility Trenching	Trenching	6/1/2023	6/30/2024	282
Grading	Grading	6/27/2025	6/30/2025	2
Asphalt Demolition and Removal of Existing Bleachers	Demolition	7/1/2025	7/31/2025	23
Installation of Bleachers	Building Construction	7/1/2025	7/31/2025	23
Restroom/Concession Building, Pressbox, and Ticketbooth	Building Construction	7/1/2025	6/30/2026	261
Architectural Coating	Architectural Coating	7/1/2025	6/30/2026	261
Finishing and Landscaping	Trenching	7/1/2025	6/30/2026	261
Paving	Paving	6/17/2026	6/30/2026	10

Overlapping Construction Schedule			
Construction Activities	Start Date	End Date	CalEEMod Duration (Workday)
Site Preparation, Installation of Field Lighting and Score Board, and Utility Trenching	6/1/2023	6/2/2023	2
Installation of Field Lighting and Score Board, and Utility Trenching	6/3/2023	6/30/2024	280
Grading	6/27/2025	6/30/2025	2
Asphalt Demolition and Removal of Existing Bleachers, Installation of Bleachers, Restroom/Concession Building, Pressbox, and Ticketbooth Architectural Coating, Finishing and Landscaping	7/1/2025	7/31/2025	23
Restroom/Concession Building, Pressbox, and Ticketbooth Architectural Coating, Finishing and Landscaping	8/1/2025	6/16/2026	228
Restroom/Concession Building, Pressbox, and Ticketbooth Architectural Coating, Finishing and Landscaping, and Paving	6/17/2026	6/30/2026	10

Patriot HS Project CalEEMod Construction Model

JUSD-01 Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.6. Operations Emissions by Sector, Mitigated

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

3.3. Site Preparation (2023) - Unmitigated

3.5. Grading (2025) - Unmitigated

3.7. Building Construction (2023) - Unmitigated

3.9. Building Construction (2024) - Unmitigated

3.11. Building Construction (2025) - Unmitigated

3.13. Building Construction (2025) - Unmitigated

3.15. Building Construction (2026) - Unmitigated

3.17. Paving (2026) - Unmitigated

3.19. Architectural Coating (2025) - Unmitigated

3.21. Architectural Coating (2026) - Unmitigated

3.23. Trenching (2023) - Unmitigated

3.25. Trenching (2024) - Unmitigated

3.27. Trenching (2025) - Unmitigated

3.29. Trenching (2026) - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	JUSD-01
Construction Start Date	6/1/2023
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	6.80
Location	4355 Camino Real, Riverside, CA 92509, USA
County	Riverside-South Coast
City	Jurupa Valley
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5431
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.12

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
------------------	------	------	-------------	-----------------------	------------------------	--------------------------------	------------	-------------

High School	3.64	1000sqft	0.54	3,640	20,000	0.00	—	—
Other Non-Asphalt Surfaces	48.5	1000sqft	1.11	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.27	2.85	24.8	26.2	0.05	1.11	3.71	4.41	1.02	1.59	2.26	—	5,689	5,689	0.19	0.51	7.16	5,853
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.54	1.42	10.5	11.9	0.02	0.44	0.11	0.55	0.40	0.03	0.43	—	2,090	2,090	0.08	0.03	0.02	2,098
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.66	0.61	4.60	5.28	0.01	0.19	0.06	0.25	0.17	0.02	0.19	—	959	959	0.04	0.02	0.12	965
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.11	0.84	0.96	< 0.005	0.03	0.01	0.05	0.03	< 0.005	0.03	—	159	159	0.01	< 0.005	0.02	160

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	3.27	2.74	24.8	23.9	0.04	1.11	2.71	3.81	1.02	1.24	2.26	—	4,282	4,282	0.16	0.10	1.72	4,319
2024	1.46	1.22	10.1	11.4	0.02	0.40	0.11	0.50	0.37	0.03	0.39	—	2,086	2,086	0.08	0.03	0.60	2,098
2025	3.20	2.85	23.5	26.2	0.05	0.90	3.71	4.41	0.83	1.59	2.25	—	5,689	5,689	0.19	0.51	7.16	5,853
2026	1.91	1.77	13.1	17.2	0.03	0.47	0.20	0.67	0.44	0.05	0.48	—	2,932	2,932	0.12	0.03	0.75	2,945
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.54	1.28	10.5	11.4	0.02	0.44	0.11	0.55	0.40	0.03	0.43	—	2,081	2,081	0.08	0.03	0.02	2,093
2024	1.46	1.22	10.1	11.3	0.02	0.40	0.11	0.50	0.37	0.03	0.39	—	2,079	2,079	0.08	0.03	0.02	2,090
2025	1.49	1.42	10.1	11.9	0.02	0.37	0.07	0.44	0.34	0.02	0.35	—	2,090	2,090	0.08	0.02	0.01	2,098
2026	1.42	1.36	9.73	11.8	0.02	0.32	0.07	0.39	0.30	0.02	0.32	—	2,088	2,088	0.08	0.02	0.01	2,096
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.65	0.54	4.47	4.85	0.01	0.19	0.06	0.25	0.17	0.02	0.19	—	884	884	0.04	0.01	0.12	889
2024	0.52	0.43	3.59	4.03	0.01	0.14	0.04	0.18	0.13	0.01	0.14	—	741	741	0.03	0.01	0.09	745
2025	0.66	0.61	4.60	5.28	0.01	0.17	0.06	0.23	0.16	0.02	0.18	—	959	959	0.04	0.02	0.11	965
2026	0.52	0.49	3.54	4.34	0.01	0.12	0.03	0.15	0.11	0.01	0.12	—	762	762	0.03	0.01	0.05	766
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.12	0.10	0.82	0.89	< 0.005	0.03	0.01	0.05	0.03	< 0.005	0.03	—	146	146	0.01	< 0.005	0.02	147
2024	0.09	0.08	0.65	0.73	< 0.005	0.03	0.01	0.03	0.02	< 0.005	0.03	—	123	123	< 0.005	< 0.005	0.02	123
2025	0.12	0.11	0.84	0.96	< 0.005	0.03	0.01	0.04	0.03	< 0.005	0.03	—	159	159	0.01	< 0.005	0.02	160
2026	0.09	0.09	0.65	0.79	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	126	126	< 0.005	< 0.005	0.01	127

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	13.2	0.02	0.53	—	0.53	0.48	—	0.48	—	2,203	2,203	0.09	0.02	—	2,211
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.67
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.60	3.60	< 0.005	< 0.005	< 0.005	3.77

3.3. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.69	1.42	13.9	11.8	0.02	0.66	—	0.66	0.61	—	0.61	—	1,773	1,773	0.07	0.01	—	1,779
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.71	9.71	< 0.005	< 0.005	—	9.75
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.61	1.61	< 0.005	< 0.005	—	1.61
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.45	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	73.5	73.5	< 0.005	< 0.005	0.31	74.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.8	62.8	< 0.005	0.01	0.17	65.8
Hauling	0.01	< 0.005	0.33	0.08	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	284	284	0.01	0.05	0.60	298
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.36
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.56	1.56	< 0.005	< 0.005	< 0.005	1.63
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.80	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.5	13.5	< 0.005	< 0.005	—	13.5
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.23	2.23	< 0.005	< 0.005	—	2.23
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	— B-18	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.77	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	< 0.005	0.52	143
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	61.2	61.2	< 0.005	0.01	0.17	64.2
Hauling	0.13	0.05	3.36	0.82	0.02	0.06	0.80	0.85	0.06	0.22	0.28	—	3,032	3,032	0.06	0.48	6.46	3,182
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.35
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.6	16.6	< 0.005	< 0.005	0.02	17.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.75	2.75	< 0.005	< 0.005	< 0.005	2.88

3.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	1.03	8.21	7.96	0.02	0.32	—	0.32	0.30	—	0.30	—	1,469	1,469	0.06	0.01	—	1,474
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	1.03	8.21	7.96	0.02	0.32	—	0.32	0.30	—	0.30	—	1,469	1,469	0.06	0.01	—	1,474
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	3.44	3.33	0.01	0.14	—	0.14	0.13	—	0.13	—	615	615	0.02	< 0.005	—	617
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.63	0.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	102	102	< 0.005	< 0.005	—	102
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.5	22.5	< 0.005	< 0.005	0.10	22.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.7	18.7	< 0.005	< 0.005	0.05	19.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	20.6	20.6	< 0.005	< 0.005	< 0.005	20.9
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.8	18.8	< 0.005	< 0.005	< 0.005	19.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	B-20	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.75	8.75	< 0.005	< 0.005	0.02	8.88
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.85	7.85	< 0.005	< 0.005	0.01	8.21
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.45	1.45	< 0.005	< 0.005	< 0.005	1.47
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.30	1.30	< 0.005	< 0.005	< 0.005	1.36
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.98	7.94	7.88	0.02	0.30	—	0.30	0.27	—	0.27	—	1,469	1,469	0.06	0.01	—	1,474
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.98	7.94	7.88	0.02	0.30	—	0.30	0.27	—	0.27	—	1,469	1,469	0.06	0.01	—	1,474
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	2.83	2.81	0.01	0.11	—	0.11	0.10	—	0.10	—	523	523	0.02	< 0.005	—	525

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.52	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	86.6	86.6	< 0.005	< 0.005	—	86.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.0	22.0	< 0.005	< 0.005	0.09	22.3
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.5	18.5	< 0.005	< 0.005	0.05	19.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	< 0.005	20.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.5	18.5	< 0.005	< 0.005	< 0.005	19.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.29	7.29	< 0.005	< 0.005	0.01	7.40
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.91
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.21	1.21	< 0.005	< 0.005	< 0.005	1.22
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.14
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.5	21.5	< 0.005	< 0.005	0.08	21.9
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	0.05	19.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.0023	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.15	1.15	< 0.005	< 0.005	< 0.005	1.20
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	0.99	8.12	8.60	0.02	0.30	—	0.30	0.27	—	0.27	—	1,583	1,583	0.06	0.01	—	1,589
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	0.99	8.12	8.60	0.02	0.30	—	0.30	0.27	—	0.27	—	1,583	1,583	0.06	0.01	—	1,589
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.35	2.92	3.10	0.01	0.11	—	0.11	0.10	—	0.10	—	570	570	0.02	< 0.005	—	572
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.53	0.57	< 0.005	0.02	—	0.02	0.02	—	0.02	—	94.4	94.4	< 0.005	< 0.005	—	94.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.5	21.5	< 0.005	< 0.005	0.08	21.9
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	0.05	19.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.8	19.8	< 0.005	< 0.005	< 0.005	20.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	< 0.005	19.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.22	7.22	< 0.005	< 0.005	0.01	7.33
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.57	6.57	< 0.005	< 0.005	0.01	6.88
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.20	1.20	< 0.005	< 0.005	< 0.005	1.21
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.14
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	0.94	7.79	8.52	0.02	0.27	—	0.27	0.25	—	0.25	—	1,583	1,583	0.06	0.01	—	1,589
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	0.94	7.79	8.52	0.02	0.27	—	0.27	0.25	—	0.25	—	1,583	1,583	0.06	0.01	—	1,589
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	0.33	2.76	3.02	0.01	0.09	—	0.09	0.09	—	0.09	—	561	561	0.02	< 0.005	—	563
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.50	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	92.8	92.8	< 0.005	< 0.005	—	93.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.07	21.4
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	0.05	18.8

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	< 0.005	19.6
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	< 0.005	18.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.95	6.95	< 0.005	< 0.005	0.01	7.05
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.36	6.36	< 0.005	< 0.005	0.01	6.67
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.15	1.15	< 0.005	< 0.005	< 0.005	1.17
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.10
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	3.38	4.57	0.01	0.15	—	0.15	0.14	—	0.14	—	701	701	0.03	0.01	—	703
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.18	3.18	< 0.005	< 0.005	—	3.19
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.72	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	138	138	0.01	< 0.005	0.47	140
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.52	3.52	< 0.005	< 0.005	0.01	3.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.58	0.58	< 0.005	< 0.005	< 0.005	0.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.32	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.1	48.1	< 0.005	< 0.005	—	48.2

Architect Coatings	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.96	7.96	< 0.005	< 0.005	—	7.99
Architect ural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.9	12.9	< 0.005	< 0.005	0.05	13.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	< 0.005	12.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.33	4.33	< 0.005	< 0.005	0.01	4.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.30	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.3	47.3	< 0.005	< 0.005	—	47.5

Architect ural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.83	7.83	< 0.005	< 0.005	—	7.86
Architect ural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.04	12.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.6	11.6	< 0.005	< 0.005	< 0.005	11.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.17	4.17	< 0.005	< 0.005	0.01	4.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	— B-32	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	0.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Trenching (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.21	2.13	2.96	< 0.005	0.11	—	0.11	0.10	—	0.10	—	443	443	0.02	< 0.005	—	444
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.21	2.13	2.96	< 0.005	0.11	—	0.11	0.10	—	0.10	—	443	443	0.02	< 0.005	—	444
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.89	1.24	< 0.005	0.05	—	0.05	0.04	—	0.04	—	185	185	0.01	< 0.005	—	186
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.7	30.7	< 0.005	< 0.005	—	30.8

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.45	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	73.5	73.5	< 0.005	< 0.005	0.31	74.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.8	62.8	< 0.005	0.01	0.17	65.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.34	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.5	67.5	< 0.005	< 0.005	0.01	68.3
Vendor	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.9	62.9	< 0.005	0.01	< 0.005	65.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.6	28.6	< 0.005	< 0.005	0.06	29.0
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	26.3	26.3	< 0.005	< 0.005	0.03	27.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.74	4.74	< 0.005	< 0.005	0.01	4.81
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.36	4.36	< 0.005	< 0.005	0.01	4.56
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Trenching (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	2.00	2.96	< 0.005	0.10	—	0.10	0.09	—	0.09	—	443	443	0.02	< 0.005	—	444
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	2.00	2.96	< 0.005	0.10	—	0.10	0.09	—	0.09	—	443	443	0.02	< 0.005	—	444
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.71	1.05	< 0.005	0.04	—	0.04	0.03	—	0.03	—	158	158	0.01	< 0.005	—	158
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.1	26.1	< 0.005	< 0.005	—	26.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.42	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	72.0	72.0	< 0.005	< 0.005	0.29	73.1
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.1	62.1	< 0.005	0.01	0.17	65.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.32	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	66.1	66.1	< 0.005	< 0.005	0.01	67.0
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.1	62.1	< 0.005	0.01	< 0.005	65.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.9	23.9	< 0.005	< 0.005	0.04	24.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.1	22.1	< 0.005	< 0.005	0.03	23.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.95	3.95	< 0.005	< 0.005	0.01	4.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.66	3.66	< 0.005	< 0.005	< 0.005	3.83
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Trenching (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.10	1.91	< 0.005	0.04	—	0.04	0.04	—	0.04	—	290	290	0.01	< 0.005	—	291
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	0.11	1.10	1.91	< 0.005	0.04	—	0.04	0.04	—	0.04	—	290	290	0.01	< 0.005	—	291
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.69	< 0.005	0.02	—	0.02	0.01	—	0.01	—	105	105	< 0.005	< 0.005	—	105
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.3	17.3	< 0.005	< 0.005	—	17.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.19	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	35.2	35.2	< 0.005	< 0.005	0.13	35.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.4	32.4	< 0.005	< 0.005	< 0.005	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.8	11.8	< 0.005	< 0.005	0.02	12.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.96	1.96	< 0.005	< 0.005	< 0.005	1.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Trenching (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	1.03	1.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	290	290	0.01	< 0.005	—	291
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	1.03	1.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	290	290	0.01	< 0.005	—	291
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.37	0.68	< 0.005	0.01	—	0.01	0.01	—	0.01	—	103	103	< 0.005	< 0.005	—	103
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.07	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.0	17.0	< 0.005	< 0.005	—	17.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	34.5	34.5	< 0.005	< 0.005	0.12	35.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.7	31.7	< 0.005	< 0.005	< 0.005	32.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.88	1.88	< 0.005	< 0.005	< 0.005	1.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Asphalt Demolition and Removal of Existing Bleachers	Demolition	7/1/2025	7/31/2025	5.00	23.0	e
Site Preparation	Site Preparation	6/1/2023	6/2/2023 B-40	5.00	2.00	a

Grading	Grading	6/27/2025	6/30/2025	5.00	2.00	d
Installation of Field Lighting and Score Board	Building Construction	6/1/2023	6/30/2024	5.00	282	b
Installation of Bleachers	Building Construction	7/1/2025	7/31/2025	5.00	23.0	f
Restroom/Concession Building, Pressbox, and Ticketbooth	Building Construction	7/1/2025	6/30/2026	5.00	261	g
Paving	Paving	6/17/2026	6/30/2026	5.00	10.0	j
Architectural Coating	Architectural Coating	7/1/2025	6/30/2026	5.00	261	h
Utility Trenching	Trenching	6/1/2023	6/30/2024	5.00	282	c
Finishing and Landscaping	Trenching	7/1/2025	6/30/2026	5.00	261	i

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Asphalt Demolition and Removal of Existing Bleachers	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Asphalt Demolition and Removal of Existing Bleachers	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Asphalt Demolition and Removal of Existing Bleachers	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37

Installation of Field Lighting and Score Board	Cranes	Diesel	Average	1.00	6.00	367	0.29
Installation of Field Lighting and Score Board	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Installation of Field Lighting and Score Board	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Restroom/Concession Building, Pressbox, and Ticketbooth	Cranes	Diesel	Average	1.00	6.00	367	0.29
Restroom/Concession Building, Pressbox, and Ticketbooth	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Restroom/Concession Building, Pressbox, and Ticketbooth	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Restroom/Concession Building, Pressbox, and Ticketbooth	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Utility Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Utility Trenching	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
Finishing and Landscaping	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Asphalt Demolition and Removal of Existing Bleachers	—	—	—	—
Asphalt Demolition and Removal of Existing Bleachers	Worker	10.0	18.5	LDA,LDT1,LDT2
Asphalt Demolition and Removal of Existing Bleachers	Vendor	2.00	10.2	HHDT,MHDT
Asphalt Demolition and Removal of Existing Bleachers	Hauling	5.00	20.0	HHDT
Asphalt Demolition and Removal of Existing Bleachers	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	2.00	10.2	HHDT,MHDT
Site Preparation	Hauling	4.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	2.00	10.2	HHDT,MHDT
Grading	Hauling	44.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Installation of Field Lighting and Score Board	—	—	—	—
Installation of Field Lighting and Score Board	Worker	1.53	18.5	LDA,LDT1,LDT2
Installation of Field Lighting and Score Board	Vendor	0.60	10.2	HHDT,MHDT

Installation of Field Lighting and Score Board	Hauling	0.00	20.0	HHDT
Installation of Field Lighting and Score Board	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.92	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Installation of Bleachers	—	—	—	—
Installation of Bleachers	Worker	1.53	18.5	LDA,LDT1,LDT2
Installation of Bleachers	Vendor	0.60	10.2	HHDT,MHDT
Installation of Bleachers	Hauling	0.00	20.0	HHDT
Installation of Bleachers	Onsite truck	—	—	HHDT
Restroom/Concession Building, Pressbox, and Ticketbooth	—	—	—	—
Restroom/Concession Building, Pressbox, and Ticketbooth	Worker	1.53	18.5	LDA,LDT1,LDT2
Restroom/Concession Building, Pressbox, and Ticketbooth	Vendor	0.60	10.2	HHDT,MHDT
Restroom/Concession Building, Pressbox, and Ticketbooth	Hauling	0.00	20.0	HHDT
Restroom/Concession Building, Pressbox, and Ticketbooth	Onsite truck	—	—	HHDT
Utility Trenching	—	—	—	—

Utility Trenching	Worker	5.00	18.5	LDA,LDT1,LDT2
Utility Trenching	Vendor	2.00	10.2	HHDT,MHDT
Utility Trenching	Hauling	0.00	20.0	HHDT
Utility Trenching	Onsite truck	—	—	HHDT
Finishing and Landscaping	—	—	—	—
Finishing and Landscaping	Worker	2.50	18.5	LDA,LDT1,LDT2
Finishing and Landscaping	Vendor	—	10.2	HHDT,MHDT
Finishing and Landscaping	Hauling	0.00	20.0	HHDT
Finishing and Landscaping	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	5,460	1,820	2,907

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Asphalt Demolition and Removal of Existing Bleachers	0.00	0.00	0.00	74.0	—
Site Preparation	—	20.0	1.88	0.00	—
Grading	—	440	2.00	0.00	—
Paving	0.00	0.00	0.00	0.00	1.11

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
High School	0.00	0%
Other Non-Asphalt Surfaces	1.11	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	349	0.03	< 0.005
2024	0.00	349	0.03	< 0.005
2025	0.00	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005

5.17. User Defined

Equipment Type	Fuel Type
—	—

8. User Changes to Default Data

Screen	Justification
Land Use	Based on District info., see assumptions file
Construction: Construction Phases	Based on District info., see assumptions file
Construction: Off-Road Equipment	For utilities trenching and finishing/landscaping phases equipment mix based on similar school development projects were used, see assumptions file
Construction: Trips and VMT	Included calculated water truck trips as vendor trips, calculated haul trips based on District info., see assumptions file
Operations: Water and Waste Water	Assume 100% aerobic treatment
Operations: Vehicle Data	Used traffic generated from the maximum capacity event as conservative estimate, see assumptions file
Operations: Fleet Mix	Adjusted fleet mix, see assumptions file

Patriot HS Emissions Worksheet

Regional Construction Emissions Worksheet - Unmitigated:

3.1 Demolition (2025)							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	1.36	12.80	13.20	0.02	0.53	0.48
	Demolition					0.04	0.01
	Total	1.36	12.80	13.20	0.02	0.57	0.49
Offsite							
	Worker	0.04	0.04	0.77	0.00	0.13	0.03
	Vendor	0.01	0.07	0.02	0.01	0.02	0.01
	Hauling	0.01	0.38	0.09	0.01	0.10	0.03
	Total	0.06	0.49	0.88	0.01	0.25	0.07
TOTAL		1.42	13.29	14.08	0.03	0.82	0.56

3.3 Site Preparation (2023)							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	1.42	13.90	11.80	0.02	0.66	0.61
	Dust From Material Movement					2.44	1.17
	Total	1.42	13.90	11.80	0.02	3.10	1.78
Offsite							
	Worker	0.03	0.03	0.45	0.00	0.07	0.02
	Vendor	0.01	0.07	0.02	0.01	0.02	0.01
	Hauling	0.01	0.33	0.08	0.01	0.08	0.03
	Total	0.04	0.43	0.55	0.01	0.17	0.06
TOTAL		1.46	14.33	12.35	0.03	3.27	1.84

3.5 Grading (2025)							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	1.51	14.10	14.50	0.02	0.64	0.59
	Dust From Material Movement					2.77	1.34
	Total	1.51	14.10	14.50	0.02	3.41	1.93
Offsite							
	Worker	0.04	0.04	0.77	0.00	0.13	0.03
	Vendor	0.01	0.07	0.02	0.01	0.02	0.01
	Hauling	0.05	3.36	0.82	0.02	0.85	0.28
	Total	0.10	3.47	1.61	0.03	1.00	0.32
TOTAL		1.61	17.57	16.11	0.05	4.41	2.25

3.7 Building Construction (2023) - Installation of Field Lighting and Score Board							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	1.03	8.21	7.96	0.02	0.32	0.30
	Total	1.03	8.21	7.96	0.02	0.32	0.30
Offsite							
	Worker	0.01	0.01	0.14	0.00	0.02	0.01
	Vendor	0.01	0.02	0.01	0.01	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.02	0.03	0.15	0.01	0.03	0.01
TOTAL		1.05	8.24	8.11	0.03	0.35	0.31
3.9 Building Construction (2024) - Installation of Field Lighting and Score Board							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.98	7.94	7.88	0.02	0.30	0.27
	Total	0.98	7.94	7.88	0.02	0.30	0.27
Offsite							
	Worker	0.01	0.01	0.13	0.00	0.02	0.01
	Vendor	0.01	0.02	0.01	0.01	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.02	0.03	0.14	0.01	0.03	0.01
TOTAL		1.00	7.97	8.02	0.03	0.33	0.28
3.11 Building Construction (2025) - Installation of Bleachers							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00
Offsite							
	Worker	0.01	0.01	0.12	0.00	0.02	0.01
	Vendor	0.01	0.02	0.01	0.01	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.02	0.03	0.13	0.01	0.03	0.01
TOTAL		0.02	0.03	0.13	0.01	0.03	0.01
3.13 Building Construction (2025) - Restroom/Concession Building, Pressbox, and Ticketbooth							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.99	8.12	8.60	0.02	0.30	0.27
	Total	0.99	8.12	8.60	0.02	0.30	0.27
Offsite							
	Worker	0.01	0.01	0.12	0.00	0.02	0.01
	Vendor	0.01	0.02	0.01	0.01	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.02	0.03	0.13	0.01	0.03	0.01
TOTAL		1.01	8.15	8.73	0.03	0.33	0.28
3.15 Building Construction (2026) - Restroom/Concession Building, Pressbox, and Ticketbooth							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.94	7.79	8.52	0.02	0.27	0.25
	Total	0.94	7.79	8.52	0.02	0.27	0.25
Offsite							
	Worker	0.01	0.01	0.11	0.00	0.02	0.01
	Vendor	0.01	0.02	0.01	0.01	0.01	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.02	0.03	0.12	0.01	0.03	0.01
TOTAL		0.96	7.82	8.64	0.03	0.30	0.26

3.17 Paving (2026)							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.37	3.38	4.57	0.01	0.15	0.14
	Paving	0.00					
	Total	0.37	3.38	4.57	0.01	0.15	0.14
Offsite							
	Worker	0.04	0.04	0.72	0.00	0.13	0.03
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.04	0.04	0.72	0.00	0.13	0.03
TOTAL		0.41	3.42	5.29	0.01	0.28	0.17
3.19 Architectural Coating (2025)							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.13	0.88	1.14	0.01	0.03	0.03
	Architectural Coating	0.18					
	Total	0.31	0.88	1.14	0.01	0.03	0.03
Offsite							
	Worker	0.01	0.01	0.07	0.00	0.01	0.01
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.01	0.01	0.07	0.00	0.01	0.01
TOTAL		0.32	0.89	1.21	0.01	0.04	0.04
3.21 Architectural Coating (2026)							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.12	0.86	1.13	0.01	0.02	0.02
	Architectural Coating	0.18					
	Total	0.30	0.86	1.13	0.01	0.02	0.02
Offsite							
	Worker	0.01	0.01	0.07	0.00	0.01	0.01
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.01	0.01	0.07	0.00	0.01	0.01
TOTAL		0.31	0.87	1.20	0.01	0.03	0.03
3.23 Trenching (2023) - Utilities Trenching							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.21	2.13	2.96	0.01	0.11	0.10
	Total	0.21	2.13	2.96	0.01	0.11	0.10
Offsite							
	Worker	0.03	0.03	0.45	0.00	0.07	0.02
	Vendor	0.01	0.07	0.02	0.01	0.02	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.04	0.10	0.47	0.01	0.09	0.03
TOTAL		0.25	2.23	3.43	0.01	0.20	0.13
3.25 Trenching (2024) - Utilities Trenching							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite							
	Off-Road Equipment	0.20	2.00	2.96	0.01	0.10	0.09
	Total	0.20	2.00	2.96	0.01	0.10	0.09
Offsite							
	Worker	0.03	0.02	0.42	0.00	0.07	0.02
	Vendor	0.01	0.07	0.02	0.01	0.02	0.01
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.04	0.09	0.44	0.01	0.09	0.03
TOTAL		0.24	2.09	3.40	0.01	0.19	0.12

3.27 Trenching (2025) - Finishing and Landscaping							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Off-Road Equipment	0.11	1.10	1.91	0.01	0.04	0.04
	Total	0.11	1.10	1.91	0.01	0.04	0.04
Offsite	Worker	0.01	0.01	0.19	0.00	0.03	0.01
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.01	0.01	0.19	0.00	0.03	0.01
TOTAL		0.12	1.11	2.10	0.01	0.07	0.05
3.29 Trenching (2026) - Finishing and Landscaping							
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	Off-Road Equipment	0.10	1.03	1.91	0.01	0.03	0.03
	Total	0.10	1.03	1.91	0.01	0.03	0.03
Offsite	Worker	0.01	0.01	0.18	0.00	0.03	0.01
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Hauling	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.01	0.01	0.18	0.00	0.03	0.01
TOTAL		0.11	1.04	2.09	0.01	0.06	0.04
		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
<i>Site Preparation, Installation of Field Lighting and Score Board, and Utility Trenching - YEAR 2023</i>		3	25	24	0.07	3.82	2.28
<i>Installation of Field Lighting and Score Board and Utility Trenching - YEAR 2023</i>		1	10	12	0.04	0.55	0.44
<i>Installation of Field Lighting and Score Board and Utility Trenching - YEAR 2024</i>		1	10	11	0.04	0.52	0.40
<i>Grading</i>		2	18	16	0.05	4.41	2.25
<i>Asphalt Demolition and Removal of Existing Bleachers, Installation of Bleachers, Restroom/Concession Building, Pressbox, and Ticketbooth Architectural Coating, Finishing and Landscaping - YEAR 2025</i>		3	23	26	0.07	1.29	0.94
<i>Restroom/Concession Building, Pressbox, and Ticketbooth, Architectural Coating, Finishing and Landscaping - YEAR 2025</i>		1	10	12	0.04	0.44	0.37
<i>Restroom/Concession Building, Pressbox, and Ticketbooth, Architectural Coating, Finishing and Landscaping - YEAR 2026</i>		1	10	12	0.04	0.39	0.33
<i>Restroom/Concession Building, Pressbox, and Ticketbooth Architectural Coating, Finishing and Landscaping, and Paving - YEAR 2026</i>		2	13	17	0.05	0.67	0.50
MAX DAILY		3	25	26	0.07	4.41	2.28
Regional Thresholds		75	100	550	150	150	55
Exceeds Thresholds?		No	No	No	No	No	No

Construction LST Worksheet:

3.1 Demolition (2025)

		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	12.80	13.20	0.5	0.5
	Demolition			0.0	0.0
	Total	12.80	13.20	0.6	0.5
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		12.80	13.20	0.6	0.5

3.3 Site Preparation (2023)

		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	13.90	11.80	0.7	0.6
	Dust From Material Movement			2.4	1.2
	Total	13.90	11.80	3.1	1.8
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		13.90	11.80	3.1	1.8

3.5 Grading (2025)

		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	14.10	14.50	0.6	0.6
	Dust From Material Movement			2.8	1.3
	Total	14.10	14.50	3.4	1.9
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		14.10	14.50	3.4	1.9

3.7 Building Construction (2023) - Installation of Field Lighting and Score Board

		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	8.21	7.96	0.3	0.3
	Total	8.21	7.96	0.3	0.3
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		8.21	7.96	0.3	0.3

3.9 Building Construction (2024) - Installation of Field Lighting and Score Board

		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	7.94	7.88	0.3	0.3
	Total	7.94	7.88	0.3	0.3
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		7.94	7.88	0.3	0.3

3.11 Building Construction (2025) - Installation of Bleachers					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	0.00	0.00	0.0	0.0
	Total	0.00	0.00	0.0	0.0
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		0.00	0.00	0.0	0.0
3.13 Building Construction (2025) - Restroom/Concession Building, Pressbox, and Ticketbooth					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	8.12	8.60	0.3	0.3
	Total	8.12	8.60	0.3	0.3
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		8.12	8.60	0.3	0.3
3.15 Building Construction (2026) - Restroom/Concession Building, Pressbox, and Ticketbooth					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	7.79	8.52	0.3	0.3
	Total	7.79	8.52	0.3	0.3
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		7.79	8.52	0.3	0.3
3.17 Paving (2026)					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	3.38	4.57	0.2	0.1
	Paving				
	Total	3.38	4.57	0.2	0.1
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		3.38	4.57	0.2	0.1
3.19 Architectural Coating (2025)					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite					
	Off-Road Equipment	0.88	1.14	0.0	0.0
	Architectural Coating				
	Total	0.88	1.14	0.0	0.0
Offsite					
	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		0.88	1.14	0.0	0.0

3.21 Architectural Coating (2026)					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite	Off-Road Equipment	0.86	1.13	0.0	0.0
	Architectural Coating				
	Total	0.86	1.13	0.0	0.0
Offsite	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		0.86	1.13	0.0	0.0
3.23 Trenching (2023) - Utilities Trenching					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite	Off-Road Equipment	2.13	2.96	0.1	0.1
	Total	2.13	2.96	0.1	0.1
Offsite	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		2.13	2.96	0.1	0.1
3.25 Trenching (2024) - Utilities Trenching					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite	Off-Road Equipment	2.00	2.96	0.1	0.1
	Total	2.00	2.96	0.1	0.1
Offsite	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		2.00	2.96	0.1	0.1
3.27 Trenching (2025) - Finishing and Landscaping					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite	Off-Road Equipment	1.10	1.91	0.0	0.0
	Total	1.10	1.91	0.0	0.0
Offsite	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		1.10	1.91	0.0	0.0
3.29 Trenching (2026) - Finishing and Landscaping					
		NOx	CO	PM10 Total	PM2.5 Total
Onsite	Off-Road Equipment	1.03	1.91	0.0	0.0
	Total	1.03	1.91	0.0	0.0
Offsite	Worker				
	Vendor				
	Hauling				
	Total	0.00	0.00	0.0	0.0
TOTAL		1.03	1.91	0.0	0.0

	NOx	CO	PM10 Total	PM2.5 Total
<i>Site Preparation, Installation of Field Lighting and Score Board, and Utility Trenching - YEAR 2023</i>	24	23	3.5	2.2
1.44 Acre LST	148	804	7.8	3.8
Exceeds LST?	no	no	no	no
<i>Installation of Field Lighting and Score Board and Utility Trenching - YEAR 2023</i>	10	11	0.4	0.4
≤1.00 Acre LST	125	671	5.9	3.2
Exceeds LST?	no	no	no	no
<i>Installation of Field Lighting and Score Board and Utility Trenching - YEAR 2024</i>	10	11	0.4	0.4
≤1.00 Acre LST	125	671	5.9	3.2
Exceeds LST?	no	no	no	no
<i>Grading</i>	14	15	3.4	1.9
1.65 Acre LST	159	869	8.7	4.1
Exceeds LST?	no	no	no	no
<i>Asphalt Demolition and Removal of Existing Bleachers, Installation of Bleachers, Restroom/Concession Building, Pressbox, and Ticketbooth Architectural Coating, Finishing and Landscaping - YEAR 2025</i>	23	25	0.9	0.8
1.65 Acre LST	159	869	8.7	4.1
Exceeds LST?	no	no	no	no
<i>Restroom/Concession Building, Pressbox, and Ticketbooth, Architectural Coating, Finishing and Landscaping - YEAR 2025</i>	10	12	0.4	0.3
≤1.00 Acre LST	125	671	5.9	3.2
Exceeds LST?	no	no	no	no
<i>Restroom/Concession Building, Pressbox, and Ticketbooth, Architectural Coating, Finishing and Landscaping - YEAR 2026</i>	10	12	0.3	0.3
≤1.00 Acre LST	125	671	5.9	3.2
Exceeds LST?	no	no	no	no
<i>Restroom/Concession Building, Pressbox, and Ticketbooth Architectural Coating, Finishing and Landscaping, and Paving - YEAR 2026</i>	13	16	0.5	0.4
≤1.00 Acre LST	125	671	5.9	3.2
Exceeds LST?	no	no	no	no

Energy Calculations

San Jacinto HS Lighting Energy Calculations

Field Lighting (Electricity Use) ¹			
	Energy Consumption/Field (kWh)	Hours of Lighting Use/Year	kWh (Annual)
Practices			
Stadium Practices	71.96	182.70	13,147
Practice Field Practices	18.70	130.50	2,440
Baseball/Softball Field	348.36	313.20	109,106
Tennis Practices	25.41	104.40	2,653
Games/Events			
Stadium Games/Events	71.96	127.50	9,175
Varsity Baseball Games	124.27	30.00	3,728
JV Baseball Games	75.89	6.75	512
Varsity Softball Games	75.81	24.00	1,819
JV Softball Games	72.39	6.00	434
Tennis Court Games	25.41	37.50	953
Total		962.55	143,969
Summary			
Field	kWh (Annual)		
Stadium (Football Field/Track)	22,322		
Practice Field	2,440		
Baseball/Softball Fields	115,600		
Tennis Courts	3,606		

Calculation of GHGs from Field Lighting				
Source: Southern California Edison 2026 Forecasted Factors				
CO ₂	CH ₄	N ₂ O	CO ₂ e	CO ₂ e
lbs/Mwh	lbs/Mwh	lbs/Mwh	lbs/Mwh	MT/kWh
346.20	0.033	0.004	346.23	0.0002
CO ₂ e from Energy (MT/Year)				22.61

Notes

¹ Based on Musco Lighting Plans and events schedule as provided by the District. See additional assumptions below.

"Stadium" is used to refer to the football field and track and field facilities.

Games and Practice Schedule

Type of games and practices	Time Start (PM)	Time End (PM)	Lighting in use (hrs) ¹	# Practice Months	Avg. Total weeks in a month	Games / Practices per Year ²	Total Hours of Light Use per Year
Practice							
<i>Stadium</i>						69.6	182.7
Football Practices	4:00	7:00	2.5	3	4.35	52.2	131
Track and Field Practice	3:00	7:30	3	1	4.35	17.4	52.2
<i>Practice Field</i>						52.2	130.5
Soccer Practices	4:00	7:00	2.5	3	4.35	52.2	131
<i>Baseball/Softball Field</i>						104.4	313.2
Baseball Practices	3:00	7:30	3	3	4.35	52.2	156.6
Softball Practices	3:00	7:30	3	3	4.35	52.2	156.6
<i>Tennis Courts</i>						34.8	104.4
Tennis Practices	3:00	7:30	3	2	4.35	34.8	104.4
						261	731
Games/Events							
<i>Stadium</i>						51	127.5
Varsity Football	7:00	10:00	3	NA	NA	5	15
Junior Varsity Football	4:00	7:00	3	NA	NA	5	15
Co-ed Track and Field	3:45	6:45	2.25	NA	NA	8	18
Graduation Ceremony	6:00	7:30	1.5	NA	NA	1	1.5
Boys Varsity Soccer	4:45	8:00	3.25	NA	NA	9	29.25
Boys Junior Varsity Soccer	2:45	7:00	2.5	NA	NA	9	22.5
Girls Varsity Soccer	4:45	7:15	2.5	NA	NA	7	17.5
Girls Junior Varsity Soccer	2:30	5:45	1.25	NA	NA	7	8.75
<i>Baseball/Softball Fields</i>							
Varsity Baseball	5:00	7:00	3	NA	NA	10	30
Junior Varsity Baseball	3:15	5:15	0.75	NA	NA	9	6.75
Varsity Softball	5:00	7:00	3	NA	NA	8	24
Junior Varsity Softball	3:15	5:15	0.75	NA	NA	8	6
<i>Tennis Courts</i>						20	38
Boys Varsity Tennis	5:00	7:00	3	NA	NA	10	30
Boys Junior Varsity Tennis	3:15	5:15	0.75	NA	NA	10	7.5
						106	232
						TOTAL	963

Notes:

See Section 3, Project Description, of the IS/MND for more information regarding the athletics schedule.

¹ Assume lighting in use past 4:30pm.

² Assumes 4 practices per week.

Energy Consumption Per Circuit¹

Field	Circuits	Load
Stadium		71.96
	A	49.72
	B	10.22
	C	2.16
	D	2.16
	E	5.12
	F	2.58
Practice Field		18.7
	G	18.7
Baseball/Softball Field²		348.36
Varsity Baseball	H, L, P, Q	124.27
JV Baseball	I, L	75.89
Varsity Softball	K, L, R, S	75.81
JV Softball	K, L, R, S	72.39
Varsity Baseball	H	50.19
JV Baseball	I	9.93
Varsity Softball	J	6.43
JV Softball	K	6.43
South Field Outfield	L	65.96
Baseball RGBW	P	6.4
Baseball RGBU	Q	1.72
Softball RGBW	R	2.56
Softball RGBU	S	0.86
Tennis Courts		25.41
	M	4.32
	N	10.53
	O	10.56

Source: Musco Lighting Inc. 2025, February 23. San Jacinto School Athletic Field Lighting Project

¹ Energy use for each field was calculated using the loads for the circuits that would serve the lighting fixtures for each field (e.g., Poles A1 through A4 at the stadium, as identified in the Musco lighting plans, would use Circuits A through F).

² The baseball and softball field area contains separate fields for each sport (i.e. Varsity baseball, JV softball, etc.). Therefore, the electricity loads have been calculated for each separate field based on the lighting poles that would be used at each field, some of which are used for multiple fields (like the lighting poles that use Circuit L).

APPENDIX C

NOISE FUNDAMENTALS

APPENDIX

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Fundamentals of Noise

NOISE

Noise is most often defined as unwanted sound; whether it is loud, unpleasant, unexpected, or otherwise undesirable. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.”

Noise Descriptors

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound, expressed on a logarithmic scale and with respect to a defined reference sound pressure. The standard reference pressure is 20 micropascals (20 μPa).
- **Vibration Decibel (VdB).** A unitless measure of vibration, expressed on a logarithmic scale and with respect to a defined reference vibration velocity. In the U.S., the standard reference velocity is 1 micro-inch per second (1×10^{-6} in/sec).
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.
- **Statistical Sound Level (L_n).** The sound level that is exceeded “n” percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the “median sound level.” The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the “intrusive sound level.” The L_{90} is the sound level exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level.”

- **Maximum Sound Level ($L_{\max}$).** The highest RMS sound level measured during the measurement period.
- **Root Mean Square Sound Level (RMS).** The square root of the average of the square of the sound pressure over the measurement period.
- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 PM to 10:00 PM and 10 dB from 10:00 PM to 7:00 AM. NOTE: For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive – that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.
- **Peak Particle Velocity (PPV).** The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Characteristics of Sound

When an object vibrates, it radiates part of its energy in the form of a pressure wave. Sound is that pressure wave transmitted through the air. Technically, airborne sound is a rapid fluctuation or oscillation of air pressure above and below atmospheric pressure that creates sound waves.

Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). Loudness or amplitude is measured in dB, frequency or pitch is measured in Hertz [Hz] or cycles per second, and duration or time variations is measured in seconds or minutes.

Amplitude

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 1 presents the subjective effect of changes in sound pressure levels. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). Changes of 1 to 3 dB are detectable under quiet, controlled conditions, and changes of less than 1 dB are usually not discernible (even under ideal conditions). A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernible to most people in an exterior environment, and a 10 dB change is perceived as a doubling (or halving) of the sound.

Table 1 Noise Perceptibility

Change in dB	Noise Level
± 3 dB	Barely perceptible increase
± 5 dB	Readily perceptible increase
± 10 dB	Twice or half as loud
± 20 dB	Four times or one-quarter as loud

Source: California Department of Transportation (Caltrans). 2013, September. Technical Noise Supplement ("TeNS").

Frequency

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all, but are “felt” more as a vibration. Similarly, though people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz.

When describing sound and its effect on a human population, A-weighted (dBA) sound levels are typically used to approximate the response of the human ear. The A-weighted noise level has been found to correlate well with people’s judgments of the “noisiness” of different sounds and has been used for many years as a measure of community and industrial noise. Although the A-weighted scale and the energy-equivalent metric are commonly used to quantify the range of human response to individual events or general community sound levels, the degree of annoyance or other response also depends on several other perceptibility factors, including:

- Ambient (background) sound level
- General nature of the existing conditions (e.g., quiet rural or busy urban)
- Difference between the magnitude of the sound event level and the ambient condition
- Duration of the sound event
- Number of event occurrences and their repetitiveness
- Time of day that the event occurs

Duration

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time; half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_2 , L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour, respectively. These “n” values are typically used to demonstrate compliance for stationary noise sources with many cities’ noise ordinances. Other values typically noted during a noise survey are the L_{min} and L_{max} . These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period, respectively.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and many local jurisdictions use an adjusted 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}). The CNEL descriptor requires that an artificial increment (or “penalty”) of 5 dBA be added to the actual noise level for the hours from 7:00 PM to 10:00

PM and 10 dBA for the hours from 10:00 PM to 7:00 AM. The L_{dn} descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 PM and 10:00 PM. Both descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher). The CNEL or L_{dn} metrics are commonly applied to the assessment of roadway and airport-related noise sources.

Sound Propagation

Sound dissipates exponentially with distance from the noise source. This phenomenon is known as “spreading loss.” For a single-point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source (conservatively neglecting ground attenuation effects, air absorption factors, and barrier shielding). For example, if a backhoe at 50 feet generates 84 dBA, at 100 feet the noise level would be 79 dBA, and at 200 feet it would be 73 dBA. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance over a reflective (“hard site”) surface such as concrete or asphalt. Line source noise in a relatively flat environment with ground-level absorptive vegetation decreases by an additional 1.5 dB for each doubling of distance.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, though generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level number means. To help relate noise level values to common experience, Table 2 shows typical noise levels from familiar sources.

Table 2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation (Caltrans). 2013, September. Technical Noise Supplement ("TeNS").

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. As with noise, vibration can be described by both its amplitude and frequency. Vibration displacement is the distance that a point on a surface moves away from its original static position; velocity is the instantaneous speed that a point on a surface moves; and acceleration is the rate of change of the speed. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the

square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage and RMS is typically more suitable for evaluating human response.

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 3 displays the human response and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

Table 3 Human Reaction to Typical Vibration Levels

Vibration Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e. not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: California Department of Transportation (Caltrans). 2020, April. *Transportation and Construction Vibration Guidance Manual*. Prepared by ICF International.

LOCAL REGULATIONS AND STANDARDS

Noise

Noise levels within the community can affect the quality of life experienced by people living and working in San Jacinto. High noise levels can create stress and irritation. The following policies address this issue by creating effective strategies to reduce excessive noise and limit the community's exposure to loud sources of noise.

Goal PS-6: A comfortable community environment that is free from excessive noise pollution.

- » **Policy PS-6.1: Noise Exposure.** Consider the noise compatibility of existing and future development when making land use planning decisions. Require development and infrastructure projects to be consistent with the land use compatibility standards contained in Tables PS-1, PS-2, PS-3 and PS-4 to ensure acceptable noise exposure levels for existing and future development.
- » **Policy PS-6.2: Noise Mitigation.** Require new development to mitigate excessive noise to the standards indicated in Tables PS-1, PS-2, PS-3 and PS-4 to the extent feasible through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.
- » **Policy PS-6.3: Acoustical Studies.** Require acoustical studies for new discretionary developments and transportation improvements that have the potential to affect existing noise-sensitive uses such as schools, hospitals, libraries, care facilities, and residential areas, and for projects that would introduce new noise-sensitive uses into an area where existing noise levels may exceed the thresholds identified in this element. For projects that are required to prepare an acoustical study, the following mobile and stationary noise source criteria shall be used to determine the significance of those impacts.

Mobile Noise Sources:

 - a. Where existing traffic noise levels are within or below the "normally acceptable" noise criteria at the affected land use (see Table PS-1), a readily perceptible 5 dBA CNEL or greater increase in roadway noise will be considered significant;
 - b. Where existing traffic noise levels falls within the "conditionally acceptable" noise criteria at the sensitive land use, a +3 dBA CNEL or greater increase in roadway noise levels will be considered significant; and
 - c. Where existing traffic noise levels exceed the "conditionally acceptable" noise criteria at the sensitive land use, a + 1.5 dBA CNEL or greater increase in roadway noise levels will be considered significant.

Stationary and Non-Transportation Noise Sources:

 - a. A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.
- » **Policy PS-6.4: Roadway Noise.** Encourage nonmotorized transportation alternatives for local trips and the implementation of noise sensitivity measures in the public realm, including traffic-calming road design, lateral separation, natural buffers, and setbacks to decrease excessive motor vehicle noise.
- » **Policy PS-6.5: Vehicular Traffic.** Monitor and enforce existing speed limits and motor vehicle codes requiring adequate mufflers on all types of vehicles traveling through the city.
- » **Policy PS-6.6: Commercial Noise.** Require the use of noise attenuation measures, including screening and buffering techniques, for all new commercial development expected to produce excessive noise; in existing cases where the City's noise standards are exceeded, work with Code Enforcement to require compliance.
- » **Policy PS-6.7: Construction Noise.** Require construction activities to reduce noise impacts on adjacent uses to the criteria identified in Tables PS-3 and PS-4, or, if the criteria cannot be met, to the maximum extent feasible complying with Chapter 8.40 of the San Jacinto Municipal Code (Noise Control) and use best practices. Construction activities outside of the permitted construction hours identified in the San Jacinto Municipal Code may be approved on a case-by-case basis by the Community Development Director.
- » **Policy PS-6.8: Temporary Special Events.** Temporary special events including, but not limited to, festivals, concerts, parades, and other similar activities may be allowed to exceed the noise standards established in this General Plan and the standards established by Chapter 8.40 of the San Jacinto Municipal Code (Noise Control) through issuance of a temporary use permit (see Section 17.640 of the San Jacinto Municipal Code (Temporary Use Permits).

- » Policy PS-6.9: Temporary Emergency Operations and Emergency Equipment Usage. Temporary emergency operations or emergency equipment usage is exempt from noise standard criteria set by this element.
- » Policy PS-6.10: Interjurisdictional Coordination. Coordinate with neighboring cities to minimize noise conflicts between land uses along the City's boundaries.
- » Action PS-6a: Review Chapter 8.40 of the San Jacinto Municipal Code and update as necessary to ensure that the noise standards are consistent with this General Plan, including Tables PS-1, PS-2, PS-3, and PS-4 and to require new residential, mixed-use with a residential component, and other noise-sensitive development to be designed to minimize noise exposure to noise sensitive uses through incorporation of site planning and architectural techniques. The update shall also include noise standards for residential uses within a mixed-use development, which may differ from other adopted residential noise standards.
- » Action PS-6b: Review new development projects for compliance with the noise requirements established in this General Plan, including the standards established in Tables PS-1, PS-2, PS-3 and PS-4. Where necessary, require new development to mitigate excessive noise through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials such as rubberized asphalt.
- » Action PS-6c: Require acoustical studies for all new discretionary projects, including those related to development and transportation, which have the potential to generate noise impacts which exceed the standards identified in this General Plan. The studies shall include representative noise measurements, estimates of existing and projected noise levels, and mitigation measures necessary to ensure compliance with this element.
- » Action PS-6d: Review the locations of proposed projects with the potential to generate stationary noise in relation to sensitive receptors through the discretionary project review process. Limit delivery or service hours for stores and businesses with loading areas, docks, or trash bins that front, side, border, or gain access on driveways next to residential and other noise sensitive areas. Only approve exceptions if full compliance with the nighttime limits of the noise regulations is achieved.
- » Action PS-6e: Require all construction activity to comply with the limits (maximum noise levels, hours and days of allowed activity) established in the City noise regulations (Title 24 California Code of Regulations, Noise Ordinance) in order to reduce impacts associated with temporary construction noise to the extent feasible. Trucks associated with construction activities shall follow the designated truck routes described in the Mobility Element.
- » Action PS-6f: Actively enforce the standards identified within the City's Noise Ordinance and Noise Plan in order to reduce impacts to the extent feasible. Update and amend the Noise Ordinance and Plan as appropriate. Provide a link on the City's website for those to file complaints against activities and uses that may be violating the Noise Ordinance.
- » Action PS-6g: Require new residential projects located adjacent to railroad lines to follow the FTA vibration screening distance criteria to ensure that residential uses are not exposed to vibrations exceeding 72 VdB for frequent events (more than 70 events per day), 75 VdB for occasional events (30-70 events per day), or 80 VdB for infrequent events (less than 30 events per day).
- » Action PS-6h: Require new development to minimize vibration impacts to adjacent uses during demolition and construction. Require vibration studies for all new discretionary projects, including those related to development and transportation, which have the potential to generate vibration impacts which exceeds the vibration limits. This includes projects requiring pile driving and/or construction on properties adjacent to historic structures. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to the building. A vibration limit of 0.30 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.
- » Action PS-6i: During subsequent updates to Section 8.40 of the Muni Code, review and update Section 8.40.090, Construction Activity Noise Regulations, as needed in order to allow provisions for emergency repairs, exceptional circumstances, and reasonable Sunday construction and maintenance activities, while continuing to achieve the objectives of providing a nuisance-free noise environment.

TABLE PS-1: LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE (DBA, CNEL)

Land Use	55	60	65	70	75	80
Residential						
Hospitals, Nursing Homes, Assisted Living						
Hotels, Motels, Mixed Use						
Churches						
Schools, Libraries, Museums						
Sports Arenas, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						

TABLE PS-1: LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE (DBA, CNEL) (CONTINUED)

Land Use	55	60	65	70	75	80
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Businesses,						
Industrial, Manufacturing, Utilities, Agriculture						
Normally Acceptable: Specified land uses is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation or requirements. Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy. Normally Unacceptable: New construction and development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded. Clearly Unacceptable: New construction and development should generally not be undertaken. Construction costs to make the indoor environment would be prohibitive and the outdoor environment would not be usable.						
Source: California Office of Noise Control. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 2017.						
Notes: 1. Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City. 2. Outdoor activity areas for residential development are considered to be the backyard patios or decks of single-family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.						

TABLE PS-2: MAXIMUM ALLOWABLE NOISE EXPOSURE FROM MOBILE NOISE SOURCES

Land Use	Noise Standards ¹	
	Exterior	Interior
Residential – single-family, multi-family, duplex and mobile home	65 dB(A)	45 dB(A)
Residential – transient lodging, hotels, motels, nursing homes, hospitals, assisted care facilities	65 dB(A)	45 dB(A)
Private offices, churches, libraries, theaters, concert halls, meeting halls, schools	65 dB(A)	45 dB(A)
General commercial, office, retail, reception, restaurant	65 dB(A)	45 dB(A)
Light industrial ²	---	---
Parks and playgrounds ³	65 dB(A)	50 dB(A)
Golf courses, outdoor spectator sports	70 dB(A)	---
Notes: 1. In Community Noise Equivalent Level (CNEL) 2. Noise standards do not apply to Light Industrial areas. 3. Outdoor environment limited to playground areas, picnic areas and other areas of frequent human use.		

TABLE PS-3: ALLOWABLE EXTERIOR/INTERIOR NOISE LEVEL DUE TO STATIONARY NOISE SOURCES¹

Type of Land Use	Allowed Equivalent Noise Level, dBA Leq ² (Exterior)		Allowed Equivalent Noise Level, dBA Leq ² (Interior)	
	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.
All single-family residential properties	65	45	45	40
All multifamily residential properties and mobile home parks	65	50	45	40
All commercial property	65	60	45	40
The residential portion of mixed-use properties	70	70	45	40
All manufacturing or industrial properties and all other uses	70	70	--	--
Source: City of San Jacinto Municipal Code 8.40.040 Notes: 1. If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard. 2. Measurements for compliance are made on the affected property pursuant to Municipal Code Section 8.40.160. 3. It is unlawful for any person at any location within the incorporated area of the city to create noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following: a. The noise standard for the applicable zone for any fifteen (15) minute period; b. A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response). 4. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level. 5. The residential portion of mixed-use properties standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use if the noise originates from that commercial property or use. 6. If the measurement location is on a boundary between two different types of land uses, the lower noise level standard applicable to types of land uses shall apply.				

Chapter 8.40 NOISE CONTROL

Sections:

- 8.40.010 Declaration of findings and policy.**
- 8.40.020 Definitions.**
- 8.40.030 Land use compatibility standards.**
- 8.40.040 Mobile noise source standards.**
- 8.40.050 Stationary noise source standards, exterior and interior.**
- 8.40.060 Sensitive uses development projects.**
- 8.40.070 Exemptions.**
- 8.40.080 Loud and disturbing noise.**
- 8.40.090 Construction activity noise regulations.**
- 8.40.100 Other public agency exceptions.**
- 8.40.110 Schools, day care centers, churches, libraries, museums, health care institutions—
Special provisions.**
- 8.40.120 Sound-amplifying equipment.**
- 8.40.130 Amplified sound.**
- 8.40.140 Heating, venting, pool/spa and air conditioning—Special provisions.**
- 8.40.150 Motor vehicles.**
- 8.40.160 Noise level measurement.**
- 8.40.170 Prima facie violation.**
- 8.40.180 Penalty.**
- 8.40.190 Enforcement and administration.**
- 8.40.200 City manager waiver.**
- 8.40.210 Noise abatement program.**

8.40.010 Declaration of findings and policy.

It is hereby found and declared that:

- A. The making and creation of excessive, unnecessary or unusually loud noises within the limits of the city of San Jacinto is a condition that has existed for some time; however, the extent and volume of such noises is increasing; and
- B. The making, creation or maintenance of such excessive, unnecessary, unnatural or unusually loud noises that are prolonged, unusual and unnatural in their time, place and use affect and are a detriment to public health, comfort, convenience, safety, welfare and prosperity of the residents of the city of San Jacinto; and
- C. The necessity in the public interest for the provisions and prohibitions hereinafter contained and enacted is declared as a matter of legislative determination and public policy, and it is further declared that

the provisions and prohibitions hereinafter contained and enacted are in pursuance of and for the purpose of securing and promoting the public health, comfort, convenience, safety, welfare and prosperity and the peace and quiet of the residents of the city of San Jacinto. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.020 Definitions.

As used in this chapter, specific words and phrases are defined as follows:

“A-weighted sound level” shall mean the sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

“Ambient noise level” shall mean the composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

“Community noise equivalent level (CNEL)” shall mean the average equivalent A-weighted sound level during a twenty-four (24) hour day, obtained after the addition of five decibels to sound levels in the evening from seven to ten p.m. and after the addition of ten (10) decibels to sound levels in the night between ten p.m. and seven a.m.

“Decibel (dBA)” shall mean a unit for measuring the amplitude of a sound, equal to twenty (20) times the logarithm to the base ten (10) of the ratio of pressure of the sound measured to the reference pressure of twenty (20) micro-pascals.

“Equivalent sound or noise level (L_{eq})” shall mean the sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

“Habitable room” shall mean any room meeting the requirements of the California Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking, or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

“Impulsive noise” shall mean a noise of short duration usually less than one second and of high intensity, with an abrupt onset and rapid decay. Such objectionable noises may also be repetitive.

“Intrusive noise” shall mean that noise that intrudes over and above the ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence and tonal information content, as well as the prevailing ambient noise level.

“ $L(n)$ ” shall mean the A-weighted sound level exceeded during a certain percentage of the sample time. For example, L_{10} in the sound level exceeded ten percent (10%) of the sample time. Similarly, L_{50} , L_{90} , L_{99} , etc.

“Noise” shall mean any unwanted sound or sound that is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying.

“Outdoor living area” shall mean outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc., associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with

places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

“Single event noise exposure level (SENEL)” shall mean the dBA level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

“Sound level (noise level)” shall mean the weighted sound pressure level obtained by use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.

“Sound level meter” shall mean an instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.030 Land use compatibility standards.

The following land use compatibility standards shall apply to all development and infrastructure projects:

Land Use	55	60	65	70	75	80
Residential						
Hospitals, Nursing Homes, Assisted Living						
Hotel, Motels, Mixed Use						
Churches						
Schools, Libraries, Museums						
Sports Arenas, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Businesses, Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						
Normally Acceptable: Specified land uses is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation or requirements. Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy. Normally Unacceptable: New construction and development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded. Clearly Unacceptable New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.						
Source: California Office of Noise Control. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 2017. Notes: 1. Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City. 2. Outdoor activity areas for residential development are considered to be the backyard patio or decks of single-family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.						

(Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.040 Mobile noise source standards.

A. The following noise standards for maximum allowable noise exposure from mobile sources shall apply to all development and infrastructure projects, unless otherwise specifically indicated:

Land Use	Noise Standards ¹	
	Exterior	Interior

Land Use	Noise Standards ¹	
Residential—single-family, multifamily, duplex and mobile home	65 dB(A)	45 dB(A)
Residential—transient lodging, hotels, motels, nursing homes, hospitals, assisted care facilities	65 dB(A)	45 dB(A)
Private offices, churches, libraries, theaters, concert halls, meeting halls, schools	65 dB(A)	45 dB(A)
General commercial, office, retail, reception, restaurant	65 dB(A)	45 dB(A)
Light industrial ²	---	---
Parks and playgrounds ³	65 dB(A)	50 dB(A)
Golf courses, outdoor spectator sports	70 dB(A)	---

(1) In community noise equivalent level (CNEL).

(2) Noise standards do not apply to light industrial areas.

(3) Outdoor environment limited to playground areas, picnic areas and other areas of frequent human use.

(Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.050 Stationary noise source standards, exterior and interior.

A. The following noise standards for maximum allowable noise level due to stationary noise sources shall apply to all development and infrastructure projects, unless otherwise specifically indicated:

Type of Land Use	Allowed Equivalent Noise Level, dBA L _{eq} ²	
	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.
All single-family residential properties	65	45
All multifamily residential properties and mobile home parks	65	50
All commercial property	65	60
The residential portion of mixed-use properties	70	70
All manufacturing or industrial properties and all other uses	70	70

1. If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.

2. Measurements for compliance are made on the affected property pursuant to Section [8.40.160](#).

3. It is unlawful for any person at any location within the incorporated area of the city to create noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:

a. The noise standard for the applicable zone for any fifteen (15) minute period;

b. A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response).

4. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

5. The residential portion of mixed-use properties standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use if the noise originates from that commercial property or use.

6. If the measurement location is on a boundary between two different types of land uses, the lower noise level standard applicable to types of land uses shall apply.

B. The following allowable interior noise standards due to stationary noise sources shall apply to all development and infrastructure projects, unless otherwise specifically indicated:

Type of Land Use	Allowed Equivalent Noise Level, dBA L_{eq}^2	
	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.
All single-family residential properties	45	40
All multifamily residential properties and mobile home parks	45	40
All commercial property	45	40
Residential portion of mixed use	45	40

1. If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.

2. Measurements for compliance are made on the affected property pursuant to Section [8.40.160](#).

3. It is unlawful for any person at any location within the incorporated area of the city to create noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:

a. The noise standard for the applicable zone for any fifteen (15) minute period;

b. A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response).

4. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

5. The residential portion of mixed-use standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use if the noise originates from that commercial property or use.

6. If the measurement location is on a boundary between two different types of land uses, the lower noise level standard applicable to the types of land uses shall apply. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.060 Sensitive uses development projects.

- A. New residential developments, mixed-use developments with a residential component, and other noise-sensitive development (including, but not limited to, schools, day cares, hospitals) shall be designed to minimize noise exposure to sensitive uses through the incorporation of site planning and architectural techniques.
- B. New discretionary projects which have the potential to generate noise impacts which exceed the standards identified in this chapter shall be required to submit acoustical studies. The studies shall include representative noise measurements, estimates of existing and projected noise levels, and mitigation measures necessary to ensure compliance with the noise standards established in this chapter. (Ord. 22-13 § 3 (Exh. A))

8.40.070 Exemptions.

The following activities shall be exempted from the provisions of this chapter:

- A. Any activity conducted on public property, or on private property with the consent of the owner, by any public entity or its officers, employees, representatives, agents, subcontractors, permittees, licensees or lessees that the public entity has authorized, shall be exempt from the provisions of this chapter. This includes, without limitation, sporting and recreational activities that are sponsored, co-sponsored, permitted or allowed by the city of San Jacinto or any school district within the city's jurisdictional boundaries. This also includes, without limitation, occasional outdoor gatherings, public dances, shows or sporting and entertainment events, provided such events are conducted pursuant to an approval, authorization, contract, lease, permit or sublease by the appropriate public entity, including the planning commission or city council;
- B. Occasional outdoor gatherings, public dances, show, sporting and entertainment events, provided said events are conducted pursuant to a permit or license issued by the appropriate jurisdiction relative to the staging of said events;
- C. Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile;
- D. Noise sources associated with construction, repair, remodeling, demolition or grading of any real property. Such activities shall instead be subject to the provisions of Section [8.40.090](#);
- E. Noise sources associated with construction, repair, remodeling, demolition or grading of public rights-of-way or during authorized seismic surveys;
- F. All mechanical devices, apparatus or equipment associated with agriculture operations; provided, that:
1. Operations do not take place between eight p.m. and seven a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday; or
 2. Such operations and equipment are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions; or

3. Such operations and equipment are associated with agricultural pest control through pesticide application, provided the application is made in accordance with permits issued by or regulations enforced by the California Department of Agriculture;
- G. Any activity to the extent regulation thereof has been preempted by state or federal law;
- H. Any noise sources associated with people and/or music associated with a party at a residential property. Such noise shall be subject to the provisions of Section [8.40.080](#);
- I. Any noise source emanating from an ice cream truck within the city of San Jacinto. Such noise shall be subject to the provisions of Section [5.28.140](#);
- J. Any noise sources associated with barking dogs or other intermittent noises made by animals on any property within the city of San Jacinto. Such noise shall be subject to the provisions of Section 6.24.030;
- K. Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of seven a.m. and seven p.m.;
- L. Noise sources related to uses approved by a permit or development agreement adopted prior to the date of adoption of the ordinance codified in this chapter and that contains acoustic or noise standard conditions of approval. This exemption shall only be applicable during the effective period of the city-approved permit or development agreement. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part). Formerly 8.40.060)

8.40.080 Loud and disturbing noise.

- A. It is unlawful for any person or property owner within the city to make, cause or allow to be made any loud, excessive, impulsive or intrusive noise, disturbance or commotion that disturbs the peace or quiet of any area or that causes discomfort or annoyance to any reasonable person of normal sensitivities in the area. The types of loud, disturbing, excessive, impulsive or intrusive noise may include, but shall not be limited to, yelling, shouting, hooting, whistling, singing, playing a musical instrument, or emitting or transmitting any loud music or noise from any mechanical or electrical sound-making or sound-amplifying device.
- B. The factors, standards, and conditions that may be considered in determining whether a violation of the provisions of this section has been committed include, but are not limited to, the following:
1. The level of the noise;
 2. The level and intensity of the background (ambient) noise, if any;
 3. The proximity of the noise to residential or commercial sleeping areas;
 4. The nature and zoning of the area within which the noise emanates;
 5. The density of inhabitation of the area within which the noise emanates;
 6. The time of day and night the noise occurs;
 7. The duration of the noise;
 8. Whether the noise is constant, recurrent or intermittent;
 9. Whether the noise is produced by a commercial or noncommercial activity;

10. Whether the use is lawful under the provisions of this code and whether the noise is one that could reasonably be expected from the activity or allowed use. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part). Formerly 8.40.070)

8.40.090 Construction activity noise regulations.

A. The erection (including excavation), demolition, alteration or repair of any building shall occur between the hours of seven a.m. and seven p.m. on weekdays and Saturdays, and between nine a.m. and six p.m. on Sundays and holidays, except when such work complies with the terms of a temporary use permit which may be issued by the community development director or his or her designee, upon a showing of sufficient need due to hot or inclement weather, or the use of an unusually long process material, or other circumstances of unusual and compelling nature.

B. No landowner, construction company owner, contractor, subcontractor or employer shall permit or allow any person or persons working under their direction and control to operate any tool, equipment or machine in violation of the provisions of this section.

C. Exceptions.

1. The provisions of this section shall not apply to emergency construction work performed by a private party when authorized by the city manager or his or her designee;

2. The maintenance, repair or improvement of any public work or facility by public employees, by any person or persons acting pursuant to a public works contract, or by any person or persons performing such work or pursuant to the direction of, or on behalf of, any public agency; provided, however, this exception shall not apply to the city of San Jacinto, or its employees, contractors or agents, unless:

a. The city manager or a department head determines that the maintenance, repair or improvement is immediately necessary to maintain public services; or

b. The maintenance, repair or improvement is of a nature that cannot feasibly be conducted during normal business hours; or

c. The city council has approved project specifications, contract provisions, or an environmental document that specifically authorizes construction during hours of the day that would otherwise be prohibited pursuant to this section;

3. Any construction that complies with the noise limits specified in Section [8.40.040](#) or [8.40.050](#). (Ord. 22-13 § 3 (Exh. A); Ord. 15-07 § 1; Ord. 07-17 § 2 (part))

8.40.100 Other public agency exceptions.

The provisions of this chapter shall not be construed to prohibit any work at different hours by or under the direction of any other public agency or public or private utility company in cases of necessity or emergency. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.110 Schools, day care centers, churches, libraries, museums, health care institutions—Special provisions.

It is unlawful for any person to create any noise that causes the outdoor noise level at any school, day care center, hospital or similar health care institution, church, library or museum while the same is in use, to exceed the noise standards specified in this chapter. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.120 Sound-amplifying equipment.

Loudspeakers, sound amplifiers, public address systems or similar devices used to amplify sounds shall be subject to the provisions of Section [8.40.130](#). Such sound-amplifying equipment shall not be construed to include electronic devices, including, but not limited to, radios, tape players, tape recorders, compact disc players, MP3 players, electric keyboards, music synthesizers, record players or televisions, which are designed and operated for personal use, or used entirely within a building and are not designed or used to convey the human voice, music or any other sound to an audience outside such building, or which are used in vehicles and heard only by occupants of the vehicle in which installed. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.130 Amplified sound.

A. The city council enacts the following legislation for the sole purpose of securing and promoting the public health, comfort, safety and welfare for its citizenry. While recognizing that the use of sound-amplifying equipment may be entitled to certain protection by the constitutional rights of freedom of speech and assembly, the city council finds that in order to protect the public safety and the correlative rights of the citizens of this community to privacy and freedom from public nuisance of loud and unnecessary noise, reasonable regulation of the time, place and manner of the use of amplifying equipment is necessary. In no event shall approval or authorization required herein be withheld by reason of the constitutionally protected content of any material proposed to be broadcast through amplifying equipment.

B. It is unlawful for any person, other than personnel of law enforcement or governmental agencies, to install, use or operate a loudspeaker or sound-amplifying device in a fixed or movable position or mounted upon any vehicle within the city for the purpose of giving instructions, directions, talks, addresses or lectures to any persons or assemblages of persons in or upon any street, alley, sidewalk, park, place or public property without a permit to do so from the police chief or his or her designee. Notwithstanding any other provision of this chapter, the provisions of this section shall also apply to the use of sound-amplifying equipment upon public or private property when used in connection with outdoor or indoor public or private events, whether or not admission is charged or food or beverages are sold, when such activity is to be attended by more than one hundred (100) persons and the noise emanating from the event will be audible at the property plane, or, in the case of a street dance or concert, on the nearest residential property. Those activities listed in Section [8.40.070\(A\)](#) are exempt from the requirements of this section.

C. The police chief or his or her designee is authorized to approve and issue permits under this section.

D. An application for a permit required by this section shall be filed with the police chief at least sixteen (16) days and no more than one hundred twenty (120) days prior to the date on which the sound-amplifying equipment is intended to be used. Applications for events covered by the First Amendment of the United States Constitution are exempt from the time requirements of this section if it is shown that circumstances require a shorter filing period and the event will not constitute an unsafe condition. The application shall contain the following information:

1. The name, address and telephone number of both the owner and the user of the sound-amplifying equipment;
2. The license number, if a sound truck is to be used;
3. A general description of the sound-amplifying equipment which is to be used;
4. Whether sound-amplifying equipment will be used for commercial or noncommercial purpose;
5. The dates and times upon and within which, and the streets or property over or upon which, the equipment is proposed to be operated;

6. The name or names of one or more persons who will be present during the conduct of any activities for which registration is sought and who will have authority to reduce the volume of any sound-amplifying equipment during the course of the activities if required pursuant to this chapter and, otherwise, to ensure compliance with the provisions of this chapter;
 7. A statement by the applicant that he or she is willing and able to comply with the provisions of this chapter and the conditions of the permit;
 8. A sketch of the area or facilities within which the activities are to be conducted, with approximate dimensions and illustration of the location and orientation of all sound-amplifying equipment.
- E. The police chief shall deny the permit application or revoke any permit if the chief finds any of the following:
1. The application contains materially false or intentionally misleading information; or
 2. The use of sound-amplifying equipment at an event or activity proposed will be located in or upon a premises, building or structure that is hazardous to the health or safety of the employees or patrons of the premises, business, activity, or event, or the general public, under the standards established by the International Building or Fire Code, or other applicable codes, as set forth in this title and Title [15](#); or
 3. The use of sound-amplifying equipment at an event or activity proposed in or upon a premises, building or structure that lacks adequate on-site parking for participants attending the proposed event or activity under the applicable standards set forth in Article 15 of the San Jacinto Zoning Ordinance; or
 4. The conditions of any motor vehicle movement are such that, in his or her opinion, the use of the equipment would constitute an unreasonable interference with traffic safety; or
 5. The conditions of pedestrian movement are such that the use of the equipment would constitute a detriment to traffic safety; or
 6. The application submitted by the applicant reveals that the applicant would violate the provisions of this section or any other provision of federal, state and/or local law; or
 7. The applicant is unwilling or unable to comply with the provisions of this chapter or any conditions imposed upon any permit issued; or
 8. There had already been a permitted event at the intended location, or within a two hundred (200) yard radius of the intended location and the prior permitted event was located on residentially zoned property or on a street, alley, public parking lot or neighborhood park within three months prior to the intended event. Community parks are exempt from this subsection (E)(8); or
 9. The applicant or location has had previous violations within the past calendar year, and in the judgment of the police chief, issuance would be contrary to the intent of this section.
- F. In determining whether the use of the equipment would constitute an unreasonable interference with or detriment to traffic safety, the police chief shall consider, but shall not necessarily be limited to:
1. The volumes, patterns and speed of vehicular and pedestrian traffic in the proposed area of use;
 2. The relationship of the proposed use of equipment and potential impacts upon traffic patterns;

3. Availability of sufficient room for the operation of the equipment without significantly interfering with the traffic patterns;
4. Proximity to schools, playgrounds and similar facilities where use of such equipment might attract children into traffic patterns;
5. Proximity to busy intersections or other potentially hazardous conditions where use of such equipment might constitute a hazard by reason of its tendency to distract drivers of vehicles or pedestrians.

G. Issuance or Denial.

1. If the application is approved, the police chief shall return an approved copy of the application to the applicant and shall issue a permit. The permit shall constitute permission for the use of the sound-amplifying equipment as requested.
2. Any application filed shall be either approved or disapproved within five days of the filing thereof.
3. If the application is disapproved, the police chief shall return a disapproved copy forthwith to the applicant with a written statement on the reason for disapproval.

a. Any person aggrieved by a decision of the police chief or his or her designee may file an appeal to the city manager. A complete and proper appeal shall be filed with the city clerk within ten (10) calendar days of the action that is the subject of the appeal. If the applicant fails to file an appeal within the ten (10) day filing period provided herein, denial shall take effect immediately upon expiration of such filing period. All appeals shall be in writing and shall contain the following information: (i) name(s) of the person filing the appeal, (ii) a brief statement in ordinary and concise language of the relief sought, and (iii) the signatures of all parties named as appellants and their mailing addresses. After receiving the appeal, the city clerk shall immediately forward the matter to the city manager for handling.

b. The city manager shall, upon receipt of the appeal, set the matter for hearing before the city manager or a hearing officer. Any hearing officer shall be a licensed attorney or recognized mediator designated by the city manager. The hearing shall be set for not more than ten (10) calendar days after the receipt of the appeal unless a longer time is requested or consented to by the appellant. Notice of such hearing shall be given in writing and mailed at least five calendar days prior to the date of the hearing, by United States mail, with a proof of service attached, addressed to the address listed on the permit application, or the written appeal if different from the permit application. The notice shall state the grounds of the complaint or reason for the denial and shall state the time and place where such hearing will be held.

c. The city manager or hearing officer shall, within ten (10) calendar days following the conclusion of the hearing, make a written finding and decision, which shall be delivered to the city and the appellant by first class mail. Notwithstanding any provisions in this code, the decision of the city manager or hearing officer shall be the final administrative decision of the city of San Jacinto. Any party dissatisfied with the decision of the city manager or hearing officer may seek review of such decision under the provisions of Code of Civil Procedure Sections [1094.5](#) and [1094.8](#), as amended from time to time.

H. In addition to any other provisions of this code, the use of sound-amplifying equipment and sound trucks in the city shall be subject to the following regulations:

1. The only sounds permitted are music and human speech;
2. Sound shall not be emitted within one hundred (100) yards of hospitals, churches, schools and City Hall;
3. The volume of sound shall be controlled so that it will not be audible for a distance in excess of one hundred (100) feet from the sound-amplifying equipment or sound truck, and so that the volume is not unreasonably loud, raucous, jarring, disturbing or a nuisance to persons within the range of allowed audibility;
4. The sound-amplifying equipment or sound truck shall not be used between the hours of eight p.m. and eight a.m. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.140 Heating, venting, pool/spa and air conditioning—Special provisions.

Permits for heating, venting and air conditioning (HVAC) and pool/spa equipment in or adjacent to residential areas shall be issued only after the installation contractor signs an acknowledgment that the installation will meet the noise limits established in Section [8.40.050](#). Applications for residential mechanical permits for air conditioners may use the methodology specified in Standard 275 “Standard Application of Sound Rated Outdoor Unitary Equipment” of the Air Conditioning and Refrigeration Institute (ARI), 1984, as amended. Applicants of mechanical permits for commercial HVAC equipment shall be required to submit a detailed acoustical study that demonstrates compliance with the noise limits established in Section [8.40.050](#). (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.150 Motor vehicles.

The use of any motor vehicle in such a condition as to create excessive, impulsive or intrusive noises is prohibited. The discharge into the open air of the exhaust of any internal combustion engine, stationary or mounted on wheels, motorboat or motor vehicle, including motorcycle, whether or not discharged through a muffler or other similar device, which discharge creates excessive, unusual, impulsive or intrusive noise is prohibited. Motor vehicles shall comply with the noise regulations of the California Vehicle Code. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.160 Noise level measurement.

A. The location selected for measuring exterior noise levels in a residential area shall be at any part of a private yard, patio, deck or balcony normally used for human activity and identified by the owner or, if occupied by someone other than the owner, the occupant of the affected property as suspected of exceeding the noise level standard. This location may be the closest point in the private yard or patio, or on the deck or balcony, to the noise source, but should not be located in nonhuman activity areas such as trash container storage areas, planter beds, above or contacting a property line fence, or other areas not normally used as part of the yard, patio, deck or balcony. The location selected for measuring exterior noise levels in a nonresidential area shall be at the closest point to the noise source. The measurement microphone height shall be five feet above finish elevation or, in the case of a deck or balcony, the measurement microphone height shall be five feet above the finished floor level.

B. The location selected for measuring interior noise levels shall be made within the affected residential unit. The measurements shall be made at a point at least four feet from the wall, ceiling or floor, or within the frame of a window opening, nearest the noise source. The measurements shall be made with windows in an open position.

C. Any decibel measurement made pursuant to the provisions of this chapter shall be measured in decibels (dBAs) as measured with a sound level meter using the A-weighted sound pressure level. (Ord.

8.40.170 Prima facie violation.

Any noise exceeding the noise level standard as specified in Sections [8.40.040](#) and [8.40.050](#) shall be deemed to be prima facie evidence of a violation of the provisions of this chapter. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.180 Penalty.

A. Any person who negligently or knowingly violates any provision of this chapter shall be guilty of an infraction and upon conviction shall be punishable by a fine specified in Section [1.24.030](#). Each day a violation occurs shall constitute a separate offense and shall be punishable as such.

B. As an additional remedy, the operation or maintenance of any device, instrument, vehicle or machinery in violation of any provisions of this chapter, which operation or maintenance causes or creates sound levels exceeding the allowable standards as specified in this chapter, shall be deemed and is declared to be a public nuisance and may be subject to abatement by a restraining order or injunction issued by a court of competent jurisdiction.

C. Any violation of this chapter is declared to be a public nuisance and may be abated in accordance with law. The expense of enforcing this chapter is declared to be a public nuisance and may be by resolution of the city council declared to be a lien and special assessment against the property on which such nuisance is maintained, and any such charge shall also be a personal obligation of the property owner. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.190 Enforcement and administration.

A. The police department shall have the primary responsibility for enforcing provisions of this chapter. The police department shall receive and investigate noise complaints alleged to be in violation of this chapter.

B. It shall be the responsibility of peace officers to enforce the provisions of this chapter and to perform all other functions required by this chapter. Such duties shall include, but not be limited to, investigating potential violations, issuing warning notices and citations, and providing evidence to the city prosecutor for legal action.

C. For violations of Section [8.40.080](#), a peace officer shall either:

1. Obtain a declaration, signed under penalty of perjury, from two declarants living in separate dwelling units, stating in detail all of the following:

a. That the declarant is a resident located within two hundred (200) yards of the noise source; and

b. Within the past month declarant has heard noise for substantially long periods to the extreme annoyance of the declarant.

2. Personally hear the subject sound and provide, at trial or any administrative hearing, percipient evidence of the loud and disturbing noise. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.200 City manager waiver.

The city manager is authorized to grant a temporary waiver to the provisions of this chapter for a period of time necessary to correct the violations of this chapter, if such temporary waiver would be in the public interest and there is no feasible and prudent alternative to the activity, or the method of conducting the

activity, for which the temporary waiver is sought. This time period may include a commitment to a program that includes placing necessary orders and entering into necessary contracts within thirty (30) days for repair or installation. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

8.40.210 Noise abatement program.

A. In circumstances where adopted community-wide noise standards and policies prove impractical in controlling noise generated from a specific source, the city council may establish a noise abatement program that recognizes the characteristics of the noise source and affected property and that incorporates specialized mitigation measures.

B. Noise abatement programs shall set forth in detail the approved terms, conditions and requirements for achieving maximum compliance with noise standards and policies. Said terms, conditions and requirements may include, but shall not be limited to, limitations, restrictions, or prohibitions on operating hours, location of operations, and the types of equipment. (Ord. 22-13 § 3 (Exh. A); Ord. 07-17 § 2 (part))

[Mobile Version](#)

CONSTRUCTION NOISE MODELING

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 02/24/2025
Case Description: SJU-21.0 Light Installation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Reference at 50 ft	Residential	65.0	60.0	55.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Auger Drill Rig	No	20		84.4	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0
Crane	No	16		80.6	50.0	0.0

Results

Equipment		Noise Limits (dBA)								Noise Limit Exceedance (dBA)					
		Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Auger Drill Rig		84.4	77.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe		77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane		80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total		84.4	79.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SJU-21.0 - Construction Noise Modeling Attenuation Calculations

Levels in dBA Leq					
Phase	RCNM Reference Noise Level	San Jacinto Village Apts Receptors	Tiger Lane Receptors	San Jacinto Apts Receptors	N. Ramona Blvd Receptors
<i>Distance in feet</i>	50	105	110	125	100
Light Pole Installation	80.0	73.6	73.2	72.0	74.0

Attenuation calculated through Inverse Square Law: $L_p(R2) = L_p(R1) - 20\log(R2/R1)$

SJU-21.0 - Vibration Damage Attenuation Calculations

Levels, PPV (in/sec)					
<i>Distance in feet</i>	Vibration	San Jacinto Village Apts	Tiger Lane Receptors	San Jacinto Apts Receptors	N. Ramona Blvd Receptors
	Reference Level at 25 feet	Receptors 100	110	130	130
Large Bulldozer	0.089	0.011	0.010	0.008	0.008
Caisson Drilling	0.089	0.011	0.010	0.008	0.008
Loaded Trucks	0.076	0.010	0.008	0.006	0.006
Jackhammer	0.035	0.004	0.004	0.003	0.003
Small Bulldozer	0.003	0.000	0.000	0.000	0.000