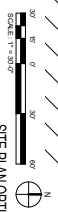
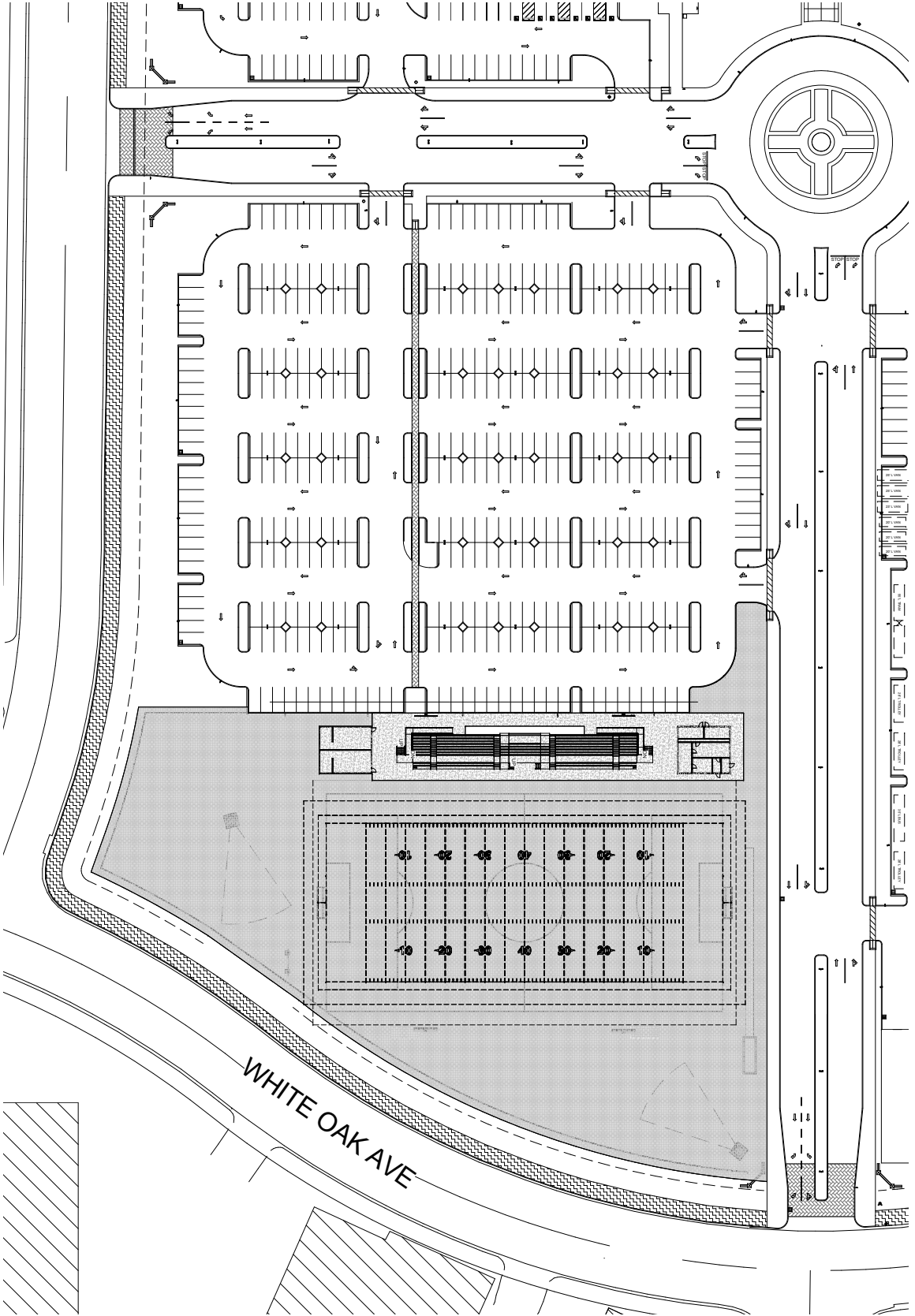




RANCHO CUCAMONGA  
8163 Rochester Avenue, Suite 100  
Rancho Cucamonga, CA 91730  
909-987-0909 P



SITE PLAN OPTION 1  
1

OWNER NAME

PROJECT LOCATION

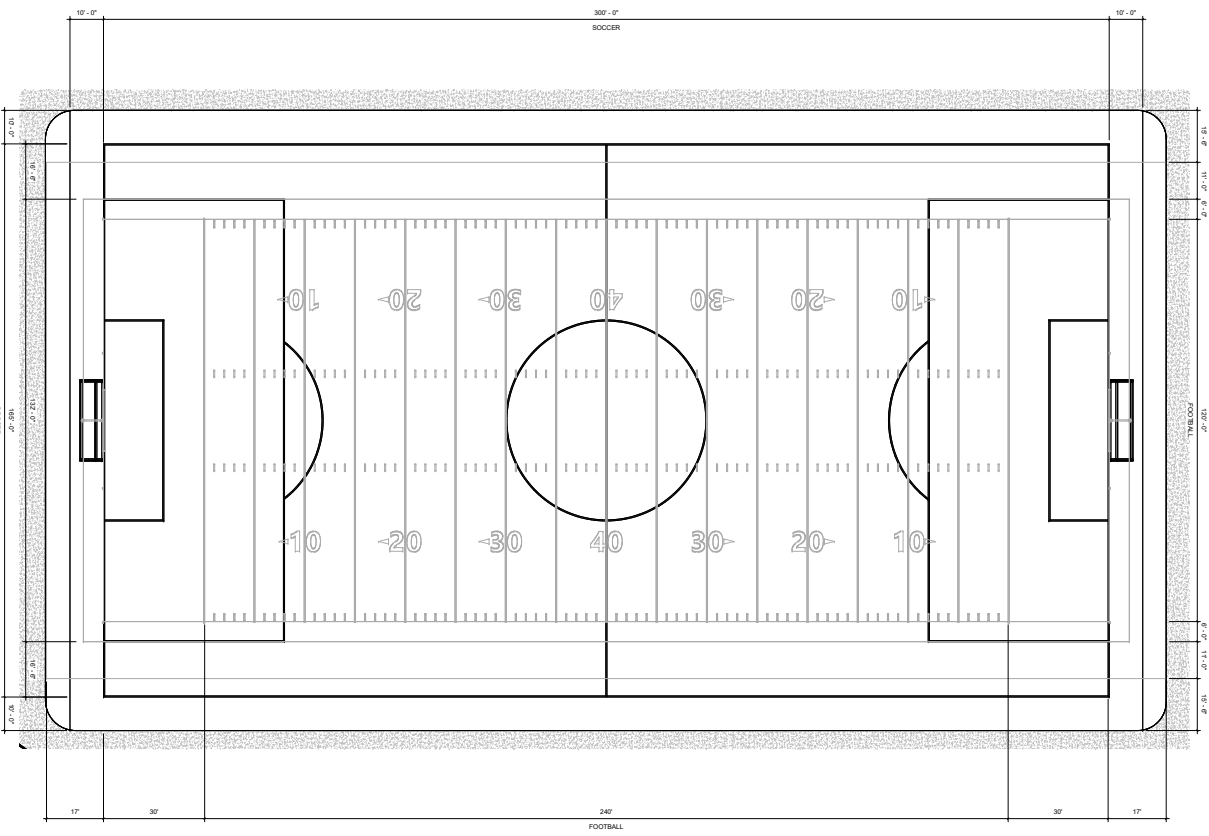
01/01/22

SITE PLAN  
OPTION 1

A2.1



RANCHO CUCAMONGA  
8163 Rochester Avenue, Suite 100  
Rancho Cucamonga, CA 91730  
909-987-0909 P



TYPICAL FIELD DIMENSION DIAGRAM 1-180

OWNER NAME

PROJECT LOCATION

01/19/22

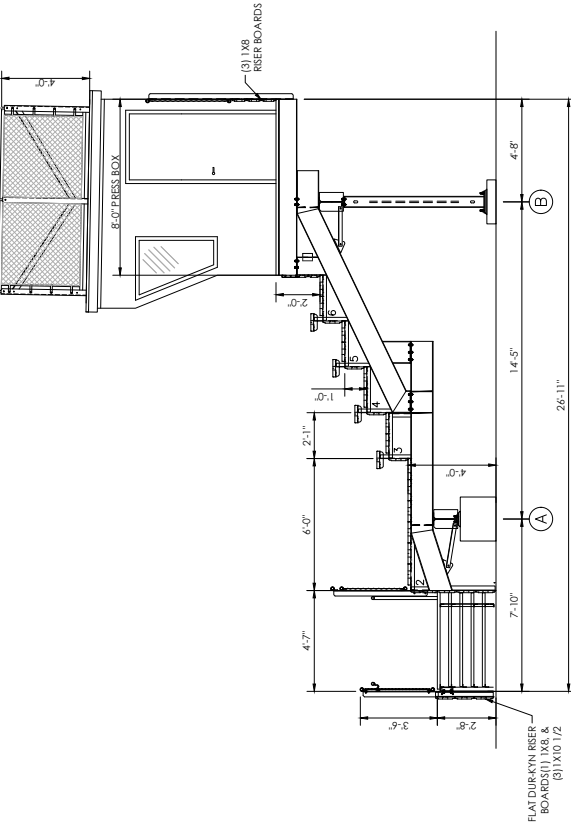
TYPICAL FIELD  
DIAGRAM

A2.3

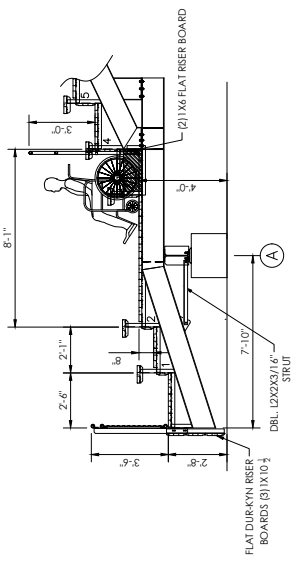




- DESIGN LOADS: UNIFORM (WIND) LIVE LOAD, SEAT (VERTICAL) TO BEAT, SEAT (HORIZONTAL) TO BEAT, IDENTIFY PERPENDICULAR TO SEAT.
- TREAD-STAIR AND RISE TREADS: MINIMUM CONCENTRICATED LOADS SHALL BE 1200 LB. PER SQUARE FOOT. HANDRAILS & GUARDRAILS: MINIMUM AND MAXIMUM CONCENTRICATED LOADS SHALL BE 100 LB. PER FOOT IN HORIZONTAL DIRECTION. GUARDS: MINIMUM CONCENTRICATED LOADS PER FOOT IN HORIZONTAL DIRECTION SHALL BE 100 LB. PER FOOT. GUARDRAILS: MINIMUM CONCENTRICATED LOADS PER FOOT IN HORIZONTAL DIRECTION SHALL BE 100 LB. PER FOOT.
- SEMI-CLOSDS AS PER STATE ADOPTED CODE.
- NOTES:
  - 1. ALL STEEL SHALL BE A36 UNLESS OTHERWISE SPECIFIED.
  - 2. ALL WELDS SHALL BE E70XX-XX UNLESS OTHERWISE SPECIFIED.
  - 3. ALL STEEL TO BE HOT DIPPED GALVANIZED UNLESS OTHERWISE SPECIFIED.
  - 4. ALL CONNECTIONS ARE NON-SHEAR CRITICAL UNLESS OTHERWISE SPECIFIED.
  - 5. ALL CONNECTIONS ARE NON-SHEAR CRITICAL UNLESS OTHERWISE SPECIFIED.
  - 6. ALL CONNECTIONS ARE NON-SHEAR CRITICAL UNLESS OTHERWISE SPECIFIED.
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  - 10. ALL CONNECTIONS ARE NON-SHEAR CRITICAL UNLESS OTHERWISE SPECIFIED.



SECTION VIEW @ PRESS BOX  
SCALE: 3/8" = 1'-0"



SECTION VIEW @ W/C  
SCALE: 3/8" = 1'-0"

**NOT FOR CONSTRUCTION**

DETAIL NUMBER: \_\_\_\_\_ SHEET SHOWN ON: \_\_\_\_\_ SHEET CUT FROM: \_\_\_\_\_

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UNITED CHRISTIAN ACADEMY  
RANCHO CUCAMONGA, CALIFORNIA

PO Box 026, Graham, Texas 76450  
Phone: 940.549.1365

**Southern**  
BLEACHER COMPANY

STANDARDS WITH ARCHITECTS & CONTRACTORS

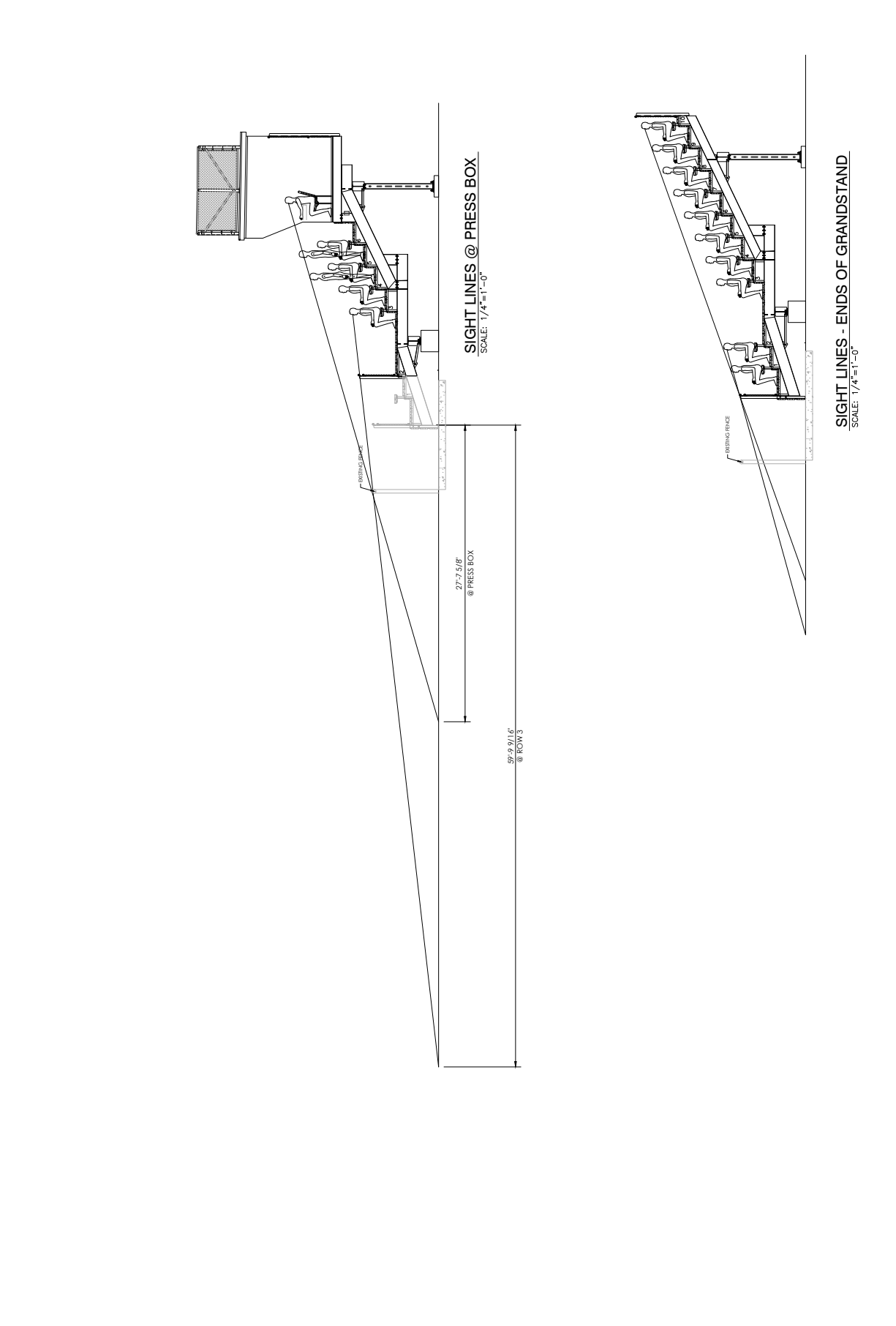
SECTION VIEW @ PRESS BOX	10
SECTION VIEW @ W/C	11
SECTION VIEW @ PRESS BOX	12
SECTION VIEW @ W/C	13
SECTION VIEW @ PRESS BOX	14
SECTION VIEW @ W/C	15
SECTION VIEW @ PRESS BOX	16
SECTION VIEW @ W/C	17
SECTION VIEW @ PRESS BOX	18
SECTION VIEW @ W/C	19
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SECTION VIEW @ PRESS BOX	22
SECTION VIEW @ W/C	23
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SECTION VIEW @ W/C	31
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SECTION VIEW @ W/C	95
SECTION VIEW @ PRESS BOX	96
SECTION VIEW @ W/C	97
SECTION VIEW @ PRESS BOX	98
SECTION VIEW @ W/C	99
SECTION VIEW @ PRESS BOX	100

DATE	DESCRIPTION
9/22/21	WK. DMC
21SD185	
3	6

UNITED CHRISTIAN ACADEMY  
 GRANDSTAND SEATING  
 RANCHO CUAMONGA, CALIFORNIA  
 8/12" RISE X 25" TREAD / 169'6" (10 ROWS)  
 SIGHT LINES

**NOT FOR CONSTRUCTION**  
 SHEET SHOWN ON  
 SHEET CUT FROM  
 DETAIL NUMBER

**Southern**  
 BLEACHER COMPANY  
 801 Fifth Street  
 P.O. Box One, Graham, Texas 76450  
 Phone: 940.549.0733 Fax: 940.549.1465  
 E-MAIL: SALES@SOUTHERNBLANCHER.COM  
 WWW.SOUTHERNBLANCHER.COM  
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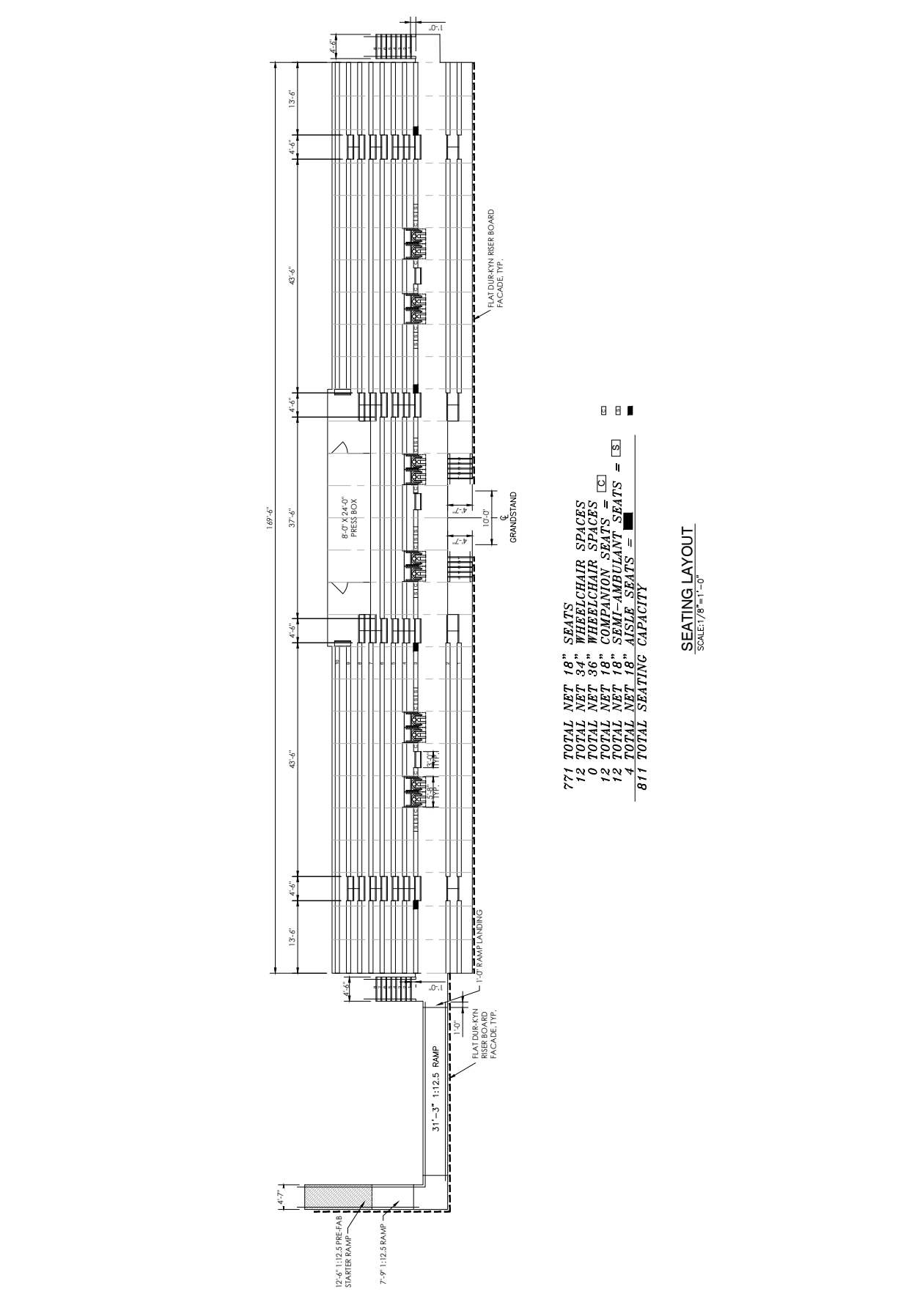
NOT FOR CONSTRUCTION  
 SHEET SHOWN ON SHEET CUT FROM  
 DETAIL NUMBER

**Southern**  
 BLEACHER COMPANY  
 GRANDSTANDS WITH ACCESS STAIRWAYS  
 801 Fifth Street  
 P.O. Box One, Graham, Texas 76450  
 Phone: 940.549.1365  
 Faxed: 940.549.1365  
 E-MAIL: SALES@SOUTHERNBL.COM  
 WWW.SOUTHERNBL.COM  
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UNITED CHRISTIAN ACADEMY  
 GRANDSTAND SEATING  
 RANCHO CUCAMONGA, CALIFORNIA

SEATING LAYOUT  
 8'1/2" RISE X 25" TREAD / 169'6" (10 ROWS)  
 21SD185  
 DATE DESCRIPTION  
 9/22/21 WK. DMC  
 21SD185  
 SHEET 4 OF 6

22' X 34' (1/17) = 1/2 INCHES (SCALE)



771 TOTAL NET 18" SEATS  
 12 TOTAL NET 34" WHEELCHAIR SPACES  
 0 TOTAL NET 36" WHEELCHAIR SPACES  
 12 TOTAL NET 18" COMPANION SEATS = [C]  
 12 TOTAL NET 18" SEMI-AMBULANT SEATS = [S]  
 4 TOTAL NET 18" AISLE SEATS = [A]  
 811 TOTAL SEATING CAPACITY

SEATING LAYOUT  
 SCALE: 1/8" = 1'-0"

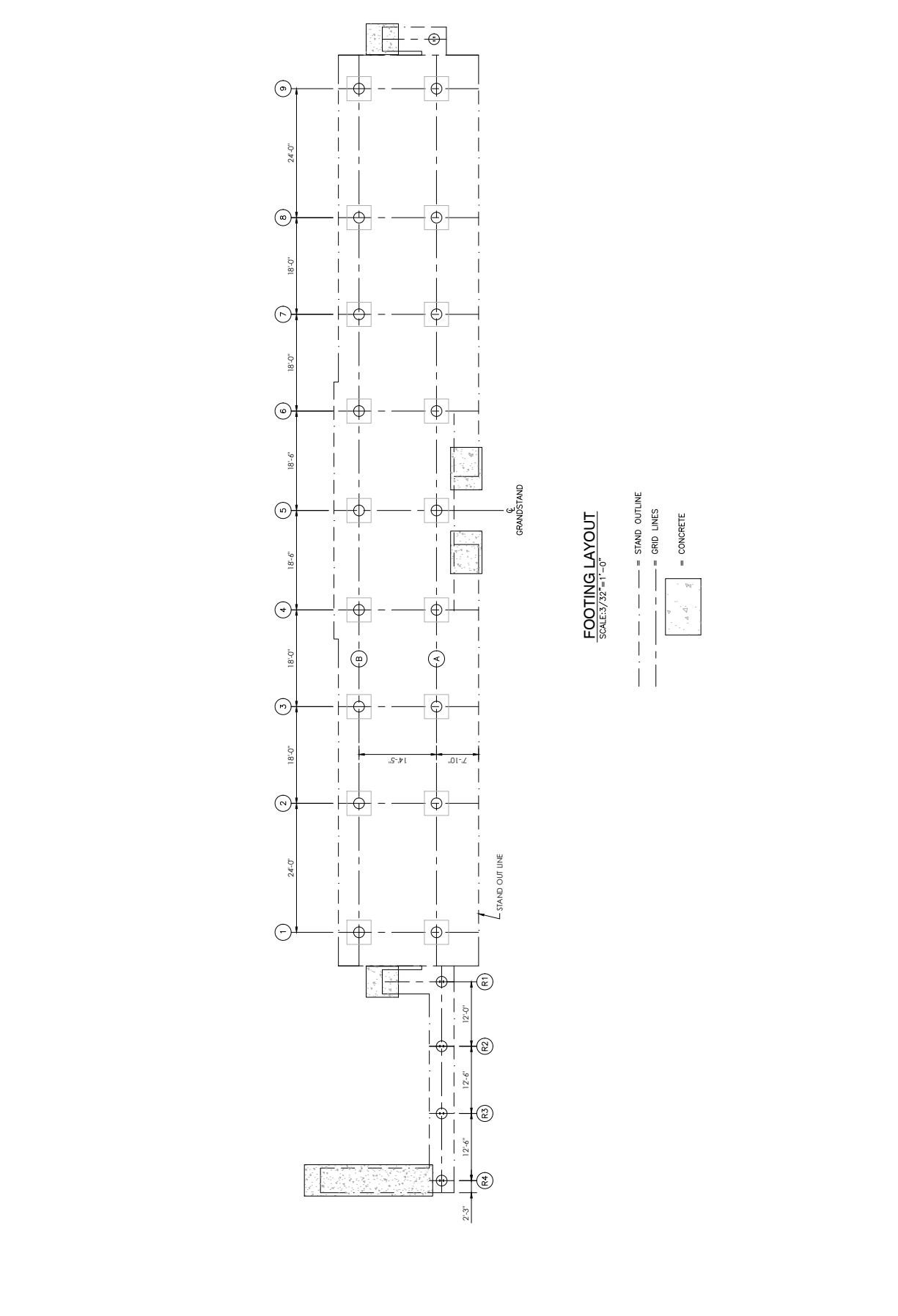
NO.	DATE	DESCRIPTION
1	09/22/21	ISSUED FOR PERMITS
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PROJECT NUMBER: 21SD185  
 SHEET 5 OF 6

FOOTING LAYOUT  
 8/12" RISE X 25" TREAD / 169'6" (10 ROWS)  
 UNITED CHRISTIAN ACADEMY  
 GRANDSTAND SEATING  
 RANCHO CUCAMONGA, CALIFORNIA

**Southern**  
 BLEACHER COMPANY  
 801 Fifth Street  
 P.O. Box One, Graham, Texas 76450  
 Phone: 940.549.0733 Fax: 940.549.1365  
 ESTABLISHED 1946  
 GRANDSTANDS • BLEACHERS • STADIUMS

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 DETAIL NUMBER



**FOOTING LAYOUT**  
 SCALE: 3/32" = 1'-0"

- STAND OUTLINE
- GRID LINES
- CONCRETE



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DATE: 09/22/21  
 DRAWN BY: J. DUNCAN  
 CHECKED BY: J. DUNCAN  
 PROJECT NO: 19-000-000-000-000-000

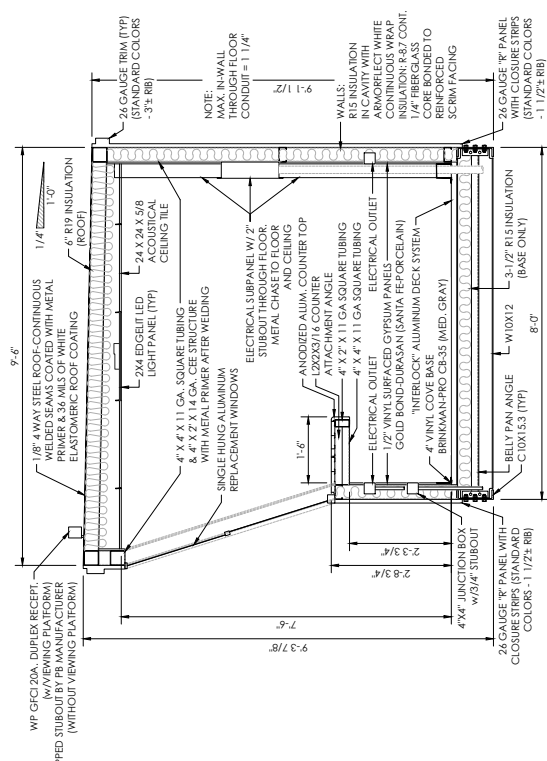
**SOUTHERN BLEACHER COMPANY**

801 Third Street  
 P.O. Box 200  
 Rancho Cucamonga, CA 91730  
 Phone: 909.905.0733 Fax: 909.905.0165

UNITED CHRISTIAN ACADEMY  
 RANDSTAD SEATING  
 RANCHO CUCAMONGA, CALIFORNIA

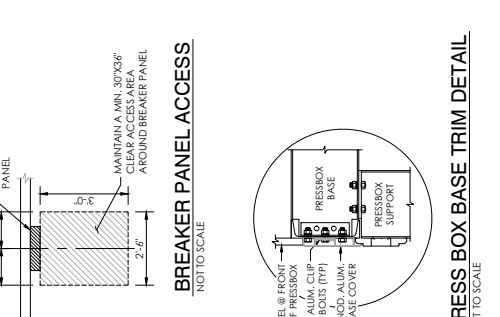
21SD185  
 SHEET 6 OF 6

DATE: 09/22/21  
 DRAWN BY: J. DUNCAN  
 CHECKED BY: J. DUNCAN



**SECTION VIEW**  
 SCALE: 3/4"=1'-0"

**NOTES:**  
 WALL PANELS ARE ATTACHED: #12 TEK SCREWS, #4 WASHER HEAD AND SEALER. SCREWS EACH SIDE OF HIGH RIB; 6 INTERMEDIATE & 6 BOTTOM.  
 LAP SCREWS ARE PLACED AT EACH END OF THE PANELS, AT THE INTERMEDIATE SUPPORT AND AT THE MID POINT BETWEEN SUPPORTS (TEK #14)



**PRESS BOX COLOR SELECTION SCHEDULE**

EXTERIOR SHEET METAL COMPONENTS	MATERIALS
EXTERIOR SIDING	HAWAIIAN BLUE
EXTERIOR SIDING	CHIMKOR RED
EXTERIOR SIDING	FERRI GREEN
EXTERIOR SIDING	BURNISHED SLATE
EXTERIOR SIDING	COBALT GREY
EXTERIOR SIDING	ASH GREY
EXTERIOR SIDING	SADDLE TAN
EXTERIOR SIDING	DESERT SAND
EXTERIOR SIDING	KOCHO BROWN
EXTERIOR SIDING	SOXAR WHITE
EXTERIOR SIDING	COBALT GREY
EXTERIOR SIDING	COBALT BLUE
EXTERIOR SIDING	KUSTIE RED
EXTERIOR SIDING	LIGHT STONE
WINDOW FRAMES	WHITE
WINDOW FRAMES	BRONZE
WINDOW FRAMES	TAN
WINDOW FRAMES	SILVER

**EXTERIOR DOORS**

**WINDOW / DOOR TRIM**

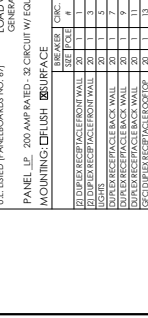
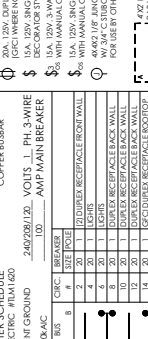
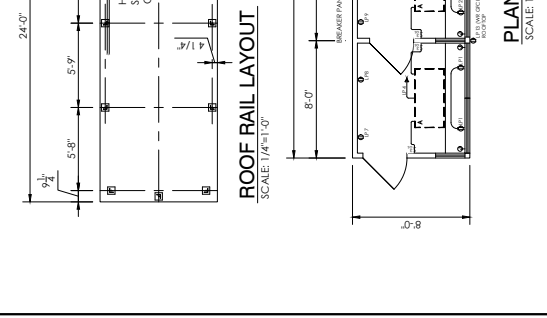
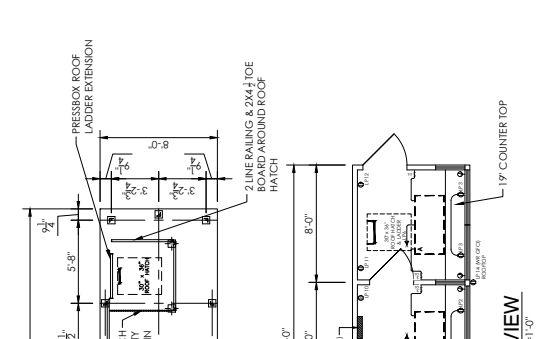
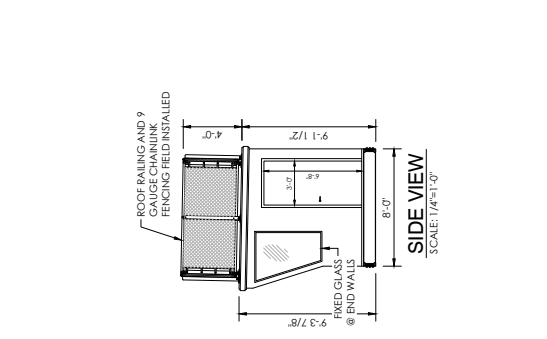
**ROOF TRIM**

**EXTERIOR SIDING**

**ROOF TRIM**

**EXTERIOR SIDING**

**EXTERIOR DOORS**



**LISTED PANEL BOARD NO. 471**

**LOAD CENTER SCHEDULE**

**GENERAL ELECTRIC - #M1620**

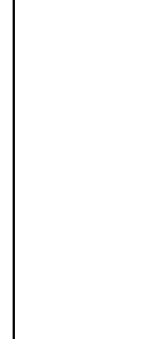
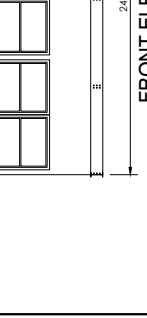
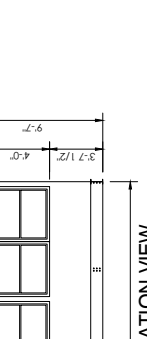
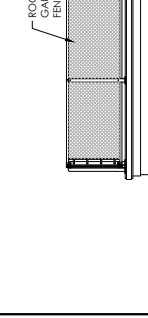
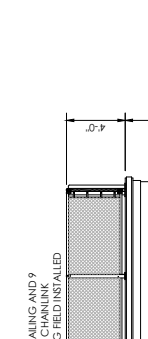
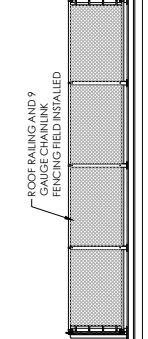
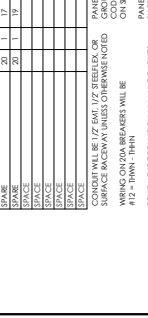
240/208/120 VOLTS 1 PH, 3 WIRE

300 AMP RATED, 32 CIRCUIT W/ EQUIPMENT GROUND

100 AMP MAIN BREAKER

BREAKER	CIR.	BUS	100 A.C.
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10
11	11	11	11
12	12	12	12
13	13	13	13
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26	26	26	26
27	27	27	27
28	28	28	28
29	29	29	29
30	30	30	30

**NOTES:**  
 1. ALL LISTED PANEL BOARD NO. 471  
 2. PANEL LE 300 AMP RATED, 32 CIRCUIT W/ EQUIPMENT GROUND  
 3. MOUNTING: CEILING SURFACE  
 4. BREAKER: 100 A.C.  
 5. CIRCUIT: 100 A.C.  
 6. BUS: 100 A.C.  
 7. 100 A.C. MAIN BREAKER  
 8. 100 A.C. MAIN BREAKER  
 9. 100 A.C. MAIN BREAKER  
 10. 100 A.C. MAIN BREAKER  
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 27. 100 A.C. MAIN BREAKER  
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 30. 100 A.C. MAIN BREAKER



**NOTES:**  
 1. ALL LISTED PANEL BOARD NO. 471  
 2. PANEL LE 300 AMP RATED, 32 CIRCUIT W/ EQUIPMENT GROUND  
 3. MOUNTING: CEILING SURFACE  
 4. BREAKER: 100 A.C.  
 5. CIRCUIT: 100 A.C.  
 6. BUS: 100 A.C.  
 7. 100 A.C. MAIN BREAKER  
 8. 100 A.C. MAIN BREAKER  
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 10. 100 A.C. MAIN BREAKER  
 11. 100 A.C. MAIN BREAKER  
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 27. 100 A.C. MAIN BREAKER  
 28. 100 A.C. MAIN BREAKER  
 29. 100 A.C. MAIN BREAKER  
 30. 100 A.C. MAIN BREAKER

# Abundant Living Family Church

Rancho Cucamonga, CA

## Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mag Height	Fixture Qty	Luminaire Type	Load	Circuit
F1-F2	70'	70'	3	TLC-LED-1200	3.51 kW	A
		70'	2	TLC-LED-900	1.78 kW	A
		20'	2	TLC-BT-575	1.15 kW	A
F3-F4	70'	70'	5	TLC-LED-1200	5.85 kW	A
		70'	1	TLC-LED-400	0.40 kW	B
		20'	2	TLC-BT-575	1.15 kW	A
<b>4</b>			<b>30</b>		<b>27.69 kW</b>	

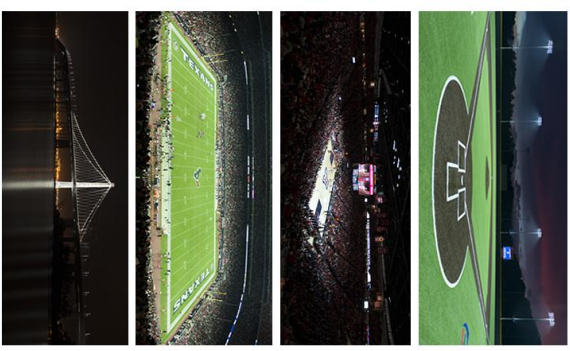
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Football	26.88 kW	28
B	Security	0.8 kW	2

Fixture Type Summary						
Type	Source	Wattage	Lumens	L90	L80	L70
TLC-LED-900	LED 5700K -75 CRI	890W	89,600	>120,000	>120,000	>120,000
TLC-BT-575	LED 5700K -75 CRI	575W	52,000	>120,000	>120,000	>120,000
TLC-LED-400	LED 5700K -75 CRI	400W	46,500	>120,000	>120,000	>120,000
TLC-LED-1200	LED 5700K -75 CRI	1170W	136,000	>120,000	>120,000	>120,000

## Light Level Summary

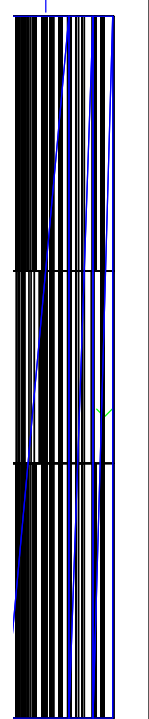
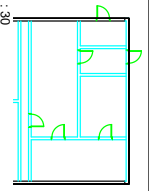
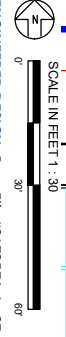
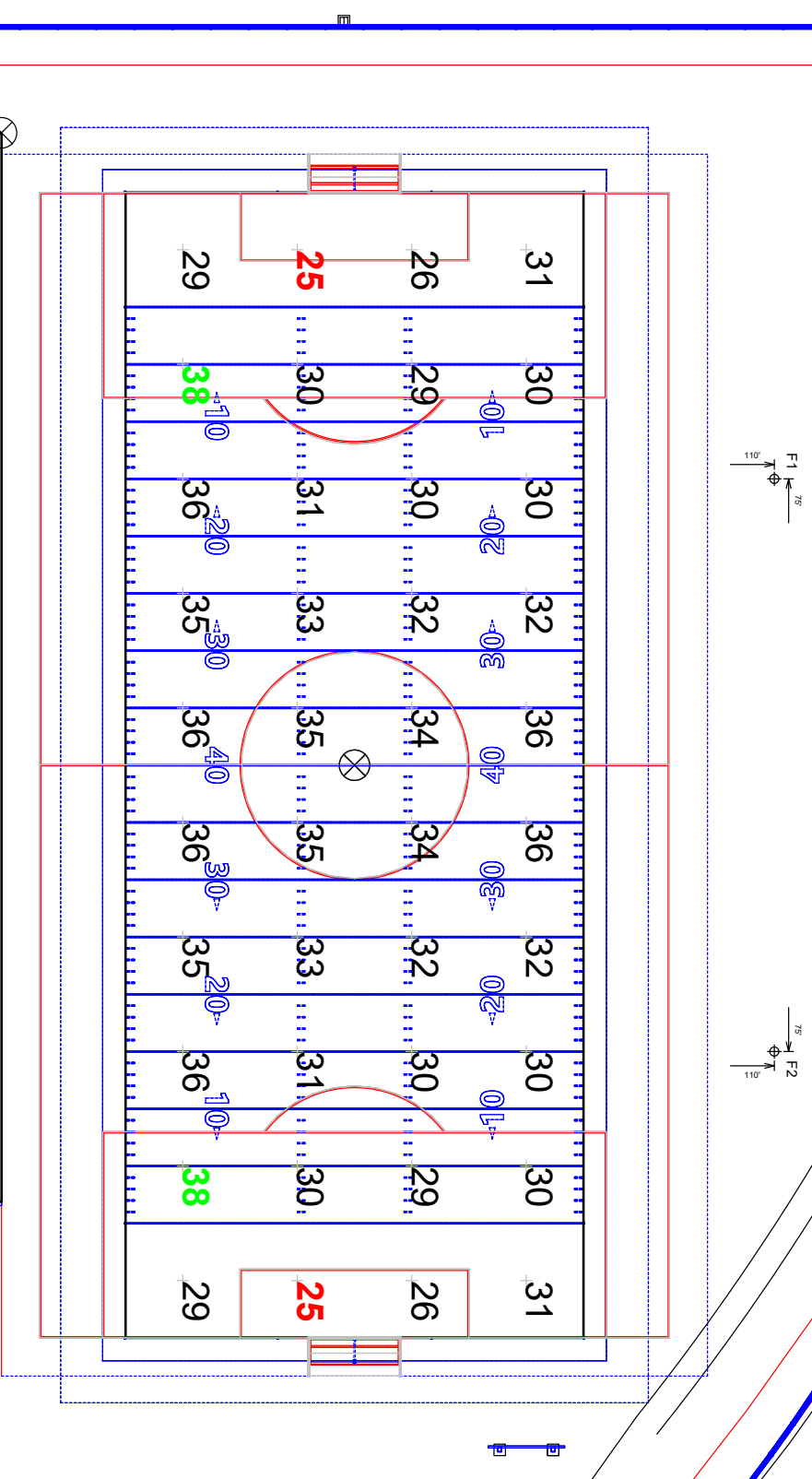
Calculation Grid Summary									
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty	
		Ave	Min	Max/Min	Avg/Min				
Basketball	Horizontal	6.23	0	43.2	0.00		A, B	30	
Beach/tennis Only	Horizontal Illuminance	5.97	0.70	12.2	16.49		B	2	
Bleacher	Horizontal Illuminance	27.7	1.20	36.7	29.61		A, B	30	
Football	Horizontal Illuminance	31.9	25	37.7	15.1		A, B	30	
Security	Horizontal	0.17	0	11.5	0.00		B	2	
Soccer	Horizontal Illuminance	32.9	25	42.4	17.0		A, B	30	

From Hometown to Professional



**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	LOCATION	POLE SIZE	GRADE ELEVATION	MOUNTING HEIGHT	Luminaires		
					TYPE	QTY / POLE	THIS OTHER GRID
2	F1-F2	70'	-	TLCLED-1200	2	2	0
				TLCBR-575	2	2	0
2	F3-F4	70'	-	TLCLED-900	5	5	0
				TLCLED-1200	2	2	0
				TLCBR-575	2	2	0
				TLCLED-400	1	1	0
<b>TOTALS</b>					<b>30</b>	<b>30</b>	<b>0</b>



Pole location(s)  $\Phi$  dimensions are relative to 0.00 reference point(s)  $\otimes$

**Abundant Living Family Church**  
 Rancho Cucamonga, CA

**GRID SUMMARY**

Name:	Football
Size:	300' x 120'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

**ILLUMINATION SUMMARY**

MAINTAINED HORIZONTAL FOOTCANDLES

Guaranteed Average:	30
Scan Average:	31.85
Maximum:	37.7
Minimum:	25.0
Avg / Min:	1.28
Guaranteed Max / Min:	2.5
Max / Min:	1.51
UG (adjacent pt.):	1.29
CU:	0.38
No. of Points:	40

LUMINAIRE INFORMATION

Applied Circuits:	A, B
No. of Luminaires:	30
Total Load:	27.68 kW

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

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA R9-6-15.

**Electrical System Requirements:** Refer to Amperage Data Chart provided for 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.

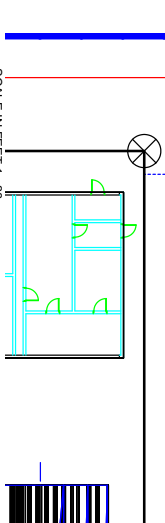
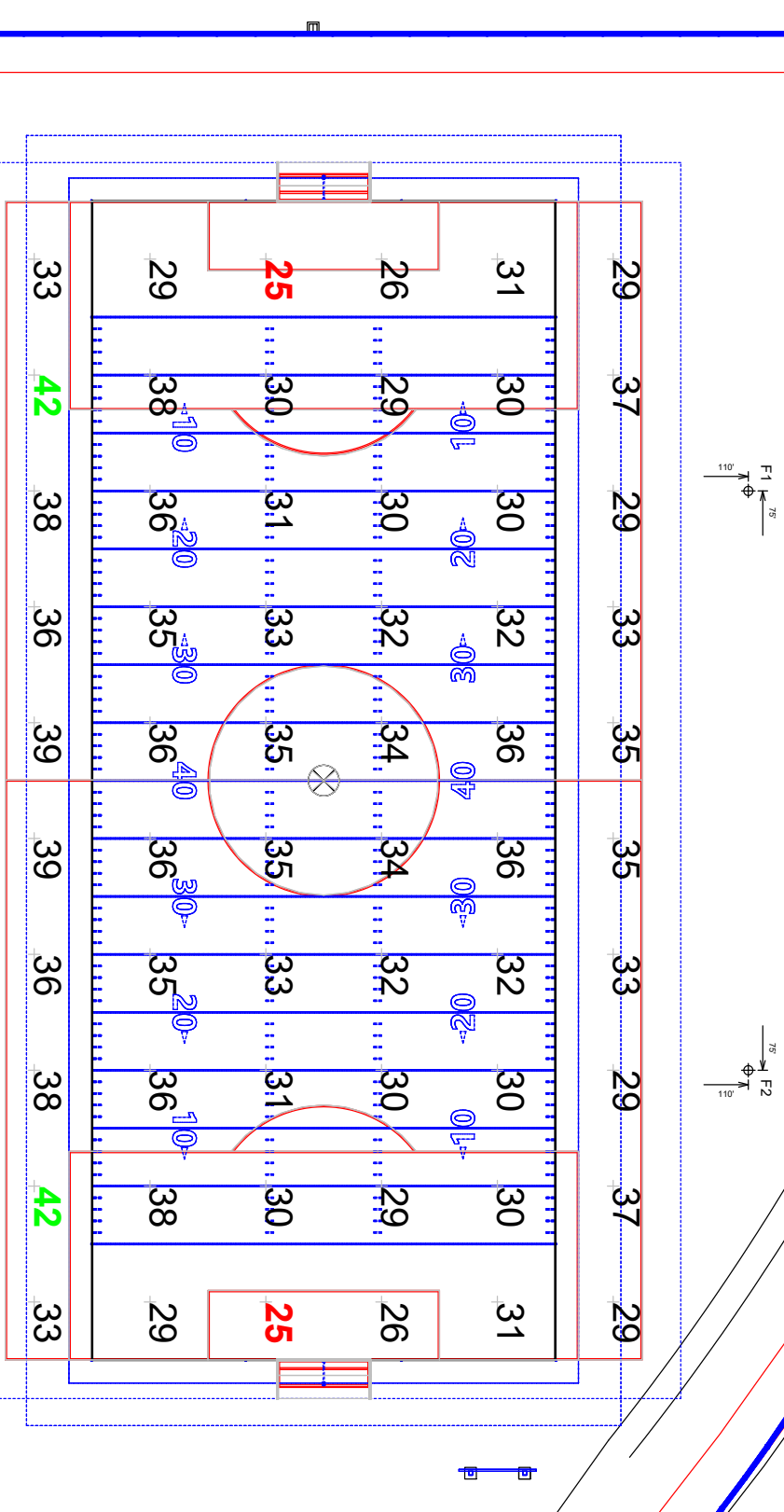
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ILLUMINATION SUMMARY

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**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	LOCATION	Pole	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			
						TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F1-F2	70'			20'	TLCLED-1200	2	2	0
					70'	TLCLED-900	2	2	0
2	F3-F4	70'			20'	TLCLED-1200	5	5	0
					20'	TLCLED-900	2	2	0
					20'	TLCLED-400	1	1	0
<b>4</b>						<b>TOTALS</b>	<b>30</b>	<b>30</b>	<b>0</b>



SCALE IN FEET 1 : 30  
ENGINEERED DESIGN BY: File #217357A1-1 27-Jan-22

**Abundant Living Family Church**  
Rancho Cucamonga, CA

**GRID SUMMARY**

Name:	Soccer
Size:	300' X 165'
Spacing:	30.0' X 30.0'
Height:	3.0' above grade

**ILLUMINATION SUMMARY**

MAINTAINED HORIZONTAL FOOTCANDLES	
Guaranteed Average:	30
Scan Average:	32.94
Maximum:	42.4
Minimum:	25.0
Avg / Min:	1.32
Guaranteed Max / Min:	2.5
Max / Min:	1.70
UG (adjacent ft.):	1.29
CU:	0.59
No. of Points:	60
Applied Grids:	A, B
No. of Luminaires:	30
Total Load:	27.68 kW

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

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

**Electrical System Requirements:** Refer to Ampereage Drop Chart provided for 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.

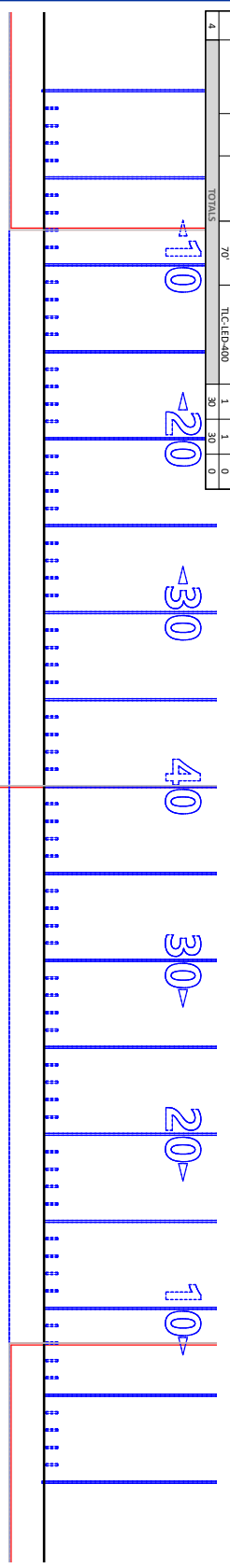


**ILLUMINATION SUMMARY**

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**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	LOCATION	Pole SIZE	GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			
					TYPE	QTY / POLE	THIS OTHER	
2	F1-F2	70"	-	20'	TLC-CLED-1200	2	2	0
2	F3-F4	70"	-	20'	TLC-CLED-900	5	5	0
				20'	TLC-CLED-1200	2	2	0
				20'	TLC-CLED-400	1	1	0
<b>TOTALS</b>						<b>30</b>	<b>30</b>	<b>0</b>



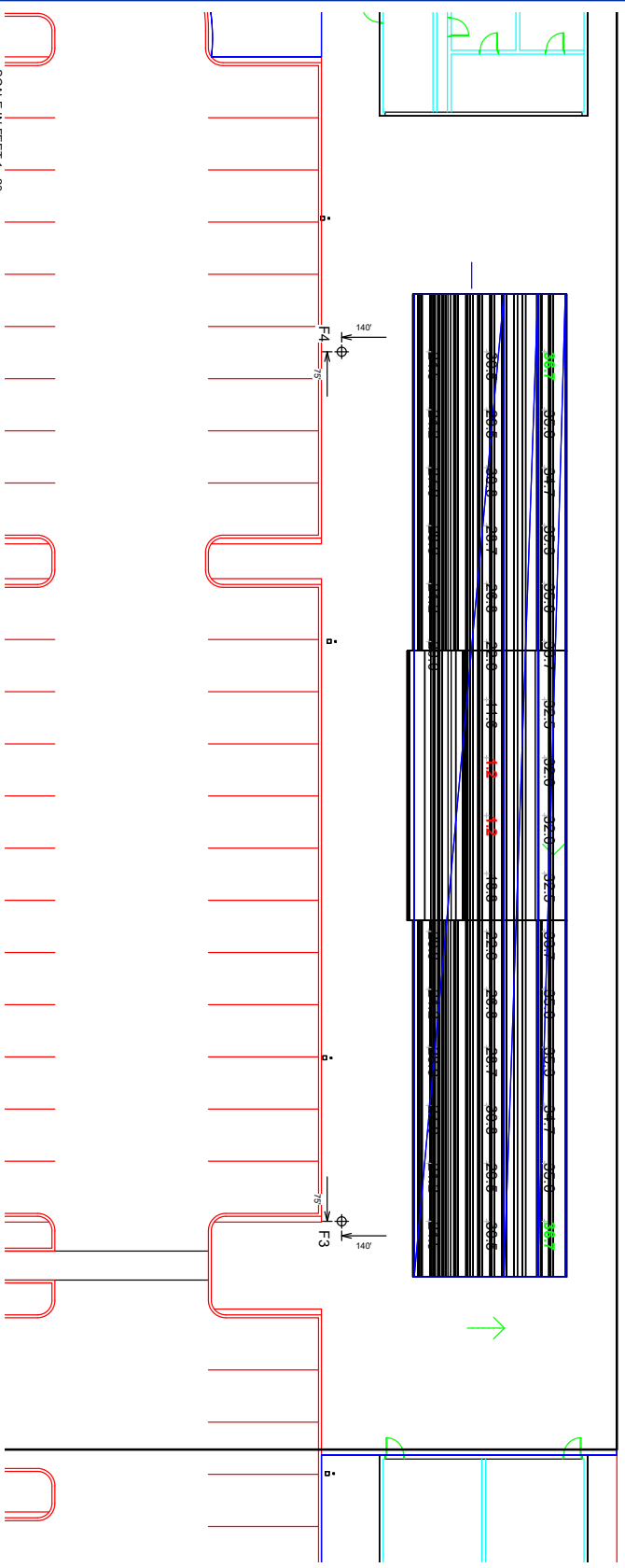
<b>GRID SUMMARY</b>	
Name:	Bleacher
Size:	300' x 120'
Spacing:	10.0' x 10.0'
Height:	13.5' above grade
<b>ILLUMINATION SUMMARY</b>	
MAINTAINED HORIZONTAL FOOTCANDLES	
Scan Average:	27.69
Maximum:	36.7
Minimum:	1.2
Avg / Min:	22.32
Max / Min:	29.61
UG (adjacent PSI):	0.00
CU:	0.04
No. of Points:	44
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	30
Total Load:	27.68 kW

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

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

**Electrical System Requirements:** Refer to amp/phase 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) ⊗

ENGINEERED DESIGN BY: File #217357A1 - 27-Jan-22

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**ILLUMINATION SUMMARY**

# Abundant Living Family Church

Rancho Cucamonga, CA

GRID SUMMARY	
Name:	Blanket Spill
Spacing:	100' x 100'
Height:	3.0' above grade

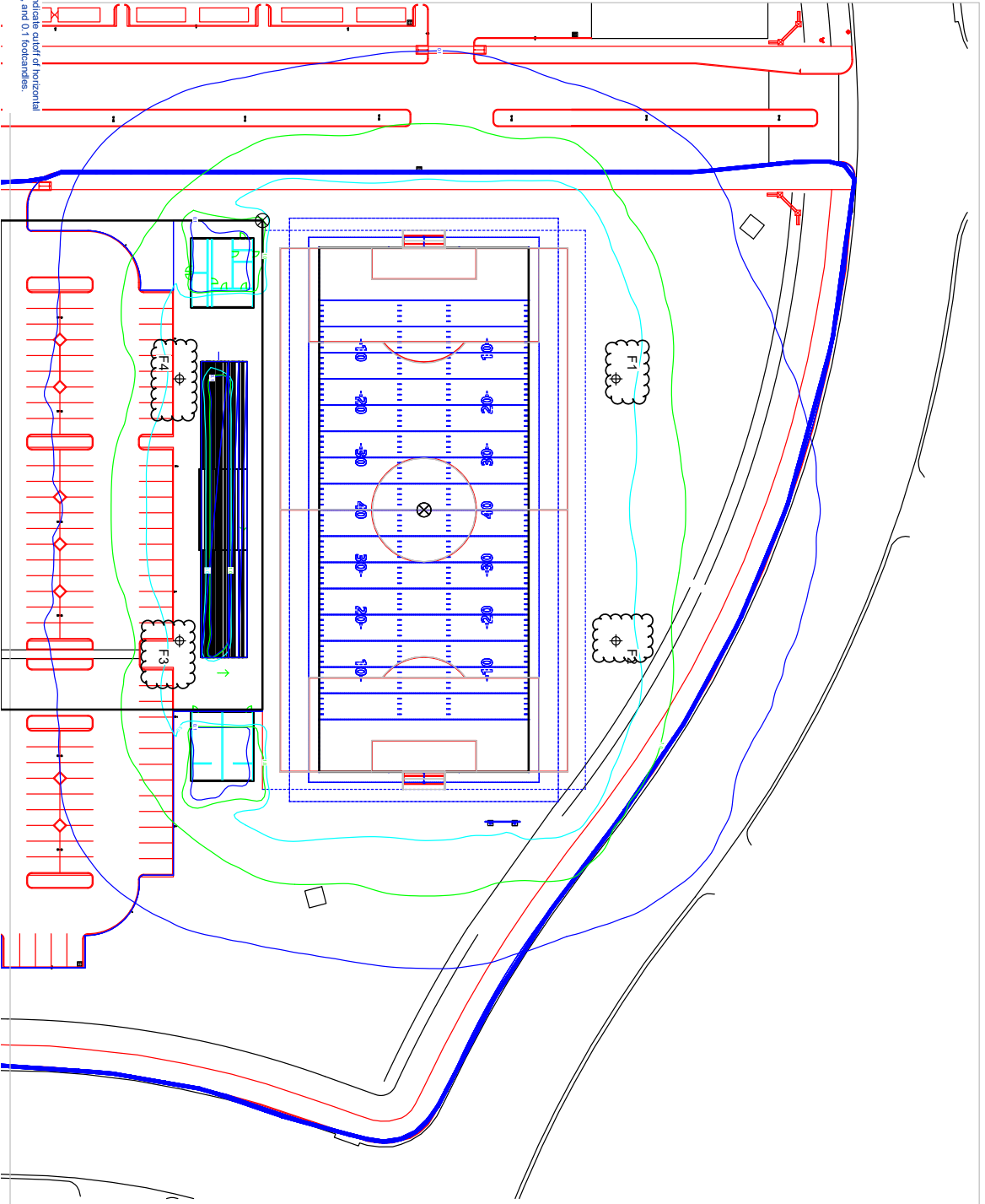
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Scan Average:	6.23
Maximum:	43.2
Minimum:	0.0
Avg / Min:	-
Max / Min:	-
UG Irradiant (fc-ft):	11739.32
CU:	0.80
No. of Points:	3854
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	30
Total Load:	27.68 kW

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

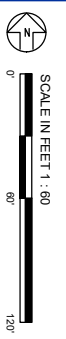
**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA Rm 6-15.

**Electrical System Requirements:** Refer to Amperege 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.



NOTES: Contour lines indicate cutoff of horizontal light at 5.0, 1.0, and 0.1 footcandles.



SCALE IN FEET 1 : 60

ENGINEERED DESIGN BY: File #217357A1 - 27-Jan-22

Pole location(s)  $\Phi$  dimensions are relative to 0.0 reference point(s)  $\otimes$

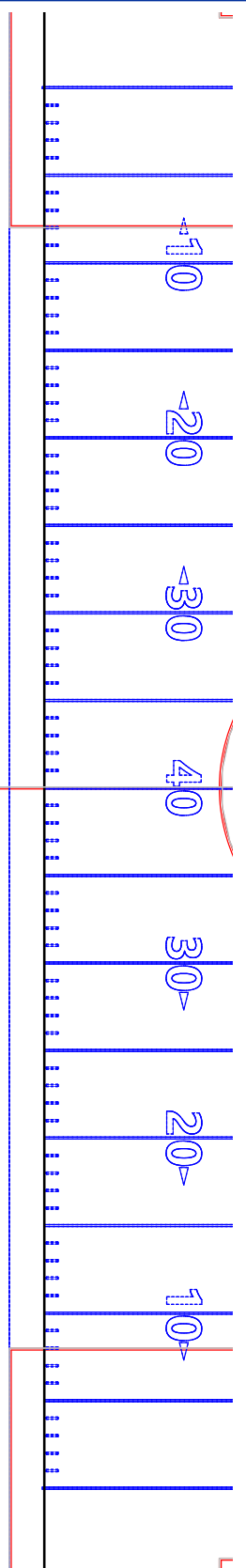
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**ILLUMINATION SUMMARY**

**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	LOCATION	Pole SIZE	GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			
					TYPE	QTY / LUMINAIRE	THIS	OTHER
2	F3-F4	70"	-	20'	TTC-LED-120	2	0	2
				70'	TTC-LED-275	1	1	0
					TTC-LED-400	1	2	14
<b>TOTALS</b>						<b>36</b>	<b>2</b>	<b>14</b>



GRID SUMMARY	
Name:	Bleacher Security Only
Spacing:	10.0' x 10.0'
Height:	12.3' above grade

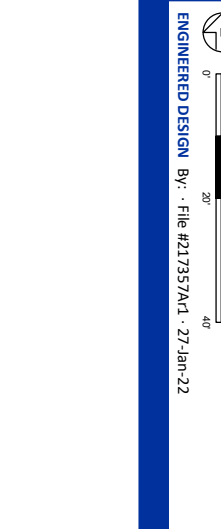
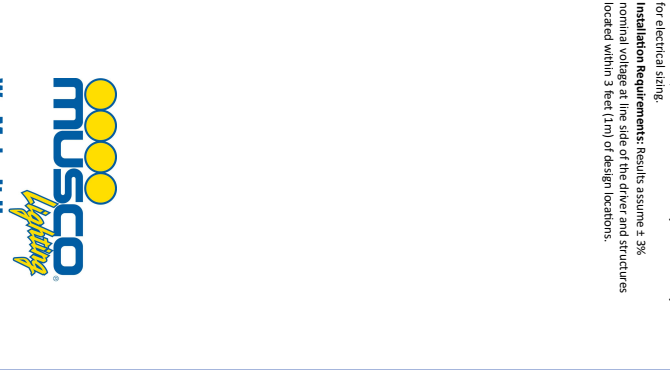
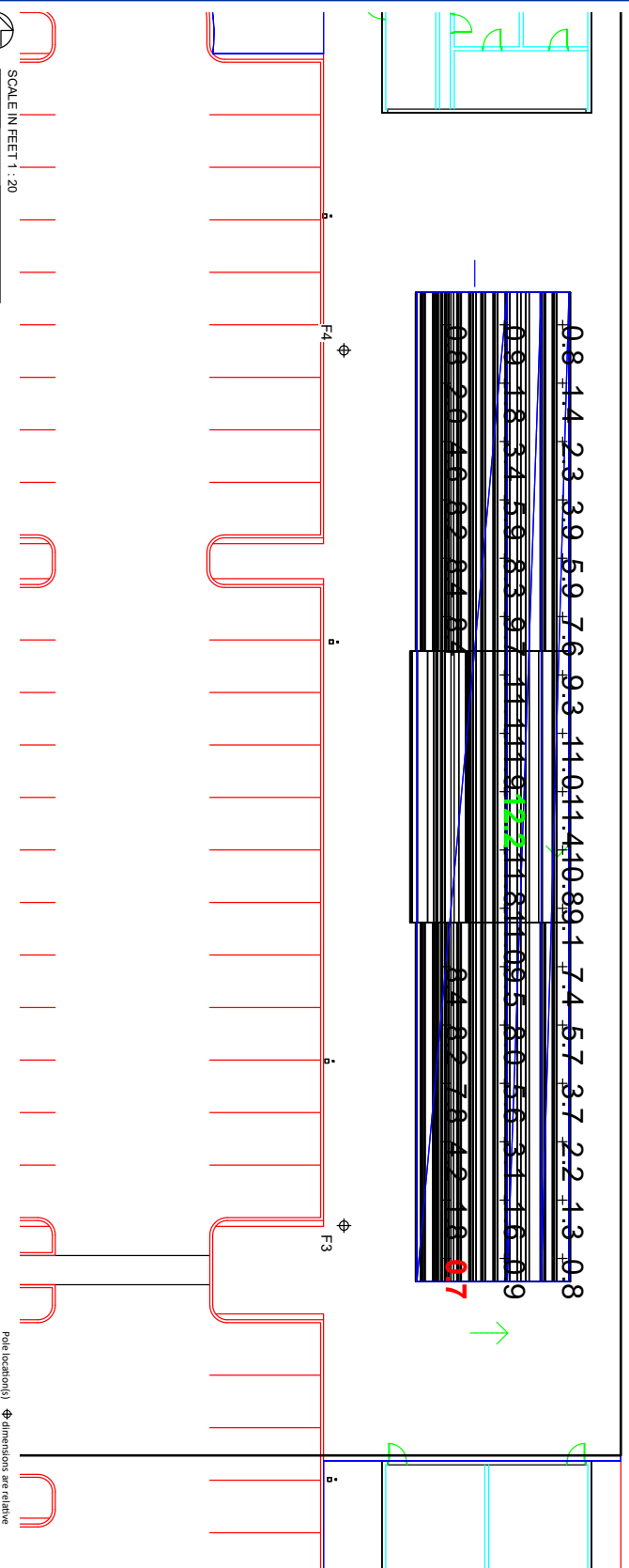
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Scan Average:	5.97
Maximum:	12.2
Minimum:	0.7
Avg / Min:	8.06
Max / Min:	16.49
UG Irradiant (f3):	0.00
CU:	0.30
No. of Points:	46
LUMINAIRE INFORMATION	
Applied Circuits:	B
No. of Luminaires:	2
Total Load:	0.8 kW

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

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

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

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



ENGINEERED DESIGN By: File #217357A1 - 27-Jan-22

**Abundant Living Family Church**  
 Rancho Cucamonga, CA

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**ILLUMINATION SUMMARY**

# Abundant Living Family Church

Rancho Cucamonga, CA

**GRID SUMMARY**  
 Name: Security  
 Spacing: 10.0' x 10.0'  
 Height: 3.0' above grade

## ILLUMINATION SUMMARY

**MAINTAINED HORIZONTAL FOOTCANDLES**

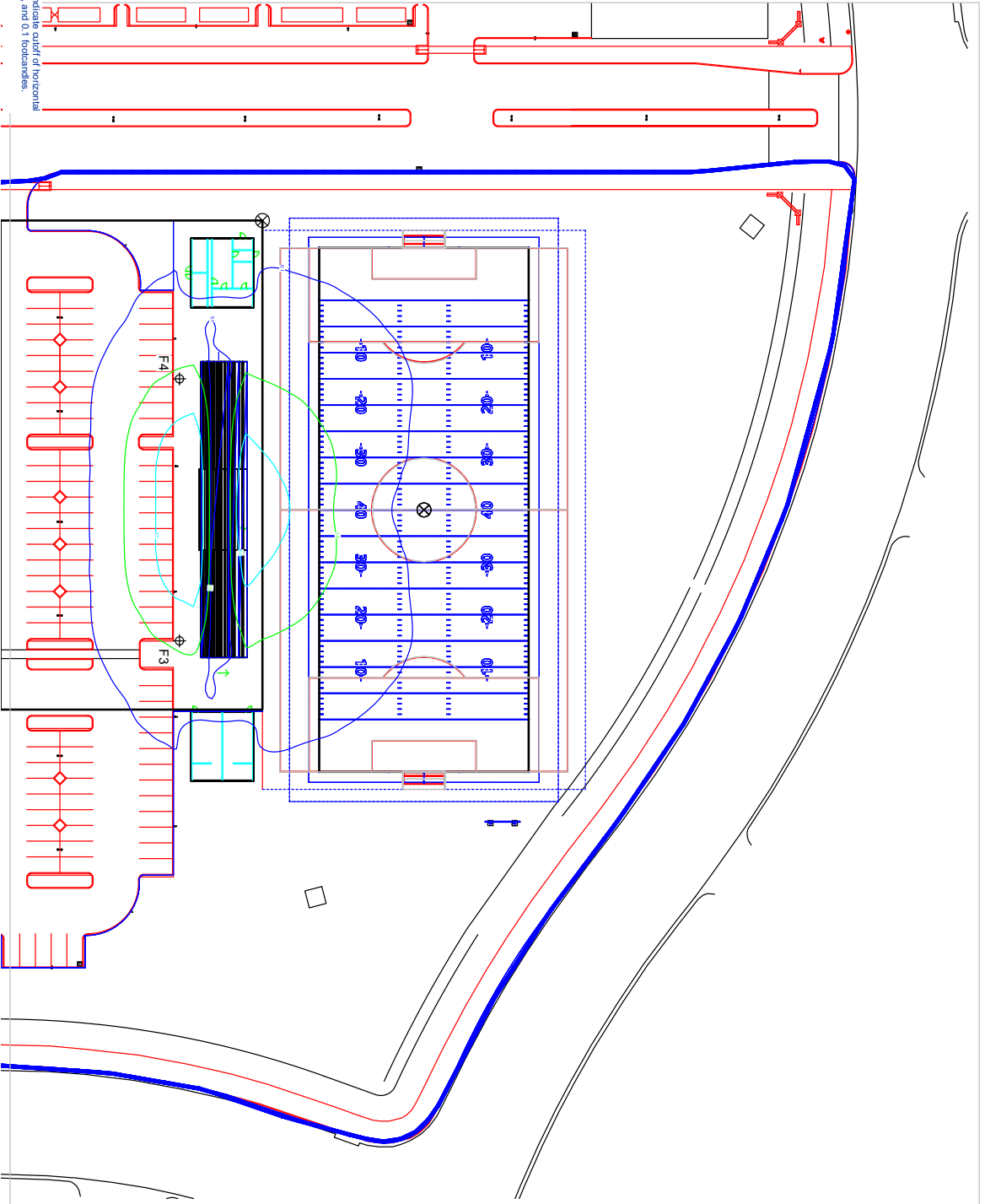
<b>Scan Average:</b>	<b>Entire Grid</b>	<b>0.17</b>
Maximum:	11.5	
Minimum:	0.0	
Avg / Min:	-	
Max / Min:	-	
UG Irradiant (fc-ft):	42.92	
CU:	0.74	
No. of Points:	3854	
<b>LUMINAIRE INFORMATION</b>		
Applied Circuits:	B	
No. of Luminaires:	2	
Total Load:	0.8 kW	

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

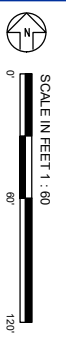
**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA Rm 6-15.

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

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



NOTES: Centre lines indicate cutoff of horizontal light at 5.0, 1.0, and 0.1 footcandles.



ENGINEERED DESIGN BY: File #217357A1 - 27-Jan-22

Pole location(s) Ⓢ dimensions are relative to 0.0 reference point(s) ⊗

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**ILLUMINATION SUMMARY**



# Abundant Living Family Church

Rancho Cucamonga, CA

## EQUIPMENT LAYOUT

- INCLUDES:**
- Football
  - MUGA-2
  - Soccer

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

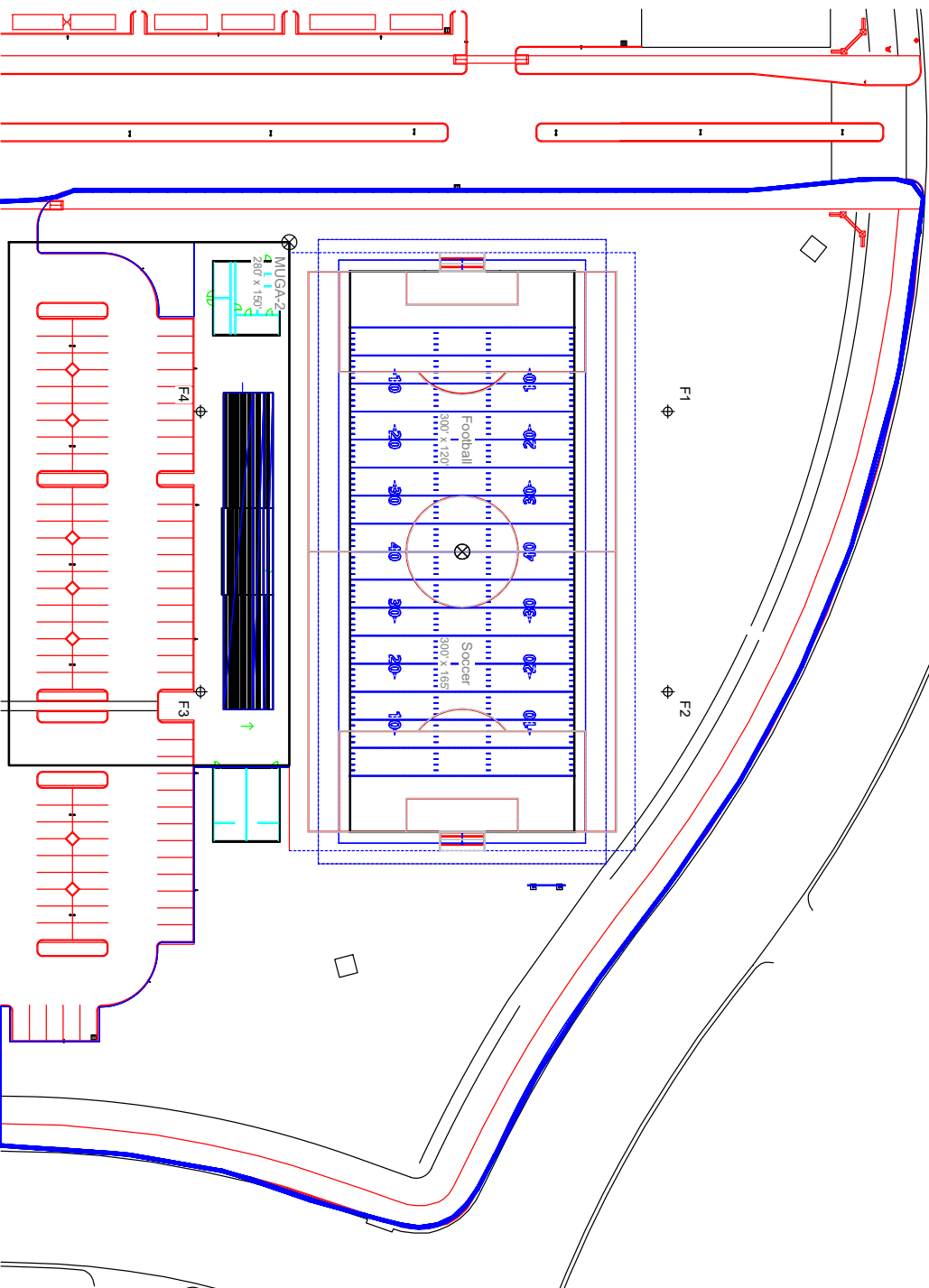
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

### EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	POLE SIZE	WORKING HEIGHT	LUMINAIRE TYPE	QTY
2	F1+F2	70"	70"	TICLED-1200	3
2	F3+F4	70"	70"	TICBR-575	2
2	F3+F4	70"	70"	TICLED-900	2
2	F3+F4	70"	70"	TICLED-1200	2
2	F3+F4	70"	70"	TICBR-575	2
2	F3+F4	70"	70"	TICLED-480	2
<b>4</b>	<b>TOTALS</b>				<b>30</b>

### SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications	Line Amperage Per Luminaire			
(at 120V Power Factor)	(at 240V Power)			
Single Phase Voltage	208	220	240	277
TICLED-900	5.3	5.0	4.6	4.0
TICBR-575	3.4	3.2	2.9	2.5
TICLED-480	2.3	2.2	2.0	1.7
TICLED-1200	7.0	6.6	6.1	5.2



Pole location(s) Ⓞ dimensions are relative to 0.0 reference point(s) ⊗



SCALE IN FEET 1 : 60  
ENGINEERED DESIGN BY: File #21737A11 - 27-Jan-22



# Control System Summary

## Project Information

**Project Specific Notes:**  
 FLA for security fixtures calculated at  
 277V/1Ph

Project #: 217357  
 Project Name: Abundant Living Family Church  
 Date: 01/27/22  
 Project Engineer: Brendon Guler  
 Sales Representative: Mike Higgins  
 Control System Type: Control-Link™ Control and Monitoring System  
 Communication Type: PowerLine-ST  
 Scan: 217357Ar1  
 Document ID: 217357P1V2-0127115614  
 Distribution Panel Location or ID: LED C&M  
 Total # of Distribution Panel Locations for Project: 1  
 Design Voltage/Hertz/Phase: 480/60/3  
 Control Voltage: 120

## Equipment Listing

DESCRIPTION	APPROXIMATE SIZE
1.Control and Monitoring Cabinet	24 X 48
	<b>QTY SIZE (AMPS)</b>
Total Contactors	5 30 AMP
Total Off/On/Auto Switches:	2

*Preliminary Plan  
 Confirm all Details - voltage,  
 # of distribution panels, etc.*

### Materials Checklist

#### Contractor/Customer Supplied:

- A dedicated control circuit must be supplied per distribution panel location
  - If the control voltage is NOT available, a control transformer is required
- Electrical distribution panel to provide overcurrent protection for circuits
  - HID rated or D-curve circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- Wiring
  - See chart on page 2 for wiring requirements
  - Equipment grounding conductor and splices must be insulated (per circuit)
  - Lightning ground protection (per pole), if not Musco supplied
- Electrical conduit wireway system
  - Entrance hubs rated NEMA 4, must be die-cast zinc, PVC, or copper-free die-cast aluminum
- Mounting hardware for cabinets
- Breaker lock-on device to prevent unauthorized power interruption to control power and powerline connection (if present)
- Anti-corrosion compound to apply to ends of wire, if necessary

Call Control-Link Central™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation.

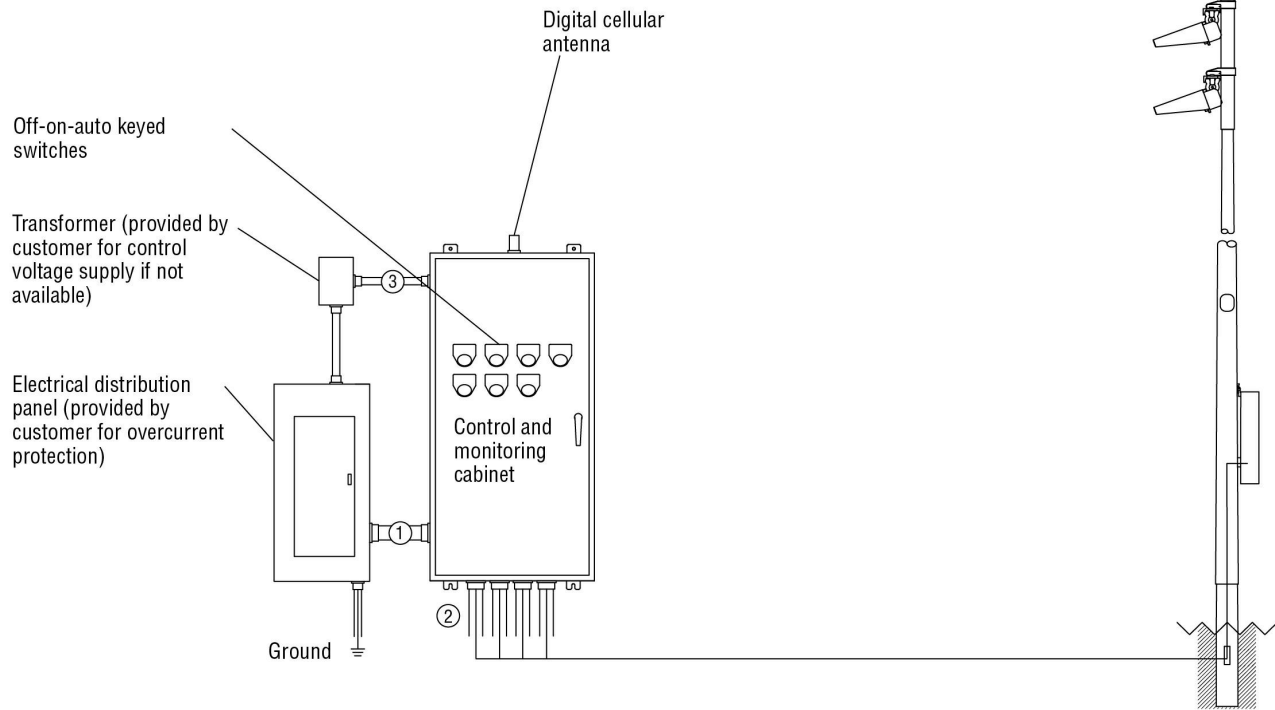
Note: Activation may take up to 1 1/2 hours.

### IMPORTANT NOTES

1. Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
2. In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
3. One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are 100% rated for the published continuous load. All contactors are 3 pole.
4. If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
5. A single control circuit must be supplied per control system.
6. Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements.

## Control-Link. Control and Monitoring System



Conduit ID	Description	# of Wires	Wire (AWG)	Conduit (in)	Max. Wire Length (ft)	MUSCO Supplied	Notes
1	Line power to contactors, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
2	Load power to lighting circuits, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
3	Control power (dedicated, 20A)	3	12	*C	N/A	No	C,E

\* Notes:

- A. See voltage and phasing per the notes on cover page.
- B. Calculate per load and voltage drop.
- C. All conduit diameters should be per code unless otherwise specified to allow for connector size.
- D. Equipment grounding conductor and any splices must be insulated.
- E. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.

IMPORTANT: Control wires (3) must be in separate conduit from line and load power wires (1, 2).



# Control System Summary

Abundant Living Family Church / 217357 - 217357Ar1  
LED C&M - Page 3 of 4

## SWITCHING SCHEDULE

Field/Zone Description	Zones
<b>Football</b>	<b>1,2</b>
-Football	1
-Security	2

CONTROL POWER CONSUMPTION	
120V Single Phase	
VA loading of Musco Supplied Equipment	INRUSH: 1798.0
	SEALED: 205.8

## CIRCUIT SUMMARY BY ZONE

POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
F1	Football	7	7	10.5	30	C1	1
F2	Football	7	7	10.5	30	C2	1
F3	Football	7	7	11.8	30	C3	1
F4	Football	7	7	11.8	30	C4	1
F3,F4	Security	2	2	3.5	30	C5	2

\*Full Load Amps based on amps per driver.



# Control System Summary

Abundant Living Family Church / 217357 - 217357Ar1  
LED C&M - Page 4 of 4

PANEL SUMMARY						
CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)
1	1	C1	Pole F1	10.47		
1	1	C2	Pole F2	10.47		
1	1	C3	Pole F3	11.75		
1	1	C4	Pole F4	11.75		
1	1	C5	Pole F3,F4	3.46		

ZONE SCHEDULE				
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	CIRCUIT DESCRIPTION	
			POLE ID	CONTACTOR ID
Zone 1	1	Football	F1	C1
			F2	C2
			F3	C3
			F4	C4
Zone 2	2	Security	F3	C5
			F4	C5

