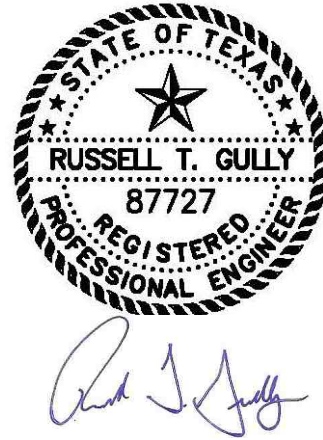


ADDENDUM NUMBER 1

Date: March 16, 2026
Project: SAISD Athletic Fields Project
Engineer: SKG Engineering, LLC
F-7608
To: Prospective Bidders



This Addendum forms a part of the Contract Documents and modifies the Bidding Document with amendments and additions noted below.

This Addendum Consist of the following Clarifications and Changes to Bidding Requirements and Contract Forms:

1. See attached Sheets:
 - D-C1.1 SITE PLAN CENTRAL TENNIS & BAND PRACTICE FIELD
 - D-LE1.0 CENTRAL TENNIS LIGHTING SCHEDULES & DETAILS
 - D-LE1.1 CENTRAL TENNIS LIGHTING SCHEDULES & DETAILS
 - D-LE1.2 CENTRAL TENNIS LIGHTING SCHEDULES & DETAILS
 - D-LE2 CENTRAL TENNIS LIGHTING PLAN
 - G-LE1.0 LAKE VIEW FOOTBALL FIELD LIGHTING SCHEDULES & DETAILS
 - G-LE1.1 LAKE VIEW FOOTBALL FIELD LIGHTING SCHEDULES & DETAILS
 - G-LE1.2 LAKE VIEW FOOTBALL FIELD LIGHTING SCHEDULES & DETAILS
 - G-LE2 LAKE VIEW FOOTBALL FIELD LIGHTING PLAN
 - H-C1.1 SITE PLAN LAKE VIEW TENNIS
 - H-C2.1 GRADING PLAN LAKE VIEW TENNIS
 - H-LE1.0 LAKE VIEW TENNIS LIGHTING SCHEDULES & DETAILS
 - H-LE1.1 LAKE VIEW TENNIS LIGHTING SCHEDULES & DETAILS
 - H-LE1.2 LAKE VIEW TENNIS LIGHTING SCHEDULES & DETAILS
 - H-LE2 LAKE VIEW TENNIS LIGHTING PLAN
 - I-C0.1 TOPO OLD BOBCAT STADIUM
 - J-C1.1 SITE PLAN LINCOLN
 - J-C2.1 GRADING – DRAINAGE PLAN LINCOLN
2. See attached specifications:
 - 32 18 24 Synthetic Running Tract Surface
 - 32 18 26 Tennis Court Surfacing

END OF ADDENDUM NUMBER 1



PROJECT:	2604
DATE©	03/12/26
DRAWN	RJ

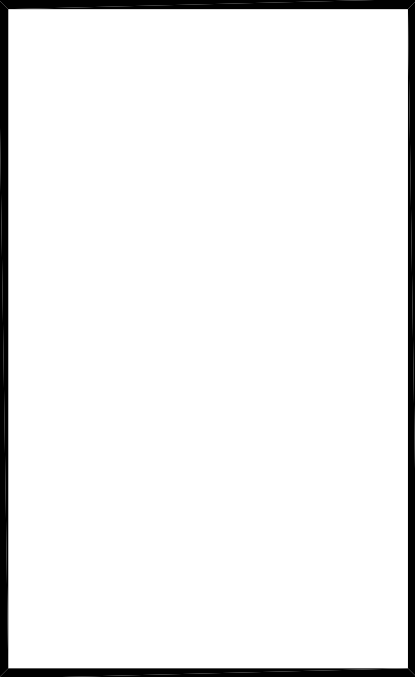
CENTRAL HIGH SCHOOL TENNIS COURTS

SAISD

1919 KNICKERBOCKER SAN ANGELO, TX



03-12-26



SHEET NO.

D-LE1.0

1 OF 12

GENERAL ELECTRICAL NOTES

A. ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE 2020 NATIONAL ELECTRICAL CODE AND LOCAL CODES.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO MINIMIZE CONFLICTS.

C. ALL WIRE AND CABLE SIZES ARE FOR COPPER. ALUMINIUM WILL NOT BE ALLOWED. MINIMUM WIRE SIZE IS #12. TYPE AC AND TYPE MC CABLE ARE NOT ALLOWED. ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT. TYPE EMT CONDUIT IS NOT ALLOWED.

D. NO CONDUCTOR SHALL BE LOADED BEYOND ITS ALLOWABLE AMPACITY.

E. CONFIRM WITH LOCAL CODES, MECHANICAL CONTRACTOR AND EQUIPMENT VENDORS ON THE LOCATION AND MOUNTING METHOD FOR DISCONNECT SWITCHES, MANUAL MOTOR STARTERS, COMBINATION STARTER/DISCONNECTS, ETC. PRIOR TO ELECTRICAL ROUGH-IN AND INSTALLATION.

F. ELECTRICAL CONTRACTOR SHALL DOUBLE CHECK ALL FEEDER CONDUCTOR AND CONDUIT SIZES WITH NEC AND LOCAL CODES PRIOR TO BID, ORDERING OR CUTTING CONDUCTORS.

G. ALL DEVICES INSTALLED EXPOSED TO WEATHER SHALL BE WEATHERPROOF.

H. UNLESS OTHERWISE NOTED, BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER (THHN OR EQUAL) SIZED AS FOLLOWS:

BREAKER RATING	WIRE SIZE
20 AMP	#12 AWG
30	#10
40	#8
50	#6
60	#6
70	#4
80	#4
90	#3
100	#2
110	#2
125	#1
150	#1/0
175	#2/0
200	#3/0

ALL BRANCH CIRCUITS WITH AN OVERALL LENGTH IN EXCESS OF 75 FEET SHALL BE INCREASED IN WIRE SIZE TO ACCOMMODATE VOLTAGE DROP.

I. INSTALL MARKING TAPE IN TRENCH FOR ALL UNDERGROUND UTILITIES.

J. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO OWNER PROVIDED EQUIPMENT.

K. DRAWINGS ARE SCHEMATIC IN NATURE AND MAY NOT BE DRAWN EXACTLY TO SCALE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES WITH EXISTING CONDITIONS AND ALL OTHER TRADES TO AVOID SPACING OR ROUTING PROBLEMS.

ELECTRICAL ABBREVIATIONS

A	AMPERES	MAX	MAXIMUM
A/C	AIR CONDITIONING	MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
AUX	AUXILIARY	MDP	MAIN DISTRIBUTION PANEL
ATS	AUTOMATIC TRANSFER SWITCH	MECH	MECHANICAL
AWG	AMERICAN WIRE GAGE	MIN	MINIMUM
		MISC	MISCELLANEOUS
		MLO	MAIN LUG ONLY
		MSB	MAIN SWITCHBOARD
		MTD	MOUNTED
BLDG	BUILDING		
C	CONDUIT		
CB	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
CCIV	CLOSED CIRCUIT TELEVISION	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
CKT	CIRCUIT		
CLG	CEILING		
		NF	NON FUSED
DWG	DRAWING	NIC	NOT IN CONTRACT
EA	EACH	N.C.	NORMALLY CLOSED
EC	ELECTRICAL CONDUIT	N.O.	NORMALLY OPEN
EF	EXHAUST FAN	NO	NUMBER
ELEC	ELECTRIC/ELECTRICAL	NTS	NOT TO SCALE
EMT	ELECTRICAL METALLIC TUBING		
EPO	EMERGENCY POWER OFF	OC	ON CENTER
EQUIP	EQUIPMENT		
EWC	ELECTRIC WATER COOLER	PF	POWER FACTOR
		PH	PHASE
FA	FIRE ALARM	PNL	PANEL
FACP	FIRE ALARM CONTROL PANEL	PVC	POLYVINYL CHLORIDE
G	GROUND	RECPT	RECEPTACLE
GFI	GROUND FAULT INTERRUPT	REF	REFER TO
		RGS	RIGID GALVANIZED STEEL
HP	HORSEPOWER		
HVAC	HEATING/VENTILATION/ AIR CONDITIONING	TYP	TYPICAL
		UL	UNDERWRITER'S LABORATORIES
IG	ISOLATED GROUND		
IMT	INTERMEDIATE METAL	UON	UNLESS OTHERWISE NOTED
J-BOX	JUNCTION BOX	V	VOLTS
		VA	VOLT-AMPERES
KVA	KILOVOLT-AMPERES		
KW	KILOWATTS	WP	WEATHERPROOF

CENTRAL HIGH SCHOOL TENNIS COURTS
LIGHTING SYSTEM

STRUCTURE/FIXTURE SUMMARY						
STRUCTURE ID	STRUCTURE HEIGHT	FIX. ATTACHMENT HT.	FIXTURE QTY/POLE	FIXTURE TYPE	LOAD	CIRCUIT
T1-T4	40'	40'	2	TLC-LED-900	1.76 kW	A
4 (TOTAL)			8 (TOTAL)		7.04 kW (TOTAL)	

CIRCUIT SUMMARY			
CIRCUIT	DESCRIPTION	LOAD	FIXTURE QTY
A	TENNIS	7.04 kW	8

FIXTURE TYPE SUMMARY					
TYPE	CIRCUIT	SOURCE	WATTAGE	LUMENS	QUANTITY
TLC-LED-900	A	LED 5700K-75 CRI	880W	104,000	8

SINGLE FIXTURE AMPERAGE DRAW CHART	
DRIVER SPECIFICATIONS (.90 MIN POWER FACTOR)	LINE AMPERAGE PER FIXTURE (MAX DRAW)
THREE PHASE VOLTAGE	480 (60)
TLC-LED-900	2.3

CENTRAL TENNIS LIGHTING SCHEDULES & DETAILS

NO SCALE

MEP PROJECT #2604

Power Systems

P.O. Box 2863
San Angelo, Texas 76902
325-659-2235
FIRM NO. P-8257

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IFICATIONS ARE IN DIRECT CONFLICT WITH SUCH LAWS AND/OR ORDINANCES, THE LAWS
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CENTRAL HIGH SCHOOL TENNIS COURTS
SAISD
1919 KNICKERBOCKER SAN ANGELO, TX



03-12-26

MEP PROJECT #2604

Power Systems

P.O. Box 2863
San Angelo, Texas 76902
325-659-2235
FIRM NO. F-6257

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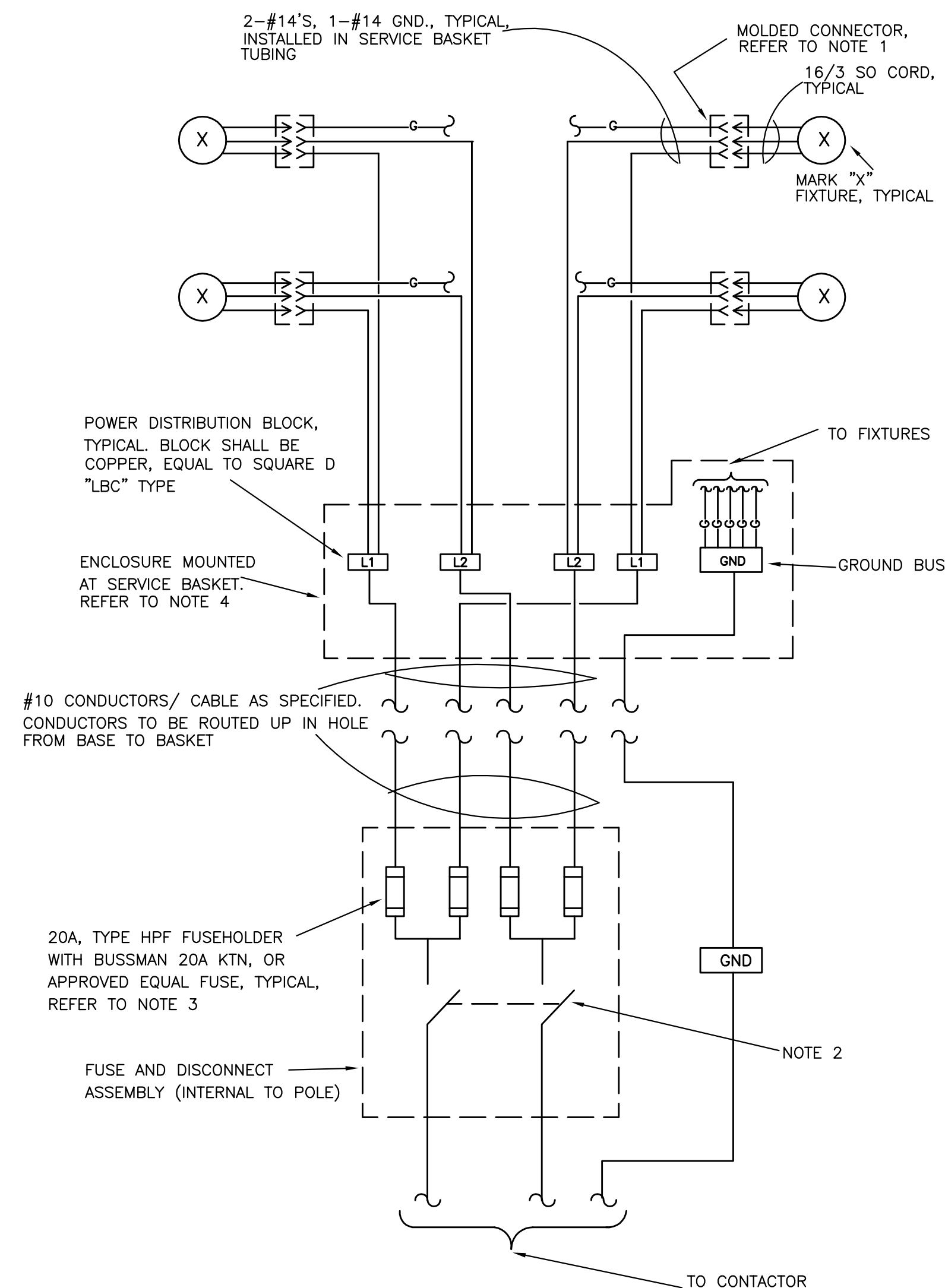
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SHEET NO.

D-LE1.2

3 OF 12



TYPICAL POLE WIRING DIAGRAM

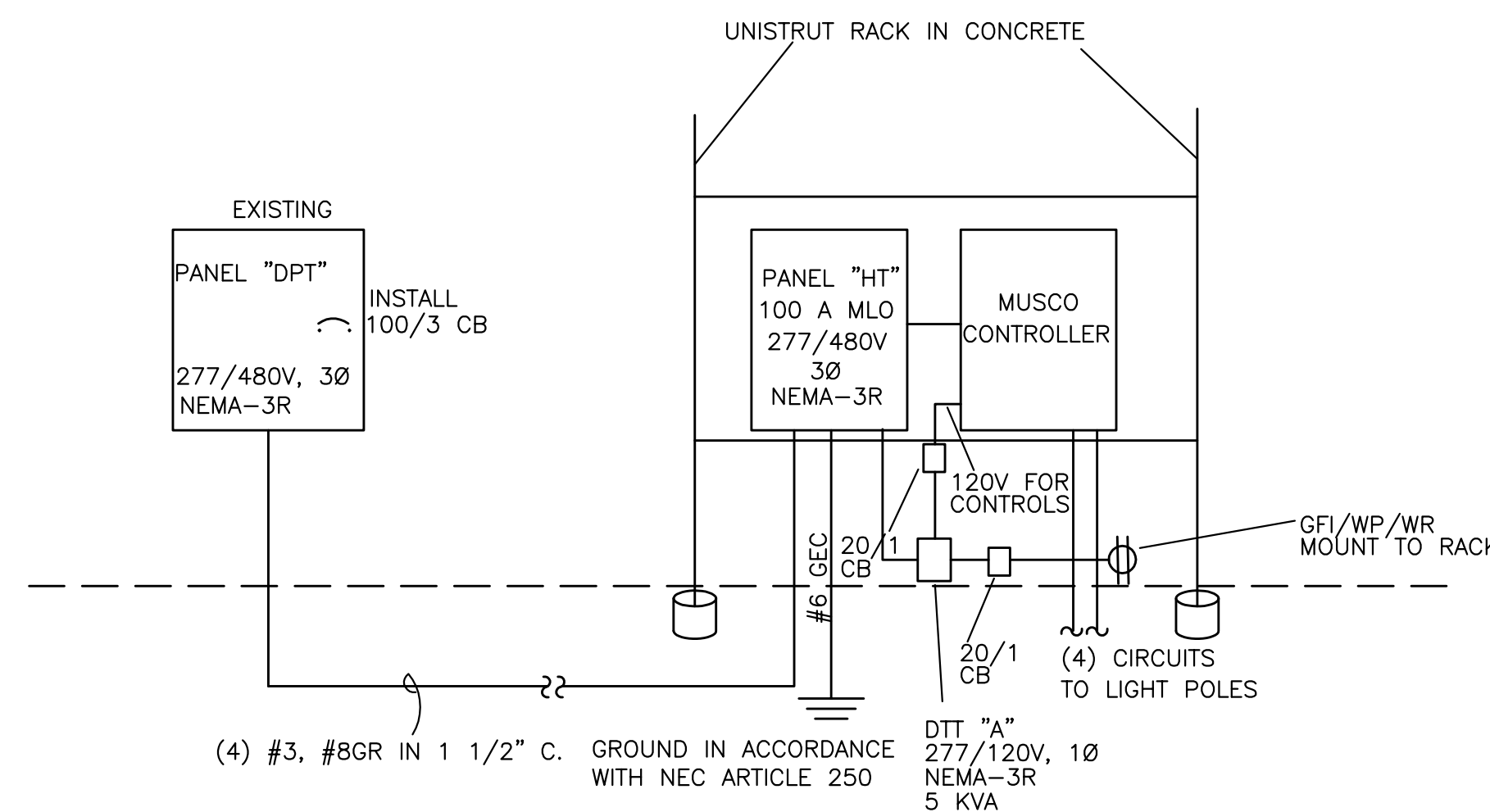
NO SCALE

NOTES:

1. RECEPTACLE (FEMALE) PORTION OF CONNECTOR SHALL BE 1/2" NPT AND SHALL BE THREADED INTO THE UNDERSIDE OF THE HORIZONTAL TUBULAR MEMBER AT EACH FIXTURE LOCATION.
2. DISCONNECT SHALL 2 POLE, 600V RATED WITH ROTARY TYPE HANDLE; GE HEAVY DUTY QMR OR APPROVED EQUAL.
3. NOT MORE THAN TWO (2) FIXTURES SHALL BE SERVED BY AN INDIVIDUAL FUSE. PROVIDE FUSES AND FUSE HOLDERS IN THE QUANTITIES REQUIRED. COORDINATE SIZE OF FUSES WITH POLE SUPPLIER.
4. ENCLOSURE SHALL BE GASKETED GALVANIZED, NEMA 3R RATED, UL CERTIFIED ENCLOSURE. ENCLOSURE SHALL BE SIZED AS REQUIRED FOR ITS DISTRIBUTION BLOCKS AND CONDUCTORS.
5. PROVIDE SEALED DRAWINGS FOR DESIGN OF PIERS FOR LIGHT POLES.
6. POLES TO ARRIVE AT SITE PRE-WIRED BY MUSCO. PROVIDE DISCONNECT SWITCH AS REQUIRED.

PANEL "HT" CENTRAL TENNIS LIGHTS

CKT	CKT BRKR	WIRE	SERVES	CONTINUOUS VA		NON-CONT. VA		SERVES	WIRE	CKT BRKR	CKT
				LIGHTS	OTHER	RECEPT	OTHER				
1				590		A		CONTROLLER/ RECEPTACLE	#12	20/1	2
3	20/3	#12	POLE T1/ CONTACTOR C1	590		B	180 1200				
5				590		C		SPACE			6
7				590		A		SPACE			8
9	20/3	#12	POLE T2/ CONTACTOR C2	590		B		SPACE			10
11				590		C		SPACE			12
13				590		A		SPACE			14
15	20/3	#12	POLE T3/ CONTACTOR C3	590		B		SPACE			16
17				590		C		SPACE			18
19				590		A		SPACE			20
21	20/3	#10	POLE T4/ CONTACTOR C4	590		B		SPACE			22
23				590		C		SPACE			24
TOTAL NON-CONTINUOUS VA						1380				X1.0	1380
TOTAL CONTINUOUS VA				7,080						X1.25	8,850
SERVICE: 277/480V, 3Ø, 4W, 60HZ						TOTAL CONN. VA		8,460			
MAINS: 100 AMP MLO						TOTAL CONN. AMPS		10			
A.I.C. = 22,000 AMPS						CALC. PANEL VA				9,364	
PANEL "HT" NOTES:											
[1] SQUARE D TYPE NF OR EQUAL, NEMA-3R CABINET, SURFACE MOUNT ON RACK.											
								CALC. VA		CALC. AMPS	
						PHASE A		3,464		13	
						PHASE B		2,950		11	
						PHASE C		2,950		11	



ELECTRICAL ONE-LINE DIAGRAM

NO SCALE

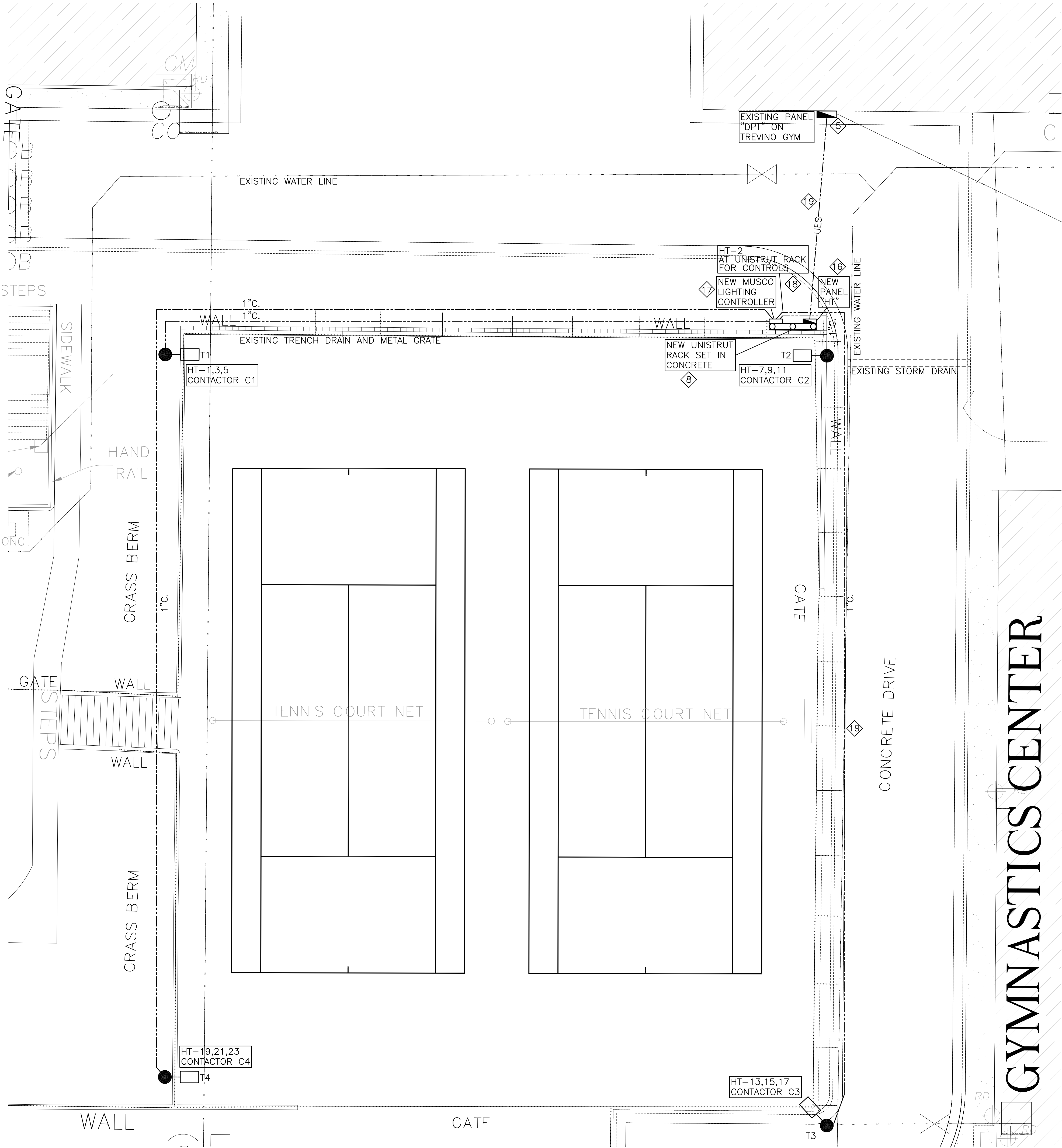
CENTRAL TENNIS LIGHTING SCHEDULES & DETAILS

NO SCALE

SITE PLAN NOTES INDICATED BY "◇":

- 1
- FOLLOW ALL NATIONAL, STATE AND LOCAL CODES FOR UTILITY INSTALLATION. EXISTING UTILITY LOCATIONS ARE REPRESENTATIVE IN NATURE ONLY. THIS SHEET IS INTENDED TO ILLUSTRATE NEW WORK ONLY.
- 2
- MAINTAIN MINIMUM 10'-0" WORKING CLEARANCE FROM OVERHEAD POWER LINES TO ANY SIGNS OR STRUCTURES.
- 3
- MAINTAIN MINIMUM SEPARATION BETWEEN SEWER AND WATER LINES OF 5'-0". MAINTAIN MINIMUM SEPARATION BETWEEN GAS AND ELECTRIC LINES OF 3'-0". MAINTAIN REQUIRED CLEARANCES BETWEEN ALL OTHER UTILITIES.
- 4
- CONTACT SAISD REPRESENTATIVE FOR UNDERGROUND LINE LOCATES. CONTRACTOR IS RESPONSIBLE TO REPAIR ALL DAMAGES FROM TRENCHING.
- 5
- SERVICE DELIVERY WILL BE FROM PANEL "DPT" ON TREVINO GYM. SERVICE VOLTAGE IS 480 VOLT, THREE PHASE. INSTALL 100/3 CIRCUIT BREAKER IN AVAILABLE SPACE. UPDATE PANEL DIRECTORY.
- 6
- CONTACT WITH SAISD IS JASON HENRY, 325-947-3759.
- 7
- CONTACT WITH MUSCO LIGHTING IS BEN VOELLIGER, 512-702-0952.
- 8
- REFER TO SCHEDULE SHEET D-LE1.2 FOR UNISTRUT RACK CONSTRUCTION DETAIL.
- 9
- APPLICABLE CODES:
2021 INTERNATIONAL BUILDING CODE
2020 NATIONAL ELECTRICAL CODE
2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
CITY OF SAN ANGELO ORDINANCES
- 10
- PHASING OF PROJECT WILL BE DETERMINED IN PRE-CONSTRUCTION MEETING WITH OWNER. COORDINATE ANY OUTAGE OF SERVICE WITH SAISD REPRESENTATIVE.
- 11
- CONTRACTOR IS RESPONSIBLE TO DRILL HOLES TO SET MUSCO LIGHTING POLES PER SUPPLIER'S INSTRUCTIONS. REFER TO LIGHT POLE PIER DETAIL, CIVIL DRAWINGS.
- 12
- ALL BRANCH CIRCUITS TO LIGHTS AND POLES SHALL BE INSTALLED AT 30" DEEP MINIMUM.
- 13
- CONTROL INPUTS FOR LIGHTING SYSTEMS SHALL BE PER MUSCO CONTROL SYSTEM SCHEDULE. REFER TO SHEET D-LE1.1 FOR DETAILS.
- 14
- ROUTE ALL CONDUIT UNDERGROUND AS SHOWN ON PLANS. COORDINATE ROUTING WITH SAISD REPRESENTATIVE.
- 15
- ALL WORK SHOWN IS NEW WORK.
- 16
- PROVIDE NEW ELECTRICAL PANEL "HT" FOR NEW TENNIS COURT LIGHTING.
- 17
- PROVIDE NEW LIGHTING CONTROLLER FOR NEW TENNIS COURT LIGHTING.
- 18
- PROVIDE 277 VOLT-120 VOLT STEPDOWN TRANSFORMER ON UNISTRUT RACK FOR CONTROLLER AND CONVENIENCE RECEPTACLE.
- 19
- CONTRACTOR IS RESPONSIBLE TO CUT AND REPAIR CONCRETE DRIVE PER CIVIL SPECIFICATIONS, SHEET C3.2.

SYMBOL LEGEND	
EXISTING ELECTRIC	-----E-----
PROPOSED ELECTRIC	-----UGE-----
PROPOSED TELEPHONE	-----T-----
CATV	-----CATV-----
TELE	-----TELE-----
UEP	-----UEP-----
SS	-----SS-----
WTR	-----WTR-----
OHE	-----OHE-----
PADMOUNT TRANSFORMER	⊠
ELECTRICAL DISCONNECT SWITCH	⏏
ELECTRICAL METER	⏚
POWER POLE (SIZE)	⓪40
CHAIN LINK FENCE	×××



CENTRAL TENNIS LIGHTING PLAN
SCALE: 1/8" = 1'-0"

PROJECT: 2604

DATE: 03/12/26

DRAWN: RJ

CENTRAL HIGH SCHOOL TENNIS COURTS
SAISD
1919 KNICKERBOCKER SAN ANGELO, TX



03-12-26

MEP PROJECT #2604
PowerSystems
P.O. Box 2863
San Angelo, Texas 76902
325-659-2235
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SHEET NO.

D-LE2

4 OF 12

GENERAL ELECTRICAL NOTES	
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C. ALL WIRE AND CABLE SIZES ARE FOR COPPER. ALUMINIUM WILL NOT BE ALLOWED. MINIMUM WIRE SIZE IS #12. TYPE AC AND TYPE MC CABLE ARE NOT ALLOWED. ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT. TYPE EMT CONDUIT IS NOT ALLOWED.	
D. NO CONDUCTOR SHALL BE LOADED BEYOND ITS ALLOWABLE AMPACITY.	
E. CONFIRM WITH LOCAL CODES, MECHANICAL CONTRACTOR AND EQUIPMENT VENDORS ON THE LOCATION AND MOUNTING METHOD FOR DISCONNECT SWITCHES, MANUAL MOTOR STARTERS, COMBINATION STARTER/DISCONNECTS, ETC. PRIOR TO ELECTRICAL ROUGH-IN AND INSTALLATION.	
F. ELECTRICAL CONTRACTOR SHALL DOUBLE CHECK ALL FEEDER CONDUCTOR AND CONDUIT SIZES WITH NEC AND LOCAL CODES PRIOR TO BID, ORDERING OR CUTTING CONDUCTORS.	
G. ALL DEVICES INSTALLED EXPOSED TO WEATHER SHALL BE WEATHERPROOF.	
H. UNLESS OTHERWISE NOTED, BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER (THHN OR EQUAL) SIZED AS FOLLOWS:	
BREAKER RATING	WIRE SIZE
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40	#8
50	#8
60	#6
70	#4
80	#4
90	#3
100	#2
110	#2
125	#1
150	#1/0
175	#2/0
200	#3/0
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J. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO OWNER PROVIDED EQUIPMENT.	
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ELECTRICAL ABBREVIATIONS			
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A/C	AIR CONDITIONING	MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
AUX	AUXILIARY	MDP	MAIN DISTRIBUTION PANEL
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AWG	AMERICAN WIRE GAGE	MIN	MINIMUM
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BLDG	BUILDING	MLO	MAIN LUG ONLY
		MSB	MAIN SWITCHBOARD
C	CONDUIT	MTD	MOUNTED
CB	CIRCUIT BREAKER		
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EPO	EMERGENCY POWER OFF	OC	ON CENTER
EQUIP	EQUIPMENT		
EWC	ELECTRIC WATER COOLER	PF	POWER FACTOR
		PH	PHASE
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FACP	FIRE ALARM CONTROL PANEL	PVC	POLYVINYL CHLORIDE
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GFI	GROUND FAULT INTERRUPT	RE.	REFER TO
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HP	HORSEPOWER	TYP	TYPICAL
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		UL	UNDERWRITER'S LABORATORIES
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IMT	INTERMEDIATE METAL	UON	UNLESS OTHERWISE NOTED
J-BOX	JUNCTION BOX	V	VOLTS
		VA	VOLT-AMPERES
KVA	KILOVOLT-AMPERES	WP	WEATHERPROOF
KW	KILOWATTS		

LAKE VIEW HIGH SCHOOL FOOTBALL RETROFIT LIGHTING SYSTEM

STRUCTURE/FIXTURE SUMMARY						
STRUCTURE ID	STRUCTURE HEIGHT	FIX. ATTACHMENT HT.	FIXTURE QTY	FIXTURE TYPE	DESIGN LOAD	CIRCUIT
F1-F4	80'	80'	1	TLC-LED-1200	1.16 kW	E
F1-F4 F3, F4		80' 16'	8 2	TLC-LED-1500 TLC-BT-575	11.18 kW 1.15 kW	E E

CIRCUIT SUMMARY			
CIRCUIT	DESCRIPTION	LOAD	FIXTURE QTY
E	FOOTBALL	53.96 kW	40

FIXTURE TYPE SUMMARY					
TYPE	CIRCUIT	SOURCE	WATTAGE	LUMENS	QUANTITY
TLC-BT-575	E	LED 5700K-75 CRI	575W	52,651	4
TLC-LED-1200	E	LED 5700K-75 CRI	1165W	148,698	4
TLC-LED-1500	E	LED 5700K-75 CRI	1397W	183,061	32

SINGLE FIXTURE AMPERAGE DRAW CHART	
DRIVER SPECIFICATIONS (.90 MIN POWER FACTOR)	LINE AMPERAGE PER FIXTURE (MAX DRAW)
THREE PHASE VOLTAGE	480 (60)
TLC-LED-1500	3.6
TLC-LED-1200	3.0
TLC-BT-575	1.5

NOTE: POLES F3 AND F4 HAVE 2 ADDITIONAL LIGHTS EACH FOR BLEACHERS.

MEP PROJECT #2604

 PowerSystems

P.O. Box 2863
San Angelo, Texas 76902
325-659-2235
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System Requirements: Control System Summary

Project Name: Lake View High School Football Tennis Retrofit | Project #: 231411
Control System ID: 1 of 2
Distribution Panel Location/ID: Service One - Football

Project Information

Control System

Control System ID: 1 of 2
Control System Type: Control-Link Control and Monitoring System
Communication Type: PowerLine-ST

Project Notes:

Power Requirements

Control cabinet(s):

Control voltage (phase to neutral): 120/60
VA loading - Inrush: 1553.0
VA loading - Sealed: 180.0

Lighting Circuits:

Voltage/Hertz/Phase: 480/60/3

Equipment Listing			
Description	Qty	Size (in)	
Control and monitoring cabinet - primary	1	24 X 48	
Contactors, 30 amperes	4	-	
Off/On/Auto switches	1	-	

Important Notes:

- Please confirm that the lighting circuit voltage listed above is accurate for this facility. This is the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
- In a 3 phase design, all 3 phases are to be run to each pole location. Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
- One contactor is required for each circuit at each pole location. Contactors are 3 pole and 100% rated for the published continuous load.
- If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
- Size overcurrent devices using the full load amps column of the Circuit Summary by Switch chart (Minimum power factor is 0.9). Size conduit per code unless otherwise specified as larger to allow for harness connectors.
- Avoid use of in-ground junction/pull boxes when possible. If used, the following best practices must be followed:
 - Underground handholes (pull boxes) must be supported to prevent settling. Boxes buried directly in soil, without support, are not allowed.
 - Use polymer concrete lids marked with ELECTRIC for underground handholes. Steel lids are not allowed.
 - Avoid underground connections when possible. If used, all wire connectors must be UL listed for Wet Locations to prevent leakage current.
- Control power wiring must be in separate conduit from line or load power wiring. Communication cables must be in separate conduit from any power wiring.
- Test wire per ANSI/NETA ATS-2021. Wires with insulation resistance less than 100 MOhms, in water-filled conduit, must be replaced.
- Refer to Installation Instructions for more details on equipment information and the installation requirements.

Sales Representative: Ben Voelliger | Project Engineer: Logan Schlee | Scan: 231411B | Document ID: 231411P1V2C2-0226162750



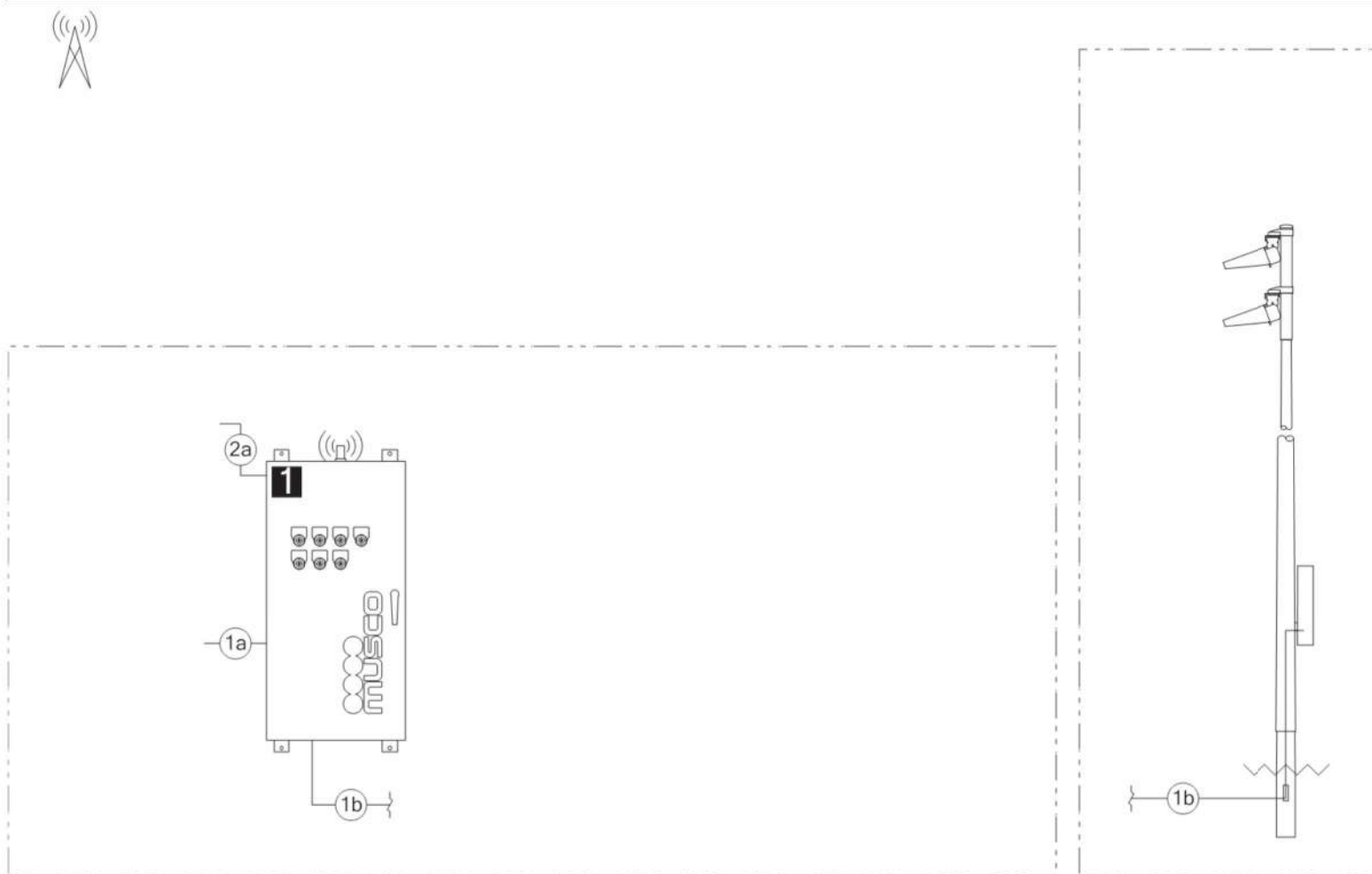
www.musco.com | lighting@musco.com

Page 1 of 6 -- 26-February-2026

System Requirements: Control System Summary

Project Name: Lake View High School Football Tennis Retrofit | Project #: 231411
Control System ID: 1 of 2
Distribution Panel Location/ID: Service One - Football

Equipment Layout and Connection Details



Connection Details	
ID	Description
1a	Line power to contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
1b	Load power from contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
2a	Control power with equipment ground to control cabinet. Requires dedicated 20 A circuit. Provide transformer if control voltage not present.

Equipment	
ID	Description
1	Control and monitoring cabinet - primary

Sales Representative: Ben Voelliger | Project Engineer: Logan Schlee | Scan: 231411B | Document ID: 231411P1V2C2-0226162750



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Page 2 of 6 -- 26-February-2026

System Requirements: Control System Summary

Project Name: Lake View High School Football Tennis Retrofit | Project #: 231411
Control System ID: 1 of 2
Distribution Panel Location/ID: Service One - Football

Circuit Summary

Zone Schedule		Switch
Field/Zone Description	Zone	Location
Football	1	Cabinet 1

Control Module ID: 1

Lighting Circuit Voltage: 480/60/3

Circuit Summary by Switch							
Switch	Zone Description	Pole ID	Qty of Fixtures	Full load amperes	Contactor Size (Amps)	Cabinet #	Contactor ID
1	Football	F1	9	20.83	30	1	C1
	Football	F2	9	20.83	30	1	C2
	Football	F3	11	21.37	30	1	C3
	Football	F4	11	21.37	30	1	C4

Sales Representative: Ben Voelliger | Project Engineer: Logan Schlee | Scan: 231411B | Document ID: 231411P1V2C2-0226162750



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Page 3 of 6 -- 26-February-2026

PROJECT: 2604

DATE: 03/12/26

DRAWN: RJ

LAKE VIEW HIGH SCHOOL FOOTBALL FIELD
SAISD
1919 KNICKERBOCKER SAN ANGELO, TX



03-12-26

CONTRACTOR SHALL OBTAIN FINAL DOCUMENTS FROM LIGHTING SUPPLIER AND INSTALL ACCORDINGLY.

MEP PROJECT #2604
PowerSystems

P.O. Box 2863
San Angelo, Texas 76902
325-659-2235
FIRM NO. P-8257

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ORDINANCES

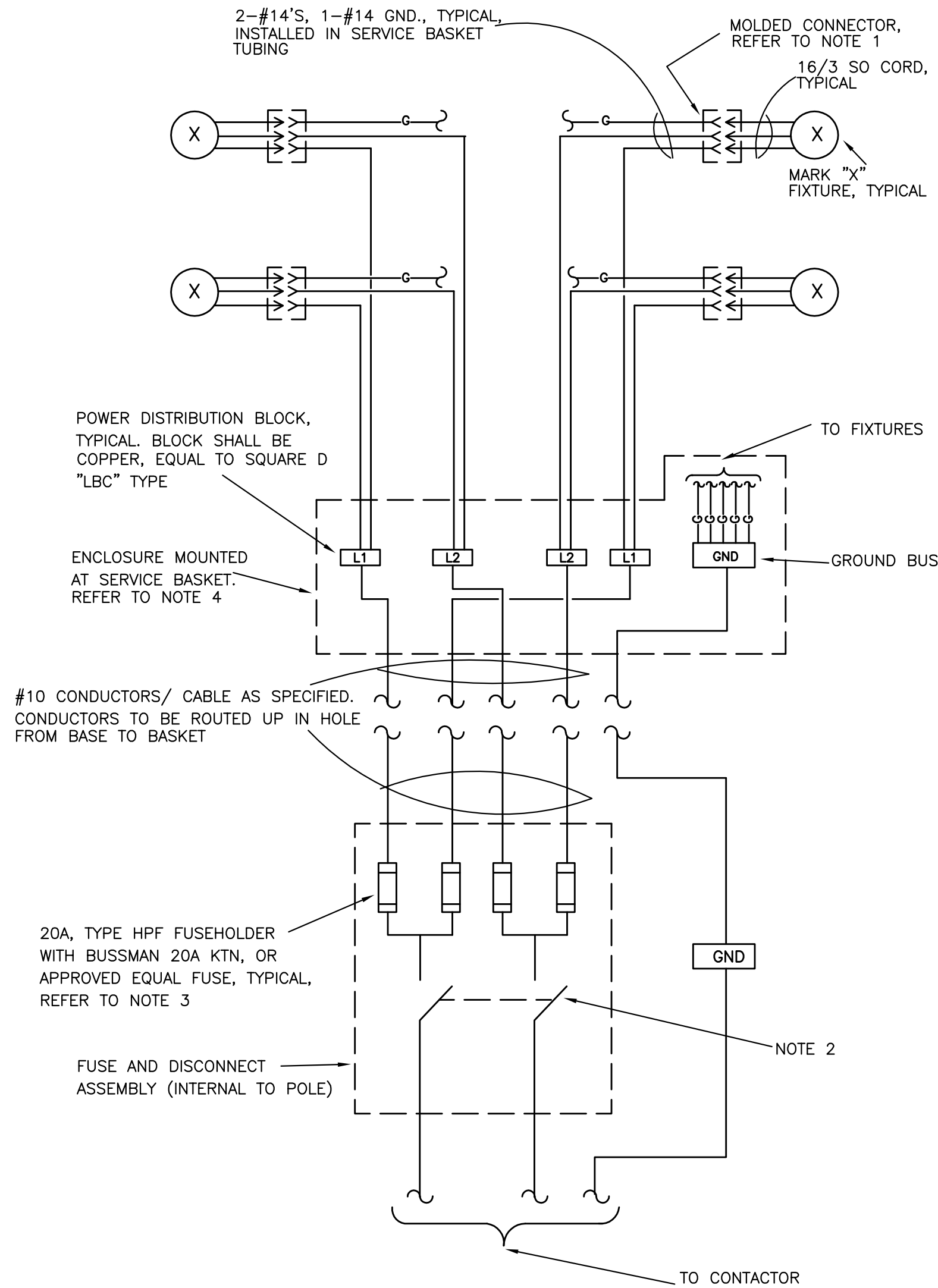
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G-LE1.1

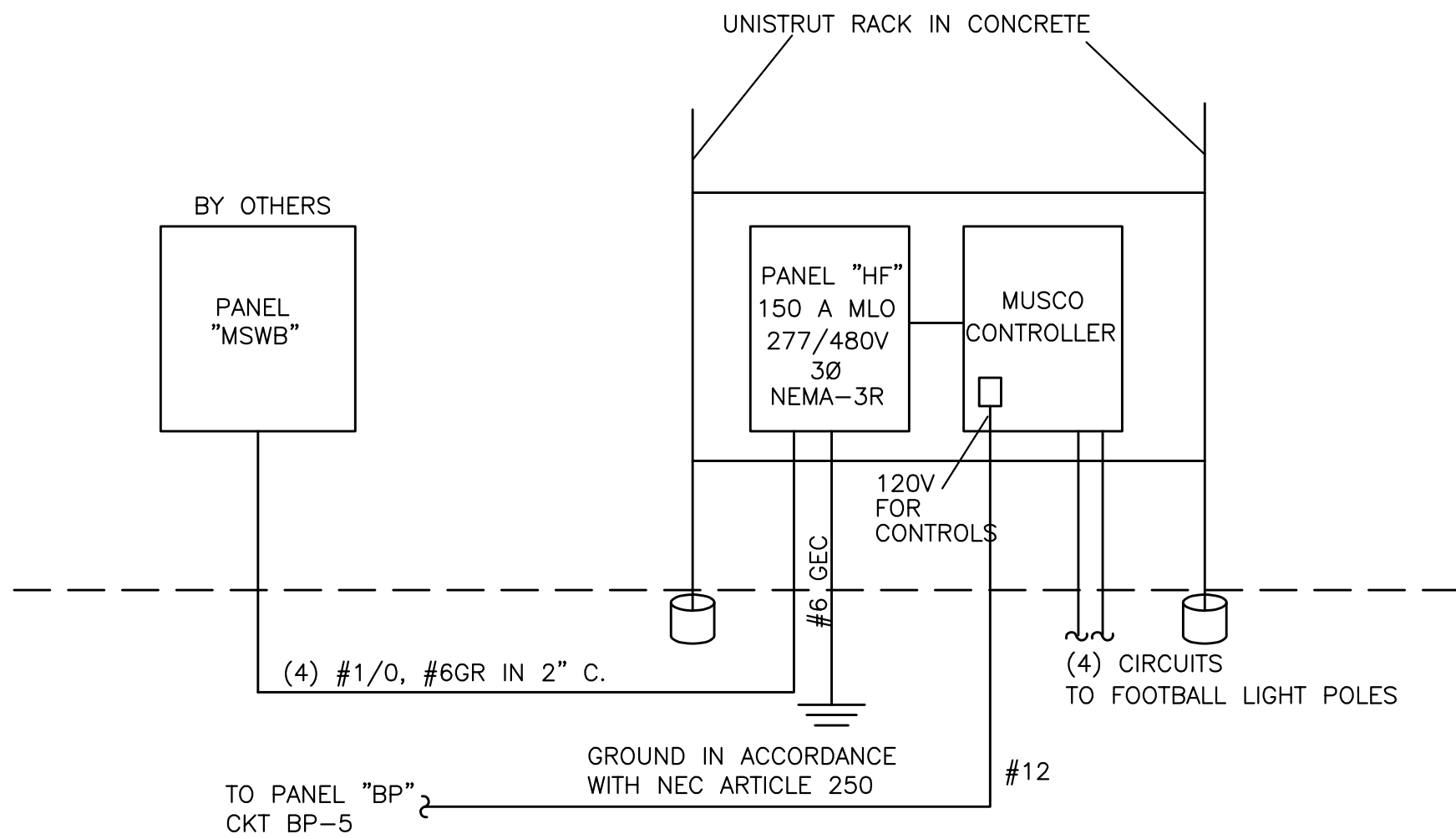
6 OF 12

LAKE VIEW FOOTBALL FIELD LIGHTING SCHEDULES & DETAILS
NO SCALE

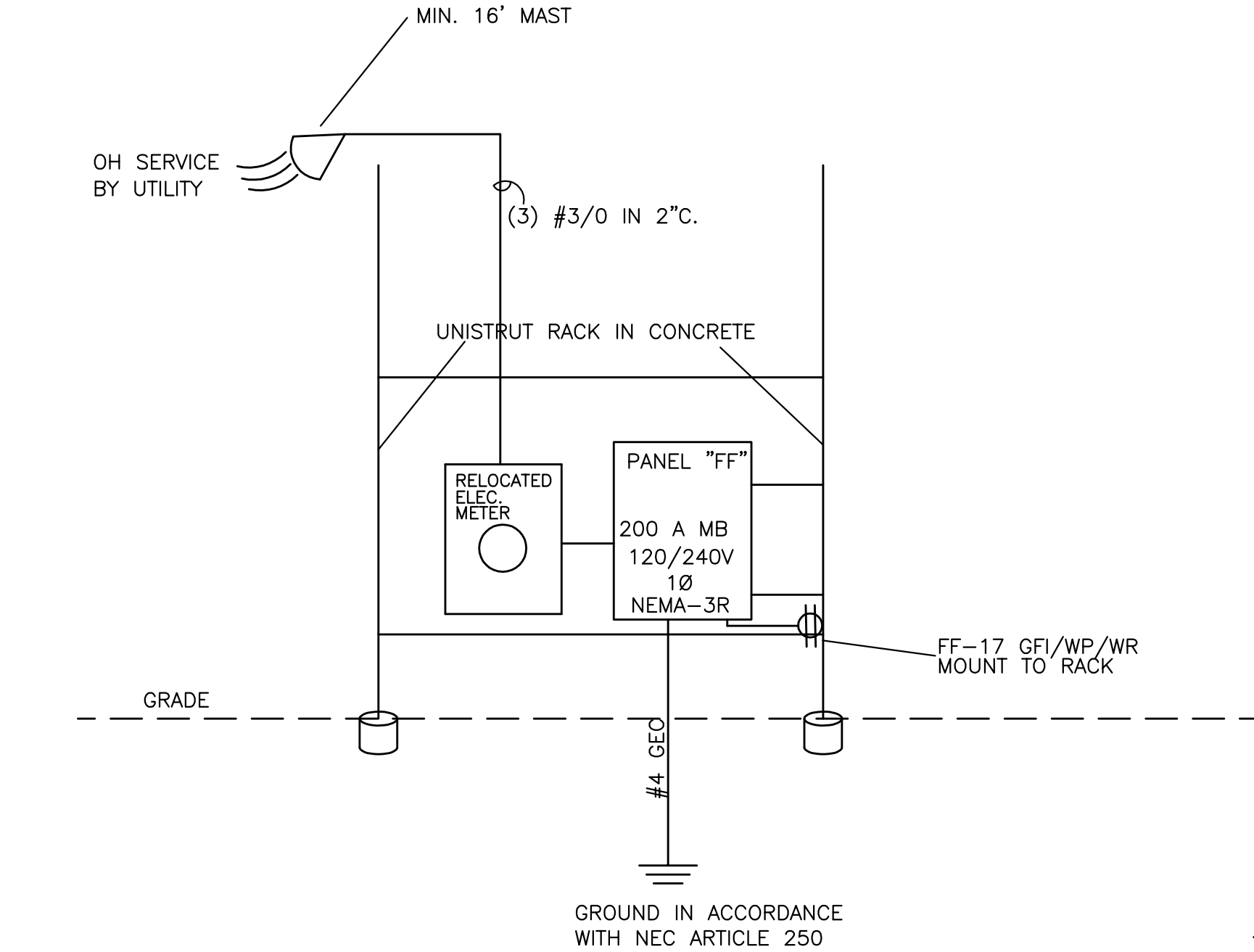


TYPICAL POLE WIRING DIAGRAM

- NO SCALE
- NOTES:
- RECEPTACLE (FEMALE) PORTION OF CONNECTOR SHALL BE 1/2" NPT AND SHALL BE THREADED INTO THE UNDERSIDE OF THE HORIZONTAL TUBULAR MEMBER AT EACH FIXTURE LOCATION.
 - DISCONNECT SHALL 2 POLE, 600V RATED WITH ROTARY TYPE HANDLE; GE HEAVY DUTY QMR OR APPROVED EQUAL.
 - NOT MORE THAN TWO (2) FIXTURES SHALL BE SERVED BY AN INDIVIDUAL FUSE. PROVIDE FUSES AND FUSE HOLDERS IN THE QUANTITIES REQUIRED. COORDINATE SIZE OF FUSES WITH POLE SUPPLIER.
 - ENCLOSURE SHALL BE GASKETED GALVANIZED, NEMA 3R RATED, UL CERTIFIED ENCLOSURE. ENCLOSURE SHALL BE SIZED AS REQUIRED FOR ITS DISTRIBUTION BLOCKS AND CONDUCTORS.
 - PROVIDE SEALED DRAWINGS FOR DESIGN OF PIERS FOR LIGHT POLES.
 - POLES TO ARRIVE AT SITE PRE-WIRED BY MUSCO. PROVIDE DISCONNECT SWITCH AS REQUIRED.



ELECTRICAL ONE-LINE DIAGRAM
NO SCALE



ELECTRICAL ONE-LINE DIAGRAM
NO SCALE

PANEL "HF" LVHS FOOTBALL LIGHTS											
CKT	CKT BRKR	WIRE	SERVES	CONTINUOUS VA LIGHTS	OTHER	NON-CONT. VA RECEPT	OTHER	SERVES	WIRE	CKT BRKR	CKT
1				4115				SPARE	#12	20/1	2
3	30/3	#10	POLE F1/ CONTACTOR C1	4115				SPARE	#12	20/1	4
5				4115				SPARE	#12	20/1	6
7				4115				SPARE	#12	20/1	8
9	30/3	#8	POLE F2/ CONTACTOR C2	4115				SPARE	#12	20/1	10
11				4115				SPARE	#12	20/1	12
13				4497				SPARE	#12	20/1	14
15	30/3	#4	POLE F3/ CONTACTOR C3	4497				SPARE	#12	20/1	16
17				4497				SPARE	#12	20/1	18
19				4497				SPARE	#12	20/1	20
21	30/3	#6	POLE F4/ CONTACTOR C4	4497				SPARE	#12	20/1	22
23				4497				SPARE	#12	20/1	24
TOTAL NON-CONTINUOUS VA						0			X1.0	0	
TOTAL CONTINUOUS VA				51,672					X1.25	64,590	
SERVICE: 277/480V, 3Ø, 4W, 60HZ						TOTAL CONN. VA		51,672			
MAINS: 150 AMP MLO						TOTAL CONN. AMPS		62			
A.I.C. = 22,000 AMPS						CALC. PANEL VA					
PANEL "HF" NOTES:											
1 SQUARE D TYPE NF OR EQUAL, NEMA-3R CABINET, SURFACE MOUNT ON RACK.											
						CALC. VA		21,530	CALC. AMPS		
						PHASE A		21,530	78		
						PHASE B		21,530	78		
						PHASE C		21,530	78		

PANEL "FF" LVHS FOOTBALL FIELD											
CKT	CKT BRKR	WIRE	SERVES	CONTINUOUS VA LIGHTS	OTHER	NON-CONT. VA RECEPT	OTHER	SERVES	WIRE	CKT BRKR	CKT
1	20/1	#12	TIMING STATIONS				1000	SPARE	#12	20/1	2
3	20/1	#12	PRESS BOX				1000	SPARE	#12	20/1	4
5	20/1	#12	PRESS BOX				1000	SPARE	#12	20/1	6
7	20/1	#12	PRESS BOX				1000	SPARE	#12	20/1	8
9	20/1	#12	PRESS BOX				1000	SPARE	#12	20/1	10
11	20/1	#12	PRESS BOX				1000	SPARE	#12	20/1	12
13	30/2	#10	PRESS BOX HVAC				2500	SPARE	#12	20/1	14
15							2500	SPARE	#12	20/1	16
17	20/2	#12	PRESS BOX HVAC				1800	SPARE	#12	20/1	18
19							1800	SPARE	#12	20/1	20
21	20/1	#10	SPARE					SPARE	#12	20/1	22
23	20/1	#12	SPARE					SPARE	#12	20/1	24
25	20/1	#12	SPARE					SPARE	#12	20/1	26
27	20/1	#12	SPARE					SPARE	#12	20/1	28
29	20/1	#12	SPARE					SPARE	#12	20/1	30
TOTAL NON-CONTINUOUS VA						14,780			X1.0	14,780	
TOTAL CONTINUOUS VA									X1.25	1,875	
SERVICE: 120/240V, 1Ø, 3W, 60HZ						TOTAL CONN. VA		16,280			
MAINS = 200 AMP MB						TOTAL CONN. AMPS		68			
A.I.C. = 22,000 AMPS						CALC. PANEL VA					
PANEL "FF" NOTES:											
1 SQUARE D TYPE NO OR EQUAL, NEMA-3R CABINET, SURFACE MOUNT ON RACK.											
						CALC. VA			CALC. AMPS		
						PHASE A		9,175	76		
						PHASE B		7,480	62		

PROJECT: 2604
DATE: 03/12/26
DRAWN: RJ

LAKE VIEW HIGH SCHOOL FOOTBALL FIELD
SAISD
1919 KNICKERBOCKER SAN ANGELO, TX

PAUL R. WILKERSON
REGISTERED PROFESSIONAL ENGINEER
50732
03-12-26

MEP PROJECT #2804
Power Systems
P.O. Box 2863
San Angelo, Texas 76902
325-659-2235
FIRM NO. P-6257

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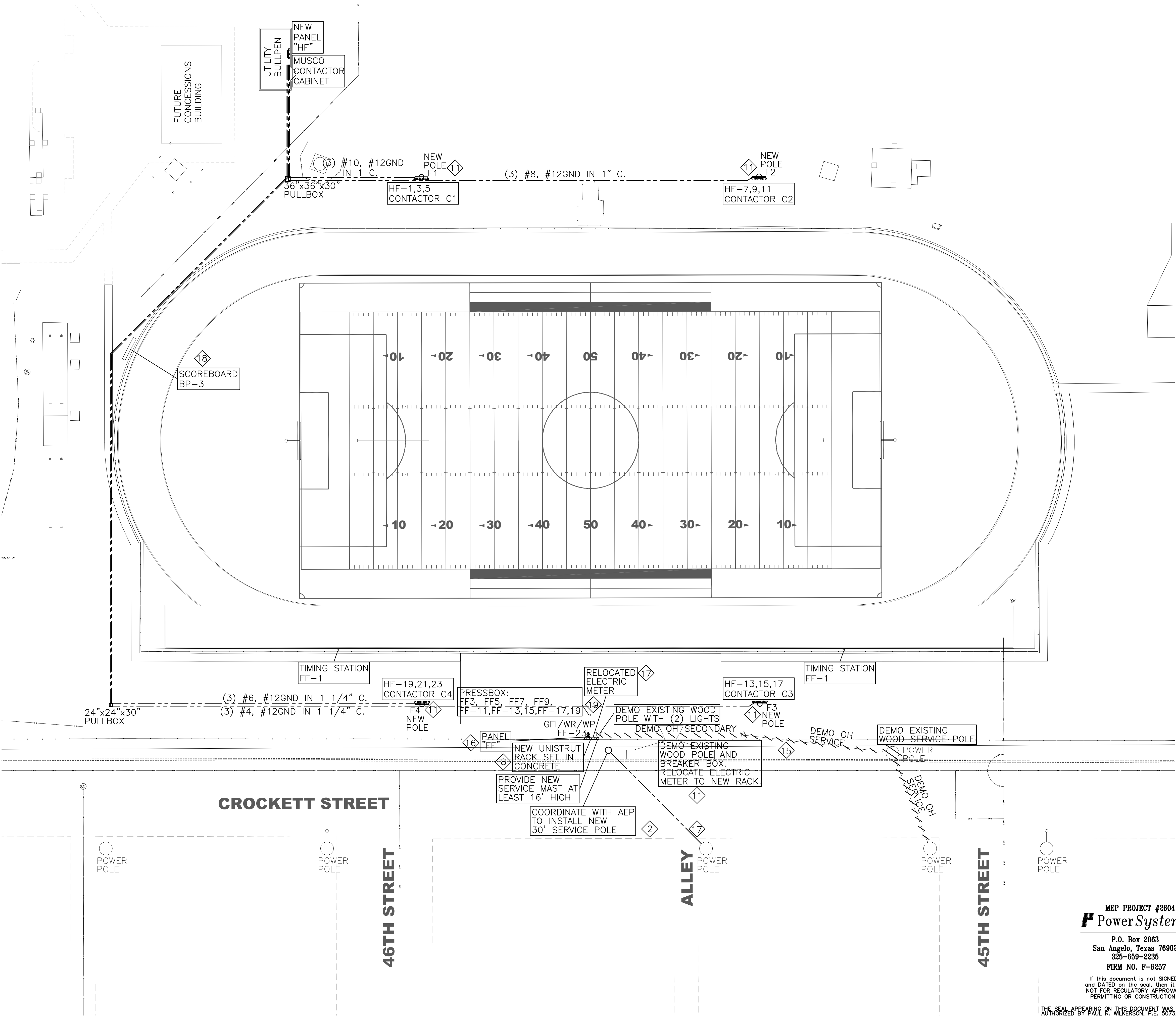
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SITE PLAN NOTES INDICATED BY "◇":

- 1 FOLLOW ALL NATIONAL, STATE AND LOCAL CODES FOR UTILITY INSTALLATION. EXISTING UTILITY LOCATIONS ARE REPRESENTATIVE IN NATURE ONLY. THIS SHEET IS INTENDED TO ILLUSTRATE NEW WORK ONLY.
- 2 MAINTAIN MINIMUM 10'-0" WORKING CLEARANCE FROM OVERHEAD POWER LINES TO ANY SIGNS OR STRUCTURES.
- 3 MAINTAIN MINIMUM SEPARATION BETWEEN SEWER AND WATER LINES OF 5'-0". MAINTAIN MINIMUM SEPARATION BETWEEN GAS AND ELECTRIC LINES OF 3'-0". MAINTAIN REQUIRED CLEARANCES BETWEEN ALL OTHER UTILITIES.
- 4 CONTACT SAISD REPRESENTATIVE FOR UNDERGROUND LINE LOCATES. CONTRACTOR IS RESPONSIBLE TO REPAIR ALL DAMAGES FROM TRENCHING.
- 5 SERVICE DELIVERY WILL BE FROM PAD MOUNTED TRANSFORMER AT FUTURE CONCESSIONS BUILDING BULLPEN. SERVICE VOLTAGE IS 480 VOLT, THREE PHASE.
- 6 CONTACT WITH SAISD IS JASON HENRY, 325-947-3759.
- 7 CONTACT WITH MUSCO LIGHTING IS BEN VOELLIGER, 512-702-0952.
- 8 REFER TO SCHEDULE SHEET G-LE1.2 FOR UNISTRUT RACK CONSTRUCTION DETAIL.
- 9 APPLICABLE CODES:
2021 INTERNATIONAL BUILDING CODE
2020 NATIONAL ELECTRICAL CODE
2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
CITY OF SAN ANGELO ORDINANCES
- 10 PHASING OF PROJECT WILL BE DETERMINED IN PRE-CONSTRUCTION MEETING WITH OWNER. COORDINATE ANY OUTAGE OF SERVICE WITH SAISD REPRESENTATIVE.
- 11 CONTRACTOR IS RESPONSIBLE TO DRILL HOLES TO SET MUSCO LIGHTING POLES PER SUPPLIER'S INSTRUCTIONS. REFER TO LIGHT POLE PIER DETAIL, CIVIL DRAWINGS.
- 12 ALL BRANCH CIRCUITS TO LIGHTS AND POLES SHALL BE INSTALLED AT 30" DEEP MINIMUM.
- 13 CONTROL INPUTS FOR LIGHTING SYSTEMS SHALL BE PER MUSCO CONTROL SYSTEM SCHEDULE. REFER TO SHEET G-LE1.1 FOR DETAILS.
- 14 ROUTE ALL CONDUIT UNDERGROUND AS SHOWN ON PLANS. COORDINATE ROUTING WITH SAISD REPRESENTATIVE.
- 15 DEMO ALL EXISTING ELECTRICAL WORK ON WEST SIDE AS SHOWN.
- 16 NEW ELECTRICAL PANEL "FF" IS PROVIDED FOR 120-VOLT CIRCUITS AROUND FOOTBALL FIELD.
- 17 COORDINATE WITH AEP FOR NEW 120/240-VOLT OH SERVICE AS SHOWN. RELOCATE EXISTING ELECTRICAL METER TO NEW UNISTRUT RACK.
- 18 SERVE SCOREBOARD FROM CONCESSIONS BULLPEN, PANEL "BP", CIRCUIT BP-3. PROVIDE 20/1 CIRCUIT BREAKER AND #10 CONDUCTOR TO SCOREBOARD. PANEL "BP" WILL BE FURNISHED AND INSTALLED BY OTHERS.
- 19 PROVIDE 24"x24"x24" FLUSH WITH GRADE PULLBOX EQUAL TO QUAZITE OR APS FOR PRESSBOX CIRCUITS FROM PANEL "FF". INSTALL (8) SPARE CONDUITS (MINIMUM 1 1/4") WITH PULLSTRINGS FROM PANEL "FF" TO PULLBOX.

SYMBOL LEGEND	
EXISTING ELECTRIC	---E---
PROPOSED ELECTRIC	---UGE---
PROPOSED TELEPHONE	---T---
CATV	---CATV---
TELE	---TELE---
UEP	---UEP---
SS	---SS---
WTR	---WTR---
OHE	---OHE---
PADMOUNT TRANSFORMER	⊠
ELECTRICAL DISCONNECT SWITCH	⏏
ELECTRICAL METER	⏚
POWER POLE (SIZE)	⊙(40)
CHAIN LINK FENCE	✕✕✕



LAKE VIEW FOOTBALL FIELD LIGHTING PLAN
SCALE: 1" = 30'-0"

PROJECT:	2604
DATE:	03/12/26
DRAWN:	RJ

LAKE VIEW HIGH SCHOOL FOOTBALL FIELD
SAISD
1919 KNICKERBOCKER SAN ANGELO, TX

Paul R. Wilkerson
PAUL R. WILKERSON
REGISTERED PROFESSIONAL ENGINEER
50732
03-12-26

MEP PROJECT #2604
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SHEET NO.
G-LE2
8 OF 12



- LIGHTING REQUIREMENTS:**
- 50 Foot-Candle average light levels on new tennis courts and football field.
 - BallTracker® technology – targeted light, optimizing visibility of the ball in play with no glare in the players typical line-of-sight.
 - Factory aimed and assembled luminaries, including BallTracker® luminaires.
 - (4) 80' Galvanized steel poles for Football Field: Poles F1 – F4
 - (4) 40' Galvanized steel poles for Tennis Courts 5 –8: Poles T7 –T10
 - Eight (8) Pre-cast concrete bases with integrated lightning grounding
 - Pole length factory assembled wire harnesses
 - Factory wired and tested remote electrical component enclosures
 - Corrosion protection included and UL listed assemblies.
 - Three (3) Player-activated push button control systems with strobe to provide timed on/off control: Tennis Courts 1–3, 4–6 and 7&8.
 - Provide four (4) 20 Amp, 120 Volt exterior rated circuits around perimeter of new courts at locations approved by owner.

- PROJECT SUMMARY:**
- Provide and install erosion control measures as necessary.
 - Remove existing vegetation/soil for below and five feet beyond new concrete surfaces. Moisture condition and compact top eight inches of subgrade to min. 95% Standard Proctor Density.
 - Furnish and install engineered fill or limestone screenings in accordance with the Geotechnical report as necessary to raise site to required elevations.
 - Machine control or laser grade subgrade to design subgrade elevations.
 - Provide and place 2' of limestone screenings for a leveling course.
 - Provide and place 10 mil vapor barrier over leveling course.
 - Construct 14,072 square feet of post tensioned slab, with tendon spacing per engineering.
 - Furnish and install ±456 feet of 10' tall vinyl coated chain link fence including 6 single gates for 4' opening and 3 double gates for 8' opening with mow strip.
 - Construct ±3,392 square feet of concrete sidewalks and flatwork.
 - Furnish and install two (2) sets of 3' Edwards Classic Net Posts and Nets.
 - Clean off each court with a pressure washer and blower to remove all dirt and debris and acid wash the new concrete surface. All bird baths will be patched with TPS 5000® Rhinofill crack filler.
 - Apply one (1) coat of TPS 5000® Acrylic Surface at a rate of 0.7 gal/SY. Silica sand shall be mixed to achieve a medium to slow ball speed.
 - Apply two (2) coats of TPS 5000® Fortified Acrylic Color Coating.
 - Apply two (2) School Logos.
 - Layout and paint 2" wide lines using Line Tape Sealer as a primer coat to ensure razor sharp edges. Paint shall be TPS 5000® White Line Paint and painted in accordance to USTA specifications.
 - Lighting Package Alternate: New Musco Sports Lighting package at Two (2) new tennis courts and two existing tennis courts.
 - Lighting Package Alternate: Retrofit Existing Tennis Courts with Musco Lighting
 - Project cleanup and restoration of disturbed area.

- KEYED NOTES:**
- A NEW TENNIS COURTS WITH COMPLETE SINGLES AND DOUBLES TENNIS MARKINGS AND NETTING.
 - B 3,392 SQ. FT. OF NEW ACCESSIBLE CONCRETE SIDEWALK AND FLATWORK.
 - C NEW LIGHT POLE ASSEMBLY.

LEGEND

- EXISTING BUILDING
- EXISTING CONCRETE
- CONCRETE SIDEWALK
- BLUE COLOR COATING
- GREEN COLOR COATING

- GENERAL NOTES:**
- DIMENSIONS SHOWN HEREON ARE TO THE BACK OF CURB, CENTERLINE OF STRIPING, OR EDGE OF CONCRETE.
 - EXISTING CONDITIONS, UTILITIES, SETBACKS AND EASEMENTS SHOWN HEREON ARE PROVIDED BASED ON A SURVEY PREPARED BY SKG ENGINEERING.
 - EXISTING CONDITIONS, UTILITIES, SETBACKS AND EASEMENTS REPRESENT THE INFORMATION AVAILABLE TO THE ENGINEER AND SHOULD NOT BE CONSTRUED AS EXACT AND COMPLETE AND ITS USE DOES NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY FOR LOSSES DUE TO ANY INACCURACIES. NOTIFY THE CIVIL ENGINEER OF ANY DISCREPANCIES FOUND.
 - CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
 - ALL SITE WORK SHALL BE IN ACCORDANCE WITH, OR SURPASS RECOMMENDATIONS OF SOILS REPORT, DRAWINGS, AND SPECIFICATIONS. IF A CONFLICTS ARISES, THE MORE PROHIBITIVE SHALL TAKE PRECEDENCE AND BE CONSIDERED TO BE THE INTENT OF THE PROJECT DOCUMENTS. IN ALL CASES, STRICTLY ADHERE TO DRAWINGS AND SPECIFICATIONS, UNLESS SOILS REPORT RECOMMENDATION EXCEEDS THE DRAWINGS AND SPECIFICATIONS.

SKG ENGINEERING LLC
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708 SOUTH ABE STREET
SAN ANGELO, TEXAS 76903
PHONE: 325.655.1288
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WWW.SKG.COM
FIRM REGISTRATION NUMBER F-7068 & 10102400

STATE OF TEXAS
RUSSELL T. GULLY
87727
LICENSED PROFESSIONAL ENGINEER
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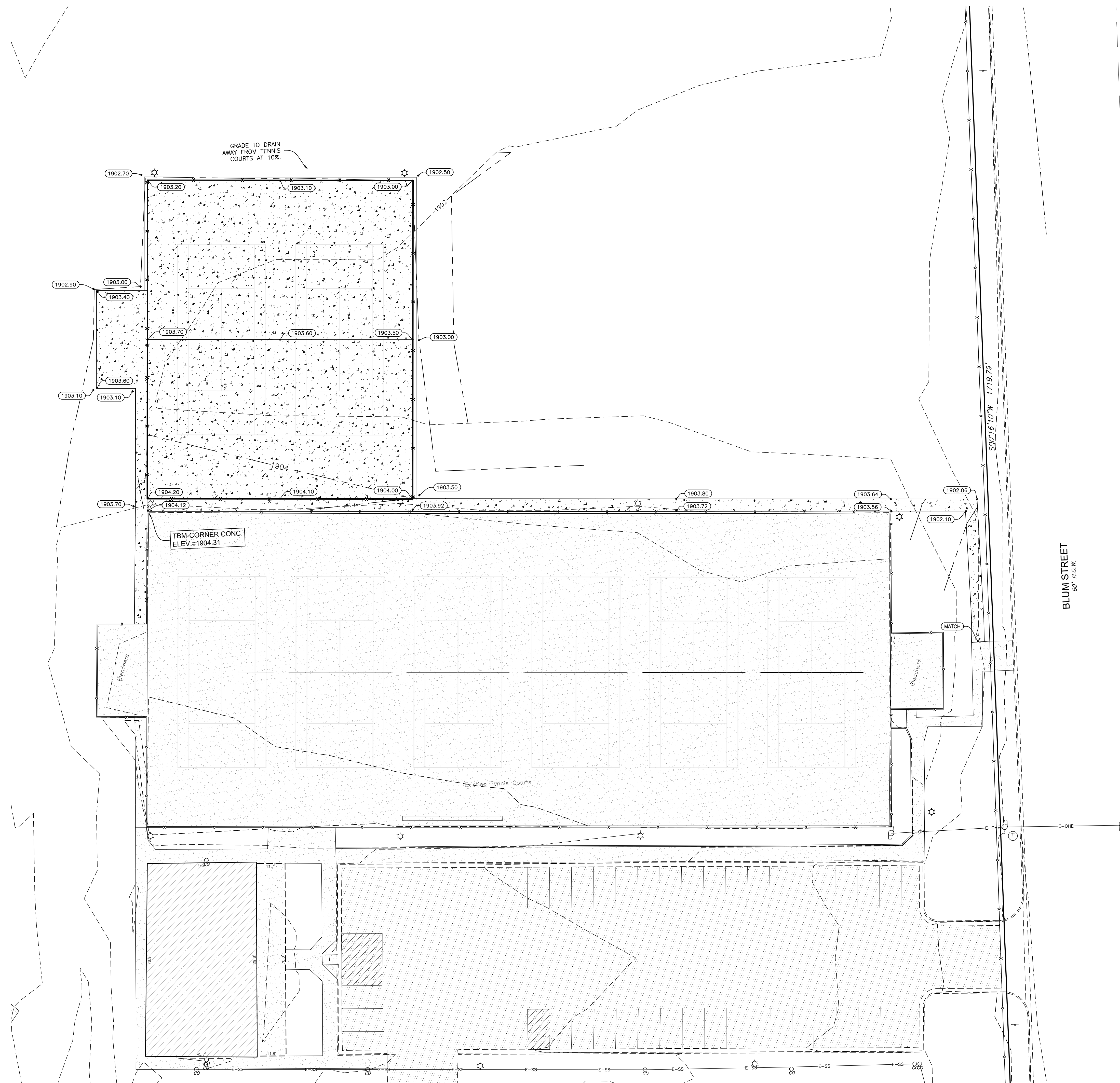
SAN ANGELO ISD

SAN ANGELO ISD
ATHLETIC FIELDS PROJECT
SAN ANGELO, TEXAS

SITE PLAN
LAKE VIEW HIGH SCHOOL
TENNIS COURTS

REVISIONS	

DWG BY: RTG	DWG DATE: MAR. 3, 2026
JOB NO. 25-E-1488	SHEET NO.
SCALE: 1"=20'	H-C1.1



LEGEND

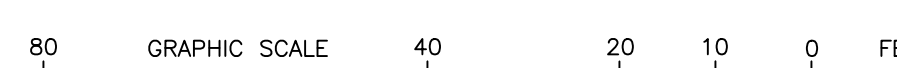
EXISTING CONTOUR

PROPOSED CONTOUR

● 1904.60

PROPOSED SPOT ELEVATION

- GRADING NOTES:**
1. CONTOURS SHOWN HEREON BASED ON A SURVEY BY SKG ENGINEERING. EXISTING LINE LOCATIONS ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE, BUT IS NOT GUARANTEED TO BE CORRECT OR COMPLETE.
 2. WITHIN THE PROJECT AREA, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE SIZE, TYPE, AND LOCATION OF PIPING AND UTILITIES AND PROTECTING AND REPAIRING THE SAME AT NO ADDITIONAL COST TO THE OWNER.
 2. PROVIDE UNIFORM SLOPE BETWEEN SPOT ELEVATIONS AND CONTOURS EXCEPT AS REQUIRED OTHERWISE.
 3. SPOT ELEVATIONS AND GRADES SHOWN HEREON REPRESENT THE FINISHED SURFACE. SITE CONTRACTOR TO ACCOUNT FOR THICKNESS OF BASE, TURF, TRACK SURFACE, CONCRETE, OR OTHER MISC. SURFACES TO BE APPLIED TO REACH FINAL GRADE.
 4. CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
 5. PROVIDE POSITIVE DRAINAGE TO INLETS OR PIPING TO PREVENT PONDING.
 6. THE FINISHED SURFACE SHALL BE SMOOTH AND TRUE TO WITHIN 0.04 FEET OF THE ESTABLISHED LINE, GRADE, AND CROSS SECTION. AREAS THAT POND WATER GREATER THAN 1/4 INCH DEEP WILL NOT BE PERMITTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING DEFICIENT AREAS.
 7. ALL SITE WORK SHALL BE IN ACCORDANCE WITH, OR SURPASS RECOMMENDATIONS OF SOILS REPORT, DRAWINGS, AND SPECIFICATIONS. IF A CONFLICTS ARISES, THE MORE PROHIBITIVE SHALL TAKE PRECEDENCE AND BE CONSIDERED TO BE THE INTENT OF THE PROJECT DOCUMENTS. IN ALL CASES, STRICTLY ADHERE TO DRAWINGS AND SPECIFICATIONS, UNLESS SOILS REPORT RECOMMENDATION EXCEEDS THE DRAWINGS AND SPECIFICATIONS.
 10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE COMPLIANCE WITH THE REQUIREMENTS SHOWN ON THE PLANS, DETAILS, AND SPECIFICATIONS. AN INDEPENDENT CONSTRUCTION MATERIAL TESTING COMPANY SHALL BE RETAINED TO PERFORM COMPACTION TESTING OF SUBGRADE, FILL, AND ALL MATERIALS INCORPORATED IN ACCORDANCE WITH THE SPECIFICATIONS. RESULTS ARE TO BE EMAILED TO SKG ENGINEERING AT ROB@SKG.COM WITHIN 48 HOURS OF TESTING. COMPACTION AND MOISTURE REQUIREMENTS MUST BE MET AND DOCUMENTED BY TESTING BEFORE THE NEXT LIFT OF MATERIAL IS PLACED ABOVE. THE ENGINEER IS NOT RESPONSIBLE FOR ENSURING TESTING IS PERFORMED OR THAT THE WORK MEETS THE REQUIREMENTS. SHOULD ANY REQUIRED TEST NOT BE PERFORMED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO UNCOVER OR UNDO AND TEST AS REQUIRED.



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FIRM REGISTRATION NUMBER F-7068 & 10102400

SAN ANGELO ISD
ATHLETIC FIELDS PROJECT
SAN ANGELO, TEXAS

GRADING PLAN
LAKE VIEW HIGH SCHOOL
TENNIS COURTS

REVISIONS	

DWG BY:	RTG	DWG DATE:	MAR. 3, 2026
JOB NO.	25-E-1488	SHEET NO.	H-C2.1
SCALE:	1"=20'		

GENERAL ELECTRICAL NOTES	
A. ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE 2020 NATIONAL ELECTRICAL CODE AND LOCAL CODES.	
B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO MINIMIZE CONFLICTS.	
C. ALL WIRE AND CABLE SIZES ARE FOR COPPER. ALUMINIUM WILL NOT BE ALLOWED. MINIMUM WIRE SIZE IS #12. TYPE AC AND TYPE MC CABLE ARE NOT ALLOWED. ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT. TYPE EMT CONDUIT IS NOT ALLOWED.	
D. NO CONDUCTOR SHALL BE LOADED BEYOND ITS ALLOWABLE AMPACITY.	
E. CONFIRM WITH LOCAL CODES, MECHANICAL CONTRACTOR AND EQUIPMENT VENDORS ON THE LOCATION AND MOUNTING METHOD FOR DISCONNECT SWITCHES, MANUAL MOTOR STARTERS, COMBINATION STARTER/DISCONNECTS, ETC. PRIOR TO ELECTRICAL ROUGH-IN AND INSTALLATION.	
F. ELECTRICAL CONTRACTOR SHALL DOUBLE CHECK ALL FEEDER CONDUCTOR AND CONDUIT SIZES WITH NEC AND LOCAL CODES PRIOR TO BID, ORDERING OR CUTTING CONDUCTORS.	
G. ALL DEVICES INSTALLED EXPOSED TO WEATHER SHALL BE WEATHERPROOF.	
H. UNLESS OTHERWISE NOTED, BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER (THHN OR EQUAL) SIZED AS FOLLOWS:	
BREAKER RATING	WIRE SIZE
20 AMP	#12 AWG
30	#10
40	#8
50	#8
60	#6
70	#4
80	#4
90	#3
100	#2
110	#2
125	#1
150	#1/0
175	#2/0
200	#3/0
ALL BRANCH CIRCUITS WITH AN OVERALL LENGTH IN EXCESS OF 75 FEET SHALL BE INCREASED IN WIRE SIZE TO ACCOMMODATE VOLTAGE DROP.	
I. INSTALL MARKING TAPE IN TRENCH FOR ALL UNDERGROUND UTILITIES.	
J. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO OWNER PROVIDED EQUIPMENT.	
K. DRAWINGS ARE SCHEMATIC IN NATURE AND MAY NOT BE DRAWN EXACTLY TO SCALE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES WITH EXISTING CONDITIONS AND ALL OTHER TRADES TO AVOID SPACING OR ROUTING PROBLEMS.	

ELECTRICAL ABBREVIATIONS			
A	AMPERES	MAX	MAXIMUM
A/C	AIR CONDITIONING	MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
AUX	AUXILIARY	MDP	MAIN DISTRIBUTION PANEL
ATS	AUTOMATIC TRANSFER SWITCH	MECH	MECHANICAL
AWG	AMERICAN WIRE GAGE	MIN	MINIMUM
		MISC	MISCELLANEOUS
		MLO	MAIN LUG ONLY
BLDG	BUILDING	MSB	MAIN SWITCHBOARD
		MTD	MOUNTED
C	CONDUIT		
CB	CIRCUIT BREAKER		
CCTV	CLOSED CIRCUIT TELEVISION	NEC	NATIONAL ELECTRICAL CODE
CKT	CIRCUIT	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
CLG	CEILING		
		NF	NON FUSED
DWG	DRAWING	NIC	NOT IN CONTRACT
EA	EACH	N.C.	NORMALLY CLOSED
EC	ELECTRICAL CONDUIT	N.O.	NORMALLY OPEN
EF	EXHAUST FAN	NO	NUMBER
ELEC	ELECTRIC/ELECTRICAL	NTS	NOT TO SCALE
EMT	ELECTRICAL METALLIC TUBING		
EPO	EMERGENCY POWER OFF	OC	ON CENTER
EQUIP	EQUIPMENT		
EWC	ELECTRIC WATER COOLER	PF	POWER FACTOR
		PH	PHASE
FA	FIRE ALARM	PNL	PANEL
FACP	FIRE ALARM CONTROL PANEL	PVC	POLYVINYL CHLORIDE
		RECPT	RECEPTACLE
G	GROUND	RE	REFER TO
GFI	GROUND FAULT INTERRUPT	RGS	RIGID GALVANIZED STEEL
HP	HORSEPOWER	TYP	TYPICAL
HVAC	HEATING/VENTILATION/ AIR CONDITIONING		
		UL	UNDERWRITER'S LABORATORIES
IG	ISOLATED GROUND		
IMT	INTERMEDIATE METAL	UON	UNLESS OTHERWISE NOTED
		V	VOLTS
J-BOX	JUNCTION BOX	VA	VOLT-AMPERES
KVA	KILOVOLT-AMPERES	WP	WEATHERPROOF
KW	KILOWATTS		

LAKE VIEW HIGH SCHOOL TENNIS RETROFIT LIGHTING SYSTEM

STRUCTURE/FIXTURE SUMMARY						
STRUCTURE ID	STRUCTURE HEIGHT	FIX. ATTACHMENT HT.	FIXTURE QTY	FIXTURE TYPE	DESIGN LOAD	CIRCUIT
T1	40'	40'	2	TLC-LED-900	1.76 kW	A
T1		40'	2	TLC-LED-900	1.76 kW	D
T2	40'	40'	2	TLC-LED-900	1.76 kW	A
T3	40'	40'	2	TLC-LED-900	1.76 kW	A
T3		40'	2	TLC-LED-900	1.76 kW	B
T3		40'	2	TLC-LED-900	1.76 kW	D
T4	40'	40'	2	TLC-LED-900	1.76 kW	A
T4		40'	2	TLC-LED-900	1.76 kW	B
T5-T6	40'	40'	2	TLC-LED-900	1.76 kW	B
T5-T6		40'	2	TLC-LED-900	1.76 kW	C
T7-T8	40'	40'	2	TLC-LED-900	1.76 kW	C
T9-T10	50'	50'	2	TLC-LED-1200	1.76 kW	D

CIRCUIT SUMMARY			
CIRCUIT	DESCRIPTION	LOAD	FIXTURE QTY
A	TENNIS 1-2	7.04 kW	8
B	TENNIS 3-4	7.04 kW	8
C	TENNIS 5-6	7.04 kW	8
D	TENNIS 7-8	7.04 kW	8

FIXTURE TYPE SUMMARY					
TYPE	CIRCUIT	SOURCE	WATTAGE	LUMENS	QUANTITY
TLC-LED-900	A	LED 5700K-75 CRI	880W	94,207	8
TLC-LED-900	B	LED 5700K-75 CRI	880W	94,207	8
TLC-LED-900	C	LED 5700K-75 CRI	880W	94,207	8
TLC-LED-900	D	LED 5700K-75 CRI	880W	99,368	8

SINGLE FIXTURE AMPERAGE DRAW CHART	
DRIVER SPECIFICATIONS (.90 MIN POWER FACTOR)	LINE AMPERAGE PER FIXTURE (MAX DRAW)
SINGLE PHASE VOLTAGE	240 (60)
TLC-LED-900	4.5

MEP PROJECT #2604

PowerSystems

P.O. Box 2863
San Angelo, Texas 76902
325-659-2235
FIRM NO. F-6257

If this document is not SIGNED and DATED on the seal, then it is NOT FOR REGULATORY APPROVAL, PERMITTING OR CONSTRUCTION.

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ORDINANCES

THIS DRAWING IS REPRESENTATIVE IN NATURE ONLY. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL STATE, COUNTY, MUNICIPAL AND FEDERAL LAWS AND/OR ORDINANCES GOVERNING THE PROJECT. IF IN ANY INSTANCE THE PLANS AND SPECIFICATIONS ARE IN DIRECT CONFLICT WITH SUCH LAWS AND/OR ORDINANCES, THE LAWS AND/OR ORDINANCES SHALL HAVE JURISDICTION.



03-12-26

SHEET NO.

H-LE1.1

10 OF 12

CONTRACTOR SHALL OBTAIN FINAL DOCUMENTS FROM LIGHTING SUPPLIER AND INSTALL ACCORDINGLY.

MEP PROJECT #2604
Power Systems
P.O. Box 2863
San Angelo, Texas 76902
325-659-2235
FIRM NO. P-6257

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System Requirements: Control System Summary

Project Name: Lake View High School Football Tennis Retrofit | Project #: 231411
Control System ID: 2 of 2
Distribution Panel Location/ID: Service Two - Tennis

Circuit Summary

Field/Zone Description	Zone Schedule		Switch Location
	Zone		
Tennis 1-2	1		Cabinet 2
Tennis 3-4	2		Cabinet 2
Tennis 5-6	3		Cabinet 2
Tennis 7-8	4		Cabinet 2

Control Module ID: 2

Lighting Circuit Voltage: 240/60/1

Circuit Summary by Switch							
Switch	Zone Description	Pole ID	Qty of Fixtures	Full load amperes	Contactor Size (Amps)	Cabinet #	Contactor ID
1	Tennis 1-2	T1	2	9.04	30	2	C1
	Tennis 1-2	T2	2	9.04	30	2	C2
	Tennis 1-2	T3	2	9.04	30	2	C3
	Tennis 1-2	T4	2	9.04	30	2	C4
	Tennis 3-4	T3	2	9.04	30	2	C5
2	Tennis 3-4	T4	2	9.04	30	2	C6
	Tennis 3-4	T5	2	9.04	30	2	C7
	Tennis 3-4	T6	2	9.04	30	2	C8
	Tennis 5-6	T5	2	9.04	30	2	C9
	Tennis 5-6	T6	2	9.04	30	2	C10
3	Tennis 5-6	T7	2	9.04	30	2	C11
	Tennis 5-6	T8	2	9.04	30	2	C12
	Tennis 7-8	T1	2	9.04	30	3	C13
	Tennis 7-8	T3	2	9.04	30	3	C14
	Tennis 7-8	T9	2	9.04	30	3	C15
4	Tennis 7-8	T10	2	9.04	30	3	C16

PROVIDE SPACE FOR (8) FUTURE CONTACTORS

Sales Representative: Ben Voelliger | Project Engineer: Logan Schlee | Scan: 231411B | Document ID: 231411P1V2C2-0226162750



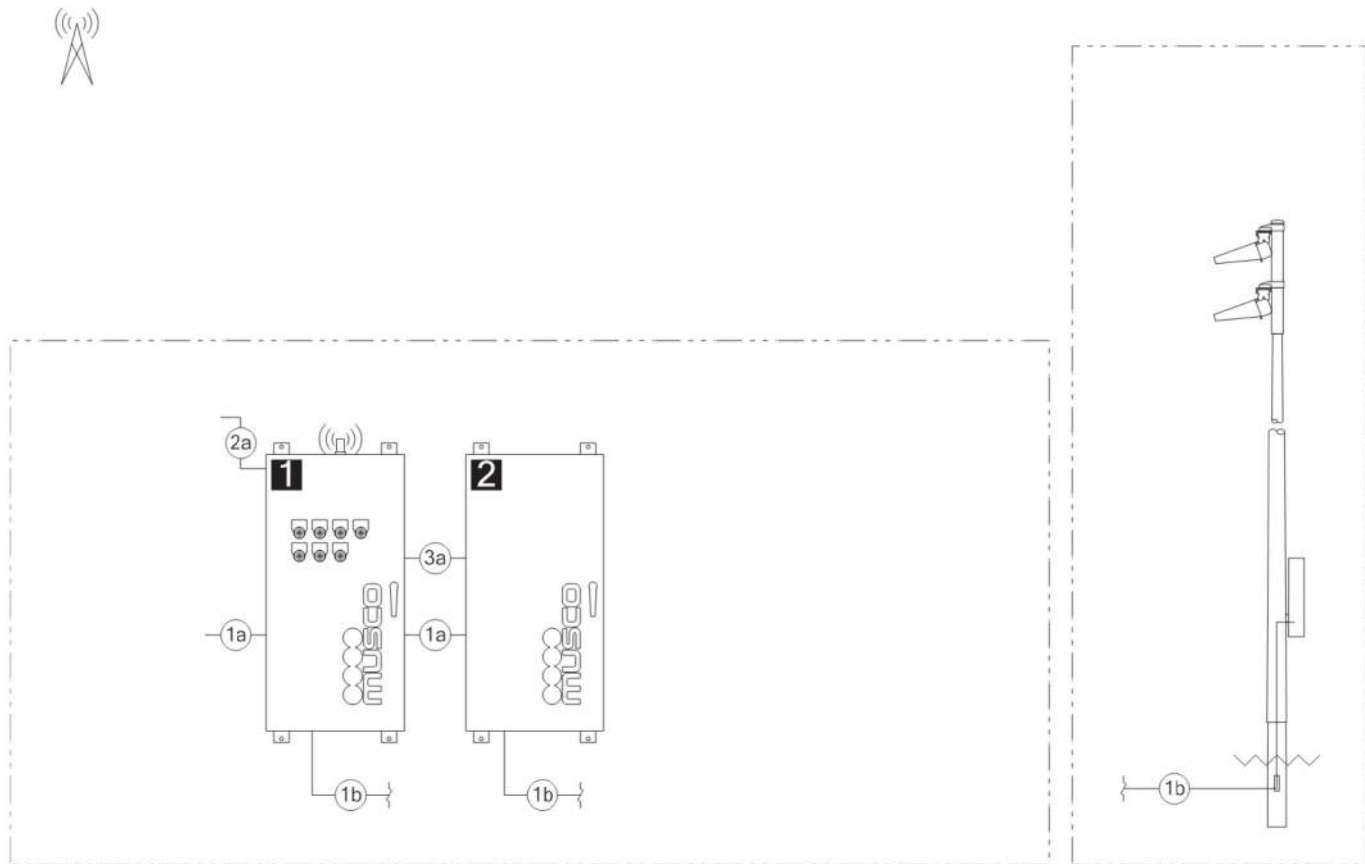
www.musco.com | lighting@musco.com

Page 6 of 6 - 26-February-2026

System Requirements: Control System Summary

Project Name: Lake View High School Football Tennis Retrofit | Project #: 231411
Control System ID: 2 of 2
Distribution Panel Location/ID: Service Two - Tennis

Equipment Layout and Connection Details



Connection Details	
ID	Description
1a	Line power to contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
1b	Load power from contactors, and equipment grounding conductor. Requires one circuit per contactor, size wiring per load and voltage drop.
2a	Control power with equipment ground to control cabinet. Requires dedicated 20 A circuit. Provide transformer if control voltage not present.
3a	Control harnesses - Secondary cabinet to primary cabinet. Harness is provided by Musco in 8-foot length. Use minimum 2 inch diameter conduit for harness connector.

Equipment	
ID	Description
1	Control and monitoring cabinet - primary
2	Control and monitoring cabinet - secondary

Sales Representative: Ben Voelliger | Project Engineer: Logan Schlee | Scan: 231411B | Document ID: 231411P1V2C2-0226162750



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System Requirements: Control System Summary

Project Name: Lake View High School Football Tennis Retrofit | Project #: 231411
Control System ID: 2 of 2
Distribution Panel Location/ID: Service Two - Tennis

Project Information

Control System

Control System ID: 2 of 2
Control System Type: Control-Link Control and Monitoring System
Communication Type: PowerLine-ST

Power Requirements

Control cabinet(s):

Control voltage (Phase to neutral): 120/60
VA loading - Inrush: 4493.0
VA loading - Sealed: 492.0

Lighting Circuits:

Voltage/Hertz/Phase: 240/60/1

Project Notes:

Equipment Listing

Description	Qty	Size (in)
Control and monitoring cabinet - primary	1	24 X 72
Control and monitoring cabinet - secondary	1	24 X 72
Contactor, 30 amperes	16	-
Off/On/Auto switches	4	-

Important Notes:

- Please confirm that the lighting circuit voltage listed above is accurate for this facility. This is the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
- In a 3 phase design, all 3 phases are to be run to each pole location. Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
- One contactor is required for each circuit at each pole location. Contactors are 3 pole and 100% rated for the published continuous load.
- If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
- Size overcurrent devices using the full load amps column of the Circuit Summary by Switch chart (Minimum power factor is 0.9). Size conduit per code unless otherwise specified as larger to allow for harness connectors.
- Avoid use of in-ground junction/pull boxes when possible. If used, the following best practices must be followed:
 - Underground handholes (pull boxes) must be supported to prevent settling. Boxes buried directly in soil, without support, are not allowed.
 - Use polymer concrete lids marked with ELECTRIC for underground handholes. Steel lids are not allowed.
 - Avoid underground connections when possible. If used, all wire connectors must be UL listed for Wet Locations to prevent leakage current.
- Control power wiring must be in separate conduit from line or load power wiring. Communication cables must be in separate conduit from any power wiring.
- Test wire per ANSI/NETA ATS-2021. Wires with insulation resistance less than 100 MOhms, in water-filled conduit, must be replaced.
- Refer to Installation Instructions for more details on equipment information and the installation requirements.

Sales Representative: Ben Voelliger | Project Engineer: Logan Schlee | Scan: 231411B | Document ID: 231411P1V2C2-0226162750



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LAKE VIEW HIGH SCHOOL TENNIS COURTS
SAISD
1919 KNICKERBOCKER SAN ANGELO, TX

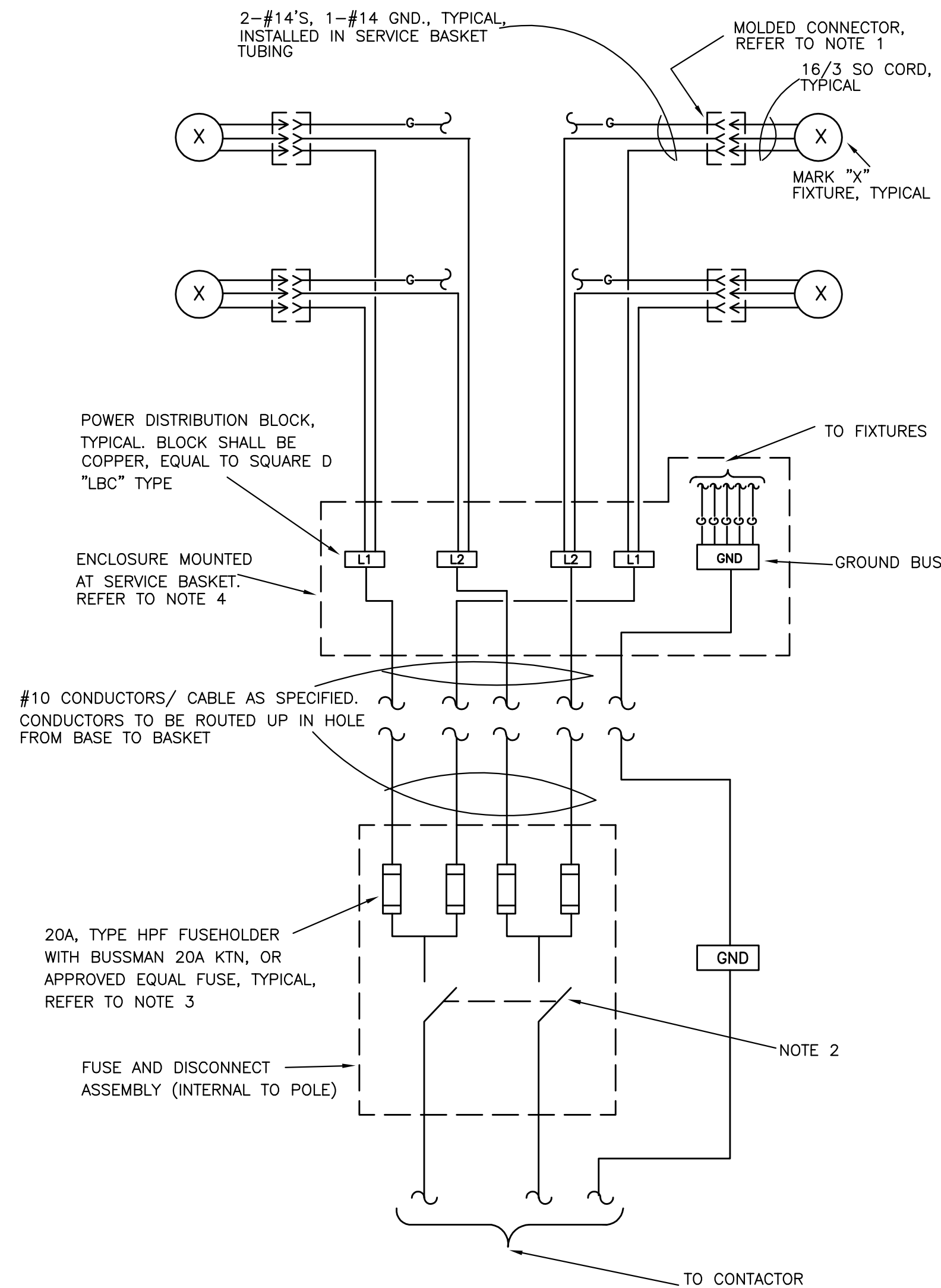


03-12-26

SHEET NO.

H-LE1.2

11 OF 12



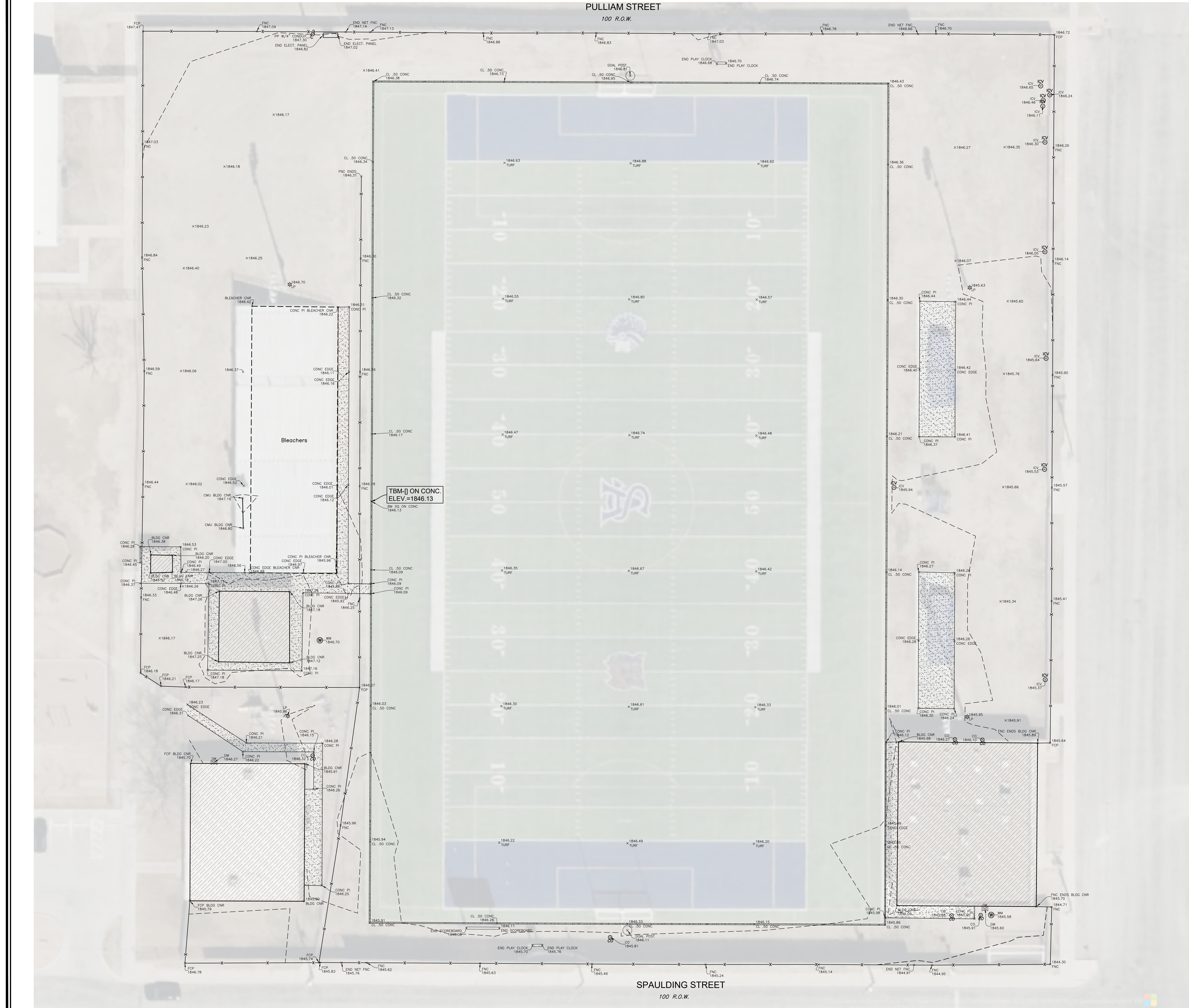
TYPICAL POLE WIRING DIAGRAM
NO SCALE

NOTES:

1. RECEPTACLE (FEMALE) PORTION OF CONNECTOR SHALL BE 1/2" NPT AND SHALL BE THREADED INTO THE UNDERSIDE OF THE HORIZONTAL TUBULAR MEMBER AT EACH FIXTURE LOCATION.
2. DISCONNECT SHALL 2 POLE, 600V RATED WITH ROTARY TYPE HANDLE; GE HEAVY DUTY QMR OR APPROVED EQUAL.
3. NOT MORE THAN TWO (2) FIXTURES SHALL BE SERVED BY AN INDIVIDUAL FUSE. PROVIDE FUSES AND FUSE HOLDERS IN THE QUANTITIES REQUIRED. COORDINATE SIZE OF FUSES WITH POLE SUPPLIER.
4. ENCLOSURE SHALL BE GASKETED GALVANIZED, NEMA 3R RATED, UL CERTIFIED ENCLOSURE. ENCLOSURE SHALL BE SIZED AS REQUIRED FOR ITS DISTRIBUTION BLOCKS AND CONDUCTORS.
5. PROVIDE SEALED DRAWINGS FOR DESIGN OF PIERS FOR LIGHT POLES.
6. POLES TO ARRIVE AT SITE PRE-WIRED BY MUSCO. PROVIDE DISCONNECT SWITCH AS REQUIRED.

PANEL "TC" LVHS TENNIS COURT LIGHTS

CKT	CKT BRKR	WIRE	SERVES	CONTINUOUS VA		NON-CONT. VA		SERVES	WIRE	CKT BRKR	CKT
				LIGHTS	OTHER	RECEPT	OTHER				
1	20/1	#12	CONTROLLER	880		A	1200	POLE T1/ CONTACTOR C13	#6	20/2	2
3	20/1	#12	RECEPTACLES	880		B	720				4
5	20/1	#12	RACK RECEPT	880		A	180	POLE T3/ CONTACTOR C14	#8	20/2	6
7	20/2	#6	POLE T1/ CONTACTOR C1	880		B					8
9				880		A		POLE T9/ CONTACTOR C15	#6	20/2	10
11	20/2	#4	POLE T2/ CONTACTOR C2	880		B					12
13				880		A		POLE T10/ CONTACTOR C16	#6	20/2	14
15	20/2	#8	POLE T3/ CONTACTOR C3	880		B					16
17				880		A		FUTURE POLE T3/ CONTACTOR C17	#8	20/2	18
19	20/2	#6	POLE T4/ CONTACTOR C4	880		B					20
21				880		A		FUTURE POLE T5/ CONTACTOR C18	#8	20/2	22
23	20/2	#8	POLE T3/ CONTACTOR C5	880		B					24
25				880		A		FUTURE POLE T10/ CONTACTOR C19	#6	20/2	26
27	20/2	#6	POLE T4/ CONTACTOR C6	880		B					28
29				880		A		FUTURE POLE T11/ CONTACTOR C20	#6	20/2	30
31	20/2	#8	POLE T5/ CONTACTOR C7	880		B					32
33				880		A		FUTURE POLE T5/ CONTACTOR C21	#8	20/2	34
35	20/2	#6	POLE T6/ CONTACTOR C8	880		B					36
37				880		A		FUTURE POLE T7/ CONTACTOR C22	#10	20/2	38
39	20/2	#8	POLE T5/ CONTACTOR C9	880		B					40
41				880		A		FUTURE POLE T11/ CONTACTOR C23	#6	20/2	42
43	20/2	#6	POLE T6/ CONTACTOR C10	880		B					44
45				880		A		FUTURE POLE T12/ CONTACTOR C24	#8	20/2	46
47	20/2	#10	POLE T7/ CONTACTOR C11	880		B					48
49				880		A		SPARE	#12	20/1	50
51	20/2	#12	POLE T8/ CONTACTOR C12	880		B		SPARE	#12	20/1	52
53				880		A		SPARE	#12	20/1	54
TOTAL NON-CONTINUOUS VA						2,100				2,100	
TOTAL CONTINUOUS VA				43,120						53,900	
SERVICE: 120/240V, 1Ø, 3W, 60HZ								45,220			
MAINS = 300 AMP MB								188			
A.I.C. = 22,000 AMPS											
PANEL "TC" NOTES:											
[1] SQUARE D TYPE NQ OR EQUAL, NEMA-3R CABINET, SURFACE MOUNT ON RACK.											



SKG
ENGINEERING LLC
SURVEYING • ENVIRONMENTAL • LASCMT
PHONE: 325.655.1288
FAX: 325.627.8189
708 SOUTH ABE STREET
SAN ANGELO, TEXAS 76903
FIRM REGISTRATION NUMBER F-7608 & 10102400
www.skg.com

STATE OF TEXAS
RUSSELL T. GULLY
87727
LICENSED PROFESSIONAL SURVEYOR
THE SEAL APPEARING ON THIS
DRAWING WAS AUTHORIZED BY
RUSSELL T. GULLY, P.E. 87727
SKG ENGINEERING, LLC BY 7508
MAR. 3, 2026

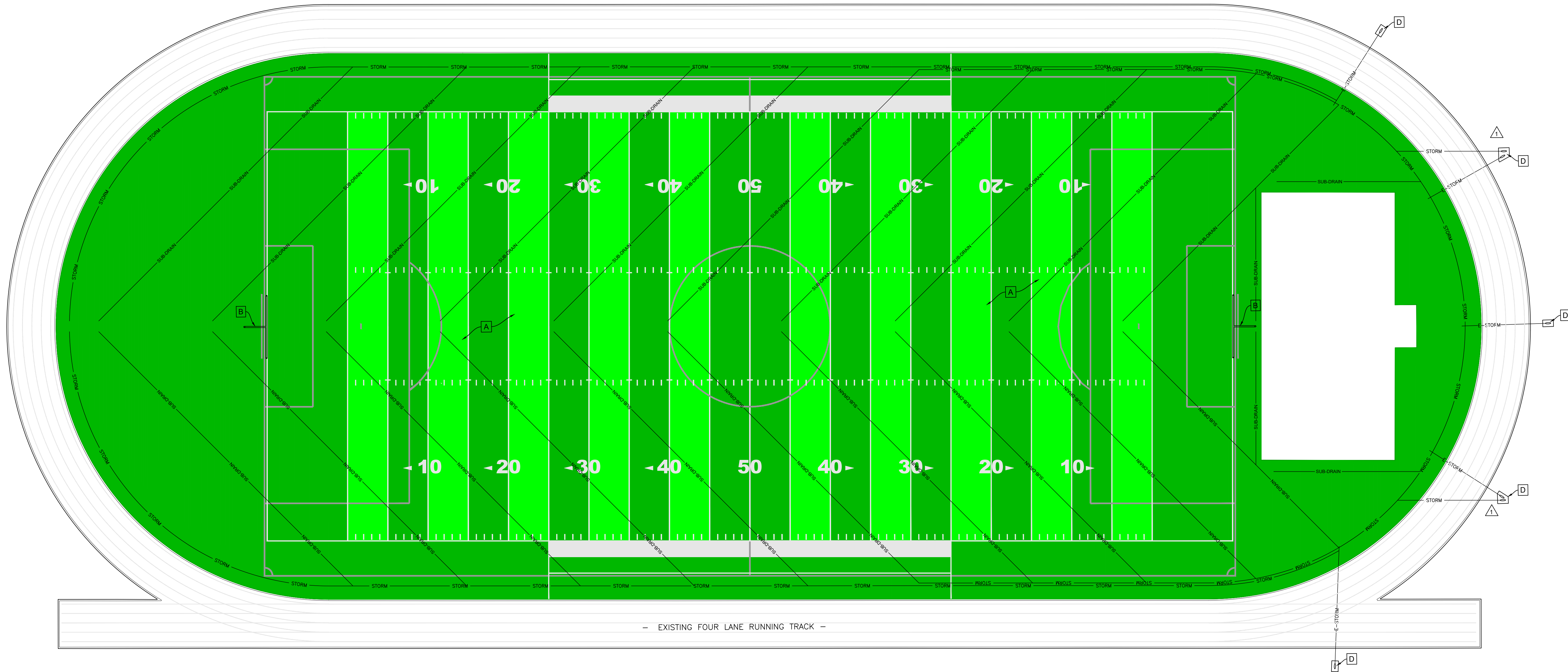
SAN ANGELO ISD

SAN ANGELO ISD
ATHLETIC FIELDS PROJECT
SAN ANGELO, TEXAS

TOPOGRAPHIC SURVEY
OLD BOBCAT STADIUM
902 SPAULDING STREET

REVISIONS

DWG BY:	DLH	DWG DATE:	MAR. 3, 2026
JOB NO.	25-E-1488	SHEET NO.	
SCALE:	1"=20'		I-C0.1

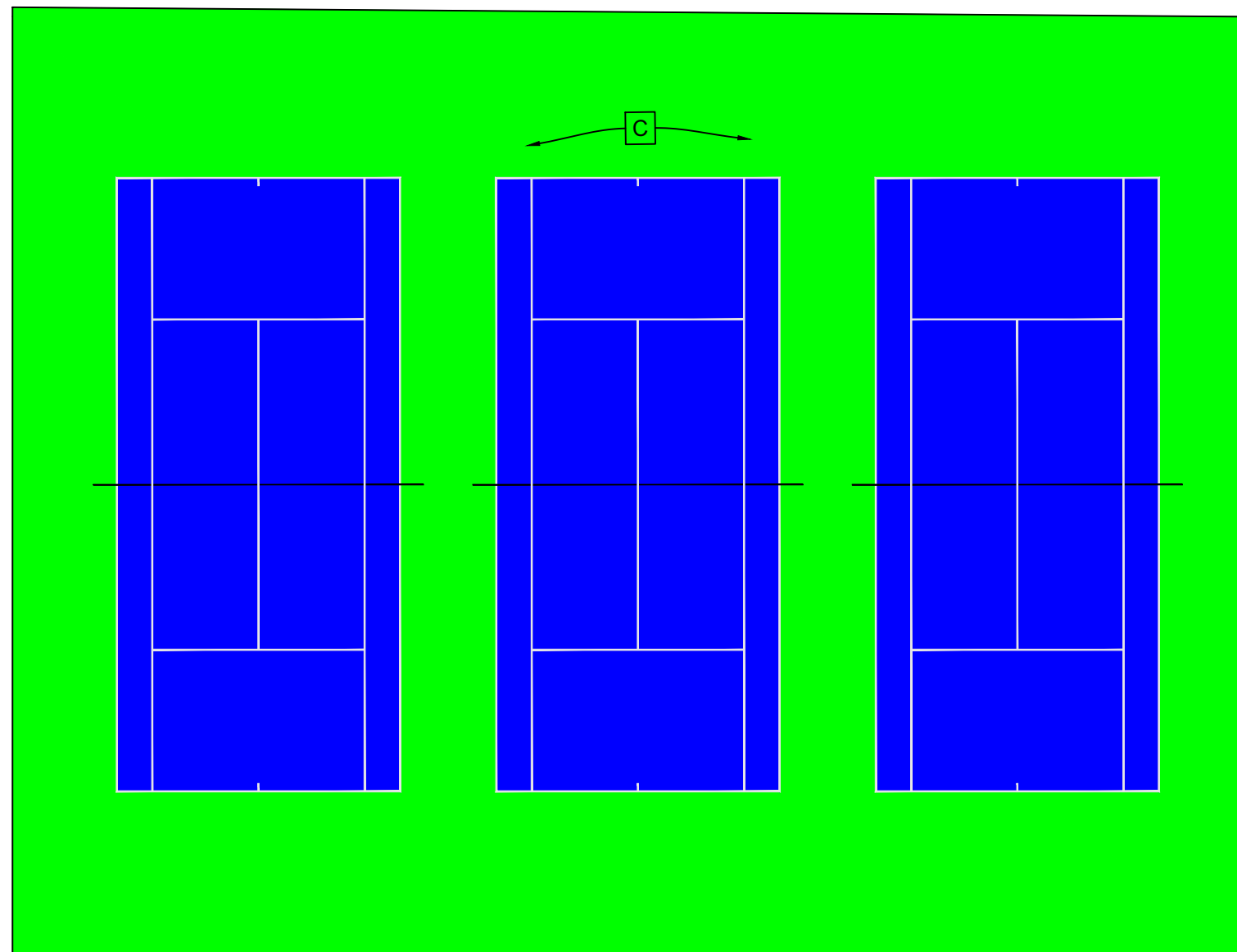


FOOTBALL FIELD

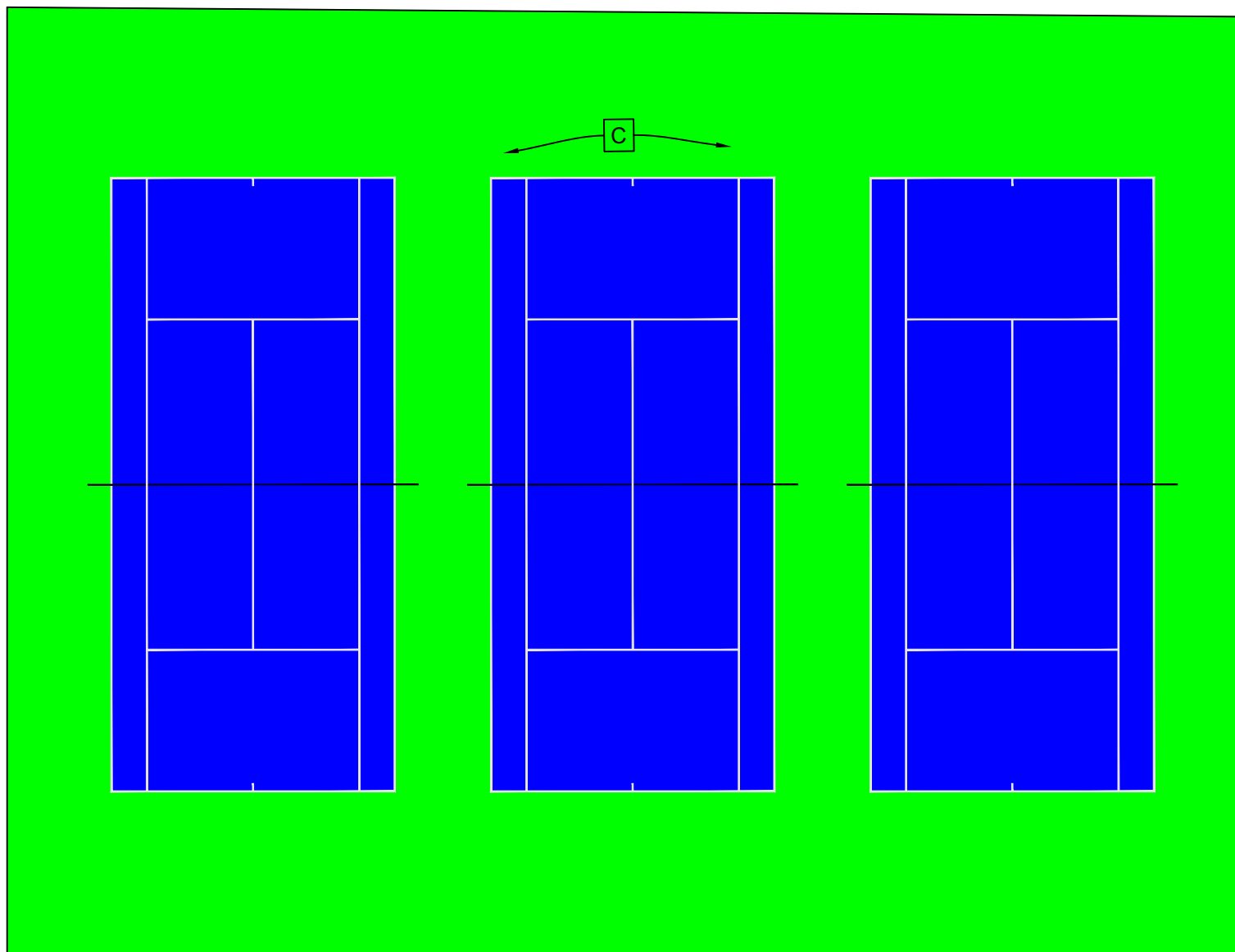
GENERAL NOTES:

- DIMENSIONS SHOWN HEREON ARE TO THE BACK OF CURB, CENTERLINE OF STRIPING, OR EDGE OF CONCRETE.
- EXISTING CONDITIONS, UTILITIES, SETBACKS AND EASEMENTS SHOWN HEREON ARE PROVIDED BASED ON A SURVEY PREPARED BY SKG ENGINEERING.
- EXISTING CONDITIONS, UTILITIES, SETBACKS AND EASEMENTS REPRESENT THE INFORMATION AVAILABLE TO THE ENGINEER AND SHOULD NOT BE CONSTRUED AS EXACT AND COMPLETE AND ITS USE DOES NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY FOR LOSSES DUE TO ANY INACCURACIES. NOTIFY THE CIVIL ENGINEER OF ANY DISCREPANCIES FOUND.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- ALL SITE WORK SHALL BE IN ACCORDANCE WITH, OR SURPASS RECOMMENDATIONS OF SOILS REPORT, DRAWINGS, AND SPECIFICATIONS. IF A CONFLICTS ARISES, THE MORE PROHIBITIVE SHALL TAKE PRECEDENCE AND BE CONSIDERED TO BE THE INTENT OF THE PROJECT DOCUMENTS. IN ALL CASES, STRICTLY ADHERE TO DRAWINGS AND SPECIFICATIONS, UNLESS SOILS REPORT RECOMMENDATION EXCEEDS THE DRAWINGS AND SPECIFICATIONS.

- BLUE COLOR COATING
- GREEN COLOR COATING



TENNIS COURTS



PROJECT SUMMARY:

- Provide and install erosion control measures as necessary.
- Within the area of new Synthetic Turf coordinate with Owner to locate and cap irrigation laterals. Remove existing irrigation valves and heads and deliver to owner. Remove existing sod/soil for new cross sections and dispose of materials offsite.
- Moisture condition and compact top eight inches of subgrade to a minimum 95% Standard Proctor Density.
- Machine control or laser grade subgrade to design subgrade elevations.
- Provide and install 30 mil HDPE liner across turf area and perimeter collector drain trench.
- Provide and install perforated HDPE drainage piping per plan.
- Provide and install flat panel drains at 30' O.C. per plan; flat drains to terminate in perimeter collector line.
- Provide and install 5" (minimum thickness) drain stone mix; compact to proper density and laser grade to design elevations in all areas to receive synthetic turf.
- Provide and install one set of Goal post with padding, 8' offset, and 30' uprights.
- Provide and install a 2"x4" composite turf anchor system.
- Provide and install Infilled Synthetic Turf system with layout/inlays for football and soccer per rendering.
- Prepare each court with a pressure washer and blower to remove all dirt and debris and acid wash the concrete surface. All bird baths will be patched with TPS 5000®RhinoFill crack filler.
- Apply one (1) coat of TPS 5000®Acrylic Surface at a rate of 0.7 gal/SY. Silica sand shall be mixed to achieve a medium to slow ball speed.
- Apply two (2) coats of TPS 5000®Fortified Acrylic Color Coating.
- Layout and paint 2" wide lines using Line Tape Sealer as a primer coat to ensure razor sharp edges. Paint shall be TPS 5000®White Line Paint and painted in accordance to USTA specifications.
- Project cleanup and restoration of disturbed area.

KEYED NOTES:

- A NEW ARTIFICIAL TURF FIELD WITH COMPLETE FOOTBALL AND SOCCER MARKINGS.
- B NEW GOAL POST WITH FOUNDATION.
- C NEW SURFACE COATING ON TENNIS COURTS WITH COMPLETE SINGLES AND DOUBLES TENNIS MARKINGS AND NEW NETTING.
- D NEW CONCRETE END TREATMENT AROUND END OF PIPE OUTLETS.

80 40 20 10 0 FEET

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SAN ANGELO, TEXAS 76903
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FIRM REGISTRATION NUMBER F-7068 & 10102400

STATE OF TEXAS
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LICENSED PROFESSIONAL SURVEYOR
THE SEAL APPEARING ON THIS DRAWING WAS AUTHORIZED BY
RUSSELL T. GULLY, P.E. 87727
SKG ENGINEERING, LLC #F-7068
MAR. 2, 2026

SAN ANGELO ISD

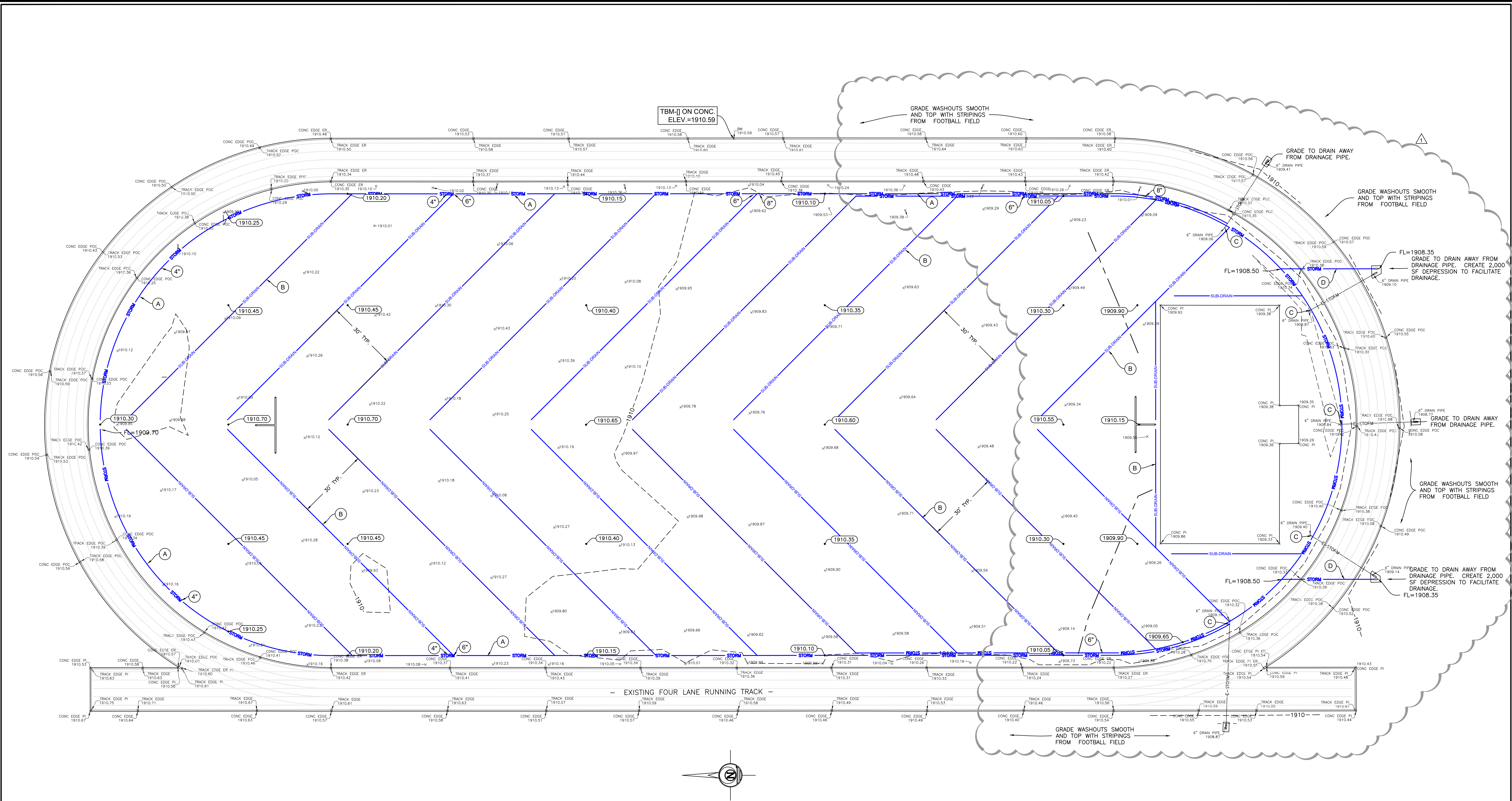
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ATHLETIC FIELDS PROJECT
SAN ANGELO, TEXAS

SITE PLAN
LINCOLN MIDDLE SCHOOL
255 LAKE VIEW HEROES DR.

REVISIONS
MAR. 16, 2026

DWG BY: RTG
JOB NO: 25-E-1488
SCALE: 1"=20'

DWG DATE: MAR. 2, 2026
SHEET NO: J-C1.1



GRADING NOTES:

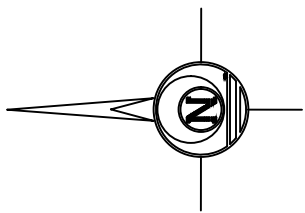
1. CONTOURS SHOWN HEREON BASED ON A SURVEY BY SKG ENGINEERING. EXISTING LINE LOCATIONS ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE, BUT IS NOT GUARANTEED TO BE CORRECT OR COMPLETE.
2. WITHIN THE PROJECT AREA, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE SIZE, TYPE, AND LOCATION OF PIPING AND UTILITIES AND PROTECTING AND REPAIRING THE SAME AT NO ADDITIONAL COST TO THE OWNER.
2. PROVIDE UNIFORM SLOPE BETWEEN SPOT ELEVATIONS AND CONTOURS EXCEPT AS REQUIRED OTHERWISE.
3. SPOT ELEVATIONS AND GRADES SHOWN HEREON REPRESENT THE FINISHED SURFACE. SITE CONTRACTOR TO ACCOUNT FOR THICKNESS OF BASE, TURF, TRACK SURFACE, CONCRETE, OR OTHER MISC. SURFACES TO BE APPLIED TO REACH FINAL GRADE.
4. CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
5. PROVIDE POSITIVE DRAINAGE TO INLETS OR PIPING TO PREVENT PONDING.
6. THE FINISHED SURFACE SHALL BE SMOOTH AND TRUE TO WITHIN 0.04 FEET OF THE ESTABLISHED LINE, GRADE, AND CROSS SECTION. AREAS THAT POND WATER GREATER THAN 1/4 INCH DEEP WILL NOT BE PERMITTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING DEFICIENT AREAS.
7. ALL SITE WORK SHALL BE IN ACCORDANCE WITH, OR SURPASS RECOMMENDATIONS OF SOILS REPORT, DRAWINGS, AND SPECIFICATIONS. IF A CONFLICTS ARISES, THE MORE PROHIBITIVE SHALL TAKE PRECEDENCE AND BE CONSIDERED TO BE THE INTENT OF THE PROJECT DOCUMENTS. IN ALL CASES, STRICTLY ADHERE TO DRAWINGS AND SPECIFICATIONS, UNLESS SOILS REPORT RECOMMENDATION EXCEEDS THE DRAWINGS AND SPECIFICATIONS.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE COMPLIANCE WITH THE REQUIREMENTS SHOWN ON THE PLANS, DETAILS, AND SPECIFICATIONS. AN INDEPENDENT CONSTRUCTION MATERIAL TESTING COMPANY SHALL BE RETAINED TO PERFORM COMPACTION TESTING OF SUBGRADE, FILL, AND ALL MATERIALS INCORPORATED IN ACCORDANCE WITH THE SPECIFICATIONS. RESULTS ARE TO BE EMAILED TO SKG ENGINEERING AT RG@SKGE.COM WITHIN 48 HOURS OF TESTING. COMPACTION AND MOISTURE REQUIREMENTS MUST BE MET AND DOCUMENTED BY TESTING BEFORE THE NEXT LIFT OF MATERIAL IS PLACED ABOVE. THE ENGINEER IS NOT RESPONSIBLE FOR ENSURING TESTING IS PERFORMED OR THAT THE WORK MEETS THE REQUIREMENTS. SHOULD ANY REQUIRED TEST NOT BE PERFORMED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO UNCOVER OR UNDO AND TEST AS REQUIRED.

KEYED NOTES:

- (A) PERFORATED STORM DRAIN LINE @ 0.1% MIN. SLOPE TO CONNECTION AT EXISTING STORM DRAIN LINE. SIZE AS INDICATED ON PLAN.
- (B) 12" FLAT PANEL PERFORATED STORM DRAIN LINE.
- (C) CONNECT TO EXISTING STORM DRAIN LINE.
- (D) BORE NEW 8" STORM DRAIN LINE BELOW TRACK AND CONNECT FIELD DRAIN LINES.

LEGEND

- x1910.20 EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- 1911.40 PROPOSED SPOT ELEVATION
- - - - - EXISTING STORM DRAIN LINE
- STORM — PROPOSED STORM DRAIN LINE
- SUB-DRAIN — PROPOSED FLAT PANEL DRAIN



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STATE OF TEXAS
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87727
LICENSED PROFESSIONAL ENGINEER
THE SEAL APPEARING ON THIS DRAWING WAS AUTHORIZED BY RUSSELL T. GULLY, P.E. 87727
SKG ENGINEERING, LLC
MAR. 2, 2026

SAN ANGELO ISD
ATHLETIC FIELDS PROJECT
SAN ANGELO, TEXAS

GRADING PLAN
LINCOLN MIDDLE SCHOOL
255 LAKE VIEW HEROES DR.

REVISIONS
MAR. 16, 2026

DWG BY: RTG
JOB NO: 25-E-1488
SCALE: 1"=20'

DWG DATE: MAR. 2, 2026
SHEET NO: J-C2.1

SECTION 32 18 24 - SYNTHETIC RUNNING TRACK SURFACING

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes construction of a synthetic running track surfacing system consisting of:

1. Structurally sprayed base mat (SSBM) system
2. Polyurethane track surfacing system
3. Surface sealing layer
4. Lane markings and event markings

B. Related work:

1. Earthwork and subgrade preparation
2. Asphalt or concrete track base construction
3. Athletic equipment installation

1.2 REFERENCES

Comply with the latest applicable standards of:

- UIL rules and regulations
- ASTM International standards for polyurethane athletic surfaces
- National Federation of State High School Associations track layout and markings

1.3 PERFORMANCE REQUIREMENTS

The synthetic track system shall:

A. Provide a resilient, durable athletic surface suitable for competitive running events.

B. Be capable of maintaining structural integrity and elasticity under normal athletic use and environmental conditions.

C. Meet manufacturer performance requirements for:

1. Thickness: 1/2" (12.5mm) or as specified
2. Shore A Hardness (ASTM D-2240): 55 +/-5
3. Elongation at break (ASTMD-412): $\geq 40\%$
4. Tensile Strength (ASTM D-412): 0.75 N/mm² @ 70F
5. Compression Set Recovery (ASTMD-412) 90-95% @ 70F over a 24-hour period
6. Abrasion Resistance (ASTM D-501): 0.25 grams loss after 1000 cycles
7. Chalking (ASTM D-822): No change after 1000 hours in weather meter.
8. Coefficient of Friction (ASTMD-1984): Dry: 0.70-0.75 / Wet: 0.60-0.65
9. Resilience (ASTM D-2632): 37-39%
10. Tear Resistance (ASTM D-624): 50-65 psi Tensile strength

1.4 SUBMITTALS

Submit the following:

A. Product Data

1. Polyurethane binder
2. Rubber granules

3. Spray-applied base mat materials
4. Track surfacing system

B. Shop Drawings

1. Track layout
2. Lane striping plan
3. Event marking plan

C. Samples

1. Minimum 6 in × 6 in sample of proposed track surface.

D. Installer Qualifications

E. Manufacturer certification of material compliance.

F. Warranty documentation.

1.5 QUALITY ASSURANCE

A. Installer Qualifications:

Installer shall have a minimum of six years' experience installing polyurethane synthetic running track systems.

B. Manufacturer Qualifications:

Track system shall be supplied by a manufacturer with a minimum of ten years' experience producing synthetic athletic surfaces.

C. Pre-Installation Conference:

Conduct meeting with owner, engineer, contractor, and track installer to review:

- Surface preparation
- Installation methods
- Weather limitations
- Protection requirements

1.6 DELIVERY, STORAGE, AND HANDLING

Deliver materials in original unopened containers with manufacturer labels intact.

Store materials in a dry location protected from extreme temperatures and moisture.

1.7 PROJECT CONDITIONS

A. Do not install track system when:

1. Surface temperature is below 50°F.
2. Surface is wet or frozen.
3. Rain is expected during installation.

B. Substrate must be clean, dry, and properly cured prior to installation.

1.8 WARRANTY

Provide a minimum five-year warranty covering defects in materials and workmanship.

Warranty shall include:

- Delamination
- Excessive wear
- Structural failure of base mat system

PART 2 – PRODUCTS

2.1 MANUFACTURERS

Subject to compliance with specifications, acceptable manufacturers include:

- Paragon Track Surfaces
- Rekortan
- Hellas EpiQ Tracks
- Approved equal.

2.2 STRUCTURALLY SPRAYED BASE MAT SYSTEM

A. Description

The base mat shall consist of a spray-applied mixture of rubber granules and polyurethane binder forming a resilient structural layer over the asphalt or concrete track base.

B. Polyurethane Binder

Two-component moisture-curing polyurethane binder specifically designed for athletic track applications.

Properties:

- High elasticity
- UV resistance
- Weather durability
- Strong adhesion to asphalt or concrete base

C. Rubber Granules

Rubber granules shall be:

- SBR recycled rubber or approved equivalent
- Clean and free of contaminants
- Particle size between 1 mm and 3 mm

D. Mix Ratio

Binder content shall be approximately 18–22 percent by weight, unless otherwise recommended by the manufacturer.

E. Thickness

Structurally sprayed base mat thickness shall be 1/2 inch to 5/8 inch (12–15 mm).

2.3 POLYURETHANE TRACK SURFACING SYSTEM

A. Surface Layer

Provide spray-applied polyurethane wearing course consisting of:

- Polyurethane binder
- EPDM rubber granules

B. EPDM Granules

Granules shall be:

- UV stable
- Color fast
- Uniform in size

C. Thickness

Top wearing course shall be minimum 3 mm thick unless otherwise specified by the manufacturer.

2.4 LINE STRIPING

A. Lane markings shall be applied using polyurethane or latex track marking paint compatible with the track surface.

B. Colors and layout shall comply with standards of:

- National Federation of State High School Associations
- University Interscholastic League

PART 3 – EXECUTION

3.1 EXAMINATION

Verify the surface to which the track is applied meets tolerances prior to installation.

Track base shall meet the following tolerance:

Maximum deviation of 1/8 inch in 10 feet.

3.2 SURFACE PREPARATION

Remove existing track surface where present.

Clean track base of all dirt, dust, oil, and debris.

Repair cracks or surface defects prior to installation.

Prime surface where recommended by manufacturer.

Flood the surface and identify any “birdbaths” remaining after 30 minutes and repair low areas per track manufacturer's recommendations.

Do not begin installation until unsatisfactory conditions have been corrected.

3.3 INSTALLATION – BASE MAT

- A. Mix rubber granules and polyurethane binder using pave in place or mechanical spray equipment designed for athletic track installation.
- B. Apply mixture evenly onto prepared base surface.
- C. Apply material in overlapping passes to achieve uniform thickness.
- D. Level surface as necessary to remove ridges or irregularities.
- E. Allow base mat to cure before applying subsequent surfacing layers.
Typical cure time: 12 to 24 hours.

3.4 INSTALLATION – POLYURETHANE SURFACE LAYER

Apply polyurethane wearing course over cured base mat using spray or squeegee methods per manufacturer requirements.
Ensure uniform coverage and thickness.

3.5 LINE MARKING

After surfacing has fully cured, apply lane markings and event markings according to approved layout drawings.
Markings shall be sharp, uniform, and clearly visible.

3.6 PROTECTION

Protect completed track surface from damage and contamination during construction.
Do not allow foot traffic or equipment on track until fully cured.

3.7 FINAL ACCEPTANCE

- Completed track surface shall be:
- Uniform in thickness and color
 - Free of depressions, ridges, or surface defects
 - Properly marked and ready for athletic use

END OF SECTION

SECTION 32 18 26 - TENNIS COURT SURFACING

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Preparation of existing or new concrete tennis court slab.
2. Crack repair and surface patching.
3. Application of acrylic tennis court surfacing system.
4. Application of color coatings.
5. Game line striping for regulation tennis courts.

B. Related Sections:

1. Section 03 30 00 – Cast-in-Place Concrete.

1.2 REFERENCES

A. Comply with the latest editions of the following:

1. American Sports Builders Association (ASBA) – Tennis Court Construction & Maintenance Manual.
2. United States Tennis Association (USTA) – Facility Guidelines and Recommendations.
3. ASTM International standards applicable to acrylic coatings and concrete repair materials.

1.3 SUBMITTALS

A. Product Data:

1. Manufacturer's technical data for surfacing materials, patching compounds, primers, and coatings.

B. Samples:

1. 4 x 4 inch samples of each color coat.

C. Shop Drawings:

1. Layout of court striping, dimensions, and color scheme.

D. Quality Assurance Submittals:

1. Installer qualifications.
2. Manufacturer certification that materials comply with specifications.

1.4 QUALITY ASSURANCE

A. Installer Qualifications:

1. Minimum five (5) years experience installing acrylic tennis court surfacing systems.
2. Approved or licensed applicator by coating manufacturer.

B. Pre-Installation Conference:

1. Conduct meeting with Owner, Architect/Engineer, and Contractor to review installation procedures.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original sealed containers bearing manufacturer labels.
- B. Store materials in dry, protected areas between 50°F and 90°F.

1.6 PROJECT CONDITIONS

- A. Do not apply coatings when:
 - 1. Ambient temperature is below 50°F.
 - 2. Rain is expected within 24 hours.
 - 3. Surface is damp or frozen.

1.7 WARRANTY

- A. Provide manufacturer's standard warranty for acrylic surfacing system.
- B. Warranty Period: One (1) year minimum from date of Substantial Completion.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Plexipave.
 - 2. Laykold.
 - 3. SportMaster.
 - 4. Approved equal.

2.2 ACRYLIC SURFACING SYSTEM

- A. System Type:
 - 1. Water-based acrylic tennis court surfacing system designed for application over concrete.
- B. Components:
 - 1. Acrylic surfacer.
 - 2. Acrylic color coating with silica sand.
 - 3. Line striping paint.
- C. Performance Requirements:
 - 1. Non-slip textured surface.
 - 2. UV resistant and colorfast.
 - 3. Resistant to weathering and abrasion.

2.3 PATCHING MATERIALS

- A. Acrylic patch binder mixed with Portland cement and graded silica sand.
- B. Crack Repair Materials:

1. Acrylic crack filler or membrane system recommended by surfacing manufacturer.
2. Synthetic latex liquid

2.4 COLOR COATINGS

A. Acrylic color coating formulated for tennis court surfaces.

B. Court Colors:

1. Playing Area: Standard tennis court color per Owner.
2. Outer Court Area: Contrasting color per Owner.

C. Texture:

1. Silica sand added to produce uniform textured finish.

2.5 LINE PAINT

A. White textured acrylic line paint.

B. Line Width:

1. 2 inches typical unless otherwise noted.

C. Layout:

1. Regulation tennis court dimensions per United States Tennis Association standards.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Verify concrete surface is properly cured (minimum 28 days).

B. Verify surface is clean, dry, and free of oils, curing compounds, and contaminants.

3.2 SURFACE PREPARATION

A. Remove existing court surface where present. Clean surface using pressure washing or mechanical means. Remove laitance, loose material, and debris.

B. Repair cracks and surface defects prior to surfacing.

3.3 CRACK REPAIR AND PATCHING

A. Rout and clean cracks where required.

B. Fill cracks with acrylic crack repair material.

C. Patch low areas using acrylic patch mix.

D. Allow patching materials to cure before coating application.

3.4 APPLICATION OF ACRYLIC SURFACING

- A. Apply acrylic surfacer coat uniformly over entire court surface.
- B. Apply two (2) coats minimum of acrylic color coating.
- C. Apply coatings using rubber squeegee in accordance with manufacturer recommendations.
- D. Allow each coat to dry prior to applying the next coat.

3.5 LINE STRIPING

- A. Lay out court lines using accurate measuring techniques.
- B. Mask and apply white acrylic line paint.
- C. Remove masking immediately after paint application.

3.6 FIELD QUALITY CONTROL

- A. Inspect surface for uniform color and texture.
- B. Verify line dimensions and court layout.

3.7 CLEANING AND PROTECTION

- A. Remove debris and excess materials from site.
- B. Protect finished surface from traffic for a minimum of 48 hours after final coat.

END OF SECTION