HISTORIC AND DESIGN REVIEW COMMISSION

March 20, 2019

HDRC CASE NO: 2019-102

COMMON NAME: 3299 SW 28th Street **ADDRESS:** 3101 ROSELAWN

LEGAL DESCRIPTION: NCB 12308 BLK 10 LOT 2

ZONING: R-6 **CITY COUNCIL DIST.:** 5

APPLICANT: Mark Padilla/MP Studio **OWNER:** City of San Antonio Parks

TYPE OF WORK: Park Improvements
APPLICATION RECEIVED: March 01, 2019
60-DAY REVIEW: April 30, 2019
CASE MANAGER: Adam Rajper

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to carry out various park improvements, including the construction of shade structures in the existing playground and basketball court, as well as the installation of site lighting.

APPLICABLE CITATIONS:

UDC Sec. 35-641. - Design Considerations for Historic and Design Review Commission Recommendations.

In reviewing an application, the historic and design review commission shall be aware of the importance of attempting to find a way to meet the current needs of the City of San Antonio, lessee or licensee of public property. The historic and design review commission shall also recognize the importance of recommending approval of plans that will be reasonable to implement. The best urban design standards possible can and should be employed with public property including buildings and facilities, parks and open spaces, and the public right-of-way. Design and construction on public property should employ such standards because the use of public monies for design and construction is a public trust. Public commitment to quality design should encourage better design by the private sector. Finally, using such design standards for public property improves the identity and the quality of life of the surrounding neighborhoods.

UDC Sec 35-642. – New Construction of Buildings and Facilities:

In considering whether to recommend approval or disapproval of a certificate, the historic and design review commission shall be guided by the following design considerations. These are not intended to restrict imagination, innovation or variety, but rather to assist in focusing on design principles, which can result in creative solutions that will enhance the city and its neighborhoods. Good and original design solutions that meet the individual requirements of a specific site or neighborhood are encouraged and welcomed.

- (a) Site and Setting.
- (1) Building sites should be planned to take into consideration existing natural climatic and topographical features. The intrusive leveling of the site should be avoided. Climatic factors such as sun, wind, and temperature should become an integral part of the design to encourage design of site-specific facilities which reinforces the individual identity of a neighborhood and promotes energy efficient facilities.
- (2) Special consideration should be given to maintain existing urban design characteristics, such as setbacks, building heights, streetscapes, pedestrian movement, and traffic flow. Building placement should enhance or create focal points and views. Continuity of scale and orientation shall be emphasized.
- (3) Accessibility from streets should be designed to accommodate safe pedestrian movement as well as vehicular traffic. Where possible, parking areas should be screened from view from the public right-of-way by attractive fences, berms, plantings or other means.
- (4) Historically significant aspects of the site shall be identified and if possible incorporated into the site design. Historic relationships between buildings, such as plazas or open spaces, boulevards or axial relationships should be maintained.
- (b) Building Design.
- (1) Buildings for the public should maintain the highest quality standards of design integrity. They should elicit a pride of ownership for all citizens. Public buildings should reflect the unique and diverse character of San Antonio and should be responsive to the time and place in which they were constructed.

- (2) Buildings shall be in scale with their adjoining surroundings and shall be in harmonious conformance to the identifying quality and characteristics of the neighborhood. They shall be compatible in design, style and materials. Reproductions of styles and designs from a different time period are not encouraged, consistent with the secretary of the interior's standards. Major horizontal and vertical elements in adjoining sites should be respected.
- (3) Materials shall be suitable to the type of building and design in which they are used. They shall be durable and easily maintained. Materials and designs at pedestrian level shall be at human scale, that is they shall be designed to be understood and appreciated by someone on foot. Materials should be selected that respect the historic character of the surrounding area in texture, size and color.
- (4) Building components such as doors, windows, overhangs, awnings, roof shapes and decorative elements shall all be designed to contribute to the proportions and scale of their surrounding context. Established mass/void relationships shall be maintained. Patterns and rhythms in the streetscape shall be continued.
- (5) Colors shall be harmonious with the surrounding environment, but should not be dull. Choice of color should reflect the local and regional character. Nearby historic colors shall be respected.
- (6) Mechanical equipment or other utility hardware should be screened from public view with materials compatible with the building design. Where possible, rooftop mechanical equipment should be screened, even from above. Where feasible, overhead utilities should also be underground or attractively screened. Exterior lighting shall be an integral part of the design. Interior lighting shall be controlled so that the spillover lighting onto public walkways is not annoying to pedestrians.
- (7) Signs which are out of keeping with the character of the environment in question should not be used. Excessive size and inappropriate placement on buildings results in visual clutter. Signs should be designed to relate harmoniously to exterior building materials and colors. Signs should express a simple clear message with wording kept to a minimum.
- (8) Auxiliary design. The site should take into account the compatibility of landscaping, parking facilities, utility and service areas, walkways and appurtenances. These should be designed with the overall environment in mind and should be in visual keeping with related buildings, structures and places.

FINDINGS:

- a. The property located at 3299 SW 28th Street is a public park with the common name of Kennedy Park and is situated to the southwest of Downtown. The applicant is requesting approval for various park improvements.
- b. PARK IMPROVEMENTS The applicant has proposed various park improvements, including the construction of fabric shade structures in the existing playground and basketball court, as well as the installation of site lighting. Staff finds the proposal consistent with the UDC.
- c. ARCHAEOLOGY The project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.

RECOMMENDATION:

Staff recommends approval based on findings a through c with the following stipulation:

i. ARCHAEOLOGY – The project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.





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Printed:Mar 12, 2019

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KENNEDY PARK



New fabric shade structure over existing playground



New fabric shade structure over existing basketball court.

2017-2022 BOND PROGRAM COSA DISTRICT 5 PARKS KENNEDY PARK

San Antonio, Texas Sitework Repair / Electrical

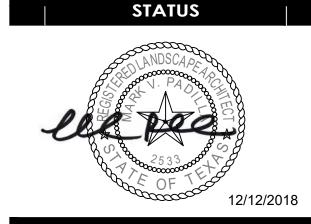
CITY OF SAN ANTONIO				
mayor RON NIRENBERG	council district 5 SHIRLEY GONZALES			
city manager SHERYL SCULLEY	council district 6 GREG BROCKHOUSE			
director of parks & recreation XAVIER D. URRUTIA	council district 7 ANA SANDOVAL			
council district 1 ROBERTO TREVINO	council district 8 MANNY PELAEZ			
council district 2 CRUZ SHAW	council district 9 JOHN COURAGE			
council district 3 REBECCA VIAGRAN	council district 10 CLAYTON PERRY			

	INDEX	OF SHEETS	
DATE	ISSUE	SHEET TITLE	SHEET NO.
REFERENC	E		
DECEMBER 12, 2018	FOR CONSTRUCTION	COVER SHEET	LC 1.0
DECEMBER 12, 2018	FOR CONSTRUCTION	GENERAL NOTES	LC 1.1
SITEWORK	REPAIR		
DECEMBER 12, 2018	FOR CONSTRUCTION	OVERALL SITE PLAN	LS 1.0
DECEMBER 12, 2018	FOR CONSTRUCTION	SITE REPAIR PLAN AT PLAYGROUND	LS 1.1
DECEMBER 12, 2018	FOR CONSTRUCTION	DEMO PLAN AT BASKETBALL COURT	LS 1.2
DECEMBER 12, 2018	FOR CONSTRUCTION	SITE REPAIR PLAN AT BASKETBALL COURT	LS 1.3
ELECTRICA	L		
DECEMBER 18, 2018	Electrical Abbreviation	ons & Symbols	E0.0
DECEMBER 18, 2018	Electrical Demo Plar	n	E1.1
DECEMBER 18, 2018	Electrical Site Plan		E 1.2
DECEMBER 18, 2018	Electrical Schedules	s & Details	E 2.1
DECEMBER 18, 2018	Electrical Specification	ons	E 3.1

A PROJECT BY						
TCI-project manager TCI - CITY OF SAN ANTONIO	landscape architect MP STUDIO	mep engineer CNG ENGINEERING				
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PROJECT

KENNEDY PARK

COSA DISTRICT 5 PARK

PROJECT ADDRESS

3299 SW 28TH STREET SAN ANTONIO, TX 78226

OWNER | CLIENT

TCI - CITY OF SAN ANTONIO

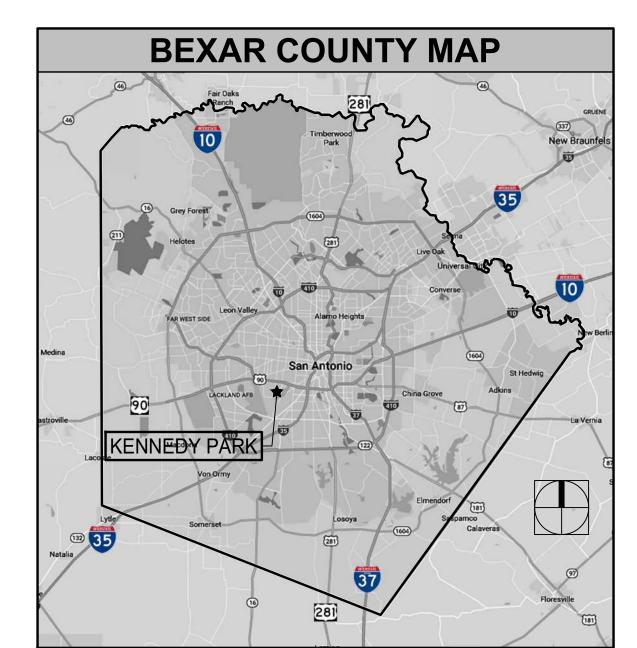
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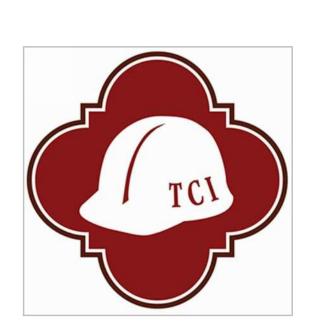
SUBCONSULTANT





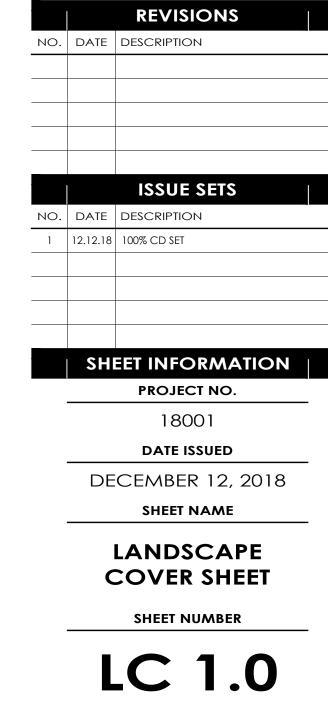
Parks & Recreation Department
DISTRICT 5 PARKS
Kennedy Park
3299 SW 28TH ST

3299 SW 28TH ST, SAN ANTONIO, TX 78226



council district 4

REY SALDANA



GENERAL NOTES:

1.) LOCATE AND VERIFY THE CONDITION OF EXISTING UTILITIES PRIOR TO EXCAVATION. TAKE RESPONSIBILITY OF CONTACTING LINE LOCATION SERVICES AND ANY COST INCURRED FOR BODILY INJURY AND / OR DAMAGE OF OWNER'S PROPERTY OR SAID UTILITIES.

2.) THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED BY THE CONTRACTOR OF ANY DISCREPANCIES DISCOVERED BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE LIABLE FOR ALL MODIFICATIONS AND DAMAGES IF WORK PROCEEDS WITHOUT THIS NOTIFICATION.

3.) THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF MAINTAINING A SAFE WORK SITE INCLUDING, BUT NOT LIMITED TO PROVIDING FOR TRAFFIC CONTROL, INSTALLATION AND PLACEMENT OF FENCING AND BARRICADES, EXCAVATION AND TRENCH PROTECTION, AND COMPLIANCE WITH ALL FEDERAL AND LOCAL REGULATIONS AND CODES. ALL SAFETY EXPOSURES OR VIOLATIONS SHALL BE RECTIFIED IMMEDIATELY.

4.) THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL EXISTING IMPROVEMENTS BOTH ON SITE AND ADJACENT TO THE WORK SITE AND SHALL REPAIR ANY DAMAGE TO THESE IMPROVEMENTS TO THE SATISFACTION OF THE OWNER.

5.) THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE ARCHITECT 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULES.

6.) ANY ALTERNATES AND OR SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL. CHANGES TO THE SCOPE OF WORK AND / OR CONTRACT DOCUMENTS RESULTING FROM THE ACCEPTANCE OF THE CONTRACTOR'S ALTERNATES AND / OR SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

7.) THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF TRASH ON A DAILY BASIS.

8.) THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. PRIOR TO CONSTRUCTION, ALL PERMITS AND APPROVALS REQUIRED FOR CONSTRUCTION OF THE PROJECT SHALL BE PAID FOR AND OBTAINED BY THE CONTRACTOR (PLAN REVIEW FEES ARE PAID BY OWNER) COSTS FOR PERMITS SHALL BE INCLUDED IN THE BID. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME AWARE OF REQUIRED INSPECTIONS THAT ARE ASSOCIATED WITH PERMITS ISSUED FOR THE WORK AND TO SCHEDULE THESE INSPECTIONS AT THE APPROPRIATE STAGE OF CONSTRUCTION. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO ROUGH-IN ELECTRICAL, ROUGH-IN PLUMBING, IRRIGATION PIPING, FOUNDATION STEEL FOR STRUCTURES (INCLUDING WALLS), FIRE INSPECTIONS RELATED TO ENTRY GATES AND ASSOCIATED STRUCTURES AND OTHERS AS MAY APPLY.

9.) COORDINATE WORK WITH SUBCONTRACTORS TO ACCOMPLISH THE SCOPE OF WORK AS SHOWN AND NOTED IN THE CONTRACT DOCUMENTS AS WELL AS, COORDINATE CONSTRUCTION WITH OTHER CONTRACTORS WORKING ON THE SITE.

10.) THE CONTRACTOR SHALL COORDINATE THE STORING OF MATERIALS, PARKING OF VEHICLES, AND RESTRICTIONS OF WORK AND ACCESS WITH THE OWNER. UNDER NO CIRCUMSTANCES SHALL ANY CONTRACTOR STORE MATERIALS, PARK VEHICLES OR EQUIPMENT UNDER THE CANOPY OF EXISTING TREES.

11.) UNLESS SPECIFIED OTHERWISE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND PAYING ALL TEMPORARY UTILITIES AND SERVICES NECESSARY TO COMPLETELY INSTALL ALL WORK AS SHOWN AND NOTED IN THE CONTRACT DOCUMENTS.

12.) THE CONTRACTOR IS RESPONSIBLE FOR THE LEGAL OFF-SITE DISPOSAL OF SURPLUS MATERIAL AND DEBRIS.

13.) UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL APPROVAL, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE PROJECT SITE OF ALL TRASH, REPAIR ALL DAMAGE TO FINISH GRADE, INCLUDING TAILINGS FROM EXCAVATIONS, WHEEL RUTS AND ANY SETTLING OR EROSION THAT HAS OCCURRED PRIOR TO COMPLETION. ALL AREAS OF THE PROJECT SITE SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION SATISFACTORY TO THE OWNER PRIOR TO SUBMITTAL OF THE FINAL PAYMENT.

14.) THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND SERVICING TEMPORARY TOILET FACILITIES.

CONCRETE NOTES:

- 1.) ALL CONCRETE CONSTRUCTION, DETAILING AND ERECTION SHALL CONFORM TO THE FOLLOWING:
- A.) ACI #301: SPECIFICATIONS
- B.) ACI #318: BUILDING CODE REQUIREMENTS
- C.) ACI #315: MANUAL OF STANDARD PRACTICE
- 2.) CONCRETE MATERIALS SHALL CONFORM TO THE FOLLOWING ASTM REQUIREMENTS: A.) AGGREGATE - C33
 - B.) READY MIXED CONCRETE C94
 - C.) PORTLAND CEMENT C150
- D.) FIELD CYLINDERS C31
- E.) COMPRESSIVE TESTING C39
- 3.) ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WEIGHING NOT MORE THAN 145 PCF AND SHALL HAVE A MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI.
- 4.) THE WATER/CEMENT RATIO FOR STRUCTURAL CONCRETE SHALL NOT EXCEED 0.53.
- 5.) TOTAL AIR CONTENT SHALL BE 3 TO 5 PERCENT.
- 6.) PUMPED CONCRETE SHALL MEET THESE ADDITIONAL REQUIREMENTS:
- A.) MAXIMUM COARSE AGGREGATE SIZE 1 INCH
- B.) INCREASE CEMENT FACTOR BY 1/2 SACK PER CUBIC YARD. C.) MAXIMUM SLUMP - 5 INCHES
- D.) DO NOT PUMP THROUGH AN ALUMINUM TUBE.
- 7.) CONCRETE SHALL NOT BE PLACED PRIOR TO APPROVAL OF THE CONCRETE MIX DESIGNS BY THE LANDSCAPE ARCHITECT. THE MIX DESIGNS SHALL NOT BE APPROVED PRIOR TO RECEIPT OF COMPRESSIVE TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY CERTIFYING ADEQUATE STRENGTH OF THE MIX DESIGNS AT 28 DAYS.
- 8.) HORIZONTAL CONSTRUCTION JOINTS ARE ONLY ALLOWED IN SLABS OF BEAMS WITH WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. CONTROL JOINTS SHALL BE PLACED MAXIMUM 25' O.C. AS REQUIRED WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.

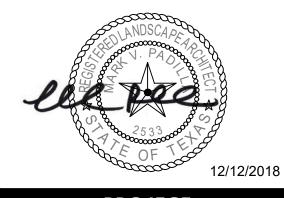
CONCRETE REINFORCEMENT

- 1.) ALL REINFORCEMENT SHALL BE DEFORMED BILLET STEEL (GR.60) CONFORMING TO ASTM A615.
- A.) REINFORCING A615, GRADE 60, DEFORMED
- B.) WELDED WIRE MESH A185, GRADE 60
- 2.) SPLICES OF HORIZONTAL REINFORCEMENT SHALL LAP AT LEAST 24" AND SHALL BE CONTINUOUS AROUND CORNERS. MAINTAIN AT LEAST 1" BETWEEN REINFORCING BARS AT SPLICES IN BEAMS AND SLABS. REINFORCING BARS SCHEDULED AS CONTINUOUS SHALL BE LAPPED 24".
- 3.) DETAILING FABRICATION AND ERECTION OF REINFORCING BARS SHALL COMPLY WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
- 4.) STANDARD PROTECTIVE COVER FOR REINFORCING, UNLESS NOTED OTHERWISE, SHALL BE AS OUTLINED IN ACI 318-83:
- A.) AGAINST DIRT OF FILL 3 INCHES
- B.) EXPOSED TO EARTH OR WEATHER 2 INCHES
- C.) SLABS AND WALLS 1 INCH D.) OTHER - 1 1/2 INCHES
- 5.) PROVIDE SHOP DRAWINGS OF REINFORCING AND ACCESSORIES FOR REVIEW BY ARCHITECT. SHOP DRAWINGS SHALL CLEARLY INDICATE LOCATION, SIZE, SPACING, SPLICES AND PIECE MARK FOR ALL REINFORCING STEEL. THE SHOP DRAWINGS SHALL PROVIDE SUFFICIENT DETAIL TO PERMIT PLACEMENT OF REINFORCEMENT WITHOUT THE USE OF THE DESIGN DRAWINGS AND SHALL INCLUDE A COMPLETE BILL OF MATERIALS.
- 6.) FABRICATION OF REINFORCING STEEL SHALL NOT COMMENCE UNTIL SUBMITTALS HAVE BEEN REVIEWED BY LANDSCAPE ARCHITECT.



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STATUS



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KENNEDY PARK

COSA DISTRICT 5 PARK

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OWNER | CLIENT

TCI - CITY OF SAN ANTONIO 114 WEST COMMERCE ST. SAN ANTONIO, TX 78283

> OWNER'S REPRESENTATIVE PAT SCHNEIDER

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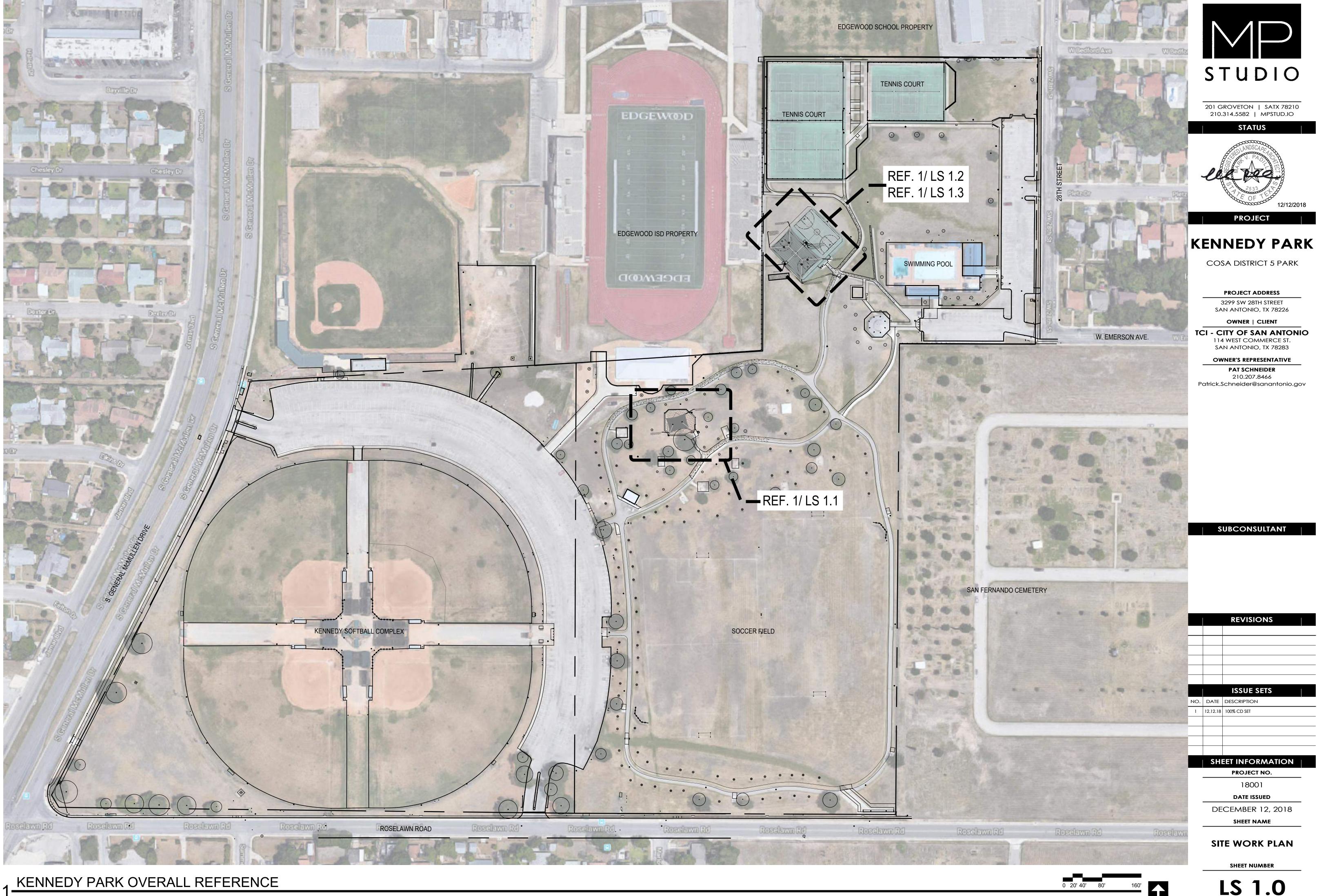
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> DECEMBER 12, 2018 SHEET NAME

18001

DATE ISSUED

GENERAL NOTES



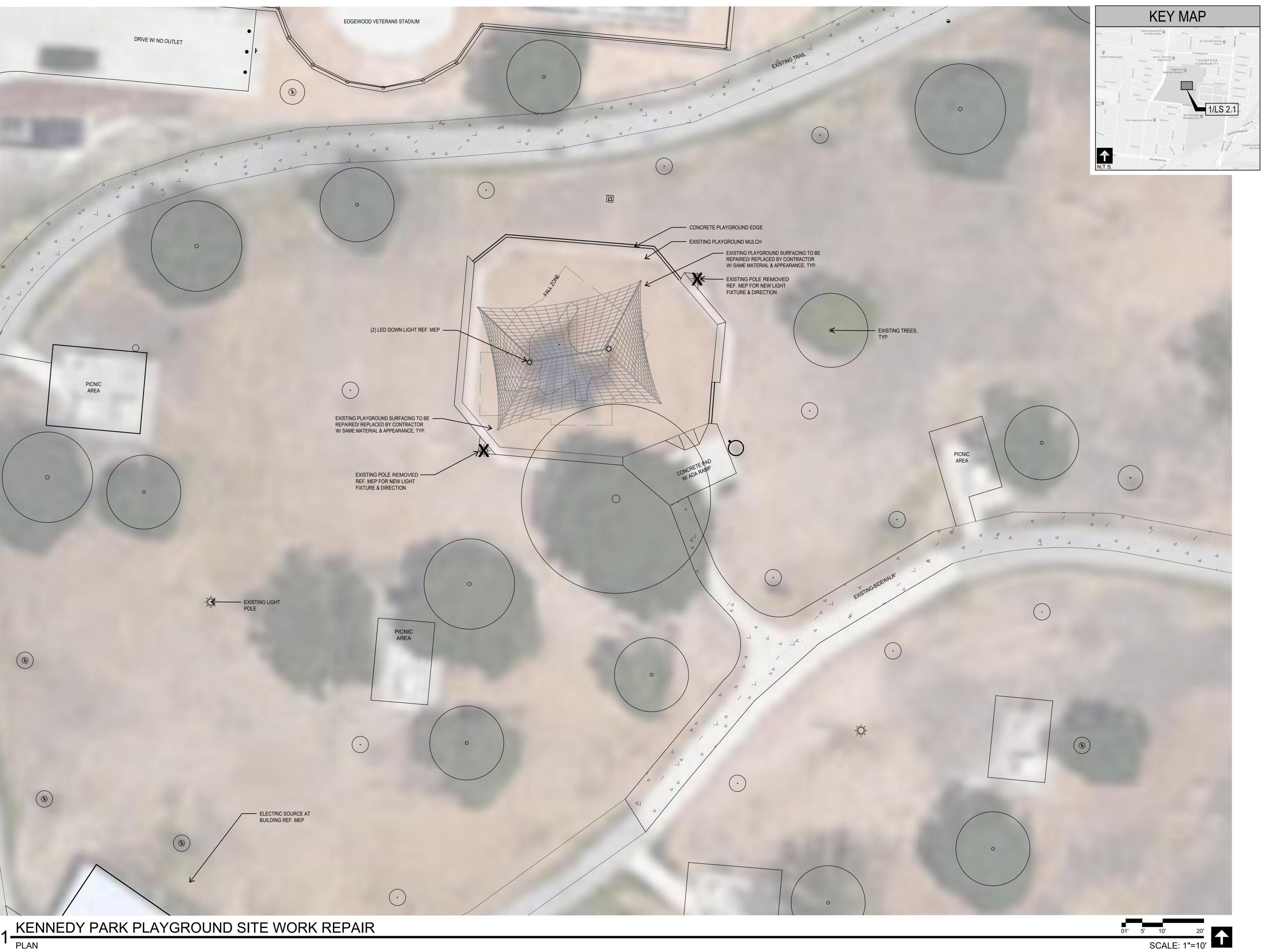
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KENNEDY PARK

COSA DISTRICT 5 PARK

PROJECT ADDRESS 3299 SW 28TH STREET

SAN ANTONIO, TX 78226

OWNER | CLIENT TCI - CITY OF SAN ANTONIO

114 WEST COMMERCE ST. SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE PAT SCHNEIDER

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18001

DATE ISSUED

DECEMBER 12, 2018 SHEET NAME

SITE WORK REPAIR **PLAN**

SHEET NUMBER

LS 1.1



LS 1.2

STATUS

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PROJECT ADDRESS 3299 SW 28TH STREET SAN ANTONIO, TX 78226

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114 WEST COMMERCE ST. SAN ANTONIO, TX 78283

OWNER'S REPRESENTATIVE

PAT SCHNEIDER 210.207.8466

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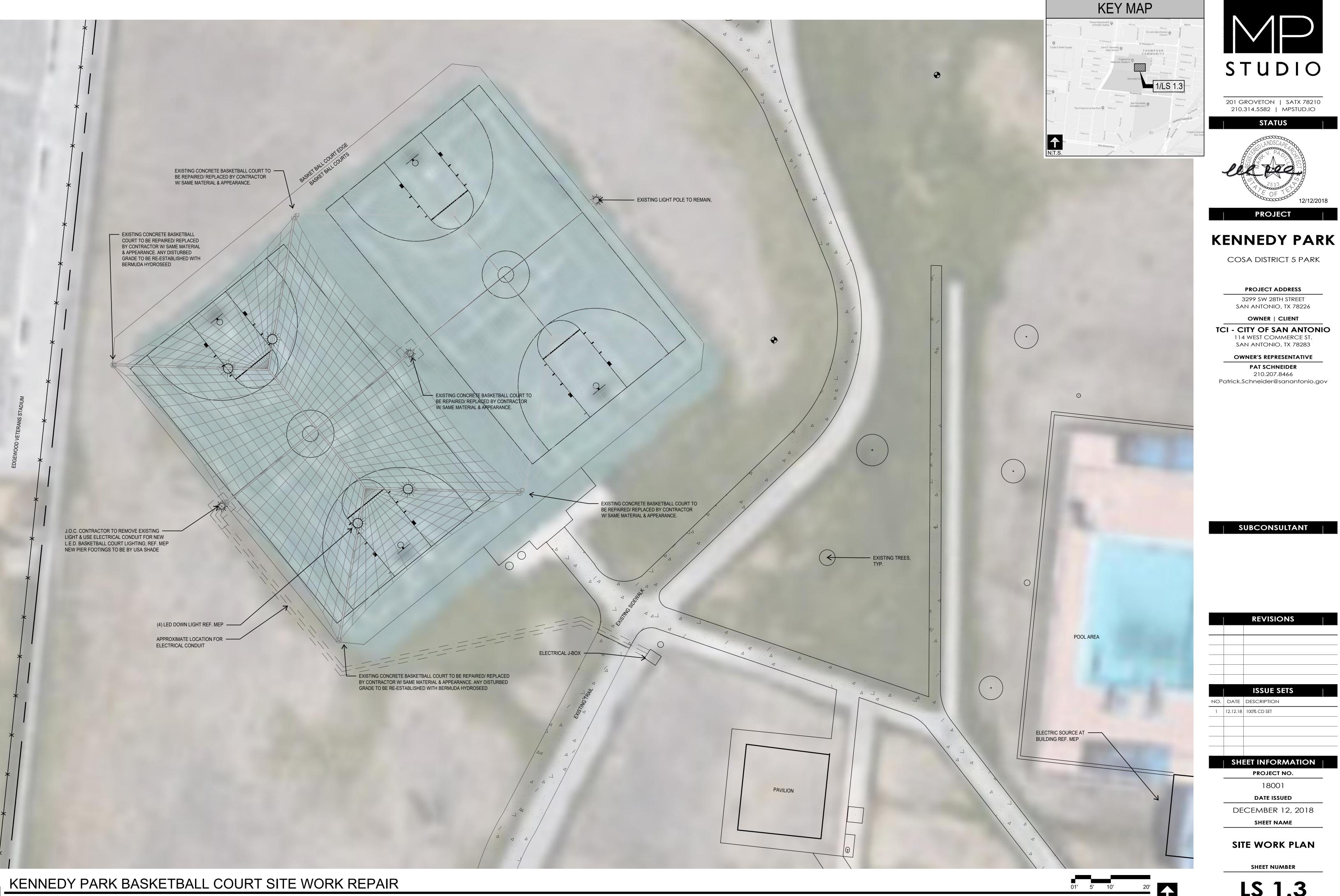
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DEMO PLAN



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SHEET INFORMATION

PROJECT NO.

18001

DATE ISSUED

DECEMBER 12, 2018

SHEET NAME

SITE WORK PLAN

ELECTRICAL SYMBOLS & ABBREVIATIONS

[SOME SYMBOLS MAY NOT BE USED ON THIS PROJECT]

UNCTION BOX EQUIPMENT CONNECTION, HARD WIRED 24 16) EXISTING PANELBOARD, SURFACE MOUNTED	A ABV AIC AFF AFG BFF	AMPERE(S) ABOVE AMPERE INTERRUPTING CAPACITY ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	ID IMC	INSIDE DIAMETER	CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND REVIEW ALL RELATED DRAWINGS AND SPECIFICATIONS PRIOR TO BID.	4 FLECTRICAL PRANTINGS INDICATE OFFICER LOCATIONS OF TOTAL
QUIPMENT CONNECTION, HARD WIRED 24 16)	AIC AFF AFG	ABOVE AMPERE INTERRUPTING CAPACITY ABOVE FINISHED FLOOR	"			4 FLECTRICAL PRANSINGS INDICATE OFFICER LOCATIONS OF LIGHT
QUIPMENT CONNECTION, HARD WIRED 24 16)	AIC AFF AFG	AMPERE INTERRUPTING CAPACITY ABOVE FINISHED FLOOR	IN	INITEDIATIONIC CITED COMMUNICATION		ELECTRICAL DRAWINGS INDICATE GENERAL LOCATIONS OF LIGHTING FIXTURES ONLY. FOR EXACT LOCATIONS AND SPACING, SEE
24 16)	AFF AFG	ABOVE FINISHED FLOOR	117	INTERMEDIATE STEEL CONDUIT INCHES	2. THE DRAWINGS ARE DIAGRAMMATICAL. CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND DETERMINE CONDUIT ROUTING AND EXACT	ARCHITECTURAL DRAWINGS. IF CONTRACTOR DETERMINES THAT THERE IS A DIFFERENCE IN QUANTITY OF FIXTURES SHOWN ON THE
		ADOVE EINICHED ODADE	JB	JUNCTION BOX	LOCATIONS OF EQUIPMENT AND DEVICES. NOTIFY THE ARCHITECT/ENGINEER IF THE APPROXIMATE CONDUIT ROUTING SHOWN ON PLANS IS NOT FEASIBLE. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY	ARCHITECTURAL AND ELECTRICAL DRAWINGS, HE SHALL USE THE HIGHER NUMBER OF THE TWO QUANTITIES FOR BIDDING AND THEN CONTACT THE DESIGN TEAM FOR FINAL RESOLUTION.
	BFF		KV	KILOVOLT	CONFLICTS PRIOR TO ROUGH—IN. 3. LOCATIONS OF DEVICES ARE DIAGRAMMATICAL. EXACT LOCATIONS	2. EXTERIOR LIGHTING TO BE CONTROLLED BY THE EXISTING LIGHTING CONTROL
XISTING PANELBOARD, SURFACE MOUNTED	BLDG	BELOW FINISHED FLOOR BUILDING	KVA KVAC	KILOVOLT AMPERE KILOVOLT AMPERE CAPACITIVE	SHALL BE DETERMINED IN THE FIELD. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO ROUGH—IN.	SYSTEM. 3. REFERENCE LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL FIXTURE
		CONDUIT	KVAR	KILOVOLT AMPERE REACTIVE	4. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT ISSUE OF THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL CODES. ALL WORK SHALL MATCH THE EXISTING BUILDING'S ELECTRICAL	INFORMATION.
OD LICHTING (20 E4 00 8 20 E6 00)	CB CB	CIRCUIT BREAKER	KWH	KILOWATT KILOWATT HOUR	INSTALLATION. ALL SYSTEMS SHALL BE INSTALLED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH APPLICABLE STANDARDS AND SPECIFICATIONS APPROVED BY ALL AUTHORITIES HAVING JURISDICTION.	
OR LIGHTING (26 51 00 & 26 56 00)	CKT COND	CIRCUIT CONDUCTOR	LB	POUND	PROVIDE A TYPED PANEL DIRECTORY FOR EACH NEW OR MODIFIED	
ED DOWNLIGHT, ON NORMAL POWER					ELECTRICAL PANEL. DIRECTORY SHALL IDENTIFY THE CIRCUIT NUMBER, DEVICES SERVED, AND LOCATION OF DEVICES BY ROOM NUMBER. FILE COPY OF DIRECTORIES WITH THE OWNER'S REPRESENTATIVE WHEM	
OLE LIGHT FIXTURE	50	2000	MAX	MAXIMUM	WORK IS COMPLETED, AND PROVIDE COPIES WITH THE OWNER'S MANUALS.	
D\	DIST	DISTRIBUTION			6. IDENTIFY PANEL AND CIRCUIT NUMBER FOR ALL INSTALLED ELECTRICAL DEVICES ON THE OUTSIDE OF THE JUNCTION BOX.	
<u> </u>	DN Dwgs	DOWN DRAWINGS	MEP MH	MECHANICAL, ELECTRICAL & PLUMBING MOUNTING HEIGHT	7. REFER TO SHEETS E1.1 AND E1.2 FOR ADDITIONAL GENERAL NOTES.	
OVERHEAD UTILITY LINE	535		MIN	MINIMUM		
INDERGROUND UTILITY LINE	EC EMT	EMPTY CONDUIT ELEC. METALLIC TUBING	MTG	MAIN LUGS ONLY MOUNTING		
	EQMT	EQUIPMENT	NA	NOT APPLICABLE		
AISTHAG OAFIVITAD OHEHH FINE			NC NF	NORMALLY CLOSED NON FUSED	DEMOCITION GENERAL NOTES	
XISTING UNDERGROUND UTILITY LINE	EXTG	EXISTING	NO NTC	NORMALLY OPEN		
SWITCHLEG LINES	50	FOOT CANDUFO			CONDUCT ALL DEMOLITION WORK IN SUCH MANNER TO MAINTAIN A SAFE WORK ENVIRONMENT AND IN ACCORDANCE WITH APPLICABLE	
CONDUIT CONCEALED IN WALL OR CEILING WITH ONE PHASE, IEUTRAL AND GROUND CONDUCTOR U.N.O.	FU	FUUI GANULES	OC OFCI	ON CENTER OWNER FURNISHED CONTRACTOR INSTALLED	SAFETY RULES AND PROCEDURES WITHIN NEC, NESC, NECA, AND OSHA REQUIREMENTS.	
INDERGROUND CIRCUIT POWER LINES	FLEX	FLEXIBLE METAL CONDUIT	ОН	OVERHEAD	2. CONTRACTOR SHALL REQUEST AND REVIEW ANY HAZARDOUS MATERIALS SURVEYS FROM THE OWNER'S REPRESENTATIVE. OBSERVE RECOMMENDED, PRECAUTIONS AND VERIEY THE STATUS	
	FN	FULL NEUTRAL	P	POLE	OF ANY REMEDIAL WORK RECOMMENDED OR NOTED WITHIN THE HAZARDOUS MATERIAL SURVEY. NOTIFY THE OWNER'S	
NDICATED. SMALL TICK(S) = PHASE CONDUCTORS, LARGE TICK = IEUTRAL CONDUCTOR AND LARGE TICK WITH CIRCLE = GROUND	FI	FEET, FOOT	PB PC	PUSH BUTTON PULL CHAIN	OR OBSERVED DURING THE COURSE OF EXECUTING THIS CONTRACT.	
CONDUCTOR.	GALV	GALVANIZED	PEC	PHOTO CELL	3. SURVEY AREAS OF THE FACILITY SCHEDULED FOR RENOVATION OR PARTIAL DEMOLITION PRIOR TO ANY WORK BEING PROFORMED.	
	GFCI GFI	GROUND FAULT CIRCUIT INTERRUPTER GROUND FAULT INTERRUPTER	PVC	POLY VINYL CHLORIDE CONDUIT	SUBMIT A REPORT OF THIS PRE-WORK SURVEY DETAILING ANY UTILIZATION EQUIPMENT OR SYSTEMS THAT ARE NOT IN GOOD	
	GND	GROUND			REVIEW WITH THE OWNER'S REPRESENTATIVE.	
	HID	HIGH INTENSITY DISCHARGE	RMC	RIGID METAL CONDUIT	AFFECTED BY SELECTIVE DEMOLITION TO THE CONDITION NOTED IN	
	HP HOA	HORSE POWER HAND OFF AUTOMATIC	SC SN	SPLIT CIRCUIT	PORTION OF THE LOAD REMOVED SHALL HAVE THE REMOVED LOADS ASSOCIATED CIRCUITRY TERMINATED IN SUCH A MANNER THAT THE	
	HPS	HIGH PRESSURE SODIUM	SQFT	SQUARE FEET,FOOT	5. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR SALVAGED	
	HZ	HERTZ	SW	SWITCH	DISPOSITION OF SALVAGED MATERIAL FIVE (5) WORKING DAYS PRIOR	
			TC	TIME CLOCK	SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE DELIVERED BY THE CONTRACTOR TO A LOCATION AS DIRECTED.	
	REFERENCE SYMBOLS	<u>S</u>	TYP.	TYPICAL	THE OWNER.	
)	CIRCUIT FND FYTENSION	-	'	ALLOWANCE WILL BE MADE BECAUSE OF CONTRACTOR'S UNFAMILIARITY WITH THESE DETAILS.	
	(X)	KEYED NOTE TAG, HEXAGON	UEP UES	UNDERGROUND ELECTRIC PRIMARY UNDERGROUND ELECTRIC SECONDARY	7. LIGHTS SCHEDULED FOR DEMOLITION SHALL HAVE THEIR ASSOCIATED CIRCUITRY REMOVED UNLESS OTHERWISE NOTED. ASSOCIATED CONCURRY IS	
	_	ADDENDUM, ASI, ASR, PR TAG	UEB U.N.O.	UNDERGROUND ELECTRIC BRANCH CIRCUIT	DEVICES, COVER PLATES, PROTECTIVE DEVICE, AND PANEL, ETC. ASSOCIATED WITH THE ITEM	
			5	CHESS HOLD SHERWISE	SCHEDULED FOR RÉMOVAL. CONDUIT FOR ITEMS SCHEDULED FOR REMOVAL AND IN INACCESSIBLE AREAS SHALL BE EMPTIED AND SEALED OR OTHERWISE TERMINATED IN A SAFE MANNER	
	(E1.0)	LINCOLOLD I DAIN, DEIMIL IAU	V VP	VOLT(S) VAPOR PROOF	ACCEPTABLE TO THE OWNER.	
	5	ELEVATION TAG	 w		ITEMS AND WHICH ARE NOT CONCEALED BY NEW CONSTRUCTION SHALL BE REPAIRED TO MATCH ADJACENT SURFACES. OPENINGS	
	(500)		WP	WEATHERPROOF	WALLS SHALL BE FIRE STOPPED.	
	5	SECTION TAG	XFMR	TRANSFORMER	INACCESSIBLE SURFACES. ENTIRELY REMOVE ABANDONED WIRING.	
	E303)		_		WITHOUT A MOUNTING SURFACE DUE TO REMOVAL OF A PARTITION, THE RACEWAY SHALL BE REROUTED AS ACCEPTABLE TO THE	
			Z 1P		OWNER/ARCHITECT.	
			2P	TWO POLE	ARE SCHEDULED TO BE RELOCATED. REPAIR, RESTORE, OR REPLACE ITEMS DAMAGED WHEN REMOVED TO THE APPROVAL OF	
			3P 0	THREE POLE PHASE	THE OWNER. NOTIFY THE OWNER/ARCHITECT/ENGINEER OF ANY ELECTRICAL EQUIPMENT, OUTLETS AND/OR DEVICES WHICH ARE SCHEDULED TO BE RE-USED THAT ARE FOUND TO BE UNUSABLE.	
					12. CONTRACTOR SHALL UPDATE PANELBOARD DIRECTORIES AT EACH PANEL WHERE CIRCUIT MODIFICATIONS ARE MADE	
	ADERGROUND UTILITY LINE KISTING OVERHEAD UTILITY LINE KISTING UNDERGROUND UTILITY LINE WITCHLEG LINES DIDUIT CONCEALED IN WALL OR CEILING WITH ONE PHASE, EUTRAL AND GROUND CONDUCTOR U.N.O. MDERGROUND CIRCUIT POWER LINES RANCH CIRCUIT HOMERUN, WITH PANEL AND BREAKER POSITION DICATED. SMALL TICK(S) = PHASE CONDUCTORS, LARGE TICK =	DN DWGS VERHEAD UTILITY LINE ADERGROUND UTILITY LINE SISTING OVERHEAD UTILITY LINE SISTING UNDERGROUND UTILITY LINE SISTING UNDERGROUND UTILITY LINE SISTING UNDERGROUND UTILITY LINE EXTG WITCHLEG LINES DIDDUIT CONCEALED IN WALL OR CEILING WITH ONE PHASE, EUTRAL AND GROUND CONDUCTOR U.N.O. FLEX ADERGROUND CIRCUIT POWER LINES RANCH CIRCUIT HOMERUN, WITH PANEL AND BREAKER POSITION DICATED. SWALL TICK(S) = PHASE CONDUCTORS, LARGE TICK = UTITAL CONDUCTOR AND LARGE TICK WITH CIRCLE = GROUND DIDDUCTOR. GALV GFCI GRI GND HID HP HOA HPS HZ	DIST DISTRUTION DINN DOWN DINNS DRAWNGS ERREDO UTILITY LINE EC EMPTY CONDUTT ELLC, METALLIC TUBING EDIT EDIT ENDE ELLC, METALLIC TUBING EDIT ELLC, META	DIST DISTRIBUTION ON DOWN MED TO SEMBLES SHARE POSITION ON DOWN SHARE TOX #WY CONDUCT UNITY UNITE ELEC. METALLIC TUBING UTILITY UNITE ELEC. METALLIC TUBING UTILITY UNITE ELEC. METALLIC TUBING UTILITY UNITE EXISTS CARGARDON UTILITY UNITE EXISTS CARGARDON UTILITY UNITE EXISTS CARGARDON UTILITY UNITE EXISTS CARGARDON UTILITY UNITE EXISTS EXISTS WAS NOT CARGARDON ORDEROR UNION. TO FOOT CONDUCTOR UNITS TO THE PARKET OF THE PARKET POSITION ORDEROR ORDEROR UNION. TO FOOT CONDUCTOR UNITS OR DEPARTED UNITED TOX #WY ORDEROR ORDEROR UNION. TO FOOT CONDUCTOR UNITS OR DEPARTED UTILITY UNITED UTILITY UTILIT	DOST DOST-BRIDGE DOST-BR	OK MAIL



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STATUS

PROJECT

KENNEDY PARK

COSA DISTRICT 5 PARK

PROJECT ADDRESS

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	NO. DATE DESCRIPTION		DATE DESCRIPTION
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18001

DATE ISSUED

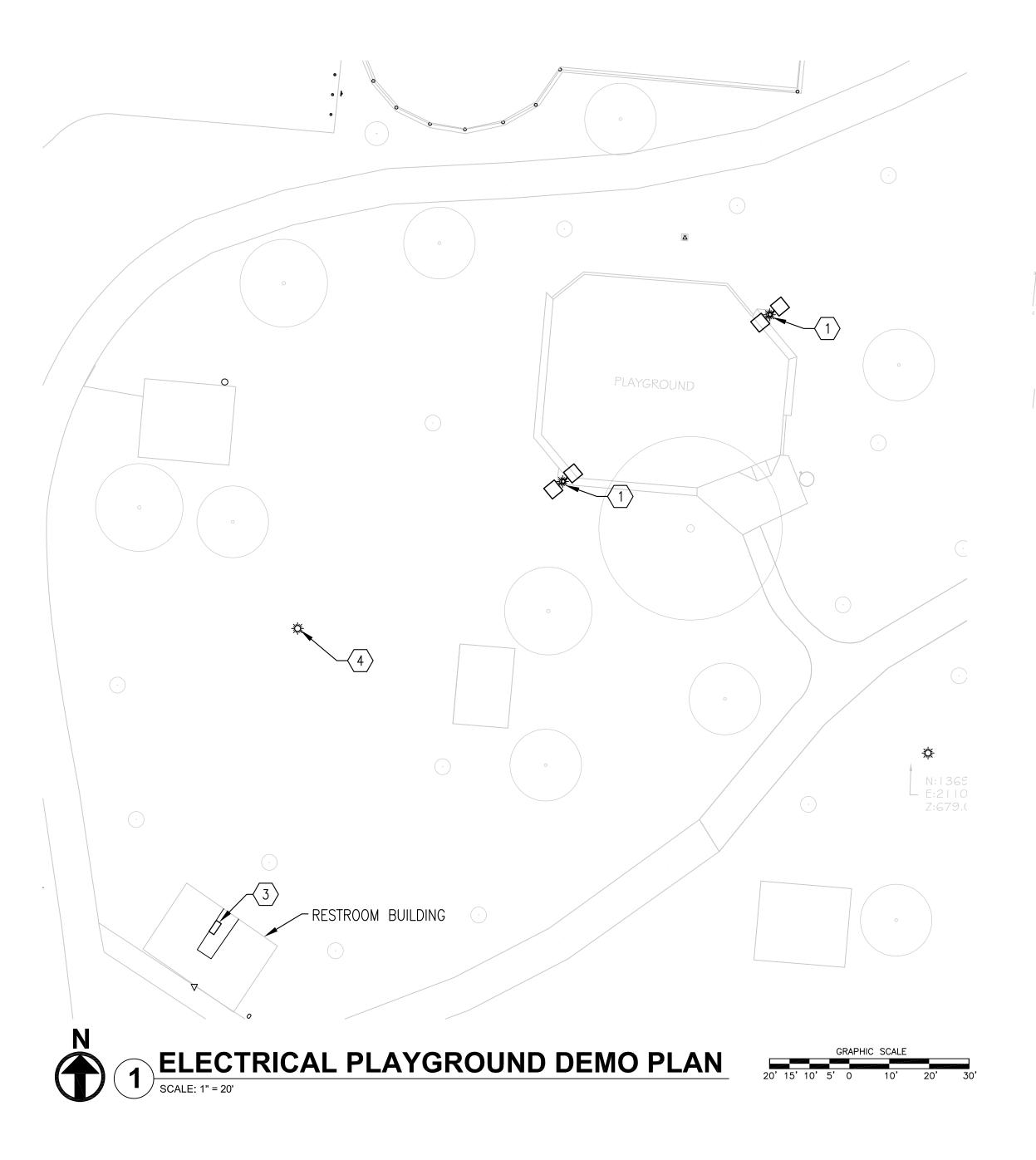
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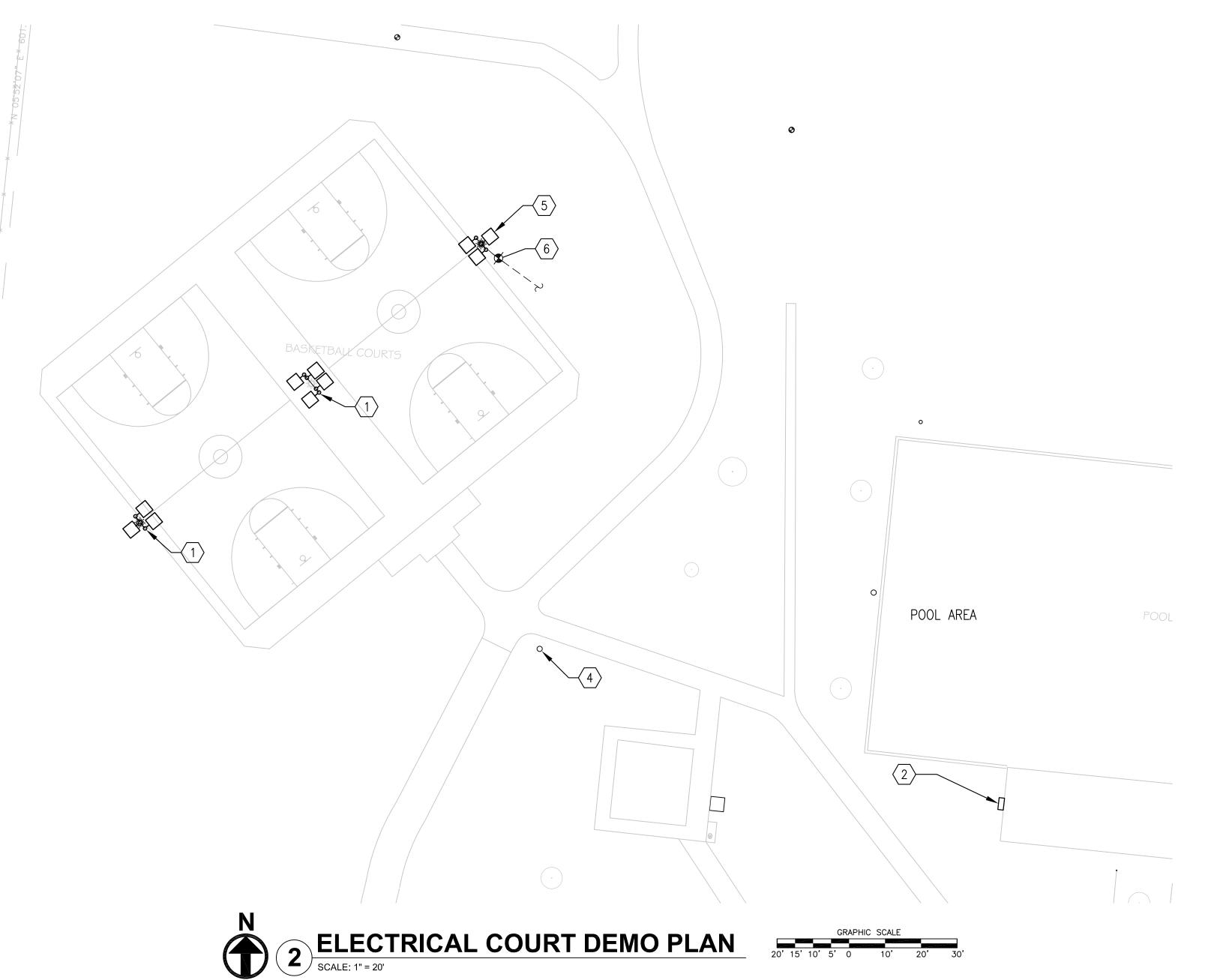
SHEET NAME

ELECTRICAL ABBREVIATIONS & SYMBOLS

SHEET NUMBER

E0.0







- EXISTING POLE-MOUNTED FIXTURE AND CONCRETE FOUNDATION SHALL BE DEMOLISHED IN ITS ENTIRETY AND LEFT READY FOR INSTALLATION OF SHADE CANOPY CONCRETE FOUNDATION PIER. REMOVE ELECTRICAL WIRING BACK TO EXISTING TO SOURCE.
- 2. LOCATION OF EXISTING 225A, 120/208V, 30, PANEL 'A' WITHIN ENCLOSURE FEEDING EXISTING BASKETBALL COURT LIGHT FIXTURES THROUGH TWO POLE 20A CIRCUIT BREAKERS (QUANTITY OF 2). LIGHTING CIRCUITS ARE CONTROLLED THROUGH AN EXISTING LIGHTING CONTACTOR CONTROLLED BY A ROTARY TIMECLOCK DEVICE. FIELD VERIFY CIRCUIT NUMBER SERVING LIGHTS BEING REPLACED. EXISTING PANEL AND LIGHTING CONTROLS DEVICES TO REMAIN.
- 3. LOCATION OF EXISTING 100A, 120/240V, 1ø, PANEL 'B' WITHIN RESTROOM BUILDING FEEDING EXISTING PLAYGROUND LIGHT FIXTURES THROUGH TWO POLE 20A CIRCUIT BREAKERS (QUANTITY OF 2). LIGHTING CIRCUITS ARE CONTROLLED THROUGH AN EXISTING LIGHTING CONTACTOR CONTROLLED BY A PHOTOCELL DEVICE. FIELD VERIFY CIRCUIT NUMBER SERVING LIGHTS BEING REPLACED. EXISTING PANEL AND LIGHTING CONTROLS TO REMAIN.
- 4. EXISTING TO REMAIN POLE MOUNTED LIGHTING FIXTURE.
- 5. REMOVE THE 3 EXISTING POLE—MOUNTED LIGHTING FIXTURES TO BE REPLACED WITH NEW LED TYPE 'A' FIXTURES. REUSE EXISTING WIRING CONNECTIONS. COORDINATE MOUNTING BRACKET REQUIREMENTS WITH EXISTING POLE TO REMAIN.
- 6. INTERCEPT ELECTRICAL CONDUIT SERVING LIGHT POLE AND LEAVE READY FOR INSTALLATION OF IN-GRADE JUNCTION BOX AND EXTENSION OF CIRCUIT TO NEW CANOPY LIGHTS. ELECTRICAL CIRCUIT TO EXISTING LIGHT POLE TO REMAIN. VERIFY CIRCUIT CONFIGURATION AND VOLTAGE PRIOR TO PURCHASING FIXTURES
- 7. DEMOLISH EXISTING POLE AND POLE MOUNTED FIXTURE. DEMOLISH TOP OF CONCRETE POLE FOUNDATION TO 24" BELOW GRADE. INTERCEPT ELECTRICAL CONDUIT SERVING LIGHT POLE AND LEAVE READY FOR INSTALLATION OF IN-GRADE JUNCTION BOX AND EXTENSION OF CIRCUIT TO NEW CANOPY LIGHTS. ELECTRICAL CIRCUITS SERVING EXISTING TO REMAIN LIGHT POLES SHALL BE MAINTAINED ACTIVE DURING CONSTRUCTION. VERIFY CIRCUIT VOLTAGE AND WIRING CONFIGURATION PRIOR TO PURCHASING LIGHTING FIXTURES.

GENERAL DEMOLITION NOTES: (THIS SHEET ONLY)

- A. CONDUCT ALL DEMOLITION WORK IN SUCH A MANNER AS TO MAINTAIN A SAFE WORK ENVIRONMENT AND IN ACCORDANCE WITH APPLICABLE SAFETY RULES AND PROCEDURES WITHIN NEC, NECA AND OSHA REQUIREMENTS.
- B. CONTRACTOR SHALL REQUEST AND REVIEW ANY HAZARDOUS MATERIALS SURVEYS FROM THE OWNER'S REPRESENTATIVE. OBSERVE RECOMMENDED PRECAUTIONS AND VERIFY THE STATUS OF ANY REMEDIAL WORK RECOMMENDED OR NOTED WITHIN THE HAZARDOUS MATERIAL SURVEY. NOTIFY THE OWNER'S REPRESENTATIVE IF ANY HAZARDOUS MATERIALS ARE SUSPECTED OR OBSERVED DURING THE COURSE OF EXECUTING THIS CONTRACT.
- C. SURVEY AREAS OF THE FACILITY SCHEDULED FOR RENOVATION OR PARTIAL DEMOLITION PRIOR TO ANY WORK BEING PERFORMED. SUBMIT REPORT OF THE PRE-WORK SURVEY DETAILING ANY UTILIZATION EQUIPMENT OR SYSTEMS THAT ARE NOT IN GOOD WORKING ORDER IN ADVANCE OF ANY DEMOLITION WORK AND REVIEW WITH THE OWNER'S REPRESENTATIVE.
- D. CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION OR DEMOLITION. CONTRACTOR SHALL BE RESPONSIBLE TO USE CALL 811 FOR LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO DIGGING OR TRENCHING.
- E. RESTORE CIRCUITS, UTILIZATION EQUIPMENT AND SYSTEMS AFFECTED BY SELECTIVE DEMOLITION TO THE CONDITION NOTED IN THE PRE-WORK SURVEY REPORT. ELECTRICAL CIRCUITS WITH A PORTION OF THE LOAD REMOVED SHALL HAVE THE REMOVED LOADS ASSOCIATED CIRCUITRY TERMINATED IN SUCH A MANNER THAT THE REMAINING LOAD REMAINS FULLY OPERATIONAL.
- F. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR SALVAGED MATERIAL. REQUEST THAT THE OWNER PROVIDE DIRECTION ON DISPOSITION OF SALVAGED MATERIAL FIVE(5) WORKING DAYS PRIOR TO REMOVAL. IF SO DIRECTED BY THE OWNER, SALVAGED MATERIAL SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE DELIVERED BY THE CONTRACTOR TO A LOCATION AS DIRECTED. REMOVE AND DISPOSE ANY SALVAGED MATERIAL NO RETAINED BY THE OWNER.
- G. UNLESS OTHERWISE NOTED, DEMOLISH ELECTRICAL DEVICES, INCLUDING BUT NOT LIMITED TO: POWER WIRING, RACEWAYS, AND LIGHTING DEVICES. SCHEDULED FOR DEMOLITION.
- H. DAMAGED AREAS CAUSED BY REMOVAL OF ANY OF THE ABOVE ITEMS AND WHICH ARE NOT CONCEALED BY NEW CONSTRUCTION SHALL BE REPAIRED TO MATCH ADJACENT SURFACES.
- I. REMOVE ABANDONED CONDUIT TO POINT OF CONCEALMENT BEHIND INACCESSIBLE SURFACES. ENTIRELY REMOVE ABANDONED WIRING.
- J. CONTRACTOR SHALL SUBMIT WRITTEN REQUEST TO SHUT OFF POWER TO THE SITE OR ELECTRICAL DEMOLITION AND NEW WORK 10 DAYS PRIOR TO SHUTOFF.



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STATUS

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COSA DISTRICT 5 PARK

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SHEET INFORMATION

PROJECT NO.

18001

DATE ISSUED

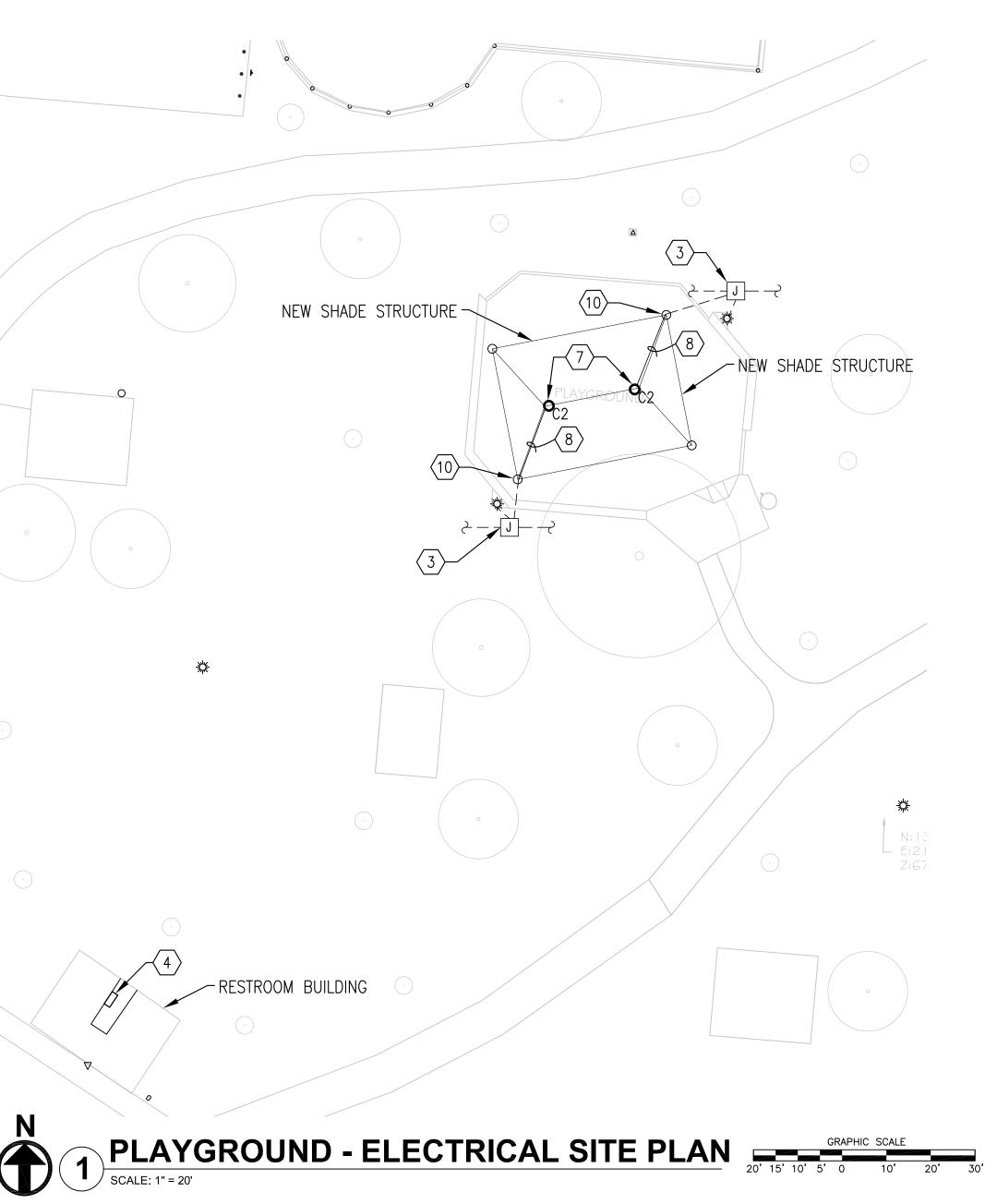
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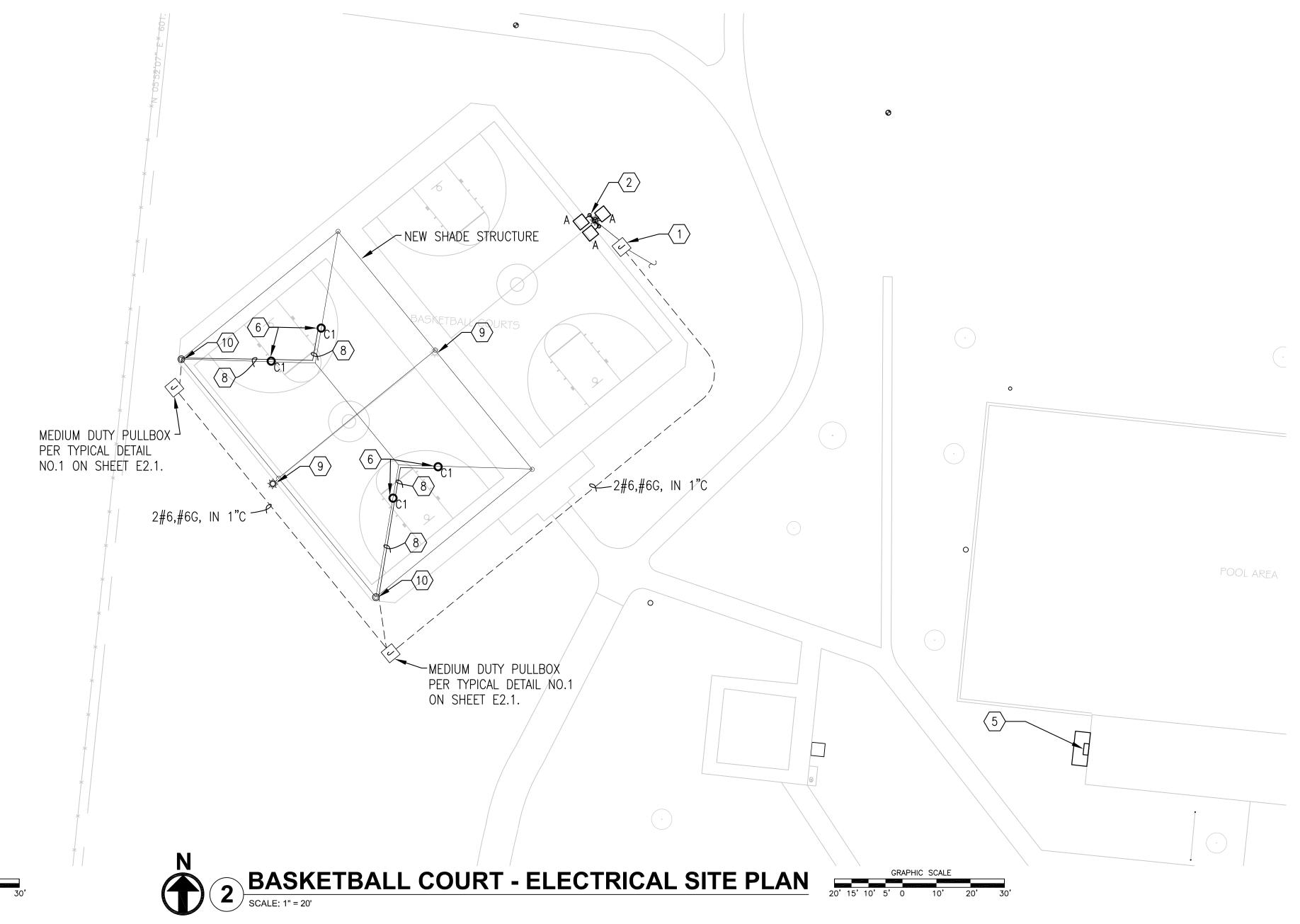
DECEMBER 10, 201

SHEET NAME

ELECTRICAL
DEMOLITION PLAN

E1.1





(#) KEYED NOTES: (THIS SHEET ONLY)

- 1. PROVIDE MEDIUM DUTY PULLBOX PER TYPICAL DETAIL NO.1 ON SHEET E2.1. AND INTERCEPT LIGHTING CIRCUITS SERVING EXISTING BASKETBALL COURTS LIGHTS REMOVED DURING DEMOLITION. MAINTAIN EXISTING LIGHTING CIRCUIT TO ADJACENT POLE LIGHT. CONNECT NEW CANOPY MOUNTED LIGHTS LIGHTING TO EXISTING CIRCUIT. EXTEND 2#10,#10G, IN 1"C TO NEW CANOPY MOUNTED LIGHTS.
- 2. INSTALL NEW LIGHTING FIXTURES ON EXISTING POLE AND ARM SUPPORT. CONNECT TO EXISTING LIGHTING CIRCUIT.
- 3. PROVIDE MEDIUM DUTY PULLBOX PER TYPICAL DETAIL NO.1 ON SHEET E2.1. AND AND INTERCEPT LIGHTING CIRCUITS SERVING EXISTING PLAYGROUND POLE LIGHTS REMOVED DURING DEMOLITION. CONNECT NEW CANOPY MOUNTED LIGHTING FIXTURES TO EXISTING CIRCUIT. EXTEND 2#6,#6G, IN 1"C TO NEW CANOPY MOUNTED LIGHTS.
- 4. LOCATION OF EXISTING PANEL 'B'. REFER TO SHEET E1.1 FOR MORE INFORMATION.
- 5. LOCATION OF EXISTING PANEL 'A'. REFER TO SHEET E1.1 FOR MORE INFORMATION.
- 6. PROVIDE TYPE "C1" LIGHTING FIXTURE MOUNTED ON CANOPY AT SHADE MANUFACTURER PROVIDED PLATES. COORDINATE WITH LIGHTING FIXTURE MANUFACTURER FOR EXACT MOUNTING INSTRUCTIONS.

7. PROVIDE TYPE "C2" LIGHTING FIXTURE MOUNTED ON CANOPY AT SHADE

- MANUFACTURER PROVIDED PLATES. COORDINATE WITH LIGHTING FIXTURE MANUFACTURER FOR EXACT MOUNTING INSTRUCTIONS.
- 8. EXTEND LIGHTING CIRCUIT INSIDE SHADE STRUCTURE FRAME. COORDINATE INSTALLATION WITH SHADE STRUCTURE VENDOR.
- 9. DEMOLISHED POLE LIGHT FIXTURE. REFER TO SHEET E1.1.
- 10. PROVIDE PVC SCH. 40 RACEWAY THROUGH NEW SHADE STRUCTURE CONCRETE FOUNDATION FOOTING. TRANSITION AT HANDHOLE TO LFMC AND EXTEND CIRCUIT THROUGH METAL SHADE FRAME TO STRUCTURE MOUNTED LIGHTING FIXTURE. REFER TO SHADE VENDOR INSTALLATION DRAWINGS FOR ADDITIONAL INFORMATION AND HANDHOLE LOCATIONS.

GENERAL NOTES: (THIS SHEET ONLY)

- A. FOR SYMBOLS AND ABBREVIATIONS, REFER TO SHEET EO.O.
- B. PROVIDE SCH. 40 PVC DIRECT-BURIAL CONDUITS. BURY CONDUITS A MINIMUM OF 24" BELOW FINISHED GRADE OR PAVEMENT. PROVIDE CONCRETE CAP NOT LESS THAN 2" THICK ABOVE DIRECT BURIED LOW VOLTAGE CONDUITS WHERE SUBJECT TO VEHICULAR OR EXCAVATION DAMAGE OR WHERE MINIMUM BURIAL DEPTH CANNOT BE ACHIEVED.
- C. PROVIDE ALL EMPTY CONDUIT WITH PULLSTRING AND END BUSHINGS
- D. NOTES TO CITY PLAN REVIEWER:
- D.A. PROJECT IS EXEMPTED FROM IECC REQUIREMENTS. ELECTRICAL EXTERIOR LIGHTING CIRCUITS ORIGINATE FROM ELECTRICAL DISTRIBUTIONS SERVING NON-CONDITIONED BUILDINGS.
- D.B. THIS PARK IS LOCATED WITHIN 5 MILES OF THE JOINT BASE-LACKLAND. LIGHTING MODIFICATIONS WILL COMPLY WITH THE REQUIREMENTS FOR MILITARY OVERLAY ORDINANCE.



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STATUS

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KENNEDY PARK

COSA DISTRICT 5 PARK

PROJECT ADDRESS 3299 SW 28TH STREET

SAN ANTONIO, TX 78226 OWNER | CLIENT

TCI - CITY OF SAN ANTONIO

114 WEST COMMERCE ST. SAN ANTONIO, TX 78283

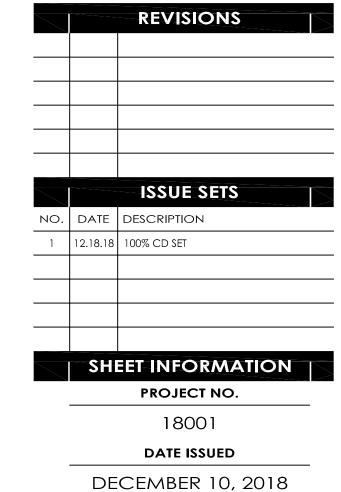
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ELECTRICAL SITE PLAN

SHEET NAME

SHEET NUMBER

E1.2

LIGHTING FIXTURE SCHEDULE							
ГҮРЕ	LAMPS	MOUNTING	MOUNT HEIGHT	VOLTS	WATTS	DESCRIPTION	MANUFACTURER AND CATALOG NO.
A	4000K	POLE- MOUNTED (REFER TO E1.2)	30 FT	208V	325W	HEAVY DUTY, AREA, FULL CUTOFF LUMINAIRE WITH PAINTED HOUSING (COORDINATE WITH ARCHITECT), TYPE 4 OPTICS.	HUBBELL BEACON MA-A-64L-325-4K7-4-208-A2-DB-CONTROLS
	13079 LUMENS LED						
C1	4000K 9391 LUMENS LED	MOUNTED TO CANOPY	REFER TO CANOPY	208V	86.3	HEAVY DUTY CUTOFF CANOPY LUMINAIRE WITH PAINTED HOUSING (COORDINATE WITH ARCHITECT), TYPE 5 OPTICS, SURGE PROTECTION, VANDAL SHIELD, AND MOUNTING BRACKET.	HUBBELL ARS-36L4K-070-5M-2-BL-SPC WITH ARS-MB-BL, 93052458, AND RETA2-BL
C2	4000K 9391 LUMENS LED	MOUNTED TO CANOPY	REFER TO CANOPY	240V	86.3	HEAVY DUTY CUTOFF CANOPY LUMINAIRE WITH PAINTED HOUSING (COORDINATE WITH ARCHITECT), TYPE 5 OPTICS, SURGE PROTECTION, VANDAL SHIELD, AND MOUNTING BRACKET.	HUBBELL ARS-36L4K-070-5M-3-BL-SPC WITH ARS-MB-XX, AND 93052458

PROJECT:		KENNEDY PARK PHASE TO PHASE				
ADDRESS:	3299 SW 28TH ST SAN ANTONIO, TX 78226 PHASE TO NEUTRAL				208	
OWNER:		COSA	PHASE		3	
			WIRES		4	
	LOAD DESCRIPTION	QUANTITY	VA	kVA	AMPS	
A. REMOVED LOA	ADS					
POLE LIGHTS		3	3,600	3.60	17.3	
B. ADDED LOADS	;					
POLE LIGHTS		1	975	0.98	4.7	
SHADE STRUCTU	RE LIGHTS	4	345	0.35	1.7	
C. NET CHANGE I	N LOADS					
		REDUCTION IN LOAD:	(2,625)	(2.625)	(12.6	

NOTES:

ELECTRICAL LOADS SHOWN ABOVE ARE ARE SUPPLIED BY PANELBOARD 'A' FOR THE BASKETBALL COURT.

PANEL 'A' IS A 225 AMP 120/208V PANEL THAT SHOULD BE ABLE TO ACCOMMODATE THE CHANGE IN LOAD.

THIS PROJECT PROVIDES A NET DECREASE IN ELECTRICAL LOAD TO THE EXISTING ELECTRICAL DISTRIBUTION SYSTEM. CONTRACTOR SHALL FIELD VERIFY EXISTING PANEL LOAD CAPACITIES IN ORDER TO CONFIRM INDIVIDUAL PANELS

ARE CAPABLE OF ACCOMMODATING THE INDIVIDUAL ELECTRICAL LOADS.

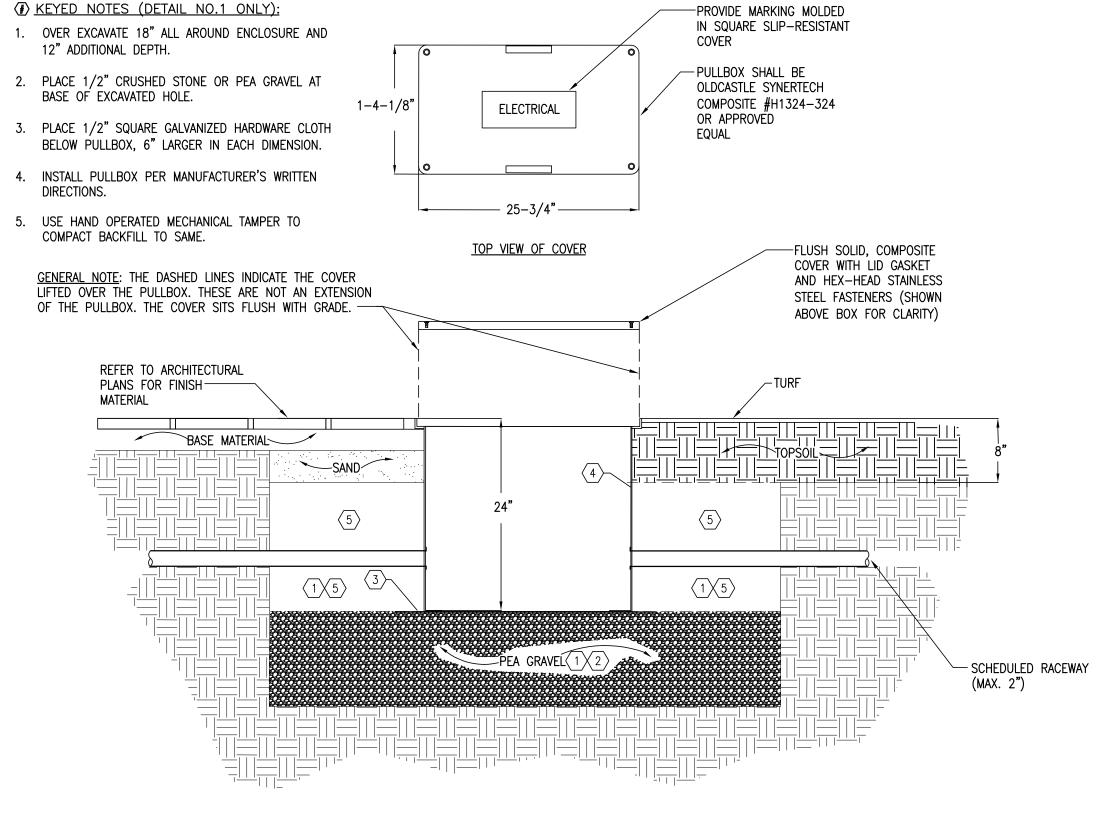
ELECTRICAL LOAD ANALYSIS SUMMARY							
PROJECT:	KENNEDY PARK PHASE TO PHASE 12						
ADDRESS:	3299 SW 28TH ST SA	N ANTONIO, TX 78226	PHASE TO NEUT	RAL	240		
OWNER:		COSA	PHASE		1		
			WIRES		3		
	LOAD DESCRIPTION	QUANTITY	VA	kVA	AMPS		
A. REMOVED LOADS							
POLE LIGHTS		2	1,500	1.50	6.3		
B. ADDED LOADS	s. ADDED LOADS						
CANOPY LIGHTS	0.7						
C. NET CHANGE IN LO	C. NET CHANGE IN LOADS						
	-	REDUCTION IN LOAD:	(1,327)	(1.327)	(5.5		

NOTES:

ELECTRICAL LOADS SHOWN ABOVE ARE ARE SUPPLIED BY PANELBOARD 'B' FOR THE PLAYGROUND AREA. PANEL 'B' IS A 100 AMP 120/240V PANEL THAT SHOULD BE ABLE TO ACCOMMODATE THE CHANGE IN LOAD.

THIS PROJECT PROVIDES A NET DECREASE IN ELECTRICAL LOAD TO THE EXISTING ELECTRICAL DISTRIBUTION SYSTEM.

CONTRACTOR SHALL FIELD VERIFY EXISTING PANEL LOAD CAPACITIES IN ORDER TO CONFIRM INDIVIDUAL PANELS ARE CAPABLE OF ACCOMODATING THE INDIVIDUAL ELECTRICAL LOADS.







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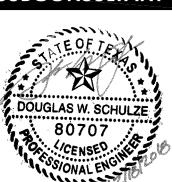
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SUBCONSULTANT



REVISIONS

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1	12.18.18	100% CD SET
	SH	FET INFORMATION

PROJECT NO.

18001

DATE ISSUED

DECEMBER 10, 2018 SHEET NAME

ELECTRICAL SCHEDULES & DETAILS

SHEET NUMBER

E2.1

DIVISION 26 - ELECTRICAL SPECIFICATIONS

SECTION 260510 - BASIC REQUIREMENTS FOR ELECTRICAL PART 1 — GENERAL

- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Drawings and Specifications
- 1. Division 26 specifications are written in imperative and streamlined format. This imperative language is directed to the Contractor. The word "shall be" shall be included by inference where a colon (:) is used within sentences and phrases.
- 1. Work shall comply with the local city codes and ordinances, the regulations of state authorities having lawful jurisdiction and the codes, statues and reference standards identified within these Specifications. These Specifications shall not be construed as negating the regulations or requirements of lawful jurisdictions.
- 2. Where Specifications require materials or equipment exceeding the minimum requirements of applicable codes and ordinances, the requirements of these Specifications shall take
- 1.2 DEFINITIONS & ABBREVIATIONS

Retain abbreviations and definitions that remain after this Section has been edited.

- A. DEFINITIONS
- 1. Contract Documents Drawings and the project manual, including Specifications.
- 2. Install: to set in place in position for service.
- 3. Furnish: to supply
- 4. Provide: to install and furnish
- 5. City When used in an otherwise non-specific reference anywhere in the Contract documents, City is defined to refer to the local municipal authority governing the project address or the City whose ETJ includes the project address.
- B. Utilities: The Contract Documents reflect the general location and routing of existing utilities Visit the site, and coordinate and confirm the exact conditions. Maintain existing services during construction
- 1. Temporary Services:
- a. Provide temporary electrical service and electric power distribution and temporary lighting throughout the construction site. Install and maintain in accordance with National Electrical Code and OSHA requirements. Make arrangements with the serving utility for point of service for temporary electric service and pay costs for delivery to
- 1.3 Submittal Requirements
- A. Provide all electrical submittals at the same time. Submittals are required for new electrical distribution equipment and lighting. Submittal requirements are waived for other sections i
- B. Submittals shall be provided in binders and arranged in sequence by Specification section number. Provide submittals only for specification sections that list this requirement.
- C. Submittals shall be provided in PDF form.

PART 2 - PRODUCTS

- 2.1 GENERAL MATERIALS AND EQUIPMENT REQUIREMENTS
- A. Materials and equipment shall conform to National Electrical Code requirements and shall be listed by Underwriters Laboratories, Inc. (UL). UL listing will be accepted as evidence that the material or equipment conform to the standards of that agency. In lieu of this listing, submit a statement from a nationally recognized testing agency, indicating that products have been tested in accordance with UL criteria and that the materials and equipment comply with Contract requirements.

PART 3 - EXECUTION

- 3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION
- A. Coordinate location of access panels and doors for electrical items that are behind finished surfaces or otherwise concealed. Coordinate location of access panels and doors with Architect prior to the associated equipment rough—in.
- B. Apply firestopping to penetrations of fire-rated floor and wall assemblies for electrical installations to restore original fire—resistance rating of assembly
- 3.2 VIBRATION ISOLATION
- A. Provide vibration isolation means for equipment and materials to prevent the transmission of perceptible vibration, structure borne or air borne noise.

SECTION 260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

1.1 CONDUCTOR MATERIAL APPLICATIONS

conductors in raceway

- A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and
- C. Unless otherwise noted use #10 AWG and larger for homerun wiring.
- 1.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS
- A. Service Entrance: Type THHN-THWN, single conductors in raceway or Type XHHW, single
- B. All other applications: Type THHN-THWN, single conductors in raceway.
- 1.3 INSTALLATION OF CONDUCTORS AND CABLES A. Conceal cables in finished walls, ceilings, and floors, unless otherwise indicated.
- B. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- C. Provide support for conductors in vertical raceways in accordance with NEC 300.19. Refer to Table 300.19(A) for support spacing distance requirements of specific cable sizes.
- 1.4 CONNECTIONS
- A. Tighten electrical connectors and terminals according to manufacturer's published torque—tightening values. ... If manufacturer's torque values are not indicated, use those
- B. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 12 inches of slack.
- 1.5 SLEEVE AND SLEEVE—SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS
- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and

SECTION 260526

GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - PRODUCTS

1.1 CONDUCTORS

- A. Insulated Conductors: Copper or tinned-copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- A. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, pressure type with at
- B. Bus-bar Connectors: Mechanical type, cast silicon bronze, solderless, compression type wire terminals, and long-barrel, two-bolt connection to ground bus bar.

1.3 GROUNDING ELECTRODES

- A. Ground Rods: Copper-clad steel 3/4 inch by 10 feet (19 mm by 3 m) in diameter.
- PART 2 EXECUTION
- 2.1 EQUIPMENT GROUNDING

A. Install insulated equipment grounding conductors with all feeders and branch circuits.

SECTION 260533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

- 1.1 DEFINITIONS
- A. EMT: Electrical Metallic Tubing. B. GRC, RGS: Galvanized rigid steel conduit
- C. IMC: Intermediate metal conduit D. LFMC: Flexible steel conduit with PVC jacket.
- PART 2 PRODUCTS
- 2.1 METAL CONDUITS, TUBING, AND FITTINGS
- A. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
- 1. Fittings for EMT:
- a. Material: Steel. b. Type: Compression.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
- 1. Exposed Conduit: GRC (GRS) or IMC or RNC, Type EPC-80-PVC. RNC conduit is not allowed on or above roofs.
- 2. Concealed Conduit, Aboveground: EMT.
- 5. Underground Conduit (Service entrance and feeders):
 Type EPC-40-PVC or Type EPC-80-PVC, . concrete encased RNC,

4. Underground Conduit (Branch Circuits): Type EPC-80-PVC, direct buried.

- 5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor—Driven Equipment): LFMC.
- 6. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.
- B. Minimum Raceway Size: 3/4-inch trade size.
- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
- 1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated.
- 2. EMT: Use compression, steel fittings. Comply with NEMA FB 2.10. 3. Flexible Conduit: Use only fittings listed for use with flexible conduit.
- E. Install surface raceways only where indicated on Drawings.

- A. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches of
- B. Conceal raceways within finished walls, ceilings, and floors unless otherwise indicated.
- C. Install above grade conduits parallel or perpendicular to building lines.
- D. Support conduit within 12 inches of enclosures to which attached.
- E. Use EMT for raceways for stub-ups to above recessed ceilings. Provide insulated conduit bushing terminate stub-ups. F. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch trade size and insulated
- throat metal bushings on 1-1/2—inch trade size and larger conduits terminated with locknuts. Install insulated throat, metal grounding bushings on service conduits. G. Install pull wires in empty raceways. Cap underground raceways designated as spare above arade alonaside raceways in use.

SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

- A. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color—coding conductor tape to identify the
- 1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service, feeder, and branch—circuit conductors. a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if
- authorities having jurisdiction permit. b. Colors for 208/120-V Circuits:
- 1) Phase A: Black
- 2) Phase B: Red.
- 3) Phase C: Blue. c. Colors for 120/240-V Single Phase Circuits:
- 1) Phase A: Black
- 2) Phase B: Red.
- d. Field—Applied, Color—Coding Conductor Tape: Apply in half—lapped turns for a minimum distance of 6 inches from terminal points and in boxes where splices or taps are made. Locate bands to avoid obscuring factory cable markings
- B. Locations of Underground Lines: Identify with underground—line warning tape for power, lighting, communication, control wiring, and optical fiber cable.

END OF SECTION 260553

SECTION 262813 - FUSES

PART 1 - PRODUCTS

- 1.1 MANUFACTURERS
- A. Manufacturers: Subject to compliance with requirements, provide one of the following
- Cooper Bussmann, Inc. Edison Fuse, Inc.
- <u>Ferraz Shawmut, Inc</u> <u>Littelfuse, Inc</u>.
- 1.2 FUSE APPLICATIONS
- A. Cartridge Fuses:
- 1. Feeders: Class RK5, time delay

EXTERIOR SOLID STATE LIGHTING

END OF SECTION

- 1. RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section. SUMMARY
- A. Section Includes: 1. Exterior luminaires with lamps and drivers.
- 2. Luminaire-mounted photoelectric relays B. Related Sections:

DEFINITIONS

- 1. Grounding and Bonding for Electrical Systems
- 2. Underground Ducts and Raceways for Electrical Systems
- A. CCT: Correlated color temperature.

- B. CRI: Color-rendering index.
- C. LED: Light Emitting Diode.
- D. LER: Luminaire efficacy rating. E. Luminaire: Complete lighting fixture, including driver, and housing if provided.
- 4. REFERENCES
- A. ANSI/NFPA 70, National Electrical Code
- B. IEEE C62.41, Guide on the Surge Environment in Low-Voltage (1000 V and Less) AC Power
- C. FCC 47 CFR Part 15, Federal Code Of Regulation (CFR) testing standard for electronic
- D. IESNA LM-79, Electrical and Photometric Measurements of Solid-State Lighting Products
- E. IESNA LM-80, Approved Method for Measuring Lumen Maintenance of LED Light Sources. F. IESNA TM-15, Luminaire Classification System for Outdoor Luminaires
- G. IESNA TM-21-11, Projecting Long Term Lumen Maintenance of LED Light Sources. H. UL1598, Standard for Safety of Luminaires.
- I. NEMA SSL 3-2010, High-Power White LED Binning for General Illumination. 5. ACTION SUBMITTALS
- A. Product Data: For each luminaire, and support component, arranged in order of lighting unit designation. Include data on features, accessories, finishes, and the following:
- 1. Physical description of luminaire, including materials, dimensions, effective projected area, and verification of indicated parameters.
- 2. Details of attaching luminaires and accessories. 3. Details of installation and construction.
- 4. Luminaire materials.
- 5. Photometric data based on laboratory tests of each luminaire type, complete with indicated lamps, ballasts, and accessories. a. Testing Agency Certified Data: For indicated luminaires, photometric data shall be certified by a qualified independent testing agency. Photometric data for remaining
- luminaires shall be certified by manufacturer b. Manufacturer Certified Data: Photometric data shall be certified by manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products.
- 6. Photoelectric relays. 7. Lamps, including life, output, CCT, CRI, lumens, and energy-efficiency data.
- 8. Means of attaching luminaires to supports, and indication that attachment is suitable for components involved.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
- 2. Anchor-bolt templates keyed to specific poles and certified by manufacturer
- 3. Design calculations, certified by a qualified professional engineer, indicating strength of screw foundations and soil conditions on which they are based

4. Wiring Diagrams: For power, signal, and control wiring.

- 6. INFORMATIONAL SUBMITTALS
- A. Qualification Data: For qualified agencies providing photometric data for lighting fixtures.
- B. Field quality-control reports. C. Warranty: Sample of special warranty.

8. MAINTENANCE MATERIAL SUBMITTALS

7. CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For luminaires and poles, operation, and maintenance
- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. 1. Spare LED arrays: One for every 100 of each type and rating installed. Furnish at least
- 2. Glass and Plastic Lenses, Covers, and Other Optical Parts: One for every 100 of each type and rating installed. Furnish at least one of each type.
- 3. Driven: One for every 100 of each type and rating installed. Furnish at least one of each type. 9. QUALITY ASSURANCE
- A. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by manufacturers' laboratories that are accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products. B. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by an independent agency, with the experience and capability to conduct the testing indicated, that is an NRTL as defined by OSHA in 29 CFR 1910.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- D. Comply with IEEE C2, "National Electrical Safety Code."
- E. Comply with NFPA 70.

12. LED LUMINAIRES

- 10. WARRANTY A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship; that corrode; or that fade, stain, perforate, erode, or chalk due to effects of weather or solar radiation within specified warranty period. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse,
- or unauthorized repairs or alterations from special warranty coverage.
- 1. Warranty Period for Luminaires: Five years from date of Substantial Completion. 2. Warranty Period for Metal Corrosion: Five years from date of Substantial Completion.
- 3. Warranty Period for Color Retention: Five years from date of Substantial Completion 4. Warranty Period for Poles: Repair or replace lighting poles and standards that fail in finish, materials, and workmanship within manufacturer's standard warranty period, but not less than three years from date of Substantial Completion.
- A. General: Except as otherwise indicated, provide LED luminaires, of types and sizes indicated
- on fixture schedules. B. Material and specifications for each luminaire are as follows:
- 1. Each Luminaire shall consist of an assembly that utilizes LEDs as the light source. In addition, a complete luminaire shall consist of a housing, LED array, and electronic driver

2. Each luminaire shall be rated for a minimum operational life of 60,000 hours at an

3. Reported lumen maintenance shall be greater than 80% per TM-21-11 after 60,000 hours of luminaire operation in an ambient environment of 40°C (104°F). This data must be TM—21 complient and deriver from the EnergyStar.gov TM—21 Calculator.

average operating time of 11.5 hours per night at 40°C (104°F)

- 4. The rated operating temperature range shall be -40°C (-40°F) to +40°C (104°F) 5. Each luminaire is capable of operating above 104°F (40°C), but not expected to comply with photometric requirements at elevated temperatures.
- 6. Photometry must be compliant with IESNA LM-79 and shall be conducted at 25°C ambient
- 7. Each lumingire shall meet all parameters of this specification throughout the minimum operational life when operated at the average nighttime temperature.
- 8. The individual LEDs shall be constructed such that a catastrophic loss or the failure of one LED will not result in the loss of the entire luminaire.
- 9. Luminaire shall be constructed such that LED modules may be replaced or repaired without replacement of whole luminaire. 10. Each Juminaire shall be listed with Underwriters Laboratory, Inc. under UL1598 for luminaires, or an approved equivalent standard from a nationally recognized testing

C. Technical Requirements

Flectrical

- a. Luminaire shall have a minimum efficacy of 100 lumens per watt and shall consume no more than 150 watts per lumen. The luminaire shall not consume power in the
- b. Operation Voltage: The luminaire shall operate from a 60 HZ ±3 HZ AC line over a voltage ranging from 108 VAC to 305 VAC. The fluctuations of line voltage shall have no visible effect on the luminous output.
- c. Power Factor: The lumingire shall have a power factor of 0.90 or greater.
- d. THD: Total harmonic distortion (current and voltage) induced into an AC power line by a luminaire shall not exceed 20 percent. e. Surge Suppression: The luminaire on-board circuitry shall include surge protection devices (SPD) to withstand high repetition noise transients as a result of utility line switching, nearby lightning strikes, and other interference. The SPD protects the luminaire from damage and failure for common and differential mode transient peak currents up to 10 kA (minimum). SPD conforms to UL 1449. SPD performance has been tested per procedures in ANSI/IEEE C62.41—2:2002 category C high exposure and ANSI C136.2 10kV BIL. The SPD shall fail in such a way as the Luminaire will no longer operate. The SPD shall be field replaceable.
- f. Operational Performance: The LED circuitry shall prevent visible flicker to the unaided eye over the voltage range specified abové. RF Interference: LED Drivers must meet Class A emission limits referred in Federal
- Communications Commission (FCC) Title 47, Subpart B, Section 15 regulations concerning the emission of electronic noise. h. Drivers shall be an IP66 rated UL class 2 power unit as per UL 1310 with a Class A sound rating and comply with FCC rules and regulations as per Title 47 CFR part 15.
- 2. Photometric Requirements i. Optical Assemblies: Illumination shall be provided through a single injection molded acrylic lens with microscopic inclusions that form a repeatable and redundant pattern to direct light in a precisely prescribed type 5 distribution patterns. Individual LEDs shall not be visible. Optical assemblies shall have a minimum efficiency of 85% regardless of distribution type. The optical assembly shall be designed such that catastrophic failures of individual LEDs will not constitute a loss in the distribution
- Light Color/Quality: The luminaire shall have a correlated color temperature (CCT) of 4,000K +/-275K. The color rendition index (CRI) shall be 70 minimum.
- k. The optical assembly of the luminaire shall be protected against dust and moisture intrusion per the requirements of IP-66 (minimum) to protect all optical components. a. The thermal management (of the heat generated by the LEDs) shall be of sufficient capacity to assure proper operation of the luminaire over the expected useful life.
- Thermal management shall be passive by design. The use of fans or other mechanical devices shall not be allowed. d. The luminaire shall have a minimum heat sink surface such that LED manufacturer's

b. The LED manufacturer's maximum thermal pad temperature for the expected life shall

maximum junction temperature is not exceeded at maximum rated ambient temperature. e. The heat sink material shall be aluminum.

not be exceeded

- 4. Physical and Mechanical Requirements The luminaire shall be a single, self—contained device, not requiring on-site assembly for installation. The power supply for the luminaire shall be integral to the unit.
- b. The maximum weight of the luminaire shall be 16 lbs. c. The housing shall meet the requirements for NEMA/UL wet location, be UL listed, IP66 d. Each housing shall be provided with a universal, galvanized steel quick mount plate with click—and—lock tab releases that will mate with standard one—gang, two—gang or 4" round wet location junction box. Mounting mechanism shall provide a provision for
- retaining fixture during wiring. Mounting shall allow wire inspection without disassembling luminaire or entering electrical chamber. Luminaire options shall include 0—10V dimming driver, occupancy sensor, integral cold weather battery pack, and 50°C high ambient operation. e. The assembly and manufacturing process for the LED luminaire shall be designed t assure all internal components are adequately supported to withstand mechanical shock and vibration. Luminaire vibration rating shall be 3G minimum.
- f. The electronics/power supply enclosure shall meet the requirements for NEMA/UL wet a. Housing and door frame shall be aluminum with a nominal 2.5 mil thick paint finish able to withstand a 3000_hour salt spray test as specified in ASTM Designation: B117.
- b. Each refractor or lens shall be made from UV inhibited high impact optical grade acrylic and be resistant to scratchina. 13. GENERAL REQUIREMENTS FOR POLES AND SUPPORT COMPONENTS

A. Luminaire Attachment Provisions: Comply with luminaire manufacturers' mounting requirements.

- Use stainless-steel fasteners and mounting bolts unless otherwise indicated B. Mountings, Fasteners, and Appurtenances: Corrosion—resistant items compatible with support
- C. Handhole: Oval—shaped, with minimum clear opening of 2—1/2 by 5 inches, with cover secured by stainless—steel captive screws. Provide on all, except wood poles.

A. Install LED arrays in each luminaire per manufacturer unless already installed.

14. LUMINAIRE INSTALLATION

1. Materials: Shall not cause galvanic action at contact points.

- B. Fasten luminaire to indicated structural supports. 1. Use fastening methods and materials selected to resist seismic forces defined for the application and approved by manufacturer. C. Adjust luminaires that require field adjustment or aiming. Include adjustment of photoelectric device to prevent false operation of relay by artificial light sources, favoring a north
- 15. CORROSION PREVENTION
- A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum by insulating fittings or treatment. B. Steel Conduits: Comply with Section 626 "Underground Ducts and Raceways for Electrical Systems." In concrete foundations, wrap conduit with 0.010—inch—thick, pipe—wrapping plastic
- 16. GROUNDING
- A. Ground metal support structures according to "Grounding and Bonding for Electrical Systems." Install grounding electrode for each pole unless otherwise indicated. Install grounding conductor pigtail in the base for connecting luminaire to grounding
- A. Inspect each installed fixture for damage. Replace damaged fixtures and components. B. Illumination Observations: Verify normal operation of lighting units after installing luminaires and energizing circuits with normal power source.

17. FIELD QUALITY CONTROL

tape applied with a 50 percent overlap.

- 1. Verify operation of photoelectric controls. A. Illumination Tests: Measure light intensities at night. Use photometers with calibration referenced to NIST standards. Comply with the following IESNA testing guide(s):
- c. IESNA LM-72, "Directional Positioning of Photometric Data B. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.

END OF SECTION



201 GROVETON | SATX 78210 210.314.5582 | MPSTUD.IO

STATUS

PROJECT

KENNEDY PARK

COSA DISTRICT 5 PARK

PROJECT ADDRESS 3299 SW 28TH STREET SAN ANTONIO, TX 78226

OWNER | CLIENT TCI - CITY OF SAN ANTONIO 114 WEST COMMERCE ST.

SAN ANTONIO, TX 78283

Patrick.Schneider@sanantonio.gov

OWNER'S REPRESENTATIVE PAT SCHNEIDER 210.207.8466





REVISIONS

ISSUE SETS NO. DATE DESCRIPTION

1 | 12.18.18 | 100% CD SET

SHEET INFORMATION

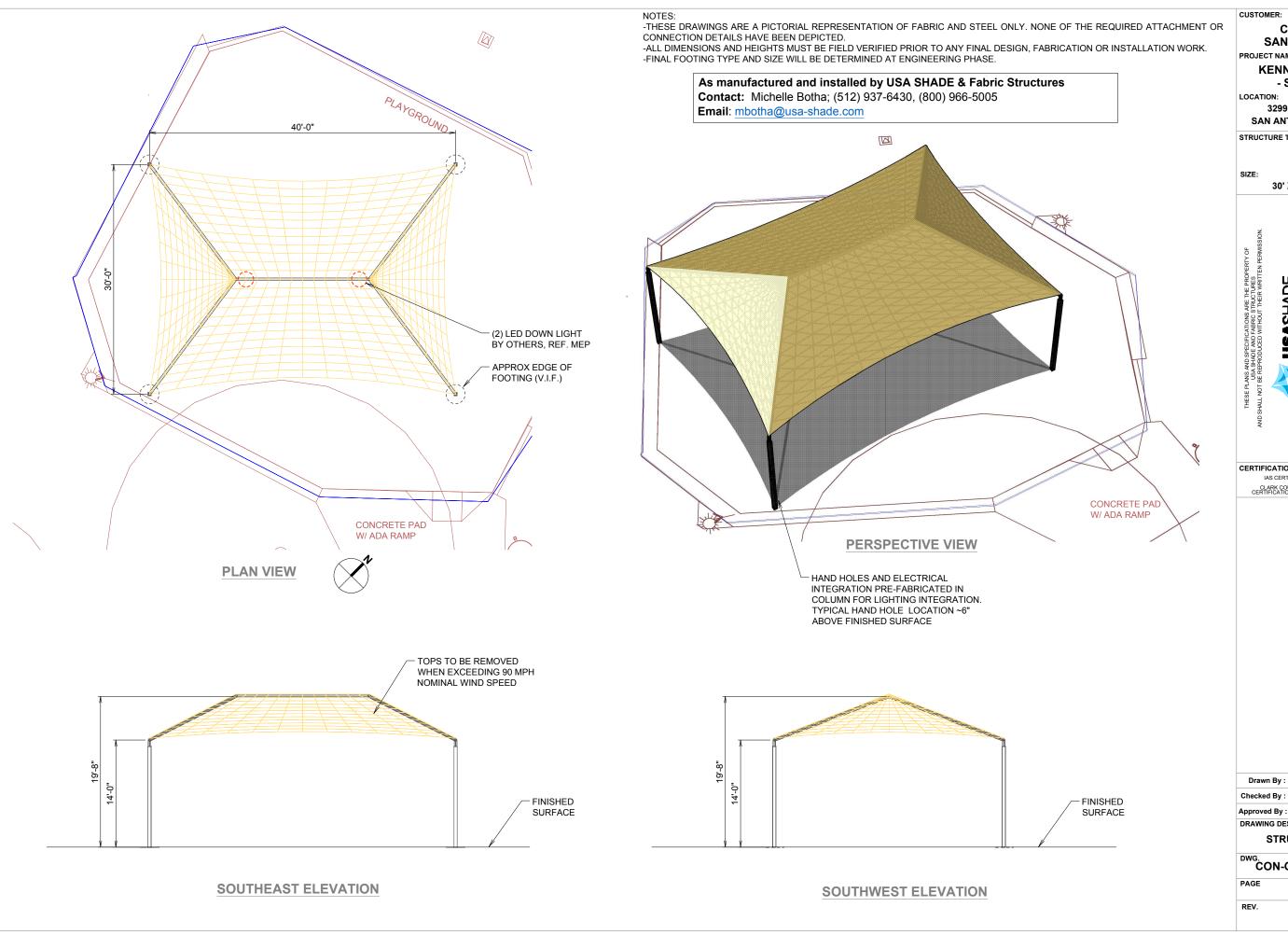
PROJECT NO.

18001

SHEET NAME

DATE ISSUED DECEMBER 10, 2018

ELECTRICAL SPECIFICATIONS



CUSTOMER

CITY OF **SAN ANTONIO**

KENNEDY PARK - SAMPLE

LOCATION:

3299 SW 28TH ST SAN ANTONIO, TX 78228

STRUCTURE TYPE:

30' X 40' X 14' e

USASHADE

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428 CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

Drawn By: 12/11/18

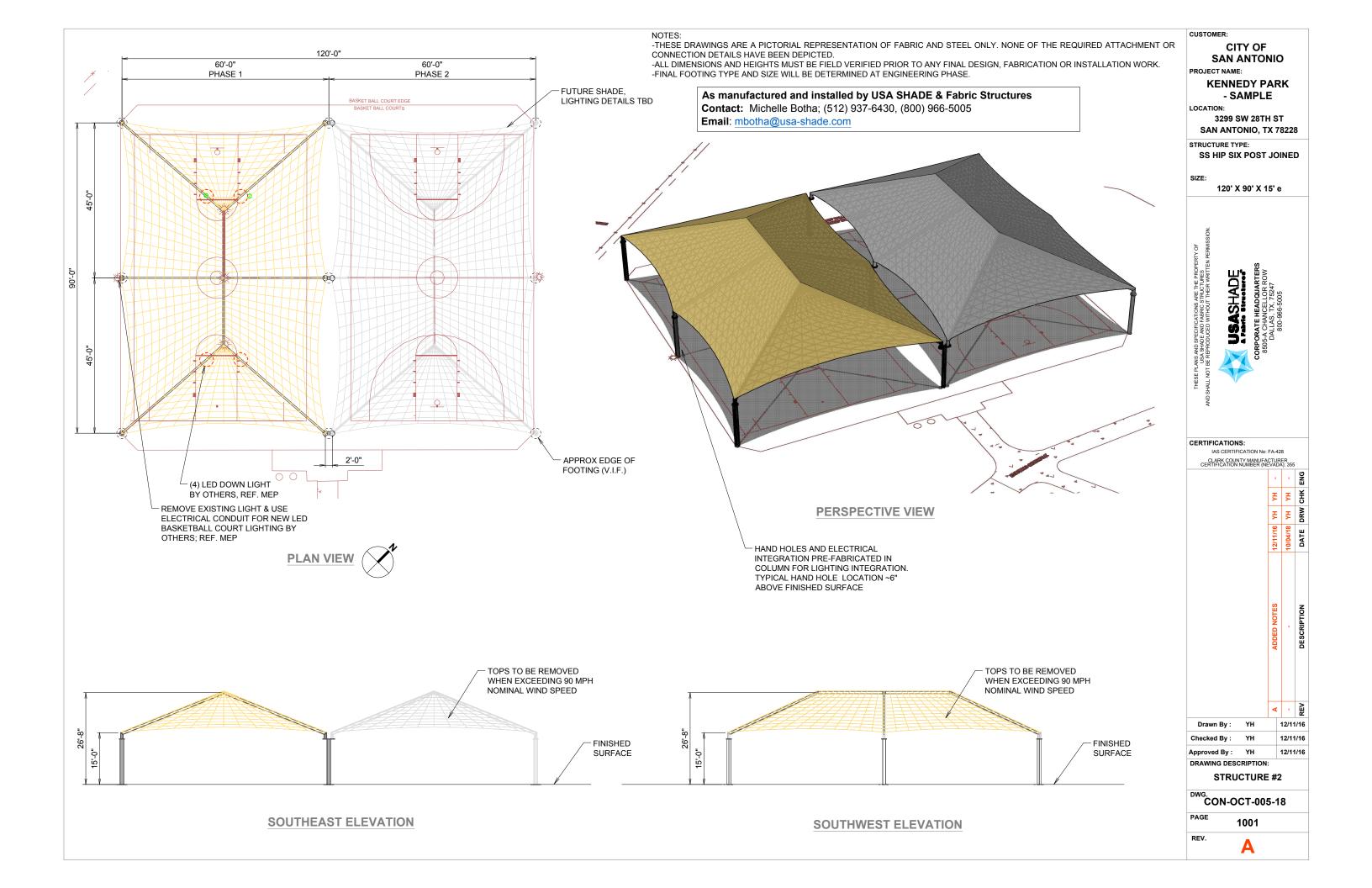
Approved By: YH 12/11/18 DRAWING DESCRIPTION

12/11/18

STRUCTURE #1

CON-OCT-005-18

1000



SECTION 13 31 23 PRE-ENGINEERED SHADE STRUCTURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections apply to this section.

1.2 SUMMARY

A. The shade structure contractor shall be responsible for the design, engineering, fabrication, supply, and installation (including foundations) of the work specified herein. The intent of this specification is to have only one single contractor be responsible for all the above functions.

1.3 REFERENCES

- A. Shade Structures must comply with the latest revision of applicable codes and regulations including IBC 2018.
- B. American Society for Testing Materials (ASTM)
- C. American Welding Society: Structural Welding Code AWS D1.1: Symbols for Welding and Nondestructive Testing AWS 2.3.
- D. International Accreditation Services (IAS)
- E. American Institute of Steel Construction (AISC): Specifications for the design, fabrication, and erection of structural steel.

1.4 SUBMITTALS

- A. Provide proof of installed reference sites with six structures for similar scope of project and installation that are engineered to IBC Specifications.
- B. Provide a minimum of 13 fabric samples to demonstrate fabric color range and powder color selections.
- C. Provide proof of all quality assurance items including:
 - 1. A list of at least three reference projects of similar type structures that have been installed in the last 10 years as described below in 2.1 General, Scope.
 - 2. Proof of general liability, professional liability, and umbrella insurance as per section 1.5 D.
 - 3. Proof of a minimum of \$25,000,000 aggregate bonding capacity as per Section 1.5 E.
 - 4. Proof of IAS Certification per Section 1.5 F.
 - 5. Proof of current status as an ISNetworld Member Contractor.
 - 6. Proof of a Corporate Safety Program along with an Injury & Illness Prevention Program.
 - 7. Proof of Corporate Quality Control Manual as per Section 1.5 H

1.5. QUALITY ASSURANCE

Fabrication and erection are limited to firms with proven experience in design and construction of fabric shade structures and such firms shall meet the following minimum requirements. No substitutions shall be allowed for the following:

- A. A single shade contractor shall design, engineer, manufacture, and erect the fabric shade structures including the foundations.
- B. All bidders shall have at least 15 years' experience in the design, engineering, manufacturing, and installation of shade structures.
- C. All bidders shall engineer to IBC 2018 requirements with similar scope.

- D. All bidders shall be able to provide proof of a minimum of \$1,000,000 general/public liability insurance, \$3,000,000 professional liability (PL) insurance, and an additional \$10,000,000 umbrella/excess liability insurance.
- E. All bidders shall be licensed and bonded with a minimum bonding capacity of \$6,000,000 and aggregate bonding capacity of \$25,000,000.
- F. Steel manufacturer shall be accredited by IAS (International Accreditation Service) for Structural Steel Fabrication under UBC 97 & 2000 Section 1701.7 and IBC 2018 Section 1704.2.2.
- G. Proof of current status as an ISNetworld Member Contractor.
- H. The shade contractor shall have a Corporate Quality Control program and manual describing their complete quality assurance program.
- I. All bidders must have an in-house warranty & service department and local office to assist in repairs and service calls.

1.7 WARRANTY

- A. The successful bidder shall provide a 12-month warranty on all labor and materials.
- B. A supplemental warranty from the manufacturer shall be provided for a period of 10 years (pro-rated) on fabric and 10 years on the structural integrity of the steel from the date of substantial completion.
- C. The warranty shall not deprive the Owner of other rights under the provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

PART 2 - PRODUCTS

2.1 GENERAL

1. Scope: Playground Shade

Provide (1) One 4 Post Hip Structure, Model # 401_3040_14E measuring 30'x 40' x 14' entry height per CON-OCT-005-18 (1000). Columns shall measure a minimum of 5.0 GA 7 Round Tubing and upper framing extensions measuring a minimum of 4.0 GA 7 Round Tubing. The framing shall support one 30' x 40' fabric top. No exceptions.

2. Scope: Basketball Shade

Provide (1) One 6-Post Super Span Hip, Model # 601_6090_15DC measuring 60' x 90' x 15' entry height per CON-OCT-005-18 (1001). Columns shall measure a minimum of HSS 10 x 10 x .25 with upper framing extensions measuring a minimum of HSS 8 x 6 x.25. The framing shall support one 60' x 90' fabric top with kedar rail. Structure to be engineered as 90' x 120' Double Super Span with inner 3 columns to be fabricated with double caps for future installation of secondary structure. No exceptions.

- 3. Steel columns and upper frame of both structures must be designed and built to accommodate integrated wiring and lighting fixtures. Appropriate openings (with covers) shall be designed to allow wiring to be pulled through the hollow inside of the structure's steel, resulting in electrical power to be available for light fixtures, which will be attached to the steel's upper frame. Wiring and lighting fixtures will be installed by others after the erection of the steel structure. Once wiring is placed, fitted covers in the same steel texture and color shall be placed over the openings to create a polished look.
- A. The structures shall be manufactured by Shade Structures, Inc.dba USA SHADE & Fabric Structures, or approved equivalent and include the structural steel frame, fabric roof, steel cables, all fasteners, and installation. Project management and foundations will also be included.

Contact: USA SHADE & Fabric Structures

8505 Chancellor Row Dallas, Texas 75247

Contact Name: Michelle Botha - Phone: 512-937-6430

mbotha@usa-shade.com

- B. To qualify as an approved equivalent, please submit product documentation, fabric samples and all quality assurance criteria as per Section 1.4 at least 10 days prior to bid date.

 Approved equals will be issued per addendum prior to bid date.
- C. The shade structure shall conform to the current adopted version of the International Building Code 2015 and local agency additions and amendments.
- D. All shade structures are engineered and designed to meet a minimum of 90 mph wind load, Exposure C, live load of 5 lbs/sf² and a 5 lbs/sft² snow load. When ASD Steel Design Method is used based on IBC 2018 Section 1605.3.1, the Dead + 0.75 of Live + 0.75 of Wind Load cases must be combined. NO EXCEPTIONS.

E. Steel:

- All steel members of the shade structure shall be designed in strict accordance with the requirements of the "American Institute of Steel Construction" (AISC) Specifications and the "American Iron and Steel Institute" (AISI) Specifications for Cold Formed Members and manufactured in a IAS (International Accreditation Service) accredited facility for Structural Steel Fabrication as per IBC 2018 Section 1704.2.2.
- 2. All connections shall have a maximum internal sleeving tolerance of .0625 inches using high tensile strength steel sections with a minimum sleeve length of 6 inches.
- 3. All non-hollow structural steel members shall comply with ASTM A-36. All hollow structural steel members shall be cold formed, high strength steel and comply with ASTM A-500, Grade C. All steel plates shall comply with ASTM A-572, Grade 50. All galvanized steel tubing shall be triple coated for rust protection using an in-line electro-plating coat process. All galvanized steel tubing shall be internally coated with zinc and organic coatings to prevent corrosion.

F. Welding:

- All shop-welded connections of the shade structure shall be designed and performed in strict accordance with the requirements of the "American Welding Society" (AWS) Specifications. Structural welds shall be made in compliance with the requirements of the "Prequalified" welded joints where applicable and by certified welders. No onsite or field welding shall be permitted.
- 2. All full penetration welds shall be continuously inspected by an independent inspection agency and shall be tested to the requirement of IBC 2018 and local agency additions and amendments.

G. Powder Coating:

- Galvanized steel tubing preparation prior to powder coating shall be executed in accordance to solvent cleaning SSPC-SP1. Solvent such as water, mineral spirits, xylol, toluol, which are to be used to remove foreign matter from the surface. A mechanical method prior to solvent cleaning prior to surface preparation shall be executed according to Power Tool Cleaning SSPC-SP3 and utilizing wire brushed abrasive wheels and needle gun, etc.
- Carbon structural steel tubing preparation prior to powder coating shall be executed in accordance to commercial blast cleaning SSPC-SP6 or NACE #3. A commercial blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, mill scale, rust, coating, oxides, corrosion, products and other foreign material.
- 3. Powder coating shall be sufficiently applied, with a minimum three mils thickness and cured at the recommended temperature to provide proper adhesion and stability to meet salt spray and adhesion tests as defined by the American Society of Testing Materials.
- 4. Powder used in the powder coat process shall have the following characteristics:
 - a. Specific Gravity: 1.77 +/- 0.05 g/cm³
 - b. Coverage at 1.0 mils: 109sq.ft/lb/mil
 - c. Storage: 80° F
 - d. Interpron 800 HR is a series of high durability TGIC powder coatings designed for exterior exposure. Tested against the most severe specifications, Interpron 800 HR gives significantly improved gloss retention and resistance to color change.

- H. Tension Cable: Steel cable is determined based on calculated engineering loads.
 - 1. For light and medium loads, ¼" (nominal) galvanized 7 x 19 strand cable to be used.
 - 2. For heavy loads, 3/8" (nominal) galvanized 7 x 19 cable to be used.

I. Fabric Roof Systems

- 1. UV shade fabric is made of UV stabilized Shadesure® cloth as manufactured by MultiKnit Ltd and made of a UV stabilized high-density polyethylene mesh. Mesh shall be raschel knitted with monofilament and tape yarn filler to ensure that material will not unravel if cut. Panels to be 10ft. wide.
- 2. Fabric Properties:
 - a. Life Expectancy: A minimum of 8 years continuous exposure to the sun
 - b. Fading: Minimum fading after 5 years (3 years for red)
 - c. Fabric Mass: 2.43-2.58 oz/sqft (190-200g/sm)
 - d. Fabric Width: 9.8425 (3m)
 - e. Roll Length: 164.04 (50m)
 - f. Roll Dimensions: 62.99"x16.5354" (160 cm x 42 cm)
 - g. Roll Weight: +/- 66 lbs (+/-30 kg)
 - h. Minimum Temperature: -13°F (-25°C)
 - i. Maximum Temperature: +176°F (80° C)
- 3. Stitching & Thread:
 - a. All sewing threads are to be double stitched.
 - b. Thread shall be GORE Tenara Sewing Thread manufactured from 100% expanded PTFE (Teflon); mildew resistant exterior approved thread with 10-year warranty. Thread shall meet or exceed the following:
 - 1) Flexible temperature range
 - 2) Very low shrinkage factor
 - 3) Extremely high strength, durable in outdoor climates
 - 4) Resists flex and abrasion of fabric
 - 5) Unaffected by cleaning agents; acid rain, mildew, salt water and rot resistant, unaffected by most industrial pollutants
 - 6) Treated for prolonged exposure to the sun

2.2 SHIPPING AND HANDLING

- A. All steel surfaces touched by tie down straps are to be padded before final clinching. This can be accomplished by using carpet pads or factory manufactured padding.
- B. All dunnage must be padded before painted products are set in place. Smaller and loose pieces must be padded and totally separate from paint padding.
- C. Unloading: Lift forks to be covered with padding. All dunnage must be padded vertically and horizontally to prevent damage to painted surfaces. When unloading, take care to prevent tools and other hard surface items from making contact.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Installation of shade structures shall be performed by manufacturer or manufacturerapproved contractor, which shall be bonded and holding a current contractor's license with the State of Texas Contractors State License Board. All installation personnel must have experience in the erection of tensioned fabric structures.
- B. The contractor installing the structure shall comply with manufactures instructions for assembly, installation, and erection per approved drawings.

C. Concrete:

- 1. Unless noted otherwise for footing and piers by General Contractor's Engineer, concrete specification for footings, piers, slabs, curbs and walkways shall meet a minimum 2,500 psi at 28-day strength.
- 2. Concrete work is executed in strict accordance with the latest American Concrete Institute Building Code (ACI 318-99).
- 3. Slump 4" maximum.
- 4. Whenever daily ambient temperatures are below 80 degrees Fahrenheit, the contractor may have mix accelerators and hot water added at the batch plant.
 - a. Temperature range between 75-80 degrees, 1% accelerator High Early (non-calcium)
 - b. Temperature range between 70-75 degrees, 2% accelerator High Early (non-calcium)
 - c. Temperature range below 70 degrees, 3% accelerator High Early (non-calcium)
- The contractor shall not pour any concrete when daily ambient temperature is below 55 degrees Fahrenheit.

Temperature Range	% Accelerator	Type Accelerator
75-80 degrees	1%	High Early (non-calcium)
70-75 degrees	2%	High Early (non-calcium)
Below 70 degrees	3%	High Early (non-calcium)

D. Foundations:

- 1. All Anchor Bolts set in new concrete shall be ASTM F-1554 GR 55
- 2. All Anchor Bolts shall be Hot Dipped Galvanized
- 3. Pier Footings:

<u>Structure 1</u> - Minimum footing size shall be 24" diameter x 7' depth and placed in accordance with/ and conform to manufacturers engineered specifications and drawings. <u>Structure 2</u> - Minimum footing size shall be 30" diameter x 12' depth and placed in accordance with/ and conform to manufacturers engineered specifications and drawings.

END OF SECTION 13 31 23