

TOM GREEN COUNTY WATER VALLEY, TEXAS

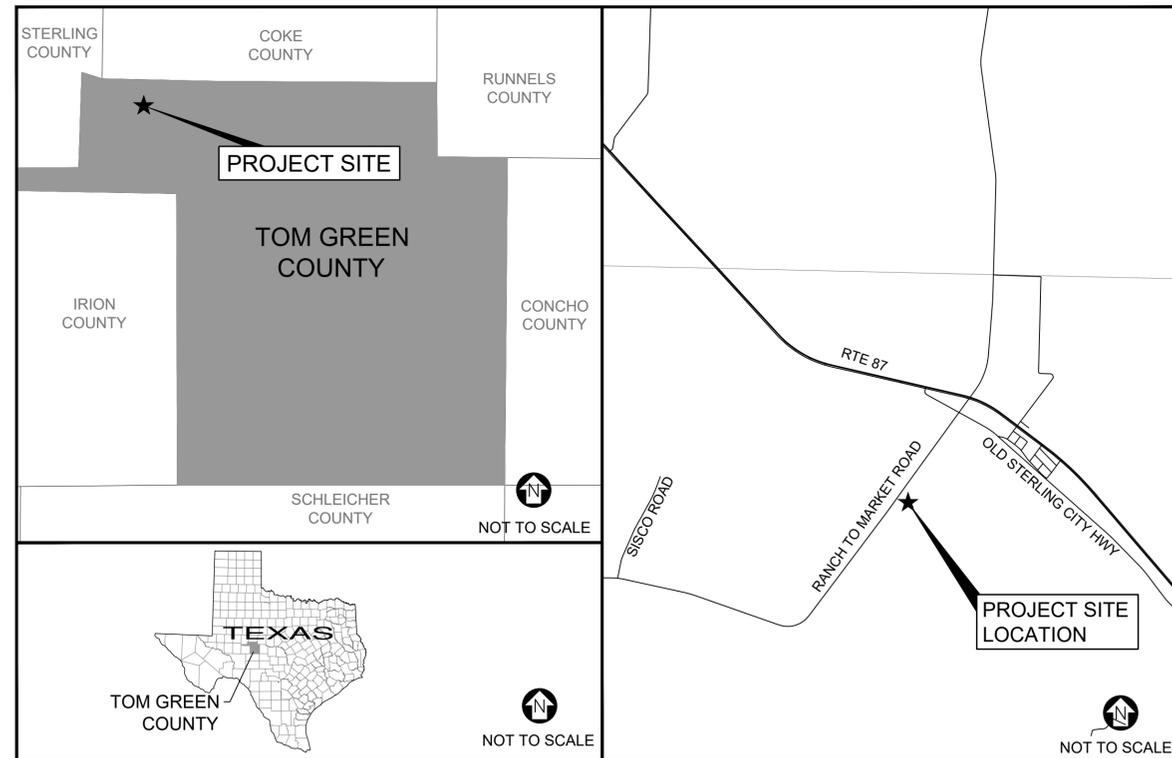
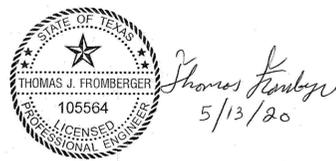
HARPER PARK IMPROVEMENTS

MAY 13, 2020

SHEET INDEX

- T-1 NOTES, SYMBOLS, & ABBREVIATIONS.
- G-1 OVERALL MAP
- D-1 SITE DETAILS
- A1.01 SIGNAGE – TEMPORARY & PERMANENT
- A2.01 PLAN & ELEVATION – PAVILION
- A2.02 PLAN & ELEVATION – PLAYGROUND
- AS1.01 FOUNDATION PLANS
- E1.0 NOTES, SYMBOLS, & ABBREVIATIONS
- E1.1 ELECTRICAL SPECIFICATIONS
- E2.0 ELECTRICAL SITE PLAN & DEMOLITION
- E2.1 ELECTRICAL PAVILION PLAN NEW
- E2.2 ELECTRICAL ENLARGED SERVICE ENTRANCE PLAN & PAVILION
- E3.0 ELECTRICAL ONE-LINE – DEMOLITION
- E3.1 ELECTRICAL ONE-LINE – NEW
- E4.0 ELECTRICAL ONE-LINE – NEW
- E5.0 ELECTRICAL DETAILS
- E5.1 ELECTRICAL DETAILS
- E5.2 ELECTRICAL DETAILS
- E5.3 ELECTRICAL DETAILS

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SITE LOCATION MAP

31° 11' 02.42" N 100° 29' 43.01" W

MRB | group

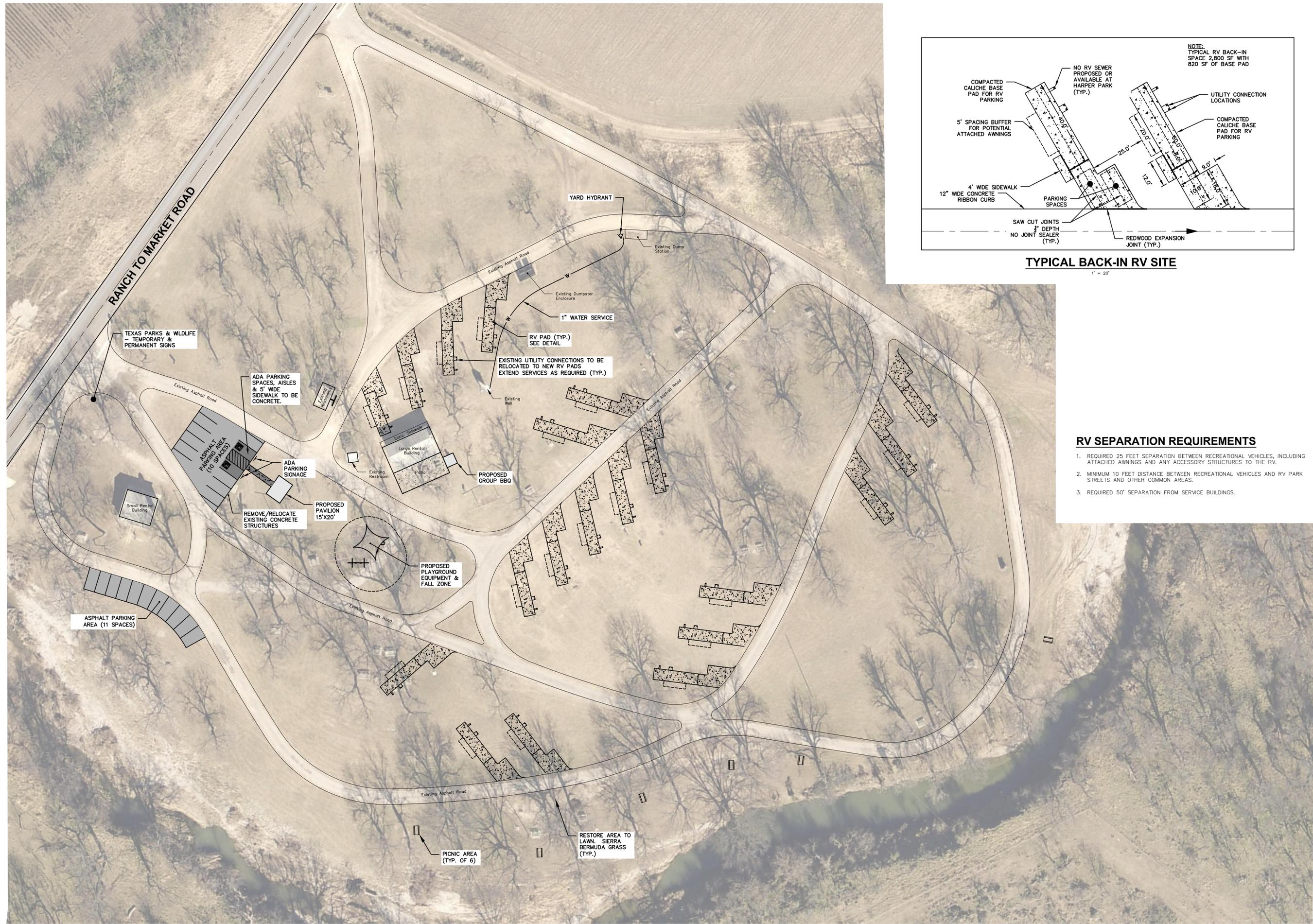
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N:\2054\19002\000\dwg\HARPER PARK\Site\Harper Park - Site Base.dwg, 5/15/2020 11:16:16 AM, tfromberger



TYPICAL BACK-IN RV SITE

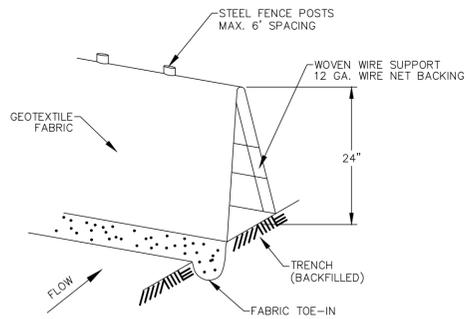
1" = 20'

RV SEPARATION REQUIREMENTS

1. REQUIRED 25 FEET SEPARATION BETWEEN RECREATIONAL VEHICLES, INCLUDING ATTACHED AWNINGS AND ANY ACCESSORY STRUCTURES TO THE RV.
2. MINIMUM 10 FEET DISTANCE BETWEEN RECREATIONAL VEHICLES AND RV PARK STREETS AND OTHER COMMON AREAS.
3. REQUIRED 50' SEPARATION FROM SERVICE BUILDINGS.

Project Title:		TOM GREEN COUNTY HARPER PARK IMPROVEMENTS WATER VALLEY, TEXAS		Revised Per County Comment	Water Service	TJF	4/24/20
Drawing Title:		OVERALL SITE PLAN		No. Revisions and Descriptions		By	Date
Drawn By:	KJM	Checked By:	TJF	Scale:	1"=40'	Date:	3/25/20
		<i>Thomas J. Fromberger</i> 4/24/20					
		Engineering, Architecture, Surveying, P.C. 5290 S. 31st Street, Temple, Texas 76780 Phone: 254-771-2654 8834 N. Capital of Texas Highway, Suite 147, Austin, Texas 78750 Phone: (512) 436-8571 TBBE Firm Number F-10615 www.mrbgroupctexas.com					
Sheet No. G-1		of		Project No. 2054.19002			

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STANDARD SYMBOL FOR SILT FENCE (SF)

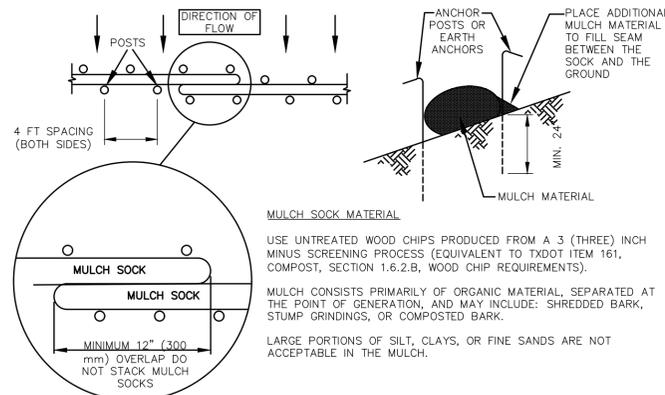
TRENCH CROSS SECTION

NOTES

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 18".
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CAN NOT BE TRENCHED INTO THE SURFACE (E.G. PAVEMENT), THE FABRIC FLAP SHALL BE WEIGHTED DOWN WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6" DEEP AND 6" WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6". THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. ALL EROSION CONTROL MEASURES MUST CONFORM TO TCEQ REQUIREMENTS FOR NON-POINT SOURCE POLLUTION.

SILT FENCE

N.T.S.



MULCH SOCK MATERIAL

USE UNTREATED WOOD CHIPS PRODUCED FROM A 3 (THREE) INCH MINUS SCREENING PROCESS (EQUIVALENT TO TXDOT ITEM 161, COMPOST, SECTION 1.6.2.B, WOOD CHIP REQUIREMENTS).

MULCH CONSISTS PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP PORTIONS, OR COMPOSTED BARK.

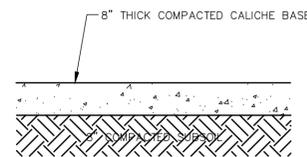
LARGE PORTIONS OF SILT, CLAYS, OR FINE SANDS ARE NOT ACCEPTABLE IN THE MULCH.

NOTES:

1. STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 600mm (24 inches). IF WOOD POSTS CANNOT ACHIEVE 600mm (24 inches) DEPTH, USE STEEL POSTS. EARTH ANCHORS ARE ALSO ACCEPTABLE.
2. THE TOE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE MULCH SOCK IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. IN ORDER TO PREVENT WATER FROM FLOWING BETWEEN THE JOINTS OF ADJACENT ENDS OF MULCH SOCKS, LAP THE ENDS OF ADJACENT MULCH SOCKS A MINIMUM OF 300mm (12 inches).
3. MULCH MATERIAL MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH; IT IS NOT ACCEPTABLE FOR THE MULCH MATERIAL TO CONTAIN GROUND CONSTRUCTION DEBRIS, BIOSOLIDS, OR MANURE.
4. SOCK MATERIAL WILL BE 100% BIODEGRADABLE, PHOTODEGRADABLE, OR RECYCLABLE SUCH AS BURLAP, TWINE, UV PHOTOBIOGRADABLE PLASTIC, POLYESTER, OR ANY OTHER ACCEPTABLE MATERIAL.
5. MULCH SOCKS SHOULD BE USED AT THE BASE OF SLOPES NO STEEPER THAN 2:1 AND SHOULD NOT EXCEED THE MAXIMUM SPACING CRITERIA PROVIDED IN CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL TABLE 1.4.5.F.1 FOR A GIVEN SLOPE CATEGORY.
6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

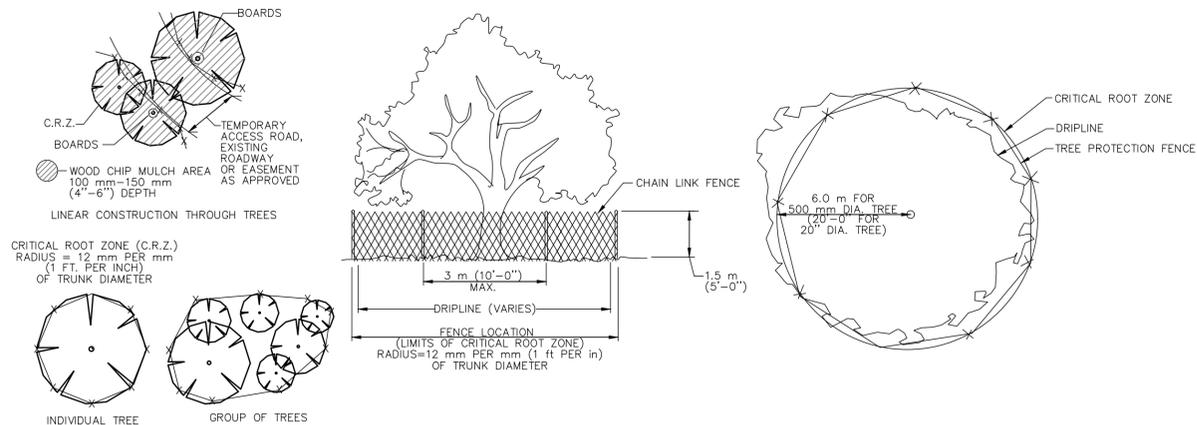
MULCH SOCK

N.T.S.



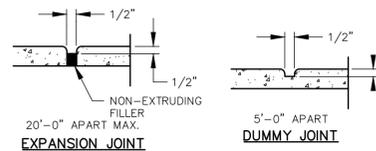
RV SLIP PAD DETAIL

(N.T.S.)



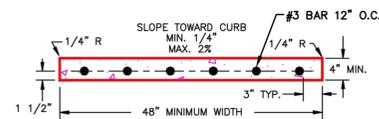
TREE PROTECTION DETAIL

N.T.S.



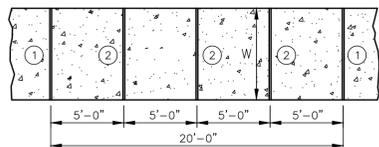
SIDEWALK CONSTRUCTION JOINTS

N.T.S.



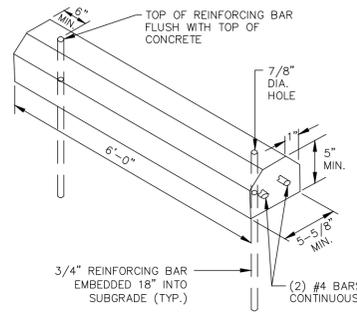
SIDEWALK SECTION DETAIL

- 1 EXPANSION JOINT WITH JOINT FILLER
- 2 CONTRACTION JOINT



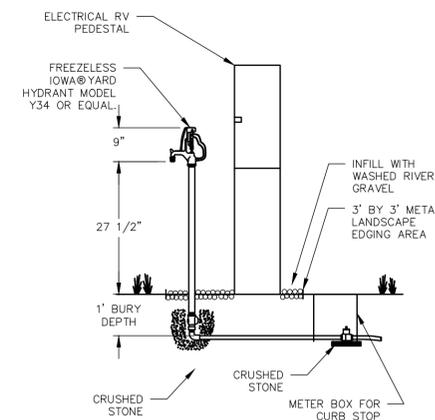
SIDEWALK DETAIL

N.T.S.



CONCRETE WHEEL STOP

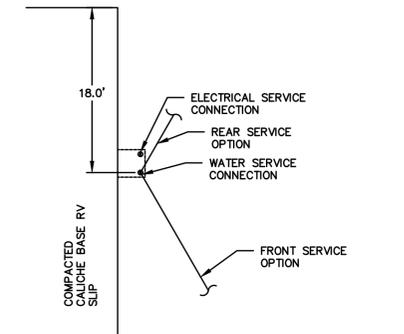
(PRECAST CONCRETE)
N.T.S.



RV UTILITY AREA DETAIL

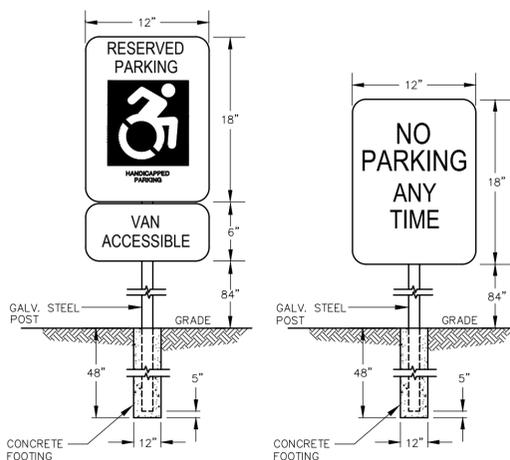
N.T.S.

- NOTE:
1. REVIEW PLAN SHEET TO DETERMINE WHICH SERVICE OPTION (FRONT OR REAR) FOR EACH RV SLIP.
 2. 3/4" WATER SERVICE CONNECTION IS A FREEZELESS IOWA@YARD HYDRANT MODEL Y34 OR EQUAL.



RV WATER SERVICE DETAIL

N.T.S.



ACCESSIBLE PARKING SIGN DETAILS

N.T.S.

4/24/20	Date
TJF	By
REVISIONS AND DESCRIPTIONS	1
PER COUNTY COMMENT WATER SERVICE	No.
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Project Title: **TOM GREEN COUNTY HARPER PARK IMPROVEMENTS WATER VALLEY, TEXAS**

Drawing Title: **DETAILS**

Drawn By: **JPU / KJM**

Checked By: **TJF**

Scale: **AS SHOWN**

Date: **3/25/20**

Signature: *Thomas J. Fromberger*

Date: **4/24/20**

Professional Seal: **THOMAS J. FROMBERGER 105564 PROFESSIONAL ENGINEER**

MRB group

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TBPE Firm Number F-10615

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Sheet No. **D-1**

Project No. **2054.19002**

48"

Tom Green County Harper Park Project

With Funding Assistance through

LAND AND WATER CONSERVATION FUND

U.S. Department of the Interior, National Park Service
Administered by the Texas State Parks & Wildlife Department



TOM GREEN COUNTY
TEXAS

Land and Water Conservation Fund	50%	\$500,000
Tom Green County	50%	\$500,000
Total Project		\$1,000,000

3" Text

2" Text

3" Text

2" Text

2" Text

NOTE: MOUNT SIGN TO PAINTED PLYWOOD ON (2) 4x4 POSTS, LOCATE AT ENTRANCE TO PARK

96"
TEMPORARY SIGNAGE

No.	Revisions and Descriptions	By	Date

Project Title:
**TOM GREEN COUNTY
HARPER PARK IMPROVEMENTS
WATER VALLEY, TEXAS**

Drawing Title:
SIGNAGE - TEMPORARY & PERMANENT

Drawn By: CNC
Checked By: RS
Scale: 3" = 1'-0"
Date: 02/25/2020



18"  

A LAND AND WATER CONSERVATION
FUND PROGRAM PROJECT

Funding Assistance through
U.S. Department of the Interior, National Park Service
Administered by Texas Parks & Wildlife Department

1" TEXT

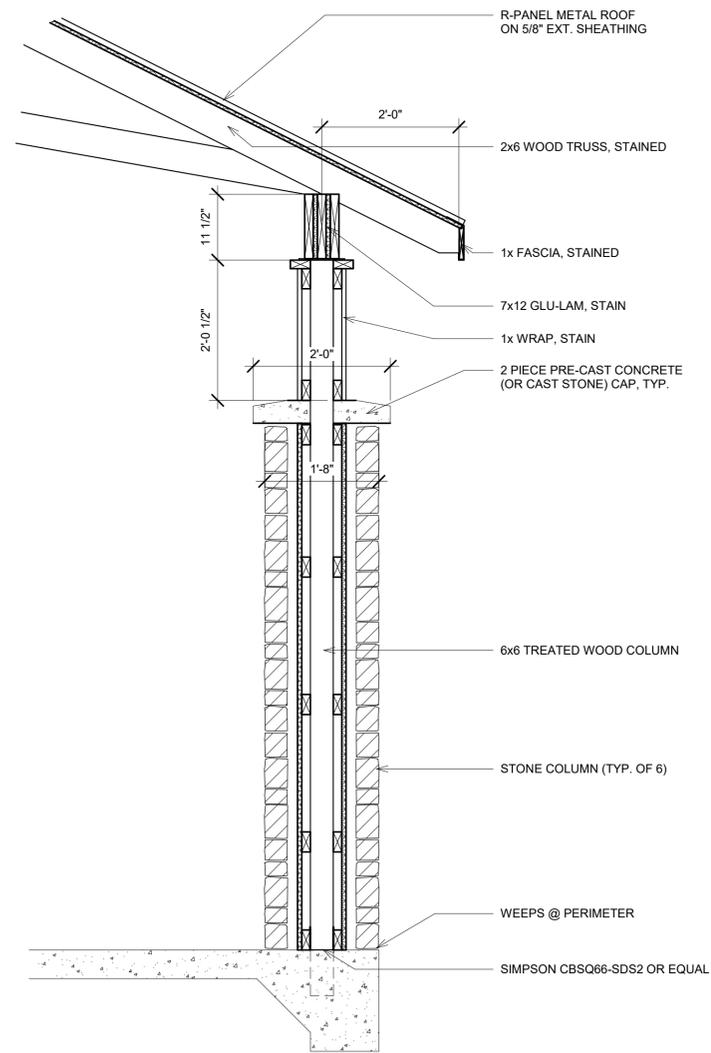
5/8" TEXT

NOTE: SIGNAGE MATERIALS TBD BY OWNER

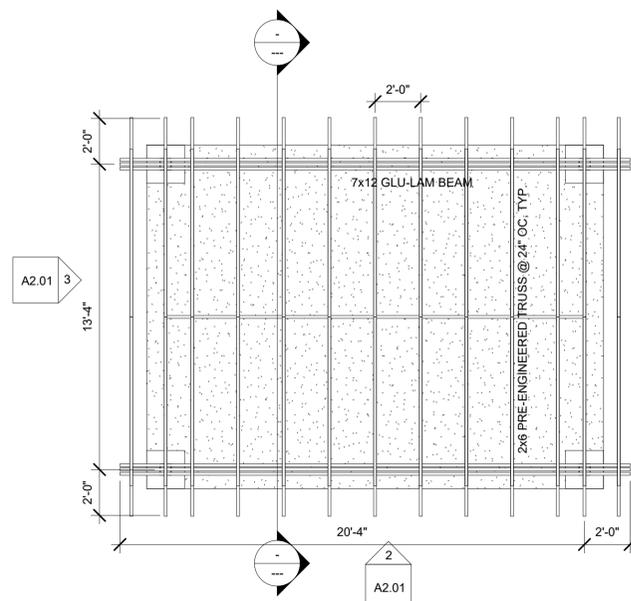
24"
PERMANENT SIGNAGE / PLAQUE

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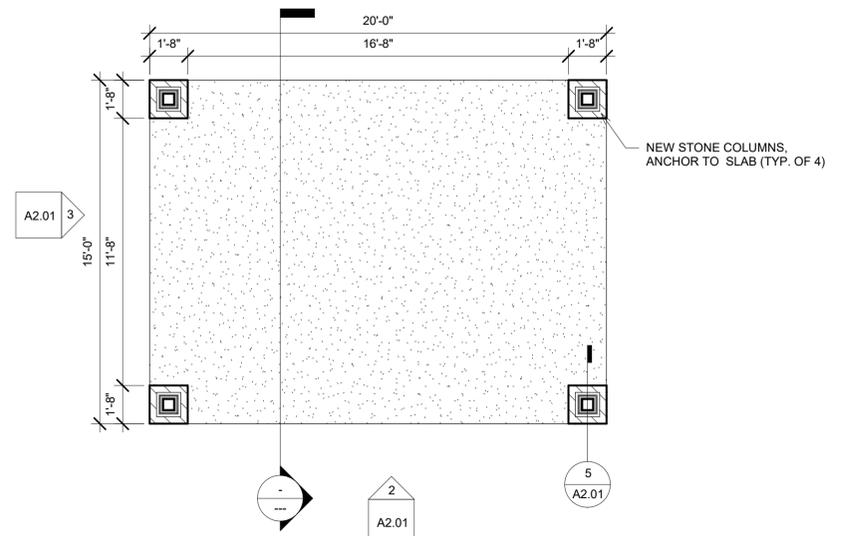
Sheet No.
A1.01
of
Project No.
2054.18001



5 COLUMN SECTION - PAVILION
3/4" = 1'-0"

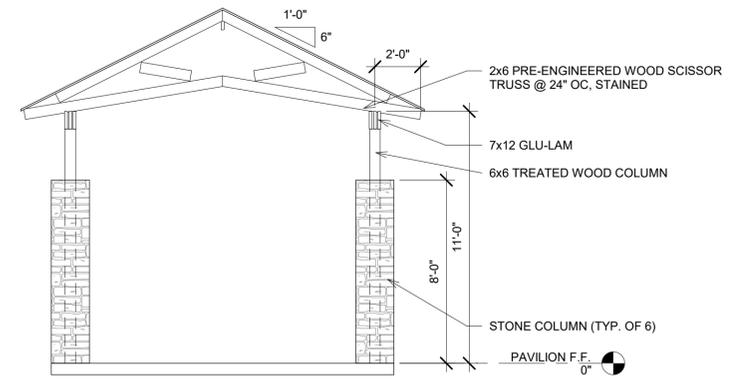


4 PAVILION PLATE
1/4" = 1'-0"

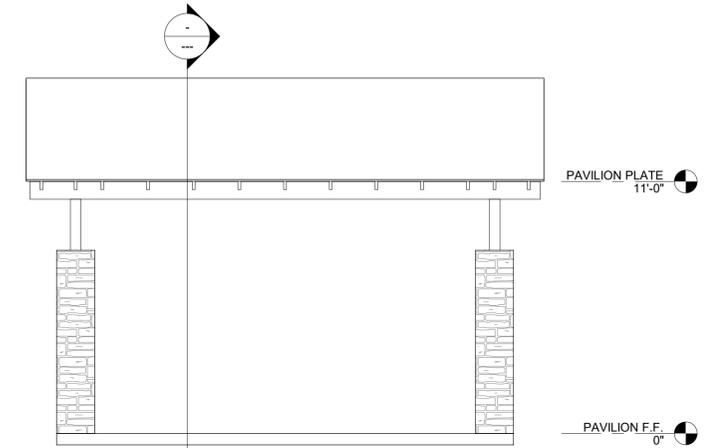


1 PAVILION F.F.
1/4" = 1'-0"

3 EXTERIOR ELEVATION - PAVILION
(WEST)
1/4" = 1'-0"



2 EXTERIOR ELEVATION - PAVILION
(SOUTH)
1/4" = 1'-0"



Project Title:
**TOM GREEN COUNTY
HARPER PARK IMPROVEMENTS
WATER VALLEY, TEXAS**

Drawing Title:
PLAN & ELEVATIONS - PAVILION

Drawn By: CNC
Checked By: RS
Scale: As Indicated
Date: 02/25/2020



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Sheet No.
A2.01

Project No.
2054.18001

No. Revisions and Descriptions By Date
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2/26/2020 9:38:05 AM

DESIGN LOADS

- GRAVITY LOADS
 - DESIGN UNIFORM LIVE LOADS ARE AS LISTED BELOW. LIVE LOAD REDUCTIONS ARE CALCULATED IN ACCORDANCE WITH THE BUILDING CODE.
 - DESIGN UNIFORM SUPERIMPOSED DEAD LOADS ARE IN ADDITION TO THE WEIGHT OF THE BUILDING STRUCTURE.
 - DESIGN CONCENTRATED LIVE LOADS ARE NOT COMBINED WITH UNIFORM LIVE LOADS.
 - MECHANICAL ROOMS ARE DESIGNED TO SUPPORT THE EQUIPMENT SHOWN ON THE MECHANICAL DRAWINGS AND SPECIFICATIONS. ANY MODIFICATIONS TO THE SIZE, WEIGHT, OR LOCATION OF EQUIPMENT SHOULD BE SUBMITTED FOR REVIEW OF LOADING PRIOR TO INSTALLATION OF EQUIPMENT.

UNIFORM LIVE LOADS
ROOF = 12PSF

UNIFORM SUPERIMPOSED DEAD LOADS
ROOF = 3 PSF CEILING & MECH + 7 PSF ROOFING

CONCENTRATED LIVE LOADS
ROOF = N/A
OTHER AREAS = UNIFORM LOAD ONLY
- WIND LOADS
 - IN ACCORDANCE WITH I.B.C., BASED ON A WIND SPEED OF 90 MPH AND EXPOSURE CLASS B.
 - NET ROOF UPLIFT = 20 PSF TYPICAL
 - = 30 PSF WITHIN 10'-0" OF EDGE OR STEP IN ROOF
- SEISMIC LOADS
 - IN ACCORDANCE WITH IBC, ZONE 0

FOUNDATION

- THESE NOTES APPLY TO ALL FOUNDATIONS AND SLABS ON GRADE DETAILED ON THE STRUCTURAL DRAWINGS, UNLESS NOTED OTHERWISE.
- FOUNDATION DESIGN IS BASED ON THE SOILS REPORT PREPARED BY XXX PROJECT NO. XXX DATED XXX.
- SUBGRADE PREPARATION UNDER BUILDING SLAB ON GROUND:
 - REMOVE THE UPPERMOST 6" OF SOIL AND STOCKPILE FOR USE ONLY AS TOP SOIL FOR FINAL GRADING.
 - EXCAVATE A MIN. OF 4'-0" FOR PLACEMENT OF SELECT FILL.
 - PLACE A MINIMUM OF FOUR FEET OF SELECT FILL UNDER AND AROUND EACH BUILDING PAD. THE SELECT FILL SHALL BE LAYER COMPACTED IN 8 INCH MAXIMUM LOOSE THICKNESS TO A DRY DENSITY OF NOT LESS THAN 95% OF STANDARD PROCTOR (ASTM D-99) MAXIMUM DRY DENSITY. THE SOIL MOISTURE AT TIME OF COMPACTION SHALL BE WITHIN 3% OF THE MATERIAL'S OPTIMUM MOISTURE CONTENT. PLACE SELECT FILL AS SOON AS POSSIBLE OVER SUBGRADE TO LIMIT MOISTURE LOSS WITHIN THE UNDERLYING SOILS.
 - SELECT FILL SHALL BE A UNIFORMLY BLENDED CLAYEY SAND HAVING A LIQUID LIMIT LESS THAN 30 AND A PLASTICITY INDEX (PI) BETWEEN 4 AND 15.
- UNLESS SPECIFIED OTHERWISE VAPOR BARRIER SHALL CONSIST OF 8 MIL. POLYETHYLENE SHEET. TURN DOWN AT GRADE BEAMS AND PIERS. LAP AND SEAL AT ALL JOINTS AND AROUND ALL COLUMNS AND STUB-OUTS. PATCH ALL TEARS PRIOR TO PLACING CONCRETE.

REINFORCED CONCRETE

- ALL STRUCTURAL CONCRETE SHALL BE OF NORMAL WEIGHT AGGREGATE WITH SPECIFIED PROPERTIES AS FOLLOWS:

	28 DAY STRENGTH	SLUMP	MAX AGG.
GRADE BEAM	4000 PSI	4"	1"
SLABS ON GROUND	3000 PSI	4"	1"
- REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60, U.N.O.
- REINFORCING STEEL, SPECIFICALLY NOTED TO BE SHOP OR FIELD WELDED SHALL CONFORM TO ASTM A-706, GRADE 60. WELDING OF OTHER REINFORCING STEEL IS NOT PERMITTED.
- ALL REINFORCING SHALL LAP 36 BAR DIAMETERS AT SPLICES UNLESS NOTED OTHERWISE. HOOK CONTINUOUS BARS AT DISCONTINUOUS ENDS.
- DETAILING OF CONCRETE REINFORCING AND ACCESSORIES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI PUBLICATION 315.
- UNLESS NOTED OTHERWISE, CONCRETE PROTECTION FOR REINFORCING SHALL BE AS FOLLOWS:

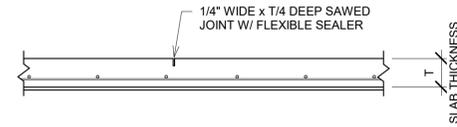
BEAMS AND WALLS ON EARTH	= 2" SIDES AND TOP, 3" BOTTOM
SLABS ON GROUND	= CENTER IN SLAB
- NO HORIZONTAL JOINTS WILL BE PERMITTED IN CONCRETE, EXCEPT WHERE THEY NORMALLY OCCUR OR WHERE NOTED. VERTICAL JOINTS SHALL OCCUR AT 0 NEAR THE CENTER OF SPANS.

STRUCTURAL STEEL

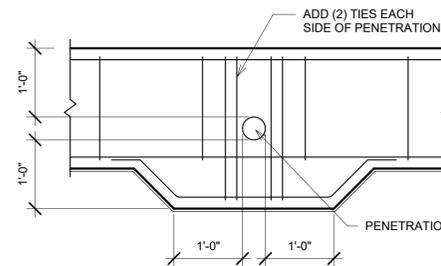
- STRUCTURAL SHAPES AND PLATES SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED ON THE DRAWINGS:
 - ALL WIDE FLANGE BEAMS AND COLUMNS = ASTM A572, GRADE 50
 - ALL TUBULAR MEMBERS = ASTM A500, GRADE B
 - ALL PIP MEMBERS = ASTM A53 (TYPE E OR S) GRADE B
 - ALL OTHER SHAPES AND PLATES = ASTM A36
- ALL CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL BE 3/4 IN. DIA. CONFORMING TO ASTM A-325. ALL BOLTS SHALL BE TIGHTENED AS SPECIFIED FOR SLIP-CRITICAL CONNECTIONS. CONNECTIONS DESIGNED AS BEARING-TYPE SHALL BE BASED ON THREADS INCLUDED IN THE SHEAR PLANE.
- ALL WELDING SHALL BE DONE IN ACCORDANCE WITH A.W.S. CODE, BY CERTIFIED WELDERS. WELDING ELECTRODES SHALL BE E70XX.
- ALL STRUCTURAL STEEL SHALL HAVE ONE SHOP COAT OF STANDARD IRON OXIDE PRIMER, WITH A MINIMUM DRY FILM THICKNESS OF 1.5 MILS.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL BEAM TO BEAM AND BEAM TO COLUMN CONNECTIONS SHALL BE DESIGNED AS "SIMPLE CONNECTIONS", AND SHALL BE SHOP WELDED AND FIELD BOLTED. SHEAR CONNECTIONS SHALL BE DESIGNED FOR HALF OF THE TOTAL LOAD CAPACITY LISTED ON THE TABLE: "ALLOWABLE LOADS ON BEAMS" OF THE AISC MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRESS DESIGN.
- SHEAR CONNECTIONS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED AND DETAILED BY THE STRUCTURAL STEEL FABRICATOR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF TEXAS, USING THE DESIGN PARAMETERS INDICATED ON NOTE NO. 5 ABOVE.
- CONNECTION INDICATED "M.C." ON THE DESIGN DRAWINGS SHALL BE DESIGNED AS MOMENT CONNECTIONS. IF NO DESIGN MOMENT IS NOTED, DESIGN CONNECTION TO RESIST THE FULL MOMENT CAPACITY OF THE MEMBER. SHEAR CONNECTIONS IN MOMENT CONNECTIONS SHALL BE WELDED OR FRICTION-TYPE BOLTED CONNECTIONS ONLY.
- PROVIDE STIFFENERS AT ALL LOCATIONS SHOWN ON DETAILS WHETHER OR NOT THEY ARE REQUIRED BY CALCULATIONS.
- ALL COLUMN BASE PLATES SHALL BE GROUTED IMMEDIATELY AFTER THE FRAME ERECTION IS COMPLETED AND PLUMBED, AND PRIOR TO APPLYING DECKING TO ROOF JOISTS.

GENERAL

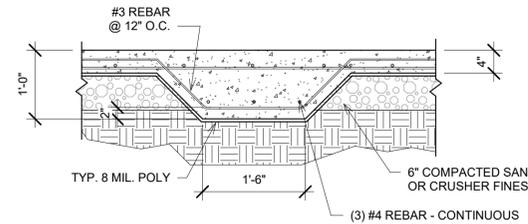
- SEE MECHANICAL DRAWINGS FOR EXACT LOCATION AND SIZES OF SMALL MECHANICAL OPENINGS, SLEEVES, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL FINISHES, DIMENSIONS OF SLAB DROPS, CHAMFERS, ETC.
- THE USE OF REPRODUCTIONS OF THE DESIGN STRUCTURAL DRAWINGS FOR SHOP DRAWING PURPOSES IS NOT ACCEPTABLE.
- THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THAT THE NEW STRUCTURE WILL NOT CONFLICT WITH ANY EXISTING UTILITIES. IF CONFLICTS ARISE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND SHALL STOP THE WORK UNTIL AN APPROPRIATE SOLUTION TO THE CONFLICTS ARE FOUND, AND THE CONTRACTOR IS GIVEN WRITTEN AUTHORIZATION TO PROCEED WITH THE WORK.



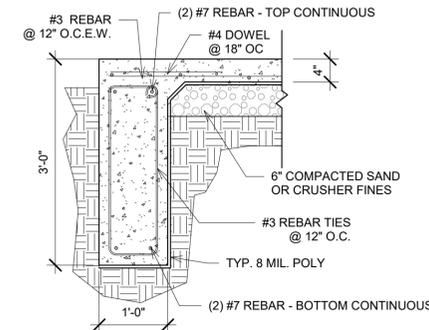
⑤ SLAB ON GRADE CONTROL JOINT
3/4" = 1'-0"



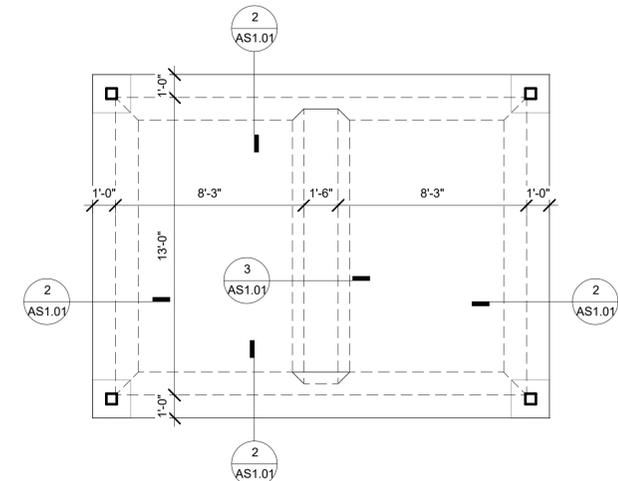
④ GRADE BEAM PENETRATION
3/4" = 1'-0"



③ THICKENED SLAB
3/4" = 1'-0"



② PERIMETER GRADE BEAM
3/4" = 1'-0"



① FOUNDATION PLAN - PAVILION
1/4" = 1'-0"

No.	Revisions and Descriptions	By	Date

Project Title: **TOM GREEN COUNTY HARPER PARK IMPROVEMENTS WATER VALLEY, TEXAS**

Drawing Title: **FOUNDATION PLANS**

Drawn By: CNC
Checked By: RS
Scale: As Indicated
Date: 02/25/2020



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TBBE Firm Number: E110015
www.mrbgroup.com

Sheet No. **AS1.01**
Project No. **2054.18001**

ELECTRICAL SYMBOL LEGEND

NOT ALL SYMBOLS SHOWN MAY BE USED

WIRING DEVICES

SYMBOL	DESCRIPTION
	2 POLE, 3 WIRE, 125V. SINGLE RECEPTACLE
	2 POLE, 3 WIRE, 125V. DUPLEX RECEPTACLE, MOUNT 18" AFF. UON
	2 POLE, 3 WIRE, 125V. DUPLEX ARC FAULT RECEPTACLE
	2 POLE, 3 WIRE, 125V. ISOLATED GROUND, ORANGE DUPLEX RECEPTACLE
	2 POLE, 3 WIRE, 125V. WEATHERPROOF DUPLEX RECEPTACLE
	2 POLE, 3 WIRE, 125V. QUADRUPLEX RECEPTACLE
	2 POLE, 3 WIRE, 125V. DEDICATED DUPLEX RECEPTACLE
	SINGLE RECEPTACLE: 50A, 250V, 1ø, HUBBELL #9367 NEMA 6-50R
	SINGLE RECEPTACLE: 50A, 120V, 1ø, HUBBELL #9360 NEMA 5-50R
	TWIST LOCK RECEPTACLE: 20A, 120V, 1ø, HUBBELL #2310 NEMA L5-20R
	TWIST LOCK RECEPTACLE: 20A, 120V, 1ø, HUBBELL #2310 NEMA L5-20R
	TWIST LOCK RECEPTACLE: 30A, 250V, 1ø, HUBBELL #2620 NEMA L6-30R
	TWIST LOCK RECEPTACLE: 20A, 250V, 1ø, HUBBELL #2320 NEMA L6-20R
	SPECIAL PURPOSE RECEPTACLE
	SINGLE FLOOR RECEPTACLE
	QUADRUPLEX FLOOR RECEPTACLE
	DUPLEX FLOOR RECEPTACLE
	POWER POLE OR TELEPOWER POLE

CONDUIT & WIRING

SYMBOL	DESCRIPTION
	HOME RUN W/HOT, NEUTRAL AND GROUND
	HOME RUN W/ 2 HOT AND GROUND
	HOME RUN W/ 3 HOT AND GROUND
	HOME RUN W/ 2 HOT, NEUTRAL AND GROUND
	HOME RUN W/ 3 HOT, NEUTRAL AND GROUND
	UNDERGROUND GROUND
	UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC
	UNDERGROUND TELEPHONE
	THERMAL WELD GROUND CONNECTION
	MECHANICAL GROUND CONNECTION

DISTRIBUTION & CONTROLS

SYMBOL	DESCRIPTION
	PANELBOARD
	TRANSFORMER
	DISCONNECT SWITCH (AMPERAGE/POLES/FUSE SIZE/NEMA)
	COMBINATION MAGNETIC STARTER (AMPERAGE/POLES/TRIP/STARTER SIZE/NEMA)
	MAGNETIC STARTER (AMPERAGE/POLES/TRIP/STARTER SIZE/NEMA)
	MOTOR RATED SWITCH WITH THERMAL OVERLOADS
	JUNCTION BOX
	JUNCTION BOX, 28VDC
	JUNCTION BOX, 400HZ
	PUSH-BUTTON
	EQUIPMENT CONNECTION
	PHOTO ELECTRIC CONTROL
	CONTACTOR
	TIME CLOCK
	MOTION DETECTOR, IR=INFRARED
	CONTROL PANEL
	POWER FACTOR CAPACITOR
	VARIABLE FREQUENCY DRIVE
	OCCUPANCY SENSOR

COMMUNICATIONS

SYMBOL	DESCRIPTION
	TELEPHONE OUTLET WALL MOUNTED
	TELEPHONE OUTLET FLOOR MOUNTED
	COMBINATION DATA AND TELEPHONE OUTLET
	DATA OUTLET WALL MOUNTED
	DATA OUTLET FLOOR MOUNTED
	SPEAKER CEILING MOUNTED
	SPEAKER WALL MOUNTED
	MICROPHONE
	MICROPHONE FLOOR OUTLET
	VOLUME CONTROL
	INTERCOM OUTLET
	TELEPHONE BACKBOARD

LIGHTING

SYMBOL	DESCRIPTION
	EXISTING 2X4 FIXTURE TO REMAIN AND BE RE-USED
	REMOVE AND RELOCATE 2X4 FIXTURE, REFER TO LIGHTING PLAN FOR RELOCATED FIXTURES
	NEW 2X4 LIGHTING FIXTURE
	RELOCATED 2X4 LIGHTING FIXTURE
	HATCH INDICATES NON SWITCHED/EMERGENCY BATTERY PACK FIXTURE.
	1X4 LIGHTING FIXTURE
	STRIP LIGHT
	SURFACE MOUNTED LIGHTING FIXTURE
	WALL MOUNTED LIGHTING FIXTURE
	RECESSED LIGHTING FIXTURE
	RECESSED WALL WASH LIGHTING FIXTURE
	EMERGENCY LIGHTING FIXTURE W/2 HEADS
	SINGLE FACE CEILING-MOUNTED EXIT SIGN
	SINGLE FACE WALL-MOUNTED EXIT SIGN
	DOUBLE-FACE CEILING-MOUNTED EXIT SIGN ARROWS AS INDICATED ON PLAN
	DOUBLE-FACE WALL-MOUNTED EXIT SIGN ARROWS AS INDICATED ON PLAN
	POLE MOUNTED SITE LIGHT
	SINGLE POLE, SINGLE THROW SWITCH, MOUNT 48" AFF. UON
	DOUBLE POLE, SINGLE THROW SWITCH, MOUNT 48" AFF. UON
	SINGLE POLE, DOUBLE THROW 3-WAY SWITCH, MOUNT 48" AFF. UON
	DOUBLE POLE, DOUBLE THROW 4-WAY SWITCH, MOUNT 48" AFF. UON
	FAN SPEED CONTROL RHEOSTAT, MOUNT 48" AFF. UON
	KEY OPERATED SWITCH, MOUNT 48" AFF. UON
	SINGLE POLE, SINGLE THROW SWITCH W/PILOT LIGHT, MOUNT 48" AFF. UON
	INTERVAL TIMER SWITCH, MOUNT 48" AFF. UON
	DIMMER SWITCH, 6=600W, 10=1000W, 15=1500W, 20=2000W, MOUNT 48" AFF. UON
	OCCUPANCY SENSOR SWITCH, MOUNT 48" AFF. UON
	LOCAL ROOM CONTROL FOR DIMMING AND/OR LIGHTING CONTROL SYSTEM
	LIGHTING CONTACTOR

FIRE ALARM

SYMBOL	DESCRIPTION
	FIRE ALARM PULL STATION
	FIRE ALARM AUDIO/VISUAL
	FIRE ALARM VISUAL
	FIRE ALARM BELL AND FLASHING LIGHT
	FIRE ALARM AUDIO/VISUAL CEILING MOUNT
	FIRE ALARM HORN
	SMOKE DETECTOR
	DUCT SMOKE DETECTOR
	120V SMOKE DETECTOR
	HEAT DETECTOR
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUNCIATOR
	MAGNETIC DOOR HOLDER
	FIRE SMOKE DAMPER
	SPRINKLER SYSTEM WATER FLOW SWITCH
	SPRINKLER SYSTEM TAMPER SWITCH

SPECIAL SYSTEMS

SYMBOL	DESCRIPTION
	TELEVISION OUTLET
	TELEVISION FLOOR OUTLET
	CAMERA MONITOR OUTLET
	CLOCK WALL MOUNTED
	CLOCK RECEPTACLE
	MASTER CLOCK AND PROGRAM CONTROL OUTLET
	BELL
	BUZZER
	THERMOSTAT
	PRESET RECALL STATION
	ELECTROSTATIC DISCHARGE GROUND
	ELECTRONIC KEY PAD
	ELECTRONIC REMOTE DOOR BELL
	ELECTRONIC CARD READER
	CLOSED CIRCUIT SECURITY CAMERA
	MOTOR, 10 HORSEPOWER SHOWN
	DATA OUTLET FURNITURE WHIP
	JUNCTION BOX FURNITURE WHIP

ABBREVIATIONS

A	AMPERES OR TRIP AMPERES
ABV	ABOVE
AC	ALTERNATING CURRENT
ACT	ABOVE COUNTER TOP
A/C	AIR CONDITIONING
AE	AUSTIN ENERGY
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	SYMMETRICAL AMPS INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GAGE
A/R	AS REQUIRED
BL	BALLAST
BD	BOARD
BLDG	BUILDING
C	CONDUIT
CAB	CABINET
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CL	CURRENT LIMITING
COA	CITY OF AUSTIN
CONN	CONNECT OR CONNECTION
CONTR'D	CONTINUED
CONTR	CONTRACTOR
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
DBL	DOUBLE
DIM	DIMENSION
DISC SW	DISCONNECT SWITCH
DC	DIRECT CURRENT
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE CONDUIT
FIX	FIXTURE
GC	GENERAL CONTRACTOR
GALV	GALVANIZED
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HDG	HOT DIPPED GALVANIZED
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HT	HEIGHT
HTR	HEATER
HZ	HERTZ
IMC	INTERMEDIATE METAL CONDUIT
INST	INSTRUMENT
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILLS
KV	KILOVOLTS
KVA	KILOVOLT AMPERES
KW	KILOWATT
KWH	KILOWATT HOURS
LA	LIGHTNING ARRESTOR
L-L	LINE TO LINE
L-N	LINE TO NEUTRAL
LTG	LIGHT OR LIGHTING
MANUF	MANUFACTURER
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER

ABBREVIATIONS (CONTD)

MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MSB	MAIN SWITCH BOARD
MTD	MOUNTED
MTG	MOUNTING
MRCT	MULTI-RATIO CURRENT TRANSFORMER
MV	MERCURY VAPOR
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NIC	NOT IN THIS CONTRACT
N.O.	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OH	OVERHEAD
OL	OVERLOAD
Ø	PHASE
P	POLE
PA	PUBLIC ADDRESS
PC	PHOTOELECTRIC
PEN	PENDANT
PNL	PANELBOARD
PRV	PRESSURE REDUCING VALVE
PVC	POLYVINYL CHLORIDE
R	RELOCATED
RECP	RECEPTACLE
REQ'D	REQUIRED
REQ'MTS	REQUIREMENTS
RGC	RIGID GALVANIZED STEEL CONDUIT
RM	ROOM
RMC	RIGID METALLIC CONDUIT
ROW	RIGHT OF WAY
SCH	SCHEDULE
SE	SERVICE ENTRANCE
SH	SHEET
SM	SURFACE MOUNT
SN	SOLID NEUTRAL
SOV	SOLENOID OPERATED VALVE
SPACE	SPACES(S) ONLY (NO BREAKER OR DEVICE)
SPARE	SPARE BREAKER OR DEVICE
SPD	SURGE PROTECTIVE DEVICE
SPECS	CONTRACT SPECIFICATIONS
SS	STAINLESS STEEL HARDWARE
SWBD	SWITCHBOARD
SW	SWITCH
SWGR	SWITCH GEAR
TB	TELEPHONE BACKBOARD
TIB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UG	UNDERGROUND ELECTRIC
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UT	UNDERGROUND TELEPHONE
V	VOLTS
VA	VOLT AMPERES
W	WATTS
W/	WITH
WH	WATER HEATER
WP	WEATHER PROOF
XFMR	TRANSFORMER
XFR SW	TRANSFER SWITCH
XMTX	TRANSMITTER
1/C	SINGLE CONDUCTOR CABLE
3/C	THREE CONDUCTOR CABLE USED WITH A NUMERICAL, WHICH INDICATES HEIGHT OF ITEM AFF LEVEL
S.D. BARE CU.	SOFT DRAWN BARE COPPER

GENERAL ELECTRICAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, ALL CITY, COUNTY, AND STATE REGULATIONS, NFPA, ANSI, UL, IEEE, AND THE LOCAL CODE AUTHORITY HAVING JURISDICTION. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND INSPECTIONS.
- ALL ELECTRICIANS SHALL BE LICENSED BY THE APPROPRIATE CITY, STATE, OR LOCAL CODE AUTHORITY HAVING JURISDICTION.
- THE ELECTRICAL CONTRACTOR SHALL FOLLOW ALL OSHA AND OWNER SAFETY RULES AS REQUIRED TO WORK ON THIS SITE.
- ALL INSTALLATIONS SHALL BE DONE IN A NEAT AND WORKMAN LIKE MANNER.
- ALL POWER OUTAGES SHALL BE PERFORMED DURING NON-BUSINESS HOURS. COORDINATE ALL POWER OUTAGES WITH THE OWNER. NOTIFY THE OWNER IN WRITING 10 DAYS PRIOR TO SCHEDULING ANY POWER OUTAGES.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL TEMPORARY ELECTRICAL POWER AND LIGHTING REQUIRED FOR THIS PROJECT.
- THE DEMOLITION DRAWINGS (IF APPLICABLE) ARE DIAGRAMMATIC IN NATURE. THE ELECTRICAL CONTRACTOR SHALL BE THOROUGHLY FAMILIAR WITH THE PROJECT SCOPE OF WORK PRIOR TO SUBMITTING THEIR BID.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY THE ELECTRICAL REQUIREMENTS OF ALL OWNER PROVIDED EQUIPMENT AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- ALL WORK SHOWN ON DRAWINGS IS NEW UNLESS OTHERWISE NOTED.
- ALL GROUNDING SHALL BE PER NEC AND LOCAL CODES.
- ALL ELECTRICAL CONSTRUCTION ON THE PROJECT SHALL CONFORM TO THE NEC AND ALL OTHER AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED AND PAY ALL FEES.
- ALL WIRING SHALL BE FREE OF SHORTS AND GROUNDS. NO CIRCUIT WIRING SHALL BE LOADED BEYOND THE PERMITTED AMPACITIES ALLOWED BY THE NEC. ALL WIRE SIZES ARE FOR COPPER.
- CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING BID.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND MATERIALS NECESSARY TO MAKE A COMPLETE AND WORKABLE JOB INCLUDING FINAL HOOK-UP OF ALL EQUIPMENT.
- FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS. CONTROL WIRING TO MECHANICAL EQUIPMENT IS NOT SHOWN ON THESE SHEETS.
- RISER AND ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY VERTICAL AND ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
- EQUIPMENT INTERRUPTING CAPACITIES SPECIFIED IN THE CONTRACT DOCUMENTS ARE BASED UPON EQUIPMENT CHARACTERISTICS AND IMPEDANCES SHOWN ON THE DRAWINGS. IF ACTUAL INSTALLED EQUIPMENT DEVIATES FROM THESE CHARACTERISTICS OR HAS LOWER IMPEDANCES THE CONTRACTOR SHALL INCREASE THE INTERRUPTING CAPACITIES OF ALL ITEMS ON THE LOAD SIDE OF THE DEVIANT EQUIPMENT IN DIRECT PROPORTION TO THE CHANGED CHARACTERISTICS. INTERRUPTING CAPACITIES SHALL NOT BE REDUCED TO VALUES LESS THAN THOSE REQUIRED BY THE CONTRACT DOCUMENTS.
- EQUIPMENT SIZES ARE AS DESIGNED. CIRCUIT BREAKERS, CONDUIT, MOTOR STARTERS, DISCONNECT SWITCHES, PLUG-IN'S, ETC., SHALL BE ADJUSTED TO THE EQUIPMENT SUBMITTED AND APPROVED FOR INSTALLATION ON THIS PROJECT.
- REFER TO ARCHITECTURAL OR CIVIL DRAWINGS FOR SITE INFORMATION.
- LIGHT FIXTURE MOUNTING HEIGHTS ARE MEASURED BETWEEN THE FLOOR AND THE BOTTOM OF THE FIXTURE.

CONDUIT AND WIRING LEGEND

---	NEW
---	EXISTING TO BE REMOVED
---	EXISTING TO REMAIN
---	UE --- UE --- UNDERGROUND ELECTRICAL
---	UF --- UF --- UNDERGROUND FIBER OPTIC
---	UT --- UT --- UNDERGROUND TELEPHONE
---	UG --- UG --- UNDERGROUND GROUNDING
---	OE --- OE --- OVERHEAD ELECTRICAL

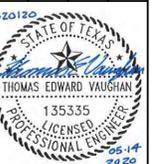
ELECTRICAL DRAWING INDEX

- E1.0 ELECTRICAL NOTES, SYMBOLS & ABBREVIATIONS
- E1.1 ELECTRICAL SPECIFICATIONS
- E2.0 ELECTRICAL SITE PLAN - DEMOLITION
- E2.1 ELECTRICAL SITE PLAN - NEW
- E2.2 ELECTRICAL ENLARGED SERVICE ENTRANCE PLANS AND PAVILION
- E3.0 ELECTRICAL ONE-LINE - DEMOLITION
- E3.1 ELECTRICAL ONE-LINE - NEW
- E4.0 ELECTRICAL SCHEDULES
- E5.0 ELECTRICAL DETAILS
- E5.1 ELECTRICAL DETAILS
- E5.2 ELECTRICAL DETAILS
- E5.3 ELECTRICAL DETAILS



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HARPER PARK IMPROVEMENTS
WATER VALLEY
TOM GREEN COUNTY, TEXAS
ELECTRICAL
NOTES, SYMBOLS & ABBREVIATIONS



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Project No. **2054.19002**

ELECTRICAL SPECIFICATIONS

PART 1 – GENERAL

1.01 WORK INCLUDED

A. ELECTRICAL SYSTEMS – ALL WORK SHALL BE PERFORMED PER BUILDING SPECIFICATIONS.

1.02 RELATED WORK

A. THE WORK COVERED BY THIS SPECIFICATION CONSISTS OF FURNISHING ALL LABOR, SUPPLIES AND MATERIALS, SHOP DRAWINGS AND A LIST OF MAKE AND CATALOG NUMBERS OF ALL EQUIPMENT AND MATERIALS TO BE INSTALLED AND PERFORMING ALL OPERATIONS, INCLUDING INSTALLATION OF LIGHTING FIXTURES, ELECTRICAL EQUIPMENT, CUTTING AND PATCHING, COORDINATION WITH OTHER TRADES ON THE JOB, ETC., NECESSARY FOR THE INSTALLATION OF COMPLETE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND HEREINAFTER SPECIFIED. THESE SPECIFICATIONS SUPPLEMENT THE GENERAL CONDITIONS AND SPECIFICATIONS.

B. EXAMINATION OF SITE: THE CONTRACTOR SHALL THOROUGHLY EXAMINE SITE AND SATISFY HIMSELF AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL VERIFY AT THE SITE ALL MEASUREMENTS AFFECTING HIS WORK AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE SAME. NO EXTRA COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR EXPENSES DUE TO HIS NEGLECT TO EXAMINE OR FAILURE TO DISCOVER CONDITIONS WHICH AFFECT HIS WORK. NO EXTRA COMPENSATION WILL BE ALLOWED ON ACCOUNT OF DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND THOSE INDICATED ON THE DRAWINGS.

C. THE AGREEMENT FORMS, GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS OF THE SPECIFICATIONS SHALL APPLY TO THE WORK SPECIFIED IN DIVISION 26.

1.03 DEFINITION

A. "WIRING": WIRE OR CABLE, INSTALLED IN RACEWAY WITH ALL REQUIRED BOXES, FITTINGS, CONNECTORS AND ACCESSORIES, COMPLETELY INSTALLED.

B. "FEEDER": WIRING TO ANY DEVICE OR EQUIPMENT IN WHICH NUMBER SIX AWG COPPER (#6 CU) OR LARGER CONDUCTORS ARE USED.

C. "POWER WIRING": WIRING TO ANY DEVICE OR EQUIPMENT SERVED BY A MULTI-POLE BREAKER.

1.04 QUALITY ASSURANCE

A. CODES: COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ANY OTHER AUTHORITIES HAVING JURISDICTION OVER THE WORK.

B. PERMITS AND INSPECTIONS: PROVIDE ALL PERMITS REQUIRED AND OBTAIN FINAL INSPECTION AND APPROVAL FROM THE INSPECTION DEPARTMENT HAVING JURISDICTION.

C. WHERE DIFFERENT SECTIONS OF ANY APPLICABLE CODES SPECIFY DIFFERENT MATERIALS, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE SHALL GOVERN.

D. STANDARDS FOR MATERIAL AND WORKMANSHIP: USE MATERIALS THAT ARE NEW AND LISTED AND LABELED BY UNDERWRITERS LABORATORIES (UL) AS CONFORMING TO ITS STANDARDS, WHERE SUCH A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR TYPE OF MATERIAL IN QUESTION. EXECUTE WORK IN A WORKMAN LIKE MANNER, TO PRESENT A NEAT AND MECHANICAL APPEARANCE WHEN COMPLETED.

1.05 SUBSTITUTION OF MATERIALS

A. NO SUBSTITUTION OF MATERIAL IS ALLOWED WITHOUT WRITTEN PRIOR AUTHORIZATION FROM THE ENGINEER AND OWNER. DETERMINATION OF WHAT IS CONSIDERED EQUAL IS AT THE SOLE DISCRETION OF THE ENGINEER AND OWNER.

B. INCLUDE SUFFICIENT DESCRIPTIVE INFORMATION, INCLUDING MANUFACTURER'S PUBLISHED DATA TO ESTABLISH CONTRACT COMPLIANCE. SUBMIT SAMPLES IF REQUESTED BY ARCHITECT/ENGINEER.

1.06 DRAWINGS AND SPECIFICATIONS

A. THE WIRING LAYOUTS ARE SCHEMATIC AND DO NOT NECESSARILY SHOW THE EXACT LOCATION OF RACEWAYS, OUTLETS, ETC. REFER TO THE ARCHITECTURAL DRAWINGS FOR ACTUAL DIMENSIONS. FIT WORK TO CONFORM TO THE DETAILS OF BUILDING CONSTRUCTION. COORDINATE ALL WORK TO ASSURE PROPER CLEARANCE.

1.07 AS-BUILT DRAWINGS

A. AS WORK PROGRESSES, RECORD ON ONE (1) SET OF ELECTRICAL PRINTS ALL CHANGES AND DEVIATIONS FROM THE CONTRACT DOCUMENTS IN SIZE, LOCATIONS AND TYPES OF ALL MATERIALS AND EQUIPMENT. RECORD FINAL LOCATION OF OUTLETS, SWITCHES, STARTERS, UNDERGROUND AND EXPOSED CONDUITS, ETC. TO INDICATE THE FINAL INSTALLATION. MAKE SUFFICIENT MEASUREMENTS TO LOCATE ALL EQUIPMENT AND CONDUITS. PROVIDE AS-BUILT DRAWINGS.

B. THE CONTRACTOR SHALL PREPARE A TYPED PANEL DIRECTORY FOR EACH PANEL UTILIZED FOR THIS PROJECT. THIS DIRECTORY SHALL IDENTIFY THE CIRCUIT NUMBER, DEVICES SERVED, AND LOCATION OF DEVICES BY ROOM NUMBER. HE SHALL FILE THEM WITH THE BUILDING MANAGER WHEN THE WORK IS COMPLETE.

1.08 MAINTENANCE DATA

A. FURNISH AND DELIVER TO THE ARCHITECT/ENGINEER TWO (2) COMPLETE COPIES OF ALL DATA PREPARED BY MANUFACTURERS, DETAILING OPERATION AND MAINTENANCE INSTRUCTION FOR ALL EQUIPMENT.

1.09 PENETRATIONS, CUTTING, AND PATCHING

A. PERFORM CUTTING AND PATCHING IN ACCORDANCE WITH THE GENERAL AND SUPPLEMENTARY CONDITIONS OF THE CONTRACT.

B. PROVIDE ALL SLEEVES REQUIRED FOR PROPER INSTALLATION OF WORK INCLUDED IN THIS SECTION.

C. MAKE ALL PENETRATIONS THROUGH WALLS AT 90 DEGREE ANGLES. SEAL ALL PENETRATIONS AT FIRE AND SMOKE PARTITIONS WITH FIRE SAFING MATERIAL. SEAL ALL PENETRATIONS AT SOUND WALLS WITH SOUNDPROOFING MATERIAL.

1.10 SUBMITTALS

A. SHOP DRAWINGS AND MATERIAL BROCHURES: FURNISH AN ELECTRONIC SET OF SHOP DRAWINGS AND PRODUCT DATA IN PDF FORMAT TO THE ARCHITECT/ENGINEER ON THE FOLLOWING MATERIALS:

- 1. LIGHTING FIXTURES
2. DISCONNECT SWITCHES
3. TRANSFORMERS
4. RACEWAYS
5. CONDUCTORS
6. MOTOR CONTROLLERS
7. SWITCHGEAR, PANELBOARDS
8. CONTROL PANELS
9. INSTRUMENTATION

1.11 COOPERATION

A. THE CONTRACTOR SHALL SCHEDULE HIS WORK, AND IN EVERY WAY POSSIBLE, COOPERATE WITH ALL OTHER TRADES IN THE JOB TO AVOID DELAYS, INTERFERENCES AND UNNECESSARY WORK. HE SHALL COOPERATE WITH THEM IN PROVIDING FOR THE INSTALLATION OF THIS WORK AND COORDINATE WITH WORK OF OTHER TRADES TO ASSURE PROPER CLEARANCE OF PIPING, DUCTWORK, CONDUIT, ETC. WHEN SUCH IS REQUIRED.

1.12 WIRING WORKMANSHIP

A. RUN WIRING IN ALL BRANCH CIRCUIT PANELBOARDS AND TERMINAL CABINETS PARALLEL OR AT RIGHT ANGLES TO THE SIDES OR TOP OF THE EQUIPMENT HOUSING.

B. GROUP AND HARNESS CONDUCTORS TOGETHER USING LOCKING TYPE CABLE TIES. CABLE TIES: AS MANUFACTURED BY THE PANDUIT CORPORATION OR THOMAS AND BETTS.

1.13 STORAGE MATERIALS

A. KEEP THE BUILDING AND PREMISES CLEAN AND CLEAR OF SCRAP MATERIALS AT ALL TIMES. STORE MATERIALS AND EQUIPMENT IN DESIGNATED STORAGE AREAS.

1.14 ORDERING OF MATERIALS

A. ORDER MATERIALS AND EQUIPMENT SO AS NOT TO JEOPARDIZE PROGRESS OF CONSTRUCTION OR COMPLETION DATE.

1.15 SAFETY PRECAUTIONS AND PROGRAMS

A. IT SHALL BE THE DUTY AND RESPONSIBILITY OF THE CONTRACTOR AND ALL OF ITS SUBCONTRACTORS TO BE FAMILIAR AND COMPLY WITH ALL REQUIREMENTS OF PUBLIC LAW 91-96, 29 U.S.C. SECS. 651 ET. SEQ., THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA), AND ALL AMENDMENTS THERETO AND TO ENFORCE AND COMPLY WITH ALL OF THE PROVISIONS OF THIS ACT. IN ADDITION, ON PROJECTS IN WHICH TRENCH EXCAVATION WILL EXCEED A DEPTH OF FIVE FEET (5'), THE CONTRACTOR AND ALL OF ITS SUBCONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF 29 C.F.R., SECS. 1926.652 AND 1926.653, OSHA SAFETY AND HEALTH STANDARDS.

1.16 WARRANTY

A. GUARANTEE ALL WORK UNDER THIS SECTION FOR WORKMANSHIP, LABOR AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER OR HIS AUTHORIZED REPRESENTATIVE.

PART 2 – PRODUCTS AND EXECUTION

2.01 CONDUIT

A. EXCEPT AS OTHERWISE NOTED, SPECIFIED OR REQUIRED, INSTALL ALL WIRES USED IN THIS PROJECT IN ELECTRICAL METALLIC TUBING AS HEREINAFTER SPECIFIED. (METAL CLAD CABLE MAY BE INSTALLED IN LIEU OF CONDUIT AS STATED BELOW)

B. INSTALL CONDUITS CONTINUOUS FROM OUTLET TO OUTLET, FROM OUTLET TO CABINET, JUNCTION BOX AND PULL BOX. SECURE CONDUITS TO ALL BOXES, ETC., IN SUCH A MANNER THAT EACH SYSTEM WILL BE ELECTRICALLY CONTINUOUS FROM SERVICE TO ALL OUTLETS. TERMINATE ALL CONDUIT RUNS FROM CABINETS AND JUNCTION BOXES IN APPROVED OUTLET BOXES. INSTALL CONDUITS AS HIGH AS POSSIBLE UP AGAINST STRUCTURE ABOVE. AVOID ROUTING CONFLICTS WITH HVAC EQUIPMENT/DUCTWORK, SANITARY WASTE, VENT PIPING, AND DOMESTIC WATER PIPING.

C. INSTALL A NYLON PULL WIRE (200 LB. TEST) AND TIE ENDS IN ALL CONDUIT LINES LEFT EMPTY FOR FUTURE USE.

D. TRAPPED OR INACCESSIBLE JUNCTION BOXES, OUTLETS, ETC. ARE NOT ALLOWED.

E. GENERALLY, CONCEAL ALL CONDUITS UNLESS OTHERWISE DIRECTED OR INDICATED ON THE DRAWINGS.

F. NO BENDS PERMITTED WITH A RADIUS LESS THAN SIX (6) TIMES THE DIAMETER OF THE CONDUIT.

G. PROVIDE JUNCTION BOXES OR PULL BOXES TO AVOID EXCESSIVE RUNS OR TOO MANY BENDS BETWEEN OUTLETS.

H. INCREASE CONDUIT SIZES SHOWN ON THE PLANS AS REQUIRED FACILITATING PULLING OF CONDUCTORS.

I. RUN ALL CONDUITS PARALLEL TO OR AT RIGHT ANGLES TO THE BUILDING WALLS AND SUPPORT FROM WALLS OR CEILINGS AT INTERVALS REQUIRED BY CODE WITH APPROVED CLAMPS OR HANGERS.

J. INSTALL APPROVED APPLETON, CROUSE HINDS, OR O.Z. MANUFACTURING CO. EXPANSION FITTINGS IN ALL EMT RUNS WHICH PASS THROUGH EXPANSION JOINTS IN THE BUILDING. OTHER METHODS TO PROVIDE FOR THIS EXPANSION MUST BE APPROVED BY THE ARCHITECT/ENGINEER.

K. ALL BELOW GRADE TO BE SCHEDULE 40 PVC.

2.02 WIRING

A. INSTALL WIRING AS FOLLOWS:

1. FEEDERS AND POWER WIRING: CONDUCTORS IN RIGID GALVANIZED STEEL CONDUIT IMC, OR EMT WHEN INSTALLED IN DRY LOCATION ABOVE GRADE. SCHEDULE 40 PVC WHEN INSTALLED BELOW GRADE.

2. BRANCH CIRCUITS: INSTALL CONDUCTORS IN EMT.

3. INSTALL ALL WIRING IN EMT. USE ONLY UL LISTED LUBRICANTS IN PULLING THE CONDUCTORS.

4. INSTALL CONDUCTORS CONTINUOUS FROM OUTLET TO OUTLET AND FROM OUTLET TO JUNCTION BOX OR PULL BOX. INSTALL SPLICES AND JOINTS CAREFULLY AND SECURELY TO BE MECHANICALLY AND ELECTRICALLY SOLID WITH PRESSURE TYPE CONNECTORS. USE 3M "SCOTCHLOCK" OR IDEAL "WING NUT" OR EQUAL TWIST-ON CONNECTORS FOR #10 AND SMALLER CONDUCTORS.

5. CONNECT CONDUCTORS FOR LIGHTING AND RECEPTACLE CIRCUITS TO THE PANEL AS DETAILED WITH COLOR CODED JACKET. COLOR CODE ALL WIRES WITH THE TYPE, SIZE, MAKE AND VOLTAGE MARKED ON IT. COLOR CODE WIRING WITH THE SAME COLOR BEING USED WITH ITS RESPECTIVE PHASE AS FOLLOWS, UNLESS OTHERWISE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

Table with 3 columns: Wire Size, Voltage, and Color Code. Includes entries for 120/240 VOLT DELTA, 120/208 VOLT WYE, and 480/277 VOLT WYE.

6. BRANCH CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN NO. 12 AWG. INCREASE THE WIRE SIZES UP ONE (1) SIZE WHEREVER THE RUN DISTANCE EXCEEDS 200 FEET.

7. ALL WIRING AND CABLE INCLUDING FIBER OPTIC, ELECTRICAL, DATA, TELECOMMUNICATIONS, TEMPERATURE CONTROLS, SECURITY, FIRE PROTECTION, ETC. SHALL BE RUN IN ELEC. METALLIC CONDUIT (EMT). WIRING OR CABLES OF ANY TYPE SHALL NOT BE LAID, RUN, DRAPED, OR STRUNG ACROSS CEILING GRID, CEILING TILES, SUSPENSION WIRES, AND SHALL NOT BE INSTALLED WITHIN 12" ABOVE THE SUSPENDED CEILING SYSTEM OR SUPPORT STRUCTURE.

8. ARMORED CABLE/METAL-CLAD CABLE
A. ARMORED CABLE (AC CABLE) AND/OR METAL-CLAD CABLE (MC CABLE) MAY BE INSTALLED IN LIEU OF CONDUIT AND WIRE AS ALLOWED BY THE CODE AND APPROVED BUILDING OWNER STANDARDS FOR:

- 1. BRANCH CIRCUIT WIRING (#10 AND SMALLER).
2. INTERCONNECTION OF LIGHTING FIXTURE.
3. FLEXIBLE CONNECTION TO VIBRATING EQUIPMENT (SMALL EXHAUST FANS, ETC.)

B. IT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER AND ADEQUATELY SUPPORTED PER THE CODE AND AHJ. ALL HOME RUNS FROM PANELS SHALL BE CONDUIT AND WIRE.

2.03 CONDUCTORS

A. COPPER OF 98% CONDUCTIVITY.

B. NO. 10 AND SMALLER: SOLID, TYPE THWN/THHN, EXCEPT AS OTHERWISE NOTED.

C. NO. 8 AND LARGER: STRANDED, TYPE THWN/THHN, EXCEPT AS OTHERWISE NOTED..

D. MINIMUM SIZE CONDUCTORS USED SHALL BE NO. 12 AWG FOR ALL APPLICATIONS EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE (A.C. CONTROLS, ETC.).

E. USE WIRE AND CABLE FROM ONE (1) MANUFACTURER. DELIVER IN THE ORIGINAL WRAPPING BEARING THE UNDERWRITERS LABORATORIES (UL) LABEL.

2.04 OUTLETS

A. USE GALVANIZED STEEL OR CAST TYPE BOXES AT ALL OUTLETS FOR LIGHTING FIXTURES, WALL SWITCHES, WALL RECEPTACLES, ETC.

B. SECURELY ATTACH OUTLET BOXES FOR FIXTURES AND DEVICES TO THE BUILDING CONSTRUCTION WITH EXPANSION BOLTS.

C. FLUSH MOUNT ALL OUTLET BOXES, REGARDLESS OF WALL OR CEILING CONSTRUCTION, UNLESS THEY ARE SPECIFICALLY SHOWN AS BEING USED WITH EXPOSED CONDUIT. IF SURFACE MOUNTED, USE CAST TYPE AS SPECIFIED ABOVE. UTILITY BOXES ARE NOT ALLOWED.

2.05 INSTALLATION

A. INSTALL RACEWAYS EXPOSED. SUPPORT EXPOSED RACEWAYS AT INTERVALS NOT EXCEEDING TEN FEET (10') WITH MACHINE SCREWS FOR METAL CONSTRUCTION AND EXPANSION BOLTS FOR CONCRETE CONSTRUCTION.

B. INSTALL THE EDGES OF ALL OUTLET BOXES FLUSH WITH THE SURFACE IN WHICH THEY ARE RECESSED. SCREW ATTACH INTERNAL DEVICES BEFORE ATTACHING COVERPLATE. DO NOT USE COVERPLATES AS A MEANS OF TIGHTENING THE DEVICES IN PLACE.

2.06 DISCONNECT AND FEEDER SWITCHES

A. FEEDER SWITCHES AND DISCONNECT SWITCHES: HEAVY DUTY, EXCEPT AS OTHERWISE NOTED. IN DAMP LOCATIONS OR EXPOSED

TO THE WEATHER, USE NEMA 3R, RAINLIGHT.

B. DISCONNECT SWITCHES: FACTORY INSTALLED PROVISION FOR PADLOCKING IN EITHER THE "ON" OR "OFF" POSITION.

2.07 FUSES

A. FUSES: BUSSMANN OR APPROVED EQUAL.

2.08 LABELING

A. LABEL ALL PANELS, CONTROL POINTS, SWITCHES, AND MOTORS, AS DIRECTED. IDENTIFY PANELS BY PANEL NUMBER. LABEL SWITCHES, INDICATING THE EQUIPMENT WHICH THEY CONTROL. ALL LABELS SHALL BE ENGRAVED. PANEL DIRECTORIES TO BE TYPED. COORDINATE ALL EQUIPMENT NUMBERING WITH MECHANICAL CONTRACTOR.

B. INSTALL ARC FLASH HAZARD LABELS ON ALL NEW SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES AND MOTOR CONTROL CENTERS PER NEC 110.16. PANDUIT #PPS0305W2100 OR EQUAL.

2.09 GROUNDING

A. PROVIDE GROUNDING FOR ELECTRICAL SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC)

2.10 COVERPLATES

A. WHERE WIRING DEVICES ARE FLUSH MOUNTED, INSTALL COVERPLATES TO MATCH BUILDING STANDARDS OR AS SELECTED BY ARCHITECT. 302 S/S LEVITON 84XX-40 SERIES, NYLON 807XX-(X), OR APPROVED EQUAL.

B. WHERE WIRING DEVICES ARE SURFACE MOUNTED, INSTALL FORMED STEEL COVERPLATES WITH CADMIUM PLATING.

C. WHERE WEATHERPROOF/WEATHER-RESISTANT COVERPLATES ARE REQUIRED, MEET UL "WET LOCATION COVER CLOSED" REQUIREMENTS. USE COVERPLATES THAT ARE HINGED AND GASKETED WITH SPRING LOADED CLOSER, LEVITON 4970/WHILE-IN-USE LEVITON M5979-(X), OR APPROVED EQUAL.

D. INSTALL FINISHED COVERPLATES ON ALL JUNCTION BOXES, OUTLET BOXES, SECTIONAL SWITCH BOXES, UTILITY BOXES, ETC.

E. WHERE MORE THAN ONE (1) DEVICE IS INDICATED AT A LOCATION, MOUNT DEVICES IN COMBINED SECTION GANG BOXES, COVERED BY A COMMON PLATE.

2.11 RECEPTACLES

A. DUPLEX RECEPTACLES: 20 AMPERE, 125 VOLT, SELF OR AUTOMATIC GROUNDING, COLOR TO MATCH BUILDING STANDARD OR AS SELECTED BY ARCHITECT. LEVITON 5362-(X), LEVITON GFCI 7899-(X), OR APPROVED EQUAL.

B. SPECIAL MOUNTING HEIGHTS ARE NOTED ON THE ARCHITECTURAL DRAWINGS. UNLESS OTHERWISE INDICATED ON THE ELECTRICAL DRAWINGS, MOUNT DEVICES AT THE FOLLOWING HEIGHTS ABOVE FINISHED FLOOR:

- 1. DUPLEX RECEPTACLE 18"
2. WALL SWITCHES 48"
3. VOICE & VOICE/DATA OUTLETS 18"
4. WALL TELEPHONE OUTLETS 48"

2.12 SWITCHES

A. PROVIDE HEAVY-DUTY, AC, QUIET SWITCHES. THE SWITCHES SHALL BE LEVITON 122X-2(X), 122X-2(X)L, OR APPROVED EQUAL, 120-277 VOLT, 20 AMPERES, SPECIFICATION GRADE. SWITCHES SHALL BE SINGLE POLE, DOUBLE POLE, THREE WAY, FOUR WAY, OR KEY OPERATED AS SCHEDULED ON THE DRAWINGS AND SHALL BE THE SELF GROUNDING TYPE. COLOR SHALL MATCH BUILDING STANDARDS OR BE SELECTED BY ARCHITECT.

B. PROVIDE OCCUPANT-SENSING DEVICES TO CONTROL SWITCHING PER IEC 505.2.1.1 EXCEPTION 2 AS SCHEDULED ON THE DRAWINGS. USE LEVITON MULTI-TECHNOLOGY WALL SWITCH OCCUPANCY SENSOR #OSSMD-MD-(X), OR APPROVED EQUAL. COLOR SHALL MATCH BUILDING STANDARDS OR BE SELECTED BY ARCHITECT.

2.13 LIGHTING FIXTURES

A. PROVIDE ALL LIGHTING FIXTURES, AS SCHEDULED ON DRAWINGS, COMPLETE WITH LAMPS AND HARDWARE. INSTALL COMPLETELY WIRED, CONNECTED AND IN OPERATING ORDER.

B. CONFIRM ALL CEILING CONDITIONS, CLEARANCES AND OPERATING VOLTAGES BEFORE ORDERING LIGHTING FIXTURES.

C. SUBMIT SHOP DRAWINGS.

2.13.1 LAMPS

A. INSTALL SCHEDULED LAMPS MANUFACTURED BY GENERAL ELECTRIC, PHILLIPS, OR APPROVED EQUAL.

2.13.2 FIXTURES

A. PROVIDE LIGHTING FIXTURES WHICH HAVE BEEN TESTED AND CERTIFIED FOR PROPER OPERATION BY THE FIXTURE'S MANUFACTURER.

B. PROVIDE LIGHTING FIXTURES WITH TRIM COMPATIBLE WITH CEILING OR SURFACE ON OR IN WHICH INSTALLED.

C. EACH LUMINAIRE SHALL HAVE TWO SUPPORT WIRES INSTALLED, ONE ON EACH END, AT DIAGONAL CORNERS. LUMINAIRES IN FIRE RATED CEILINGS SHALL BE SUPPORTED ON ALL FOUR CORNERS.

D. SUPPORT AND SECURELY ATTACH WITH GALVANIZED FASTENERS IN A LEVEL POSITION.

E. INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

F. FIRE RATED ASSEMBLIES, COMPLY WITH DETAILS OF LISTED ASSEMBLY.

2.14 TEMPORARY POWER

A. PROVIDE TEMPORARY POWER (SMALL TOOL) AND LIGHTING PER OSHA REQUIREMENTS.

2.15 FIRE ALARM AND SPECIAL SYSTEMS

A. FIRE ALARM CONTRACTOR SHALL PROVIDE COMPLETE SHOP DRAWINGS, ROUTING, BATTERY CALCULATIONS AND ALL OTHER SUBMITTALS TO MEET LOCAL AUTHORITY HAVING JURISDICTION (AHJ) REQUIREMENTS. PROVIDE A COMPLETE CODE COMPLIANT WORKING FIRE ALARM SYSTEM.

2.16 LIGHTING CONTROLS

A. PROVIDE 0-10V LIGHTING CONTROL DEVICES.

B. DEVICES SHALL BE COMPATIBLE WITH SUBMITTED LED DRIVERS.

C. OCCUPANCY SENSORS, PROVIDE INTEGRAL OCCUPANCY SENSORS WITH DUAL TECHNOLOGY WHERE INDICATED ON PLANS.

D. ACCEPTABLE MANUFACTURERS

- 1. MUSCO
2. CRESTRON
3. WATT STOPPER
4. LUTRON
5. DOUGLAS

E. WALL-BOX MOUNTED OCCUPANCY SENSORS SHALL PROVIDE INTERNAL CONTACTS FOR AUTOMATIC SWITCHING OF CONNECTED LUMINAIRES AT LINE VOLTAGE, EXCEPT WHERE INDICATED OTHERWISE ON THE PLANS AND ELECTRICAL SCHEMATICS.

F. CEILING-MOUNTED OCCUPANCY SENSORS AND SELECTED WALL-MOUNTED SENSORS SHALL CONTROL LUMINAIRES THROUGH CONTROL UNITS (I.E., SWITCHING POWER SUPPLIES, SWITCH PACKS, POWER PACKS).

G. INSTALL OCCUPANCY SENSORS IN THE CORRECT LOCATION AND AIM AS REQUIRED FOR COMPLETE AND PROPER VOLUMETRIC COVERAGE WITHIN THE RANGE OF COVERAGE OF CONTROLLED AREAS PER THE MANUFACTURER'S RECOMMENDATIONS. ROOMS SHALL HAVE 100 PERCENT COVERAGE OF EACH CONTROLLED AREA TO ACCOMMODATE THE OCCUPANCY HABITS OF SINGLE OR MULTIPLE OCCUPANTS WITHIN THE ROOMS. THE LOCATIONS AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS WHICH ARE TO BE PROVIDED WITH SENSORS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS AS REQUIRED TO PROPERLY AND COMPLETELY COVER THE RESPECTIVE ROOM.



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SKE PROJECT # 2320120

Project Title: HARPER PARK IMPROVEMENTS WATER VALLEY TOM GREEN COUNTY, TEXAS
Drawing Title: ELECTRICAL SPECIFICATIONS
Drawn By: AHJ
Checked By: TEV
Scale: PER TITLE
Date: 05/12/2020
Professional Engineer Seal: THOMAS EDWARD VAUGHAN, LICENSED PROFESSIONAL ENGINEER, 13553, 05-14 2020
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TBPE Firm Number: F-16615
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1 ELECTRICAL SITE PLAN - DEMOLITION
E2.0 SCALE: 1" = 40'



5 PHOTO - DEMOLITION
E2.0 SCALE: NTS



6 PHOTO - DEMOLITION
E2.0 SCALE: NTS

- REFERENCE NOTES**
- ① EXISTING RV PEDESTAL TO BE DEMOLISHED AND REPLACED. TYPICAL OF 20.
 - ② EXISTING PANELBOARD AND FOUR (4) RECEPTACLES TO BE DEMOLISHED.
 - ③ EXISTING RACEWAY FEEDS EXISTING SITE LIGHT AT DUMPSTER ENCLOSURE. DEMOLISH EXISTING CONDUCTORS IN EXISTING RACEWAY. RACEWAY TO BE ABANDONED IN PLACE AND THE ENDS SHALL BE CUT 6" BFG AND COVERED.
 - ④ EXISTING LIGHT FIXTURE AT DUMPSTER TO BE DEMOLISHED AND REPLACED WITH SOLAR LIGHT.
 - ⑤ EXISTING 150A/2P CIRCUIT BREAKER THAT FEEDS BUILDING TO BE DEMOLISHED. ASSOCIATED RACEWAY AND CONDUCTORS TO REMAIN AND BE RECONNECTED TO NEW BRANCH CIRCUIT BREAKER.
 - ⑥ EXISTING 400A MAIN CIRCUIT BREAKER, THREE (3) 200A CIRCUIT BREAKERS, AND ONE (1) 150A CIRCUIT BREAKER TO BE DEMOLISHED. COORDINATE REMOVAL AND REPLACEMENT OF EXISTING METER WITH CONCHO VALLEY ELECTRIC COOPERATIVE AT (325) 655-6957, MICHAEL LONG, MLONG@CVEC.COOP. EXISTING ABOVEGROUND RACEWAYS AND ALL ASSOCIATED CONDUCTORS SHALL BE DEMOLISHED. EXISTING UNDERGROUND RACEWAYS ASSOCIATED WITH THIS EQUIPMENT SHALL BE ABANDONED IN PLACE AND THE ENDS SHALL BE CUT 6" BFG AND COVERED. EXISTING WOOD STRUCTURE SHALL BE DEMOLISHED.



4 PHOTO - DEMOLITION
E2.0 SCALE: NTS



3 PHOTO - DEMOLITION
E2.0 SCALE: NTS



2 PHOTO - DEMOLITION
E2.0 SCALE: NTS

HARPER PARK IMPROVEMENTS WATER VALLEY TOM GREEN COUNTY, TEXAS	
ELECTRICAL SITE PLAN - DEMOLITION	
Project Title: HARPER PARK IMPROVEMENTS WATER VALLEY TOM GREEN COUNTY, TEXAS Drawing Title: ELECTRICAL SITE PLAN - DEMOLITION	No. of Revisions: 0 Revisions and Descriptions: Date:
Drawn By: AH Checked By: TEV Scale: PEP FILE Date: 05/12/2020	Project No.: 2054.19002 Sheet No.: E2.0 Date: 1/9/2020 12:08:48 PM

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 SKE PROJECT # 2320120



3 PANELBOARD LV1
E2.1 SCALE: NTS



2 PANELBOARD LV1
E2.1 SCALE: NTS

REFERENCE NOTES

- ① ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL UTILITY COMPANY [CONCHO VALLEY ELECTRICAL COOPERATIVE, MICHAEL LONG, MLONG@CVRC.COOP, (325) 655-6957] TO PROVIDE AND INSTALL 600A, 120/240V, 1 PHASE, 3 WIRE ELECTRIC SERVICE.
- ② ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL UTILITY COMPANY [CONCHO VALLEY ELECTRICAL COOPERATIVE, MICHAEL LONG, MLONG@CVRC.COOP, (325) 655-6957] TO PROVIDE AND INSTALL NEW 300A, 120/240V, 1 PHASE, 3 WIRE ELECTRIC SERVICE.
- ③ PROVIDE AND INSTALL LIGHT POLE. REFER TO DETAIL 3/E5.0. TYPICAL.
- ④ PROVIDE AND INSTALL 120/240V/1PH/3W, R/V PEDESTAL ELECTRICAL BOX IN NEMA-3R RAINPROOF ENCLOSURE WITH THE FOLLOWING:
(1) 14-50R, 50 AMP
(1) TT30R, 30 AMP
(1) 5-20R2GFI, 20 AMP
GE MODEL #GE1LU532PS, OR EQUAL. TYPICAL. REFER TO DETAIL 3/E5.1.
- ⑤ PROVIDE AND INSTALL EQUIPMENT RACK PER DETAIL 1/E5.1 AND 2/E5.1.
- ⑥ FOR UNDERGROUND DUCT BANKS DETAILS REFER TO SHEETS E5.2 AND E5.3 TYPICAL.
- ⑦ PROVIDE AND INSTALL THREE (3) NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANELBOARD LOCATED IN LARGE RENTAL BUILDING FOR NEW PAVILION CIRCUITS. REFER TO PHOTOS, 2/E2.1 AND 3/E2.1.
- ⑧ PROVIDE AND INSTALL NEW PULLBOX, 24"X24"X24", QUAZITE OR EQUAL, TYPICAL.
- ⑨ DUCTBANK BELOW ROADWAYS SHALL BE CONCRETE. REFER TO SHEETS E5.2 AND 5.3.

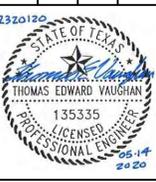


1 ELECTRICAL SITE PLAN - NEW
E2.1 SCALE: 1" = 40'

HARPER PARK IMPROVEMENTS
WATER VALLEY
TOM GREEN COUNTY, TEXAS

ELECTRICAL
SITE PLAN - NEW

Drawn By: AH
Checked By: TEV
Scale: PEP 1/16
Date: 05/17/2020



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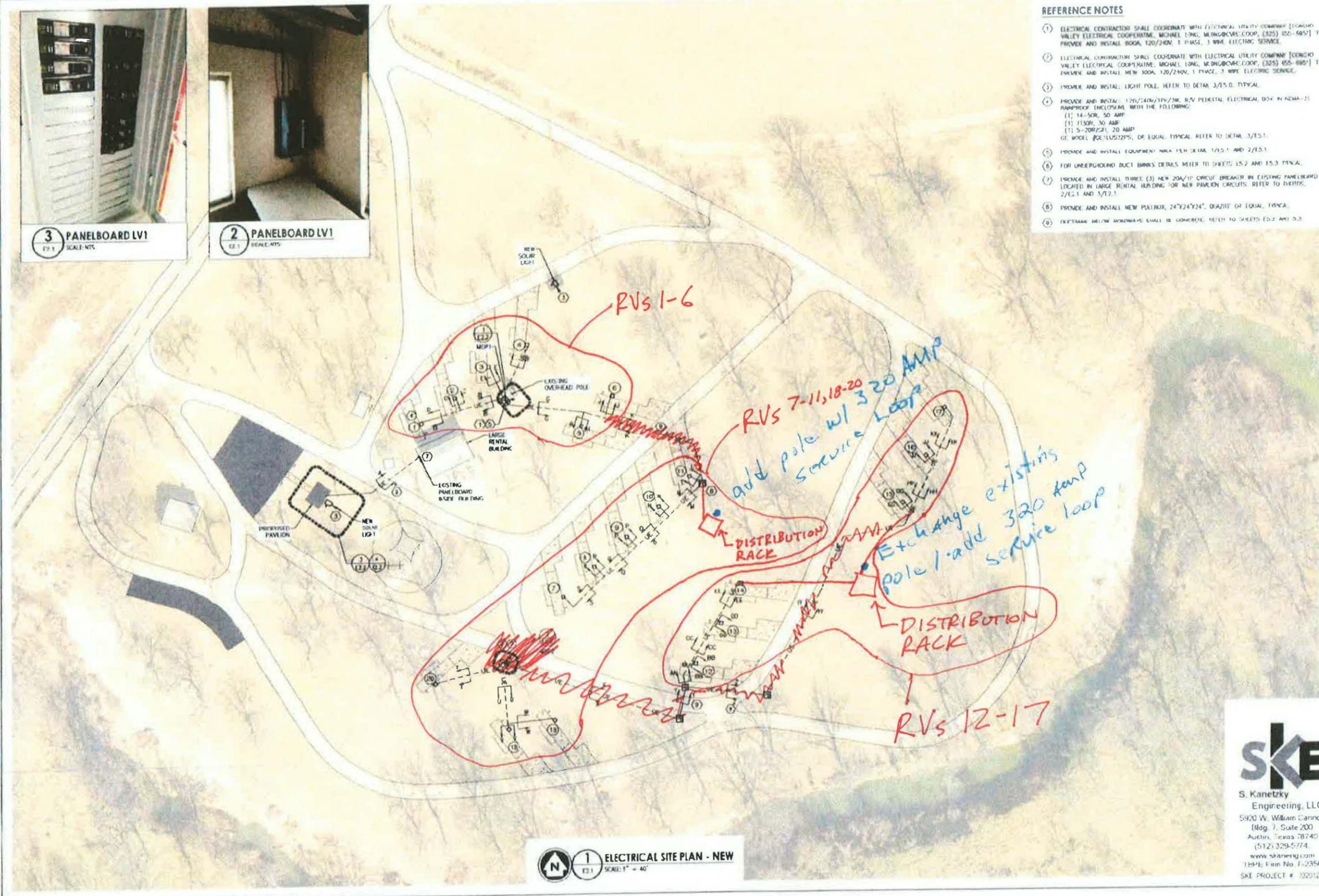
Sheet No. **E2.1**
Project No. **2054.19002**



3 PANELBOARD LV1
E2.1 SCALE: NTS



2 PANELBOARD LV1
E2.1 SCALE: NTS



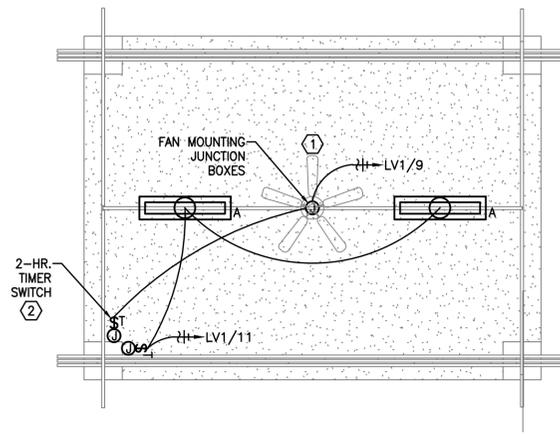
REFERENCE NOTES

1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL UTILITY COMPANY [COONRO VALLEY ELECTRICAL COOPERATIVE, MICHAEL LONG, MLONG@CVC.COOP, (825) 822-6957] TO PROVIDE AND INSTALL 120/240V, 1 PHASE, 3 WIRE ELECTRIC SERVICE.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL UTILITY COMPANY [COONRO VALLEY ELECTRICAL COOPERATIVE, MICHAEL LONG, MLONG@CVC.COOP, (825) 822-6957] TO EXHUME AND INSTALL NEW 300A, 120/240V, 1 PHASE, 3 WIRE ELECTRIC SERVICE.
3. PROVIDE AND INSTALL LIGHT POLE. REFER TO DETAIL 3/25.1.
4. PROVIDE AND INSTALL 120/240V/1PH/3W, R.V. PERISTAL ELECTRICAL BOX IN NEMA-39 RAINPROOF ENCLOSURE WITH THE FOLLOWING:
(1) 14-50A, 50 AMP
(2) 150A, 50 AMP
(3) 2-20R/20L 20 AMP
OR MODEL #21LUS22PS, OR EQUAL. TYPICAL REFER TO DETAIL 3/25.1.
5. PROVIDE AND INSTALL EQUIPMENT RACK PER DETAIL 1/25.1 AND 2/25.1.
6. FOR UNDERGROUND DUCT BARRIS DETAILS REFER TO SHEETS E5.2 AND E5.3 TYPICAL.
7. PROVIDE AND INSTALL THREE (3) NEW 20A/1P CIRCUIT BREAKER IN EXISTING PANELBOARD LOCATED IN LARGE RENTAL BUILDING FOR NEW PAVILION CIRCUITS. REFER TO DETAILS 2/E2.1 AND 3/25.1.
8. PROVIDE AND INSTALL NEW PULLBOX, 24"X24"X24", GRADE OR EQUAL, TYPICAL.
9. ELECTRICAL MOUNTING SURFACES SHALL BE CONCRETE. REFER TO SHEETS E0.2 AND 0.3.

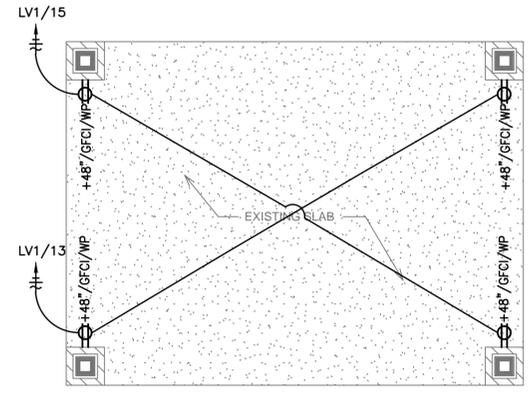
1 ELECTRICAL SITE PLAN - NEW
E2.1 SCALE: 1" = 40'

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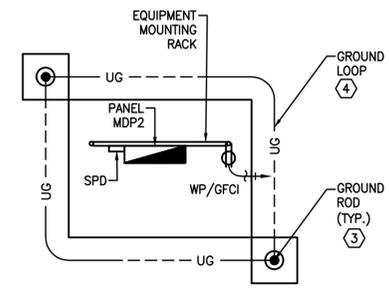
<p>HARPER PARK IMPROVEMENTS WATER VALLEY TOM GREEN COUNTY, TEXAS</p>	<p>ELECTRICAL SITE PLAN - NEW</p>
<p>MRB group</p>	
<p>E2.1</p>	
<p>2054.19002</p>	



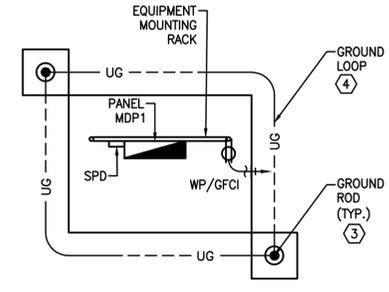
4 PAVILION CEILING
E2.2 SCALE: 1/4" = 1'-0"



3 PAVILION FLOOR PLAN
E2.2 SCALE: 1/4" = 1'-0"



2 ELECTRICAL - ENLARGED SERVICE ENTRANCE #2 PLAN
E2.2 SCALE: 1/4" = 1'-0"



1 ELECTRICAL - ENLARGED SERVICE ENTRANCE #1 PLAN
E2.2 SCALE: 1/4" = 1'-0"

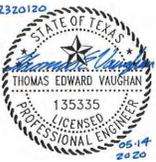
REFERENCE NOTES

- ① PROVIDE AND INSTALL WEATHER RATED FAN, MONTE CARLO SCY60BK CYCLONE ENERGY STAR, 60" OUTDOOR CEILING FAN, 5 BLADES, MATTE BLACK OR EQUAL.
- ② PROVIDE AND INSTALL 2-HOUR MAX SET TIMER SWITCH CONTROLLING FAN. NSI C SERIES COMMERCIAL STYLE SPINNING WOUND AUTO OFF TIME SWITCH, SPST OR EQUAL.
- ③ PROVIDE AND INSTALL GROUND RODS. REFER TO DETAIL 1/E5.0.
- ④ PROVIDE AND INSTALL #3/0 BARE COPPER GROUNDING RING. BOND, EQUIPMENT RACKS TO GROUNDING ELECTRODE SYSTEM VIA EXOTHERMIC WELD.



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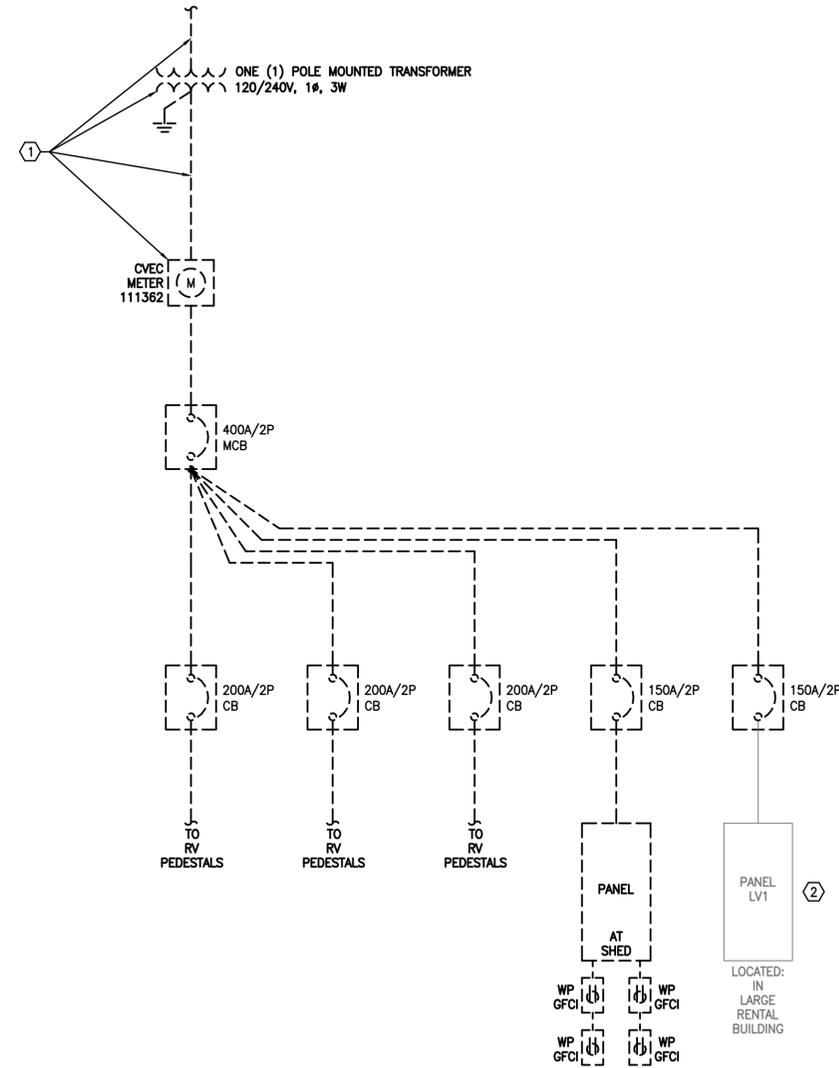


Project Title: **HARPER PARK IMPROVEMENTS WATER VALLEY TOM GREEN COUNTY, TEXAS**
Drawing Title: **ELECTRICAL ENLARGED SERVICE ENTRANCE PLANS AND PAVILION**
Drawn By: AH
Checked By: TEV
Scale: PER TITLE
Date: 05/12/2020

No.	Revisions and Descriptions	By	Date

REFERENCE NOTES

- ① COORDINATE SERVICE UPGRADE WITH CONCHO VALLEY ELECTRIC UTILITY AT (325) 655-6957. REFER TO SHEET E3.1 FOR ADDITIONAL INFORMATION.
- ② EXISTING PANEL LV1 IN LARGE RENTAL BUILDING, AND ASSOCIATED RACEWAY AND CONDUCTORS TO REMAIN. RE-TERMINATE TO NEW PANEL MDP AS SHOWN ON SHEET E3.1.

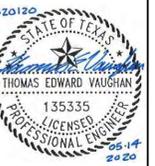


1 ELECTRICAL ONE-LINE - DEMOLITION
E3.0 SCALE: NTS



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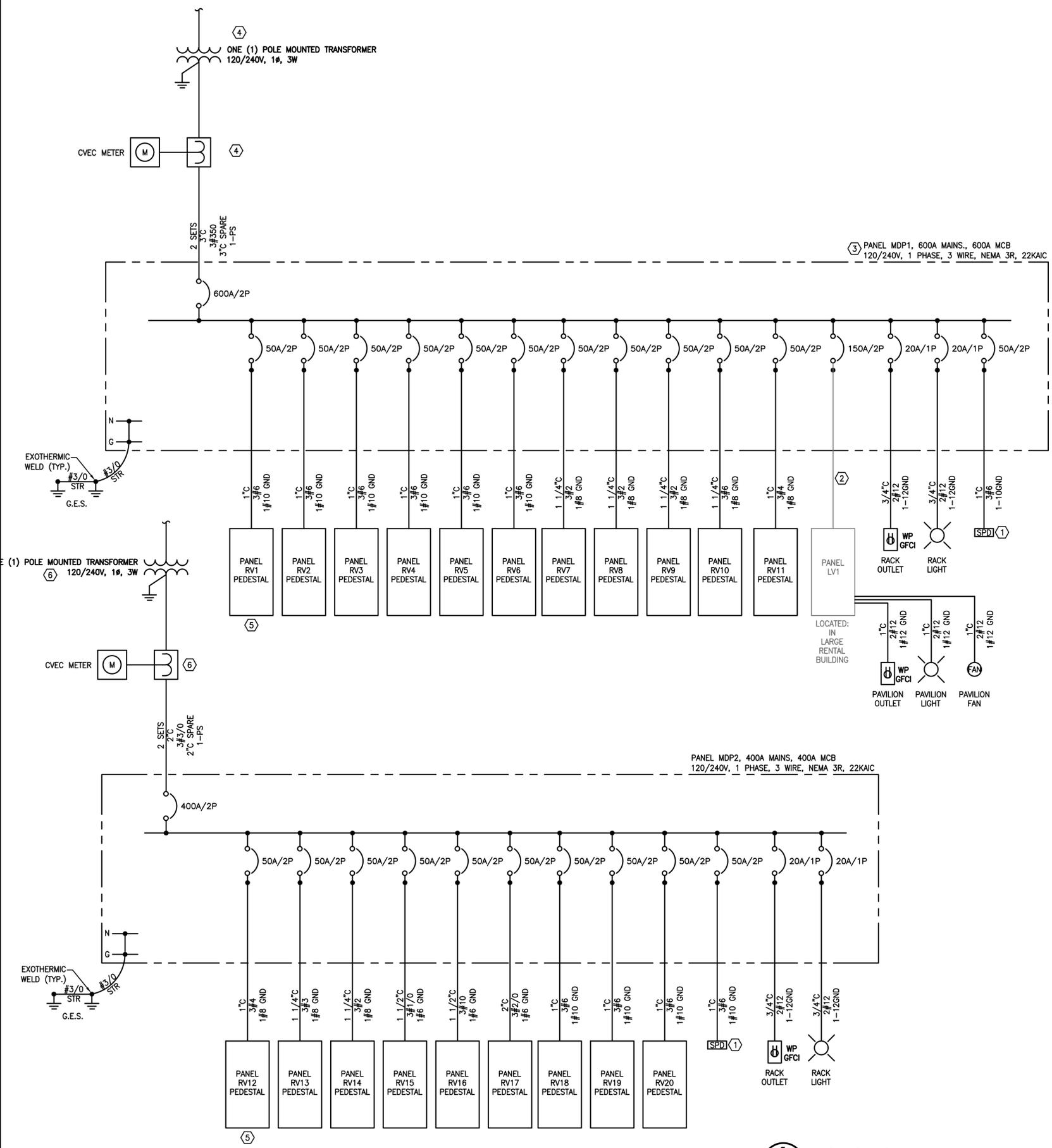
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Corporate Office: The Caliber Road Building, Suite 100, Rochester, New York 14620
Phone: 585-381-9290
TBPE Firm Number: F-10615
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Drawn By: AH
Checked By: TEV
Scale: PER TITLE
Date: 05/12/2020

Project Title: **HARPER PARK IMPROVEMENTS WATER VALLEY TOM GREEN COUNTY, TEXAS**
Drawing Title: **ELECTRICAL ONE-LINE - DEMOLITION**

Sheet No. **E3.0**
Project No. **2054.19002**



REFERENCE NOTES

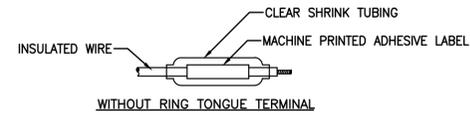
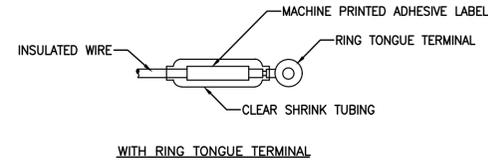
- ① ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW SPD, EATON SPD-200-240S-3-N OR EQUAL IN A NEMA 4 ENCLOSURE. CONNECT TO LOAD SIDE.
- ② RE-TERMINATE EXISTING CONDUCTORS FEEDING LV1 TO NEW 150A/2P BRANCH CIRCUIT BREAKER IN PANEL MDP. PROVIDE NEW RACEWAY AND CONDUCTORS AS NEEDED, IN KIND.
- ③ PROVIDE AND INSTALL NEW 600A 120/240V/1P/3W PANELBOARD WITH 600A/2P MCB AND BRANCH CIRCUIT BREAKERS AS SHOWN. REFER TO SHEET EX.X FOR DETAILS.
- ④ COORDINATE SERVICE UPGRADE WITH CONCHO VALLEY ELECTRIC COOPERATIVE AT (325) 655-6957.
- ⑤ PROVIDE AND INSTALL 50A RV PEDESTALS. TYPICAL OF 20. SPECIFIED IN KEYNOTE 4, SHEET E2.1.
- ⑥ COORDINATE NEW SERVICE WITH CONCHO VALLEY ELECTRIC COOPERATIVE AT (325) 655-6957.

1 ELECTRICAL ONE-LINE - NEW
E3.1 SCALE: NTS



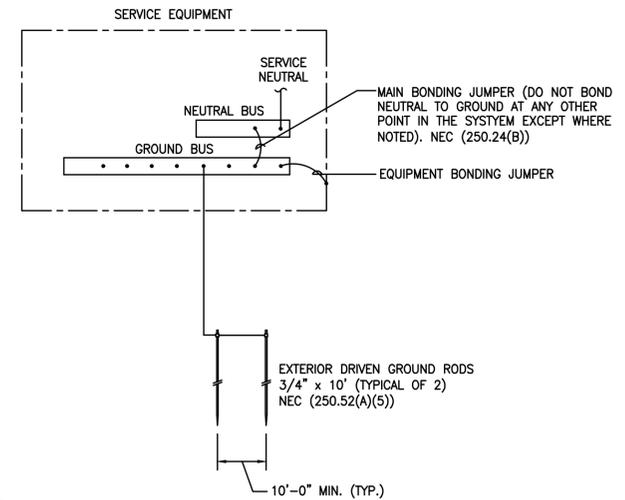
S. Kanetzky
Engineering, LLC.
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TBPE Firm No. F-2356
SKE PROJECT # 2320120

<p>HARPER PARK IMPROVEMENTS WATER VALLEY TOM GREEN COUNTY, TEXAS</p>	
<p>ELECTRICAL ONE-LINE - NEW</p>	
<p>Project Title: HARPER PARK IMPROVEMENTS WATER VALLEY TOM GREEN COUNTY, TEXAS</p>	<p>Drawing Title: ELECTRICAL ONE-LINE - NEW</p>
<p>Drawn By: AH</p>	<p>Checked By: TV</p>
<p>Scale: PER TITLE</p>	<p>Date: 05/12/2020</p>
<p>MRB group Engineering, Architecture & Surveying 5250 South 31st Street, Temple, Texas 76702 Phone: 254-771-2054 Corporate Office: The Calver Road, Austin, Texas 78704 State 109, Rochester, New York 14620 Phone: 585-381-9290 TBPE Firm Number: F-16615 www.mrbgroup.com</p>	
<p>Sheet No. E3.1</p>	
<p>Project No. 2054.19002</p>	

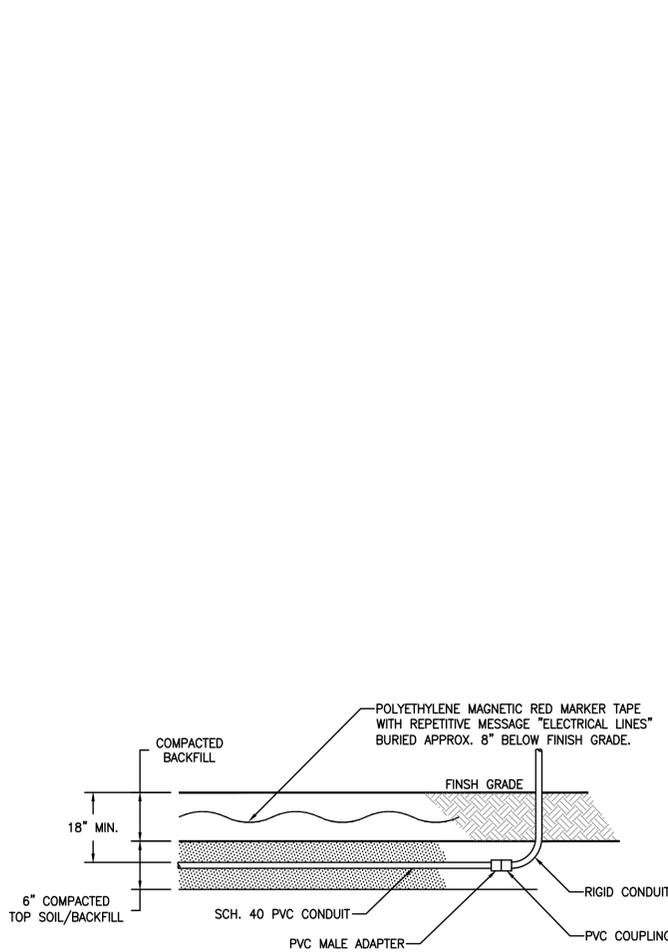


WHERE POSSIBLE RING TERMINALS SHALL BE USED. ONE OF THE ABOVE METHODS MUST BE USED ON ALL WIRE #8 AWG & SMALLER. THE SAME MUST ALSO BE USED ON LARGER WIRE UNLESS AN ALTERNATE METHOD IS SUBMITTED & APPROVED.

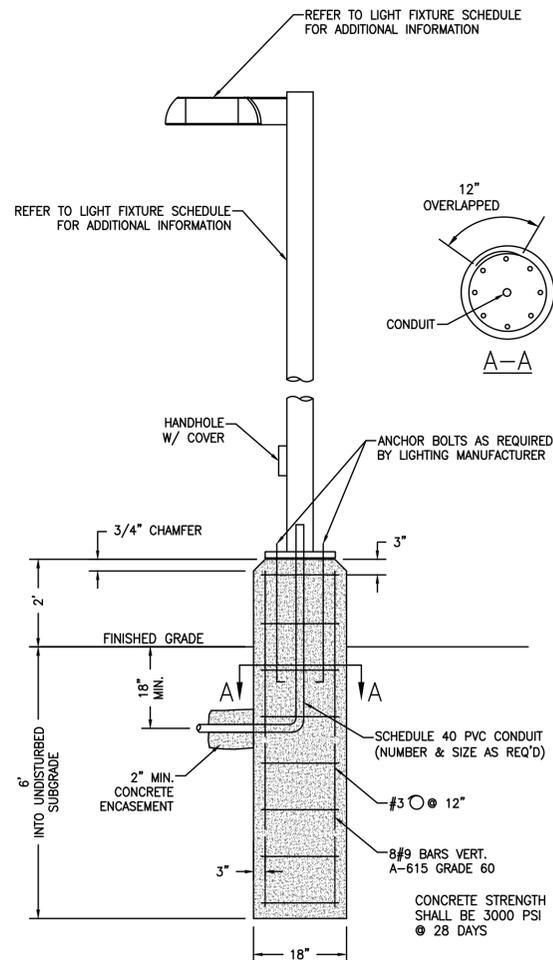
4 DETAIL - WIRE TERMINATION AND MARKING
E5.0 SCALE: NTS



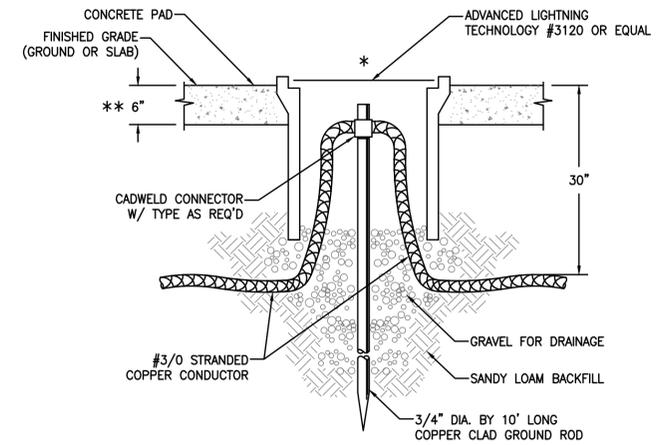
2 GROUNDING ELECTRODE SYSTEM (TYP.)
E5.0 SCALE: NTS



5 DETAIL - TYPICAL UNDERGROUND CONDUIT RUN
E5.0 SCALE: NTS



3 DETAIL - POLE MOUNTED SOLAR LIGHTING FIXTURE
E5.0 SCALE: NTS



* INSTALL GROUND RODS AWAY FROM HEAVY TRAFFIC AREAS AND SIDEWALKS. COORDINATE EXACT LOCATION WITH CIVIL DRAWINGS.
** INSTALL 2'X2'X6" CONCRETE PAD.

1 DETAIL - 3/4" X 10' GROUND ROD
E5.0 SCALE: NTS

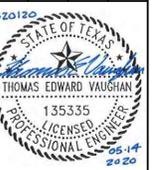


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SKE PROJECT # 2320120

Project Title:
**HARPER PARK IMPROVEMENTS
WATER VALLEY
TOM GREEN COUNTY, TEXAS**

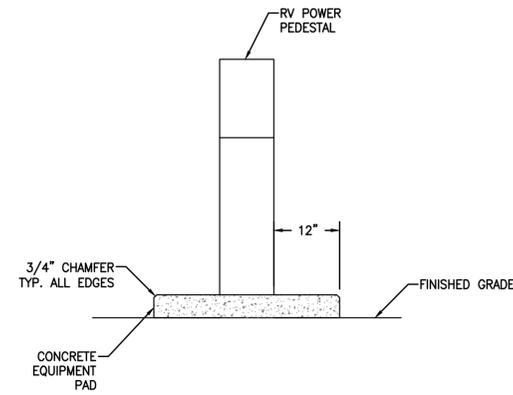
Drawing Title:
ELECTRICAL DETAILS

Drawn By: AH
Checked By: TV
Scale: PER TITLE
Date: 05/12/2020

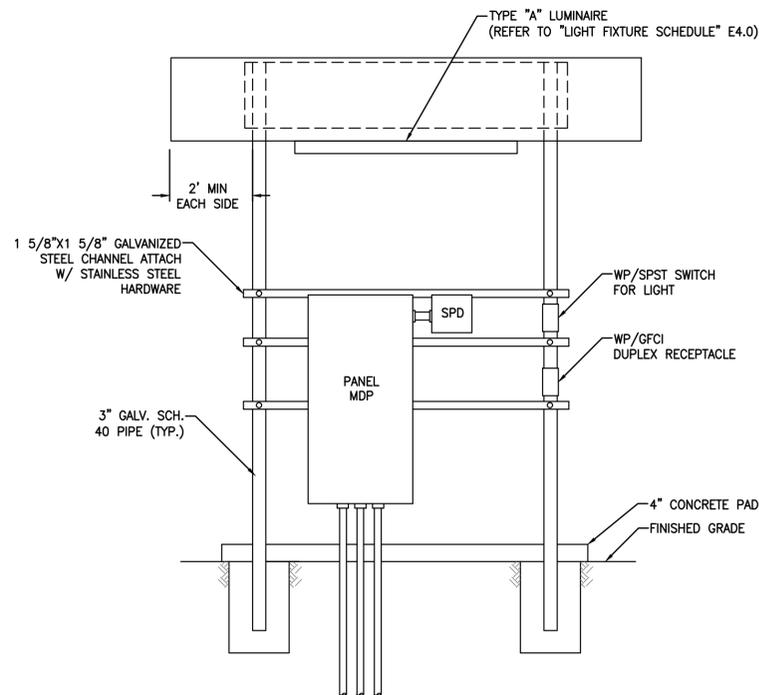


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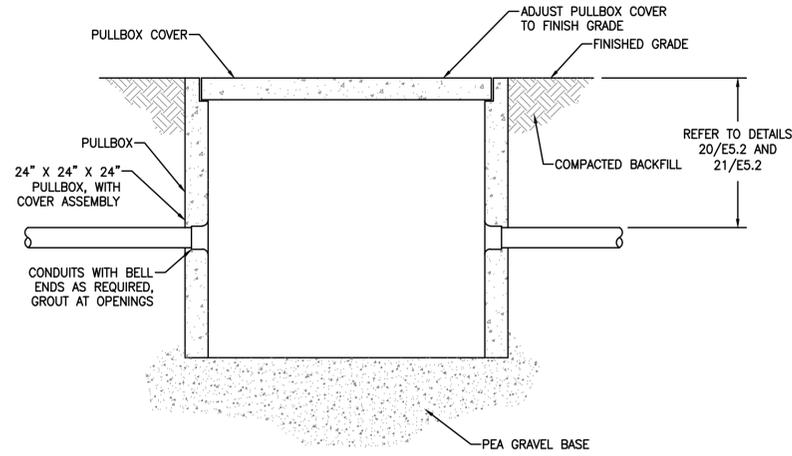
Sheet No.
E5.0
Project No.
2054.19002



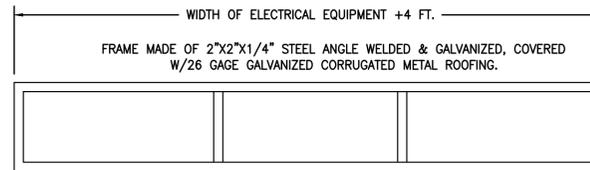
3 DETAIL - RV POWER PEDESTAL - TYPICAL
E5.1 SCALE: NTS



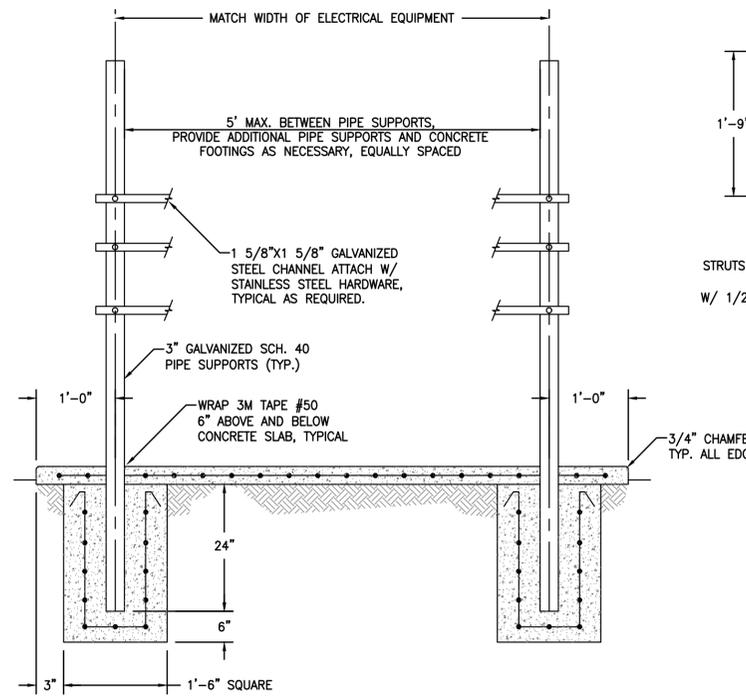
2 DETAIL - ELECTRICAL EQUIPMENT INSTALLATION - TYPICAL
E5.1 SCALE: NTS



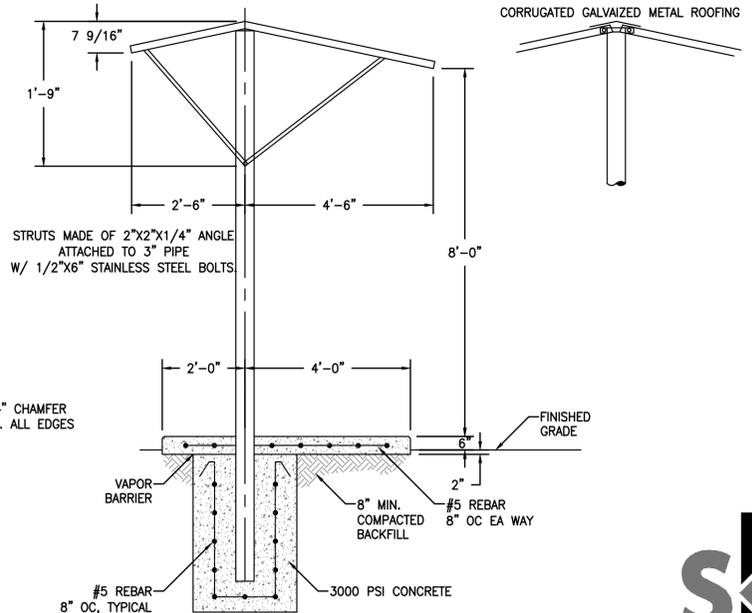
4 DETAIL - PULL BOX
E5.1 SCALE: NTS



1 DETAIL - TYPICAL RACK SUPPORT
E5.1 SCALE: NTS



FRAME MADE OF 2"x2"x1/4" STEEL ANGLE WELDED & GALVANIZED, COVERED W/26 GAGE GALVANIZED CORRUGATED METAL ROOFING.



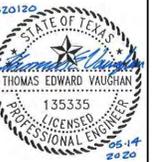
REFERENCE NOTES

① SPECIFICATION FOR RV PEDESTAL ON SHEET E2.1, KEYNOTE 4.

Project Title: **HARPER PARK IMPROVEMENTS
WATER VALLEY
TOM GREEN COUNTY, TEXAS**

Drawing Title: **ELECTRICAL DETAILS**

Drawn By: AH
Checked By: TV
Scale: PER TITLE
Date: 05/12/2020

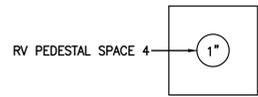


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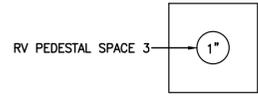


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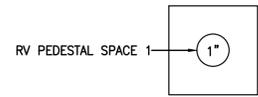
Sheet No. **E5.1**
Project No. **2054.19002**



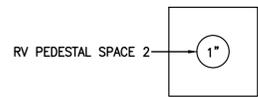
6 DETAIL - TRENCH SECTION F-F (1)
E5.2 SCALE: NTS



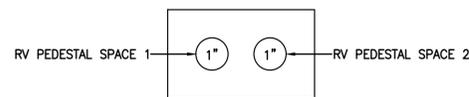
5 DETAIL - TRENCH SECTION E-E (1)
E5.2 SCALE: NTS



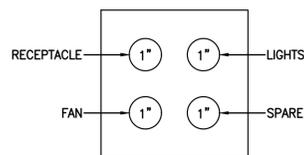
4 DETAIL - TRENCH SECTION D-D (1)
E5.2 SCALE: NTS



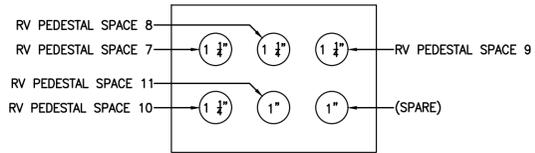
3 DETAIL - TRENCH SECTION C-C (1)
E5.2 SCALE: NTS



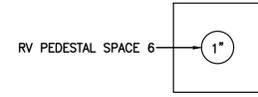
2 DETAIL - TRENCH SECTION B-B (1)
E5.2 SCALE: NTS



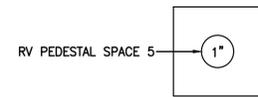
1 DETAIL - TRENCH SECTION A-A (1X2)
E5.2 SCALE: NTS



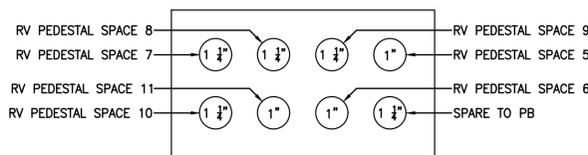
11 DETAIL - TRENCH SECTION K-K (1X2)
E5.2 SCALE: NTS



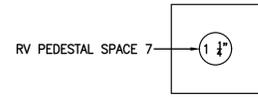
10 DETAIL - TRENCH SECTION J-J (1)
E5.2 SCALE: NTS



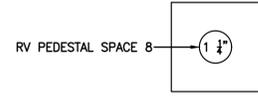
8 DETAIL - TRENCH SECTION H-H (1)
E5.2 SCALE: NTS



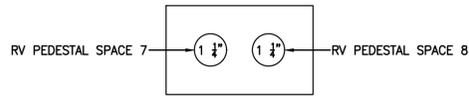
7 DETAIL - TRENCH SECTION G-G (1)
E5.2 SCALE: NTS



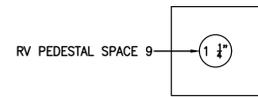
19 DETAIL - TRENCH SECTION S-S (1)
E5.2 SCALE: NTS



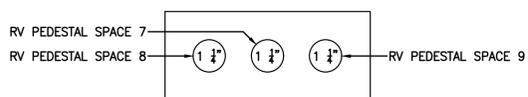
18 DETAIL - TRENCH SECTION R-R (1)
E5.2 SCALE: NTS



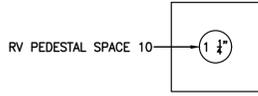
17 DETAIL - TRENCH SECTION Q-Q (1)
E5.2 SCALE: NTS



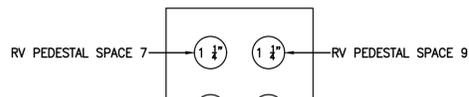
16 DETAIL - TRENCH SECTION P-P (1)
E5.2 SCALE: NTS



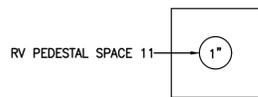
15 DETAIL - TRENCH SECTION O-O (1)
E5.2 SCALE: NTS



14 DETAIL - TRENCH SECTION N-N (1)
E5.2 SCALE: NTS



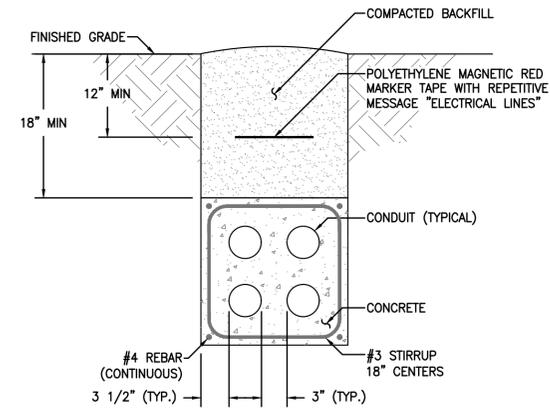
13 DETAIL - TRENCH SECTION M-M (1)
E5.2 SCALE: NTS



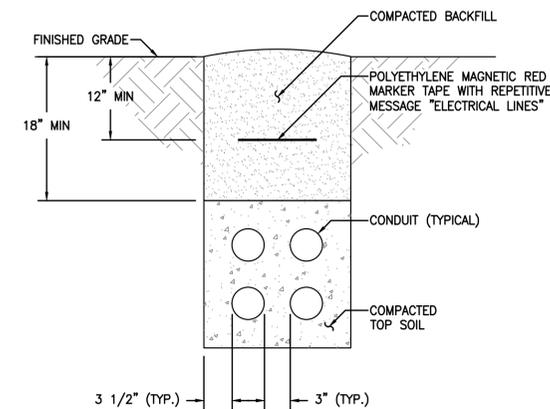
12 DETAIL - TRENCH SECTION L-L (1)
E5.2 SCALE: NTS

REFERENCE NOTES

- (1) SEE DETAIL 20/E5.2 FOR TYPICAL TRENCH DETAIL. TYPICAL.
- (2) FOR SECTIONS OF DUCTBANK BELOW ROADWAY, PROVIDE CONCRETE DUCTBANK PER DETAIL 21/E5.2. CONCRETE DUCTBANK SHALL BE PROVIDED DIRECTLY BELOW ROADWAY AND EXTEND 5'-0" PAST BOTH SIDES OF ROADWAY.



21 DETAIL - DUCT BANK SECTION CONSTRUCTION UNDER ROADWAY (TYPICAL)
E5.2 SCALE: NTS



20 DETAIL - TRENCH SECTION CONSTRUCTION (TYPICAL)
E5.2 SCALE: NTS

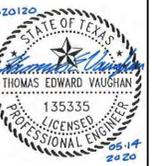


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HARPER PARK IMPROVEMENTS
WATER VALLEY
TOM GREEN COUNTY, TEXAS

ELECTRICAL DETAILS

Drawn By: AH
Checked By: TV
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Date: 05/12/2020

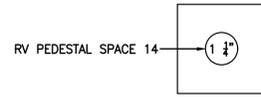


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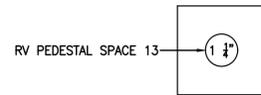
Sheet No. **E5.2**
Project No. **2054.19002**

REFERENCE NOTES

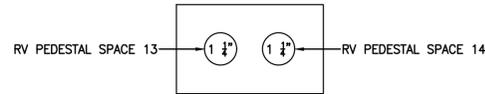
- ① SEE DETAIL 20/E5.2 FOR TYPICAL TRENCH DETAIL. TYPICAL.
- ② FOR SECTIONS OF DUCTBANK BELOW ROADWAY, PROVIDE CONCRETE DUCTBANK PER DETAIL 21/E5.2. CONCRETE DUCTBANK SHALL BE PROVIDED DIRECTLY BELOW ROADWAY AND EXTEND 5'-0" PAST BOTH SIDES OF ROADWAY.



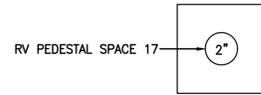
31 DETAIL - TRENCH SECTION EE-EE ①
E5.3 SCALE: NTS



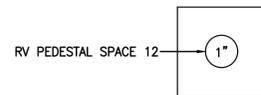
30 DETAIL - TRENCH SECTION DD-DD ①
E5.3 SCALE: NTS



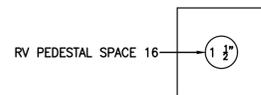
29 DETAIL - TRENCH SECTION CC-CC ①
E5.3 SCALE: NTS



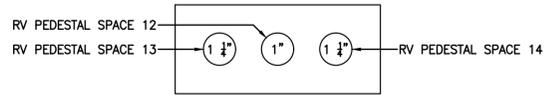
36 DETAIL - TRENCH SECTION KK-KK ①
E5.3 SCALE: NTS



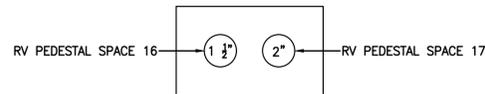
28 DETAIL - TRENCH SECTION BB-BB ①
E5.3 SCALE: NTS



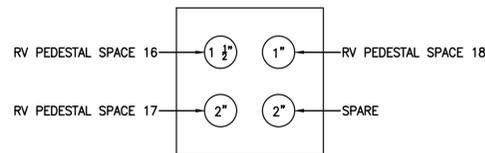
35 DETAIL - TRENCH SECTION JJ-JJ ①
E5.3 SCALE: NTS



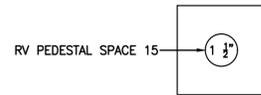
27 DETAIL - TRENCH SECTION AA-AA ①
E5.3 SCALE: NTS



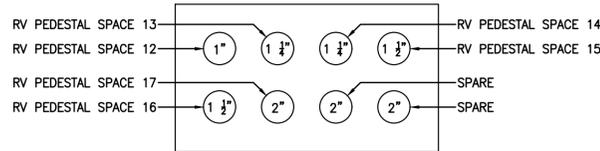
34 DETAIL - TRENCH SECTION HH-HH ①
E5.3 SCALE: NTS



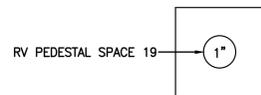
26 DETAIL - TRENCH SECTION Z-Z ①②
E5.3 SCALE: NTS



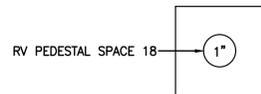
33 DETAIL - TRENCH SECTION GG-GG ①
E5.3 SCALE: NTS



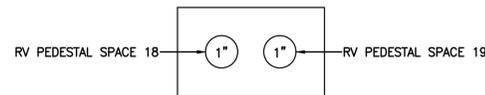
24 DETAIL - TRENCH SECTION X-X ①
E5.3 SCALE: NTS



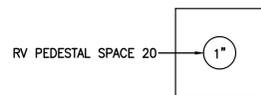
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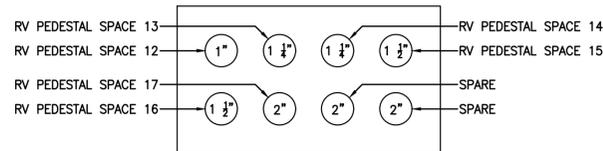
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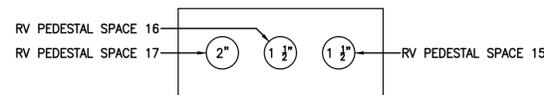
21 DETAIL - TRENCH SECTION U-U ①
E5.3 SCALE: NTS



20 DETAIL - TRENCH SECTION T-T ①
E5.3 SCALE: NTS



25 DETAIL - TRENCH SECTION Y-Y ①②
E5.3 SCALE: NTS

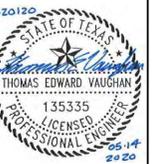


32 DETAIL - TRENCH SECTION FF-FF ①
E5.3 SCALE: NTS

Project Title: **HARPER PARK IMPROVEMENTS
WATER VALLEY
TOM GREEN COUNTY, TEXAS**

Drawing Title: **ELECTRICAL DETAILS**

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Sheet No. **E5.3**
Project No. **2054.19002**