



Steven M. Clouse WRC Electrical System Improvements Phase 2A

Solicitation Number: CO-00443

Job No.: 21-6507

ADDENDUM 2

August 10, 2021

To Respondent of Record:

This addendum, applicable to work referenced above, is an amendment to the proposal request, plans and specifications and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the Addendum number and issue date on the space provided in submitted copies of the Proposal.

RESPONSES TO QUESTIONS

1. Please review routing of generator switchboard circuit EM1-3P to Headworks Electrical building. One-line diagram 05E04 sows it as 3(3-500KCMIL, 500KCMIL G). However, ductbank sections shows only 2 parallel feeds for this circuit. Sheet 10E33, DB section 10AM (4" conduit # 1-2), sheet 10E03, DB 10N (4" conduit # 1-2), sheet 05E02 DB 05C1 (3" conduit # 1-2), DB05C (3" conduit # 4-5). Please advise if the one-line is incorrect or the duct bank sections need to be revised. Also please review the conduit size, EM1-3P is shown as 3" in headworks ductbanks whereas EM1-4P is shown as 4" and both are shown in primary clarifier area as 4".

Response: This feeder is two parallel runs, 4" conduit. Refer to Changes to the Plans item "c. 05E04." (Sheet 05E02 sections already show 4" for this circuit.)

2. Please review routing of generator switchboard circuit EM1-4P to Headworks Electrical building. One-line diagram 05E05 sows it as 3(3-500KCMIL, 500KCMIL G). However, ductbank sections shows only 1 & 2 parallel feeds for this circuit. Sheet 10E33, DB section 10AM (conduit # 5), sheet 10E03, DB 10N (conduit # 5-6), sheet 05E02 DB 05C1 (conduit # 5-6), DB05C (conduit # 9-10). Please advise if the one-line is incorrect or the duct bank sections need to be revised.

Response: This feeder is two parallel runs, 4" conduit. Refer to Changes to the Plans items "d. 05E05" and "g. 10E33." (all other drawings correctly show 4-4" conduits.)

3. Sheet 10E05 ductbank section 10M Conduit # 8 & 22. These conduits contain circuits to MCC, RIO and Interlock panels in the same conduit. Similarly, conduit #19 contains circuits to LP-PS11 and LP-PS12. Please review and advise as this would increase the number of conduits in the ductbank from manhole LMH-14. Same situations occur in DB Section AQ on 10E33.

Response: These circuits don't need to be separated; they can be combined into the same conduits as shown.

4. Sheet 00E32 GS-1C1 & GS-1C2 is missing from Junction Box JC to Switchboard EM-1.

Response: Add these two circuits to the conduits from the junction box to the switchboard. Refer to Changes to the Plans item "a. 00E32."

5. Sheet 05E02 DB section 05F, conduit #2 calls for 3-1/2" but conduit #7 is 3". Both conduits contain 3-#600 KCMIL & 1#3 AWG per one-line 05E04 & 05E05. Please review for consistency and advise.

Response: All referenced conduits are 3-1/2" as shown on the one-line diagram. Refer to Changes to Plans item "b. 05E02."

6. Sheet 40E04 cable tray plan does not identify # of levels nor does it show divider barrier requirements. Considering the tray will have 480V Power, 120V Power, Control as well as Instrument cables, please clarify whether there are to be multiple levels or divider barriers

Response: Single layer of cable tray. 480 V power to run in conduits (not tray). 120V power and control can run in same tray section; instrumentation, communications, and fiber to run in other section with single barrier in tray. Refer to Changes to the Plans item "h. 40E04."

7. On Sheet 10DE01 Substation No 1 Section View F 10DE14, sheet 10DE02 MCC B Section View E and G for Substation No 2 does not exist on plans

Response: Those section (photograph) callouts were included in previous projects, and are no longer part of this project. Refer to Changes to Plans items "e. 10DE01" and "f. 10DE02."

CHANGES TO THE SPECIFICATIONS

1. Section 01015 SEQUENCE OF CONSTRUCTION, Page 9, Paragraph 3.04.C.1:

- a. Insert the following before paragraph 3.04.C.1.a:

"a. SCADA/IT Building and electrical building EB-PS-1

- "1. These buildings must be completed and energized in the first phase of construction.
- "2. Includes all equipment in the SCADA/IT building necessary to implement the communications network and foundation needed to facilitate development of HMI screens and database configuration for process areas.
- "3. At building EB-PS-1, includes all equipment necessary to provide power to the SCADA/IT building.
- "4. Includes commissioning, testing, and startup services for all installed equipment.
- "5. SCADA server and associated PlantPAX system shall be constructed first to facilitate transition of the existing plant SCADA system to the proposed PLC based system.
- "6. Installation of fiber ductbanks from SCADA/IT building to OCU Building: F10; F12; F14; F20; F20A; F21. Refer to drawing 00E35."

- b. Renumber subsequent paragraphs as follows:

"b. Electrical buildings

"c. 15 kV Electrical: Feed(s) and Distribution:

"d. Install ductbanks for 480 V feeder from generator to three new electrical buildings."

CHANGES TO THE PLANS

Remove the following sheets and replace with the attached sheets:

- a. 00E32
- b. 05E02
- c. 05E04
- d. 05E05
- e. 10DE01
- f. 10DE02
- g. 10E33
- h. 40E04

CLARIFICATIONS

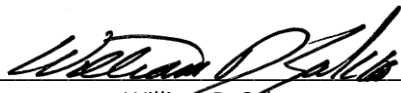
- 1. Resolved discrepancy between one-lines and ductbank sections.
- 2. Clarify construction sequence required.

END OF ADDENDUM

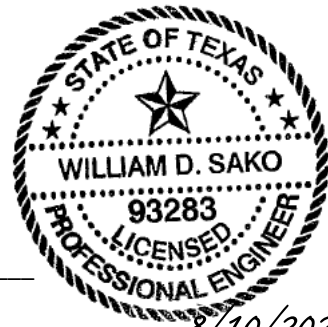
This Addendum, including these three (3) pages is eleven (11) pages with attachments in its entirety.

Attachments:

Drawings, 8 pages, 11x17 (HALF-SIZE)

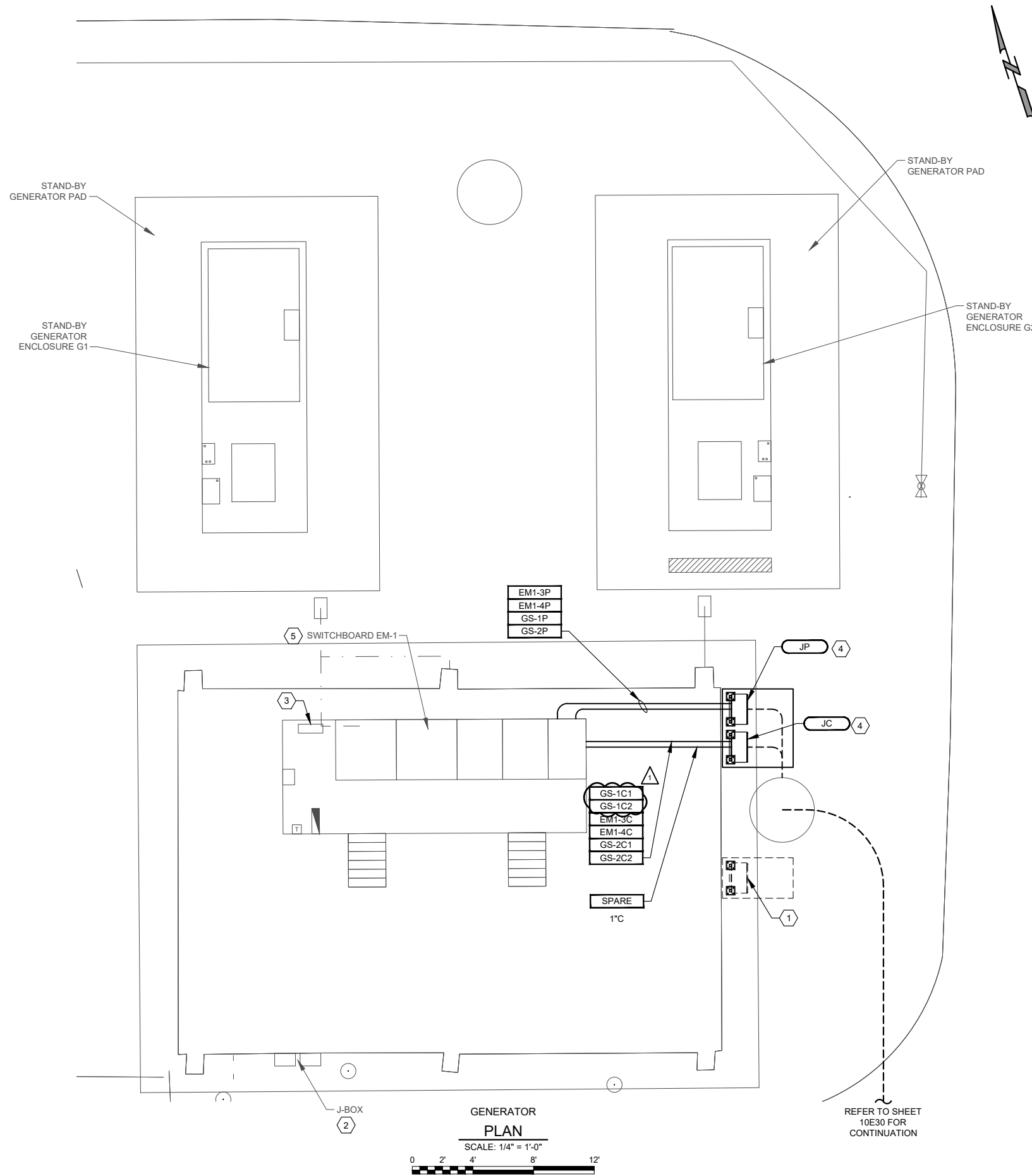


William D. Sako
Gupta & Associates, Inc.
TBPE # F-2593



8/10/2021

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GENERATOR PLAN
SCALE: 1/4" = 1'-0"
0 2' 4' 8' 12'

REFER TO SHEET 10E30 FOR CONTINUATION

GENERAL NOTES:

1. FIELD VERIFY THE EXACT LAYOUT.
2. FIELD ROUTE CONDUITS.
3. THE CONTRACTOR SHALL OBTAIN SERVICES OF MANUFACTURING TO MAKE ANY MODIFICATION TO THE 480V SWITCHGEAR AND CONTROLS.
4. THE GENERATOR SYSTEM SHALL BE TESTED ONCE THE INSTALLATION IS COMPLETED.
5. PROVIDE NECESSARY HARDWARE AND TERMINALS IN THE SWITCHBOARD TO TERMINATE NEW CABLES.

NOTES:

- 1 FUTURE POWER J-BOX FOR AERATION BASIN.
- 2 EXISTING J-BOXES.
- 3 EXISTING GENERATOR CONTROL PANEL.
- 4 PROVIDE NEMA 4X, 316 SS POWER AND CONTROL BOXES TO ACCOMMODATE THE CONDUIT AND WIRES FOR DUCTBANK 10AM (REFER TO SHEET 10E30 AND 10E33). SIZE THE BOXES PER THE REQUIREMENTS OF THE NEC. PLACE THEM ON STANDS FOR CONDUIT ENTRY FROM BELOW AND ABOVE AS REQUIRED.
- 5 REFER TO SHEET 00E24 FOR ONE-LINE DIAGRAM.

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SAN ANTONIO WATER SYSTEM

08/10/21	ER	ADDENDUM NO.2	REMARKS
	DRWN		
	DATE		
	REV. NO.		

ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

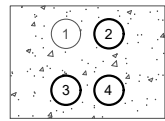
SAN ANTONIO WATER SYSTEM
STEVEN M. CLOUSE WRC
ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
ELECTRICAL

SWITCHBOARD NO.1 PLAN

DESIGNED BY:	W.SAKO
DRAWN BY:	E.RANGEL
SHEET CHKD BY:	V.K. GUPTA
APPROVED BY:	W.SAKO
DATE:	JULY 2021
SAWS JOB NO.:	21-6507
FILE NAME:	1951_00E32

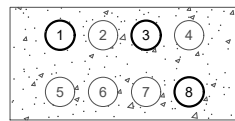
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00E32
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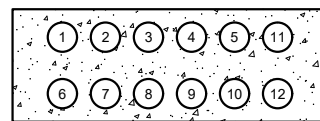
DUCTBANK
SECTION **05A**
05E01

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	IC-3	2"C	EXISTING COMMUNICATION
2	RIHW1-118	3"C	ANALOG SIGNALS FROM 13.2KV SWITCHGEAR
3	MCSG1-3P	2"C	POWER TO PP HV
4	RIHW1-117	2"C	DIGITAL SIGNALS FROM 13.2KV SWITCHGEAR



DUCTBANK
SECTION **05B**
05E01

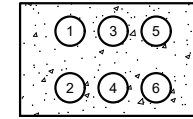
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	RIHW1-117	2"C	DIGITAL SIGNALS FROM 13.2KV SWITCHGEAR
2	IC-3	2"C	EXISTING COMMUNICATION
3	MCSG1-3P	2"C	POWER TO PP HV
4	SPARE	1"C	FUTURE I/O
5	SPARE	2"C	FUTURE GMS
6	MCC-PS-1	3"C	GENERATOR POWER TO MCC-PS-1
7	MCC-PS-1	2"C	GENERATOR CONTROLS
8	RIHW1-118	3"C	ANALOG SIGNALS FROM 13.2KV SWITCHGEAR



DUCTBANK
SECTION **05C**
05E01

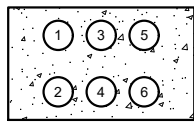
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	IC-1, FOC-HW1	2"C	-
2-3	SPARE	4"C	POWER TO MCC-SG-1
4-5	EM1-3P	4"C	GENERATOR POWER TO MCC-SG-1
6	MCSG1-3P	2"C	POWER TO PP-HV FUTURE I/O
7	EM1-3C	2"C	GENERATOR CONTROL
8	EM1-4C	2"C	GENERATOR CONTROL
9-10	EM1-4P	4"C	GENERATOR POWER TO MCC-SG2
11	RIHW1-117	2"C	DIGITAL SIGNALS FROM 13.2KV SWITCHGEAR
12	RIHW1-118	3"C	ANALOG SIGNALS FROM 13.2KV SWITCHGEAR

- NOTES:
- 1 EXISTING DUCTBANKS. FIELD VERIFY LOCATION AND CONDITIONS.
 - 2 REMOVE WIRE AND PROVIDE PULL STRING.



DUCTBANK
SECTION **05C1**
05E01

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1-2	EM1-3P	4"C	GENERATOR POWER TO MCC-SG1
3	EM1-3C	2"C	GENERATOR CONTROL
4	EM1-4C	2"C	GENERATOR CONTROL
5-6	EM1-4P	4"C	GENERATOR POWER TO MCCG2



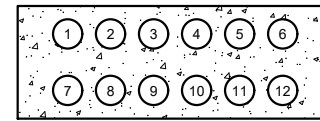
DUCTBANK
SECTION **05D**
05E07

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1-4	PMT201-P	4"C	UTILITY POWER TO MCC-SG1
5	RISG1-08	4"C	TRANSFORMER SIGNALS
6	SPARE	4"C	GENERATOR POWER TO MCC-SG-1
7-10	PMT201-P	4"C	POWER TO PP-HV FUTURE I/O
11	RISG1-09	4"C	TRANSFORMER SIGNALS TO MCC-PS-1
12	SPARE	4"C	GENERATOR CONTROL



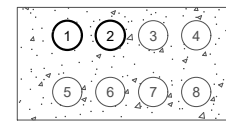
DUCTBANK
SECTION **05E**
05E01

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCSG1-2P	3"C	POWER TO GRIT BLOWER NO.1
2	RISG1-01, MCSG1-2C	3"C	CONTROLS TO GRIT BLOWER NO.1
3	LPHW1-10,12	3"C	BLOWER PAD LIGHTS AND RECEPTACLES
4	MCSG2-2P	3"C	POWER TO GRIT BLOWER NO.2
5	RISG1-02, MCSG2-2C	3"C	CONTROLS TO GRIT BLOWER NO.2
6-7	SPARE	3"C	-



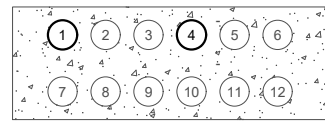
DUCTBANK
SECTION **05F**
05E01

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCSG1-4P	3"C	POWER TO DP-301
2	MCSG1-5P	3-1/2"C	POWER TO DP-201
3	MCSG1-6P	3"C	POWER TO DP-101
4	FO-HW-INFLUENT	3"C	FIBER FROM PLC-100 TO EB-HW-1
5	FO-HW-BS1 & BS2, FO-HW-BS3 & BS4	3"C	FIBER FROM LCP-101 AND LCP-102 TO EB-HW-1
6	FO-HW-GRIT	3-1/2"C	FIBER FROM PLC-200 TO EB-HW-1
7	MCSG2-5P	3"C	POWER TO PP-202
8	MCSG2-6P	3"C	POWER TO PP-102
9	FB01C	2"C	-
10	FB02C	2"C	-
11-12	SPARE	2"C	-



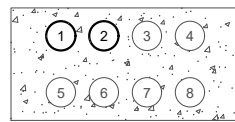
DUCTBANK
SECTION **05G**
05E01

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCSG1-4P	3"C	POWER TO DP-301
2	FO-HW-INFLUENT	3"C	FIBER FROM PLC-100 TO EB-HW-1
3	SPARE	3"C	-
4	SPARE	3"C	-
5	SPARE	2"C	-
6	SPARE	2"C	-
7	SPARE	2"C	-
8	SPARE	2"C	-



DUCTBANK
SECTION **05I**
05E01

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCSG1-4P	3"C	POWER TO DP-301
2	DP301-02P	1-1/2"C	EXISTING POWER
3	DP301-03P	1-1/2"C	EXISTING POWER
4	FO-HW-INFLUENT	3"C	FIBER FROM PLC-100 TO EB-HW-1
5	SPARE	2"C	-
6	SPARE	2"C	-
7	DRIING01C, DRIING02C	2-1/2"C	EXISTING CONTROLS
8	DRIING03C, DRIING04C	2-1/2"C	EXISTING CONTROLS
9	SPARE	2"C	-
10	SPARE	2"C	-
11	SPARE	2"C	-
12	SPARE	2"C	-



DUCTBANK
SECTION **05J**
05E09

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCSG1-6P	3"C	POWER TO DP-101
2	FO-HW-BS3 & BS4	3"C	FIBER FROM LCP-102 TO EB-HW-1
3	SPARE	2"C	-
4	SPARE	2"C	-
5	LCP-101C	2"C	EXISTING CONTROLS
6	DRHING05C, DRHING07C	2"C	EXISTING CONTROLS
7	SPARE	2"C	-
8	SPARE	2"C	-

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SAN ANTONIO WATER SYSTEM

NO.	DATE	BY	REVISION
1	08/10/21	ER	ADDENDUM NO.2

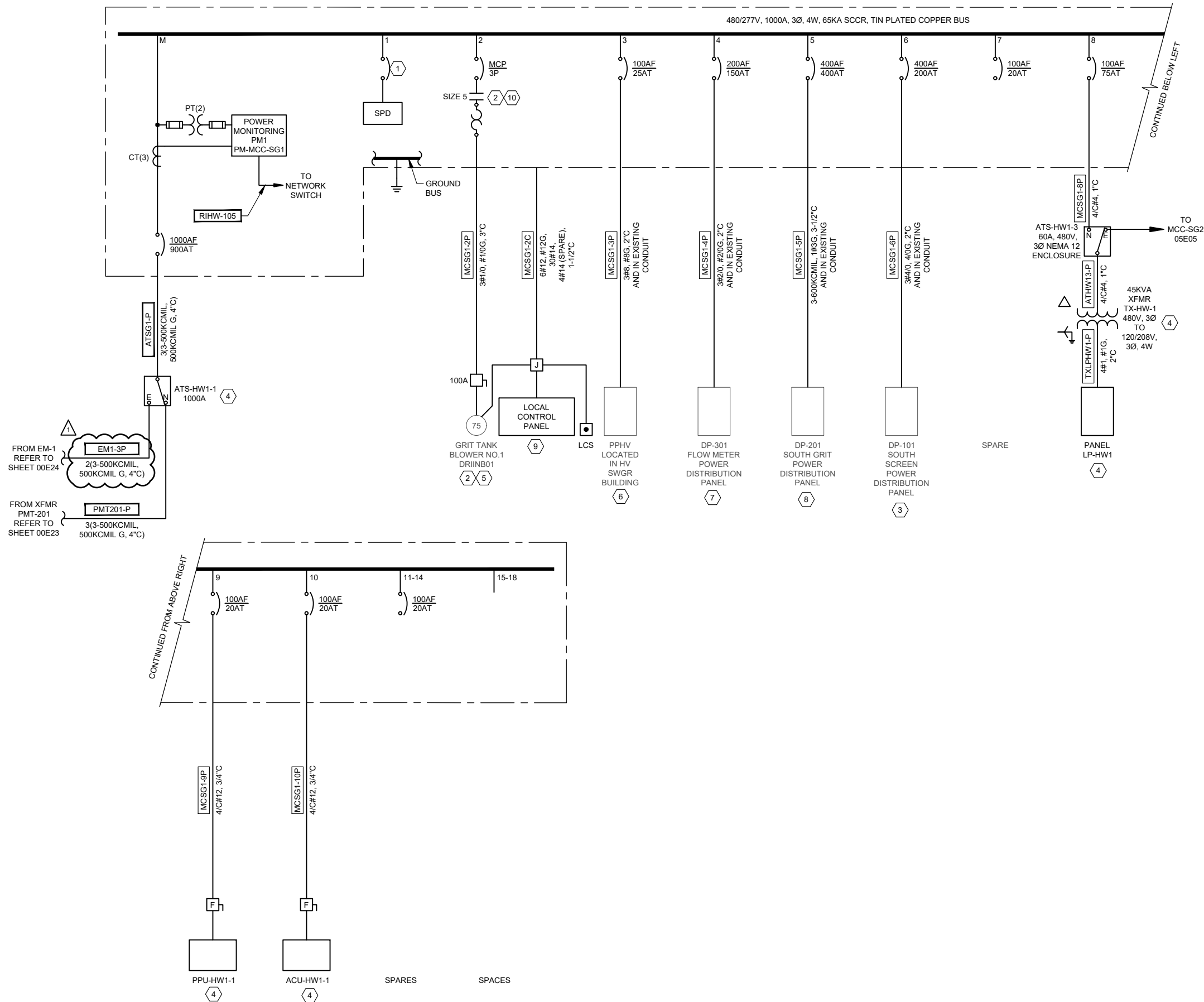
REMARKS:
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

SAN ANTONIO WATER SYSTEM
STEVEN M. CLOUSE WRC
ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
ELECTRICAL
HEADWORKS
DUCTBANK SECTIONS - I

DESIGNED BY: T.HERNANDEZ
DRAWN BY: E.RANGEL
SHEET CHKD BY: V.K. GUPTA
APPROVED BY: W.SAKO
DATE: JULY 2021
SAWS JOB NO.: 21-6507
FILE NAME: 1951_05E02

SHEET NO.
05E02
88 OF 328

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- GENERAL NOTES:**
- REFER TO SHEET 05N13 FOR THE EQUIPMENT TAGS CROSS REFERENCE.
- NOTES:**
- SIZE THE BREAKER FOR THE SPD.
 - REFER TO SHEET 05E16 FOR SCHEMATIC.
 - REFER TO SHEET 05E11 FOR LOCATION OF PANEL.
 - REFER TO SHEET 05E07 FOR EQUIPMENT LOCATION.
 - REFER TO SHEET 05E13 FOR LOCATION OF EQUIPMENT.
 - REFER TO SHEET 05E01 FOR LOCATION OF SWGR BUILDING.
 - REFER TO SHEET 05E09 FOR LOCATION OF PANEL.
 - REFER TO SHEET 05E12 FOR LOCATION OF PANEL.
 - PROVIDE NEW CONTROL PANEL.
 - STARTER IS OVERSIZED TO ACCOMMODATE FUTURE LARGER MOTOR.

MCC-SG1 ONE-LINE
DIAGRAM

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SAN ANTONIO WATER SYSTEM
SAWS

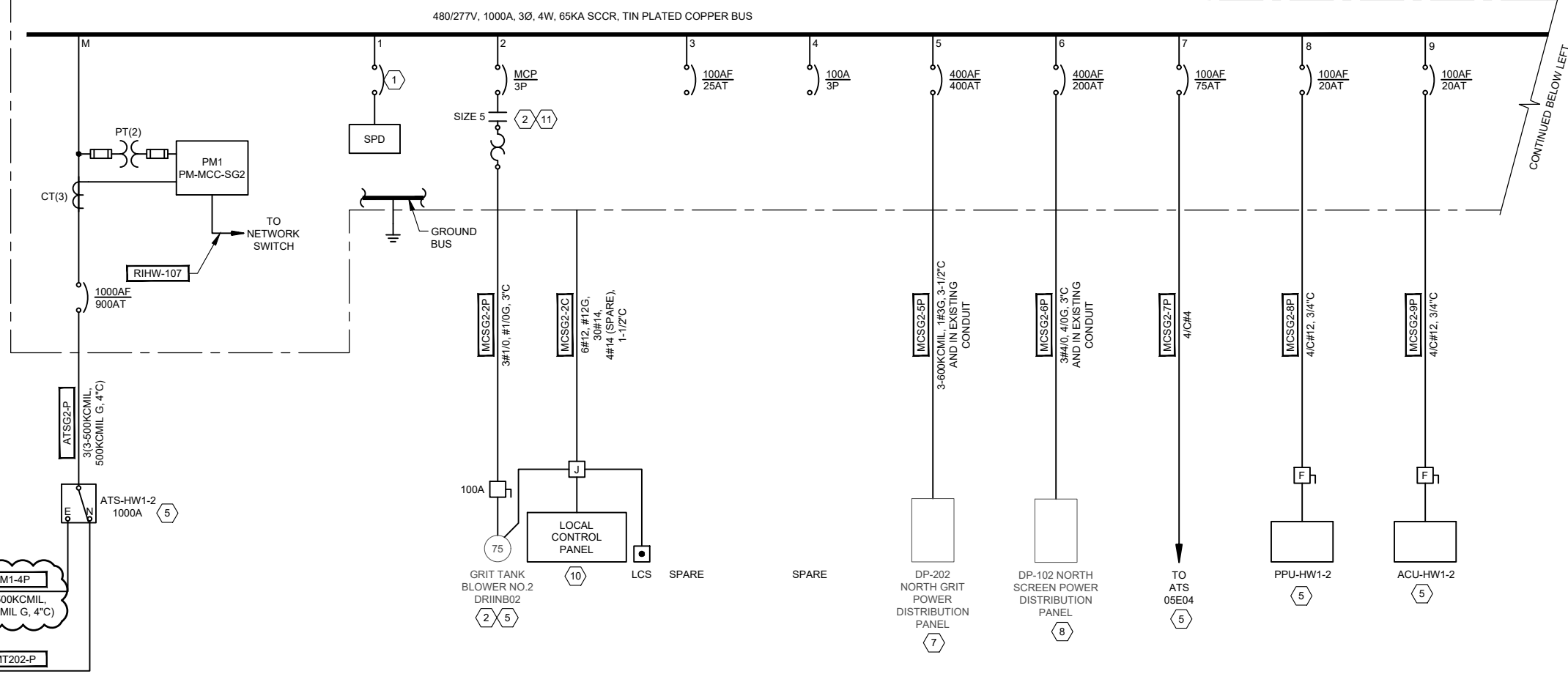
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08/10/21	DATE
DRWN	NO.
ONE INCH AT FULL SIZE IF NOT OTHERWISE NOTED	

SAN ANTONIO WATER SYSTEM
STEVEN M. CLOUSE WRC
ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
ELECTRICAL
HEADWORKS
MCC-SG1 ONE-LINE
DIAGRAM - MODIFICATION

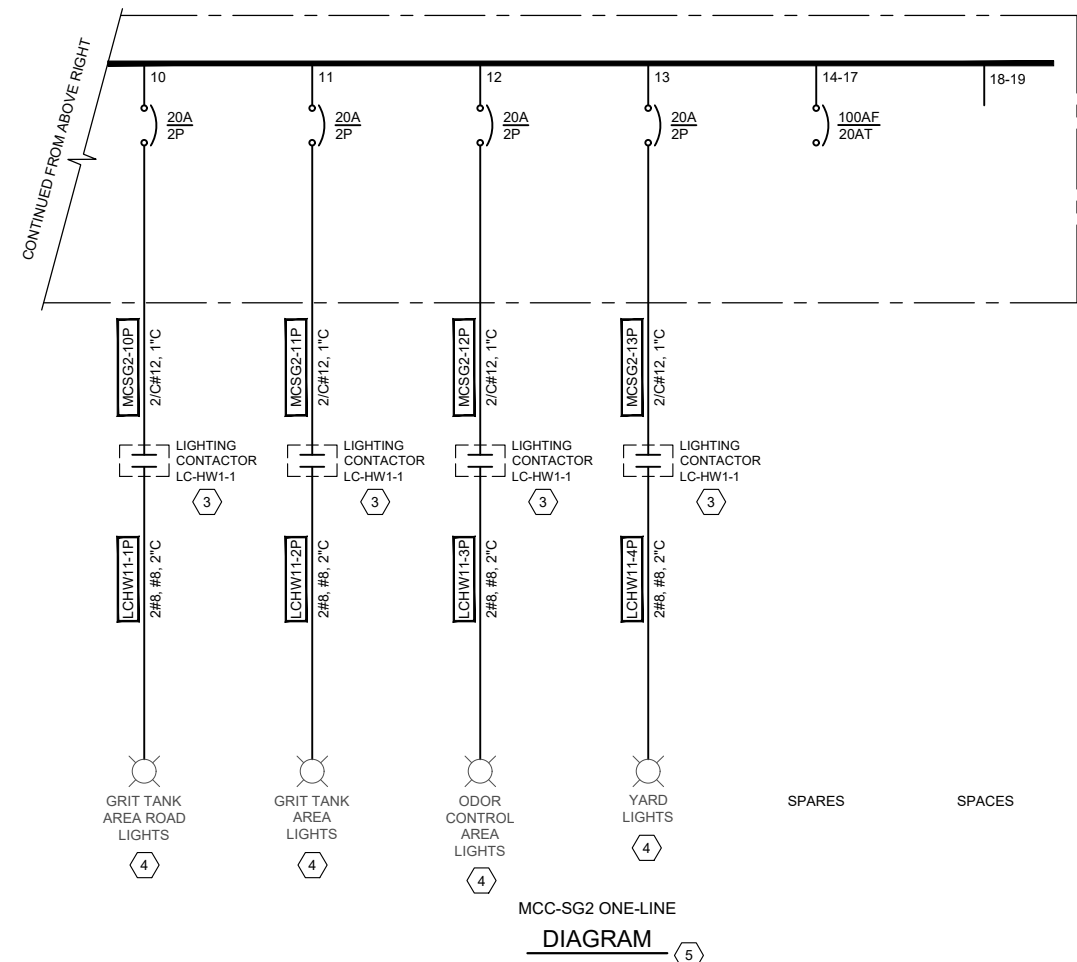
DESIGNED BY:	T.HERNANDEZ
DRAWN BY:	E.RANGEL
SHEET CHKD BY:	V.K. GUPTA
APPROVED BY:	W.SAKO
DATE:	JULY 2021
SAWS JOB NO.:	21-6507
FILE NAME:	1951_05E04

SHEET NO.
05E04
90 OF 328

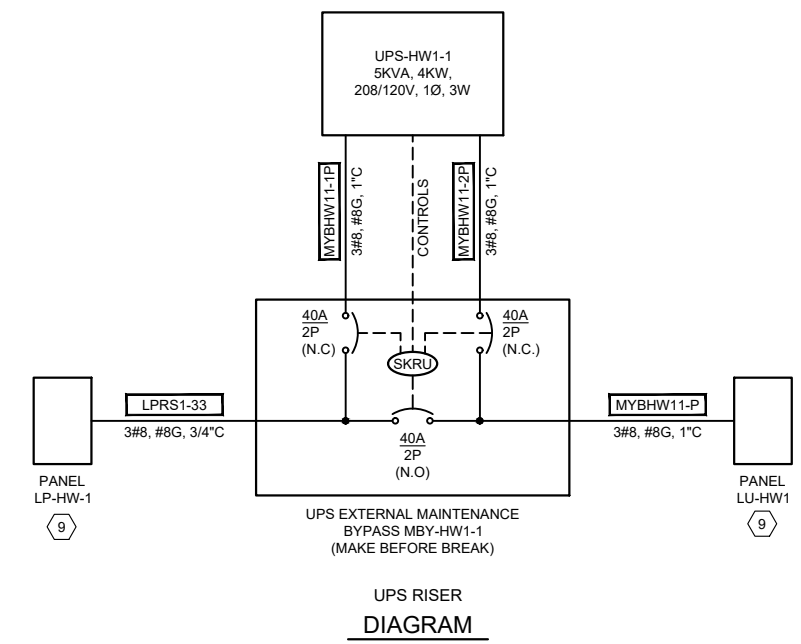
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- GENERAL NOTES:**
- REFER TO SHEET 05N13 FOR THE EQUIPMENT TAGS CROSS REFERENCE.
- NOTES:**
- SIZE THE BREAKER FOR THE SPD.
 - REFER TO SHEET 05E16 FOR SCHEMATIC.
 - REFER TO SHEET 05E17 FOR LIGHTING CONTACTOR SCHEMATIC.
 - LOAD INFORMATION BASED ON EXISTING CONDITIONS. VERIFY LOADS AND LOCATION OF LIGHTS. FIELD VERIFY ROUTING TO CLOSEST LIGHT FIXTURE AND ROUTE NEW DIRECT BURIED CONDUIT FROM OUTPUT OF LIGHTING CONTACTOR TO THE FIRST LIGHT FIXTURE.
 - REFER TO SHEET 05E07 FOR EQUIPMENT LOCATION.
 - REFER TO SHEET 05E13 FOR LOCATION OF EQUIPMENT.
 - REFER TO SHEET 05E12 FOR LOCATION OF PANEL.
 - REFER TO SHEET 05E11 FOR LOCATION OF PANEL.
 - REFER TO SHEET 05E04 FOR PANEL SCHEDULE.
 - PROVIDE NEW CONTROL PANEL.
 - STARTER IS OVERSIZED TO ACCOMMODATE FUTURE LARGER MOTOR.



MCC-SG2 ONE-LINE DIAGRAM



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SAN ANTONIO WATER SYSTEM

REV. NO.	DATE	DRWN	ADDENDUM NO.2	REMARKS
A	08/10/21	WH		

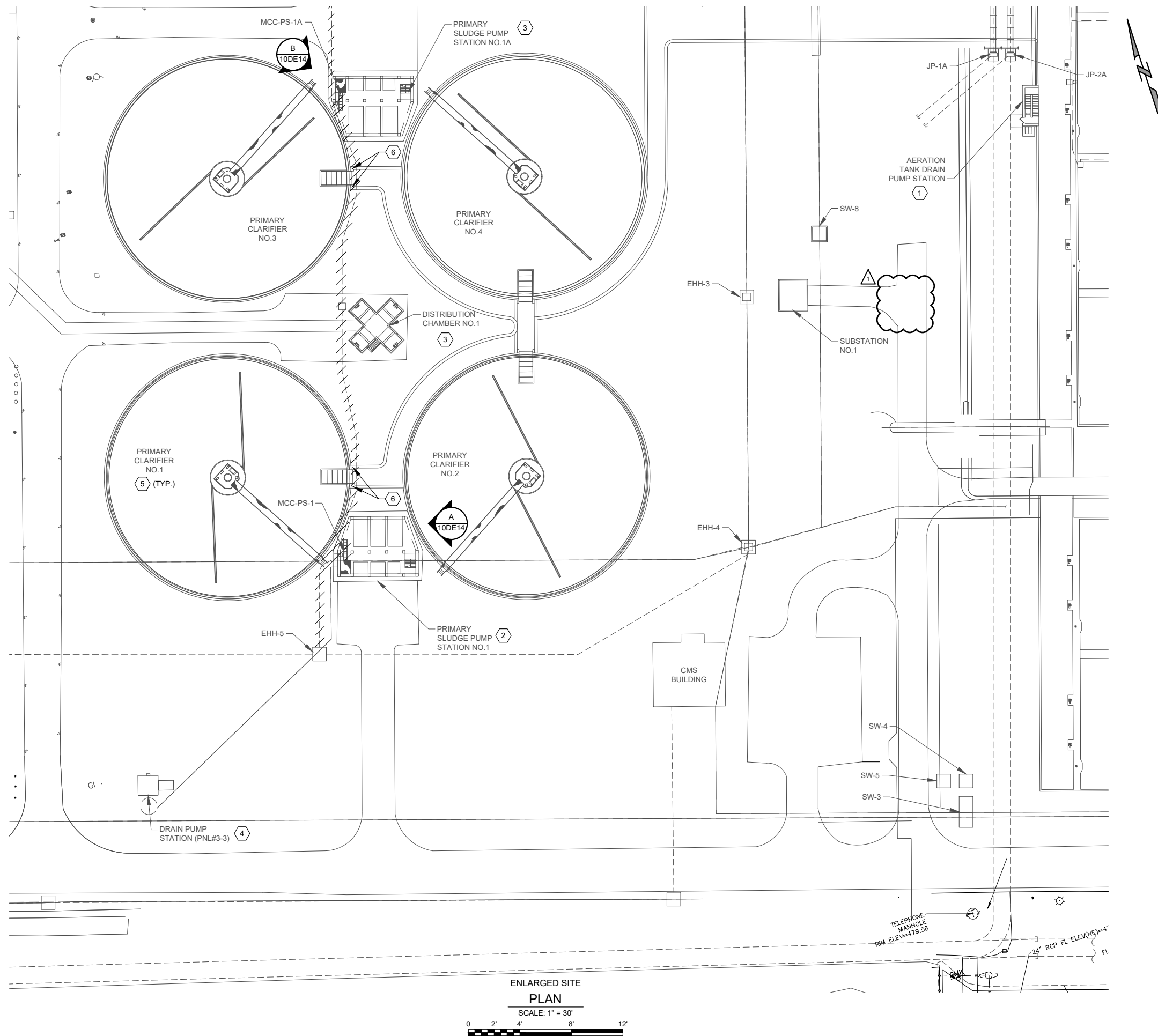
ONE INCH AT FULL SIZE IF NOT OTHERWISE NOTED

SAN ANTONIO WATER SYSTEM
STEVEN M. CLOUSE WRC
ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
HEADWORKS
MCC-SG2 ONE-LINE
DIAGRAM - MODIFICATION

DESIGNED BY: T.HERNANDEZ
DRAWN BY: E.RANGEL
SHEET CHKD BY: V.K. GUPTA
APPROVED BY: W.SAKO
DATE: JULY 2021
SAWS JOB NO.: 21-6507
FILE NAME: 1951_05E05

SHEET NO.
05E05
91 OF 328

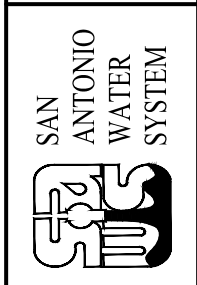
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- GENERAL NOTE:**
1. FIELD VERIFY THE LOCATION OF ALL EQUIPMENT AS NEEDED.
 2. NOT ALL UNDERGROUND DUCTBANKS AND UTILITIES ARE SHOWN ON THE PLAN.
 3. REMOVE WIRES FROM DUCTBANKS AND SEAL CONDUIT ON BOTH ENDS. ABANDON DUCTBANKS IN PLACE.

- NOTES:**
- 1 DEMOLISH EXISTING LIGHT FIXTURES. REFER TO SHEET 10E25 FOR REPLACEMENT LIGHT FIXTURES.
 - 2 REFER TO SHEET 10DE10 FOR DEMOLITION.
 - 3 REFER TO SHEET 10DE11 FOR DEMOLITION.
 - 4 DEMOLISH WIRE AND EXPOSED CONDUIT FEEDING PANEL #3-3. REUSE EXISTING PANEL.
 - 5 REFER TO SHEET 10DE15 FOR DEMOLITION. TYPICAL FOR PRIMARY CLARIFIERS NO.2, NO.3, AND NO.4.
 - 6 DEMOLISH THE ELECTRICAL HANDHOLE. FILL WITH CONCRETE.

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REV. NO.	DATE	DRWN	ER	ADDENDUM NO.2	REMARKS
A	08/10/21				

ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

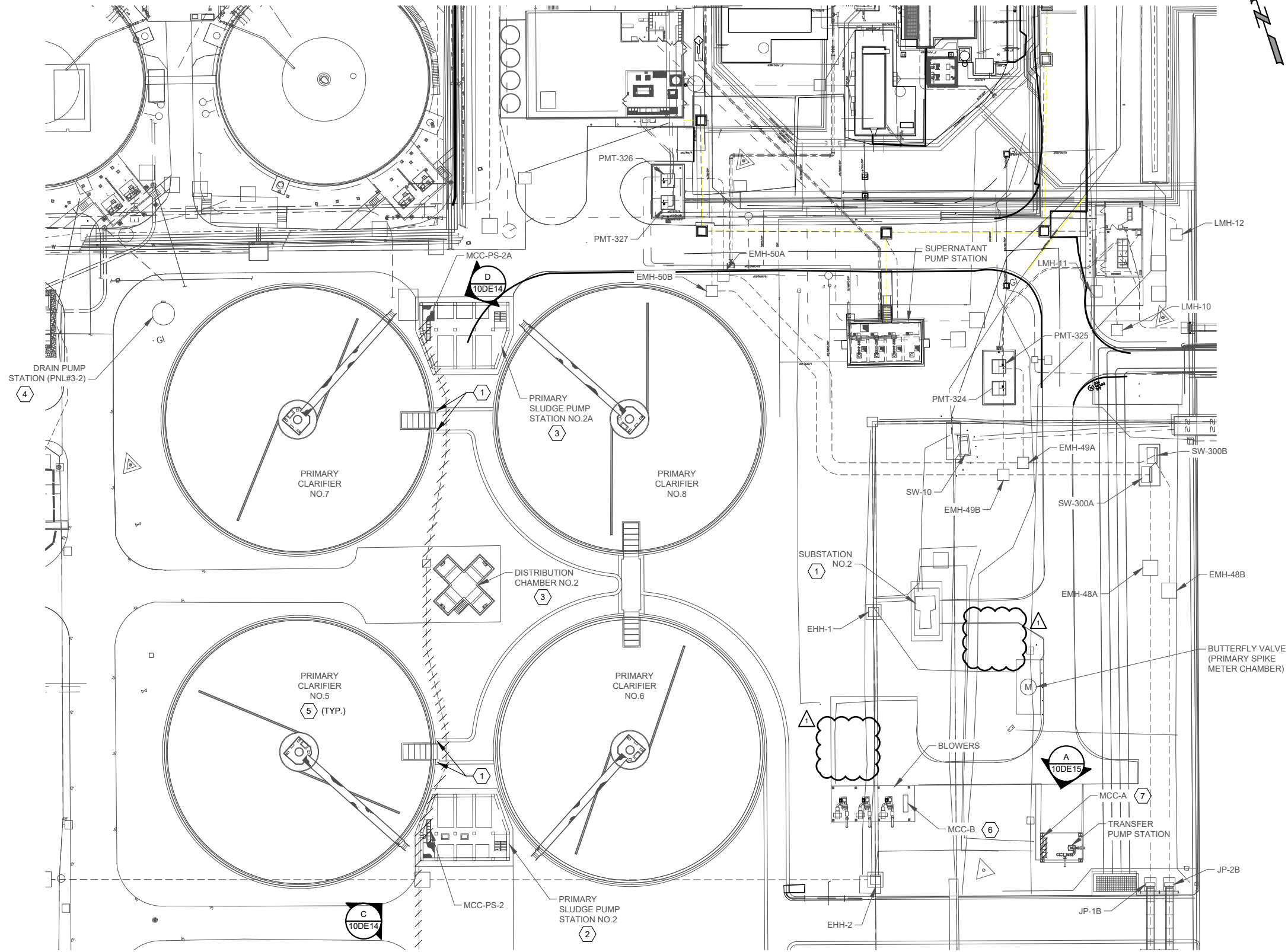
SAN ANTONIO WATER SYSTEM
STEVEN M. CLOUSE WRC
ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
PRIMARY CLARIFIERS
ENLARGED SITE PLAN - I - DEMOLITION

DESIGNED BY: A. SINGH
DRAWN BY: E. RANGEL
SHEET CHKD BY: V.K. GUPTA
APPROVED BY: W. SAKO
DATE: JULY 2021
SAWS JOB NO.: 21-6507
FILE NAME: 1951_10DE01

SHEET NO.
10DE01
142 OF 328

ENLARGED SITE PLAN
SCALE: 1" = 30'
0 2' 4' 8' 12'

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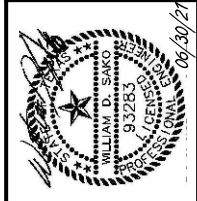


ENLARGED SITE PLAN
SCALE: 1" = 30'

- GENERAL NOTE:**
- FIELD VERIFY THE LOCATION OF ALL EQUIPMENT AS NEEDED.
 - NOT ALL UNDERGROUND DUCTBANKS AND UTILITIES ARE SHOWN ON THE PLAN.
 - REMOVE WIRES FROM DUCTBANKS AND SEAL CONDUIT ON BOTH ENDS. ABANDON DUCTBANKS IN PLACE.

- NOTES:**
- DEMOLISH THE ELECTRICAL HANDHOLE. FILL WITH CONCRETE.
 - REFER TO SHEET 10DE12 FOR DEMOLITION.
 - REFER TO SHEET 10DE13 FOR DEMOLITION.
 - VERIFY THAT PANEL #3-2 IS POWERED FROM MCC-PS-2A. DEMOLISH WIRE AND EXPOSED CONDUIT FEEDING PANEL #3-2. REUSE EXISTING PANEL.
 - REFER TO SHEET 10DE15 FOR DEMOLITION. TYPICAL FOR PRIMARY CLARIFIERS NO.6, NO.7, AND NO.8 AT MCC-B.
 - DEMOLISH LIGHT FIXTURES ALONG WITH ALL WIRE AND EXPOSED CONDUIT. REFER TO SHEET 10DE07 FOR DEMOLITION.
 - DEMOLISH MCC-A AND LIGHT FIXTURES ALONG WITH ALL WIRE AND EXPOSED CONDUIT. REFER TO SHEET 10DE08 FOR DEMOLITION.

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SAN ANTONIO WATER SYSTEM

REV. NO.	DATE	DRWN	ER	ADDENDUM NO.2	REMARKS
A	08/10/21				

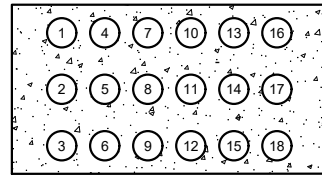
ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

SAN ANTONIO WATER SYSTEM
STEVEN M. CLOUSE WRC
ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
PRIMARY CLARIFIERS
ENLARGED SITE PLAN - II - DEMOLITION

DESIGNED BY: A. SINGH
DRAWN BY: E. RANGEL
SHEET CHKD BY: V.K. GUPTA
APPROVED BY: W. SAKO
DATE: JULY 2021
SAWS JOB NO.: 21-6507
FILE NAME: 1951_10DE02

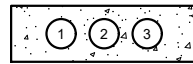
SHEET NO.
10DE02
143 OF 328

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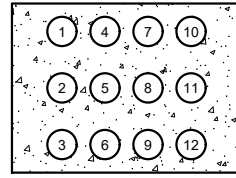
DUCTBANK
SECTION 10AM
10E30

TABLE FOR SECTION 10AM			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1-2	EM1-3P	4"C	GENERATOR TO EB-HW-1
3	EM1-3C, EM1-4C	2"C	GENERATOR TO EB-HW-1
4	SPARE	4"C	GENERATOR TO LMH-20
5-6	EM1-4P	4"C	GENERATOR TO EB-HW-1
7-8	GS-1P	4"C	GENERATOR TO PTB-PS1-1
9	GS-1C1, GS-1C2	2"C	ATS-PS2-1 AND ATS-PS2 TO GENERATOR
10-11	GS-2P	4"C	GENERATOR TO PTB-PS2-1
12	GS-2C1, GS-2C2	2"C	ATS-PS2-1 AND ATS-PS2 TO GENERATOR
13-15	B1B-EM1-P	4"C	-
16	B1-EM1-C1, B1-EM1-C2	2"C	-
17	SPARE	2"C	GENERATOR TO LMH-20
18	SPARE	2"C	GENERATOR TO LMH-20



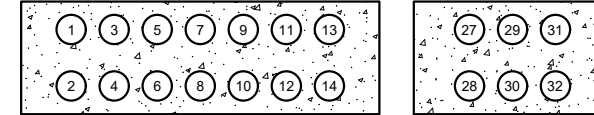
DUCTBANK
SECTION 10AW
10E30

TABLE FOR SECTION 10AW			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCPS2A-17P	2"C	MCC-PS-2A TO DRAINAGE PUMP (NORTHWEST SIDE)
2	SPARE	2"C	DRAINAGE PUMP (NORTHWEST SIDE) TO EHH
3	SPARE	2"C	DRAINAGE PUMP (NORTHWEST SIDE) TO EHH



DUCTBANK
SECTION 10AP
10E30

TABLE FOR SECTION 10AP			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCB-2P	3"C	MCC-B TO BLOWER NO.1
2	MCB-3P	3"C	MCC-B TO BLOWER NO.2
3	MCB-4P	3"C	MCC-B TO BLOWER NO.3
4	MCB-2C,3C,4C	3"C	MCC-B TO BLOWER LCPS
5	LPPS21-35,36,37	2"C	LP-PS21 TO BLOWER AREA
6	SPARE	2"C	BLOWER AREA TO EHH
7	MCB-7P	2"C	MCC-B TO TRANSFER PUMP
8	MCB-7C, LPPS21-35,37,38	2"C	MCC-B AND LP-PS2-1 TO TRANSFER AREA
9	REB2-436	2"C	RIO TO TRANSFER AREA
10	SPARE	2"C	TRANSFER AREA TO EHH
11	MCB-5P	2"C	MCC-B TO BUTTERFLY VALVE
12	SPARE	2"C	BUTTERFLY VALVE TO EHH



DUCTBANK
SECTION 10AQ
10E30

TABLE FOR SECTION 10AQ			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCPS2-4P, 5P,6P	2"C	MCC-PS-2 TO SLUDGE PUMPS
2	MCPS2-3P, 19P,20P	2"C	MCC-PS-2 TO DEWATERING AND OTHER PUMPS
3	MCPS2-7P, 8P,9P	2"C	MCC-PS-2 TO MACERATOR AND SKIMMING PUMPS
4	MCPS2-10P,16P,17P,11P,21P,22P	2"C	MCC-PS-2 TO PS-2 AREA CLARIFIERS, FANS.
5	LPPS21-11,12,13,14,16 LPPS22-2,10	2"C	LP-PS2-1 AND LP-PS2-2 TO PS-2
6	SPARE	2"C	J-BOXES TO LMH-19
7	MCPS2-4C,5C,6C	2"C	MCC-PS-2 TO PS-2 SLUDGE PUMP AREA
8	MCPS2-20C,3C, REB2-208A, REB2-215,201,204, INTPS21-101	2"C	MCC-PS-2 AND RIO-PS2-1 TO PS-2
9	MCPS2-7C,8C,9C,10C,21C,22C	2"C	MCC-PS-2 TO PS-2
10	REB2-203,214	2"C	RIO-PS2-1 TO LIT AND FIT
11	SPARE	2"C	J-BOXES TO LMH-19
12	SPARE	2"C	J-BOXES TO LMH-19
13	MCPS2-12P, 13P,14P,15P	2"C	MCC-PS-2 TO DIVERSION STRUCTURE NO.2
14	REB2-101,102,103,104	2"C	RIO-PS-2 TO DIVERSION STRUCTURE NO.2
15	MCPS2A-3P, 4P,5P	2"C	MCC-PS-2A TO SLUDGE PUMPS
16	MCPS2A-2P, 13P,14P	2"C	MCC-PS-2A TO DEWATERING AND OTHER PUMPS
17	MCPS2A-6P, 7P,8P	2"C	MCC-PS-2A TO MACERATOR AND SKIMMING PUMPS
18	MCPS2A-9P,10P,11P,12P,15P,16P	2"C	MCC-PS-2A TO PS-2A AREA CLARIFIERS, FANS.
19	LPPS21-25,26,27,28,30 LPPS22-6,9	2"C	LP-PS2-1 AND LP-PS2-2 TO PS-2
20	SPARE	2"C	LMH-19 TO J-BOXES
21	MCPS2A-3C,4C,5C	2"C	MCC-PS-2A TO PS-2A SLUDGE PUMP AREA
22	MCPS2A-14C,2C, REB2-308A, REB2-315,301,304, INTPS22-101	2"C	MCC-PS-2A AND RIO-PS2-1 TO PS-2A
23	MCPS2A-6C,7C,8C,9C,15C,16C	2"C	MCC-PS-2A TO PS-2A
24	REB2-303,314	2"C	RIO-PS2-1 TO LIT AND FIT
25	MCPS2A-17P	2"C	MCC-PS-2A TO DRAIN PNL-#3-2
26	SPARE	2"C	LMH-19 TO J-BOXES
27-28	GS-2P	4"C	GENERATOR TO PTB-PS2-1
29	FOC-PS2-BLDG2	2"C	EB-PS-2 TO FOPP-PRI-CTR IN BUILDING NO.3
30	GS-2C1, GS-2C2	2"C	ATS-PS2-1 AND ATS-PS2-2 TO GENERATOR
31	SPARE	2"C	J-BOXES TO LMH-19

GENERAL NOTES:

- REFER TO STANDARD DUCTBANK DETAILS.

NOTES:

- WIRES FOR FIRST STAGE AERATION TO BE PULLED IN FUTURE PHASE.

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SAN ANTONIO WATER SYSTEM

08/10/21	WH	ADDENDUM NO.2	REMARKS
REV. NO.	DATE	DRWN	

SAN ANTONIO WATER SYSTEM
STEVEN M. CLOUSE WRC
ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
PRIMARY CLARIFIERS 5-8
DUCTBANK SECTIONS - III

DESIGNED BY: A. SINGH
DRAWN BY: E. RANGEL
SHEET CHKD BY: V.K. GUPTA
APPROVED BY: W. SAKO
DATE: JULY 2021
SAWS JOB NO.: 21-6507
FILE NAME: 1951_10E33

SHEET NO.
10E33
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CONDUIT TAG	SHEET REFERENCE
EM1-3X	00E22
EM1-4X	00E22
GS-1X	10E06
GS-2X	10E34
B1B-EM1-P	20E87
B1-EM1-CX	20E86
MCPS2-XX	10E35
MCPS2A-XX	10E36
MCB-XX	10E37
LPPS2X-XX	10E39
REB2-XX	10E59
FOC-EB2	10E59

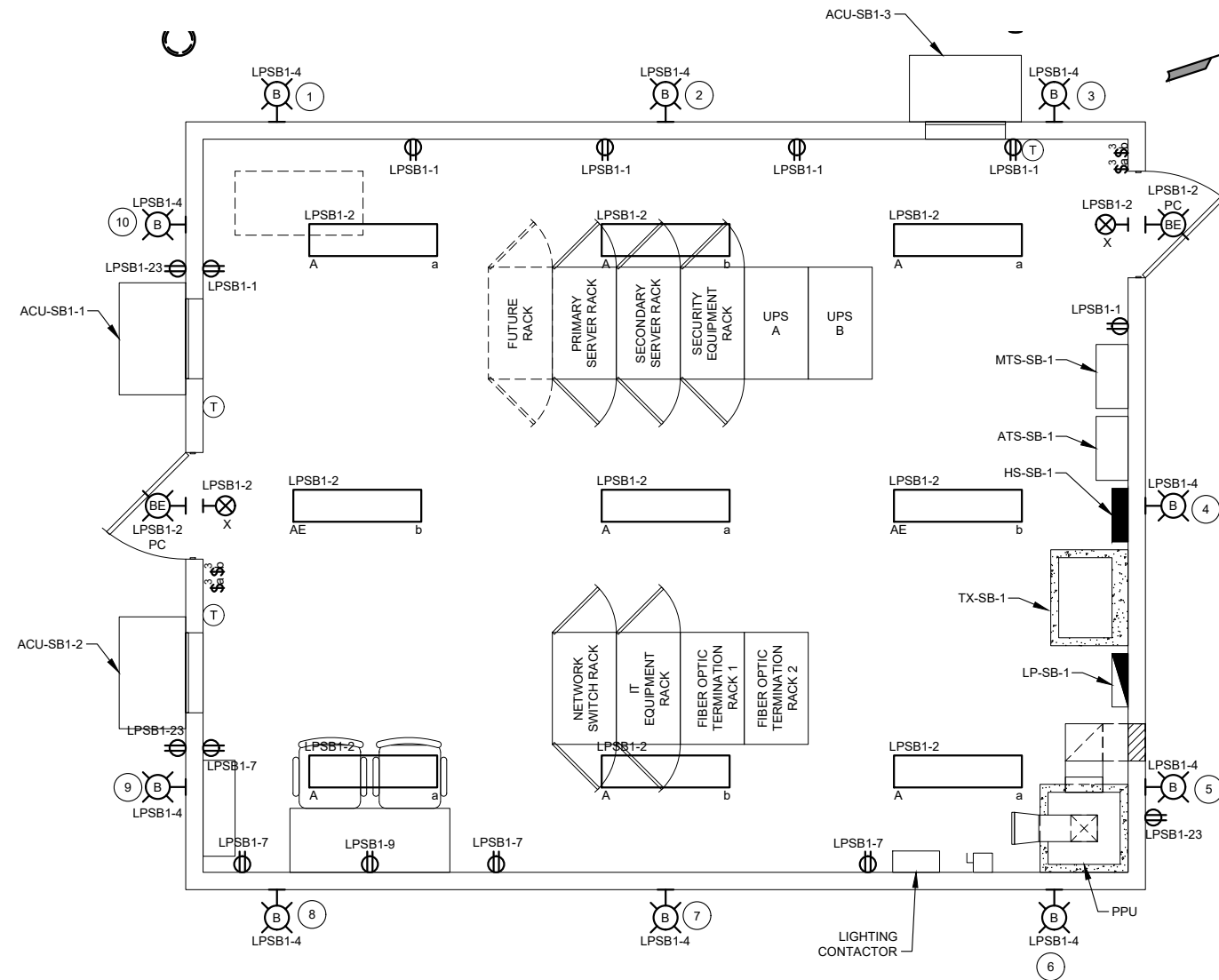
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GENERAL NOTES:

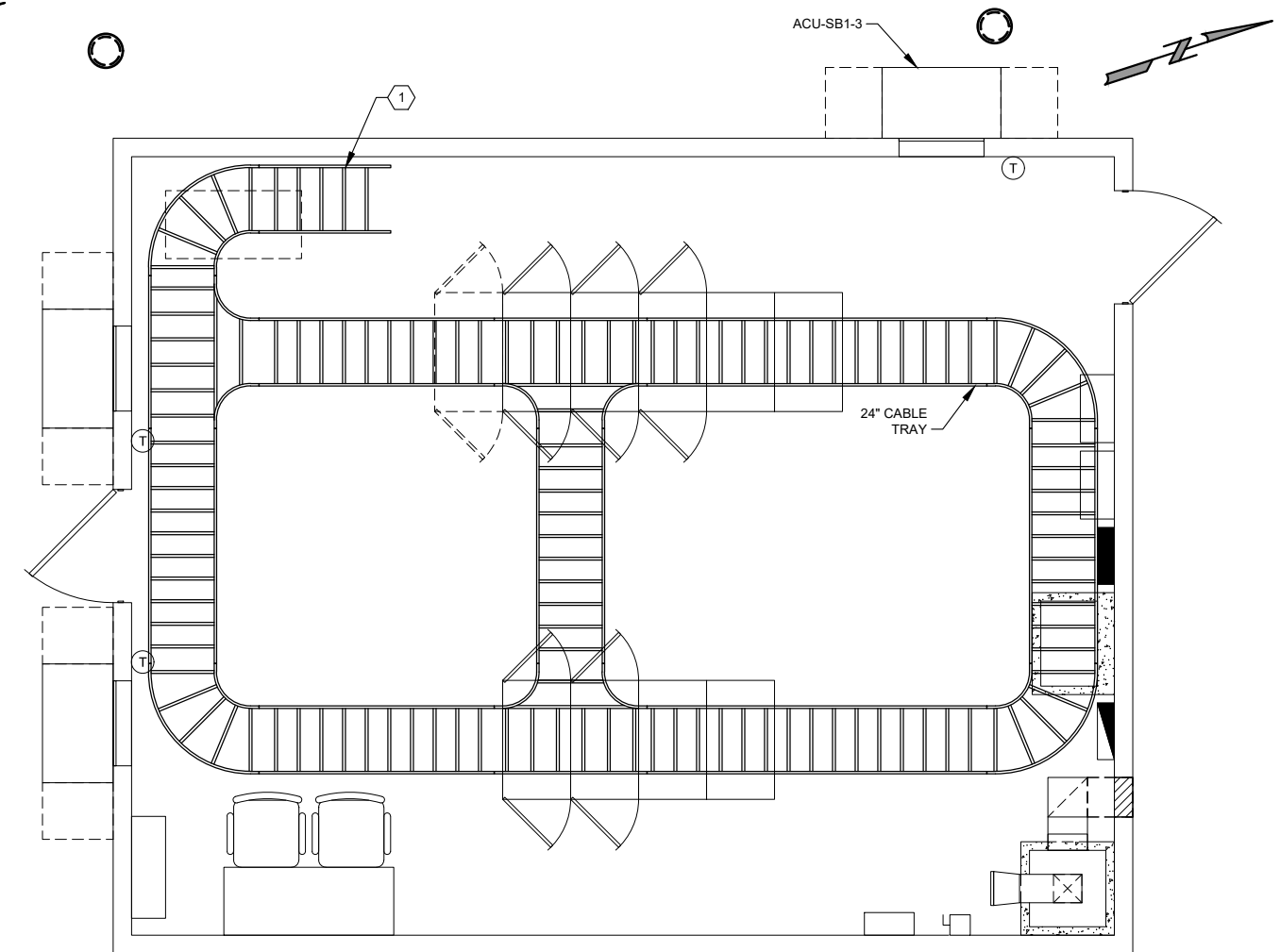
1. ALL OUTDOOR RECEPTACLES SHALL BE WP/GFCI WITH IN-USE COVERS.
2. WALL MOUNTED FIXTURES MOUNTED 9'-0" AFG.
3. THE CABLE TRAY LOCATION SHALL BE ADJUSTED BASED ON CONDUIT SETUP.
4. REFER TO SHEET 00E28 FOR LIGHT FIXTURE SCHEDULE.

NOTES:

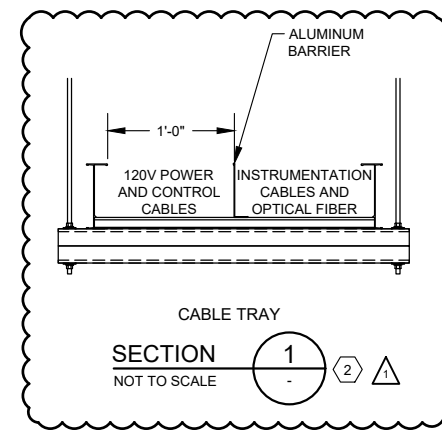
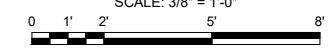
- ① CONDUITS FOR FIBER CABLE.
- ② ALL 480V POWER CIRCUITS SHALL BE ROUTED IN INDIVIDUAL CONDUITS FOR ENTIRE RUN.



SCADA/IT ROOM
LIGHTING AND RECEPTACLE LAYOUT
PLAN
SCALE: 3/8" = 1'-0"
0 1' 2' 5' 8'



SCADA/IT ROOM
CABLE TRAY LAYOUT
PLAN
SCALE: 3/8" = 1'-0"



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SAN ANTONIO WATER SYSTEM
SAWS

REV. NO.	DATE	DRWN	REMARKS
A	08/10/21	ER	ADDENDUM NO.2

ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

SAN ANTONIO WATER SYSTEM
STEVEN M. CLOUSE WRC
ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
SCADA/IT BUILDING ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A
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ELECTRICAL SYSTEM IMPROVEMENTS PHASE 2A

DESIGNED BY: T.HERNANDEZ
DRAWN BY: E.RANGEL
SHEET CHKD BY: V.K. GUPTA
APPROVED BY: W.SAKO
DATE: JULY 2021
SAWS JOB NO.: 21-6507
FILE NAME: 1951_40E04

SHEET NO.
40E04
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