



34th Street Pump Station Improvements Project
SAWS Job No. 13-6004
Solicitation No. CO-00072-RA

ADDENDUM No. 4

October 20, 2016

This addendum, applicable to work designated above, is an amendment to the proposal and specification documents and as such shall be a part of and included in the Contract. Acknowledge receipt of this addendum by entering the addendum number and issue date on the space provided in submitted copies of the proposal.

1. Modifications to the Drawings

- 1.1. E-107
Duct Bank Section-9: for conduit # 4, removed the word “future” under description.
- 1.2. E-108
Duct Bank Section-20: for conduit # 17, removed the word “future” under description.
- 1.3. E-115
WP-3 Riser Diagram: removed the verbiage “spare 2” conduit”, changed “Future RTD” to “RTD”.
Detail: Changed “Well Pump No.1 Control Panel” callout to “Well Pump No. 3 Control Panel”.
- 1.4. E-207
MCC- Section -4B, For high service pump HSP-3, conduit tag MVMCB-4BP,changed 3#4 to 3#2 (5KV Shielded)
- 1.5. E-208
MCC- Section -8A: Changed the horse power for well pump WP-3 from 200hp to 400Hp.
MCC- Section-8A: For conduit tag MVMCA-8AI – replaced spare with 9(3/C#16 TRIAD TC) 2”C

ACKNOWLEDGEMENT BY BIDDER

Each respondent is requested to acknowledge receipt of this Addendum No. 4 by his/her signature affixed hereto and to file same and attach with his/her proposal.

The undersigned acknowledges receipt of this Addendum No. 4 and the proposal submitted herewith is in accordance with the information and stipulations set forth.

Date

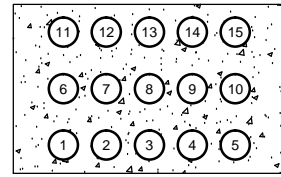
Signature

Tetra Tech, Inc.
Texas Registered Engineering Firm F-3924
700 N. Saint Mary's Street, Ste. 300
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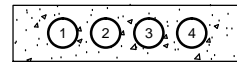
END OF ADDENDUM

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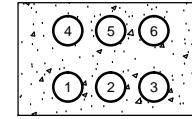
7
E-105
DUCTBANK SECTION

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MVMCA-6AP	3"	MVMCCA TO WP-1
2	SPARE	3"	-
3	MCC1-10LP, MCC1-11RP	2"	MCC1 TO SERVICE CENTER WP1, WP4
4	MVMCA-6AI	2"	FUTURE RTD'S WP1 TO MVMCC
5	MVMCA-6AC, MVMCB-6BC	2"	CONTROL PANEL WP1, WP4 MVMCC
6	MVMCB-6BP	3"	MVMCCB TO WP-4
7	SPARE	3"	-
8	SAPRE	2"	-
9	MVMCB-6BI	2"	WP4-RTD'S TO MVMCC
10	SPARE	2"	-
11	MCC1-6LP	3"	FROM MCC1 TO MCC-2
12	MCC1-6LP	3"	FROM MCC1 TO MCC-2
13	MCC1-6RP	3"	FROM MCC1 TO MCC-2
14	MCC1-6RP	3"	FROM MCC1 TO MCC-2
15	SPARE	2"	-



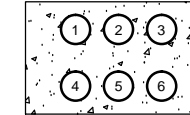
8
E-104
DUCTBANK SECTION

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	RS-485 FIT103 WP-3	2"	FIT WP-3 TO SCP
2	FIT103	2"	FIT WP-3 4-20 TO SCP
3	FOC-2, FOC-3	2"	SCP TO CAMERAS 9&10
4	SPARE	2"	-



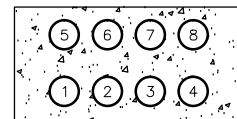
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E-104
DUCTBANK SECTION

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MVMCA-8AP	3"	MVMCCA TO WP-3
2	SPARE	3"	-
3	MCC1-11LP	2"	MCC1 TO SERVICE CENTER WP-3
4	MVMCA-8AI	2"	RTD'S TO MVMCC
5	MVMCA-8AC	2"	WP-3-CONTROL PANEL TO MVMCC
6	SPARE	2"	-



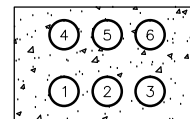
10
E-105
DUCTBANK SECTION

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	CHEMICAL BUILDING SCP-FIBER	2"	CHEMICAL BUILDING TO SCP
2	FIBER WEST GATE & CARD READER	2"	CHEMICAL BUILDING SECURITY PANEL
3	LDP 3,4,5,6,7,8	2"	LEAK DETECTION SWITCHES TO LEAK DETECTION PANEL
4	SPARE	2"	-
5	4-20, 2#14	2"	AIT 310, 320 AND LEAK DETECTION TO SCP
6	LC-50, 52	2"	PANEL LC TO CHLORINE/FLUORIDE PANEL



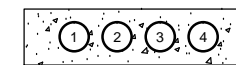
11
E-105
DUCTBANK SECTION

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MCC1-6LP	3"	FROM MCC-1 TO MCC2
2	MCC1-6LP	3"	FROM MCC-1 TO MCC2
3	LC-1,3,5,7	2"	PANEL LC TO GATE SECURITY PANEL AND GATE ACTUATOR
4	SPARE	3"	-
5	MCC1-6RP	3"	FROM MCC-1 TO MCC2
6	MCC1-6RP	3"	FROM MCC-1 TO MCC2
7	SPARE	2"	-
8	SPARE	2"	-



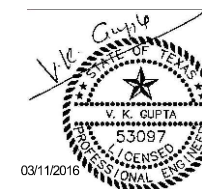
12
E-105
DUCTBANK SECTION

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MVMCB-6BP	3"	MVMCCB TO WP-4
2	SPARE	3"	-
3	MCC1-11RP	2"	MCC1 TO SERVICE CENTER WP-4
4	MVMCB-6BI	2"	WP-4 RTD'S TO MVMCC1
5	MVMCB-6BC	2"	WP-4 CONTROL PANEL TO MVMCC
6	SPARE	2"	-



13
E-105
DUCTBANK SECTION

CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	RS-485 WP-4 FIT104	2"	FIT WP-4 TO SCP
2	FIT104	2"	FIT WP-4 4-20 TO SCP
3	SPARE	2"	-
4	SPARE	2"	-



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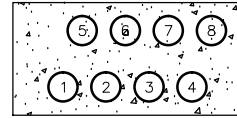
SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION
BY	VKG	
ADDENDUM NO.4		

SAN ANTONIO WATER SYSTEM
34TH STREET PUMP STATION
IMPROVEMENTS PROJECT
DUCTBANK SECTIONS - II

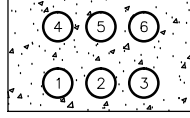
SAWS Job No.:	13-6004
Designed By:	LP
Drawn By:	MAC
Checked By:	VKG

E-107



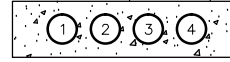
14
E-105
DUCTBANK SECTION

TABLE FOR SECTION 14			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MVMCA-6AP	3"	MVMCCA TO WP-1
2	SPARE	3"	-
3	MCC1-10LP	2"	MCC1 TO SERVICE CENTER WP-1
4	MVMCA-6AI	2"	FUTURE RTD'S FROM WP1 TO MVMCCA
5	MVMCA-6AC	2"	WP-1 CONTROL PANEL TO MVMCCA
6	SPARE	2"	-
7	LC-1,3,5,7	2"	PANEL LC TO GATE SECURITY PANEL AND GATE ACTUATOR & LIGHT
8	SPARE	2"	-



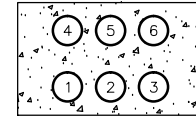
15
E-105
DUCTBANK SECTION

TABLE FOR SECTION 15			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	FIBER SECURITY	2"	MAIN GATE SECURITY
2	CARD READER CAMERA	2"	CARD READER SECURITY
3	RS-485 FIT WP-1 FLOW	2"	FIT WP-1 TO SCP
4	FIT 101	2"	FIT WP-1 4-20 TO SCP
5	SPARE	2"	-
6	SPARE	2"	-



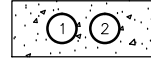
16
E-105
DUCTBANK SECTION

TABLE FOR SECTION 16			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	RS-485 WP-1 FIT101	2"	FIT WP-1 TO SCP, RS-485
2	FIT101	2"	FIT TO SCP 4-20
3	SPARE	2"	-
4	SPARE	2"	-



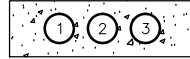
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E-105
DUCTBANK SECTION

TABLE FOR SECTION 17			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MVMCA-6AP	3"	MVMCCA TO WP-1
2	SPARE	3"	-
3	MCC1-10LP	2"	MCC1 TO SERVICE CENTER WP-1
4	MVMCA-6AI	2"	FUTURE RTD'S TO MVMCC
5	MVMCA-6AC	2"	WP-1 CONTROL PANEL TO MVMCC
6	SPARE	2"	-



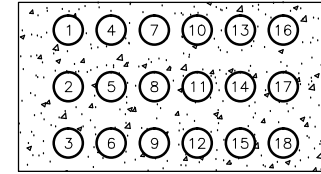
18
E-105
DUCTBANK SECTION

TABLE FOR SECTION 18			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	LC-1,3,5	2"	PANEL LC TO SECURITY GATE & LIGHT
2	SPARE	2"	-



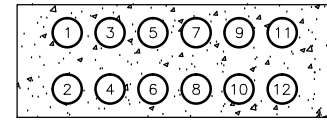
19
E-105
DUCTBANK SECTION

TABLE FOR SECTION 19			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	FIBER SECURITY	2"	WEST GATE TO SECURITY PANEL
2	CARD READER CAMERA	2"	WEST GATE TO SECURITY PANEL
3	SPARE	2"	-



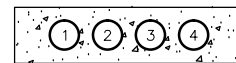
20
E-104
DUCTBANK SECTION

TABLE FOR SECTION 20			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	MVMCA-6AP	3"	MVMCCA TO WP-1
2	SPARE	3"	-
3	MCC1-10LP, MCC1-11LP, MCC1-9LP, MCC1-11RP	2"	MCC1 TO SERVICE CENTER WP-1,WP-2,WP-3,WP-4
4	MVMCA-6AI	2"	FUTURE RTD'S WP1 TO MVMCC
5	MVMCA-6AC, MVMCA-8AC, MVMCB-5BC, MVMCB-6BC	2"	CONTROL PANEL WP-1,WP-2,WP-3,WP-4 TO MVMCC
6	MVMCB-6RP	3"	MVMCCB TO WP-4
7	SPARE	3"	-
8	SPARE	2"	-
9	MVMCB-6BI	2"	WP4-RTD'S TO MVMCC
10	MCC1-6LP	3"	FROM MCC1 TO MCC-2
11	MCC1-6LP	3"	FROM MCC1 TO MCC-2
12	MVMCB-5BP	3"	MVMCB TO WP-2
13	MVMCB-JBI	2"	WP-2 RTD'S TO MVMCC
14	MCC1-6RP	3"	FROM MCC1 TO MCC-2
15	MCC1-6RP	3"	FROM MCC1 TO MCC-2
16	MVMCA-8AP	3"	MVMCCA TO WP-3
17	MVMCA-8AI	2"	RTD'S TO MVMCC
18	SPARE	2"	-



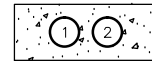
21
E-104
DUCTBANK SECTION

TABLE FOR SECTION 21			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	FIBER FIT WP-1	2"	FIT WP-1 TO SCP
2	FIT4-20	2"	FIT WP-1 4-20 TO SCP
3	CHEM BLDG SCP FIBER	2"	CHEM BLDG TO SCP
4	4-20	2"	CHEM BLDG TO SCP
5	FIBER WP-4	2"	FIT WP-4 TO SCP
6	FIT4-20	2"	FIT WP-4 TO SCP
7	FIBER WP-2	2"	FIT WP-2 TO SCP
8	4-20	2"	FIT WP-2 TO SCP
9	FOC-2, FOC-3	2"	SCP TO CAMERAS 9 & 10
10	STORAGE TANK LEVEL PROBES	2"	12#14
11	FIBER WP-3	2"	FIT WP-3 TO SCP
12	FIT4-20	2"	FIT WP-3 TO SCP



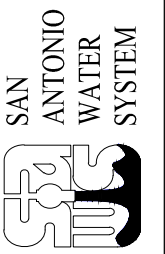
22
E-104
DUCTBANK SECTION

TABLE FOR SECTION 22			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	RS-485 WP-3 FIT103	2"	FIT WP-3 TO SCP, RS-485
2	FIT103	2"	FIT WP-3 4-20 TO SCP
3	SPARE	2"	-
4	SPARE	2"	-



23
E-104
DUCTBANK SECTION

TABLE FOR SECTION 23			
CONDUIT NO.	CONDUIT TAG	CONDUIT SIZE	DESCRIPTION
1	LC-3-6P	2"	LC3 TO CAMERAS 9 & 10
2	SPARE	2"	-



MARK	DATE	DESCRIPTION
A	10/19/16	ADDENDUM NO.4

SAN ANTONIO WATER SYSTEM
34TH STREET PUMP STATION
IMPROVEMENTS PROJECT
ELECTRICAL DUCTBANK
SECTIONS - III

SAWS Job No.:	13-6004
Designed By:	LP
Drawn By:	MAC
Checked By:	VKG

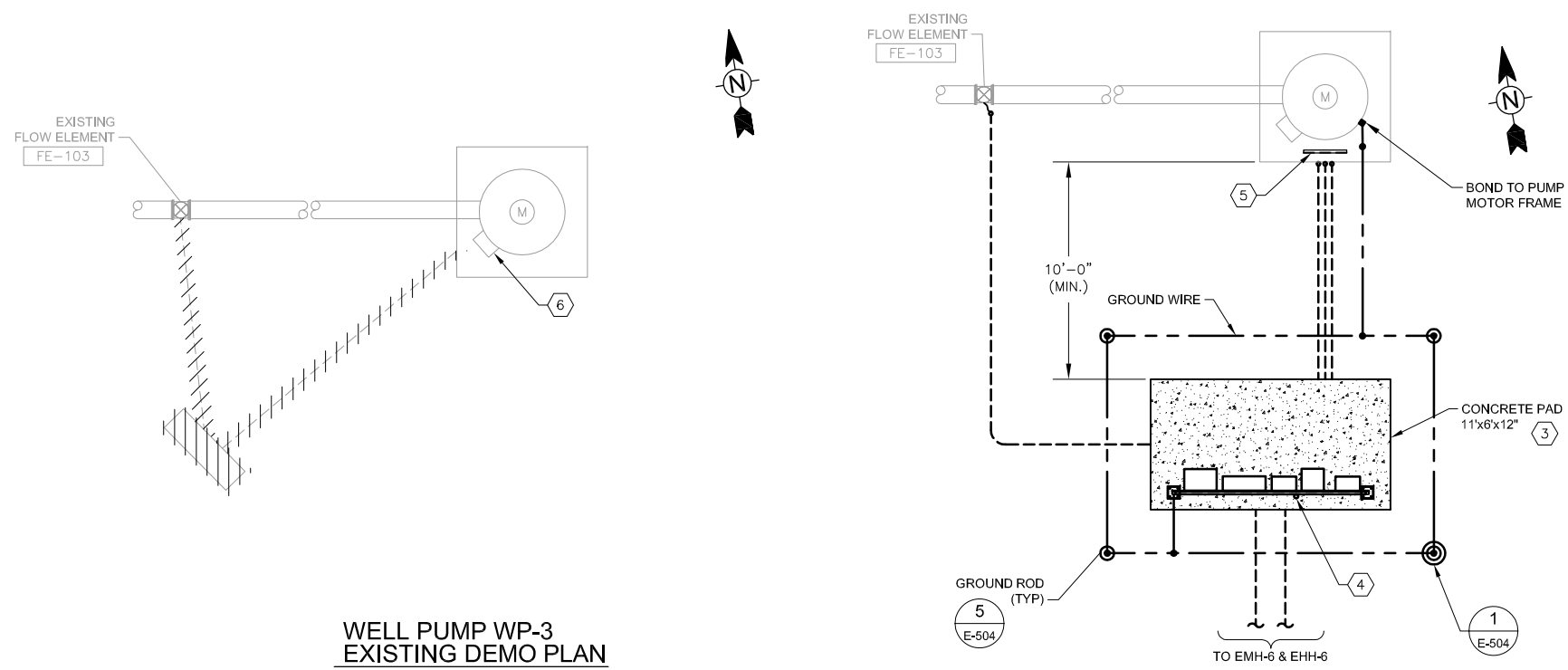
E-108

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Bar Measures 1 inch

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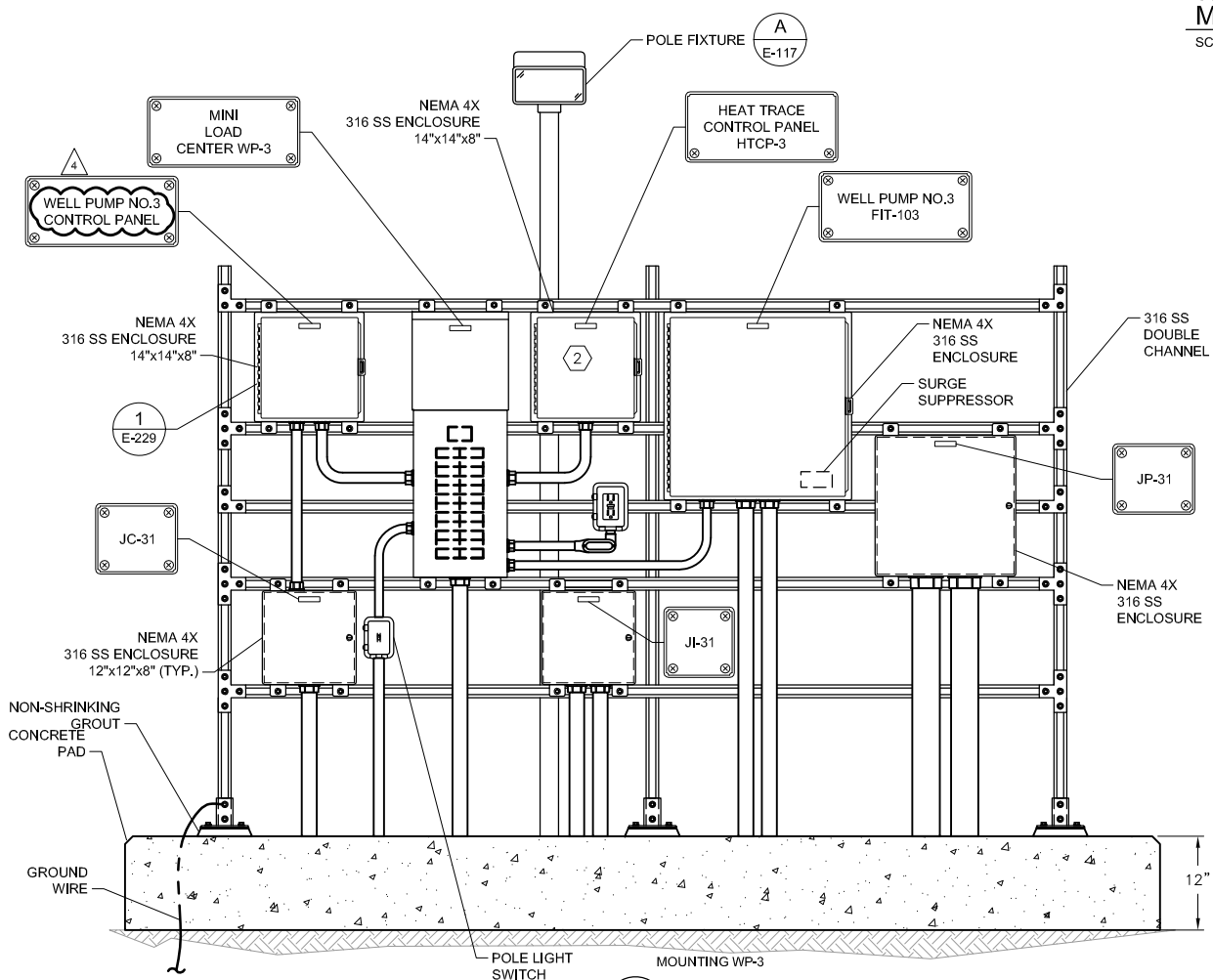


**WELL PUMP WP-3
EXISTING DEMO PLAN**
SCALE: 1/4"=1'-0"

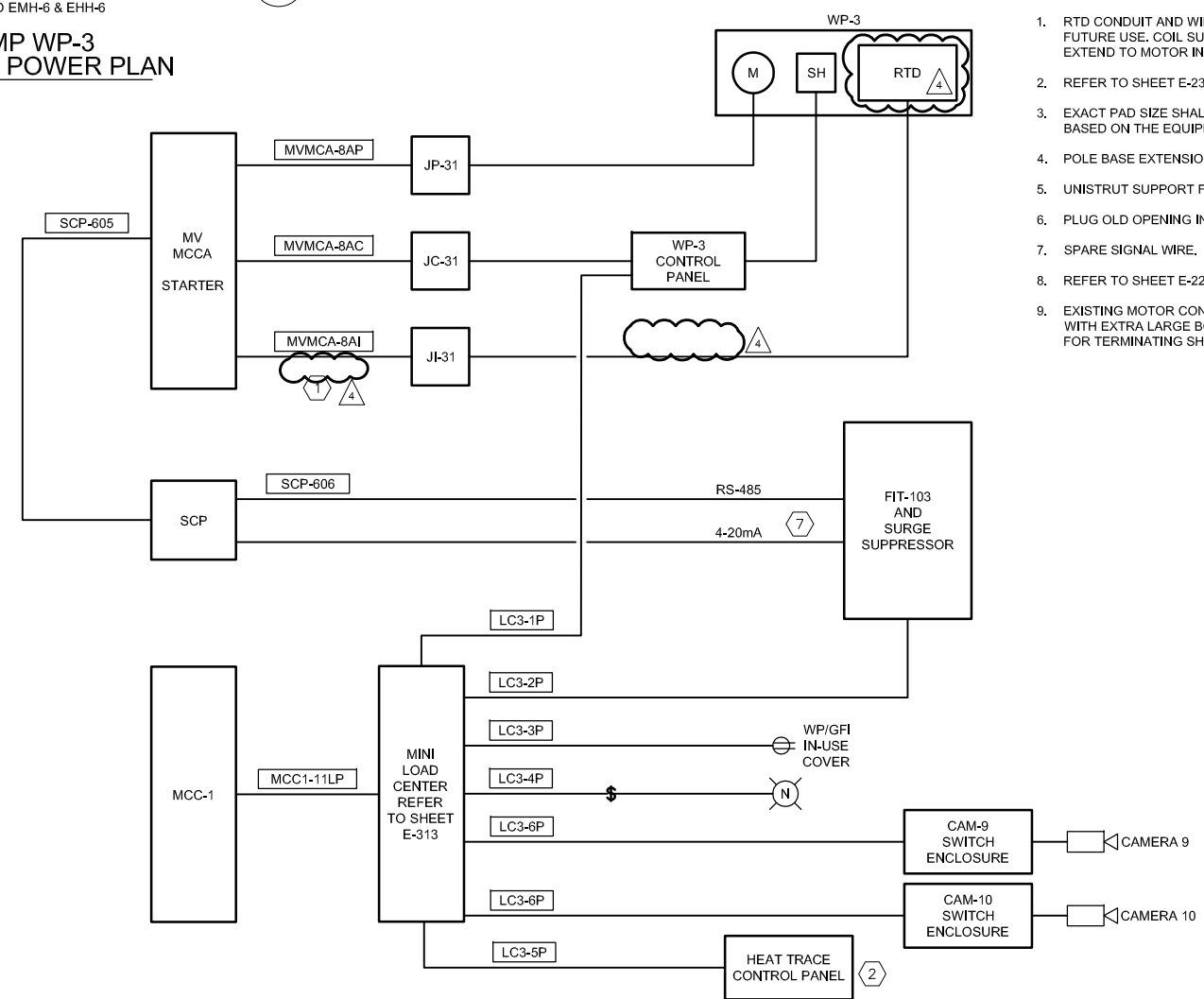
**WELL PUMP WP-3
MODIFIED POWER PLAN**
SCALE: 1/4"=1'-0"



WELL PUMP NO.3 PHOTO



DETAIL A
SCALE: 1"=1'-0"



WP-3 RISER DIAGRAM

- NOTES:**
- RTD CONDUIT AND WIRE SHALL BE INSTALLED FOR FUTURE USE. COIL SUFFICIENT WIRE IN J-BOX TO EXTEND TO MOTOR IN FUTURE.
 - REFER TO SHEET E-230 FOR SCHEMATIC.
 - EXACT PAD SIZE SHALL BE ADJUSTED IN FIELD BASED ON THE EQUIPMENT SIZE.
 - POLE BASE EXTENSION IF REQUIRED.
 - UNISTRUT SUPPORT FOR CONDUIT SUPPORT.
 - PLUG OLD OPENING IN PULL BOX, IF NOT USED.
 - SPARE SIGNAL WIRE.
 - REFER TO SHEET E-229 FOR SCHEMATIC.
 - EXISTING MOTOR CONDUIT BOX TO BE REPLACES WITH EXTRA LARGE BOX WITH BUS BARS SUITABLE FOR TERMINATING SHIELDED CABLES.

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
Δ	10/19/16	ADDENDUM NO.4	VKG

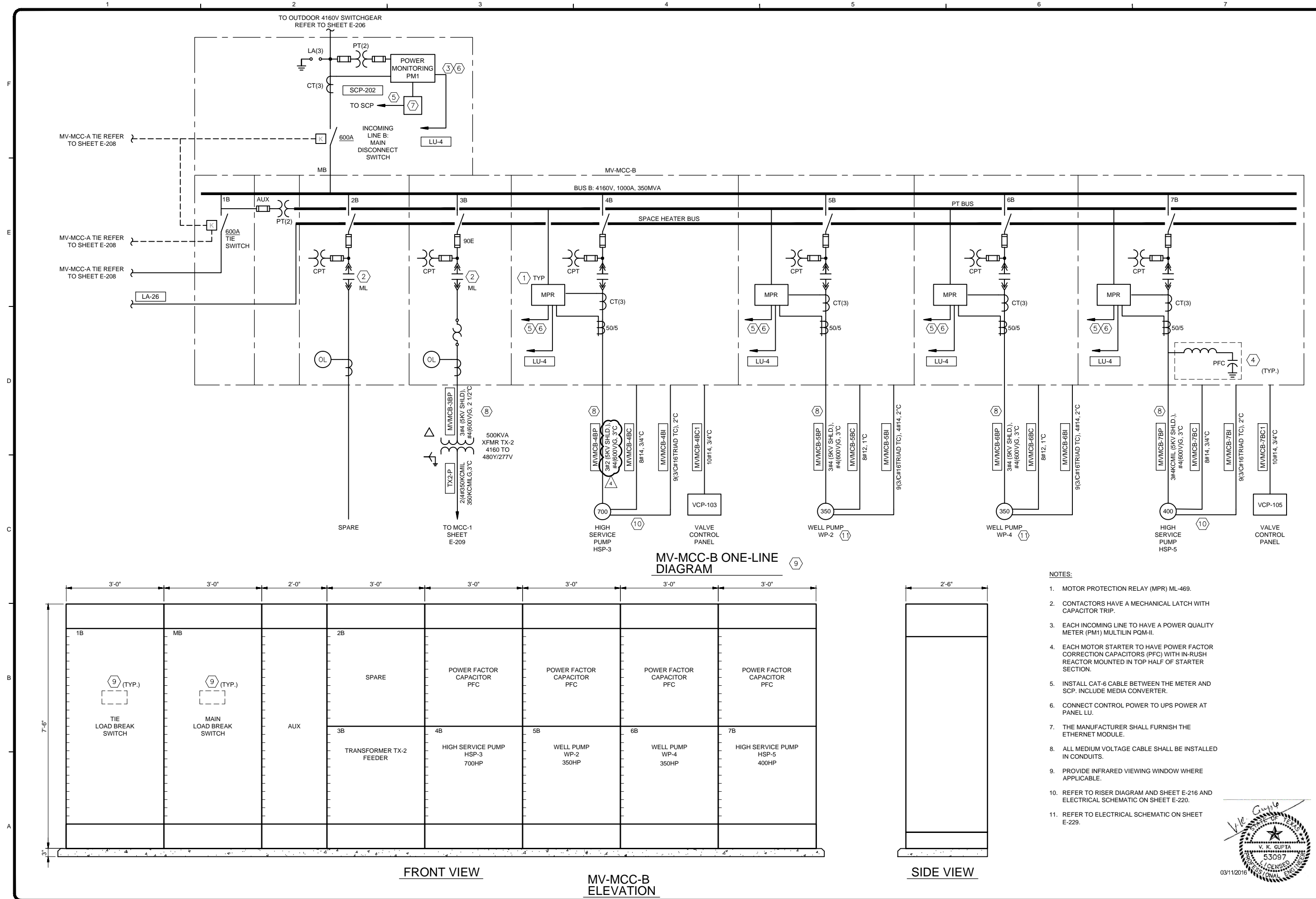
SAN ANTONIO WATER SYSTEM
34TH STREET PUMP STATION
IMPROVEMENTS PROJECT
**WELL PUMP NO.3
ELECTRICAL PLAN
& DETAILS**

SAWS Job No.: 13-6004
Designed By: LP
Drawn By: MAC
Checked By: VKG



E-115

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SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
▲	10/19/16	ADDENDUM NO.4	VKG

SAN ANTONIO WATER SYSTEM
34TH STREET PUMP STATION
IMPROVEMENTS PROJECT

MV-MCC-B ELECTRICAL ONE-LINE DIAGRAM & ELEVATION VIEW

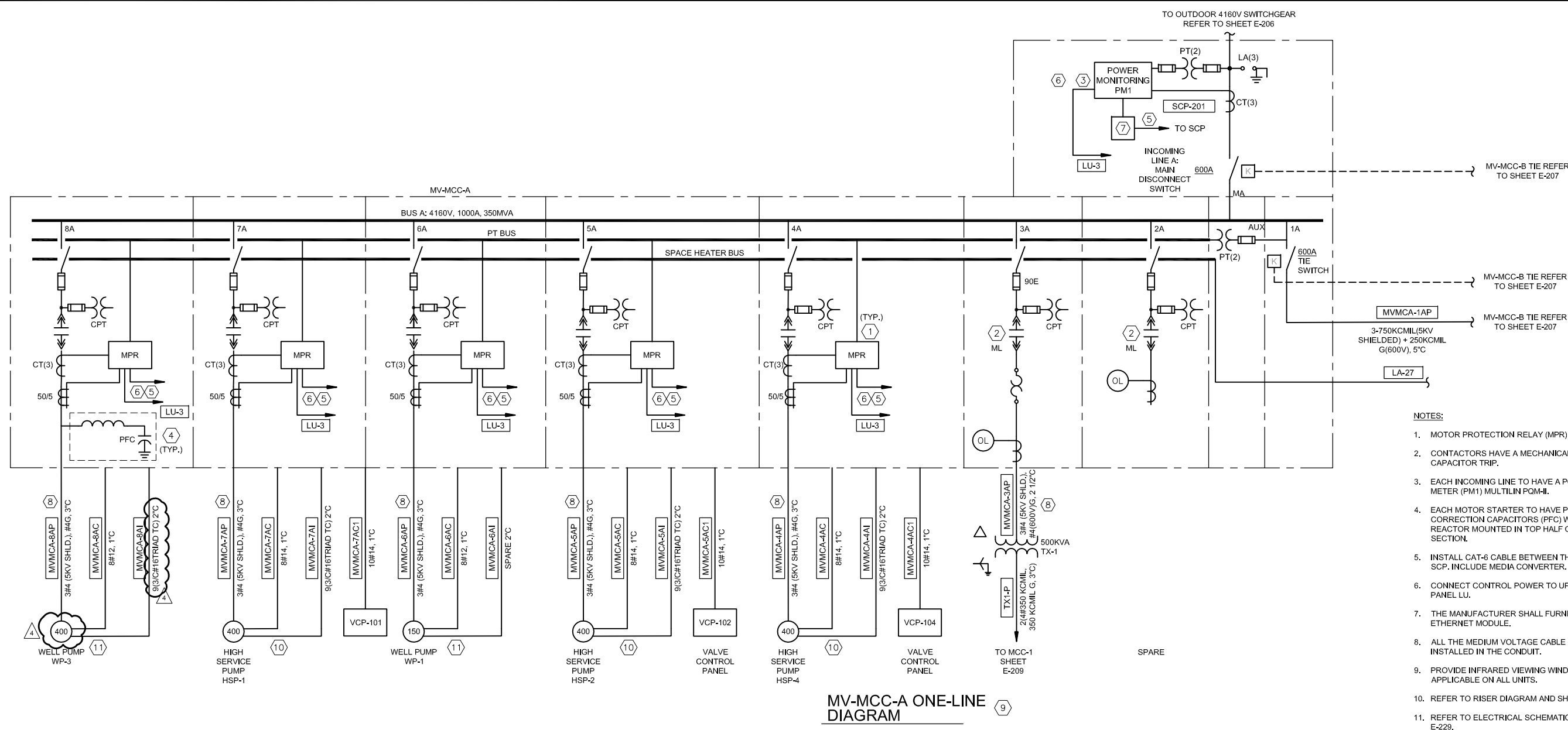
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Designed By: LP
Drawn By: MAC
Checked By: VKG

03/11/2016

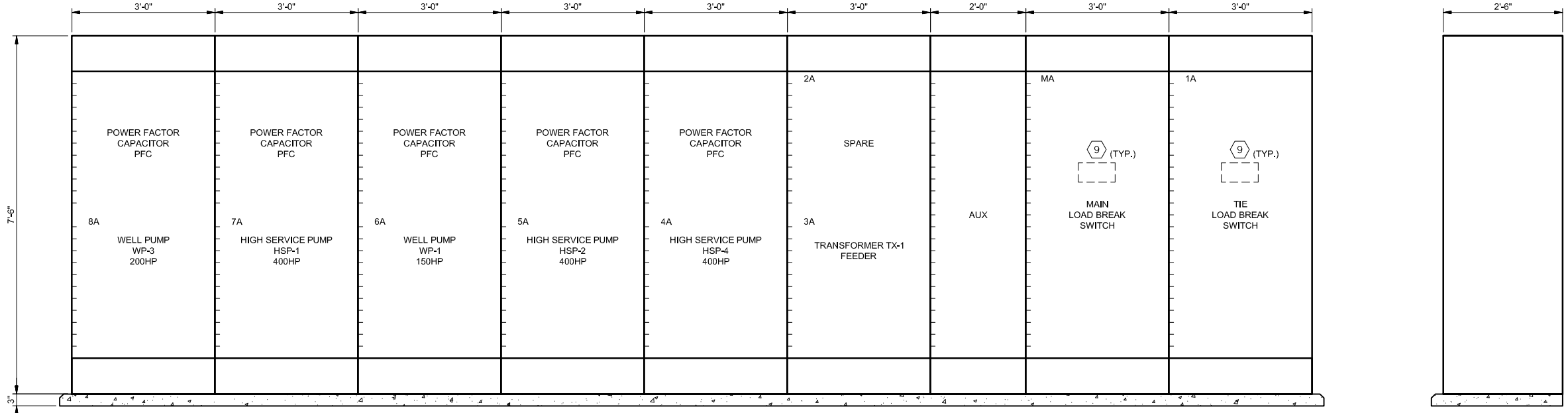
E-207

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- NOTES:**
1. MOTOR PROTECTION RELAY (MPR) ML-469.
 2. CONTACTORS HAVE A MECHANICAL LATCH WITH CAPACITOR TRIP.
 3. EACH INCOMING LINE TO HAVE A POWER QUALITY METER (PM1) MULTILIN PQM-II.
 4. EACH MOTOR STARTER TO HAVE POWER FACTOR CORRECTION CAPACITORS (PFC) WITH IN-RUSH REACTOR MOUNTED IN TOP HALF OF STARTER SECTION.
 5. INSTALL CAT-6 CABLE BETWEEN THE METER AND SCP. INCLUDE MEDIA CONVERTER.
 6. CONNECT CONTROL POWER TO UPS POWER AT PANEL LU.
 7. THE MANUFACTURER SHALL FURNISH THE ETHERNET MODULE.
 8. ALL THE MEDIUM VOLTAGE CABLE SHALL BE INSTALLED IN THE CONDUIT.
 9. PROVIDE INFRARED VIEWING WINDOW WHERE APPLICABLE ON ALL UNITS.
 10. REFER TO RISER DIAGRAM AND SHEET E-216
 11. REFER TO ELECTRICAL SCHEMATIC ON SHEET E-229.



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SAN ANTONIO WATER SYSTEM

34TH STREET PUMP STATION
IMPROVEMENTS PROJECT

**MV-MCC-A ELECTRICAL
ONE-LINE DIAGRAM &
ELEVATION VIEW**

MARK	DATE	DESCRIPTION	BY
A	10/19/16	ADDENDUM NO.4	VKG

SAWS Job No.: 13-6004

Designed By: LP

Drawn By: MAC

Checked By: VKG

E-208

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