



-----Original Message-----

From: BODOUR, ADRIA A CIV USAF HAF AFCEC/CZRX [mailto:adria.bodour.1@us.af.mil]
Sent: Friday, December 16, 2016 10:07 AM
To: Agnew, Diane, NMENV <Diane.Agnew@state.nm.us>
Cc: Devon Jercinovic <djercinovic@eaest.com>; Simpler, Trent (Trent.Simpler@usace.army.mil)
<Trent.Simpler@usace.army.mil>; Mark Phaneuf (mark.j.phaneuf@usace.army.mil)
<mark.j.phaneuf@usace.army.mil>; Dreeland, Linda SPA (Linda.Dreeland@usace.army.mil)
<Linda.Dreeland@usace.army.mil>; Salazar, Carlos F CIV USARMY CESPA (US)
<Carlos.F.Salazar@usace.army.mil>; SANCHEZ, AMY ELIZABETH CIV USARMY CESPA (US)
<Amy.E.Sanchez@usace.army.mil>; Julie McNeill (jmcneill@portageinc.com)
<jmcneill@portageinc.com>; LYNNES, KATHRYN D HQE USAF AFGSC 377 MSG/SAF/IEE
<kathryn.lynnes@us.af.mil>; CLARK, SCOTT C GS-13 USAF AFCEC/CZO <scott.clark@us.af.mil>;
DEVERGIE, SUZANNE C GS-12 USAF AFCEC AFCEC/CZOW <suzanne.devergie@us.af.mil>
Subject: Requesting NMED Approval for Sand Filter Designs Before Submittal of Work Plan Revision 2

Diane,

The Air Force is requesting approval from New Mexico Environment Department for the sand filters designs (see attached) that will be installed at the Kirtland Air Force Base Bulk Fuels Facility groundwater treatment system (GWTS). These sand filters are needed to bring extraction well KAFB-106233 back online and to improve the operational effectiveness of the GWTS as we start operating extraction well KAFB-106239.

The sand filter designs will be in Revision 2 of the "Work Plan for Bulk Fuels Facility Expansion of the Dissolved-Phase Plume Groundwater Treatment System Design (Work Plan)" in Appendix B. However, we needed to request this before the submittal of the Work Plan in January 2017 to expedite the nine-week lead time on sand filter manufacturing once ordered. This approval will allow us to keep on target with bring back online KAFB-106233, and prevent this similar operational issues when we bring extraction well KAFB-106239 online.

If you have any questions or concerns, please let me know.

Thanks, Adria

\\Signed\\

ADRIA BODOUR, PH.D., GS-13

Program Manager, Central Region Restoration Branch (CZRX) Air Force Civil Engineer Center (AFCEC)

Comm. (210) 748-4035

KAFB4558

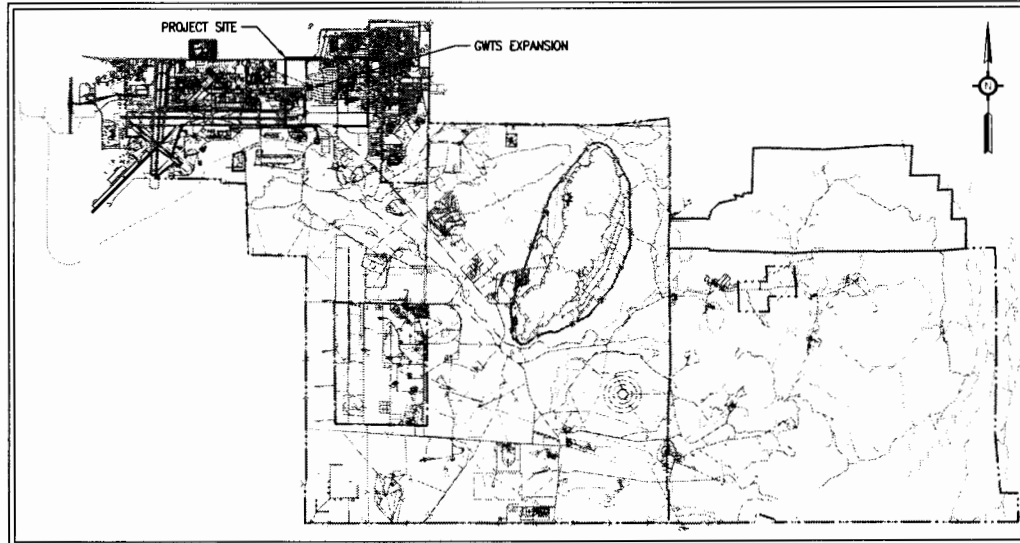


BULK FUELS FACILITY GROUNDWATER TREATMENT SYSTEM 5460 SAND FILTER DESIGN*

KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO
CONTRACT No. W912DR-12-D-0006
DELIVERY ORDER DM01

DRAWING INDEX:

CIVIL	PIPING	ELECTRICAL
DRAWING NO. C-001	DRAWING NO. P-001 P-101 P-201	DRAWING NO. E001 E101
DRAWING TITLE COVER SHEET AND DRAWING INDEX	DRAWING TITLE EQUIPMENT NOTES AND SCHEDULES EQUIPMENT PLAN EQUIPMENT SECTIONS	DRAWING TITLE SAND FILTER ELECTRICAL SERVICE CP-100 CONTROL PANEL COMMUNICATION DIAGRAM



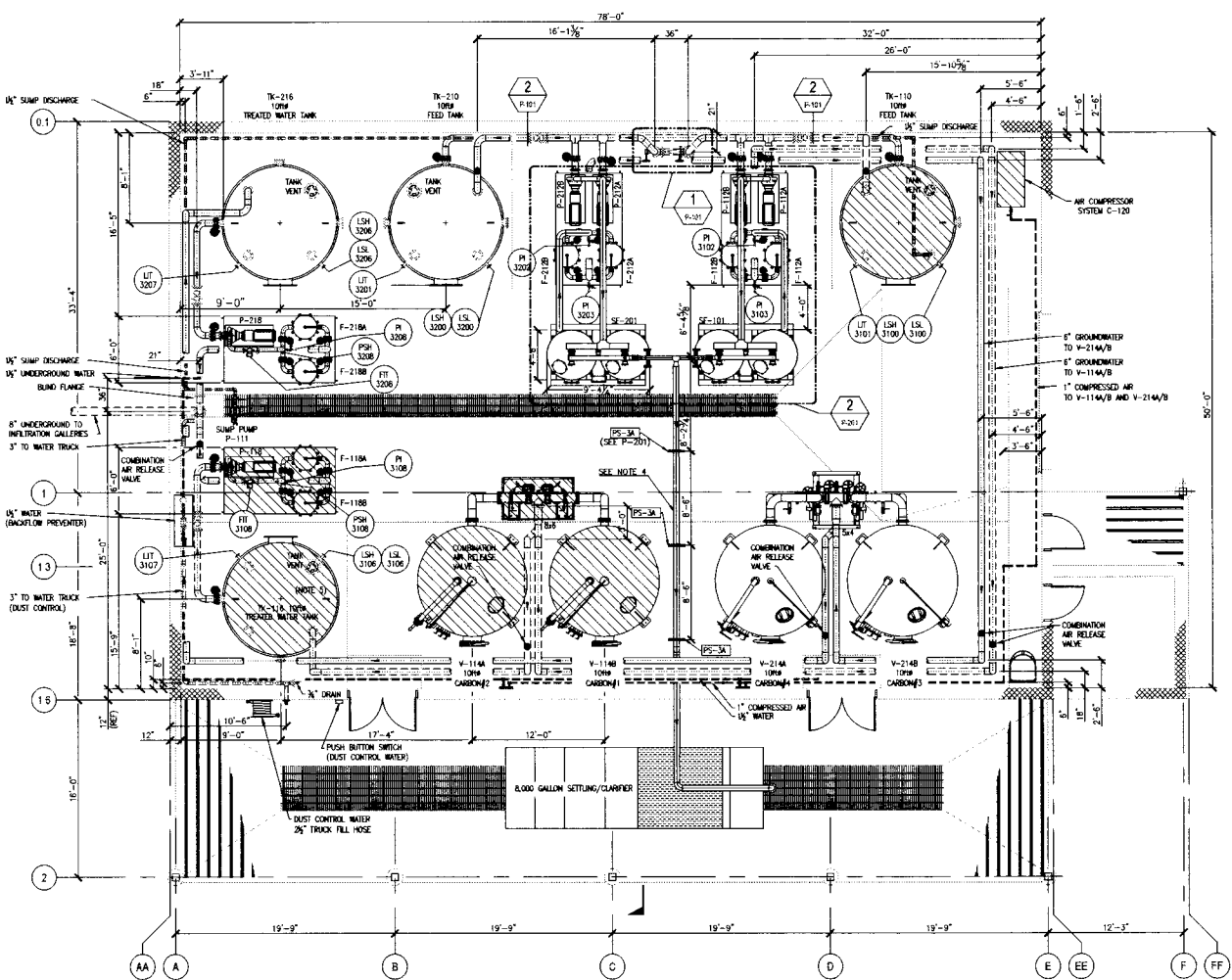
PROJECT LOCATION MAP

NOTE

THE ORIGINAL DESIGN DRAWINGS AND SPECIFICATIONS FOR THE KIRTLAND BULK FUELS FACILITY (BFF) GROUND WATER TREATMENT SYSTEM (GWTS) WERE PREPARED BY CHICAGO BRIDGE & IRON COMPANY (CB&I). THE ORIGINAL DRAWINGS ARE TITLED "PHASE M MID-PHASE PUMP & TREAT SYSTEM", CONTRACT NO. W912DR-10-D-0014 DATED 01/09/15. DRAWINGS FOR GWTS SAND FILTER DESIGN THAT SHOW EQUIPMENT TO BE INSTALLED HAVE BEEN CARRIED FORWARD AND ARE PROVIDED HERE FOR CONSTRUCTION. FOR TECHNICAL SPECIFICATIONS, SEE CB&I KIRTLAND AIR FORCE BASE PHASE M (TREATMENT PLANT) MID PHASE PUMP AND TREAT SYSTEM TECHNICAL SPECIFICATIONS DATED 03/13/15.

NO.	DATE	BY	DESCRIPTION
DESIGNED BY	HLD		
DRAWN BY			
CHECKED BY	LLP		
PROJECT MANAGER			
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED OR APPROVED BY ME AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW MEXICO UNDER NO. LICENSE NUMBER 62599DM01 EXPIRATION DATE 03/31/2021			
BULK FUELS FACILITY GROUNDWATER TREATMENT SYSTEM 5460 SAND FILTER DESIGN BERNALILLO COUNTY, NEW MEXICO			
COVER SHEET AND DRAWING INDEX			
EA Engineering, Science, and Technology, Inc. PBC 221 Sun Valley Boulevard, Suite D Lincoln, NE 68508 (402) 476-3766			
DATE: DECEMBER 2016			
PROJECT NUMBER: 62599DM01			
C-001			
SHEET: 1 OF 6			

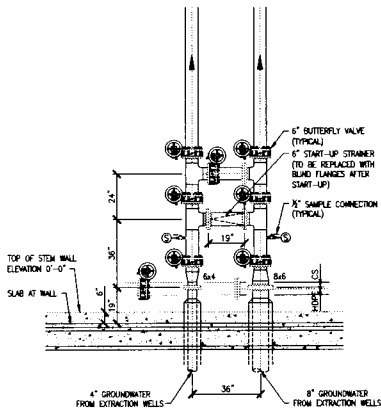
FILE PATH: P:\UTS\BULK_FUELS_TREATMENT_SYSTEM\DESIGN\12-001_COVER_SHEET.dwg (JPG) 12/16/16 10:48 AM



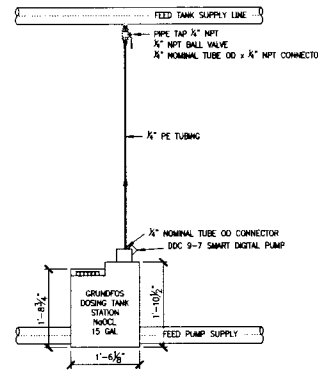
MECHANICAL EQUIPMENT PLAN
SCALE: 3/16" = 1'-0"



- NOTES:**
- EXISTING EQUIPMENT IS SHOWN HATCHED.
 - EXISTING PIPING IS SHOWN DASHED.
 - ALL EQUIPMENT SHALL BE INSTALLED AND ANCHORED PER O&M PHASE IV AND PILING, PUMP AND TREAT SYSTEM STRUCTURAL DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS.
 - LOCATE BACKWASH LINE AT MIDPOINT BETWEEN BAR JOISTS, FIELD VERIFY.



DETAIL 1
P-101
ORIGINAL SCALE 3/8" = 1'-0"

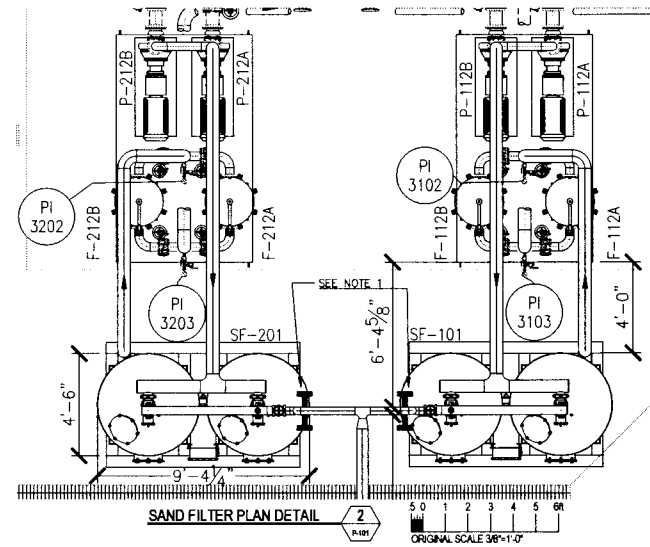
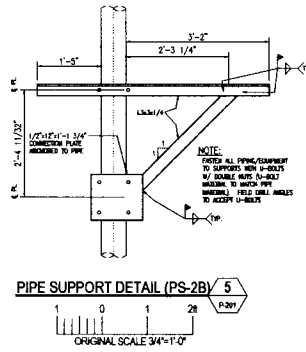
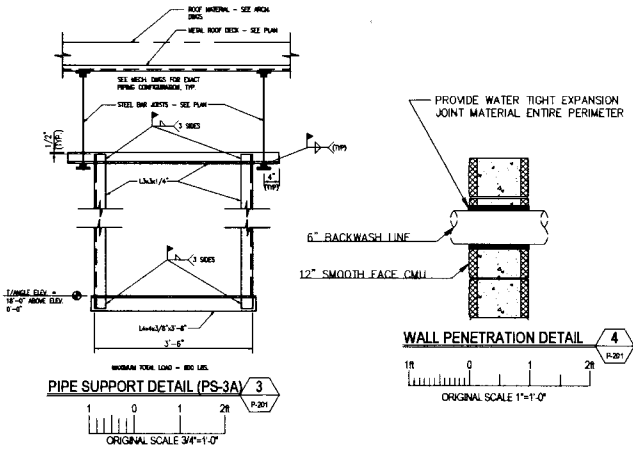
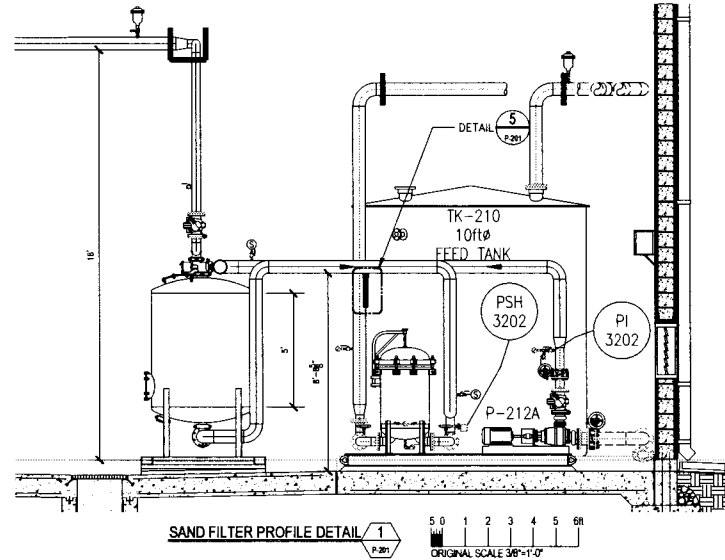
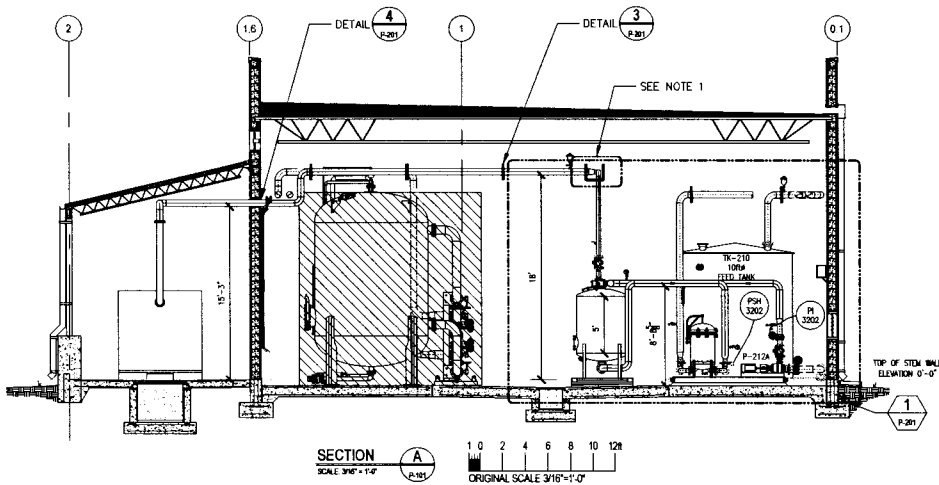


CHLORINE INJECTOR DETAIL CI-101/CI-102 2
P-101
ORIGINAL SCALE 3/4" = 1'-0"

REVISIONS NO. DATE BY	
LOCATION INFORMATION DRAWING NO. 2117 PROJECT NO. 62259DM01 PROJECT MANAGER DE	
GROUNDWATER TREATMENT SYSTEM 5460 SAND FILTER DESIGN BULK FUELS FACILITY KIRTLAND AFB, NEW MEXICO EQUIPMENT PLAN	
EA Engineering, Science, and Technology, Inc., PBC 221 Sun Valley Boulevard, Suite D Lincoln, NE 68528 (402) 476-3766	
DATE: DECEMBER 2016 PROJECT NUMBER: 62259DM01 P-101 SHEET: 3 OF 6	

NOTES:

1. WELD 1/4 x 4 x 3/8 x 2'-0" BETWEEN 2 PS-3A PIPE SUPPORTS.



NO.	DATE	BY	DESCRIPTION								
<table border="1"> <tr> <td>DESIGNED BY:</td> <td>HLD</td> </tr> <tr> <td>DRAWN BY:</td> <td>ML</td> </tr> <tr> <td>CHECKED BY:</td> <td>LLR</td> </tr> <tr> <td>PROJECT MANAGER:</td> <td>DEJ</td> </tr> </table>				DESIGNED BY:	HLD	DRAWN BY:	ML	CHECKED BY:	LLR	PROJECT MANAGER:	DEJ
DESIGNED BY:	HLD										
DRAWN BY:	ML										
CHECKED BY:	LLR										
PROJECT MANAGER:	DEJ										
<p>PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW MEXICO. LICENSE NO. 16366, EXPIRES 12/31/2024.</p>											
<p style="text-align: center;">L. BECKER LICENSED PROFESSIONAL ENGINEER NEW MEXICO 16366</p>											
<p>BULK FUELS FACILITY GROUNDWATER TREATMENT SYSTEM 5460 SAND FILTER DESIGN BERNALILLO COUNTY, NEW MEXICO</p>											
<p>EQUIPMENT SECTIONS SHEET</p>											
<p>EA EA Engineering, Science, and Technology, Inc., PBC 221 Sun Valley Boulevard, Suite D Lincoln, NE 68528 (402) 476-3766</p>											
<p>DATE: DECEMBER 2016 PROJECT NUMBER: 625990W01</p>											
<p>P-201 SHEET: 4 OF 6</p>											

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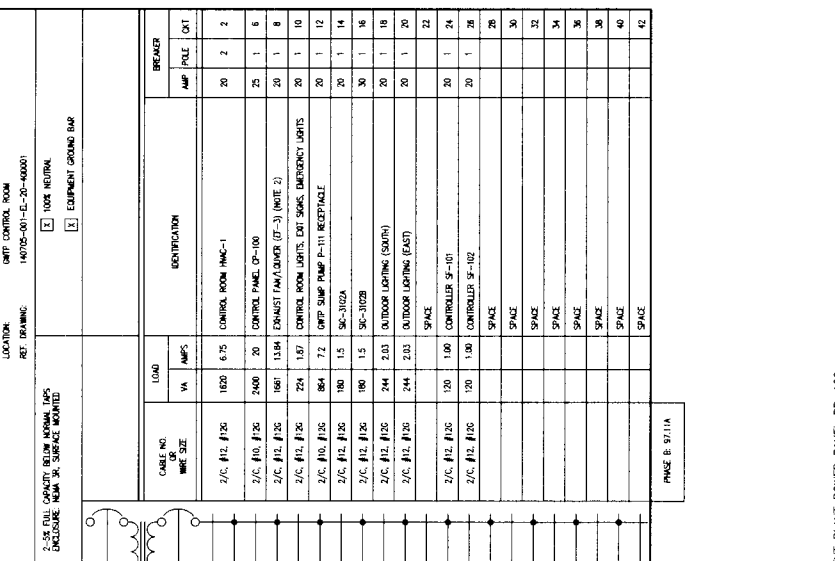
ELECTRICAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING GENERAL ELECTRICAL NOTES.
2. ALL WORK SHALL BE ACCORDING TO THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL OTHER APPLICABLE CODES AND STANDARDS. THE SPECIFICATIONS AND NOTES SHALL BE INTERPRETED TO CONFORM WITH THE ABOVE MENTIONED CODES AND STANDARDS. ANY DISCREPANCY BETWEEN THE SPECIFICATIONS AND NOTES SHALL BE RESOLVED BY THE CONTRACTOR.
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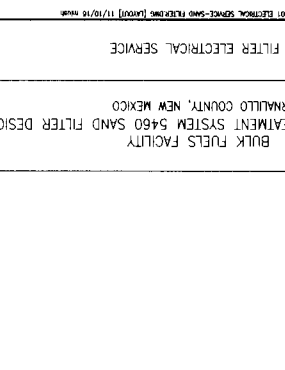
WATER TREATMENT PLANT



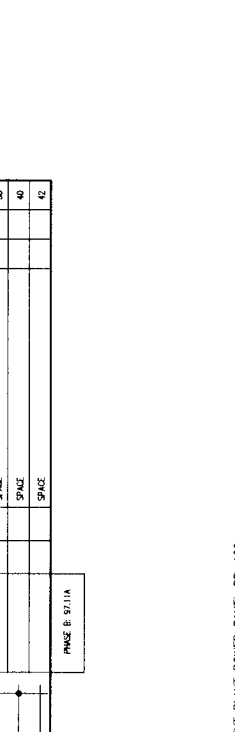
WATER TREATMENT PLANT

CIRCUIT	POLE	BREAKER	LOAD		CABLE NO.	WIRE SIZE	DESCRIPTION		BREAKER
			VA	AMPS			AMP	POLE	
1	20	1	180	1.5	2/C, #12, #10	244	RECEIPIALES (CENTRAL ROOM)	20	2
3	20**	1	540	4.5	2/C, #12, #10	244	RECEIPIALES (CENTRAL ROOM)	20	2
5	20	1	1661	13.84	2/C, #12, #10	244	EXHAUST FAN/CLAMPER (E2-2) (NOTE 2)	20	1
7	25	1	2094	17.45	2/C, #10, #10	244	OWTP AREA LIGHTING (ZONE 1)	20	1
9	20	1	1794	14.95	2/C, #12, #10	244	OWTP AREA LIGHTING (ZONE 2)	20	1
11	25	1	2400	20	2/C, #10, #10	244	RECEIPIALES (OWTP AREA)	20	1
13	20**	1	1620	13.5	2/C, #12, #10	244	RECEIPIALES (OWTP AREA)	20	1
15	20	1	1661	13.84	2/C, #12, #10	244	EXHAUST FAN/CLAMPER (E2-1) (NOTE 2)	20	1
17	20	2	1820	6	2/C, #12, #10	244	ROLL UP DOOR	30	1
21							SPACE		
23	25	1	101	0.84	2/C, #12, #10	244	COMPRESSOR S-101	20	1
25	25	1	101	0.84	2/C, #12, #10	244	COMPRESSOR S-102	20	1
27	10	1	120	1.00	2/C, #12, #10	244	CHLORINE INJECTOR/ANALYZER CH-101	20	1
29	10	1	120	1.00	2/C, #12, #10	244	CHLORINE INJECTOR/ANALYZER CH-102	20	1
31							SPACE		
33							SPACE		
35							SPACE		
37							SPACE		
39							SPACE		
41							SPACE		

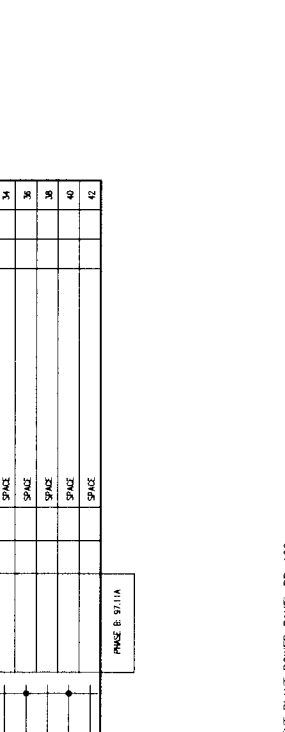
WATER TREATMENT PLANT



WATER TREATMENT PLANT



WATER TREATMENT PLANT



SAND FILTER ELECTRICAL SERVICE

BULK FUELS SYSTEM 5460 SAND FILTER DESIGN

GROUNDWATER TREATMENT PLANT NEW MEXICO

EA Engineering, Science, and Technology, Inc., P.E.C.
221 San Mateo Parkway, Suite 300
Albuquerque, NM 87102
(505) 476-3766

DATE: DECEMBER 2016
PROJECT NUMBER: 6259392001

E-001
SHEET: 5 OF 6

NO. DATE BY
REVISIONS

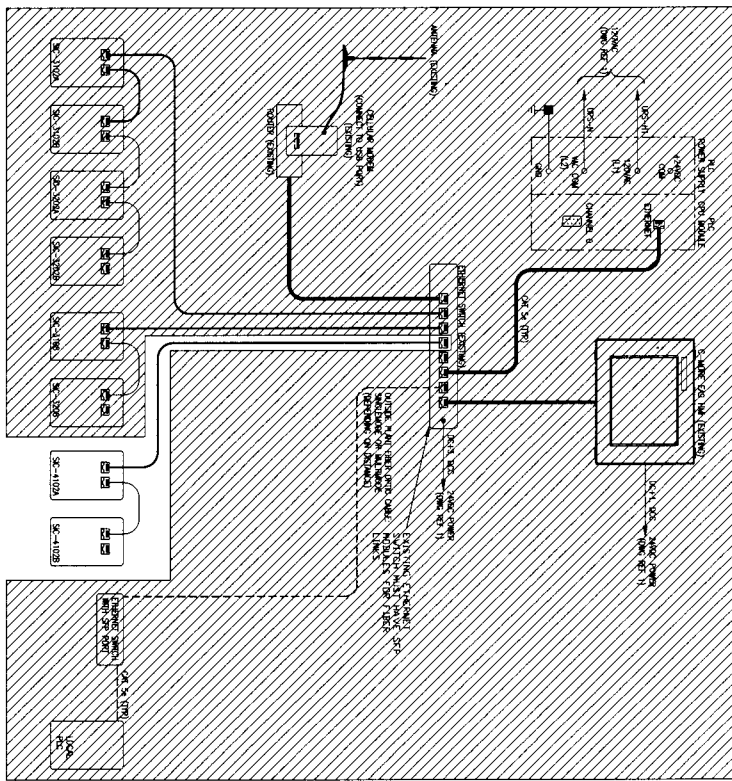
DESIGNED BY: H.S.B.
CHECKED BY: M.L.
PROJECT MANAGER: D.C.

LOCATION: WTP CONTROL ROOM
REF: DRAWING: 140705-01-E-20-00001

2-5% FULL CAPACITY BELOW NORMAL LIPS
ENCLOSURE NEMA 3R, SURFACE MOUNTED

100% RETURN

1 EQUIPMENT GROUND BAR



LEGEND

- CONTROL PANEL CP-100 TERMINATION
- EXTERNAL WIRING
- INTERNAL WIRING
- ▨ EXISTING EQUIPMENT

EA
 EA Engineering Science
 and Technology, Inc. (PBC)
 221 San Valley Boulevard, Suite D
 Alamo, NM 87506
 (505) 765-5700

DATE: DECEMBER 2016
 PROJECT NUMBER: 62590001

E-101
 SHEET 8 OF 8

BULK FUELS FACILITY
 GROUNDWATER TREATMENT SYSTEM 5460 SAND FILTER DESIGN
 BERNALILLO COUNTY, NEW MEXICO

CP-100 CONTROL PANEL COMMUNICATION DIAGRAM

NO.	DATE	BY	REVISIONS	
			DESCRIPTION	
DESIGNED BY:	HLB			
DRAWN BY:	ML			
CHECKED BY:	LLR			
PROJECT MANAGER:	DEJ			

SEA
 HERBERT L. BECKER
 NEW MEXICO
 21117
 PROFESSIONAL ELECTRICAL ENGINEER