

Apache Notrees Compressed Natural Gas (CNG) Fueling Station CNG #2



12001 W. Highway 302
Notrees, Texas 79759

November 30, 2009

"Building to Last"

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4vCompressor Dryer
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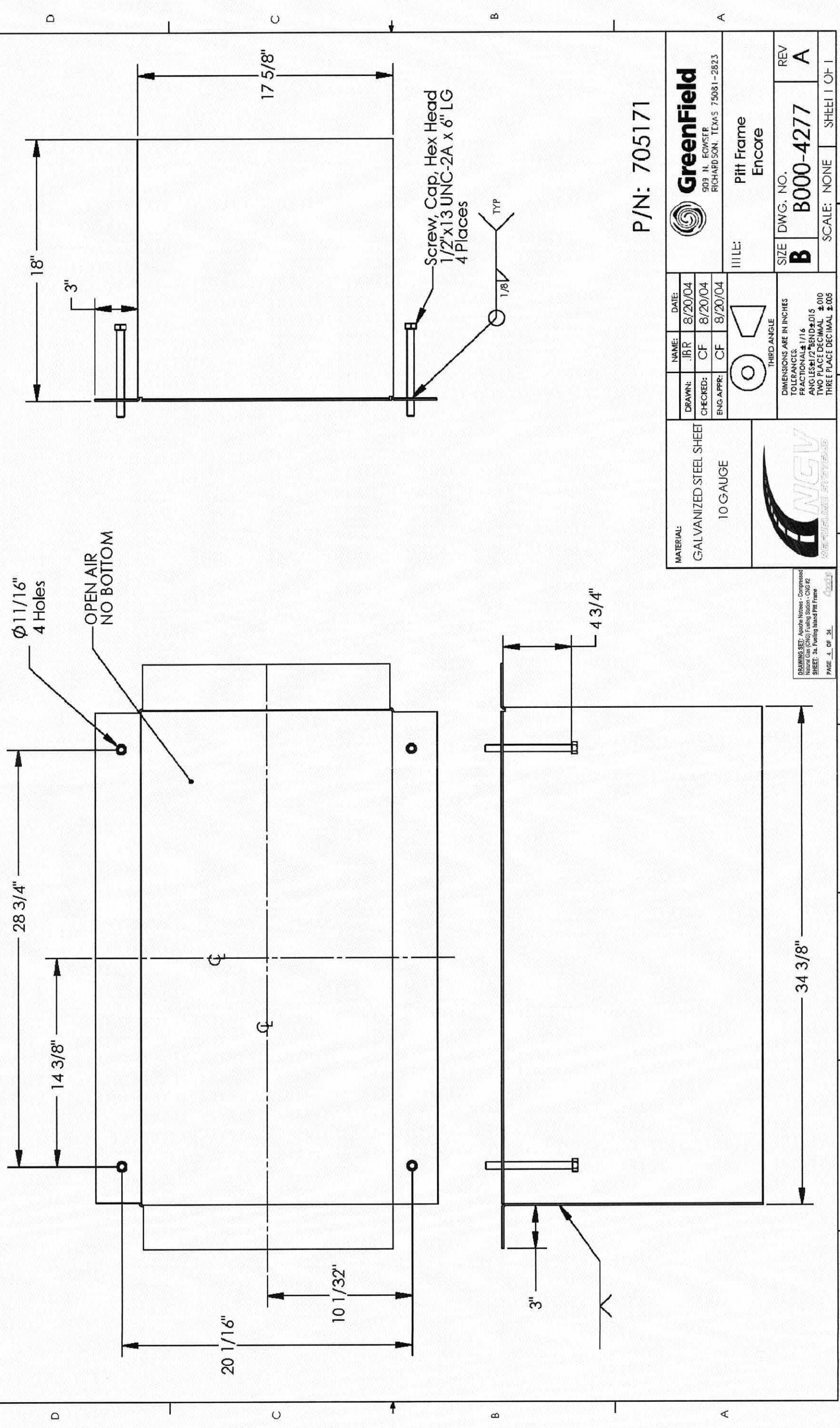
PROJECT SUPPORT

Apache Notrees Field Office
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903.387.0877 (mobile)
Apache Central Region - Tulsa
Tim Tomlinson, Project Manager
918.491.4820
Larry Brunzman, Project Coordinator
918.491.4956

DRAWING SET: Apache Notrees - Compressed
Natural Gas (CNG) Fueling Station - CNG #2
SHEET: 1, Title Sheet
PAGE: 1, OF 34

1 2 3 4 5 6 7 8

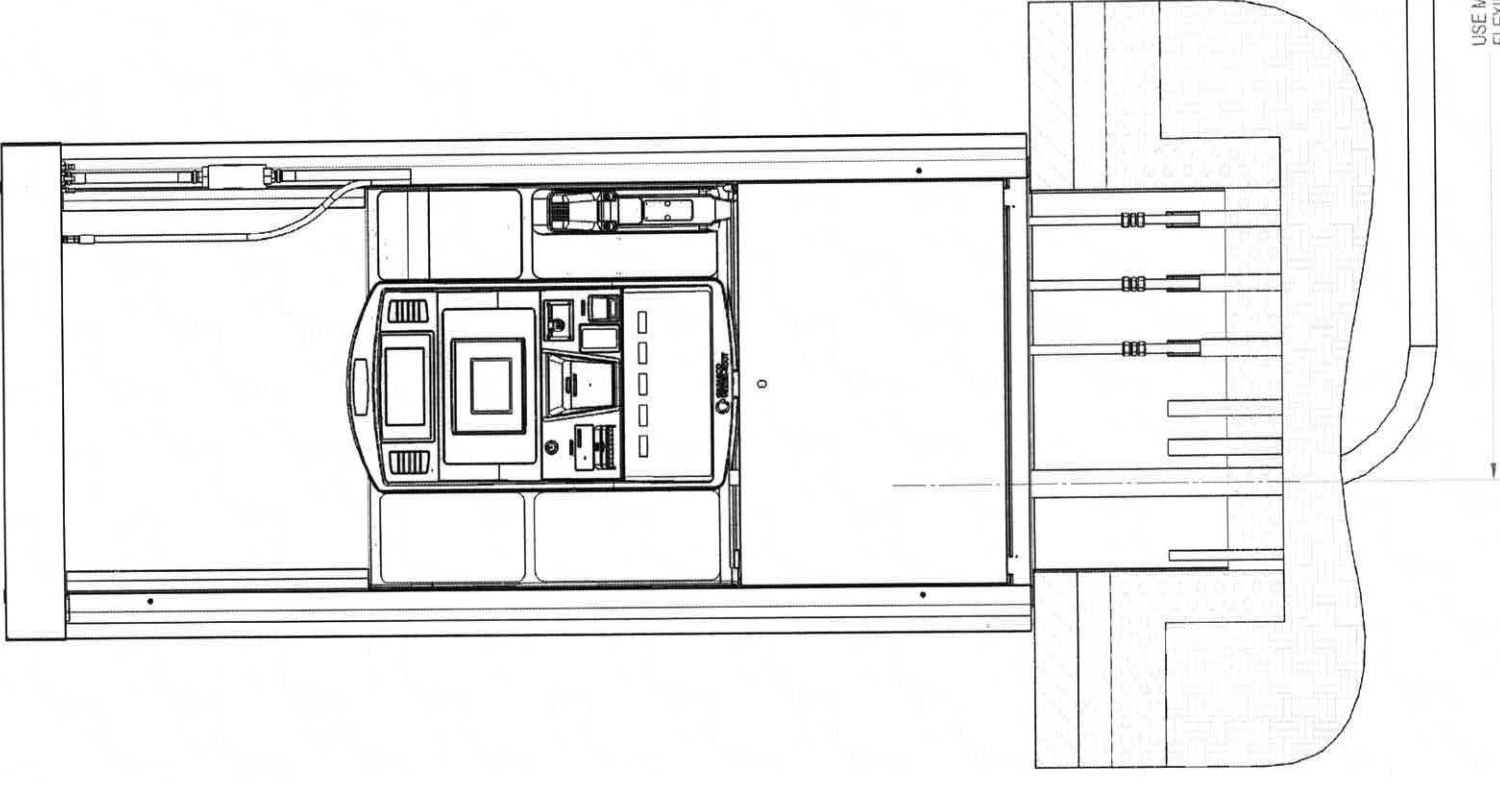
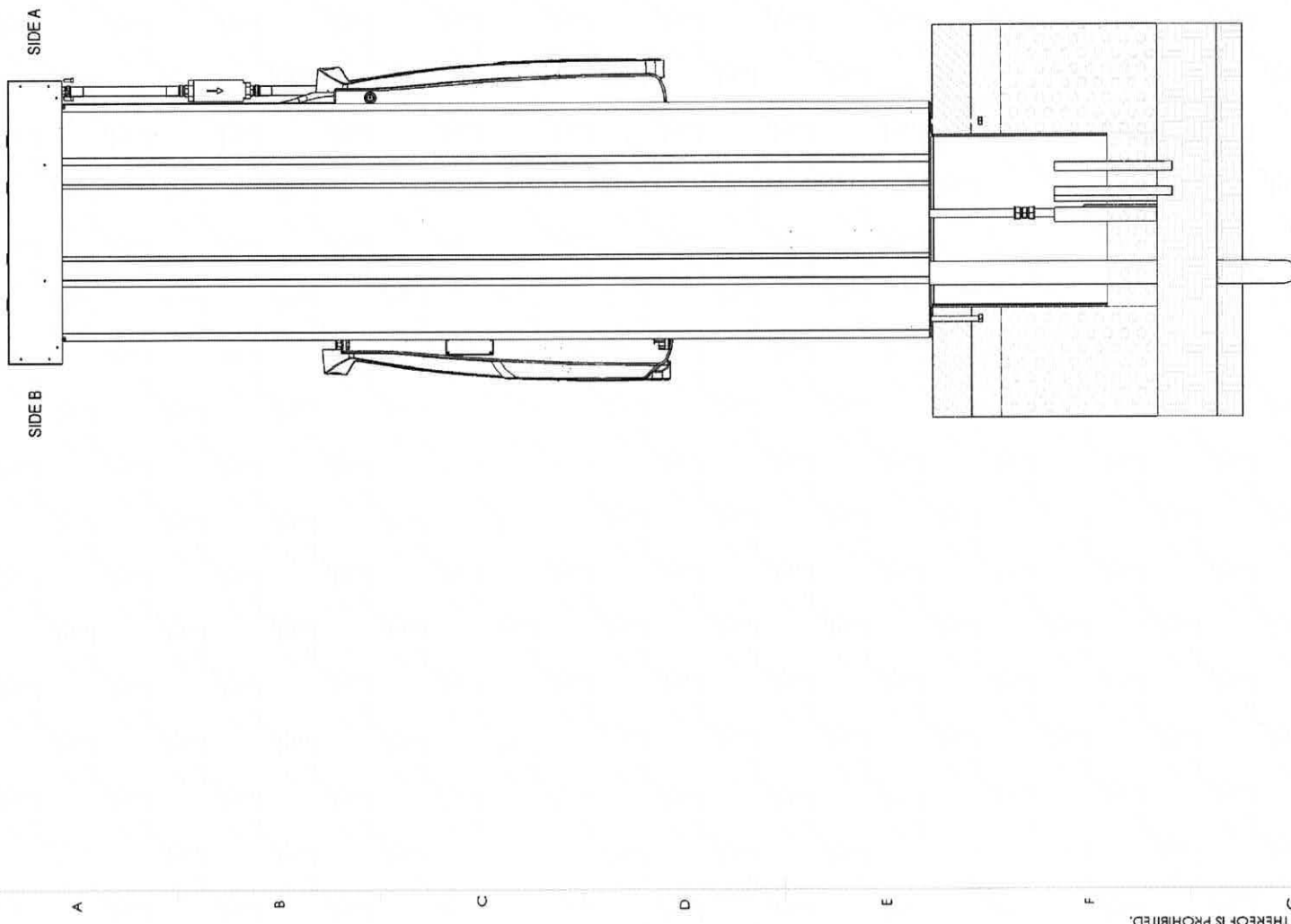
REVISIONS		DATE	APPROVED
REV. A	DESCRIPTION Approved for Construction	8/20/04	CF



P/N: 705171

<p>GreenField 909 N. EOWSEFF RICHARDSON, TEXAS 75081-2823</p>		<p>IIIILE: Pitt Frame Encore</p>	
<p>MATERIAL: GALVANIZED STEEL SHEET 10 GAUGE</p>		<p>THIRD ANGLE</p>	
<p>NAME: JBR</p>	<p>DATE: 8/20/04</p>	<p>DIMENSIONS ARE IN INCHES FRACTIONAL ± 1/16 ANGLES ± 1/2° BEND ± 0.15 TWO PLACE DECIMAL ± 0.010 THREE PLACE DECIMAL ± 0.005</p>	
<p>CHECKED: CF</p>	<p>8/20/04</p>	<p>SIZE DWG. NO. REV B B000-4277 A</p>	
<p>ENG APPR: CF</p>	<p>8/20/04</p>	<p>SCALE: NONE SHEET 1 OF 1</p>	

DRAWING SET: Apache Nitrox - Compressed Natural Gas (CNG) Filling Station - CNG R2
SHEET: 3a. Filling Island Pitt Frame
PAGE 1 OF 34



NOTES:

- 1.) PURGE FAN LOCATION MAY VARY DEPENDING ON SITE. MAY BE LOCATED ON CANOPY POST, SEPARATE PEDESTAL OR MOUNTED NEXT TO CONTROL PANEL.
- 2.) 2" PVC CONDUIT - NO COUPLINGS IN EARTH.
 2" UNDERGROUND GAS LINE LINE (YELLOW - SIMILAR TO "CHARTER PLASTICS GAS PIPE"
 #SDR11, PE-2406-CDC-ASTM-D2513-40-01-02-20 TITUSVILLE, PA)
 STUB INTO PIT FRAME - LEAVE APPROX. 1' ABOVE GRADE.
- 3.) CIVIL DETAILS ARE TYPICAL AND PROVIDED FOR EXAMPLE ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE INSTALLATION MEETS ALL APPLICABLE LOCAL CODES AND STANDARDS.

75" MAX.
 USE MAX. BEND RADIUS
 FLEXIBLE PVC CONDUIT
 NON CORRUGATED

GREENFIELD

SITE ARRANGEMENT, DISPENSER, TYPICAL ENCORE

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SERIAL NUMBER: -
 DRAWN CJ
 CHECKED DM
 APPROVED DM
 DATE 2008-09-10
 2008-09-10
 SOLIDWORKS

DIMENSIONS ARE IN INCHES
 ANGLES 1/2" BEND ± .015
 TWO DECIMAL PLACES ± .010
 THREE DECIMAL PLACES ± .005

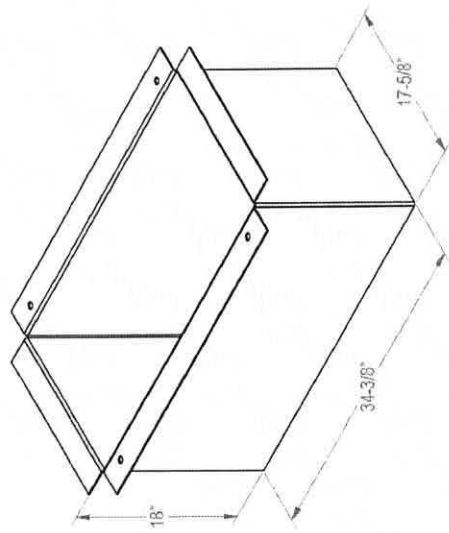
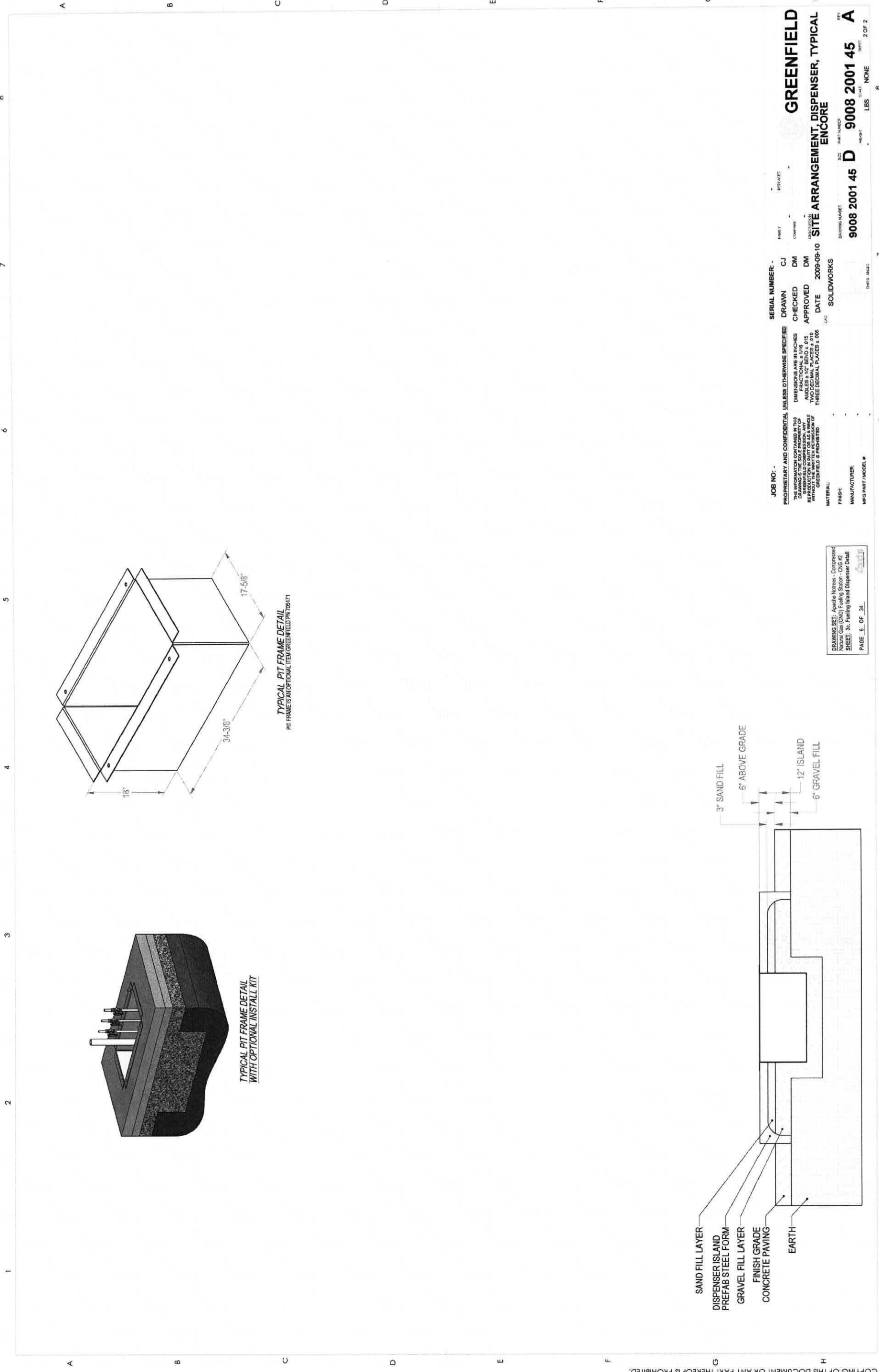
MATERIAL:
 MANUFACTURER:
 MFG PART/MODEL #:

9008 2001 45 D 9008 2001 45 A
 PART NUMBER
 SCALE NONE
 WEIGHT LBS
 REV 1 OF 2

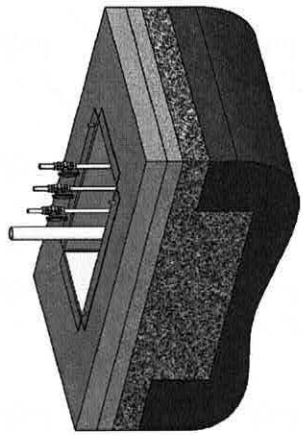
DRAWING SET: Asapha Nitrogen - Compressed
 Island (CNG) Fueling Station - CNG #2
 SHEET: 3b, Fueling Island Dispenser Detail
 PAGE 5 OF 34

REV.	DESCRIPTION	DATE	DRAWN	APPROVED
A	APPROVED FOR CONSTRUCTION	2008-09-10	CJ	DM

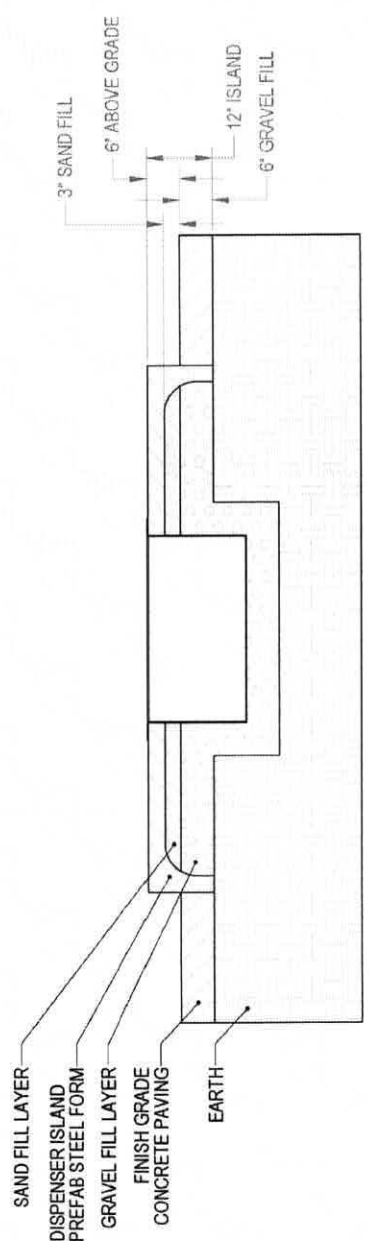
REVISIONS



TYPICAL PIT FRAME DETAIL
PIT FRAME IS AN OPTIONAL ITEM GREENFIELD PN706171



TYPICAL PIT FRAME DETAIL
WITH OPTIONAL INSTALL KIT



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SERIAL NUMBER:
DRAWN CJ
CHECKED DM
APPROVED DM
DATE 2009-09-10
SOLIDWORKS

UNITS:
DIMENSIONS ARE IN INCHES
FRACTIONAL: 1/16
DECIMAL: 0.0005
TWO DECIMAL PLACES: 0.00
THREE DECIMAL PLACES: 0.005

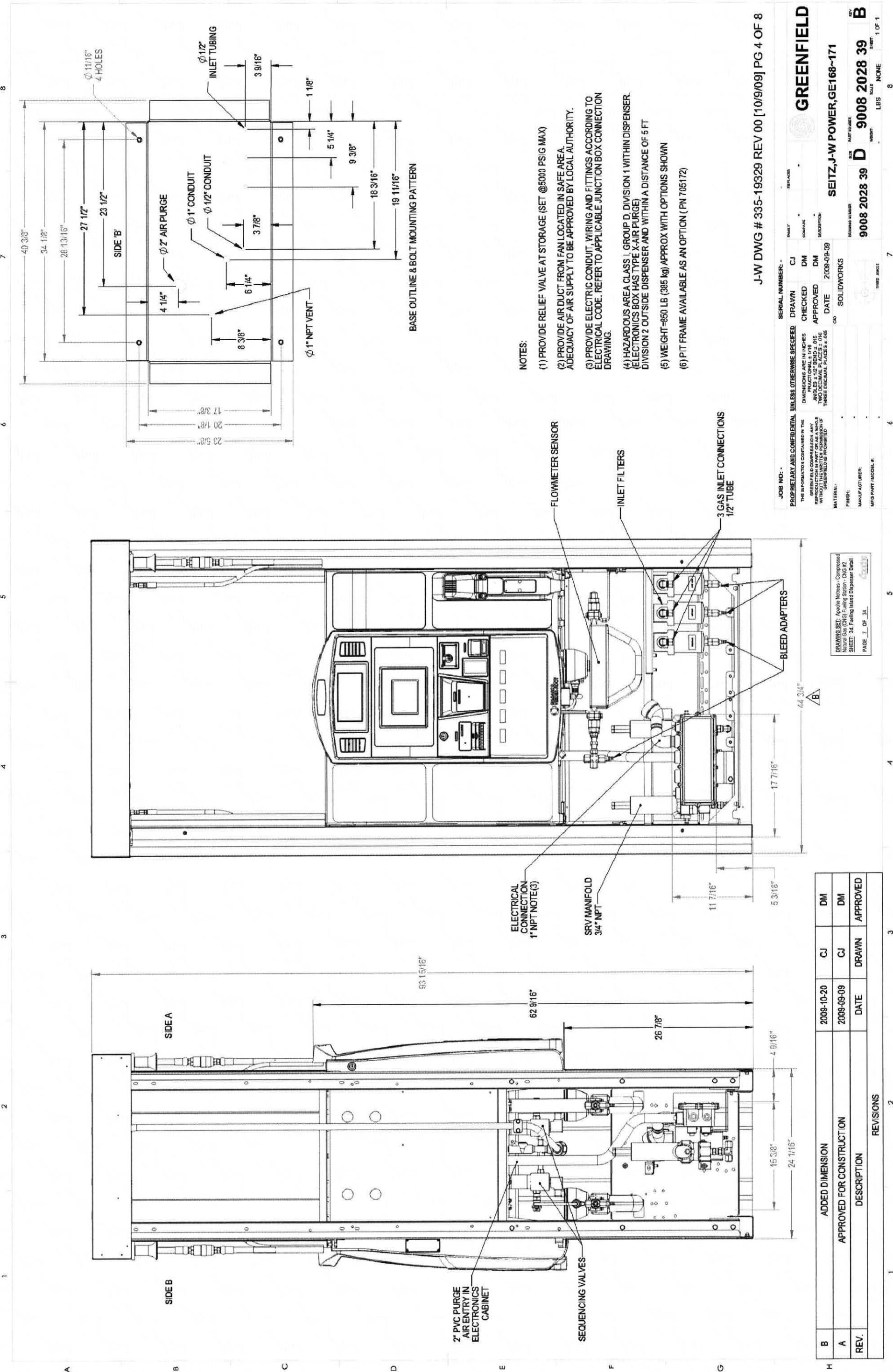
MATERIAL:
FINISH:
MANUFACTURER:
MFG PART / MODEL #

GREENFIELD
SITE ARRANGEMENT, DISPENSER, TYPICAL ENCORE

9008 2001 45 D 9008 2001 45 A

SCALE: NONE
DATE: 2009-09-10
REV: 2 OF 2

DRAWING SET: Apache Notess - Compressed
Natural Gas (CNG) Fueling Station - CNG #2
SHEET: 3c: Fueling Island Dispenser Detail
PAGE: 5 OF 34



- NOTES:**
- (1) PROVIDE RELIEF VALVE AT STORAGE (SET @5000 PSIG MAX)
 - (2) PROVIDE AIR DUCT FROM FAN LOCATED IN SAFE AREA. ADEQUACY OF AIR SUPPLY TO BE APPROVED BY LOCAL AUTHORITY.
 - (3) PROVIDE ELECTRIC CONDUIT, WIRING AND FITTINGS ACCORDING TO ELECTRICAL CODE. REFER TO APPLICABLE JUNCTION BOX CONNECTION DRAWING.
 - (4) HAZARDOUS AREA CLASS 1, GROUP D, DIVISION 1 WITHIN DISPENSER. (ELECTRONICS BOX HAS TYPE X-AIR PURGE) DIVISION 2 OUTSIDE DISPENSER AND WITHIN A DISTANCE OF 5 FT
 - (5) WEIGHT-850 LB (385 kg) APPROX WITH OPTIONS SHOWN
 - (6) PIT FRAME AVAILABLE AS AN OPTION (PN 705172)

J-W DWG # 335-19329 REV 00 [10/9/09] PG 4 OF 8

GREENFIELD

SEITZ, J-W POWER, GE168-171

DATE: 10/9/09
 DRAWN: CJ
 CHECKED: DM
 APPROVED: DM
 DATE: 2009-09-09
 SOLIDWORKS

9008 2028 39 D 9008 2028 39 B

1 OF 1

REV.	DESCRIPTION	DATE	DRAWN	APPROVED
B	ADDED DIMENSION	2009-10-20	CJ	DM
A	APPROVED FOR CONSTRUCTION	2009-09-09	CJ	DM

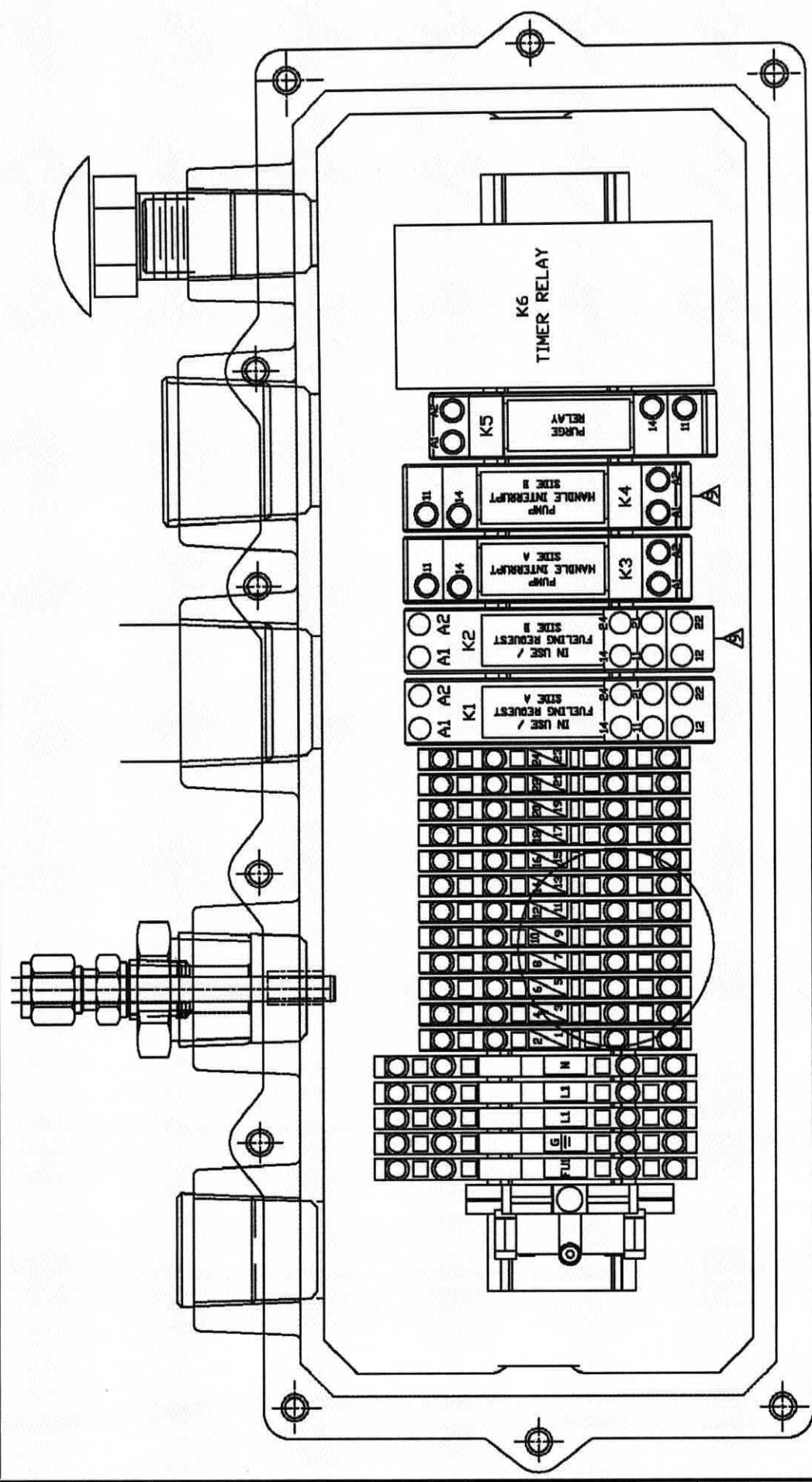
DRAWING SET: Apache Noxious - Compressed Natural Gas (CNG) Fueling Station - CNG #2 SHEET: 3d, Fueling Island Dispenser Detail PAGE: 7 OF 34

1 2 3 4 5 6 7 8

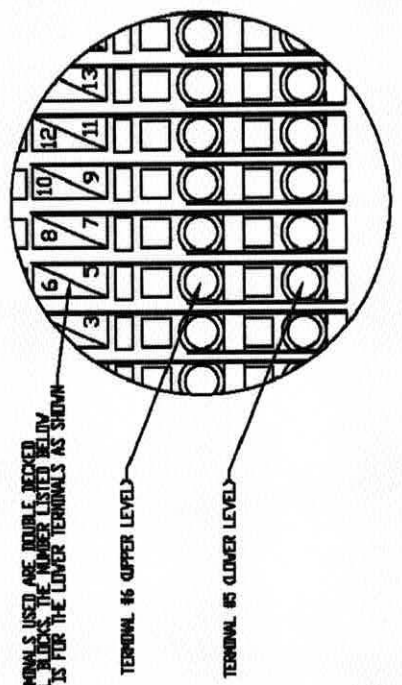
TERMINAL BLOCK TABLE

FU1	FUSE	1	COMMON - PULSE OUTPUT (SIDE A)	9	SIGNAL - FUELING REQUEST (SIDE A)	17	SIGNAL - PUMP HANDLE INTERRUPT (SIDE B)
G	GROUND	2	SIGNAL - PULSE OUTPUT (SIDE A)	10	COMMON - FUELING REQUEST (SIDE A)	18	COMMON - PUMP HANDLE INTERRUPT (SIDE B)
L1	120VAC	3	COMMON - PULSE OUTPUT (SIDE B)	11	SIGNAL - IN USE (SIDE B)	19	SIGNAL - PURGE RELAY
L1	120VAC	4	SIGNAL - PULSE OUTPUT (SIDE B)	12	COMMON - IN USE (SIDE B)	20	COMMON - PURGE RELAY
N	NEUTRAL	5	SPARE	13	SIGNAL - FUELING REQUEST (SIDE B)	21	PUMP DATA + / AUTH. REQ. +120VAC (SIDE A) (10)
		6	SPARE	14	COMMON - FUELING REQUEST (SIDE B)	22	PUMP DATA - / AUTH. REQ. -120VAC (SIDE A) (10)
		7	SIGNAL - IN USE (SIDE A)	15	SIGNAL - PUMP HANDLE INTERRUPT (SIDE A)	23	CRIND DATA + / AUTH. REQ. +120VAC (SIDE B) (10)
		8	COMMON - IN USE (SIDE A)	16	COMMON - PUMP HANDLE INTERRUPT (SIDE A)	24	CRIND DATA - / AUTH. REQ. -120VAC (SIDE B) (10)

REV	DESCRIPTION	DATE	BY
A	APPROVED FOR PRODUCTION	4/25/05	CJ
B	REVISED ELECTRICAL SYMBOLS & EXPANDED BAY WIRE NOTES	8/14/06	CJ
C	CHANGED SYMBOL, ADDED AUTH. REQ.	4/25/08	CJ



- NOTES:
- 1) LAND ALL SHIELDS AT DEVICE END (CONTROL PANEL)
 - 2) USE BELDEN CABLE #8770 FOR SIGNAL COMMUNICATIONS
 - 3) SOME 3RD PARTY POS CONTROLLERS REQUIRE A PUMP HANDLE INTERRUPT 3RD PARTY AUTHORIZATION. USE TERMINALS 15 & 16 (SIDE A) TERMINALS 17 & 18 (SIDE B) (REQUIRED FOR MOST 4 WIRE COMMUNICATIONS.) (ALSO APPLIES TO NON-CRIND DISPENSERS)
 - 4) THE FACTORY CONFIGURATION FOR THIS SIGNAL IS 1.2 WATTS @ 120VAC. OTHER VOLTAGES ARE AVAILABLE. TO CHANGE THE AUTHORIZATION SIGNAL VOLTAGE, REPLACE THE SUPPLIED K3 & K4 RELAYS WITH THE APPROPRIATE RELAY FROM THE LIST BELOW:
 P/N 702870 FOR 230VAC
 P/N 704402 FOR 120VAC
 P/N 702868 FOR 24VDC
 P/N 700096 FOR 12VDC
 - 5) IF A PUMP HANDLE INTERRUPT 3RD PARTY AUTHORIZATION IS NOT REQUIRED, JUMP TERMINALS 15 & 17 TO TERMINAL L1 (120VAC) AND TERMINALS 16 & 18 TO TERMINAL N (NEUTRAL). (REQUIRED FOR MOST 2 WIRE COMMUNICATIONS.) (ALSO APPLIES TO NON-CRIND DISPENSERS) (THE RELAYS ARE BYPASSED BY DEFAULT.)
 - 6) THE DISPENSER IS FACTORY CONFIGURED FOR 2 WIRE COMMUNICATIONS. SEE PAGE TV01.
 - 7) IN USE SIGNAL (7A/B-SIDE A) (11A/12-SIDE B) THIS DRY CONTACT RATED AT 10A/250VAC. ACTIVATES WHEN THE DISPENSER IS BEING USED. IF CURRENT SENSE IS REQUIRED, THIS CONTACT CAN BE USED IN SERIES WITH A CUSTOMER SUPPLIED LOAD TO MIMIC A GASOLINE PUMP CURRENT SENSE.
 - 8) FUELING REQUEST (9A/10-SIDE A) (13A/14-SIDE B) THIS DRY CONTACT, RATED AT 10A/250VAC, ACTIVATES WHEN THE PUMP HANDLE IS LIFTED/DISPENSER MUST BE AUTHORIZED OR IN STAND ALONE MODE.
 - 9) WHEN USED WITH GREENFIELD'S PRIORITY SYSTEMS, THESE CONTACTS OPEN THE ESD VALVES (PREVENTS GAS FLOW WHILE NOT IN USE)
 - 10) PULSE OUTPUTS. THESE OUTPUTS ARE FROM THE DISPENSERS FLOW METERS, AND ARE FACTORY CONFIGURED FOR EXTERNAL PULSER PULSING GAS/SOLVENT SWITCHING. THE OUTPUTS CAN BE CONFIGURED FOR INTERNAL POWER PULSING (POWERED SWITCHING) USING PROLINK-II ON/OFF-MOTION
 - 11) PARTS NOT PRESENT WITH SINGLE HOSE CONFIGURATION
 - 12) IF A AUTHORIZATION REQUEST IS REQUIRED, NON-STANDARD OPTION TERMINALS 21, 22, 23 & 24 WILL BE RE-PURPOSED TO PROVIDE THE 120VAC PUMP HANDLE SIGNAL. REF. DRAWING 3000-3888

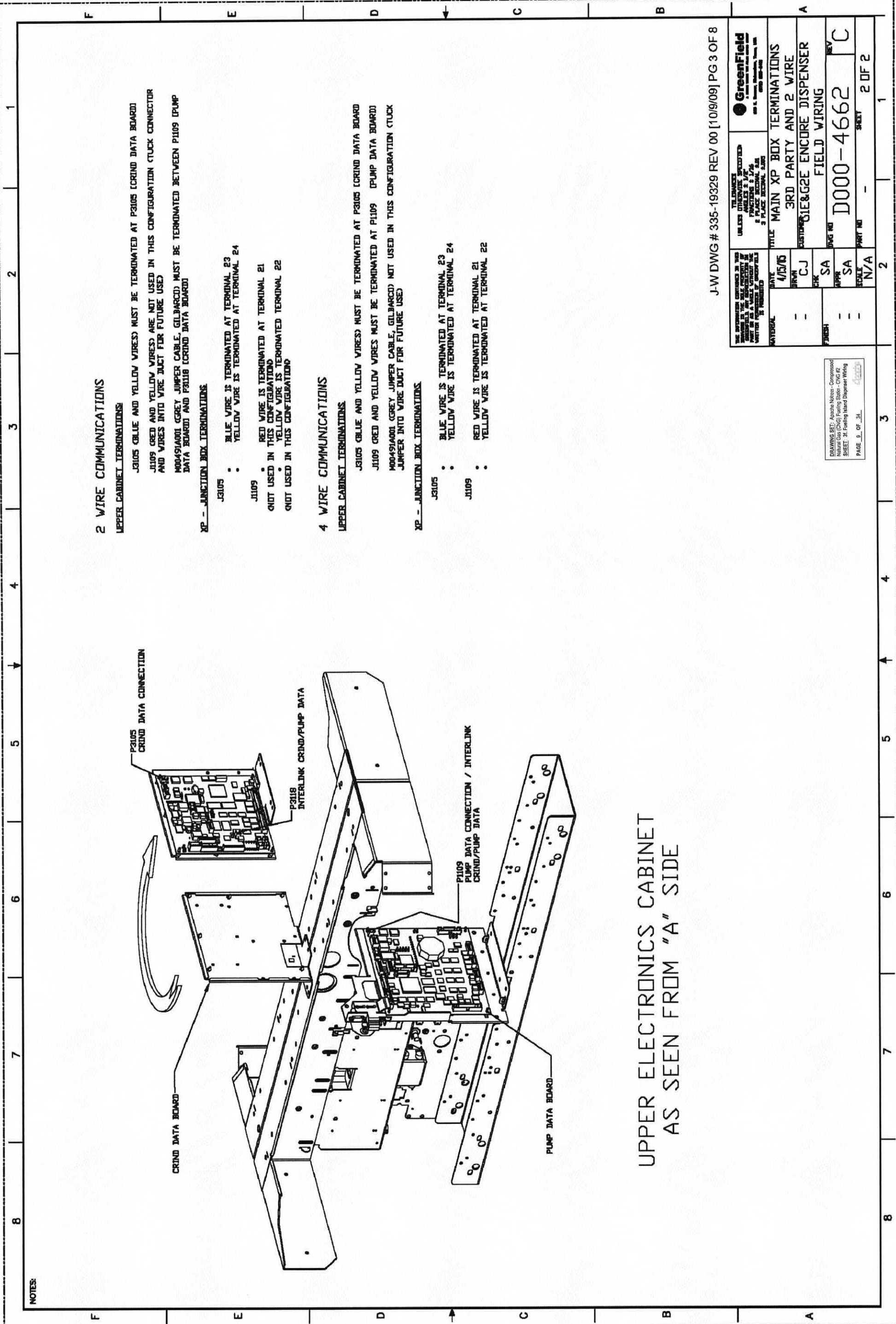


THE TERMINALS USED ARE INDICATED BY THE NUMBER LISTED BY THE 7/8 IS FOR THE LOWER TERMINALS AS SHOWN

GreenField
 100 S. Street, Wallingford, VT 05488
 TEL: 802-249-1111 FAX: 802-249-1112

UNLESS OTHERWISE SPECIFIED:
 WIRE GAUGE: 1/8" DIA.
 WIRE TYPE: THHN
 WIRE COLOR: BLACK
 WIRE SIZE: 14 AWG
 WIRE TYPE: THHN
 WIRE COLOR: BLACK
 WIRE SIZE: 14 AWG

TITLE: MAIN XP BOX TERMINATIONS
 CUSTOMER: 3RD PARTY AND 2 WIRE
 DRAWING NO: 01E&G2E ENCORE DISPENSER
 FIELD WIRING
 REV: C
 D000-4662
 PART NO: 1 OF 2



2 WIRE COMMUNICATIONS

UPPER CABINET TERMINATIONS

J3105 (BLUE AND YELLOW WIRES) MUST BE TERMINATED AT P3105 (CRIND DATA BOARD)
 J1109 (RED AND YELLOW WIRES) ARE NOT USED IN THIS CONFIGURATION (STUCK CONNECTOR AND WIRES INTO WIRE DUCT FOR FUTURE USE)
 M00491A001 (GREY JUMPER CABLE, GILBARCO) MUST BE TERMINATED BETWEEN P1109 (PUMP DATA BOARD) AND P3118 (CRIND DATA BOARD)

XP - JUNCTION BOX TERMINATIONS

- J3105 : BLUE WIRE IS TERMINATED AT TERMINAL 23
 : YELLOW WIRE IS TERMINATED AT TERMINAL 24
- J1109 : RED WIRE IS TERMINATED AT TERMINAL 21
 : NOT USED IN THIS CONFIGURATION
 : YELLOW WIRE IS TERMINATED TERMINAL 22
 : NOT USED IN THIS CONFIGURATION

4 WIRE COMMUNICATIONS

UPPER CABINET TERMINATIONS

J3105 (BLUE AND YELLOW WIRES) MUST BE TERMINATED AT P3105 (CRIND DATA BOARD)
 J1109 (RED AND YELLOW WIRES) MUST BE TERMINATED AT P1109 (PUMP DATA BOARD)
 M00491A001 (GREY JUMPER CABLE, GILBARCO) NOT USED IN THIS CONFIGURATION (STUCK JUMPER INTO WIRE DUCT FOR FUTURE USE)

XP - JUNCTION BOX TERMINATIONS

- J3105 : BLUE WIRE IS TERMINATED AT TERMINAL 23
 : YELLOW WIRE IS TERMINATED AT TERMINAL 24
- J1109 : RED WIRE IS TERMINATED AT TERMINAL 21
 : YELLOW WIRE IS TERMINATED AT TERMINAL 22

UPPER ELECTRONICS CABINET
 AS SEEN FROM "A" SIDE

J-W DWG # 335-19329 REV 00 [10/09/09] PG 3 OF 8

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DATE	4/15/05	TITLE	MAIN XP BOX TERMINATIONS
BY	CJ	CUSTOMER	3RD PARTY AND 2 WIRE
CHK	SA	ENCLOSURE	GIE&G2E ENCORE DISPENSER
APPR	SA	FIELD WIRING	FIELD WIRING
SCALE	N/A	DWG NO	D000-4662
		PART NO	-
		SHEET	2 OF 2

DRAWING SET: Apache Wireless - Compressed
 Natural Gas (CNG) Fueling Station - CNG #2
 SHEET: 21. Fueling Island Diagram Wiring
 PAGE 3 OF 31

DESIGN CONDITIONS:
 CODE: NFPAS2
 ANSI B31.3
 CSA B51-1991

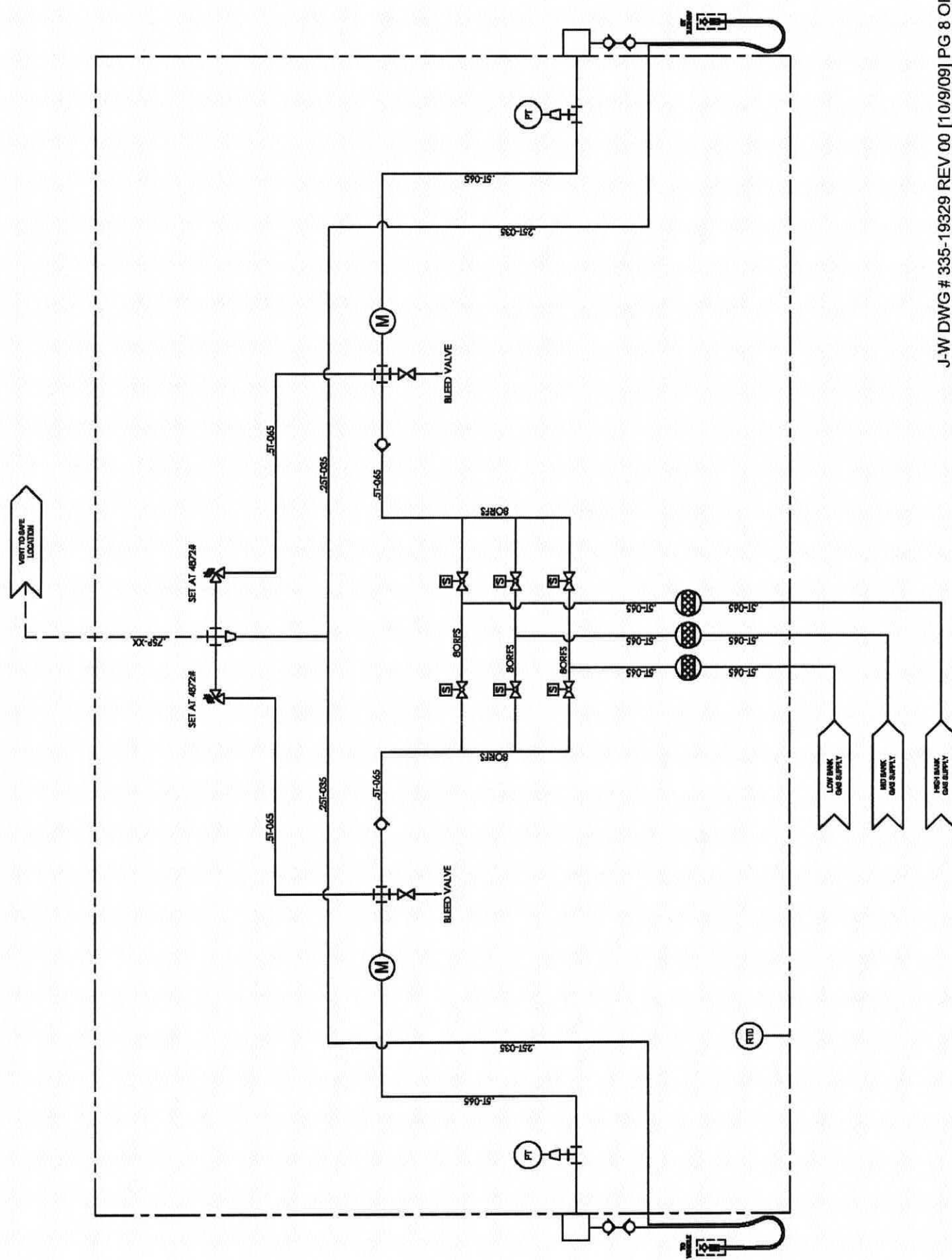
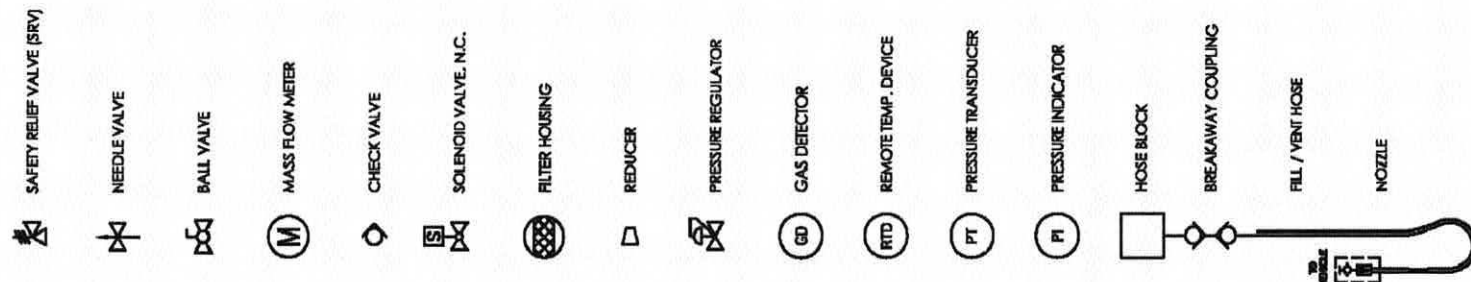
FILTER, VALVE ASSY & FLOW METER: 5000 PSIG

HOSE ASSY: A SIDE = 4872 PSIG
 B SIDE = 4872 PSIG

TUBING:
 TUBE MATERIAL: 316SS
 TUBE SIZES: 1/4" x 0.035
 3/8" x 0.049
 1/2" x 0.065
 3/4" x 0.095

DESIGN TEMPERATURE: -40° TO 140° F

1.5T-120
 PIPE SCHEDULE OR
 TUBE WALL THICKNESS (0.001") OR
 HOSE PRESSURE RATING
 P-PIPE
 T-TUBE
 H-HOSE (FLEX)
 NOMINAL PIPE SIZE OR
 TUBE O.D. OR
 NOMINAL HOSE SIZE

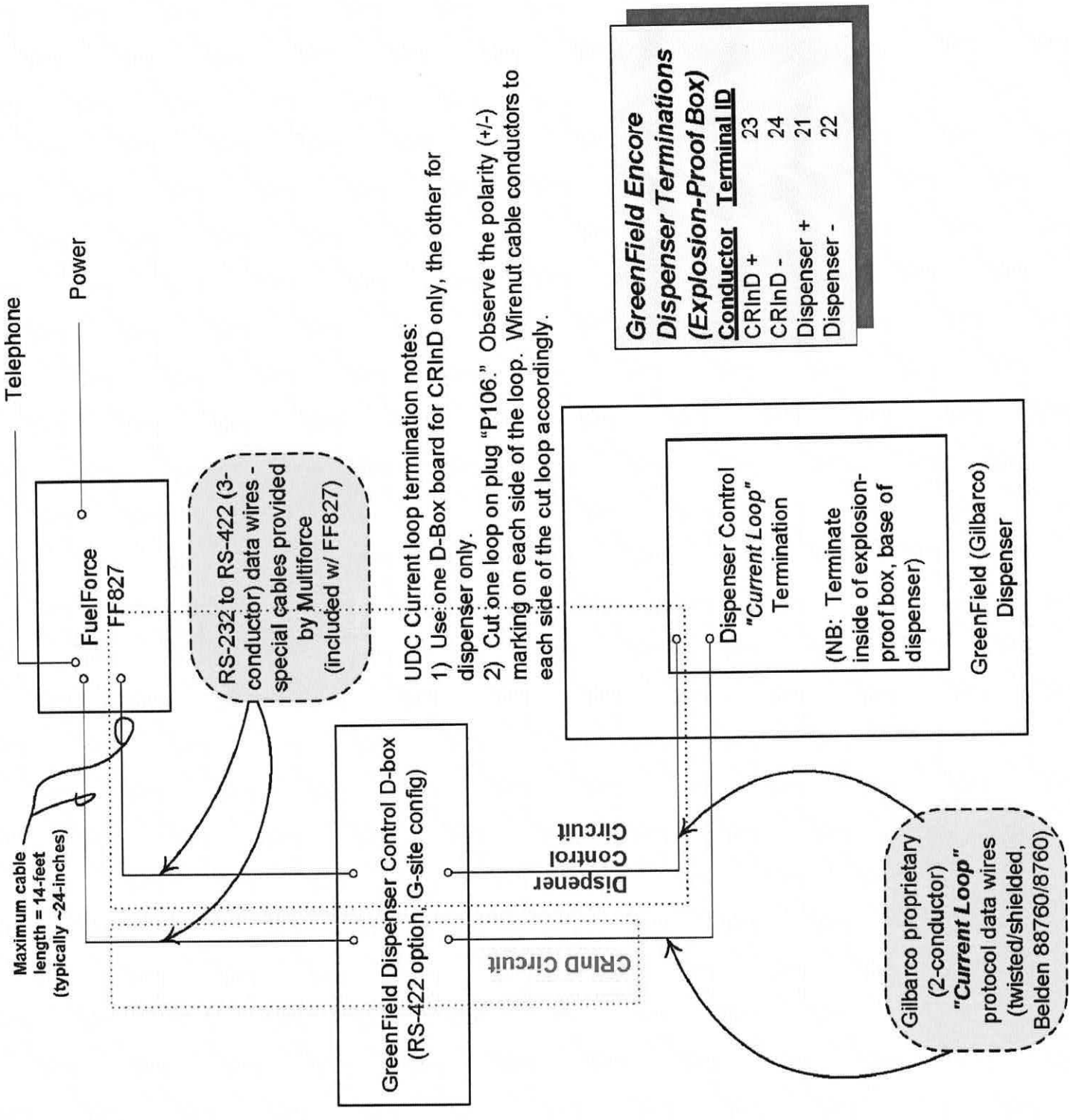


J-W DWG # 335-19329 REV 00 [10/9/09] PG 8 OF 8

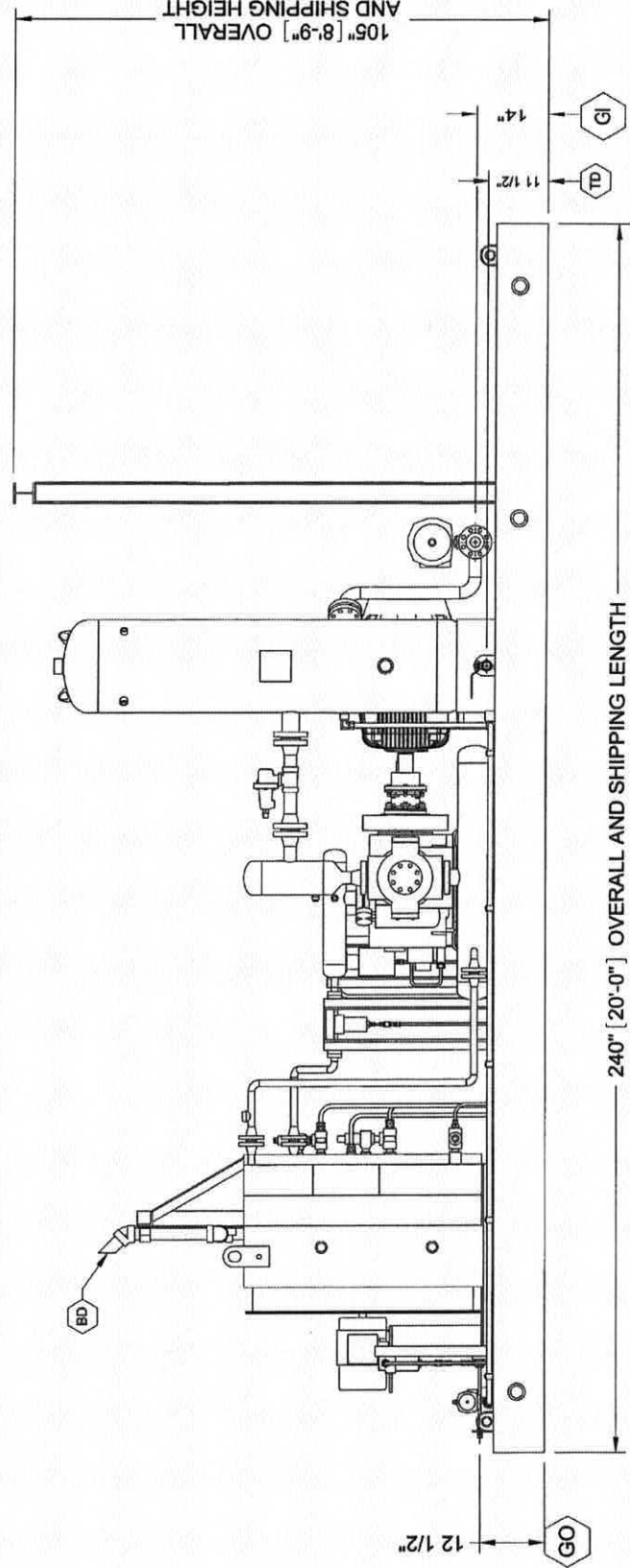
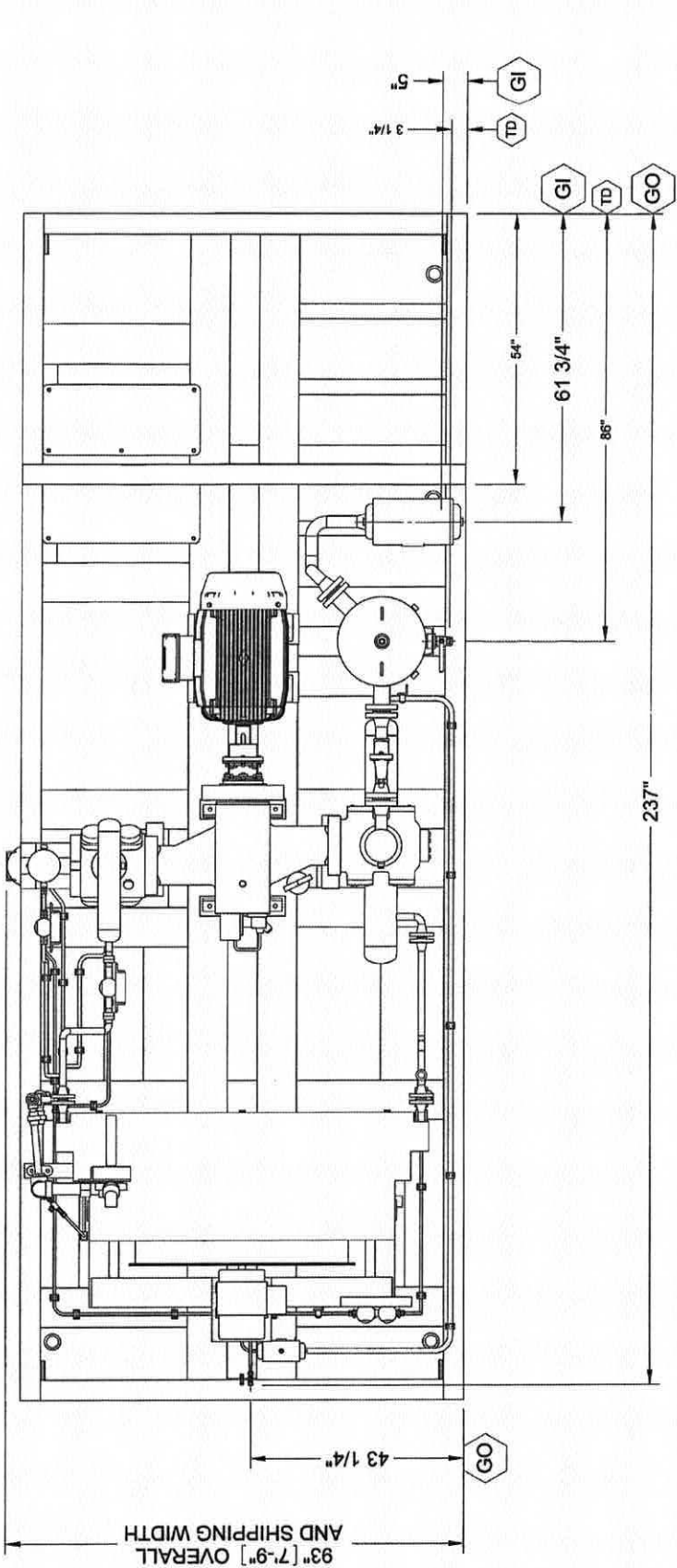
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PROPOSED/REVISED/REWORKED	DATE	DATE	DATE
DESIGNED	CJ	DRAWN	DM
CHECKED	DM	APPROVED	DM
DATE	2008-08-08	DATE	2008-08-08
SOFTWARE:		SOFTWARE:	
AUTOCAD		AUTOCAD	
SCALE:		SCALE:	
1" = 1'-0"		1" = 1'-0"	
PROJECT:		PROJECT:	
9008 1032 38 D		9008 1032 38 A	
REVISED:		REVISED:	
NONE		NONE	
PAGE 10 OF 31		PAGE 10 OF 31	

GREENFIELD
 P&ID, DISP, DH, 36736, STANDARD, J-W
 POWER, APACHE, GET168-171

DRAWING SET: Apache Network - Compressor
 Natural Gas (CNG) Fueling Station - CNG #2
 SHEET: 3p - Fueling Island Dispenser Wiring
 PAGE 10 OF 31



FuelForce FF827 - GreenField Dispenser Interface
Overall Wiring Scheme



SCHEDULE OF OPENINGS		
MARK	QTY.	DESCRIPTION
GI	1	2" - 600# PROCESS GAS INLET
GO	1	1/2" OD PROCESS GAS OUTLET
BD	1	2" S/80 BLOWDOWN
TD	1	1" NPT TANK DRAIN

TOLERANCE NOTE
 UNLESS OTHERWISE NOTED:
 1) FRACTIONS ± 1"
 2) ANGLES ± 1°
 3) OVERALL AND SHIPPING DIMENSIONS ARE MAXIMUM

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NO.	REVISION	BY	DATE	SCALE
0	PRELIMINARY	PH	10/2/09	3/4"=1'-0"

J-W POWER COMPANY
 DISTRICT 11
 LONGVIEW, TEXAS USA

PLAN & ELEVATION
 EA-100-3

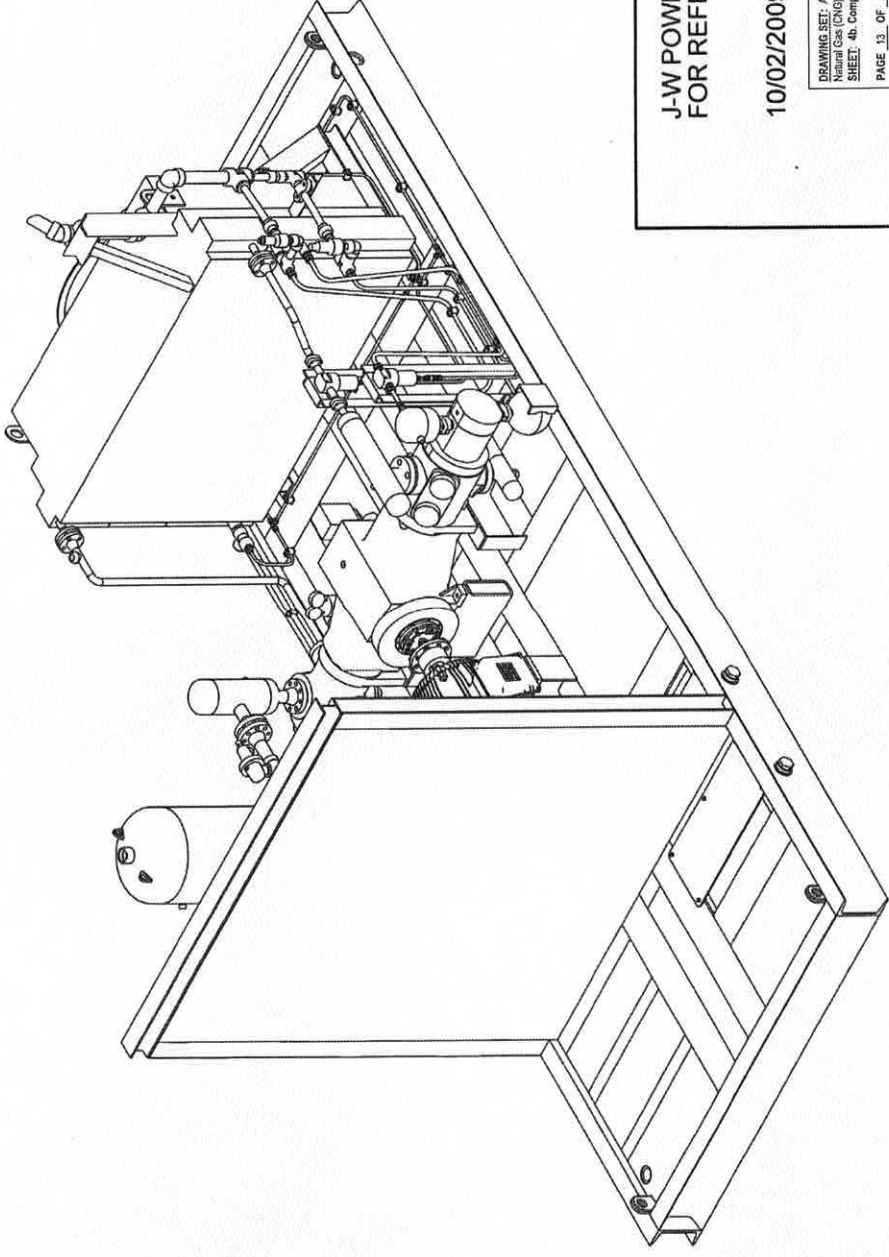
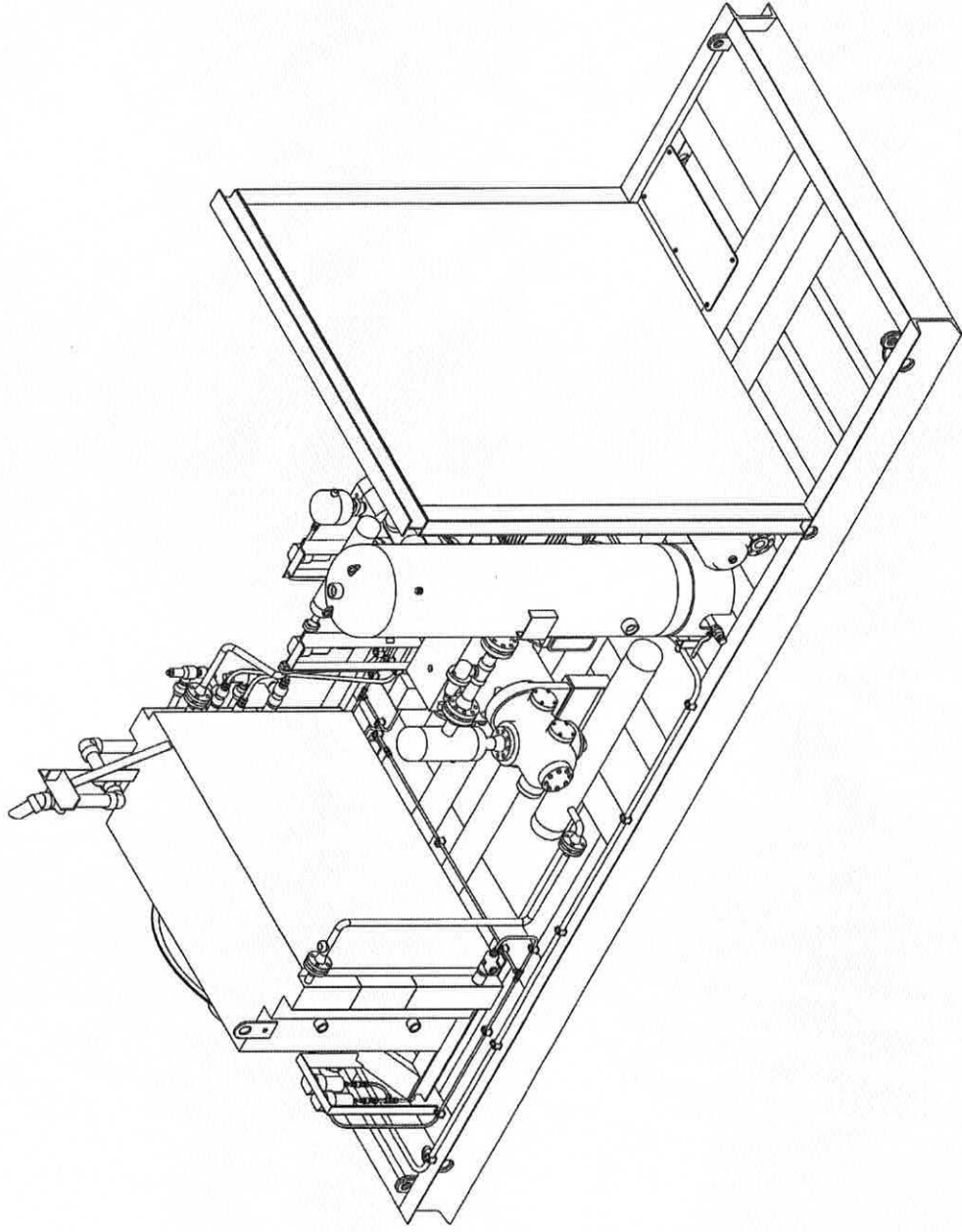
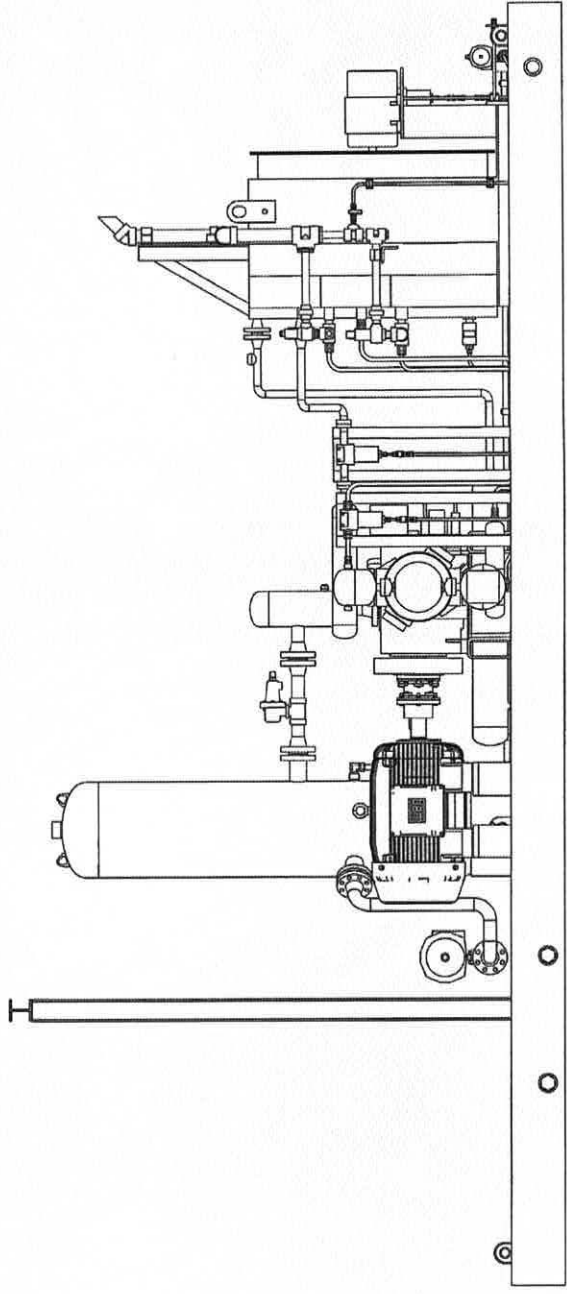
PIN 861-01306 DWG. 335-19288

PAGE 1 OF 2 REV. 0

J-W POWER COMPANY
 FOR REFERENCE ONLY

10/02/2009 bwf

DRAWING SET: Apache Network - Compressor
 Natural Gas (CNG) Fueling Station - CNG #2
 SHEET: 4a. Compressor Elevation
 PAGE 12 OF 31



J-W POWER COMPANY
FOR REFERENCE ONLY

10/02/2009 bwf

DRAWING SET: Apache Natural - Compressor
Natural Gas (CNG) Filling Station - CNG-82
SHEET: 4b. Compressor Mechanical Plan
PAGE 13 OF 31



POWER
COMPANY
LONGVIEW, TEXAS USA

PLAN & ELEVATION
EA-100-3

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NO.	REVISION	DATE	BY	CKD/APPD	SCALE	DATE	DATE
0	PRELIMINARY				3/4"=1'-0"		
DRWN	JO	CKD	JWF	APPD	JWF	10/2/09	10/2/09

PIN 991-01306 DWG. 335-19288

PAGE 2 OF 2
REV. 0

DRAWING SET: Apache Noches - Compressor
 Natural Gas (CNG) Filling Station - CNG #2
 SHEET: 4c. Compressor Schem Site Layout
 PAGE: 11 OF 31

FOR REFERENCE ONLY



DISTRICT 11
**SCHEM CNG SITE LAYOUT
 TYPICAL CNG UNIT**

DRWN: P/N: DWG: 305-19286 REV: 0

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NO.	REVISION	BY	CHKD	DATE	SCALE
0	ISSUE FOR CUSTOMER REVIEW				

TOLERANCE NOTE
 UNLESS OTHERWISE NOTED:
 1) FRACTIONS ± 1"
 2) ANGLES ± 1"

COMPONENT AMP RATINGS

- MAIN MOTOR - 124 AMPS (100 HP) / 138 AMPS (125 HP)
- COOLER - 4.8 AMPS
- PRELUBE - 2.1 AMPS
- DRYER - 18 AMPS
- DISPENSER/PURGE FAN - 10 AMPS
- ELECTRIC VALVES (OPTIONAL) - 2 AMPS
- 10 HP AIR COMPRESSOR (OPTIONAL) - 14 AMPS

TUBING SCHEDULE

MARK	SIZE	MAT'L
P1	1/2" OD X .083	316SS SML TGB
P2	1/2" OD X .085	316SS SML TGB
P3	3/8" OD X .035	316SS SML TGB
P4	2" OD	PVC CONDUIT

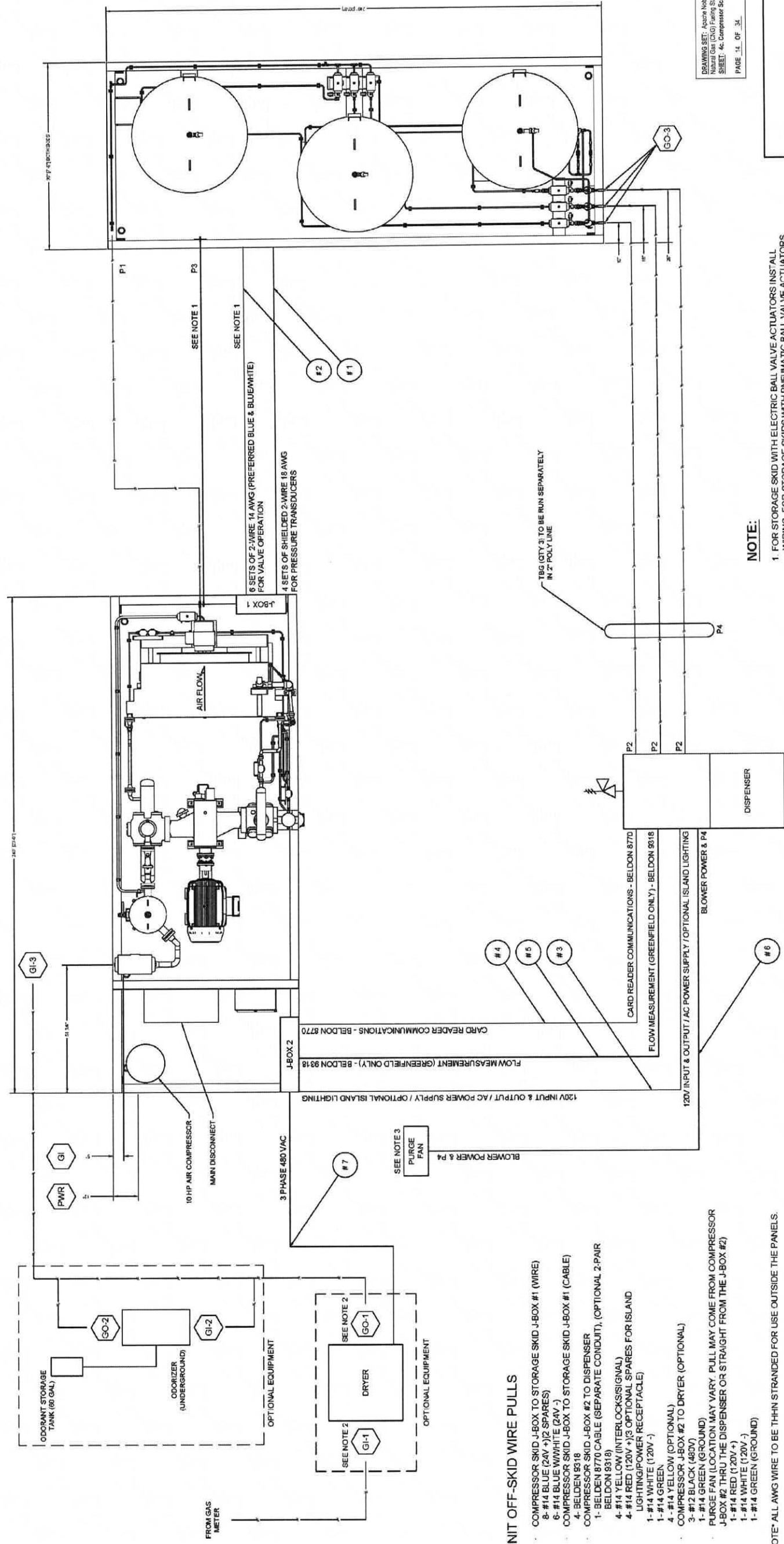
SCHEDULE OF OPENINGS

MARK	QTY	SIZE	DESCRIPTION
PWR	1	3"	MAIN DISCONNECT PWR SUPPLY
GI-1	1	1 1/2"-150# RF300# RF	DRYER GAS INLET (SEE NOTE 2)
GI-1	1	1 1/2"-150# RF300# RF	DRYER GAS OUTLET (SEE NOTE 2)
GI-2	1	1" NPT	ODORIZER GAS INLET
GI-2	1	1" NPT	ODORIZER GAS OUTLET
GI-3	3	2"-600# RF	COMPRESSION SKID GAS INLET
GI-3	3	1 1/2" OD	STORAGE SKID GAS OUTLET

NOTE: ALL AWG WIRE TO BE THIN STRANDED FOR USE OUTSIDE THE PANELS.

UNIT OFF-SKID WIRE PULLS

- COMPRESSOR SKID J-BOX TO STORAGE SKID J-BOX #1 (WIRE)
 - 8- #14 BLUE (24V +) (2 SPARES)
 - 6- #14 BLUE W/WHITE (24V -)
- COMPRESSOR SKID J-BOX TO STORAGE SKID J-BOX #1 (CABLE)
 - 4- BELDEN 8318
 - 1- BELDEN 8770 CABLE (SEPARATE CONDUIT), (OPTIONAL 2-PAIR BELDEN 8318)
 - 4- #14 YELLOW (INTERLOCKSIGNAL)
 - 4- #14 RED (120V +) (3 OPTIONAL SPARES FOR ISLAND LIGHTING/POWER RECEPTACLE)
 - 1- #14 WHITE (120V -)
 - 1- #14 GREEN
 - 4- #14 YELLOW (OPTIONAL)
 - 3- #12 BLACK (480V)
 - 1- #14 GREEN (GROUND)
- PURGE FAN (LOCATION MAY VARY. PULL MAY COME FROM COMPRESSOR J-BOX #2 THRU THE DISPENSER OR STRAIGHT FROM THE J-BOX #2)
 - 1- #14 RED (120V +)
 - 1- #14 WHITE (120V -)
 - 1- #14 GREEN (GROUND)



NOTE:

- FOR STORAGE SKID WITH ELECTRIC BALL VALVE ACTUATORS INST' ALL WIRING FOR STORAGE SKIDS WITH PNEUMATIC BALL VALVE ACTUATORS INSTALL P3 TUBING.
- DRYERS DESIGNED FOR UP TO 170 PSIG HAVE 150# FLANGES. DRYERS DESIGNED FOR 171 TO 600 PSIG HAVE 300# FLANGES.
- GREENFIELD DISPENSERS ONLY: PURGE FAN LOCATION MAY VARY DEPENDING ON SITE. MAY BE LOCATED ON CANOPY POST, SEPARATE PEDESTAL OR MOUNTED NEXT TO THE CONTROL PANEL. PURGE FAN MUST NOT BE WITHIN 5 FEET OF ANY PART OF THE DISPENSER, INCLUDING THE HOSE LENGTH. P4 MUST NOT EXCEED 75' IN LENGTH.
- SEE DRAWING #335-17114 FOR LEGEND OF SYMBOLS & ABBREVIATIONS.

SEE NOTE 1

SEE NOTE 1

6 SETS OF 2-WIRE 14 AWG (PREFERRED BLUE & BLUE/WHITE) FOR VALVE OPERATION

4 SETS OF SHIELDED 2-WIRE 18 AWG FOR PRESSURE TRANSDUCERS

TGB (QTY 3) TO BE RUN SEPARATELY IN 2" POLY LINE

FROM GAS METER

SEE NOTE 2

SEE NOTE 2

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

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SEE NOTE 3

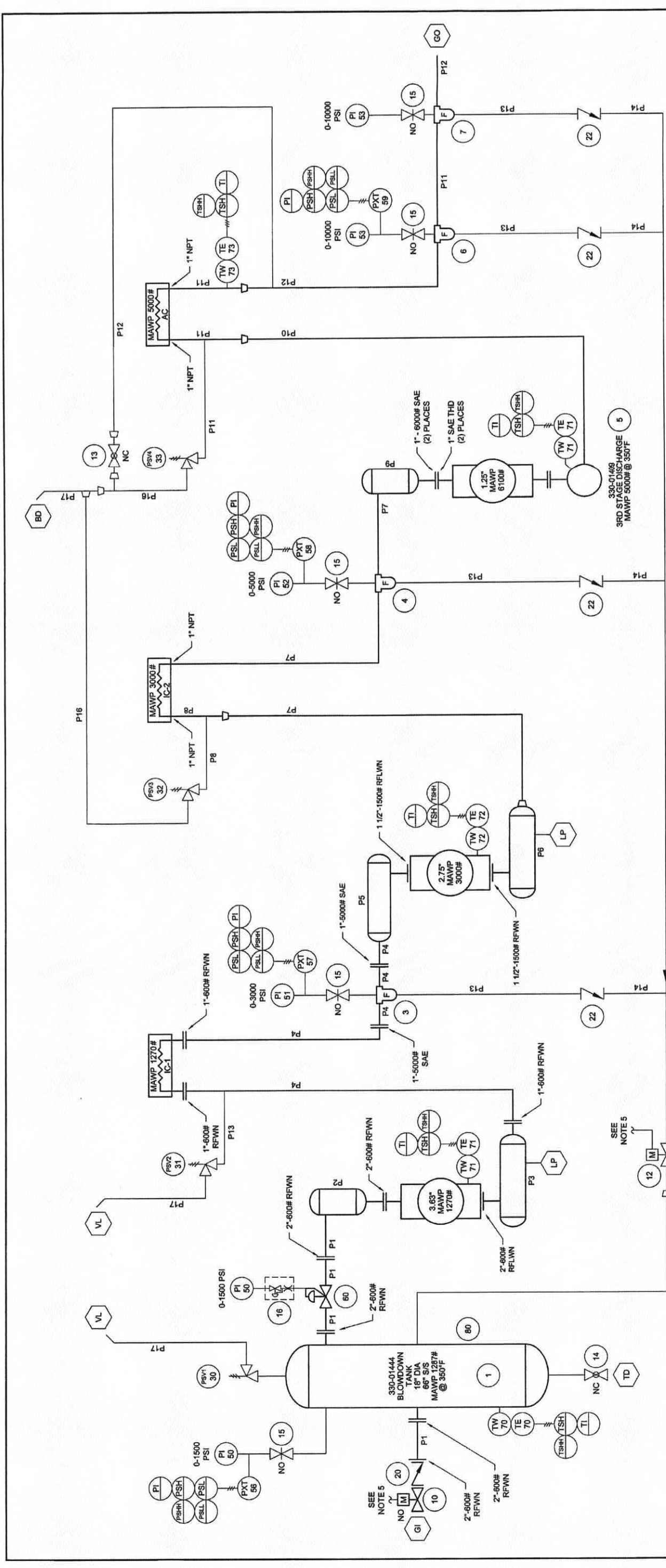
SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3

SEE NOTE 3



NOTES:

1. ALL TUBING IS 316SS SEAMLESS UNLESS OTHERWISE NOTED.
2. ALL ANSI FLANGES OF 60# RATING OR GREATER WILL USE FLEXITALLIC TYPE "CG" GASKETS.
3. ALL NPT CONNECTIONS ARE TO BE PLUGGED.
4. ALL PROCESS PIPING COMPONENTS ARE RATED FOR 350°F UNLESS OTHERWISE NOTED.
5. SEE DRAWING #335-XXXXX FOR SUPPLY/CONTROL TO VALVES.
6. SEE DRAWING #335-17114 FOR LEGEND OF SYMBOLS & ABBREVIATIONS.
7. NO - NORMALLY OPEN DURING UNIT OPERATION.
NC - NORMALLY CLOSED DURING UNIT OPERATION.

J-W POWER COMPANY
FOR REFERENCE ONLY

10/02/2009 bwf

DRAWING SET: Jacobs Network - Cross-sectional
Industrial Gas (ICIG) - Hydrogenation - CNG per
SHEET: 44, Compressor Trim Gas Process
PAGE: 15 OF 31

J-W POWER COMPANY
DISTRICT 11
LONGVIEW, TEXAS USA

TRIM PRCS GAS EA-100-3
3.63-3.0-1.25 X 3 CNG

DRWN	JO	CKD	APPD	DATE	SCALE	NONE	PIN	360-03145	DWG.	335-19267	REV/0
------	----	-----	------	------	-------	------	-----	-----------	------	-----------	-------

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NO.	REVISION	DATE	BY	CHKD	APPD	DATE
1	PRELIMINARY	10/2/09	bwf			10/2/09

PIPE & TUBING SCHEDULE

MARK	SPOOL	SIZE	MATL	MAMP
P10	D3	.63" OD X .063	316SS SMLS TBG	5000# @ 350°F
P11	D3/FINAL	1" XOH	SA-106-B	5000# @ 350°F
P12	FINAL/BLVDN	.50" OD X .063	316SS SMLS TBG	5000# @ 350°F
P13	BYPASS	.38" OD X .063	316SS SMLS TBG	5000# @ 350°F
P14	BYPASS	.50" OD X .063	316SS SMLS TBG	5000# @ 350°F
P15	BYPASS	1" OD X .120	316SS SMLS TBG	4700# @ 350°F
P16	RELIEF	1" XH160	SA-106-B	-----
P17	RELIEF	2" XH160	SA-106-B	-----

PIPE & TUBING SCHEDULE

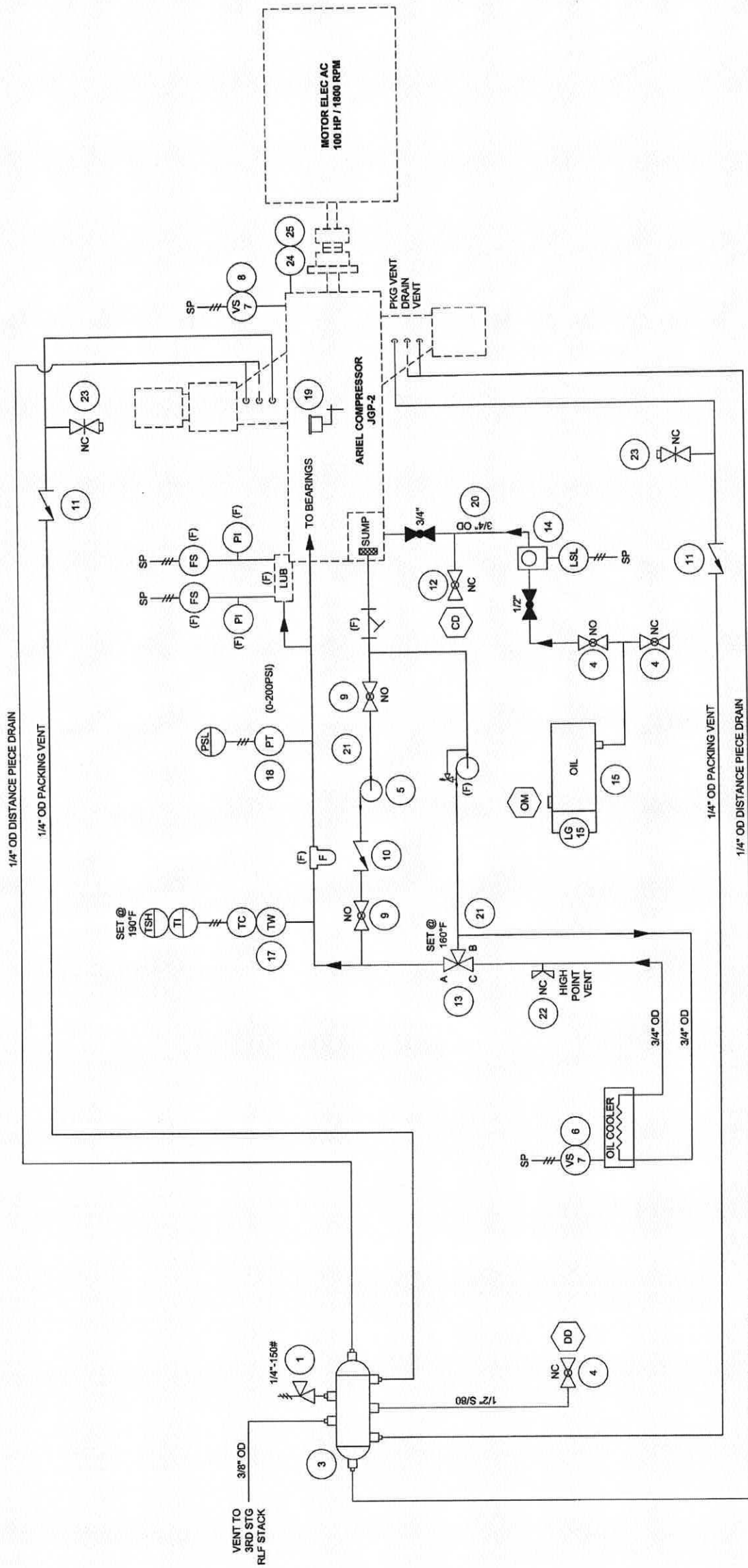
MARK	SPOOL	SIZE	MATL	MAMP
P1	S1	2" S160	SA-106-B	1270# @ 350°F
P2	S1	6" S160	SA-106-B	1270# @ 350°F
P3	D1	6" S160	SA-106-B	1270# @ 350°F
P4	D1/S2	1" S160	SA-106-B	1270# @ 350°F
P5	S2	4" S120	SA-106-C	1270# @ 350°F
P6	D2	3" S160	SA-106-B	3000# @ 350°F
P7	D2/S3	.75" OD X .063	316SS SMLS TBG	3000# @ 350°F
P8	D2	1" XH160	SA-106-B	3000# @ 350°F
P9	S3	6" S160	SA-106-B	3000# @ 350°F

PRESSURE RELIEF VALVE IDENTIFICATION

ITEM	J-W PART NO	DESCRIPTION	SET PRESSURE
PSV1			1270 PSIG
PSV2			1270 PSIG
PSV3	635-01286	MERCER 91-M7051P1441	3000 PSIG
PSV4	635-01761	MERCER 91-M7051P6641	5000 PSIG

SCHEDULE OF OPENINGS

MARK	QTY	SIZE	DESCRIPTION
GI	1	2" - 600# RF	PROCESS GAS INLET
GO	1	1/2" OD	PROCESS GAS OUTLET
BD	1	2" XH160	BLOWDOWN
VL	2	2" XH160	RELIEF VALVE VENT HEADER (LOW)
TD	1	1" NPT	TANK DRAIN
LP	2	1/2" NPT	LOW POINT DRAIN



J-W POWER COMPANY
FOR REFERENCE ONLY

10/02/2009 bwf

DRAWING SET: Apache Noctua - Compressor
Natural Gas (CH₄) Fueling Station - CIVG #2
SHEET: 4a. Compressor Trim Oil
PAGE 16 OF 31



DISTRICT 11
LONGVIEW, TEXAS USA

TRIM OIL
EA-100-3

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NOTE: ALL NPT CONNECTIONS
ARE TO BE PLUGGED

ALL TUBING USED IN NATURAL
GAS SERVICE TO MEET THESE
MINIMUM REQUIREMENTS.

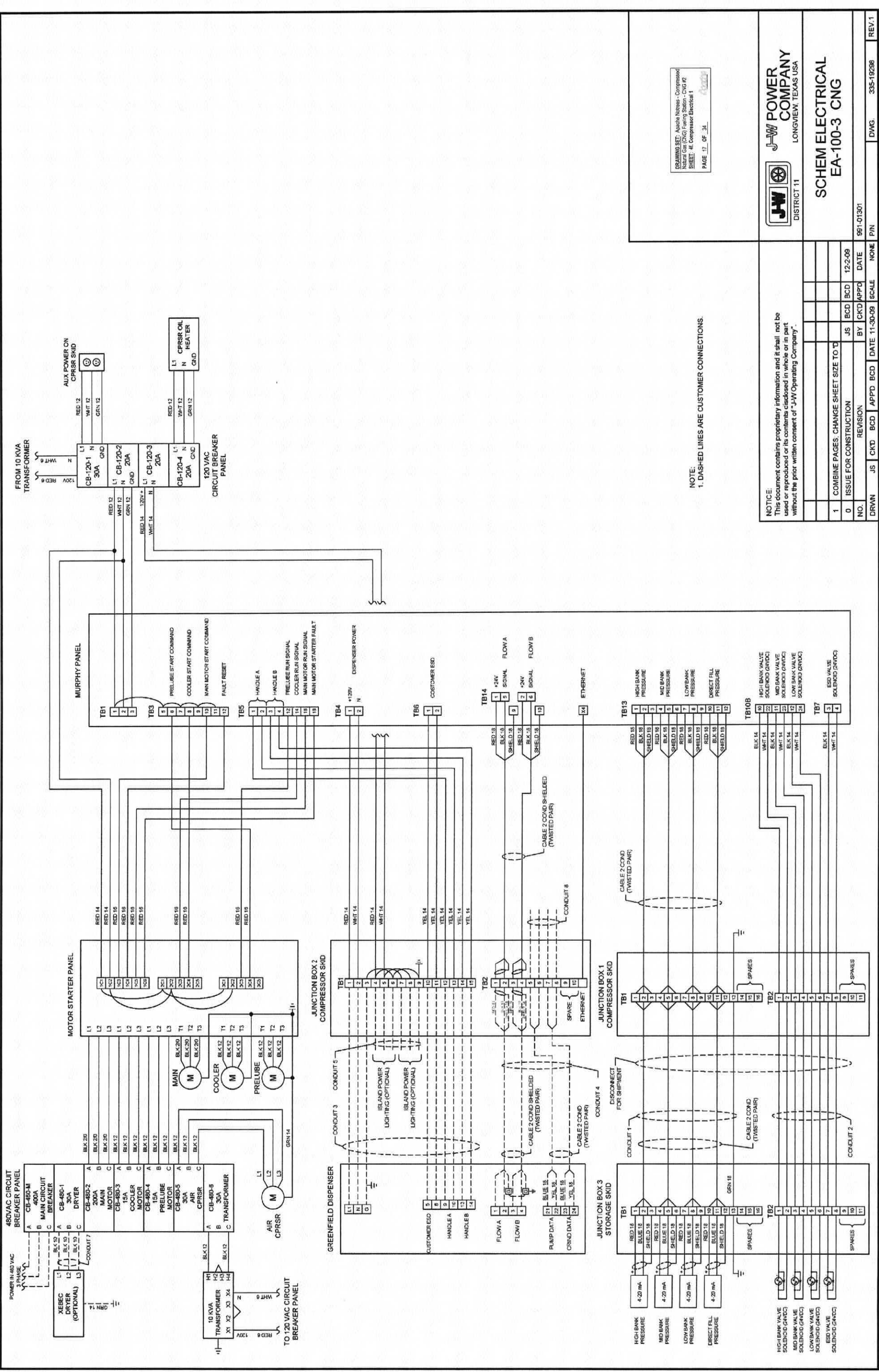
- 1/4" x .035 316 SST SEAMLESS
- 3/8" x .035 316 SST SEAMLESS
- 1/2" x .049 316 SST SEAMLESS
- 5/8" x .065 316 SST SEAMLESS
- 3/4" x .065 316 SST SEAMLESS
- 7/8" x .065 316 SST SEAMLESS
- 1" x .083 316 SST SEAMLESS

SCHEDULE OF OPENINGS

MARK	QTY	SIZE	DESCRIPTION
CD	1	3/4" NPT	COMPRESSOR OIL DRAIN
DD	1	1/2" NPT	PACKING AND DISTANCE PIECE DRAIN
OM	1	2" NPT	OIL MAKEUP INLET

NO.	REVISION	DATE	SCALE	DATE	BY	CHKD	APPRD	DATE	NO.	SCALE	DATE
0	ISSUE FOR REVIEW	10/02/09	SCALE	10/02/09	bwf	bwf	bwf	10/02/09	991-01301	360-03133	335-19187

REV.0



DRAWING SET, Apache Natives - Compressed
 Natural Gas (CNG) Filling Station - CNG #2
 SHEET: 44, Compressor Electrical 1
 PAGE 17 OF 34



JW POWER COMPANY
 DISTRICT 11
 LONGVIEW, TEXAS USA

SCHEM ELECTRICAL
 EA-100-3 CNG

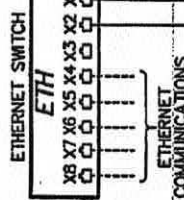
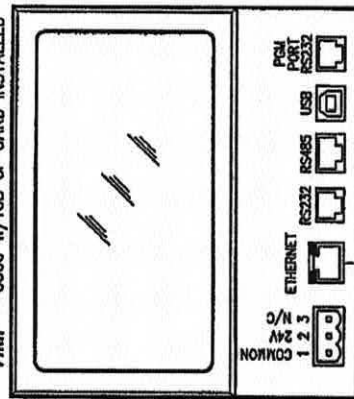
NO.	REVISION	DATE	SCALE	DATE	SCALE	DATE	SCALE
1	COMBINE PAGES, CHANGE SHEET SIZE TO D	12-2-09					
0	ISSUE FOR CONSTRUCTION						

DRWN JS CKD BCD APPD BCD DATE 11-30-09 SCALE NONE DATE 991-01-301 P/N 335-19288 REV.1

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NOTE:
 1. DASHED LINES ARE CUSTOMER CONNECTIONS.

HMI G306 W/1GB CF CARD INSTALLED



ETHERNET
IP ADDRESS: 10.10.0.2
SUBNET: 255.255.255.0

NOTE:
THIS DENOTES RIBBON CABLE THAT CONNECTS MODULE TO MODULE FOR BACKPLANE COMMUNICATION.



1766-L328XB	1762-IF4	1762-IF4	1762-IF4	1762-IF4	1762-IF4	1762-IF4	1762-IF4	1762-IF4	1762-IF4	T/C INPUT
0	1	2	3	4	5	6	7			

ETHERNET
IP ADDRESS: 10.10.0.1
SUBNET ADDRESS: 255.255.255.0

9/13/09

J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE		9-10-09
SCALE		NONE
SHEET		2 OF 13
DCN No.		9-24-09
DATE		
CHK'D. BY		
DESCRIPTION		CNG STATION
CUSTOMER APPROVAL		
REV.		

MURPHY
CONTROL SYSTEMS & SERVICES - ROSENBERG, TX

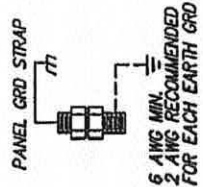
FOR J-W POWER

SYSTEM LAYOUT OVERVIEW

YOUR NO. P164756 REF. NO.
DWG. NO. 50-30-8207 REV. A

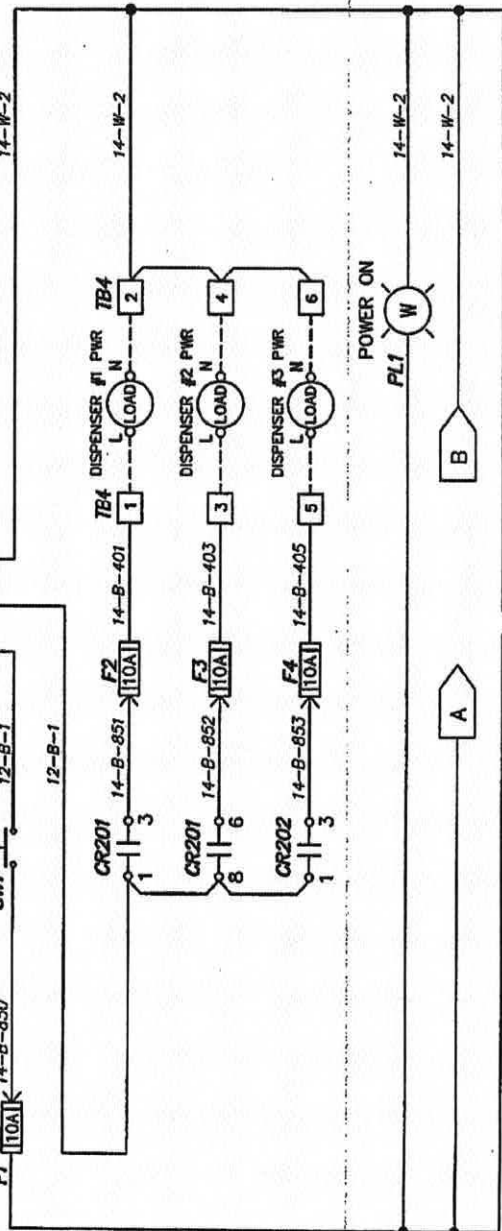
DRAWING SET: Apache Notices, Compressor
Notice (see (C)G) Filing Station - CUG #2
SHEET 49 Compressor Electrical 2
PAGE 18 OF 31

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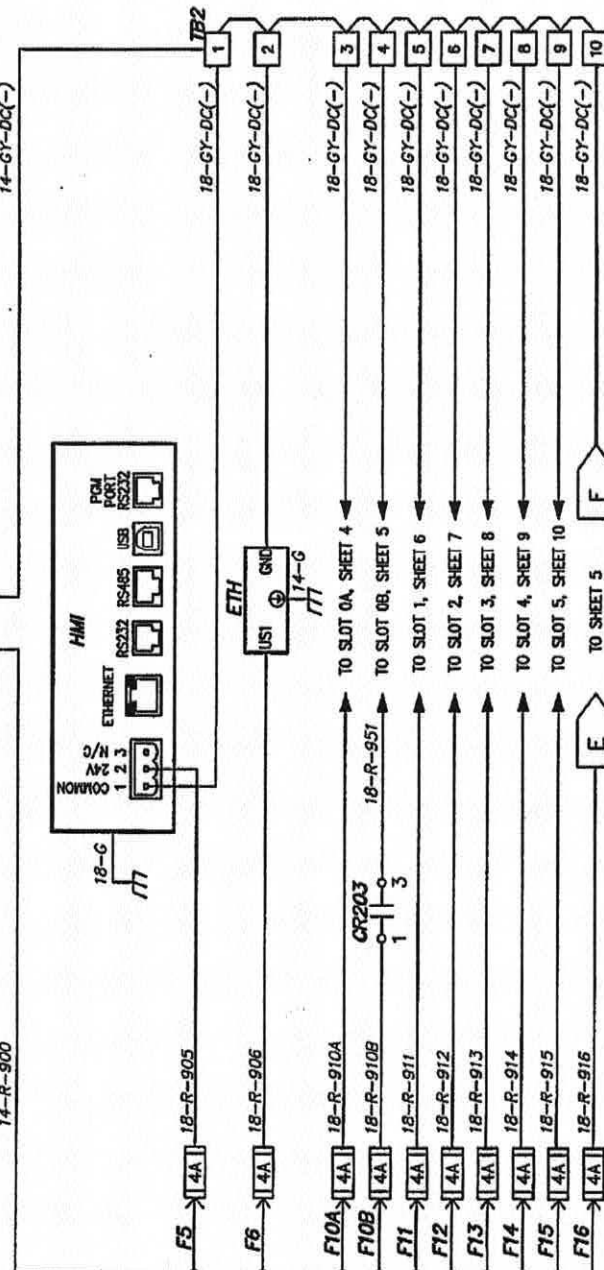
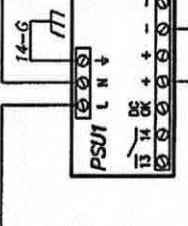
CUSTOMER POWER SUPPLY
120 VAC, 50/60 Hz 20 AMPS

POWER OFF ON SW1

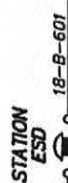


POWER ON

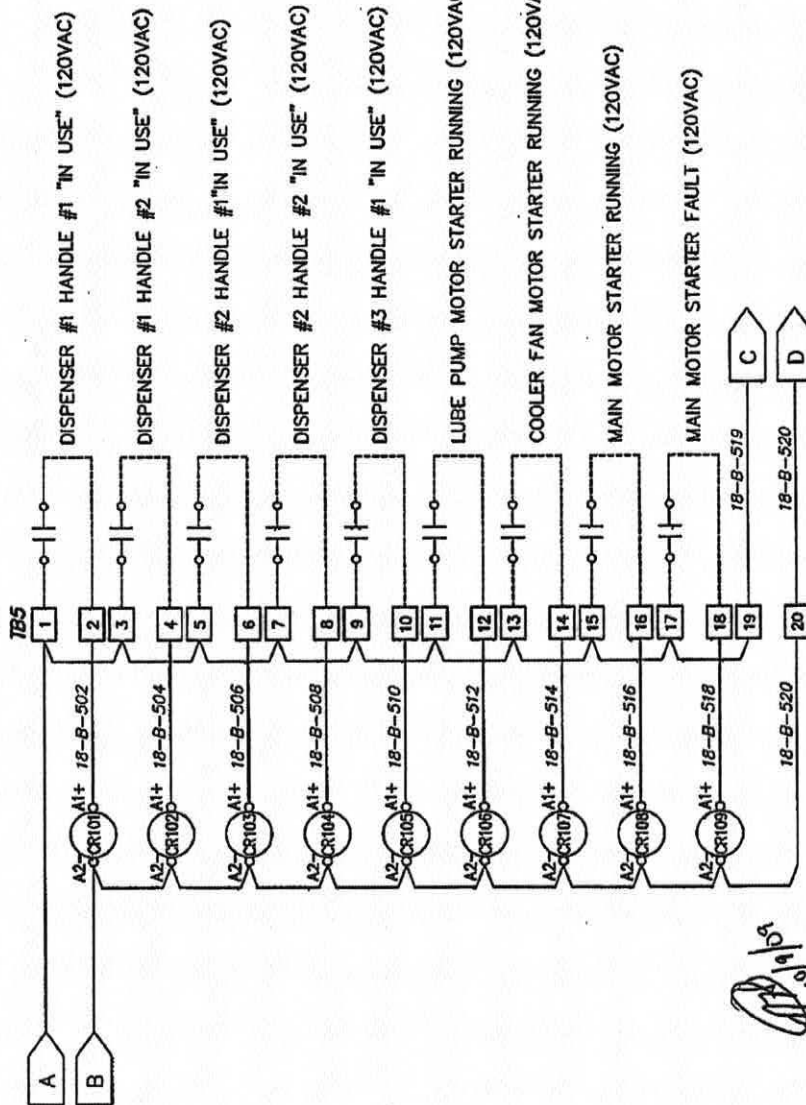
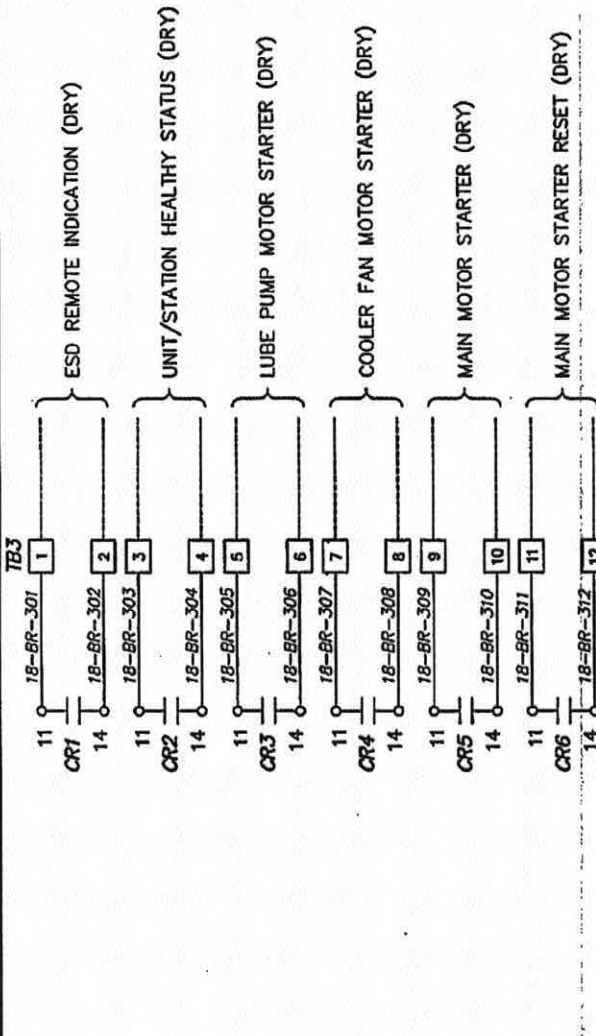
120VAC INPUT/
24VDC OUTPUT @ 10 AMP



STATION
ESD



REMOVE JUMPER WHEN CUSTOMER E-STOP IS IN USE/CONNECTED



J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

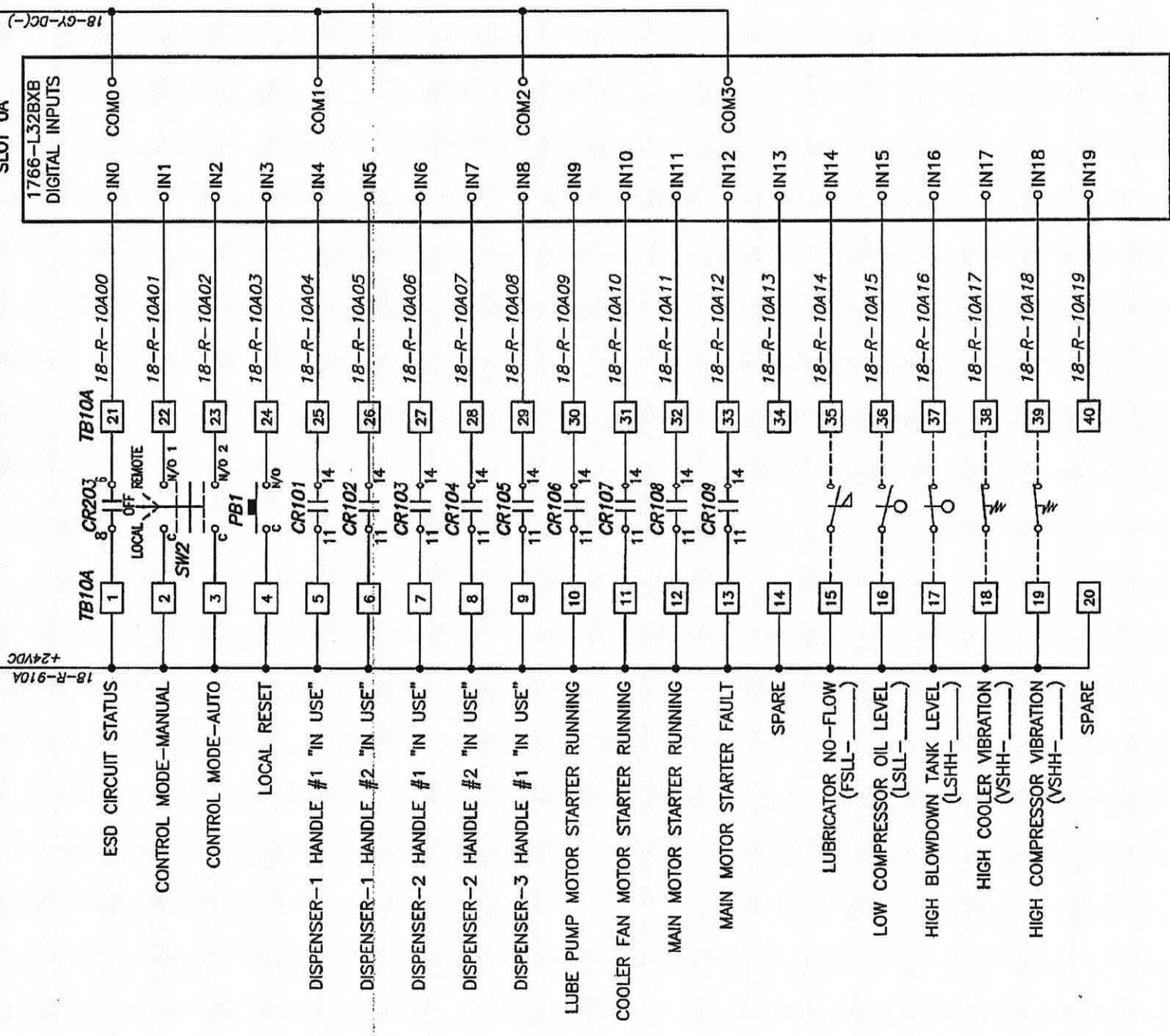
DRAWN BY		RB
CHK'D BY		
APPROVED BY		
DATE		9-10-09
SCALE		NONE
SHEET		
3 OF 13		
DESCRIPTION		
REV.	A	CUSTOMER APPROVAL
		DATE
		DCN No.
		9-24-09
WIRING DIAGRAM		
J-W POWER		
CONTROL SYSTEMS & SERVICES - ROSENBERG, TX		
MURPHY		
CNG STATION		
YOUR NO.	P164756	REF. NO.
DWG. NO.	50-30-8207	REV.
		A

DRAWING SET: Appliance Notices - Compressed
Natural Gas (CNG) Fueling Station - CNG #2
SHEET: 41, Compressor Electrical #3
PAGE 19 OF 31

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FROM F10A
SHEET 3

FROM TB2
SHEET 3



Handwritten signature/initials

J-W PART NO.: 328-00496

J-W DWG NO.: 335-19112-00

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE	9-10-09	
SCALE	NONE	
SHEET		4 OF 13
DESCRIPTION		CNG STATION
REV.	A	CUSTOMER APPROVAL

MURPHY
CONTROL SYSTEMS & SERVICES - ROSENBERG, TX

FOR
J-W POWER

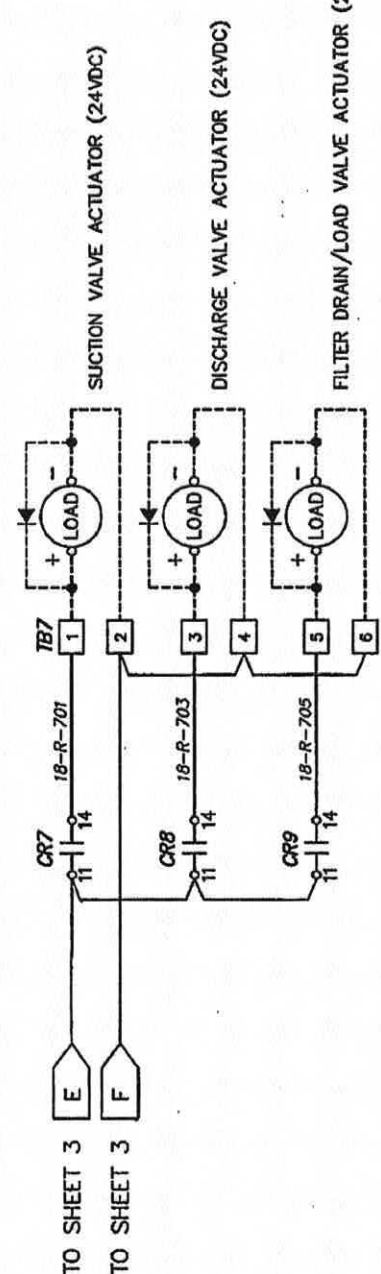
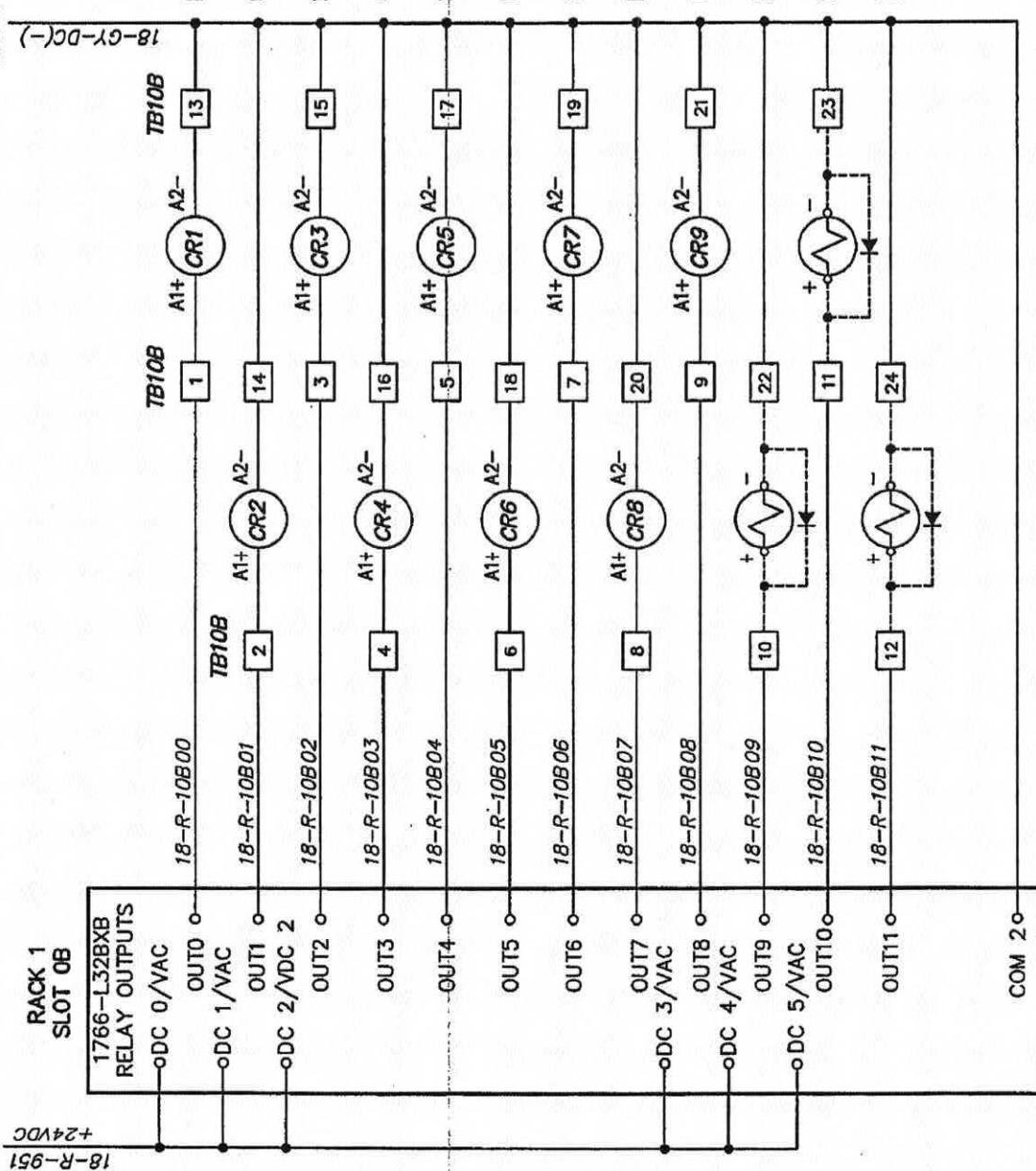
LEGEND & NOTES

CNG STATION

YOUR NO. P164756
REV. NO. 50-30-8207
REV. A

FROM F10B
SHEET 3

FROM TB2
SHEET 3



Handwritten initials and date: 10/19/09

J-W DWG NO.: 335-19112-00
J-W PART NO.: 328-00496

DRAWN BY		REB
CHK'D BY		
APP'D BY		
DATE		9-10-09
SCALE		NONE
SHEET		5 OF 13
DCN No.		9-24-09
DATE		
CHK'D BY		
DESCRIPTION		CNG STATION
REV.		
A. CUSTOMER APPROVAL		

MURPHY
CONTROL SYSTEMS & SERVICES - ABBENBERG TX

FOR
J-W POWER

LEGEND & NOTES

YOUR NO. P164756 REF NO.
DWG. NO. **50-30-8207** REV. **A**

FROM F11
SHEET 3

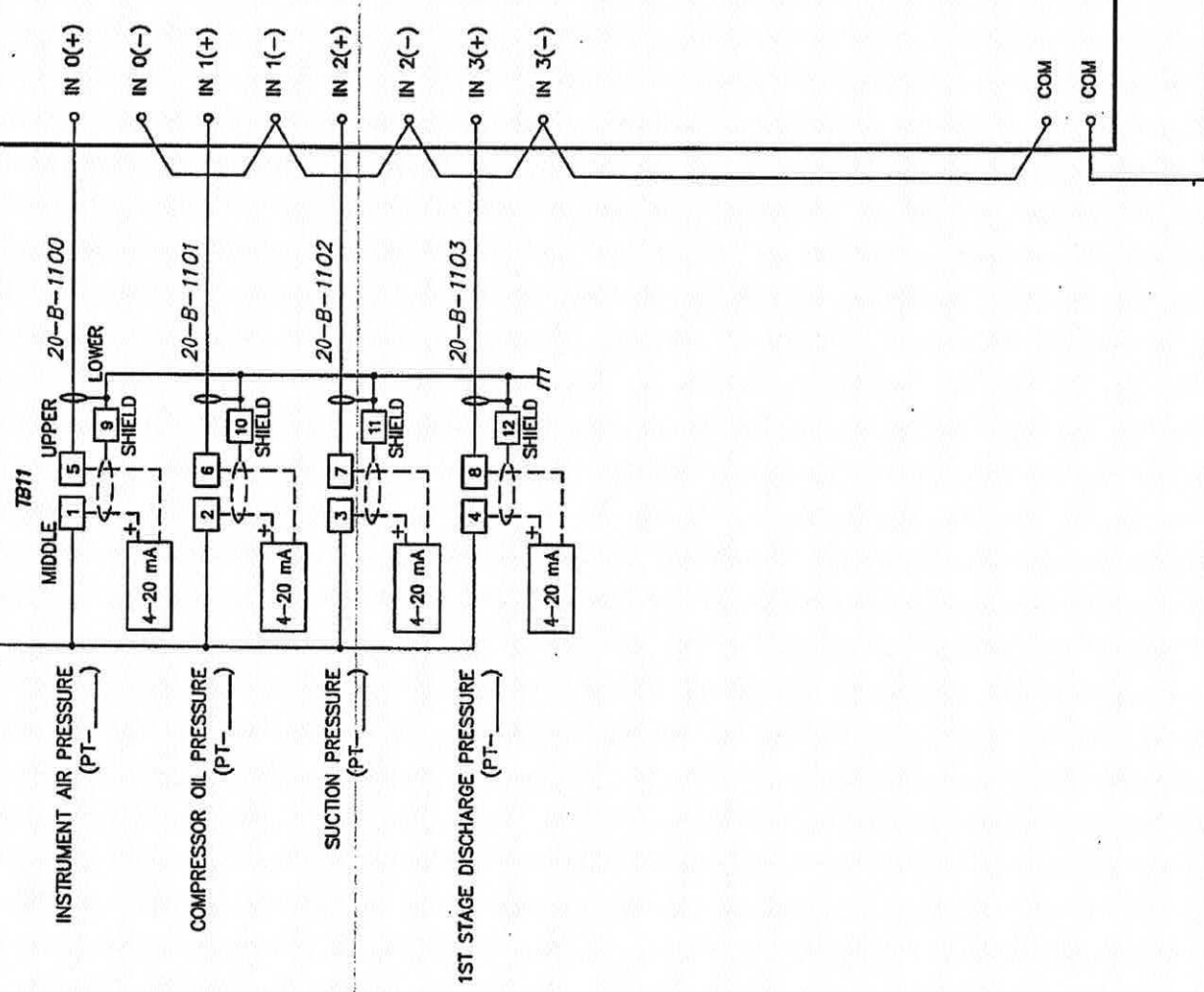
+24VDC
18-R-911

FROM TB2
SHEET 3

18-GY-DC(-)

RACK 1
SLOT 1

1762-IF4
ANALOG INPUT
4-20 mA



Handwritten signature and date: 10/10/09

J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
AP'D BY		
DATE		9-10-09
SCALE		NONE
SHEET		6 OF 13
DESCRIPTION		I/O MODULE
CUSTOMER APPROVAL		CNG STATION
REV.	DCN No.	DATE
A		9-24-09

MURPHY
CONTROL SYSTEMS & SERVICES - ROSSBERG, TX

FOR
J-W POWER

I/O MODULE

CNG STATION

YOUR NO. P164756 REF NO.
DWG. NO. **50-30-8207** REV. **A**

DRAWING SET: Alpha Nitrox - Compressor
Natural Gas (NG) Filling Station - CNG #2
SHEET: 4k, Compressor Electrical 6
PAGE 22 OF 31

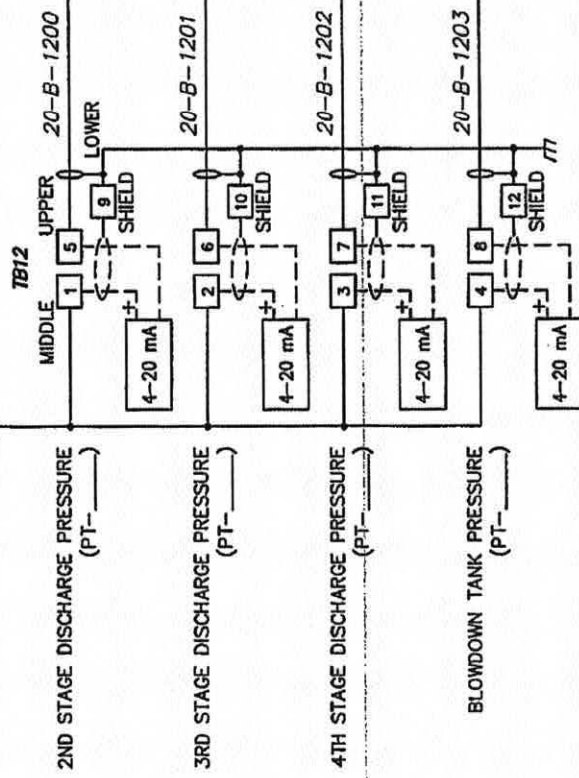
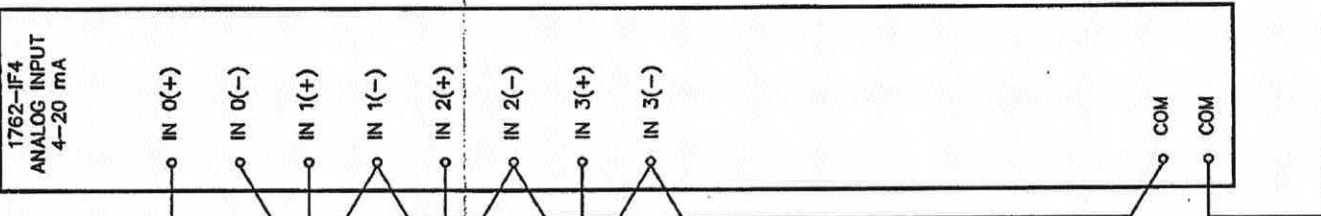
FROM F12
SHEET 3

18-R-912
+24VDC

FROM TB2
SHEET 3

18-GY-DC(-)

RACK 1
SLOT 2



Handwritten signature and date: 10/1/08

J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE	9-10-09	
SCALE	NONE	
SHEET		7 OF 13
DCN No.		9-24-09
DATE		
CHK'D BY		
DESCRIPTION		
A. CUSTOMER APPROVAL		
REV.		

MURPHY
CONTROL SYSTEMS & SERVICES - ROSHBURG, TX

FOR: J-W POWER

I/O MODULE

CNG STATION

YOUR NO. P164756 REF. NO.

DWG. NO. 50-30-8207 REV. A

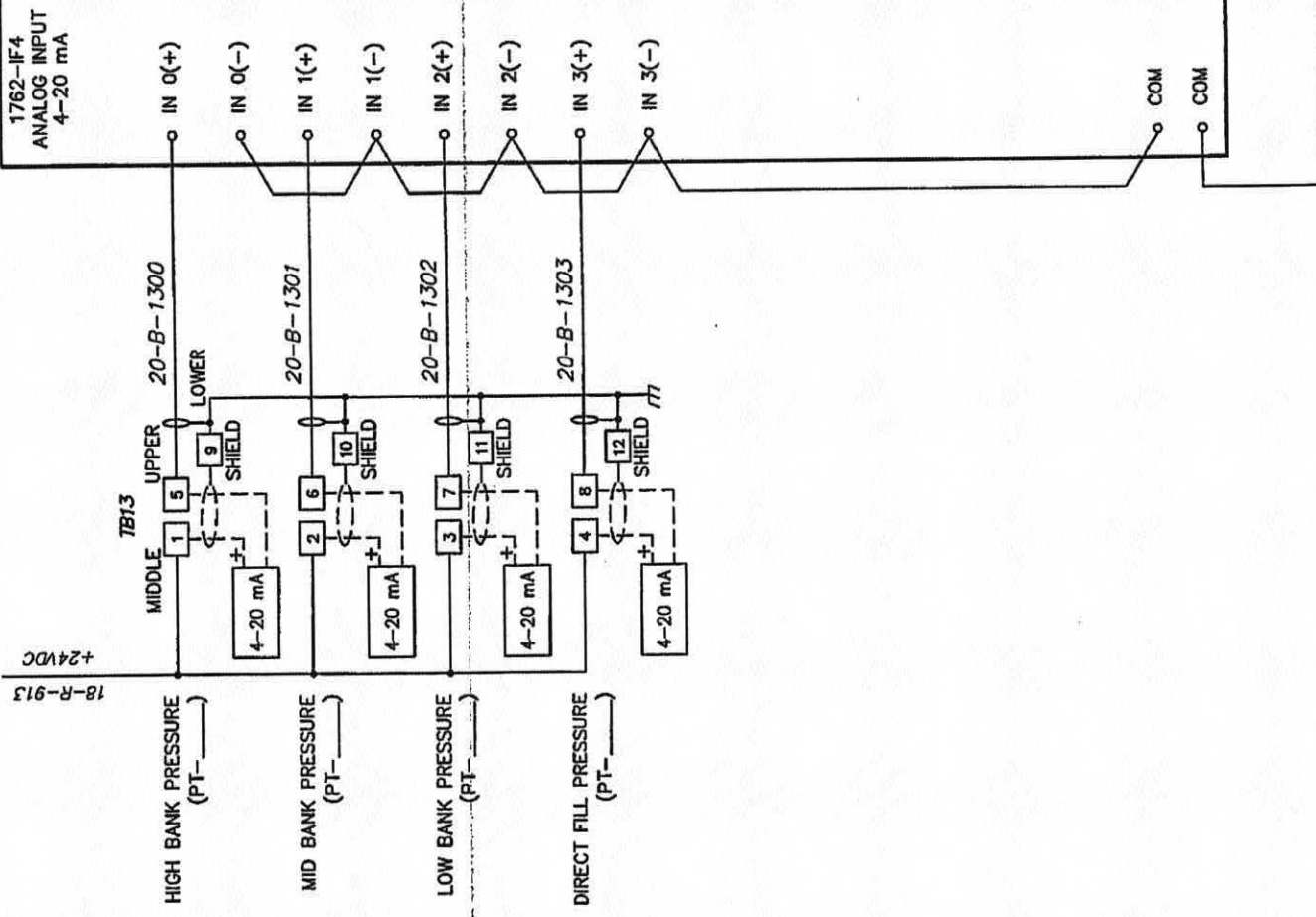
DRAWING SET, Apache Natives - Compressed
Natural Gas (CNG) Fueling Station - CNG #2
SHEET: 4, Compressor Electrical 7
PAGE 23 OF 34

FROM F13
SHEET 3

FROM TB2
SHEET 3

18-R-913 +24VDC

RACK 1
SLOT 3



J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE		9-10-09
SCALE		NONE
SHEET		8 OF 13
DCN No.		9-24-09
DATE		
CHK'D. BY		
DESCRIPTION		I/O MODULE
REV.		CNG STATION
YOUR NO.		P164756
DWG. NO.		50-30-8207
REV.		A

MURPHY
CONTROL SYSTEMS & SERVICES - ROSELAND, TX

FOR
J-W POWER

I/O MODULE

CNG STATION

DRAWING SET: Apache Notation - Compressed
Nuclear Gas (CNG) Filling Station - CNG FZ
SHEET: 4th Compressor Electrical 1
PAGE 21 OF 31

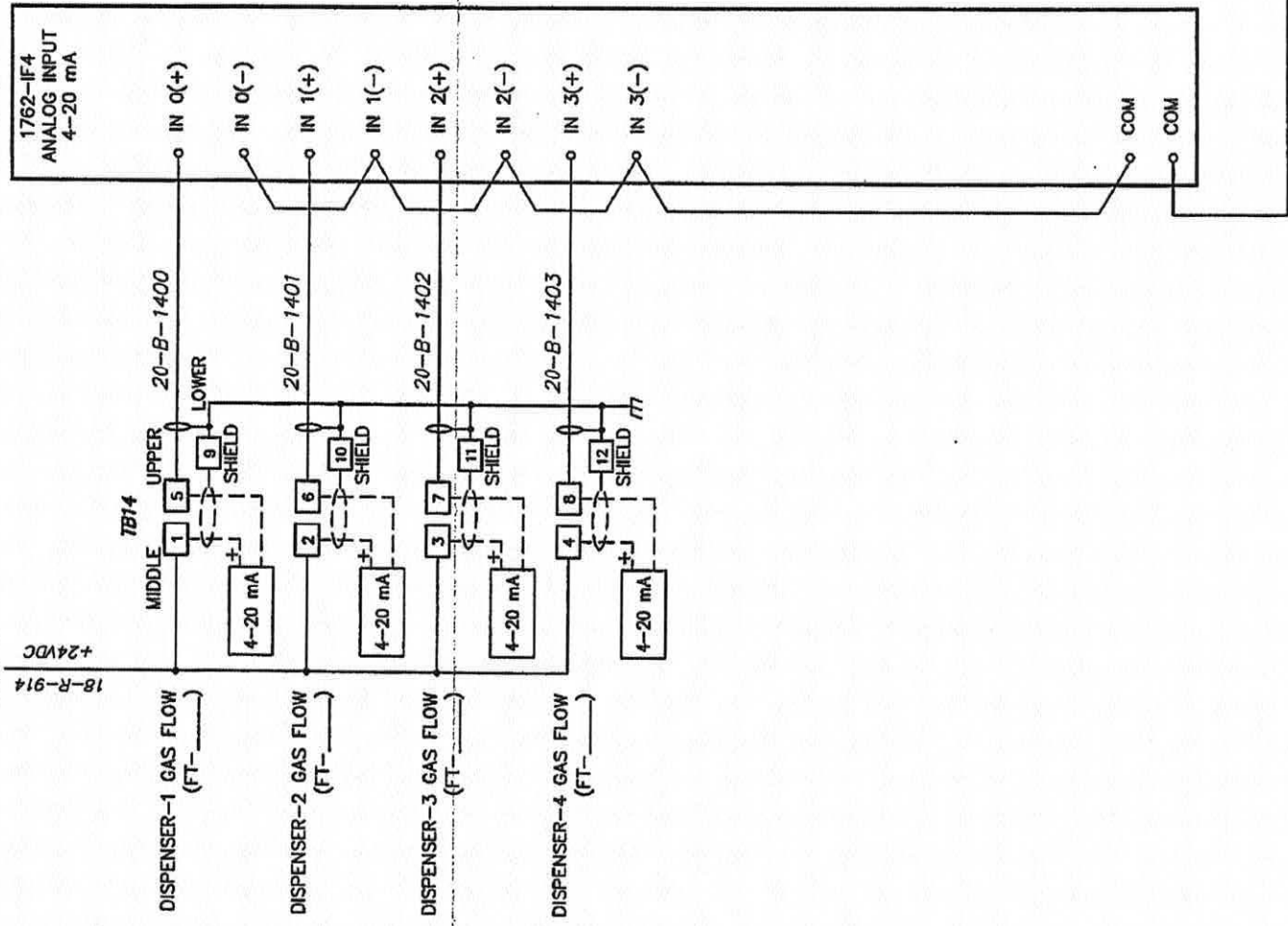
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FROM F14
SHEET 3

FROM TB2
SHEET 3

18-R-914 +24VDC



Handwritten signature and date: 10/10/09

J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE		9-10-09
SCALE		NONE
SHEET		9 OF 13
DCK No.		9-24-09
DATE		
CHK'D BY		
DESCRIPTION		
CUSTOMER APPROVAL		
REV.		
A		

MURPHY
CONTROL SYSTEMS & SERVICES - ROSSBURG, TX

FOR
J-W POWER

I/O MODULE

CNG STATION

YOUR NO. P164756 REF. NO.
DWG. NO. **50-30-8207** REV. **A**

DRAWING SET, Apache Notices - Compressed
Natural Gas (CNG) Fueling Station - CHG #2
SHEET 4 of 4, Compressor Electrical 3
PAGE 25 OF 31

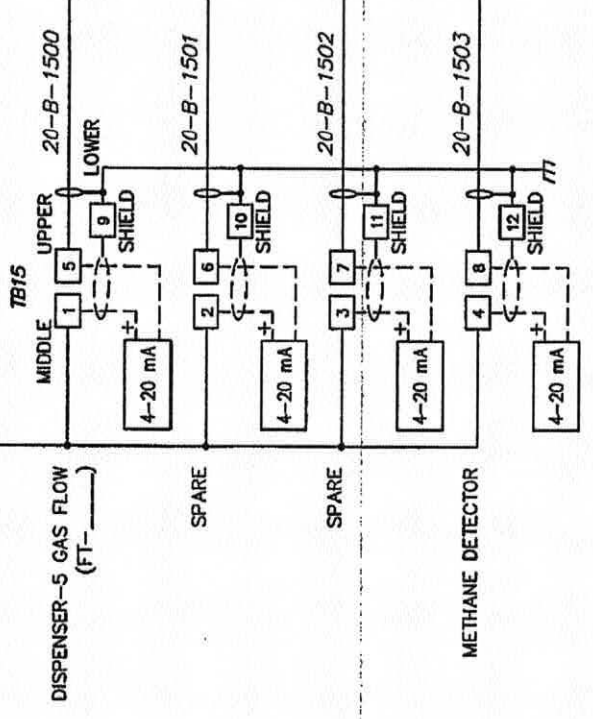
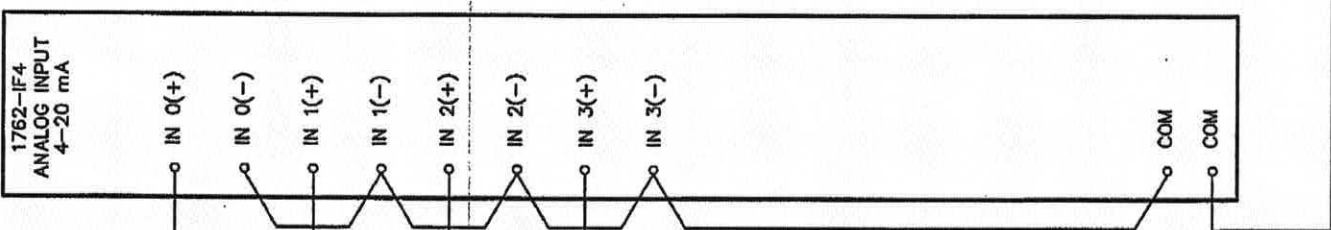
FROM F15
SHEET 3

18-R-915
+24VDC

FROM TB2
SHEET 3

18-GY-DC(-)

RACK 1
SLOT 5



Handwritten signature/initials

J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE	9-10-09	
SCALE	NONE	
SHEET		10 OF 13
DESCRIPTION		I/O MODULE
CUSTOMER APPROVAL		CNG STATION
REV.	A	
YOUR NO.	P164756	REF. NO.
DWG. NO.	50-30-8207	REV.
		A



CONTROL SYSTEMS & SERVICES - ROSENBERG, TX

FOR J-W POWER

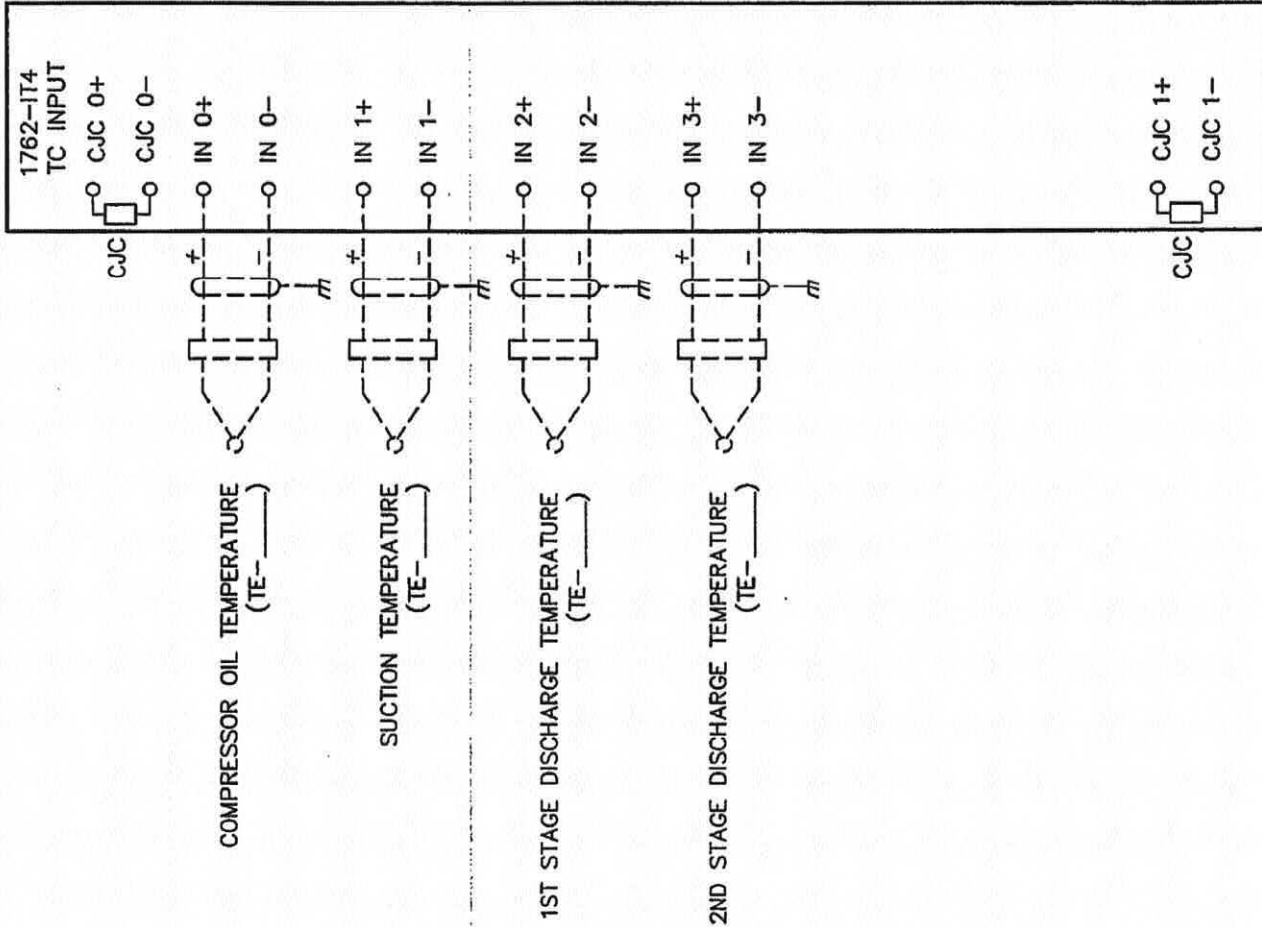
I/O MODULE

CNG STATION

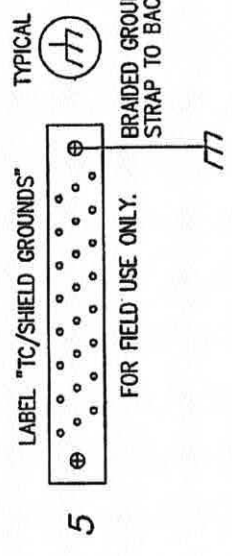
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DRAWING SET: Apache Noxious - Compressor Natural Gas (CNG) Fueling Station - CNG #2 SHEET: 4c, Compressor Electrical 10 PAGE 26 OF 34

RACK 1
SLOT 6



INSTALLATION NOTE:
 ONLY TWISTED, SHIELDED, EXTENSION GRADE THERMOCOUPLE WIRE SHOULD BE USED. THE SHIELD GROUND (DRAIN WIRE) SHOULD BE GROUND AT THE T/C SHIELD GROUND. NO DISSIMILAR METALS SHOULD BE USED TO MAKE SPLICES IN THIS WIRE. FOR TYPE J AND K THERMOCOUPLES (-) IS COLOR CODED RED, TYPE J (+) IS WHITE, AND TYPE K (+) IS YELLOW. FOR OTHER TYPES, CONSULT A REFERENCE BOOK.
 THERMOCOUPLE WIRE SHALL BE RUN IN A SEPARATE CONDUIT FROM ANY POWER WIRES.



Handwritten signature and date: 9/10/09

SPARE T/C CHANNELS TO BE JUMPERED.
 ALL SHIELDS TERMINATED SHOULD BE TIED TO GROUND BUS BAR PROVIDED.

J-W DWG NO.: 335-19112-00 J-W PART NO.: 328-00496

MURPHY
 CONTROL SYSTEMS & SERVICES - ROSSBERG, TX

FOR J-W POWER

I/O MODULE

CNG STATION

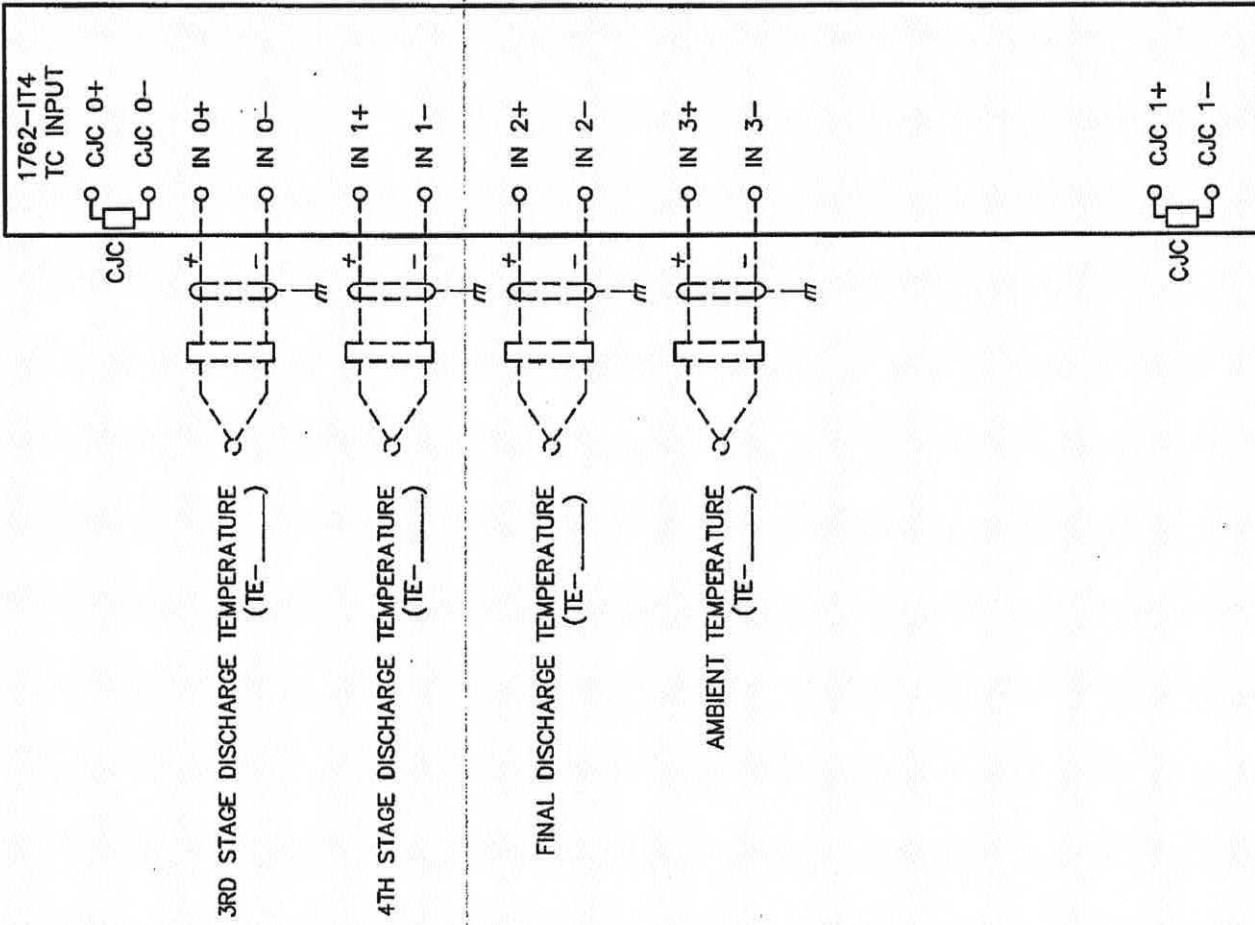
YOUR NO. P164756 REF. NO.
 DWG. NO. 50-30-8207 REV. A

REV.	A	DESCRIPTION	DATE	CHK'D. BY
		CUSTOMER APPROVAL	9-24-09	

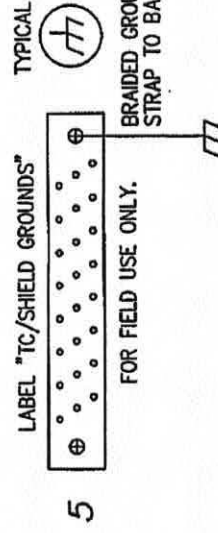
DRAWN BY	RB
CHK'D BY	
APP'D BY	
DATE	9-10-09
SCALE	NONE
SHEET	11 OF 13

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RACK 1
SLOT 7



INSTALLATION NOTE:
ONLY TWISTED SHIELDED, EXTENSION GRADE THERMOCOUPLE WIRE SHOULD BE USED. THE SHIELD GROUND (ORAIN WIRE) SHOULD BE GROUNDED AT THE T/C SHIELD GROUND. NO DISSIMILAR METALS SHOULD BE USED TO MAKE SPICES IN THIS WIRE. FOR TYPE J AND K THERMOCOUPLES (-) IS COLOR CODED RED, TYPE J (+) IS WHITE, AND TYPE K (+) IS YELLOW. FOR OTHER TYPES, CONSULT A REFERENCE BOOK.
THERMOCOUPLE WIRE SHALL BE RUN IN A SEPARATE CONDUIT FROM ANY POWER WIRES.



Handwritten signature and date: 10/10/09

J-W DWG NO.: 335-19112-00 J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE		9-10-09
SCALE		NONE
SHEET		12 OF 13
CUSTOMER APPROVAL		
DCN No.		9-24-09
DATE		
CHK'D BY		
DESCRIPTION		CNG STATION
REV.		

FOR J-W POWER I/O MODULE

MURPHY CONTROL SYSTEMS & SERVICES - ROSSBERG, TX

YOUR NO. P164756 REF NO.

DWG. NO. 50-30-8207 REV. A

SPARE T/C CHANNELS TO BE JUMPERED.
ALL SHIELDS TERMINATED SHOULD BE TIED TO GROUND BUS BAR PROVIDED.

PANEL LEGEND

ITEM	PART NO.	QTY	MANUFACTURER	MFR. PART NO.	DESCRIPTION
1	00000908	1	SAGINAW	SCE-36L3612LP	ENCLOSURE, 36 X36 X 12
2	00000909	1	SAGINAW	SCE-36P36	SUBPANEL
3	00008501	1	SAGINAW	SCE-FK2412	FLOOR STAND KIT
4	00005137	2	WILLIAMS		EYE BOLT, 5/8-11, CAD PLATE
5	50226383	1	STORM	FWM-IGB	GROUND BAR, ISOLATED
PLC	00030910	1	ALLEN-BRADLEY	1766-32BXB	CHASSIS ML140 20/12 DC POWER
PLC	00030897	5	ALLEN-BRADLEY	1769-IF4	4 POINT 4-20mA ANALOG INPUT MODULE
PLC	00030898	2	ALLEN-BRADLEY	1769-IT4	4 POINT T/C INPUT MODULE
ETH	00030011	1	PHOENIX	2832771	ETHERNET SWITCH (8 PORT)
CA1-2	00006895	2	A-TEL	AT1510EVB	10 FT. ETHERNET PATCH CABLE, RJ45, CAT 5e
HMI	00030541	1	RED LION	G306A	HMI/MMI INTERFACE W/ETHERNET COMMUNICATIONS
CF	00030703	1	SANDISK	565-1234-ND	1GB CF FLASHCARD (INSTALL ON HMI)
PSU1	00009604	1	PHOENIX	2938604	POWER SUPPLY, 85-264 VAC IN /24 VDC, 10 AMP OUT
F1-4	00009255	4	PHOENIX	3048386	FUSE HOLDER, 10.3-HESI
F5,6,10A,10B	00005610	4	BUSSMAN	KTRK-10	10 AMP FUSE (CLASS CC)
F11-16,201	00006164	11	GOULD	GAB-4	4 AMP FUSE (CERAMIC, SAND FILLED)
CR201-203	00007690	11	PHOENIX	3005507	FUSE HOLDER, UK10-DREHSI
CR1-9	00030428	3	C3CONTROLS	HGPRS-P2C12D	RELAY, 120VAC, 12 AMP
CR101-109	00002396	3	IDEC	SR2P06	RELAY SOCKET
SW1	00009390	9	PHOENIX	5603154	SPOT RELAY, 24VDC, 6 AMP
SW2	00009307	9	PHOENIX	5603157	SPOT RELAY, 120VAC, 6 AMP
ESP	50235050	1	C3CONTROLS	HSS02/CBFSR	2 POSITION SWITCH W/10 AMP CONTACTS
PL1	50235051	1	C3CONTROLS	HSS03/CBFSR (2)	3 POSITION SWITCH W/10 AMP CONTACTS
PL1	00009220	1	C3CONTROLS	HPTR-TMCRD-CBFS	EMERGENCY STOP PUSHBUTTON, TWIST MUSHROOM HD
PL1	00006841	1	C3CONTROLS	PLWE	WHITE LENS
PL1	00030769	1	C3CONTROLS	HFVLU120	LAMP BASE W/120 VAC BULB
PB1	50235052	1	C3CONTROLS	HPB0/CBFS	PUSHBUTTON W/10 AMP CONTACTS
TB1	00006626	AR	PHOENIX	3005073 (UK10M)	SINGLE TERMINAL BLOCK (PRIMARY POWER)
TB2-7	00008705	AR	PHOENIX	3004362 (UK5N)	SINGLE TERMINAL BLOCK W/END PLATE
TB10AB	00004348	AR	PHOENIX	2771146 (UKKB5)	DOUBLE TERMINAL BLOCK W/END PLATE
TB11-15	00000481	AR	PHOENIX	2715979 (UKD1.5)	TRIPLE TERMINAL BLOCK
TB-ALL	00000352	AR	PHOENIX	0800307 (UBE/D)	TERMINAL BLOCK GROUP MARKER

AR = AS REQUIRED

50235050

ITEM	PART NO.	QTY	MANUFACTURER	MFR. PART NO.	DESCRIPTION
SW1	00005983	1	C3CONTROLS	HSS02	2 POSITION SELECTOR SWITCH
	00006851	1	C3CONTROLS	CBFSR	1 N.O., 1 N.C. CONTACT BLOCK
	00005985	1	C3CONTROLS	SHWE	OPERATING HANDLE
	00005992	1	C3CONTROLS	TTW	LOCKING RING

50235051

ITEM	PART NO.	QTY	MANUFACTURER	MFR. PART NO.	DESCRIPTION
SW2	00005989	1	C3CONTROLS	HSS03	3 POSITION SELECTOR SWITCH
	00006851	2	C3CONTROLS	CBFSR	1 N.O., 1 N.C. CONTACT BLOCK
	00005985	1	C3CONTROLS	SHWE	OPERATING HANDLE
	00005992	1	C3CONTROLS	TTW	LOCKING RING

50235052

ITEM	MURPHY NO.	QTY	MANUFACTURER	MFR. PART NO.	DESCRIPTION
PB1	00006847	1	C3CONTROLS	HPB0	PUSHBUTTON OPERATOR
	00006852	1	C3CONTROLS	CBFS	1 N.O., 1 N.C. CONTACT BLOCK
	00006850	1	C3CONTROLS	FOBK	BLACK FLUSH CAP
	00005992	1	C3CONTROLS	TTW	LOCKING RING

NOTES:

- FACTORY WIRING: _____
- CUSTOMER WIRING: _____
- END USER WIRING: _____
- PNEUMATIC: _____
- TUBING: 3/16 STAINLESS STEEL
- FITTING: STAINLESS STEEL SWAGelok
- ROUTE SENSOR LEADS SEPARATE FROM ALL OTHER WIRING.
- "18-BL-25" REPRESENTS "AWG-WIRE COLOR-WIRE NUMBER".
- CAUTION: DISCONNECT ALL SENSOR LEADS & REMOVE MODULES FROM RACK BEFORE WELDING.
- THIS PANEL IS DESIGNED FOR USE IN CLASS 1, DIV. 2, GROUP D HAZARDOUS LOCATIONS.
- GROUND SYMBOLS WILL BE SHOWN PER THE FOLLOWING: EARTH/NON-INCENDIVE CHASSIS/NON-INCENDIVE DC COM/CLOSE LOOP

- UNLESS OTHERWISE NOTED ALL DEVICES ARE SHOWN IN THE SHELF POSITION.
- ALL UNASSIGNED SPARE TERMINALS SHALL BE PLACED ON SEPARATE "SPARE TB".
- SEE PACKAGER P&ID DRAWINGS FOR DEVICE TAGS.
- WARNING: ALL WIRING SHALL BE INSTALLED AS PERMITTED BY THE NEC FOR CLASS 1, DIV. 2 HAZARDOUS LOCATIONS. ALL COMPONENTS SHALL BE CSA, FM OR UL APPROVED FOR CLASS 1, DIV. 2. SUBSTITUTIONS OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS 1, DIV. 2 HAZARDOUS LOCATIONS.

J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE	9-10-09	
SCALE	NONE	
SHEET		13 OF 13
CUSTOMER APPROVAL		
REV.	DESCRIPTION	
A		

MURPHY
CONTROL SYSTEMS & SERVICES - ROSENBERG, TX

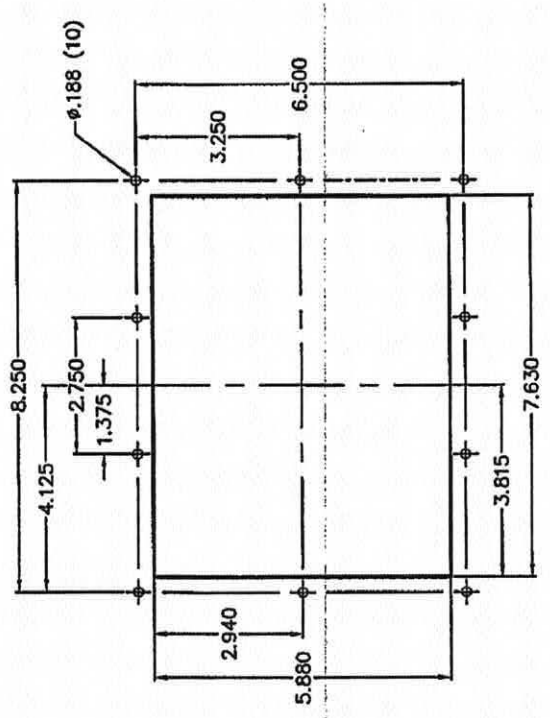
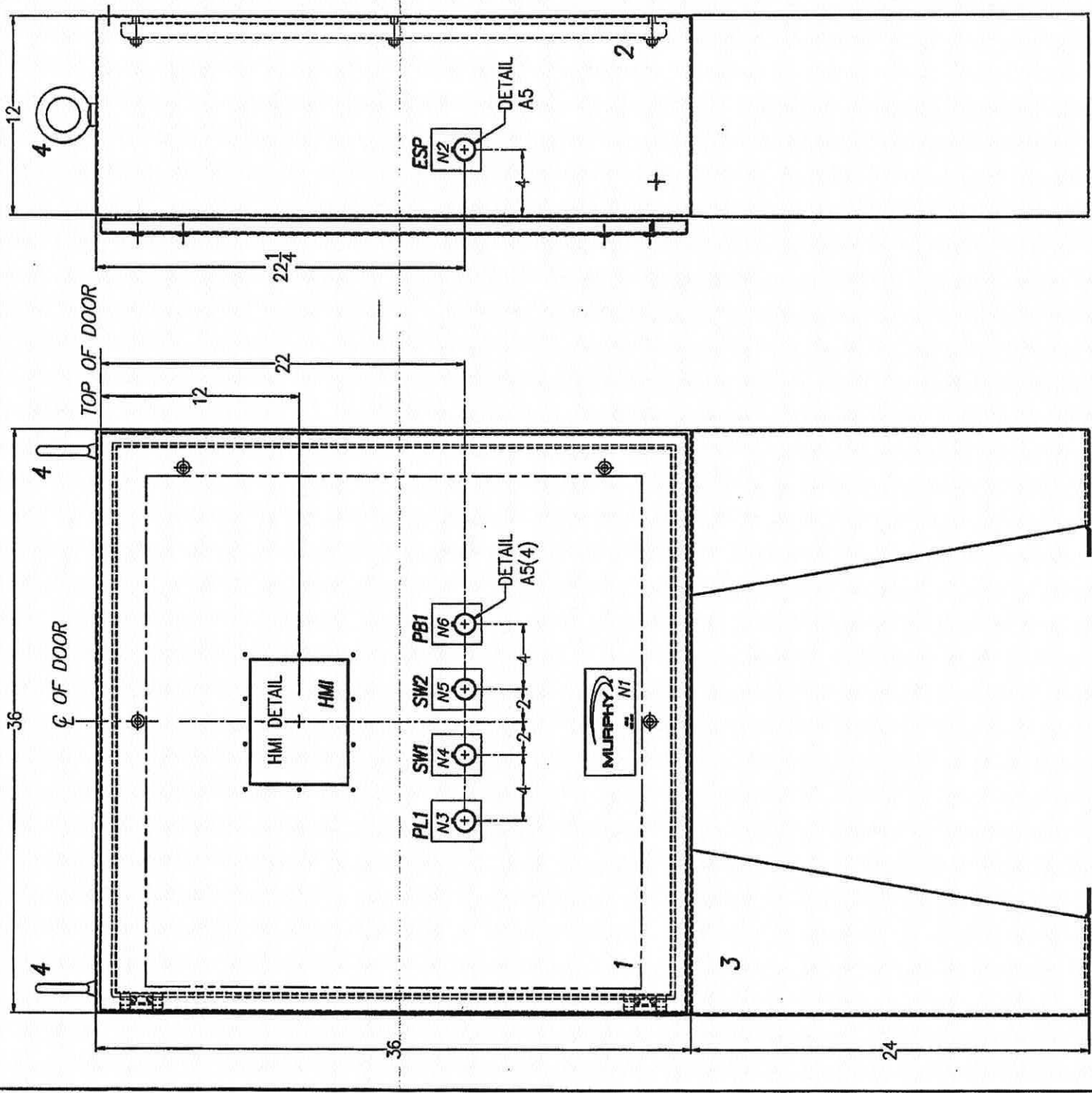
J-W POWER

LEGEND & NOTES

CNG STATION

YOUR NO. P164756 REF. NO.

DWG. NO. **50-30-8207** REV. **A**



HMI DETAIL

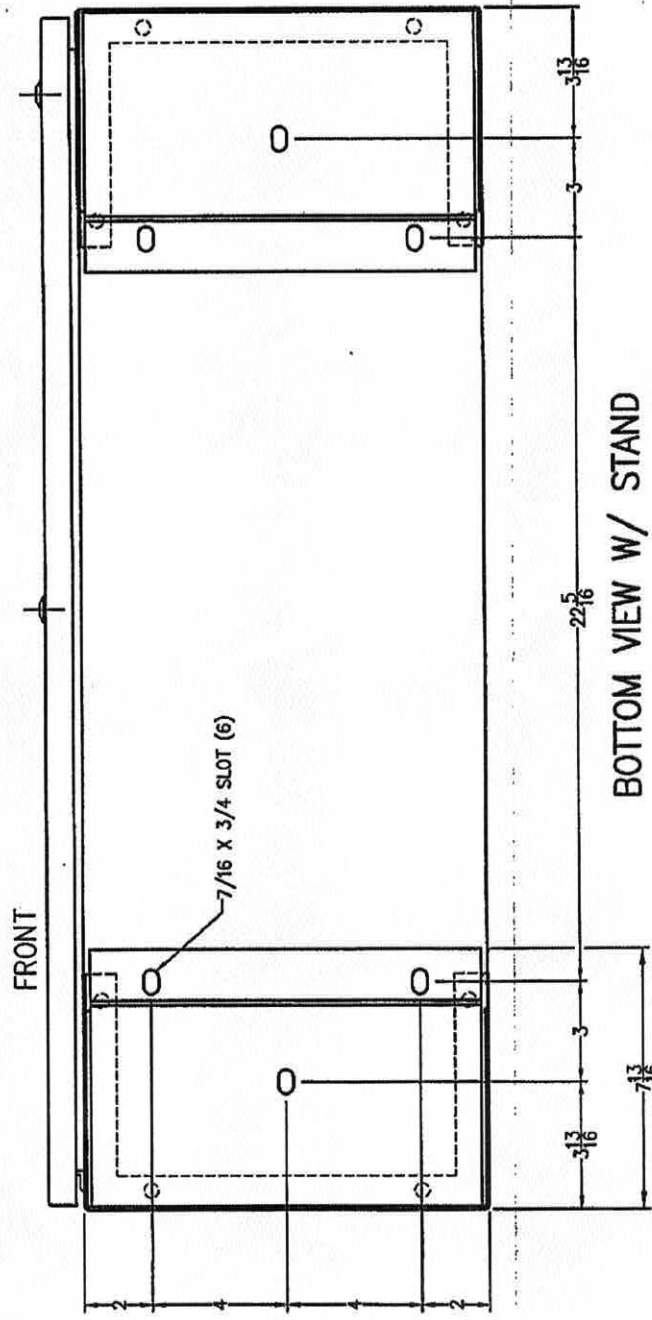
AKA 9/1/08

J-W DWG NO.: 335-19112-00 J-W PART NO.: 328-00496

MURPHY CONTROL SYSTEMS & SERVICES - ROSENBERG, TX		DRAWN BY	RB
FOR		CHK'D BY	
J-W POWER		APP'D BY	
PANEL LAYOUT		DATE	9-10-09
CNG STATION		SCALE	NONE
YOUR NO. P164756		SHEET	1 OF 3
DNG. NO. 50-29-8207		DCN No.	9-24-08
		DATE	
		CHK'D. BY	
		DESCRIPTION	

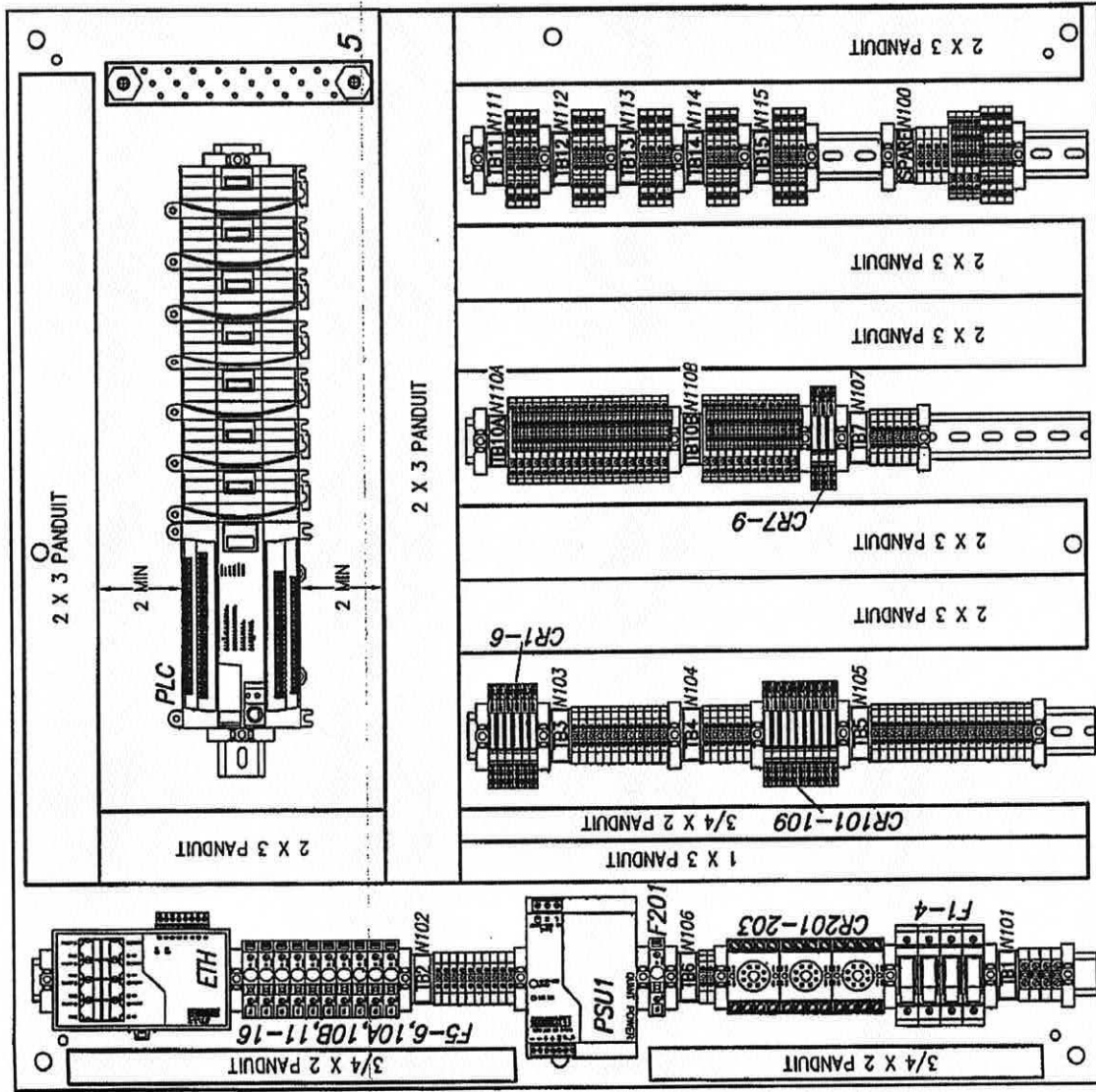
UNLESS OTHERWISE NOTED
DIMENSIONS ARE IN INCHES
xx ±.030 ANGLES ±2°
xxx ±.010 ✓ 125
FRACTIONS 31/16

DRAWING SET: Apache Nozzle - Compressed
Natural Gas (CNG) Filling Station - CNG #2
SHEET: 48, Compressor Electrical 14
PAGE 30 OF 34



BOTTOM VIEW W/ STAND

TERMINAL BLOCK QUANTITIES		
TB NO.	QTY	
TB1	4	
TB2	10	
TB3	12	
TB4	6	
TB5	20	
TB6	2	
TB7	6	
TB10A	20	
TB10B	12	
TB11	4	
TB12	4	
TB13	4	
TB14	4	
TB15	4	



BACKPLATE LAYOUT

J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

 CONTROL SYSTEMS & SERVICES - ROSENBERG, TX		FOR	J-W POWER			
		DESCRIPTION	PANEL LAYOUT			
REV. A	CUSTOMER APPROVAL	DCN No.	DATE	CHK'D. BY	SHEET	2 OF 3
			9-24-09			
			DATE	9-10-09	SCALE	NONE
			APP'D BY		CHK'D BY	
			CHK'D BY		RB	
			DRAWN BY			

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YOUR NO. P164756 REF. NO.
 DWG. NO. 50-29-8207 REV. A

DRAWING SET: Apache Notices - Compressor Natural Gas (CNG) Filling Station - CNG #2 SHEET: 4L Compressor Electrical 15 PAGE 31 OF 31

INDIVIDUAL NAMEPLATE SCHEDULE

QTY.	TAG #	LETTERS/TAG	DESCRIPTION	PART #
1	N1	W/B	Large serial no. tag	50225435
1	N2	R/W	EMERGENCY STOP	50225346
1	N3	W/B	POWER > OFF-ON	50225344
1	N4	W/B	POWER ON	50225438
1	N5	W/B	(A)CONTROL MODE (B)MANUAL (C)OFF (D)AUTO	50225438
1	N6	W/B	LOCAL > RESET	50225438
1	N100	B/W	SPARE	50225307
1	N101	B/W	TB1	50225307
1	N102	B/W	TB2	50225307
1	N103	B/W	TB3	50225307
1	N104	B/W	TB4	50225307
1	N105	B/W	TB5	50225307
1	N106	B/W	TB6	50225307
1	N107	B/W	TB7	50225307
1	N110A	B/W	TB10A	50225307
1	N110B	B/W	TB10B	50225307
1	N111	B/W	TB11	50225307
1	N112	B/W	TB12	50225307
1	N113	B/W	TB13	50225307
1	N114	B/W	TB14	50225307
1	N115	B/W	TB15	50225307

N2 MUST BE A RED TAG WITH WHITE LETTERS
 N100-115 MUST BE WHITE TAG WITH BLACK LETTERS

[Handwritten Signature]
 9/19/09

J-W DWG NO.: 335-19112-00

J-W PART NO.: 328-00496

DRAWN BY		RB
CHK'D BY		
APP'D BY		
DATE	9-10-09	
SCALE	NONE	
SHEET		3 OF 3
REV.	DESCRIPTION	DCN No.
A	CUSTOMER APPROVAL	9-24-09
DATE		CHK'D BY

FOR

MURPHY
 CONTROL SYSTEMS & SERVICES - ROSENBERG, TX

J-W POWER

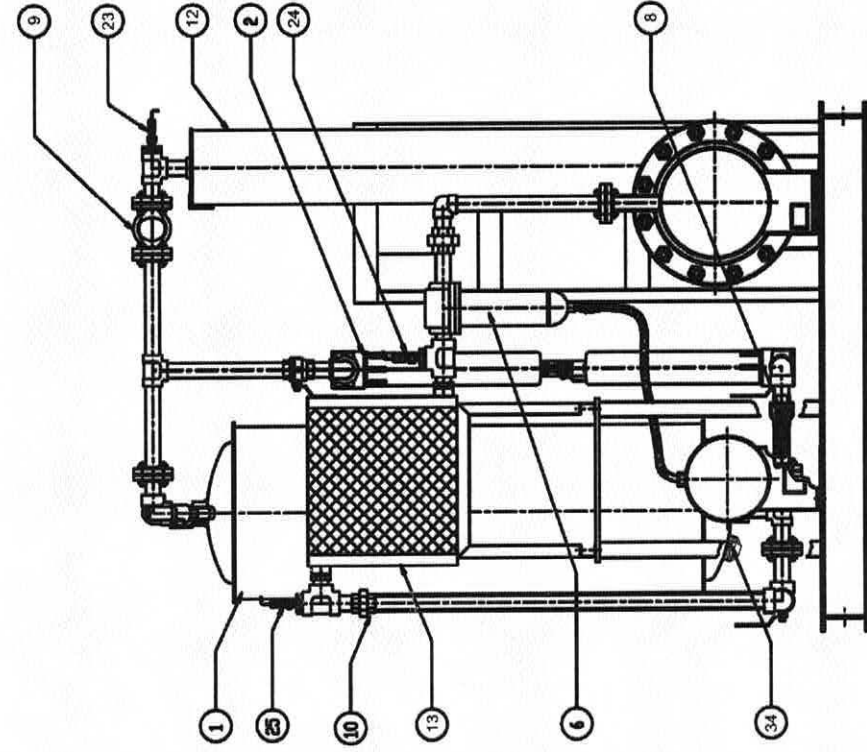
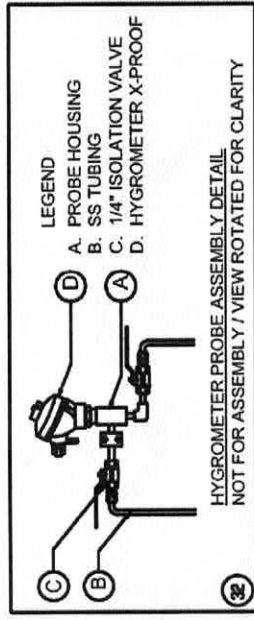
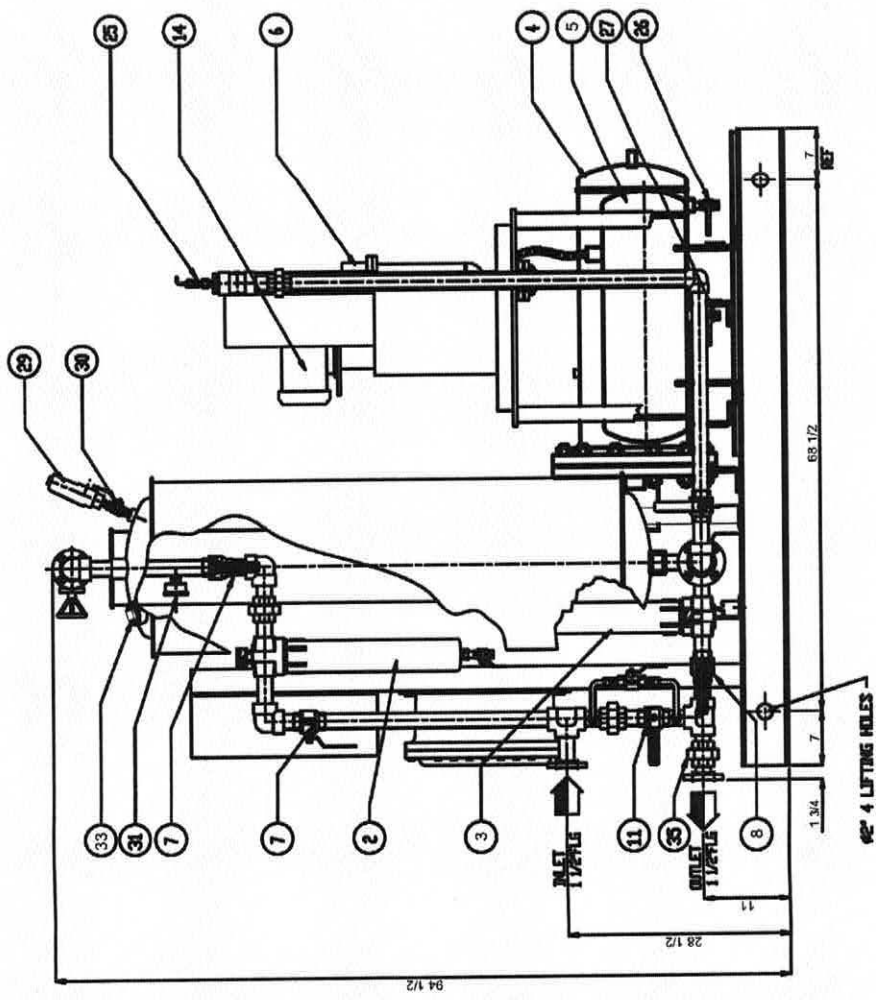
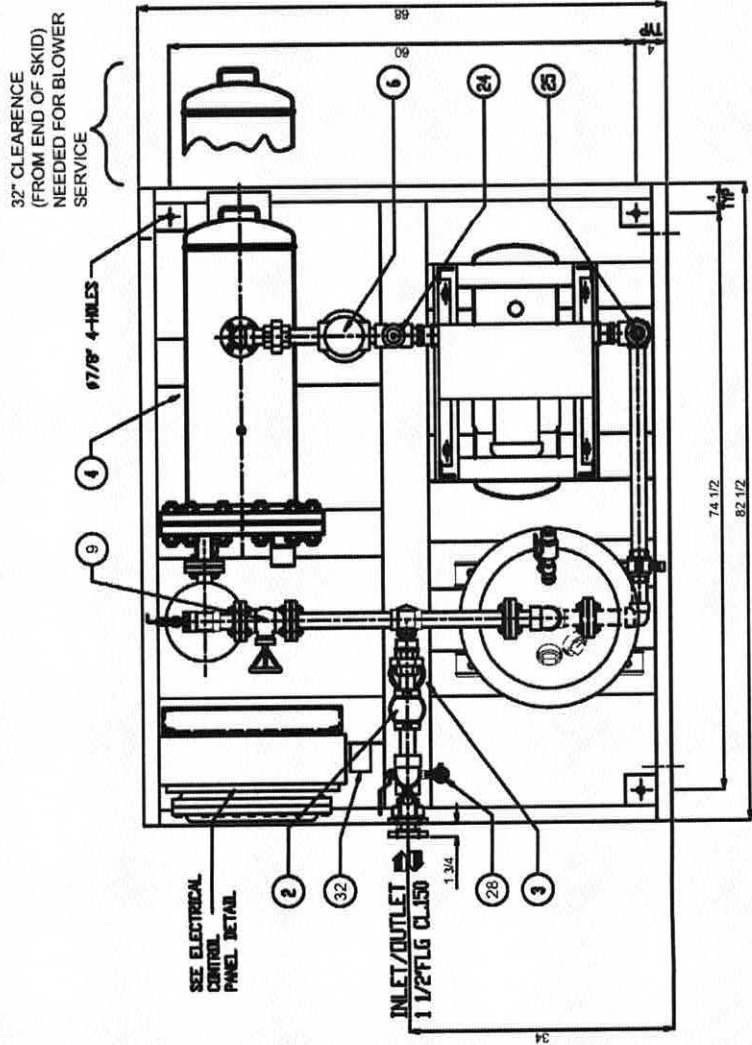
NAMEPLATE SCHEDULE

CNG STATION

YOUR NO. P164756 REF. NO.

DWG. NO. 50-29-8207 REV. A

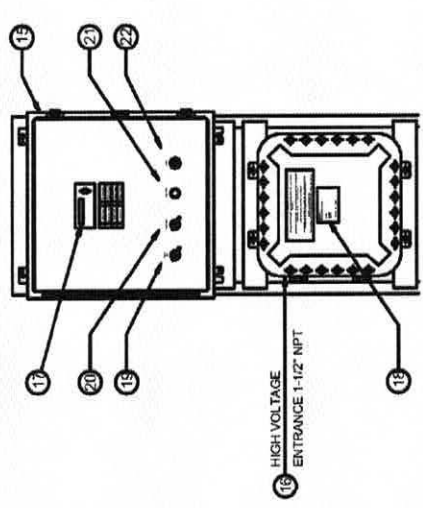
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- LEGEND:**
1. DESICCANT CHAMBER
 2. PREFILTER c/w MANUAL DRAIN VALVE & DPI
 3. AFTERFILTER c/w MANUAL VENT VALVE & DPI
 4. REGENERATION BLOWER / MOTOR HOUSING
 5. LIQUID ACCUMULATION TANK
 6. REGENERATION SEPARATOR
 7. PREFILTER / DRYER ISOLATION VALVE (2)
 8. AFTERFILTER / DRYER ISOLATION VALVE (2)
 9. REGENERATION INLET ISOLATION VALVE
 10. REGENERATION OUTLET ISOLATION VALVE
 11. BYPASS VALVE
 12. REGENERATION HEATER
 13. REGENERATION AFTERCOOLER
 14. AFTERCOOLER MOTOR
 15. ELECTRICAL CONTROL PANEL (PLC)
 16. ELECTRICAL PANEL (HIGH VOLTAGE)
 17. TEXT DISPLAY
 18. DRYER NAMEPLATE
 19. POWER ON / OFF SWITCH
 20. LOCKABLE REGENERATION START PUSH BUTTON
 21. EMERGENCY REGENERATION STOP PUSH BUTTON
 22. ALARM LIGHT
 23. HEATER OUTLET TEMPERATURE SENSOR
 24. AFTERCOOLER OUTLET TEMPERATURE SENSOR
 25. AFTERCOOLER INLET TEMPERATURE SENSOR
 26. BLOWER HOUSING VENT VALVE
 27. ACCUMULATION TANK DRAIN VALVE
 28. MERCAPTAN BYPASS VALVE
 29. RELIEF VALVE
 30. RELIEF VALVE LOCKABLE ISOLATION VALVE
 31. CHAMBER PRESSURE INDICATOR
 32. AUTODEW PROBE
 33. DESICCANT FILL PORT
 34. DESICCANT DRAIN PORT
 35. HYGROMETER ORIFICE

NOTE:
ITEM #29 AND 30 ARE SHIPPED LOOSE
DRYER WILL BECOME 2" TALLER AFTER INSTALLATION

ELECTRICAL CONTROL PANEL DETAIL



J-W DWG # 335-19330 REV 00 [10/9/09]

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DIMENSIONS IN INCHES / EN POUÇES
SCALE/ECHELLE : -
DRAWING SET: Apache Nipples - Compressed Natural Gas (CNG) Filling Station - CNG #2
SHEET: Air Compressor Dryer
PAGE 33 OF 34

		730 Boul. INDUSTRIEL, BLANVILLE (QUÉBEC) , J7C 3V4 CANADA TEL.: (450) 979-8700 1-877-469-3232 SANS FRAIS FAX.: (450) 979-7869	
REV.	DESCRIPTION	DATE	NAME / NOM
01	ADDED ITEM #35 AT DRYER OUTLET	09/18/07	GB
00	NEW DRAWING/NOUVEAU DESSIN	11/17/06	GB
DRAIN / DESSIN M/M 11/17/06		CHECKED / VÉRIFIÉ / APPROUVÉ GB 11/17/06	
TITRE / TITRE GENERAL ARRANGEMENT STR18NGX CLASS 150		DWG NO / NUMÉRO DE DESSIN A207270	
DIMENSIONS IN INCHES / EN POUÇES SCALE/ECHELLE : -		PAGE 1 OF DE 1	