



**DANE COUNTY DEPT. OF
PUBLIC WORKS, HIGHWAY &
TRANSPORTATION**

1919 Alliant Energy Center Way
Madison, Wisconsin 53713
Office: 608/266-4018 ♦ Fax: 608/267-1533
Public Works Engineering Division
Public Works Solid Waste Division

ADDENDUM

May 2, 2018

ATTENTION ALL REQUEST FOR BID (RFB) HOLDERS

RFB NO. 317049 - ADDENDUM NO. 3

BIOGAS FACILITY CONSTRUCTION

BIDS DUE: May 10, 2018, 2:00 PM. DUE DATE AND
TIME ARE NOT CHANGED BY THIS ADDENDUM.

This Addendum is issued to modify, explain or clarify the original Request for Bid (RFB) and is hereby made a part of the RFB. Please attach this Addendum to the RFB.

PLEASE NOTE THE FOLLOWING CONTRACTOR SUBMITTED QUESTIONS:

Q1: In regards to the steel pipe that leads to the ANR pipeline, it is recommended a higher grade pipe be used to produce specified minimum yield strength (SMYS) levels below 20%. This may minimize the transmission gas main O&M requirements into the future pending classification. Can the grade of pipe to be used be confirmed?

A1: *The steel pipe that leads to the ANR pipeline is to be A333 Grade 6.*

Q2: Are the A333 steel pipe and fitting ANR requirements required for any portion of the 4" high pressure steel line that connects to ANR?

A2: *See A1 above.*

Q3: Has the A106 pipe material been approved by ANR for the 4" steel pipe that connects to ANR?

A3: *See A1 above.*

Q4: Are the special -50 deg F welding requirements required for any portion of the 4" line that connects to ANR?

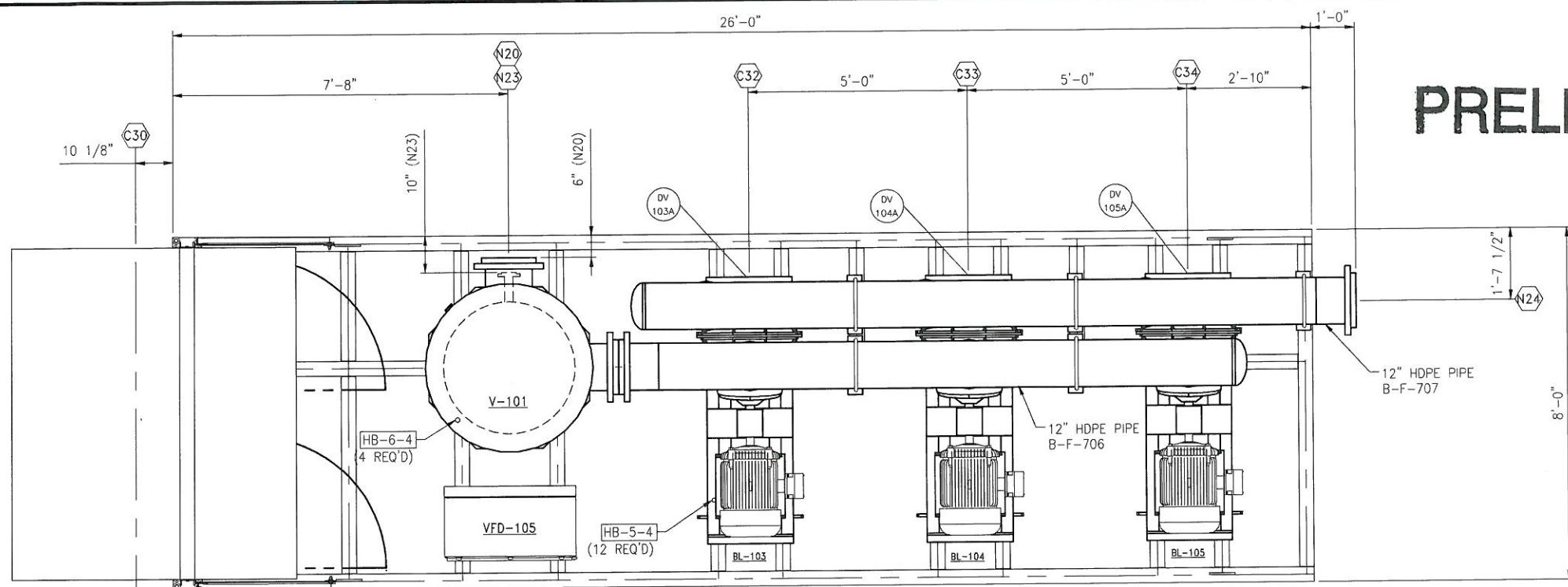
A: *The special -50 deg F welding requirements will be required for the entire 4" line that connects to ANR, including welding with Cellulose/Low Hydrogen procedure above and below grade.*

Preliminary drawings from John Zink have been included in this addendum for costing purposes only, exact layouts and dimensions will change. If any additional information about this Addendum is needed, please call John Welch at 608/516-4154, Welch@countyofdane.com.

Sincerely,
John Welch
Project Manager

Enclosures:
Attachment #1 – John Zink Blower/Flare **Preliminary** Drawings

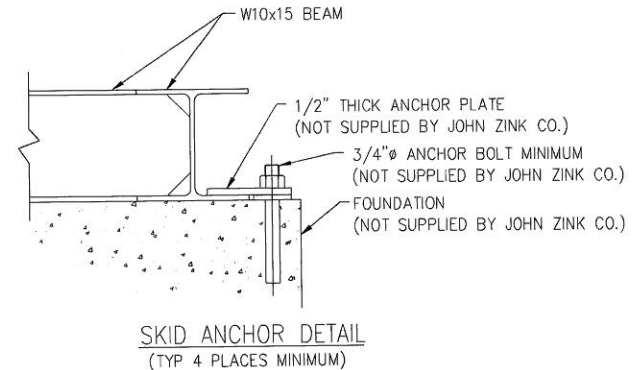
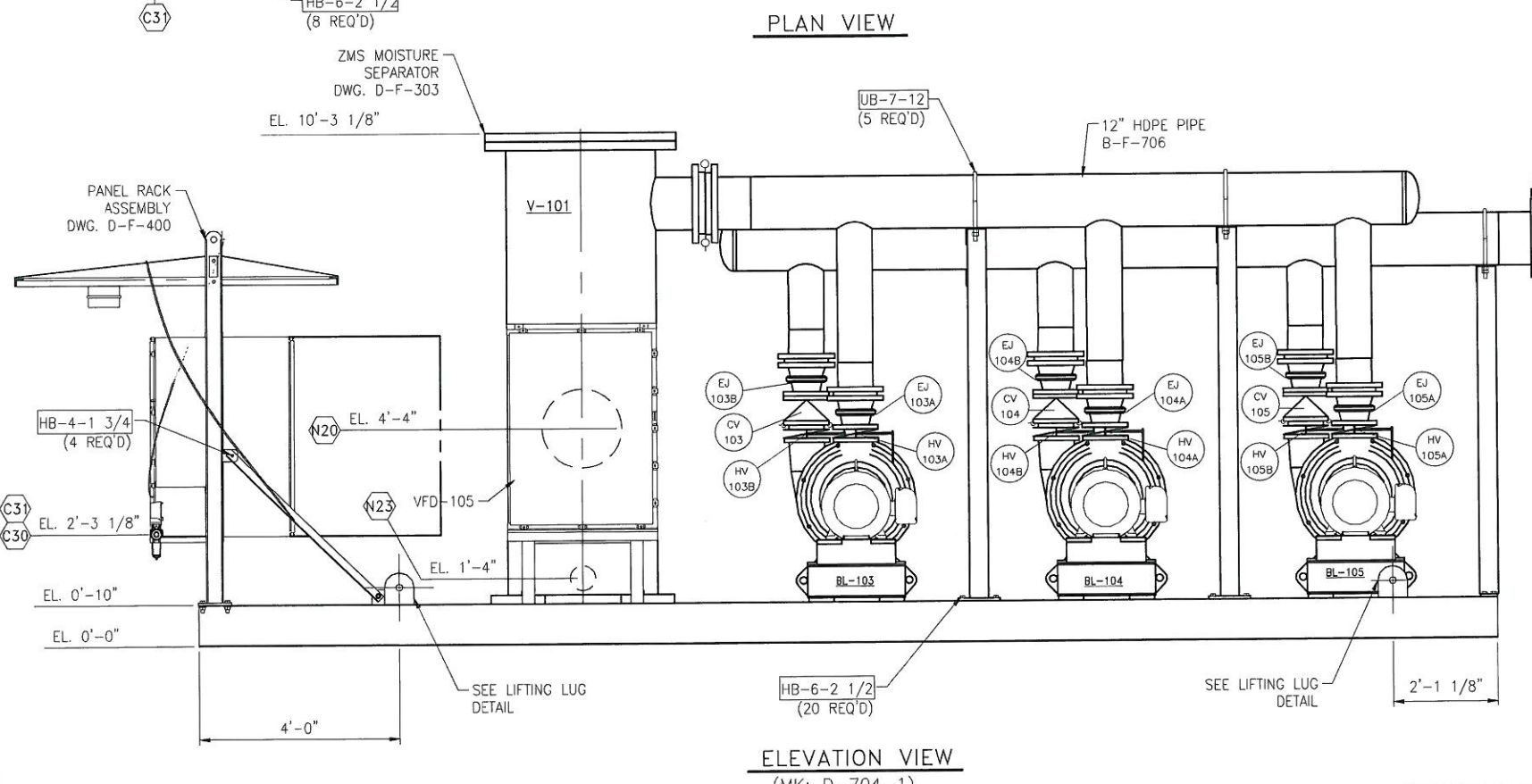
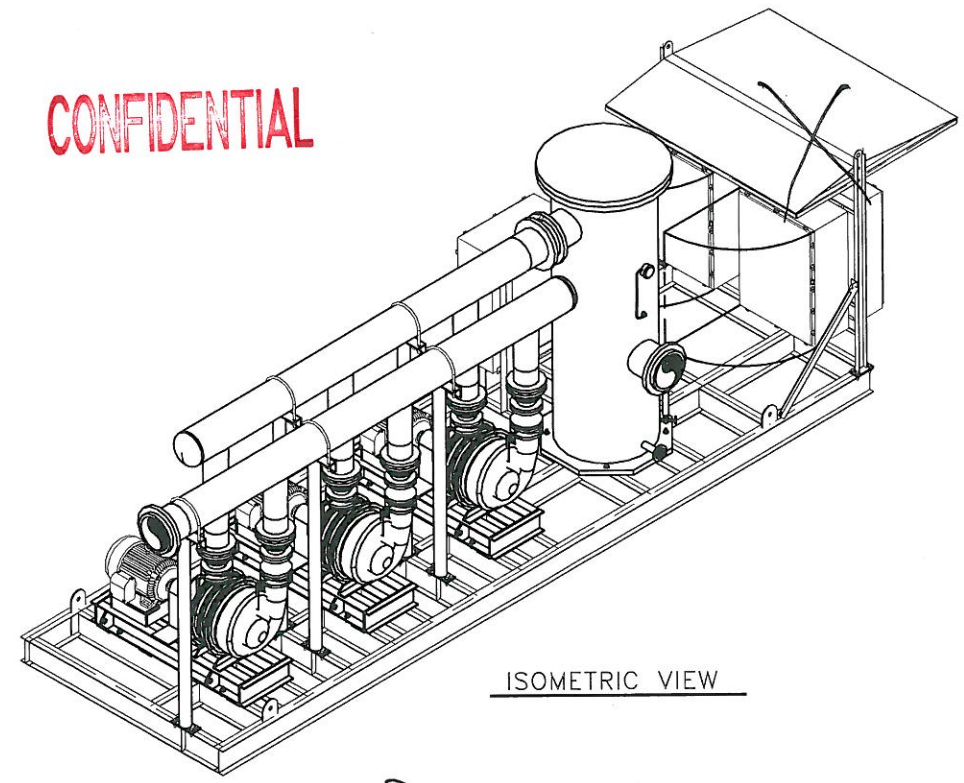
Addendum No. 1
Bid No. 317049



PRELIMINARY

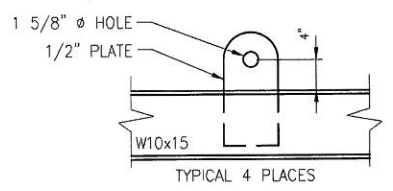
NOZZLE LEGEND		DESCRIPTION
MK	QTY	
N20	1	GAS INLET: 12" FLANGE ADAPTER WITH 150# BACK-UP RING
N23	1	CONDENSATE DRAIN: 2" FLANGE ADAPTER WITH 150# BACK-UP RING
N24	1	GAS OUTLET: 12" FLANGE ADAPTER WITH 150# BACK-UP RING
C30	1	PILOT GAS INLET: 1/2" NPT
C31	1	PILOT GAS OUTLET: 1/2" NPT
C32	1	BLOWER DRAIN: 1/2" NPT
C33	1	BLOWER DRAIN: 1/2" NPT
C34	1	BLOWER DRAIN: 1/2" NPT

CONFIDENTIAL



Panel will be shipped loose

- NOTES
1. PREFIX ALL MK: NO'S WITH SALES ORDER NUMBER.
 2. DO NOT BOLT THE BLOWER DOWN TIGHT. DOING SO VOIDS THE WARRANTY. BLOWERS ARE MOUNTED ON VIBRATION ISOLATION PADS.
 3. WEIGHT APPROX. 14,500 LBS.
 4. JOHN ZINK RECOMMENDS THAT A SPREADER BAR BE USED TO LIFT SKID
 5. SKID DESIGN AND CONSTRUCTION IS IN ACCORDANCE WITH STRUCTURAL REQUIREMENTS FOR SEISMIC ZONE 4.
 6. NO ELECTRICAL AREA CLASSIFICATION.
 7. SKID & PIPE SUPPORTS FINISH PER SSPC-SP6 AND PRIME WITH SHERWIN WILLIAMS ZINC CLAD II PLUS #B69VZ12/B69VZ15/B69D11 (3-4 MILS D.F.T.)



LIFTING LUG DETAIL
DESIGNED FOR 13 1/2 TON CROSBY ANCHOR SHACKLE

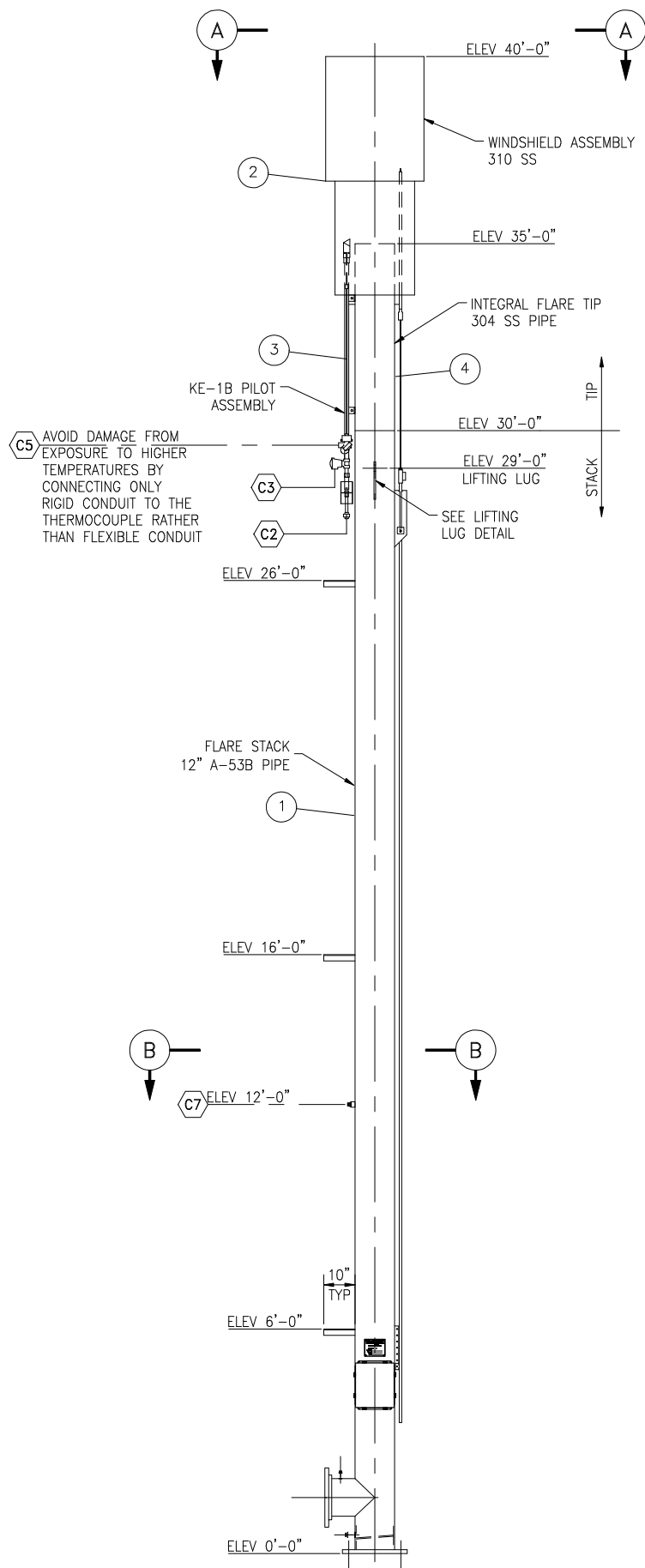
NO.	REVISION DESCRIPTION	BY	CK.	APP.	DATE

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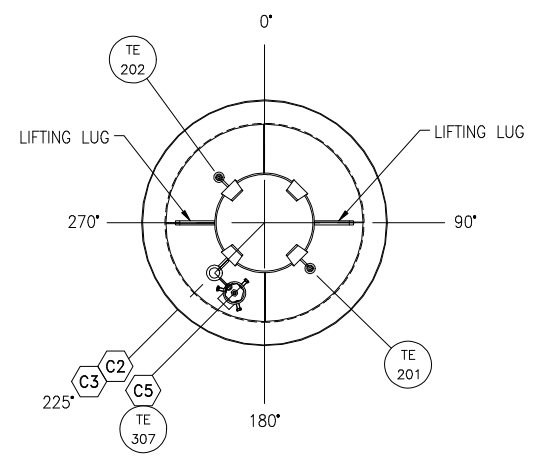
JOHN ZINK
JOHN ZINK COMPANY LLC
PARTS AND SERVICE, CALL 1-800-755-4252 FAX (918) 234-1968

BLOWER SKID ASSEMBLY

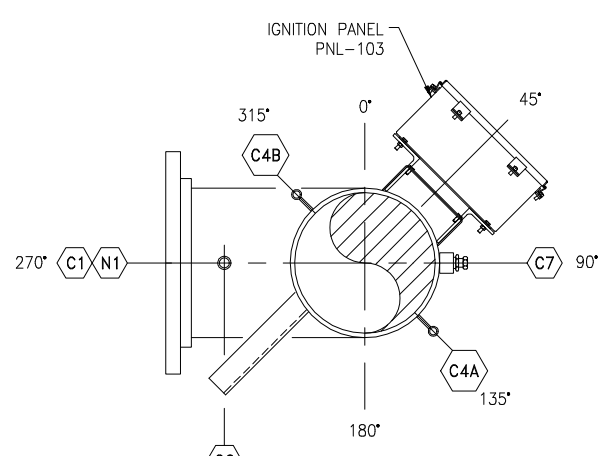
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	1 OF 1



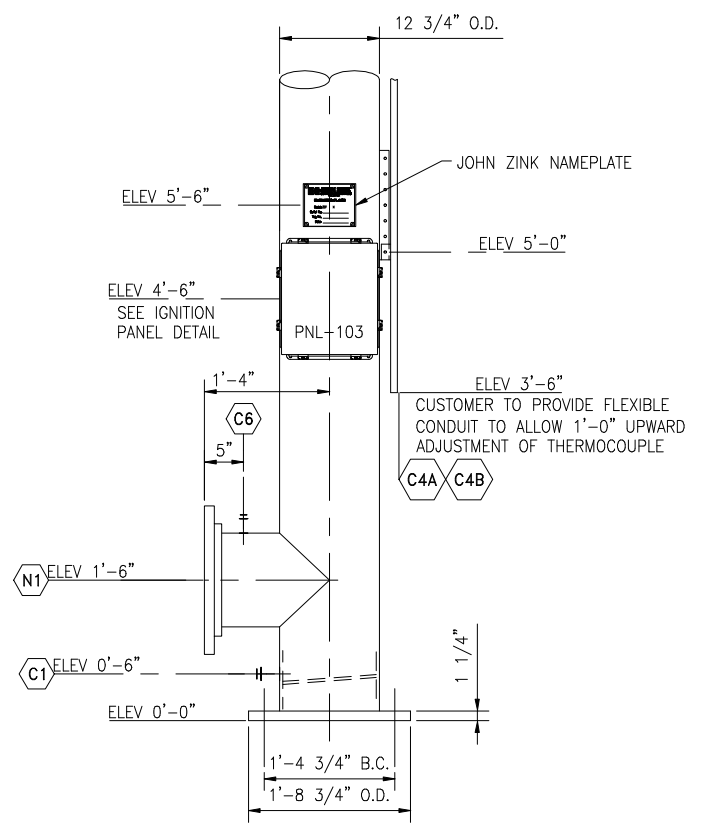
ELEVATION
MK: D-701-1
NOT TRUE ORIENTATION



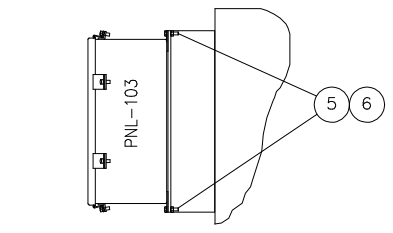
VIEW "A-A"
TRUE ORIENTATION



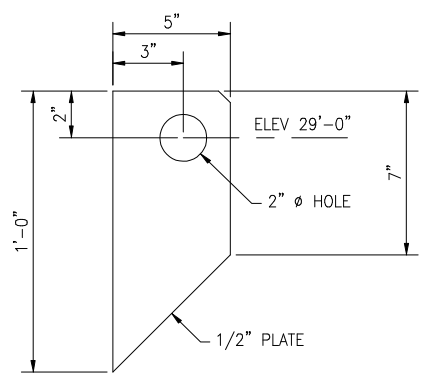
SECTION "B-B"
TRUE ORIENTATION



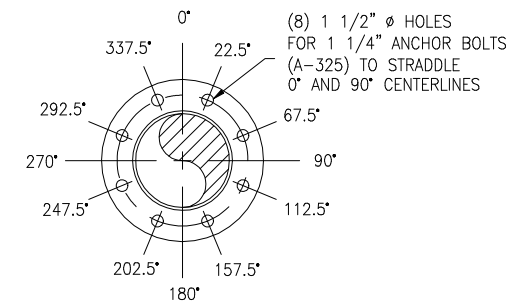
PARTIAL ELEVATION



IGNITION PANEL DETAIL
SHIPPED LOOSE FOR FIELD INSTALLATION



LIFTING LUG DETAIL
TYPICAL TWO PLACES



FOUNDATION BOLT PATTERN

PARTS LIST				
ITEM	QTY	DESCRIPTION	MK: NO	MATERIAL
1	1	ELEVATED ZEF FLARE	D-701-1	
2	1	WINDSHIELD ASSEMBLY	ST10384	
3	1	KE-1B PILOT ASSEMBLY	ST10358-1	
4	2	MAIN FLAME THERMOCOUPLE	TE-201/TE-202	
5	4	BOLT, HEX HD: 1/4" x 1" LG (PLATED)	HB-2-1	A-307
6	4	NUT, REG HEX: 1/4"-20NC (PLATED)	HN-2	A-307

NOZZLE LEGEND				
MK	QTY	DESCRIPTION		
N1	1	GAS CONNECTION: 12" 150# F.F.		
C1	1	DRAIN - 1" 3000# FNPT WITH PLUG		
C2	1	PILOT GAS CONN - 1/2" FNPT		
C3	1	PILOT CONDUIT CONN - 1/2" FNPT		
C4A	1	THERMOCOUPLE CONDUIT CONNECTION - 1/2" FNPT		
C4B	1	THERMOCOUPLE CONDUIT CONNECTION - 1/2" FNPT		
C5	1	PILOT THERMOCOUPLE CONDUIT CONNECTION - 3/4" FNPT		
C6	1	TEMPERATURE CONNECTION - 1/2" FNPT WITH PLUG		
C7	1	FLOW METER CONNECTION - 1" FNPT WITH PLUG		

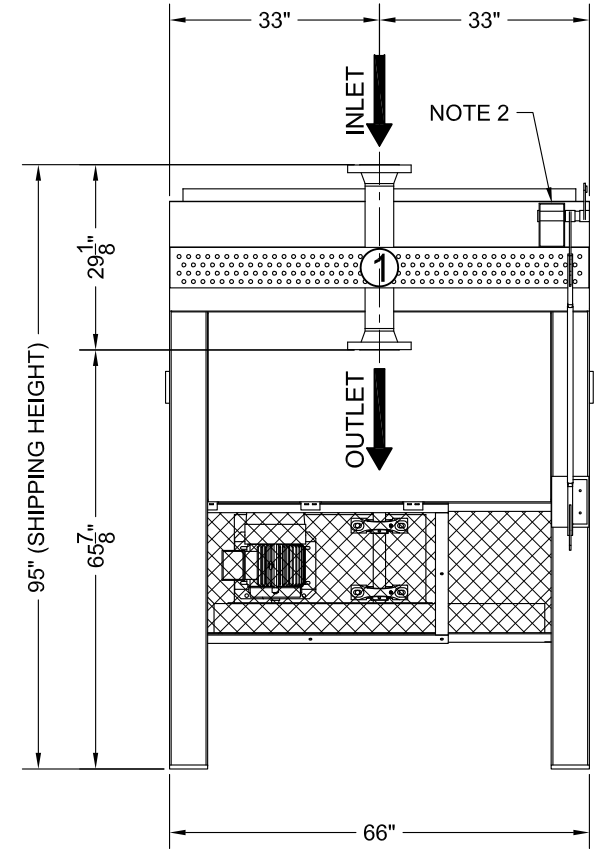
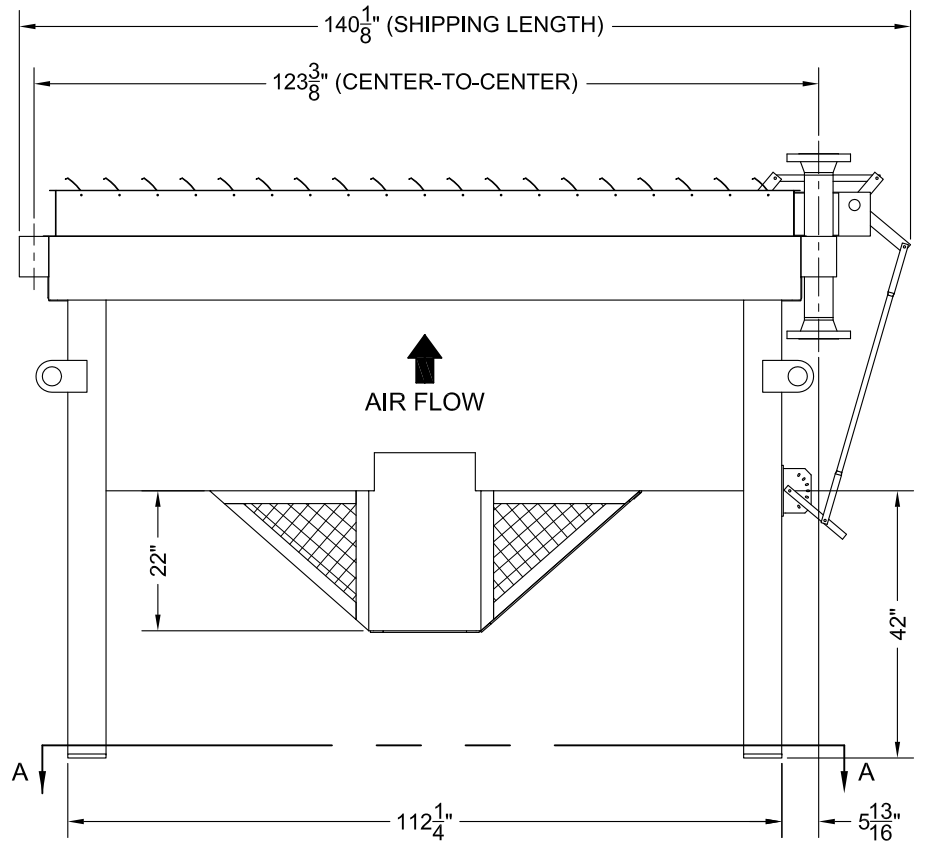
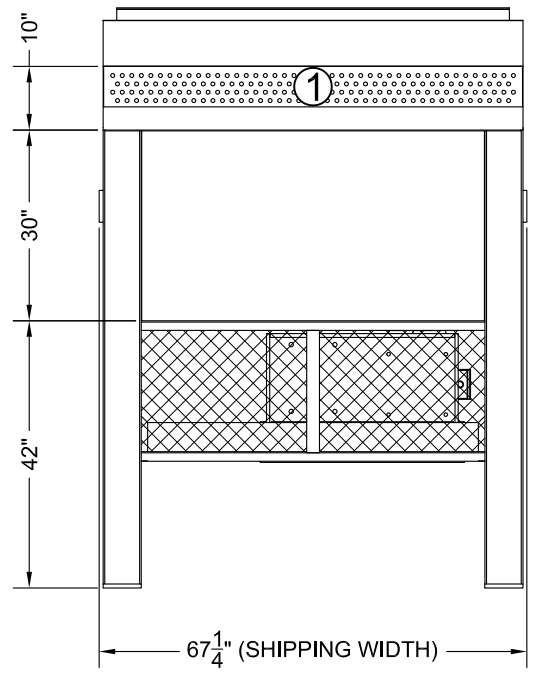
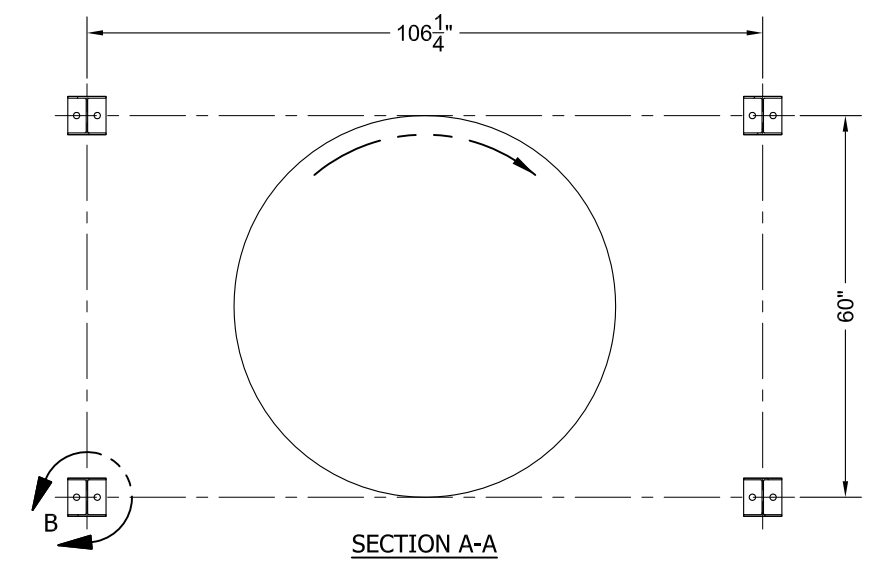
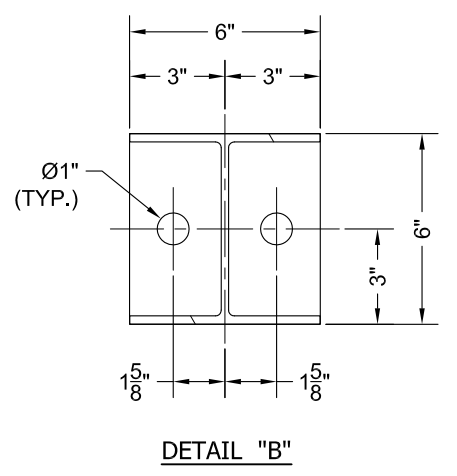
DESIGN DATA	
WINDLOAD (PER ASCE 7-95)	120 M.P.H.
SEISMIC (PER UBC-1994)	ZONE 4
SHEAR @ BASE	1,600 LB
MOMENT @ BASE	37,000 LB-FT
DEADLOAD	2,300 LB
SHELL DESIGN TEMPERATURE	150° F
CORROSION ALLOWANCE	0.0

- GENERAL NOTES
- TAG NUMBERS TO BE PRECEDED BY JOHN ZINK SALES ORDER NUMBER.
 - FLARE ASSEMBLY IS NOT TO BE USED AS AN ANCHOR POINT FOR CUSTOMER PIPING.
 - PRE-TENSION ANCHOR BOLTS BY THE "TURN OF THE NUT" METHOD/AISC.
 - BOLT HOLES TO STRADDLE NORMAL CENTER LINES UNLESS NOTED.
 - FINISH EXTERIOR CARBON STEEL ONLY. SANDBLAST PER SSPC-SP-6 AND PRIME WITH SHERWIN WILLIAMS ZINC CLAD II PLUS #B69VZ12/B69VZ15/B69D11 (3-4 MILS D.F.T.)

NO.					REVISION DESCRIPTION					BY					CK.					APP.					DATE					APP.					DATE					DATE																													
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										JOHN ZINK					JOHN ZINK COMPANY LLC					PARTS AND SERVICE, CALL 1-800-755-4252 FAX (918) 234-1968					ELEVATED ZEF BIOGAS FLARE					12"Ø x 35' H.					MODEL ZEF1235					DRAWING NUMBER					D-F-301					REV. 0																			
										SCALE					NONE					1 of 1																																																	

File Name: r:\standard\p-vopoc\ba\zer\12-35\301s1r10.dwg Plot Date: ---

REFERENCE



NOTES:

MOTOR DATA		FAN DATA		REFERENCE DIMENSIONS			
FRAME:		TYPE:	COIL	DIM "A"	DIM "B"	DIM "C"	DIM "D"
HP:		SERIES:	1				
RPM:		HP:	2				
ENCLOSURE:		RPM:	3				
VOLTAGE:		DIAMETER:	4				
PHASE:		BLADES:	5				
CYCLES:		PITCH:	6				

REVISIONS			
REV	DESCRIPTION	DATE	BY

COIL DATA					
COIL 1	COIL 2	COIL 3	COIL 4	COIL 5	COIL 6
SERVICE:	SERVICE:	SERVICE:	SERVICE:	SERVICE:	SERVICE:
DESIGN/TEST PRES:	DESIGN/TEST PRES:	DESIGN/TEST PRES:	DESIGN/TEST PRES:	DESIGN/TEST PRES:	DESIGN/TEST PRES:
MDMT/DESIGN TEMP:	MDMT/DESIGN TEMP:	MDMT/DESIGN TEMP:	MDMT/DESIGN TEMP:	MDMT/DESIGN TEMP:	MDMT/DESIGN TEMP:
ASME CODE STAMP:	ASME CODE STAMP:	ASME CODE STAMP:	ASME CODE STAMP:	ASME CODE STAMP:	ASME CODE STAMP:
NATIONAL BOARD:	NATIONAL BOARD:	NATIONAL BOARD:	NATIONAL BOARD:	NATIONAL BOARD:	NATIONAL BOARD:
CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS	CONNECTIONS
INLET:	INLET:	INLET:	INLET:	INLET:	INLET:
OUTLET:	OUTLET:	OUTLET:	OUTLET:	OUTLET:	OUTLET:
AUX:	AUX:	AUX:	AUX:	AUX:	AUX:
AUX:	AUX:	AUX:	AUX:	AUX:	AUX:
LOUVER / GUARD	LOUVER / GUARD	LOUVER / GUARD	LOUVER / GUARD	LOUVER / GUARD	LOUVER / GUARD

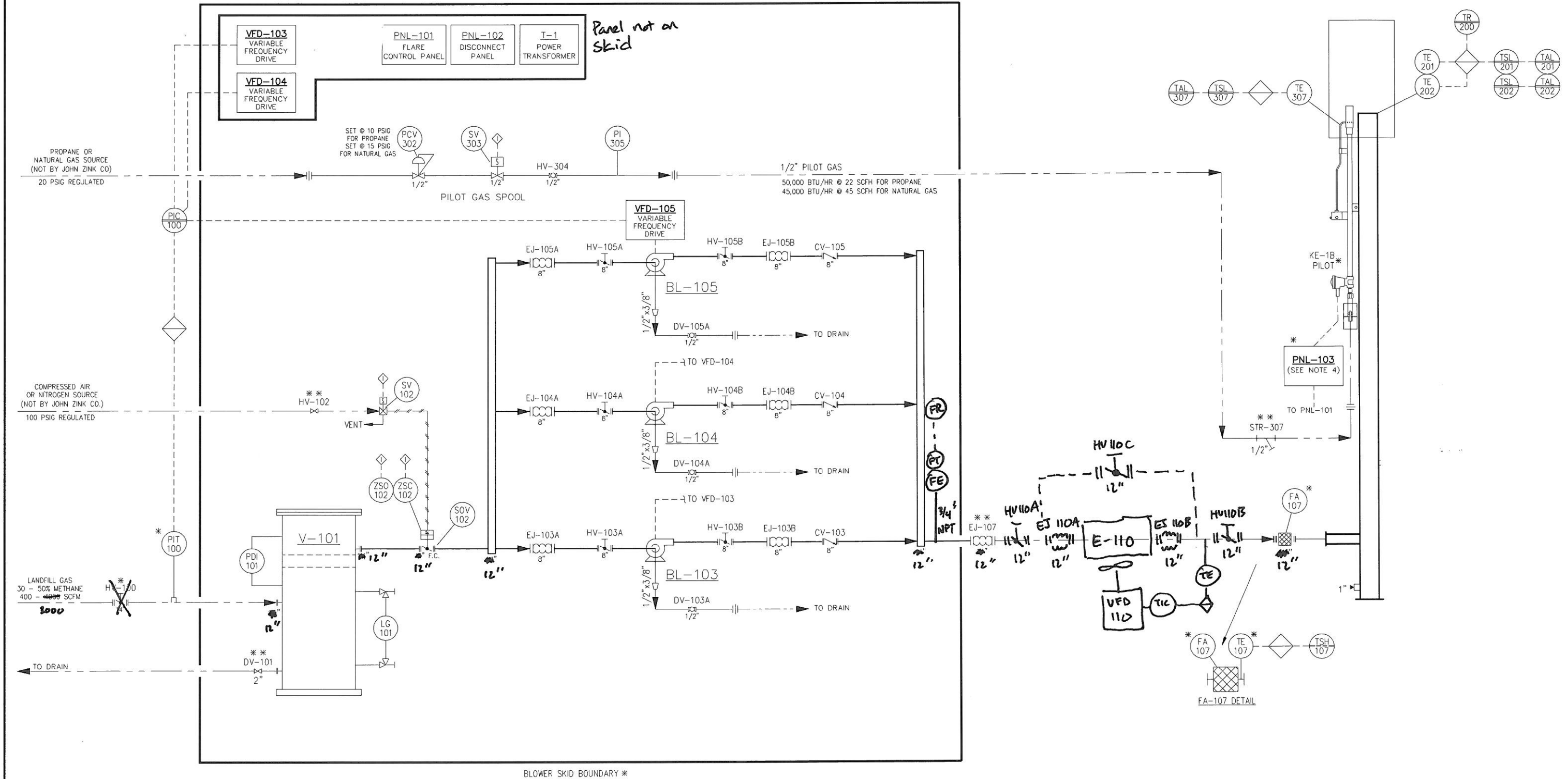
P.O. Box 70005
 Tulsa, Oklahoma 74170
 (918) 252-2571
 (918) 252-2574 Fax

CUSTOMER:	BY: DNA	DATE: 03/29/2018
	SPEC. SHEET:	
	P.O. #:	
EST. SHIP WT: LBS.	DRAWING REVISION #: 0	
ONE MODEL: H-60-10	DRAWING NO.: REFERENCE	

V-101
ZMS MOISTURE SEPARATOR
3' x 9'

BL-103, BL-104, BL-105
GAS BLOWER
60 HP

* ELEVATED
ZEF FLARE
12" O.D. x 35' O.A.H.



Panel not on skid

LEGEND

- FIELD MOUNTED INSTRUMENT
- REMOTE PANEL MOUNTED NORMALLY ACCESSIBLE TO OPERATOR
- LOCAL PANEL MOUNTED NORMALLY ACCESSIBLE TO OPERATOR
- REMOTE SUB-PANEL MOUNTED NORMALLY INACCESSIBLE TO OPERATOR
- LOCAL SUB-PANEL MOUNTED NORMALLY INACCESSIBLE TO OPERATOR

- LOCATED IN THE PLC
- INTERLOCK TO/FROM CONTROL PANEL.
- PIPE & FITTINGS BY OTHERS (NOT BY JOHN ZINK CO.)
- ELECTRICAL INTERCONNECTIONS
- INSTRUMENT CONTROL AIR LINE
- PIPE & FITTINGS BY JOHN ZINK CO.

NOTES:

1. * - SUPPLIED BY JOHN ZINK CO. AND SHIPPED LOOSE FOR FIELD INSTALLATION.
2. ** - SUPPLIED BY OTHERS (NOT BY JOHN ZINK CO.)
3. ELECTRICAL AREA CLASSIFICATION: NON-HAZARDOUS
4. IGNITION TRANSFORMER IS INSIDE PNL-103 AND MOUNTED ON FLARE.
5. THERMOCOUPLE WIRE AND IGNITION WIRE SUPPLIED BY JOHN ZINK CO. AND SHIPPED LOOSE FOR FIELD INSTALLATION.
6. LOCATE FLAME ARRESTOR AT FLARE INLET WITH 5 DIAMETERS OF STRAIGHT UNDISTURBED FLOW UP STREAM.

NO.				REVISION DESCRIPTION				BY	CK.	APP.	DATE	APP.	DATE
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<p>FOR: USER</p>													
<p>JOBSITE:</p>													
<p>S.O. NO. BF-9098011</p>													
<p>P.O. NO. 1161962</p>													
<p>DR. DATE:</p>													
<p>CK. DATE:</p>													
<p>APP. DATE:</p>													
<p>CERTIFIED DRAWING NUMBER</p>													
<p>16" O.D. x 45' H</p>													
<p>SCALE: NONE 1 of 1</p>													



PROCESS & INSTRUMENT DIAGRAM
FOR AN ELEVATED ZEF FLARE SYSTEM

FILE