

MATERIAL LIST- Odorizer assy

ITEM	QUAN.	STOCK NO.	DESCRIPTION
1.	1	NONE	Odoreyes Technologies ECOSystem Electronic Pulse Bypass Odorizer System, PO# 51227 OP order date 8-19-14
2.	1	NONE	Odoreyes Technologies ECOSystem Dual solenoid 3/8" valve section, w/ Welker F-5 filter, part of item 1
3.	1	NONE	Odoreyes Technologies ECOSystem Basic unit PLC controller, part of item 1
4.	1	NONE	Odoreyes Technologies ECOSystem Odorant skid, part of item 1
5.	1	NONE	Odoreyes Technologies ECOSystem Odorant tank, horizontal, 500 gal., ASME Section VIII coded U stamped, 750# W.P., part of item 1
6.	80'	PB-150	3/4" x 0.113"w.t., Bare steel pipe, Grade B, ASTM A106, PO# _____
7.	60'	PB-200	1" x 0.113"w.t., Bare steel pipe, Grade B, ASTM A106, PO# _____
8.	140'	PFBE-150	3/4" x 0.113"w.t., FBE coated steel pipe, Gr B, 14-16 mil, PO# _____
9.	60'	PFBE-160	1"x0.133"w.t., FBE coated & wrapped steel pipe, Grade B, 14-16 Mil FBE, PO# _____
10.	2	CA-200	1" Cap, Threaded, 150#
11.	8	CA-350	2" Cap, Threaded, 150#
12.	15	EL-159	3/4" 90° Weld elbow, L.R., Std. wght.
13.	13	EL-209	1" 90° Weld elbow, L.R., Std. wght.
14.	5	NP-156XH	3/4"x4" X.H. Nipple, T.O.E.
15.	3	NP-203XH	1"x3" X.H. Nipple
16.	6	NP-204XH	1"x3" X.H. Nipple, T.O.E.
17.	1	NONE	1"x1/2" X.H. Swaged nipple, TBE (Special order was NP-229XH)
18.	1	PL-171	3/4" Plug, Square head, Solid core, 3,000#
19.	3	RE-204XH	3/4"x1" X.H. Weld reducer
20.	1	SP-157	3/4" Meter stop, Mfgr. #H-11180-250, 500#
21.	1	TE-201	1"x1"x1" Weld tee
22.	3	UN-164	3/4" Non-insulating union, 3,000#
23.	2	UN-214	1" Non-Insulating union, Threaded, 3,000#
24.	2	VA-214	1" Ball valve, Stainless steel, WKM# 1F-B138-S8-43-S2-WR, threaded, 3,000#
25.	24'	H-149	3/8" Stainless steel gas tubing, No. 316 .035" w.t., MAOP 3300 P.I.S.G.
26.	2	H-739	3/8" Stainless steel tube fitting connector to 1/4" male NPT, SS-600-1-4 Cres 316
27.	2	H-741	3/8" Stainless steel tube fitting connector to 1/2" male NPT, SS-600-1-8, Cres 316
28.	32	NONE	5/8"x4 1/2" RAWL USE Taper bolt Part No.3441000 (Special order was H-745)
29.	40'	H-746	SH Type (U-Strut) SS channel pipe guide, Cooper B-Line, Part# B22SH (Cut to fit)
30.	3	H-748	3/8" Stainless steel tubing clamp for channel B22SH, Cooper B-Line, Part# BVT050
31.	10	H-803	3/4" Stainless steel tubing clamp for channel B22SH, Cooper B-Line, Part# BVT075
32.	28	NONE	1" Stainless steel tubing clamp for channel B22SH, Part# BVT100 (Special order)
33.	1	NONE	1" Stainless steel tube fitting connector to 1/2" male NPT, SS-1610-1-8 Cres 316, Swagelok (Special order)
34.	1	NONE	1" Stainless steel tube fitting connector to 1" male NPT, SS-1610-1-16 Cres 316, Swagelok (Special order)
35.	100'	NONE	1"ODx0.083"w.t., Stainless steel tube, 20 ft lg, eClass (6.0) 37-02-90-00, Cres 316, Swagelok (Special order)
36.	1	NONE	1" Standard Clevis hanger, Steel, Cooper B-Line, #B3100-1, for 3/8"-16 threaded rod (Special order)
37.	4'	NONE	3/8"-16 Threaded rod, Steel, Cooper B-Line, #ATR 3/8"x 4' (Special order)
38.	2	NONE	3/8"-16 Channel nut, Cooper B-Line, #N228WO (Special order)
39.	2	NONE	3/8"-16 Heavy hex nut, Cooper B-Line, #HHN-3/8 (Special order)
40.	8	NONE	1/2"x10"x10" Steel plate (Field fabricate)
41.	80'	PB-350	2" Pipe support post 8 each (Fab shop fabricate)
42.	1	NONE	Flare burner (Field Fabricate)
43.	5	NONE	4' Utility Vault standard drain section with open ends #CE-0446 c/w 1/4" diamond plate cover #CC-0372 Ref Sh 12/12 Old Castle Precast (Special order)
44.	3	NONE	4' Utility Vault standard drain section with end cap one end #CE-0447 c/w 1/4" diamond plate cover #CC-0372 Ref Sh 12/12 Old Castle Precast (Special order)
45.	12	NONE	2" Metal EMT conduit, 10 Ft. Lg., Lowes Item#72721, Model 101592 (District purchase)
46.	4	NONE	2" Metal EMT box connector, Lowes Item#7225, Model 02-55255 (District purchase)
47.	20	NONE	2" Metal EMT elbow, Lowes Item#65883, Model 02-55546PE (District purchase)
48.	16	NONE	2" Metal EMT connector, Lowes Item#72180, Model 02-55245 (District purchase)
49.	1	NONE	18'x10'x10' High Carport (District purchase)
50.	1	NONE	12'x20'x[]"th Concrete Odorizer slab (District purchase)
51.	14	NONE	2" Stainless steel tubing clamp for channel B22SH, Part# BVT200 (Special order)
52.	1	NONE	3/8" Stainless steel tube fitting connector to 3/4" female NPT, SS-600-7-12 Cres 316 (Special order)
53.	3	NONE	Adjustable strut bracket, ElectroGalvanized, Cooper B-Line, Part #B3064-2 (Special order)

- SHEET INDEX:**
- 1 Material list
 - 2 Overall site plan
 - 3 Detailed site plan
 - 4 Odorant injection point assy.
 - 5 HP Gas supply takeoff point
 - 6 Odorizer Plan details
 - 7 Odorizer solenoid & controller connections & level indicator
 - 8 Odorizer fill & vent (flare)
 - 9 Odorizer outlet to injection point
 - 10 Odoreyes solenoid assy. diagram
 - 11 Odoreyes system tank assy
 - 12 Odoreyes trench details

Pressure line upstream of Tank Inlet and Odorant injection line	All other tubing and fittings on odorizer system																																
<table border="1"> <thead> <tr><th colspan="2">PRESSURE TEST</th></tr> </thead> <tbody> <tr><td>CERTIFICATION PRESSURE</td><td>.815 P.S.I.G.</td></tr> <tr><td>TEST PRESSURE</td><td>1225 P.S.I.G.</td></tr> <tr><td>TEST MEDIUM</td><td>Nitrogen</td></tr> <tr><td>TEST DURATION</td><td>.1 HOURS</td></tr> <tr><td>DATE COMPLETED</td><td></td></tr> <tr><td>BY</td><td>CONTRACTOR</td></tr> <tr><td>ATTESTED</td><td>CASCADE NATURAL GAS CORP.</td></tr> </tbody> </table>	PRESSURE TEST		CERTIFICATION PRESSURE	.815 P.S.I.G.	TEST PRESSURE	1225 P.S.I.G.	TEST MEDIUM	Nitrogen	TEST DURATION	.1 HOURS	DATE COMPLETED		BY	CONTRACTOR	ATTESTED	CASCADE NATURAL GAS CORP.	<table border="1"> <thead> <tr><th colspan="2">PRESSURE TEST</th></tr> </thead> <tbody> <tr><td>CERTIFICATION PRESSURE</td><td>500 P.S.I.G.</td></tr> <tr><td>TEST PRESSURE</td><td>750 P.S.I.G.</td></tr> <tr><td>TEST MEDIUM</td><td>Natural Gas</td></tr> <tr><td>TEST DURATION</td><td>.1 HOURS</td></tr> <tr><td>DATE COMPLETED</td><td></td></tr> <tr><td>BY</td><td>CONTRACTOR</td></tr> <tr><td>ATTESTED</td><td>CASCADE NATURAL GAS CORP.</td></tr> </tbody> </table>	PRESSURE TEST		CERTIFICATION PRESSURE	500 P.S.I.G.	TEST PRESSURE	750 P.S.I.G.	TEST MEDIUM	Natural Gas	TEST DURATION	.1 HOURS	DATE COMPLETED		BY	CONTRACTOR	ATTESTED	CASCADE NATURAL GAS CORP.
PRESSURE TEST																																	
CERTIFICATION PRESSURE	.815 P.S.I.G.																																
TEST PRESSURE	1225 P.S.I.G.																																
TEST MEDIUM	Nitrogen																																
TEST DURATION	.1 HOURS																																
DATE COMPLETED																																	
BY	CONTRACTOR																																
ATTESTED	CASCADE NATURAL GAS CORP.																																
PRESSURE TEST																																	
CERTIFICATION PRESSURE	500 P.S.I.G.																																
TEST PRESSURE	750 P.S.I.G.																																
TEST MEDIUM	Natural Gas																																
TEST DURATION	.1 HOURS																																
DATE COMPLETED																																	
BY	CONTRACTOR																																
ATTESTED	CASCADE NATURAL GAS CORP.																																

Southridge Gate:

Coordinate with R117Ken installation
 Coordinate with V154Ken installation
 Coordinate with V155Ken installation
 Coordinate with O11Ken installation
 Coordinate with H1Ken (V167-9) installation
 Coordinate with Telemetry bldg installation
 Coordinate with 8" HP main installation following V-155
 Coordinate with R120Ken installation
 Coordinate with V172Ken installation
 Coordinate with V173Ken installation

- NOTES**
1. Purge And Pack With Natural Gas And Use FI or CGI Unit To check For Leaks
 2. Odorizer and associated piping certified for []# WP from manufacturer
 3. Do not exceed MAWP Design Test pressure of [] PSI or MAWP of [] PSIG as called out by tank certification label as verified on site
 4. 3/4" Odorant Trans HP supply line shall be tested as part of R-117/V-168 installation
 5. No connection to a future carport or the existing odorant tank containment vessel is allowed

PRELIMINARY

All 6" or above X52 pipe/fittings: Fabrication requirements

All underground bare steel pipe to be field wrapped during installation.

EcoSystem Electronic Pulse Bypass Odorizer installation WO# 214539

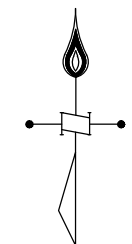
Scale	NONE	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 1 12		

1/2 SIZE DRAWING- Scaled to 1/2 indicated

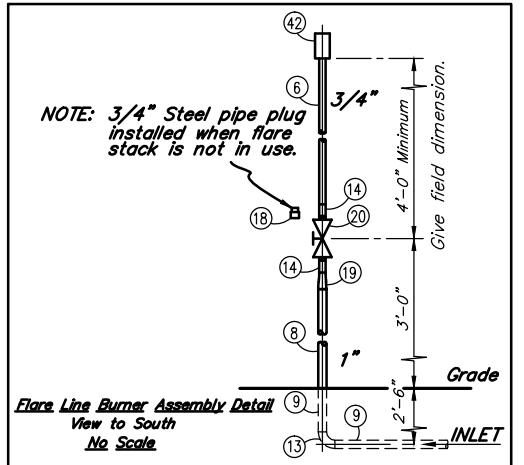
CASCADE NATURAL GAS CORPORATION
 8113 W Grandridge Blvd
 6300 Brinkley Rd
 Kennewick, WA 99336
 0-11 Odorizer at Southridge Gate
 Kennewick, WA



Note: All underground bare steel pipe to be field wrapped during installation.



SITE PLAN
 3/32"=1'-0"
 SE 1/4 Sec. 17, T-8-N, R-29-E
 Benton County Kennewick, WA
 Geocortex Lat: 46.1716
 Lon: -119.2065



- ACCESS POINTS:**
- (A) Odorant injection point from tank OUTLET
 - (B) HP gas supply takeoff point
 - (C) Solenoid assy. INLET HP from gas supply (B)
 - (D) Solenoid assy. gas OUTLET to tank INLET
 - (E) Controller connections from telemetry bldg.

PRELIMINARY

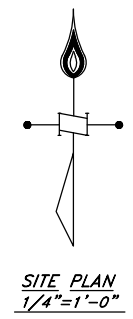
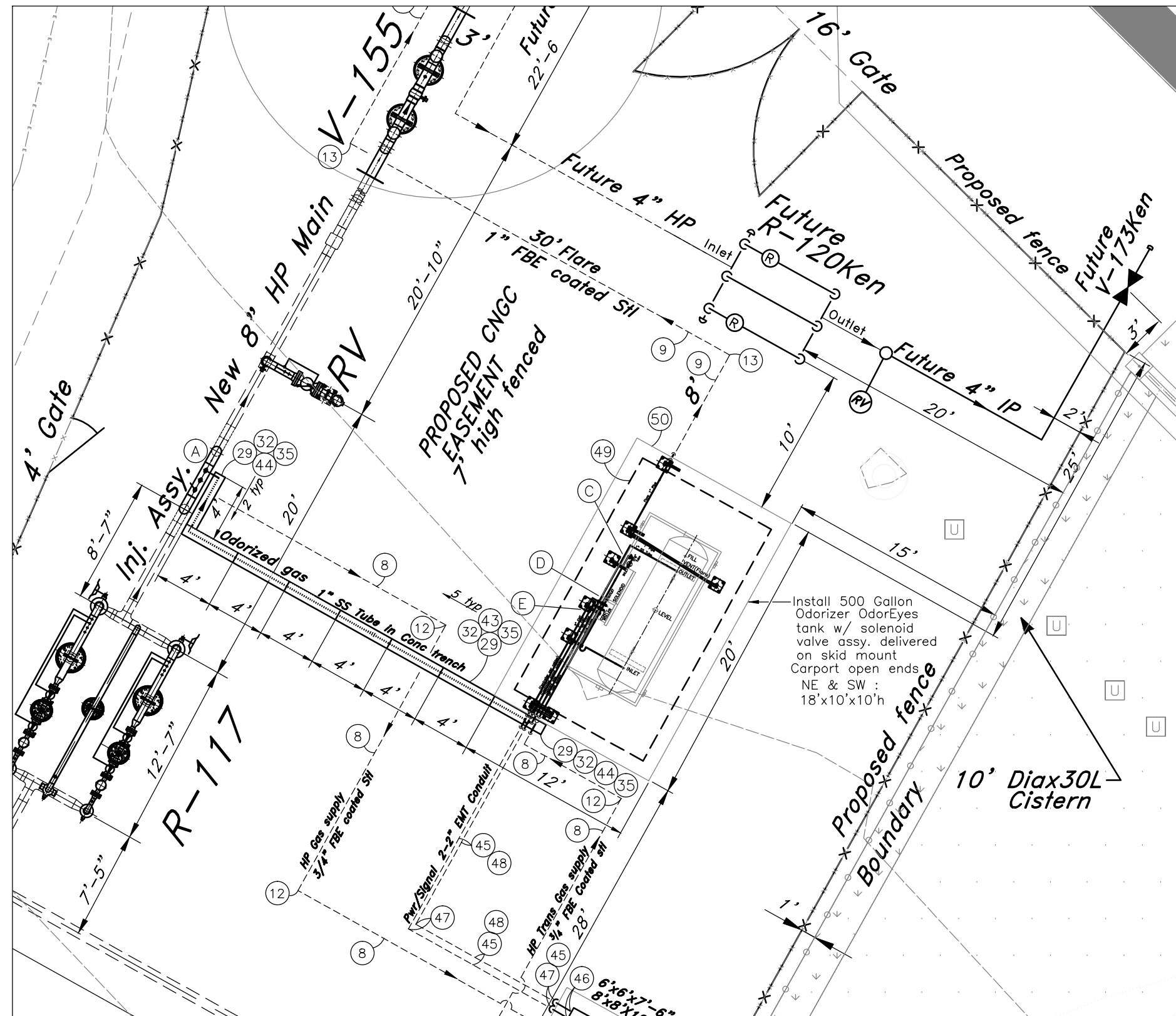
Coordinate with R117Ken installation
 EcoSystem Electronic Pulse Bypass Odorizer Installation

1/2 SIZE DRAWING— Scaled
 to 1/2 indicated

Scale	As-Noted	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 2 12		

WO# 214539

CASCADE NATURAL GAS CORPORATION
 8113 W Grandridge Blvd Kennewick, WA 99336
 0-11 Odorizer at Southridge Gate
 6300 Brinkley Rd Kennewick, WA



- ACCESS POINTS:**
- (A) Odorant injection point from tank OUTLET
 - (B) HP gas supply takeoff point
 - (C) Solenoid assy. INLET HP from gas supply (B)
 - (D) Solenoid assy. gas OUTLET to tank INLET
 - (E) Controller connections from telemetry bldg.

Install 500 Gallon Odorizer OdorEyes tank w/ solenoid valve assy. delivered on skid mount
Carport open ends
NE & SW :
18'x10'x10'h

Concrete trench: Odorant tank to Odorant Injection Point
Detailed Site Plan

Note: All underground bare steel pipe to be field wrapped during installation.

1/2 SIZE DRAWING— Scaled
to 1/2 indicated

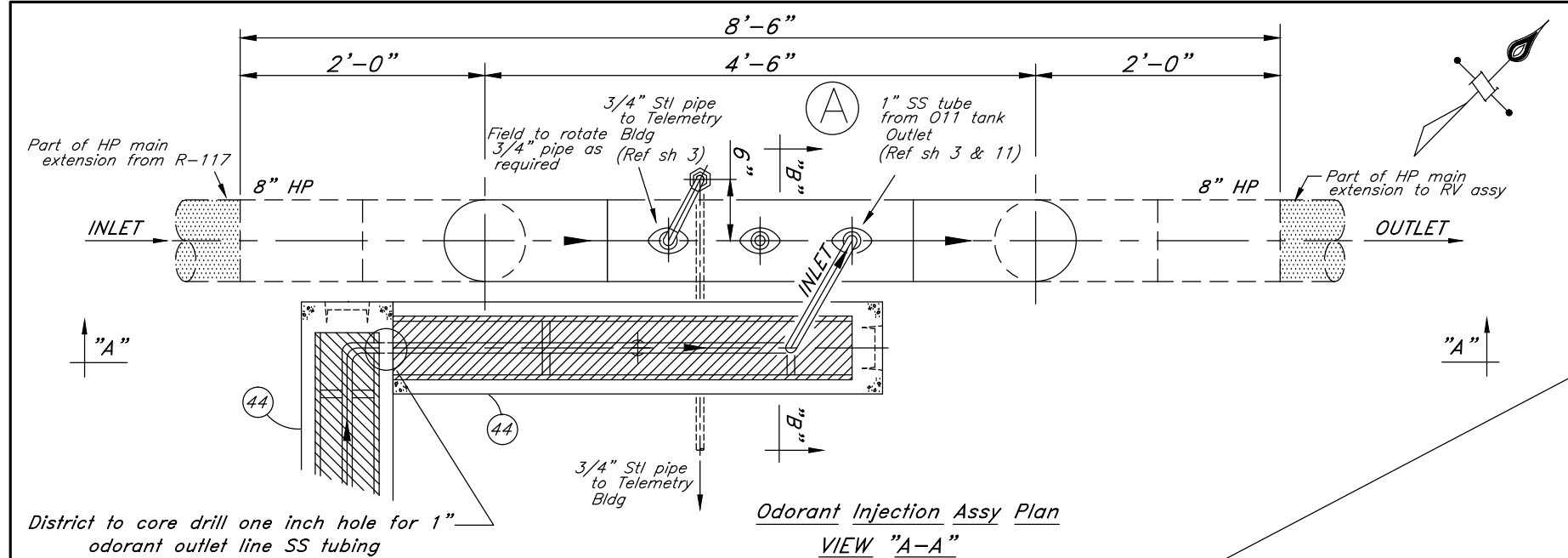
Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

Scale	As-Noted	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 3 12		



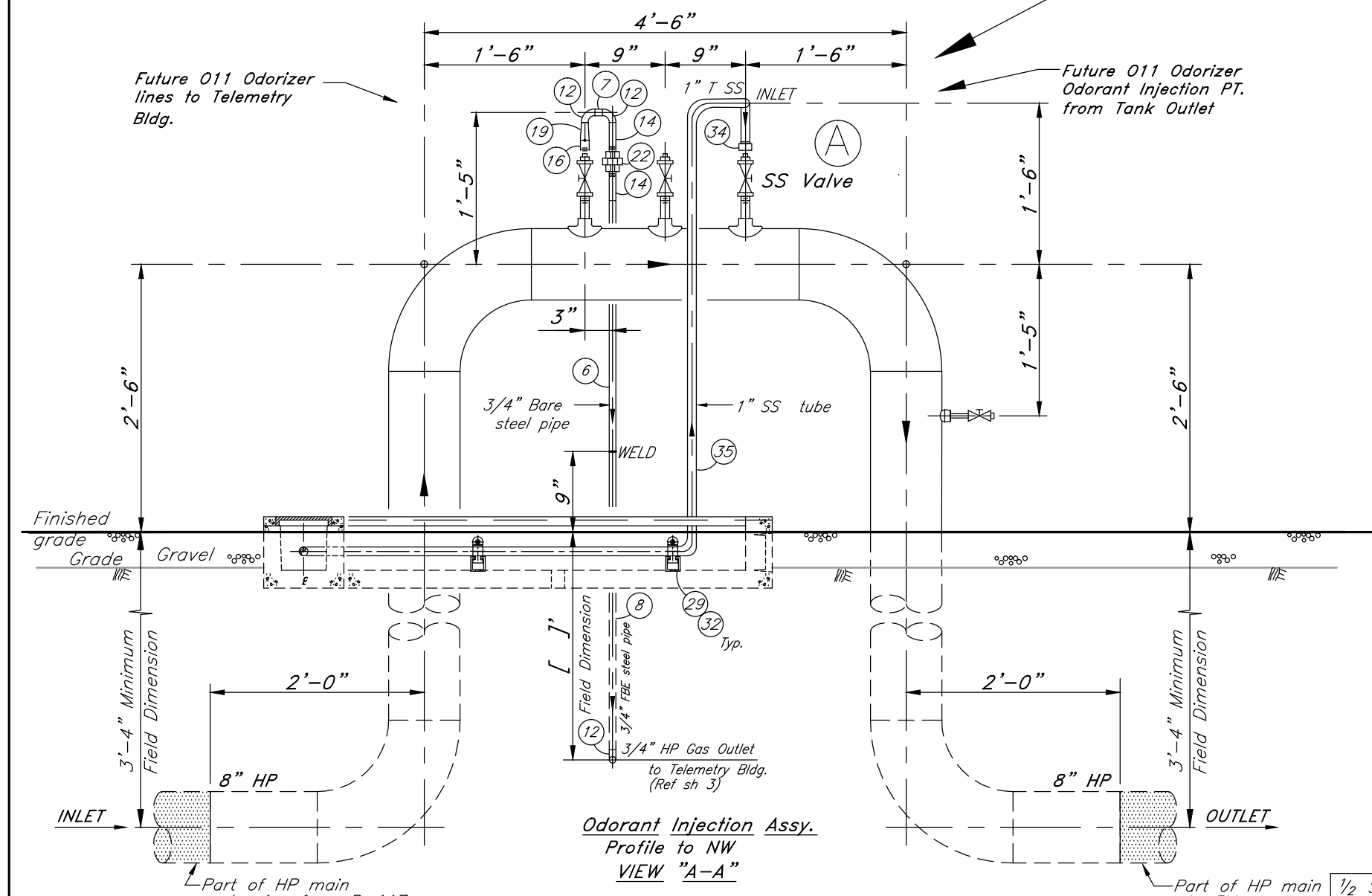
WO# 214539
CASCADE NATURAL GAS CORPORATION
 8113 W Grandridge Blvd
 Kennewick, WA 99336
 0-11 Odorizer at Southridge Gate
 6300 Brinkley Rd
 Kennewick, WA

PRELIMINARY

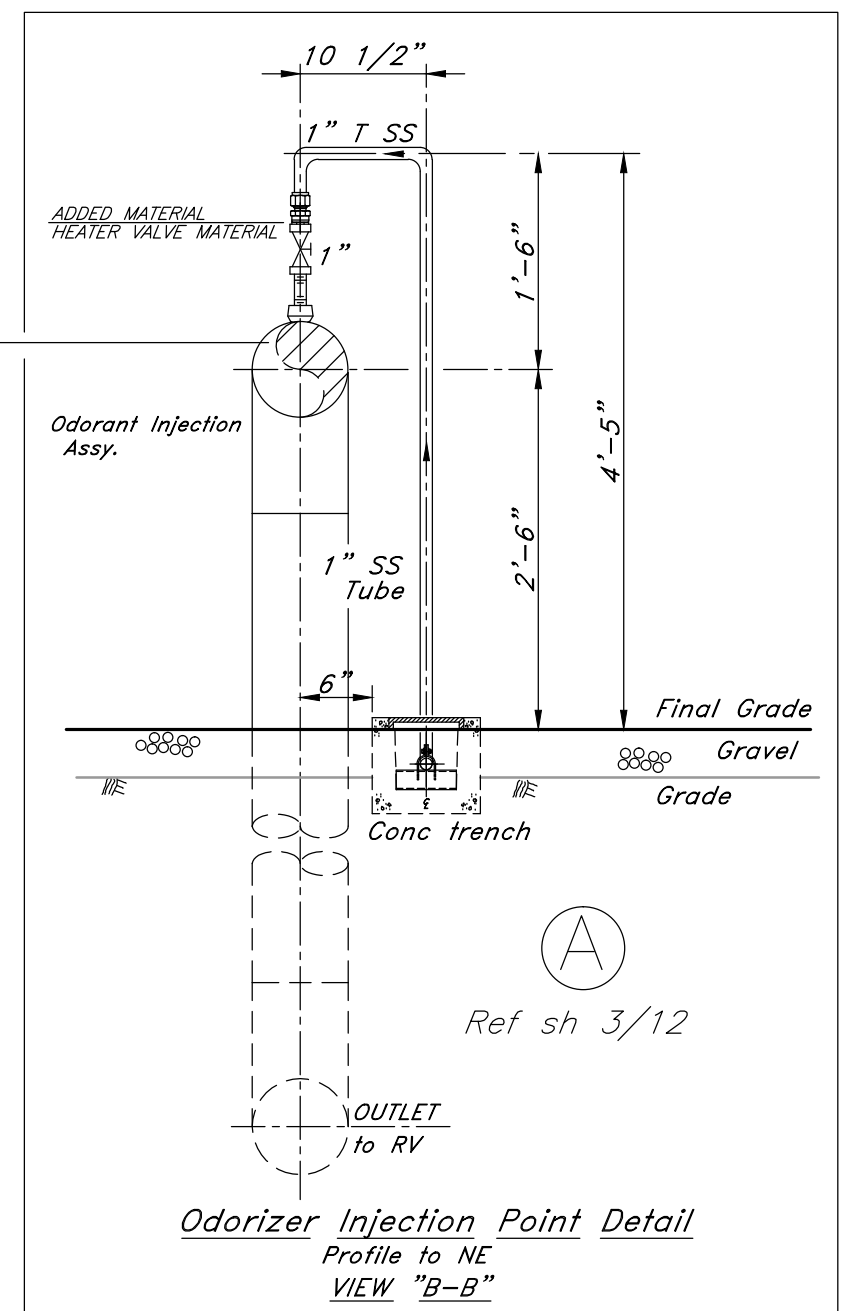


**Odorant Injection Assy Plan
VIEW "A-A"**

District to core drill one inch hole for 1" odorant outlet line SS tubing



**Odorant Injection Assy.
Profile to NW
VIEW "A-A"**



**Odorizer Injection Point Detail
Profile to NE
VIEW "B-B"**

Note: All underground bare steel pipe to be field wrapped during installation.

1/2 SIZE DRAWING - Scaled to 1/2 indicated

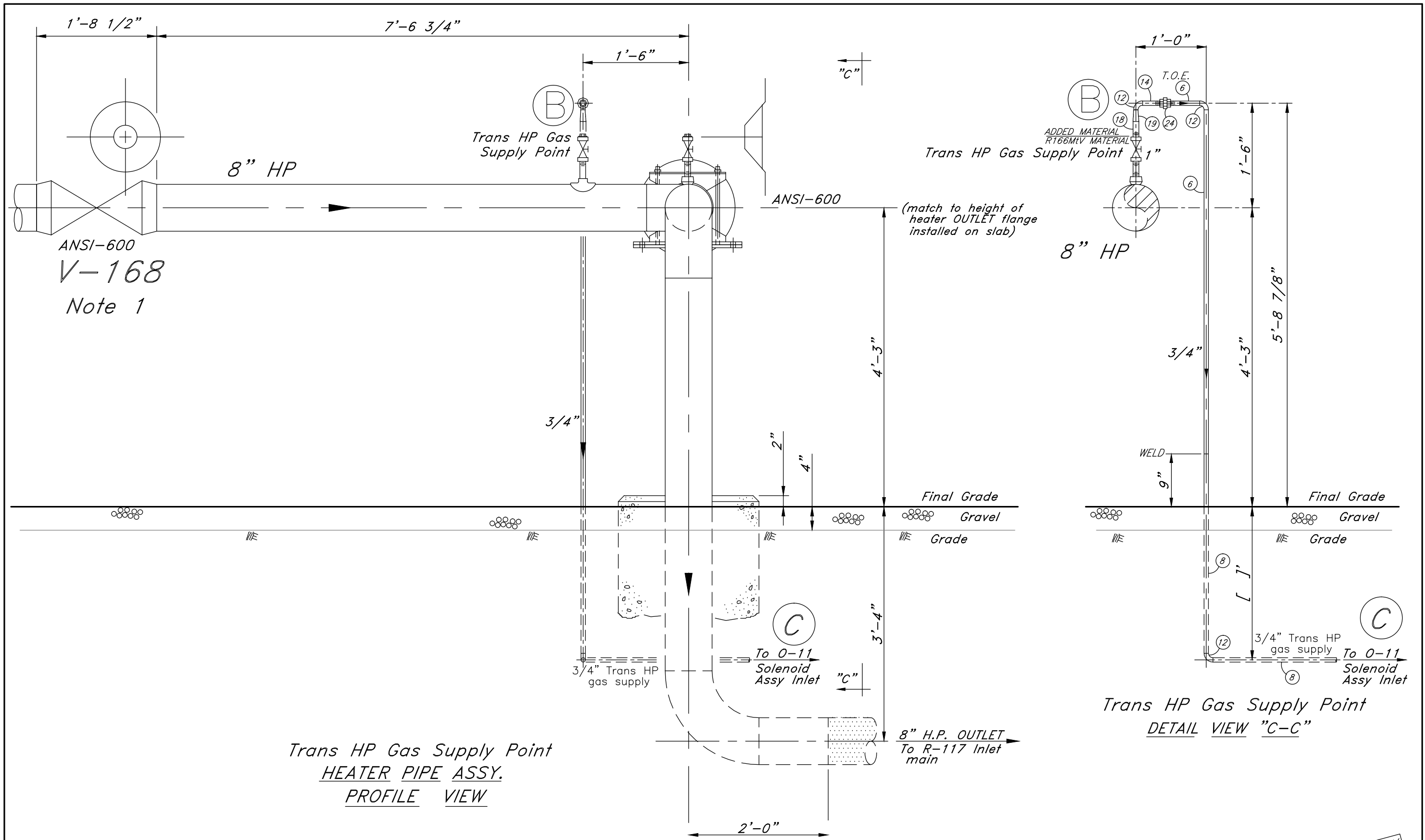
Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

Scale	1 1/2" = 1'-0"	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 4 12		

CASCADE NATURAL GAS CORPORATION
 8113 W Grandridge Blvd
 Kennewick, WA 99336
 0-11 Odorizer at Southridge Gate
 6300 Brinkley Rd
 Kennewick, WA

WO# 214539

PRELIMINARY



Trans HP Gas Supply Point
HEATER PIPE ASSY.
PROFILE VIEW

Trans HP Gas Supply Point
DETAIL VIEW "C-C"

Note: All underground bare steel pipe to be field wrapped during installation

1/2 SIZE DRAWING— Scaled
to 1/2 indicated

Scale	1 1/2"=1'-0"	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 5 12		

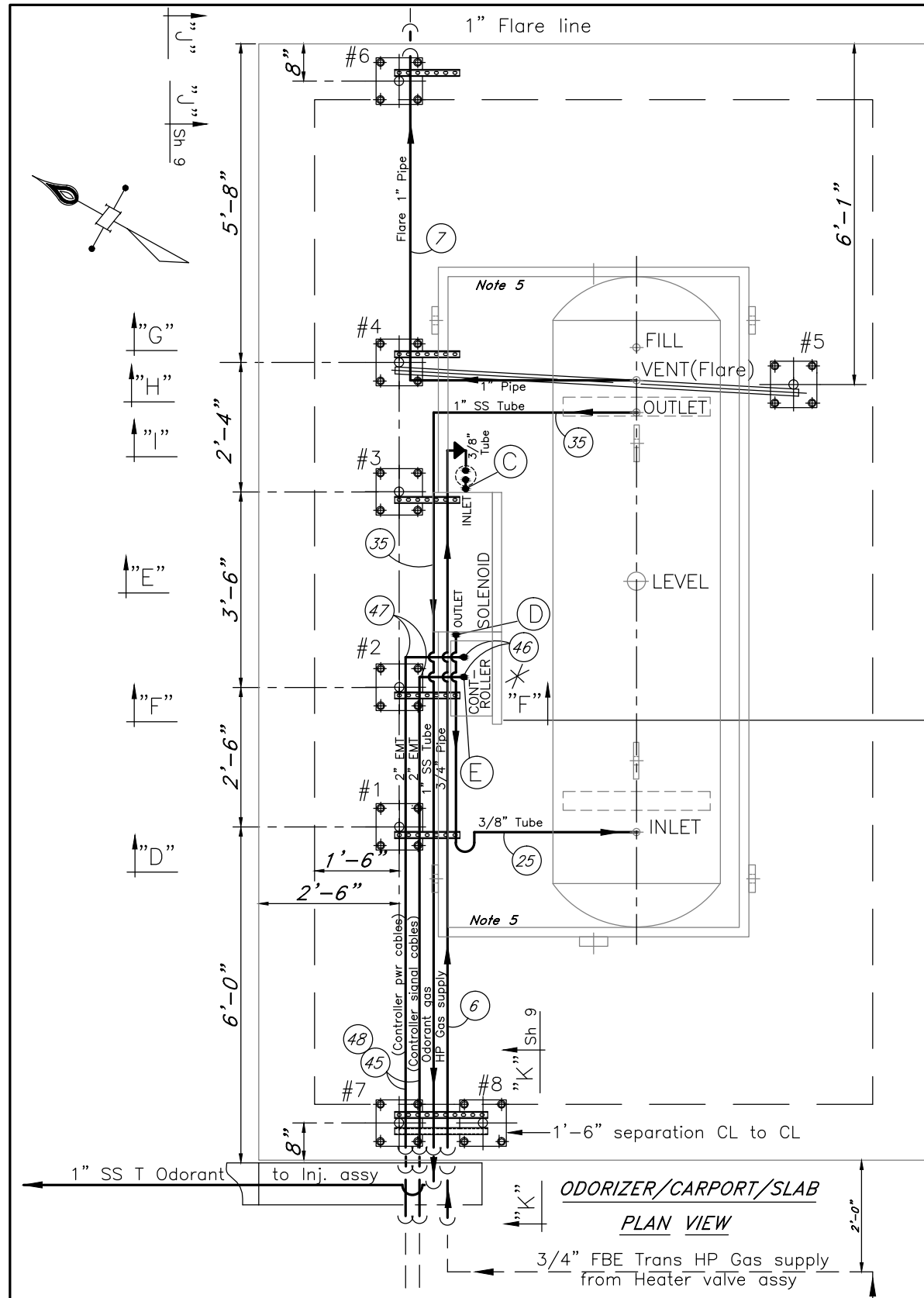
Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

PRELIMINARY

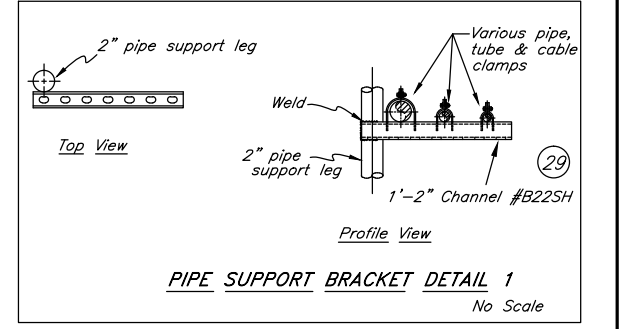
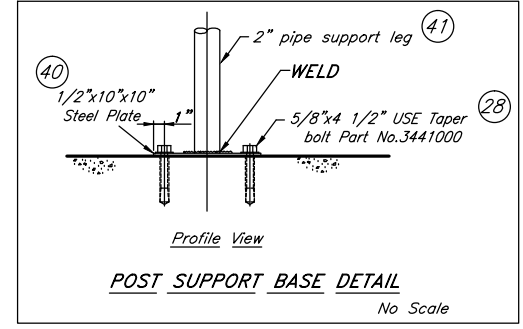
WO# 214539

CASCADE NATURAL GAS CORPORATION
8113 W Grandridge Blvd
Kennewick, WA 99336

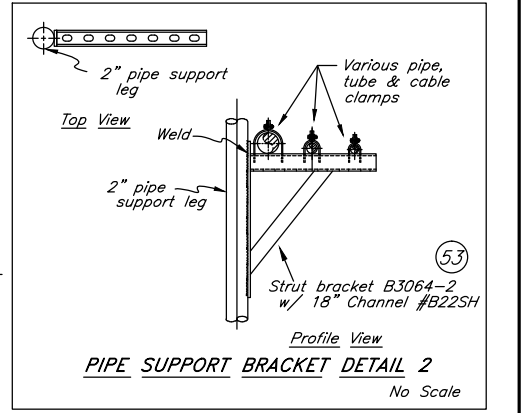
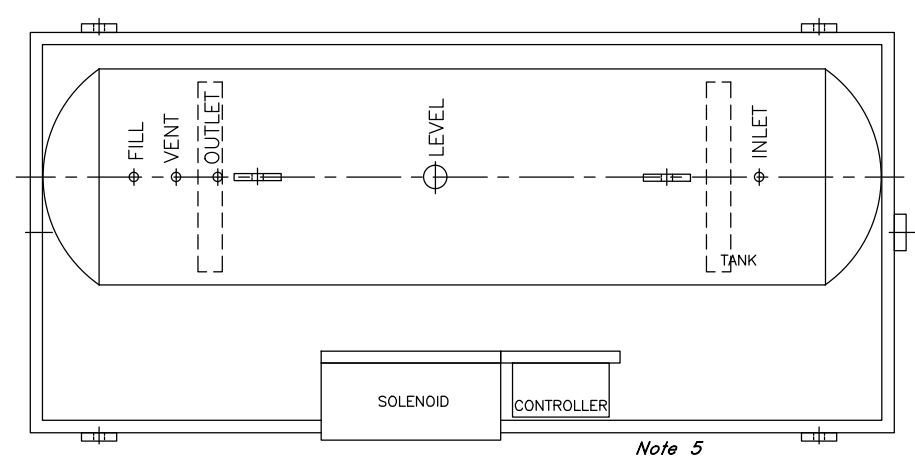
0-11 Odorizer at Southridge Gate
6300 Brinkley Rd
Kennewick, WA



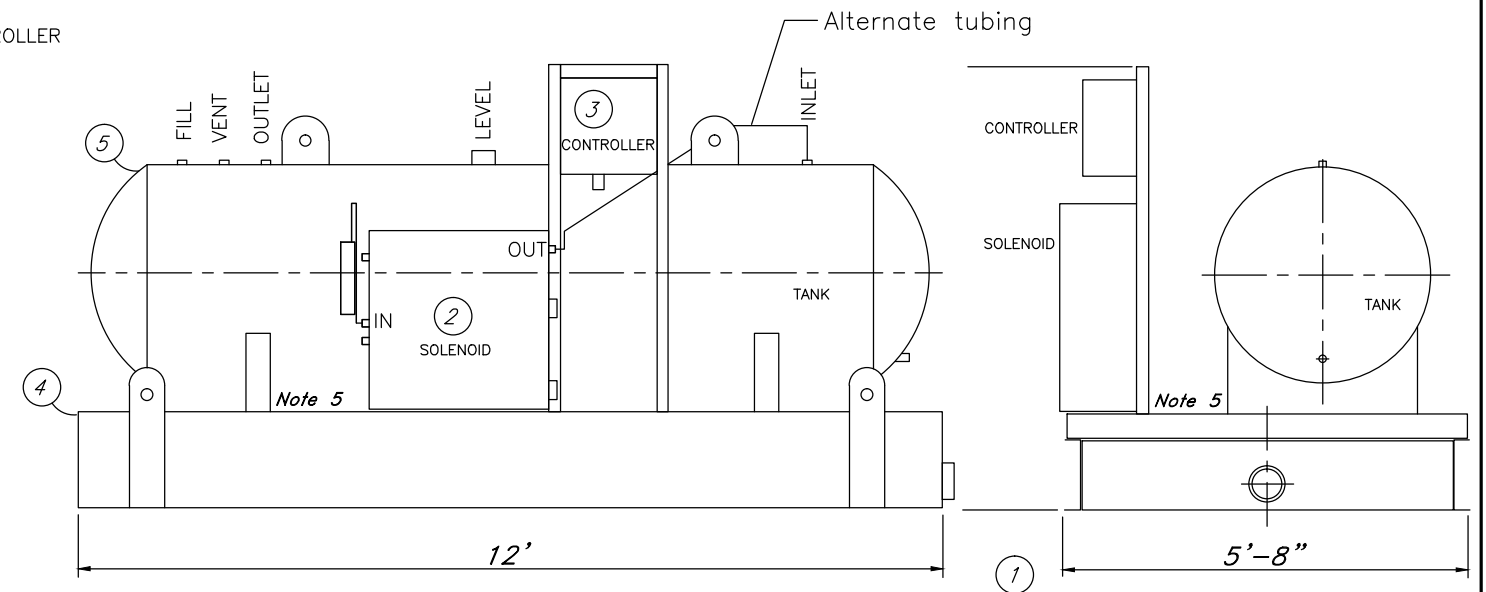
- ACCESS POINTS:**
- (A) Odorant injection point from tank OUTLET
 - (B) HP gas supply takeoff point
 - (C) Solenoid assy. INLET HP from gas supply (B)
 - (D) Solenoid assy. gas OUTLET to tank INLET
 - (E) Controller connections from telemetry bldg.



- "G" Sh 8 FILL
- "H" Sh 8 VENT(flare)
- "I" Sh 9 OUTLET
- "E" Sh 7 LEVEL



- "D" Sh 7 INLET



CAUTION: Drawing developed from the most current Original Equipment Manufacture (Odoreyes) documentation at the time. Differences of dimensions & part locations can exist therefore field adjustments will be necessary. As-Built changes to be made as required.

- (C) Transmission HP Gas INLET to Solenoid Assy ref Sh 7/12 & 10/12 (Solenoid reg rated for Transmission HP 1,000#)
 - (D) OUTLET Gas from Solenoid Assy to Tank INLET ref Sh 7/12 & 10/12
- Field to route piping & controller cables as required for site conditions
- Field to install piping, tubing & supports in a manner not connected to the carport structure or odorizer tank spill container

Note: All underground bare steel pipe to be field wrapped during installation.

1/2 SIZE DRAWING - Scaled to 1/2 indicated

Scale	3/4"=1'-0"	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 6 12		

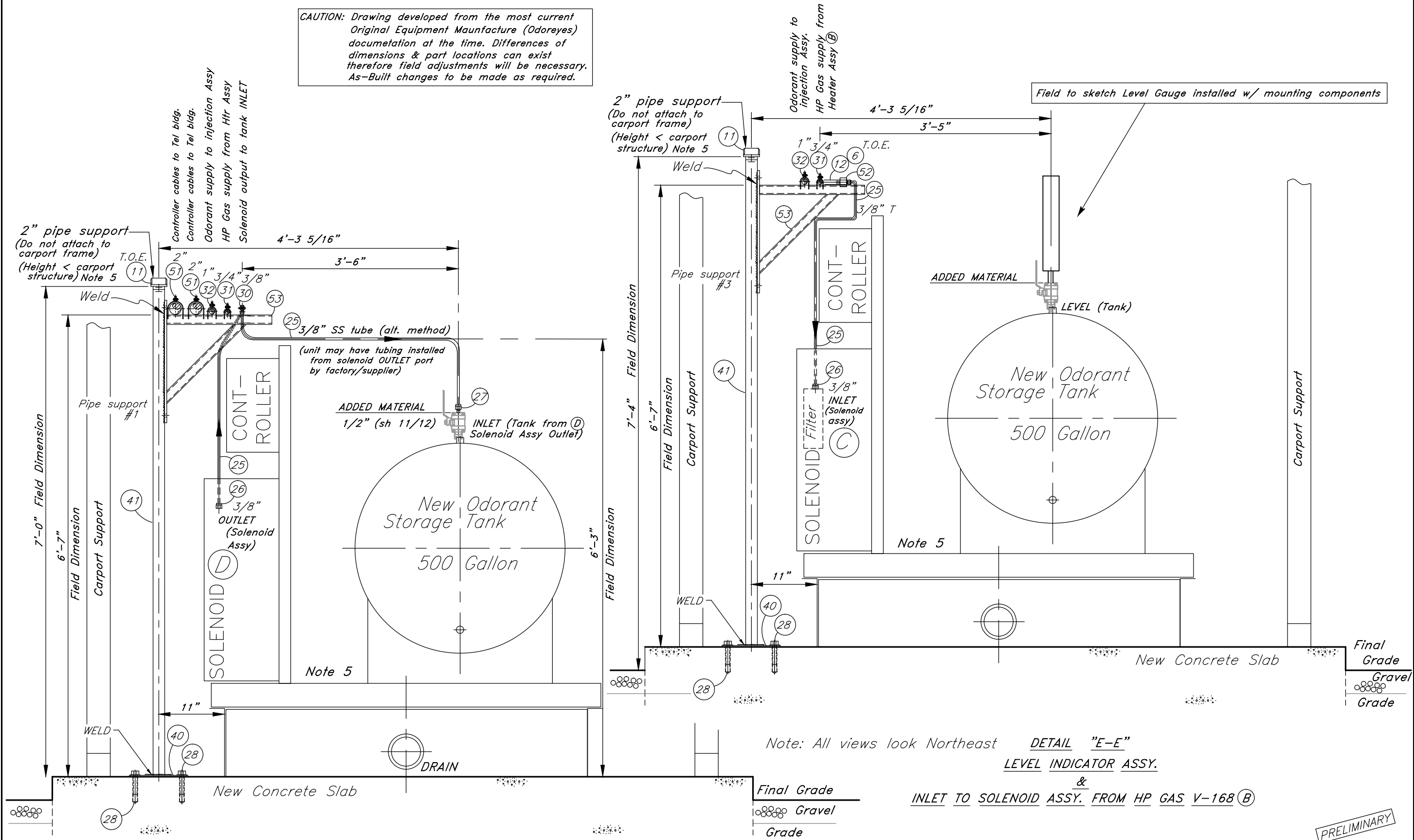
PRELIMINARY

WO# 214539

CASCADE NATURAL GAS CORPORATION
8113 W Grandridge Blvd Kennewick, WA 99336
0-11 Odorizer at Southridge Gate
6300 Brinkley Rd Kennewick, WA

Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

CAUTION: Drawing developed from the most current Original Equipment Manufacture (Odoreyes) documentation at the time. Differences of dimensions & part locations can exist therefore field adjustments will be necessary. As-Built changes to be made as required.



DETAIL "D-D"
OUTLET FROM SOLENOID ASSY. TO TANK INLET

Rating for Solenoid Assy inlet reg for HP Trans Gas pressure=1,000#

Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

1/2 SIZE DRAWING- Scaled to 1/2 indicated

Scale	1 1/2"=1'-0"	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 7 12		

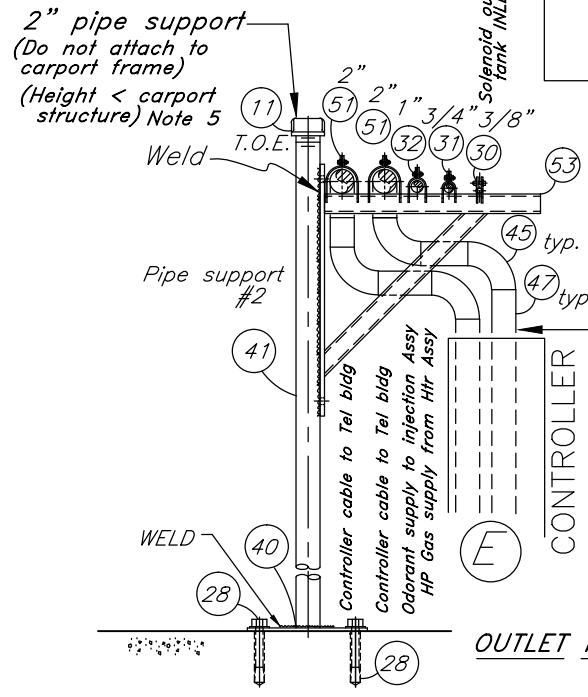
CASCADE NATURAL GAS CORPORATION
8113 W Grandridge Blvd
Kennewick, WA 99336
0-11 Odorizer at Southridge Gate
6300 Brinkley Rd
Kennewick, WA

WO# 214539

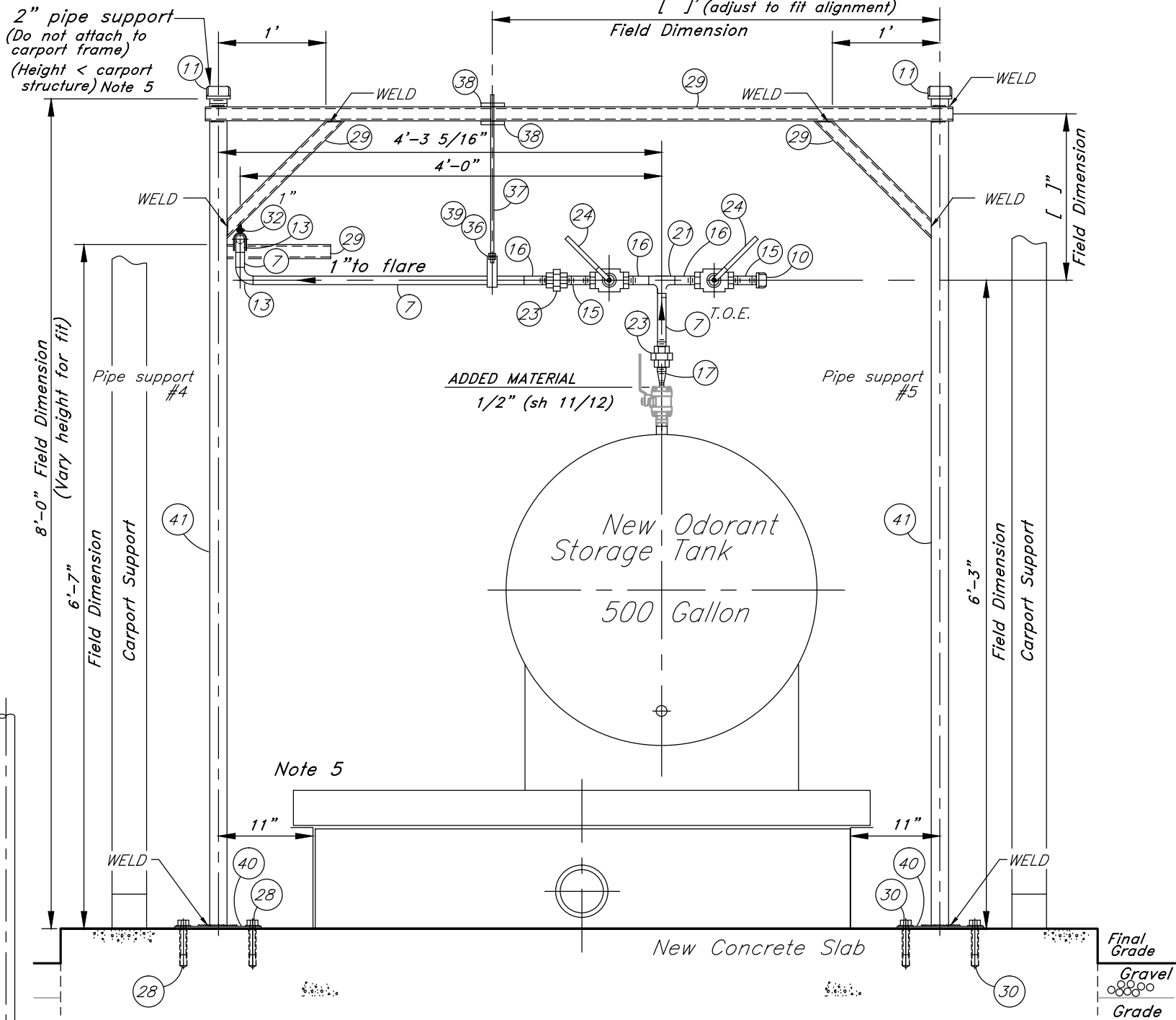
Note: All underground bare steel pipe to be field wrapped during installation.

PRELIMINARY

CAUTION: Drawing developed from the most current Original Equipment Manufacture (Odoreyes) documentation at the time. Differences of dimensions & part locations can exist therefore field adjustments will be necessary. As-Built changes to be made as required.

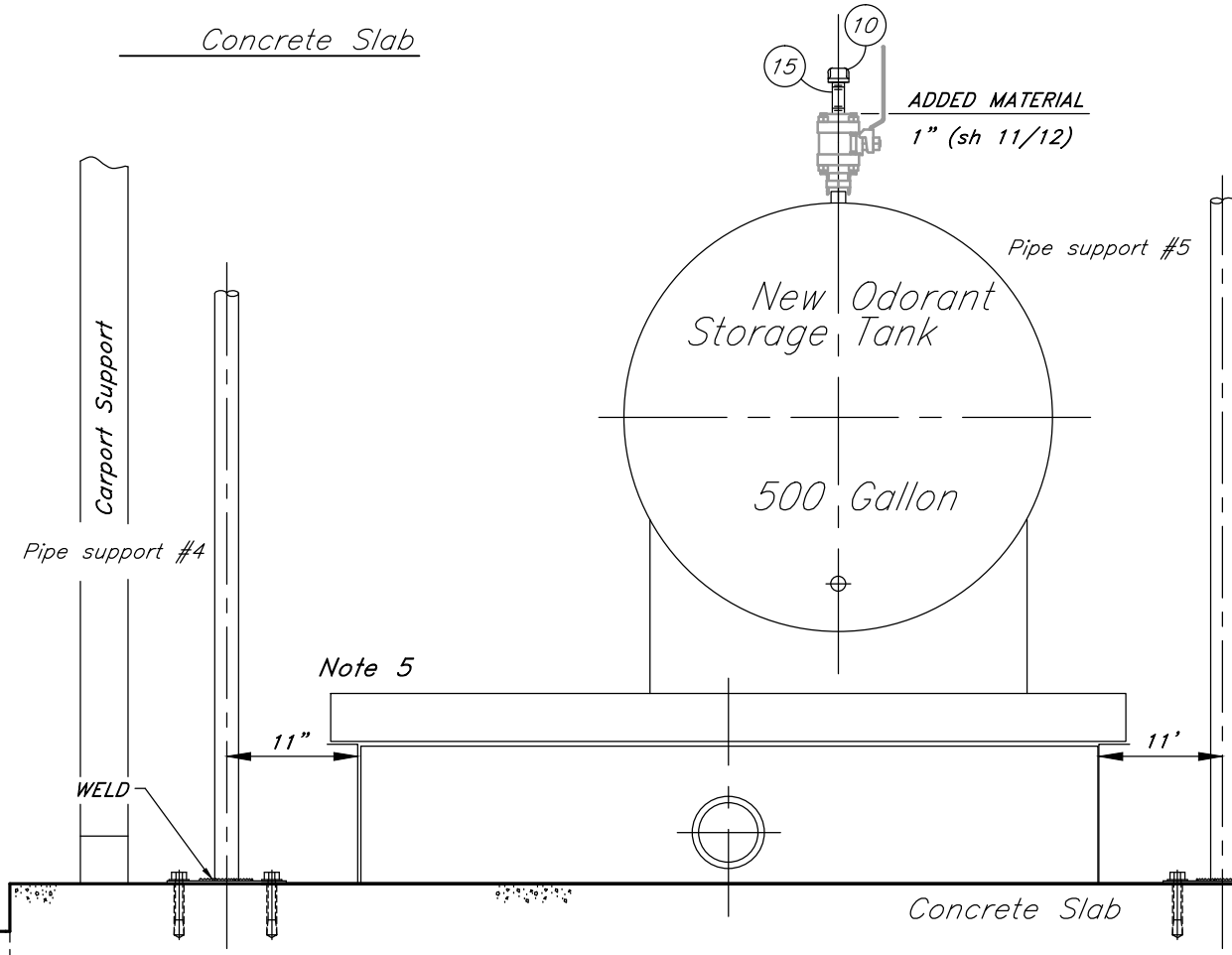


DETAIL "F-F"
OUTLET FROM SOLENOID ASSY. TO TANK



DETAIL "H-H"
VENT (FLARE) ASSY.

Note: All views look Northeast



DETAIL "G-G"
FILL ASSY. (From tanker)

Note: All underground bare steel pipe to be field wrapped during installation.

1/2 SIZE DRAWING - Scaled to 1/2 indicated

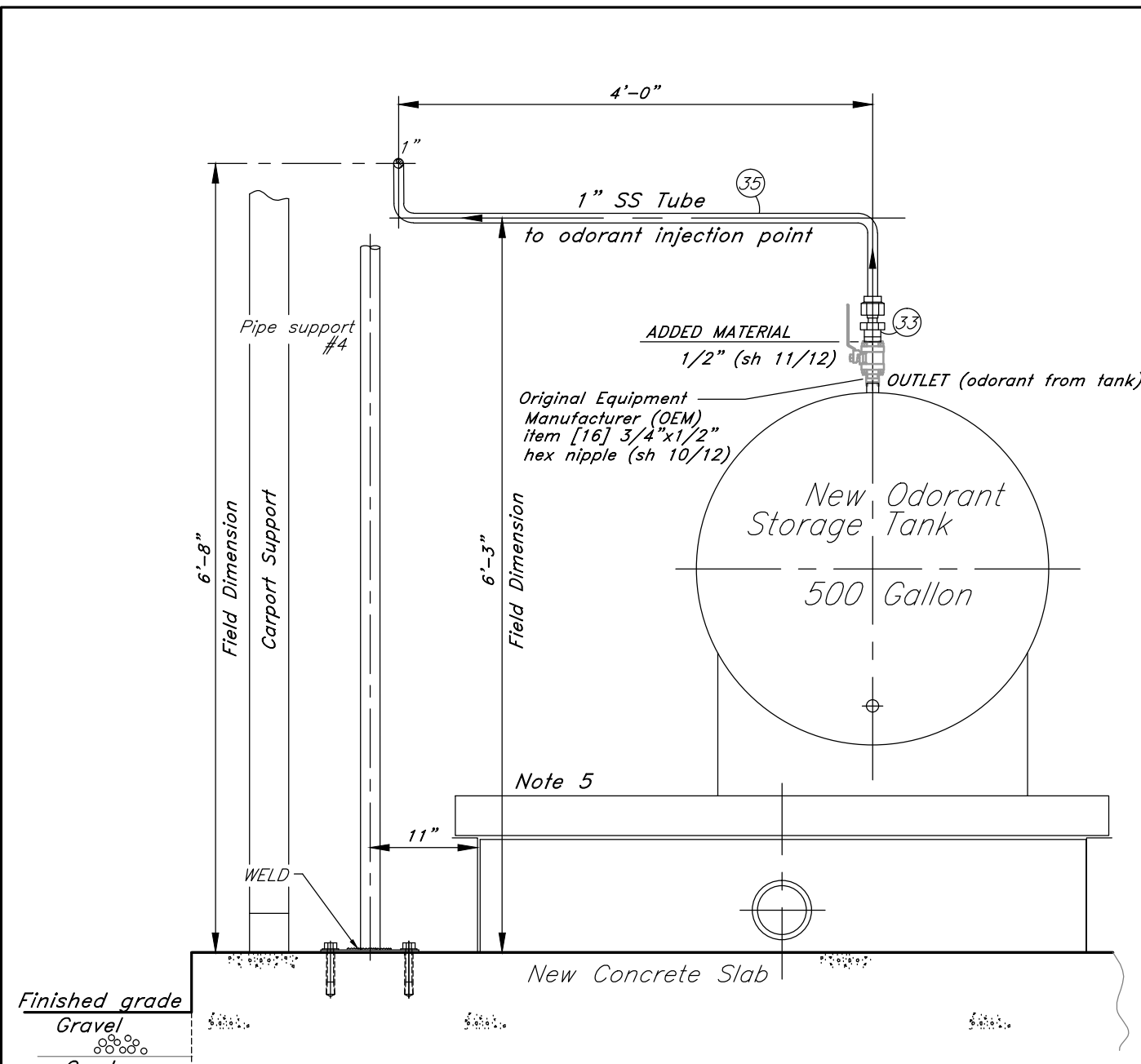
Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

Scale 1 1/2" = 1'-0"	Drawn SB
Date 3-10-15	Check N/A
Eng.	Meas. LW
Drawing Number 011Ken 8 12	

PRELIMINARY

WO# 214539

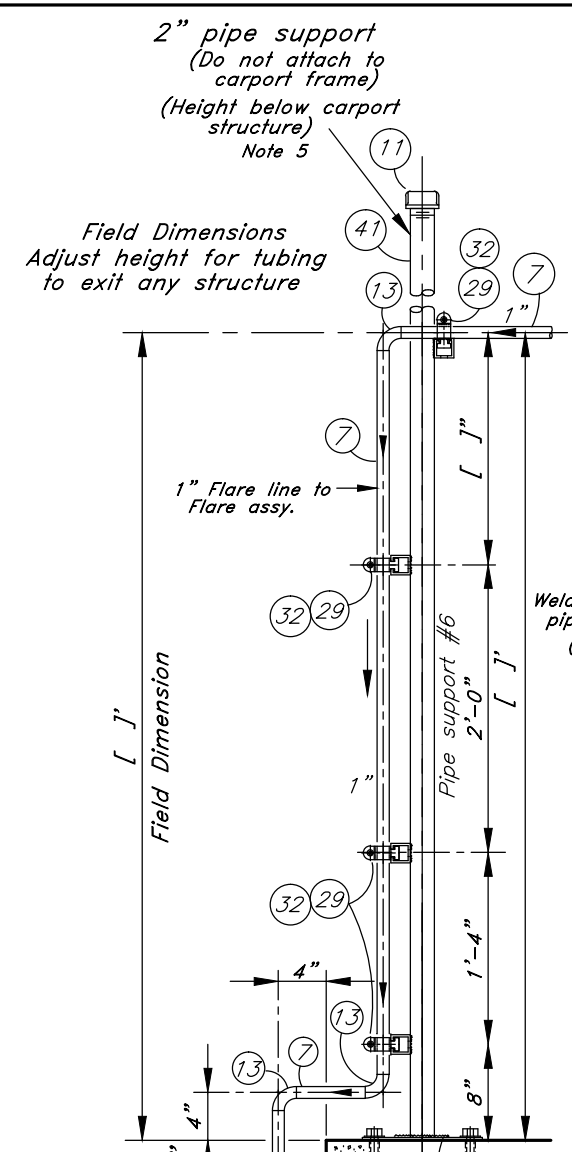
CASCADE NATURAL GAS CORPORATION
8113 W Grandridge Blvd Kennewick, WA 99336
0-11 Odorizer at Southridge Gate
6300 Brinkley Rd Kennewick, WA



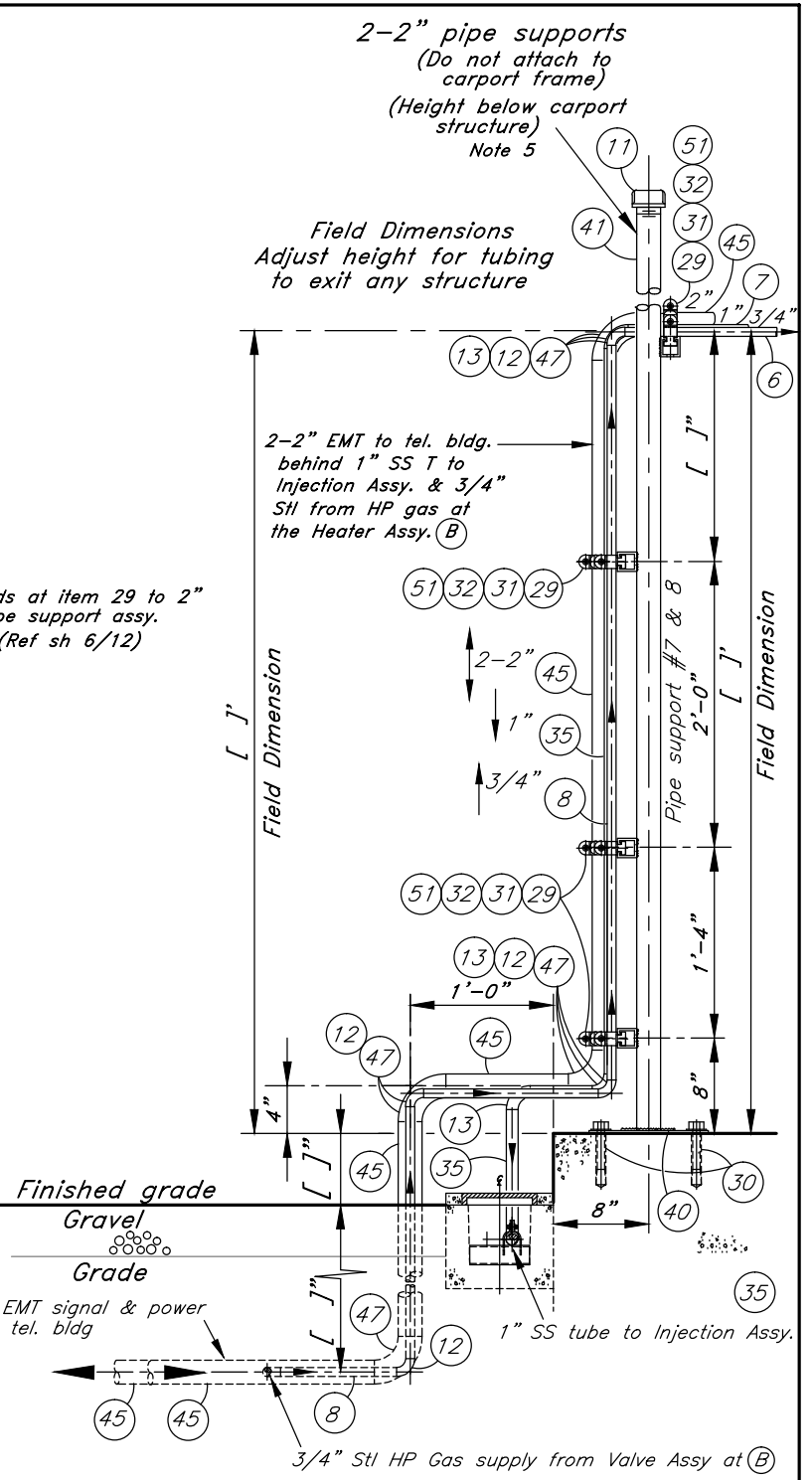
Note: View looks Northeast

DETAIL "I-I"
ODORANT SUPPLY OUTLET TO INJECTION POINT ASSY.

CAUTION: Drawing developed from the most current Original Equipment Manufacture (Odoreyes) documentation at the time. Differences of dimensions & part locations can exist therefore field adjustments will be necessary. As-Built changes to be made as required.



DETAIL "J-J"
1" Flare line support #6



DETAIL "K-K"
2" EMT/1" Odorant gas/3/4" Gas supply pipe support #7 & 8

Note: All underground bare steel pipe to be field wrapped during installation.

1/2 SIZE DRAWING - Scaled to 1/2 indicated

Scale	1 1/2" = 1'-0"	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 9 12		

Coordinate with R117Ken installation
 EcoSystem Electronic Pulse Bypass Odorizer installation

W0# 214539

CASCADE NATURAL GAS CORPORATION
 8113 W Grandridge Blvd
 Kennewick, WA 99336

0-11 Odorizer at Southridge Gate
 6300 Brinkley Rd
 Kennewick, WA

PRELIMINARY

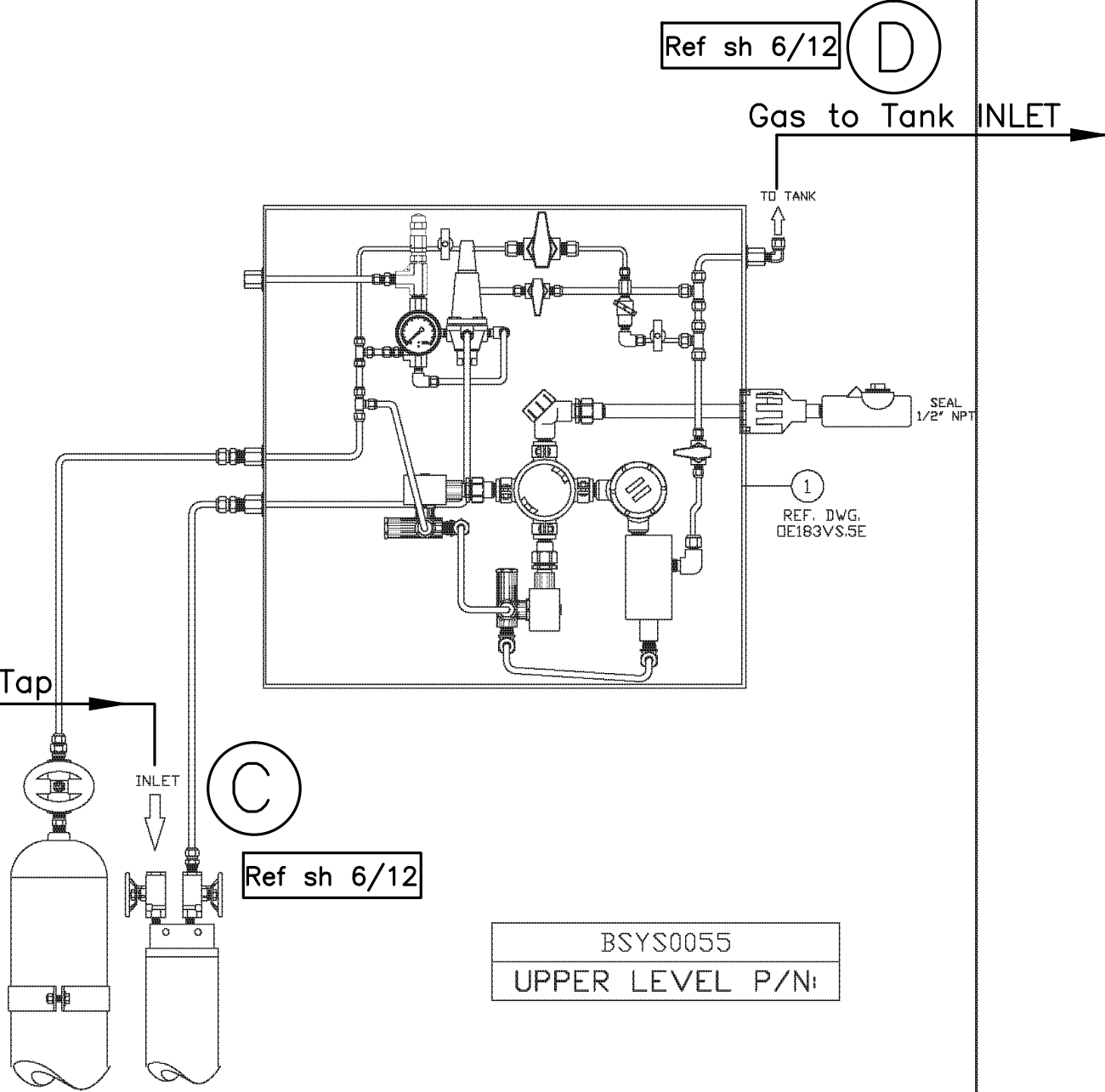
NO.	REQ.	DESCRIPTION	PART NO.
1	1	3/8" T BYPASS VALVE SECTION	BS222EF9
2	1	TANK VALVE SECTION (SEE TABLE 1)	TV6B2
3	144'	CONDUIT, FLEXIBLE 1/2"	ECMCOND050F
4	2	1/2" MALE UNION	ECMCHUNY105
5	2	1/2" SEAL, VERT. OR HORI.	ECMCHEYS116
6	2	1/2" CONDUIT ELBOW - 90°	ECMCHLBY15
7	1	1/2" STEEL 3-WAY GUAT-16	ECMCHGUAT16
8	2	12VDC @ 7AH SEALED BATTERY	EBAPS01250
9	2	1/2" RGC CLOSE NIPPLE	ECMN0500000R
10	1	DRAIN/BREATHER FOR EXP. ENC.	ECMKIKDB1
11	4	1/2" CONDUIT HUB	ECMMYST1
12	1	MTS SENSOR, 20 GAL W/TEMP	DEML20VT
13	1	DE CONTROLLER CID2 POWER HEAT	DECCSC1D2PSXXH
14	1	TANK, 500 GAL. HORIZ.	DETANK0500HK0000
15	1	SKID, 500 GAL. HORIZ.	DESKID0500HD10000
16	1	HEX NIPPLE, 3/4" x 1/2"	MF7790X
17	1	REDUCING BUSH, 2 1/2"MX 3/4"F	DEP002
18	1	3/4"-1/2" REDUCING BUSH	ECMCHRE21
19	6	LOCK WASHER, 3/8" SS	MA0790X
20	8	FLAT WASHER, 3/8" SS	MA0840X
21	6	HEX HD MACH SCREW, 3/8"-16 x 1-1/4" S.S	MA004EX
22	1	FLEX. CONDUIT FITTING ELB, 1/2	ECMTB5352
23	3	FLEXIBLE CONDUIT FITTING, 1/2	ECMTB5332
24	4	HEX BOLT, 5/8"-11 X 2" LONG SS	MA082FX
25	8	LOCK NUT, 5/8-11 HEAVY HEX NYL	MA4790X
26	4	WASHER 5/8"- FLAT SS	MA4800X
27	1	TANK HOLDER, 6" -7"	MM76600
28	6	HEX NUT 3/8-16 SS	MA0050X

NO.	REQ.	DESCRIPTION	PART NO.
-	3	HEX NIPPLE, 1/2" S.S.	MF0300X
-	2	HEX PLUG, 1/2" S.S.	MF0310X
-	1	HEX PLUG, 1" S.S.	MF0510X
-	1	HEX NIPPLE, 1" S.S.	MF2900X
-	3	BALL VALVE, 1/2" F/F S.S. INLINE	VL53800
-	1	BALL VALVE, 1" F/F S.S. INLINE	VL53900
-	2	MALE ELBOW 3/8" T x 1/2" NPT SS	MF1950X
-	2	PLUG VALVE, 3/8" T 3000 PSI	VL41304
-	1	CHECK VALVE, 3/8" T 1 PSI	VL41702
-	120'	TUBING, 316 S.S. 3/8" O.D. x .035" W.T.	0316S0037T03
-	2	SPACER CLAMP, 3/8" T 2-WAY	CHTSRC2382D

Ref sh 6/12 (D)

Gas to Tank INLET

HP Gas from Htr Tap



Ref sh 6/12 (C)

BSYS0055
UPPER LEVEL P/N:

NOTE:
APPLY BLUE LOCTITE ON ALL PIPE
THREADS.

DATE	REV.	RECORD	AUTHORIZED	DRAFTER	CHECKED
1/28/15	-	ER-10393	TDP	PVS	RAM
2/2/15	A	ECN-10359	TDP	PVS	RAM

OdorEyes®
Technologies, Inc.
(281) 491-3409 SUGAR LAND, TEXAS 77498

DRAFTER:	PVS	DATE:	1/28/15
DWG NO.:	BSYS0055	REVISION:	A
SCALE:	STF	SHEET:	2 of 2

SUBJECT:
500 GALLON TANK
W/ DE183VS.5E VALVE SECTION,
AND ENCLOSURE

PRELIMINARY

CAUTION: Drawing developed from the most current Original Equipment Manufacture (Odoreyes) documentation at the time. Differences of dimensions & part locations can exist therefore field adjustments will be necessary. As-Built changes to be made as required.

REFERENCE ONLY (part of item 2 sh 1/12)
Part IDs depicted on Sh 11/12

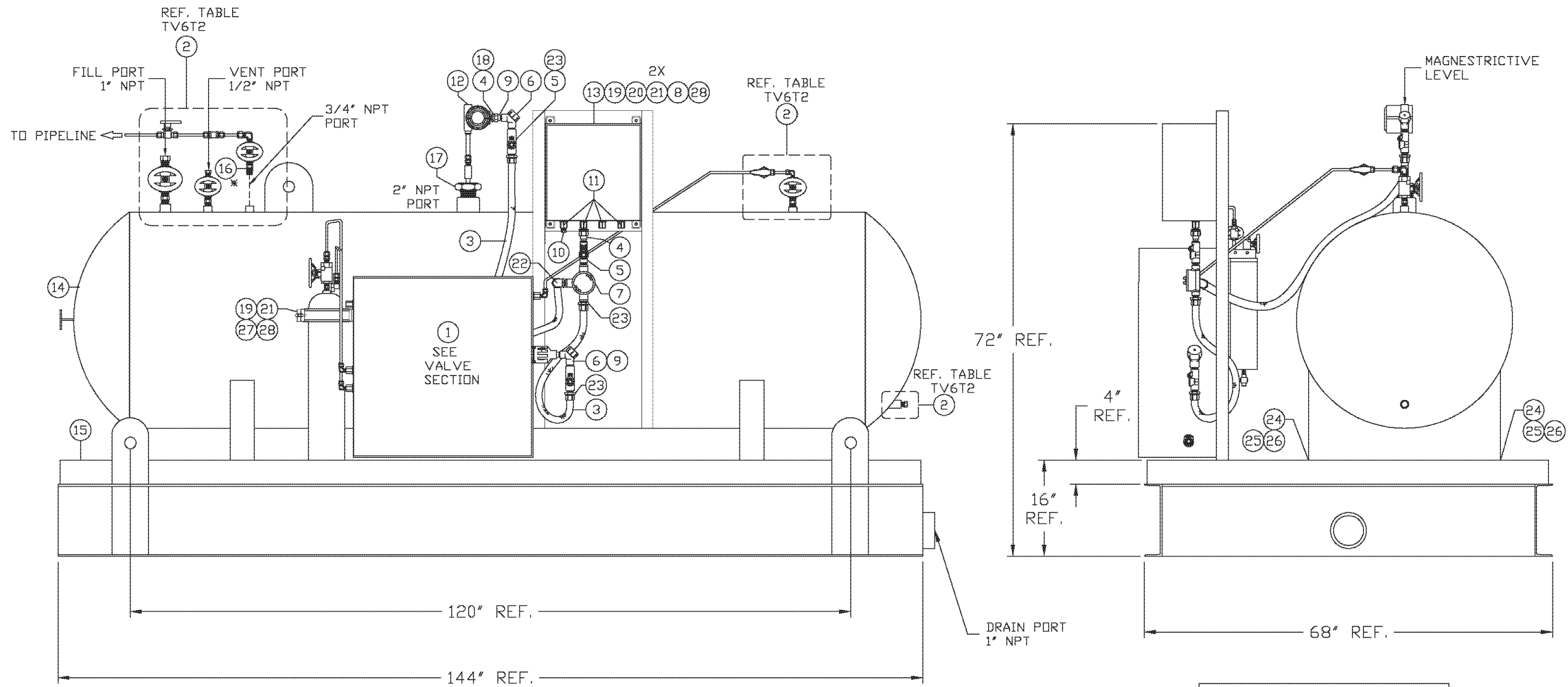
1/2 SIZE DRAWING - Scaled to 1/2 indicated

Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

Scale:	NONE	Drawn:	SB
Date:	3-10-15	Check:	N/A
Eng.:		Meas.:	LW
Drawing Number:	011Ken 10 12		

W0# 214539
CASCADE NATURAL GAS CORPORATION
8113 W Grandridge Blvd Kennewick, WA 99336
0-11 Odorizer at Southridge Gate
6300 Brinkley Rd Kennewick, WA


CLASS I, DIV. 2. GROUP C&D, T6



BSYS0055
UPPER LEVEL P/N:

NOTE:
APPLY BLUE LOCTITE ON ALL PIPE
THREADS.

DATE	REV.	RECORD	AUTHORIZED	DRAFTER	CHECKED
1/28/15	-	ER-10393	TDP	PVS	RAM
2/2/15	A	ECN-10359	TDP	PVS	RAM



OdorEyes[®]
Technologies, Inc.
(281) 491-3409
SUGAR LAND, TEXAS 77498

DRAFTER: PVS	DATE: 1/28/15
DWG. NO.: BSYS0055	REVISION: A
SCALE: STF	SHEET: 1 of 2
CHECKED:	

SUBJECT:
500 GALLON TANK
W/ OE183VS.5E VALVE SECTION,
AND ENCLOSURE

CAUTION: Drawing developed from the most current Original Equipment Manufacture (Odoreyes) documentation at the time. Differences of dimensions & part locations can exist therefore field adjustments will be necessary. As-Built changes to be made as required.


REFERENCE ONLY (part of item 1 sh 1/12)
Part IDs listed on Sh 10/12

1/2 SIZE DRAWING— Scaled
to 1/2 indicated

Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

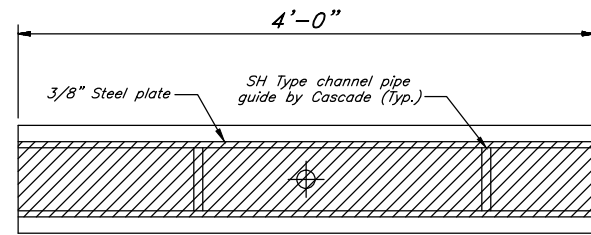
Scale	NONE	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 11 12		

WO# 214539

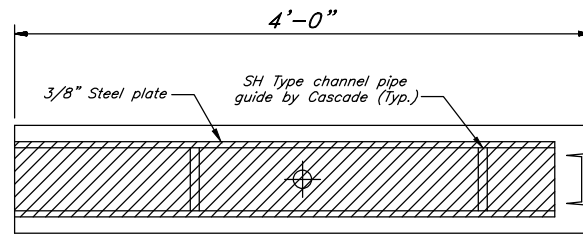


CASCADE NATURAL GAS CORPORATION
8113 W Grandridge Blvd
Kennewick, WA 99336
0-11 Odorizer at Southridge Gate
6300 Brinkley Rd
Kennewick, WA

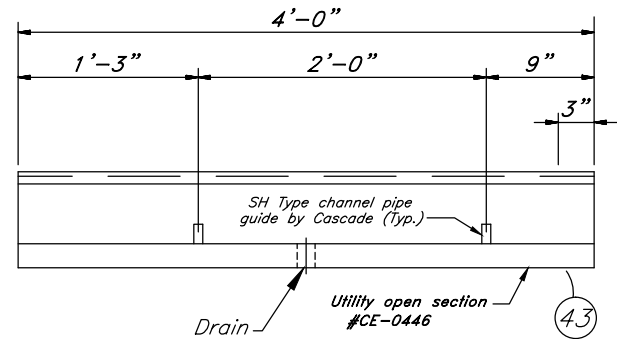
PRELIMINARY



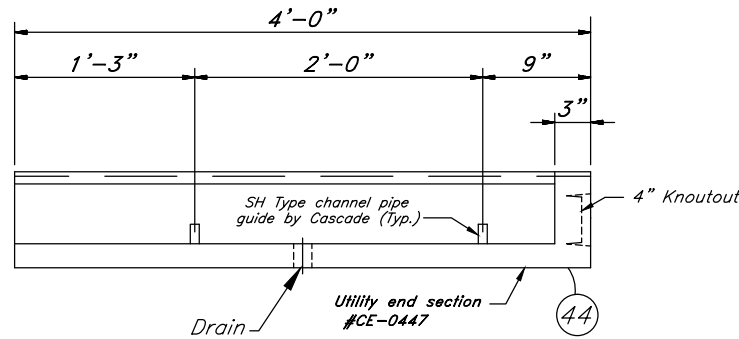
PLAN VIEW #CE-0446



PLAN VIEW #CE-0447

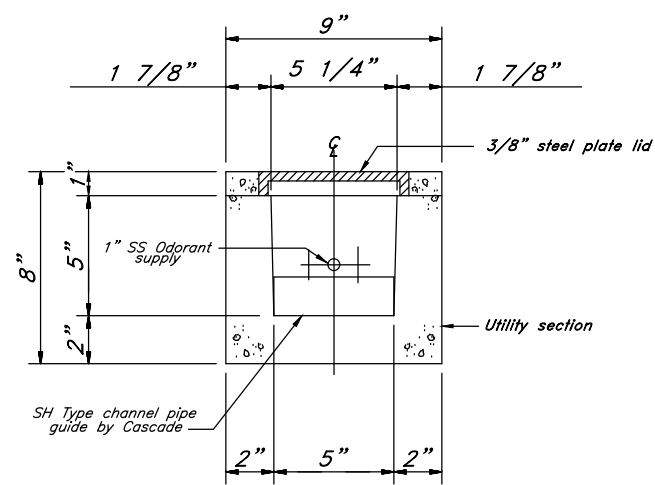


PROFILE VIEW #CE-0446



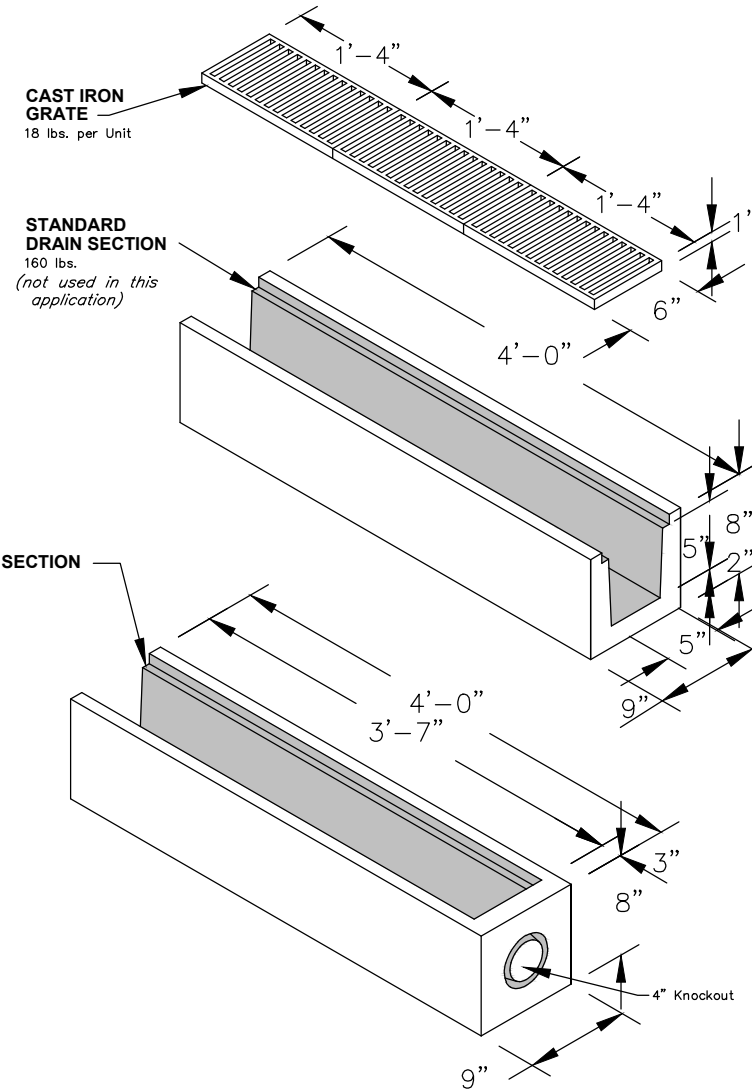
PROFILE VIEW #CE-0447

"Concrete trench"
UTILITY VAULT SECTION DETAIL
Scale 1 1/2"=1'



END VIEW
Scale 3/4"=1'

TRENCH DRAIN



HS-20 Loading

NONE

 PO Box 588, Auburn, Washington 98071-0588 Tel: (253) 839-3500 Fax: (253) 735-4201	TRENCH DRAIN File Name: 010-DRAINTRENCH w PN	TRENCH DRAIN for CC-0372/CE-0446/CE-0447 to be modified by vendor ©2002-2010 Oldcastle Precast, Inc.
	Issue Date: www.uvauburn.com	

47

PRELIMINARY

Coordinate with R117Ken installation
EcoSystem Electronic Pulse Bypass Odorizer installation

1/2 SIZE DRAWING— Scaled
to 1/2 indicated

Scale	As-Noted	Drawn	SB
Date	3-10-15	Check	N/A
Eng.		Meas.	LW
Drawing Number	011Ken 12 12		

WO# 214539

 CASCADE NATURAL GAS CORPORATION
 8113 W Grandridge Blvd Kennewick, WA 99336
 0-11 Odorizer at Southridge Gate
 6300 Brinkley Rd Kennewick, WA