

## **Appendix A: Drawings**

**PRELIMINARY**  
NOT FOR CONSTRUCTION



HOLD INFORMATION	
NO.	DESCRIPTION

CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUB-CONTRACTOR(S)) PERFORMING THE WORK.

RELEASE INFORMATION		
REV.	DATE	DESCRIPTION
B	03-03-2017	FOR CLIENT COMMENT
C	05-19-2017	FOR USE
D	06-30-2017	FOR USE

ISSUE PURPOSE:  
SPECIFICATION:

PROJECT NO.: 12715-009

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ENTER NAME.

ENTER NAME \_\_\_\_\_  
ENTER DATE \_\_\_\_\_  
MY LICENSE RENEWAL DATE IS: ENTER DATE \_\_\_\_\_  
PAGES OR SHEETS COVERED BY THIS SEAL: \_\_\_\_\_  
THIS DOCUMENT ONLY.  
CERTIFICATE OF AUTHORIZATION (WHEN REQ'D)

CAD FILE NAME: SK-GA-AST-001.DGN

PREPARED BY: R. MILLER

REVIEWED BY: A. PATEL

APPROVED BY: ----

ANY MODIFICATION OR ADDITION TO THIS DRAWING BY AN ORGANIZATION OTHER THAN SARGENT & LUNDY, IS NOT THE RESPONSIBILITY OF SARGENT & LUNDY.

PROJECT  
**ASTORIA  
SIMPLE CYCLE**  
  
**SOUTH DAKOTA**

DRAWING TITLE  
**PRELIMINARY  
GENERAL ARRANGEMENT  
SITE PLAN**

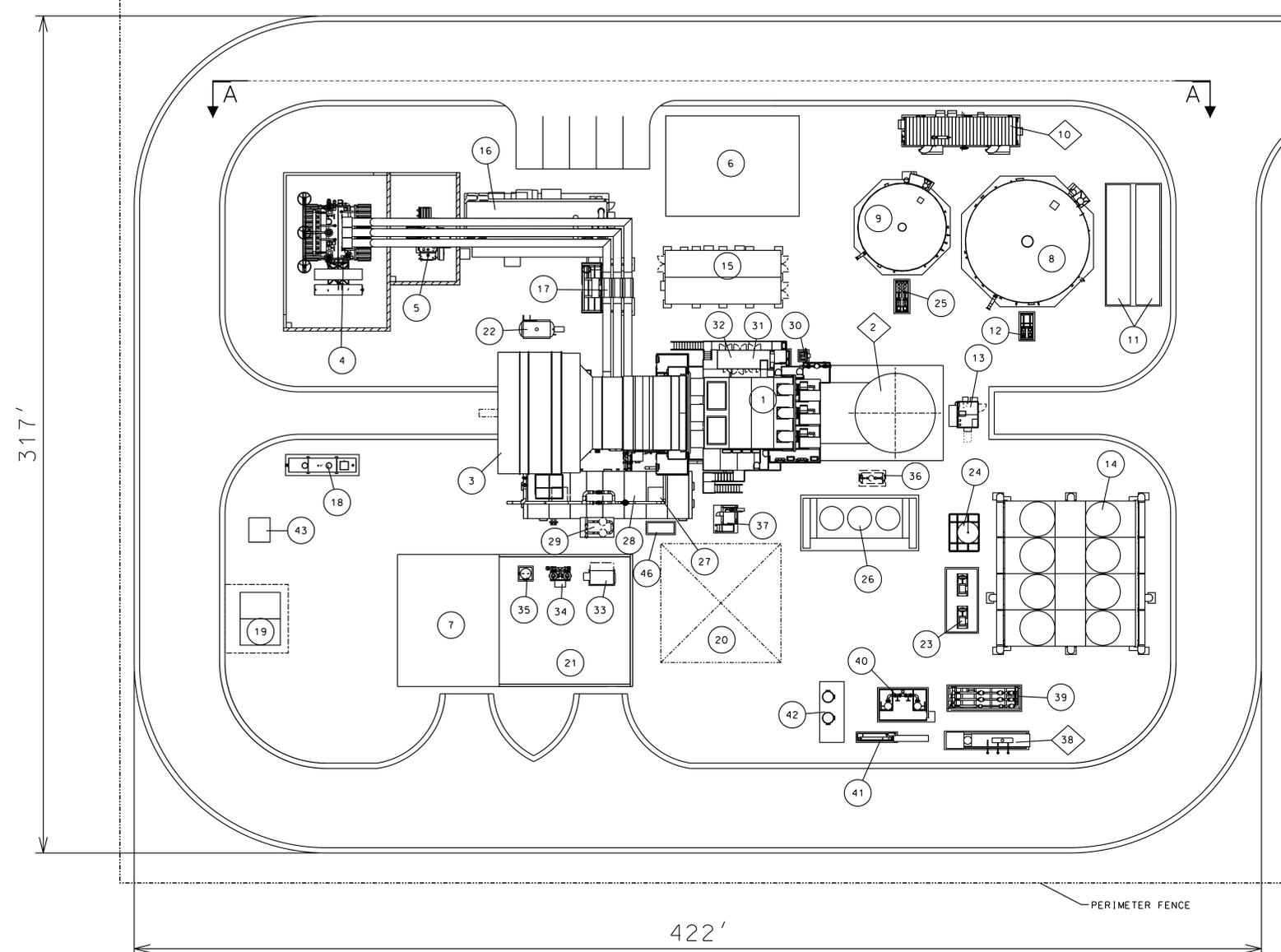
DRAWING NUMBER	REVISION
SK-GA-AST-001	D
SHEET 01 OF 01	

Z:\11464\041743\01\\*Astoria\SK-GA-AST-001.dgn  
Form: 000-0401-01-00 - ANSI (Imperial) MicroStation Border - Size E - 34 x 44  
Revision: T1A, Revision Date: 04-30-2010

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**PRELIMINARY**

NOT FOR CONSTRUCTION



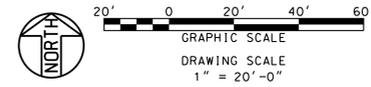
ITEM	DESCRIPTION
1	COMBUSTION TURBINE
2	EXHAUST STACK
3	INLET AIR FILTER
4	GENERATOR STEP-UP TRANSFORMER
5	AUXILIARY TRANSFORMER
6	CONTROL/ADMINISTRATION BUILDING
7	ELECTRICAL BUILDING
8	SERVICE/FIRE WATER STORAGE TANK (350,000 GAL)
9	DEMINERALIZED WATER STORAGE TANK (250,000 GAL)
10	FIRE WATER PUMPHOUSE
11	DEMINERALIZED WATER TRAILER SPACE
12	SERVICE WATER PUMPS
13	CEMS ENCLOSURE
14	CLOSED COOLING WATER HEAT EXCHANGER
15	CT CONTROL PACKAGE
16	CTG EXCITATION TRANSFORMER
17	GENERATOR CIRCUIT BREAKER
18	OILY WATER SEPARATOR (5,000 GAL)
19	NITROGEN & CO2 STORAGE AREA
20	MAINTENANCE CRANE SPACE
21	MAINTENANCE BUILDING
22	CT FIRE FIGHTING CO2 SKID
23	CLOSED COOLING WATER PUMPS
24	CLOSED COOLING WATER HEAD TANK
25	DEMINERALIZED WATER PUMPS
26	CT COOLING AIR COOLER
27	CT CONTROL OIL UNIT
28	CT LUBE OIL TANK UNIT
29	CT LUBE OIL MIST SEPARATOR
30	CT CASING COOLING AIR FAN
31	CT PURGE AIR UNIT
32	CT FUEL GAS UNIT
33	AIR COMPRESSOR
34	AIR DRYER
35	AIR RECEIVER
36	CT BLADE WASH DRAIN TANK (5,000 GAL)
37	CT COMPRESSOR BLADE WASHING UNIT
38	FUEL GAS WATER BATH HEATER
39	FUEL GAS PRESSURE REDUCING STATION
40	FUEL GAS KNOCK OUT DRUM
41	FUEL GAS FINAL COALESCING SKID
42	FUEL GAS LIQUID DRAINS TANKS
43	CLEAN WASTE WATER LIFT STATION (5,000 GAL)
44	- NOT USED -
45	RETENTION POND (600' x 200')
46	WET COMPRESSION PUMP SKID
47	SEPTIC TANK AND DISPOSAL FIELD (100' X 30')

XX - INDICATES EMITTER

UTM COORDINATE TABLE			
ITEM	DESCRIPTION	NORTH	EAST
2	EXHAUST STACK	4939314.83	693309.59
10	FIRE WATER PUMPHOUSE	4939345.75	693312.35
38	FUEL GAS WATER BATH HEATER	4939271.76	693321.10

NOTES:

1. THE COORDINATES PROVIDED ARE UTM ZONE 14T, IN METERS.
2. THE COORDINATES WERE LOCATED BY OVERLAYING THE EQUIPMENT ON A GOOGLE EARTH PRO MAP, AND WERE CHECKED USING BOTH USGS ASTORIA QUADRANGLE (2015) AND USACE CORPSCON V6.0.1.
3. UTM COORDINATES SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN PERMITTING.



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ISSUE PURPOSE:  
SPECIFICATION:  
PROJECT NO.: 12715-009

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PAGES OR SHEETS COVERED BY THIS SEAL: THIS DOCUMENT ONLY.  
CERTIFICATE OF AUTHORIZATION (WHEN REQ'D)

CAD FILE NAME: SK-GA-AST-002.DGN

PREPARED BY: R. MILLER

REVIEWED BY: A. PATEL

APPROVED BY: ----

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PROJECT  
ASTORIA  
SIMPLE CYCLE  
SOUTH DAKOTA

DRAWING TITLE  
PRELIMINARY  
GENERAL ARRANGEMENT  
PLOT PLAN

DRAWING NUMBER	REVISION
SK-GA-AST-002	D

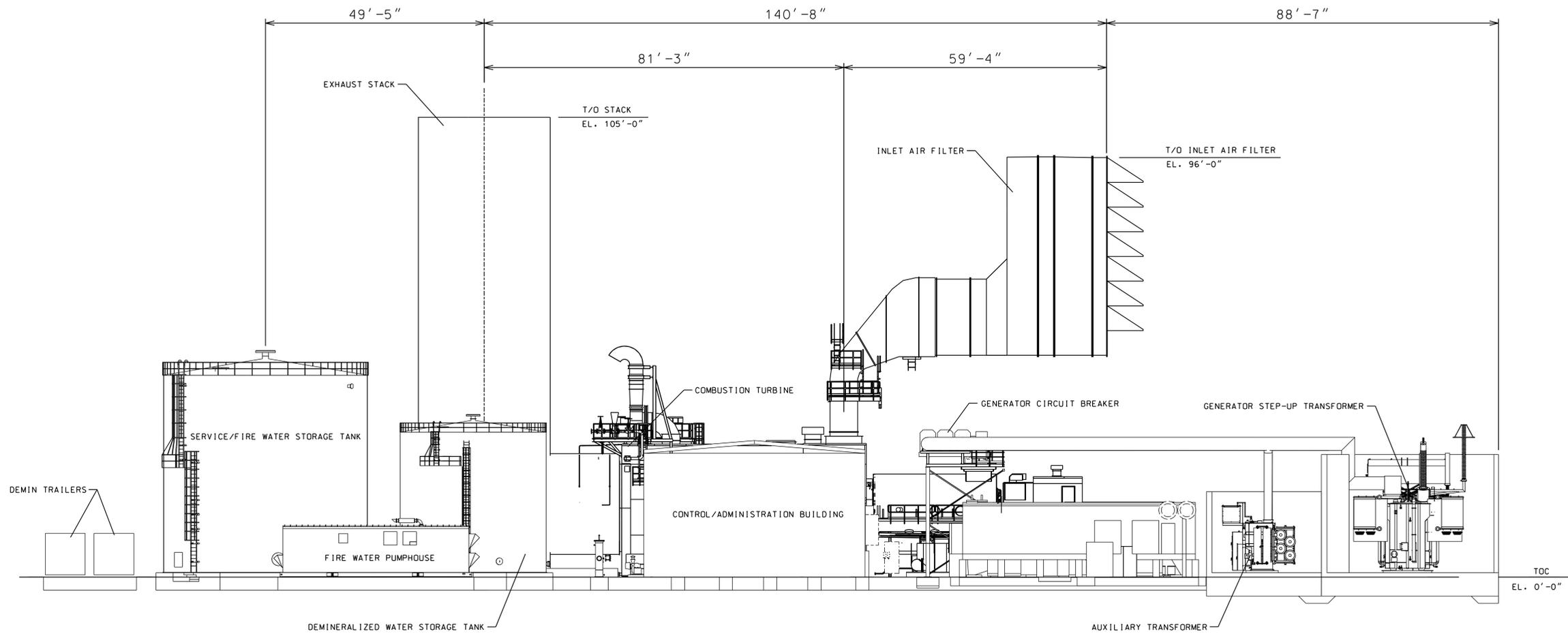
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1	1	1	1

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Form: 000-0401-01-08 - ANSI (Imperial) MicroStation Border - Size E - 34 x 44  
Revision: 11A, Revision Date: 04-30-2010

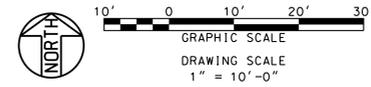
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**PRELIMINARY**

NOT FOR CONSTRUCTION



SECTION VIEW  
A-A



HOLD INFORMATION	
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REV.	DATE	DESCRIPTION
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C	04-10-2017	FOR CLIENT COMMENT
D	05-19-2017	FOR USE
E	06-30-2017	FOR USE

ISSUE PURPOSE:  
SPECIFICATION:

PROJECT NO.: 12715-009

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CAD FILE NAME: SK-GA-AST-003.DGN

PREPARED BY: R. MILLER

REVIEWED BY: A. PATEL

APPROVED BY: ----

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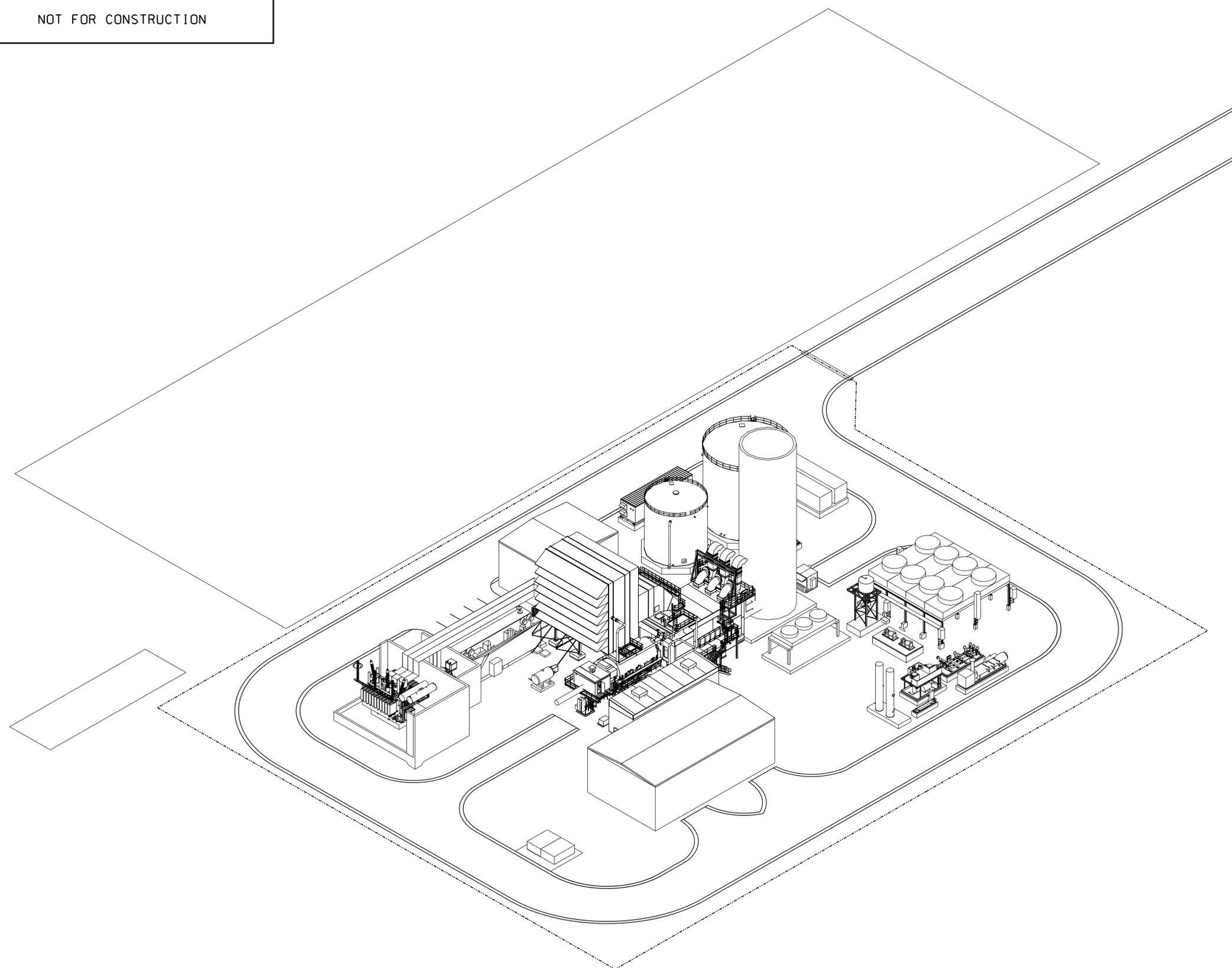


PROJECT	
ASTORIA SIMPLE CYCLE	
SOUTH DAKOTA	
DRAWING TITLE	
PRELIMINARY ISOMETRIC VIEW	
DRAWING NUMBER	REVISION
SK-GA-AST-003	E
SHEET 01 OF 01	1

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Form: 000-0401-01-08 - ANSI (Imperial) MicroStation Border - Size E - 34 x 44  
Revision 11A, Revision Date: 04-30-2010

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D	05-19-2017	FOR USE
E	06-30-2017	FOR USE

ISSUE PURPOSE:

SPECIFICATION:

PROJECT NO.: 12715-009

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CERTIFICATE OF AUTHORIZATION (WHEN REQ'D)

CAD FILE NAME: SK-GA-AST-004.DGN

PREPARED BY: R. MILLER

REVIEWED BY: A. PATEL

APPROVED BY: ----

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PROJECT

ASTORIA  
SIMPLE CYCLE

SOUTH DAKOTA

DRAWING TITLE

PRELIMINARY  
ISOMETRIC VIEW

DRAWING NUMBER

SK-GA-AST-004

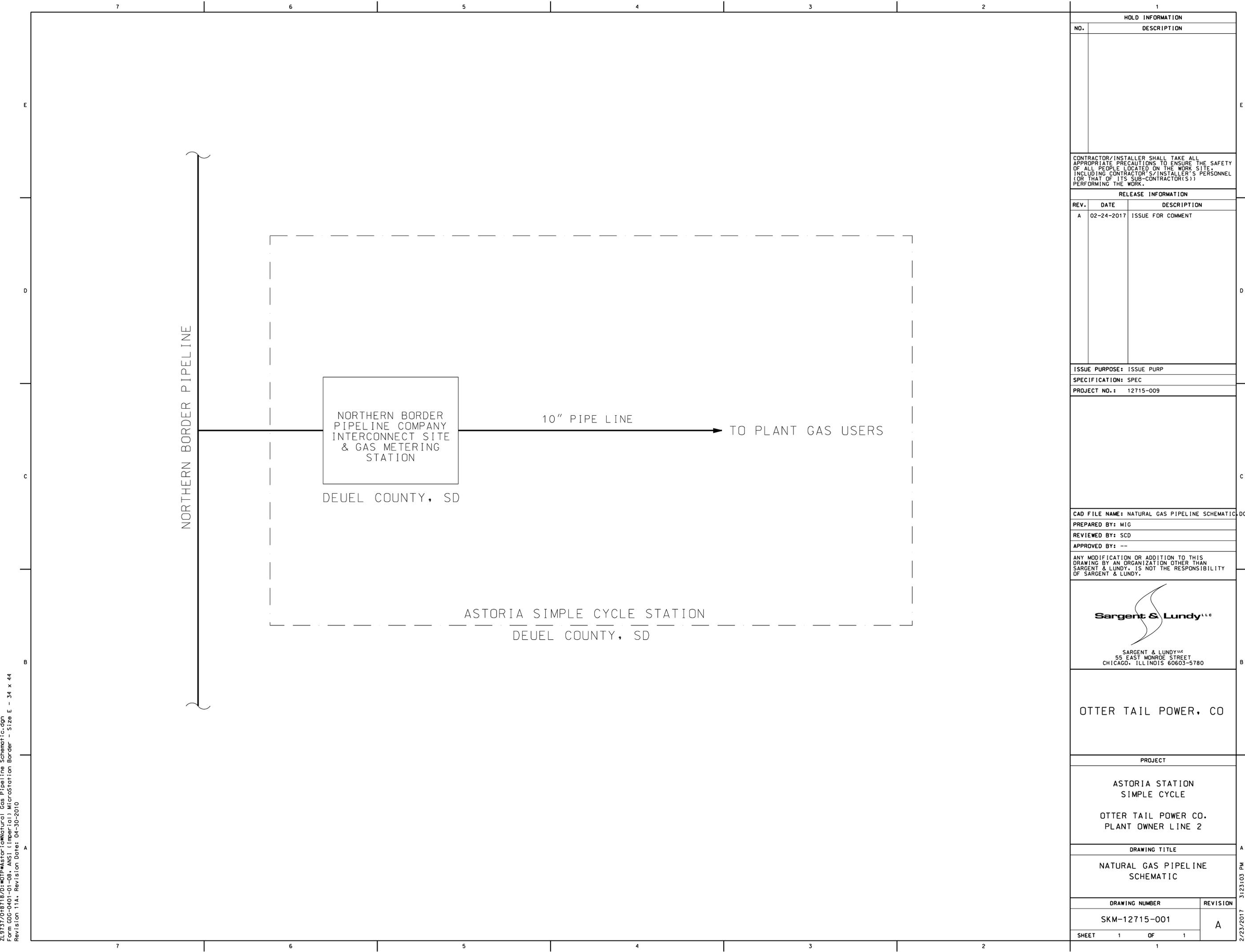
REVISION

E

SHEET 01 OF 01

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Form: 006-0401-01-06 - ANSI (Imperial) - MicroStation Border - Size E - 34 x 44  
Revision: 11A, Revision Date: 04-30-2010

6/30/2017 1:55:23 PM  
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HOLD INFORMATION	
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RELEASE INFORMATION		
REV.	DATE	DESCRIPTION
A	02-24-2017	ISSUE FOR COMMENT

ISSUE PURPOSE: ISSUE PURP  
 SPECIFICATION: SPEC  
 PROJECT NO.: 12715-009

CAD FILE NAME: NATURAL GAS PIPELINE SCHEMATIC DGN  
 PREPARED BY: MIG  
 REVIEWED BY: SCD  
 APPROVED BY: --

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OTTER TAIL POWER, CO

PROJECT  
 ASTORIA STATION  
 SIMPLE CYCLE  
 OTTER TAIL POWER CO.  
 PLANT OWNER LINE 2

DRAWING TITLE  
 NATURAL GAS PIPELINE  
 SCHEMATIC

DRAWING NUMBER	REVISION
SKM-12715-001	A

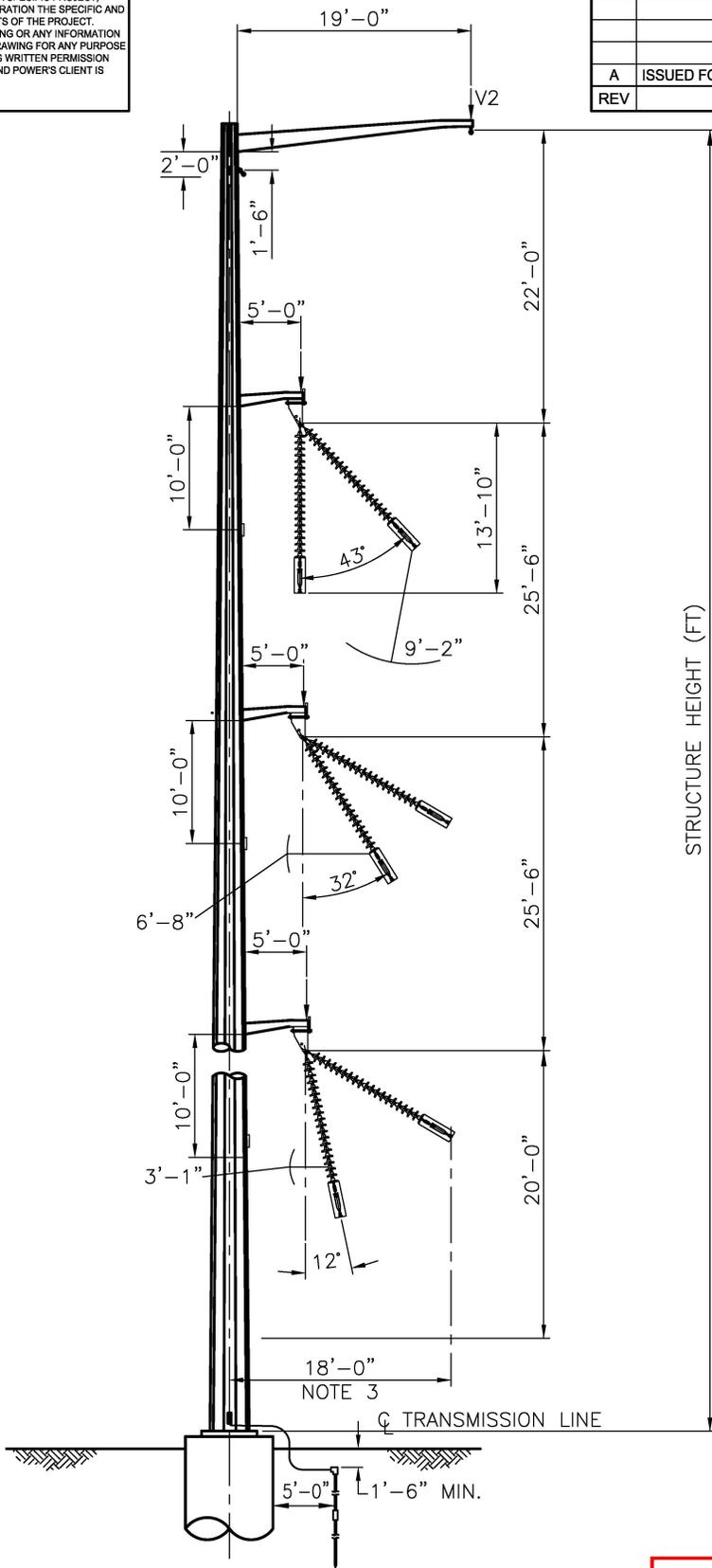
SHEET 1 OF 1

ZL9737/018118/01-001P-Natural Gas Pipeline Schematic.dgn  
 Form: G00-0401-01-08, ANSI (Imperial), Microstation Border - Size E - 34 x 44  
 Revision 11A, Revision Date: 04-30-2010

2/23/2017 3:23:03 PM  
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A	ISSUED FOR PRELIMINARY	08/25/17	CSF	JPW	GMD	
REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD



STRUCTURE HEIGHT (FT)

**LOOKING AHEAD**  
TLA06NUFH  
LARGE ANGLE STRUCTURE

**PRELIMINARY**

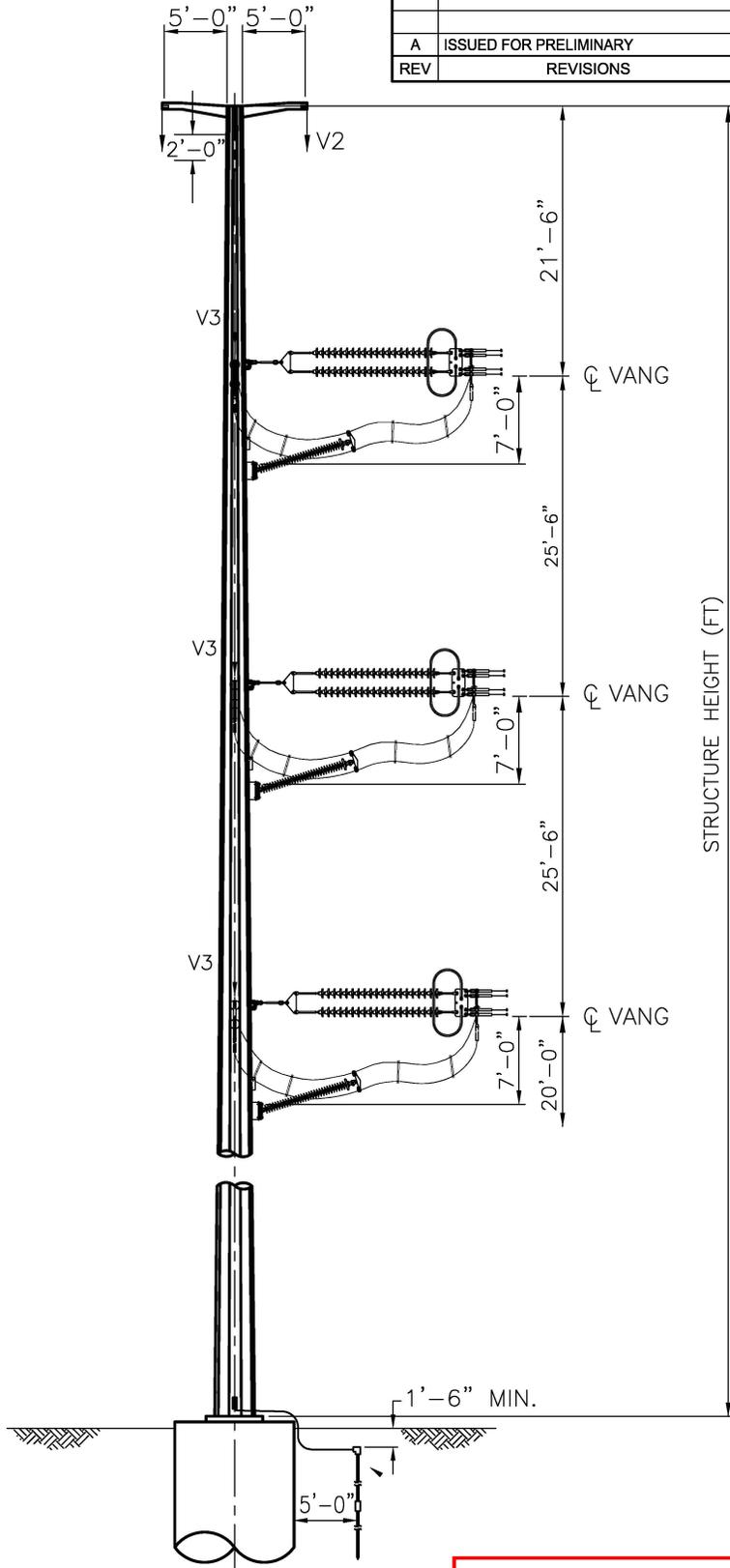
DATE: 08/25/17      PROJ# 147862

ASTORIA Large Angle.dwg

		DSGN	JPW	08/25/17		ASTORIA GENERATOR TIE-IN	JOB NUMBER	REV
		DRN	CSF	08/25/17		345kV	147862	△
		CKD	GMD	08/25/17		SINGLE CIRCUIT STEEL MONOPOLE RUNNING ANGLE TYPE TLA06NUFH		
REFERENCE DRAWINGS		SCALE: NONE				DRAWING NUMBER		
FOR 8.5x11 DWG ONLY								

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A	ISSUED FOR PRELIMINARY	08/25/17	CSF	JPW	GMD	
REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD



**LOOKING AHEAD**  
 TD206NUFH  
 DEADEND STRUCTURE

**PRELIMINARY**

DATE: 08/25/17      PROJ# 147862

ASTORIA Dead End.dwg

		DSGN	JPW	08/25/17		ASTORIA GENERATOR TIE-IN	JOB NUMBER	REV
		DRN	CSF	08/25/17		345kV TRANSMISSION LINE	147862	<span style="border: 1px solid black; padding: 2px;">A</span>
		CKD	GMD	08/25/17		SINGLE CIRCUIT STEEL TYPE TD206NUFH MONOPOLE DEADEND	DRAWING NUMBER	
REFERENCE DRAWINGS		SCALE: NONE						
					FOR 8.5x11 DWG ONLY			