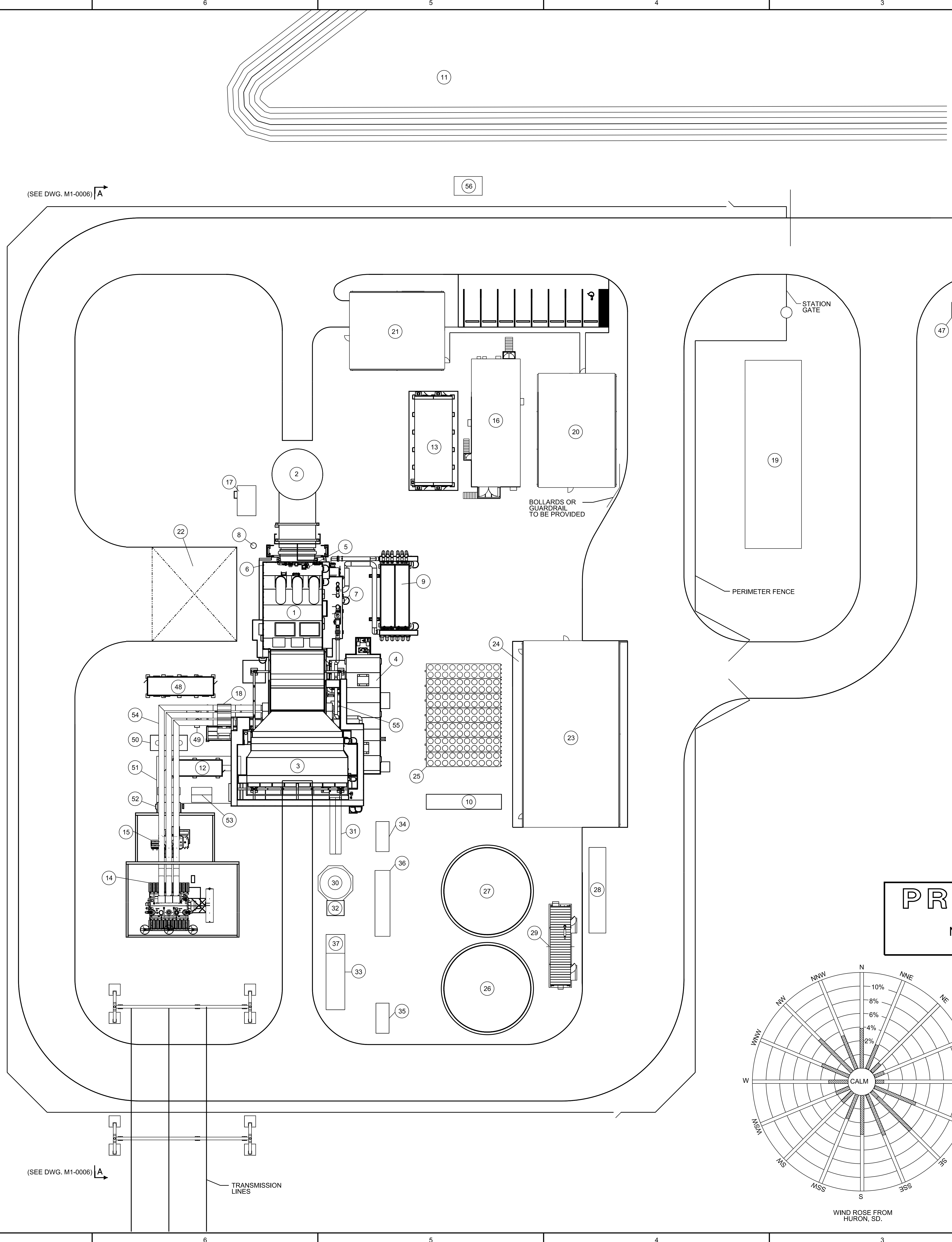


Appendix H: Engineering Drawings

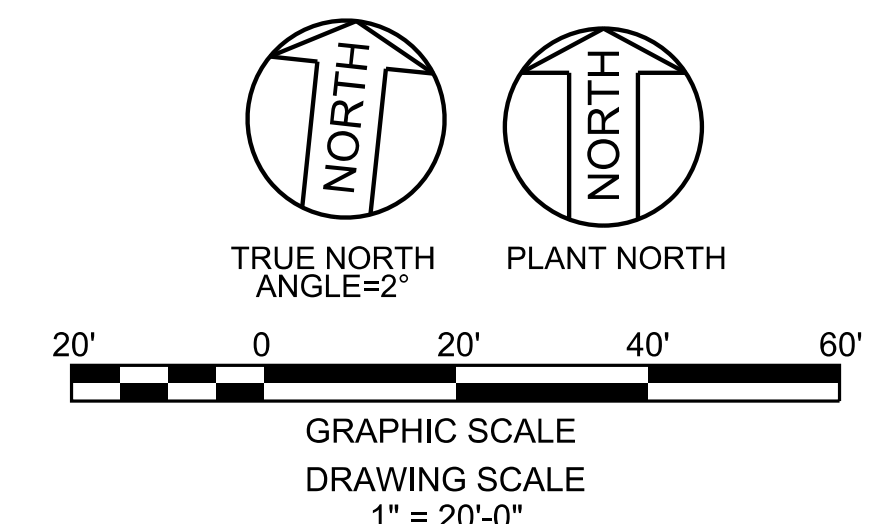
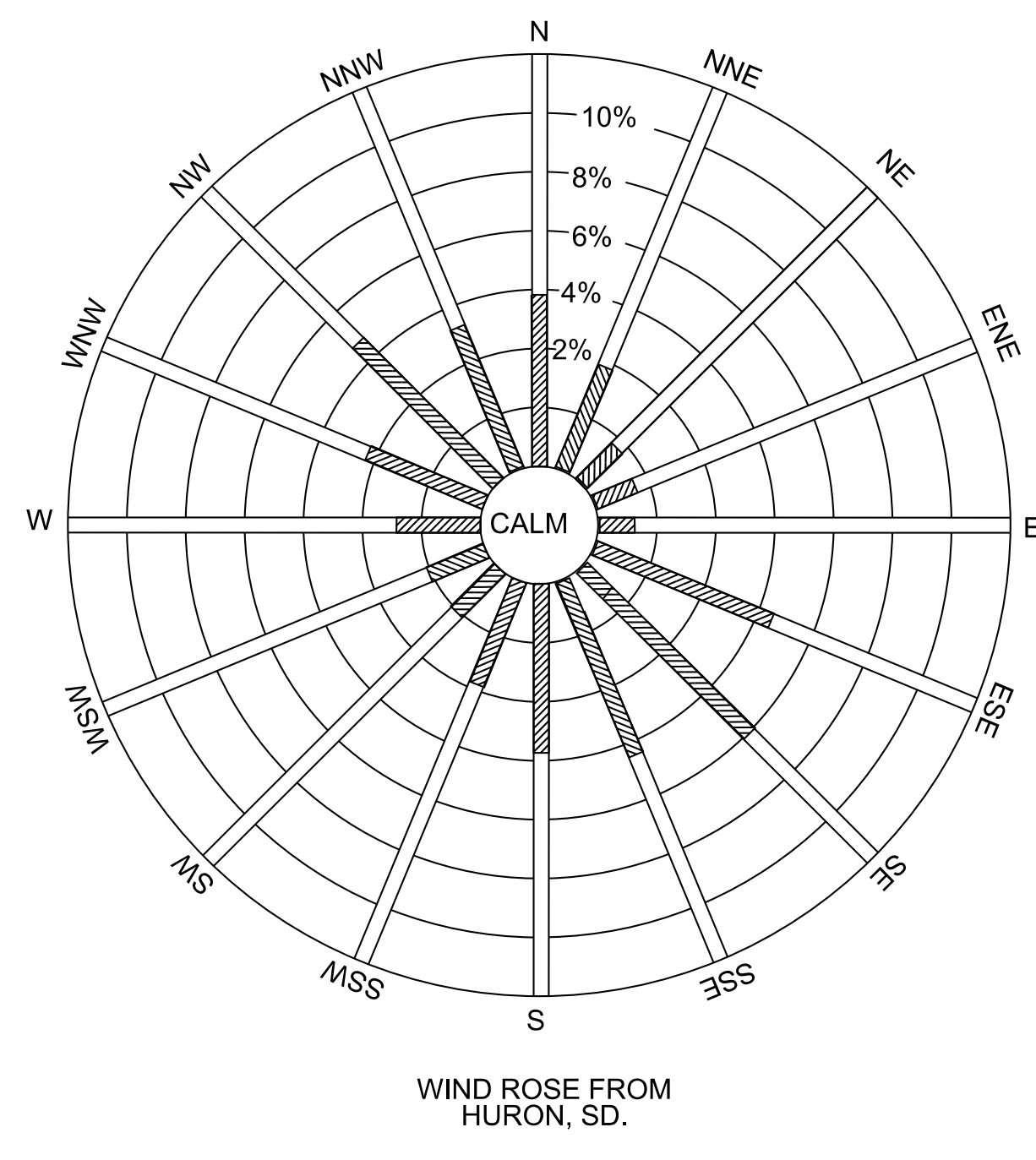
Z:\14680m\14680m\14680m\AST\casms\design\m1-0002.dgn
 Form: G:\CADD\1-10-16_ANSI (Imperial) MicroStation Border - Size E - 34 x 44
 Revision 10, Revision Date: 10-16-2019

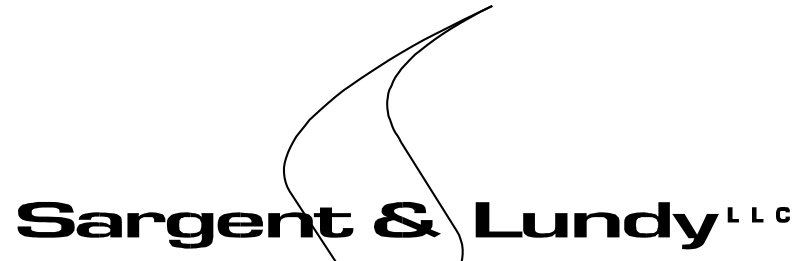


ITEM	DESCRIPTION
1	COMBUSTION TURBINE
2	EXHAUST STACK
3	INLET AIR FILTER
4	CT AUXILIARY ENCLOSURE
5	CT CASING COOLING AIR FAN
6	CT PURGE AIR UNIT/FUEL GAS UNIT
7	CT COOLING AIR FILTER
8	CT FUEL GAS LAST CHANCE FILTER
9	CT COOLING AIR COOLER
10	CT FIRE WATER MIST ENCLOSURE
11	DETENTION POND
12	CT EXCITATION PACKAGE
13	CT CONTROL PACKAGE
14	GENERATOR STEP-UP TRANSFORMER
15	AUXILIARY TRANSFORMER
16	ELECTRICAL POWER DISTRIBUTION CENTER
17	CEMS ENCLOSURE
18	GENERATOR CIRCUIT BREAKER
19	SEPTIC TANK AND DISPOSAL FIELD (100' X 30')
20	CONTROL/ADMINISTRATION BUILDING
21	COLD STORAGE BUILDING
22	MAINTENANCE CRANE SPACE
23	MAINTENANCE BUILDING
24	NITROGEN & BOTTLE STORAGE AREA
25	CLOSED COOLING WATER HEAT EXCHANGER
26	SERVICE/FIRE WATER STORAGE TANK
27	DEMINERALIZED WATER STORAGE TANK
28	DEMINERALIZED WATER TRAILER SPACE
29	FIRE WATER PUMPHOUSE
30	WASTE RECYCLE TANK
31	OIL WATER SEPARATOR
32	CLEAN WASTE WATER LIFT STATION
33	FUEL GAS WATER BATH HEATER
34	FUEL GAS FILTER SEPARATOR
35	FUEL GAS COALESCKER
36	FUEL GAS PRESSURE REDUCING STATION
37	CALORIE METER SHELTER
47	RURAL WATER PIT
48	SFC PACKAGE
49	VTR TRANSFORMER
50	SFC TRANSFORMER
51	21KV SWITCHGEAR
52	NEUTRAL GROUNDING CUBICLE
53	EXCITATION TRANSFORMER
54	ISO-PHASE BUS
55	NEUTRAL GROUNDING RESISTOR
56	CONSTRUCTION POWER TRANSFORMER/ PERMANENT BACKUP POWER


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
0	12/21/2018	CLIENT COMMENTS
1	---	OPEN REVISION
ISSUE PURPOSE:		
SPECIFICATION:		
PROJECT NO.: 12715-010		
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 SOUTH DAKOTA.		
ENTER NAME		
ENTER DATE		
MY LICENSE RENEWAL DATE IS: ENTER DATE		
PAGES OR SHEETS COVERED BY THIS SEAL: THIS DOCUMENT ONLY.		
CAD FILE NAME: M1-0002.DGN		
PREPARED BY: J. ZIMMERMAN		
REVIEWED BY: G. HENSHAW		
APPROVED BY: ---		
ANY MODIFICATION OR ADDITION TO THIS DRAWING BY AN ORGANIZATION OTHER THAN SARGENT & LUNDY IS NOT THE RESPONSIBILITY OF SARGENT & LUNDY.		

PRELIMINARY
NOT FOR CONSTRUCTION





SARGENT & LUNDY LLC
 55 EAST MONROE STREET
 CHICAGO, ILLINOIS 60603-5780

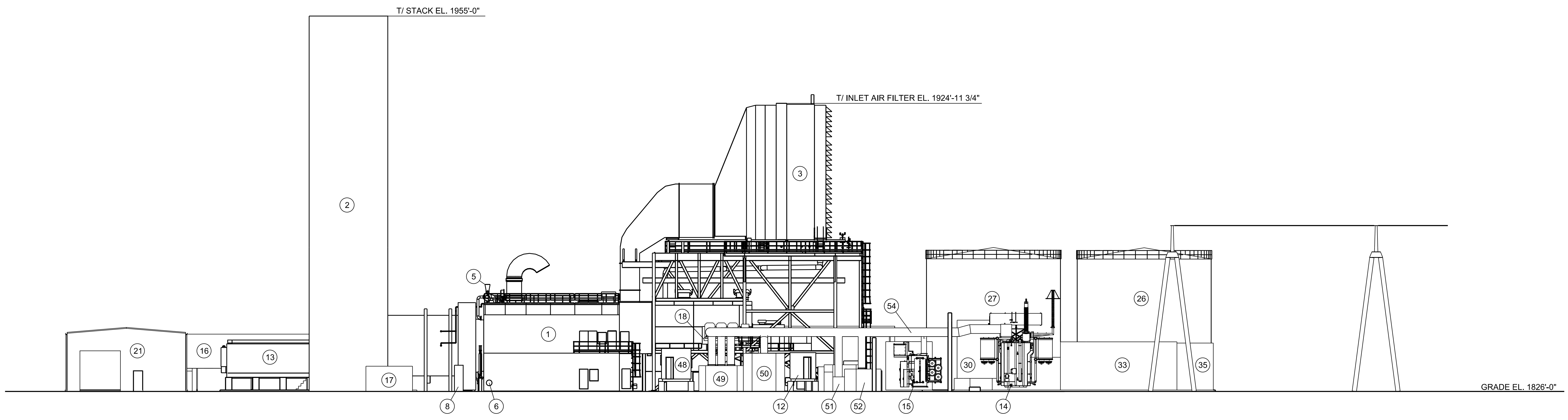


PROJECT	
ASTORIA STATION SIMPLE CYCLE	
SOUTH DAKOTA	
DRAWING TITLE	
GENERAL ARRANGEMENT PLOT PLAN	
DRAWING NUMBER	REVISION
M1-0002	1
SHEET 01	OF 1

3/15/2019 3:11:15 PM D:\AST\casms\design\m1-0002.dgn

ITEM	DESCRIPTION
1	COMBUSTION TURBINE
2	EXHAUST STACK
3	INLET AIR FILTER
5	CT CASING COOLING AIR FAN
6	CT PURGE AIR UNIT/FUEL GAS UNIT
8	CT FUEL GAS LAST CHANCE FILTER
12	CT EXCITATION PACKAGE
13	CT CONTROL PACKAGE
14	GENERATOR STEP-UP TRANSFORMER
15	AUXILIARY TRANSFORMER
16	ELECTRICAL POWER DISTRIBUTION CENTER
17	CEMS ENCLOSURE
18	GENERATOR CIRCUIT BREAKER
21	COLD STORAGE BUILDING
26	SERVICE/FIRE WATER STORAGE TANK
27	DEMINEALIZED WATER STORAGE TANK
30	WASTE RECYCLE TANK
33	FUEL GAS WATER BATH HEATER
35	FUEL GAS COALESCER
48	SFC PACKAGE
49	VTR TRANSFORMER
50	SFC TRANSFORMER
51	21KV SWITCHGEAR
52	NEUTRAL GROUNDING CUBICLE
54	ISO-PHASE BUS

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
0	---	OPEN REVISION



ELEVATION VIEW
LOOKING EAST
SECTION A-A

ISSUE PURPOSE:
SPECIFICATION:
PROJECT NO.: 12715-010

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 SOUTH DAKOTA.

ENTER NAME
ENTER DATE
MY LICENSE RENEWAL DATE
IS: ENTER DATE
PAGES OR SHEETS COVERED BY THIS SEAL:
THIS DOCUMENT ONLY.

CAD FILE NAME: M1-0006.DGN
PREPARED BY: J. ZIMMERMAN
REVIEWED BY: G. HENSHAW
APPROVED BY: ---

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

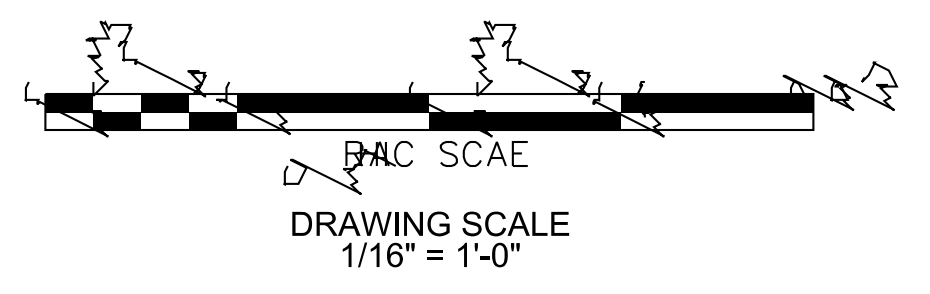
Sargent & Lundy LLC

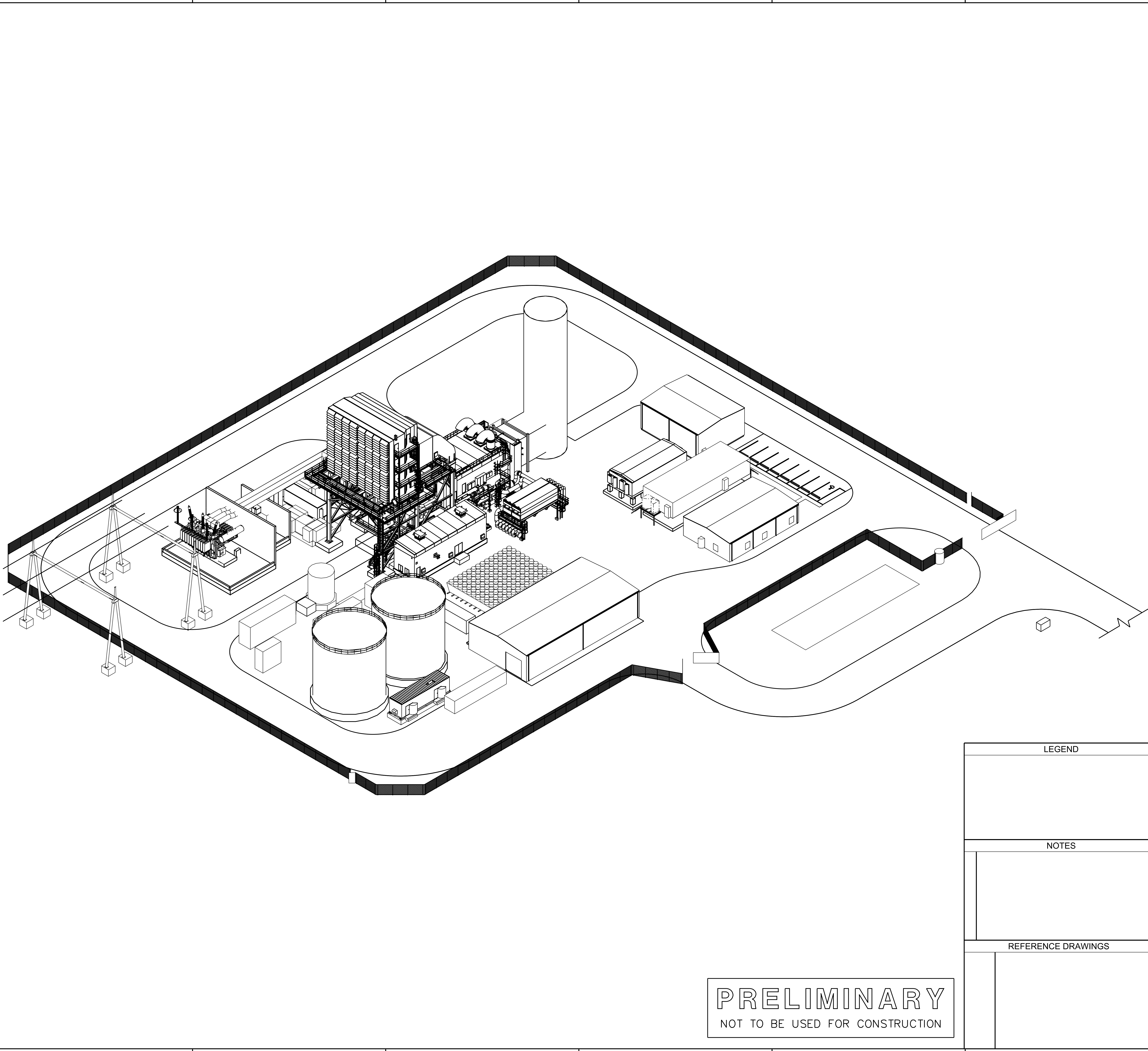
SARGENT & LUNDY LLC
55 EAST MONROE STREET
CHICAGO, ILLINOIS 60603-5780



LEGEND	
NOTES	
REFERENCE DRAWINGS	
PROJECT	
ASTORIA STATION SIMPLE CYCLE	
SOUTH DAKOTA	
DRAWING TITLE	
GENERAL ARRANGEMENT ELEVATION VIEW SECTION A-A	
DRAWING NUMBER	REVISION
M1-0006	0
SHEET 01 OF	1

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION





PRELIMINARY
 NOT TO BE USED 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
0	---	OPEN REVISION

ISSUE PURPOSE: _____
 SPECIFICATION: _____
 PROJECT NO.: 12715-010

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 SOUTH DAKOTA.

ENTER NAME _____
 ENTER DATE _____
 MY LICENSE RENEWAL DATE _____
 IS: ENTER DATE _____
 PAGES OR SHEETS COVERED BY THIS SEAL: _____
 THIS DOCUMENT ONLY.

CAD FILE NAME: M1-0007.DGN
 PREPARED BY: J. ZIMMERMAN
 REVIEWED BY: G. HENSHAW
 APPROVED BY: ---

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


 SARGENT & LUNDY ^{LLC}
 55 EAST MONROE STREET
 CHICAGO, ILLINOIS 60603-5780

LEGEND


OTTER TAIL
 POWER COMPANY

NOTES

PROJECT

ASTORIA STATION
SIMPLE CYCLE

SOUTH DAKOTA

REFERENCE DRAWINGS

DRAWING TITLE	
GENERAL ARRANGEMENT ISOMETRIC VIEW	
DRAWING NUMBER	REVISION
M1-0007	0
SHEET 01 OF	

Z:\116880m15\7\DWG\AST\caddms\design\m1-0007.dgn
 Form: G:\CADD\1-01-06_ANSI (Imperial) MicroStation Border - Size E - 34 x 44
 Revision 00, Revision Date: 01-16-2009

3/14/2019 3:14:01 PM
 D:\AST\caddms\design\m1-0007.dgn