

**APPENDIX C.19**  
**CASE 10-T-0139**  
**SITE PLANS AND CONSTRUCTION DRAWINGS**  
**FIRE PROTECTION DRAWINGS – WATER-BASED FIRE**  
**SUPPRESSION**  
**ASTORIA HVDC CONVERTER STATION**  
**SEGMENT 22**

# ASTORIA HVDC CONVERTER STATION

## FIRE PROTECTION SYSTEMS: WATER-BASED FIRE SUPPRESSION

### SCOPE OF WORK

THE FIRE PROTECTION SYSTEMS SCOPE OF WORK INCLUDES THE FOLLOWING WATER-BASED FIRE SUPPRESSION SYSTEMS AS SUBJECT TO THE REQUIREMENTS AND PERFORMANCE CRITERIA PROVIDED IN THE FIRE PROTECTION DESIGN BASIS DOCUMENT.

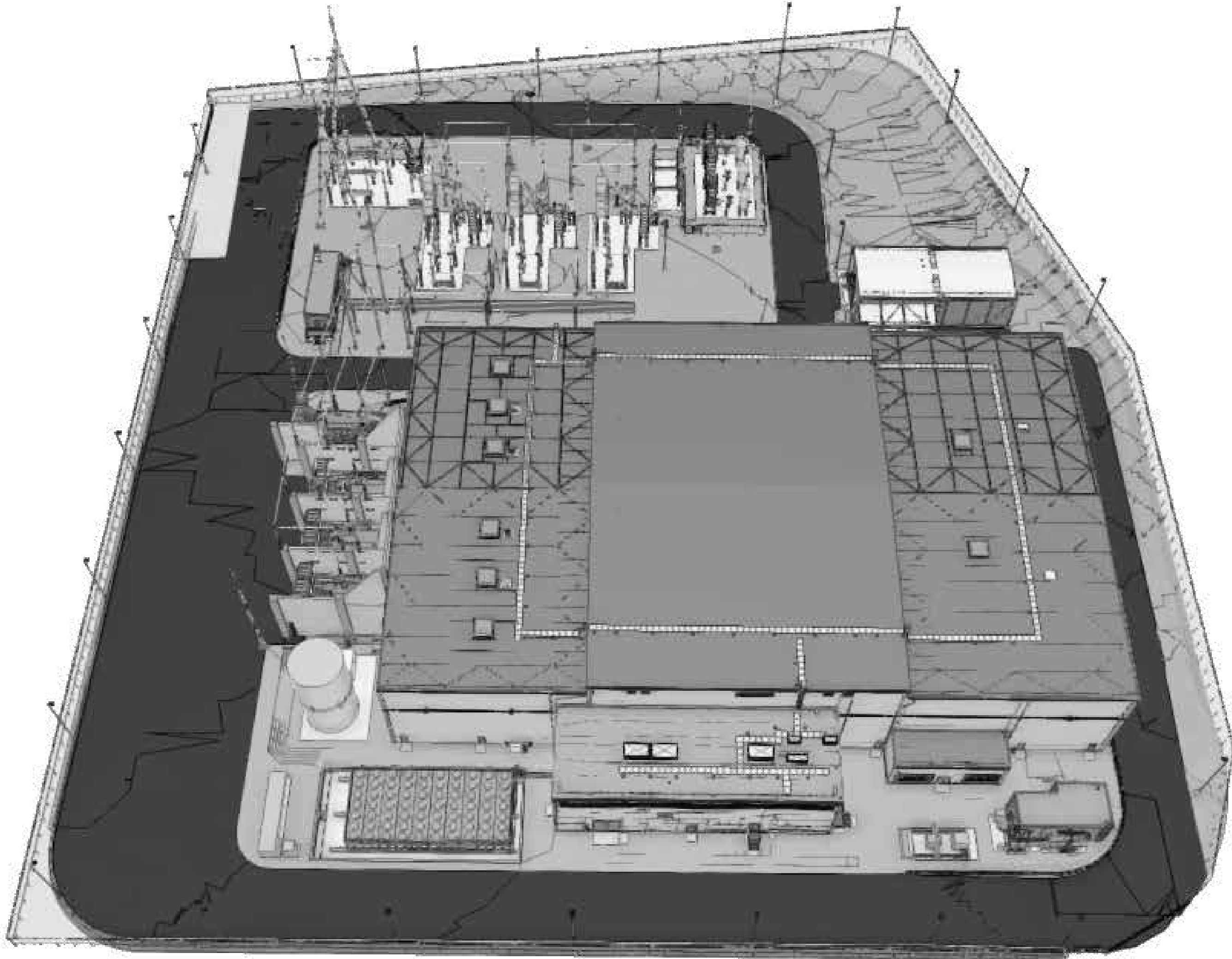
1. CONVERTER BUILDING: NO SUPPRESSION
2. SERVICE BUILDING: DOUBLE-INTERLOCK PRE-ACTION SPRINKLER
3. STORAGE ENCLOSURE: WET-PIPE SPRINKLER
4. CONVERTER TRANSFORMERS: DELUGE SPRINKLER
5. FIRE PUMP ENCLOSURE: DIESEL FIRE PUMP AND WET-PIPE SPRINKLER

### FLOOD ZONE DESIGN CERTIFICATION:

THE EXISTING PROPERTY IS IN THE SPECIAL FLOOD HAZARD AREA (SFHA), ZONE AE PER EFFECTIVE 2015 FLOOD INSURANCE RATE MAP(FIRM). THIS IS TO CONFIRM THAT THE PROPOSED INSTALLATION IS IN COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN APPENDIX Q OF THE NYC BUILDING CODE.

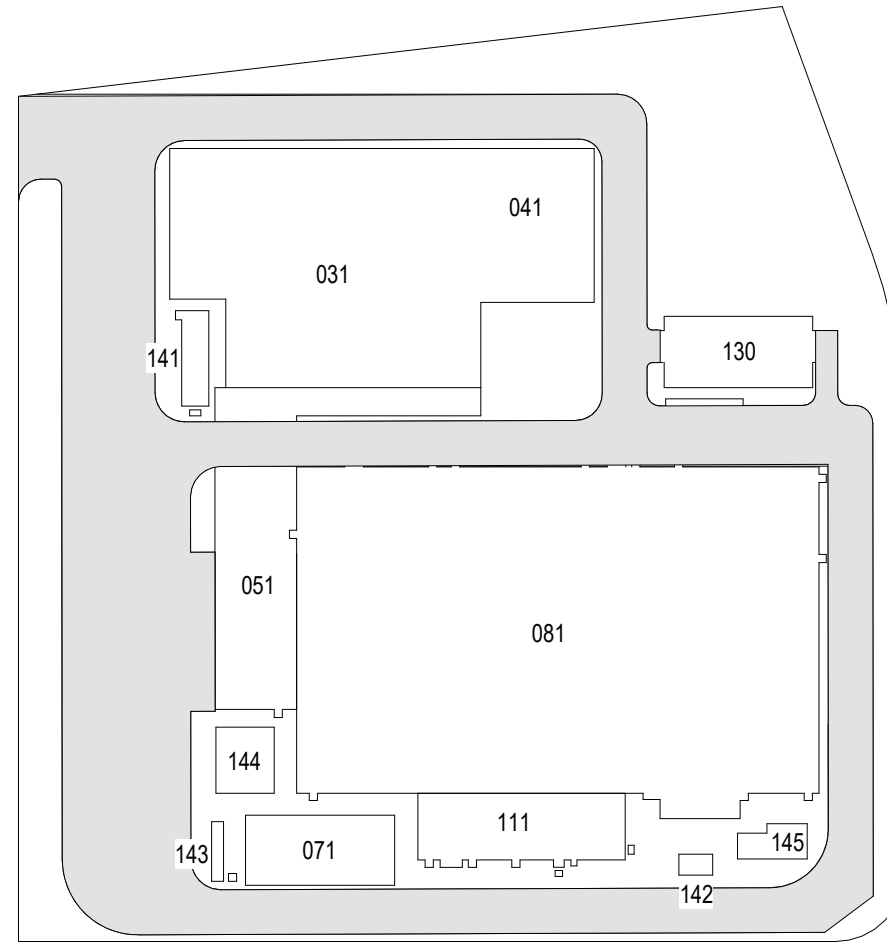
### NYC ENERGY CODE COMPLIANCE:

STATEMENT: TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE. PROPOSED WORK MEETS THE GUIDELINES AND INSTRUCTIONS OUTLINED IN THE 2020 NYC ECC CHAPTER 4.



1 OVERALL SITE VIEW  
SP-001.00 N.T.S.

ISSUED FOR PERMIT

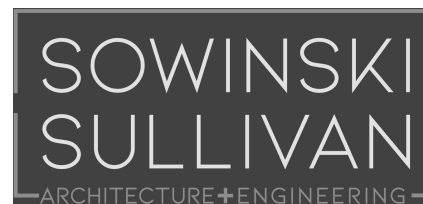


KEY PLAN  
N.T.S.



Poole Fire Protection  
19910 W. 161st STREET  
OLATHE, KS 66062

19910 W. 161st STREET  
OLATHE, KS. 66062



25 Mohawk Avenue  
Sparta, NJ 07871

#### CONFIDENTIAL

THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THEY MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

B	FINAL SUBMISSION	SAB	AWP	12/12/2022
A	INTERIM SUBMISSION	SAB	AWP	09/13/2022
REV	DESCRIPTION	DRW BY	CHK BY	DATE



470 Chestnut Ridge Rd # 2,  
Woodcliff Lake, NJ 07677

Hitachi Energy

901 Main Campus Drive  
Raleigh, North Carolina 27606

#### PROJECT



### Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

#### COVER SHEET



DATE 12/12/2022  
PROJECT NO 105121  
DRAWING BY S. BRINKMEYER  
CHECKED BY A. POOLE

DRAWING NO  
**SP-001.00**

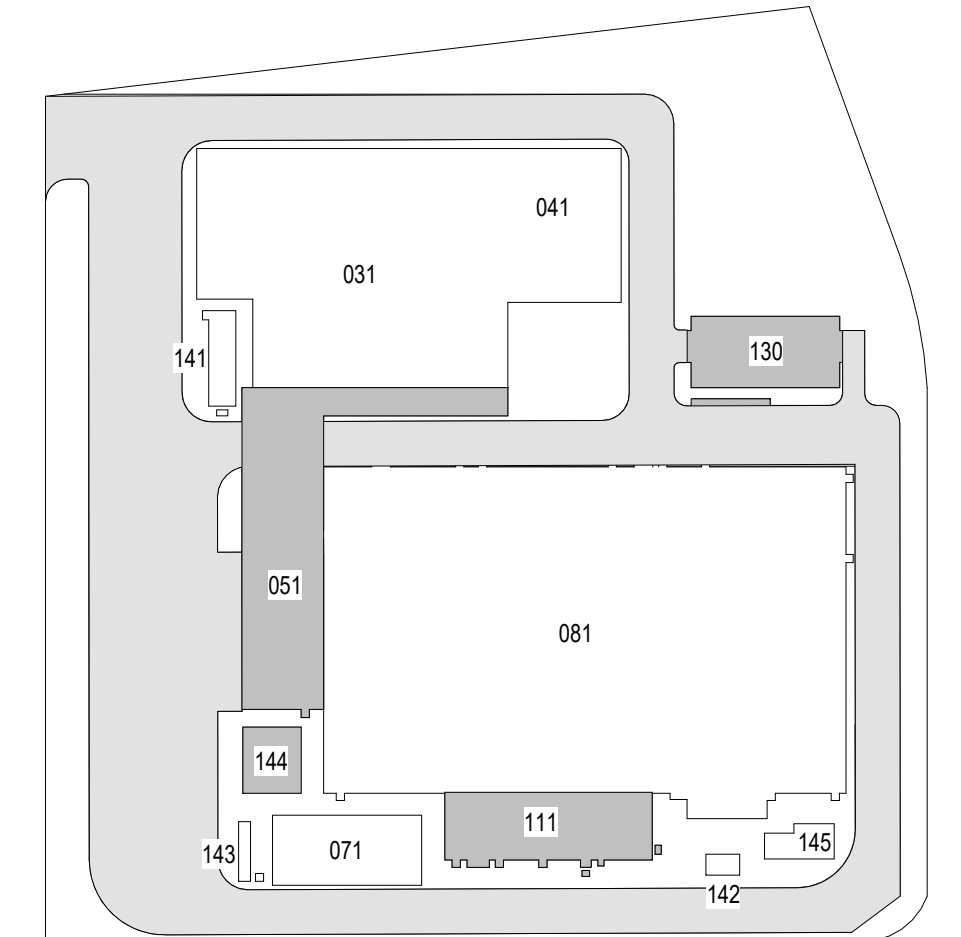
CADD FILE NO  
AstoriaHVDC-CHPE  
AstoriaCHPE-111-00-M3-FP-001.dwg

1 of 12



**Lands Now of Formerly of  
CONSOLIDATED EDISON  
COMPANY OF NEW YORK, INC.  
Block 850 Lot 1**

ISSUED FOR PERMIT



KEY PLAN  
N.T.S.



**Poole Fire Protection**  
19910 West 161st Street  
Olathe, KS 66052  
www.poolefire.com  
913.829.8650 office ▲ 913.829.8690 fax

9910 W. 161st STREET  
OLATHE, KS. 66062



5 Mohawk Avenue  
Sparta, NJ 07871

CONFIDENTIAL

THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECIPIENT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT WE MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

B	FINAL SUBMISSION	SAB	AWP	12/12/2022
A	INTERIM SUBMISSION	SAB	AWP	09/13/2022
REV	DESCRIPTION	DRW BY	CHK BY	DATE



**Kiewit**

470 Chestnut Ridge Rd # 2,  
Woodcliff Lake, NJ 07677



901 Main Campus Drive  
Raleigh, North Carolina 27606

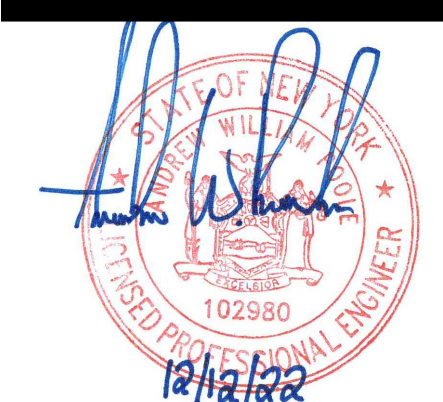
PROJECT



## Astoria HVDC Converter Station

31-45 20<sup>th</sup> Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

## OVERALL SITE PLAN



DATE	12/12/2022
PROJECT NO	105121
DRAWING BY	S. BRINKMEYER
CHECKED BY	A. POOLE
DRAWING NO	
<b>SP-002.00</b>	
CADD FILE N0 Asst:\dwg\Bosco\CHPPE Asst\CHP\KIE-111-00-M3-FP-001.rvt	2 of 12

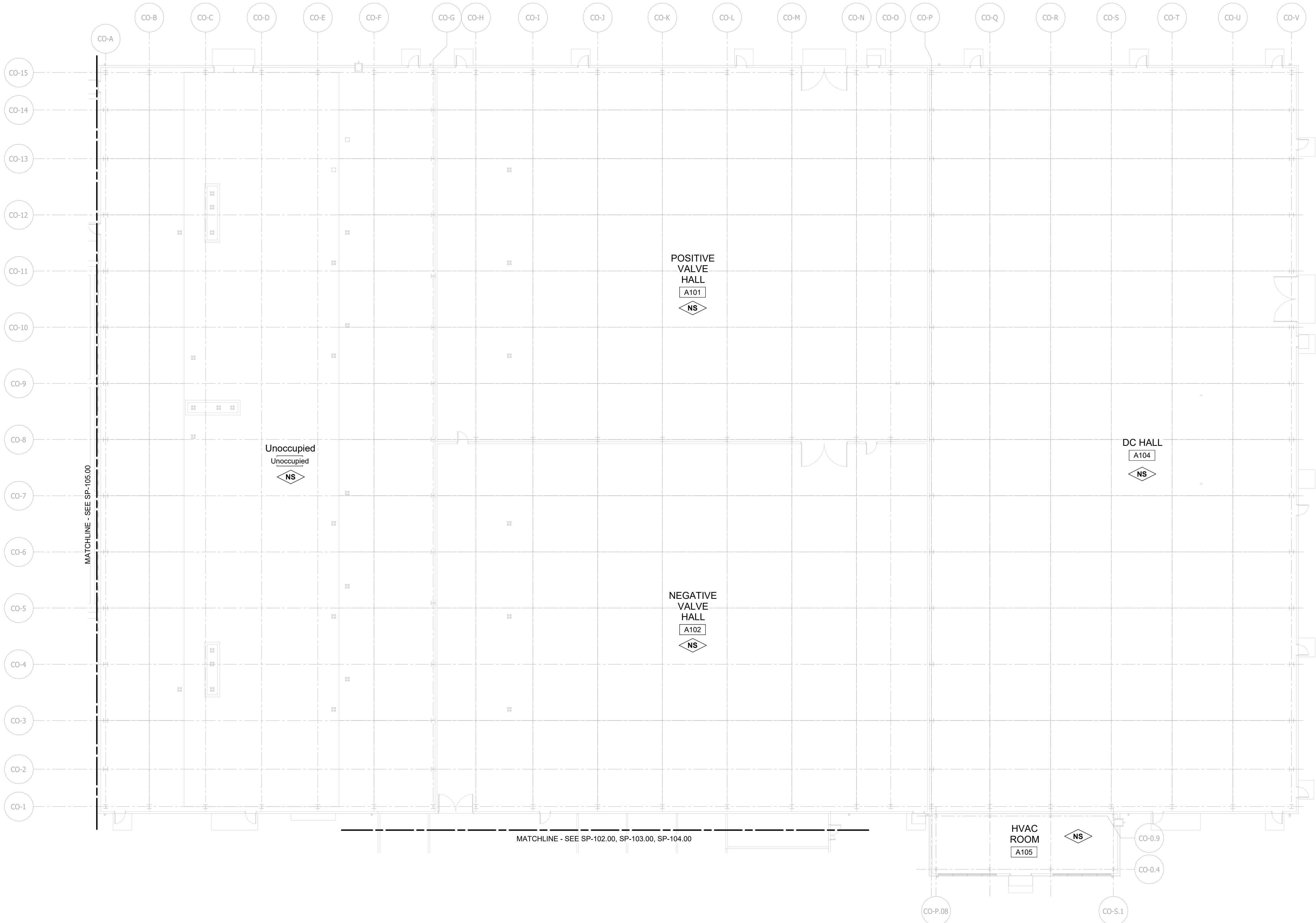
12/20/2022 4:20:49 PM



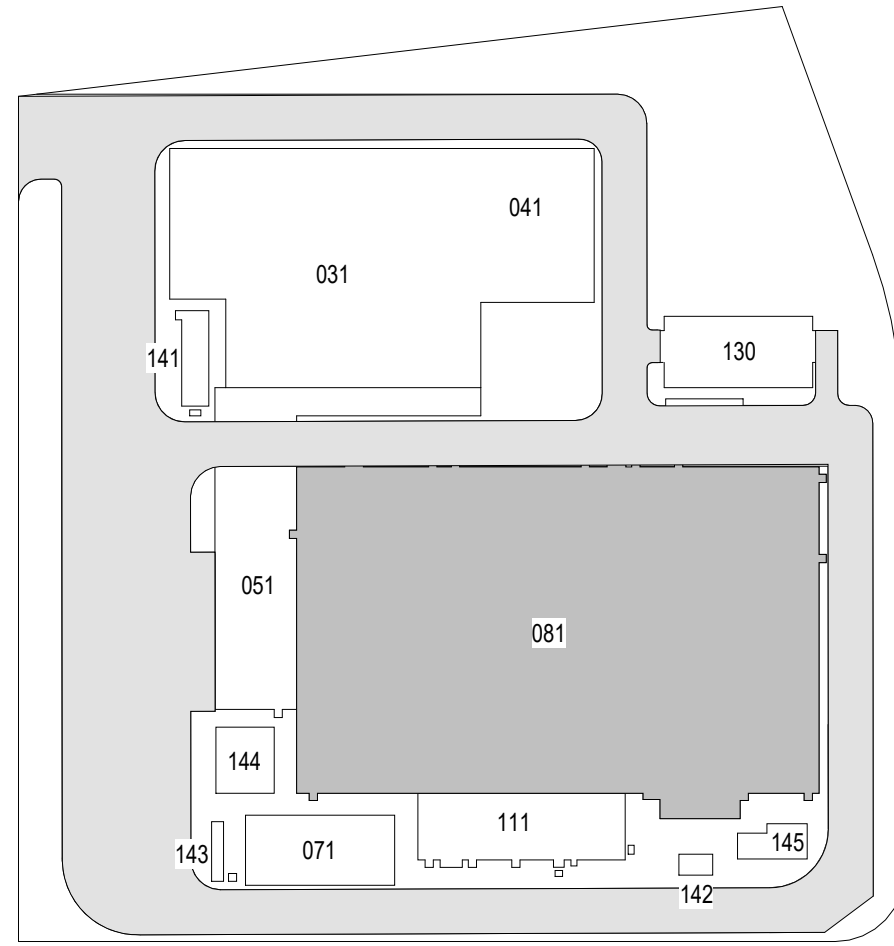




1 FIRE SUPPRESSION PLAN  
SP-101.00 1/16" = 1'-0"



ISSUED FOR PERMIT



KEY PLAN  
N.T.S.



Poole Fire Protection  
19910 W. 161st Street  
Olathe, KS 66062  
913.429.9000 FAX 913.429.9001

19910 W. 161st STREET  
OLATHE, KS. 66062



25 Mohawk Avenue  
Sparta, NJ 07871

CONFIDENTIAL

THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THEY MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

B	FINAL SUBMISSION	AWP	SAB	12/12/2022
A	INTERIM SUBMISSION	AWP	SAB	09/13/2022
REV	DESCRIPTION	DRW BY	CHK BY	DATE



Kiewit

470 Chestnut Ridge Rd # 2,  
Woodcliff Lake, NJ 07677

Hitachi Energy

901 Main Campus Drive  
Raleigh, North Carolina 27606

PROJECT

**CHPE**  
Champlain Hudson  
Power Express

**Astoria HVDC  
Converter Station**

31-45 20th Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

**CONVERTER BUILDING -  
FIRE SUPPRESSION PLAN**



DATE 12/12/2022  
PROJECT NO 105121  
DRAWING BY S. BRINKMEYER  
CHECKED BY A. POOLE

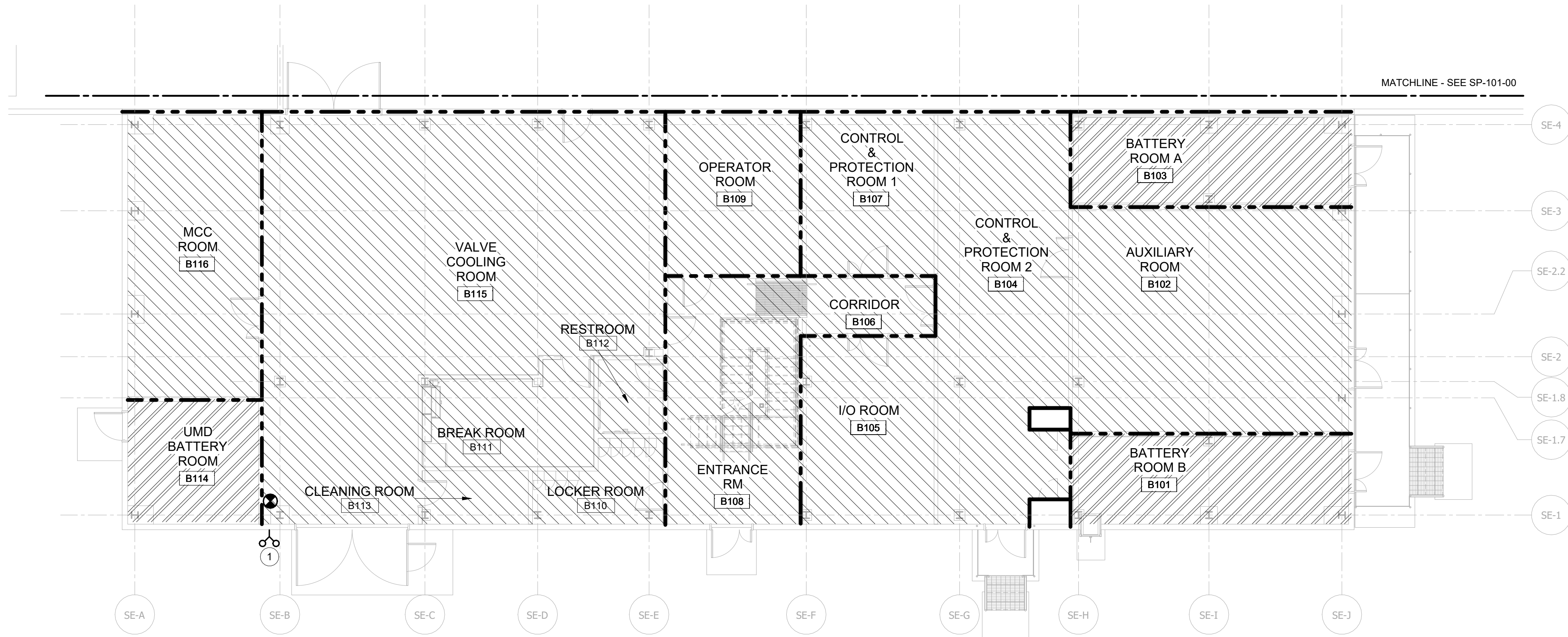
DRAWING NO  
**SP-101.00**

CADD FILE NO  
AstoriaHVDC-CHPE  
AstoriaCHPE-081-00-M3-FP-001.rvt

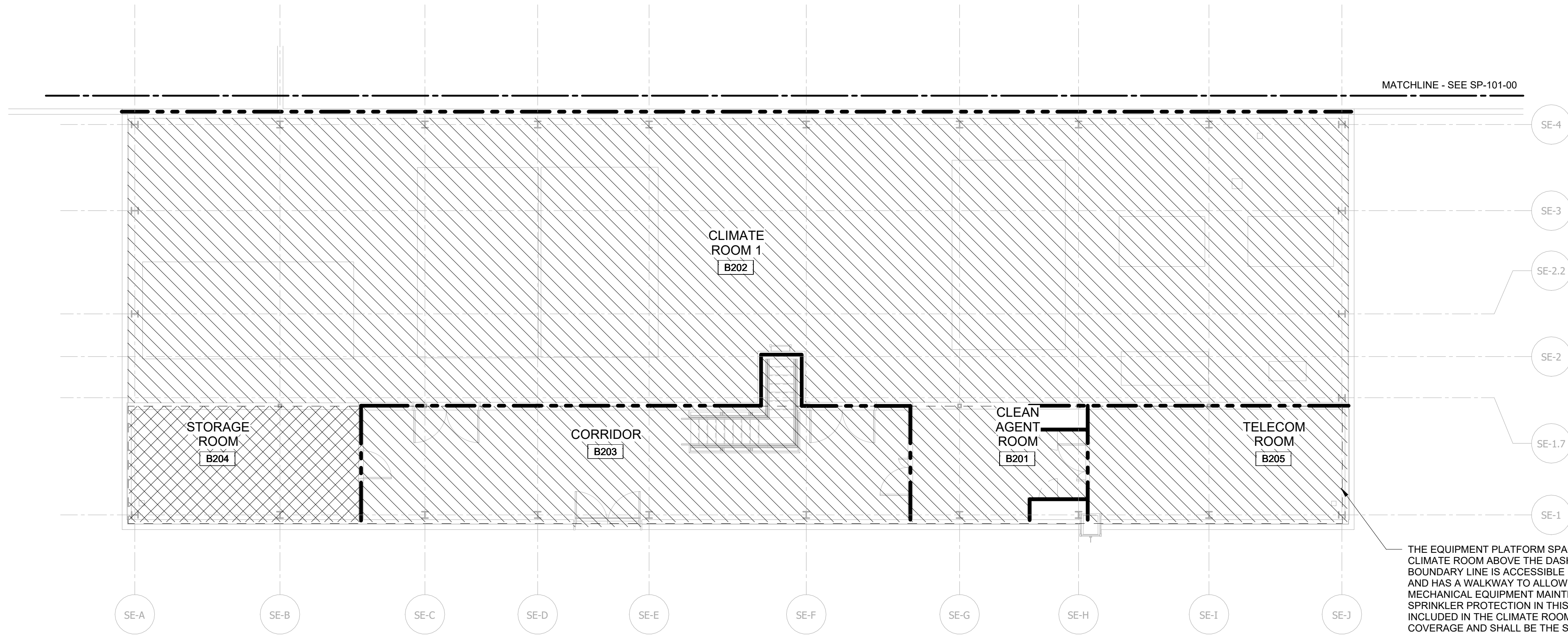
4 of 12



1 FIRE SUPPRESSION HAZARD CLASSIFICATION PLAN - FIRST FLOOR  
SP-102.00 1/8" = 1'-0"



2 FIRE SUPPRESSION HAZARD CLASSIFICATION PLAN - SECOND FLOOR  
SP-102.00 1/8" = 1'-0"



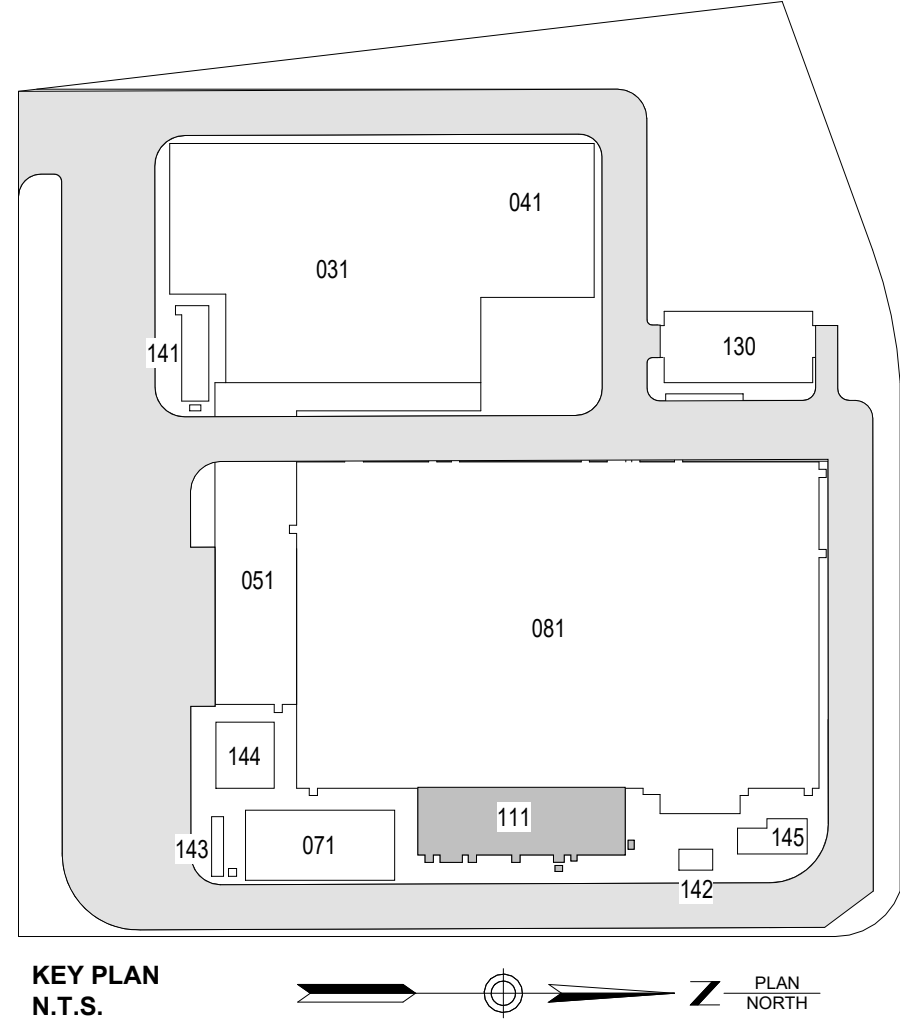
THE EQUIPMENT PLATFORM SPACE IN THE CLIMATE ROOM ABOVE THE DASHED BOUNDARY LINE IS ACCESSIBLE BY LADDER AND HAS A WALKWAY TO ALLOW FOR MECHANICAL EQUIPMENT MAINTENANCE. SPRINKLER PROTECTION IN THIS AREA IS INCLUDED IN THE CLIMATE ROOM SPRINKLER COVERAGE AND SHALL BE THE SAME DESIGN DENSITY.

RATED WALL LEGEND	
	2 HOUR FIRE BARRIER
NOTE: RATED WALLS ARE REFERENCED FROM ARCHITECTURAL PLANS. INCLUDED IN SEPARATE PERMIT SUBMITTAL.	

HAZARD CLASSIFICATION HATCH LEGEND	
	DOUBLE-INTERLOCK PREACTION SYSTEM ORDINARY HAZARD GROUP 1 (0.15 GPM/FT2 OVER 2535 FT2)
	DOUBLE-INTERLOCK PREACTION SYSTEM ORDINARY HAZARD GROUP 2 (0.20 GPM/FT2 OVER 1950 FT2)
	DOUBLE-INTERLOCK PREACTION SYSTEM (0.30 GPM/FT2 OVER ROOM AREA)

- KEYNOTES**
- 1 PROVIDE FREEZE PROTECTION FOR ALL EXPOSED PIPING SUBJECT TO FREEZING IN ACCORDANCE WITH NFPA 20 AND NFPA 13. EACH PIPE SHALL BE ON ITS OWN HEAT TRACING CIRCUIT AND INCLUDE ASSOCIATED TANK VALVE(S). REFER TO MECHANICAL DRAWINGS INCLUDED IN SEPARATE PERMIT SUBMITTAL.

ISSUED FOR PERMIT



**Pooler Fire Protection**  
19910 W. 161st STREET  
OLATHE, KS. 66062

**SOWINSKI SULLIVAN**  
ARCHITECTURE+ENGINEERING  
25 Mohawk Avenue  
Sparta, NJ 07871

**CONFIDENTIAL**  
THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THEY MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	SAB	AWP	12/12/2022
A	INTERIM SUBMISSION	SAB	AWP	09/13/2022

**Kiewit**  
470 Chestnut Ridge Rd # 2,  
Woodcliff Lake, NJ 07677

**Hitachi Energy**  
901 Main Campus Drive  
Raleigh, North Carolina 27606

**PROJECT**

**CHPE**  
Champlain Hudson  
Power Express

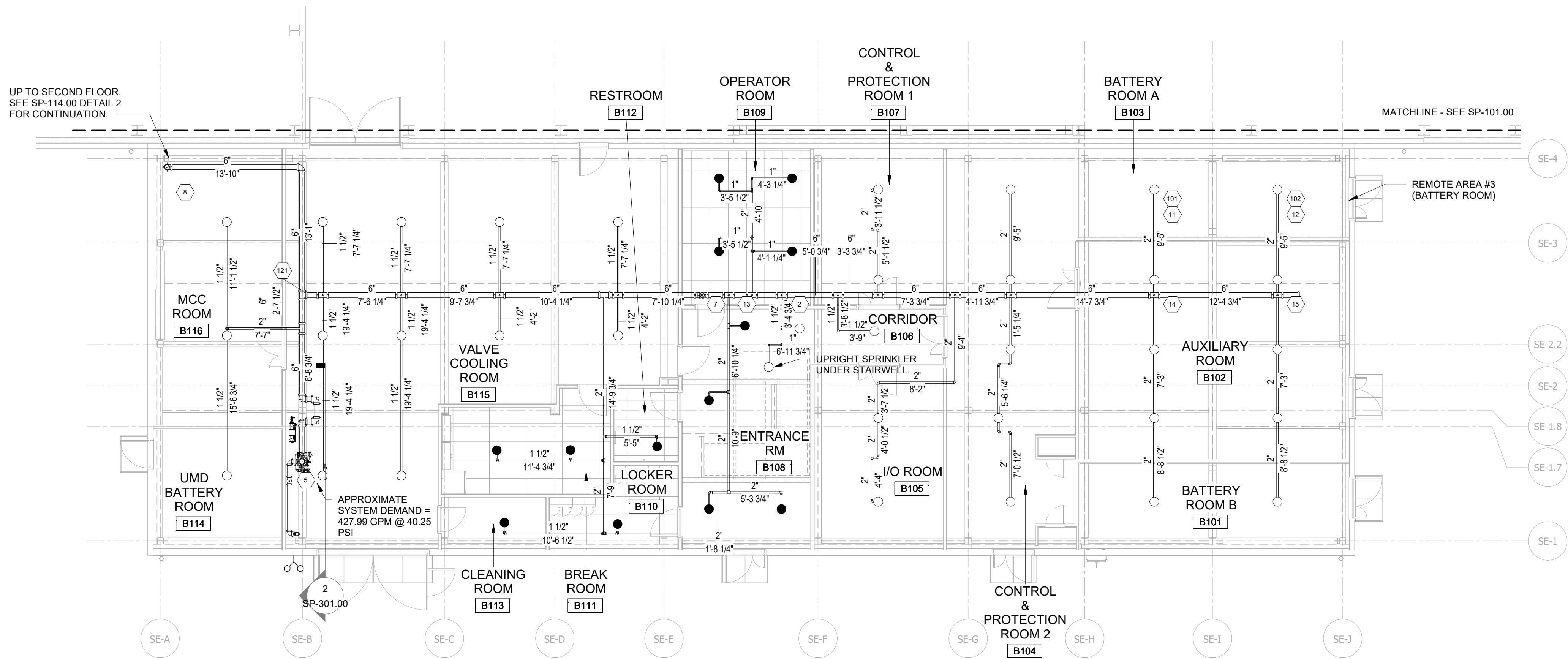
**Astoria HVDC  
Converter Station**  
31-45 20th Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

**SERVICE BUILDING - FIRE  
SUPPRESSION HAZARD  
CLASSIFICATION PLAN**

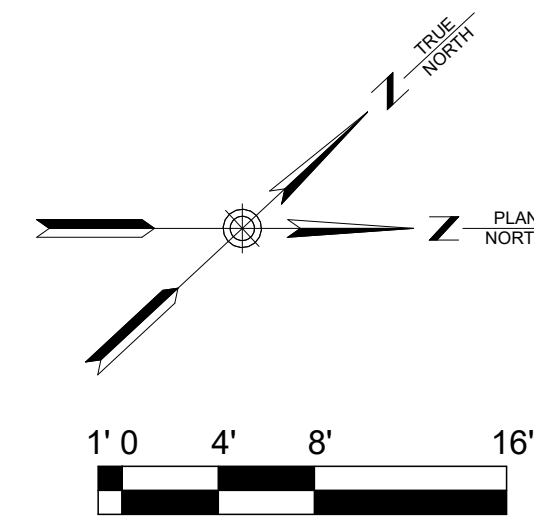
DATE 12/12/2022  
PROJECT NO 105121  
DRAWING BY S. BRINKMEYER  
CHECKED BY A. POOLE  
DRAWING NO  
**SP-102.00**  
CADD FILE NO  
AstoriaCHPE-111-00-M3-FP-001.rvt  
5 of 12



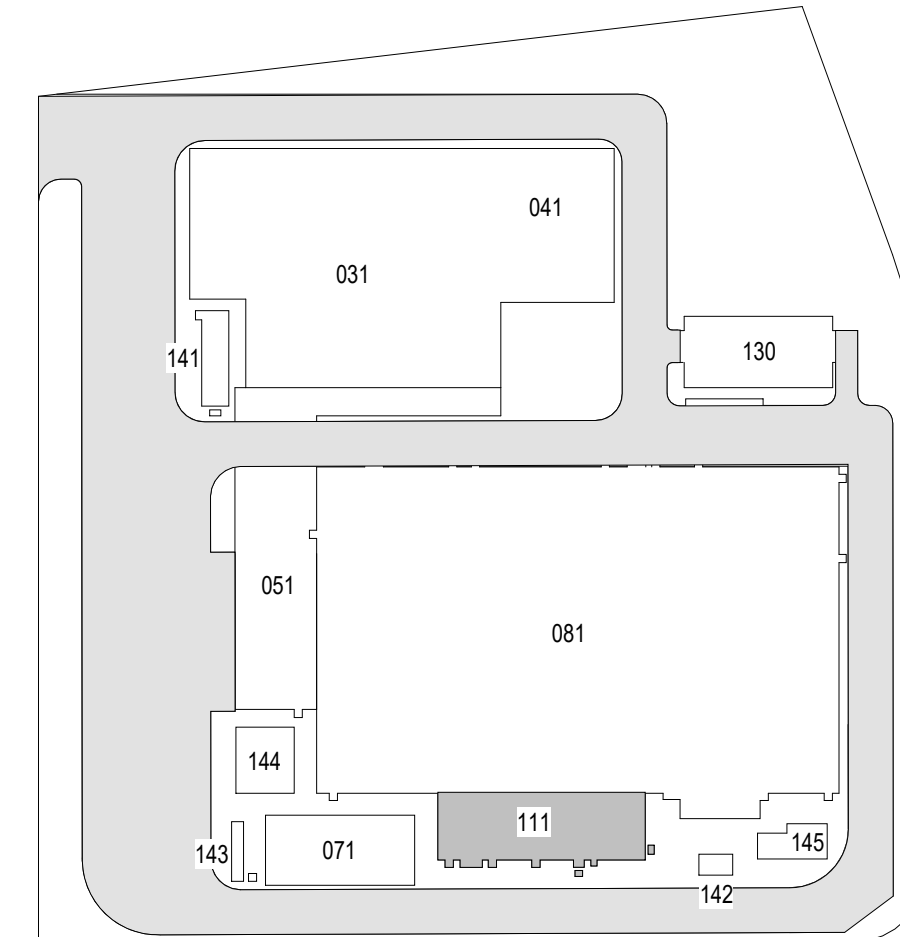
12/20/2022 4:21:06 PM



1 FIRE SUPPRESSION PLAN - FIRST FLOOR  
SP-103.00 1/8" = 1'-0"



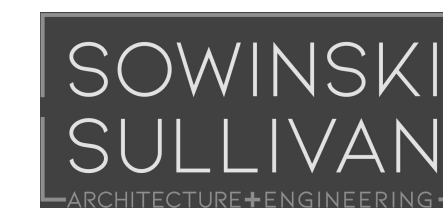
ISSUED FOR PERMIT



KEY PLAN  
N.T.S.



19910 W. 161st STREET  
OLATHE, KS. 66062



25 Mohawk Avenue  
Sparta, NJ 07871

CONFIDENTIAL

THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THE MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

B	FINAL SUBMISSION	SAB	AWP	12/12/2022
A	INTERIM SUBMISSION	SAB	AWP	09/13/2022
REV	DESCRIPTION	DRW BY	CHK BY	DATE



Hitachi Energy

901 Main Campus Drive  
Raleigh, North Carolina 27606

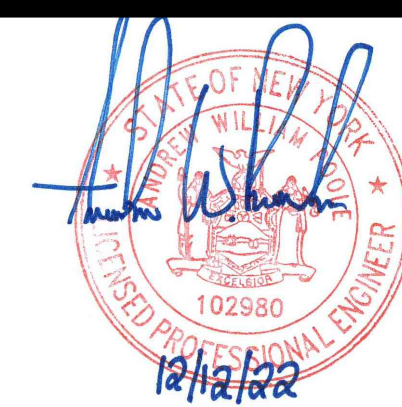
PROJECT

**CHPE**  
Champlain Hudson  
Power Express

**Astoria HVDC  
Converter Station**

31-45 20th Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

**SERVICE BUILDING - FIRE  
SUPPRESSION PLAN**

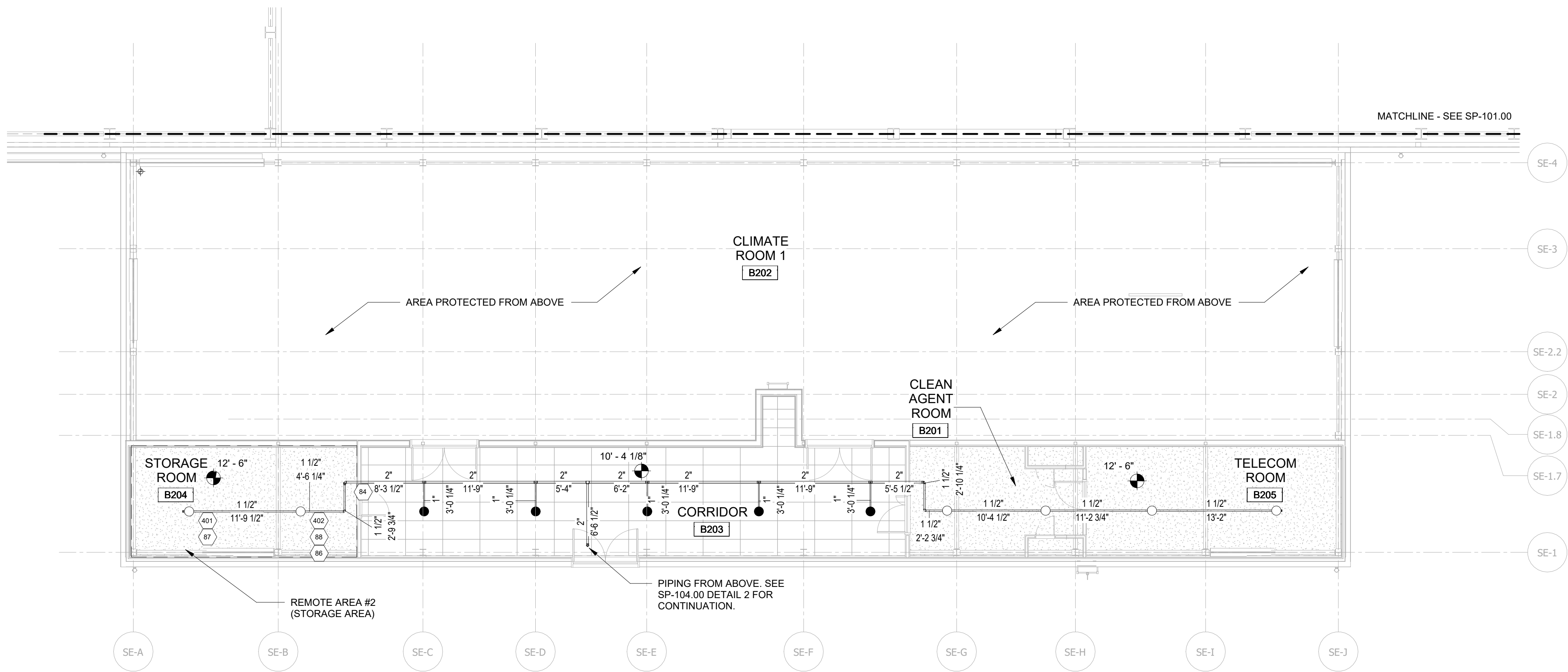


DATE 12/12/2022  
PROJECT NO 105121  
DRAWING BY C. HOLDMEYER  
CHECKED BY A. POOLE  
DRAWING NO

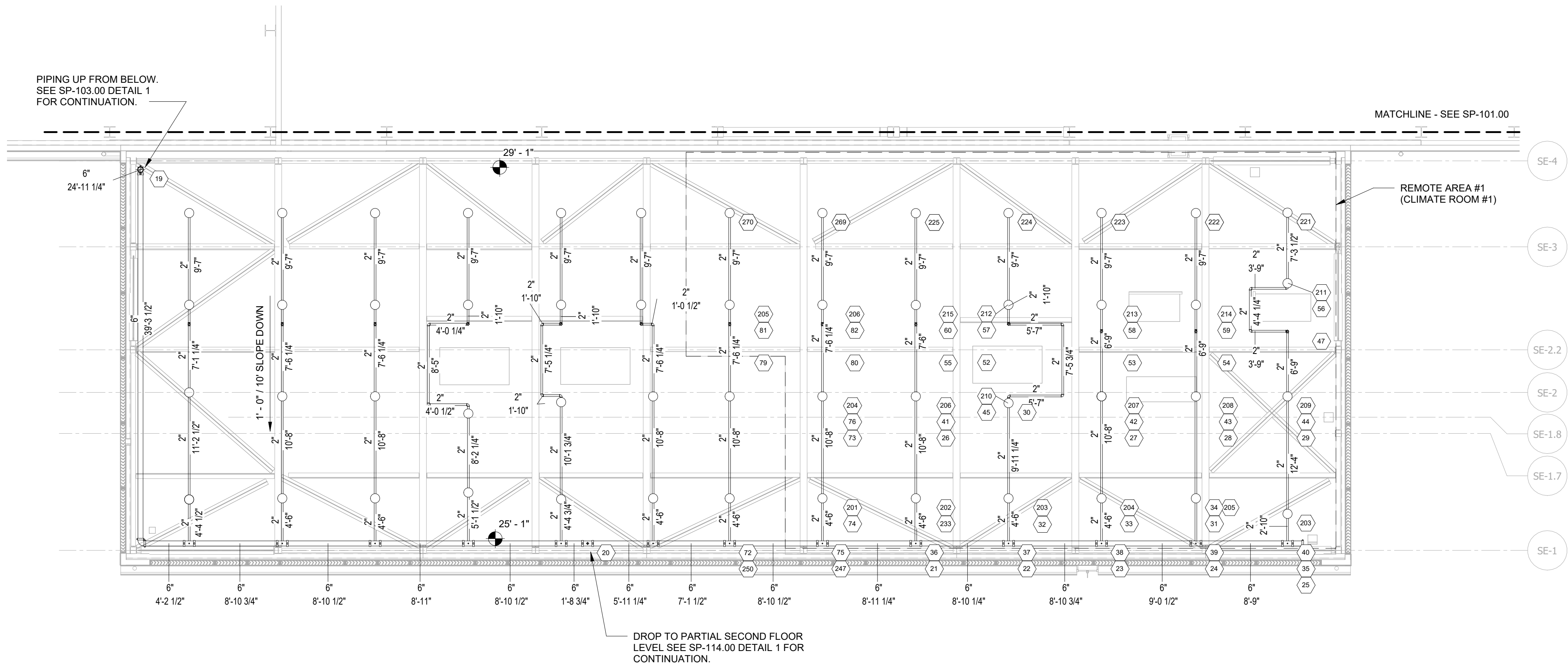
**SP-103.00**

CADD FILE NO  
Astoria HVDC CHPE  
Astoria CHA-RE-111-00-M3-FP-001.rvt  
6 of 12



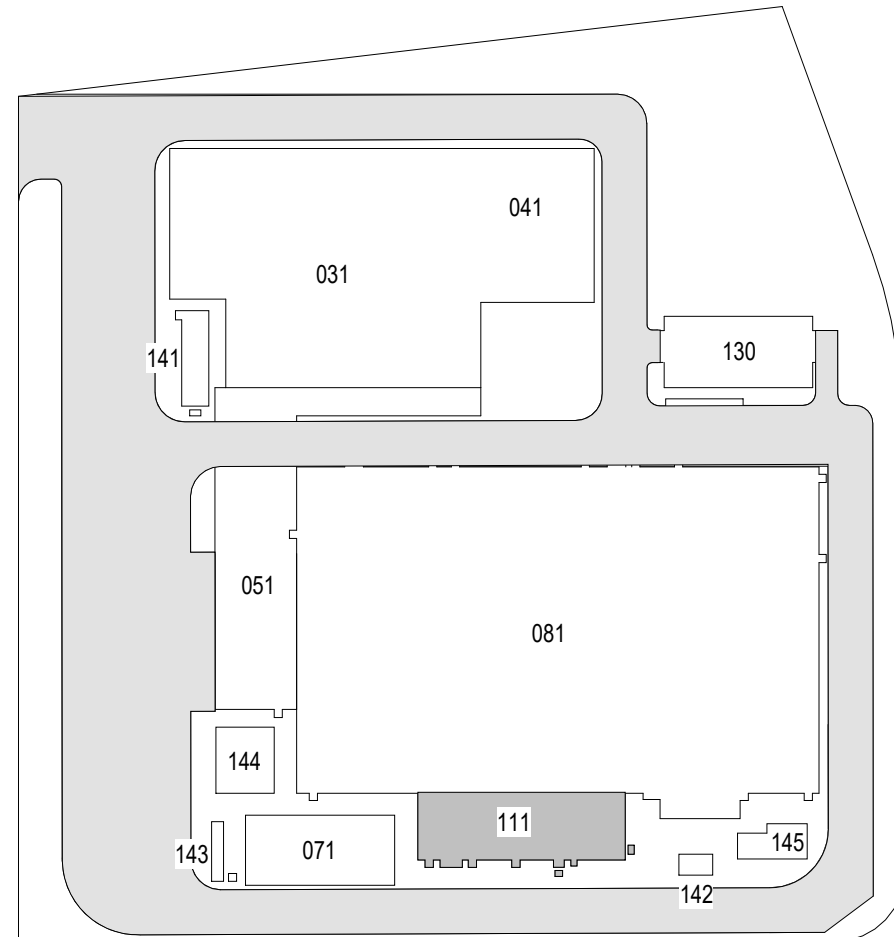


1 FIRE SUPPRESSION PLAN - SECOND FLOOR  
SP-104.00 1/8" = 1'-0"



2 FIRE SUPPRESSION PLAN - SECOND FLOOR RCP  
SP-104.00 1/8" = 1'-0"

ISSUED FOR PERMIT



KEY PLAN  
N.T.S.



Poole Fire Protection  
19910 West 151st Street  
Olathe, KS 66062  
TEL: 913-251-0000 FAX: 913-251-0001

19910 W. 161st STREET  
OLATHE, KS. 66062



25 Mohawk Avenue  
Sparta, NJ 07871

CONFIDENTIAL

THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THEY MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	SAB	AWP	12/12/2022
A	INTERIM SUBMISSION	SAB	AWP	09/13/2022



470 Chestnut Ridge Rd # 2,  
Woodcliff Lake, NJ 07677



901 Main Campus Drive  
Raleigh, North Carolina 27606

PROJECT

**CHPE**  
Champlain Hudson  
Power Express

**Astoria HVDC  
Converter Station**

31-45 20th Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

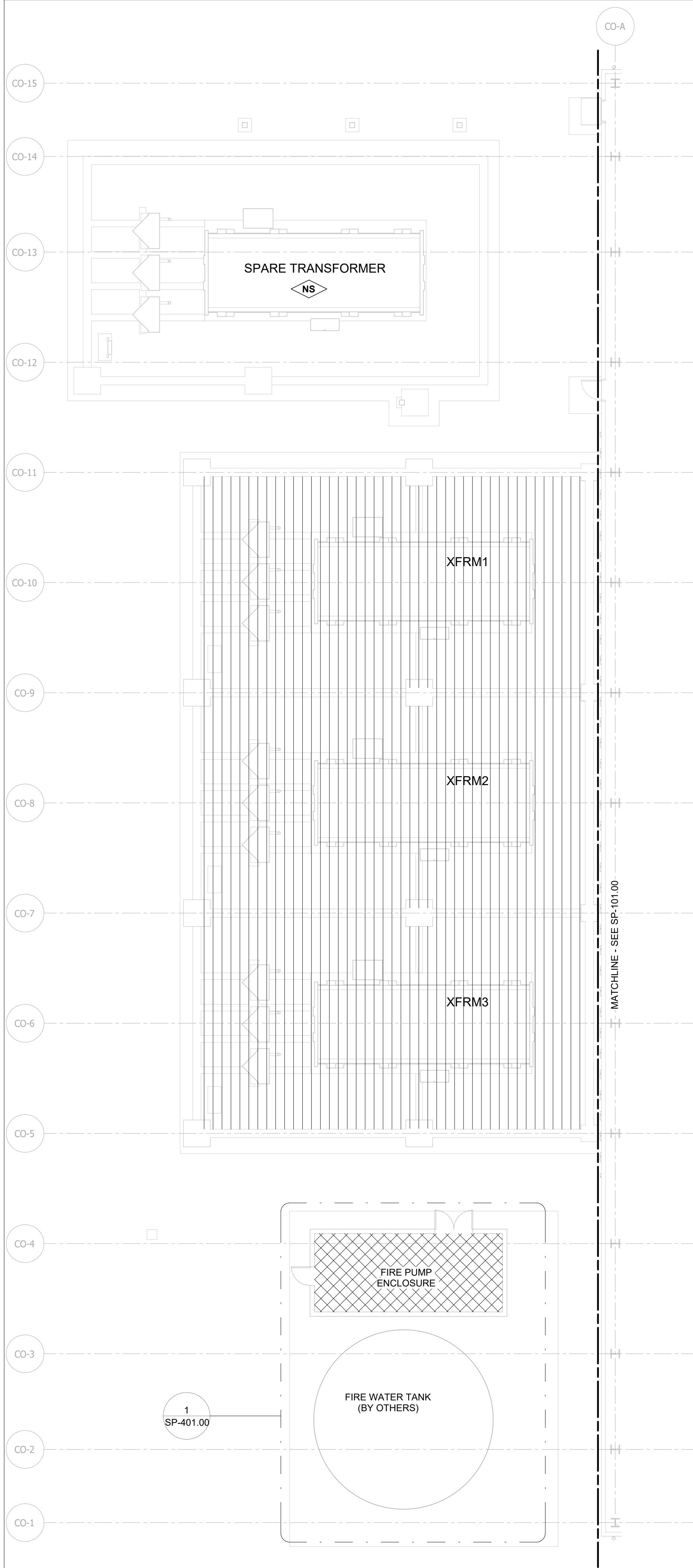
**SERVICE BUILDING - FIRE  
SUPPRESSION PLAN**



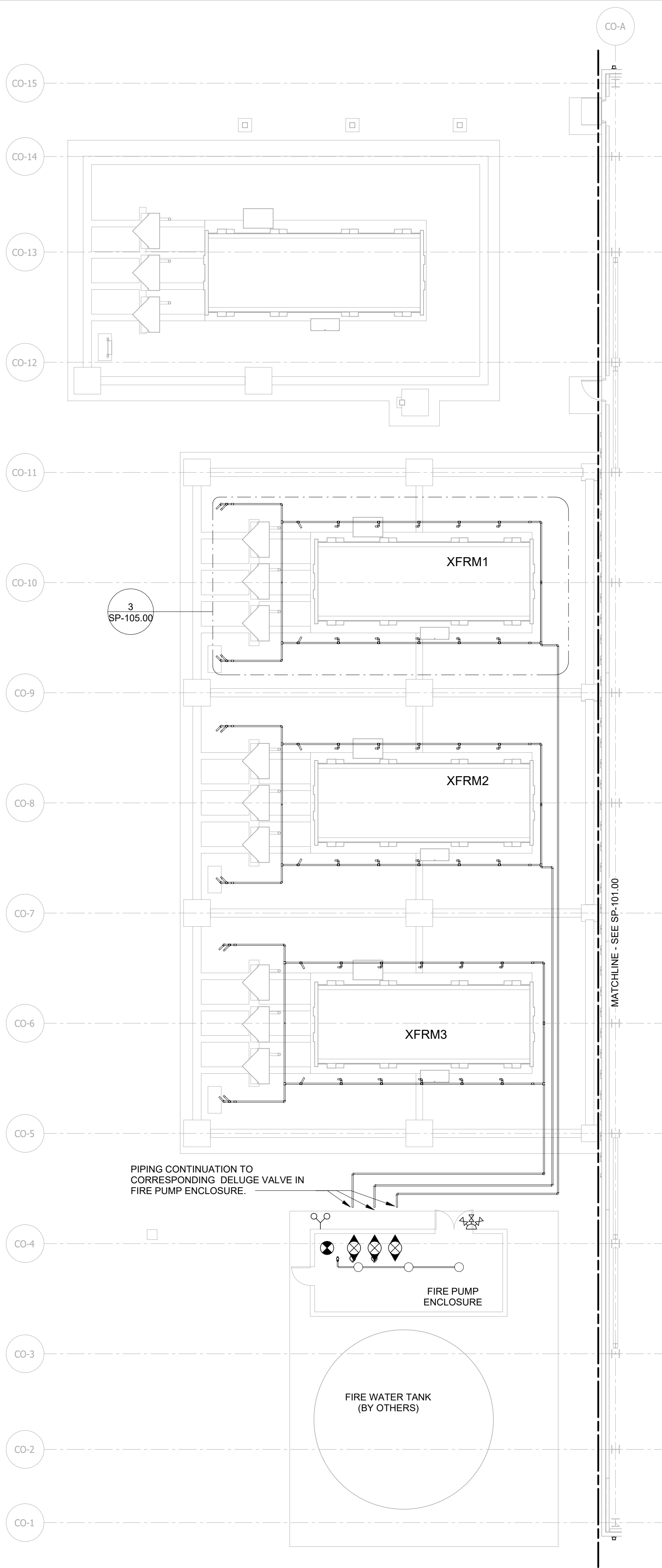
DATE 12/12/2022  
PROJECT NO 105121  
DRAWING BY C. HOLDMEYER  
CHECKED BY A. POOLE  
DRAWING NO  
**SP-104.00**  
CADD FILE NO  
AstoriaHVDC-CHPE-  
AstoriaCHPE-111-00-M3-FP-001.rvt  
7 of 12



12/20/2022 4:14:55 PM



1 FIRE SUPPRESSION HAZZARD CLASSIFICATION PLAN  
SP-105.00 3/32" = 1'-0"



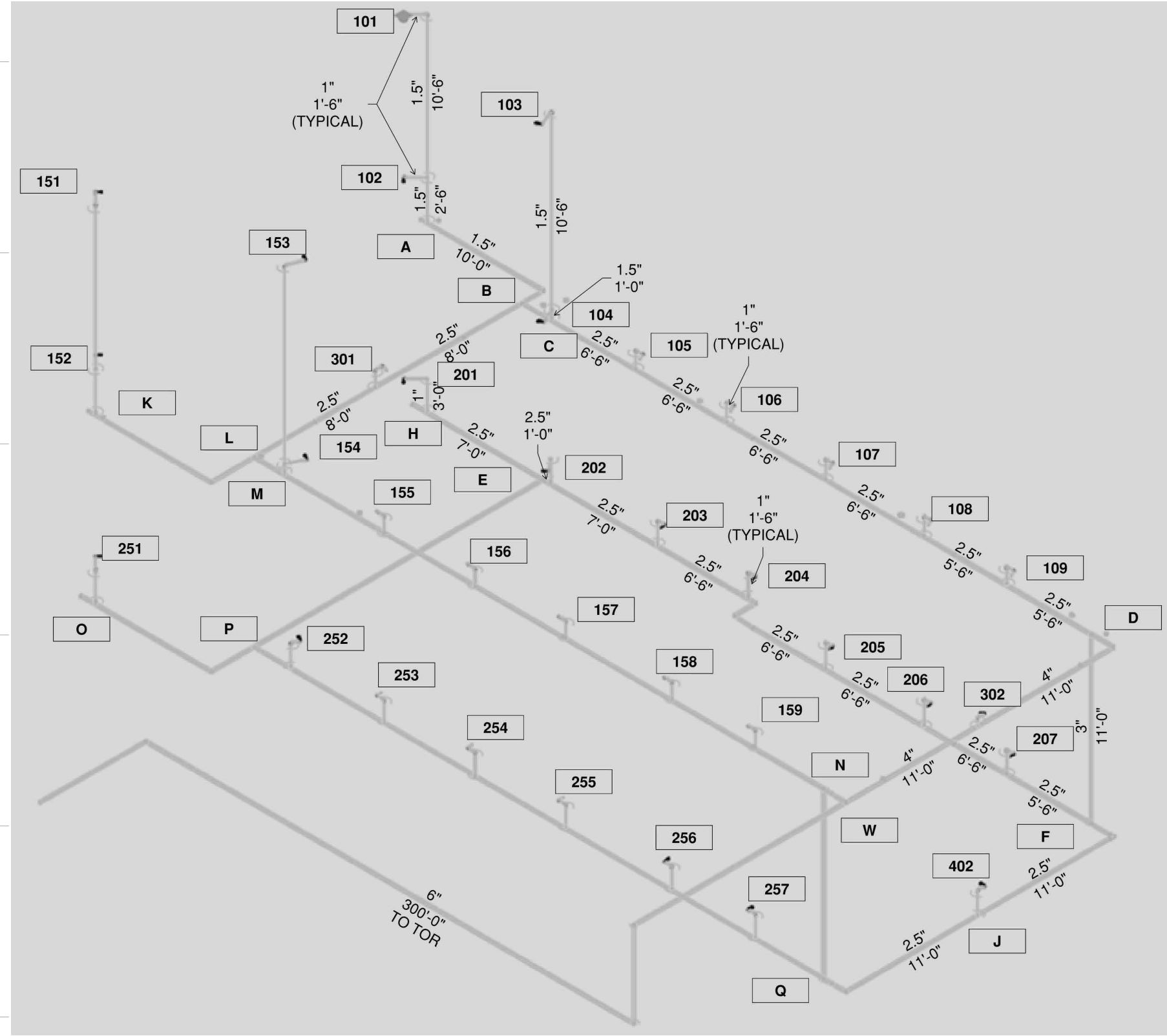
2 FIRE SUPPRESSION PLAN  
SP-105.00 3/32" = 1'-0"

#### HAZARD CLASSIFICATION HATCH LEGEND

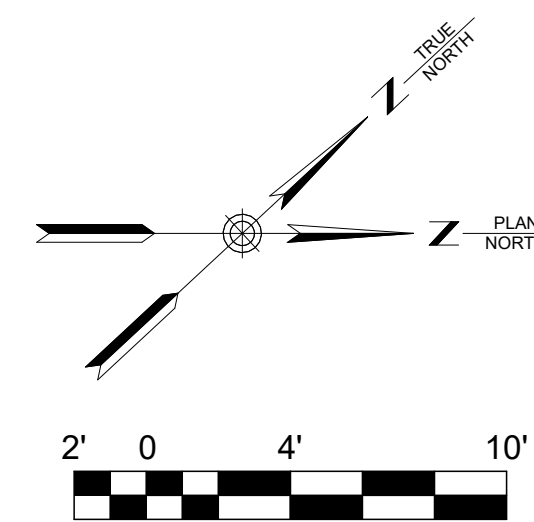
	DELUGE WATER SPRAY 0.25GMP/FT2 OVER PROJECTED AREA OF RECTANGULAR PRISM ENVELOPE FOR THE TRANSFORMER AND ITS APPURTENANCES IN ACCORDANCE WITH NFPA 15
	ORDINARY HAZARD (GROUP 2) SPRINKLER: 0.2/1500 GPM/SF, 8.0K MINIMUM

#### SHEET NOTE:

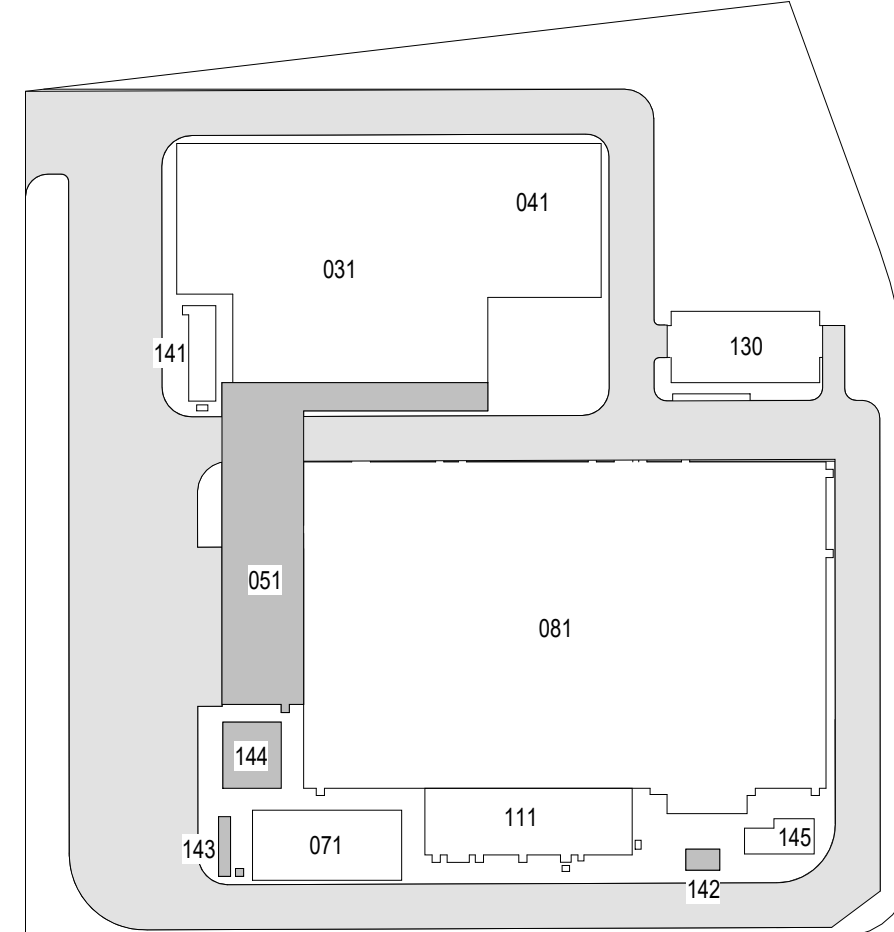
- TRANSFORMER DELUGE NOZZLES AND PIPING SHALL BE CONFIGURED TO MINIMIZE THE AMOUNT OF DELUGE SYSTEM MODIFICATIONS NEEDED TO REMOVE TRANSFORMER FROM THE ASSOCIATED BAY DURING TRANSFORMER REPLACEMENT.



3 FIRE SUPPRESSION PLAN - TYPICAL TRANSFORMER DELUGE  
SP-105.00 N.T.S.



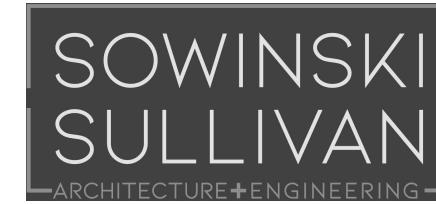
#### ISSUED FOR PERMIT



KEY PLAN  
N.T.S.



19910 W. 161st STREET  
OLATHE, KS. 66062



25 Mohawk Avenue  
Sparta, NJ 07871

#### CONFIDENTIAL

THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THE MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

B	FINAL SUBMISSION	AWP	SAB	12/12/2022
A	INTERIM SUBMISSION	AWP	SAB	09/13/2022
REV	DESCRIPTION	DRW BY	CHK BY	DATE



Hitachi Energy

901 Main Campus Drive  
Raleigh, North Carolina 27606

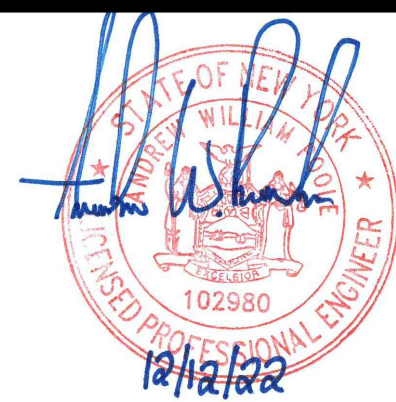
#### PROJECT



#### Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

#### TRANSFORMER AREA AND PUMP ENCLOSURE - FIRE SUPPRESSION PLAN



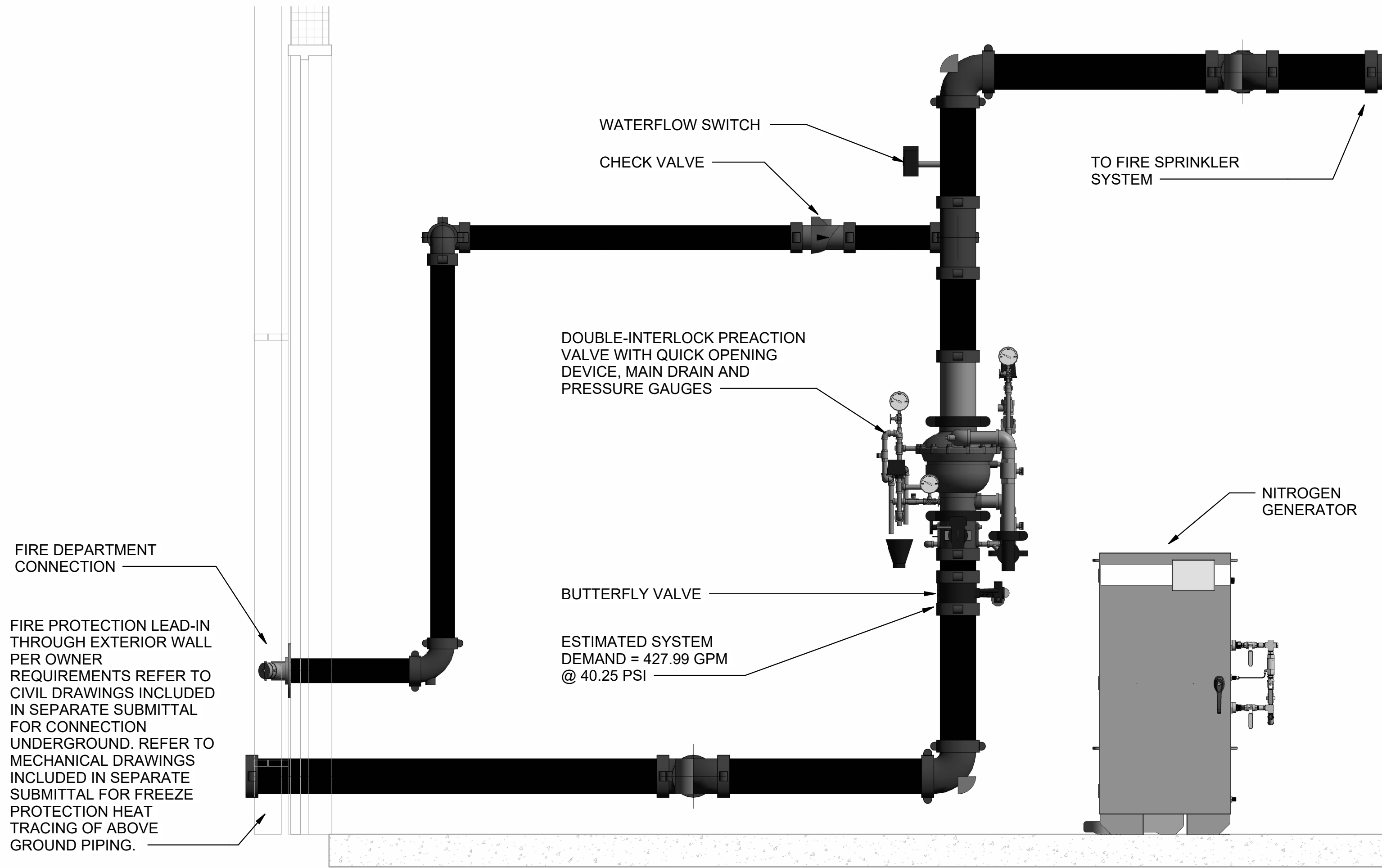
DATE	12/12/2022
PROJECT NO	105121
DRAWING BY	S. BRINKMEYER
CHECKED BY	A. POOLE
DRAWING NO	SP-105.00
CADD FILE NO	AstoriaCHPE-081-00-M3-FP-001.rvt
8 of 12	



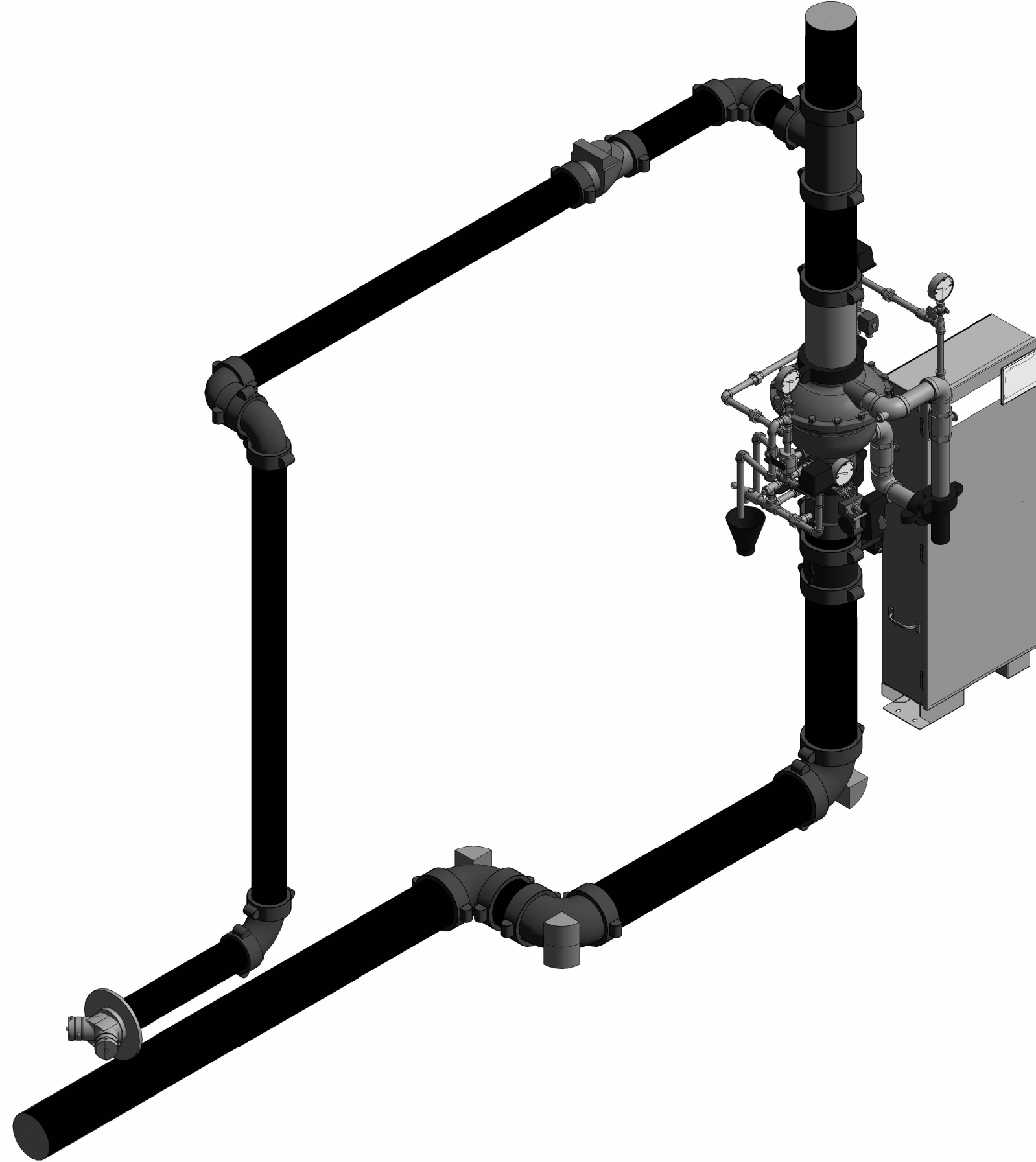




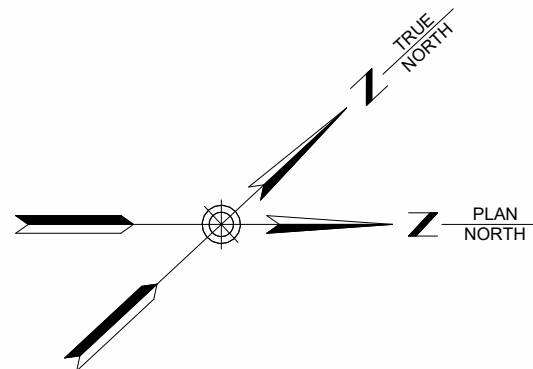
12/20/2022 4:21:43 PM



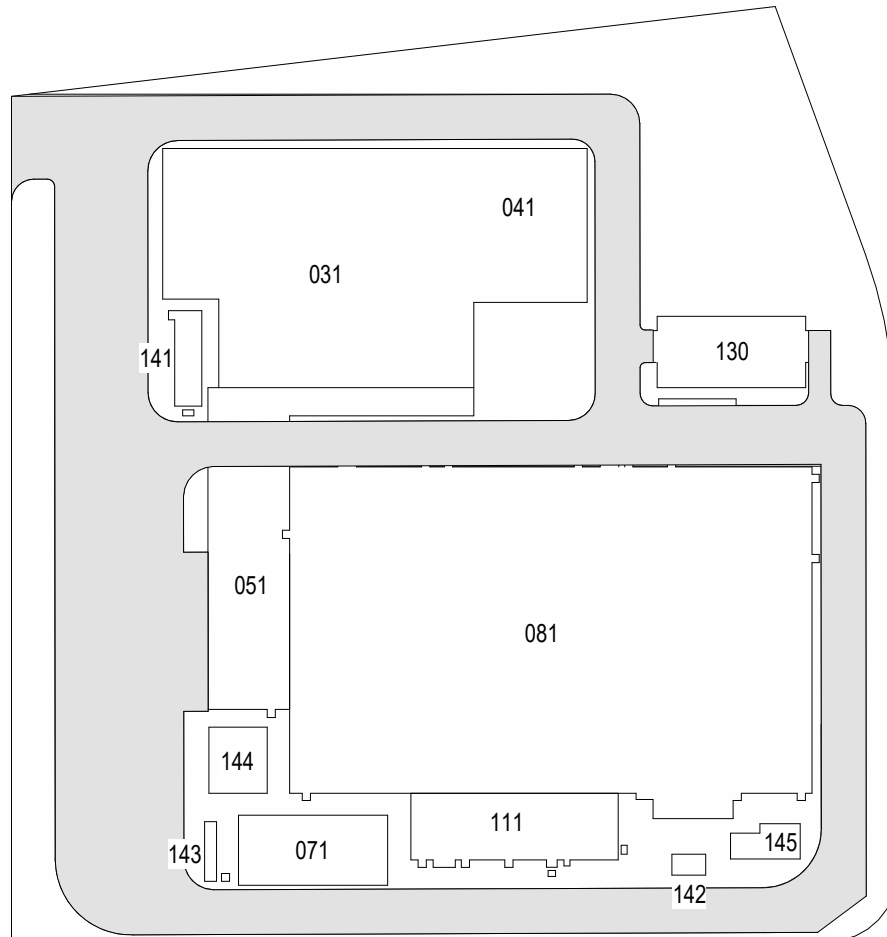
2 SERVICE BUILDING - FIRE SUPPRESSION RISER SECTION  
SP-301.00 3/4" = 1'-0"



1 SERVICE BUILDING - FIRE SUPPRESSION RISER DETAIL  
SP-301.00



ISSUED FOR PERMIT



KEY PLAN  
N.T.S.



Poole Fire Protection  
19910 W. 161st Street  
Olathe, KS 66062

19910 W. 161st STREET  
OLATHE, KS. 66062



25 Mohawk Avenue  
Sparta, NJ 07871

CONFIDENTIAL

THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THEY MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	SAB	AWP	12/12/2022
A	INTERIM SUBMISSION	SAB	AWP	09/13/2022



Kiewit

470 Chestnut Ridge Rd # 2,  
Woodcliff Lake, NJ 07677

Hitachi Energy

901 Main Campus Drive  
Raleigh, North Carolina 27606

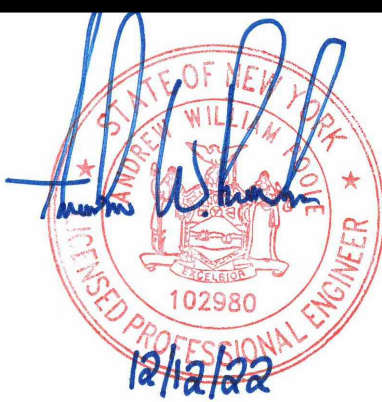
PROJECT

**CHPE**  
Champlain Hudson  
Power Express

**Astoria HVDC  
Converter Station**

31-45 20<sup>th</sup> Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

**FIRE SUPPRESSION RISER  
SECTIONS**



DATE 12/12/2022  
PROJECT NO 105121  
DRAWING BY S. BRINKMEYER  
CHECKED BY A. POOLE

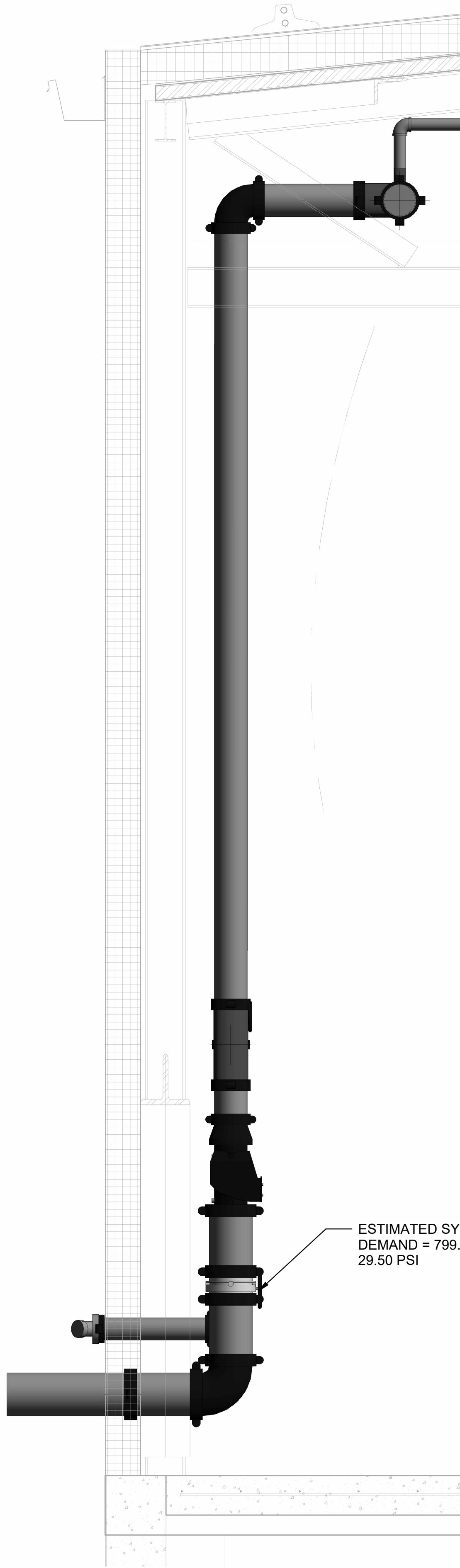
DRAWING NO  
**SP-301.00**

CADD FILE NO  
AstoriaHVDC-CHPE  
AstoriaCHPE-111-00-M3-FP-001.rvt

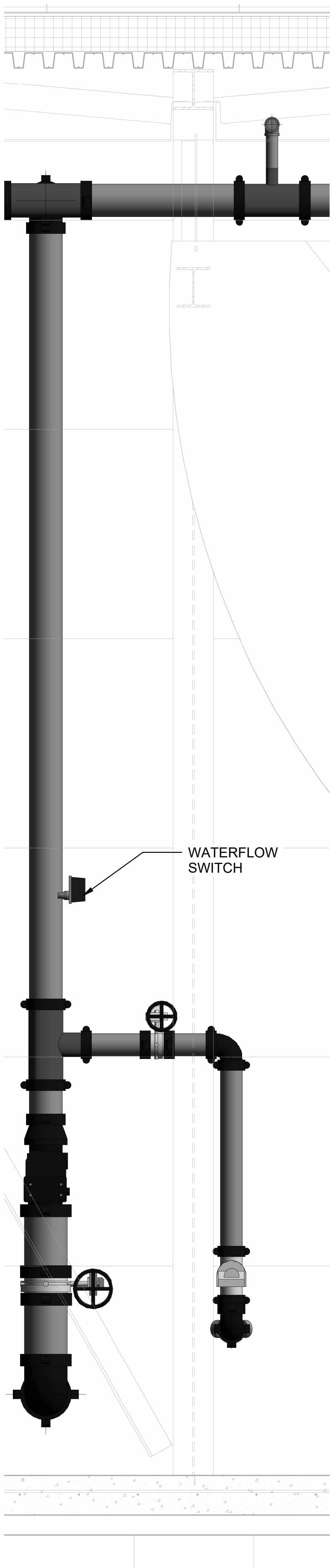
10 of 12



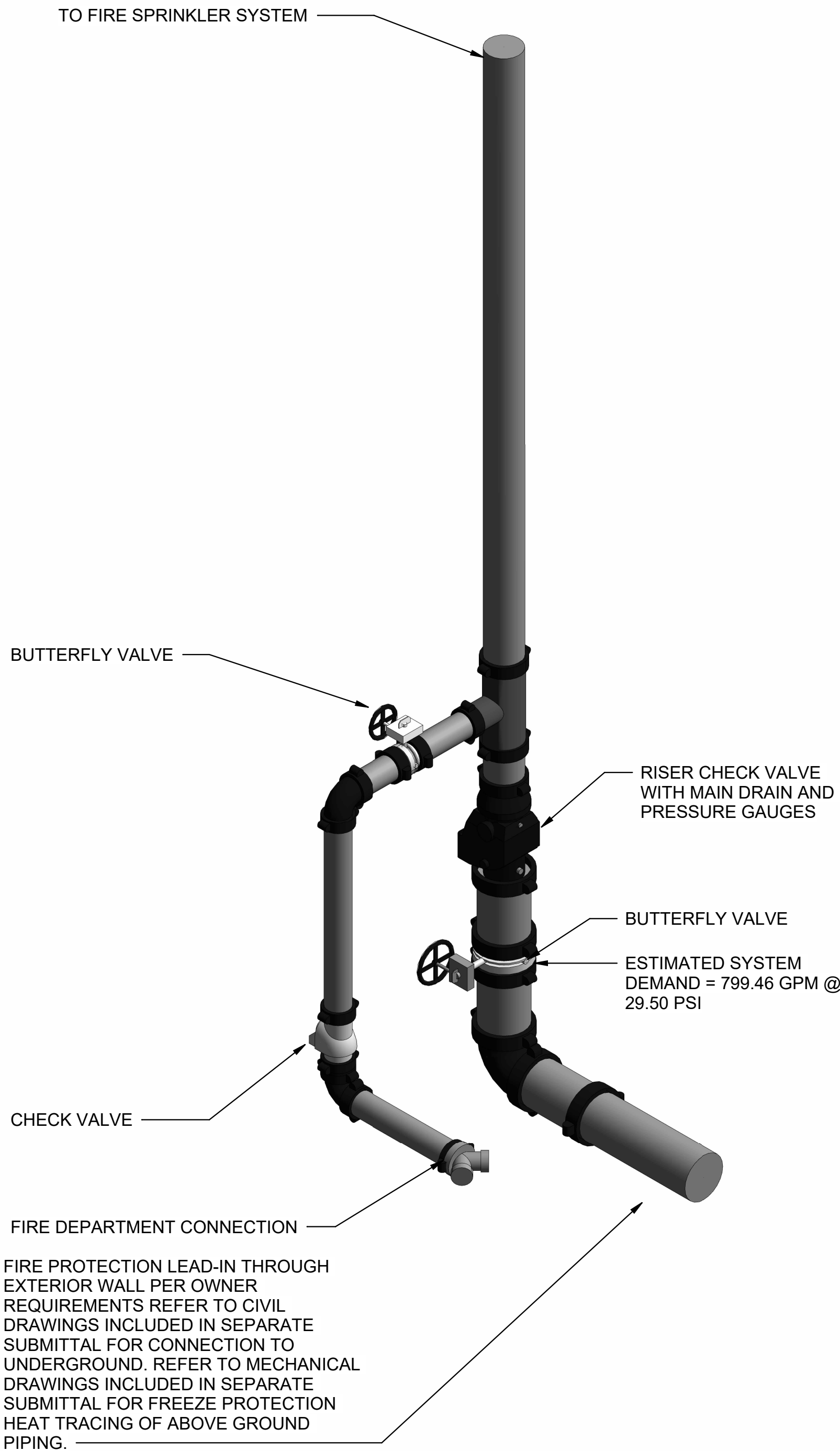
12/20/2022 4:23:40 PM



1 STORAGE ENCLOSURE - FIRE SUPPRESSION RISER SECTION  
SP-302.00 3/4" = 1'-0"



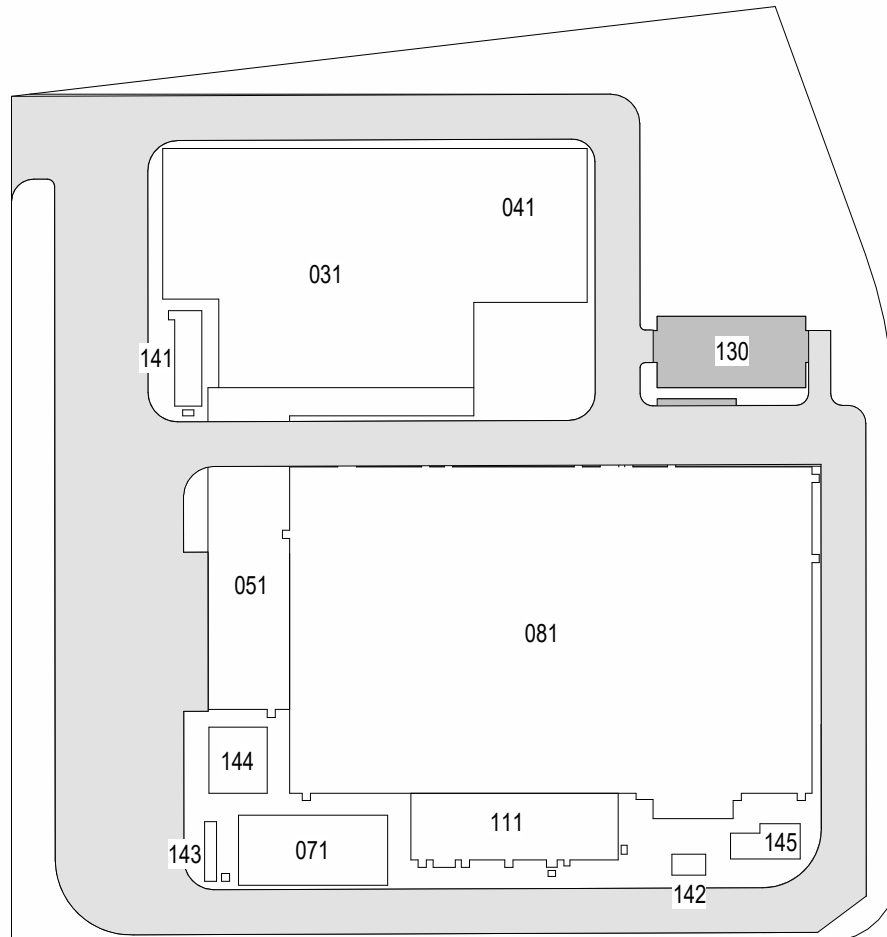
2 STORAGE ENCLOSURE - FIRE SUPPRESSION RISER SECTION  
SP-302.00 3/4" = 1'-0"



3 STORAGE ENCLOSURE - FIRE SUPPRESSION RISER DETAIL  
SP-302.00



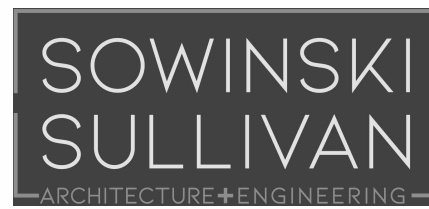
ISSUED FOR PERMIT



KEY PLAN  
N.T.S. PLAN NORTH



19910 W. 161st STREET  
OLATHE, KS. 66062



25 Mohawk Avenue  
Sparta, NJ 07871

CONFIDENTIAL  
THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THEY MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

REV	DESCRIPTION	AWP	SAB	DATE
0	FINAL SUBMISSION	AWP	SAB	12/12/2022
A	INTERIM SUBMISSION	AWP	SAB	09/13/2022



470 Chestnut Ridge Rd # 2,  
Woodcliff Lake, NJ 07677



901 Main Campus Drive  
Raleigh, North Carolina 27606

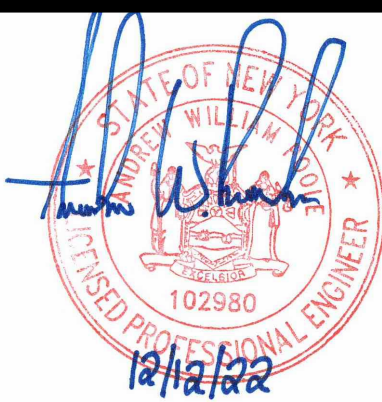
PROJECT



Astoria HVDC  
Converter Station

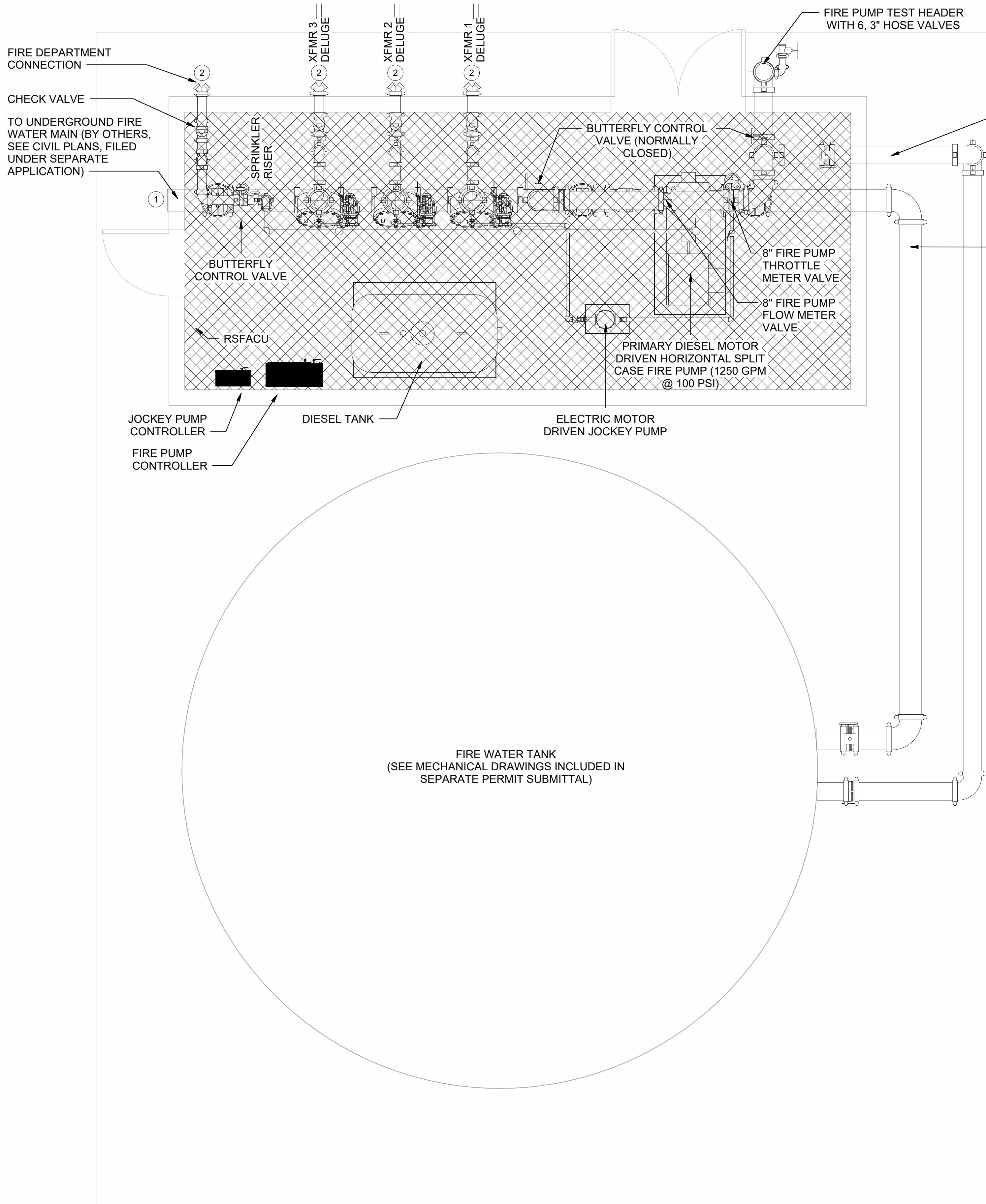
31-45 20th Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

FIRE SUPPRESSION RISER  
SECTIONS

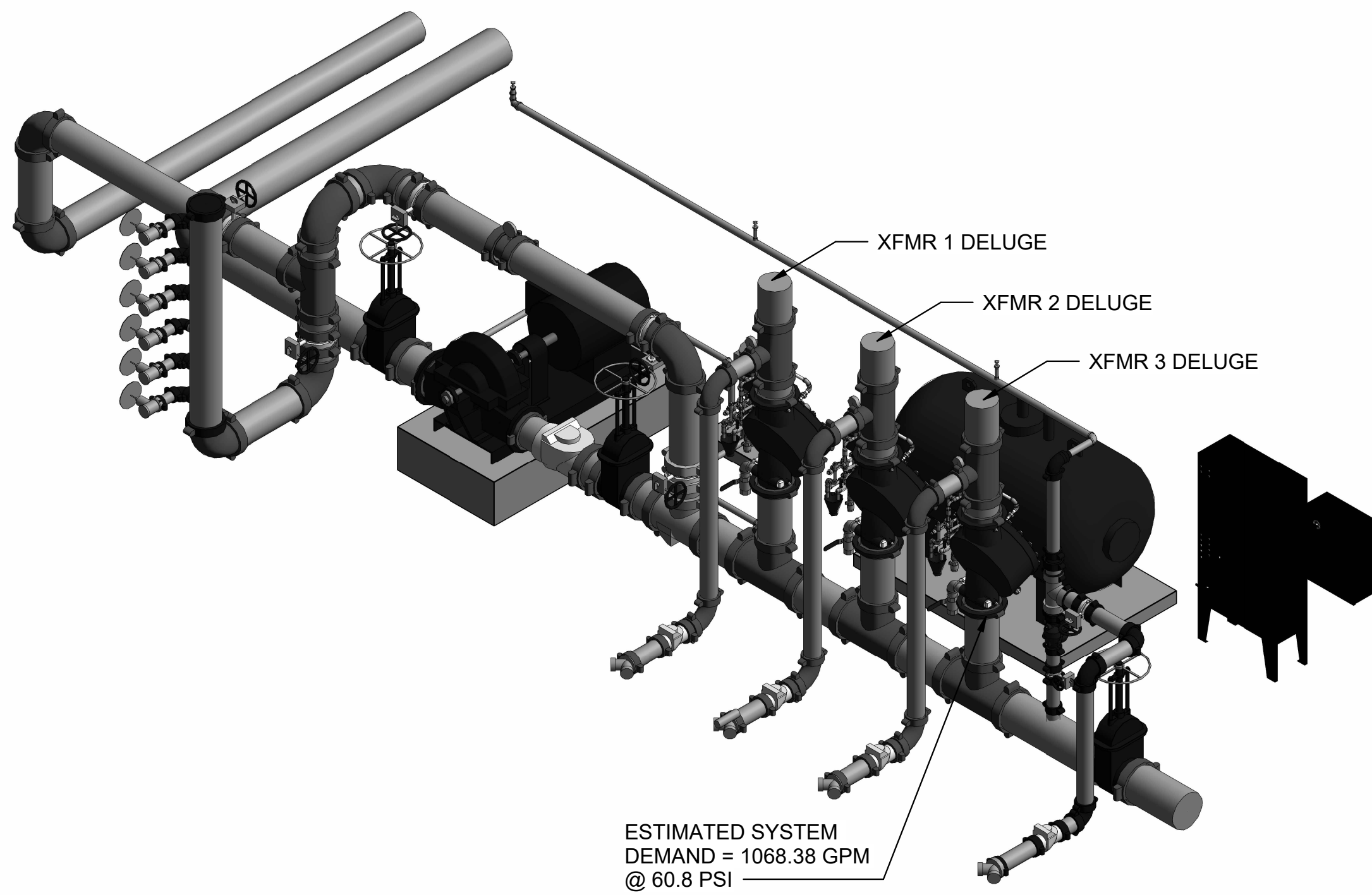


DATE 12/12/2022  
PROJECT NO 105121  
DRAWING BY S. BRINKMEYER  
CHECKED BY A. POOLE  
DRAWING NO  
**SP-302.00**  
CADD FILE NO  
AstoriaHVDC-CHPE  
AstoriaCHPE-130-00-M3-FP-001.rvt  
11 of 12

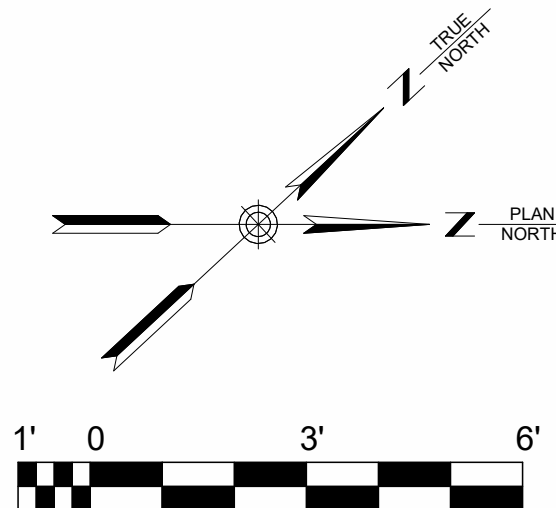




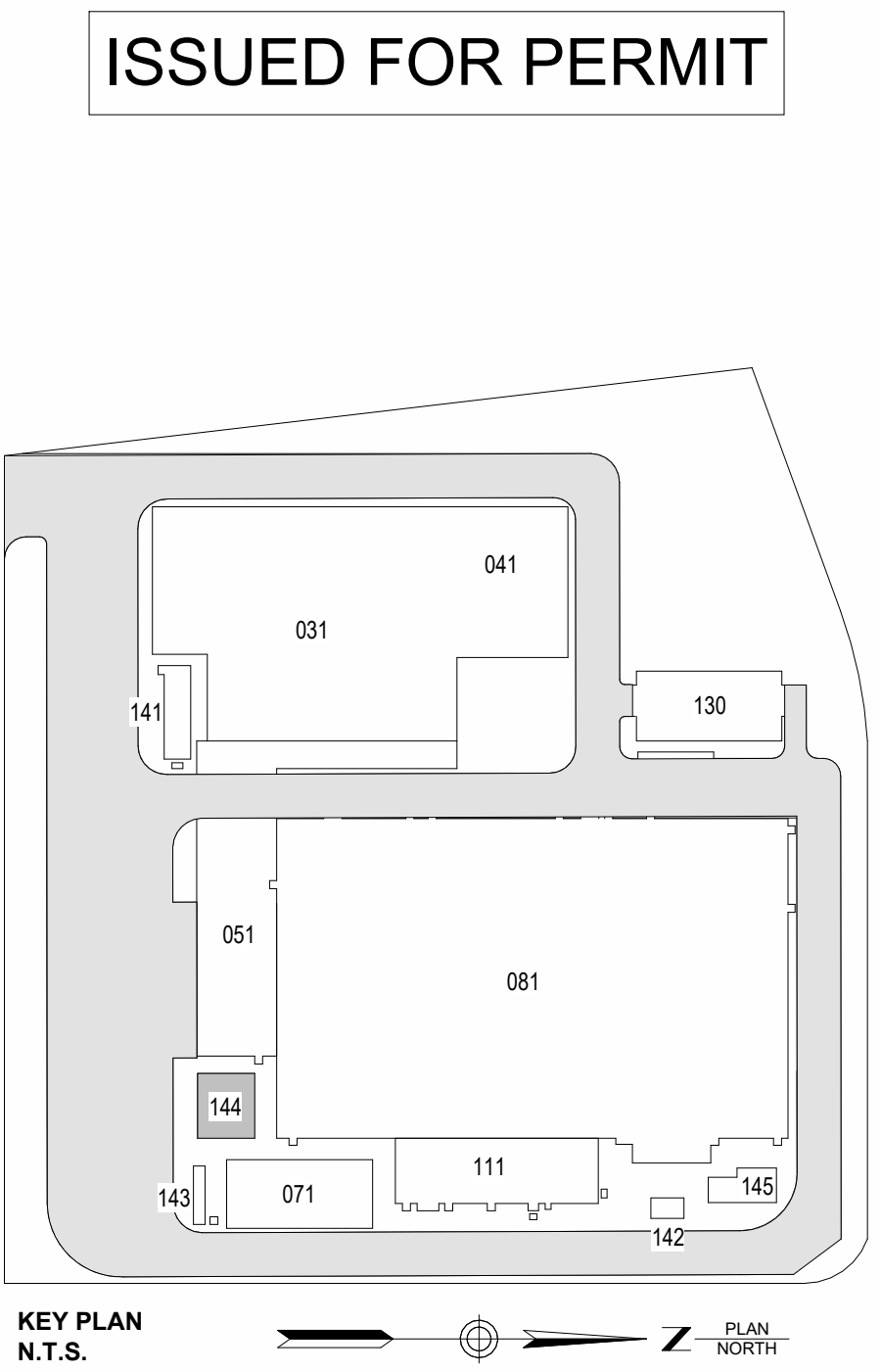
1 PRE-FABRICATED FIRE PUMP ENCLOSURE PLAN  
SP-401.00 3/8" = 1'-0"



2 FIRE PUMP ISOMETRIC VIEW  
SP-401.00



- SHEET NOTE:**
- FIRE PUMP LAYOUT SHOWN IS SCHEMATIC. FINAL LAYOUT OF PUMP AND ENCLOSURE TO BE DESIGNED BY PUMP SKID MANUFACTURER.
  - SEE MECHANICAL DRAWINGS INCLUDED IN SEPARATE PERMIT SUBMITTAL FOR ADDITIONAL INFORMATION REGARDING FIRE WATER TANK AND ASSOCIATED TANK INLET BOOSTER PUMP.
  - FIRE PUMP SIZE: 1,250 GPM @ 100 PSI. CONTRACTOR TO VERIFY PUMP SIZING DURING SHOP DRAWING DEVELOPMENT.
- KEYNOTES**
- PROVIDE FREEZE PROTECTION FOR ALL EXPOSED PIPING SUBJECT TO FREEZING IN ACCORDANCE WITH NFPA 20 AND NFPA 13. EACH PIPE SHALL BE ON ITS OWN HEAT TRACING CIRCUIT AND INCLUDE ASSOCIATED TANK VALVE(S). HEAT TRACING AND INSULATION PROVIDED BY MECHANICAL CONTRACTOR. REFER TO MECHANICAL DRAWINGS INCLUDED IN SEPARATE PERMIT SUBMITTAL.
  - PROVIDE SIGNAGE ABOVE FIRE DEPARTMENT CONNECTION (FDC) TO INDICATE THE SYSTEM SERVED.



**Poole Fire Protection**  
19910 W. 161st STREET  
OLATHE, KS. 66062

**SOWINSKI SULLIVAN**  
ARCHITECTURE+ENGINEERING  
25 Mohawk Avenue  
Sparta, NJ 07871

**CONFIDENTIAL**

THESE DRAWINGS ARE CONFIDENTIAL IN NATURE. ANY MISUSE OR UNAUTHORIZED DISTRIBUTION OF THE DRAWINGS CONTAINED HEREIN WILL BE A VIOLATION OF THIS CONFIDENTIALITY REQUIREMENT AND SUBJECT THE VIOLATOR TO LIABILITY. REVIEW OF THESE MATERIALS BY RECEIPT SHALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY UNDERLYING CONFIDENTIALITY AGREEMENT THEY MAY HAVE. EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF CONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	AWP	SAB	12/12/2022
A	INTERIM SUBMISSION	AWP	SAB	09/13/2022

**Kiewit**  
470 Chestnut Ridge Rd # 2,  
Woodcliff Lake, NJ 07677

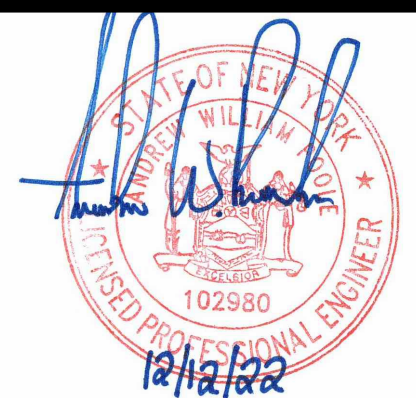
**Hitachi Energy**  
901 Main Campus Drive  
Raleigh, North Carolina 27606

**PROJECT**

**CHPE**  
Champlain Hudson  
Power Express

**Astoria HVDC  
Converter Station**  
31-45 20<sup>th</sup> Avenue, Astoria, Queens NY 11105  
Block #850 - Lot #310 - BIN #4624437

**FIRE SUPPRESSION  
ENLARGED PLANS**



DATE: 12/12/2022  
PROJECT NO: 105121  
DRAWING BY: S. BRINKMEYER  
CHECKED BY: A. POOLE  
DRAWING NO: **SP-401.00**  
CADD FILE NO: AstoriaCHPE-081-00-M3-FP-001.rvt  
12 of 12