APPENDIX C.23 CASE 10-T-0139 SITE PLANS AND CONSTRUCTION DRAWINGS PLUMBING DRAWINGS – SERVICE BUILDING ASTORIA HVDC CONVERTER STATION SEGMENT 22



ASTORIA HVDC CONVERTER STATION

SERVICE BUILDING PLUMBING PACKAGE

SCOPE OF WORK

THE PLUMBING SCOPE OF WORK INCLUDES FURNISHING AND INSTALLATION OF PLUMBING FIXTURES AND EQUIPMENT, POTABLE HOT AND COLD-WATER PIPING SYSTEMS, AND SANITARY WASTE AND VENT PIPING SYSTEMS FOR THE FOLLOWING AREAS AS SUBJECT TO THE REQUIREMENTS AND PERFORMANCE CRITERIA PROVIDED IN THE PRELIMINARY PERFORMANCE SPECIFICATION:

1. SERVICE BUILDING

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:

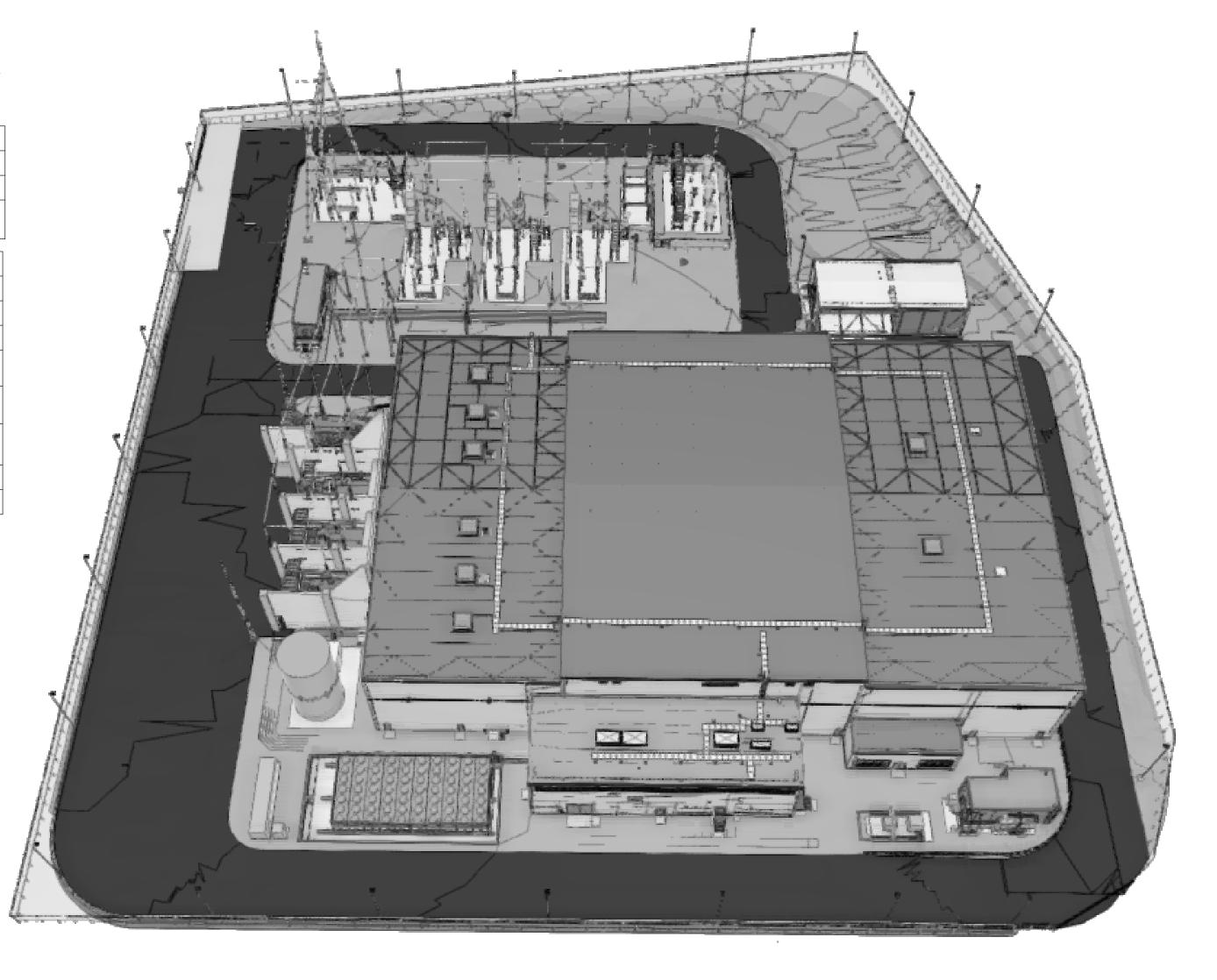
STATEMENT: TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE NEW YORK CITY ENERGY CONSERVATION CODE. PROPOSED WORK MEETS THE GUIDELINES AND INSTRUCTIONS OUTLINED IN THE 2020 NYC ECC CHAPTER 4.

SPECIAL INSPECTION AND PROGRESS INSPECTIONS:

FOLLOWING SPECIAL AND PROGRESS INSPECTIONS SHALL BE PERFORMED PER NYC BUILDING CODE 2022. NOTIFY ARCHITECT, ENGINEER AND OWNER FOR SPECIAL INSPECTIONS AT LEAST 72 HOURS BEFORE THE SPECIAL INSPECTION WORK STARTS.

SPECIAL INSPECTIONS			
INSPECTION AND TEST	CODE / SECTION		
HEATING SYSTEMS	BC 1704.25		
EMERGENCY & STAND BY POWER SYSTEMS (GENERATORS)	BC 1704.31		

PROGRESS INSPECTIO	DNS
INSPECTION AND TEST	CODE / SECTION
ENERGY CODE COMPLIANCE INSPECTIONS	BC 110.3.5
FINAL	28-116.2.4.2 BC 110.5
HVAC-R AND SERVICE WATER HEATING EQUIPMENT	IB3, IIB3
HVAC-R AND SERVICE WATER HEATING SYSTEM CONTROLS	IB4, IIB4
HVAC-R AND SERVICE WATER HEATING DESIGN AND INSULATION	IB5, IIB5
ELECTRICAL MOTORS AND ELEVATORS	IIC6
MAINTENANCE INFORMATION	ID1, IID1



ISSUED FOR PERMIT



370 7th Avenue SUITE 1604 New York, NY 10001



25 Mohawk Avenue Sparta, NJ 07871

CONFIDENT

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 RECEIP 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

В	FINAL SUBMISSION	VSP	EK	12/12/2022
Α	INTERIM SUBMISSION	VSP	EK	09/13/2022
REV	DESCRIPTION	DRW BY	CHK BY	DATE



901 Main Campus Drive Raleigh, North Carolina 27606

PROJEC



Astoria HVDC Converter Station

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

COVER SHEET



1	
DATE	12/12/2022
PROJECT NO	105121
DRAWING BY	V. PATEL
CHECKED BY	E. KIDANE
DRAWING NO	

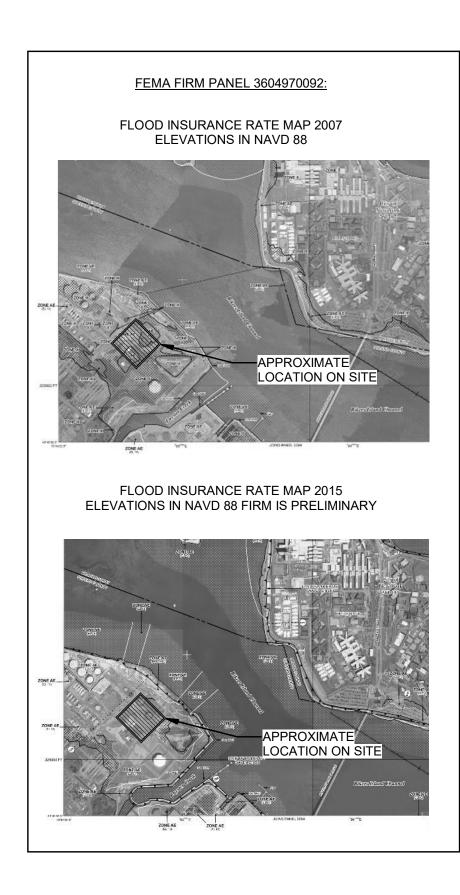
P-001.00

ADD FILE NU
utodesk Docs://CHPE
storia/CHA-KIE-081-00-M3-H-001.rvt

FL FLOOD

- FL-1. THE SITE IS DEFINED AS A ZONE (NON-COASTAL).
- FL-2. BASE FLOOD ELEVATION, BFE, = 13 FEET NAVD 88.
- FL-3. RECOMMENDED FREE BOARD BY THE 2022 NYCBC-APPENDIX G IS 2.0 FEET.
- FL-4. RECOMMENDED DESIGN FLOOD ELEVATION, DFE = 15 FEET NAVD 88.
- FL-5. THE STRUCTURE IS NOT SUBJECTED TO HYDRODYNAMIC LOADS.

DESIGN ELEVATION / DEPTH	FEET IN NAVD 88
DESIGN BASE FLOOD ELEVATION	13.0
FINISH FLOOR ELEVATION	15.0
SEA LEVEL RISE	NOT CONSIDERED

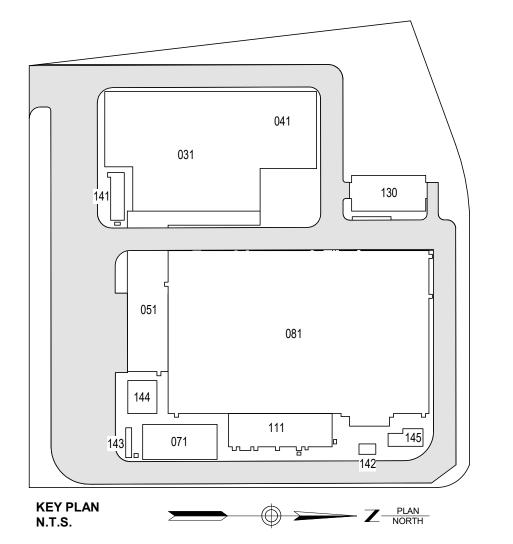


DRAWING LIST PLUMBING

HEET	
JMBER	SHEET NAME

03-PLUMBING	
P-001.00	COVER SHEET
P-002-00	SHEET INDEX
P-003.02	OVERALL PLUMBING SITE PLAN
P-004.00	PLUMBING - GENERAL NOTES, LEGENDS, SYMBOLS & ABBREVIATIONS
P-100.00	WASTE AND VENT PLUMBING PLAN - FIRST FLOOR
P-101.00	DOMESTIC WATER PLUMBING PLAN - FIRST FLOOR
P-102.00	PLUMBING PLAN - SECOND FLOOR
P-500.00	PLUMBING - RISER DIAGRAMS
P-600.00	PLUMBING DETAILS SHEET #1
P-601.00	PLUMBING DETAILS SHEET #2
P-602.00	PLUMBING DETAILS SHEET #3
P-700.00	SERVICE BUILDING PLUMBING - SCHEDULES
P-701.00	SERVICE BUILDING PLUMBING - SCHEDULES

ISSUED FOR PERMIT





370 7th Avenue **SUITE 1604** New York, NY 10001



25 Mohawk Avenue **Sparta, NJ 07871**

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 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.

	FINAL SUBMISSION	WP	SD	12-12-22
	INTERIM SUBMISSION	WP	AZ	09-13-22
/	DESCRIPTION	DRW BY	CHK BY	DATE



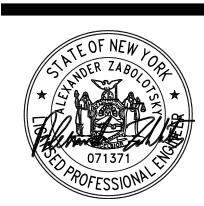
@Hitachi Energy 901 Main Campus Drive Raleigh, North Carolina 27606



Astoria HVDC Converter Station

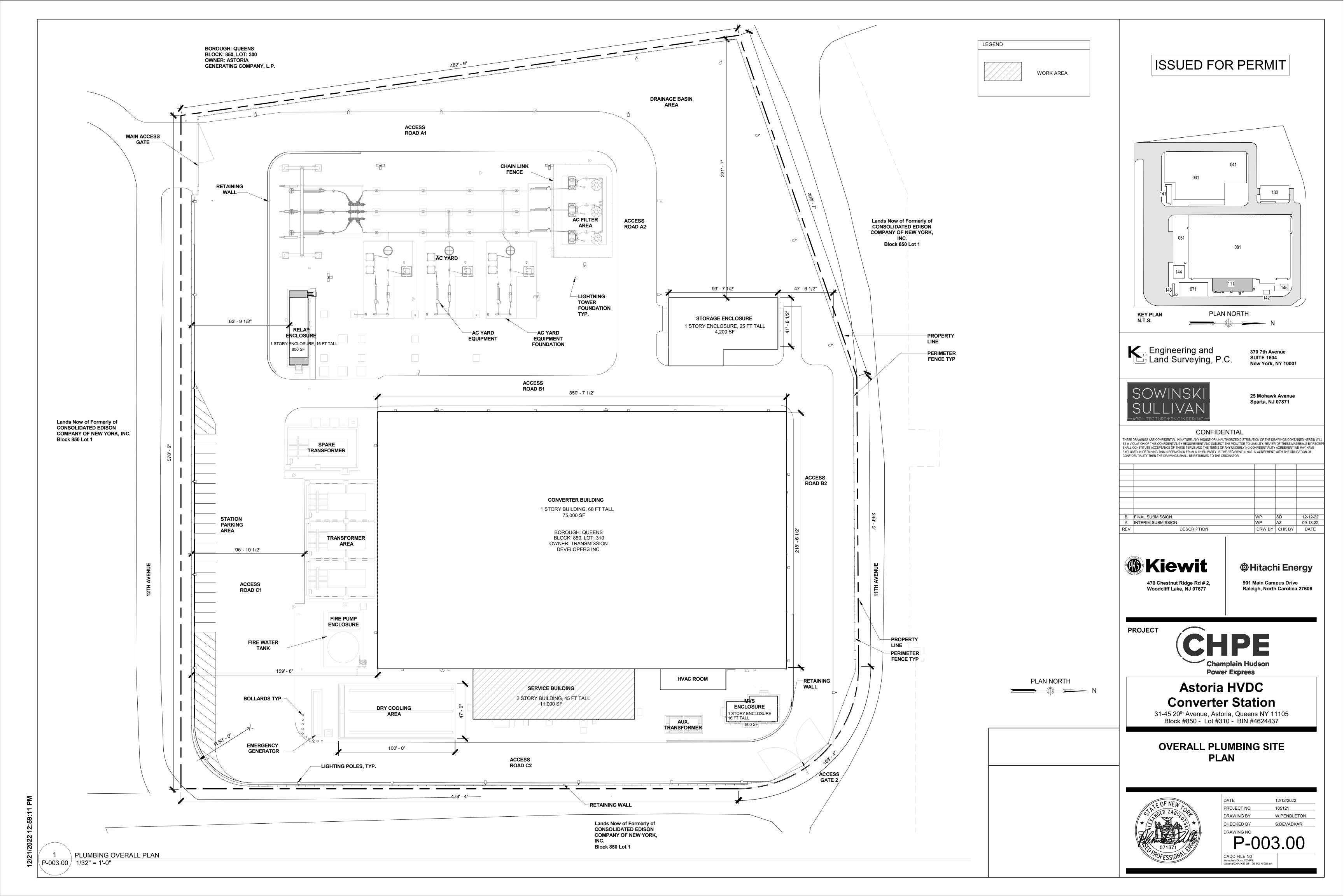
31-45 20th Avenue, Astoria, Queens NY 11105 Block #850 - Lot #310 - BIN #4624437





PROJECT NO W.PENDLETON CHECKED BY S.DEVADKAR

P-002-00



PLUMBING GENERAL NOTES

- THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF ALL MATERIALS, PIPING AND EQUIPMENT. DO NOT SCALE DRAWINGS. THE EXACT LOCATION AND/OR ROUTING OF EQUIPMENT, PLUMBING, SANITARY PIPING, ETC., SHALL BE FOLLOWED AS CLOSELY AS BUILDING CONSTRUCTION AND ALL OTHER WORK WILL PERMIT.
- 2. MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS. THEY SHALL BE INSTALLED PLUMB, LEVEL AND TRUE-TO-LINE WITH ADJACENT WORK. WHERE INSTALLATION METHODS ARE NOT SPECIFICALLY COVERED BY THE DRAWINGS AND/OR SPECIFICATIONS, FIRST CLASS TRADE PRACTICES AND MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS SHALL GOVERN.
- 3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION, BUILDING DEPARTMENTS, APPLICABLE TO THE LATEST EDITION OF THE APPLICABLE BUILDING CODE, PROVINCIAL FIRE CODE, APPLICABLE OSHA AND NFPA STANDARDS, COUNTY AND CITY BUILDING REGULATIONS AND CODES
- 4. CAREFULLY EXAMINE ALL ARCHITECTURAL, STRUCTURAL, PLUMBING HVAC, FIRE PROTECTION, AND ELECTRICAL DRAWINGS PERTAINING TO CONSTRUCTION. COOPERATE WITH OTHER TRADES IN LOCATING DUCTWORK, PIPING, EQUIPMENT, ETC., IN ORDER TO AVOID CONFLICT WITH OTHER TRADE'S WORK. NO CLAIM FOR COSTS WILL BE ALLOWED FOR RELOCATING EQUIPMENT, PIPING, DUCTWORK, ETC., WHICH INTERFERES WITH OTHER TRADES WORK.
- 5. VERIFY ALL ROUGH-IN LOCATION AND COORDINATE PIPING AND EQUIPMENT LOCATIONS WITH WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS TO AVOID CONFLICTS. CONTRACTOR MUST COORDINATE WITH OTHER TRADES FOR ALL STRUCTURES, PIPING. CONDUIT, DUCTWORK, LIGHTING, ETC. TO PROPERLY BE INSTALLED. ANY CONFLICTS SHALL BE RESOLVED AT NO EXPENSE TO THE OWNER.
- 6. LABEL ALL PLUMBING PIPING WITH ADHESIVE PIPE LABELS INDICATING SERVICE AND DIRECTION OF FLOW. PIPE LABELS SHALL BE LOCATED NEAR ALL BRANCH CONNECTIONS, NEAR ALL FLOOR AND WALL PENETRATIONS, AND AT MAXIMUM INTERVALS OF 10 FEET ALONG EACH RUN.
- 7. PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO:
 - a. PLUMBING FIXTURES AND EQUIPMENT b. FIRE STOPPING
 - c. DOMESTIC WATER SYSTEM
- d. SANITARY WASTE AND VENT SYSTEM
- 8. PROVIDE COMPLETE FIXTURES AND INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAILPIECES, ESCUTCHEONS, ETC. EXPOSED COPPER OR BRASS MATERIALS SHALL BE CHROME PLATED.
- 9. SEAL ALL EDGES OF PLUMBING FIXTURES IN CONTACT WITH FLOORS WALLS OR COUNTERTOPS USING SANITARY-TYPE, ONE-PART, MILDEW RESISTANT SILICONE SEALANT. USE CLEAR SEALANT OR MATCH SEALANT COLOR TO FIXTURE COLOR.
- 10. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS OF PLUMBING FIXTURES.
- 11. FIRE STOP ALL PENETRATIONS, BY PIPING OR CONDUITS, OF FIRE RATED WALLS, FLOORS, AND PARTITIONS. PROVIDE DEVICE(S) OR SYSTEM(S) WHICH HAS BEEN TESTED AND LISTED AS COMPLYING WITH ASTM E-814 OR UL 1479 AND INSTALL IN ACCORDANCE WITH THE CONDITIONS OF THEIR LISTING. PROVIDE DEVICE(S) OR SYSTEM(S) WITH AN 'F' RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED.
- 12. FURNISH AND INSTALL A COMPLETE SYSTEM OF DOMESTIC HOT AND COLD WATER FROM EXISTING SUPPLIES TO ALL FIXTURES AND/OR EQUIPMENT REQUIRING DOMESTIC WATER SUPPLIES. VERIFY LOCATION OF BEGINNING POINTS.
- 13. DOMESTIC WATER PIPING: ASTM B 88 TYPE 'L' HARD COPPER TUBE WITH WROT COPPER FITTINGS, AND SOLDERED OR PRESSURE-SEALED JOINTS.
- 14. STERILIZE DOMESTIC WATER PIPING IN ACCORDANCE WITH THE NYC PLUMBING CODE AND LOCAL HEALTH DEPARTMENT REGULATIONS.
- 15. INSULATE DOMESTIC WATER PIPING AS PER SPECIFICATION SECTION 220719 PLUMBING PIPING INSULATION.

16. DOMESTIC WATER PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS, AND ADHESIVES SHALL NOT EXCEED A FLAME SPREAD RATING OF 25 AND A SMOKE DEVELOP RATING OF 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

- 17. ALL PIPE INSULATION SHALL RUN CONTINUOUSLY THROUGH WALLS AND PARTITIONS.
- 18. DO NOT INSTALL DOMESTIC WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES. INSTALL DOMESTIC WATER PIPING IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.
- 19. SHUT-OFF VALVES SHALL BE NIBCO TWO-PIECE, BRONZE, FULL PORT BALL-TYPE, PROVIDE SHUT-OFF VALVES WHERE INDICATED ON THE SCHEDULES. INSTALL VALVES IN A LOCATION THAT PERMITS ACCESS FOR SERVICE AND OPERATION WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS. PROVIDE ACCESS DOORS IF REQUIRED.
- 20. PROTECT COPPER PLATING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGARS, ANCHORS, AND CLIPS SHALL BE COPPER OR COPPER-PLATED.
- 21. FURNISH AND INSTALL COMPLETE SYSTEMS OF SANITARY WASTE AND VENT PIPING FROM ALL PLUMBING FIXTURES AND/OR EQUIPMENT REQUIRING WASTE AND VENT CONNECTIONS. ALL WASTE AND VENT PIPING SHALL BE CONCEALED IN THE BUILDING CONSTRUCTION
- 22. SANITARY WASTE AND VENT PIPING ABOVE GROUND: ASTM A 888 AND CISPI 301 HUBLESS, CAST IRON SOIL PIPE AND FITTINGS; AND HEAVY DUTY SHIELDED, STAINLESS STEEL COUPLINGS. ALL PIPE AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE, AND LISTED BY NSF INTERNATIONAL.
- 23. INVERTS ELEVATIONS SHALL BE ESTABLISHED AND VERIFIED BEFORE SANITARY PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED. SLOPE SANITARY PIPING 2-1/2 IN AND SMALLER AT 2 PERCENT (1/4 IN/1 FOOT) MINIMUM, AND SLOPE SANITARY PIPING 3 IN AND LARGER AT 1 PERCENT (1/8 IN/1 FOOT) MINIMUM.
- 24. SANITARY WASTE BELOW GROUND: BELOW GROUND SANITARY WASTE PIPING SHALL BE CAST IRON.
- 25. WHERE SANITARY PIPING IS EXPOSED IN TOILET ROOMS. PROVIDE CHROME-PLATED BRASS PIPING WITH MATCHING STOPS AND ESCUTCHEONS. PROVIDE REMOVABLE TRAPS WITH INTEGRAL CLEANOUT PLUG FOR ALL LAVATORIES.
- 26. INSTALL CLEANOUTS IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS. CLEANOUT PLUGS SHALL BE IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS.
- 27. PROVIDE WATER HAMMER ARRESTORS CONFORMING TO PDI-WH201 OR ASSE 1010, INSTALLED PER MANUFACTURER'S SPECIFICATIONS, WHERE QUICK CLOSING VALVES ARE UTILIZED. A QUICK CLOSING VALVE IS A VALVE OR FAUCET THAT CLOSES AUTOMATICALLY WHEN RELEASED, OR THAT IS CONTROLLED BY MECHANICAL MEANS FOR FAST-ACTION CLOSING. REFER TO WATER HAMMER ARRESTOR SCHEDULE.
- 28. AS A MINIMUM PROVIDE ONE WATER HAMMER ARRESTOR FOR EACH BRANCH LINE TO EACH TOILET ROOM LESS THAN 20 FEET IN LENGTH, LOCATED BETWEEN THE LAST TWO FIXTURES SERVED. FOR BRANCH LINES GREATER THAN 20 FEET IN LENGTH, A SECOND WATER HAMMER ARRESTOR IS REQUIRED.
- 29. THE PLANS INCLUDE A COMBINATION OF INDVIDUAL AND COMMON VENTS AND SHALL BE INSTALLED PER: 2022 NYC PLUMBING CODE.
- 30. ALL PLUMBING WORK SHALL BE PERFORMED IN ACCORDANCE WITH 2022 NYC PLUMBING CODE.
- 31. ALL SUPPLY COLD AND HOT WATER PIPES ARE SIZED IN ACCORDANCE WITH 2022 NYC PLUMBING CODE. THE INSTALLATION OF HOT AND COLD WATER DISTRIBUTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE 2022 NYC PLUMBING CODE.

PLUMBING STANDARD ABBREVIATIONS

BCO **BUILDING CLEAN OUT** BFP **BACKFLOW PREVENTER** BOI **BOTTOM OF INSULATION** CI CAST IRON **CLEANOUT COLD WATER** CW DF DRINKING FOUNTAIN DRAIN OR DRAIN PIPING DRN OR D **EWC ELECTRIC WATER COOLER** FCO FLOOR CLEANOUT FLOOR DRAIN HW **HOT WATER** JANITORS SINK LAVATORY NPW **NON-POTABLE WATER** OD **OVERFLOW DRAIN** OWS **OIL WATER SEPARATOR** PUMPED CONDENSATE **ROOF DRAIN** SANITARY DRAIN SAN WASTE (SAME AS SS) URINAL

VENT

VENT THRU ROOF

WATER CLOSET

WALL CLEANOUT

WALL HYDRANT

WATER METER

WALL HAMMER ARRESTOR

VTR

WCO

WH

WHA

SHEET NOTES:

- REFER TO SHEETS A SERIES FOR ARCHITECTURAL DRAWINGS. NOTES. DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- 2. REFER TO SHEETS E SERIES FOR BUILDING ELECTRICAL DRAWINGS. NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- REFER TO SHEETS M SERIES FOR HVAC MECHANICAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- 4. REFER TO SHEETS P SERIES FOR PLUMBING DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION. REFER TO SHEETS S SERIES FOR BUILDING STRUCTURAL DRAWINGS. NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER
- SEPARATE APPLICATION. 6. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.

PLUMBING SYMBOLS

SAN	SANITARY DRAIN		LAVATORY (LAV)
PDR	PLANT DRAINS	(C)	WATER CLOSET (WC)
RD	ROOF DRAIN		URINAL (UR)
— -V— —	VENT		
——OD——	OVERFLOW DRAIN		MOP SINK (MS)
	POTABLE COLD WATER (CW)		
	POTABLE HOT WATER (HW)		
	POTABLE HOT WATER RECIRCULATION (HWR)		
DWS	DEMINERALIZED WATER		
DWT	DEMINERALIZED WATER TREATMENT		
	FLOOR DRAIN		
——————————————————————————————————————	FLOOR DRAIN		
	FLOOR CLEANOUT (FCO)		
\dashv I	WALL CLEANOUT (WCO) OR HORIZONTAL CLEANOUT		
	WATER HAMMER ARRESTOR		
—3	CAP		
	BACKFLOW PREVENTER W/ ISOLATION VALVES		
WM	WATER METER		
	ROOF DRAIN		
>	ROOF DRAIN CLEANOUT (CO)		
	DIRECTION OF SCOPE DOWN		
0	BUILDING CLEANOUT (BCO)		

ISSUED FOR PERMIT



370 7th Avenue **SUITE 1604** New York, NY 10001



25 Mohawk Avenue **Sparta, NJ 07871**

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 HALL CONSTITUTE ACCEPTANCE OF THESE TERMS AND THE TERMS OF ANY LINDERLYING 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 ONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

	FINAL SUBMISSION	WP	SD	12-12-22
	INTERIM SUBMISSION	WP	AZ	09-13-22
/	DESCRIPTION	DRW BY	CHK BY	DATE



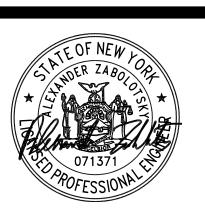
901 Main Campus Drive Raleigh, North Carolina 27606



Astoria HVDC Converter Station

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

PLUMBING - GENERAL NOTES, LEGENDS, **SYMBOLS & ABBREVIATIONS**



12/12/2022 PROJECT NO DRAWING BY W.PENDLETON CHECKED BY S.DEVADKAR DRAWING NO

P-004.00

CADD FILE NO Autodesk Docs://CHPE Astoria/CHA-KIE-081-00-M3-H-001.rvt

GENERAL REQUIREMENTS:

- ALL WORK, MATERIALS AND WORKMANSHIP SHALL BE PERFORMED IN STRICT ACCORDANCE WITH. AND CONFORM WITH ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES, RULES AND REGULATIONS, SPECIFICATIONS AND RECOMMENDED PRACTICES OF THE MANUFACTURERS AND THE APPROPRIATE APPLICABLE STANDARDS. WHERE SUCH CODES, RULES AND REGULATIONS ARE AT VARIANCE WITH THE PLANS AND NOTES, SAID CODES, RULES AND REGULATIONS, ETC. SHALL TAKE PRECEDENCE OVER THE PLANS AND NOTES.
- ALL WORK SHOWN ON THESE DRAWINGS SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES AND REGULATIONS. ALL REQUIRED INSPECTIONS NECESSARY TO PERFORM WORK AND SERVICES HEREIN NOTED OR INDICATED ON THE DRAWINGS, APPROVALS AND PERMITS SHALL BE OBTAINED AND PAID FOR.
- ALL WORK SHALL BE EXECUTED IN A NEAT AND ORDERLY MANNER WITH THE LEAST POSSIBLE NOISE. DUST. OR DISTURBANCE TO ADJACENT SITES OR BUILDINGS.
- PROVIDE PROTECTION FOR THE GENERAL PUBLIC AND CONSTRUCTION WORKERS IN AND AROUND THE CONSTRUCTION SITE. THE BUILDING SHALL REMAIN ACCESSIBLE TO THE OWNER AT ALL TIMES.
- CONSTRUCTION AREA SHALL BE THOROUGHLY CLEANED PRIOR, DURING AND AFTER CONSTRUCTION.
- SUBMITTALS SHALL BE IN COMPLIANCE WITH CONTRACT REQUIREMENTS AND ACTUAL FIELD CONDITIONS.
- SPECIAL PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR SO THAT EQUIPMENT AND ITS INSTALLATION WILL NOT EFFECT ANY OF THE FOLLOWING: EGRESS TO AND FROM THE BUILDING; FIRE SAFETY, OR CREATE A FIRE HAZARD; STRUCTURAL SAFETY OF THE
- BUILDING; ACCUMULATION OF DUST AND DEBRIS. THE CONTRACTOR SHALL LEAVE THE SITE BROOM CLEAN EACH DAY. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE.

N.Y.C. BUILDING DEPARTMENT NOTES

- SYSTEMS SHALL COMPLY WITH 2022 NYC BUILDING CODE.
- 2. MATERIALS, EQUIPMENT, ASSEMBLIES, FORMS AND METHODS OF CONSTRUCTION SHALL BE APPROVED FOR INSTALLATION PER NYC **BUILDING CODE 2022.**
- 3. SPECIAL INSPECTIONS SHALL BE PREFORMED BY CERTIFIED SPECIAL INSPECTIONS AGENCY & SHALL BE FILED WITH THE DEPARTMENT OF BUILDINGS, AS REQUIRED BY N.Y.C. BUILDING CODE. ALL MECHANICAL EQUIPMENT SHALL COMPLY WITH 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NY CITY, AND WITH THE NYC BUILDING CODE.
- EQUIPMENT SHALL BE INSPECTED AND TESTED PER NYC BUILDING CODE 2022.
- EQUIPMENT WORK PERMIT SHALL BE PER NYC BUILDING CODE 2022 AND OBTAINED BY THE CONTRACTOR.
- EQUIPMENT USE PERMIT (EUP) SHALL BE OBTAINED AS PER NYC BUILDING CODE 2022.
- THE DUCT SYSTEM AND ALL COMPONENTS THERETO SHALL COMPLY WITH NYC BUILDING CODE 2022. 8. DUCTWORK SYSTEMS SHALL BE CONSTRUCTED WITH PROVISIONS FOR ACCESS AND INSPECTION IN ACCORDANCE WITH NYC

EQUIPMENT SUBMITTAL NOTE:

ALL COORDINATED SUBMITTALS OF ALL HVAC INSTALLATION SHALL BE SUBMITTED FOR REVIEW. THIS SHALL BE DONE BEFORE THE INSTALLATION OF ANY PIPING / DUCTWORK OR EQUIPMENT. THE SUBMITTAL SHALL INCLUDE PIPE / DUCT ROUTING, SIZES, ELEVATIONS. THE DRAWINGS SHALL CONTAIN ALL THE INFORMATION NECESSARY FOR THE PROPER INSTALLATION OF THE JOB. THE SUBMITTAL SHALL BE COORDINATED WITH OTHER TRADES OR EQUIPMENT THAT MIGHT AFFECT THE INSTALLATION. THE DRAWINGS SHALL BE SUBMITTED AT A MIN. 3/8" SCALE OR AT A SCALE THAT IS EASILY LEGIBLE. THE DESIGN DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO BE USED AS A SUBMITTAL. THEREFORE A COPY OF THE DESIGN DRAWING IS NOT ACCEPTABLE AS A SUBMITTAL. REFER TO SUBMITTAL PROCEDURES SPECIFICATION SECTION FOR ADDITIONAL INFORMATION. THE GENERAL CONTRACTOR SHALL SUBMIT A COORDINATED SUBMITTAL WHICH INCLUDES ALL THE TRADES. THIS INCLUDES GENERAL CONSTRUCTION, ELECTRICAL, HVAC. PLUMBING & STRUCTURAL TRADES. ALL CONFLICTS MUST BE IDENTIFIED ON THE COORDINATED SUBMITTAL

SHEET NOTES:

- 1. REFER TO SHEETS A SERIES FOR ARCHITECTURAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- 2. REFER TO SHEETS E SERIES FOR BUILDING ELECTRICAL DRAWINGS. NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- 3. REFER TO SHEETS M SERIES FOR HVAC MECHANICAL DRAWINGS, NOTES. DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- 4. REFER TO SHEETS P SERIES FOR PLUMBING DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION. 5. REFER TO SHEETS S SERIES FOR BUILDING STRUCTURAL DRAWINGS,
- NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION. 6. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL
- REQUIREMENTS OF WORK. 7. ALL PLUMBING METALLIC COMPONENTS INSIDE CONVERTOR BUILDING SHALL BE BONDED TO THE BUILDING OR BUILDING RING CONDUCTOR. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR
- 8. ALL PLUMBING METALLIC COMPONENTS INSTALLED OUTSIDE OF BUILDING SHALL BE BONDED TO GROUND. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR REQUIREMENTS.

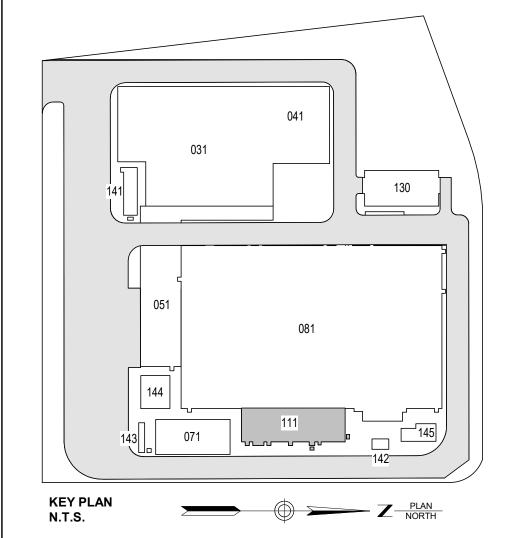
PLUMBING GENERAL NOTES:

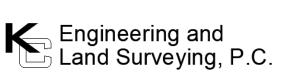
- 1. ALL FLOOR DRAINS SHALL BE READILY ACCESSIBLE AND CLEAN.
- 2. THE DRAINAGE AND VENT SYSTEM SHALL BE PRESSURE TESTED WITH WATER OR AIR PER THE 2022 NYC PLUMBING CODE.
- 3. SEE SHEET P-500 FOR RISER DIAGRAM.

1 PLUMBING KEYNOTES

- REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION / ELEVATION WITH CIVIL PRIOR INSTALLATION. SANITARY AND DOMESTIC WATER SERVICE TO BE A MINIMUM OF 10' CLEAR FROM EACH OTHER. PIPE OUTSIDE OF THE BUILDING TO BE HEAT TRACED WITH 8 WATTS/FT OF HEAT UNTIL IT CONNECTS TO CIVIL. HEAT TRACE CONTROLLER SHALL BE INSTALLED IN JANITOR'S CLOSET. COORDINATE WITH ELECTRICAL. PROVIDE DIELECTRIC CONNECTION WHEN CONNECTING PIPES WITH DISSIMILAR METALS.
- 3" VENT UP TO ROOF THROUGH SECOND FLOOR.
- 3" SANITARY DOWN FROM THE FLOOR ABOVE. PROVIDE CLEANOUT ON PIPE RISER. REFER TO DETAIL.
- 4 VENT PIPE FROM FLOOR DRAIN. REFER TO P102 FOR CONTINUATION.







370 7th Avenue **SUITE 1604** New York, NY 10001



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 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.

В	FINAL SUBMISSION	WP	SD	12-12-22
Α	INTERIM SUBMISSION	WP	AZ	09-13-22
REV	DESCRIPTION	DRW BY	CHK BY	DATE



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



Astoria HVDC Converter Station

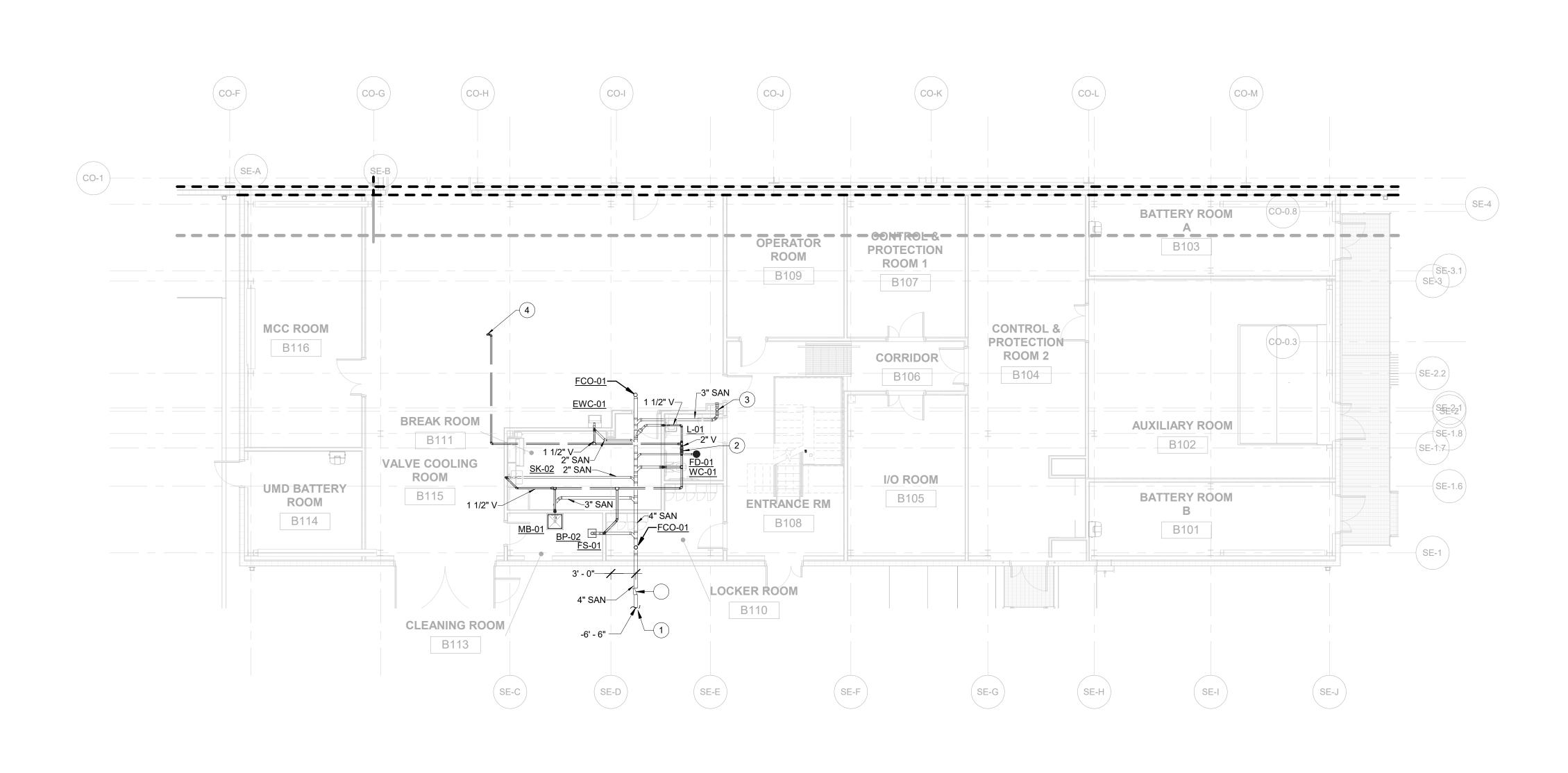
31-45 20th Avenue, Astoria, Queens NY 11105 Block #850 - Lot #310 - BIN #4624437

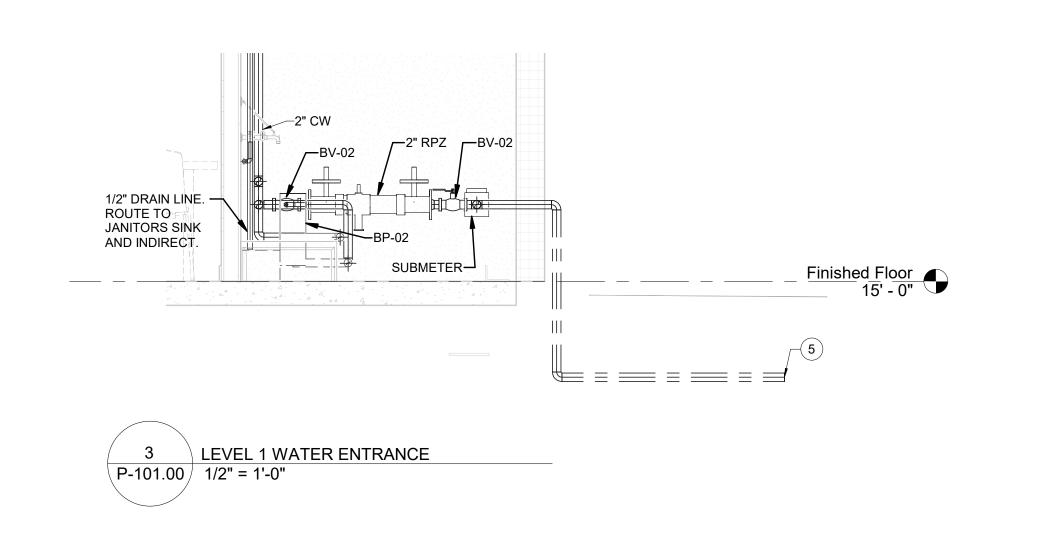
WASTE AND VENT PLUMBING PLAN - FIRST FLOOR



12/12/2022 PROJECT NO 105121 W.PENDLETON CHECKED BY S.DEVADKAR DRAWING NO P-100.00

CADD FILE NO Autodesk Docs://CHPE Astoria/CHA-KIE-081-00-M3-H-001.rvt





OPERATOR

ROOM

B109

ENTRANCE RM

B108

`_3/4" CW

SE-F

WC-01

SE-E

LOCKER ROOM

VALVE COOLING

MCC ROOM

B116

UMD BATTERY

ROOM

B114

ROOM

B115

CLEANING ROOM

(3) B113

BREAK ROOM

__2" CW \

7' - 0"

PROTECTION

ROOM 1

B107

CORRIDOR

B106

I/O ROOM

B105

CONTROL &

PROTECTION

ROOM 2

B104

SE-G

SE-H

BATTERY ROOM

B103

AUXILIARY ROOM

BATTERY ROOM

B101

SE-I

(CO-0.3)

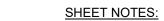
SE-J

SE-2.2

SE-1.8

SE-1.6

SE-1.7



- 1. REFER TO SHEETS A SERIES FOR ARCHITECTURAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- 2. REFER TO SHEETS E SERIES FOR BUILDING ELECTRICAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- 3. REFER TO SHEETS M SERIES FOR HVAC MECHANICAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- APPLICATION. 4. REFER TO SHEETS P SERIES FOR PLUMBING DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- 5. REFER TO SHEETS S SERIES FOR BUILDING STRUCTURAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- 6. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
- 7. ALL PLUMBING METALLIC COMPONENTS INSIDE CONVERTOR BUILDING SHALL BE BONDED TO THE BUILDING OR BUILDING RING CONDUCTOR. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR REQUIREMENTS.
- 8. ALL PLUMBING METALLIC COMPONENTS INSTALLED OUTSIDE OF BUILDING SHALL BE BONDED TO GROUND. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR REQUIREMENTS.

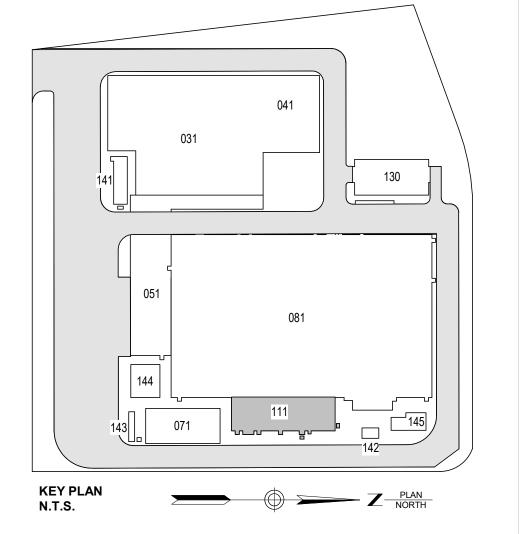
PLUMBING GENERAL NOTES

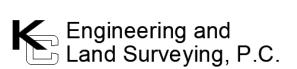
- COORDINATE 2" POTABLE WATER CONNECTION WITH SITE PLAN PRIOR TO CONSTRUCTION. POTABLE WATER MUST BE MINIMUM OF 10' FROM THE SANITARY SERVICE.
- 2. SEE SHEET P-500 FOR RISER DIAGRAM.

1 PLUMBING KEYNOTES

- 1 3/8" DOMESTIC COLD WATER DOWN IN WALL TO WB-111-01. BOTTOM OF BOX SHALL BE 12" BELOW COUNTERTOP. COORIDNATE LOCATION AND ELEVATION WITH CABINETS PRIOR TO INSTALLATION. CONNECT TO OWNER PROVIDED FIXTURE.
- 2 3/8" DOMESTIC COLD WATER DOWN IN WALL TO WB-111-01 BOX 48" AFF. ROUTE DOMESTIC WATER PIPING DOWN TO WALL HYDRANT, WH-111-01.
- PROVIDE DOMESTIC WATER SUBMETER INSIDE CLEANING ROOM.
- REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION / ELEVATION WITH CIVIL PRIOR INSTALLATION. SANITARY AND DOMESTIC WATER SERVICE TO BE A MINIMUM OF 10' CLEAR FROM EACH OTHER. PIPE OUTSIDE OF THE BUILDING TO BE HEAT TRACED WITH 8 WATTS/FT OF HEAT UNTIL IT CONNECTS TO CIVIL. HEAT TRACE CONTROLLER SHALL BE INSTALLED IN JANITOR'S CLOSET. COORDINATE WITH ELECTRICAL. PROVIDE DIELECTRIC CONNECTION WHEN CONNECTING PIPES WITH DISSIMILAR METALS.







370 7th Avenue **SUITE 1604** New York, NY 10001



25 Mohawk Avenue **Sparta, NJ 07871**

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 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.

В	FINAL SUBMISSION	WP	SD	12-12-22
Α	INTERIM SUBMISSION	WP	AZ	09-13-22
REV	DESCRIPTION	DRW BY	CHK BY	DATE
		· · · · · · · · · · · · · · · · · · ·		



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



Astoria HVDC Converter Station

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

DOMESTIC WATER PLUMBING PLAN - FIRST FLOOR



DATE	12/12/2022
PROJECT NO	105121
DRAWING BY	W.PENDLETON
CHECKED BY	S.DEVADKAR
DRAWING NO	

P-101.00 CADD FILE NO Autodesk Docs://CHPE Astoria/CHA-KIE-081-00-M3-H-001.rvt



CO-1

SHEET NOTES:

- REFER TO SHEETS A SERIES FOR ARCHITECTURAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- 2. REFER TO SHEETS E SERIES FOR BUILDING ELECTRICAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- REFER TO SHEETS M SERIES FOR HVAC MECHANICAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
 REFER TO SHEETS P SERIES FOR PLUMBING DRAWINGS, NOTES, DETAILS,
- SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.

 5. REFER TO SHEETS S SERIES FOR BUILDING STRUCTURAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER
- SEPARATE APPLICATION.

 6. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
- 7. ALL PLUMBING METALLIC COMPONENTS INSIDE CONVERTOR BUILDING SHALL BE BONDED TO THE BUILDING OR BUILDING RING CONDUCTOR. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR
- REQUIREMENTS.

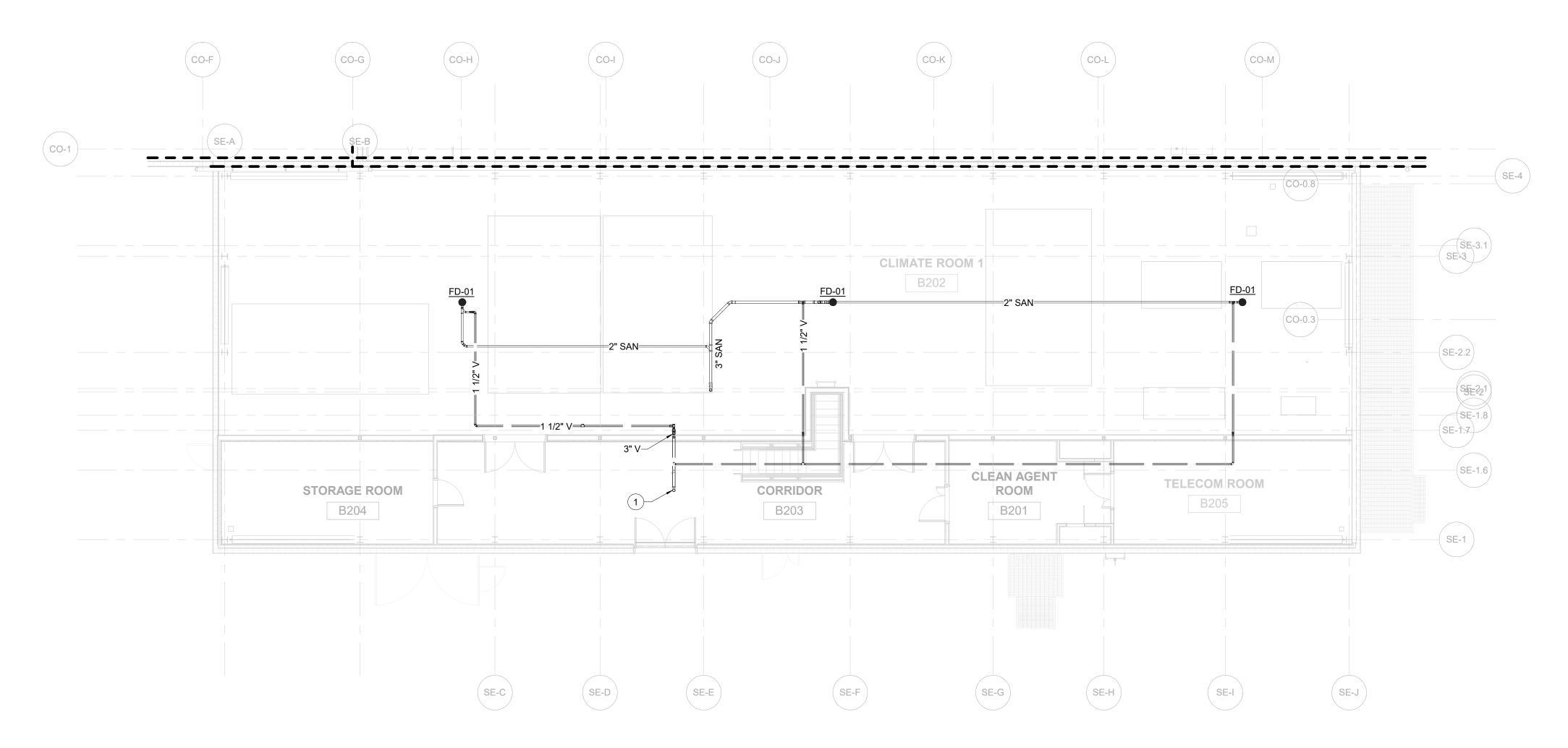
 8. ALL PLUMBING METALLIC COMPONENTS INSTALLED OUTSIDE OF BUILDING SHALL BE BONDED TO GROUND. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR REQUIREMENTS.

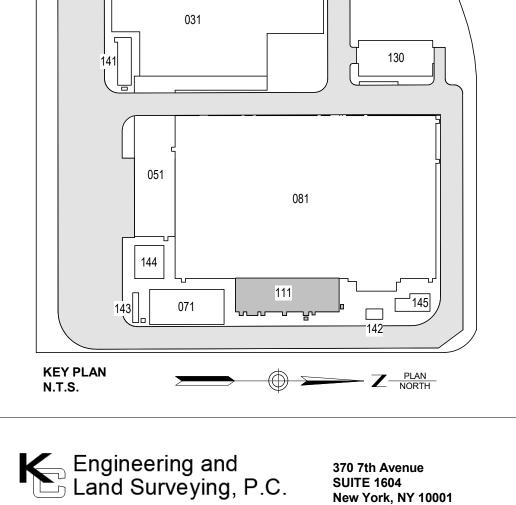
PLUMBING GENERAL NOTES

1. SEE SHEET P-500 FOR RISER DIAGRAM.

1 PLUMBING KEYNOTES

1 VENT THROUGH ROOF.





ISSUED FOR PERMIT



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 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.

В	FINAL SUBMISSION	WP	SD	12-12-22
Α	INTERIM SUBMISSION	WP	AZ	09-13-22
REV	DESCRIPTION	DRW BY	CHK BY	DATE



Hitachi Energy901 Main Campus Drive Raleigh, North Carolina 27606

PROJEC



Astoria HVDC Converter Station

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

PLUMBING PLAN - SECOND FLOOR

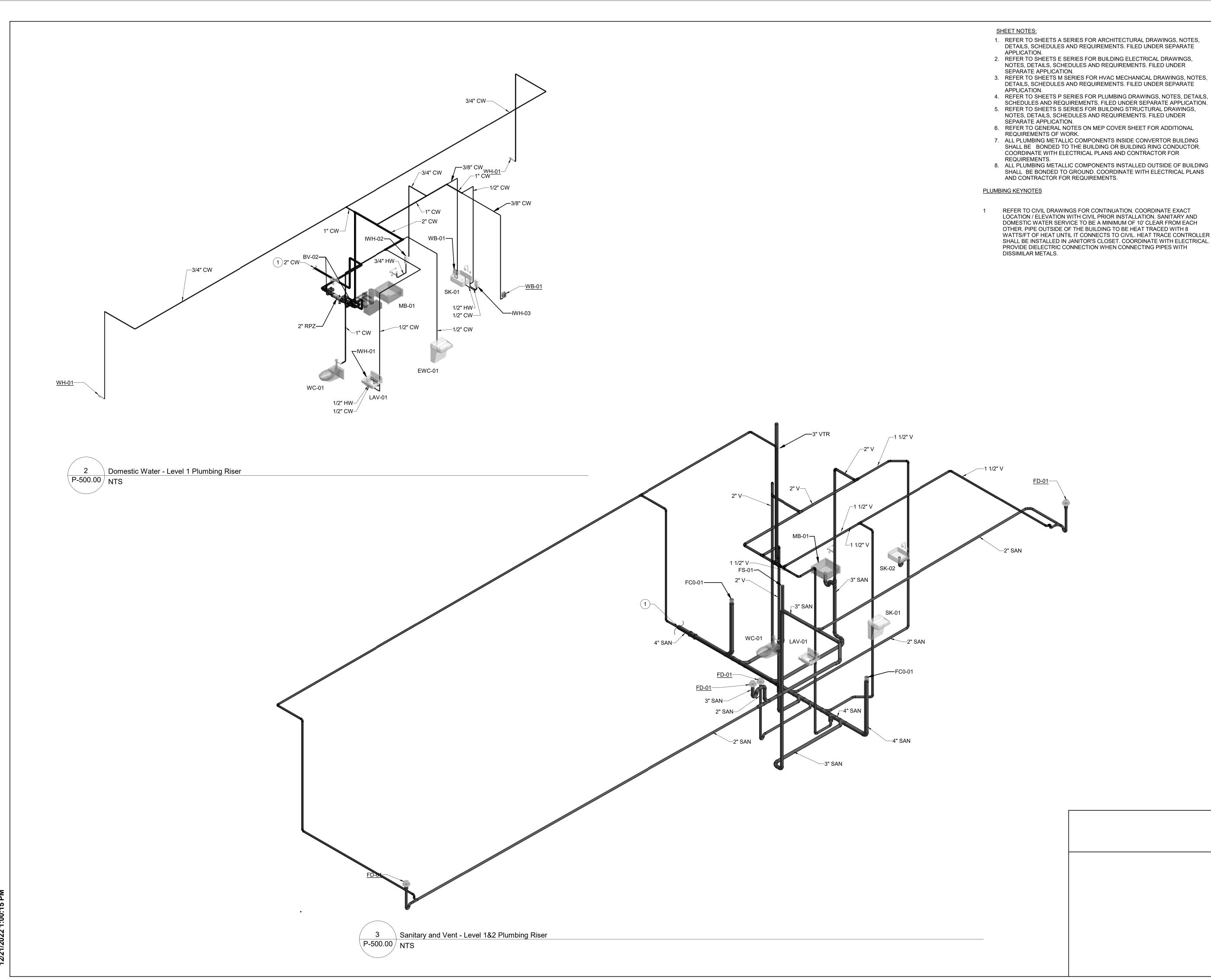


DATE	12/12/2022
PROJECT NO	105121
DRAWING BY	W.PENDLETON
CHECKED BY	S.DEVADKAR
DRAWING NO	

P-102.00

CADD FILE NO
Autodesk Docs://CHPE
Astoria/CHA-KIE-081-00-M3-H-001.rvt

(



ISSUED FOR PERMIT

370 7th Avenue **SUITE 1604** New York, NY 10001



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 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.

В	FINAL SUBMISSION	WP	SD	12-12-22
Α	INTERIM SUBMISSION	WP	AZ	09-13-22
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



Astoria HVDC Converter Station

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

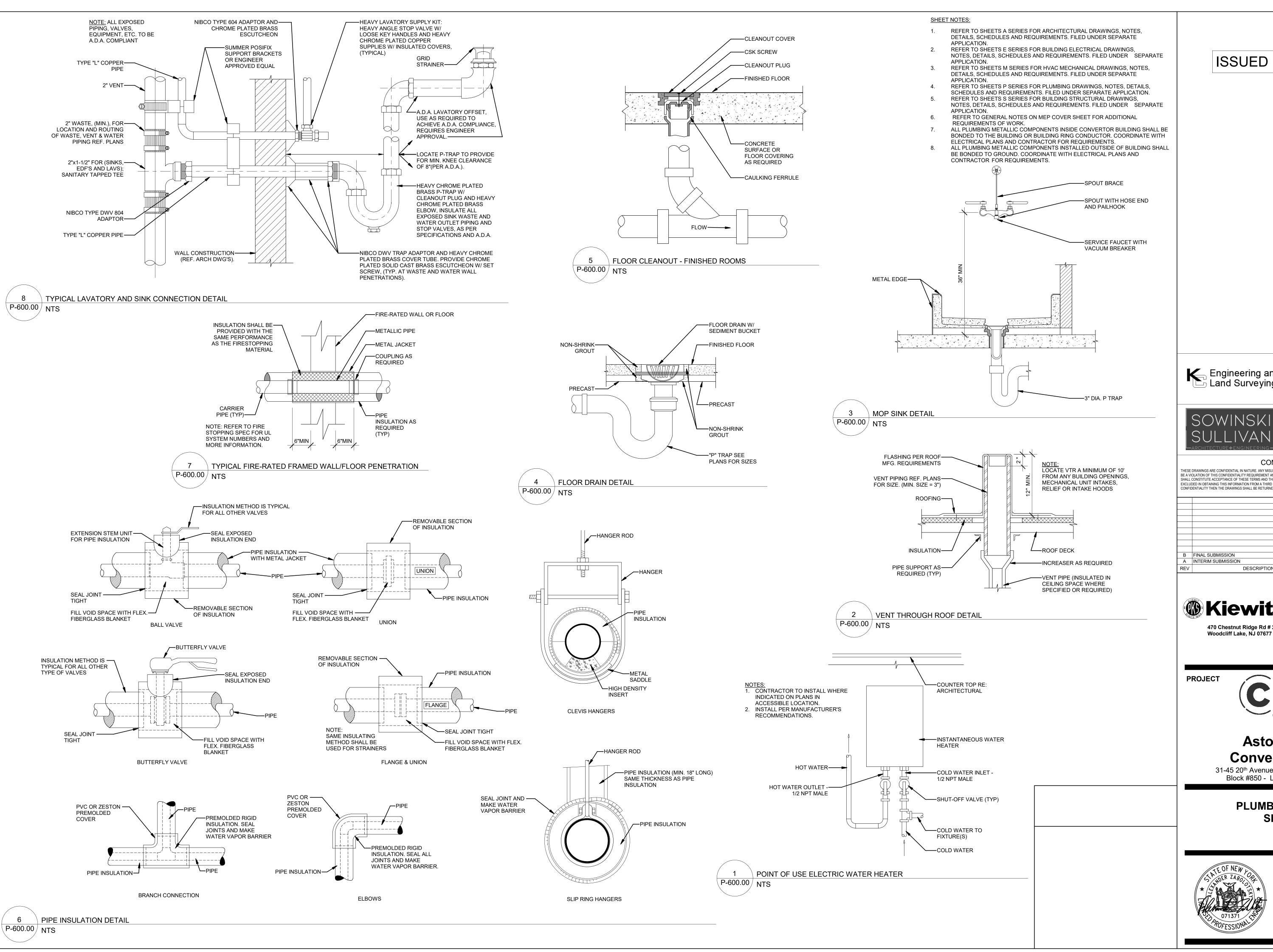
PLUMBING - RISER DIAGRAMS



ı	
DATE	12/12/2022
PROJECT NO	105121
DRAWING BY	W.PENDLETON
CHECKED BY	S.DEVADKAR
DRAWING NO	

P-500.00

CADD FILE NO Autodesk Docs://CHPE Astoria/CHA-KIE-081-00-M3-H-001.rvt



ISSUED FOR PERMIT

Land Surveying, P.C.

370 7th Avenue **SUITE 1604** New York, NY 10001



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 WE MAY HAVE EXCLUDED IN OBTAINING THIS INFORMATION FROM A THIRD PARTY. IF THE RECIPIENT IS NOT IN AGREEMENT WITH THE OBLIGATION OF ONFIDENTIALITY THEN THE DRAWINGS SHALL BE RETURNED TO THE ORIGINATOR.

B FINAL SUBMISSION 12-12-22 A INTERIM SUBMISSION 09-13-22 DRW BY CHK BY DATE

® Kiewit 470 Chestnut Ridge Rd # 2,

@Hitachi Energy 901 Main Campus Drive

Raleigh, North Carolina 27606

Power Express

Astoria HVDC Converter Station

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

PLUMBING DETAILS SHEET #1

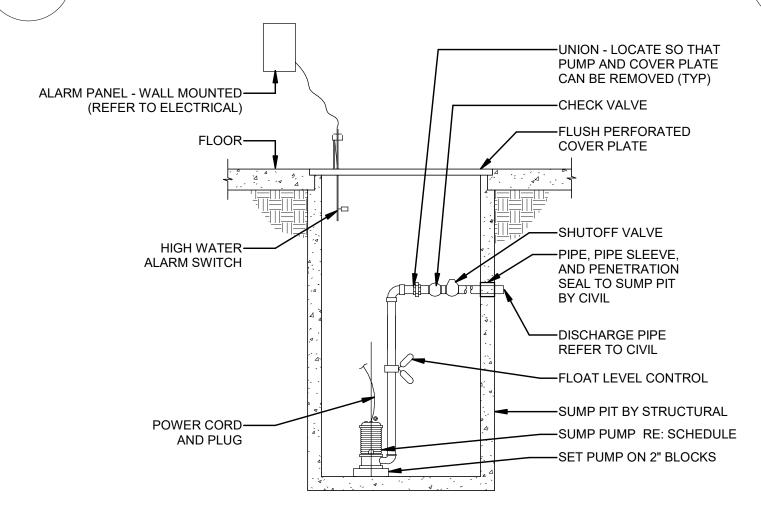


12/12/2022 PROJECT NO W.PENDLETON CHECKED BY S.DEVADKAR DRAWING NO

CADD FILE N0 Autodesk Docs://CHPE Astoria/CHA-KIE-081-00-M3-H-001.rvt

DETAILS SHOWN ON THIS DRAWING ARE TO BE USED AS A GUIDE FOR THE SUPPORT OF MECHANICAL EQUIPMENT, PIPING, DUCTWORK, ETC. PROVIDE SEISMIC CALCULATIONS, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER WITH A MINIMUM OF FIVE YEARS EXPERIENCE IN SEISMIC DESIGN AND MUST HAVE SEISMIC INSURANCE.

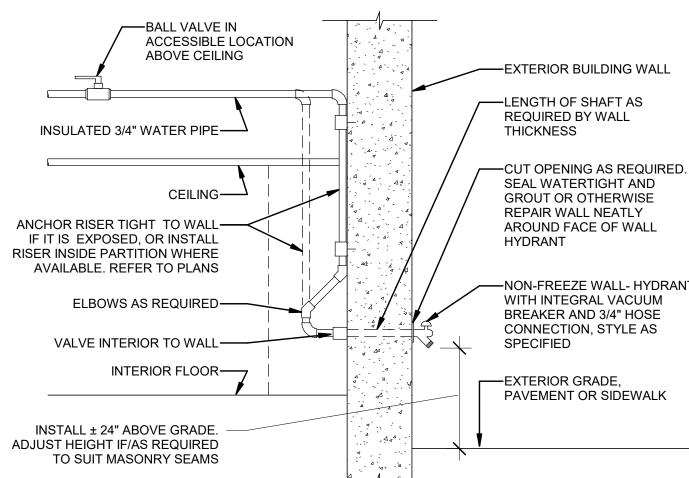
SINGLE ARM BRACE FOR TRAPEZE HUNG PLUMBING PIPING P-601.00 NTS



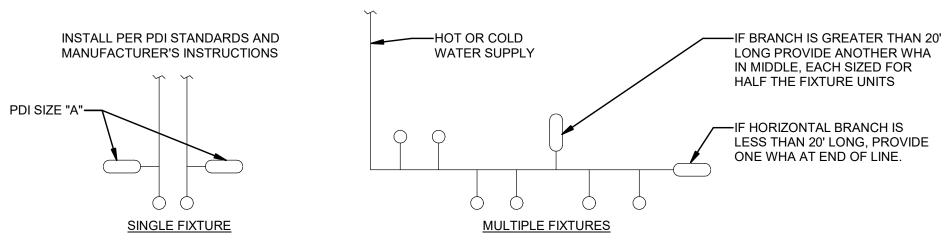
- NOTES:

 1. LEVEL CONTROL IS TYPICALLY A FLOAT.
- 2. DISCHARGE TO STORM FOR TRANSFORMER SUMP PUMP. 3. PROVIDE OIL SENSOR FOR TRANSFORMER SUMP PUMP.
- 4. VENT NORMALLY OMITTED WHEN CONNECTING TO STORM.

SUBMERSIBLE TRANSFORMER SUMP PUMP DETAIL P-601.00 NTS





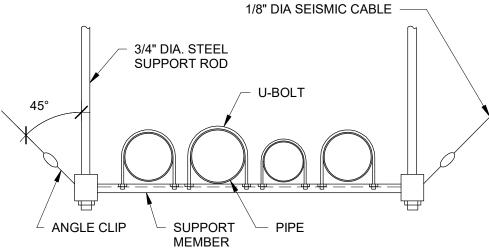


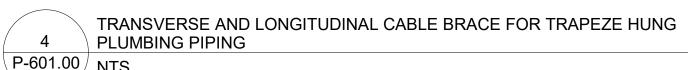
PDI	DIDE	PIPE FIXTURE		WEIGHT IN FIXTURE - UNITS						
SIZE	SIZE	UNIT	FIXTURE	TYPE OF SUPPLY CONTROL		PUBLIC			PRIVATE	
<u> </u>	O.E.E	LOAD			TOTAL	C.W.	H.W.	TOTAL	C.W.	H.W
AA	1/2"	1-3	WATER CLOSET 1.66 GPF	FLUSH VALVE	8	8	-	5	5	-
Α	1/2"	1-11	LAVATORY	FAUCET	2	1.5	1.5	1	1	1
В	3/4"	12-32	SERVICE SINK	FAUCET	3	3	3	-	-	-
С	1"	33-60	ICE MAKER	EQUIPMENT CONNECTION	1	1	-	1	1	-
D	1 1/4"	61-113					1	1	1	
E	1 1/2"	114-154								

DO NOT PROVIDE AIR CHAMBERS. PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF. PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE # 1010, AND ANSI # A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS PER THE TABLES SHOWN ABOVE, BUT NOT LESS THAN WATER CONNECTION SIZE.

WATER HAMMER ARRESTER DETAIL P-601.00 NTS

F 2" 155-330





TRANSVERSE CABLE BRACE FOR TRAPEZE HUNG PLUMBING PIPING P-601.00 NTS

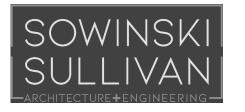
SHEET NOTES:

- REFER TO SHEETS A SERIES FOR ARCHITECTURAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- APPLICATION. REFER TO SHEETS E SERIES FOR BUILDING ELECTRICAL DRAWINGS. NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- APPLICATION. REFER TO SHEETS M SERIES FOR HVAC MECHANICAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- APPLICATION. REFER TO SHEETS P SERIES FOR PLUMBING DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- REFER TO SHEETS S SERIES FOR BUILDING STRUCTURAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
- ALL PLUMBING METALLIC COMPONENTS INSIDE CONVERTOR BUILDING SHALL BE BONDED TO THE BUILDING OR BUILDING RING CONDUCTOR. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR REQUIREMENTS.
- ALL PLUMBING METALLIC COMPONENTS INSTALLED OUTSIDE OF BUILDING SHALL BE BONDED TO GROUND. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR REQUIREMENTS.

ISSUED FOR PERMIT



370 7th Avenue **SUITE 1604** New York, NY 10001



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 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.

В	FINAL SUBMISSION	WP	SD	12-12-22
Α	INTERIM SUBMISSION	WP	AZ	09-13-22
REV	DESCRIPTION	DRW BY	CHK BY	DATE



@Hitachi Energy

901 Main Campus Drive Raleigh, North Carolina 27606



Astoria HVDC Converter Station

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

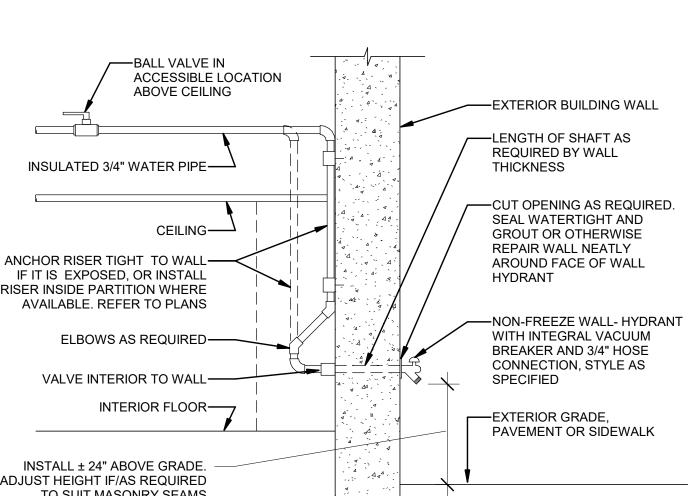
> PLUMBING DETAILS SHEET #2

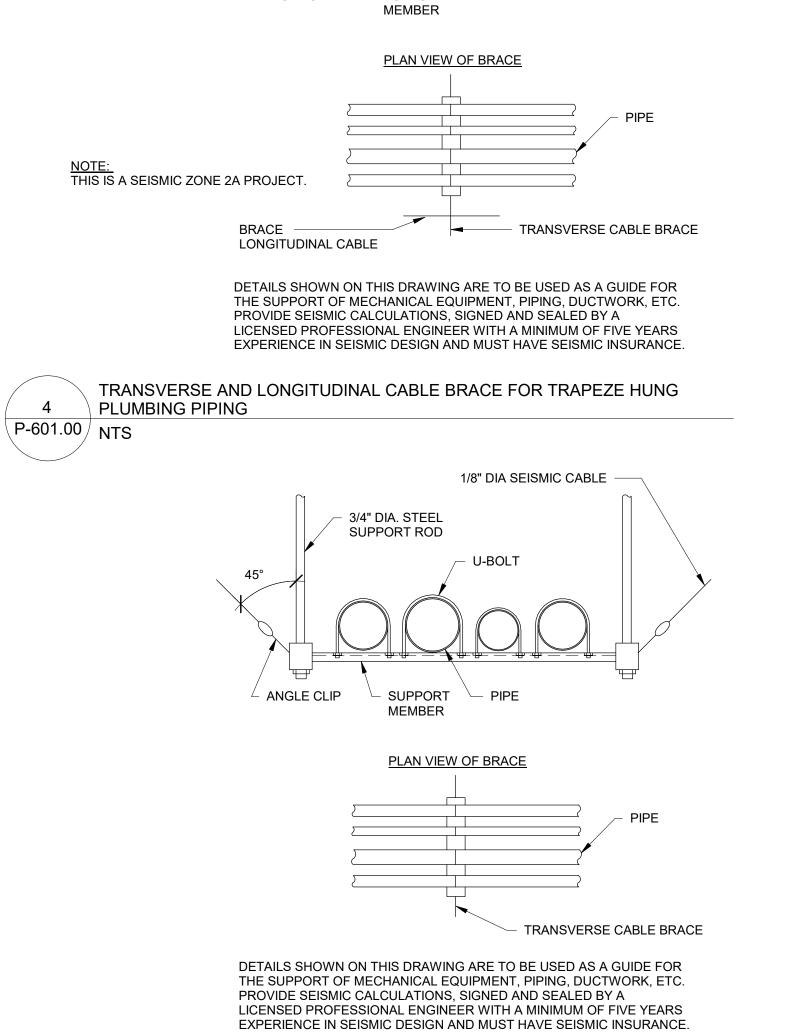


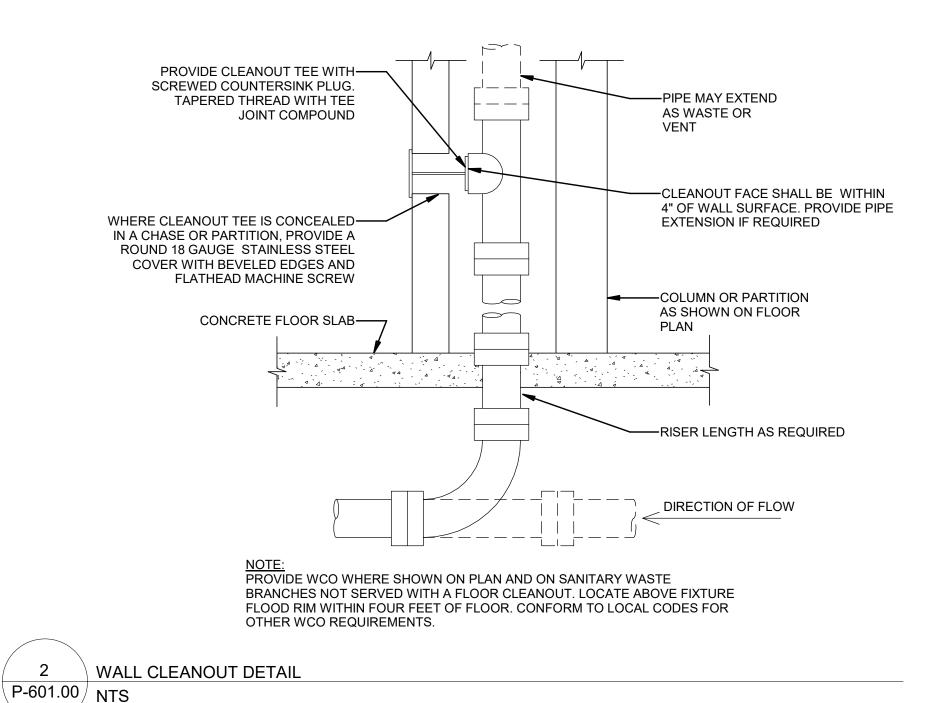
12/12/2022 PROJECT NO W.PENDLETON CHECKED BY S.DEVADKAR DRAWING NO

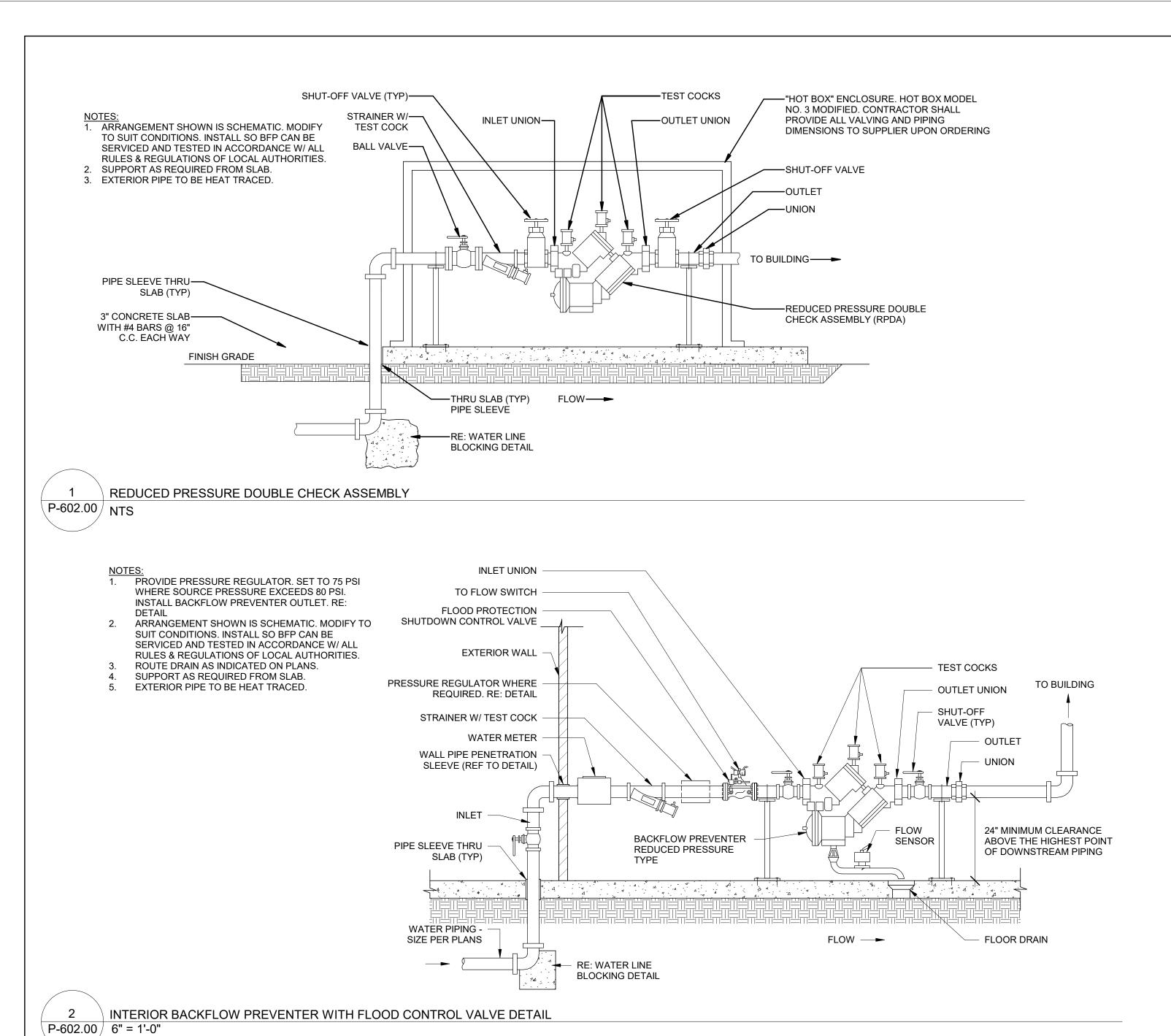
P-601.00

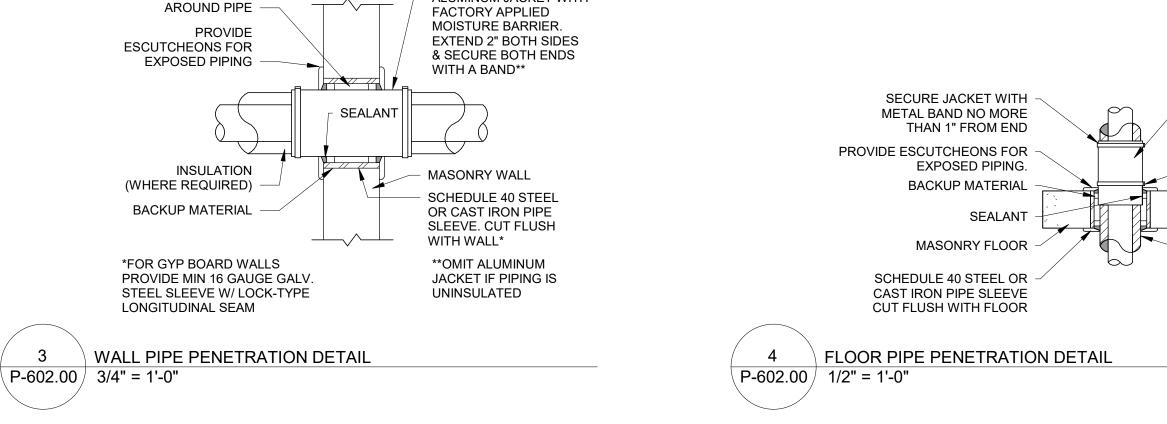
Autodesk Docs://CHPE Astoria/CHA-KIE-081-00-M3-H-001.rvt



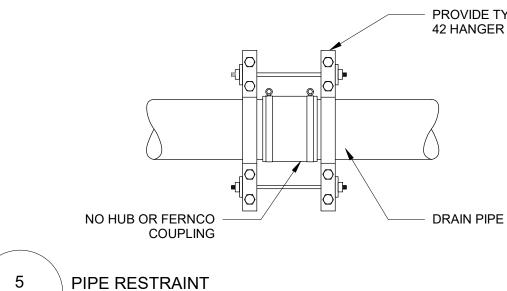








ALUMINUM JACKET WITH



P-602.00 3/4" = 1'-0"

ALUMINUM JACKET WITH FACTORY

APPLIED MOISTURE BARRIER.

METAL BAND NEAR FLOOR

*OMIT ALUMINUM JACKET IF

PIPING IS INSULATED

EXTEND FROM BELOW BACKUP MATERIAL TO 10" ABOVE FLOOR*

INSULATION (WHERE REQUIRED)

PROVIDE TYPE 42 HANGER

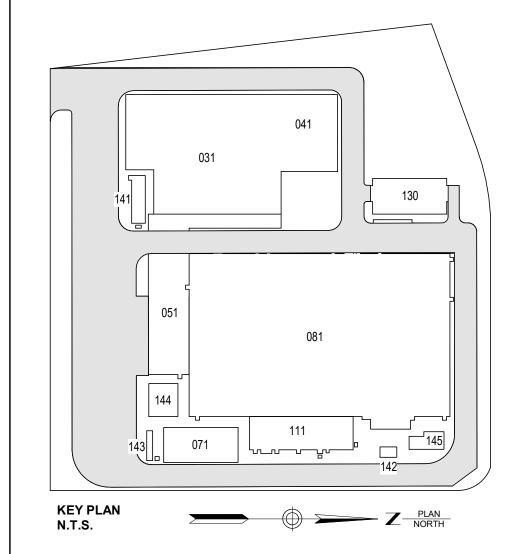
SHEET NOTES:

- REFER TO SHEETS A SERIES FOR ARCHITECTURAL DRAWINGS, NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION.
- REFER TO SHEETS E SERIES FOR BUILDING ELECTRICAL DRAWINGS,
 NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- APPLICATION. REFER TO SHEETS M SERIES FOR HVAC MECHANICAL DRAWINGS, NOTES,
- DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION. REFER TO SHEETS P SERIES FOR PLUMBING DRAWINGS, NOTES, DETAILS,
- SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE APPLICATION. REFER TO SHEETS S SERIES FOR BUILDING STRUCTURAL DRAWINGS. NOTES, DETAILS, SCHEDULES AND REQUIREMENTS. FILED UNDER SEPARATE
- APPLICATION. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL

REQUIREMENTS OF WORK.

- ALL PLUMBING METALLIC COMPONENTS INSIDE CONVERTOR BUILDING SHALL BE BONDED TO THE BUILDING OR BUILDING RING CONDUCTOR. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR REQUIREMENTS.
- ALL PLUMBING METALLIC COMPONENTS INSTALLED OUTSIDE OF BUILDING SHALL BE BONDED TO GROUND. COORDINATE WITH ELECTRICAL PLANS AND CONTRACTOR FOR REQUIREMENTS.

ISSUED FOR PERMIT

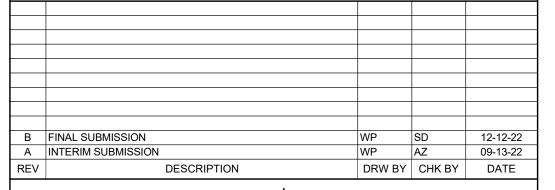


370 7th Avenue **SUITE 1604** New York, NY 10001



25 Mohawk Avenue **Sparta, NJ 07871**

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 LINDERLYING 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.



® Kiewit 470 Chestnut Ridge Rd # 2,

Woodcliff Lake, NJ 07677

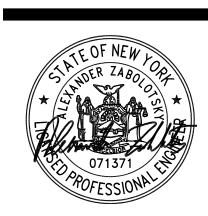
@Hitachi Energy 901 Main Campus Drive Raleigh, North Carolina 27606



Astoria HVDC Converter Station

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





12/12/2022 PROJECT NO 105121 W.PENDLETON CHECKED BY S.DEVADKAR DRAWING NO

P-602.00

CADD FILE NO Autodesk Docs://CHPE Astoria/CHA-KIE-081-00-M3-H-001.rvt

MINIMUM 1/4" GAP ALL

INSTANTANEOUS WATER HEATER SCHEDULE (IWH)					
TAG	IWH-111-01	IWH-111-02	IWH-111-03		
TYPE	INSTANTANEOUS	INSTANTANEOUS	INSTANTANEOUS		
LOCATION	LAV-111-01	MB-111-01	SK-111-01		
MANUFACTURER	RHEEM	RHEEM	RHEEM		
MODEL	RTEX-11	RTEX-24	RTEX-11		
HEATING SOURCE	ELECTRIC	ELECTRIC	ELECTRIC		
POWER INPUT - kW	11	24	11		
ELECTRICAL DATA (V / PH / HZ)	240/1/60	208/1/60	240/1/60		
AMPERAGE (A)	46	100	46		
MINIMUM REQUIRED BREAKER SIZE	50	(3) 40	50		
MAXIMUM TEMP. RISE	50 @ 1.5 GPM	66 @ 2.5 GPM	50 @ 1.5 GPM		
WATER CONNECTION SIZE (.in)	1/2"	3/4"	1/2"		
MAXIMUM WORKING PRESSURE (PSI)	150	150	150		
ENERGY EFFICIENCY (%)	99.8	99.8	99.8		
APPROXIMATE FULL WEIGHT (lbm)	8.5	18	8.5		
REMARKS	1,2	1,2	1,2		
GENERAL NOTES:	1	'			
. PROVIDE ASME TEMPERATURES AND PRESSURE RELIEF VAL	VE FOR WATER HEATER.				

2. PROVIDE VACCUM RELIEF VALVE FOR WATER HEATER.

FLOOR CLEANOUT SCHEDULE								
SYMBOL DESCRIPTION MINIMUM CONNECTION SIZE NOTES								
STIVIDOL	DESCRIPTION	WASTE (in)	VENT (in)	NOTES				
FCO-01	FLOOR CLEANOUT	4"	NA	WATTS CO-200-R, EPOXY COATED CAST IRON FLOOR CLEANOUT WITH 5" ROUND ADJUSTABLE GASKETED NICKEL BRONZE TOP AND NO-HUB CONNECTION				
NOTES: 1. PROVIDE MINIMUM CONNECTION SIZE SCHEDULED UNLESS INDICATED OTHERWISE.								

WATER HAMMER ARRESTOR SCHEDULE						
PDI SIZE	REMARKS	WATER SUPPLY FIXTURE UNITS (NOTE 3)				
А	STAINLESS STEEL	1-11				
С	STAINLESS STEEL	33-60				
NOTES: 1. PDI ABBREVIATION: PLUMBING AND DRAINAGE INSTITUTE.						
2. WATER HAMMER ARRESTOR SIZE DESIGNATOR IS IN REFERENCE TO THE PLUMBING						

3. PROVIDE THE MAXIMUM NUMBER OF WATER SUPPLY FIXTURE UNIT FIXTURE A WATER

4. SEE TABLE E103.3(2) OF THE 2009 INTERNATIONAL PLUMBING CODE FOR WATER SUPPLY

AND DRAINAGE INSTITUTE PUBLICATION PDI-WH-201.

FIXTURE UNITS VALVÈS ASSIGNED TO FIXTURES.

HAMMER ARRESTOR SHALL SERVE.

5. JR SMITH 5005-5050

Engineering and Land Surveying, P.C.

370 7th Avenue **SUITE 1604** New York, NY 10001



25 Mohawk Avenue **Sparta, NJ 07871**

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 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.

ISSUED FOR PERMIT

В	FINAL SUBMISSION	WP	SD	12-12-22
Α	INTERIM SUBMISSION	WP	AZ	09-13-22
RFV	DESCRIPTION	DRW BY	CHK BY	DATE



901 Main Campus Drive Raleigh, North Carolina 27606



Astoria HVDC **Converter Station**

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

SERVICE BUILDING PLUMBING - SCHEDULES

JE OF NEW L
STATE OF NEW POR
TEOF NEW JOB *
Self to the self t
The state of the s
071371
POFESSIONAL
6, 52210.

DATE	12/12/2022
PROJECT NO	105121
DRAWING BY	W.PENDLETON
CHECKED BY	S.DEVADKAR
DRAWING NO	

P-700.00

				FIX	TURE	FITTING					MOUNTING	(CONNEC	TION SIZE	<u>:</u>
SYMBOL	DESCRIPTION	BUILDING	BASIS OF DESIGN	TYPE	SIZE (in)	TYPE	SUPPLY	TRAP	CARRIER	REMARKS	HEIGHT	C.W. (in)	H.W. (in)	WASTE (in)	VEN (in)
EWC-01	ELECTRIC WATER COOLER	SERVICE	ELECTRIC (120/1) WATER COOLER: ELKAY DRINKING FOUNTAIN MODEL # EMABFTL8WSLK		36.25" L x 18.6" W x 46.25" H	LEAD-FREE BUBBLER FRONT PUSH BAR, ADA, 115V, 8 GPH, BOTTLE FILLER (ELKAY MODEL EZWSR)	3/8" SUPPLY LOOSE KEY ANGLE STOP C.P. ESCUTCHEON	1 1/4" CAST BRASS W/ CLEANOUT PLUG	WALL MOUNTED WITH BRACKET	STANDARD GRAY COLOR	ORIFICE HT. 39-1/2" AND 33" AFF ACCESSIBLE	3/8"	N/A	1 1/2	1 1/2
L-01	PUBLIC LAVATORY	SERVICE	LAVATORY: AMERICAN STANDARD, LUCERNE MODEL 0355.012; FAUCETS: CHICAGO FAUCET, LOW FLOW (0.35 GPM) MODEL #: 420-ABCP	WALL-MOUNTED, WHITE VITREOUS CHINA	RECTANGULAR SHAPE 20.5" X 18.3"	POINT OF USE THERMOSTATIC MIXING VALVE HAVING A TEMPERATURE SETPOINT OF 104°F, PROVIDE SENSOR OPERATED AUTOMATIC VALVE AS RECOMMENDED BY FAUCET MANUFACTURER	1/2" SUPPLY LOOSE KEY ANGLE STOP C.P. ESCUTCHEON	1 1/4" POLISHED CHROME PLATED BRASS TRAP	HANGER PLATE LAVATORY CARRIER	CHROME FINISH FAUCET, CHROME FINISH DRAIN STRAINER, PLUMBEREX X4333 INSULATED P-TRAP AND VALVE SUPPLY COVER	SEE ARCHITECTURAL	1/2	1/2	1 1/2	1 1/2
MB-01	MOP BASIN	SERVICE	BASIN: GRIFFIN PRODUCTS, INC., MODEL UM-202; FAUCET: CHICAGO FAUCETS, MODEL # 540- LD897SCP	16 GAUGE, 304 STAINLESS STEEL	20" X 20" X 8"-DEEP WITH 1 1/2" SPLASH PANELS	SWIVEL SPOUT, WALL MOUNT, 8" CENTERS, POINT OF USE THERMOSTATIC MIXING VALVE	1/2"	3" CAST IRON P- TRAP	N/A	VACUUM BREAKER, PAIL HOOK, WALL BRACED	SUPPLY - 36" AFF BASIN - FLOOR MOUNTED	1/2	1/2	3	2
SK-01	SINK	SERVICE	SINK: ELKAY MODEL # D22519 FAUCET: CHICAGO FAUCETS, MODEL# 1100- G2E3-317AB	22 GAUGE 300 SERIES STAINLESS STEEL, DROP-IN, CENTER DRAIN	25" X 19" X 6.5"	1.5 GPM, DECK MOUNT, 8" FIXED CENTERS, AERATOR, ADA	1/2" SUPPLY LOOSE KEY STOP C.P. ESCUTCHEON	1 1/2" PVC TRAP	NA	CHROME FINISH FAUCET, CHROME DRAIN, 240v-0.37 kW DISPOSER	SEE ARCHITECTURAL	1/2	1/2	1 1/2	1 1/2
WB-01	WALL BOX	SERVICE	WALL BOX: OXBOX MODEL# 696-G1010MF	WATER SUPPLY OUTLET BOX WITH WATER HAMMER ARRESTER	4" W X 3.5" D X 5.5" H	STUD MOUNTED, BALL VALVE, WATER HAMMER ARRESTER, FRAME, COVER,		NA	NA	1/4" COMPRESSION FITTING OUTLET, COORDINATE HEIGHT WITH COUNTERTOP AND EQUIPMENT AS REQUIRED	SEE DRAWINGS	3/8	N/A	N/A	N/A
WC-01	PUBLIC WATER CLOSET (ADA)	SERVICE	WATER CLOSET: AMERICAN STANDARD, WHITE WM AFWALL MODEL 3351.001; FLUSH VALVE: SLOAN, MODEL ROYAL #113-1.28	BACK OUTLET, WALL- MOUNTED, WHITE VITREOUS CHINA	BOWL 21" X 16.5" X 15"	EXPOSED MANUAL FLUSH VALVE, TOP SPUD (1.28 GPF)	1 1/2" SUPPLY WITH 1/2" ANGLE STOP	INTEGRAL	ANSI RATED FOR 300 lb	1 1/2" TOP SPUD, OLSONITE # 95SS OPEN FRONT SEAT LESS COVER WITH SELF- SUSTAINING CHECK HINGE	RIM AT 17" AFF	1	N/A	4	2
WH-01	WALL HYDRANT	SERVICE	WOODFORD; MODEL 24	ANTI-SIPHON WALL FAUCET	STANDARD	WHEEL HANDLE AND LOOSE TEE KEY MAX 125 PSI	1/2" SWEAT x 3/4" MHT	NA	NA	CHROME	24" AFF	3/4"	N/A	N/A	N/A
FD-01	FLOOR DRAIN	SERVICE	ZURN MODEL#: EZ1-6	SQUARE FLOOR DRAIN WITH NICKEL BRONZE STRAINER	N/A	COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TOP ASSEMBLY.	N/A	ZSHIELD BARRIER TRAP SEAL, OUTLET WITH TRAP	N/A	COORDINATE OUTLET SIZE WITH PLANS	N/A	N/A	N/A	2	N/A
FS-01	FLOOR SINK	SERVICE	WADE 9100	SQUARE FLOOR SINK	12" X 12"	12X12 ACID RESISTANT COATING, SEEPAGE CONTROL FLANGET, REMOVABLE ABS SEDIMENT BUCKET, 10" LOOSE BODY	N/A	3" P-TRAP	N/A	PROVIDE WITH LOOSE SET 3/4 GRATE	N/A	N/A	N/A	3	2

1. POINT OF USE OF THERMOSTATIC MIXING VALVES SHALL BE SUITABLE FOR THE FLOW RATES OF FIXTURE SERVED. IMPROPERLY SELECTED THERMOSTATIC MIXING VALVES MAY RESULT IN INSTABILITU OF MIXED FLOW TEMPERATURE. POINT OF USE THERMOSTATIC MIXING VALVES FOR WASHING PURPOSES SHALL HAVE FACTORY SET MIXED FLOW TEMPERATURE OF 110°F (UNLESS NOTED OTHERWISE ABOVE) AND SHALL CONFIRM TO ASSE 1017

DIVISION	SERVICE	LOCATION	SIZE RANGE	MATERIAL	STANDARD INSULATION MATERIAL	OTHER INSULATION MATERIAL OPTIONS	JACKETING	REMARKS
		UNDERGROUND	UP TO 10 INCH	PIPE: SOLID-WALL PVC PIPE, PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS: ASTM D 2665, DRAIN, WASTE, AND VENT, SCHEDULE 40. FITTINGS: PVC SOCKET FITTINGS, ASTM D 2665, SOCKET TYPE, MADE TO ASTM D 3311 DRAIN, WASTE, AND VENT PATTERNS.	-		-	-
22 - PLUMBING	SOIL , WASTE	ABOVE GROUND	UP TO 10 INCH	PIPE: HUBLESS CAST-IRON PIPE AND FITTINGS OR DWV COPPER PIPING WITH HUBLESS FITTINGS OR DWV COPPER PIPE WITH WROUGHT-COPPER DRAINAGE FITTINGS AND SOLDER JOINTS. FITTINGS: ALL HUBLESS CAST-IRON FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM A-888 OR CISPI 301 AS APPLICABLE. COUPLINGS, BOTH AT HORIZONTAL AND VERTICAL JOINTS, SHALL BE CLAMPED AND RESTRAINED WHERE REQUIRED AND IN ACCORDANCE WITH CISPI 301. COPPER DWV TUBE SHALL MEET THE REQUIREMENTS OF ASTM B306.	-		-	-
22 - PLUMBING	VENT	UNDERGROUND	UP TO 4 INCH	PIPE: SOLID-WALL PVC PIPE, PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS: ASTM D 2665, DRAIN, WASTE, AND VENT, SCHEDULE 40. FITTINGS: PVC SOCKET FITTINGS, ASTM D 2665, SOCKET TYPE, MADE TO ASTM D 3311 DRAIN, WASTE, AND VENT PATTERNS.	-		-	-
		ABOVE GROUND	ABOVE GROUND UP TO 4 INCH WITH HUBLESS FITTINGS (ASTM A-888 OR CISPI 301), OR DWV COPPER PIPE WITH WROUGHT-COPPER DRAINAGE FITTINGS AN SOLDER JOINTS. COPPER PIPE SHALL MEET ASTM B306 REQUIREMENTS.	1.5" CELLULAR GLASS	GLASS-FIBER, TYPE I MINERAL WOOL, TYPE II	ASJ	1	
22 - PLUMBING	CONDENSATE DRAIN	ABOVE GROUND	UP TO 4 INCH	PIPE: SOLID-WALL PVC PIPE, PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS: ASTM D 2665, DRAIN, WASTE, AND VENT, SCHEDULE 40. FITTINGS: PVC SOCKET FITTINGS, ASTM D 2665, SOCKET TYPE, MADE TO ASTM D 3311 DRAIN, WASTE, AND VENT PATTERNS. PIPE: SOFT COPPER TUBE, ASTM B 88, TYPE K (ASTM B 88M, TYPE A) FITTINGS: ASME 16.22 & ASTM B75/B75M, WROUGHT-COPPER, SOLDER-JOINT FITTINGS; AND BRAZED JOINTS.	1.5" CELLULAR GLASS	GLASS-FIBER, TYPE I MINERAL WOOL, TYPE II	ASJ	5
22 - PLUMBING	DOMESTIC WATER INDOOR	UNDERGROUND	UP TO 4 INCH	PIPE: SOFT COPPER TUBE, ASTM B 88, TYPE K (ASTM B 88M, TYPE A) FITTINGS: ASME 16.22 & ASTM B75/B75M, WROUGHT-COPPER, SOLDER-JOINT FITTINGS; AND BRAZED JOINTS.	-		-	-
22 - PLUMBING	FIRE / DOMESTIC WATER SERVICE	UNDERGROUND	2-6 INCH	PIPE: AWWA C151, DUCTILE IRON FITTINGS: AWWA C111. MECH JOINTS	-		-	-
22 - PLUMBING	DOMESTIC WATER INDOOR	ABOVE GROUND	UP TO 6 INCH	PIPE: ASTM B88, TYPE L DRAWN TEMPER SEAMLESS COPPER TUBE. FITTINGS: ASME B16.22 WROUGHT COPPER OR ASME B16.18 CAST-COPPER ALLOY. FLANGES: ASME B16.24, CLASS 150 CAST BRONZE FLANGES WITH SOLDER JOINT ENDS. UNIONS: ASME B16.18 CAST-COPPER ALLOY, HEXAGONAL STOCK BODY WITH BALL-AND-SOCKET JOINT, METAL-TO-METAL SEATING SURFACES, AND SOLDER JOINT AND/OR THREADED ENDS.	1.5 INDOORS CELLULAR GLASS 2" OUTDOORS CELLULAR GLASS	FLEXIBLE ELASTOMETRIC GLASS-FIBER, TYPE I MINERAL WOOL, TYPE II PHENOLIC POLYOLEFIN	ASJ	3

REMARKS:

ASJ

PVC

- 1. INSULATE PLUMBING VENTS WITHIN 6 FEET OF ROOF OUTLET.
- 2. INSULATE ALL DOMESTION HOT WATER, TEMPERED WATER, AND COLD WATER PIPING.
- 3. INSULATE CONDENSATE DRAINAGE PIPING.
- 4. INSULATE HYDRONIC PIPING CHILLED WATER / HOT WATER.

JACKET MATERIALS:

WHITE, KRAFT-PAPER, FIBERGLASS-REINFORCED SCRIM WITH ALUMINUM-FOIL BACKING; COMPLYING WITH ASTM C 1136, TYPE I.

ALUM ASTM B209, TEMPER H14, MINIMUM THICKNESS OF 0.016 INCH, WITH FACTORY-APPLIED POLYETHYLENE AND KRAFT PAPER MOISTURE BARRIER ON THE INSIDE SURFACE

GLASS PLAIN-WEAVE GLASS CLOTH CONFORMING TO ASTM D579/, STYLE 141, WEIGHING NOT LESS THAN 7.23 OUNCES PER SQUARE YARD BEFORE SIZING. FACTORY APPLY CLOTH WHEREVER POSSIBLE.

PROVIDE 0.010 INCH THICK, FACTORY-PREMOLDED POLYVINYLCHLORIDE, PIPE-BARREL SHEETING VAPOR-BARRIER JACKETING THAT IS SELF-EXTINGUISHING, WITH HIGH-IMPACT STRENGTH AND MODERATE CHEMICAL RESISTANCE.

	PLUMBING BOOSTER PUMP SCHEDULE																
	UNIT DATA			BASIS OF DESIGN	- DESIGN						ELECTRIC	CAL DATA	Д		GENERAL DATA		
TAG	LOCATION	FUNCTION	MANUFACTURER	MODEL	QUANTITY	FLUID TYPE	FLOW (GMP)	EXT WPD (FT HD)	HP	RPM	VOLTS	Ø	HZ	AMPS	WEIGHT (LBS)	SCHEDULE NOTES	
BP-2	CLEANING ROOM	BOOSTER	GROUNDFOS	CMBE-TWIN 10-54	2 (DUPLEX)	WATER	50	35	(2) 2	3868	208V	1	60	18.20	290	1,2,3,4	

NOTES:

- 1. PROVIDE INERTIA BASE.
- 2. PROVIDE ALL BRONZE/ STEEL CONSTRUCTION.

 3. PROVIDE BLIMB MOUNTED CONTROL BANEL AND DISCONN.
- 3. PROVIDE PUMP MOUNTED CONTROL PANEL AND DISCONNECT.
- 4. PROVIDE WITH BMS INTERFACE.
- 5. PROVIDE NEMA 3R FOR OUTDOOR OR 4X WET LOCATIONS.
- 6. PROVIDE WITH ASSE 1060 STANDARD CLASS ONE SAFE-T-COVER 800D-AL WITH 2000W SERIES HCH HEATER. PROVIDE HEATER WITH CONDIUIT, MOUNTING ACCESSORIES, FITTINGS AND LIQUID TIGHT THERMOSTAT.

BACKFLOW PREVENTER SCHEDULE												
SYMBOL	DESCRIPTION	LOCATION	SYSTEM	MODEL	SIZE (IN)	FLOW (GPM)	PRESSURE DROP (PSI)	SHUT-OFF VALVES	MAX DESIGN TEMP (°F)	MAX WORKING PRESSURE (PSI)	HYDROSTATIC TEST PRESSURE (PSI)	NOTES
BFP-1	REDUCED PRESSURE BACK FLOW PREVENTER	CLEANING ROOM	LOW PRESSURE	WATTS (LF919/994)	3/4" - 2"	65	10	BALL	180	175	350	1,2

NOTES:

- 1. MOUNT WITHIN 48" OF FINISHED FLOOR.
- FURNISH AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM OF EACH UNIT AND ADDITIONAL VALVE UPSTREAM OF EACH STRAINER.
 PROVIDE WITH ASSE 1060 STANDARD CLASS ONE SAFE-T-COVER 800D-AL WITH 2000W SERIES HCH HEATER. PROVIDE HEATER WITH CONDIUIT, MOUNTAIN ASSESTANCE OF THE PROVIDE HEATER WITH CONDIUNT, MOUNTAIN ASSESTANCE OF THE PROVIDE OF
- 3. PROVIDE WITH ASSE 1060 STANDARD CLASS ONE SAFE-T-COVER 800D-AL WITH 2000W SERIES HCH HEATER. PROVIDE HEATER WITH CONDIUIT, MOUNTING ACCESSORIES, FITTINGS AND LIQUID TIGHT THERMOSTAT. PROVIDE HINGED DOOR FOR DRAIN.

ISSUED FOR PERMIT



370 7th Avenue SUITE 1604 New York, NY 10001



25 Mohawk Avenue Sparta, NJ 07871

CONFIDENTI

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 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.

В	FINAL SUBMISSION	WP	SD	12-12-22
Α	INTERIM SUBMISSION	WP	AZ	09-13-22
REV	DESCRIPTION	DRW BY	CHK BY	DATE



Hitachi Energy901 Main Campus DriveRaleigh, North Carolina 27606

PROJECT

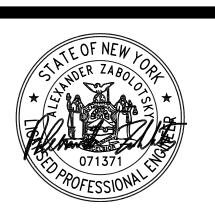


Astoria HVDC Converter Station

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

SERVICE BUILDING

PLUMBING - SCHEDULES



DATE 12/12/2022
PROJECT NO 105121
DRAWING BY W.PENDLETON
CHECKED BY S.DEVADKAR
DRAWING NO

P-701.00

CADD FILE NO
Autodesk Docs://CHPE
Astoria/CHA-KIE-081-00-M3-H-001.rvt