TOWN OF HAVERSTRAW PLANNING BOARD

NOTICE OF PUBLIC HEARING

Please take notice that the Town of Haverstraw Planning Board does hereby schedule a Public Hearing to consider the application of Orange & Rockland Utilities, (227 Quaker Road, Pomona) for Site Plan Approval to install four geothermal boreholes, piping and Ground Source Heat Pump ("GSHP") equipment and an approximately 240-square foot building addition to be used as a mechanical room for the new GSHP equipment.

Said property being located on the South side of Quaker Road and located on the Town of Haverstraw Tax Map as
Section: 25.14, Block: 02, Lot: 05.

Said Public Hearing shall be held on Wednesday, April 12, 2023 at 7:30 PM in the large meeting room of Haverstraw Town Hall, One Rosman Road, Garnerville.

All interested parties are invited to attend and will be heard by the Board.

By Order of the Planning Board of the Town Of Haverstraw

Sal Corallo, Chairman
Christie Tomm Addona, Planning Board Attorney
Annette Hendrie, Senior Clerk

March 17, 2023

Rockland County
HEALTH

CENTER FOR ENVIRONMENTAL HEALTH
Dr. Robert L. Yeager Health Center
50 Sanatorium Road, Building D
Pomona, New York 10970
Phone: (845) 364-2608 Fax: (845) 364-2025

Public Health
Prevent. Promote. Protect.

EDWIN J. DAY
County Executive

PATRICIA S. RUPPERT, DO, MPH, CPE, DABFM, FAAFP
Commissioner of Health

SAMUEL RULLI, PE
Director, Environmental Health

March 21, 2023

Ms. Annette Hendrie
Town of Haverstraw
One Rosman Road
Garnerville, NY 10923

RECEIVED
MAR 2 4 2023
TOWN OF HAVERSTRAW
BUILDING DEPARTMENT

Re: Orange & Rockland Utilities
Site Plan
Tax lot 25.14-2-5

Dear Ms. Hendrie:

We have received an application and plans as prepared by Fellenzer Engineering LLP, revised through January 5, 2023, for the above referenced project. Comments are as follows:

1. Application is to be made to the Rockland County Health Department for the geothermal wells.

If you have any questions regarding this matter, do not hesitate to call.

Very truly yours,

Elizabeth Mello, P.E.
Senior Public Health Engineer
(845) 364-2616

cc: Michael Kezner, Rockland County Department of Planning
James Torres., P.E., RCDOH (via email)
Jeremy Erlich, RCDOH (via email)

Rockland County

Ed Day, Rockland County Executive

HIGHWAY DEPARTMENT
23 New Hempstead Road
New City, New York 10956
Phone: (845) 638-5060 Fax: (845) 638-5037
Email: highway@co.rockland.ny.us

Charles H. "Skip" Vezzetti
Superintendent of Highways

RECEIVED
MAR 08 2023
BUILDING DEPARTMENT

March 06, 2023

Ms. Annette Hendrie
Senior Clerk
Town of Haverstraw
One Roseman Road
Garnerville, NY 10923

Re: Site Plan Review for HVAC Upgrade at O & R Facility
227 Quaker Road in Pomona, NY
Tax Lot #25.24-2-5; R-25 Zoning District

Dear Ms. Hendrie:

The Rockland County Highway Department ("RCHD") was in receipt of your referral letter dated 02.27.23, related to the above project. The site plan was prepared by Fellenzer Engineering, LLP., last updated on 01.05.23.

Upon our preliminary review of the application, the RCHD determines that the site in question is located out of the RCHD jurisdiction that does not require a GML review. The department has no further comments.

Please feel free to contact us at 845 638 5060 with any question or concern you may have regarding this matter.

Thank you.

Dyan Rajasingham
Engineer III

CC: Rockland County Department of Planning
Fellenzer Engineering, LLP. – Consulting Engineers

Rockland County
Ed Day, Rockland County Executive

DRAINAGE AGENCY
DIVISION OF THE HIGHWAY DEPARTMENT
23 New Hempstead Road
New City, New York 10956
Phone: (845) 638-5060; Fax: (845) 708-7116

Charles H. "Skip" Vezzetti
Superintendent of Highways
Chairman, Drainage Agency

Vincent Altieri, Esq.
Executive Director

Via email: atorres@townofhaverstraw.org

RECEIVED
MAR 07 2023
BUILDING DEPARTMENT

March 7, 2023

Town of Haverstraw
One Rosman Road
Garnerville, NY 10923
Attn.: Ms. Annette Hendrie, Clerk to the Planning Board

Re: ORU - Mt. Ivy Geothermal HVAC Upgrades
Location: 227 Quaker Road, Pomona NY 10970
Parcel ID(s): Section 25.14, Block 2, Lot(s) 5
Municipality Town of Haverstraw
Resource: Minisceongo Creek

Dear Planning Board Members:

The Rockland County Drainage Agency (RCDA) has reviewed the above referenced proposal as prepared by Ryan Fellenzer P.E., Fellenzer Engineering LLP, dated/last revised 01/05/2023, included with the municipal referral dated 2/27/2023. Based on a review, the RCDA offers the following comment(s):

1) The above referenced site is within the jurisdiction of the RCDA, pursuant to the Rockland County Stream Control Act, and therefore, a Stream Control Act permit from the RCDA is required for the current proposal. Please have the applicant submit an application to the RCDA directly. The RCDA will provide project specific comments upon receipt and review of the permit application submission. Copies of permit application package and Chapter 846: Rockland County Stream Control Act are being mailed to the property owner with a copy of this letter and are also available at the County website, within Highway Department, Drainage Division.

2) By copy of this letter the RCDA is notifying municipal land use boards and departments that the site is within the jurisdiction of the RCDA, pursuant to the Rockland County Stream Control Act, Chapter 846, as noted above. All future development proposals for this site will require a review and a written determination from the RCDA as to whether a permit is required. The RCDA recommends that the municipal departments ensure the site has no outstanding violations and the applicant has secured the required permit from the RCDA, prior to granting development permits.

Please contact the undersigned at (845) 638-5060 or by email: dergutil@co.rockland.ny.us, if you have any questions regarding this matter.

Very truly yours,
Liron Derguti
Liron Derguti, Engineer I
Rockland County Drainage Agency

c: William Beattie, Orange & Rockland Utilities, 390 West Route 59, Spring Valley, NY 10977, (with encl./attach.)
By email: beattiew@oru.com & Certified Mail, Article No. : 7021 2720 0001 1864 1860
Vincent Altieri, Esq., RCDA
Building Department, Town of Haverstraw — *gbehn@townofhaverstraw.org*
Zoning Board of Appeals, Town of Haverstraw — *atorres@townofhaverstraw.org*
Rockland County Planning Department — *(by email)*
Joseph LaFiandra, Rockland County Sewer District No. 1 — *(by email)*
File — *(File: 23 HMiR 13)*

Town of Haverstraw
One Rosman Road
Garnerville, NY 10923

GML MAILING LIST

February 27, 2023

Re: Orange & Rockland Utilities
227 Quaker Rd., Pomona

1. **Rockland County Dept. of Planning**
   50 Sanatorium Rd., Bldg. T, Pomona, NY 10970
   Attention: Michael Kezner

2. **Rockland County Highway Dept.**
   23 New Hempstead Road, New City, NY 10956
   Attention: Dyan Rajasingham

3. **Rockland County Drainage Agency**
   23 New Hempstead Road, New City, NY 10956
   Attention: Shajan Thottakara

4. **Rockland County Dept. of Health**
   50 Sanatorium Road, Bldg. D
   Pomona, NY 10970
   Attention: Liz Mello

5. **Rockland County Office of Fire & Emergency Services**
   35 Firemens Memorial Drive
   Pomona, NY 10970
   Attention: Chris Jensen

6. **NYS Dept. of Transportation** **Region 8-6**
   275 Ridge Road
   New City, NY 10956
   Attention: Brandon Robuck, PE

7. **R.C. Environmental Resources**
   50 Sanatorium Road, Bldg. K
   Pomona, NY 10970
   Attention: Michael DiMola

8. **Palisades Interstate Park**
   PO Box 427
   Bear Mountain, NY 10911
   Attention: Engineering

ORIGINAL
FOR OFFICE FILE

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD, GARNERVILLE, NY 10923

PHONE 845-429-2200 FAX 845-786-7647

SAL CORALLO, PLANNING BOARD CHAIRMAN

CHRISTIE ADDONA, ATTORNEY **ANNETTE HENDRIE, SECRETARY**

February 27, 2023

R.C Dept. of Planning
50 Sanatorium Rd., Bld. T
Pomona, NY 10973
Attention: Michael Kezner

Re: Orange & Rockland Utilities
227 Quaker Road, Pomona
Sect: 25.14 Block: 02 Lot(s): 05

Dear Mr. Kezner:

Enclosed please find the following for your review:

- Site Plan Application dated 01/18/2022
- Site Plan prepared by Fellenzer Engineering LLP dated September 26, 2022; last revised January 05, 2023
- Short EAF (Part I)dated December 02, 2022

Please submit comments to:
Town of Haverstraw Planning Board
One Rosman Road, Garnerville, NY 10923
Annette Hendrie, Secretary

If you have any questions please feel free to contact me at 845-942-3710.

Sincerely,

Annette Hendrie
Annette Hendrie
Secretary to the Boards

ORIGINAL
FOR OFFICE FILE

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD, GARNERVILLE, NY 10923

PHONE 845-429-2200 FAX 845-786-7647

SAL CORALLO, PLANNING BOARD CHAIRMAN

CHRISTIE ADDONA, ATTORNEY **ANNETTE HENDRIE, SECRETARY**

February 27, 2023

R.C Dept. of Highway
23 New Hempstead Rd.
New City, NY 10956
Attention: Dyan Rajasingham

Re: Orange & Rockland Utilities
227 Quaker Road, Pomona
Sect: 25.14 Block: 02 Lot(s): 05

Dear Mr. Rajasingham:

Enclosed please find the following for your review:

- Site Plan Application dated 01/18/2022
- Site Plan prepared by Fellenzer Engineering LLP dated September 26, 2022; last revised January 05, 2023
- Short EAF (Part I)dated December 02, 2022

Please submit comments to:
Town of Haverstraw Planning Board
One Rosman Road, Garnerville, NY 10923
Annette Hendrie, Senior Clerk

If you have any questions please feel free to contact me at 845-942-3710.

Sincerely,

Annette Hendrie
Annette Hendrie
Senior Clerk

ORIGINAL
FOR OFFICE FILE

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD, GARNERVILLE, NY 10923

PHONE 845-429-2200 FAX 845-786-7647

SAL CORALLO, PLANNING BOARD CHAIRMAN

CHRISTIE ADDONA, ATTORNEY **ANNETTE HENDRIE, SECRETARY**

February 27, 2023

R.C Drainage Agency
23 New Hempstead Rd.
New City, NY 10956
Attention: Shajan Thottakara

Re: Orange & Rockland Utilities
227 Quaker Road, Pomona
Sect: 25.14 Block: 02 Lot(s): 05

Dear Mr. Thottakara:

Enclosed please find the following for your review:

- Site Plan Application dated 01/18/2022
- Site Plan prepared by Fellenzer Engineering LLP dated September 26, 2022; last revised January 05, 2023
- Short EAF (Part I)dated December 02, 2022

Please submit comments to:
Town of Haverstraw Planning Board
One Rosman Road, Garnerville, NY 10923
Annette Hendrie, Senior Clerk

If you have any questions please feel free to contact me at 845-942-3710.

Sincerely,

Annette Hendrie
Annette Hendrie
Senior Clerk

ORIGINAL
FOR OFFICE FILE

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD, GARNERVILLE, NY 10923

PHONE 845-429-2200 FAX 845-786-7647

SAL CORALLO, PLANNING BOARD CHAIRMAN

CHRISTIE ADDONA, ATTORNEY **ANNETTE HENDRIE, SECRETARY**

February 27, 2023

R.C Dept. of Health
50 Sanatorium Rd.- Bldg. D
Pomona, NY 10970
Attention: Liz Mello

Re: Orange & Rockland Utilities
227 Quaker Road, Pomona
Sect: 25.14 Block: 02 Lot(s): 05

Dear Mrs. Mello:

Enclosed please find the following for your review:

- Final Site Plan Application dated 01/18/2022
- Site Plan prepared by Fellenzer Engineering LLP dated September 26, 2022; last revised January 05, 2023
- Short EAF (Part I)dated December 02, 2022

Please submit comments to:
Town of Haverstraw Planning Board
One Rosman Road, Garnerville, NY 10923
Annette Hendrie, Senior Clerk

If you have any questions please feel free to contact me at 845-942-3710.

Sincerely,

Annette Hendrie
Annette Hendrie
Senior Clerk

ORIGINAL
FOR OFFICE FILE

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD, GARNERVILLE, NY 10923

PHONE 845-429-2200 FAX 845-786-7647

SAL CORALLO, PLANNING BOARD CHAIRMAN

CHRISTIE ADDONA, ATTORNEY **ANNETTE HENDRIE, SECRETARY**

February 27, 2023

R.C. Office of Fire & Emergency Services
35 Firemens Memorial Drive
Pomona, NY 10970
Attention: Chris Jensen

Re: Orange & Rockland Utilities
227 Quaker Road, Pomona
Sect: 25.14 Block: 02 Lot(s): 05

Dear Mr. Jensen:

Enclosed please find the following for your review:

- Site Plan Application dated 01/18/2022
- Site Plan prepared by Fellenzer Engineering LLP dated September 26, 2022; last revised January 05, 2023
- Short EAF (Part I)dated December 02, 2022

Please submit comments to:
Town of Haverstraw Planning Board
One Rosman Road, Garnerville, NY 10923
Annette Hendrie, Senior Clerk

If you have any questions please feel free to contact me at 845-942-3710.

Sincerely,

Annette Hendrie
Annette Hendrie
Senior Clerk

ORIGINAL
FOR OFFICE FILE

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD, GARNERVILLE, NY 10923

PHONE 845-429-2200 FAX 845-786-7647

SAL CORALLO, PLANNING BOARD CHAIRMAN

CHRISTIE ADDONA, ATTORNEY **ANNETTE HENDRIE, SECRETARY**

February 27, 2023

NYS D.O.T Region 8-6
275 Ridge Road
New City, NY 10956
Attention: Brandon Robuck, PE

Re: Orange & Rockland Utilities
227 Quaker Road, Pomona
Sect: 25.14 Block: 02 Lot(s): 05

Dear Mr. Robuck:

Enclosed please find the following for your review:

- Site Plan Application dated 01/18/2022
- Site Plan prepared by Fellenzer Engineering LLP dated September 26, 2022; last revised January 05, 2023
- Short EAF (Part I)dated December 02, 2022

Please submit comments to:
Town of Haverstraw Planning Board
One Rosman Road, Garnerville, NY 10923
Annette Hendrie, Senior Clerk

If you have any questions please feel free to contact me at 845-942-3710.

Sincerely,

Annette Hendrie
Annette Hendrie
Senior Clerk

ORIGINAL
FOR OFFICE FILE

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD, GARNERVILLE, NY 10923

PHONE 845-429-2200 FAX 845-786-7647

SAL CORALLO, PLANNING BOARD CHAIRMAN

CHRISTIE ADDONA, ATTORNEY **ANNETTE HENDRIE, SECRETARY**

February 27, 2023

R.C Environmental Services
50 Sanatorium Rd.- Bldg. K
Pomona, NY 10970
Attention: Michael DiMola

Re: Orange & Rockland Utilities
227 Quaker Road, Pomona
Sect: 25.14 Block: 02 Lot(s): 05

Dear Mr. DiMola:

Enclosed please find the following for your review:

- Final Site Plan Application dated 01/18/2022
- Site Plan prepared by Fellenzer Engineering LLP dated September 26, 2022; last revised January 05, 2023
- Short EAF (Part I)dated December 02, 2022

Please submit comments to:
Town of Haverstraw Planning Board
One Rosman Road, Garnerville, NY 10923
Annette Hendrie, Senior Clerk

If you have any questions please feel free to contact me at 845-942-3710.

Sincerely,

Annette Hendrie
Annette Hendrie
Senior Clerk

ORIGINAL
FOR OFFICE FILE

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD, GARNERVILLE, NY 10923

PHONE 845-429-2200 FAX 845-786-7647

SAL CORALLO, PLANNING BOARD CHAIRMAN

CHRISTIE ADDONA, ATTORNEY **ANNETTE HENDRIE, SENIOR CLERK**

February 27, 2023

Palisades Interstate Park
PO Box 427
Bear Mountain, NY 10911
Attention: Engineering

Re: Orange & Rockland Utilities
227 Quaker Road, Pomona
Sect: 25.14 Block: 02 Lot(s): 05

To Whom It May Concern:

Enclosed please find the following for your review:

- Site Plan Application dated 01/18/2022
- Site Plan prepared by Fellenzer Engineering LLP dated September 26, 2022; last revised January 05, 2023
- Short EAF (Part I)dated December 02, 2022

Please submit comments to:
Town of Haverstraw Planning Board
One Rosman Road, Garnerville, NY 10923
Annette Hendrie, Senior Clerk

If you have any questions please feel free to contact me at 845-942-3710.

Sincerely,

Annette Hendrie
Annette Hendrie
Senior Clerk

Lino J. Sciarretta, Esq.
Tel: 914-287-6177
Email: lsciarretta@bpslaw.com

January 30, 2023

BY HAND (c/o Secretary Annette Hendrie)

Hon. Chairman Salvatore Corallo and Members of the
Haverstraw Planning Board
One Rosman Road
Garnerville, NY 10923

Re: Orange & Rockland Utilities (ORU) Mount Ivy Satellite Facility
HVAC Upgrade - 227 Quaker Rd., Pomona, NY 10970

Dear Chairman Corallo and Members of the Planning Board:

This firm, along with Fellenzer Engineering, LLP, represents Orange & Rockland Utilities ("ORU" or "Applicant"), the owner and operator of the Mount Ivy Satellite Facility located at 227 Quaker Road, Pomona, NY (the "Property"). ORU seeks approvals from the Town's land use boards for HVAC upgrades to the Property (the "Project").

By way of background, the Project involves the installation of four (4) geothermal boreholes, piping, and the installation of Ground Source Heat Pump (GSHP) equipment to provide the heating and cooling of the facility. The GSHP equipment and underground piping will lead to a new, proposed 240 sq.ft. +/- building addition on the north-east corner of the Property in an existing recessed area of the existing ORU Mt. Ivy garage/office building. The new proposed structure will be used as a mechanical room for the new ground source heat pump equipment, along with an electronic monitoring system. Geothermal wells will be part of a closed-loop system which will be installed by a licensed well driller in accordance with the necessary NYSDEC/NYSDOH permits to be obtained before construction.

The purpose of the Project is to convert the existing electric resistance heating and cooling system to a more efficient Geothermal Ground Source Heating System. GSHP systems are three to six times more efficient than resistance heating which will result in lower electrical use and cleaner heat (*i.e.*, lower greenhouse gas emissions). Once completed and operational, ORU may occasionally showcase the installation to promote the use of GSHP systems.

Geothermal GSHP systems are being promoted by the State of New York through legislation and the New York Public Service Commission. These geothermal GSHP systems will be part of the solution to meet NY's Climate Leadership and Community Protection Act goals of

lower greenhouse gas emissions. This will be ORU's first Geothermal GSHP installation and will provide information and learnings for the company.

To that end, on behalf of ORU, we enclose the following documents and materials in support of the application:

A) Ten (10) copies of the site plan prepared by Fellenzer Engineering;
B) One copy of the site plan application;
C) Short form Environmental Assessment Form;
D) Check payable to the Town of Haverstraw in the amount of $994;
E) this Cover letter from Bleakley Platt & Schmidt, LLP.

The ORU project team is excited about this new Project and looks forward to presenting this application before the Planning Board. If you have any questions or require any additional information, please do not hesitate to contact me at 845-881-2700 or Fellenzer Engineering at 845-343-1481. We thank you for your time and consideration of this Project.

Sincerely,

Bleakley Platt & Schmidt, LLP

By: *Lino J. Sciarretta*

Lino J. Sciarretta, Esq.

Enclosures
cc: ORU Project Team (*via email*)

TOWN OF HAVERSTRAW PLANNING BOARD
ONE ROSMAN ROAD
GARNERVILLE, NY 10923
PHONE (845) 429-2200 FAX (845) 786-7647

SAL CORALLO, CHAIRMAN

ANNETTE HENDRIE, SECRETARY TO THE BOARDS

THIS APPLICATION INCLUDES THE FOLLOWING:

1. A Town of Haverstraw cover sheet.
2. Town of Haverstraw Checklist for Sketch, Preliminary & Final Approval.
   Please use separate applications for each checklist and the required fee must be paid with each submission.
3. The NYS Department of Environmental Conservation list of informational and form websites.
4. A Rockland County Dept. of Planning GML application.

PLANNING BOARD APPLICATION FOR THE FOLLOWING:

PROJECT NAME: Mt. Ivy Geothermal HVAC upgrades

APPLICANT: Orange & Rockland Utilities, Inc.

REPRESENTATIVE NAME: William Beattie

PLEASE CHECK ALL THAT APPLY:

MINOR SUBDIVISION _____ # OF LOTS _____

MAJOR SUBDIVISION _____ # OF LOTS _____

SITE PLAN X WIRELESS SITE PLAN _____

PLEASE BE ADVISED OF THE FOLLOWING:

- The application must include a narrative describing the nature of the project.
- The application will be reviewed by the town's consultants and then placed on the agenda at the recommendation of the consultants.
- All applications must be received 3 weeks before a Planning Board Meeting.

Planning Board meetings are scheduled for the 2nd Wednesday of the month at 7:30PM at Town Hall. These meeting dates may be changed due to a holiday or weather. Please confirm the meeting date with the secretary prior to the meeting date.

TOWN OF HAVERSTRAW CHECKLIST FOR REQUIRED INFORMATION FOR SKETCH SITE PLAN APPLICATIONS

ITEM #	SKETCH PLAN INFORMATION	PROVIDED	NOT PROVIDED	NOT APPLICABLE
(A)	**Key Map**: A map at a scale of not less than (1) inch equals 600ft. showing the entire development, zone districts & it's relation to all features shown on the Official Map & Master Plan located within ½ mile of the extreme limits of the development.			X
(B)	**Structures, Wooded Areas & Topography:** The location & dimension of existing & proposed buildings and structures including dimensions from all existing & proposed lot lines; wooded areas; all trees more than 6 inches in diameter measured 4ft. above ground & the topography within the portion to be developed & within 100ft. thereof at 2ft. contours.			X
(C)	**Owners:** The name of the owner of the subject property & all owners of property contiguous to & across existing or proposed streets from the subject property as disclosed by the most recent municipal tax records.	X		
(D)	**Identity:** The Tax Map sheet, block & lot numbers & zone district.	X		
(E)	**Easements, Watercourses & Rights-Of-Way:** The location of existing or proposed streets, roads, easements, public rights-of-way, streams, bridges, culverts, drainage ditches, natural watercourses, flood control	X		

	basins, floodways & floodplains in & within 200ft. of the development.			
(F)	**Public Areas:** Any existing or proposed parks, municipal lands, school sites, historic sites or other public areas shown on the duly adopted Master Plan and/or Official Map.			X
(G)	**Lots:** The existing & proposed lot layout, lot dimensions, all required set back lines & lot areas of each lot (in square feet). Lots shall be by consecutive numbers for Minor & Major Subdivisions until given official lot number designations by the town.	X		
(H)	Date of Original Plan & any revisions, current plan name & old plan name if submitted previously under a different title.			X

TOWN OF HAVERSTRAW CHECKLIST FOR REQUIRED INFORMATION FOR PRELIMINARY SITE PLAN APPLICATIONS

ITEM #	PRELIMINARY PLAN INFORMATION	PROVIDED	NOT PROVIDED	NOT APPLICABL
(A)	**Key Map:** A map at a scale of not less than (1) inch equals 600ft. showing the entire development, zone districts & it's relation to all features shown on the Official Map & Master Plan located within ½ mile of the extreme limits of the development.			X
(B)	**Lots:** Lot layout, lot dimensions, all required setback lines & individual lot areas in square feet & acreage. Lots shall be designated by consecutive numbers until given an official lot number designation by the Town Tax Assessor.	X		
(C)	**Other Contents:** The plan name, Tax Map sheet & date (if revision), block & lot numbers, date of plan preparation, scale, graphic scale & the following names & addresses: (1) Record owner(s) of property to be developed. If other than an individual, the corporate officers or partners or statutory agent. (2) The applicant (3) New York State licensed design professional who prepared the map, including seal, license number & signature.	X		
(D)	**Acreage:** Acreage of tract to be developed to nearest hundredth of an acre	X		
(E)	**Elevations & Contours:** Sufficient elevations & contours at 2ft. vertical intervals to determine the general slope & the natural drainage of the land & the high & low points for the entire tract & for a distance of 100ft. from the tract boundary. All elevations shall be based on United States Geological Survey datum.			X

(F)	**Existing & Proposed Features:** The Site Plan shall show the location of all existing & proposed features, including but not limited to property lines, streets, buildings, structures, parking areas, driveways, curb cuts, watercourses, railroads, easements, bridges, culverts, drainpipes, sanitary sewers, water mains, power lines & any natural features such as wooded areas, trees over 6 inches in diameter (measured 4 ft. above ground) & rock formations. This data shall be determined by field and/or photogrammetric survey.	X		
(G)	**Streets:** Preliminary plans & profiles at a scale of not less than 1inch equals 50ft. horizontally & 1 inch equals 5ft. vertically, including cross sections every 50ft. or as specified by the town engineer of all proposed streets, curbs, gutters and/or sidewalks within the development & proposed connection with existing or future continuing streets. The radii distances of all street lines shall be shown.			X
(H)	**Sewers, Drains & Ditches:** Preliminary Plans & profiles at a scale of 1 inch equals 50ft. horizontally & 1 inch equals 5 ft. vertically of all proposed and existing sanitary sewers, storm drains, drainage ditches & streams within the development, together with the locations, sizes, elevations, grades & capacities of any existing sanitary sewer, storm drain, drainage ditch, stream or watercourse to which the proposed facility shall be connected. When brook or stream channel improvements are proposed or required, the plans shall be approved by the New York State Department of Environmental Conservation and the Planning Board where applicable.			X
(I)	**Set Back Lines:** All front, rear & Side Yard Lines shall be shown for all lots.	X		
(J)	**Deed Restrictions:** A copy of any existing & proposed covenants or deed restrictions applying to the land being developed shall be submitted with the preliminary plans to the Planning Board.			X

(K)	**Open Space:** Any open space proposed to be dedicated for public use, playgrounds or other public purposes shall be shown on the plan.			X
(L)	**Support Capability:** When deemed necessary to determine the suitability of the soil to support new construction, the Planning Board shall require test holes or borings to be made by a New York State Engineer or an approved testing laboratory at the expense of the applicant and under direction of the town.			X
(M)	**Parking:** Indicate parking, loading docks, loading & unloading areas with dimensions, traffic patterns, access aisles, curb radii & bumpers.	X		
(N)	**Solid Waste:** Indicate location & design of existing & proposed methods of solid waste storage & disposal.			X
(O)	**Landscaping & Buffering:** Indicate what will remain & what will be planted. Indicate common names of plant species, dimensions & spacing, approximate time of planting & maintenance plans.			X
(P)	**Lighting:** Indicate types of standards & fixtures, locations, radii of light & intensities in footcandles.			X
(Q)	**Signs:** Indicate location, dimensions & details.			X
(R)	**Off Site Improvements:** When the development is contingent upon improvements outside the boundaries of the lot or tract to be developed, certification shall be supplied by the applicant, prior to Planning Board's consideration, that the improvements have been agreed to by the owner of the land on which improvements are to be made.			X

TOWN OF HAVERSTRAW CHECKLIST FOR REQUIRED INFORMATION FOR FINAL SITE PLAN APPLICATIONS

ITEM #	FINAL PLAN INFORMATION	PROVIDED	NOT PROVIDED	NOT APPLICABLE
(A)	**Identification:** Date, name & key map of the development, name of owner, scale & graphic scale. The final plan shall be drawn at a scale of not less than 1 inch equals 50ft.			
(B)	**Survey Data:** Tract boundary lines, rights-of-way, lines of streets, easements, land to be reserved or dedicated to public use & all lot lines with accurate dimensions. Where appropriate, the bearings, distances, arc lengths, central angles, tangents & radii of all curves , lot lines & areas of each lot in square feet shall be shown			
(C)	**Public Use:** The purpose of any easement or land reserved or dedicated for public use shall be indicated.			
(D)	**Block & Lots:** All section, block & lot numbers shall be fixed by the Town Assessor.			
(E)	**Monuments:** Location & description of all required monuments shall be shown			
(F)	**Consent of Owner:** Certification that the applicant is agent or owner of the land or that the owner has given consent to file said plan			
(G)	**Approval:** When approval of a plan is required by any agency, whether municipal, county or state, approval shall be certified on the plat			
(H)	**Agreements:** Agreements providing for ownership of common areas, including the perpetual maintenance and continuance of ownership.			

New York State Department of Environmental Conservation

SEQR Regulations
http://www.dec.ny.gov/regs/4490.html

"The SEQR Handbook"
http://www.dec.ny.gov/docs/permits_ej_operations_pdf/seqrhandbook.pdf

All Forms
http://www.dec.ny.gov/permits/6191.html

"SEQR Cookbook"
http://www.dec.ny.gov/docs/permits_ej_operations_pdf/cookbook1.pdf

"Local Official's Guide to SEQR"
http://www.dec.ny.gov/docs/permits_ej_operations_pdf/seqrofficials.pdf

"SEQR Flow Chart and Time Frames"
http://www.dec.ny.gov/docs/permits_ej_operations_pdf/seqrflow2003.pdf

ROCKLAND COUNTY DEPARTMENT OF PLANNING
REFERRAL FORM FOR GENERAL MUNICIPAL LAW REVIEWS

Municipality _____ **Date Sent** _____

Board _____ Planning _____ ZBA _____ Town/Village **Meeting Date** _____

File Name _____
Contact Person _____
Address _____
_____

Referral Agencies
(Please indicate the agencies that have also received copies of this application)

_____ RC Highway Department
_____ RC Division of Environmental Resources
_____ RC Drainage Agency
_____ RC Department of Environmental Health (Sewers, Water, Mosquito Code, Underground Tanks)
_____ RC Sewer District #1
_____ NYS Department of Environmental Conservation
_____ NYS Department of Transportation
_____ NYS Thruway Authority
_____ NY-NJ Trail Conference (Long Path)
_____ Palisades Interstate Park Commission
_____ US Army Corps of Engineers
_____ Cornell Cooperative Extension of Rockland County
_____ Adjacent Municipality _____
_____ Other _____

Pursuant to the General Municipal Law Article 12-B, Section
239 (n) ___ Subdivision
239 (l) & (m): ___ Site Plan ___ Variance ___ Special Permit ___ Zone Change/Amendment
___ Other – *Please list* _____

Location of Parcel(s) _____
_____ **Acreage of Parcel (s)** _____
Existing Sq. Footage _____ **Proposed Sq. Footage** _____

The Property in Question Lies Within 500 Feet of:

__ County Road
__ County Stream
__ County Park
__ County or State Facility
__ State Road, Thruway, or Parkway
__ State Park
__ Village, Town, or County Boundary
__ The Long Path

Map _____ **Block** _____ **Lot(s)** _____ **Map Date** _____
Map _____ **Block** _____ **Lot(s)** _____ **Current Zoning** _____

Brief Project Description _____
_____
_____

Variances Needed (*if applicable*)	**Required**	**Provided**
_____	_____	_____
_____	_____	_____
_____	_____	_____

APPLICATION REVIEW FORM

PART I

Name of Municipality Town of Haverstraw Date 1/18/22

Please check all that apply:

X Planning Board	____ Municipal Board
X Zoning Board of Appeals*	____ Historical Board
*(*Fill out* **Parts I & II** *of this form)*	____ Architectural Board

____ Subdivision ____ # of Lots	____ Pre-preliminary/Sketch
X Site Plan	____ Preliminary
____ Special Permit	____ Final
____ Conditional Use	
____ Zoning Code Amendment	
____ Zone Change	
X Variance	

Project Name: Mt. Ivy Geothermal HVAC upgrades

Tax Map Designation:

Section 25.14 Block 2 Lot(s) 5

Section ____ Block ____ Lot(s) ____

Location: On the South side of Quaker, ____ feet ____ of ____ in the town/village of Pomona.

Street Address: 227 Quaker Rd.

Acreage of Parcel .97 **Zoning District** R-25

School District East Ramapo **Postal District** Pomona

Fire District Moleston Fire **Ambulance District** Haverstraw

Water District WT221 **Sewer District** Sewer 1

Project Description: *(If additional space required, please attach a narrative summary.)*

See attached

APPLICATION REVIEW FORM

If **subdivision**:

1) Is any variance from the subdivision regulations required?_____
2) Is any open space being offered? ____ If so, what amount? _____
3) Is this a standard or average density subdivision?_____

If **site plan**:

1) Existing square footage 3,000
2) Total square footage 3,220
3) Number of dwelling units N/A

If **special permit**, list special permit use and what the property will be used for.

_____

_____

Environmental Constraints:

Are there **slopes greater than 25%**? If yes, please indicate the amount and show the gross and net area. No

Are there **streams** on the site? If yes, please provide the names. South Branch Minisceongo Creek

Are there **wetlands** on the site? If yes, please provide the names and type. No

Project History: Has this project ever been reviewed before? No

If so, provide a narrative, including the list case number, name, date, and the board(s) you appeared before, and the status of any previous approvals.

_____

_____

List tax map section, block & lot numbers for all other abutting properties in the same ownership as this project.

None

_____

_____

APPLICATION REVIEW FORM

Contact Information:

Applicant: Gregory B. Eiband Phone # 347-931-2890

Address 390 West Route 59 Spring Valley, NY 10977
Street Name & Number (Post Office) State Zip code

Property Owner: Orange & Rockland Utilities, Inc. Phone # 845-502-5764

Address 390 West Route 59 Spring Valley, NY 10977
Street Name & Number (Post Office) State Zip code

Engineer/Architect/Surveyor: Fellenzer Engineering Phone # 845-454-9704

Address 22 Mulberry Street Suite 2A Middletown, NY 10940
Street Name & Number (Post Office) State Zip code

Attorney: Bleakley Platt Phone # 914-949-2700

Address One North Lexington Ave. White Plains, NY 10601
Street Name & Number (Post Office) State Zip code

Contact Person: William Beattie Phone # 845-502-5764

Address 390 West Route 59 Spring Valley, NY 10977
Street Name & Number (Post Office) State Zip code

General Municipal Law Review:

This property is within 500 feet of:
(Check all that apply)

IF ANY ITEM IS CHECKED, A REVIEW MUST BE DONE BY THE ROCKLAND COUNTY COMMISSIONER OF PLANNING UNDER THE STATE GENERAL MUNICIPAL LAW, SECTIONS 239 L, M, N, AND NN.

_____ State or County Road	____ State or County Park
_____ Long Path	__X__ County Stream
_____ Municipal Boundary	____ County Facility

List name(s) of facility checked above. Minisceongo Creek

Referral Agencies: *(Please make sure that the appropriate agencies as needed received copies of your application and plans for their review.)*

_____ RC Highway Department	_____ RC Division of Environmental Resources
_____ RC Drainage Agency	_____ RC Dept. of Health
_____ NYS Dept. of Transportation	_____ NYS Dept. of Environmental Conservation
_____ NYS Thruway Authority	_____ Palisades Interstate Park Comm.

_____ Adjacent Municipality _____

_____ Other _____

**All applicants must send copies of their applications and plans to:
Orange and Rockland, Regional manager, 75 West Route 59, Spring Valley, NY 10997.

APPLICATION REVIEW FORM

Applicant's Combined Affidavit and Certification

State of New York)
County of Rockland) ss.:
Town/Village of Pomona)

Gregory B. Eiband, being duly sworn, deposes and says:
Applicant's Name

I am the applicant in this matter. I make these statements to induce the Town/Village of Pomona, its boards, commissions, officers, employees, and consultants, to entertain my application, knowing that the Town/Village will rely upon the statements made herein.

1. Verification of Facts. All statements contained in this application and in all documents, drawings, writings, and other communications submitted in connection with this application are true.

2. Consent to Enter. I hereby give permission to members of said boards and/or supporting staff to visit the property in question at a reasonable time during the day.

3. Affidavit Pursuant to General Municipal Law Section 809. All the following statements and the statements contained in the papers submitted herewith are true and the nature and extent of any interests set forth are disclosed to the extent that they are known to the applicant.

A. I certify that I am the owner, officer, member or agent of owner, of all that certain lot, piece or parcel of land and/or building described in this application **and if not the owner that he has been duly and properly authorized to make this application and to assume responsibility for the owner** in connection with this application for the relief below set forth:

B. There is no state officer, Rockland County officer or employee or town/village officer or employee nor his or her spouse, brother, sister, parent, child or grandchild, or a spouse of any of these relatives who is the applicant or who has an interest in the person, partnership or association making this application, petition or request, or is an officer, director, partner or employee of the applicant, or that such officer or employee, if this applicant is a corporation, legally or beneficially owns or controls any stock of the applicant in excess of 5% of the total of the corporation if its stock is listed on the New York or American Stock Exchanges; or is a member or partner of the applicant, if the applicant is an association or a partnership; nor that such town/village officer or employee nor any member of his family in any of the foregoing classes is a party to an agreement with the applicant, express or implied, whereby such officer or employee may receive any payment or other benefit, whether or not for service rendered, which is dependent or contingent upon the favorable approval of this application, petition or request.

C. To the extent that the same is known to your applicant, and to the owner of the subject premises **there is disclosed herewith** the interest of the following officer or employee of the State of New York or the County of Rockland or of the Town/Village of Pomona in the petition, request or application or in the property or subject matter to which it relates:

(if none, so state)

a. Name and address of officer or employee None

b. Nature of interest _____

c. If stockholder, number of shares _____

d. If officer or partner, nature of office and name of partnership _____

e. If a spouse or brother, sister, parent, child, grandchild or the spouse of any of these blood relatives of such state, county or town/village officer or employee, state name and address of such relative and nature of relationship to officer and employee and nature and extent of office, interest or participation or association having an interest in such ownership or in any business entity sharing in such ownership. _____

f. In the event of corporate or limited liability company ownership: A list of all directors, officers and stockholders of each corporation or members of each limited liability company owning more than five (5%) percent of any class of stock or more than five (5%) percent beneficial interest, must be attached, if any of these are officers or employees of the State of New York, or of the County of Rockland, or of the Town/Village of _____.

D. I do hereby depose and say that all the above statements and statements contained in the papers submitted herewith are true, knowing that a person who knowingly and intentionally violates this section is guilty of a misdemeanor.

4. Reimbursement for Professional Consulting Services. I understand that the Town/Village Board, Planning Board, Zoning Board of Appeals, and other municipal boards, in the review of any application described above, may refer any such application presented to it to such engineering, planning, environmental or other technical consultant as such Board shall deem reasonably necessary to enable it to review such application as required by law. The charges made by such consultants shall be in accord with charges usually made for such services in the metropolitan New York region or pursuant to an existing contractual agreement between the town/village and each such consultant for the cost of such consultant services upon receipt of the bill.

APPLICATION REVIEW FORM

5. **Application Fee(s)**

I, Gregory B. Eiband, have paid to the Town/Village Clerk and/or Treasurer, the required fee for this application. (The fee is subject to the Schedule of Fees of the municipality). I shall review a copy of the zoning Local Law and Land Development Regulations, and be ready and prepared to review this application when scheduled. The Municipal Board, Planning Board, or Zoning Board of Appeals in the review of any application described above, may refer the subject application to an engineering, planning, environmental, or other technical consultant as such Board shall deem reasonably necessary to enable it to review the application as required by law.

***The following paragraph is optional to add if your municipality establishes escrow accounts:*

(I agree to establish an escrow account with the Town/Village of _____ from which these consultants' fees will be paid. The escrow account will not draw interest, and will be replenished upon notification by the Town/Village. Any additional sums needed to pay the Town's/Village's consultants shall be paid prior to final action on the application. The Town/Village may suspend processing of the application if there is a deficiency in the escrow account. Permits will not be issued and site plan or subdivision will not be signed until bill is paid in full. Any sums remaining in the escrow account after the consultants have been paid in full will be returned to the applicant. The applicant has the right to examine escrow and payment records upon prior written notice to the Town/Village.)

Applicant's Signature _____

Print Applicant's Name Gregory B. Eiband

SWORN to before me this

30 day of January, 2025

_____

Notary Public

WILLIAM J. NIGRO
Notary Public of New Jersey
My Commission Expires
05/13/2025

I have received from _____ the sum of _____ on this date _____.

_____

Municipal Clerk/Treasurer

Reviewed by the _____ on _____.

Action Taken: _____

APPLICATION REVIEW FORM

Affidavit of Ownership/Owner's Consent

State of New York)
County of Rockland) SS.:
Town/Village of Pomona)

I, Gregory B. Eiband being duly sworn, hereby depose and say that I reside at: 390 West Route 59 Spring Valley, NY 10977
(Business Address)
in the county of Rockland in the state of New York.

I am the (* Project Manager) owner in fee simple of premises located at:
227 Quaker Road Pomona, NY

described in a certain deed of said premises recorded in the Rockland County Clerk's Office in Liber 780 of conveyances, page 241 or as Instrument ID # 867.

Said premises have been in my/its possession since 1964. Said premises are also known and designated on the Town of Haverstraw Tax Map as: section 25.14 block 2 lot(s) 5.

I hereby authorize the within application on my behalf, and that the statements of fact contained in said application are true, and agree to be bound by the determination of the board.

Owner Gregory B. Eiband
Mailing Address 390 West Route 59
Spring Valley, NY 10977

SWORN to before this
30 day of January, 2023

Notary Public

WILLIAM J. NIGRO
Notary Public of New Jersey
My Commission Expires
05/13/2025

* *If owner is a corporation or LLC, fill in the office held by deponent and name of corporation or LLC, and provide a list of all directors, officers, and stockholders owning more than 5% of any class of stock and all members having greater than 5% beneficial interest.*

APPLICATION REVIEW FORM

Owners of Nearby Properties:

That the following are all of the owners of property Adjoining *(distance)* from the premises as to which this application is being taken.

SECTION/BLOCK/LOT	NAME	ADDRESS
25.14/1/25.4	Vaccaro	222 Quaker Rd.
25.14/1/25.3	Parmeshmor & Indro Rai	224 Quaker Rd.
25.14/1/25.2	Yen-Ting & Pei-Hon Lin	226 Quaker Rd.
25.14/1/25.1	Marc Cabillis & Sue Peggy	238 Quaker Rd.
25.14/2/6	Urban Forest Products, Inc.	229 Quaker Rd.
25.14/2/4	Howard Brownstein	231 Quaker Rd.
25.18/2/1	High Tor Properties, Inc.	150 Quaker Rd.

(use additional paper if needed)

SWORN to before this

_____day of_____, 20_____

_____

Notary Public

APPLICATION REVIEW FORM

PART II*

Application before the Zoning Board of Appeals

Application, petition, or request is hereby submitted for:

(X) Area Variance from the requirement of Section 167.9; Use Table, Bulk Table;

( ) Use Variance from the requirement of Section _____;

( ) Special permit per the requirements of Section _____;

( ) Review of an administrative decision of the Building Inspector;

( ) An order to issue a Certificate of Occupancy;

( ) An order to issue a Building Permit;

( ) An interpretation of the Zoning Ordinance or Map;

( ) Certification of an existing non-conforming structure or use;

( ) Other (*explain*) _____;

_____

To permit construction, maintenance and use of a Ground Source Heat Pump HVAC upgrade

_____

_____

Previous Appeal:

a. A previous appeal ___has, or X has not, been made with respect to this property.

b. Such appeal was in the form of:

___ An AREA Variance; or

___ A USE Variance; or

___ Appeal from decision of Town Official or Officer; or

___ Interpretation of the Zoning Ordinance or Map; or

___Other

c. The previous appeal described above was appeal number _____,
dated_____ and was _____(Granted/Denied).

TO ALL APPLICANTS: Complete all relevant information by the section or sections pertaining to your appeal ONLY. You may also include extra pages to supplement this form with a narrative explanation. At the time of the hearing, you must present written documentation in support of all the statements made in this application. You must also substantiate all financial information supplied.

APPLICATION REVIEW FORM

A. AREA VARIANCE *(This section to be completed only for an AREA variance. Use additional pages, if needed.)*

This application seeks a variance from the provisions of Article III, General District Reguations, Section(s) 167.9; Use Table, Bulk Table. Specifically, the applicant seeks a variance from the requirements from:

Dimension*	Column	Required	Provided
Front yard width	7	70	52
Total side yard width	9	160	129
Lot coverage	14	25%	66.1

**e.g., front yard, side setback, FAR, etc.*

1. Is the requested variance the minimum necessary to relieve the practical difficulty or economic injury? Yes

Describe: The variances requested are primarily existing on the property and are the minimum necessary to continue operations on the property.

2. Is the variance substantial in relation to the zoning code? No

Explain: The variances requested are not substantial compared to the zoning code and are primarily existing on the property.

3. Will a substantial change be produced in the character of the neighborhood, or a substantial detriment to adjoining property owners be created, if this variance is granted? No

Explain: Since the requested variances are primarily existing on the property, granting the variances will not substantially change the character of the neighborhood or cause detriment to the adjoining property owners.

4. Can the alleged practical difficulty or economic injury be overcome by some method other than a variance? No

Explain: The requested variances are primarily existing on the property and the most practical method of addressing the non-conformance is by granting the variances.

APPLICATION REVIEW FORM

5. Will the granting of this variance affect the health, safety, or welfare of the neighborhood or community? No

Explain: These requested variances are primarily existing on the property and will not affect the health, safety or welfare of the neighborhood or community.

6. Will there be any affect on governmental facilities or services if this variance is granted? No

Describe: Governmental facilities or services will not be affected by the granting of these variances.

7. Other factors I/we wish the Board to consider in this case are

B. USE VARIANCE *(This section to be completed only for a USE variance. Use additional pages, if needed.)*

1. This property cannot be used for any uses currently permitted in this zone because:

2. The problem with this property is due to unique circumstances and not to the general conditions of the neighborhood in that:

3. The use requested by this variance will not alter the essential character of the neighborhood in that:

4. The amount paid for the entire parcel was:

5. The date of purchase of the property was:

6. The present value of the entire property is:

7. The monthly expenses attributed to normal and usual maintenance of the property are:

8. The annual taxes on the property are:

9. The current income from the property is:_____

10. The amount of mortgages and other encumbrances on the property in question is:

a. Date of mortgage:_____
b. Scheduled maturity (payoff) date:_____
c. Present monthly payment amount:_____
d. Current principal balance:_____
e. Current interest rate:_____

11. Other factors I/we wish the Board to consider in this case are:

_____
_____
_____
_____
_____

C. APPEAL OF DECISION OF BUILDING INSPECTOR *(This section to be completed for an appeal, only. Use additional pages, if needed.)*

1. Name and position of official making the decision:

_____

2. Nature of decision:

_____
_____

3. The decision described above is hereby appealed because:

_____
_____
_____
_____
_____

D. INTERPRETATION OF ZONING CODE *(This section to be completed for an interpretation, only. Use additional pages, if needed.)*

1. Section(s) to be interpreted: _____

2. An interpretation of the Zoning Code is requested because:

_____
_____
_____
_____
_____

O&R Subsidiaries Matrix
(as of October 5, 2021)

Jurisdiction	Entity Name	Directors	Officers	Annual Meeting Date
NY	**Orange and Rockland Utilities, Inc.**	Timothy P. Cawley – Chairman Robert Hoglund Robert Sanchez Mary K. Schuette	Robert Sanchez – President & CEO Joseph Miller – CFO & Controller Janette Espino – VP – Customer Service Orville Cocking – VP – Operations Yukari Saegusa – Treasurer Vanessa M. Franklin – Corporate Secretary	Tuesday following the third Monday in May
NJ	**Rockland Electric Company**	Robert Sanchez	Robert Sanchez – President & CEO Joseph Miller – CFO & Controller Janette Espino – VP – Customer Service Orville Cocking – VP – Operations Ann Cedrone – Treasurer Vanessa M. Franklin – Corporate Secretary	Second Tuesday of April
Del.	**Rockland Electric Co. Transition Funding LLC**	Board of Managers: Robert Sanchez Ann Cedrone Janette Espino John Hebert (Ind-CSC) Michelle Dreyer (Ind-CSC)	Robert Sanchez – President Janette Espino – VP Ann Cedrone – Treasurer Vanessa M. Franklin – Corporate Secretary	Second Tuesday of April
NY	**Clove Development Corporation**	Robert Sanchez	Orville Cocking – President Joseph Miller – CFO & Controller Janette Espino – VP Ann Cedrone – Treasurer Vanessa M. Franklin – Corporate Secretary	Second Tuesday of April
Del.	**O&R Development, Inc.**	Robert Sanchez	Orville Cocking – President Joseph Miller – CFO & Controller Janette Espino – VP Ann Cedrone – Treasurer Vanessa M. Franklin – Corporate Secretary	Second Tuesday of April

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
Orange and Rockland Utilities, Inc. Ground Source Heat Pump Installation

Project Location (describe, and attach a location map):
Mt. Ivy Facility - 227 Quaker Road, Pomona, NY 10970

Brief Description of Proposed Action:
Installation of four (4) geothermal wells and underground piping to a new 240 sq.ft. +/- building addition to the existing ORU Mt. Ivy garage/office building. New addition will be used as a mechanical room for the new ground source heat pump equipment. Geothermal wells will be part of a closed-loop system and be installed by a licensed well driller that will obtain all necessary NYSDEC/NYSDOH permits prior to construction.

Name of Applicant or Sponsor:	Telephone: 845-502-5764
Orange and Rockland Utilities, Inc.	E-Mail: beattiew@oru.com

Address:
390 NY-59

City/PO:	State:	Zip Code:
Spring Valley	NY	10977

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☐	☑

3. a. Total acreage of the site of the proposed action? 0.97 acres
   b. Total acreage to be physically disturbed? 0.028 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.97 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:
   ☐ Urban ☐ Rural (non-agriculture) ☑ Industrial ☑ Commercial ☑ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☑	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☑	☐

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☐	☑
16. Is the project site located in the 100-year flood plan?	☐	☑
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe:		
Runoff will be directed to existing stormwater drainage ditch along north end of property		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Fellenzer Engineering, LLP Date: 12-2-22

Signature: Ryan Fellenzer Title: Project Engineer

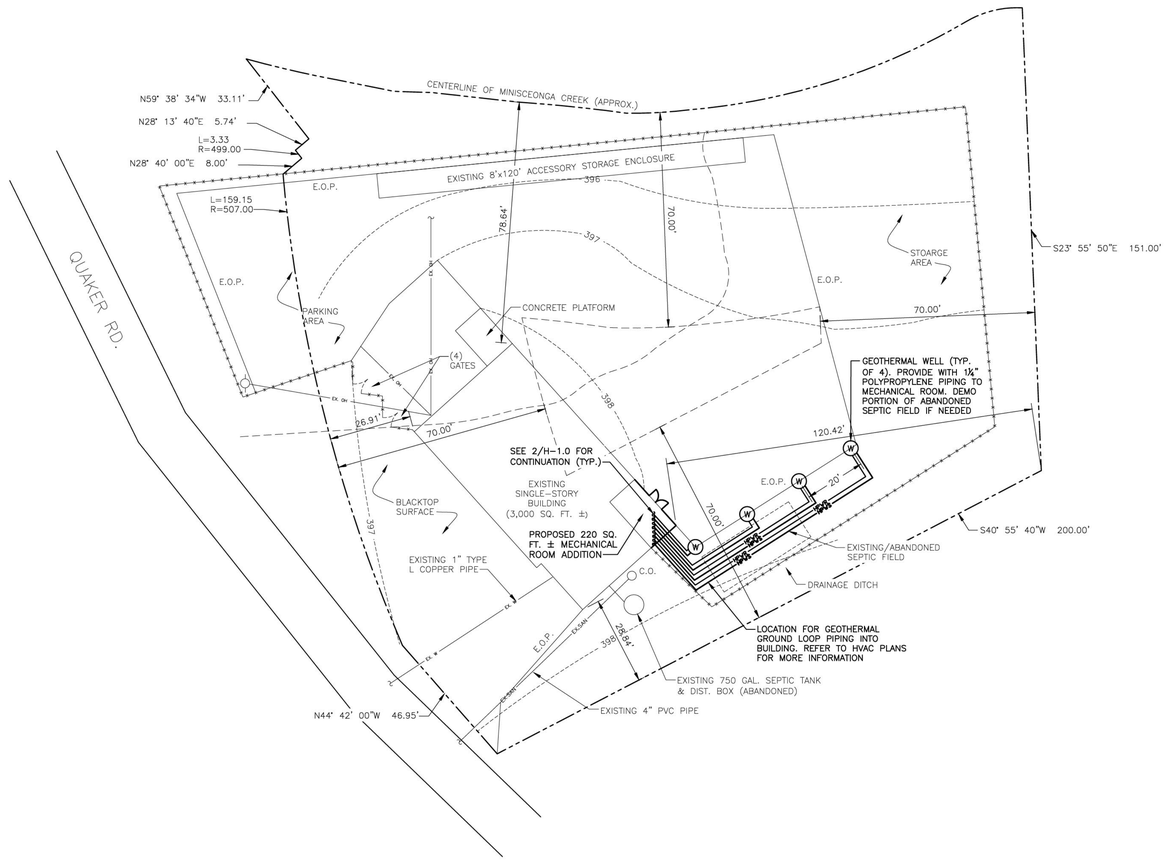
PRINT FORM



1"=200'



1"=200'



SCALE: 1"=20'

	EXISTING SETBACK LINE
	EXISTING PROPERTY LINE
	EXISTING CHAIN LINK FENCE
EX. V	EXISTING WATER LINE
EX. OH	EXISTING OVERHEAD ELECTRIC
EX.SAN	EXISTING SANITARY LINE
	EXISTING CONTOUR
E.O.P.	EDGE OF PAYMENT
C.O.	CLEANOUT
	UTILITY POLE
W	PROPOSED GEOTHERMAL WELL

U V A A UA

EXISTING BUILDING = 3,172 SQ. FT.

PROPOSED ADDITION = 220 SQ. FT.

EXISTING STORAGE STRUCTURE = 960 SQ. FT.

EXISTING PAVEMENT = 27,979 SQ. FT.

LOT COVERAGE = 27,929 SQ. FT./42,253 SQ. FT. = 66.1%

BUILDING COVERAGE = (3,172 SQ. FT. + 220 SQ. FT. + 960 SQ. FT.)/42,253 SQ. FT. = 10.3%

BULK REQUIREMENTS
TOWN OF HAVERSTRAW, NY
R-25 DISTRICT, GROUP E

BULK TABLE REQUIREMENTS

MINIMUM REQUIRED

BULK ITEM		*REQUIRED*	*PROVIDED*
LOT AREA	(SF)	35,000	42,253
LOT WIDTH	(FT)	125	235
LOT FRONTAGE	(FT)	125	292
FRONT SETBACK	(FT)	70	27
REAR SETBACK	(FT)	70	136
ONE SIDE	(FT)	70	79
BOTH SIDES	(FT)	160	108

MAXIMUM PERMITTED

BULK ITEM		*PERMITTED*	*PROVIDED*
LOT COVERAGE	(%)	25	66.1
BUILDING COVERAGE	(%)	15	10.3
BUILDING HEIGHT	(FT)	35	<35

PROPERTY ADDRESS
227 QUAKER ROAD
POMONA, NY 10970

TAX MAP
25.14-2-5

OWNER/DEVELOPER
ORANGE AND ROCKLAND UTILITIES, INC.

EXISTING USE
OFFICE/GARAGE

PROPOSED USE
OFFICE/GARAGE

REFERENCE
ORANGE AND ROCKLAND UTILITIES, INC.
DISTRICT SERVICE CENTER
SITE PLAN FOR MT. IVY, NY
DWG# NS632

SURVEY FROM
ORANGE AND ROCKLAND UTILITIES, INC.
MT. IVY SATELLITE STATION
ACQUIRED FROM J.D. KEATION
DATED 9/28/64 LAST REVISED 1992
DEED NO.: 867
DEED DATE: 8/24/64
RECORDED: 8/24/64
LIBER 780 PAGE 241

Dig Safely. New York Call 811 before you dig

P M

REV	REVISION	DWN	DES	CHKD	DATE
1	ADDED METES AND BOUNDS	AH	RDF	RDF	1-5-23

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK
LICENSED PROFESSIONAL
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

ENGINEERING REVIEW

DEPT.	SIGNATURE	DATE
CIVIL/SURVEY		
TELECOM/MET.		
TRANS & SUB.		
RELAY		

DWN	DES	CHKD

DESIGN REVIEW — DATE 9/26/22

DESIGNED BY:	DRAWN BY:	APPROVED BY:	FE PROJECT #
RDF	AH	RDF	22-071

APPROVED
DATE
- ☐ PERMIT
- ☐ BID
- ☐ CONSTRUCTION
- ☐ RECORD
- ☐ _____

O&R MT. IVY HVAC UPGRADES

P A

SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	S-1.0		OF #	

ARCH 0 1 2 3
ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

1. ALL ELECTRICAL WORK SHALL BE APPROVED BY AN ELECTRICAL UNDERWRITER/INSPECTOR AS DIRECTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
2. ALL EXCAVATIONS SHALL BE DRY PRIOR TO PLACING CONCRETE.
3. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI STANDARD 318–77. CONCRETE SHALL BE CAPABLE OF DEVELOPING MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI @ 28 DAYS. 4" SLUMP. DO NOT ADD WATER AT SITE. FORMS TO REMAIN A MINIMUM OF 36 HOURS AFTER THE POUR. ADMIXTURES ARE NOT AUTHORIZED. UNLESS NOTED OTHERWISE
4. ALL POURED CONCRETE FOOTINGS TO BE FORMED, PLACED ON UNDISTURBED, VIRGIN SOIL HAVING A MINIMUM BEARING CAPACITY OF 2000 PSF. MINIMUM FOOTING DEPTH SHALL BE 4'–0" BELOW FINISHED GRADE (UNLESS OTHERWISE SPECIFIED ON THESE PLANS).
5. FOUNDATION WALL REINFORCING; SEE WALL SECTION FOR SPACING. A KEY WAY SHALL BE FORMED IN THE FOOTING AND IN VERTICAL JOINTS BETWEEN POURS. STONE, ON WALLS TO BE FILLED MORE THAN 6' VERTICALLY.
6. COAT ALL FOUNDATION WALLS WITH DAMP–PROOFING ON ALL AREAS BELOW FINISHED GRADE.
7. FILL UNDER SLAB SHALL BE R.O.B. GRAVEL MECHANICALLY COMPACTED.
8. FINISHED GRADE SHALL BE NO LESS THAN 8" BELOW THE TOP OF THE MASONRY FOUNDATION WALL.
9. FINISHED GRADE SHALL PITCH AWAY FROM THE BUILDING SO THAT ALL SURFACE WATER FLOWS AWAY FROM IT.
10. INSTALL ½" ANCHOR BOLTS 6'–0" O.C. MAX OR U.N.O., MIN. TWO (2) BOLTS PER SECTION WITH ONE BOLT NOT MORE THAN 12" FROM EACH END OF PLATE SECTION, OR EQUIVALENT ANCHORAGE (SIMPSON/STRONG–TIE), 8" MAX. FROM CORNERS.
11. BACKFILL SHALL NOT BE PLACED UNTIL THE WALL HAS SUFFICIENT STRENGTH AND HAS BEEN ANCHORED TO THE FLOOR ABOVE.
12. BACKFILL SHALL BE OF THE SAME TYPE OF SOIL WHICH WAS REMOVED DURING EXCAVATION. FILL SHALL BE CLEAN, WITH A MAX. SIZE 2" STONE.
13. PROVIDE INSULATION AS SHOWN ON PLANS. BATT INSULATION SHALL HAVE A KRAFT FACED VAPOR BARRIER WHICH IS TO BE INSTALLED ON THE WARM–IN WINTER SIDE OF THE SPACE TO BE INSULATED.
14. ALL EXTERIOR OPENINGS SHALL BE PROPERLY FLASHED, CAULKED, GASKETED, WEATHER–STRIPPED OR OTHERWISE SEALED.
15. EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAME, UTILITY SERVICES AND OTHER SUCH OPENINGS IN BUILDING ENVELOPED SHALL BE CAULKED, GASKETED, WEATHER STRIPPED OR OTHERWISE SEALED.
16. ALL WALL OPENINGS GREATER THAN 6'–0" SHALL HAVE DOUBLE JACK STUDS.
17. ALL WALL OPENINGS SHALL HAVE HEADERS UNLESS OTHERWISE NOTED.
18. ALL LUMBER MATERIALS USED IN THE BUILDING SHALL BE FIRE RATED AND PRESSURE TREATED.
19. CALCULATED DESIGN LOADS (ADD 10 PSF DEAD LOAD ALL SPANS EXCEPT ROOFS).

    FLOORS PER OCCUPANCY 125 PSF LIVE LOAD

    ROOF 40 PSF SNOW LOAD

    GUARDRAILS & HANDRAILS 200 PSF HORIZONTAL POINT LOAD
20. ALL DOORS SHALL BE 7'–0" HIGH UNLESS OTHERWISE NOTED. PROVIDE WEATHER STRIP ON SADDLE ON ALL EXTERIOR DOORS.
21. GUTTERS AND DOWN SPOUTS SHALL BE INSTALLED AS REQUIRED WITH POSITIVE DRAINAGE AND OUT FLOW.
22. THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS CONCERNING OSHA STANDARD 29 CFR 1926 "SAFETY & HEALTH REGULATIONS FOR CONSTRUCTION", SPECIFICALLY PART 1926.62 AS PER THE DESIGN REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR ALL SAFE GUARDS DURING CONSTRUCTION.
23. TO THE BEST OF MY KNOWLEDGE THESE PLANS HAVE BEEN DRAWN IN CONFORMANCE WITH 2020 NYS BUILDING CODE AND 2020 NYS ENERGY CONSERVATION CONSTRUCTION CODE.

1. CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL DIMENSIONS ON THESE PLANS AGAINST FIELD CONDITION PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER. ALL DIMENSIONS AND LOCATIONS AS–INDICATED ON THE DRAWINGS SHALL BE CONSIDERED AS REASONABLY CORRECT BUT IT SHALL BE UNDERSTOOD THAT THEY ARE SUBJECT TO MODIFICATION AS MAY BE NECESSARY OR DESIRABLE AT THE TIME OF INSTALLATION TO MEET ANY UNFORESEEN OR OTHER CONDITION.
2. ALL WORK PERFORMED SHALL COMPLY WITH BUILDING AND ZONING ORDINANCE OF THE LOCAL AUTHORITY HAVING JURISDICTION, AND THE 2020 NYS BUILDING AND ENERGY CODES.
3. CONTRACTOR OR ANY SUBCONTRACTOR DOING ANY WORK UNDER THIS CONTRACT SHALL CARRY LIABILITY AND PROPERTY DAMAGE INSURANCE AGAINST ACCIDENTS OF ALL KINDS AND SHALL FURNISH OWNER WITH CERTIFICATES OF INSURANCE.
4. (EXISTING WALL AND CEILING FINISHES SHALL REMAIN.) STORAGE AREA NEW WALL AND CEILING FINISHES SHALL HAVE A FLAME–SPREAD INDEX OF 26–75 (CLASS B) IN CORRIDORS AND EXIT ENCLOSURES, 76–200 (CLASS C) IN ROOMS AND ENCLOSED SPACES.
5. STORAGE AREA NEW FLOOR FINISHES SHALL NOT BE LESS THAN CLASS II, GREATER THAN OR EQUAL TO .22 WATTS/CM (MIN. CRITICAL RADIANT FLUX) IN EXIT ENCLOSURES, PASSAGEWAYS, CORRIDORS AND ROOMS NOT SEPARATED FROM CORRIDORS. (EXISTING FLOOR FINISHES TO REMAIN.)
6. CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND WORKABLE SYSTEM.
7. CONTRACTOR SHALL PROTECT THE PUBLIC AND STRUCTURE DURING CONSTRUCTION WITH TEMPORARY FENCING AND BRACING.
8. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT; DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.
9. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

AC	AIR CONDITIONING UNIT
ACT	ACOUSTIC CEILING TILE
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
A.F.F.	ABOVE FINISHED FLOOR
AL.	ALUMINUM
CAT.	CATALOG
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILLE
C.J.	CEILING JOIST
CLG.	CEILING
DIV.	DIVISION
DN.	DOWN
DWG.	DRAWING
EA.	EACH
E.C.	ELECTRICAL CONTRACTOR
ELEC.	ELECTRICAL
ELEV	ELEVATOR
EQUIP.	EQUIPMENT
EXIST.	EXISTING
F.J.	FLOOR JOIST
FLR	FLOOR
FT	FEET OR FOOT
FTG	FOOTING
G.C.	GENERAL CONTRACTOR
GYB	GYPSUM BOARD
H.C.	HVAC CONTRACTOR
HDR	HEADER
LF	LINEAR FEET
LVL	LAMINATED VENEER LUMBER
MAX.	MAXIMUM
M.E.R.	MECHANICAL EQUIPMENT ROOM
MIN.	MINIMUM
N.I.C.	NOT IN CONTRACT
NOM.	NOMINAL
NTS	NOT TO SCALE
O.C.	ON CENTER
P.C.	PLUMBING CONTRACTOR
PSF	POUNDS PER SQUARE FT.
PSI	POUNDS PER SQUARE IN.
P.T.	PRESSURE TREATED
REQD.	REQUIRED
RM.	ROOM
R.O.	ROUGH OPENING
R.R.	ROOF RAFTER
SCHED.	SCHEDULE
SECT.	SECTION
SPEC.	SPECIFICATION
SPF	SPRUCE PINE FIR
S.S.	SOLID STUDS
SYS.	SYSTEM
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD

Y S

EXISTING TO BE REMOVED	–/–/–/–/–/–/–/– or ----------
EXISTING TO REMAIN	————
NEW WALL	————
NEW FOOTING	----------
NEW BEAM	——— – – ——— – – ———
NEW CONCRETE	————
NEW MILLWORK	————

SY B S

- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- POINT OF DISCONNECT
- X / YX — INDICATES SECTION LETTER / INDICATES DRAWING NUMBER WHERE LOCATED

ARCH 0 1 2 3 / ENGRG 0 1 2 3

P M

REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK – LICENSED PROFESSIONAL ENGINEER
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

S S Y 0 0 9 — S S 0 0 Y 0

ENGINEERING REVIEW			APPROVED
DEPT.	SIGNATURE	DATE	DATE
CIVIL/SURVEY			☐ PERMIT
TELECOM/MET.			☐ BID
TRANS & SUB.			☐ CONSTRUCTION
RELAY			☐ RECORD
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DESIGNED BY:	DRAWN BY:	APPROVED BY:	PE PROJECT #:
SBL	SL	RDF	22–071

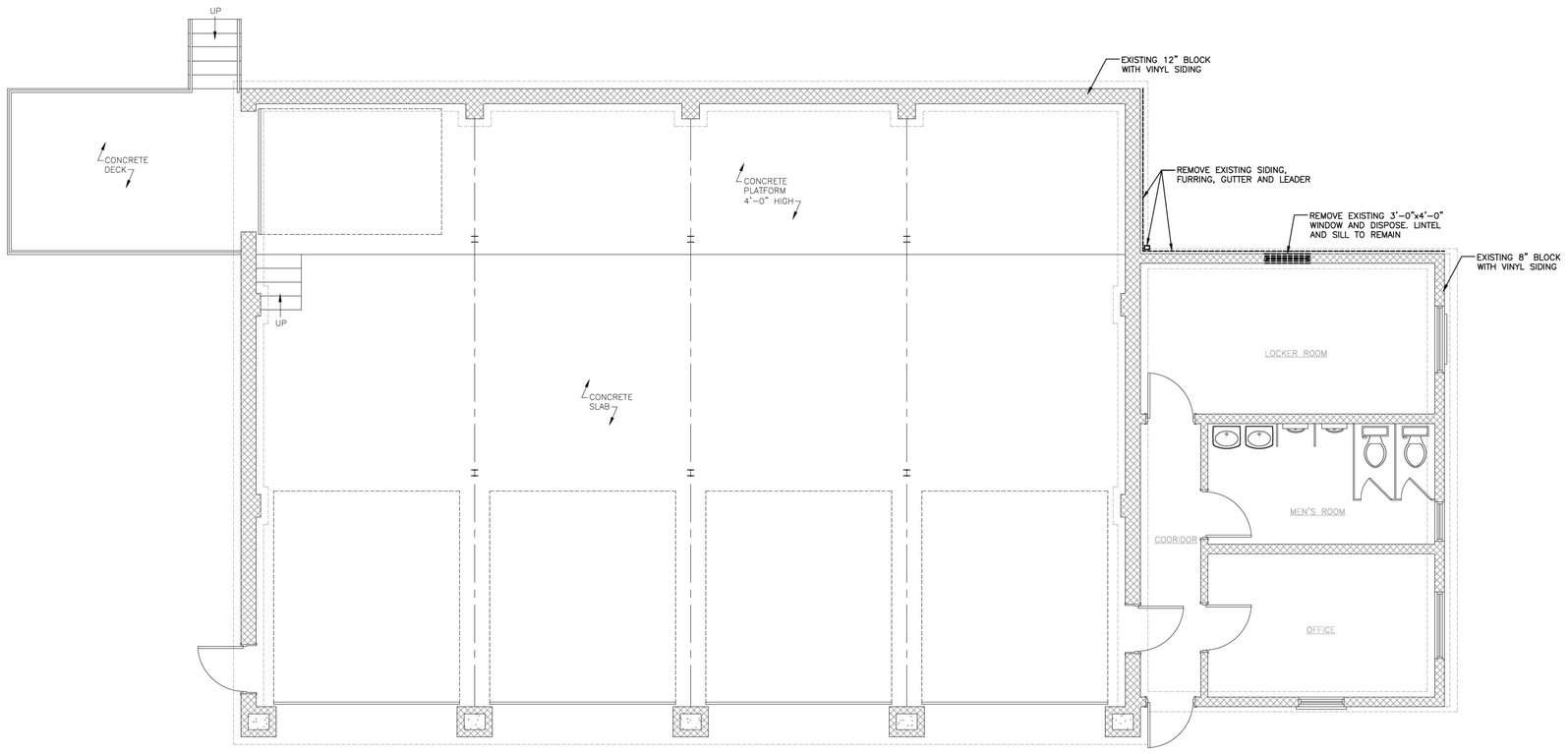
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				9/26/22

O&R MT. IVY HVAC UPGRADES

ARCHITECTURAL: SYMBOLS, ABBREVIATIONS & NOTES

SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	A-0.0		OF #	

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)



A H UA M PA
SCALE: 1/4"=1'-0"

REV	REVISION	DWN	DES	CHKD	DATE

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FELLENZER

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DESIGNED BY:	DRAWN BY:	APPROVED BY:	P.E. PROJECT #:
SBL	SL	RDF	22-071

ENGINEERING REVIEW

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DESIGN REVIEW | DATE 9/26/22

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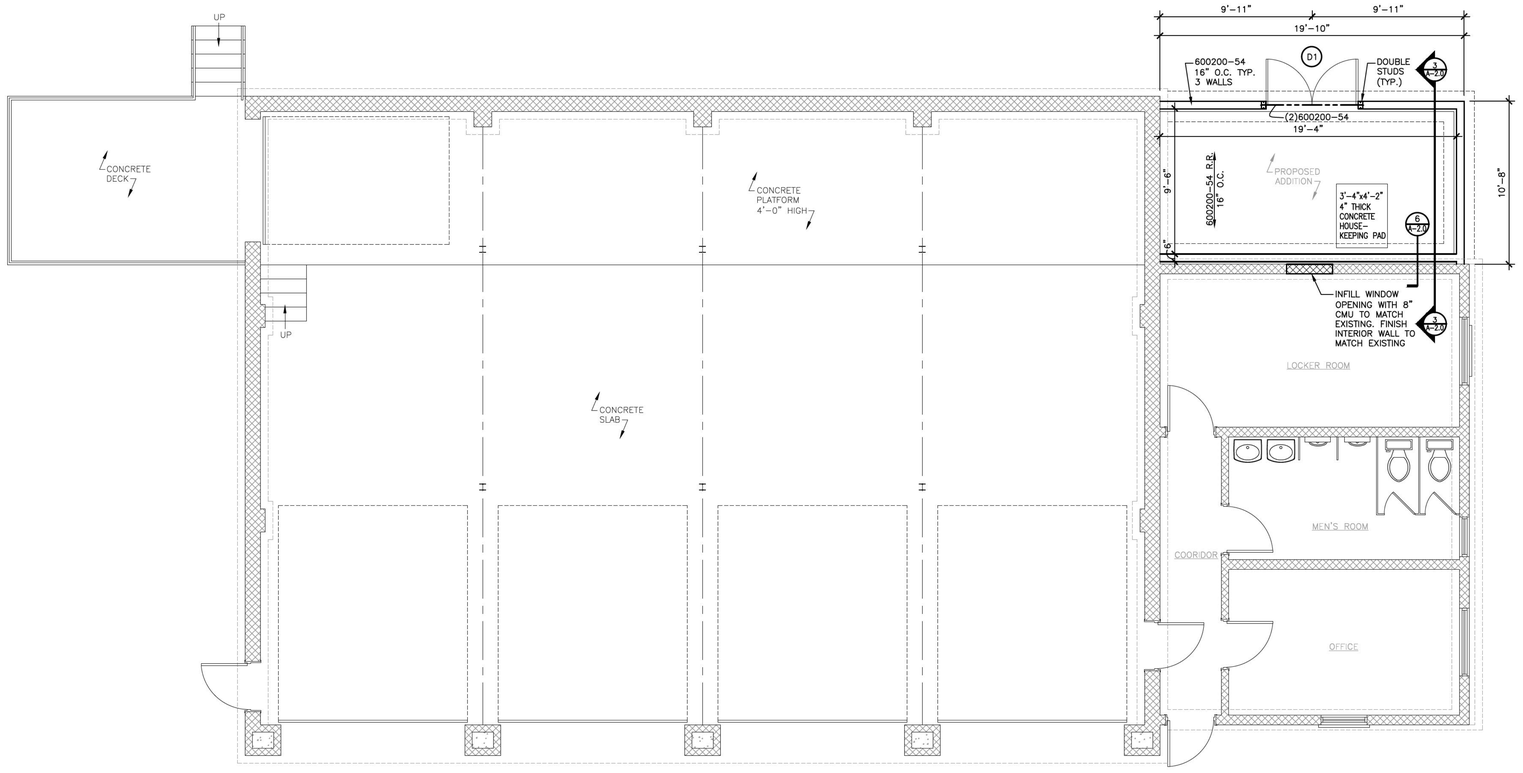
O&R MT. IVY HVAC UPGRADES

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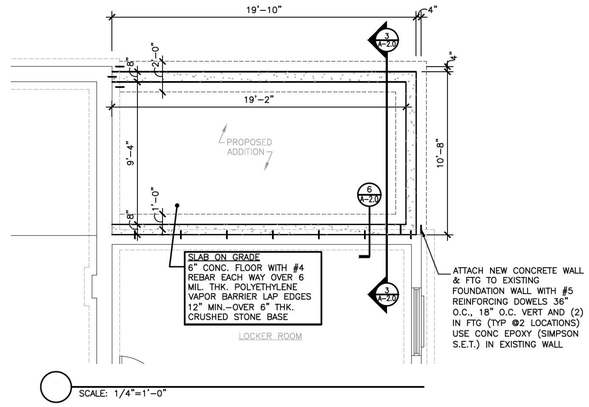
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AS NOTED	AD-1.0		OF #	

ARCH 0 1 2 3
ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

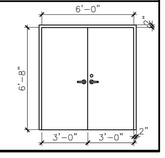


A H U A W U P A
SCALE: 1/4"=1'-0"



SCALE: 1/4"=1'-0"

TAG	SIZE	TYPE	CLOSING DEVICE		EXIT DEVICE			OTHERS	NOTES
			MFR/MODEL	FINISH	MFR/MODEL	TRIM KIT	FINISH		MANUFACTURER: STEELCRAFT OR EQUAL
D1	(2) 3'-0" x 6'-8"	STEELCRAFT L18 SERIES FULL FLUSH STEEL DOOR FOR EXTERIOR USE	LCN 4040XP	626 SATIN CHROMIUM PLATED	SARGENT	8700 FIRE RATED SURFACE VERTICAL ROD PANIC EXIST DEVICE AND 700 SERIES TRIM KIT OPERABLE DOOR, KEYED TO MATCH EXISTING KEYING SYSTEM. FLUSH BOLT INACTIVE DOOR.	626 SATIN CHROMIUM PLATED	(3)SS NRP HINGES (3)SILENCERS EACH DOOR	(2) 36" WIDE, 1¾" HEAVY DUTY COMMERCIAL INSULATED STEEL DOOR REINFORCED FOR HARDWARE AS REQUIRED. SWING SHALL BE AS SHOWN ON THE PLANS. FRAMES AND DOORS SHALL BE PAINTED TO MATCH ADJACENT EXISTING DOORS. PROVIDE GASKETING, WEATHER-STRIP/SWEEP, THRESHOLD, STEEL FRAMES, SS HINGES AND ALL HARDWARE NECESSARY FOR A COMPLETE, 60 MINUTE FIRE RATED ASSEMBLY INSTALLATION.



ARCH 0 1 2 3
ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

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DESIGNED BY:	DRAWN BY:	APPROVED BY:	FE PROJECT #:
SBL	SL	RDF	22-071

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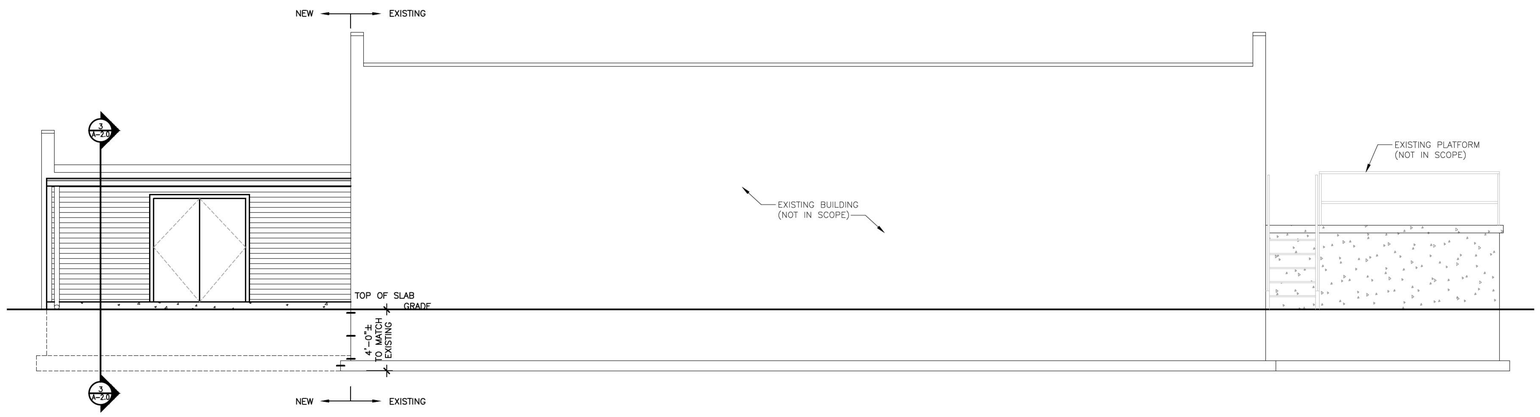
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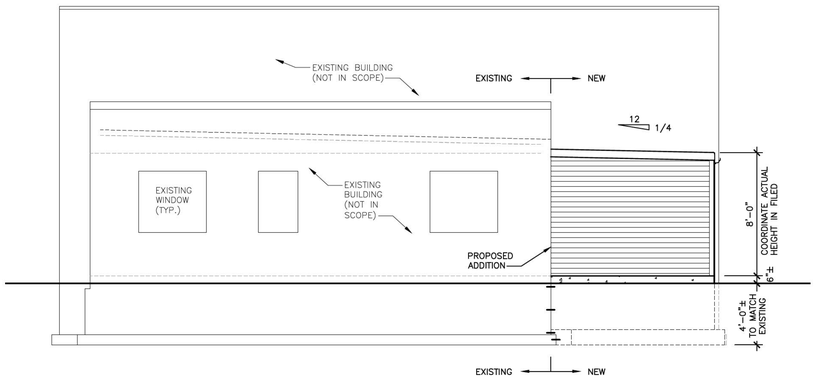
O&R MT. IVY HVAC UPGRADES

ARCHITECTURAL: NEW CONSTRUCTION FLOOR PLAN

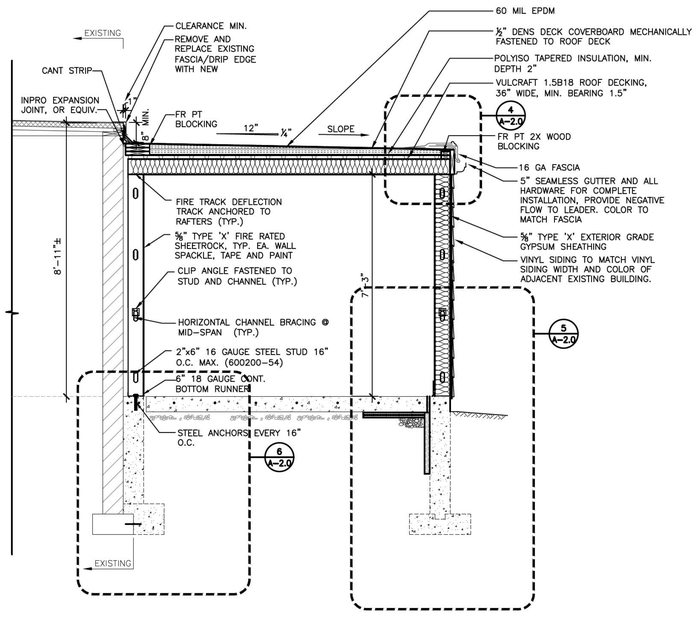
SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	A-1.0		OF #	



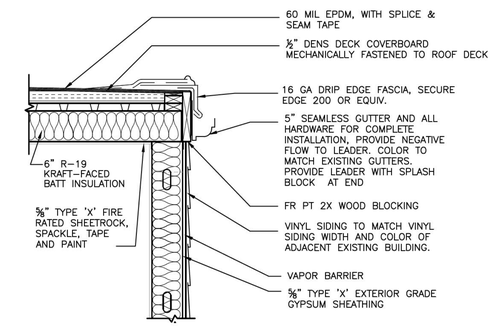
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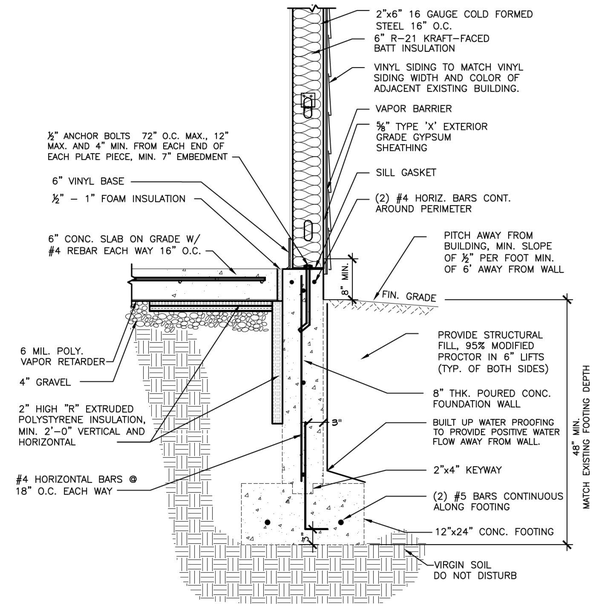
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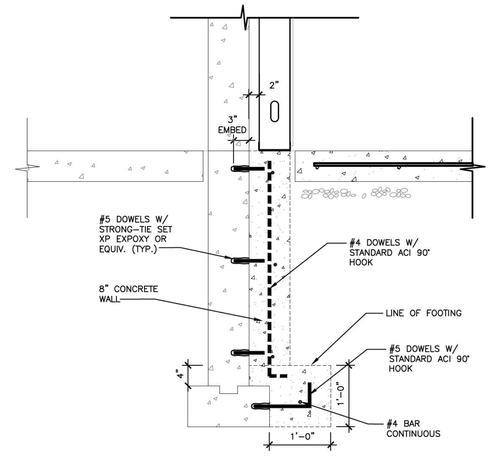
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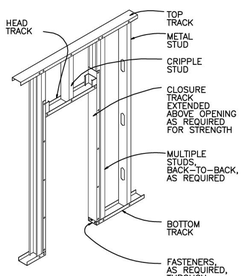
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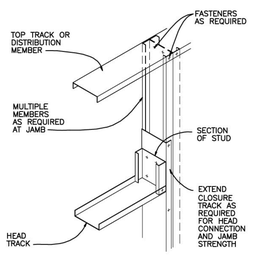
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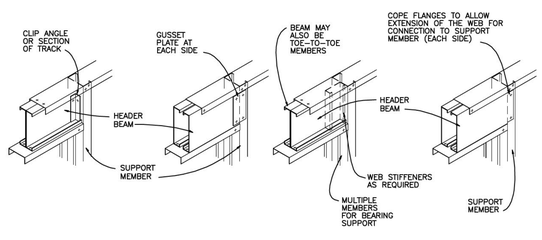
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YP P A
SCALE: N.T.S.

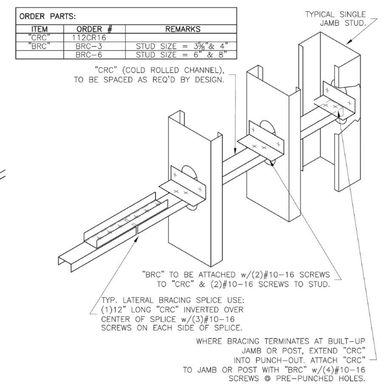


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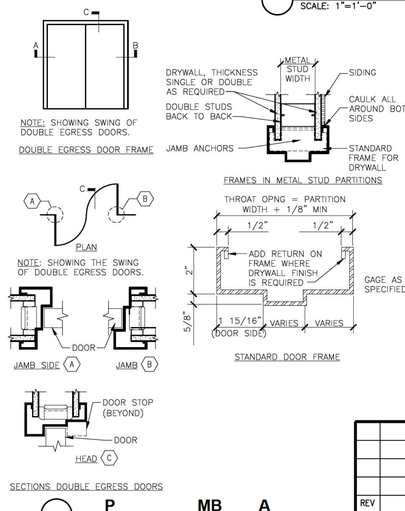


H A A
SCALE: N.T.S.

ORDER PARTS:		
ITEM	ORDER #	REMARKS
"CRC"	112CR16	
"BRC"	BRC-3	STUD SIZE = 3⅝" & 4"
	BRC-6	STUD SIZE = 6" & 8"



B A A
SCALE: N.T.S.



P MB A
SCALE: N.T.S.

P M

REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
Fellenzer
NY PROFESSIONAL ENGINEER
NO. 103817

FELLENZER

S S Y 0 0 9 S S 00 Y 0 0 0

ENGINEERING REVIEW

DEPT.	SIGNATURE	DATE
CIVIL/SURVEY		
TELECOM/MET.		
TRANS & SUB.		
RELAY		

DWN | DES | CHKD
DESIGN REVIEW | DATE 9/26/22

DESIGNED BY:	DRAWN BY:	APPROVED BY:	PE PROJECT #
SBL	ZR	RDF	22-071

APPROVED
DATE
☐ PERMIT
☐ BID
☐ CONSTRUCTION
☐ RECORD
☐ _____

O&R MT. IVY HVAC UPGRADES

A H U A A & A

SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	A-2.0		OF #	

0 1 2 3 ARCH
0 1 2 3 ENGRG

I:\PE Projects - Active\22-071 ORANGE AND ROCKLAND UTILITIES, INC\Mt. Ivy Substation\Drawings\Architectural\A-2.0.dwg (Layout: ARCH)
Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

VA M

1. COORDINATE WITH ARCHITECTURAL PLANS FOR EXACT AREAS TO BE DEMOLISHED.
2. REMOVE ALL EQUIPMENT, DUCTWORK AND PIPING AS INDICATED ON PLAN. REMOVALS SHALL INCLUDE ALL SUPPORTS AND HANGERS, HOUSEKEEPING PADS, DAMPERS, VALVES, FITTINGS, CONTROLS AND ASSOCIATED LOW VOLTAGE WIRING, AND ANY OTHER ASSOCIATED ACCESSORIES WHICH PERTAIN TO THE EQUIPMENT TO BE REMOVED.
3. REMOVAL OF ALL POWER CONNECTIONS TO DEMOLITION ITEMS SHALL BE BY THE E.C.
4. ANY DISCREPANCIES BETWEEN THE DEMOLITION PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER. ANY DEMOLITION WORK WHICH MAY BE QUESTIONABLE DUE TO UNFORESEEN FIELD CONDITIONS SHALL NOT BE REMOVED UNTIL REVIEWED BY THE ARCHITECT, ENGINEER OR BUILDING FACILITIES MANAGER.
5. DEMOLITION WORK SHALL INCLUDE THE PREPARATION OF EXISTING EQUIPMENT FOR CONNECTION TO NEW EQUIPMENT. COORDINATE DEMOLITION WORK WITH THE CONSTRUCTION PLANS.
6. ALL EQUIPMENT REMOVALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF DEMOLITION ITEMS OFF-SITE, UNLESS OTHERWISE NOTED.
7. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.
8. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.
9. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION WORK.

A

1. THE DRAWINGS ON THESE PLANS ARE DIAGRAMMATIC. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL HVAC WORK WITH OTHER TRADES AND THE BUILDING STRUCTURE. NO EXTRA PAYMENTS WILL BE AUTHORIZED FOR REROUTING OR REMOVAL OF INSTALLED WORK DUE TO LACK OF COORDINATION WITH OTHER SYSTEMS.
2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF HIS WORK.
3. ACCESS PANELS SHALL BE PROVIDED IN CEILINGS, WALLS, FLOORS, ETC., AS REQUIRED TO MAINTAIN ACCESSIBILITY TO VALVES, DAMPERS, TRAPS, COILS, ETC.
4. PROVIDE DUCT ACCESS DOORS AT ALL MOTORIZED DAMPERS, FIRE DAMPERS, AND SMOKE DAMPERS.
5. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.
6. ALL DUCTWORK PASSING THROUGH A FIRE RATED PARTITION SHALL BE PROVIDED WITH A FIRE DAMPER TO MAINTAIN THE FIRE RATING OF THE PARTITION.
7. LOCATIONS OF DIFFUSERS AND GRILLES ARE APPROXIMATE. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS.
8. ALL BRANCHES AND TAKE-OFFS SHALL BE EQUIPPED WITH VOLUME CONTROL DAMPERS. DAMPERS TO BE OPPOSED BLADE TYPE, 4" MAX. BLADE HEIGHT. VOLUME DAMPERS TO BE LOCATED AS NEAR TO THE POINT OF TAKE-OFF AS PRACTICAL.
9. FLEXIBLE DUCT CONNECTIONS SHALL BE LIMITED TO A MAXIMUM LENGTH OF FIVE (5) FEET AND SUPPORTED AT MID-POINT.
10. ALL SUPPLY & RETURN AIR DUCTWORK SHALL BE INSULATED.
11. PROVIDE SHUT-OFF VALVES AT ALL PIPING BRANCH TAKE-OFFS AND AT ALL CONNECTIONS TO EQUIPMENT.
12. PROVIDE DRAINS WITH HOSE ADAPTERS AND CAPS ON PIPING AT ALL LOW POINTS. PROVIDE MANUAL VENTS ON PIPING AT ALL HIGH POINTS.
13. COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL CONTRACTOR.
14. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE HVAC CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
15. ALL REQUIRED CONTROL EQUIPMENT AND WIRING SHALL BE FURNISHED & INSTALLED BY THE HVAC CONTRACTOR.
16. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
17. CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND WORKABLE SYSTEM.
18. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT; DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.
19. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AND/OR NEW CONSTRUCTION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

—/—/—/— or ----------	EXISTING EQUIPMENT/DUCT TO BE REMOVED
	EXISTING EQUIPMENT/DUCT TO REMAIN
	NEW EQUIPMENT / DUCT
ATV	ATMOSPHERIC VENT
BBD	BOILER BLOWDOWN
BR	BRINE RETURN
B	BRINE SUPPLY
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
A	COMPRESSED AIR
CD	CONDENSATE DRAIN
CR	CONDENSER WATER RETURN
C	CONDENSER WATER SUPPLY
DTVR	DUAL TEMP. WATER RETURN
DTVS	DUAL TEMP. WATER SUPPLY
FILL	FILL LINE
FOD	FUEL OIL DISCHARGE
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL TANK VENT
HPVR	HEAT PUMP WATER RETURN
HPVS	HEAT PUMP WATER SUPPLY
HPC	HIGH PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HTVR	HIGH TEMP HOT WATER RETURN
HTVS	HIGH TEMP HOT WATER SUPPLY
H	HUMIDIFICATION LINE
LPG	LP GAS SUPPLY
LPR	LOW PRESSURE CONDENSATE RETURN
LPC	LOW PRESSURE CONDENSATE RETURN
LPS	LOW PRESSURE STEAM SUPPLY
HVR	LOW TEMPERATURE HOT WATER RETURN
HVS	LOW TEMPERATURE HOT WATER SUPPLY
MU	MAKEUP WATER
MPC	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
MTVR	MEDIUM TEMP HOT WATER RETURN
MTVS	MEDIUM TEMP HOT WATER SUPPLY
G	NATURAL GAS LINE
PC	PUMPED CONDENSATE
RD	REFRIGERANT DISCHARGE
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
VAC	VACUUM LINE
VPD	VACUUM PUMP DISCHARGE

AxB	DUCTWORK DOUBLE LINE REPRESENTATION: "A" INDICATES DUCT WIDTH; "B" INDICATES DUCT DEPTH.
AxB	DUCTWORK SINGLE LINE REPRESENTATION: "A" INDICATES DUCT WIDTH; "B" INDICATES DUCT DEPTH.
	SUPPLY AIR DUCT UP
	SUPPLY AIR DUCT DOWN
	RETURN AIR DUCT UP
	RETURN AIR DUCT DOWN
	EXHAUST AIR DUCT UP
	EXHAUST AIR DUCT DOWN
	FLEXIBLE DUCTWORK
	SUPPLY AIR FLOW
	RETURN/EXHAUST AIR FLOW
	VOLUME DAMPER
	MOTORIZED DAMPER w/ ACCESS DOOR
	FIRE DAMPER W/ ACCESS DOOR
	SUPPLY AIR TERMINAL
	RETURN/EXHAUST AIR TERMINAL
	EXHAUST AIR TERMINAL
D	DROP DUCT
R	RISE DUCT

P P YMB

	DIRECTION OF FLOW
	ANCHOR
	PIPE GUIDE
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	TOP CONNECTION, 45° OR 90°
	BOTTOM CONNECTION, 45° OR 90°
	SIDE CONNECTION
	CAPPED OUTLET
	PIPE DOWN TURN
	PIPE RISE
	UNION
	DIRECTION OF PIPE PITCH (DOWN)

OR OR	GATE VALVE – THREADED/FLANGED GATE VALVE WITH 3/4" HOSE ADAPTER
OR OR	GLOBE VALVE – THREADED/FLANGED
OR OR	CHECK VALVE
OR OR	STRAINER
	WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)
	STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTOR
OR	FLEXIBLE CONNECTION
	ANGLE GLOBE VALVE
OR OR	BUTTERFLY VALVE
OR OR	BALL VALVE
	CONTROL VALVE (CV) – FLOAT-OPERATED
OR OR	MODULATING CONTROL VALVE
	MODULATING CONTROL BUTTERFLY VALVE
	TWO POSITION CONTROL VALVE
OR OR	THREE-WAY MODULATING CONTROL VALVE
	THREE-WAY TWO POSITION CONTROL VALVE
OR OR	PRESSURE REGULATING VALVE
OR OR	PRESSURE REDUCING VALVE (PRV)
OR OR	TEMPERATURE & PRESSURE RELIEF VALVE
	SAFETY OR PRESSURE RELIEF VALVE
OR OR	AUTOMATIC BALANCING CONTROL VALVE
	WATER BALANCE DEVICE
	WATER FLOW MEASURING DEVICE
OR OR	CIRCUIT SETTER VALVE
	GATE VALVE WITH GLOBE-VALVED BYPASS
OR OR	TRIPLE DUTY VALVE
LC	WATER LEVEL CONTROLLER
OR M	FLOW METER
OR	COMBINATION BALANCING AND SHUT-OFF VALVE
	MANUAL AIR VENT
	TEST PLUG (PRESSURE/TEMPERATURE)
OR	PLUG VALVE
	LUBRICATED PLUG VALVE

A YMB

	POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
	POINT OF DISCONNECT
X / XX	INDICATES SECTION LETTER INDICATES DRAWING NUMBER WHERE LOCATED
XXX / XXX	INDICATES TYPE OF AIR OUTLET INDICATES AIR FLOW REQUIREMENTS
	ADJUSTABLE ANGLE THERMOMETER
T	DIAL THERMOMETER
P	PRESSURE GAUGE WITH NEEDLE VALVE
T A	WALL MOUNT THERMOSTAT "A" DESIGNATES COMPONENT SERVED
TS	TEMPERATURE SENSOR
	PUMP
DS	DUCT SMOKE DETECTOR
SF	FAN SWITCH WITH PILOT LIGHT
U	DOOR UNDERCUT (BY G.C.)
L	LOUVERED DOOR (BY G.C.)

AC	AIR CONDITIONING UNIT	GPM	GALLONS PER MINUTE
ACT	ACOUSTIC CEILING TILE	H.C.	HVAC CONTRACTOR
ACCU	AIR COOLED CONDENSING UNIT	HF	HEPA FILTER
AD	ACCESS DOOR	HP	HORSEPOWER
AF	AFTER FILTER	HRP	HYDRONIC RADIANT CEILING PANEL
AFF	ABOVE FINISHED FLOOR	HV	HEATING AND VENTILATING UNIT
AFM	AIR FLOW MEASURING DEVICE	IV	INLET VANES
AHU	AIR HANDLING UNIT	LCD	LINEAR CEILING DIFFUSER
A.L.D.	AUTOMATIC LOUVER DAMPER (PNEUMATIC)	LFD	LAMINAR FLOW DIFFUSER
AP	ACCESS PANEL	LF	LINEAR FEET
BDD	BACK DRAFT DAMPER	LPG	LP GAS PIPING
BG	BOTTOM GRILLE (WALL TYPE)	LPR	LOW PRESSURE STEAM CONDENSATE
BR	BOTTOM REGISTER (WALL TYPE)	LPS	LOW PRESSURE STEAM
BTUH	BRITISH THERMAL UNITS/HOUR	LBS/HR	POUNDS PER HOUR
CC	COOLING COIL	MA	MIXED AIR
CD	CEILING DIFFUSER	MB	MIXING BOX
CFM	CUBIC FEET PER MINUTE	MD	MOTORIZED DAMPER
CG	CEILING GRILLE	MER	MECHANICAL EQUIPMENT ROOM
CLG	CEILING	MAX.	MAXIMUM
CO	CLEAN OUT	MBH	ONE THOUSAND BTUH
CP	CONDENSATE PUMP	MIN.	MINIMUM
CR	CEILING REGISTER	NOM.	NOMINAL
CUH	CABINET UNIT HEATER	OA	OUTSIDE AIR
CW	COLD WATER	P	PUMP
D	DRAIN	P.C.	PLUMBING CONTRACTOR
Db	DRY BULB TEMPERATURE, °F	PD	PRESSURE DROP (FEET OF WATER)
dB	DECIBELS	PF	PRE-FILTER
DN	DOWN	PGW	PROPYLENE GLYCOL-WATER SOLUTION
DP	DIFFERENTIAL PRESSURE	PH	PREHEAT
Dp	DEW POINT TEMPERATURE, °F	PRV	PRESSURE REDUCING VALVE
DS	DUCT SMOKE DETECTOR	PSI	POUNDS PER SQUARE IN.
DX	DIRECT EXPANSION	RA	RETURN AIR
EA	EXHAUST AIR	RF	RETURN FAN
EAT	ENTERING AIR TEMP	RHC	REHEAT COIL
E.C.	ELECTRICAL CONTRACTOR	Rh	RELATIVE HUMIDITY
ECC	ENGINEERING CONTROL CENTER	RPZ	REDUCED PRESSURE ZONE
EER	ENERGY EFFICIENCY RATIO	SA	SUPPLY AIR
EF	EXHAUST FAN	SD	SMOKE DAMPER
EGW	ETHYLENE GLYCOL-WATER SOLUTION	Sp. Gr.	SPECIFIC GRAVITY
EMD	END OF MAIN DRIP (STEAM)	SH	STEAM HUMIDIFIER
ERC	ENERGY RECOVERY COIL	SP	STATIC PRESSURE
ERP	ELECTRIC RADIANT CEILING PANEL	SPD	SPLITTER DAMPER
ET	EXPANSION TANK	SPS	STATIC PRESSURE SENSOR
EUH	ELECTRIC UNIT HEATER	S.S.	STAINLESS STEEL
EXIST	EXISTING	TG	TOP GRILLE (WALL TYPE)
F.A.I.	FRESH AIR INTAKE	TR	TOP REGISTER (WALL TYPE)
FC	FLEXIBLE CONNECTION	TWU	THRU WALL UNIT
FCU	FAN COIL UNIT	UH	UNIT HEATER
FD	FIRE DAMPER	U.N.O.	UNLESS NOTED OTHERWISE
FLR	FLOOR	UV	UNIT VENTILATOR
F.O.R.	FUEL OIL RETURN	V	VALVE
F.O.S.	FUEL OIL SUPPLY	VD	VOLUME DAMPER
FPC	FIRE PROTECTION CONTRACTOR	VE	VOLUME EXTRACTOR
F/SD	COMBINATION FIRE/SMOKE DAMPER	VI	VIBRATION ISOLATOR
FTR	FIN TUBE RADIATION	VIF	VERIFY IN FIELD
G	NATURAL GAS PIPE	W/	WITH
G.C.	GENERAL CONTRACTOR	Wb	WET BULB TEMPERATURE, °F
GH	GRAVITY HOOD	WFM	WATER FLOW MEASURING DEVICE
		WMS	WIRE MESH SCREEN
		WMS	WIRE MESH SCREEN

Y A M

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 ENERGY CODE.

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 UNIFORM CODE.

P M

REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

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ENGINEERING REVIEW

DEPT.	SIGNATURE	DATE
CIVIL/SURVEY		
TELECOM/MET.		
TRANS & SUB.		
RELAY		

APPROVED
DATE
☐ PERMIT
☐ BID
☐ CONSTRUCTION
☐ RECORD
☐ _____

O&R MT. IVY HVAC UPGRADES

VA YMB &
A B VA

DESIGNED BY:	DRAWN BY:	APPROVED BY:	PE PROJECT #:
#	ZR	RDF	22-071

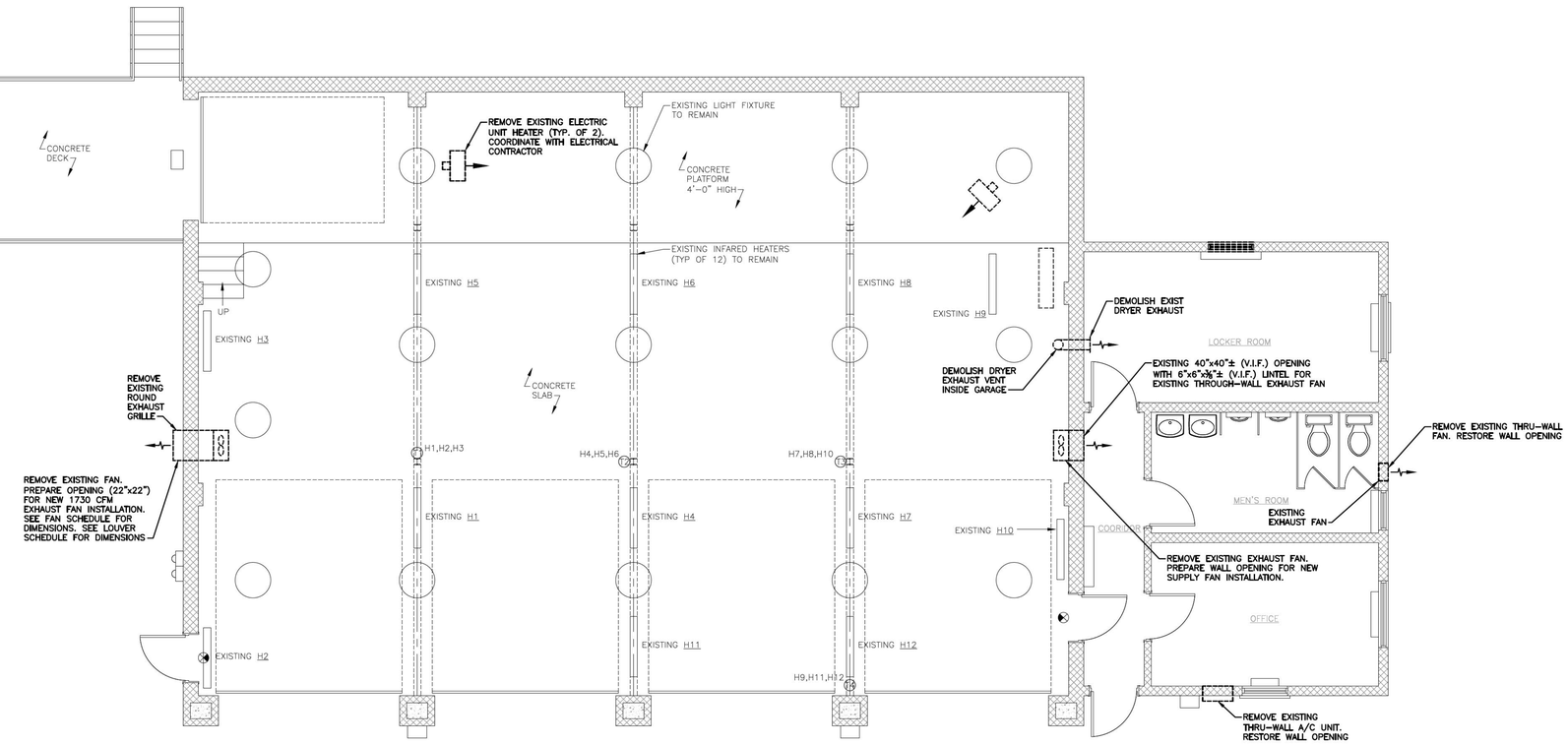
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DESIGN REVIEW | DATE: 9/26/22

SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	H-0.0		OF #	

ARCH 0 1 2 3
ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

1. CONTRACTOR SHALL RETURN ALL REMOVED EQUIPMENT TO ORANGE & ROCKLAND UTILITIES INC.



VA M P A
SCALE: 1/4"=1'-0"

REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

P M

STAMP:
RYAN D. FELLENZER, P.E.
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NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

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DESIGNED BY:	DRAWN BY:	APPROVED BY:	PE PROJECT #:
#	SA	RDF	22-071

ENGINEERING REVIEW

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O&R MT. IVY HVAC UPGRADES

H A U P A

SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	HD-1.0		OF #	

ARCH 0 1 2 3
ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

A H U A A M U PM			
SYMBOL	MANUFACTURE	MODEL	DESCRIPTION
DGC6	INTEC CONTROLS	POLYGUARD 2 DGC6	DIGITAL GAS SYSTEM DETECTION & MONITORING STAND ALONE CONTROLLER WITH SC2 GAS SENSOR(S). PROVIDE FAN CONTROLLER TO MEET SEQUENCE OF OPERATION.
CO/NO2	INTEC CONTROLS	DT6	COMBINATION CO/NO2 (SC2 SERIES)SENSOR.
REP	INTEC CONTROLS	REP5/ PBS-PSL6	RS-485 DIGITAL REPEATER/POWER BOOSTER. PROVIDE IF REQUIRED FOR FULL COVERAGE AND A COMPLETE AND OPERATIONAL SYSTEM. COORDINATE WITH MANUFACTURER REQUIREMENTS.

ALL SYSTEM DEVICES SHALL BE INSTALLED IN RATED NEMA4X / IP65 ENCLOSURES FOR PROTECTION FROM DUST AND MOISTURE IN THE GARAGE.

SENSORS SHALL MEET ALL PERFORMANCE SPECIFICATIONS INCLUDING ACCURACY AND REPEATABILITY IN ENVIRONMENTS BETWEEN 5 AND 122 DEGREES FAHRENHEIT WITH RELATIVE HUMIDITY BETWEEN 15 AND 90%.

EXHAUST/VENTILATION FAN ACTIVATION AND CONTROL

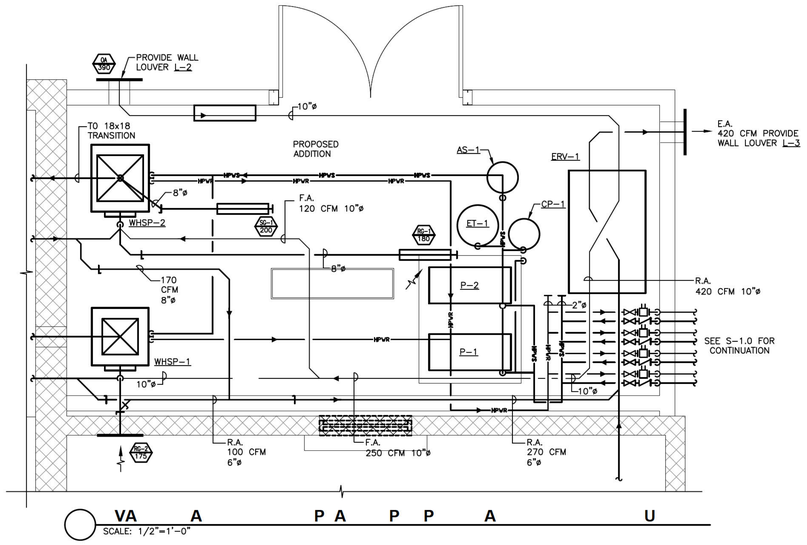
DURING NORMAL OPERATION THE 1,730 CFM GARAGE EXHAUST FAN SHALL BE OFF UNLESS MANUALLY OPERATED BY WALL MOUNTED POTENTIOMETER.

SHOULD THE MAXIMUM VALUE OF ANY SENSOR REACH 25 PPM CO OR 2 PPM NO2 THEN THE EXHAUST FAN SHALL BE ACTIVATED TO OPERATE AT 25% SPEED.

THE SYSTEM SHALL RAMP UP PROPORTIONALLY AS THE CO/NO2 PPM INCREASE UP TO A MAXIMUM VALUE OF 50 PPM CO, 4 PPM NO2. AT THIS VALUE THE EXHAUST EF-1 FAN SHALL BE AT FULL SPEED AND THE RTU OUTSIDE AIR SUPPLY FAN SHALL BE AT FULL SPEED.

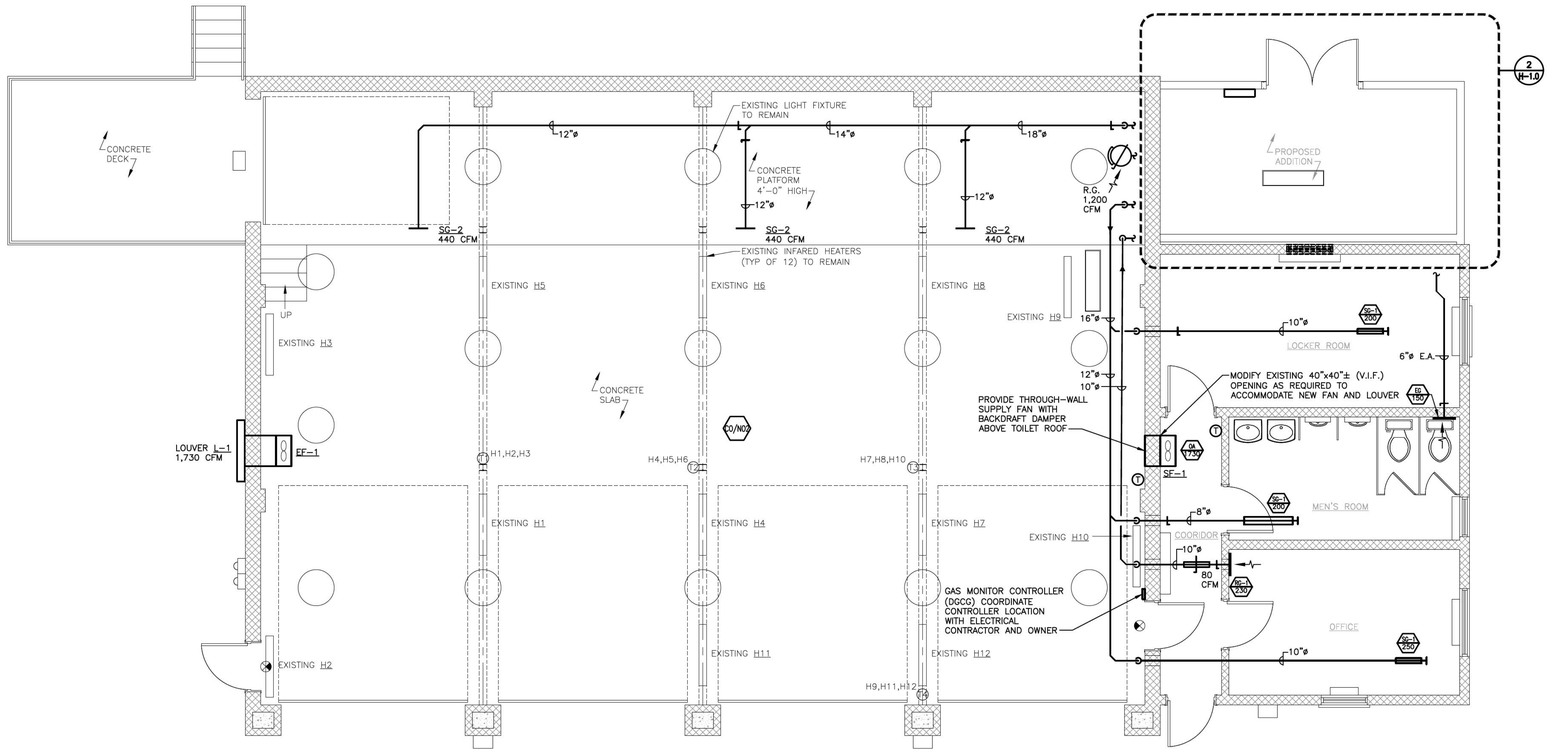
SHOULD THE GAS CONCENTRATION EXCEED THE PROGRAMMED ALARM THRESHOLD THE SYSTEM WILL TRIGGER AN AUDIO-VISUAL ALARM. WHEN THE GAS CONCENTRATION FALLS BELOW THE ALARM THRESHOLD THE ALARM SYSTEM WILL AUTOMATICALLY RESET.

PROVIDE A COMPLETE AND OPERABLE SYSTEM IN ALL REGARDS.



V A A P A P P A U

SCALE: 1/2"=1'-0"



H A U P A

SCALE: 1/4"=1'-0"

1. DUCTS IN GARAGE AREA ARE SPIRAL TYPE.
2. DUCTS IN OFFICES, TOILETS & LOCKERS ROOMS ARE SPIRAL OVAL SHAPE.

ARCH 0 1 2 3

ENGRG 0 1 2 3

STAMP:
RYAN D. FELLENZER, P.E.
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

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DESIGNED BY:	DRAWN BY:	APPROVED BY:	FE PROJECT #
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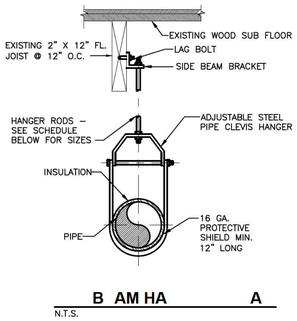
ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

O&R MT. IVY HVAC UPGRADES

H A U P A

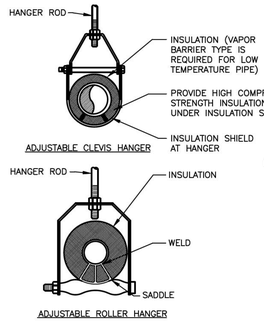
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AS NOTED	H-1.0		OF #	

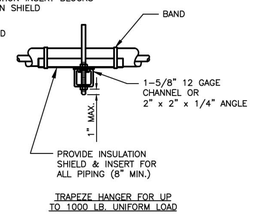
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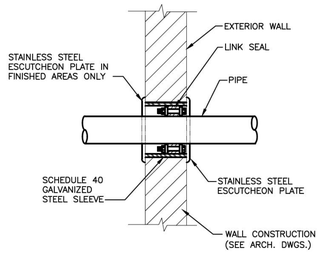




V UA PP HA & PA H U										
NOMINAL PIPE DIAMETER (IN.)	3/4	1	1 1/2	2	2 1/2	3	4	5	6	–
HANGER ROD SIZE (IN.)	3/8	3/8	3/8	3/8	1/2	1/2	5/8	5/8	7/8	_
MAXIMUM SUPPORT SPACING (FT.)										
STEEL PIPE	6	7	9	10	11	12	14	16	17	–
COPPER TUBE	6	6	8	9	10	10	12	14	14	–
NOTE: TRAPEZE HANGER SPACING SHALL BE BASED ON SPACING OF SMALLEST PIPE ON TRAPEZE. TRAPEZE SHALL BE DESIGNED WITH A FACTOR OF SAFETY OF 5 FOR CENTER OF SPAN CONCENTRATED LOAD										

P A PP A

N.T.S.

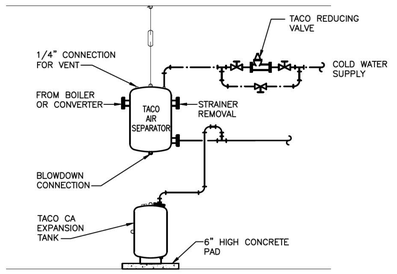


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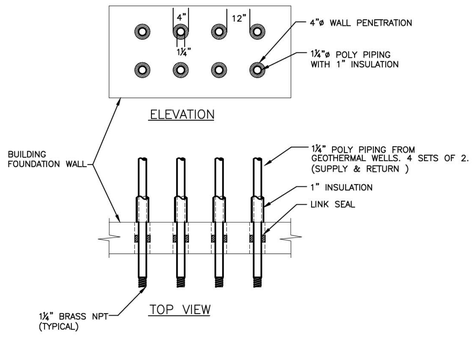
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U UA H U			
	FACING	R VALUE INSIDE BUILDING ENVELOPE	R VALUE OUTSIDE BUILDING ENVELOPE
SUPPLY AIR	FSK*	R–6	R–8
RETURN AIR	FSK*	R–6	R–8

* – FOIL–SCRIM KRAFT

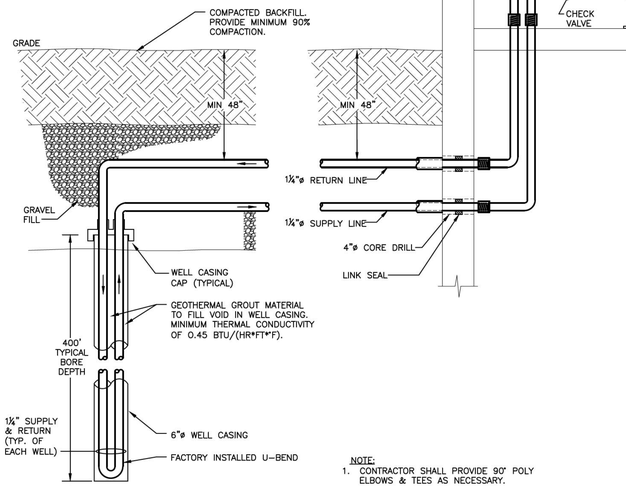


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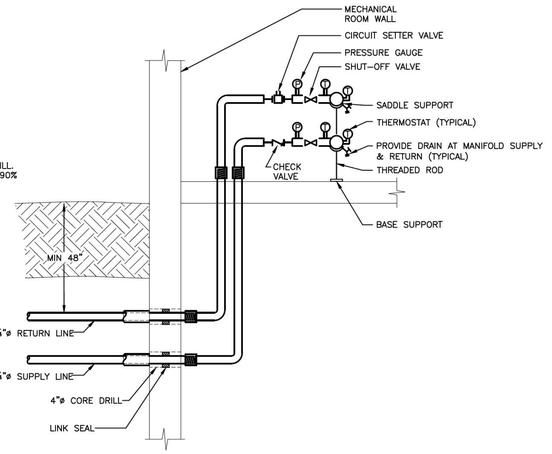
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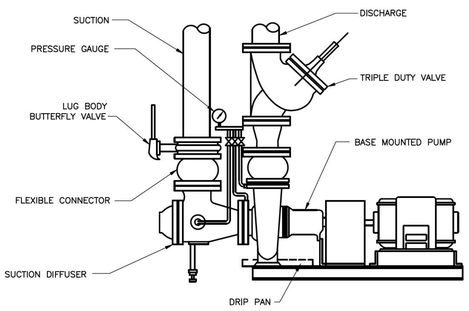
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NOTE:
1. CONTRACTOR SHALL PROVIDE 90° POLY ELBOWS & TEES AS NECESSARY.
2. PROVIDE 15' MINIMUM SEPARATION BETWEEN WELLS.

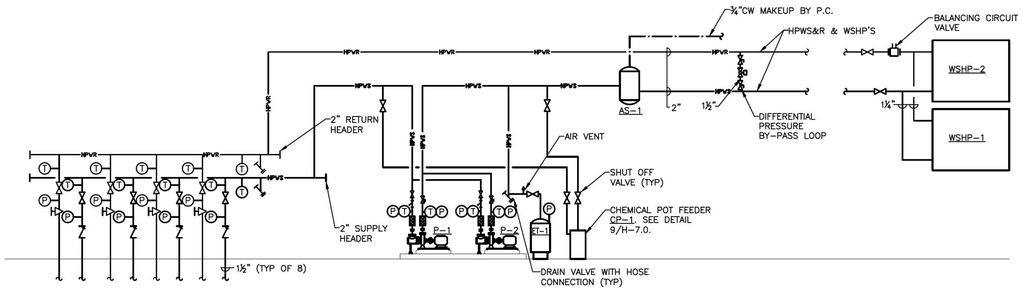
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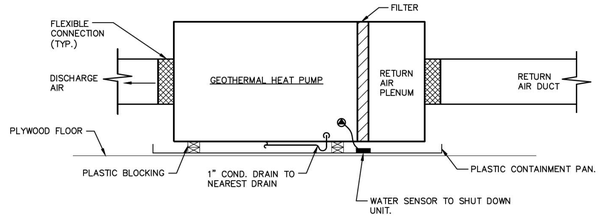


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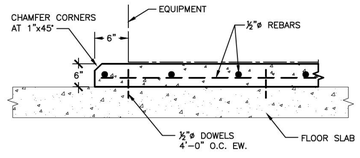
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NOTES:
1. TYPICAL FOR INDOOR FLOOR MOUNTED HEAT PUMP UNITS.
2. ALL ANCHORS, CLAMPS, BOLTS, CHANNELS, ETC., SHALL BE RATED TO SUPPORT THE EQUIPMENT OPERATING WEIGHT.
3. REFER TO MANUFACTURER RECOMMENDATIONS FOR VERTICAL FLOOR MOUNTED UNIT INSTALLATION.

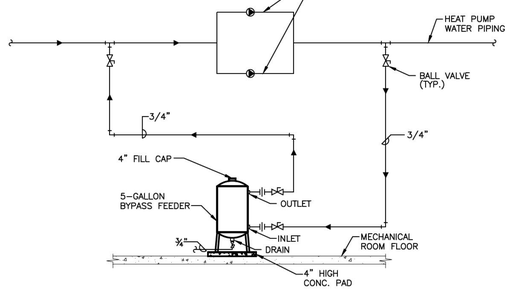
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REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

O&R MT. IVY HVAC UPGRADES

H A A

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

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DESIGNED BY:	DRAWN BY:	APPROVED BY:	P.E. PROJECT #:
#	ZR	RDF	22–071

ENGINEERING REVIEW

DEPT.	SIGNATURE	DATE
CIVIL/SURVEY		
TELECOM/MET.		
TRANS & SUB.		
RELAY		

DWN | DES | CHKD

DESIGN REVIEW | DATE 9/26/22

APPROVED DATE
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☐ BID
☐ CONSTRUCTION
☐ RECORD
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SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	H-7.0		OF #	

ARCH 0 1 2 3
ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

FAN SCHEDULE

UNIT NO.	SERVICE	LOCATION	CFM	E.S.P(IN.)	DRIVE	FAN RPM	FAN BHP	MOTOR HP	VOLT/PH	FLA (A)	MOCP (A)	MODEL	MANUFACTURER	REMARKS
EF-1	GARAGE EXHAUST	GARAGE WALL	1,730	0.22	DIRECT	1,160	0.16	1/4	208/1Φ	2.4	15	SE1-16-428-B	GREENHECK	SEE NOTES 1, 2, 3, 4
SF-1	GARAGE FA SUPPLY	GARAGE WALL	1,730	0.22	DIRECT	1,160	0.16	1/4	208/1Φ	2.4	15	SS1-16-428-B	GREENHECK	SEE NOTES 1, 2, 3, 4

NOTES:

1. PROVIDE ALL FANS WITH ISOLATION BACKDRAFT DAMPERS.
2. PROVIDE ALL FANS WITH THERMAL OVERLOAD PROTECTION..
3. E.S.P. INDICATED INCLUDE BACKDRAFT DAMPER LOSS.
4. **PROVIDE EXHAUST FAN WITH VFD ON MOTOR.**

LOUVER SCHEDULE

TAG	LOCATION	NOMINAL SIZE(IN)	FREE AREA (SF)	CFM	MATERIAL BLADE/FRAME	FRAME DEPTH (IN)	DRAINABLE	MANU. & MODEL	REMARKS
L-1	EXTERIOR WALL	24" X 28"	2.2	1730	ALUMINUM	4"	YES	GREENHECK ESD-435 - 24x28	SEE NOTES
L-2	EXTERIOR WALL	14" X 16"	0.5	370	ALUMINUM	6"	YES	GREENHECK ESD-635 - 14x16	SEE NOTES
L-3	EXTERIOR WALL	14" X 16"	0.5	420	ALUMINUM	6"	YES	GREENHECK EDJ-601 - 14x16	SEE NOTES

NOTES:

1. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
2. PROVIDE KYNAR ENAMEL FINISH, COLOR AS PER ARCHITECT.

PUMP SCHEDULE

TAG	SERVICE	LOCATION	MANUFACTURER	MODEL NO.	TYPE	GPM	TOTAL HEAD (FT)	MOTOR HP	RPM	CONNECTIONS SIZE	VOLTS/PHASE	MOUNTING	REMARKS
P-1&2	GEOTHERMAL LOOP	MECHANICAL ROOM	**TACO**	**1915-2P-PD**	END SUCTION	**27**	**108**	**3**	3450	1-1/2" X 1-1/2"	208/3Φ	CONCRETE PAD	SEE NOTES

NOTES:

1. PROVIDE PUMPS WITH REAR SUCTION STRAINERS/DIFFUSERS.
2. PROVIDE PUMPS WITH VFD'S.
3. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.

EXPANSION TANK SCHEDULE

TAG	SERVICE	LOCATION	MANUFACTURER	MODEL NO.	OPERATING WEIGHT (LBS)	DIMENSIONS, INCHES (DIAM X H)	SYSTEM VOLUME, GALLONS	TANK SIZING, GALLONS (70%)	TANK VOLUME, GALLONS	TANK ACCEPTANCE VOLUME, GALLONS	PRE-CHARGE FILL PRESSURE, PSI	REMARKS
ET-1	GEOTHERMAL LOOP	MECHANICAL ROOM	TACO	CA90-125	312	20 x 30	240	170	23	23	12	SEE NOTES

NOTES:

1. TANK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION VIII OF THE ASME BOILER AND VESSEL CODE AND STAMPED FOR 125 PSIG WORKING PRESSURE.
2. RELIEF VALVE SHALL BE SET AT 75 PSIG.
3. MOUNT EXPANSION TANKS ON 6" HIGH CONCRETE PADS.

WATER SOURCE HEAT PUMP SCHEDULE

UNIT NO.	FAN CFM	EXT. SP. (IN. WC)	FLUID FLOW (GPM)	FLUID TYPE	ANTIFREEZE (%)	GROUND LOOP COOLING EWT (°F)	GROUND LOOP HEATING EWT (°F)	PRESSURE DROP (PSI) W /3/4" VALVE	COOLING DATA				HEATING DATA				ELECTRICAL DATA		EER	COP	MANUFACTURER & MODEL #	REMARKS
									TOTAL MBH	E.A.T. DB/WB (°F)	E.W.T. (°F)	GPM	TOTAL MBH	E.A.T. DB/WB (°F)	E.W.T. (°F)	GPM	VOLT/PH	MOCP				
WSHP-1	750	0.5	6	Propylene Glycol	30	77.00	32.00	6.69	24.5	80.6/66.2	55	2.45	17	68/59	55	2.45	208/1Φ	30	15.6	3.5	WATER FURNACE VERSATEC 300 UBV024T	SEE NOTES
WSHP-2	1320	0.5	12	Propylene Glycol	30	77.00	32.00	9.92	49.5	80.6/66.2	55	4.95	36.5	68/59	55	4.95	208/1Φ	50	16	3.5	WATER FURNACE VERSATEC 300 UBV048T	SEE NOTES

NOTES:

1. CONTRACTOR SHALL PROVIDE HOSE KITS FOR EACH UNIT WITH STRAINER AND PRESSURE/TEMPERATURE PORT VALVES.
2. UNITS SHALL BE EQUIPPED WITH INTEGRAL FLOW CONTROL VALVES.
3. STARTERS/DISCONNECTS SHALL BE FURNISHED BY THE HVAC CONTRACTOR. COORDINATE ELECTRICAL INSTALLATION & REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
4. ALL GROUND FLOOR UNITS SHALL BE PROVIDED WITH CONDENSATE DISPOSAL PUMP EQUAL TO "LITTLE GIANT" MODEL VCC-20ULS, 208/1/60 VOLTS WITH SAFETY SWITCH AND CHECK VALVE.
5. PROVIDE WSHPs WITH FACTORY RETURN AIR DOORS.
6. PROVIDE ALL UNITS WITH FACTORY ECM MOTOR.
7. PROVIDE ALL UNITS WITH DUCTED FILTER RACK.

ENERGY RECOVERY VENTILATOR SCHEDULE

Tag#	Model	Location	UNIT	Supply Air Airflow				Exhaust Air Airflow				Energy Recovery Data												Unit Information								
												Summer/Cooling						Winter/Heating						Electrical			Filters					
												Outdoor Air		Fresh Air		Return Air		Outdoor Air		Fresh Air		Return Air					Outdoor Air			Return Air		
			ESP	Fresh Air CFM	Motor HP	VFD	FLA (PER MOTOR)	Exhaust Air CFM	Motor HP	VFD	FLA (PER MOTOR)	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Voltage/Phase/HZ	MCA	MOPD	Type	Depth	Rating	Type	Depth	Rating
ERV-1	**RenewAire # HE-1X**	Indoor Unit	1.5	**370**	0.75	NO	4.5	**420**	0.75	NO	4.5	91	73.2	78.9	67.2	75	62.5	2.9	1.2	53.6	41.5	70	51.4	208-230V / 1 Phase	10.1	15	Pleated	2"	MERV-13	Pleated	2"	MERV-8

NOTE:

1. PROVIDE WITH BACKDRAFT DAMPER.
2. EXTERIOR PAINT - WHITE, CUSTOM COLOR BY ARCHITECT.

AIR OUTLET SCHEDULE

DESIGNATION AND SYMBOL	CFM RANGE	NECK SIZE	FACE SIZE	APPLICATION	MANUF. & MODEL	ACCESSORIES	FRAME TYPE	MAX S.P.	FINISH	REMARKS
SG-1	100 - 250	20" X 4"	21-1/2" X 4-3/4"	Double Deflection Curved Spiral Duct Supply Grille	NAILOR (51DHC)	----	DUCT MOUNTED	0.1	#26 WHITE	SEE NOTES
SG-2	440	12" Φ	14-15/16"	END DUCT DOUBLE DEFLECTION ROUND SUPPLY ADJUSTABLE LOUVERED GRILLE	TITUS (R-300F)	----	DUCT MOUNTED	0.1	#26 WHITE	SEE NOTES
RG-1	80 -230	24"X3"	25-1/2" X 4-3/4"	DUCT-MOUNTED RETURN GRILLE	TITUS (US8F)	----	DUCT MOUNTED	0.1	#26 WHITE	SEE NOTES
RG-2	100 - 250	20" X 4"	21-1/2" X 4-3/4"	CURVED SPIRAL DUCT-MOUNTED RETURN GRILLE	NAILOR (5155HC)	----	DUCT MOUNTED	0.1	#26 WHITE	SEE NOTES
EG-1	150, 230	10 X 6	12-1/2"x8-1/2"	EXHAUST GRILLE/REGISTER	NAILOR (71F)	----	WALL MOUNTED	0.1	#26 WHITE	SEE NOTES

NOTES:

1. ALL AIR OUTLETS SHALL BE HEAVY DUTY CONSTRUCTION.
2. ALL CEILING DIFFUSERS ARE FOUR WAY DIRECTIONAL THROW UNLESS NOTED OTHERWISE.
3. ALL DIFFSUERS/GRILLES SHALL BE INSTALLED AND SUPPORTED AS PER MANUFACTURER'S INSTRUCTIONS.
4. PROVIDE LINEAR DIFFUSERS WITH FACTORY PLENUM BOX.
5. PROVIDE LINEAR DIFFUSERS WITH ADJUSTABLE AIRFLOW CONTROLLERS.

AIR SEPARATOR SCHEDULE

UNIT NO.	SERVICE	LOCATION	MANUF. & MODEL #	WORKING PRESSURE (PSIG)	CONNECTION SIZES (IN.)			REMARKS
					INLET	OUTLET	BOTTOM DRAIN	
AS-1	P-1 & 2	MECHANICAL ROOM	**TACO AC02F-125**	125	2	2	1 1/4	SEE NOTES

NOTES:

1. PROVIDE AIR SEPERATOR WITH INTERNAL STRAINER.
2. TANK SHALL BE RATED FOR A MINIMUM 125 PSIG.

REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

P M

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

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ENGINEERING REVIEW

DEPT.	SIGNATURE	DATE
CIVIL/SURVEY		
TELECOM/MET.		
TRANS & SUB.		
RELAY		

DWN | DES | CHKD
DESIGN REVIEW | DATE 9/26/22

DESIGNED BY: # | DRAWN BY: ZR | APPROVED BY: RDF | FE PROJECT #: 22-071

APPROVED
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O&R MT. IVY HVAC UPGRADES

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SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
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ARCH 0 1 2 3
ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

1. ALL CONDUITS ARE SHOWN DIAGRAMMATICALLY. EXACT RUNS SHALL BE DETERMINED IN FIELD EXCEPT WHERE SPECIFICALLY DIMENSIONED ON CONDUIT LAYOUTS. CONTRACTOR SHALL FOLLOW MINIMUM SPACING REQUIREMENTS TO REDUCE ELECTROMAGNETIC INTERFERENCE. COORDINATE CONDUIT ROUTING WITH ALL OTHER TRADES.

2. ALL EXPOSED CONDUIT SHALL BE RUN PARALLEL TO BUILDING WALLS AND BEAMS EXCEPT WHERE OTHERWISE SHOWN. CONTRACTOR SHALL INSTALL CONDUIT IN SUCH A MANNER TO AVOID ALL INTERFERENCES.

3. DEFLECTION/EXPANSION FITTINGS SHALL BE PROVIDED WHERE RIGID METAL CONDUIT CROSSES STRUCTURAL EXPANSION JOINTS.

4. EXPOSED CONDUIT SHALL BE SUPPORTED ON WALLS OR CEILINGS BY APPROVED HANGERS OF ANGLE OR CHANNEL CONSTRUCTION. CONDUITS SHALL BE SUPPORTED AT LEAST EVERY EIGHT (8) FEET.

5. ALL SPARE CONDUITS SHALL BE TERMINATED AS SHOWN ON CONDUIT LAYOUTS AND SHALL BE CAPPED 3" ABOVE FINISHED FLOOR.

6. NO CONDUIT SHALL BE SMALLER THAN ¾" UNLESS NOTED OTHERWISE ON PLANS.

7. EXACT CONDUIT STUB-UP LOCATIONS ARE TO BE DETERMINED BY THE ELECTRICAL CONTRACTOR BASED ON CERTIFIED MANUFACTURER'S DRAWINGS OF THE RESPECTIVE EQUIPMENT. CONDUIT SHALL BE INSTALLED TO AGREE WITH EQUIPMENT FURNISHED.

8. ALL LIGHTING WIRING SHALL BE #12AWG. UNLESS OTHERWISE NOTED. THE NUMBER OF WIRES SHOWN ON THE DRAWINGS IS NOT NECESSARILY THE CORRECT NUMBER REQUIRED. THE CONTRACTOR SHALL INSTALL AS MANY AS ARE NECESSARY FOR PROVIDING A COMPLETE ELECTRICAL SYSTEM IN EACH CASE.

9. CONDUITS PASSING THROUGH BUILDING FLOORS OR WALLS BELOW GRADE ARE TO BE INSTALLED WITH WATERTIGHT THRU WALL CONDUIT SEAL FITTINGS.

10. EQUIPMENT FURNISHED BY OTHERS SHALL BE INSTALLED & ENERGIZED BY THE ELECTRICAL CONTRACTOR.

11. ONLY CONDUITS HAVING OUTSIDE DIAMETERS NO LARGER THAN ONE-THIRD OF THE THICKNESS OF SLAB MAY BE INSTALLED WITHIN THE CONCRETE SLABS.

12. CONDUITS IN STRUCTURAL SLABS ARE TO BE SPACED SO AS TO PROVIDE NO LESS THAN THREE CONDUIT DIAMETERS, CENTER TO CENTER, WHEREVER POSSIBLE. LARGER SPACING IS PREFERRED.

13. CONTINUOUS ROWS OF CONDUITS ARE NOT TO BE PLACED IMMEDIATELY ALONG BEARING ENDS OF SLABS.

14. THE ELECTRICAL CONTRACTOR SHALL NOT ENDANGER THE STABILITY OF THE STRUCTURE OR ANY PART THEREOF BY CUTTING, DRILLING OR OTHERWISE, AND SHALL NOT IN ANY WAY CUT OR ALTER THE WORK OF ANY OTHER CONTRACTOR, EXCEPT WITH THE WRITTEN CONSENT OF AND UNDER THE DIRECTION OF THE ARCHITECT AND/OR GENERAL CONTRACTOR.

15. THE ELECTRICAL CONTRACTOR SHALL SECURE ALL APPROVALS AND CERTIFICATES AND PAY ALL FEES FOR ALL THE WORK INSTALLED. CERTIFICATES SHALL BE DELIVERED TO THE GENERAL CONTRACTOR BEFORE FINAL PAYMENT WILL BE MADE.

16. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE VERSION OF THE NEC AS WELL AS ALL STATE AND LOCAL CODES.

17. THE DRAWINGS INDICATE AND THE SPECIFICATIONS DESCRIBE THE GENERAL ARRANGEMENTS AND LOCATION OF OUTLET BOXES, ETC. THE CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE OWNER, MAKE ALL REASONABLE MODIFICATIONS IN THE WORK AS MAY BE REQUIRED TO PREVENT CONFLICT WITH EXISTING CONDITIONS, THE WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF THE WORK.

18. PRIOR TO SUBMISSION OF BID PROPOSAL, THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE CAREFULLY THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT WILL BE INCURRED DURING THE PERFORMANCE OF HIS WORK.
    A. VERIFY & COORDINATE CONDUIT ROUTING.
    B. VERIFY & COORDINATE SCOPE OF DEMOLITION WORK.
    C. VERIFY & COORDINATE SCOPE OF WORK INVOLVING CONNECTIONS TO EXISTING BASE BUILDING SYSTEMS.
    D. VERIFY SCOPE OF WORK THAT HAS TO BE DONE WITH EXISTING FIRE ALARM SYSTEM AS REQUIRED TO ACCOMMODATE ALL ADDED DEVICES.
    E. VERIFY WITH GENERAL CONTRACTOR SCOPE OF WORK ASSOCIATED WITH RIGGING OF EQUIPMENT TO BE PREPURCHASED.
    F. COORDINATE WITH THE BUILDING ENGINEER AND GENERAL CONTRACTOR SHUT DOWNS OF EXISTING FACILITIES.

19. ARRANGE FOR SITE VISIT WITH THE BLDG. OWNER REPRESENTATIVE AND GENERAL CONTRACTOR.

20. CLAIMS FOR ADDITIONAL COMPENSATION ARISING DUE TO THE FAILURE OF THE CONTRACTOR TO FULLY UNDERSTAND THE SITE CONDITIONS SHALL NOT BE PAID FOR BY ANY OTHER PARTY.

21. CONNECTIONS TO EXISTING WORK:
    A. INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES.
    B. TEMPORARY SHUTDOWNS OF EXISTING SERVICES:
        a. AT NO ADDITIONAL CHARGES.
        b. AT TIMES NOT TO INTERFERE WITH NORMAL OPERATION OF EXISTING SERVICES.
        c. ONLY WITH WRITTEN CONSENT OF THE GENERAL CONTRACTOR AND/OR BUILDING OWNERS REPRESENTATIVE.
    C. ALARM AND EMERGENCY SYSTEMS: NOT TO BE INTERRUPTED.
    D. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES AS REQUIRED WITH NECESSARY TEMPORARY CONNECTIONS BETWEEN NEW AND EXISTING WORK.
    E. CONNECT NEW WORK TO EXISTING WORK IN NEAT AND ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO ORIGINAL CONDITION, INCLUDING MAINTENANCE OF WIRING CONTINUITY AS REQUIRED.
    F. PRIOR TO DEMOLITION OF AN EXISTING POWER PANEL, THE CONTRACTOR SHALL SEARCH OUT ALL EXISTING CIRCUITS FED FROM THE PANEL TO PREVENT ANY ACCIDENTAL SERVICE INTERRUPTIONS.

22. LEAVE WIRE SUFFICIENTLY LONG TO PERMIT MAKING FINAL CONNECTIONS. CONDUIT OVER 10 FEET IN WHICH WIRING IS NOT INSTALLED-FURNISH PULL STRING.

23. DO NOT PULL THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32 DEG F (0 DEG C). PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY CODE.

24. LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS AT OR NEAR DOORS. INSTALL SWITCH ON SIDE OPPOSITE HINGE; VERIFY FINAL DOOR HINGE LOCATION IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.

25. JUNCTION & PULL BOXES: DO NOT LOCATE EXPOSED IN FINISH SPACES UNLESS REQUIRED BY NEC. WHERE NECESSARY, REROUTE CONDUIT OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT. PROVIDE PULL BOXES AS INDICATED AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE AND COORDINATE LOCATIONS WITH OTHER TRADES. COVERS OF JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE. FOR EMPTY CONDUITS, INSTALL PULL BOXES EVERY 100 FEET AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES.

26. SUPPORT PANEL, JUNCTION & PULL BOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON CONDUIT.

27. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.

28. FOR EACH LOCATION OF OTHER TRADES EQUIPMENT, SEE RESPECTIVE TRADE DRAWINGS.

29. FOR RECEPTACLE & OUTLETS MOUNTING HEIGHTS AND POSITION (HORIZONTAL, VERTICAL), COORDINATE WITH ARCHITECT, OWNER, REPRESENTATIVE & DATA/ COMMUNICATION CONSULTANT.

30. CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAILS SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE WORKABLE SYSTEM.

31. USE OF ISOLATED TYPE GROUNDING CONDUCTOR FOR IG TYPE RECEPTACLES, PLUG MOLDS & EQUIPMENT DOES NOT RELIEVE REQUIREMENT FOR GROUNDING CONDUIT SYSTEM, DEVICES AND EQUIPMENT AS REQUIRED BY ALL APPLICABLE CODES. PROVIDE AND INSTALL GROUNDING FITTING, EQUIPMENT GROUND WIRING ETC. AS REQUIRED.

32. ALL CONDUITS, TRANSFORMERS ETC. SHALL BE SUPPORTED FROM STRUCTURAL STEEL ONLY. COORDINATE WITH GENERAL CONTRACTOR.

33. ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT IN ELECTRICAL AND SERVICE SWITCHBOARD ROOM SHALL BE INSTALLED ON 4" CONCRETE PAD AS REQUIRED TO SUPPORT EACH SECTION OF EQUIPMENT. COORDINATE WITH GENERAL CONTRACTOR.

34. PROVIDE BARRIERS IN ALL PULL BOXES FOR CONDUIT SETS.

35. PAINT AND RUST PROOF ALL HARDWARE & CONDUITS ON ROOF AND IN EXPOSED AREAS AS DIRECTED BY GENERAL CONTRACTOR.

36. NUMBER SHOWN ADJACENT TO LIGHTING FIXTURES, RECEPTACLES, OUTLETS, JUNCTION BOXES ETC. INDICATES CIRCUIT NUMBER.

37. ALL GROUND CONNECTIONS TO THE BUILDING STEEL SHALL BE EXOTHERMIC WELDED.

38. FOR RAISED FLOOR SYSTEMS, THE ELECTRICAL CONTRACTOR SHALL DRILL HOLE IN THE FLOOR TILE FOR TRANSITION FROM BELOW FLOOR TO DEVICE SERVED.

39. FLEXIBLE CONNECTIONS IN EXPOSED AREAS SHALL NOT EXCEED 18" MAXIMUM.

40. ALL EQUIPMENT DEVICES, WIRING, ETC. SHOWN ON THE DRAWINGS IS NEW UNLESS OTHERWISE NOTED.

41. ELECTRICAL CONTRACTOR SHALL PROVIDE SLEEVES/ OPENINGS FOR ALL CONDUIT RISERS PENETRATING WALLS, ROOF & FLOOR SLABS. ALL ROOF AND MECH. ROOMS SLAB PENETRATIONS SHALL BE WATERPROOF. METHOD OF PENETRATIONS & FIRE/WATER WATER PROOFING SHALL BE APPROVED BY ARCHITECT AND STRUCTURAL ENGINEER, COORDINATE WITH GENERAL CONTRACTOR.

42. ELECTRICAL CONTRACTOR SHALL BECOME FAMILIAR AND COMPLY WITH OWNERS BUILDING STANDARDS FOR CONSTRUCTION.

43. ALL FINAL CONNECTIONS TO VIBRATING EQUIPMENT (MOTORS, GENERATORS ETC.) SHALL BE THROUGH A LIQUID TIGHT FLEXIBLE METAL CONDUIT.

44. LOCATION OF ALL SLAB PENETRATIONS FOR SLEEVES & CONDUITS SHALL BE REVIEWED & APPROVED BY STRUCTURAL ENGINEER & ARCHITECT.

45. CONTRACTOR SHALL WIRE NO MORE THAN EIGHT CONVENIENCE RECEPTACLES TO A 20A SINGLE POLE CIRCUIT. UTILIZE 2-#12&1 #12 GND IN ¾" CONDUIT & 1-20A SINGLE POLE CIRCUIT BREAKER FOR EACH CIRCUIT. INSTALL ADDITIONAL CIRCUIT AS NECESSARY TO MEET THIS REQUIREMENT.

46. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.

47. ALL WIRING IN PATIENT CARE AREAS SHALL BR PROVIDED WITH AN INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR AND SHALL BE INSTALLED IN A METALLIC RACEWAY SYSTEM LISTED AS AN EQUIPMENT GROUNDING CONDUCTOR.

48. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.

49. CONTRACT CLOSE OUT- IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT; DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.

50. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AND/OR NEW CONSTRUCTION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

SWITCHBOARDS, PANEL BOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT SERVICING OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

0 1 2 3 ARCH
0 1 2 3 ENGRG

2'x4' – PARABOLIC LIGHTING FIXTURE (SEE SCHEDULE)
2'x4' – LENSED LIGHTING FIXTURE (SEE SCHEDULE)
2'x2' – PARABOLIC LIGHTING FIXTURE (SEE SCHEDULE)
2'x2' – LENSED LIGHTING FIXTURE (SEE SCHEDULE)
1'x4' – PARABOLIC LIGHTING FIXTURE (SEE SCHEDULE)
1'x4' – LENSED LIGHTING FIXTURE (SEE SCHEDULE)
CEILING MOUNTED VACANCY SENSOR
EXIT LIGHT (SCHEDULE)
1P, 20A, TOGGLE SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
1P, 20A, KEYED TOGGLE SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
1P, 20A, 3-WAY TOGGLE SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
1P, 20A, KEYED 3-WAY TOGGLE SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
1P, 20A, DIMMER SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
1P, 20A, TOGGLE SWITCH WITH PILOT LIGHT, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
1P, 20A, TOGGLE SWITCH WITH BUILT-IN LIGHT, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
1P, 20A, TOGGLE SWITCH WITH BUILT-IN VACANCY SENSOR, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
SAME AS ABOVE EXCEPT WIRED FOR DUAL LIGHTING. SWITCH NEAREST TO DOOR SHALL OPERATE OUTER LAMPS. SECOND SWITCH SHALL OPERATE INNER LAMP(S).
EMERGENCY WALL PACK FIXTURE (SEE SCHEDULE)
EMERGENCY WALL PACK FIXTURE WITH EXIT SIGN (SEE SCHEDULE)
REMOTE HEAD SUITABLE FOR OUTDOOR USE, COLOR BY ARCHITECT (SEE SCHEDULE)

1. COORDINATE WITH ARCHITECTURAL PLANS FOR EXACT AREAS TO BE DEMOLISHED.
2. DISCONNECT AND REMOVE ALL DEVICES, FIXTURES, FIRE ALARM DEVICES, DATA/TEL. OUTLETS, POWER CONNECTIONS TO HVAC EQUIPMENT AND DISCONNECT SWITCHES, CONDUIT & WIRING FROM ALL WALLS/CEILINGS BEING REMOVED, WITHIN THIS AREA BACK TO POWER PANEL OF ORIGIN. ALL EXISTING CIRCUIT BREAKERS SHALL REMAIN IN PLACE AND LABELED AS "SPARE".
3. ALL EXISTING DEVICES SCHEDULED TO REMAIN SHALL BE EXTENDED/RE-CIRCUITED TO MAINTAIN CONTINUITY OF CIRCUIT/DEVICES.
4. REMOVALS SHALL INCLUDE, BUT NOT BE LIMITED TO DEVICES, FIXTURES, FIRE ALARM DEVICES, DATA/TEL. OUTLETS, POWER CONNECTIONS TO HVAC EQUIPMENT AND DISCONNECT SWITCHES, CONDUIT & WIRING.
5. ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY TEMPORARY WORK AND/OR MATERIALS TO RENDER EXISTING SYSTEM OPERATIONAL DURING ALL PHASES OF CONSTRUCTION IN ALL OCCUPIED SPACES. INCLUDING BUT NOT LIMITED TO, POWER, DATA, LIGHTING, EMERGENCY COMPONENTS & ALARMS. COORDINATE WITH ALL TRADES, OWNER AND OVERALL CONSTRUCTION PHASING SCHEDULE.
6. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.
7. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.
8. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION WORK.

SPEC GRADE NEMA 5-20R RECEPTACLE.
-GFI INDICATES GROUND FAULT INTERRUPTION
-WP INDICATES WEATHER PROOF ENCLOSURE
SPEC GRADE NEMA 5-20R CEILING MOUNTED RECEPTACLE
SPEC GRADE NEMA 5-20R RECEPTACLE. MOUNT AT 44" AFF OR 6" ABOVE COUNTER, UON.
-GFI INDICATES GROUND FAULT INTERRUPTION
-WP INDICATES WEATHER PROOF ENCLOSURE
2P, 3 WIRE, 250V GROUNDING NEMA 6-30R RECEPTACLE.
-GFI INDICATES GROUND FAULT INTERRUPTION
-WP INDICATES WEATHER PROOF ENCLOSURE
1P, 3 WIRE, 125V QUAD RECEPTACLE.
-GFI INDICATES GROUND FAULT INTERRUPTION
-WP INDICATES WEATHER PROOF ENCLOSURE
SPECIAL PURPOSE CONNECTION.
JUNCTION BOX, SIZE PER N.E.C.
3P, NON-FUSED DISCONNECT SWITCH, FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. SHALL HAVE THE SAME # OF POLES AS CONNECTING CIRCUIT UNLESS OTHERWISE NOTED.
3P, FUSED DISCONNECT SWITCH, FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. SHALL HAVE THE SAME # OF POLES & AMPERE RATING AS CONNECTING CIRCUIT UNLESS OTHERWISE NOTED.
MOTOR STARTER FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR
MOTOR STARTER FURNISHED & INSTALLED WITH EQUIPMENT.
COMBINATION NON-FUSED DISCONNECT SWITCH & MAGNETIC MOTOR STARTER WITH HAND/OFF/AUTO SWITCH. FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
PULL BOX
480Y/277V, 3ø, 4W PANEL BOARD (SEE SCHEDULE)
208Y/120V, 3ø, 4W PANEL BOARD (SEE SCHEDULE)
CONDUIT HOME RUN TO DESIGNATED PANEL. REFER TO PANEL SCHEDULE FOR CONDUIT & CABLE QUANTITY AND SIZE.
DOUBLE HOME RUN
TRIPLE HOME RUN
GROUND
TRANSFORMER
120V, OR 208V, 1P, MOTOR STARTER WITH OVERLOADS TO SERVE AS DISCONNECTING MEANS. COORDINATE WITH OTHER TRADES.
KEY PAD
TRANSFORMER (SIZE SHOWN ON PLAN OR ONE-LINE DIAGRAM)
100A-1P CIRCUIT BREAKER – 100A TRIP – SINGLE POLE
100A-3P FUSE SWITCH – 100A FUSE – 3 POLE
MOTOR
ELECTRIC METER

A	AMPERE	JB	JUNCTION BOX
ACT	ACOUSTIC CEILING TILE	KV	KILO VOLT
AD	AUTOMATIC DAMPER	KVA	KILO VOLT AMP
AF	AMPERE FRAME	KW	KILO WATT
AFF	ABOVE FINISHED FLOOR	LED	LIGHT-EMITTING DIODE
AIC	AMPERE INTERRUPTING CAPACITY	LP	LIGHTING PANEL
AL	ALUMINUM	LTG	LIGHTING
ATS	AUTOMATIC TRANSFER SWITCH	M.C.	MECHANICAL CONTRACTOR
AUTO	AUTOMATIC	MCM	THOUSAND CIRCULAR MILS
AWG	AMERICAN WIRE GAUGE	MCB	MAIN CIRCUIT BREAKER
BCW	BARE COPPER WIRE	MECH	MECHANICAL
C	CONDUIT	MDP	MAIN DISTRIBUTION PANEL
CAT	CATALOG	MLO	MAIN LUGS ONLY
CB	CIRCUIT BREAKER	MTD	MOUNTED
CKT	CIRCUIT	MTG	MOUNTING
CLG	CEILING	MTS	MANUAL TRANSFER SWITCH
CT	CURRENT TRANSFORMER	N	NEUTRAL
CU	COPPER	NIC	NOT IN CONTRACT
DP	DISTRIBUTION PANEL	NEC	NATIONAL ELECTRIC CODE
DF	DRINKING FOUNTAIN	NTS	NOT TO SCALE
DIV	DIVISION	NM	NON-METALLIC CONDUIT
DS	DISCONNECT (LOCKOUT) SWITCH	P	POLE
DWG	DRAWING	PB	PULL BOX
EA	EACH	ø	PHASE
E.C.	ELECTRICAL CONTRACTOR	PWR	POWER
ELEC.	ELECTRICAL	RECEPT.	RECEPTACLE
ELEV	ELEVATOR	REQ.	REQUIRED
E.P.O.	EMERGENCY POWER OFF	RGS	RIGID GALVANIZED STEEL
EQUIP.	EQUIPMENT	RM	ROOM
EMT	ELECTRICAL METALLIC TUBING	SCHED.	SCHEDULE
FA	FIRE ALARM	SECT.	SECTION
FAP	FIRE ALARM PANEL	SPEC.	SPECIFICATION
FL	FLOOR	SPKR.	SPEAKER
FLEX	FLEXIBLE	SV	SOLENOID VALVE
FT	FEET OR FOOT	SW	SWITCH
FLUOR.	FLUORESCENT	SWBD	SWITCH BOARD
F.W.E.	FURNISHED WITH EQUIPMENT	SYS	SYSTEM
G. GND	GROUND	TEL	TELEPHONE
GEN.	GENERATOR	TC	TIME CLOCK
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
G.C.	GENERAL CONTRACTOR	U.N.O.	UNLESS NOTED OTHERWISE
HH	HAND HOLE	UPS	UN-INTERRUPTABLE POWER SUPPLY
HP	HORSEPOWER	VFC	VARIABLE FREQUENCY CONTROLLER
HS	HAND SWITCH	VIF	VERIFY IN FIELD
HVAC	HEATING, VENTILATING & AIR CONDITIONING	VSD	VARIABLE SPEED DRIVE
HZ	HERTZ	WP	WEATHER PROOF
IC	INTERRUPTING CAPACITY	W	WATT
IG, I	ISOLATED GROUND	XFMR/ TRANSF.	TRANSFORMER
IMC	INTERMEDIATE METAL CONDUIT		

A P

------ or ------ EXISTING TO BE REMOVED
EXISTING TO REMAIN
NEW DEVICE
NEW WIRING
NEW FIXTURE

A MB

POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
POINT OF DISCONNECT
X / XX INDICATES SECTION LETTER
INDICATES DRAWING NUMBER WHERE LOCATED

Y A M

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 ENERGY CODE.

U M A M

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 UNIFORM CODE.

SYMBOL	MANUFACTURER	MODEL #	DESCRIPTION	LAMP
A	H.E. WILLIAMS	ATS-1-14-L63/835-D-EM/10W-DIM-UNV	1'x4' LED SURFACE MOUNTED LIGHT. 10W EMERGENCY LED BATTERY BACKUP.	LED 62.4W 101.3 LUMENS/WATT

LOAD	CONDUCTORS	C.B.	100A	C.B.	CONDUCTORS	LOAD
P-1	(4)#12, (1)#12 GND, ¾"C	20	1,2	20	(4)#12, (1)#12 GND, ¾"C	P-2
			3,4			
			5,6			
WSHP-1	(3)#10, (1)#10 GND, 1"C	30	7,8	50	(3)#8, (1)#10 GND, 1"C	WSHP-2
			9,10			
EF-1	(3)#12, (1)#10 GND, ¾"C	20	11,12	15	(3)#12, (1)#12 GND, ¾"C	ERV-1
			13,14			
SF-1	(3)#12, (1)#10 GND, ¾"C	20	15,16	20	(2)#12, (1)#12 GND, ¾"C	RECEPTACLES
			17,18	20	(2)#12, (1)#12 GND, ¾"C	LIGHTING
SPARE	---	20	19,20	20	---	SPARE
			21,22			
			23,24			

P W A P

TYPE: EATON PRL-1a
RATING: 100A, 120/208V, 3ø, 4W
MAINS: 100A
BRACING: 10 KAIC
ENCLOSURE: NEMA 1, SURFACE
POLES: 24

NOTES:
1. ALL WIRE SHALL BE DUAL RATED THHN/THWN COPPER CONDUCTOR UNLESS OTHERWISE NOTED.
2. ALL CIRCUITS SHALL HAVE FULL SIZE INSULATED GREEN GROUND UNLESS OTHERWISE NOTED.
3. FEED FROM MEP-2 WITH (4)#2, (1)#8 GND IN 2"C.

P M

REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK LICENSED PROFESSIONAL ENGINEER
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

DESIGNED BY:	DRAWN BY:	APPROVED BY:	FE PROJECT #
#	ZR	RDF	22-071

ENGINEERING REVIEW

DEPT.	SIGNATURE	DATE
CIVIL/SURVEY		
TELECOM/MET.		
TRANS & SUB.		
RELAY		

DWN	DES	CHKD
DESIGN REVIEW		DATE 9/26/22

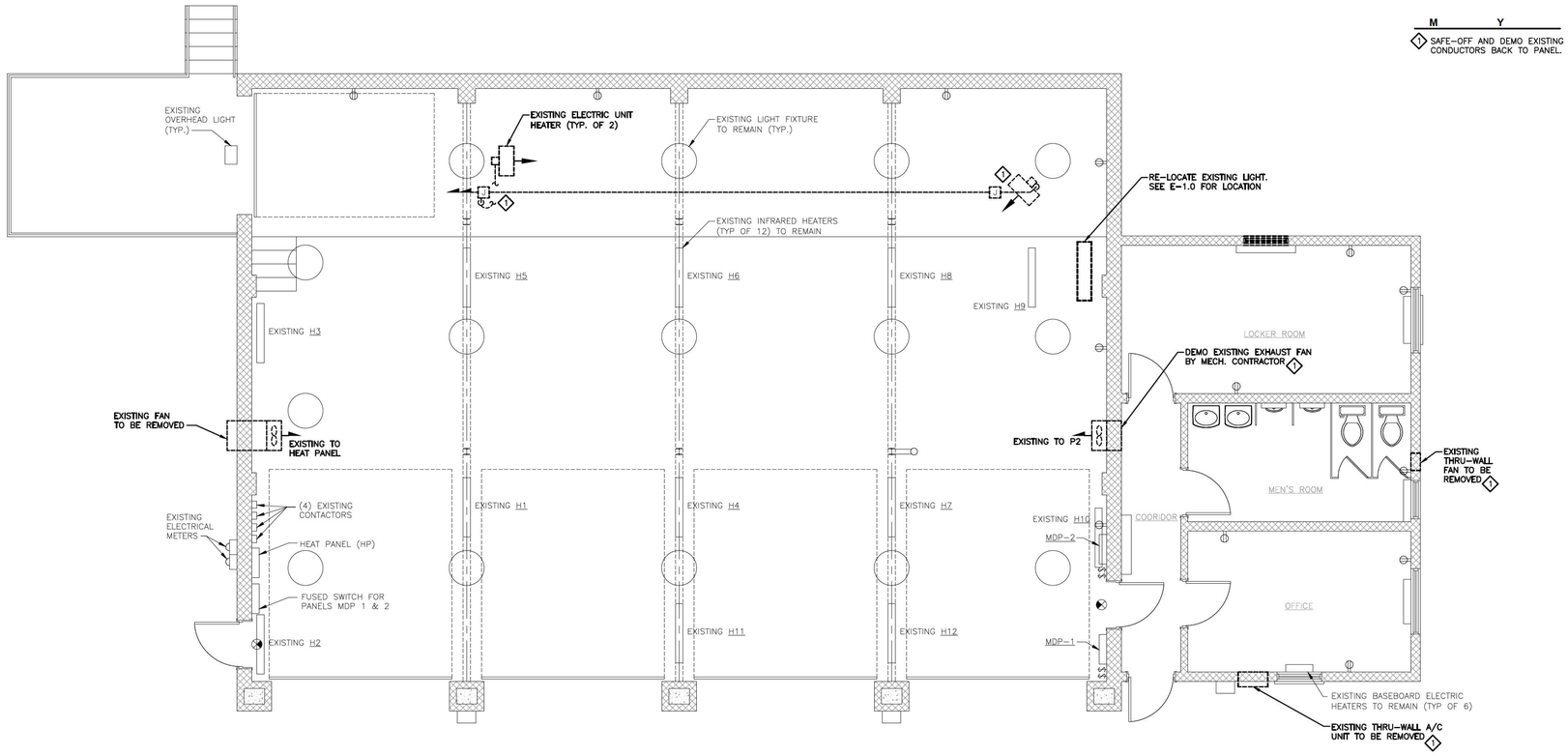
APPROVED
DATE
☐ PERMIT
☐ BID
☐ CONSTRUCTION
☐ RECORD
☐ _____

O&R MT. IVY HVAC UPGRADES

ELECTRICAL: SYMBOLS, ABBREVIATIONS & NOTES

SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	E-0.0		OF #	

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)



M Y

1 SAFE-OFF AND DEMO EXISTING CONDUCTORS BACK TO PANEL.

A M P A

SCALE: 1/4"=1'-0"

P M

REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK LICENSED PROFESSIONAL ENGINEER
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

S S Y 0 0 9 S S 0 0 Y 0 0

ENGINEERING REVIEW		
DEPT.	SIGNATURE	DATE
CIVIL/SURVEY		
TELECOM./MET.		
TRANS & SUB.		
RELAY		

APPROVED
DATE
☐ PERMIT
☐ BID
☐ CONSTRUCTION
☐ RECORD
☐ _____

DESIGNED BY:	DRAWN BY:	APPROVED BY:	FE PROJECT #:
#	SL	RDF	22-071

DWN DES CHKD
DESIGN REVIEW DATE 9/26/22

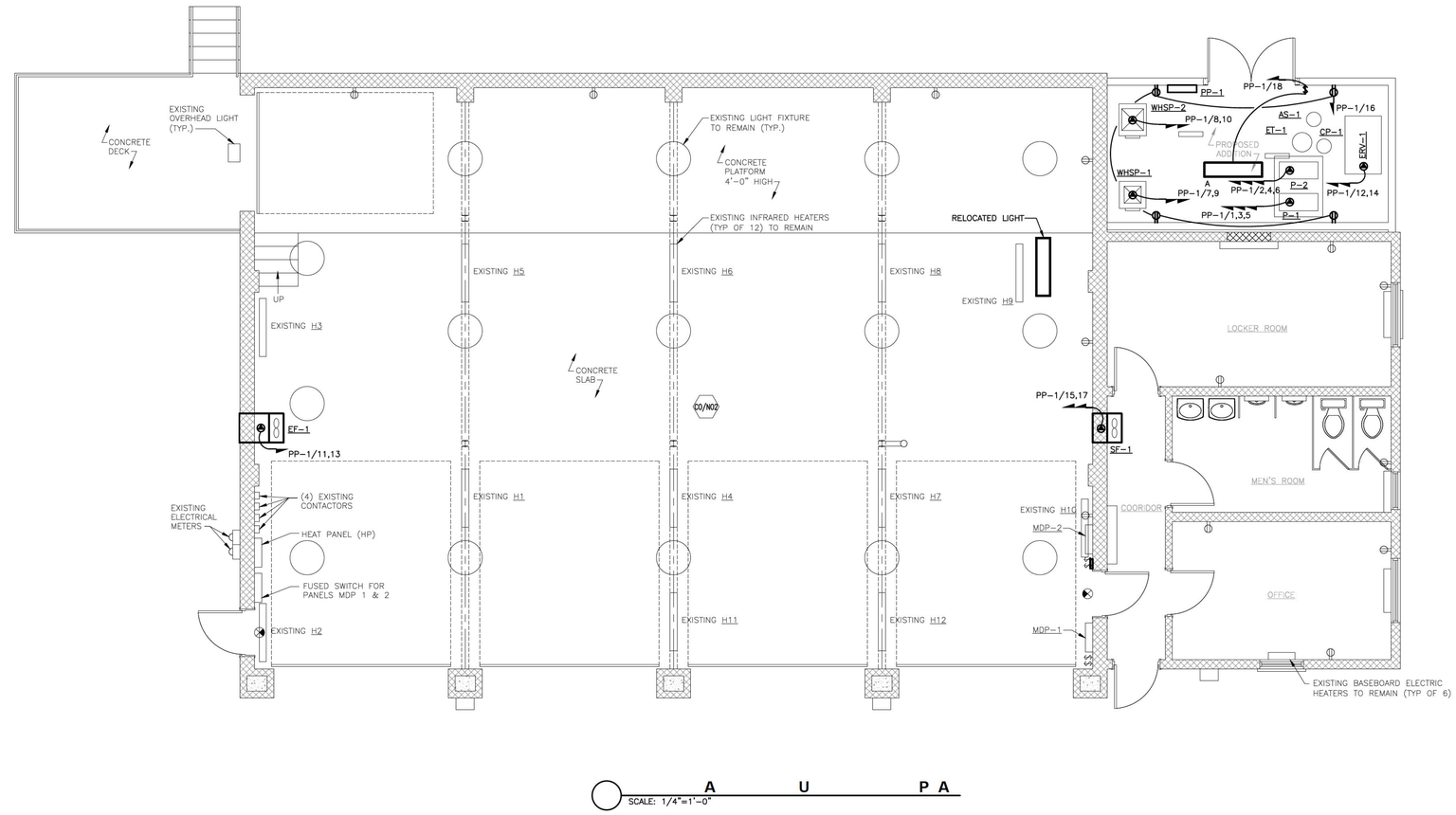
O&R MT. IVY HVAC UPGRADES

A M P A

SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	ED-1.0		OF #	

ARCH 0 1 2 3
ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)



A U PA

SCALE: 1/4"=1'-0"

ARCH 0 1 2 3

ENGRG 0 1 2 3

Date: Mon, Jan 09, 2023 - 2:58 PM (Name: ah)

REV	REVISION	DWN	DES	CHKD	DATE

ORANGE AND ROCKLAND UTILITIES, INC.
PEARL RIVER NEW YORK

P M

STAMP:
RYAN D. FELLENZER, P.E.
STATE OF NEW YORK LICENSED PROFESSIONAL ENGINEER
NY PROFESSIONAL ENGINEER NO. 103817

FELLENZER

S S Y 0 0 9 S S 0 0 Y 0 0

ENGINEERING REVIEW

DEPT.	SIGNATURE	DATE
CIVIL/SURVEY		
TELECOM/MET.		
TRANS & SUB.		
RELAY		

APPROVED
DATE
☐ PERMIT
☐ BID
☐ CONSTRUCTION
☐ RECORD
☐ _____

DESIGNED BY:	DRAWN BY:	APPROVED BY:	PE PROJECT #:
#	SL	RDF	22-071

DWN	DES	CHKD

DESIGN REVIEW DATE 9/26/22

O&R MT. IVY HVAC UPGRADES

A U PA

SCALE	DISCIPLINE	PROJECT NUMBER	SHEET	REV.
AS NOTED	E-1.0		OF #	

TOWN OF HAVERSTRAW PLANNING BOARD
Site Plan Resolution

Orange & Rockland Utilities, Inc.
227 Quaker Road, Pomona, NY 10970
Tax Lot No. 25.14-2-5 (the "Property")
R-25 Zoning District

WHEREAS, the Applicant submitted a site plan application to the Town of Haverstraw Planning Board ("Planning Board") to install four geothermal wells and underground piping and construct an approximately 240 square foot addition to an existing building to be used as a mechanical room for the new equipment ("Proposed Project") on the Property; and

WHEREAS, the Proposed Project is to convert existing electrical resistance heating and cooling system to a more efficient geothermal ground source heating system, which is being promoted by the State through legislation and the Public Service Commission, and

WHEREAS, in support of the Proposed Project, the Applicant submitted a signed and sealed plan set prepared by Fellenzer Engineering LLP dated as of January 5, 2023 consisting of: (1) Site Plan, (2) Architectural: Symbols, Abbreviations & Notes, (3) Architectural: Demolition Floor Plan, (4) Architectural: New Construction Floor Plan, (5) Architectural: Elevations, Sections & Details, (6) HVAC: Notes, Symbols & Abbreviations, (7) HVAC: Construction Floor Plan, (8) HVAC: Construction Floor Plan, (9) HVAC: Details, (10) HVAC: Schedules, (11) Electrical: Symbols, Abbreviations & Notes, (12) Electrical: Demolition Floor Plan, and (13) Electrical: Construction Floor Plan and (hereinafter the "Approved Plans"); and

WHEREAS, the Planning Board opened a duly-noticed public hearing on this application on April 12, 2023, and the Applicant and members of the public having the opportunity to be heard on the application, the public hearing was closed on April 12, 2023; and

WHEREAS, the Planning Board complied with the referral requirements of New York General Municipal Law §§ 239-L and -M and the statutory time period to provide comments has elapsed, and

NOW THEREFORE,

BE IT RESOLVED, this is a Type II action under the State Environmental Quality Review Act, and therefore no environmental review is required; and

BE IT FURTHER RESOLVED, the within applications for preliminary and final site plan approval for the Proposed Project are granted with the following limitations and conditions:

1. Prior to the signing of the Approved Plans by the Planning Board Chairman, the following conditions must be met:

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a. Applicant shall comply with all rules, regulations and requirements of any and all agencies, entities, departments, boards and municipalities with jurisdiction over the Proposed Project, without material deviation from the Approved Plans.
b. The Applicant shall pay all outstanding monies owed to the Town in connection with the Planning Board and its consultants and staff processing, reviewing and preparing documentation on this application.
c. No portion of any approval by the Planning Board shall take effect until (1) all of the above-stated conditions are met, (2) the Approved Plans are signed by the Chairman of the Planning Board and (3) the Approved Plans signed by the Chairman of the Planning Board are filed with the Building Department.

2. Prior to issuance of a building permit, the Applicant shall complete the following:

    a. In accordance with Town Code § 137-96(A) and § A173-10(D), the Applicant shall provide a performance bond in a form satisfactory to the Planning Board attorney and in an amount satisfactory to the Town Consulting Engineer based upon the cost estimate of the site improvements as shown on the Approved Plans to ensure adequate completion of these improvements.
    b. In accordance with Town Code § A173-16(B), the Applicant shall provide escrow established based upon a percentage of the Town Consulting Engineer's cost estimate to ensure the site improvements can be inspected for compliance with the Approved Plans.
    c. The Applicant shall comply with the comments from the Rockland County Center for Environmental Health dated March 21, 2023 and Rockland County Drainage Agency dated March 7, 2023.

3. All work shall be in strict compliance with the Approved Plans and all rules, regulations, laws and ordinances governing the Site Plan and construction on the site. In the event the Town Consulting Engineer, Superintendent of Highways and Building Inspector agree that, as a result of conditions in the field, field changes are necessary to complete the work of the Site Plan and if in the opinion of the Town Consulting Engineer and Building Inspector such field changes are minor and do not have any material impact on the overall design of the Site Plan, traffic circulation and/or drainage of the site, including but not limited to roads, sewers and drainage, then the Town Consulting Engineer and Building Inspector may, upon the filing of amended plans which reflect such field changes, allow such changes. In all other circumstances any deviation from or change in the approved plans shall require application to this Board for amendment of this approval.

4. No work may be commenced on any portion of the site without first contacting the Building Inspector and Town Consulting Engineer to ensure that all permits and approvals have been obtained and all permit fees paid and to establish an inspection schedule. Failure to comply with this provision shall result in the immediate revocation of all permits issued by the Town along with the requirement to reapply (including the payment of application fees) for all such permits, the removal of all work performed

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and restoration to its original condition of any portion of the site disturbed and such other and additional civil and criminal penalties as the courts may impose.

5. The Property shall be inspected by the Building Inspector, the Town's Consultant Engineer, and any other consultants or professionals deemed necessary or appropriate by the Building Inspector to ensure that all construction, improvements and modifications were done in accordance with all applicable Federal, State and Local laws and regulations and all professional standards and guidelines prior to the field being operational.

6. This application is granted subject to the accuracy of the representations made by the Applicant and its representatives to the Planning Board in its written submissions and during the public hearing and if any material representation, whether or not it is included in this Resolution, is found to be inaccurate, at the discretion of the Planning Board the Applicant shall be required to make an application for an amended approval.

7. This Resolution shall be of no force or effect unless and until there is full compliance with all of its requirements.

Dated as of April 12, 2023

_____
Chairman

In Favor:
Opposed:
Abstain:
Absent:

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