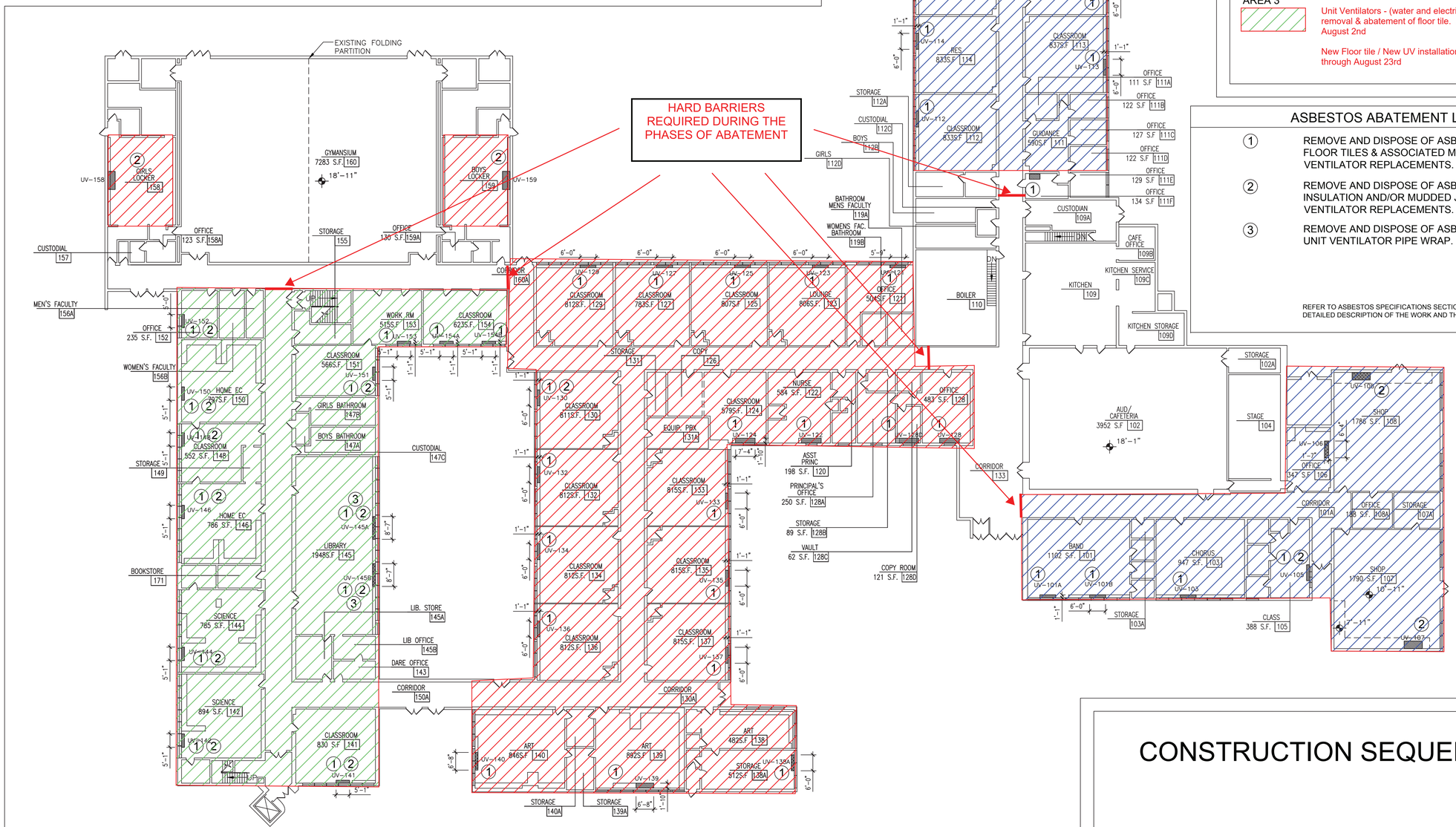


AREA 1

Unit Ventilators - (water and electrical disconnects) / UV removal & abatement of floor tile. June 27th through July 5th.

New Floor tile / New UV installation - July 8th through July 16th

AREA 2

Unit Ventilators - (water and electrical disconnects / UV removal & abatement of floor tile. July 8th through 16th.

New Floor tile / New UV installation - July 17th through July 25th.

AREA 3

Unit Ventilators - (water and electrical disconnects / UV removal & abatement of floor tile. July 17th through August 2nd

New Floor tile / New UV installation - August 5th through August 23rd

ASBESTOS ABATEMENT LEGEND

1. REMOVE AND DISPOSE OF ASBESTOS CONTAINING (ACM) FLOOR TILES & ASSOCIATED MASTIC TO FACILITATE UNIT VENTILATOR REPLACEMENTS.
2. REMOVE AND DISPOSE OF ASBESTOS CONTAINING PIPE INSULATION AND/OR MUDDED JOINTS TO FACILITATE UNIT VENTILATOR REPLACEMENTS.
3. REMOVE AND DISPOSE OF ASBESTOS CONTAINING INTERNAL UNIT VENTILATOR PIPE WRAP.

REFER TO ASBESTOS SPECIFICATIONS SECTION 020800 - SECTION 3.17 FOR A MORE DETAILED DESCRIPTION OF THE WORK AND THE REQUIREMENTS.

CONSTRUCTION SEQUENCE PLAN

1 FIRST FLOOR ABATEMENT PLAN
SCALE: NTS

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY.

No.	Date	Revisions
1	01-18-23	BIDDING DOCUMENTS

STATE OF NEW YORK — ANTHONY MICHAEL SHILALE — LICENSED PROFESSIONAL ENGINEER

Drawn by AM
Checked by RL
Project No. 2052
Scale AS NOTED
Date 01-18-23

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
420 BELLA BOULEVARD
MONTEBELLO, NY 10901

Environmental Consultant: Quality Environmental Solutions & Technologies, Inc.
1298 NYS Route 9
Wappingers Falls, NY 12590
Tel: (845) 298-6031

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL
SED# 50-02-01-06-0-003-011
COUNTY OF ROCKLAND
140 ROUTE 210,
STONY POINT, NY 10980

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

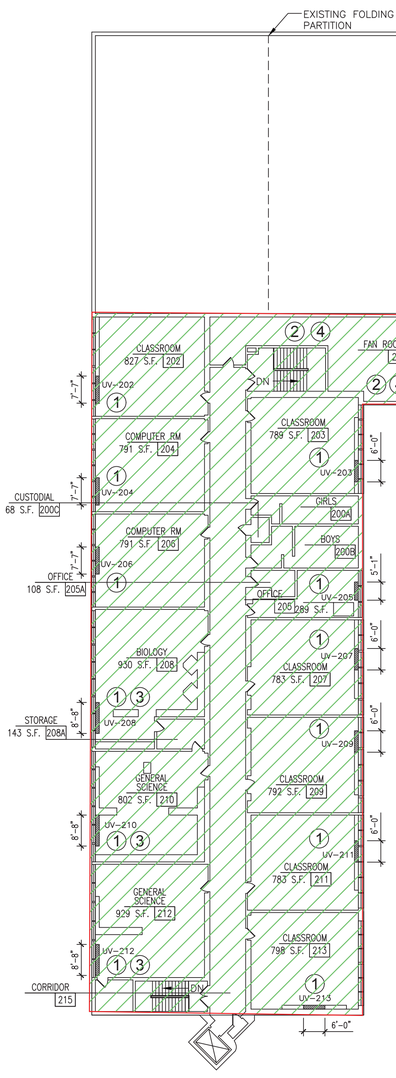
AREA 3

Unit Ventilators - (water and electrical disconnects / UV removal & abatement of floor tile. July 17th through August 2nd

New Floor tile / New UV installation - August 5th through August 23rd

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1, THEN DRAWING IS NOT TO FULL SCALE



ASBESTOS ABATEMENT LEGEND

① REMOVE AND DISPOSE OF ASBESTOS CONTAINING (ACM) FLOOR TILES & ASSOCIATED MASTIC TO FACILITATE UNIT VENTILATOR REPLACEMENTS.

② REMOVE AND DISPOSE OF ASBESTOS CONTAINING PIPE INSULATION AND/OR MUDDED JOINTS TO FACILITATE UNIT VENTILATOR REPLACEMENTS.

③ REMOVE AND DISPOSE OF ASBESTOS CONTAINING INTERNAL UNIT VENTILATOR PIPE WRAP.

④ REMOVE AND DISPOSE OF FIBERGLASS DUCT INSULATION WITH ASBESTOS CONTAINING PIN MASTIC .

REFER TO ASBESTOS SPECIFICATIONS SECTION 020800 - SECTION 3.17 FOR A MORE DETAILED DESCRIPTION OF THE WORK AND THE REQUIREMENTS.

CONSTRUCTION SEQUENCE PLAN

1 SECOND FLOOR ABATEMENT PLAN

SCALE: NTS

PLAN NORTH

No.	Revisions
1	01-18-23 BIDDING DOCUMENTS

STATE OF NEW YORK ANTHONY MICHAEL SHILALE LICENSED ARCHITECT

Drawn by	AM
Checked by	RL
Project No.	2052
Scale	AS NOTED
Date	01-18-23

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 400 REILLA BOULEVARD MONTGOMERY, NY 12001

Environmental Consultant: Quality Environmental Solutions & Technologies, Inc. 1298 NYS Route 9 Wappingers Falls, NY 12590 Tel: (845) 298-6031

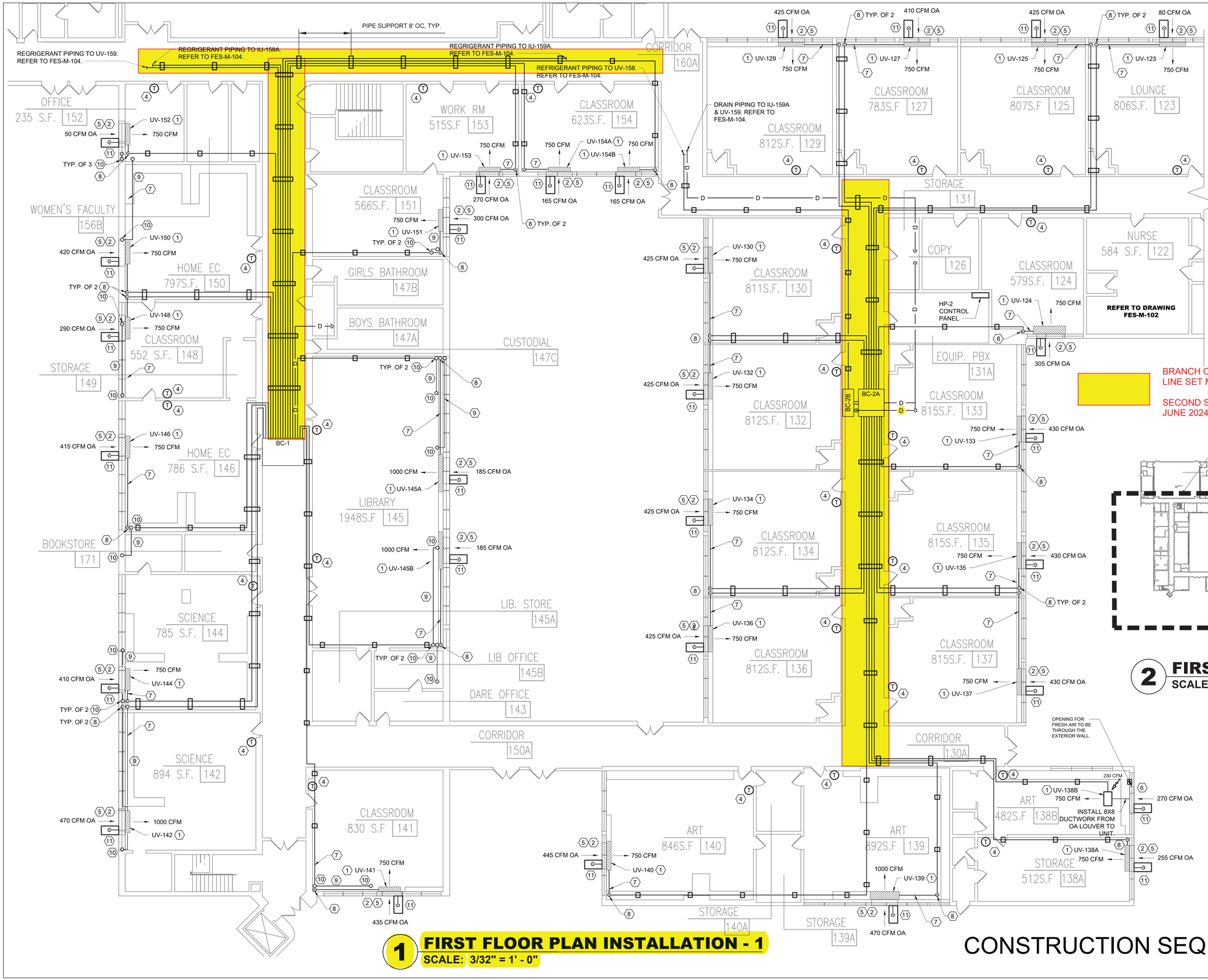
UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL

SED# 50-02-01-06-0-003-011

140 ROUTE 210 STONY POINT, NY 10980

COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com



KEYED NOTES:

1. VERTICAL UNIT VENTILATOR. REFER TO THE UNIT VENTILATOR SCHEDULE AND DETAILS ON DRAWING FES-M-503.
2. EXISTING 72"x10" (V.I.F.) WALL LOUVER TO REMAIN.
3. EXISTING EXHAUST GRILLES TO REMAIN. INCLUDE THE EXISTING EXHAUST GRILLES IN THE AIR BALANCING REPORT. SIZES ARE AS INDICATED ON PLANS.
4. PROGRAMMABLE ELECTRONIC THERMOSTAT WITH LOCKING GUARD. COORDINATE WITH THE SIEMENS BMS.
5. PROVIDE AN INSECT SCREEN AT THE OA LOUVERS TO PREVENT INFILTRATION OF GRASS CLIPPINGS AND OTHER DEBRIS. SCREEN SHALL HAVE AN ALUMINUM FRAME AND SHALL BE INSTALLED ON THE OUTSIDE OF THE EXISTING LOUVER. CONSTRUCT FROM 0.011" ALUMINUM WITH BRIGHT FINISH AND SS HARDWARE.
6. PROVIDE 72X10 OA LOUVER ABOVE WINDOW.
7. INSTALL ⅜" & ⅝" R WITHIN EXISTING CASEWORK.
8. ¾" & ⅝" R DROP FROM THE CEILING TO BEHIND THE EXISTING CASEWORK. PROVIDE PIPE CHASE AT THE WALL. SEE ARCH.
9. INSTALL ⅜" & ⅝" R ABOVE THE EXISTING CEILING.
10. ¾" & ⅝" R UP TO SECOND FLOOR.
11. ¾" CONDENSATE DRAIN TO SPILLS ONTO SPLASH BLOCK AT GRADE.

BRANCH CIRCUIT CONTROLLERS AND LINE SET MAINS INSTALLATION

SECOND SHIFT MAY 2024 THROUGH JUNE 2024

1 FIRST FLOOR PLAN INSTALLATION - 1
SCALE: 3/32" = 1' - 0"

2 FIRST FLOOR KEY PLAN
SCALE: NONE

CONSTRUCTION SEQUENCE PLAN

PLAN NORTH

No.	Revisions	Date
REV 3	BIDDING DOCUMENTS	09-14-23

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 302 SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 302 SUFFERN, NY 10901
Structural Engineer:

UNIVENT
REPLACEMENT AT
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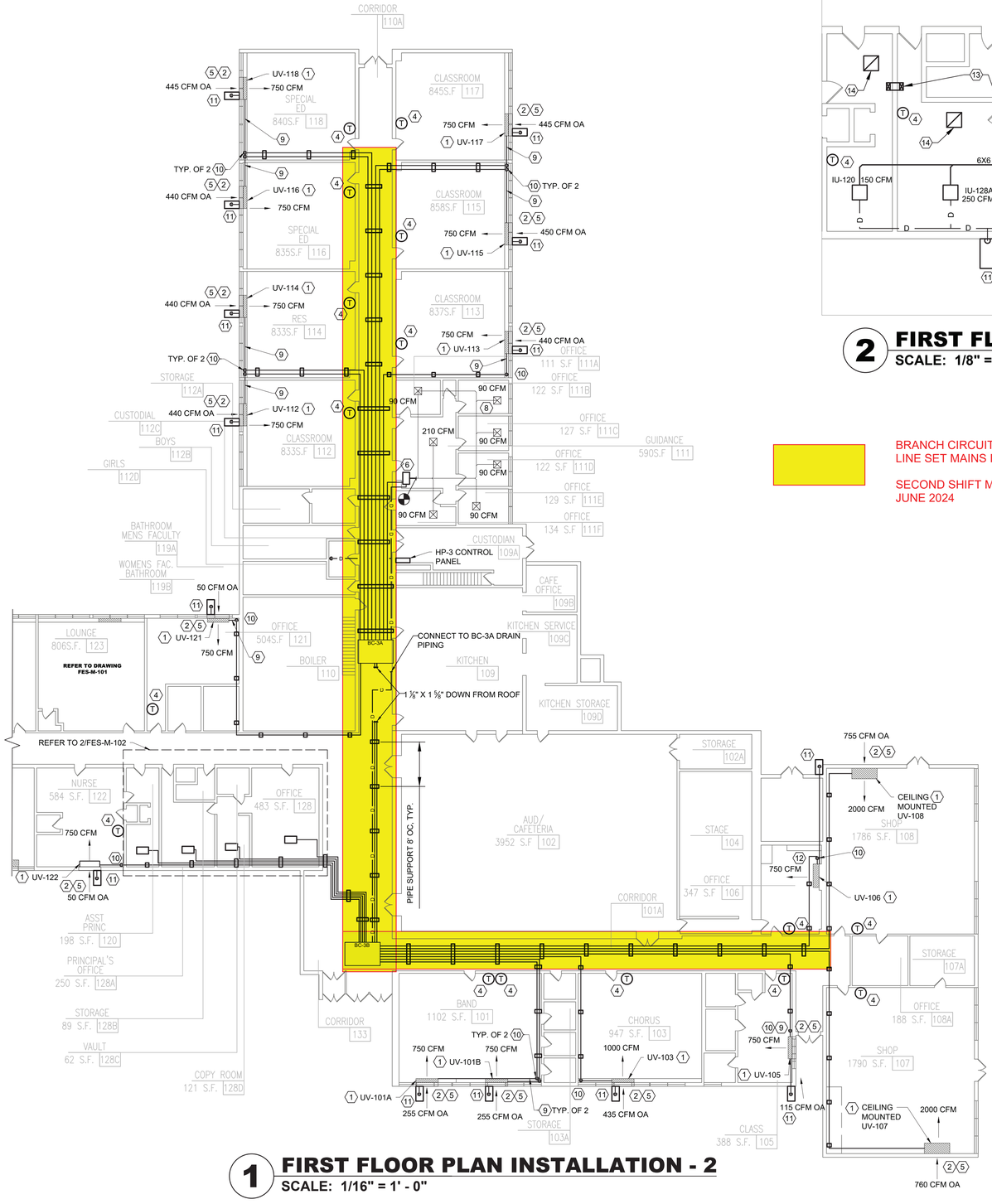
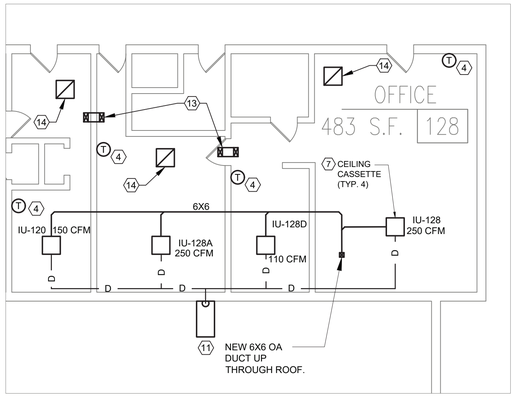
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-709-9500
www.shilale.com



1 FIRST FLOOR PLAN INSTALLATION - 2
SCALE: 1/16" = 1' - 0"



2 FIRST FLOOR PARTIAL PLAN
SCALE: 1/8" = 1' - 0"

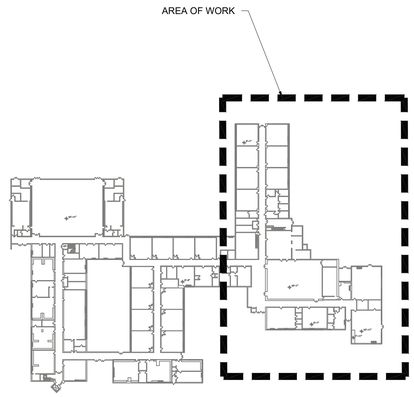
BRANCH CIRCUIT CONTROLLERS AND LINE SET MAINS INSTALLATION

SECOND SHIFT MAY 2024 THROUGH JUNE 2024

KEYED NOTES:

1. VERTICAL UNIT VENTILATOR. REFER TO THE UNIT VENTILATOR SCHEDULE AND DETAILS ON DRAWING FES-M-503.
2. EXISTING 72"x10" (V.I.F.) WALL LOUVER TO REMAIN.
3. EXISTING EXHAUST GRILLES TO REMAIN. INCLUDE THE EXISTING EXHAUST GRILLES IN THE AIR BALANCING REPORT. SIZES ARE AS INDICATED ON PLANS.
4. PROGRAMMABLE ELECTRONIC THERMOSTAT WITH LOCKING GUARD. COORDINATE WITH THE SIEMENS BMS.
5. PROVIDE AN INSECT SCREEN AT THE OA LOUVERS TO PREVENT INFILTRATION OF GRASS CLIPPINGS AND OTHER DEBRIS. SCREEN SHALL HAVE AN ALUMINUM FRAME AND SHALL BE INSTALLED ON THE OUTSIDE OF THE EXISTING LOUVER. CONSTRUCT FROM 0.011" ALUMINUM WITH BRIGHT FINISH AND SS HARDWARE.
6. UV-111 TO TIE INTO THE EXISTING SUPPLY & OUTSIDE AIR DUCTWORK.
7. CEILING CASSETTE AT CEILING.
8. EXISTING CEILING SUPPLY DIFFUSER TO REMAIN. TYPICAL (7).
9. INSTALL ⅜" & ⅝" R WITHIN EXISTING CASEWORK.
10. ⅜" & ⅝" R DROP FROM THE CEILING TO BEHIND THE EXISTING CASEWORK. PROVIDE PIPE CHASE AT THE WALL. SEE ARCH.
11. ¾" CONDENSATE DRAIN TO SPILLS ONTO SPLASH BLOCK AT GRADE.
12. PROVIDE UNIT VENTILATOR WITH CONDENSATE LIFT PUMP.
13. 12"x6" TRANSFER DUCT ABOVE CEILING (PRICE CROSS TALK SILENCER XT OR EQUAL)
14. 24'x24' RG AT CEILING.

CONSTRUCTION SEQUENCE PLAN



3 FIRST FLOOR KEY PLAN
SCALE: NONE

PLAN NORTH

No.	Date	Revisions
REV 3	09-14-23	BIDDING DOCUMENTS
REV 2	06-09-23	SED ADDENDUM #1
REV 1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

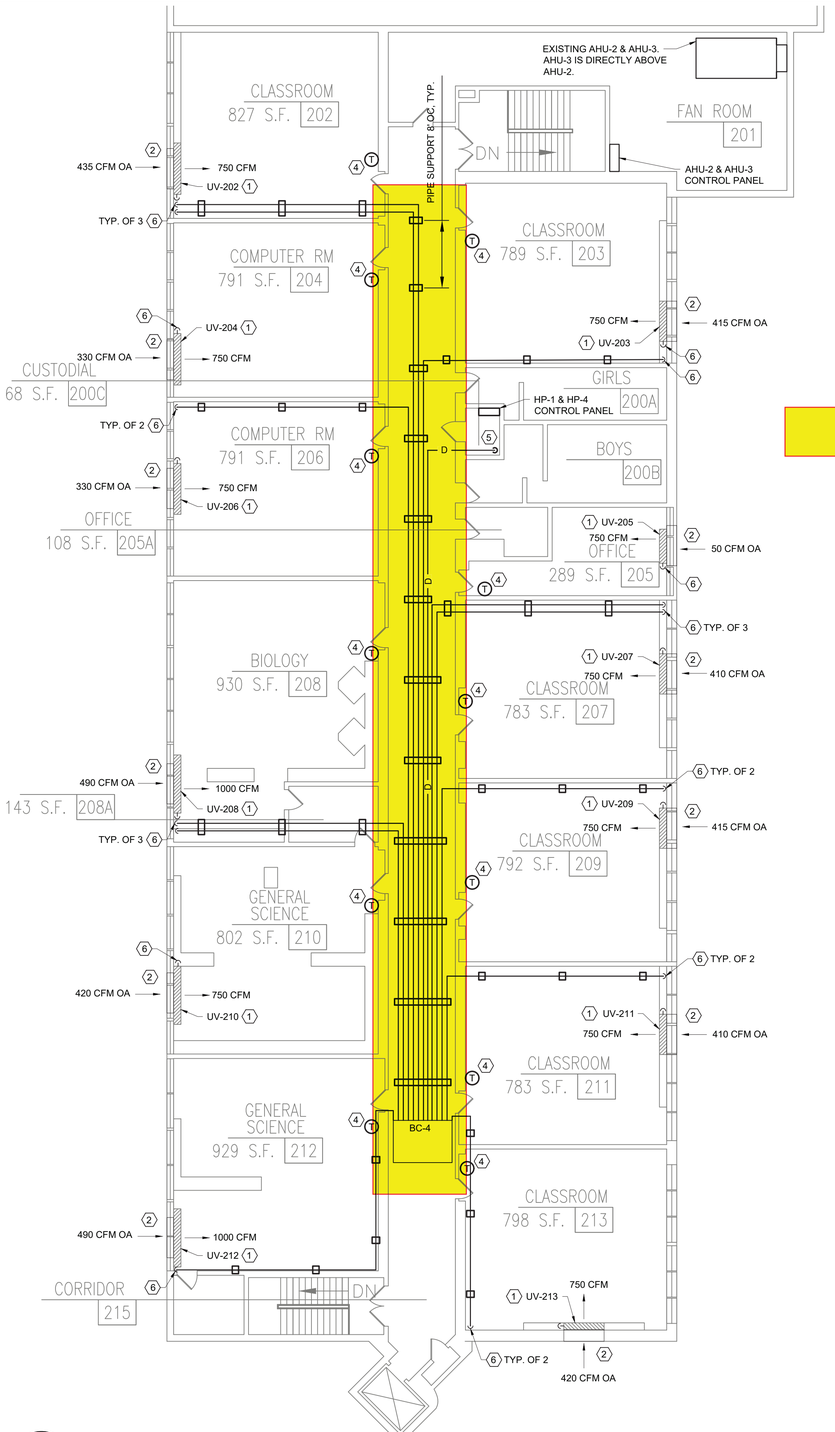
Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901
Structural Engineer:

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL
SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com



1 SECOND FLOOR PLAN INSTALLATION

SCALE: 3/32" = 1' - 0"

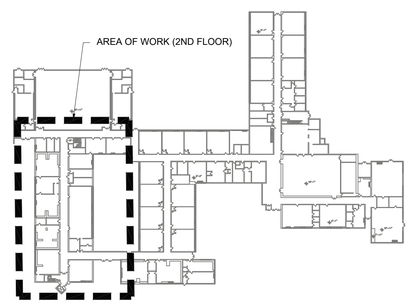
KEYED NOTES:

1. VERTICAL UNIT VENTILATOR OR FCU. REFER TO THE UNIT VENTILATOR SCHEDULE ON FES-M-503 SCHEDULE AND DETAILS ON DRAWING FES-M-501/2.
2. EXISTING 72"x10" (V.I.F.) WALL LOUVER TO REMAIN.
3. EXISTING EXHAUST GRILLES TO REMAIN. INCLUDE THE EXISTING EXHAUST GRILLES IN THE AIR BALANCING REPORT. SIZES ARE AS INDICATED ON PLANS.
4. PROGRAMMABLE ELECTRONIC THERMOSTAT WITH LOCKING GUARD. COORDINATE WITH THE SIEMENS BMS.
5. TERMINATE ¾" CONDENSATE DRAIN AT EXISTING SERVICE SINK.
6. ⅜" & ⅝" R DROP FROM THE CEILING TO BEHIND THE EXISTING CASEWORK. PROVIDE PIPE CHASE AT THE WALL. SEE ARCH.

BRANCH CIRCUIT CONTROLLERS AND LINE SET MAINS INSTALLATION

SECOND SHIFT MAY 2024 THROUGH JUNE 2024

CONSTRUCTION SEQUENCE PLAN



2 SECOND FLOOR KEY PLAN

SCALE: NONE

PLAN NORTH

No.	Date	Revisions
REV 3	09-14-23	BIDDING DOCUMENTS
REV 2	06-09-23	SED ADDENDUM #1
REV 1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 RESEARCH BOULEVARD
SUITE 302
SUFFERN, NY 10901

Structural Engineer:
GREENMAN PEDERSEN, INC
2 RESEARCH BOULEVARD
SUITE 302
SUFFERN, NY 10901

UNIVENT
REPLACEMENT AT
FARLEY
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SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

A1 INSTALL NEW CEILING CASSETTES.

A2 INSTALL NEW CEILING MOUNTED UNIT VENTILATORS.

A3 INSTALL NEW CEILING MOUNTED UNIT VENTILATOR. MODIFY EXT'G CEILING TILE FOR NEW UV. SEE MECHANICAL DWGS FOR DUCTWORK AND SUPPLY REGISTERS TO ADJACENT OFFICES.

A4 AS PER ALTERNATE NO. 101, INSTALL NEW ACT CEILING TILE AND LIGHT FIXTURES IN CORRIDOR.

A5 NEW 36X36 SUPPLY REGISTERS FOR RTU. MODIFY EXISTING CEILING GRID AND LIGHTING TO ACCOMMODATE COAXIAL DIFFUSER.

A6 INSTALL NEW ACOUSTICAL 2x2 CEILING GRID

A7 INSTALL NEW 2x4 CEILING GRID

A8 RE-INSTALL EXISTING SURFACE MOUNTED LIGHT FIXTURES

A9 CLEAN & REPAINT EXISTING SPRAY ON CEILING (PT1 & PRIMER)

A10 REMOVE AND REINSTALL ACT

A11 NEW CEILING HEIGHT TO MATCH EXISTING CEILING HEIGHT

A12 INSTALL NEW 2X4 CEILING GRID, REINSTALL EXT'G SURFACE MOUNTED LIGHTS (AS PER ALT. NO. 101)

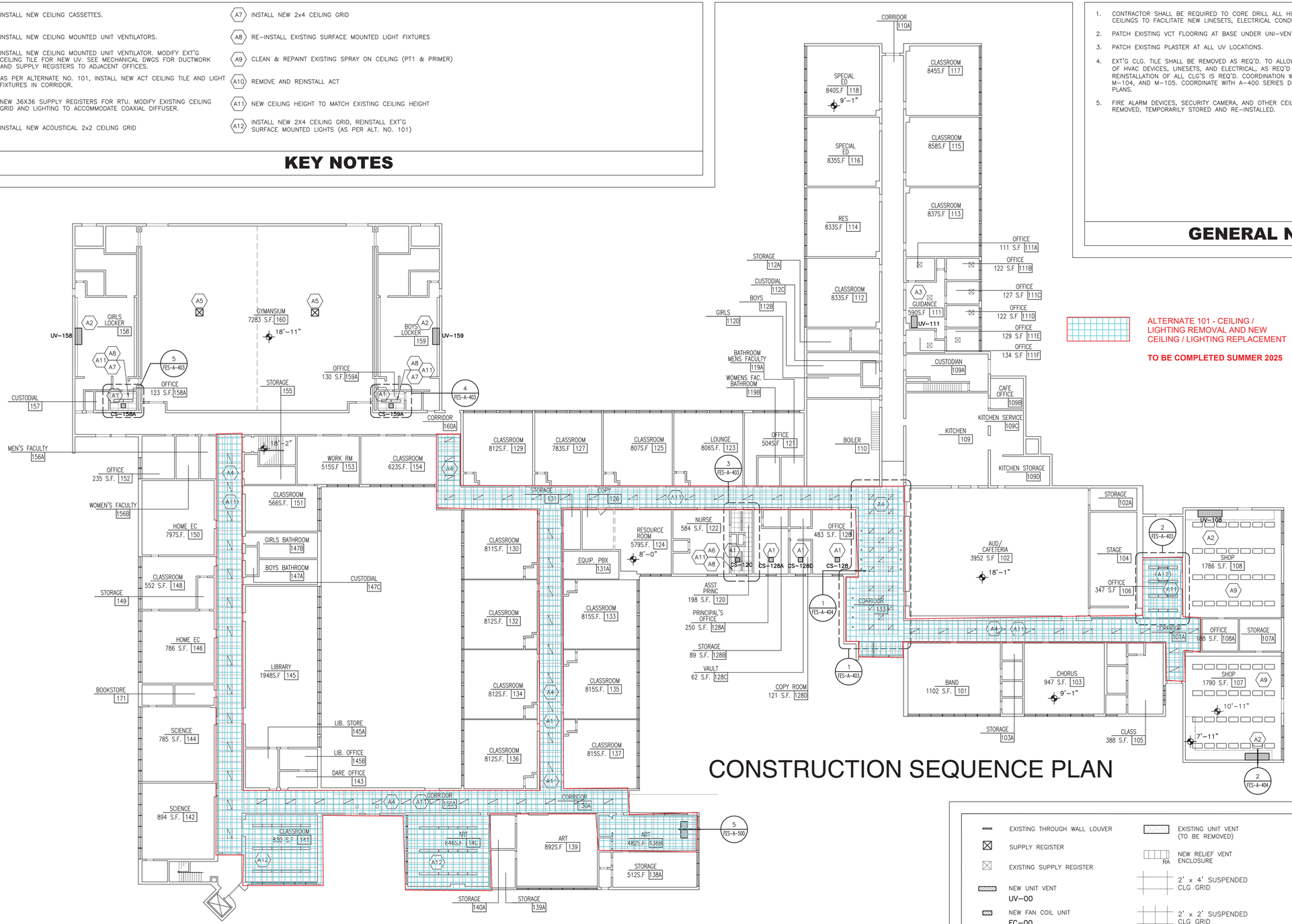
KEY NOTES

1. CONTRACTOR SHALL BE REQUIRED TO CORE DRILL ALL HOLES IN WALLS, FLOORS AND CEILINGS TO FACILITATE NEW LINESETS, ELECTRICAL CONDUITS AND CONDENSATE LINES.
2. PATCH EXISTING VCT FLOORING AT BASE UNDER UNI-VENT.
3. PATCH EXISTING PLASTER AT ALL UV LOCATIONS.
4. EXT'G CLG. TILE SHALL BE REMOVED AS REQ'D. TO ALLOW INSTALLATION AND REMOVAL OF HVAC DEVICES, LINESETS, AND ELECTRICAL, AS REQ'D FOR THIS WORK. REINSTALLATION OF ALL CLG'S IS REQ'D. COORDINATION WITH M-101, M-102, M-103, M-104, AND M-105. COORDINATE WITH A-400 SERIES DRAWINGS; REFLECTED CEILING PLANS.
5. FIRE ALARM DEVICES, SECURITY CAMERA, AND OTHER CEILING MOUNTED DEVICES TO BE REMOVED, TEMPORARILY STORED AND RE-INSTALLED.

GENERAL NOTES

1/2 0 1

IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE



ALTERNATE 101 - CEILING / LIGHTING REMOVAL AND NEW CEILING / LIGHTING REPLACEMENT

TO BE COMPLETED SUMMER 2025

CONSTRUCTION SEQUENCE PLAN

1 FIRST FLOOR REFLECTED CEILING PLAN

SCALE: 1"=20'-0"

PLAN NORTH

EXISTING THROUGH WALL LOUVER

SUPPLY REGISTER

EXISTING SUPPLY REGISTER

NEW UNIT VENT
UV-00

NEW FAN COIL UNIT
FC-00

NEW CASSETTE
CS-00

EXISTING UNIT VENT (TO REMAIN)

EXISTING UNIT VENT (TO BE REMOVED)

NEW RELIEF VENT ENCLOSURE
RA

2' x 4' SUSPENDED CLG GRID

2' x 2' SUSPENDED CLG GRID

REMOVE AND REINSTALL ACT

LEGEND

No.	Date	Revisions
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM 1
1	01-18-23	BIDDING DOCUMENTS

REG. EXP DATE: 06-30-24

Drawn by MAL
Checked by MS/JC
Project No. 42052
Scale AS NOTED
Date 11-30-22

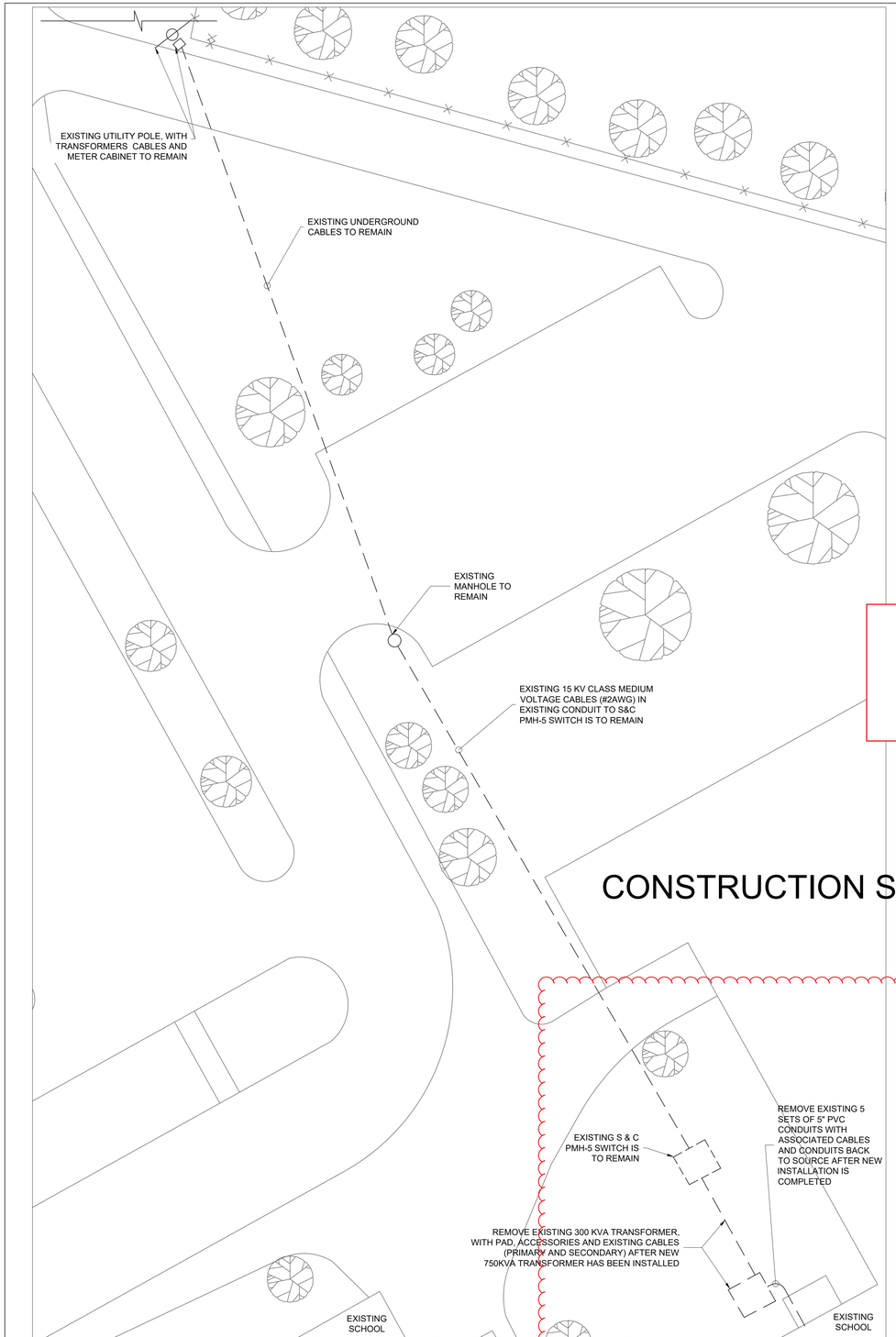
GREENMAN PEDERSEN, INC
400 RELLA BOULEVARD
MONTEBELLO, NY 10901

Mechanical & Electrical Engineer:

Structural Engineer:

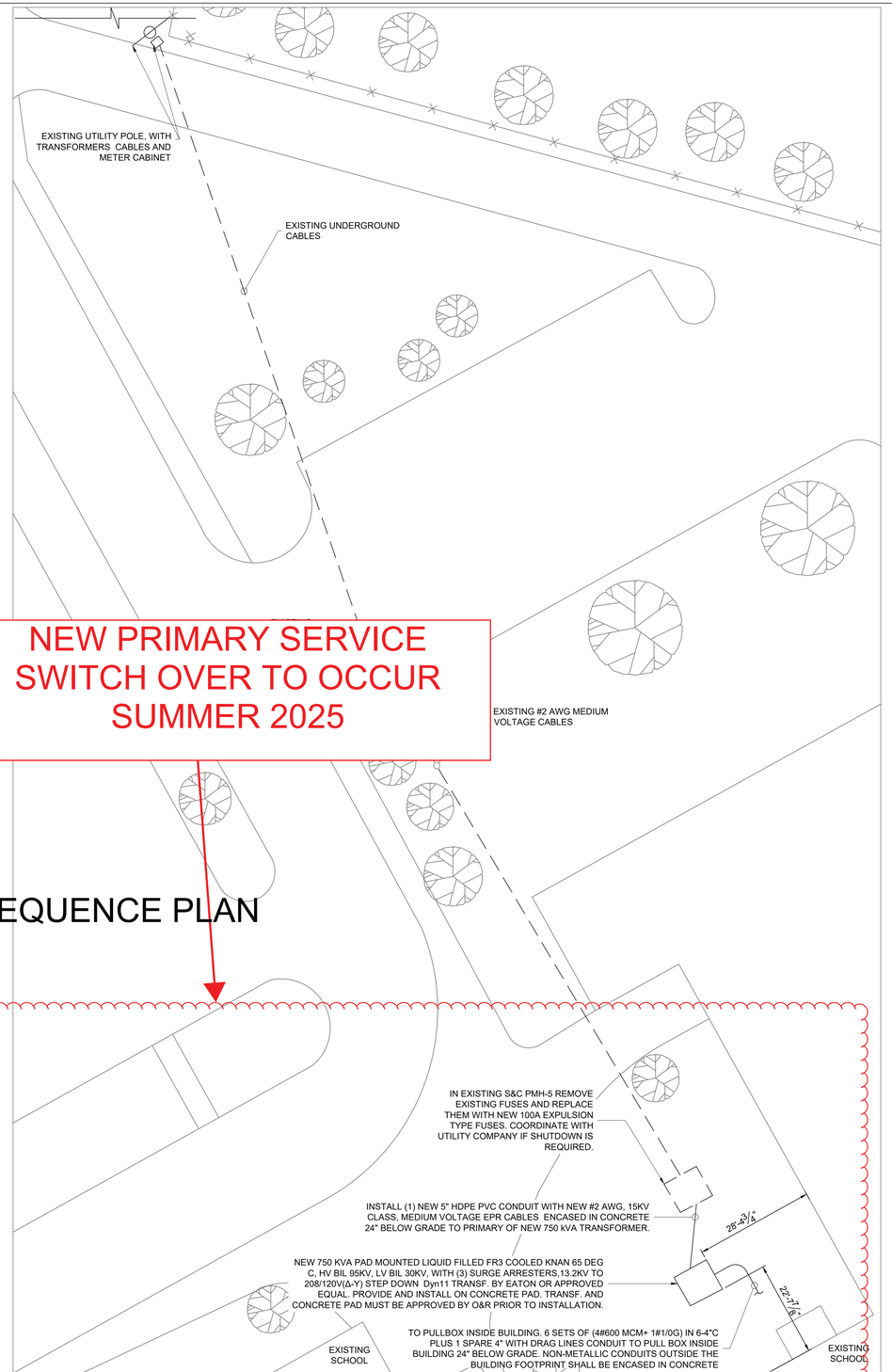
UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL
SED# 50-02-01-06-0-003-011
COUNTY OF ROCKLAND
140 ROUTE 210
STONY POINT, NY 10980

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com



1 ELECTRICAL SITE DEMOLITION PLAN

SCALE: 1/16" = 1' - 0"



2 ELECTRICAL SITE INSTALLATION PLAN

SCALE: 1/16" = 1' - 0"

NEW PRIMARY SERVICE SWITCH OVER TO OCCUR SUMMER 2025

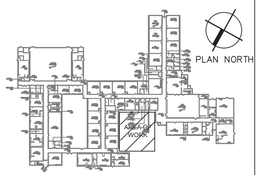
CONSTRUCTION SEQUENCE PLAN

PLAN NOTES:

1. FOR SYMBOL LIST, GENERAL NOTES AND ABBREVIATIONS REFER TO DWG. E001 & E002.
2. ALL UTILITY WORK SHALL BE PROVIDED AS REQUIRED AND APPROVED BY THE TELEPHONE, AND ELECTRICAL COMPANIES.
3. IMMEDIATELY UPON AWARD OF THE CONTRACT, THE CONTRACTOR SHALL ARRANGE FOR A MEETING THE SITE WITH THE UTILITY COMPANIES TO COORDINATE THE INSTALLATION OF THE NEW SERVICE. ADVISE THE FACILITY AND RESIDENT ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF THE MEETING.
4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE FINAL INSTALLATIONS OF THE BUILDING MAIN ELECTRICAL SERVICE AND FEEDERS TO THE ELECTRICAL SERVICE SWITCH, TRANSFORMER ETC. PROVIDE ALL REQUIREMENTS FOR DEVICES AND COMPONENTS AS PER THE UTILITY COMPANY'S REQUIREMENTS.
5. ALL ELECTRIC SERVICE ENTRANCE CONDUCTORS SHALL BE INSTALLED IN RIGID GALVANIZED CONDUIT INSIDE THE BUILDING FOOT PRINT. CONDUITS OUTSIDE THE BUILDING FOOTPRINT SHALL BE IN HDPE AND ENCASED IN CONCRETE. PROVIDE ADAPTER FITTINGS TO CONVERT FROM HDPE TO RGC BEFORE ENTERING THE BUILDING.
6. ALL SERVICE ENTRANCE CONDUITS ARE TO BE PITCHED AS REQUIRED AND SEALED AT THE POINT OF ENTRY TO THE BUILDING IN ORDER TO AVOID WATER PENETRATION TO THE BUILDING THROUGH THESE CONDUITS.
7. ALL CHARGES BY THE UTILITY COMPANIES IN PERFORMING ANY PART OF THE INSTALLATION FOR THE PROJECT SHALL BE PAID BY THE CONTRACTOR AS PART OF THE CONTRACT.
8. ALL OPENINGS IN THE BUILDING WALLS FOR THE ENTRANCE OF CONDUITS SHALL BE MADE BY THE USE OF SLEEVES, WHICH SHALL BE GROUTED IN PLACE, WATER PROOFED UTILIZING LINK-SEAL "TYPE GASKETING AND VERMIN-PROOFED BY AN APPROVED SEALING COMPOUND EXTENDING 3" INSIDE MOUTH OF CONDUIT. SPARE CONDUITS BEING INSTALLED NOW FOR FUTURE INCOMING SERVICE SHALL BE PLUGGED AND WATERTIGHT.

DEMOLITION NOTES:

1. FOR ELECTRICAL SYMBOLS & LEGENDS, GENERAL NOTES AND ABBREVIATIONS DRAWING LIST REFER TO DWG E001.00
2. MAINTAIN CIRCUIT CONTINUITY TO AREAS NOT AFFECTED BY DEMOLITION.
3. THE CONTRACTOR IS TO COORDINATE ALL SHUTDOWNS AND DISRUPTIONS TO NORMAL SERVICES WITH THE SCHOOLS FIELD REPRESENTATIVE AND THE FACILITY.
4. CONTRACTOR MUST FIELD VERIFY ALL CONNECTIONS PRIOR TO REMOVAL. PROTECT ALL FEEDER AND BRANCH CIRCUITS SERVING OTHER AREAS. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY OUTAGES.



3 ELECTRICAL KEY PLAN

SCALE: N.T.S.

No.	Date	Revisions
REV 3	09-14-23	BIDDING DOCUMENTS
REV 2	06-09-23	SED ADDENDUM #1
REV 1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

Drawn by DK
Checked by SH
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 RADCLIFFE BOULEVARD
SUITE 302
SUFFERN, NY 10901

Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 RADCLIFFE BOULEVARD
SUITE 302
SUFFERN, NY 10901

Structural Engineer:

UNIVENT
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COUNTY OF ROCKLAND

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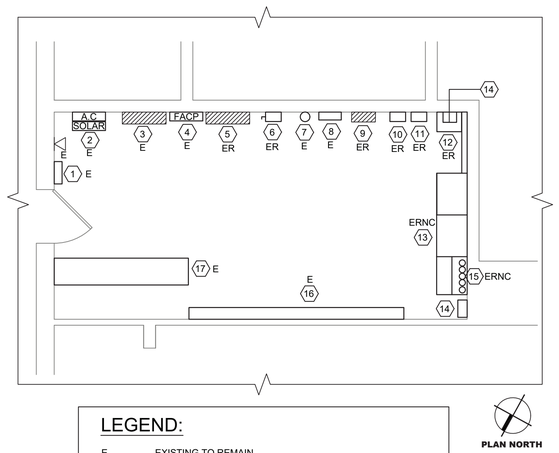


PLAN NORTH

LEGEND:

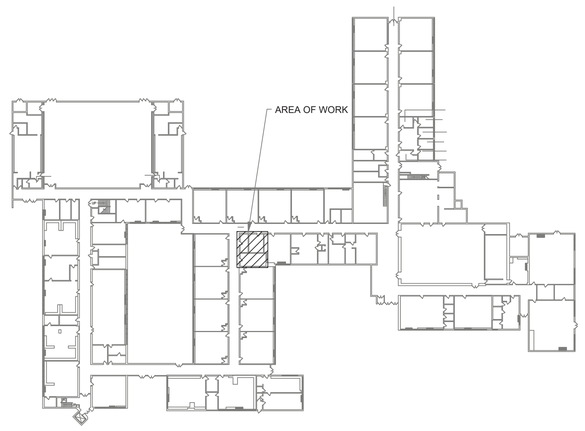
E	EXISTING TO REMAIN
ER	EXISTING TO BE REMOVED
ERR	EXISTING TO BE RELOCATED
ERNC	EXISTING TO BE REMOVED AFTER NEW WORK IS COMPLETED
REL	RELOCATED

NOTES:

1. REFER TO DRAWING E-001 FOR SYMBOL LIST, INSTALLATION NOTES AND ABBREVIATIONS.
2. ALL DEMOLITION SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER ONLY AFTER THE NEW EQUIPMENT HAS BEEN INSTALLED AND THE TRANSFER/CONNECTIONS OF CONDUIT AND CABLES TO THE NEW EQUIPMENT EQUIPMENT MADE.
3. WHERE CONDUITS ARE TO BE REMOVED, ALL EXPOSED CONDUIT SHALL BE DISCONNECTED AND REMOVED AND ALL RECESSED CONDUITS SHALL BE CAPPED OFF AT BOTH ENDS AND SHALL BE ABANDONED IN PLACE.
4. THE ELECTRICAL PANELS AND OTHER DEVICES THAT ARE EXISTING TO REMAIN DURING THE DEMOLITION WORK SHALL BE PROTECTED FROM DAMAGE. SUPPORT ALL ELECTRICAL EQUIPMENT AND DEVICES AS NECESSARY. ALL WORK SHALL COMPLY WITH NEC.
5. WHERE THE WALLS ARE COMING DOWN AS PART OF THE NEW ARCHITECTURAL AND STRUCTURAL CHANGES, ALL ELECTRICAL EQUIPMENT AND DEVICES THAT ARE TO REMAIN SHALL BE TEMPORARILY SUPPORTED BY APPROVED MEANS.
6. WHERE THE FLOORS ARE BEING RAISED AS PART OF THE ARCHITECTURAL AND STRUCTURAL CHANGES, ALL EXISTING TO REMAIN FLOOR MOUNTED ELECTRICAL EQUIPMENT AND DEVICES SHALL BE TEMPORARILY DISCONNECTED. RECONNECT ALL THE EQUIPMENT AND DEVICES AFTER THE NEW WALLS AND FLOORS ARE IN PLACE. WHERE THE FLOORS ARE BEING RAISED AS PART OF THE ARCHITECTURAL AND STRUCTURAL CHANGES, RECONNECT ALL THE EQUIPMENT AND DEVICES AFTER THE NEW WALLS AND FLOORS ARE IN PLACE. THE CODE REQUIRED MOUNTING HEIGHTS SHALL BE MAINTAINED FOR ALL DEVICES.
7. COORDINATE ALL WORK WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
8. ELECTRICAL ROOM SWITCHGEAR AND PANEL LAYOUT IS SUBJECT TO CHANGE PENDING THE PEAK DEMAND OF THE BUILDING AND CLEARANCE VERIFICATION ON THE EXISTING IT EQUIPMENT.

KEY NOTES:

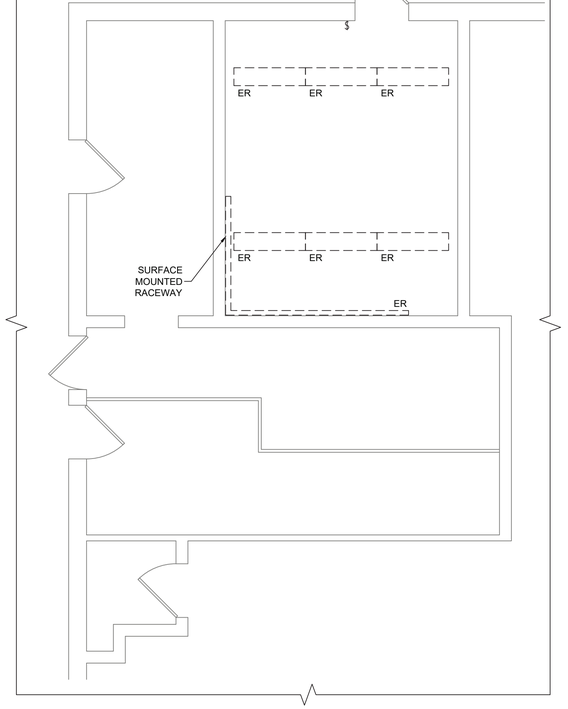
1. EXISTING FIRE ALARM BOOSTER POWER SUPPLY.
2. EXISTING SOLAR RELATED DEVICES.
3. EXISTING PANEL.
4. EXISTING FIRE ALARM CONTROL PANEL.
5. EXISTING PANELBOARD "PP-RTU" TO BE REMOVED, RETAIN EXISTING BRANCH CIRCUITS. INSTALL A PULL BOX IN PLACE OF PANEL PP-RTU AND EXTEND PP-RTU BRANCH CIRCUITS RTU-C-1 (PP-RTU-25,27,29), RTU-D-2 (PP-RTU-26,28,30) TO MDB2-5 AND MDB2-6 RESPECTIVELY. EXTEND THE (2) SINGLE POLE 120V BRANCH CIRCUITS PP-RTU-1 AND PP-RTU-3 TO NEW PANEL PP-1. REFER TO PANEL SCHEDULE PP-1
6. EXISTING 200A DISCONNECT SWITCH FOR PP-RTU.
7. EXISTING EXPOSED CONDUIT.
8. EXISTING FIRE ALARM TELEPHONE LINES.
9. EXISTING PANELBOARD "EX" FOR EXIT LIGHT SHALL BE REMOVED, RETAIN EXISTING BRANCH CIRCUITS. INSTALL A PULL BOX IN PLACE OF PANEL "EX" AND EXTEND CIRCUITS 1,2,3,4 TO NEW PANEL "LP1" IN THE ELECTRICAL ROOM. REFER TO PANEL SCHEDULE "LP1"
10. EXISTING EXIT LIGHT MCB.
11. EXISTING ANCHOR SERVICE EQUIPMENT.
12. EXISTING MAIN DISTRIBUTION PANEL SHALL BE REMOVED, RETAIN EXISTING BRANCH CIRCUITS. INSTALL A PULL BOX IN PLACE OF PANEL OF THE MAIN DISTRIBUTION PANEL AND EXTEND THE EXISTING CIRCUITS TO MDB1,MDB2 AND PANEL PP1 IN THE NEW ELECTRICAL ROOM. CIRCUITS 1,2,3,4 SHALL BE EXTENDED TO PP-1 AND CIRCUITS 5,6,7,8,9,10,11 SHALL BE EXTENDED TO MDB1,MDB2 .
13. EXISTING 1200A, 3 SECTION SWITCHBOARD.
14. EXISTING MCB'S LOCATED ON TOP OF MAIN DISTRIBUTION PANEL AND NEXT TO SERVICE SWITCH. ELECTRICAL CONTRACTOR TO INVESTIGATE THE PURPOSE OF THE MCB'S AND INFORM THE EOR FOR APPROVAL PRIOR TO REMOVAL.
15. EXISTING 5 CONDUITS WITH 1 SPARE TO BE REMOVED. REFER TO FES-E-002.
16. EXISTING TELECOM EQUIPMENT
17. EXISTING TELECOM EQUIPMENTS.



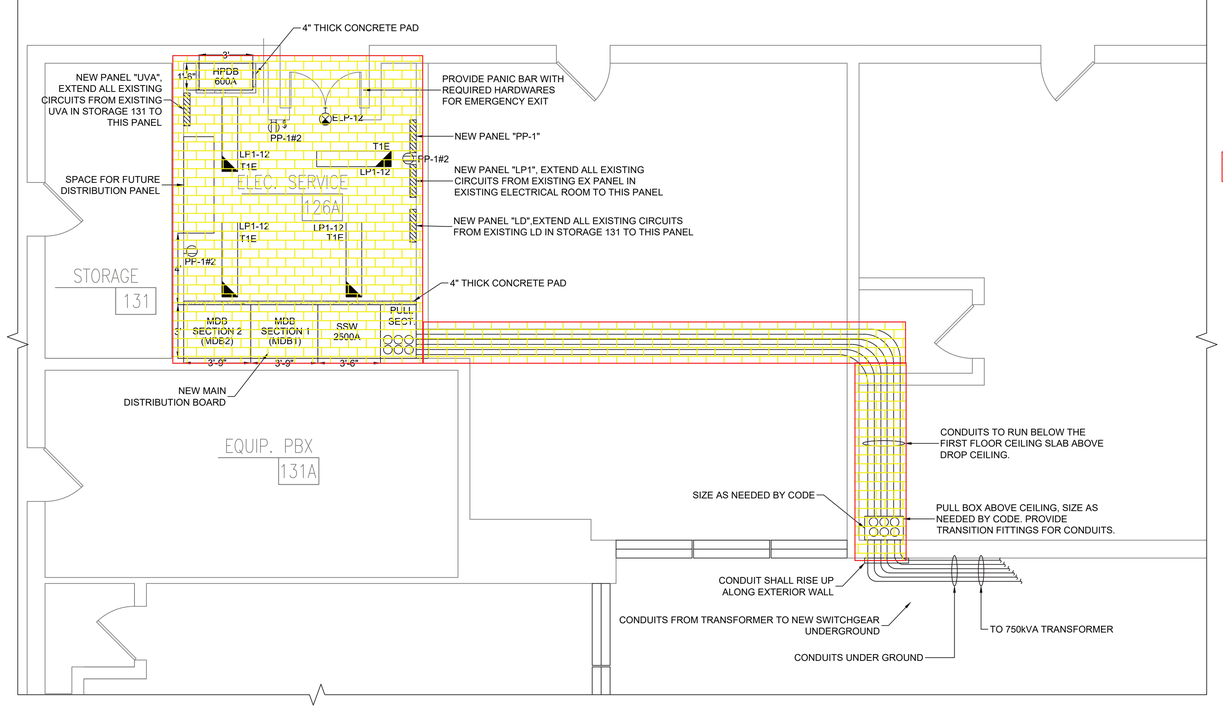
PLAN NORTH

4 ELECTRICAL FIRST FLOOR KEY PLAN
SCALE: 1/64" = 1' - 0"

1 ELECTRICAL RM. 136A DEMO PART PLAN
SCALE: 1/4" = 1' - 0"



2 COPY RM DEMOLITION PART PLAN
SCALE: 1/4" = 1' - 0"



SERVICE AND NEW MAIN DISTRIBUTIOIN WORK TO BE SCHEDULED ACROSS 2 SUMMERS DUE TO EQUIPMENT LEAD TIMES. FINAL TRANSITION TO NEW SERVICE TO BE SCHEDULED FOR THE SUMMER OF 2025.

3 NEW ELECTRICAL RM PART PLAN
SCALE: 1/4" = 1' - 0"

CONSTRUCTION SEQUENCE PLAN

No.	Date	Revisions
REV 3	09-14-23	BIDDING DOCUMENTS
REV 2	06-09-23	SED ADDENDUM #1
REV 1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

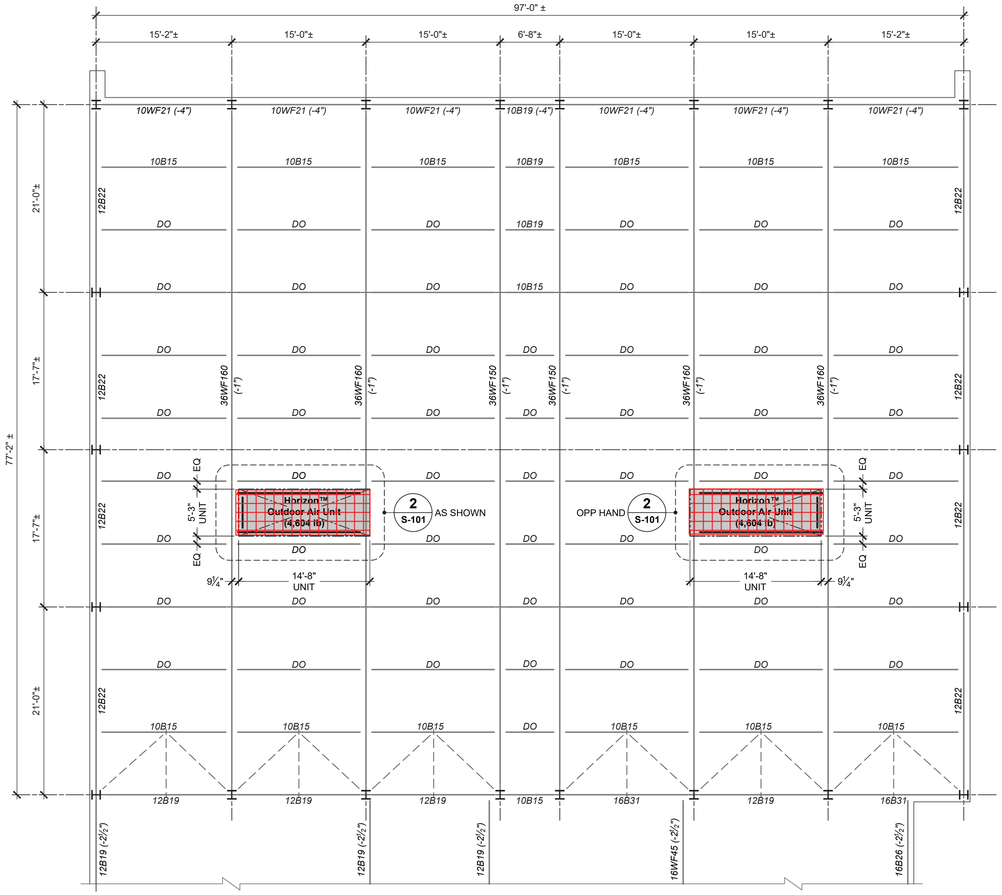
Drawn by DK
Checked by SH
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 RESEARCH BOULEVARD SUITE 302 SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 RESEARCH BOULEVARD SUITE 302 SUFFERN, NY 10901
Structural Engineer:

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL
SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com



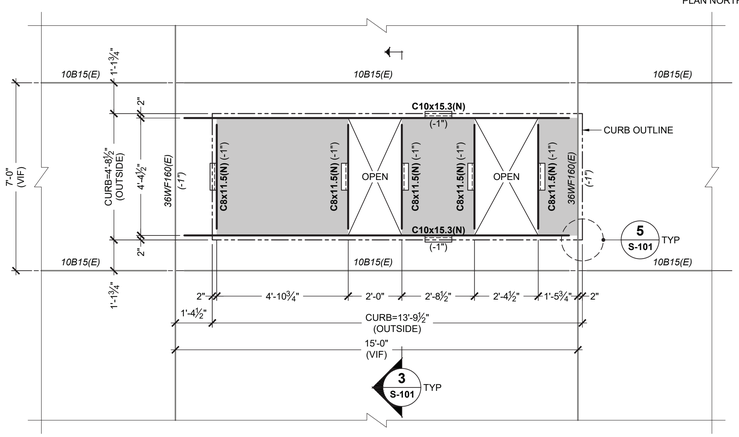
1 EXISTING GYM ROOF FRAMING PLAN

SCALE: 1/8"=1'-0"

PLAN NORTH

NOTES:

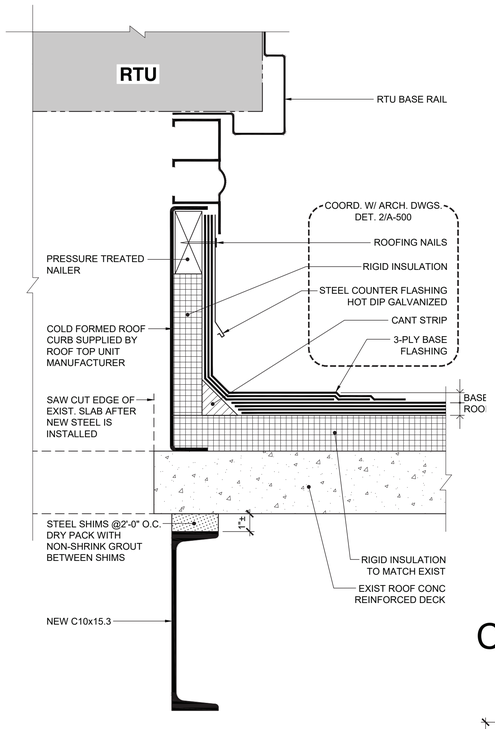
1. PRIOR TO BEGINNING ANY WORK, CONTRACTOR SHALL SURVEY AND CONFIRM EXISTING CONSTRUCTION AND DIMENSIONS. NOTIFY ARCHITECT AND/OR ENGINEER IF THERE ARE ANY DISCREPANCIES.
2. EXISTING ROOF CONSTRUCTION CONSISTS OF LIGHT WEIGHT CONCRETE FILL OVER METAL DECK, SPANNING OVER STRUCTURAL STEEL BEAMS. TOP OF EXISTING STEEL IS AT UNDERSIDE OF EXISTING METAL DECK, U.N.O.
3. COORDINATE LOCATION AND DIMENSIONS OF REQUIRED ROOF OPENING WITH MEP DRAWINGS AND APPROVED MECHANICAL SHOP DRAWINGS.
4. REFER TO DRAWING S-001 FOR GENERAL NOTES.



2 HVAC UNIT INSTALLATION PLAN

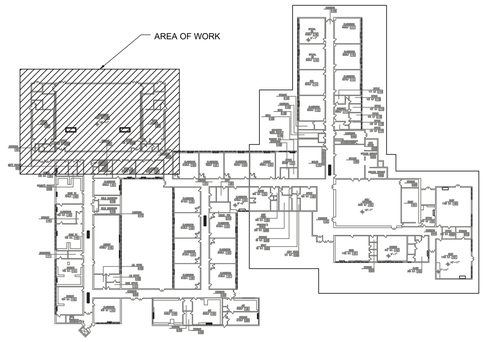
SCALE: 3/8"=1'-0"

PLAN NORTH



4 CURB INSTALLATION DET

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



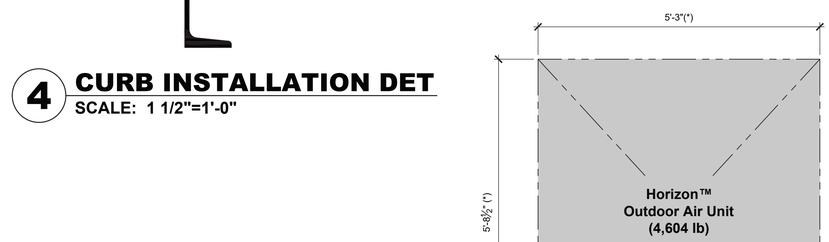
GYMNASIUM ROOF KEY PLAN

PLAN NORTH

STRUCTURAL STEEL REINFORCEMENTS / ROOF PENETRATIONS / CURB INSTLATIONS / RAIL INSTALLATIONS

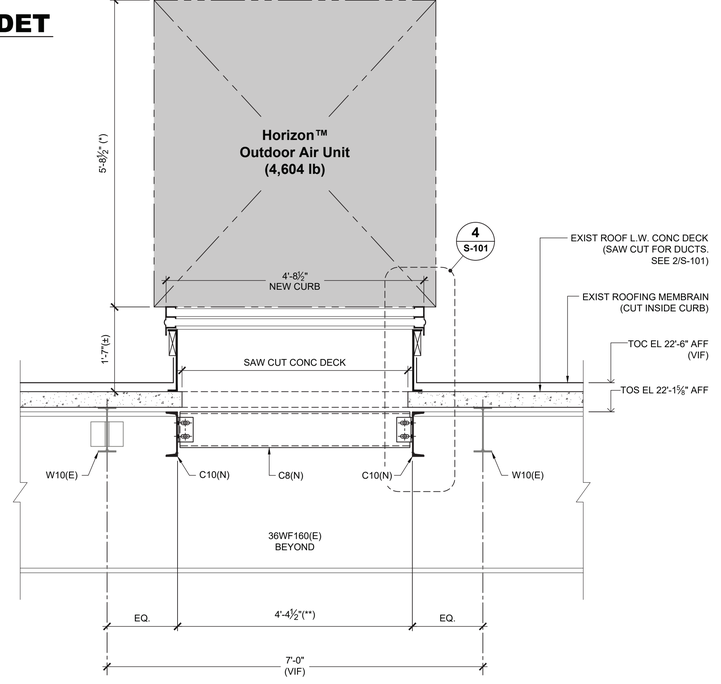
APRIL 1st THROUGH APRIL 5th

CONSTRUCTION SEQUENCE PLAN



5 CONNECTION DET

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



3 VERTICAL SECTION

SCALE: 3/4"=1'-0"

No.	Date	Revisions
REV 3	09-14-23	BIDDING DOCUMENTS
REV 2	06-09-23	SED ADDENDUM #1
REV 1	12-28-22	BIDDING DOCUMENTS

STATE OF NEW YORK — RONALD ALAN BROKENSHIRE — 104873 — LICENSED PROFESSIONAL ENGINEER

RONALD A. BROKENSHIRE, P.E.
NY LIC 104873

REG. EXP. DATE: 04-30-24

Drawn by	AN
Checked by	RAB
Project No.	42052
Scale	AS NOTED
Date	7/29/22

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901

Mechanical & Electrical Engineer:

Structural Engineer:

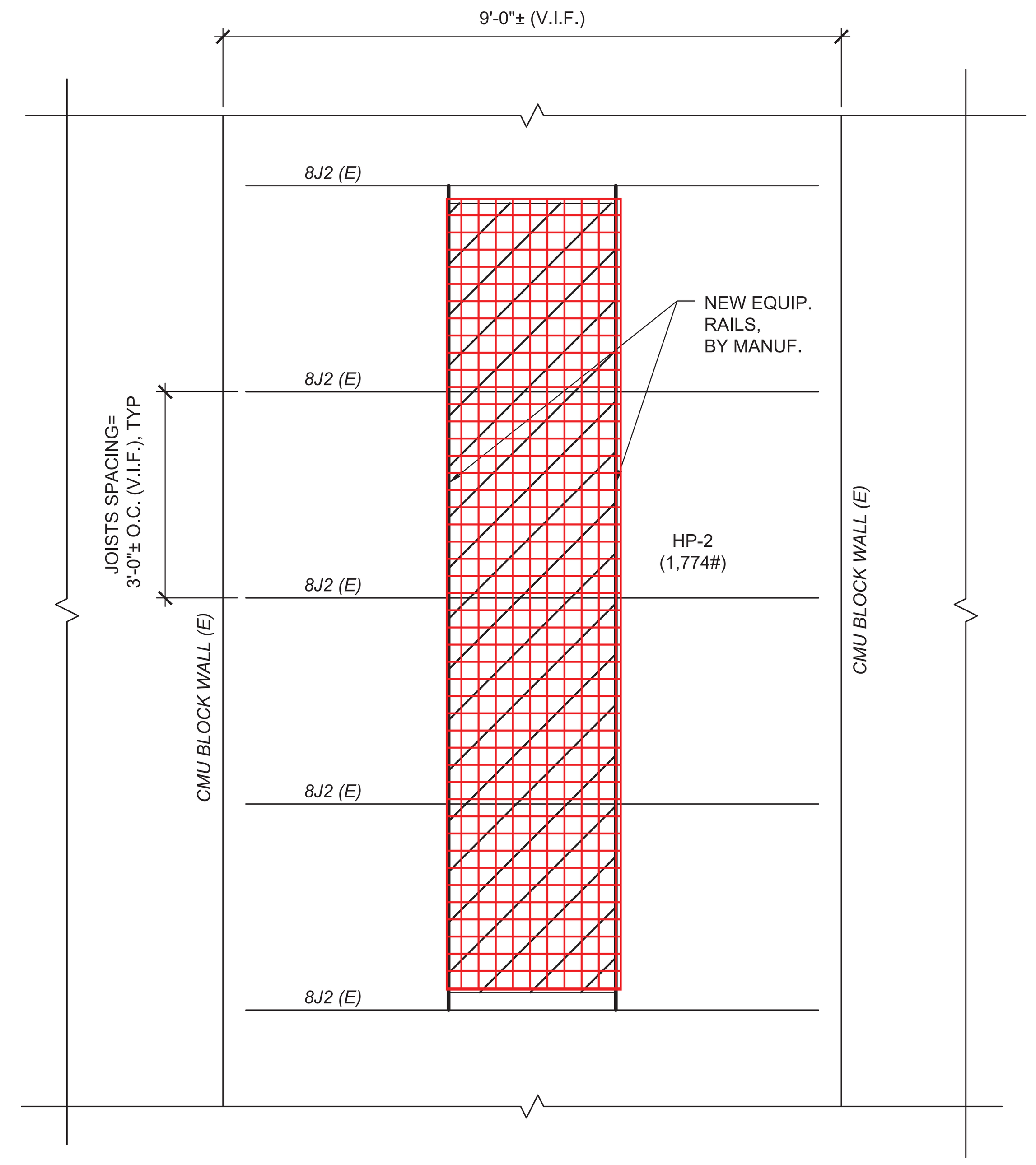
UNIVENT
REPLACEMENT AT
FARLEY
ELEMENTARY
SCHOOL

SED # 50-02-01-0-003-011

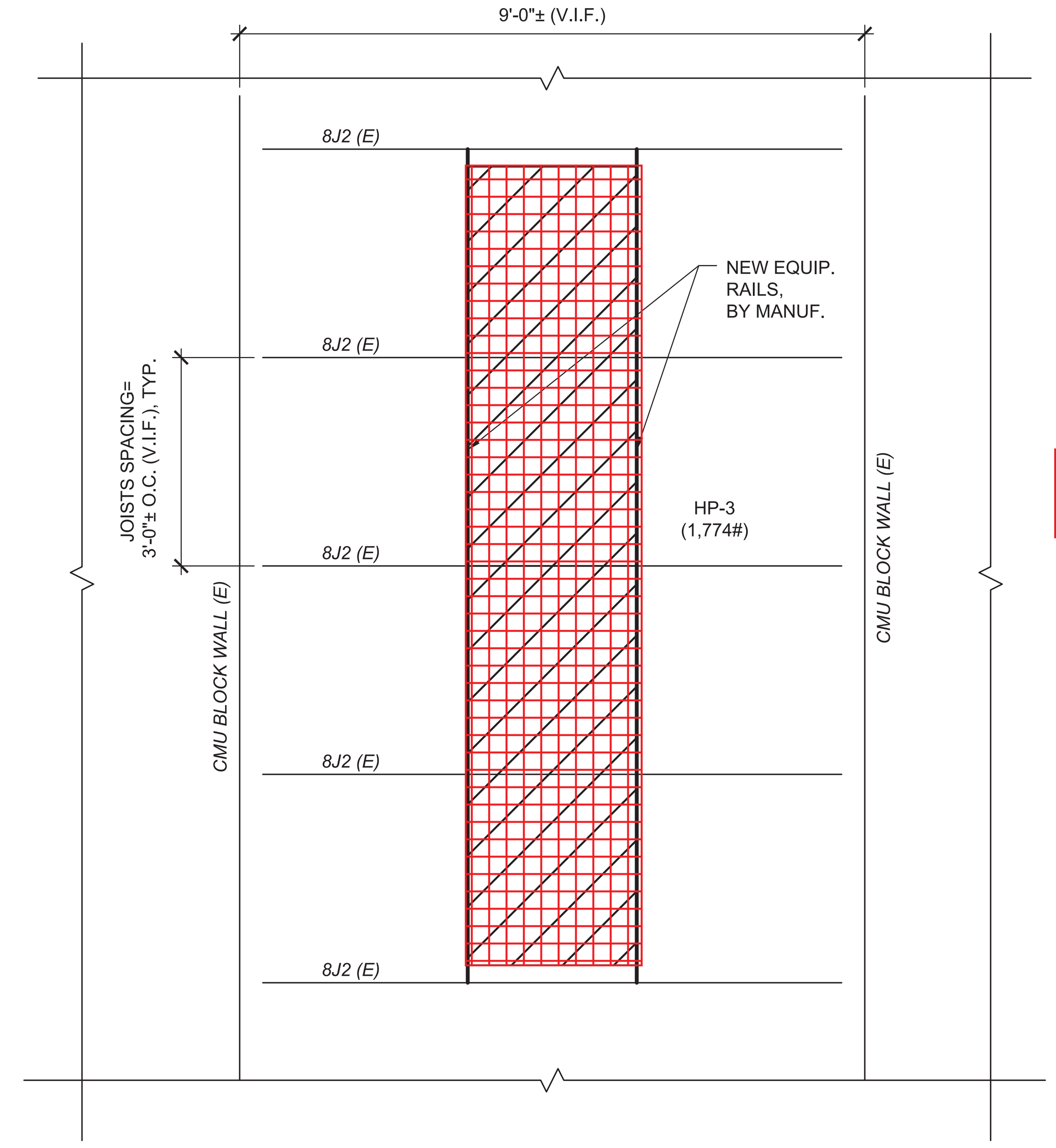
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title



2 ROOF PART PLAN UNDER HP-2
SCALE: 1/2" = 1'-0"



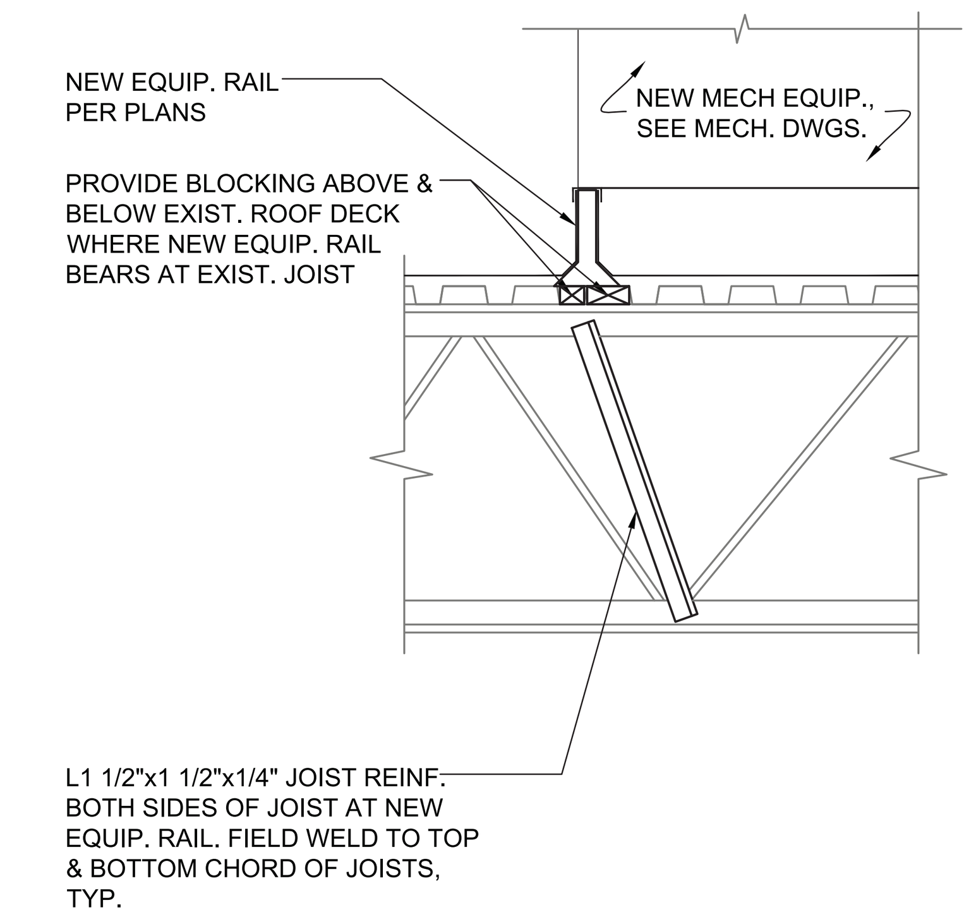
3 ROOF PART PLAN UNDER HP-3
SCALE: 1/2" = 1'-0"

NOTES:

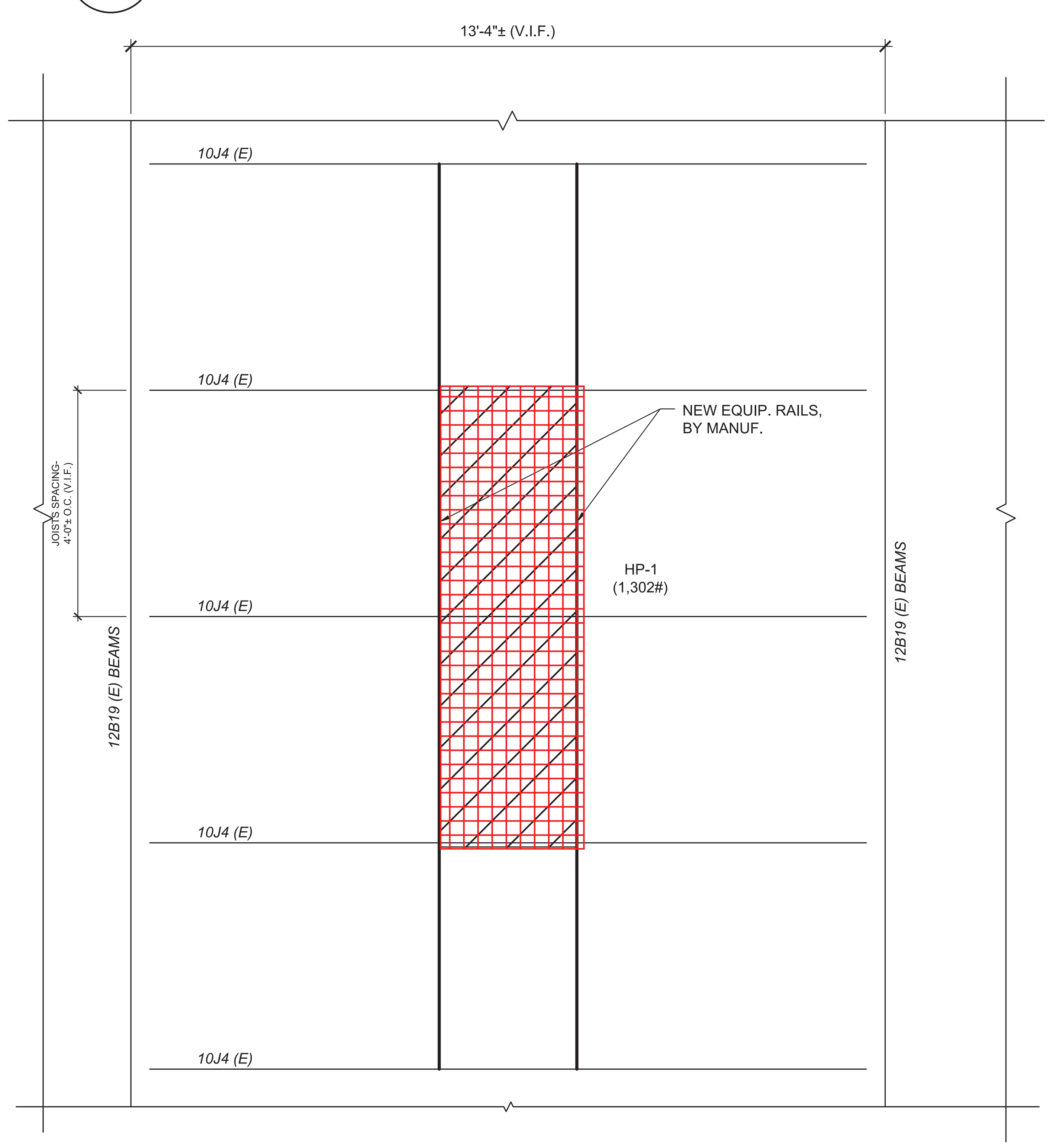
1. ALL UNITS SHALL BE CENTERED ON EXISTING JOISTS.
2. ALL EQUIPMENT RAILS SHALL SPAN OVER FIVE (5) EXISTING JOISTS, MINIMUM.
3. ALL JOISTS SUPPORTING EQUIPMENT RAILS SHALL BE REINFORCED PER DETAIL 5/FES-S-102.
4. ALL DIMENSIONS SHALL BE VERIFIED IN FIELD. NOTIFY ENGINEER OF RECORD IF ANY DISCREPANCIES ARE FOUND.
5. NO OTHER MECHANICAL OR ELECTRICAL UNITS OR EQUIPMENT SHALL BE LOCATED ON JOISTS SUPPORTING THE NEW UNITS.

STRUCTURAL STEEL REINFORCEMENTS / ROOF PENETRATIONS / CURB INSTLATIONS / RAIL INSTALLATIONS

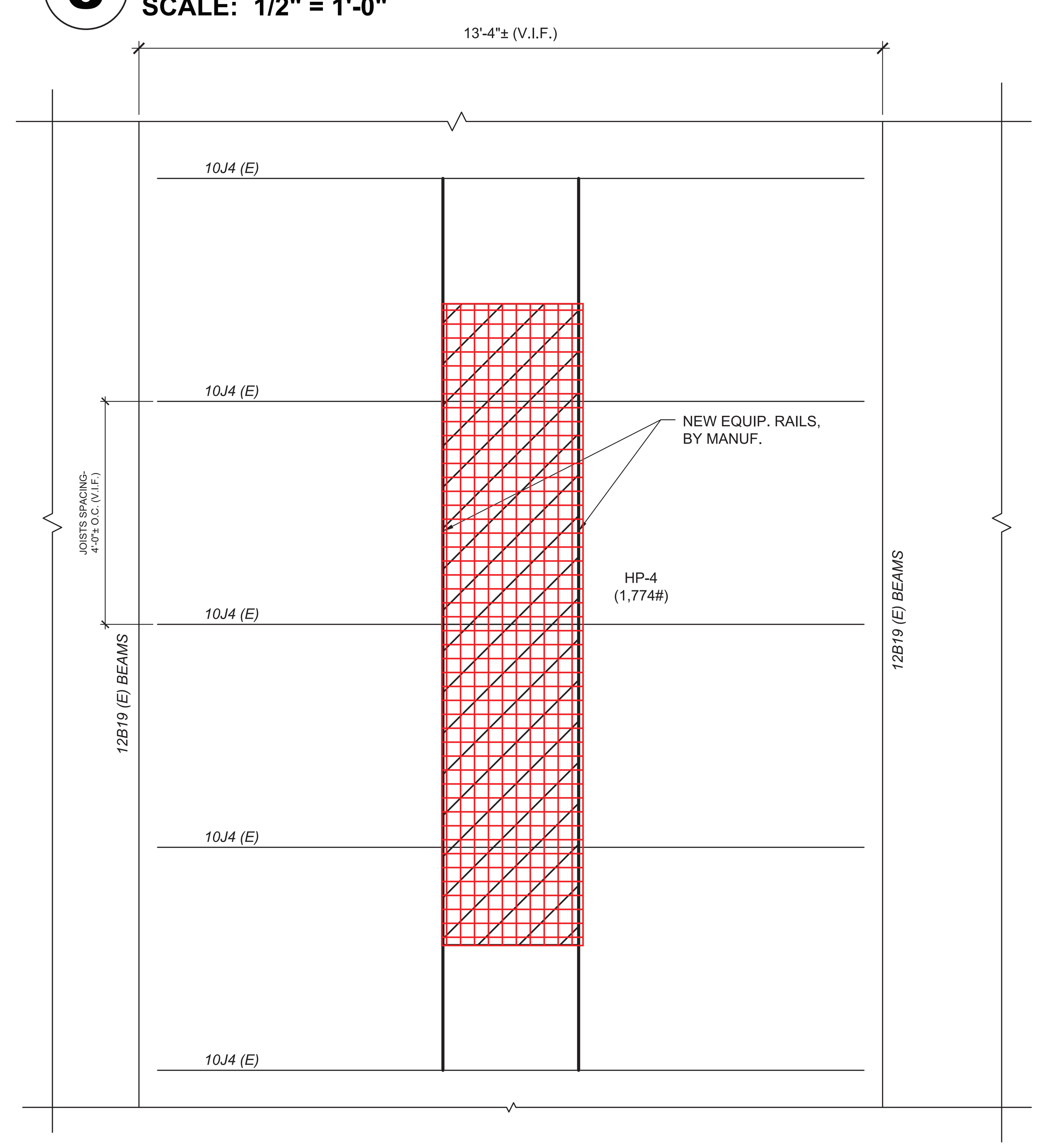
APRIL 1st THROUGH APRIL 5th



5 TYP. EXIST. JOIST REINF. DETAIL
SCALE: 3/4" = 1'-0"

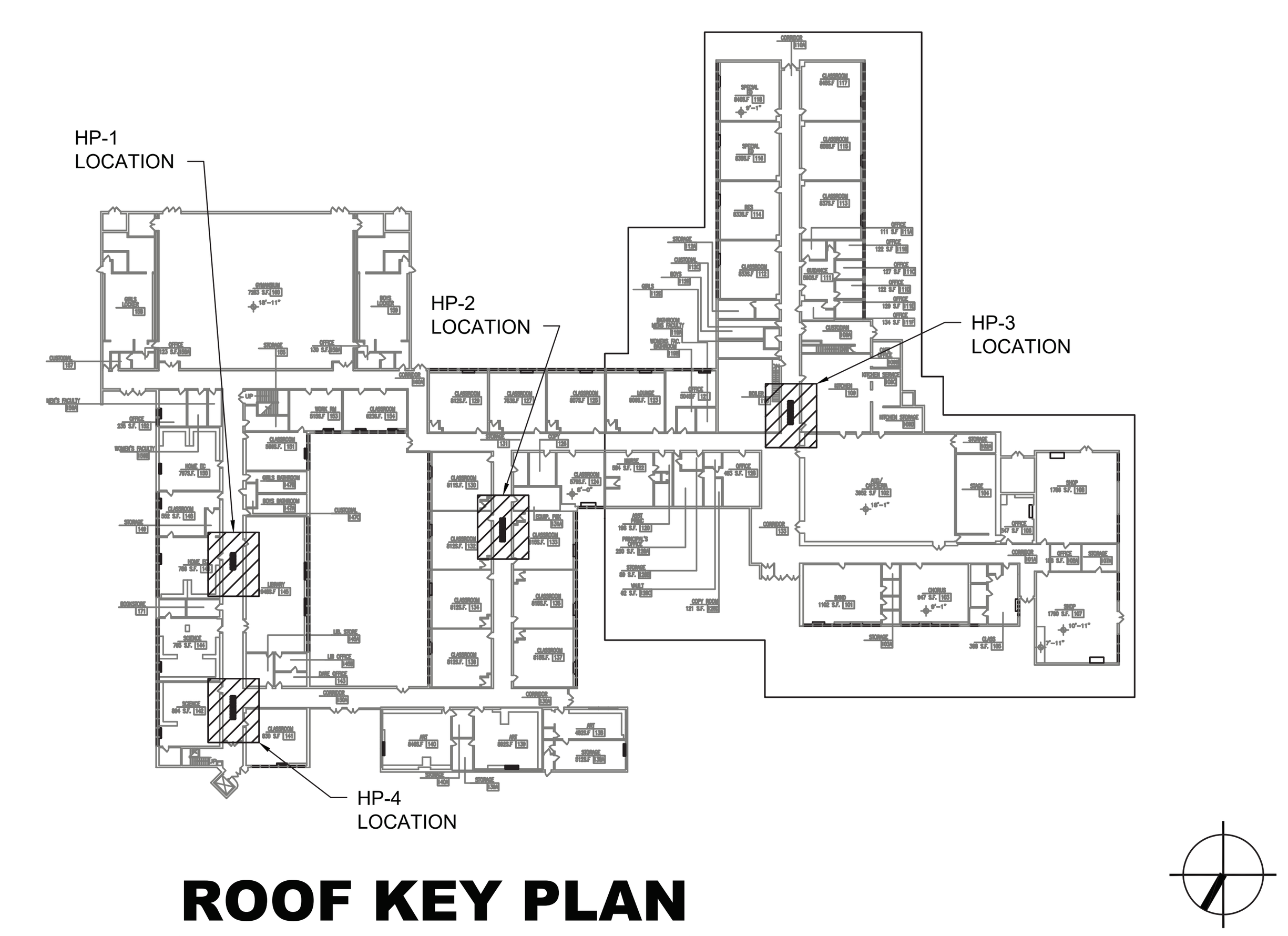


1 ROOF PART PLAN UNDER HP-1
SCALE: 1/2" = 1'-0"



4 ROOF PART PLAN UNDER HP-4
SCALE: 1/2" = 1'-0"

CONSTRUCTION SEQUENCE PLAN



ROOF KEY PLAN

No.	Date	Revisions
REV 3	09-14-23	BIDDING DOCUMENTS
REV 2	06-09-23	SED ADDENDUM #1
REV 1	12-28-22	BIDDING DOCUMENTS

STATE OF NEW YORK · RONALD ALAN BROKENSHIRE · 104873 · LICENSED PROFESSIONAL ENGINEER
RONALD A. BROKENSHIRE, P.E.
NY LIC 104873
REG. EXP. DATE: 04-30-24

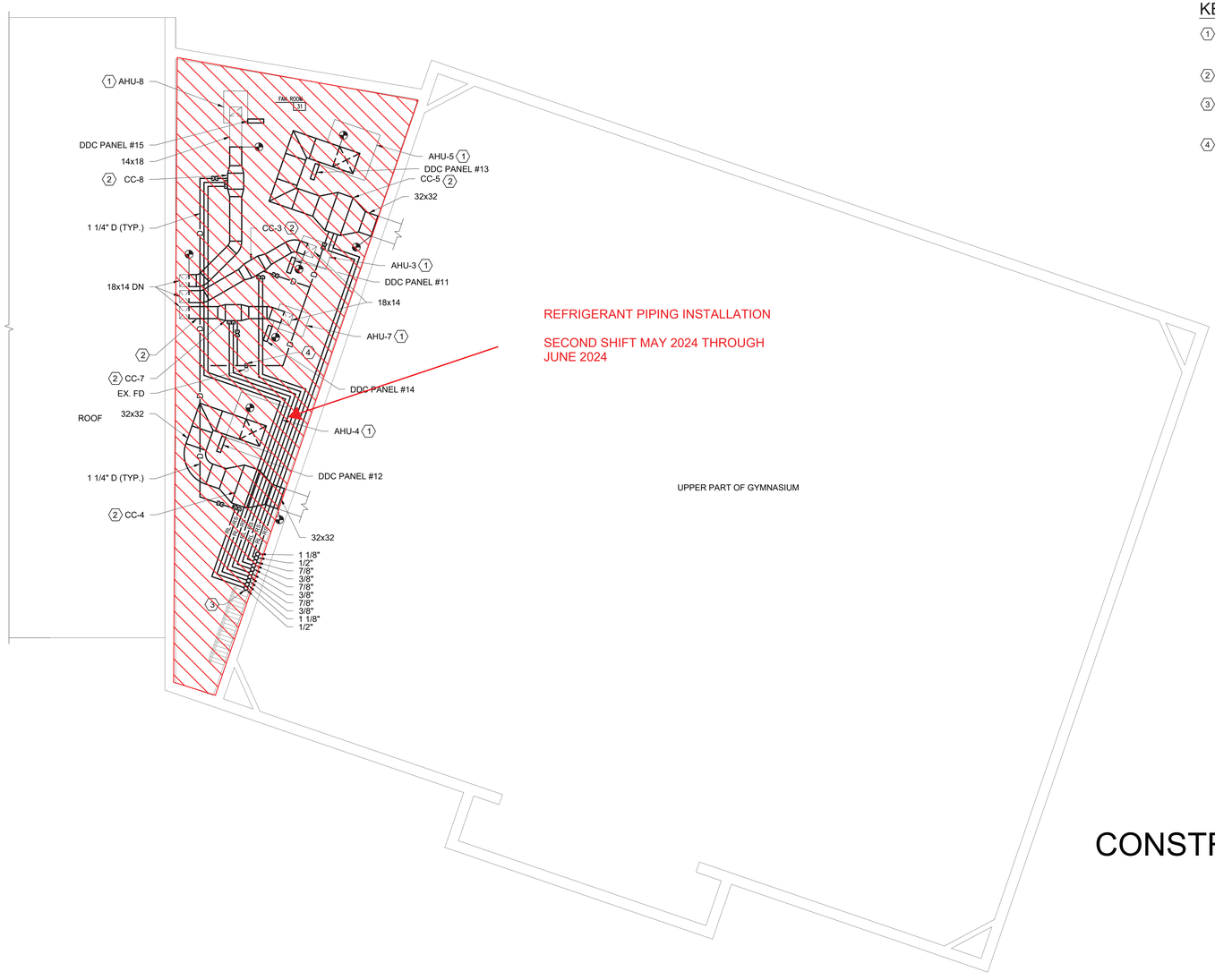
Drawn by	YAY
Checked by	RAB
Project No.	42052
Scale	AS NOTED
Date	7/29/22

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL
SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND
####

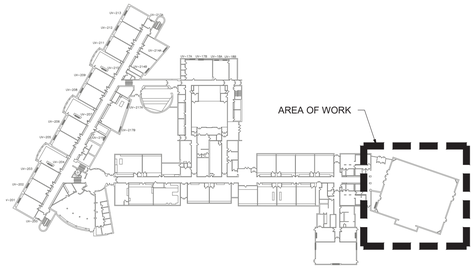
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com



KEYED NOTES:

1. EX. AIR HANDLING UNIT (MCQUAY MODEL LHD). PROVIDE DIRECT DIGITAL CONTROLS INTEGRATED WITH THE BMS. REFER TO THE CONTROL DIAGRAMS FOR MORE DETAILS.
2. PROVIDE DX COIL IN SUPPLY DUCTWORK AT EXISTING AIR HANDLING UNITS.
3. PROVIDE REFRIGERANT PIPING UP THROUGH THE ROOF TO THE SPLIT SYSTEM AC UNITS AT GRADE BELOW. REFER TO DRAWING WGES-M-111 FOR CONTINUATION.
4. PROVIDE 1 1/4" CONDENSATE DRAIN PIPING TERMINATES AT EXISTING FLOOR DRAIN.

CONSTRUCTION SEQUENCE PLAN



1 UPPER LEVEL FLOOR PLAN INSTALLATION
SCALE: 1/8" = 1' - 0"

2 UPPER LEVEL KEY PLAN
SCALE: NONE

PLAN NORTH

No.	Date	Revisions
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

Drawn by MEP
Checked by PV
Project No. 42054
Scale AS NOTED
Date 09-14-23

GREENMAN PEDERSEN, INC
2 RESOURCE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Mechanical & Electrical Engineer:

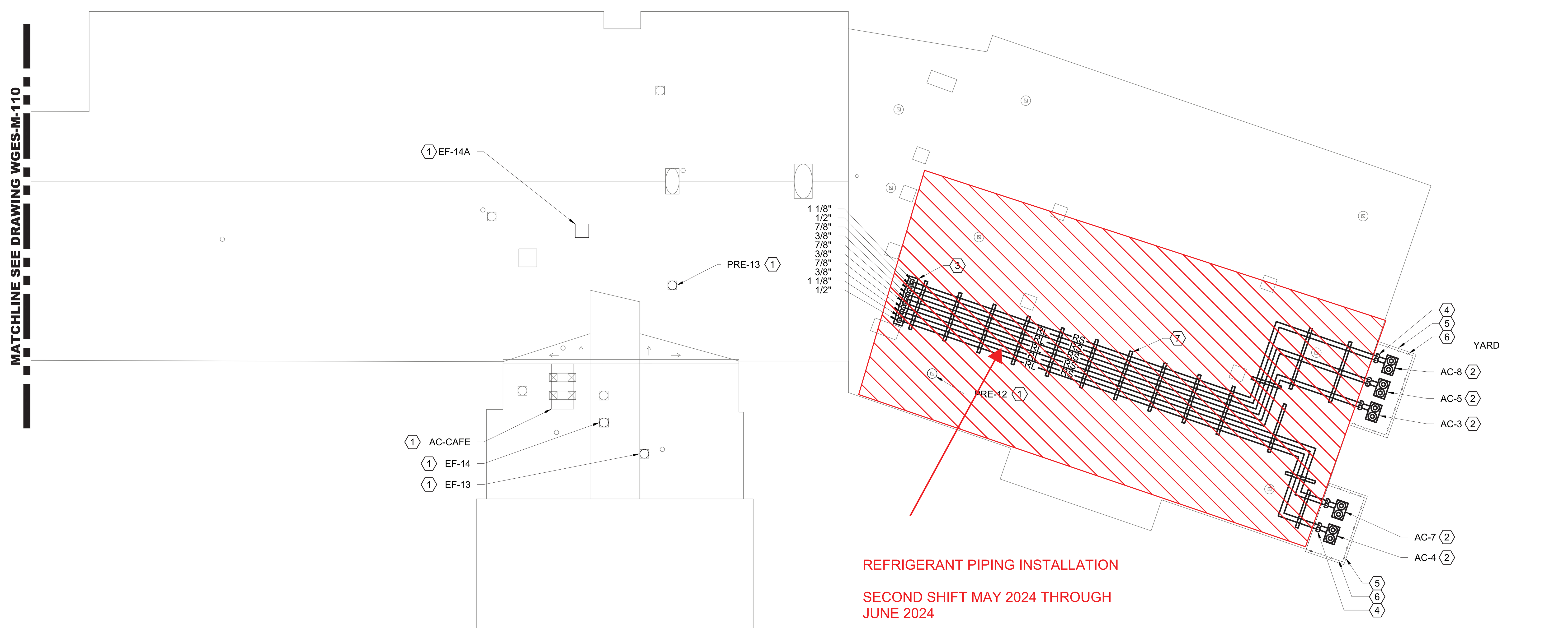
GREENMAN PEDERSEN, INC
2 RESOURCE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Structural Engineer:

UNIVENT REPLACEMENT
AT
WILLOW GROVE
ELEMENTARY SCHOOL
SED# 50-02-01-06-0-030-016
103 STORERS RD
THIELLS, NY 10984
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

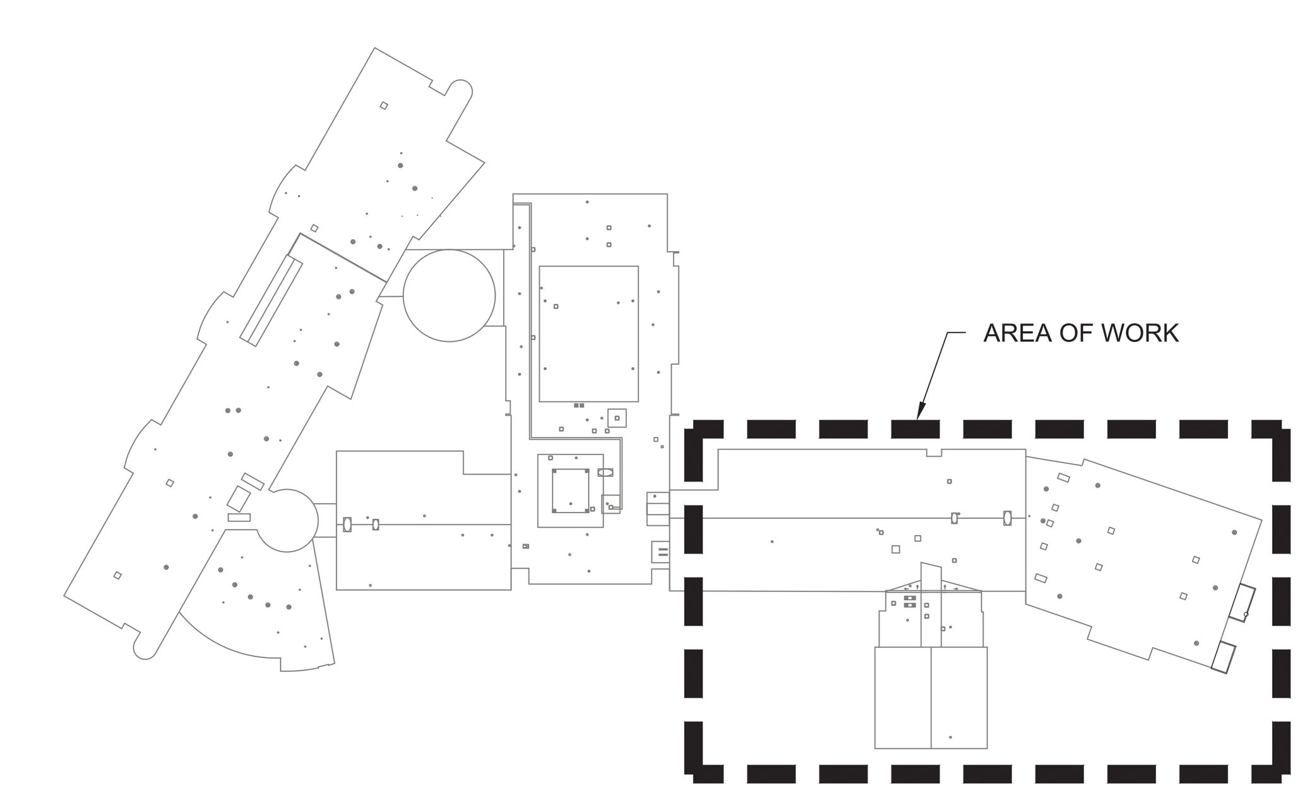
KEYED NOTES:

1. EXISTING MECHANICAL EQUIPMENT. PROVIDE DIRECT DIGITAL CONTROLS INTEGRATED WITH THE BMS. REFER TO THE CONTROL DIAGRAMS FOR MORE DETAILS.
2. PROVIDE SPLIT SYSTEM AIR CONDITIONING UNITS AS SHOWN.
3. PROVIDE ROOF CURB WITH PIPE PORTAL WHERE REFRIGERANT PIPING RUNS DOWN THROUGH THE ROOF. PROVIDE WATERTIGHT PENETRATION COMPATIBLE WITH THE EXISTING ROOFING SYSTEM. SEE DRAWING WGES-M-109 FOR CONTINUATION.
4. PROVIDE THREE (3) SETS 3/8" RL AND 7/8" RS AND TWO (2) SETS 1/2" RL AND 1-1/8" RS. INSTALL WITHIN LINESET COVER ALONG THE WALL AT 10'-0" AFF±. PAINT THE LINESET COVERS TO MATCH THE WALL IN A COLOR TO BE SELECTED BY THE OWNER.
5. PROVIDE CONCRETE PAD AT GRADE TO SUPPORT AC UNITS. VERIFY THE ACTUAL DIMENSIONS AGAINST THE MANUFACTURER'S RECOMMENDED CLEARANCES.
6. CHAIN LINK FENCE ENCLOSURE BY GC. VERIFY THE ACTUAL DIMENSIONS AGAINST THE MANUFACTURER'S RECOMMENDED CLEARANCES.
7. PROVIDE REFRIGERANT PIPING ALONG ROOF WITH CURB SUPPORTS SPACED AT 8'-0" O.C. MAXIMUM. SUPPORTS SHALL BE COMPATIBLE WITH THE EXISTING ROOFING SYSTEM.



CONSTRUCTION SEQUENCE PLAN

1 ROOF LEVEL FLOOR PLAN INSTALLATION
SCALE: 1/16" = 1' - 0"



2 ROOF KEY PLAN
SCALE: NONE

PLAN NORTH

No.	Date	Revisions
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

Drawn by	MEP
Checked by	PV
Project No.	42054
Scale	AS NOTED
Date	09-14-23

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
SED# 50-02-01-06-0-030-016
153 STORMS RD, THIELLS, NY 10984
COUNTY OF ROCKLAND

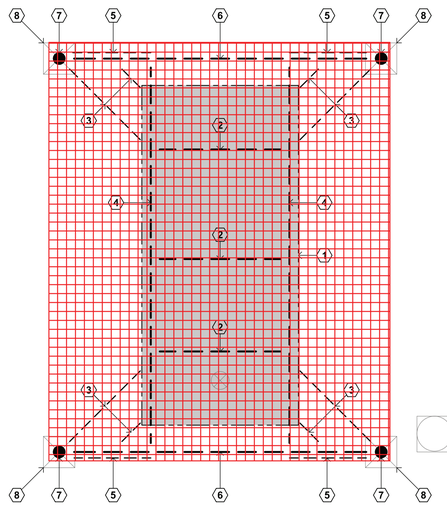
MSA
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

DEMOLITION KEYED NOTES:

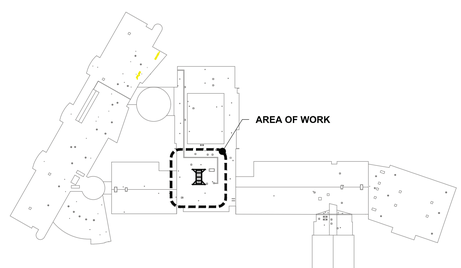
1. FOR EXISTING COOLING TOWER DEMOLITION REFER TO MECHANICAL DWG. NO. WGES-M-070.
2. REMOVE EXISTING CHANNELS (C6x8.2).
3. REMOVE EXISTING HORIZONTAL BRACES (L3x3x¼).
4. REMOVE EXISTING SECONDARY BEAMS (10B15).
5. REMOVE EXISTING KNEE BRACES (L3x3x¼).
6. REMOVE EXISTING PRIMARY BEAMS (10WF22).
7. REMOVE EXISTING 3"Ø (NOM.) POSTS DOWN TO ROOF FRAMING CONNECTION. REFER TO DWG. NO. WGES-S-101 FOR CLEANING PROCEDURE.
8. FOR PITCH POCKETS REMOVAL AND SURROUNDING ROOF REPAIR REFER TO ARCHITECTURAL DWGS.

STRUCTURAL STEEL DUNNAGE FOR NEW CHILLER / ROOF PENETRATIONS / CURB INSTLATIONS / RAIL INSTALLATIONS

APRIL 1st THROUGH APRIL 5th



CONSTRUCTION SEQUENCE PLAN



KEY PLAN

PLAN NORTH

1 COOLING TOWER DUNNAGE DEMOLITION
SCALE: 1/4" = 1' - 0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

Drawn by AN
Checked by RAB
Project No. 42054
Scale AS NOTED
Date 09-14-23

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
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UNIVENT REPLACEMENT
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MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
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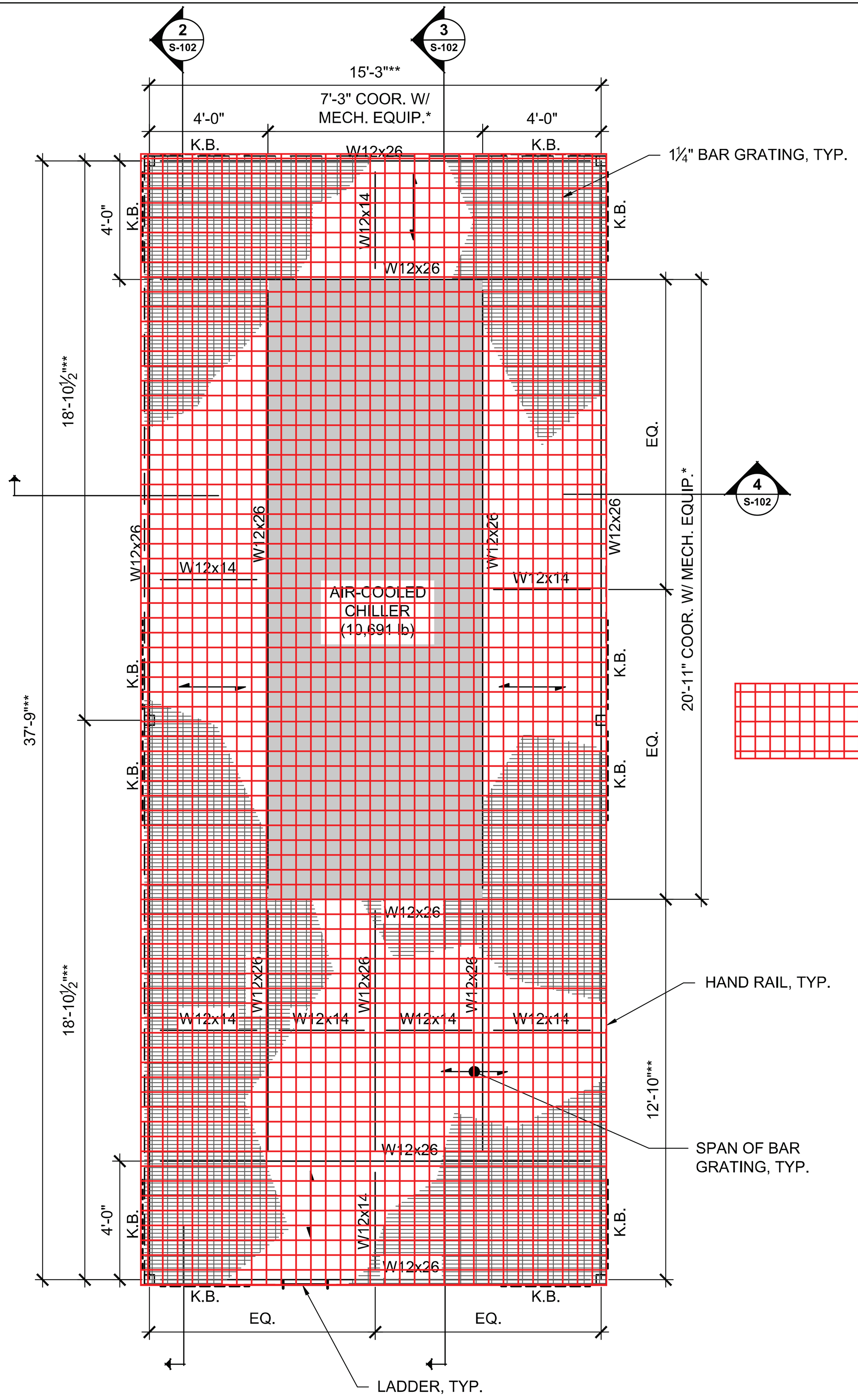
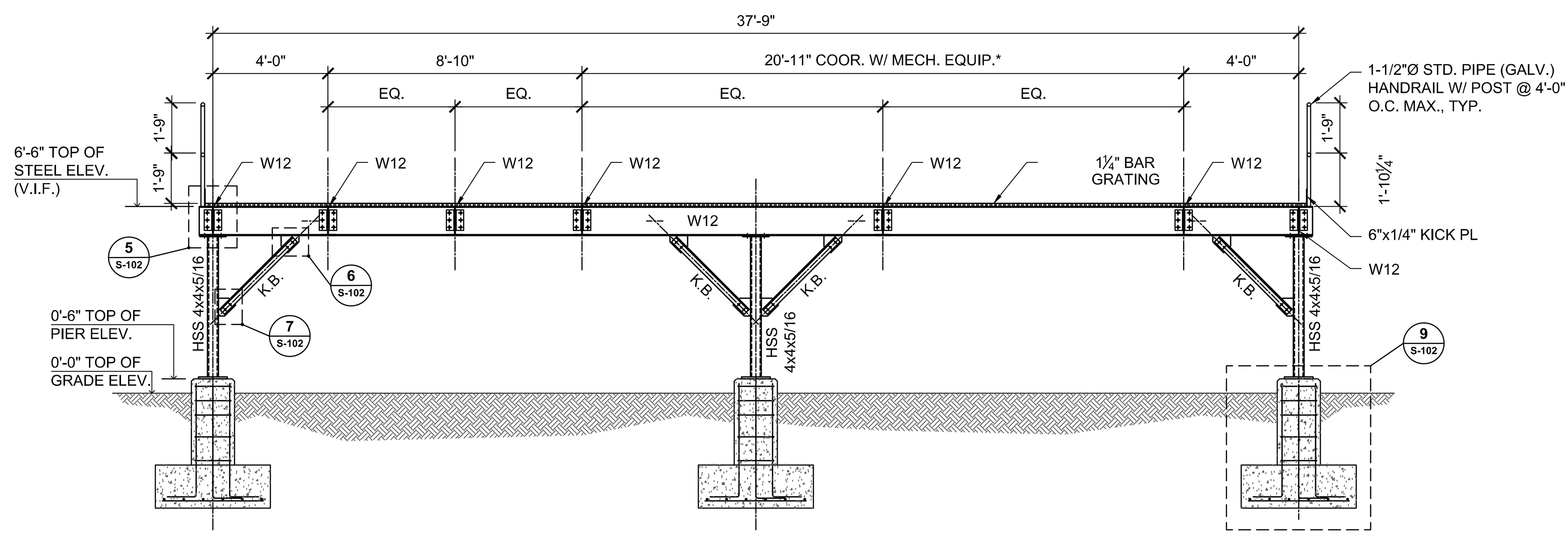


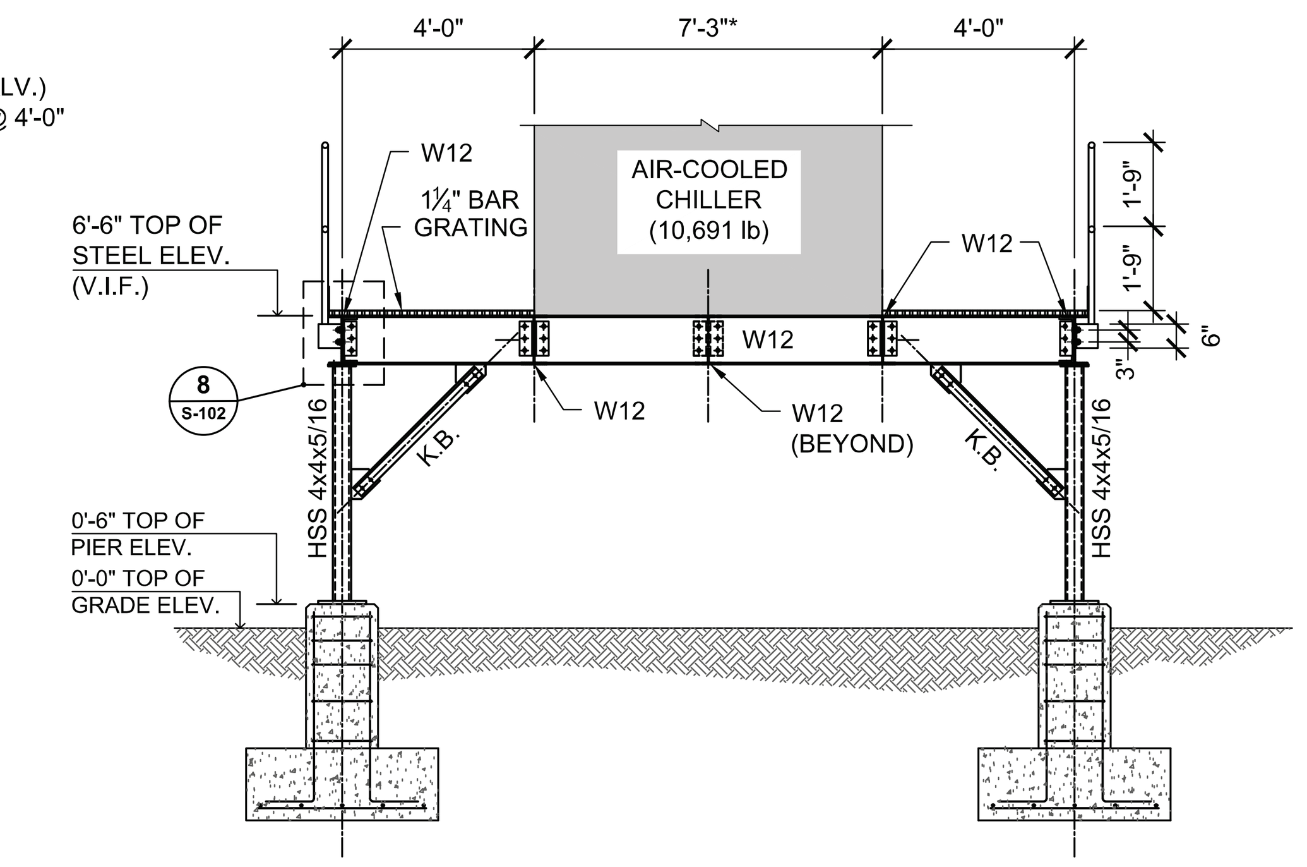
1 GROUND DUNNAGE PLAN INSTALLATION
SCALE: 1/4" = 1'-0"

STRUCTURAL STEEL FOUDNATION AND DUNNAGE FOR NEW CHILLER / ROOF PENETRATIONS / CURB INSTLATIONS / RAIL INSTALLATIONS

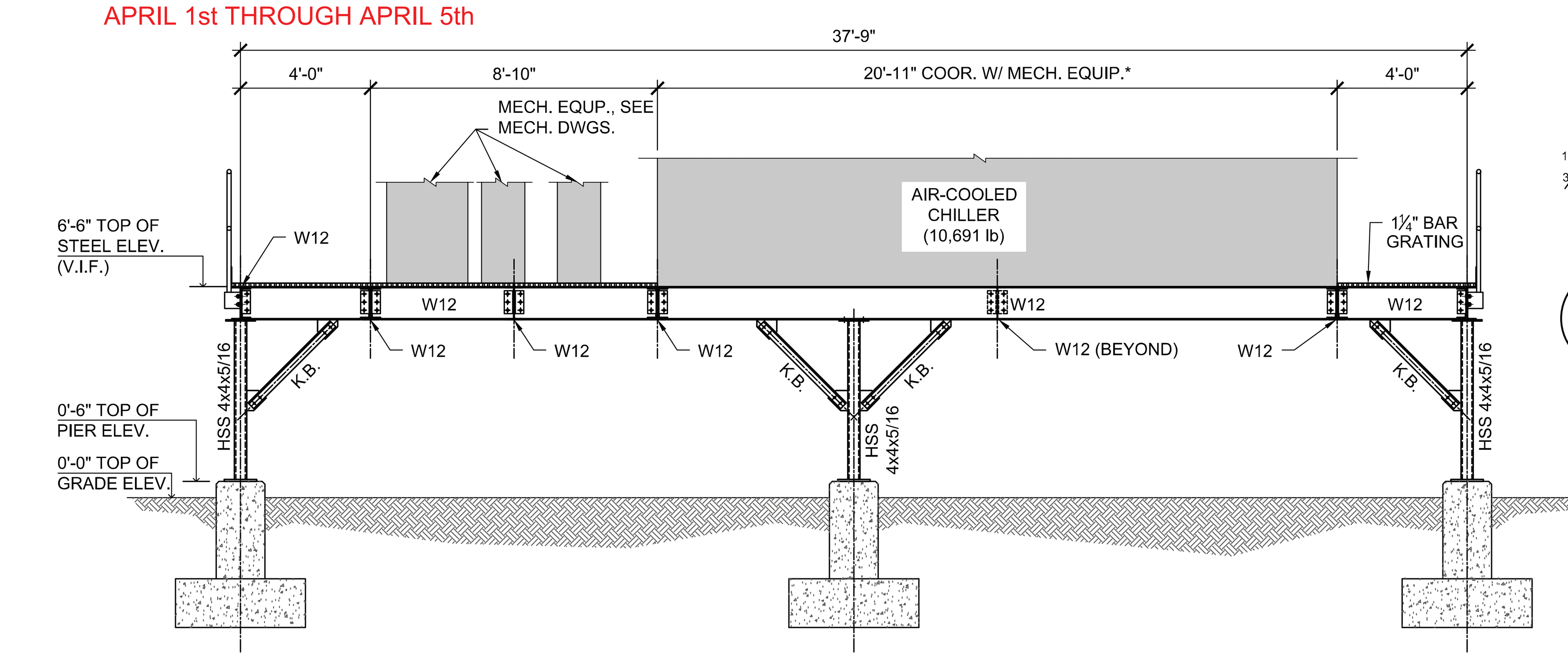
APRIL 1st THROUGH APRIL 5th



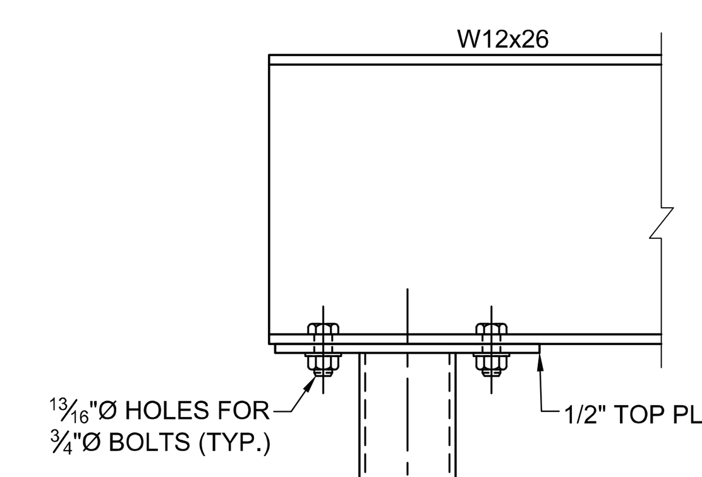
2 LONGITUDINAL SECTION
SCALE: 1/4" = 1'-0"



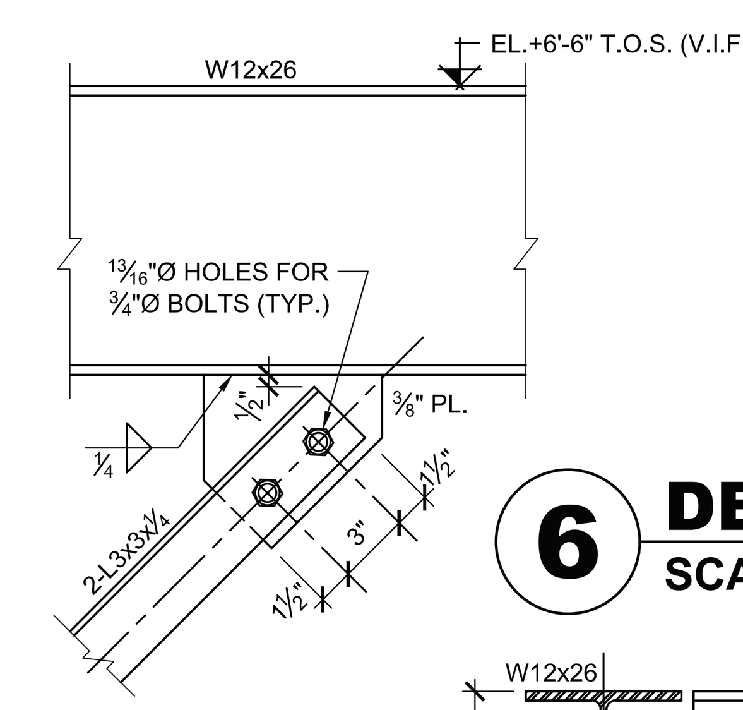
4 TRANSVERSE SECTION
SCALE: 1/4" = 1'-0"



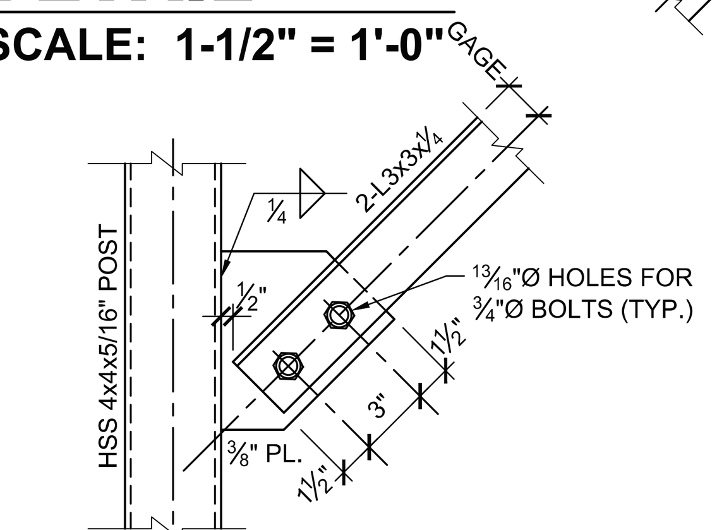
3 LONGITUDINAL SECTION
SCALE: 1/4" = 1'-0"



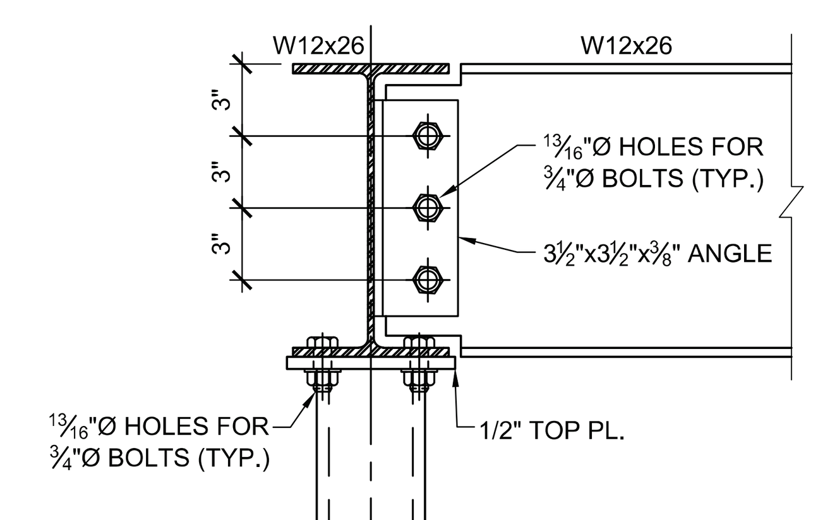
5 DETAIL
SCALE: 1-1/2" = 1'-0"



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



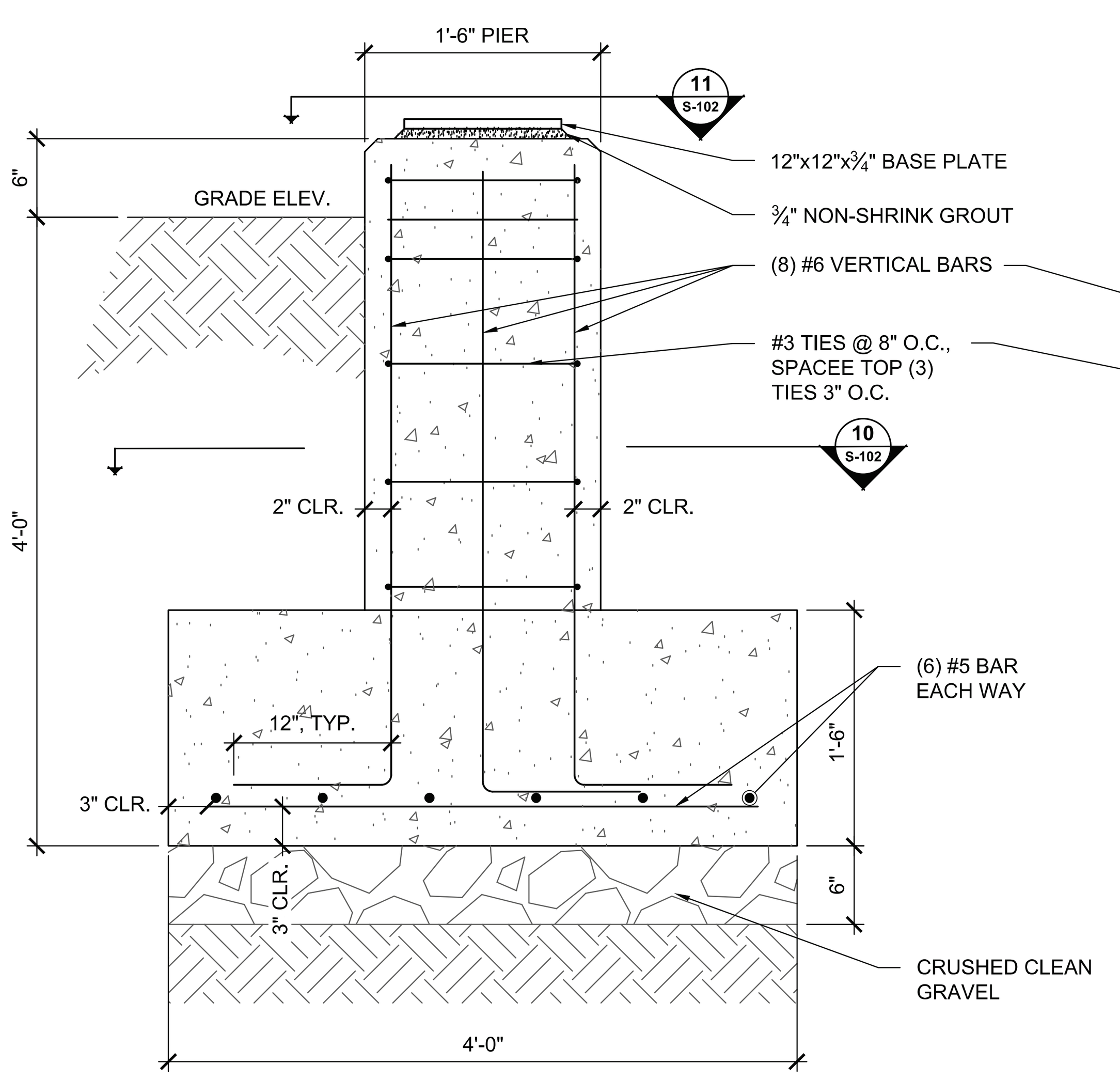
7 DETAIL
SCALE: 1-1/2" = 1'-0"



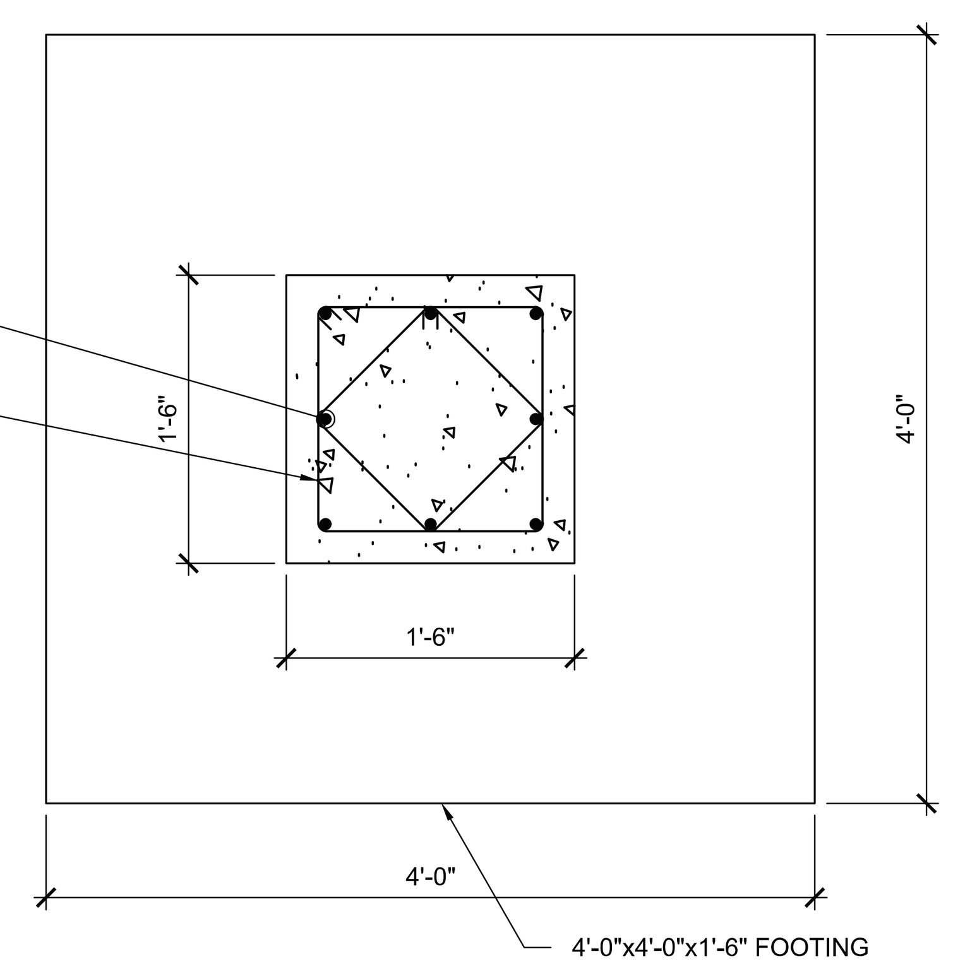
8 DETAIL
SCALE: 1-1/2" = 1'-0"

- T.O.S. EL. ±6'-6" VERIFY IN FIELD.
- DIMENSIONS DESIGNATED THUS (*) ARE SUBJECT TO COORDINATION WITH UNIT MANUFACTURER.
- DIMENSION DESIGNATED THUS (**) ARE SUBJECT TO COORDINATION BETWEEN CHILLER INSTALLER AND GENERAL CONTRACTOR.
- ALL KNEE BRACES (K.B.) SHALL BE 2-L3X3X¼.
- ALL STEEL EXPOSED TO ELEMENTS SHALL BE HOT-DIP GALVANIZED.

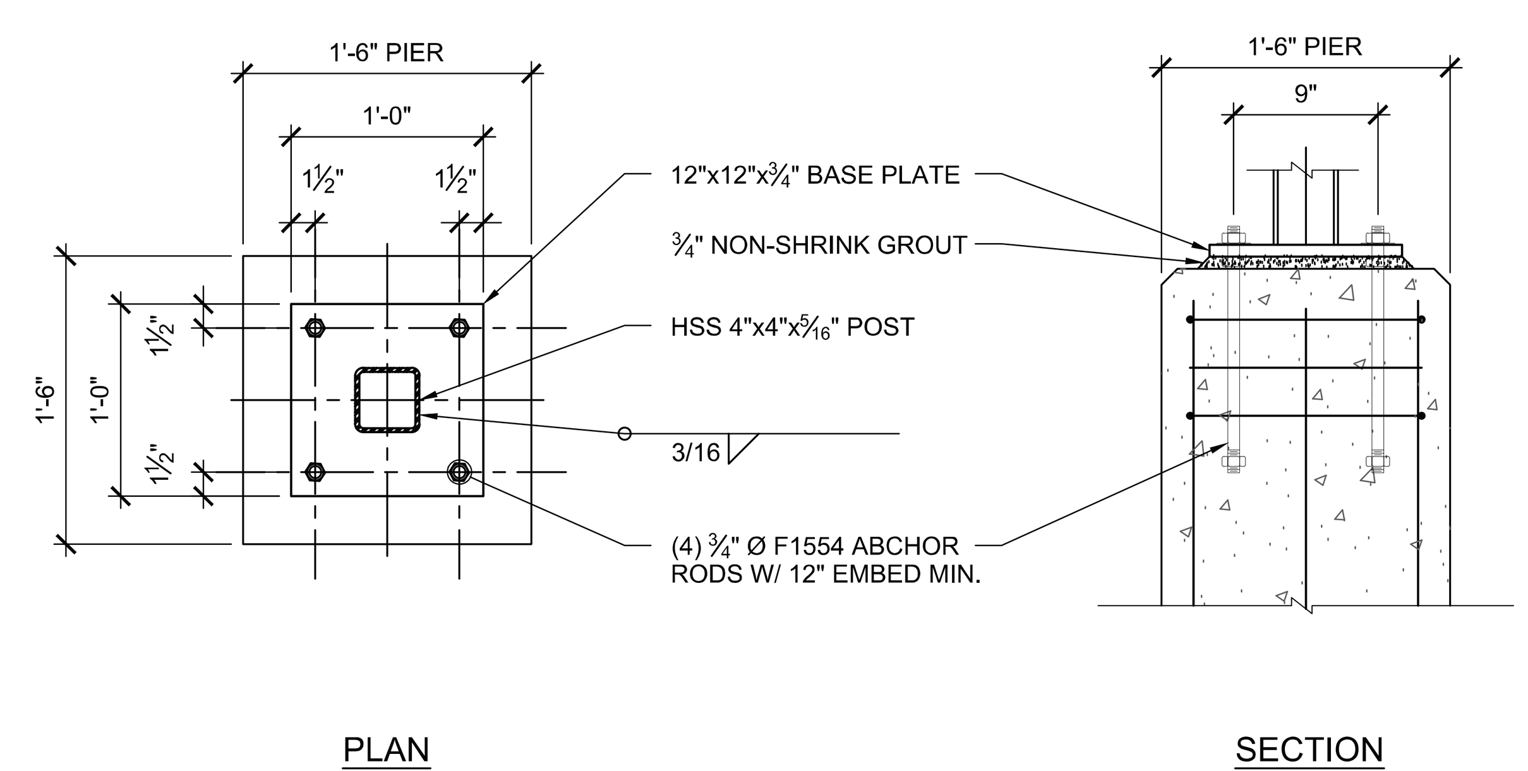
CONSTRUCTION SEQUENCE PLAN



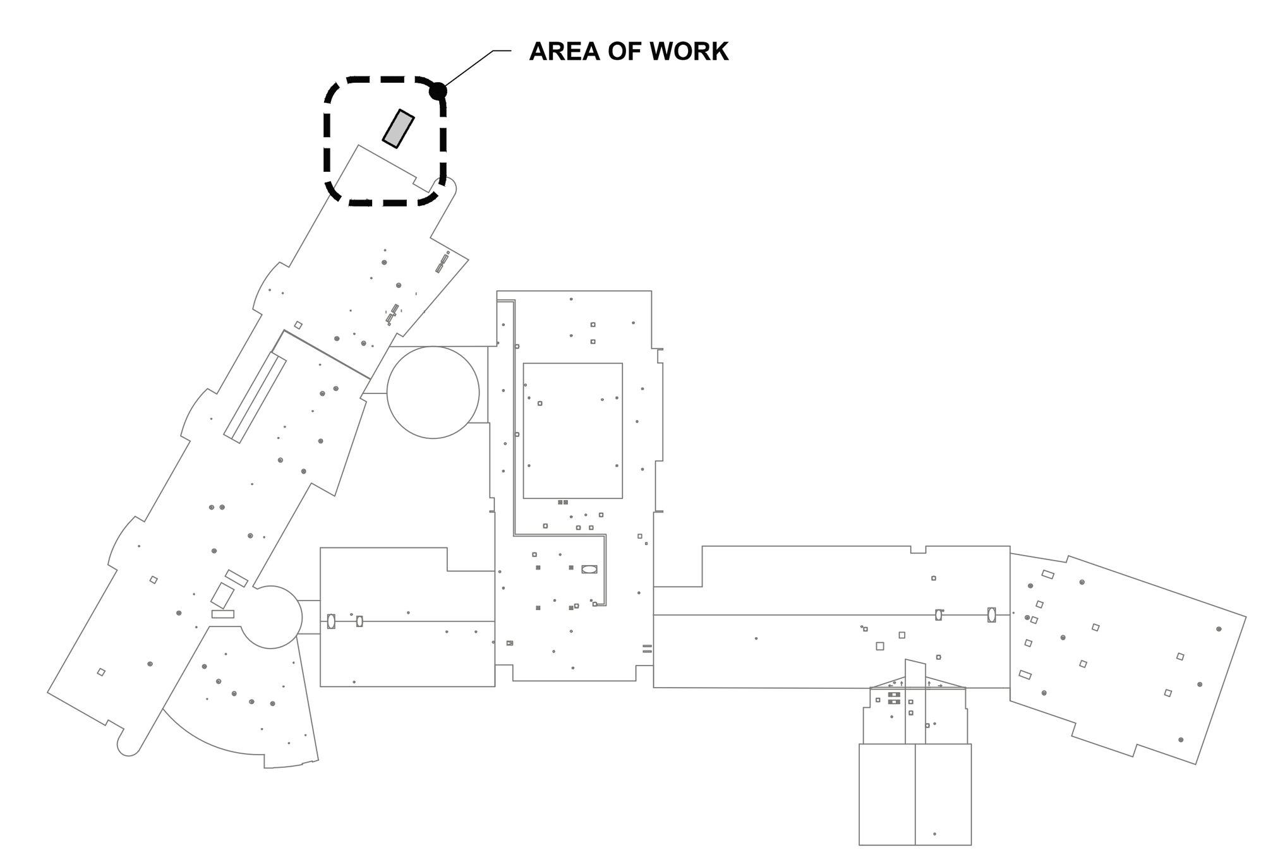
9 FOUNDATION SECTION DETAIL
SCALE: 1" = 1'-0"



10 FOUNDATION PLAN VIEW
SCALE: 1" = 1'-0"



11 BASE PLATE DETAIL
SCALE: 1" = 1'-0"



KEY PLAN

PLAN NORTH

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

RONALD A. BROKENSHIRE, P.E. NY LIC 104873
REG. EXP. DATE: 04-30-24

Drawn by: YAY
Checked by: RAB
Project No.: 42054
Scale:
Date: 09-14-23

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

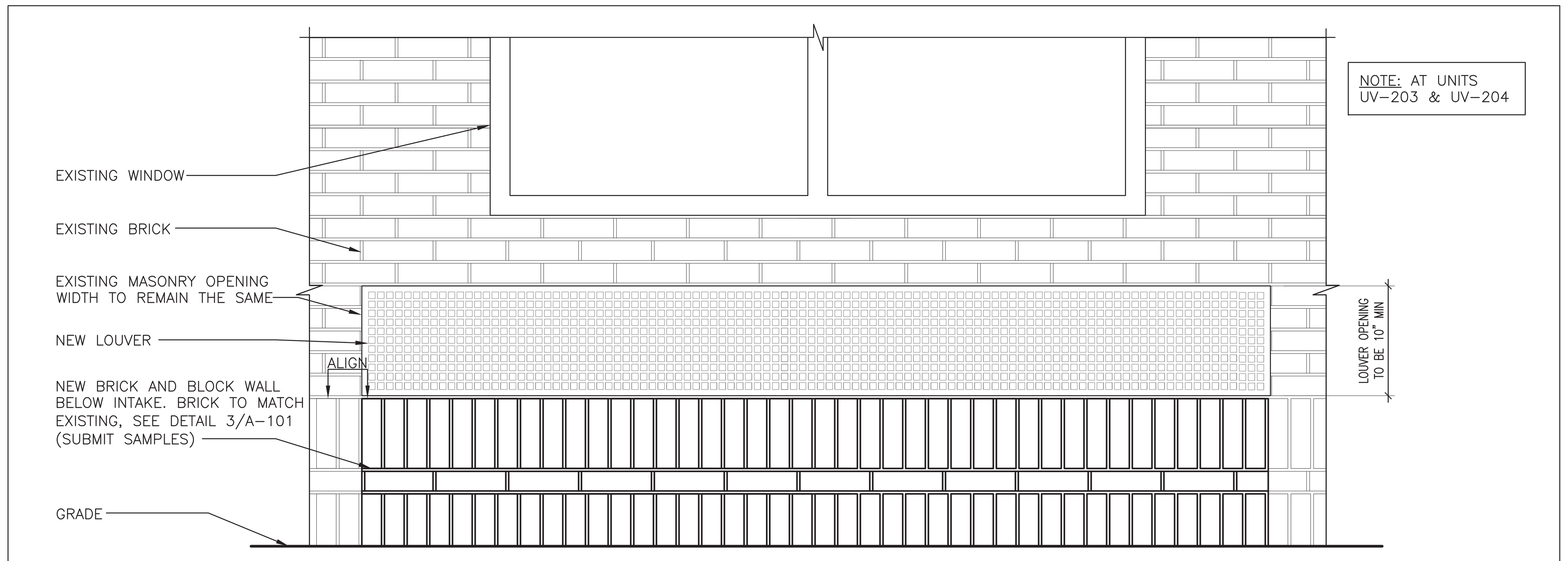
Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
SED# 50-02-01-06-0-030-016
153 STORRS RD THIELLS, NY 10984
COUNTY OF ROCKLAND

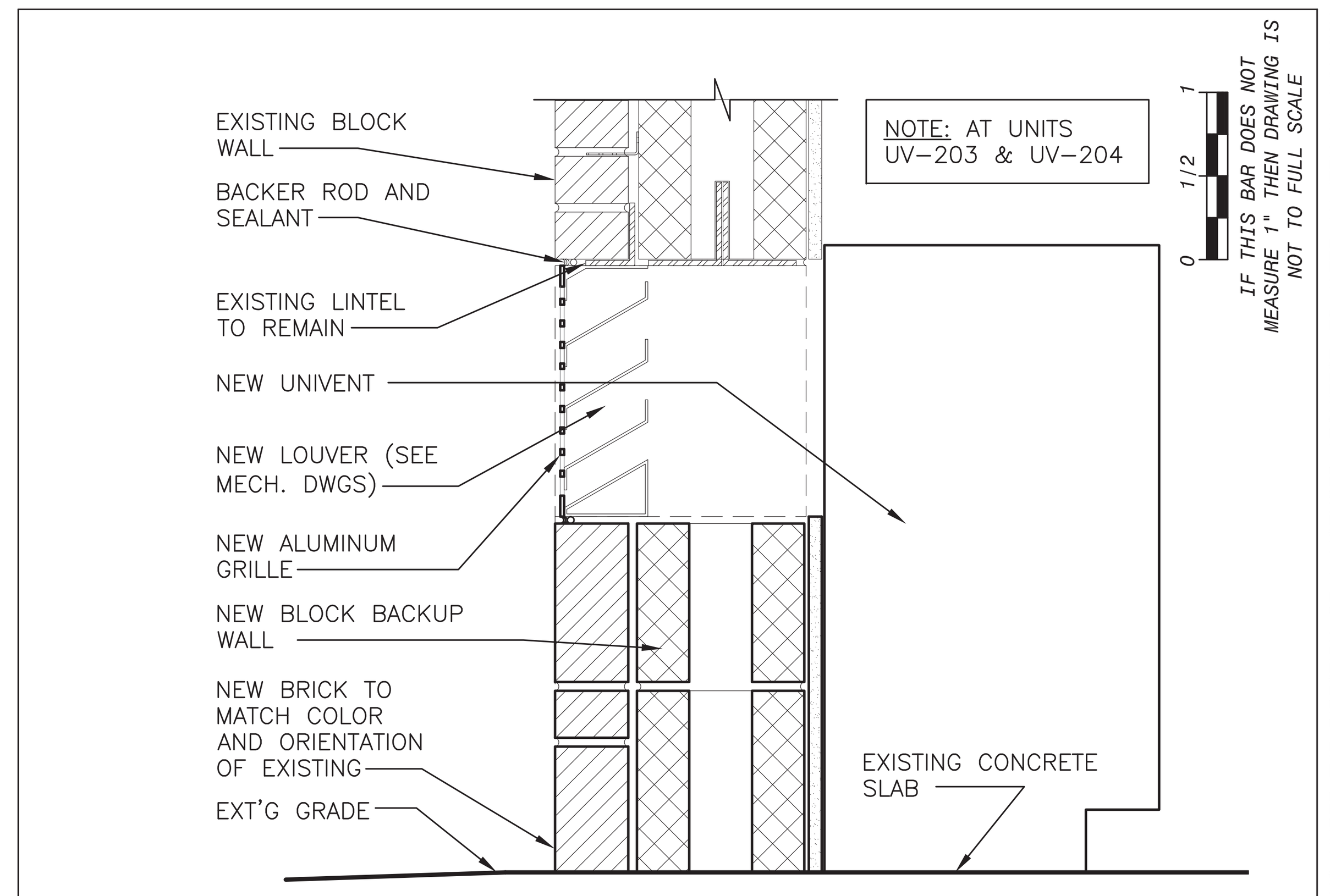
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Symbol	Description
	EXISTING THROUGH WALL LOUVER
	SUPPLY REGISTER
	NEW UNIT VENT UV-00
	NEW FAN COIL UNIT FC-00
	NEW CASSETTE CS-00
	EXISTING UNIT VENT (TO REMAIN)
	EXISTING UNIT VENT (TO BE REMOVED)
RA	NEW RELIEF VENT ENCLOSURE
	AREA OF NEW ROOF
	NEW CHILLER
OLF LE	LINEAR FEET OF LINE SET ENCLOSURE

LEGEND



4 AIR INTAKE ELEVATION
SCALE: 1" = 1'-0"



3 RAISED AIR INTAKE SECTION
SCALE: 1-1/2" = 1'-0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

- A1 INSTALL NEW UNIT VENTILATOR AS PART OF ALTERNATE NO. 200.
- A2 INSTALL NEW CEILING MOUNTED UNIT VENTILATOR AS PART OF ALTERNATE NO. 200.
- A3 PATCH EXISTING FLOOR AND WALL WHERE EXISTING UV IS REMOVED.
- A4 INSTALL NEW WINDOW ASSEMBLY. VERIFY ALL DIMENSIONS IN FIELD. SEE DRAWING WGES-A-510 FOR WINDOW ELEVATIONS AS ALTERNATE NO. 203.
- A5 NEW INTAKE TO BE RAISED AWAY FROM GRADE. INSTALL NEW BRICK AND BLOCK WALL BELOW INTAKE. BRICK TO MATCH EXISTING, SEE DETAIL 3/A-101 & 4/A-101. SUBMIT BRICK SAMPLES FOR APPROVALS.
- A6 INSTALL NEW SPLIT SYSTEM UNITS, PROVIDE EQUIPMENT SUPPORT RAILS, SEE MEP DRAWINGS & DETAIL 1/WGES-A-500
- A7 PROVIDE NEW CHILLER, SEE MEP DRAWINGS
- A8 MODIFY EXISTING DUNNAGE AS REQ'D., SEE STRUCTURAL DRAWINGS
- A9 PROVIDE PITCH POCKET OR THROUGH ROOF BOOT/FLASHING ASSEMBLY @ ALL PIPE & CONDUIT ROOF PENETRATIONS. NEW ASSEMBLY TO BE COMPATIBLE W. EXISTING ROOFING SYSTEM. SEE DETAIL 2/WGES-A-500
- A10 PERFORM MODIFICATIONS TO EXISTING UV AS NOTED ON MECHANICAL DRAWINGS.

Unit Ventilators - (water and electrical disconnects) / UV removal. June 27th through July 5th.

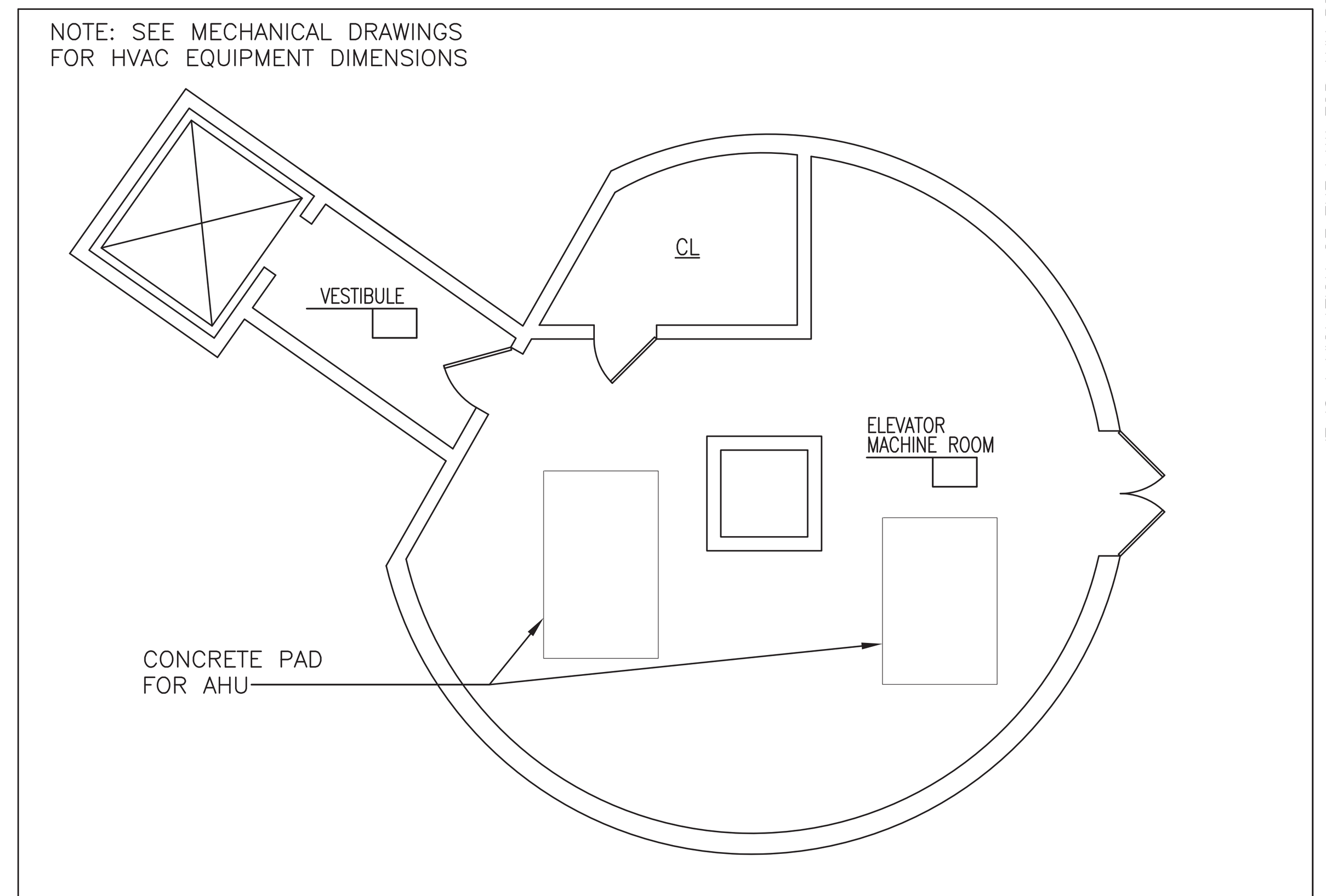
New UV installation July 8th through July 19th.

Removals of existing chillers - April 1st through April 5th.

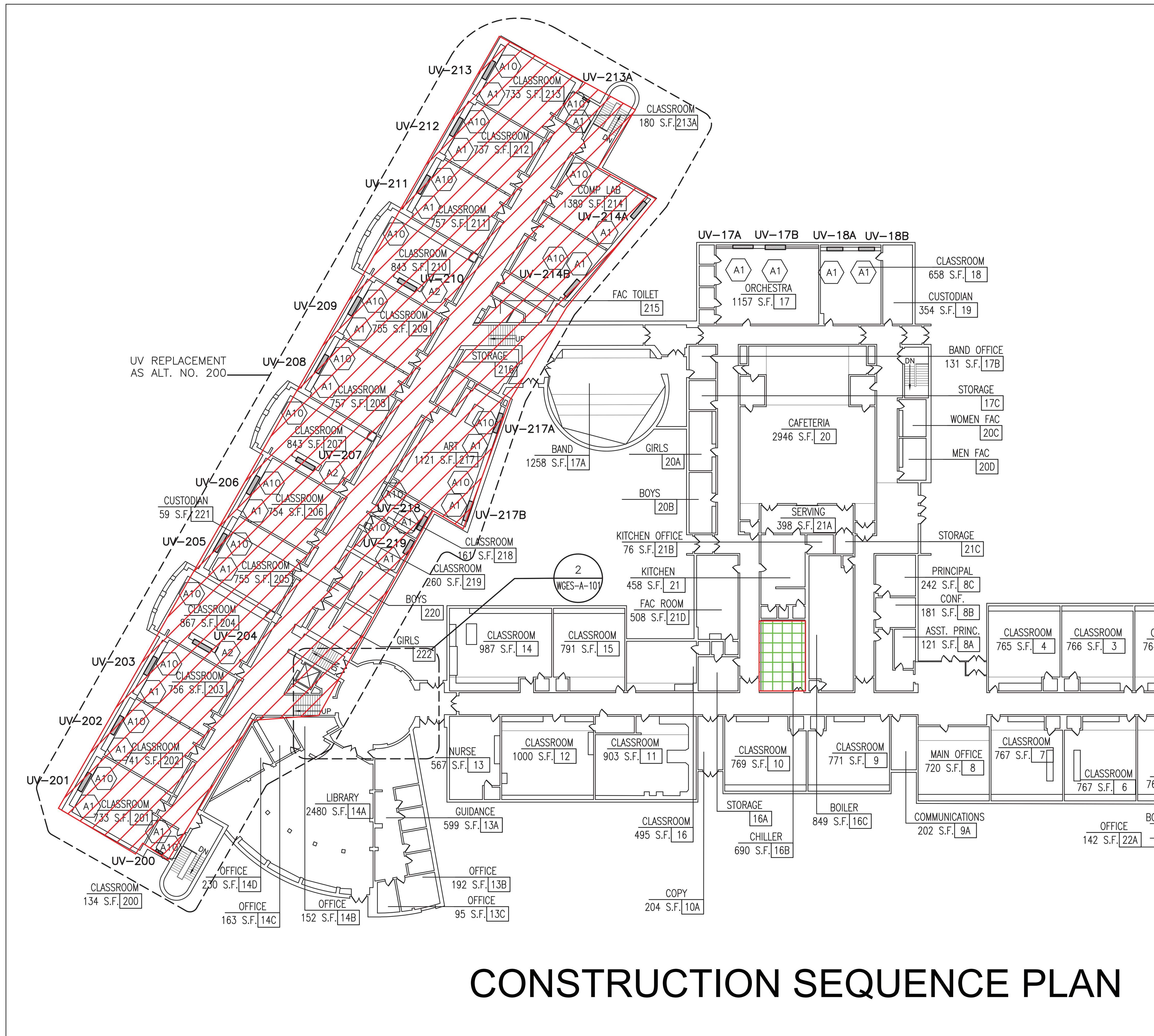
KEY NOTES

1. CONTRACTOR SHALL BE REQUIRED TO CORE DRILL ALL HOLES IN WALLS, FLOORS AND CEILINGS TO FACILITATE NEW CHILLER LINES, CONDUITS AND CONDENSATE LINES. FIRE STOP ALL PENETRATIONS.
2. PATCH EXISTING VCT FLOORING AT BASE UNDER UNI-VENT.
3. PATCH EXISTING PLASTER AND CASE WORK AT ALL UNI-VENT LOCATIONS.

GENERAL NOTES



2 ELEVATOR MACHINE ROOM
SCALE: 1/8" = 1' - 0"



1 MAIN LEVEL FLOOR PLAN
SCALE: 1" = 30' - 0"

No.	Date	Revisions
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM 1
1	01-18-23	BIDDING DOCUMENTS

REG. EXP DATE: 06-30-24

Drawn by MAL
Checked by MS/JC
Project No. 42054
Scale AS NOTED
Date 07-29-22

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
400 RELLA BOULEVARD MONTEBELLO, NY 10901

Structural Engineer: - - -

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LEGEND

	EXISTING THROUGH WALL LOUVER
	SUPPLY REGISTER
	NEW UNIT VENT UV-00
	NEW FAN COIL UNIT FC-00
	NEW CASSETTE CS-00
	EXISTING UNIT VENT (TO REMAIN)
	EXISTING UNIT VENT (TO BE REMOVED)
RA	NEW RELIEF VENT ENCLOSURE
	AREA OF NEW ROOF
	NEW CHILLER
OLF LE	LINEAR FEET OF LINE SET ENCLOSURE

Unit Ventilators - (water and electrical disconnects) / UV removal. July 8th through July 17th.

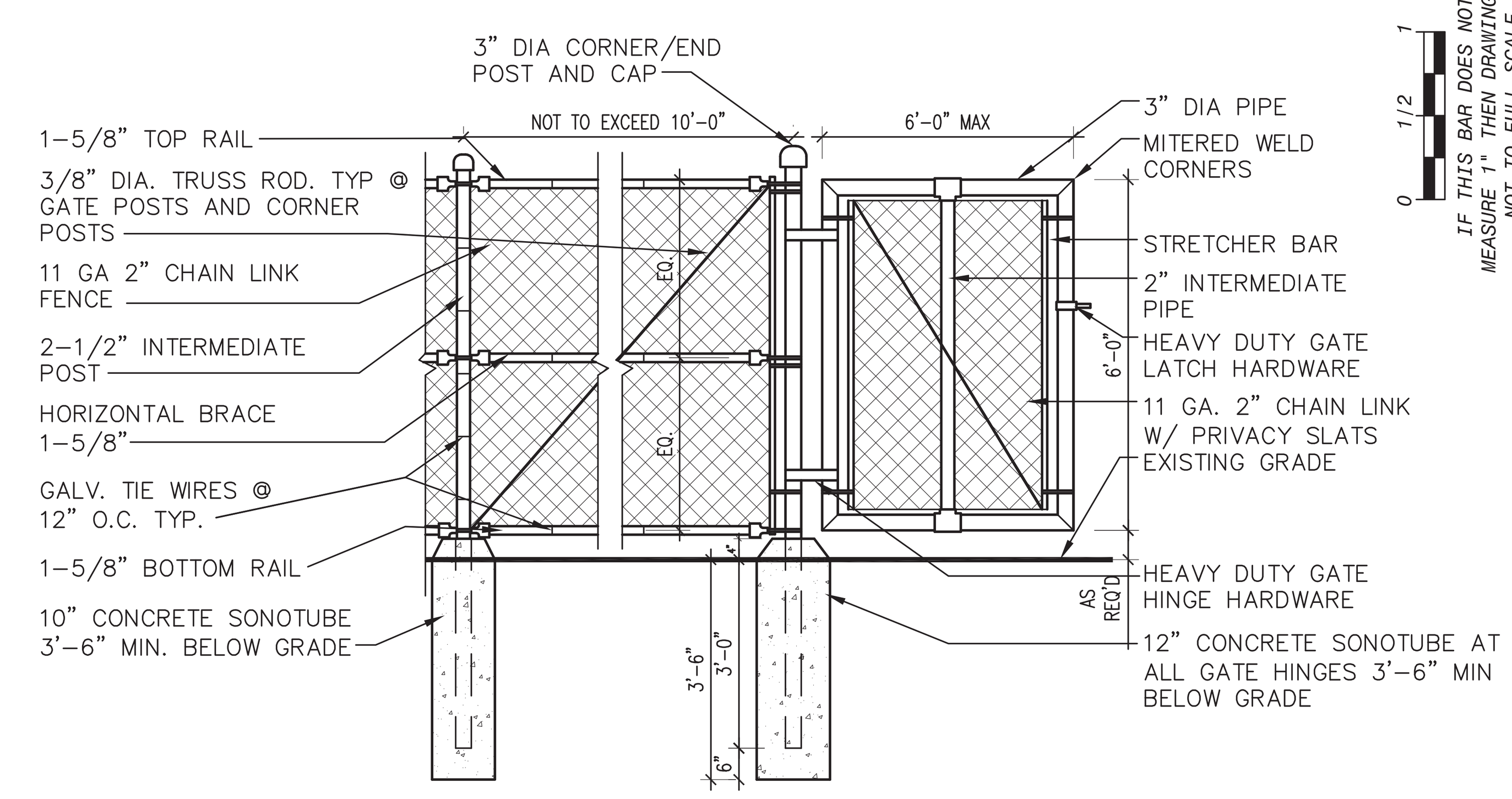
New UV installation July 18th through August 1st.

Chiller foundation and dunnage installation - Spring Break

Chiller installation Mid August 2024, dependent on Chiller delivery

CONSTRUCTION SEQUENCE PLAN

NOTES:
1. ALL WORK SHALL CONFORM TO ASTM F-1553 AND THE CHAIN LINK FENCE MANUFACTURERS INSTITUTE.
2. ALL POSTS AND RAILS SHALL BE GALVANIZED, HIGH STRENGTH STEEL (83000 PSI YIELD STRENGTH). ALL OTHER COMPONENETS AND HARDWARE SHALL BE GALVANIZED UNLESS OTHERWISE NOTED.
3. ALL MESH SHALL RECIEVE A CLASS 2a EXTRUDED BLACK POLYMER COATING WITH ASTM F-668.
4. REFER TO PLANS FOR THE SIZE AND LOCATION OF THE PEDESTRIAN SWING GATE. THE SPECIFIED WIDTH SHALL BE THE CLEAR WIDTH IN THE OPEN POSITION. GATE SHALL INCLUDE A LOCK (WHICH SHALL BE INTEGRATED INTO THE BUILDING'S MASTER KEYING SYSTEM). GATE SHALL ALSO INCLUDE OTHER WEATHER-RATED HARDWARE (INCLUDING AN AUTOMATIC CLOSER, HINGES, LATCHING, WALL STOP, AND OTHER HARDWARE AS REQUIRED FOR PROPER OPERATION OF GATE)
5. INCLUDE CUSTOM PROVISIONS FOR HARDWARE MOUNTING AND LATCHING.
6. INCLUDE CUSTOM PROVISIONS TO PREVENT VANDALS FROM ENTERING FROM THE EXTERIOR SIDE.
7. CONTRACTOR TO REPAIR/PATCH ANY EXISTING CONCRETE/ASPHAULT DAMAGED DURING EXCAVATION OF PIERS/SONOTUBES.
8. PROVIDE EXTERIOR CORNER FENCE POST PROTECTION 36"X36"X6'-0" BY RESILITE MAT COMPANY (800-843-6287), PROVIDE AT 2 LOCATIONS DESIGNATED BY ARCHITECT.



0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

3 FENCING DETAIL
SCALE: 3/8"=1'-0"

A1 INSTALL NEW UNIT VENTILATOR AS PART OF ALTERNATE NO. 200.

A2 INSTALL NEW CEILING MOUNTED UNIT VENTILATOR AS PART OF ALTERNATE NO. 200.

A3 PATCH EXISTING FLOOR AND WALL WHERE EXISTING UV IS REMOVED.

A4 INSTALL NEW WINDOW ASSEMBLY. VERIFY ALL DIMENSIONS IN FIELD. SEE DRAWING WGES-A-510 FOR WINDOW ELEVATIONS AS ALTERNATE NO. 203.

A5 NEW INTAKE TO BE RAISED AWAY FROM GRADE. INSTALL NEW BRICK AND BLOCK WALL BELOW INTAKE. BRICK TO MATCH EXISTING, SEE DETAIL 3/A-101 & 4/A-101. SUBMIT BRICK SAMPLES FOR APPROVALS.

A6 INSTALL NEW SPLIT SYSTEM UNITS, PROVIDE EQUIPMENT SUPPORT RAILS, SEE MEP DRAWINGS & DETAIL 1/WGES-A-500

A7 PROVIDE NEW CHILLER, SEE MEP DRAWINGS

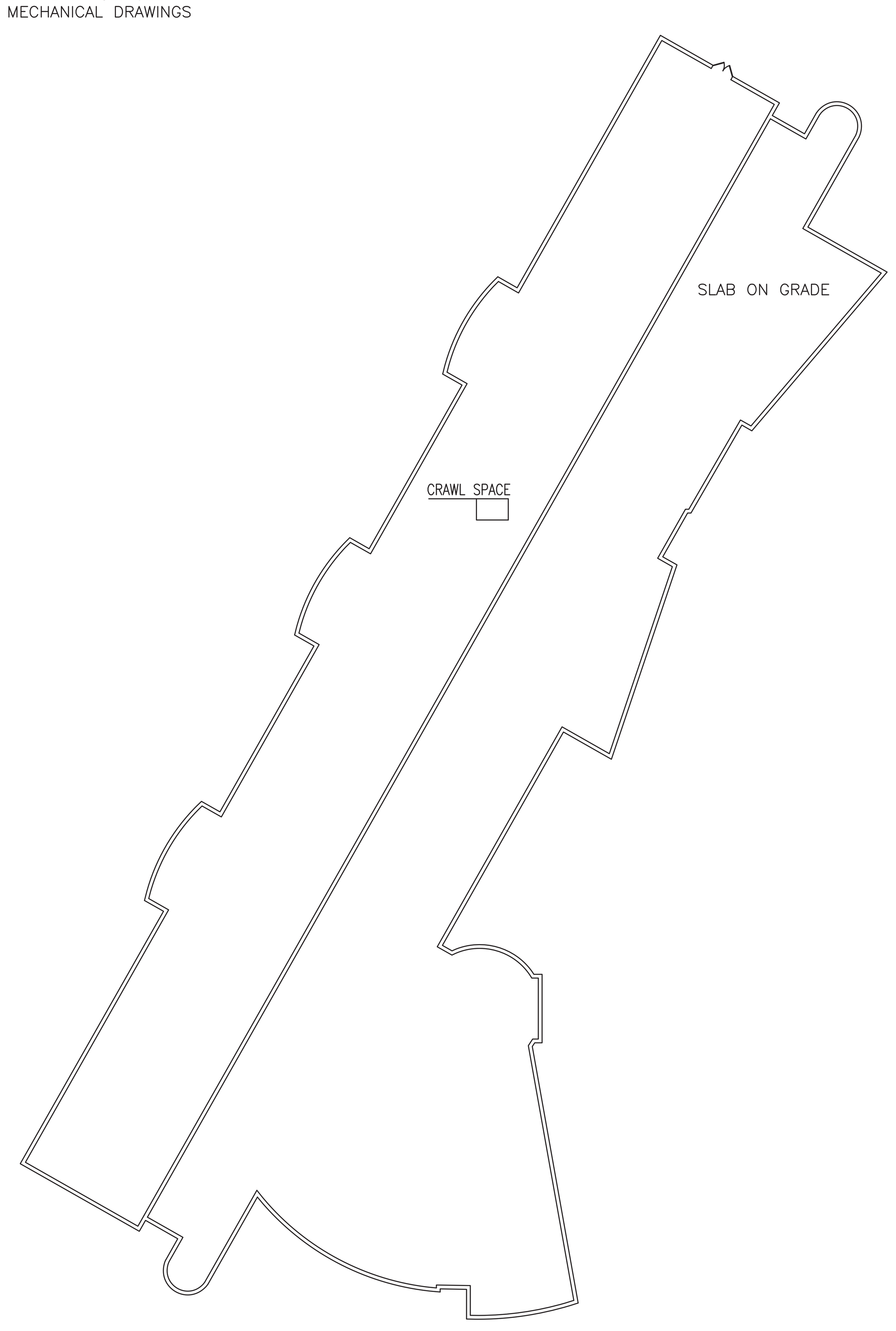
A8 MODIFY EXISTING DUNNAGE AS REQ'D., SEE STRUCTURAL DRAWINGS

A9 PROVIDE PITCH POCKET OR THROUGH ROOF BOOT/FLASHING ASSEMBLY @ ALL PIPE & CONDUIT ROOF PENETRATIONS. NEW ASSEMBLY TO BE COMPATIBLE W. EXISTING ROOFING SYSTEM. SEE DETAIL 2/WGES-A-500

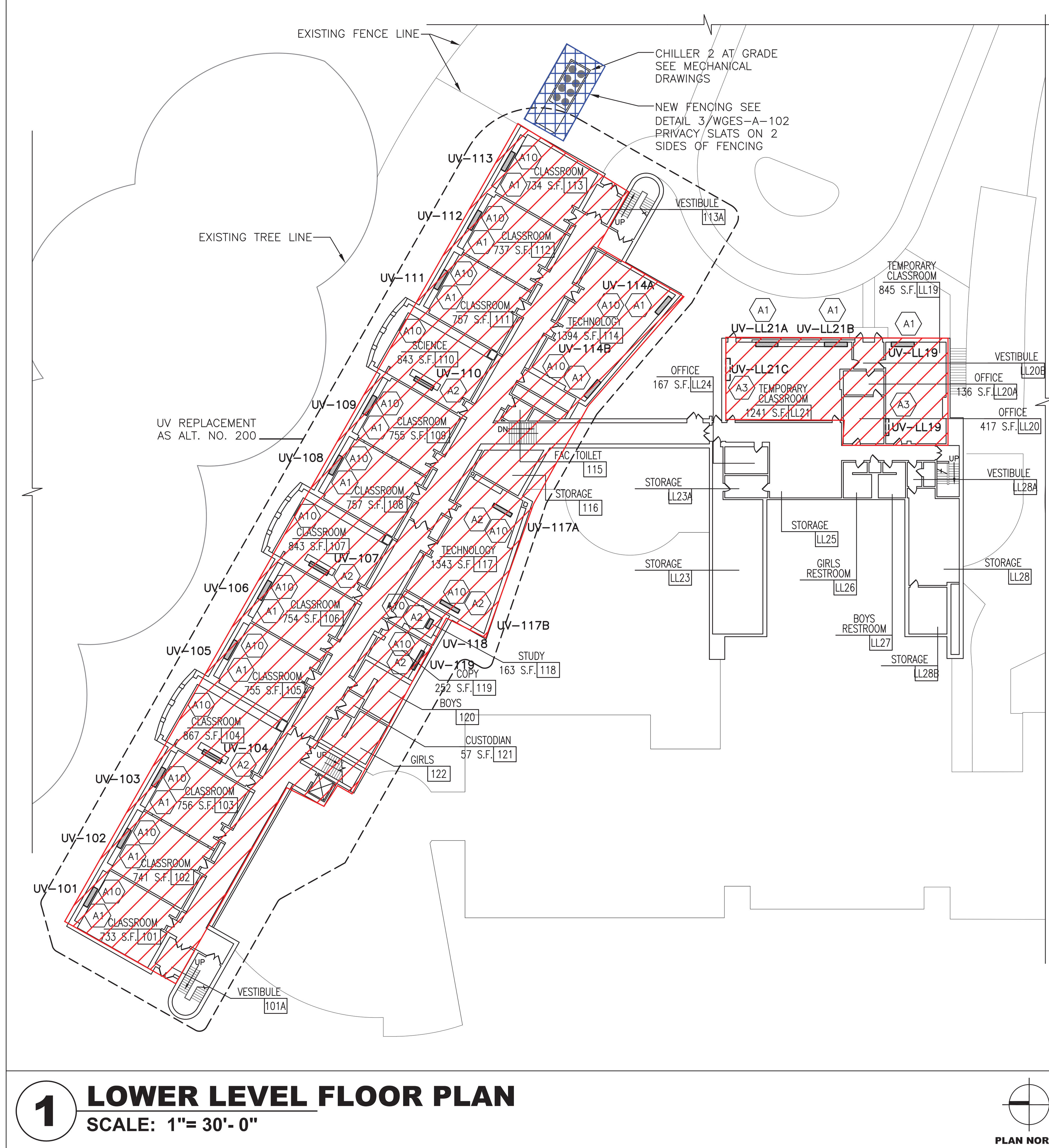
A10 PERFORM MODIFICATIONS TO EXISTING UV AS NOTED ON MECHANICAL DRAWINGS.

KEY NOTES

NOTE: CHILLER LINES TO BE INSTALLED IN CRAWL SPACE. SEE MECHANICAL DRAWINGS



2 CRAWL SPACE PLAN
SCALE: 1"= 30'- 0"



1 LOWER LEVEL FLOOR PLAN
SCALE: 1"= 30'- 0"

1. CONTRACTOR SHALL BE REQUIRED TO CORE DRILL ALL HOLES IN WALLS, FLOORS AND CEILINGS TO FACILITATE NEW CHILLER LINES, CONDUITS AND CONDENSATE LINES. FIRE STOP ALL PENETRATIONS.
2. PATCH EXISTING VCT FLOORING AT BASE UNDER UNI-VENT.
3. PATCH EXISTING PLASTER AND CASE WORK AT ALL UNI-VENT LOCATIONS.

GENERAL NOTES

No.	Date	Revisions
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM 1
1	01-18-23	BIDDING DOCUMENTS

REG. EXP DATE: 06-30-24

Drawn by MAL
Checked by MS/JC
Project No. 42054
Scale AS NOTED
Date 07-29-22

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 400 RELLA BOULEVARD MONTEBELLO, NY 10901

Structural Engineer:

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
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140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL

FARLEY ELEMENTARY SCHOOL
140 ROUTE 210
STONY POINT, NY 10980
SED# 50-02-01-06-0-003-011

OWNER:
NORTH ROCKLAND CENTRAL SCHOOL DISTRICT
65 Chapel Street
Garnerville, NY 10923

ARCHITECT:
MICHAEL SHILALE ARCHITECTS, LLP
140 Park Avenue
New City, NY 10956

PME ENGINEER:
GREENMAN-PEDERSEN, INC.
400 Rella Boulevard, Suite 207
Montabello, NY 10901

MATERIALS LEGEND

- CONCRETE MASONRY UNIT
- BRICK
- RIGID INSULATION
- CONCRETE
- GRAVEL OR STONE
- EARTH
- EIFS
- ASPHALT PAVING
- SAND/MORTAR/GYPSUM BOARD
- STEEL
- ACT
- ROUGH WOOD
- BRONZE

SYMBOLS LEGEND

- (1) DOOR NUMBER
- <1> KEY NOTE
- <1> PARTITION TYPE
- <1> REVISION NUMBER
- [1] WINDOW TYPE
- (1) MECHANICAL EQUIPMENT
- EXISTING PARTITION
- EXISTING PARTITION TO BE REMOVED
- NEW PARTITION (SEE PARTITION LEGEND A-101)
- NEW DOOR
- EXISTING DOOR
- EXISTING DOOR TO BE REMOVED
- EXISTING WINDOW
- NEW WINDOW
- OFFICE / 100 SF / 101 — ROOM NAME / ROOM NAME/NUMBER IDENTIFICATION / ROOM NUMBER / ROOM AREA
- 1 / A-100 — DRAWING NUMBER / WALL SECTION/ELEVATION REFERENCE / SHEET NUMBER
- 1 / A-100 — DETAIL NUMBER / DETAIL REFERENCE / SHEET NUMBER
- 1 — COLUMN LINE DESIGNATION

LIST OF DRAWINGS

DRAWING No.	DRAWING TITLE	DATE
FES-A-000	COVER SHEET	11-09-23
FES-B-100	CODE ANALYSIS	09-14-23
FES-AA-000	ABATEMENT NOTES	01-18-23
FES-AA-100	FIRST FLOOR ABATEMENT PLAN	01-18-23
FES-AA-200	SECOND FLOOR ABATEMENT PLAN	01-18-23
FES-S-001	STRUCTURAL NOTES AND LEGEND ABBREVATIONS	09-14-23
FES-S-101	GYM ROOF FRAMING PLAN AND DETAILS	09-14-23
FES-S-102	ROOF PART PLANS UNDER HP UNITS	11-09-23
FES-D-101	FIRST FLOOR DEMO PLAN	09-14-23
FES-D-102	SECOND FLOOR DEMO PLAN	09-14-23
FES-D-103	ROOF DEMO PLAN	09-14-23
FES-A-101	PROPOSED FIRST FLOOR PLAN	09-14-23
FES-A-102	PROPOSED SECOND FLOOR PLAN	09-14-23
FES-A-103	PROPOSED ROOF PLAN	09-14-23
FES-A-104	PROPOSED ELECTRICAL ROOM PLAN	09-14-23
FES-A-401	FIRST FLOOR REFLECTED CEILING PLAN	09-14-23
FES-A-402	SECOND FLOOR REFLECTED CEILING PLAN	09-14-23
FES-A-403	REFLECTED CEILING PLAN	09-14-23
FES-A-404	REFLECTED CEILING PLAN DETAILS	09-14-23
FES-A-500	ROOF DETAILS	09-14-23
FES-A-600	UV ELEVATIONS	09-14-23
FES-A-601	UV ELEVATIONS	09-14-23
FES-A-602	UV ELEVATIONS	09-14-23
FES-A-610	INTERIOR DETAILS	09-14-23
FES-M-001	MECHANICAL GENERAL NOTES, ABBREVIATIONS, & SYMBOL LIST	09-14-23
FES-M-002	MECHANICAL SCHEDULES -1	09-14-23
FES-M-003	MECHANICAL SCHEDULES -2	11-09-23
FES-M-061	HVAC DEMO FIRST FLOOR PLAN -1	09-14-23
FES-M-062	HVAC DEMO FIRST FLOOR PLAN -2	09-14-23
FES-M-063	HVAC DEMO SECOND FLOOR PLAN	09-14-23
FES-M-064	HVAC DEMO GYMNASIUM PLAN	09-14-23
FES-M-101	HVAC INSTALLATION FIRST FLOOR PLAN -1	11-09-23
FES-M-102	HVAC INSTALLATION FIRST FLOOR PLAN -2	11-09-23
FES-M-103	HVAC INSTALLATION SECOND FLOOR PLAN	09-14-23
FES-M-104	HVAC INSTALLATION GYMNASIUM PLAN	11-09-23
FES-M-105	MECHANICAL ROOF PLAN	11-09-23
FES-M-501	MECHANICAL DETAILS -1	11-09-23
FES-M-502	MECHANICAL DETAILS -2	11-09-23
FES-M-503	MECHANICAL DETAILS -3	11-09-23
FES-M-504	HVAC REFRIGERANT PIPING DIAGRAMS	11-09-23
FES-E-001	ELECTRICAL NOTES & SCHEDULES	09-14-23
FES-E-002	ELECTRICAL SITE PLAN	09-14-23
FES-E-061	ELECTRICAL FIRST FLOOR DEMO PLAN SHEET 1	09-14-23
FES-E-062	ELECTRICAL FIRST FLOOR DEMO PLAN SHEET 2	09-14-23
FES-E-063	ELECTRICAL SECOND FLOOR DEMO PLAN	09-14-23
FES-E-101	ELECTRICAL FIRST FLOOR PLAN -1	11-09-23
FES-E-102	ELECTRICAL FIRST FLOOR PLAN -2	11-09-23
FES-E-103	ELECTRICAL SECOND FLOOR PLAN	09-14-23
FES-E-104	ELECTRICAL ROOF PLAN -1	11-09-23
FES-E-105	ELECTRICAL ROOF PLAN -2	11-09-23
FES-E-106	ELECTRICAL PART PLAN	09-14-23
FES-E-201	ELECTRICAL FIRST FLOOR PART PLAN -1	09-14-23
FES-E-202	ELECTRICAL FIRST FLOOR PLAN -2	09-14-23
FES-E-400	ELECTRICAL ONE LINE DIAGRAM, DISTRIBUTION BOARD SCHEDULE	09-14-23
FES-E-401	ELECTRICAL PANEL SCHEDULES #1	11-09-23
FES-E-402	ELECTRICAL PANEL SCHEDULES #2	09-14-23
FES-E-403	ELECTRICAL PANEL SCHEDULES #3	09-14-23
FES-E-404	ELECTRICAL PANEL SCHEDULES #4	09-14-23
FES-E-405	ELECTRICAL PANEL SCHEDULES #5	09-14-23
FES-E-406	ELECTRICAL PANEL SCHEDULES #6	09-14-23
FES-E-407	ELECTRICAL PANEL SCHEDULES #7	09-14-23
FES-E-408	ELECTRICAL PANEL SCHEDULES #8	11-09-23
FES-E-409	ELECTRICAL PANEL SCHEDULES #9	09-14-23
FES-E-500	ELECTRICAL DETAILS -1	09-14-23
FES-E-501	ELECTRICAL DETAILS -2	09-14-23
FES-E-502	ELECTRICAL DETAILS -3	09-14-23
FES-FA-001	FIRE ALARM GENERAL NOTES, SYMBOL LIST, PART PLAN, & RISER DIAGRAM	09-14-23

1/2" 1 0
IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE

GENERAL NOTES

1. ALL PLAN DIMENSIONS ARE NOMINAL U.O.N. DIMENSIONS TO THE FINISHED FACE OF AN ELEMENT OR WALL WILL BE DESIGNATED WITH AN "F" AS SHOWN.

2. G.C. TO VERIFY ALL DIMENSIONS IN THE FIELD AND IS TO NOTIFY ARCHITECT IF THERE ARE ANY DISCREPANCIES.

UNIT PRICES

UNIT PRICE NO. 100:
PROVIDE A UNIT PRICE TO REPLACE ADDITIONAL EXISTING SUPPLY AND RETURN PIPING AND INSULATION. PRICE IS PER 10 LINEAR FEET. (THIS AMOUNT WILL ADD OR REDUCE ALLOWANCE NO. 100).

UNIT PRICE NO. 101:
PROVIDE A UNIT PRICE FOR THE INSTALLATION OF 10 LF OF LINE SET ENCLOSURE. (THIS AMOUNT WILL ADD OR REDUCE ALLOWANCE NO. 101).

UNIT PRICE NO. 102:
ELECTRICAL CONTRACTOR TO PROVIDE A UNIT PRICE TO RELOCATE AN EXISTING ELECTRICAL DEVICE THAT IS REQUIRED TO BE RELOCATED. PRICE PER 1 DEVICE. (THIS AMOUNT WILL ADD OR REDUCE ALLOWANCE NO. 102).

UNIT PRICE NO. 103:
ELECTRICAL CONTRACTOR TO PROVIDE NEW POWER CONNECTION TO EXISTING UV LOCATION WHERE EXISTING FEEDER CANNOT BE REUSED. PRICE PER 1 FEED. (THIS AMOUNT WILL ADD OR REDUCE ALLOWANCE NO. 103).

ALTERNATES

ALT. NO. 100: REMOVE EXISTING UNUSED FAN GEAR AND DUCTWORK IN FAN ROOM 201. FILL AND CLOSE EXISTING 2 HR BLOCK WALL WITH NEW BLOCK AT OLD DUCT LOCATIONS.

ALT. NO. 101: INCLUDE CEILING AND LIGHTING REPLACEMENT IN CORRIDORS. SEE FES-D-101, FES-D-102, FES-D-105, FES-A-401, FES-A-402, FES-A-403

ALT. NO. 102: REMOVE EXISTING 12"X12" CONCEALED SPLINE CEILING. PROVIDE NEW ACT AND REINSTALL LIGHTING.

4

ALT. NO. 104: CONTRACTOR TO INSTALL ONE SWING SET AND TWO ADD A SWING KITS WITH LOCATION TO BE DETERMINED IN THE FIELD BY OWNER. SWING SET TO BE ADA GAMETIME – POWERSCAPE SWING MODEL # 81598. ADD A BAY TO BE ADA GAMETIME – POWERSCAPE SWING ADD A BAY MODEL # 81599. SWING SET AND ADD A BAYS WILL BE PROVIDED TO THE CONTRACTOR BY THE OWNER.

ALT. NO. 105: PROVIDE 1/4" THICK SOLID SURFACE MATERIAL AT ALL UV'S BUILT INTO CASE WORK.

ALT. NO. 106: PROVIDE INSTALLATION FOR NEW CANOPY. CANOPY TO BE PROVIDED TO THE CONTRACTOR BY THE OWNER. CANOPY MODEL NUMBER RC201810IN. ATTACHED CUT SHEETS HAVE BEEN PROVIDED FOR THE CONTRACTOR'S REFERENCE. G.C. SHALL INCLUDE NYS P.E. SIGNED AND SEALED DRAWINGS FOR FOOTING DESIGN.

ALLOWANCES

ALLOWANCE NO. 100: REPLACE EXISTING SUPPLY AND RETURN PIPING AND INSULATION FOR 30 LINEAR FEET PER EACH UNIT VENTILATOR.

ALLOWANCE NO. 101: CONTRACTOR TO INCLUDE AN ALLOWANCE FOR THE LF OF LINE SET ENCLOSURE NOTED ON THE DRAWINGS.

ALLOWANCE NO. 102: PROVIDE ALLOWANCE FOR THE RELOCATION OF 40 ELECTRICAL DEVICES THAT REQUIRE RELOCATION DUE TO NEW UV SIZE.

ALLOWANCE NO. 103: ELECTRICAL CONTRACTOR TO PROVIDE NEW POWER CONNECTIONS TO 10 EXISTING UV LOCATIONS WHERE EXISTING CANNOT BE REUSED.

ALLOWANCE NO. 104: HAZARDOUS MATERIALS ALLOWANCE.

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	ITR	INDIVIDUAL TREATMENT ROOM
A.F.F.	ABOVE FINISH FLOOR	JT	JOINT
ASPH	ASPHALT	LAM	LAMINATE
BLK	BLOCK	LAV	LAVATORY
BLK'G	BLOCKING	LF	LINEAR FEET
BUR	BUILT UP ROOFING	LP	LOW POINT
CLG	CEILING	MAX	MAXIMUM
CONC	CONCRETE	MFR	MANUFACTURER
CONT	CONTINUOUS	MTL	METAL
C.J.	CONTROL JOINT	MIN	MINIMUM
DN	DOWN	MO	MASONRY OPENING
DIA	DIAMETER	N.I.C.	NOT IN CONTRACT
DWG	DRAWING	NO.	NUMBER
E.F.	EACH FACE	OC	ON CENTER
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	OPN'G	OPENING
E.W.	EACH WAY	PBC	PLUMBING CONTRACTOR
E.W.C.	ELECTRICAL WATER COOLER	PLAS.LAM.	PLASTIC LAMINATE
EL	ELEVATION	PL	PLATE
ELC	ELECTRICAL CONTRACTOR	PLY'D	PLYWOOD
EXIST	EXISTING	RAD	RADIUS
EXP	EXPANSION	REF.CLG.	REFLECTED CEILING
EXT'G	EXISTING	REQ'D	REQUIRED
EXTR	EXTERIOR	RO	ROUGH OPENING
FP	FIREPROOF	SIM	SIMILAR
FIN.	FINISH(ED)	STL	STEEL
GA	GAUGE	SUSP.CLG.	SUSPENDED CEILING
GC	GENERAL CONTRACTOR	T.O.M.	TOP OF MASONRY
GALV	GALVANIZED	T.O.S.	TOP OF STEEL
GL	GLASS	TYP	TYPICAL
GWB	GYPSUM WALL BOARD	U.O.N.	UNLESS OTHERWISE NOTED
HM	HOLLOW METAL	V.I.F.	VERIFY IN FIELD
H.P.	HIGH POINT	VCT	VINYL COMPOSITE TILE
HAC	HEATING & A/C CONTRACTOR	W/	WITH
		WD	WOOD

No.	Date	Revisions
4	11-09-23	ADDENDUM NO. 1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM 1
1	01-18-23	BIDDING DOCUMENTS

REG. EXP DATE: 06-30-24

Drawn by MAL
Checked by MS/JC
Project No. 42052
Scale AS NOTED
Date 11-30-22

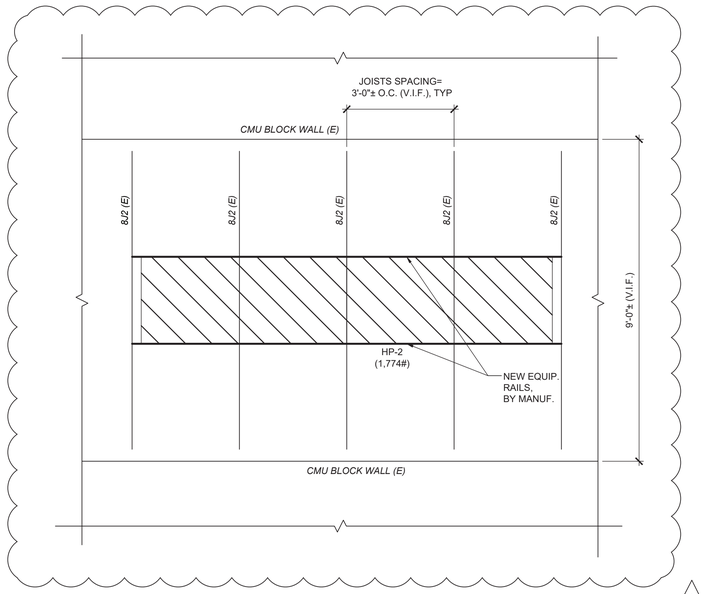
Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 400 RELLA BOULEVARD MONTEBELLO, NY 10901
Structural Engineer: - - - -

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL
SED# 50-02-01-06-0-003-011
140 ROUTE 210, STONY POINT, NY 10980
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: COVER SHEET

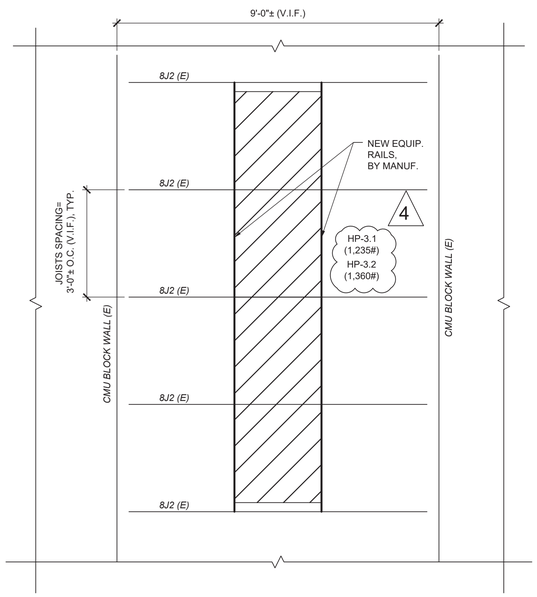
Drawing No. FES-A-000



4

2 ROOF PART PLAN UNDER HP-2

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

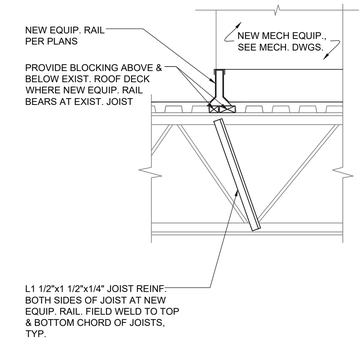


3 ROOF PART PLAN UNDER HP-3.1 & HP3.2

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

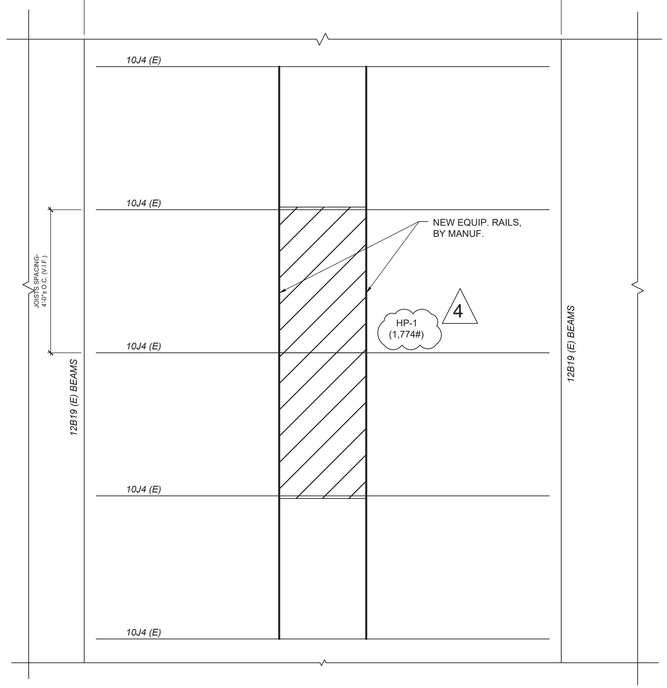
NOTES:

1. ALL UNITS SHALL BE CENTERED ON EXISTING JOISTS.
2. ALL EQUIPMENT RAILS SHALL SPAN OVER FIVE (5) EXISTING JOISTS, MINIMUM.
3. ALL JOISTS SUPPORTING EQUIPMENT RAILS SHALL BE REINFORCED PER DETAIL 5/FES-S-102.
4. ALL DIMENSIONS SHALL BE VERIFIED IN FIELD. NOTIFY ENGINEER OF RECORD IF ANY DISCREPANCIES ARE FOUND.
5. NO OTHER MECHANICAL OR ELECTRICAL UNITS OR EQUIPMENT SHALL BE LOCATED ON JOISTS SUPPORTING THE NEW UNITS.



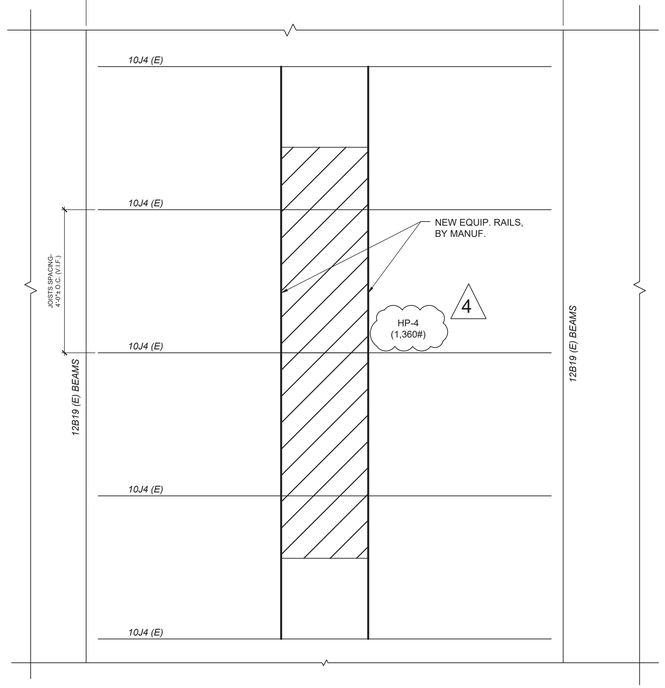
5 TYP. EXIST. JOIST REINF. DETAIL

SCALE: 3/4" = 1'-0"



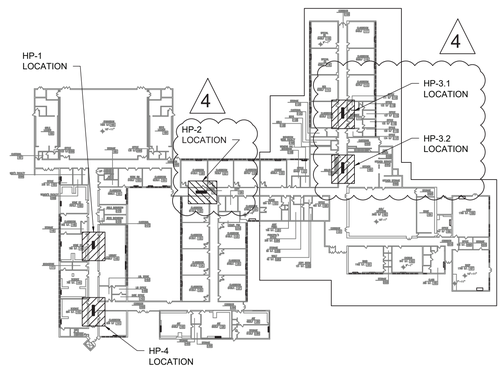
1 ROOF PART PLAN UNDER HP-1

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



4 ROOF PART PLAN UNDER HP-4

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



ROOF KEY PLAN

PLAN NORTH

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

STATE OF NEW YORK
RONALD ALAN BROKENSHIRE
104873
LICENSED PROFESSIONAL ENGINEER

RONALD A. BROKENSHIRE, P.E.
NY LIC 104873

Drawn by YAY
Checked by RAB
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901

Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901

Structural Engineer:

UNIVENT
REPLACEMENT AT
FARLEY ELEMENTARY
SCHOOL

SED # 50-02-01-06-0-003-011
####

COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ROOF PART PLANS
UNDER HP UNITS

Drawing No.
FES-S-102

UNIT VENTILATOR SCHEDULE NOTES:

1. PROVIDE WITH CONDENSATE PUMP.
2. ELECTRICAL CONTRACTOR TO PROVIDE ALL UNIT VENTILATORS WITH FACTORY MADE DISCONNECT SWITCH.

UNIT VENTILATOR SCHEDULE

UNIT TAG	ASSOCI-ATED OUTDOOR UNIT	LOCATION	CONFIGURATION	TOTAL SUPPLY AIRFLOW (CFM)	MINIMUM OUTSIDE AIRFLOW		MAXIMUM OUTSIDE AIRFLOW (CFM)	COOLING					HEATING						FILTER	ELECTRICAL			UNIT WEIGHT LBS	UNIT DIMENSIONS (LxH, IN) (V.I.F.)	UNIT DEPTH (IN)	BASIS OF DESIGN	NOTES
					COOLING	HEATING		EADB (°F)	EAWB (°F)	LADB (°F)	LAWB (°F)	MIN TOTAL CAPACITY (BTU/H)	REQUIRED TOTAL CAPACITY (BTU/H)	HEAT PUMP EADB (°F)	HEAT PUMP LADB (°F)	HOT WATER EWT (°F)	HOT WATER LWT (°F)	GPM	MERV	MCA	MAX FUSE SIZE	V/PH/HZ				MODEL NUMBER	
UV-141	HP-1	RM 141	VERTICAL	750	435	435	750	82.9	67.0	55	54	22,300	44,200	35.5	90	140	120	4.42	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-142	HP-1	RM 142	VERTICAL	1000	470	470	1000	82.0	67.0	55	54	29,700	51,400	42.4	90	140	120	5.14	13	4.38	16	115/1/60	405	81x30	21.25	TRANE VUVE100	
UV-144	HP-1	RM 144	VERTICAL	750	410	410	750	82.6	67.0	55	54	22,300	42,500	37.6	90	140	120	4.25	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-145A	HP-1	RM 145	VERTICAL	1000	185	185	1000	79.6	67.0	55	54	29,700	32,000	60.3	90	140	120	3.2	13	4.38	16	115/1/60	405	81x30	21.25	TRANE VUVE100	
UV-145B	HP-1	RM 145	VERTICAL	1000	185	185	1000	79.6	67.0	55	54	29,700	32,000	60.3	90	140	120	3.2	13	4.38	16	115/1/60	405	81x30	21.25	TRANE VUVE100	
UV-146	HP-1	RM 146	VERTICAL	750	415	415	750	82.7	67.0	55	54	22,300	42,800	37.1	90	140	120	4.28	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-148	HP-1	RM 148	VERTICAL	750	290	290	750	81.3	67.0	55	54	22,300	34,300	47.6	90	140	120	3.43	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-150	HP-1	RM 150	VERTICAL	750	420	420	750	82.8	67.0	55	54	22,300	43,200	36.7	90	140	120	4.32	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-151	HP-1	RM 151	VERTICAL	750	300	300	750	81.4	67.0	55	54	22,300	35,000	46.8	90	140	120	3.5	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-152	HP-1	RM 152	VERTICAL	750	50	50	750	78.6	67.0	55	54	22,300	18,000	67.8	90	140	120	1.8	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-153	HP-1	RM 153	VERTICAL	750	270	270	750	81.1	67.0	55	54	22,300	33,000	49.3	90	140	120	3.3	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-154A	HP-1	RM 154	VERTICAL	750	165	165	750	79.9	67.0	55	54	22,300	25,800	58.1	90	140	120	2.58	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-154B	HP-1	RM 154	VERTICAL	750	165	165	750	79.9	67.0	55	54	22,300	25,800	58.1	90	140	120	2.58	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-158	HP-1	RM 158	HORIZONTAL	1250	450	450	1250	81.1	67.0	55	54	37,100	54,900	49.3	90	140	120	5.49	13	12	16	115/1/60	435	94.25x38	21.25	TRANE HUVC125	1
UV-123	HP-2	RM 123	VERTICAL	750	80	80	750	78.9	67.0	55	54	22,300	20,000	65.3	90	140	120	2	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-124	HP-2	RM 124	VERTICAL	750	305	305	750	81.5	67.0	55	54	22,300	35,300	46.4	90	140	120	3.53	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-125	HP-2	RM 125	VERTICAL	750	425	425	750	82.8	67.0	55	54	22,300	43,500	36.3	90	140	120	4.35	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-127	HP-2	RM 127	VERTICAL	750	410	410	750	82.6	67.0	55	54	22,300	42,500	37.6	90	140	120	4.25	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-129	HP-2	RM 129	VERTICAL	750	425	425	750	82.8	67.0	55	54	22,300	43,500	36.3	90	140	120	4.35	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-130	HP-2	RM 130	VERTICAL	750	425	425	750	82.8	67.0	55	54	22,300	43,500	36.3	90	140	120	4.35	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-132	HP-2	RM 132	VERTICAL	750	425	425	750	82.8	67.0	55	54	22,300	43,500	36.3	90	140	120	4.35	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-133	HP-2	RM 133	VERTICAL	750	430	430	750	82.9	67.0	55	54	22,300	43,800	35.9	90	140	120	4.38	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-134	HP-2	RM 134	VERTICAL	750	425	425	750	82.8	67.0	55	54	22,300	43,500	36.3	90	140	120	4.35	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-135	HP-2	RM 135	VERTICAL	750	430	430	750	82.9	67.0	55	54	22,300	43,800	35.9	90	140	120	4.38	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-136	HP-2	RM 136	VERTICAL	750	425	425	750	82.8	67.0	55	54	22,300	43,500	36.3	90	140	120	4.35	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-137	HP-2	RM 137	VERTICAL	750	430	430	750	82.9	67.0	55	54	22,300	43,800	35.9	90	140	120	4.38	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-138A	HP-2	RM 138A	VERTICAL	750	255	255	750	80.9	67.0	55	54	22,300	31,900	50.6	90	140	120	3.19	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-138B	HP-2	RM 138B	HORIZONTAL	750	270	270	750	81.1	67.0	55	54	22,300	33,000	49.3	90	140	120	3.3	13	12	16	115/1/60	340	70.25x36	21.25	TRANE HUVC075	1
UV-139	HP-2	RM 139	VERTICAL	1000	470	470	1000	82.0	67.0	55	54	29,700	51,400	42.4	90	140	120	5.14	13	4.38	16	115/1/60	405	81x30	21.25	TRANE VUVE100	
UV-140	HP-2	RM 140	VERTICAL	750	445	445	750	83.0	67.0	55	54	22,300	44,900	34.6	90	140	120	4.49	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-159	HP-1	RM 159	HORIZONTAL	1250	400	400	1250	80.7	67.0	55	54	37,100	51,500	51.8	90	140	120	5.15	13	12	16	115/1/60	435	94.25x38	21.25	TRANE HUVC125	1
UV-101A	HP-3	RM 101	VERTICAL	750	255	255	750	80.9	67.0	55	54	22,300	31,900	50.6	90	140	120	3.19	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-101B	HP-3	RM 101	VERTICAL	750	255	255	750	80.9	67.0	55	54	22,300	31,900	50.6	90	140	120	3.19	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-103	HP-3	RM 103	VERTICAL	1000	435	435	1000	81.7	67.0	55	54	29,700	49,000	44.6	90	140	120	4.9	13	4.38	16	115/1/60	405	81x30	21.25	TRANE VUVE100	
UV-105	HP-3	RM 105	VERTICAL	750	115	115	750	79.3	67.0	55	54	22,300	22,400	62.3	90	140	120	2.24	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-106	HP-3	RM 106	VERTICAL	750	40	40	750	78.5	67.0	55	54	22,300	17,300	68.6	90	140	120	1.73	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	1
UV-107	HP-3	RM 107	HORIZONTAL	2000	760	760	2000	81.2	67.0	55	54	59,400	90,600	48.1	90	140	120	9.06	13	12	16	115/1/60	600	106.25x43	21.25	TRANE HUVC200	1
UV-108	HP-3	RM 108	HORIZONTAL	2000	755	755	2000	81.2	67.0	55	54	59,400	90,300	48.2	90	140	120	9.03	13	12	16	115/1/60	600	106.25x43	21.25	TRANE HUVC200	1
UV-111	HP-3	RM 111	HORIZONTAL	750	250	250	750	80.8	67.0	55	54	22,300	31,600	51.0	90	140	120	3.16	13	12	16	115/1/60	340	70.25x36	21.25	TRANE HUVC075	1
UV-112	HP-3	RM 112	VERTICAL	750	440	440	750	83.0	67.0	55	54	22,300	44,500	35.0	90	140	120	4.45	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-113	HP-3	RM 113	VERTICAL	750	440	440	750	83.0	67.0	55	54	22,300	44,500	35.0	90	140	120	4.45	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-114	HP-3	RM 114	VERTICAL	750	440	440	750	83.0	67.0	55	54	22,300	44,500	35.0	90	140	120	4.45	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-115	HP-3	RM 115	VERTICAL	750	450	450	750	83.1	67.0	55	54	22,300	45,200	34.2	90	140	120	4.52	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-116	HP-3	RM 116	VERTICAL	750	440	440	750	83.0	67.0	55	54	22,300	44,500	35.0	90	140	120	4.45	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-117	HP-3	RM 117	VERTICAL	750	445	445	750	83.0	67.0	55	54	22,300	44,900	34.6	90	140	120	4.49	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-118	HP-3	RM 118	VERTICAL	750	445	445	750	83.0	67.0	55	54	22,300	44,900	34.6	90	140	120	4.49	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-121	HP-3	RM 121	VERTICAL	750	50	50	750	78.6	67.0	55	54	22,300	18,000	67.8	90	140	120	1.8	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-122	HP-3	RM 122	VERTICAL	750	60	60	750	78.7	67.0	55	54	22,300	18,700	67.0	90	140	120	1.87	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
IU-120	HP-3	RM 120	CEILING CASSETTE	280	20	20	280	78.6	67.0	55	54	12,000	13,500	67.5	90	N/A	N/A	N/A	13	0.29	15	208/1/160	31.3	22.44x8.2	22.4	TRANE TPLFYP012FM140A	
IU-128	HP-3	RM 128	CEILING CASSETTE	280	35	35	280	79.1	67.0	55	54	12,000	13,500	64.1	90	N/A	N/A	N/A	13	0.29	15	208/1/160	31.3	22.44x8.3	22.4	TRANE TPLFYP012FM140A	
IU-128A	HP-3	RM 122A	CEILING CASSETTE	280	35	35	280	79.1	67.0	55	54	12,000	13,500	64.1	90	N/A	N/A	N/A	13	0.29	15	208/1/160	31.3	22.44x8.4	22.4	TRANE TPLFYP012FM140A	
IU-128D	HP-3	RM 128D	CEILING CASSETTE	280	35	35	280	79.1	67.0	55	54	12,000	13,500	64.1	90	N/A	N/A	N/A	13	0.29	15	208/1/160	31.3	22.44x8.5	22.4	TRANE TPLFYP012FM140A	
IU-158A	HP-1	RM 158A	CEILING CASSETTE	280	35	35	280	79.1	67.0	55	54	12,000	13,500	64.1	90	N/A	N/A	N/A	13	0.29	15	208/1/160	31.3	22.44x8.6	22.4	TRANE TPLFYP012FM140A	
IU-159A	HP-1	RM 159A	CEILING CASSETTE	280	35	35	280	79.1	67.0	55	54	12,000	13,500	64.1	90	N/A	N/A	N/A	13	0.29	15	208/1/160	31.3	22.44x8.7	22.4	TRANE TPLFYP012FM140A	
UV-202	HP-4	RM 202	VERTICAL	750	435	435	750	82.9	67.0	55	54	22,300	44,200	35.5	90	140	120	4.42	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-203	HP-4	RM 203	VERTICAL	750	415	415	750	82.7	67.0	55	54	22,300	42,800	37.1	90	140	120	4.28	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-204	HP-4	RM 204	VERTICAL	750	330	330	750	81.7	67.0	55	54	22,300	37,000	44.3	90	140	120	3.7	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-205	HP-4	RM 205	VERTICAL	750	50	50	750	78.6	67.0	55	54	22,300	18,000	67.8	90	140	120	1.8	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-206	HP-4	RM 206	VERTICAL	750	330	330	750	81.7	67.0	55	54	22,300	37,000	44.3	90	140	120	3.7	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-207	HP-4	RM 207	VERTICAL	750	410	410	750	82.6	67.0	55	54	22,300	42,500	37.6	90	140	120	4.25	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-208	HP-4	RM 208	VERTICAL	1000	490	490	1000	82.2	67.0	55	54	29,700	52,800	41.1	90	140	120	5.28	13	4.38	16	115/1/60	405	81x30	21.25	TRANE VUVE100	
UV-209	HP-4	RM 209	VERTICAL	750	415	415	750	82.7	67.0	55	54	22,300	42,800	37.1	90	140	120	4.28	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-210	HP-4	RM 210	VERTICAL	750	420	420	750	82.8	67.0	55	54	22,300	43,200	36.7	90	140	120	4.32	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-211	HP-4	RM 211	VERTICAL	750	410	410	750	82.6	67.0	55	54	22,300	42,500	37.6	90	140	120	4.25	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	
UV-212	HP-4	RM 212	VERTICAL	1000	490	490	1000	82.2	67.0	55	54	29,700	52,800	41.1	90	140	120	5.28	13	4.38	16	115/1/60	405	81x30	21.25	TRANE VUVE100	
UV-213	HP-4	RM 213	VERTICAL	750	420	420	750	82.8	67.0	55	54	22,300	43,200	36.7	90	140	120	4.32	13	4.38	16	115/1/60	320	69x30	21.25	TRANE VUVE075	

4

DUCTLESS HEAT PUMP OUTDOOR UNIT SCHEDULE

UNIT #	LOCATION	TOTAL COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	EER	IEER	REFRIG-ERANT	REFRIG-ERANT SAFETY CLASS	REFRIG CHARGE (LBS)	HEATING TYPE	CONDENSER	COMPRESSOR (QUANTITY)	ELECTRICAL					UNIT WEIGHT (LBS)	BASIS OF DESIGN		REMARKS
										EA DB °F (COOLING/ HEATING)	TYPE	VOLTS	PHASE	Hz	MOCP (A)	MCA (A)		MANUFACTURER	MODEL #	
HP-1	ROOF	432.0	480.0	9.95	15.0	R410A	A1	52.125	HEAT PUMP	95/0	SCROLL (2)	208	3	60	90 / 90	73.0 / 73.0	1,774	TRANE	TURYE4323BN40A(N/B)	SEE NOTES
HP-2	ROOF	432.0	480.0	9.95	15.0	R410A	A1	52.125	HEAT PUMP	95/0	SCROLL (2)	208	3	60	90 / 90	73.0 / 73.0	1,774	TRANE	TURYE4323BN40A(N/B)	SEE NOTES
HP-3.1	ROOF	216.0	243.0	12.85	27.5	R410A	A1	34.375	HEAT PUMP	95/0	SCROLL (2)	208	3	60	60 / 45	41.0 / 31.0	1,235	TRANE	TURYE216BN40A(N/B)	SEE NOTES
HP-3.2	ROOF	288.0	320.0	11.2	23.6	R410A	A1	46.750	HEAT PUMP	95/0	SCROLL (2)	208	3	60	60 / 60	49.0 / 49.0	1,360	TRANE	TURYE2883BN40A(N/B)	SEE NOTES
HP-4	ROOF	288.0	320.0	11.2	23.6	R410A	A1	46.750	HEAT PUMP	95/0	SCROLL (2)	208	3	60	60 / 60	49.0 / 49.0	1,360	TRANE	TURYE2883BN40A(N/B)	SEE NOTES

DUCTLESS SPLIT-SYSTEM OUTDOOR UNIT SCHEDULE NOTES:
1. REFER TO THE DUCTLESS HEAT PUMP INDOOR UNIT SCHEDULE FOR CORRESPONDING INDOOR UNITS. ALL UNITS SHALL BE A PRODUCT OF ONE MANUFACTURER.
2. FURNISH DISCONNECT SWITCH TO BE INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
3. PROVIDE STAND ALONE FACTORY INSTALLED DIRECT DIGITAL CONTROLS AS NECESSARY TO SATISFY THE SEQUENCE OF OPERATIONS.
4. PROVIDE VIBRATION ISOLATION.
5. PROVIDE MANUFACTURER'S STANDARD OUTDOOR UNIT DRAIN PAN WITH BASE PAN HEATER AND PIPE TO NEARBY DRAIN.
6. PROVIDE WIND BAFFLE AND OTHER ACCESSORIES AS REQUIRED BY THE MANUFACTURER FOR LOW AMBIENT COOLING AND HEATING TO 0°F OUTDOOR DRY-BULB TEMPERATURE.

VRF HEAT RECOVERY BRANCH CIRCUIT CONTROLLER SCHEDULE

TAG REFERENCE	MODEL NUMBER	TYPE (DOUBLE / MAIN / SUB)	NUMBER OF PORTS	CONNECTED CAPACITY TO BC	VOLTAGE / PHASE	POWER COOLING 208V/230V (KW)	POWER HEATING 208V/230V (KW)	MCA 208/230	NOTES / OPTIONS
BC-1A	TCMBM1016KA11N4	MAIN	16	450,000	208/230V/1-PHASE	0.258/0.333	0.137/0.176	1.6/1.8	1, 2, 3, 4, 5
BC-1B	TCMBS0108KB11N4	SUB	8	108,000	208/230V/1-PHASE	0.122/0.157	0.061/0.078	0.7/0.9	1, 2, 3, 4, 5
BC-2A	TCMBM1016KA11N4	MAIN	16	390,000	208/230V/1-PHASE	0.258/0.333	0.137/0.176	1.6/1.8	1, 2, 3, 4, 5
BC-2B	TCMBS0108KB11N4	SUB	8	96,000	208/230V/1-PHASE	0.122/0.157	0.061/0.078	0.7/0.9	1, 2, 3, 4, 5
BC-2C	TCMBS0108KB11N4	SUB	8	102,000	208/230V/1-PHASE	0.122/0.157	0.061/0.078	0.7/0.9	1, 2, 3, 4, 5
BC-3A	TCMBM1012JA11N4	MAIN	12	243,000	208/230V/1-PHASE	0.198/0.255	0.106/0.137	1.2/1.4	1, 2, 3, 4, 5
BC-3B	TCMBM1016KA11N4	MAIN	16	363,000	208/230V/1-PHASE	0.258/0.333	0.137/0.176	1.6/1.8	1, 2, 3, 4, 5
BC-4	TCMBM1016KA11N4	MAIN	16	339,000	208/230V/1-PHASE	0.258/0.333	0.137/0.176	1.6/1.8	1, 2, 3, 4, 5

BC CONTROLLER SCHEDULE NOTES:
1. INCLUDE DIAMONDBACK BALL VALVES BV-SERIES, 700PSIG WORKING PRESSURE, FULL PORT, 410A RATED.
2. A SUB BC CONTROLLER IS NOT REQUIRED FOR THIS PROJECT. FOR SUB BC CONTROLLER INFO, SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. PROVIDE REFRIGERATION BALL VALVE-BRAZE/SCHRADER/INSULATED - 3/8" SIZE
4. PROVIDE REFRIGERATION BALL VALVE-BRAZE/SCHRADER/INSULATED - 5/8" SIZE
5. PROVIDE 3/4" NPT DRAIN PIPE TO LOCATIONS SHOWN ON PLANS.

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL

SED # 50-02-01-06-0-003-011

COUNTY OF ROCKLAND

###

MSA

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
MECHANICAL SCHEDULES - 2

Drawing No.
FES-M-003

KEYED NOTES:

1. VERTICAL UNIT VENTILATOR. REFER TO THE UNIT VENTILATOR SCHEDULE AND DETAILS ON DRAWING FES-M-503.
2. EXISTING 72"x10" (V.I.F.) WALL LOUVER TO REMAIN.
3. EXISTING EXHAUST GRILLES TO REMAIN. INCLUDE THE EXISTING EXHAUST GRILLES IN THE AIR BALANCING REPORT. SIZES ARE AS INDICATED ON PLANS.
4. PROGRAMMABLE ELECTRONIC THERMOSTAT WITH LOCKING GUARD. COORDINATE WITH THE SIEMENS BMS.
5. PROVIDE AN INSECT SCREEN AT THE OA LOUVERS TO PREVENT INFILTRATION OF GRASS CLIPPINGS AND OTHER DEBRIS. SCREEN SHALL HAVE AN ALUMINUM FRAME AND SHALL BE INSTALLED ON THE OUTSIDE OF THE EXISTING LOUVER. CONSTRUCT FROM 0.011" ALUMINUM WITH BRIGHT FINISH AND SS HARDWARE.
6. PROVIDE 72X10 OA LOUVER ABOVE WINDOW.
7. INSTALL ⅜" & ⅝" R WITHIN EXISTING CASEWORK.
8. ¾" & ⅝" R DROP FROM THE CEILING TO BEHIND THE EXISTING CASEWORK. PROVIDE PIPE CHASE AT THE WALL. SEE ARCH.
9. INSTALL ⅜" & ⅝" R ABOVE THE EXISTING CEILING.
10. ¾" & ⅝" R UP TO SECOND FLOOR.
11. ¾" CONDENSATE DRAIN TO SPILLS ONTO SPLASH BLOCK AT GRADE.

REFER TO DRAWING FES-M-102

AREA OF WORK

PLAN NORTH

1 FIRST FLOOR PLAN INSTALLATION - 1
SCALE: 3/32" = 1' - 0"

2 FIRST FLOOR KEY PLAN
SCALE: NONE

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 RESEARCH PLACE SUITE 202 SUFFERN, NY 10901

Structural Engineer: GREENMAN PEDERSEN, INC 2 RESEARCH PLACE SUITE 202 SUFFERN, NY 10901

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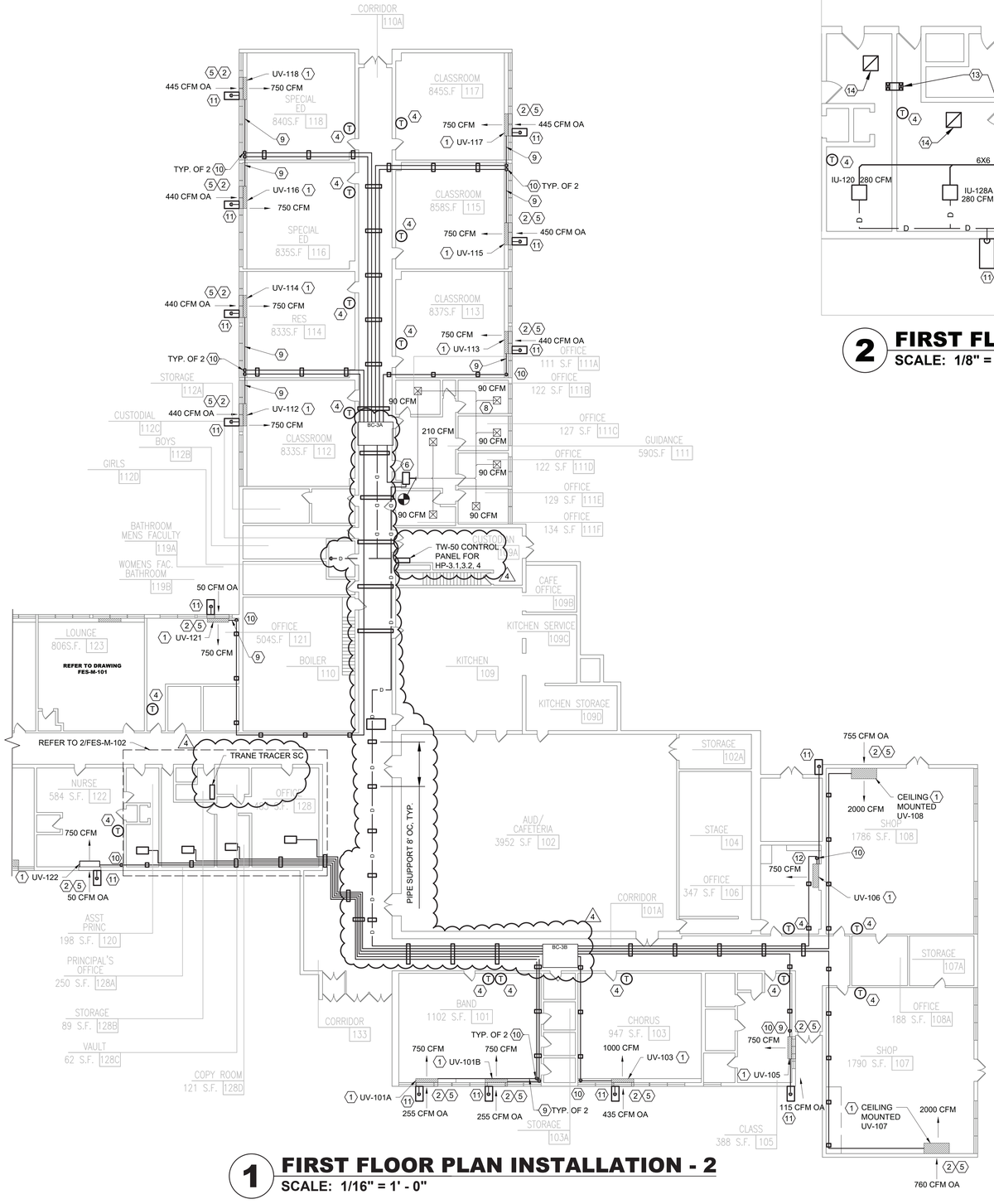
SCHOOL
SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9209
www.shilale.com

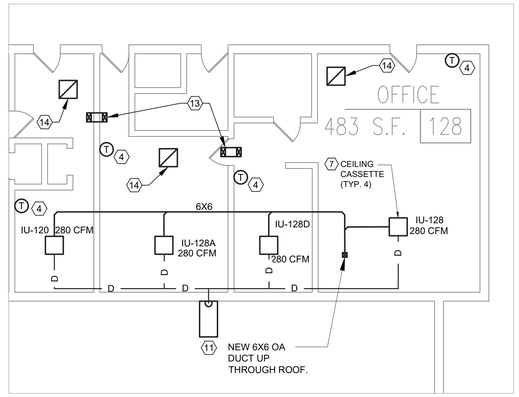
Drawing Title
HVAC INSTALLATION
FIRST FLOOR PLAN - 1

Drawing No.
FES-M-101



1 FIRST FLOOR PLAN INSTALLATION - 2

SCALE: 1/16" = 1' - 0"

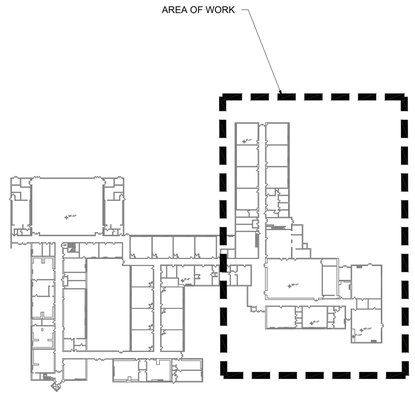


2 FIRST FLOOR PARTIAL PLAN

SCALE: 1/8" = 1' - 0"

KEYED NOTES:

1. VERTICAL UNIT VENTILATOR. REFER TO THE UNIT VENTILATOR SCHEDULE AND DETAILS ON DRAWING FES-M-503.
2. EXISTING 72"x10" (V.I.F.) WALL LOUVER TO REMAIN.
3. EXISTING EXHAUST GRILLES TO REMAIN. INCLUDE THE EXISTING EXHAUST GRILLES IN THE AIR BALANCING REPORT. SIZES ARE AS INDICATED ON PLANS.
4. PROGRAMMABLE ELECTRONIC THERMOSTAT WITH LOCKING GUARD. COORDINATE WITH THE SIEMENS BMS.
5. PROVIDE AN INSECT SCREEN AT THE OA LOUVERS TO PREVENT INFILTRATION OF GRASS CLIPPINGS AND OTHER DEBRIS. SCREEN SHALL HAVE AN ALUMINUM FRAME AND SHALL BE INSTALLED ON THE OUTSIDE OF THE EXISTING LOUVER. CONSTRUCT FROM 0.011" ALUMINUM WITH BRIGHT FINISH AND SS HARDWARE.
6. UV-111 TO TIE INTO THE EXISTING SUPPLY & OUTSIDE AIR DUCTWORK.
7. CEILING CASSETTE AT CEILING.
8. EXISTING CEILING SUPPLY DIFFUSER TO REMAIN. TYPICAL (7).
9. INSTALL ⅜" & ⅝" R WITHIN EXISTING CASEWORK.
10. ⅜" & ⅝" R DROP FROM THE CEILING TO BEHIND THE EXISTING CASEWORK. PROVIDE PIPE CHASE AT THE WALL. SEE ARCH.
11. ¾" CONDENSATE DRAIN TO SPILLS ONTO SPLASH BLOCK AT GRADE.
12. PROVIDE UNIT VENTILATOR WITH CONDENSATE LIFT PUMP.
13. 12"x6" TRANSFER DUCT ABOVE CEILING (PRICE CROSS TALK SILENCER XT OR EQUAL)
14. 24'x24' RG AT CEILING.



3 FIRST FLOOR KEY PLAN

SCALE: NONE

PLAN NORTH

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 RESEARCH BOULEVARD
SUITE 302
SUFFERN, NY 10901

Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 RESEARCH BOULEVARD
SUITE 302
SUFFERN, NY 10901

Structural Engineer:

UNIVENT
REPLACEMENT AT
FARLEY ELEMENTARY
SCHOOL

SED # 50-02-01-06-0-003-011
####
COUNTY OF ROCKLAND

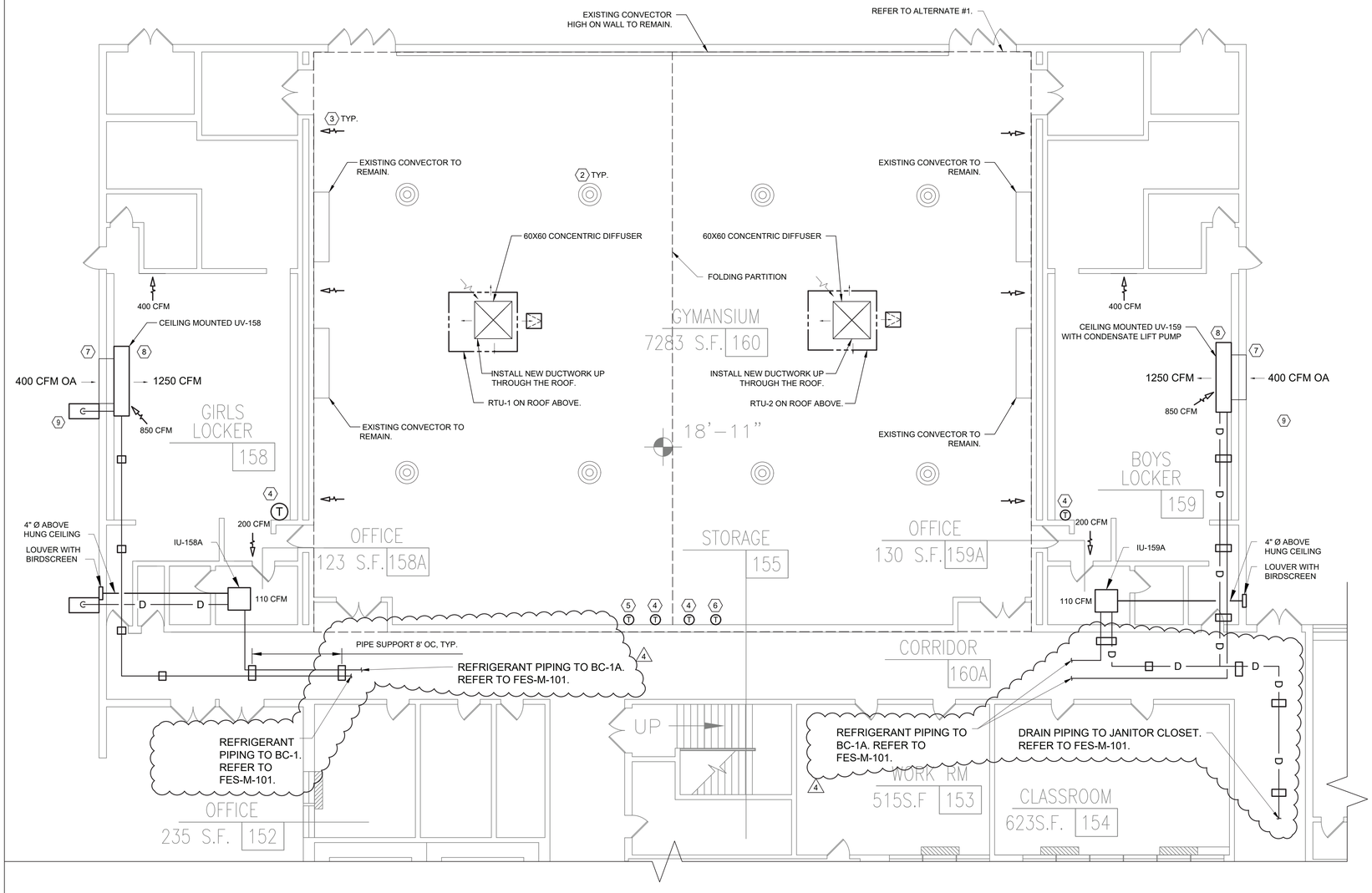
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
HVAC INSTALLATION
FIRST FLOOR PLAN - 2

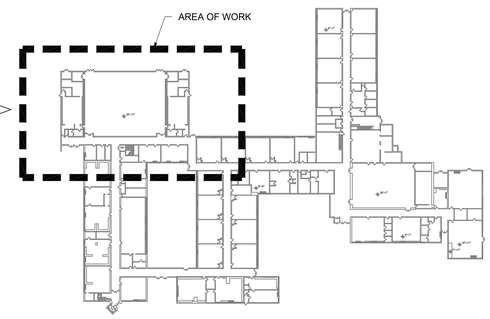
Drawing No.
FES-M-102

KEYED NOTES:

1. 60X60 CONCENTRIC DIFFUSER. REFER TO DETAIL FES-M-501.
2. EXISTING SUPPLY DIFFUSER ABANDONED IN PLACE (TYPICAL FOR 8).
3. EXISTING RETURN GRILLE ABANDONED IN PLACE (TYPICAL FOR 6).
4. EXISTING ELECTRIC THERMOSTAT INTERLOCKED WITH EXISTING CONVECTORS.
5. THERMOSTAT INTERLOCKED WITH RTU-1 ON ROOF ABOVE.
6. THERMOSTAT INTERLOCKED WITH RTU-2 ON ROOF ABOVE.
7. EXISTING 57X10 OA LOUVER.
8. HORIZONTAL UNIT VENTILATOR AT CEILING.
9. ¾" CONDENSATE DRAIN TO SPILLS ONTO SPLASH BLOCK AT GRADE.



1 GYMNASIUM PARTIAL PLAN INSTALLATION
SCALE: 3/32" = 1' - 0"



2 GYMNASIUM KEY PLAN
SCALE: NONE

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901
Structural Engineer:

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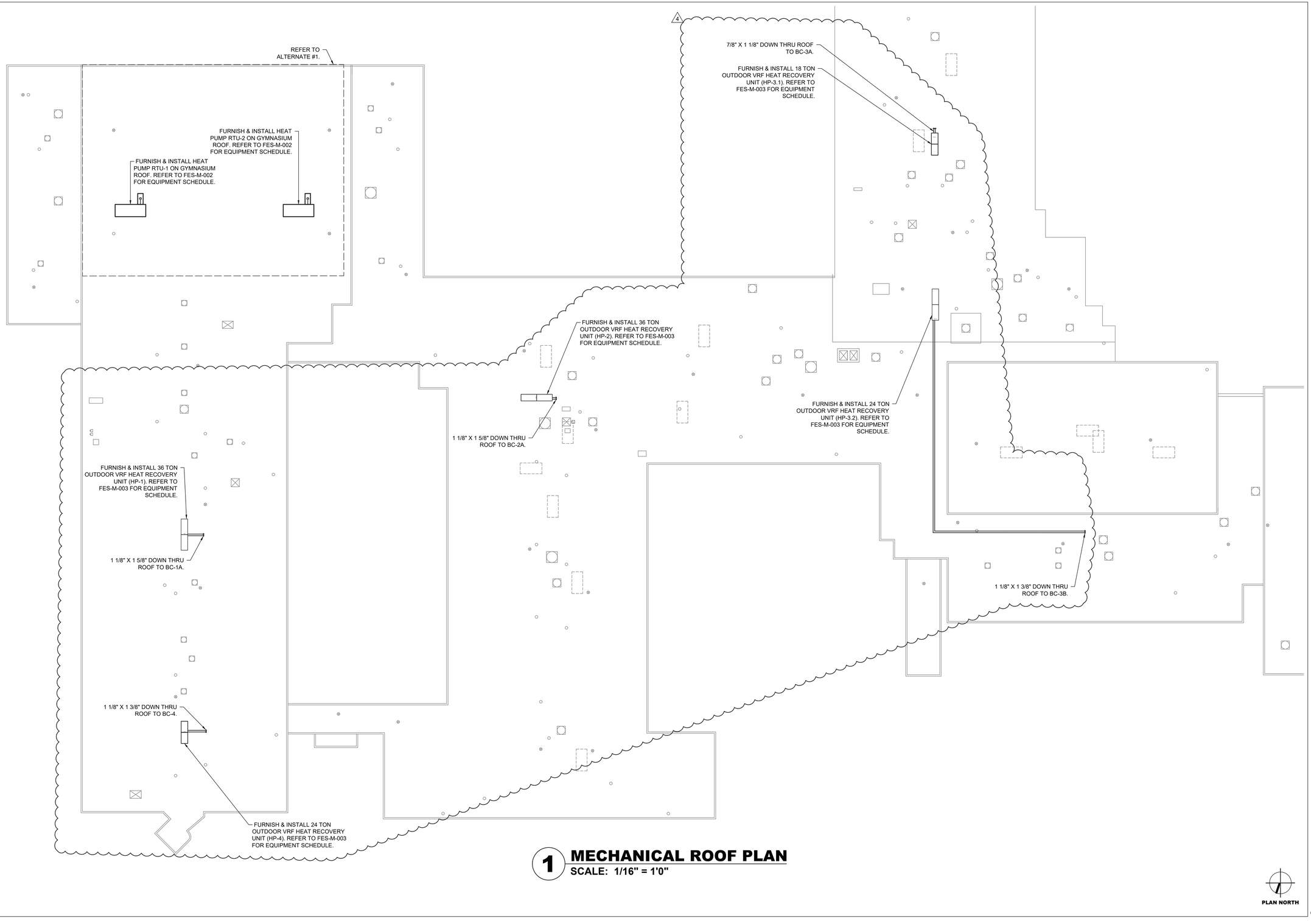
SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND
####

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-8200
www.shilale.com

Drawing Title
HVAC INSTALLATION GYMNASIUM PLAN

Drawing No.
FES-M-104



1 MECHANICAL ROOF PLAN
SCALE: 1/16" = 1'0"

No.	Date	Revisions
1	12-28-22	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
4	11-09-23	ADDENDUM #1

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 302 SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 302 SUFFERN, NY 10901
Structural Engineer:

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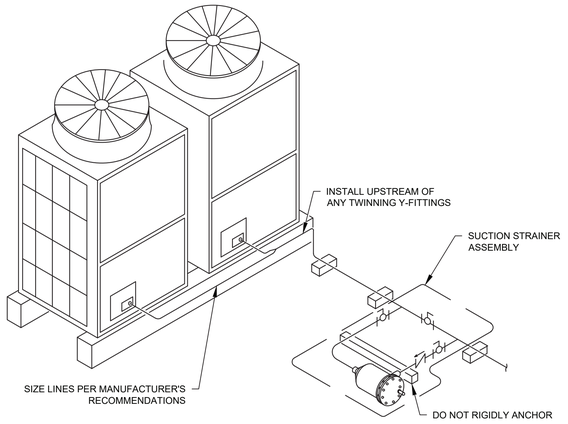
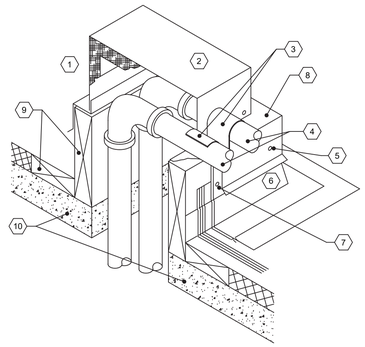
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-768-9200
www.shilale.com

Drawing Title
MECHANICAL ROOF PLAN

Drawing No.
FES-M-105

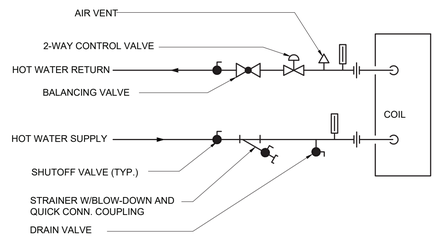


1 PIPING AT HP-1, HP-2, HP-3,1, HP-3.2 & HP-4
SCALE: N.T.S.

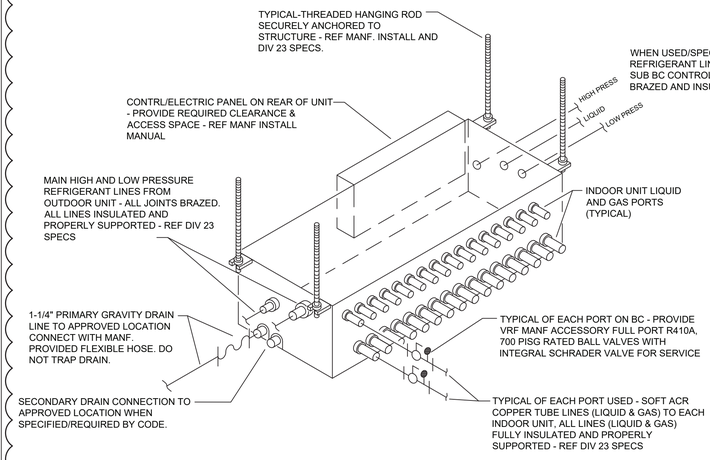


1. INSULATE INSIDE OF HOOD
2. SHEET METAL HOOD
3. SHEET METAL OR FLEX-TUBE COLLAR
4. SLOPE PIPES AWAY FROM HOOD
5. FASTENERS (BY GC)
6. BASE FLASHING
7. FASTENERS (BY GC)
8. CAP FLASHING
9. WOOD BLOCKING
10. EXISTING CONCRETE DECK

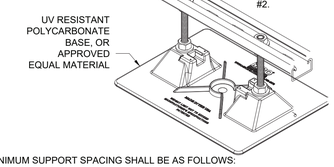
2 ROOFTOP PIPE PENETRATION
SCALE: N.T.S.



3 PIPING AT UNIT VENTILATOR
SCALE: N.T.S.

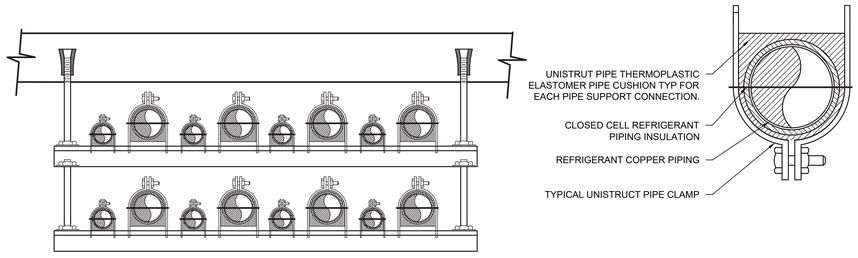


4 BC CONTROLLER DETAIL
SCALE: N.T.S.



NOTES:
1. MINIMUM SUPPORT SPACING SHALL BE AS FOLLOWS:
   a. COPPER TUBE (1 1/4" AND SMALLER): 6'-0" O.C.
   b. COPPER TUBE (1 1/2" AND LARGER): 10'-0" O.C.
   c. PVC: 4'-0" O.C.
   d. FOR SIZES AND MATERIALS NOT LISTED ABOVE, COMPLY WITH 2015 MCNYS 305.4.
2. VERIFY IN FIELD REQUIRED STRUT CHANNEL HEIGHT. SECURE PIPING TO CHANNEL USING CLAMP CONSTRUCTED OF COMPATIBLE MATERIAL.
3. BASIS OF DESIGN: MIRO IND. MODEL 2.5-CS.

5 SUPPORT FOR ROOFTOP CONDENSATE PIPING
SCALE: N.T.S.



6 REFRIGERANT PIPING DETAIL
SCALE: N.T.S. NOTE: PROVIDE SUPPORT 12 FT ON CENTER

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
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2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS NOTED
Date 7/29/22

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 RESEARCH PLACE
SUITE 202
SUFFERN, NY 10901

Structural Engineer:
GREENMAN PEDERSEN, INC
2 RESEARCH PLACE
SUITE 202
SUFFERN, NY 10901

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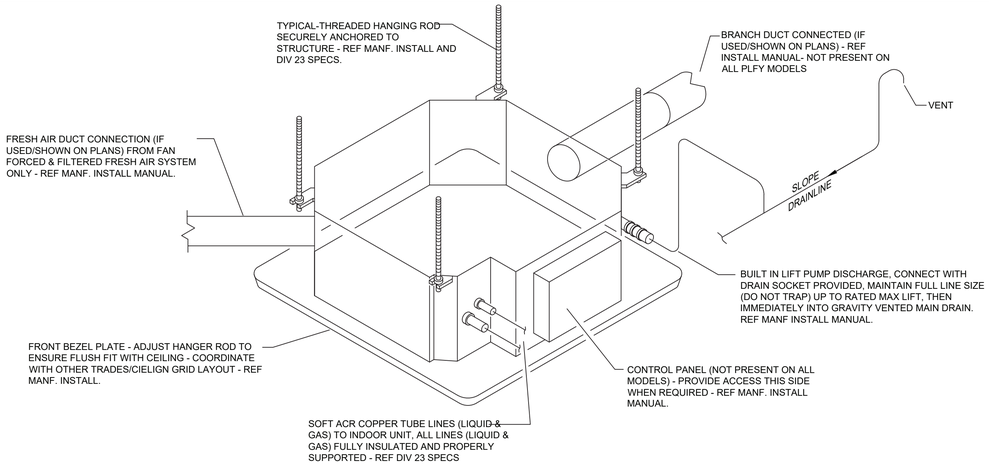
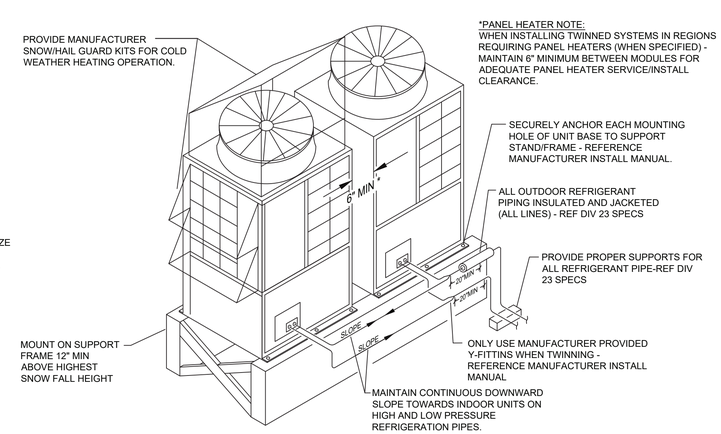
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
MECHANICAL DETAILS - 2

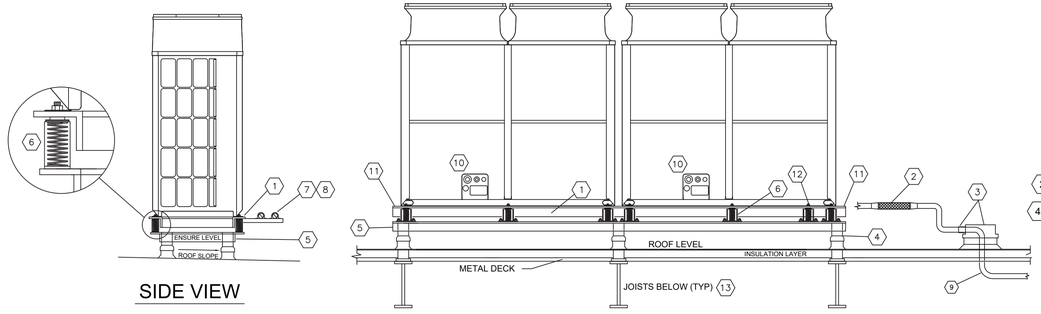
Drawing No.
FES-M-502



1 CEILING CASSETTE INSTALLATION DETAIL
SCALE: N.T.S.



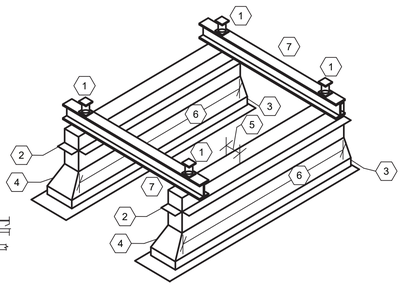
2 VRF OUTDOOR UNIT TWINNING DETAIL
SCALE: N.T.S.



CODED NOTES:

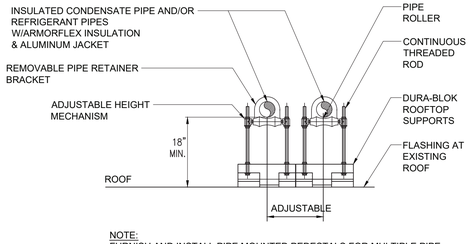
1. PROVIDE STRUCTURAL INTERSTITIAL ANGLE IRON MOUNTING MEMBER OR SIMILAR ATTACHED DIRECTLY TO BOTTOM OF UNIT MOUNTING FLANGE AND PROVIDE CROSS BRACING FOR RIGIDITY. ENSURE IT CARRIES FULL MOUNTING FOOT WIDTH ON UNIT. FINAL SPECIFICATION OF MEMBER BY STRUCTURAL ENGINEER OF RECORD.
2. PROVIDE BRAIDED COPPER FLEXIBLE CONNECTOR, R410A RATED, 650PSI MAX WORKING PRESSURE, PACKLESS INDUSTRIES OR EQUAL ON ALL MAIN PIPING DOWNSTREAM OF TWINNING KITS/CONVERGING FITTINGS PRIOR TO PENETRATION THROUGH ROOF.
3. PIPE ROOF CURB, FLASHED AND SEALED WATER TIGHT, PROVIDE FLEXIBLE WATER TIGHT COLLAR TO ALLOW FOR MOVEMENT WHERE PIPE ENTERS CURB. DO NOT ENTER PIPE CURB FROM VERTICAL DIRECTION.
4. TYPICAL BASE SUPPORT POSTS, SECURELY ANCHORED TO BUILDING STRUCTURE BELOW, QUANTITY, SIZE, AND CARRYING CAPACITY DETERMINED BY STRUCTURAL ENGINEER OF RECORD.
5. STRUCTURAL ANGLE IRON BASE MOUNTING FRAME WITH CROSS MEMBERS FOR RIGIDITY - FINAL SIZING BY STRUCTURAL ENGINEER OF RECORD.
6. VIBRATION SPRING SLR TYPE ISOLATORS (MASON INDUSTRIES OR EQUIV.) WITH RUBBER BASE PADS, SECURELY FASTENED TO STRUCTURAL BASE AND TO VRF UNIT INTERSTITIAL SUPPORT STEEL. SPRING ISOLATOR TO PROVIDE MINIMUM 1" DEFLECTION OR 10 TIMES THE STATIC DEFLECTION OF THE ROOF DECK FROM EQUIPMENT WEIGHT - DETERMINED BY STRUCTURAL ENGINEER OF RECORD. AT A MINIMUM, PROVIDE SPRING ISOLATORS AT EACH EQUIPMENT BASE MOUNTING HOLE LOCATION.
7. IF REQUIRED, ONLY SUPPORT LATERAL PIPE EMANATING FROM VRF UNIT CONNECTIONS BY CROSS MEMBER SUPPORT THAT IS ATTACHED DIRECTLY TO VRF UNIT MOUNTING ANGLE IRON FRAME ABOVE SPRING ISOLATORS. DO NOT ATTACH ANY PIPING TO LOWER FIXED SUPPORT BASE.
8. USE NEOPRENE ISOLATION COLLARS ON PIPE CLAMS WHEN FASTENING PIPING TO SUPPORTS.
9. USE LONG RADIUS SWEEPING COPPER ACR TUBE PIPE BENDS WHERE PIPE ENTERS BUILDING AT FIRST ELBOW INTO CEILING SPACE TO MINIMIZE REFRIGERANT FLOW NOISE AND VIBRATION.
10. ALL ELECTRICAL CONNECTIONS TO UNITS TO BE VIA FLEXIBLE CONDUIT, PROVIDE SUFFICIENT SLACK TO ALLOW FOR UNIT MOVEMENT ON SPRING ISOLATORS.
11. ENSURE CROSS MEMBERS OF INTERSTITIAL FRAME AND BOTTOM SUPPORT FRAME ARE NOT DIRECTLY BELOW ENDS OF MODULES IN ALL LOCATIONS AND DO NOT BLOCK DRAINAGE WEEP HOLES IN BOTTOM OF UNIT CASING, FAILURE TO DO THIS MAY RESULT IN ICE DAMMING/BUILDUP BENEATH UNIT AND SUBSEQUENT BUILDUP OF ICE IN BOTTOM OF UNIT CASING BELOW COIL AND POTENTIAL DAMAGE TO BOTTOM OF COIL.
12. WHEN SELECTING SPRING ISOLATORS ALWAYS CONSIDER WEIGHT DISTRIBUTION BY REFERENCING EQUIPMENT WEIGHT AND CENTER OF GRAVITY. NEAR RIGHT ENDS OF UNITS (VIEWED FROM FRONT PANEL) SPRING WEIGHT CAPACITY MAY BE LARGER. IF HIGHER SPRING WEIGHT CAPACITY IS REQUIRED VS OTHER SPRING LOCATIONS, CONSIDER AN ADDITIONAL SPRING OF EQUAL "K" VALUE (lbs/in) NEAR RIGHT END OF LAST MODULE. IN GENERAL IT IS RECOMMENDED TO SELECT ALL MOUNTING SPRINGS OF EQUIVALENT "K" VALUE (lbs/in).
13. REFER TO THE STRUCTURAL DRAWINGS (SPECIFICALLY S102) FOR INSTALLATION REQUIREMENTS AND DETAILS OF THE EXISTING ROOF STRUCTURE.

3 VRF OUTDOOR UNIT MOUNTING DETAIL
SCALE: N.T.S.



1. VIBRATION ISOLATOR PER SECTION 15504 BOLTED TO STEEL BEAM. PROVIDE ISOLATORS FOR USE OUTDOORS. (TYP OF 4)
2. COUNTER FLASHING OVER TREATED WOOD NAILER
3. GALVANIZED STEEL, MIN. 18 GAGE WITH WELDED SEAMS
4. RAIL
5. MINIMUM 3 5/8"
6. MINIMUM 102" U.O.N.
7. GALVANIZED STEEL BEAM OR STRUT CHANNEL ATTACHED TO RAIL.

4 VRF ROOFTOP SUPPORT RAIL DETAIL
SCALE: N.T.S.



NOTE:
FURNISH AND INSTALL PIPE MOUNTED PEDESTALS FOR MULTIPLE PIPE SUPPORTS MANUFACTURED BY COOPER B-LINE, (DURA-BLOK ROOFTOP SUPPORTS) DB SERIES OR APPROVED EQUAL.

5 ROOF PIPE SUPPORT
SCALE: N.T.S.

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

Drawn by AMW
Checked by MEP
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

Structural Engineer:

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COUNTY OF ROCKLAND
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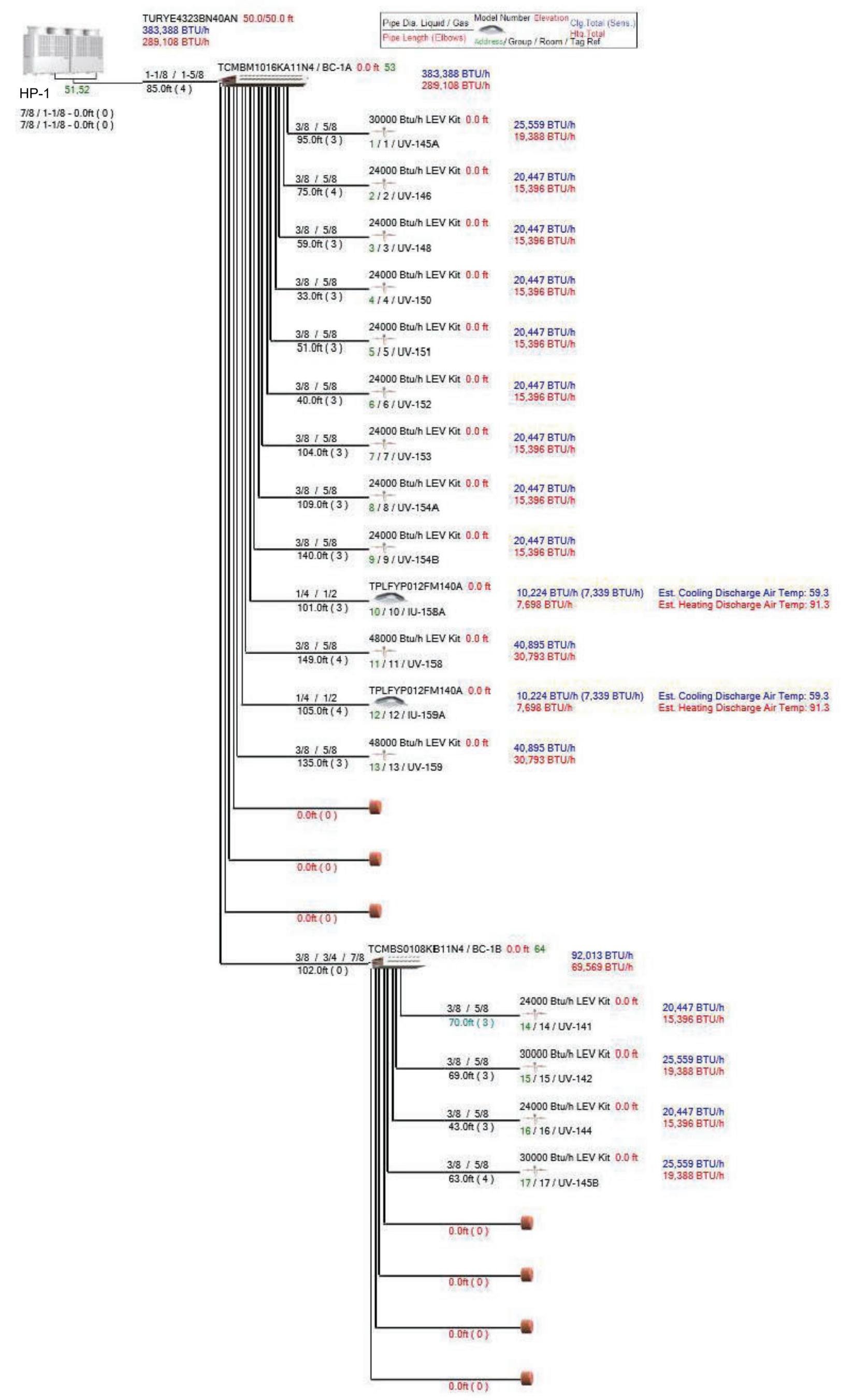
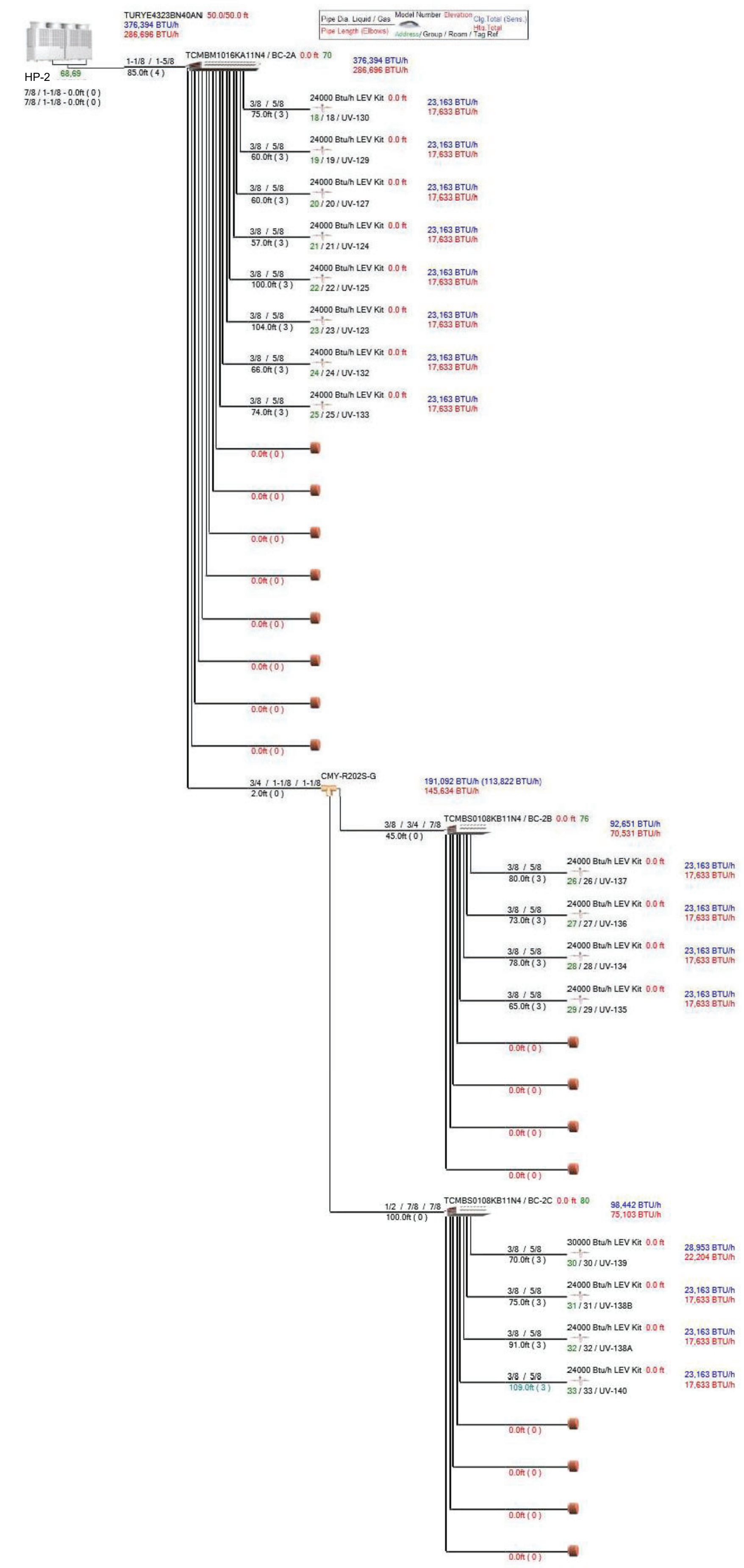
MICHAEL SHILALE ARCHITECTS, L.L.P.
149 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
MECHANICAL DETAILS - 3

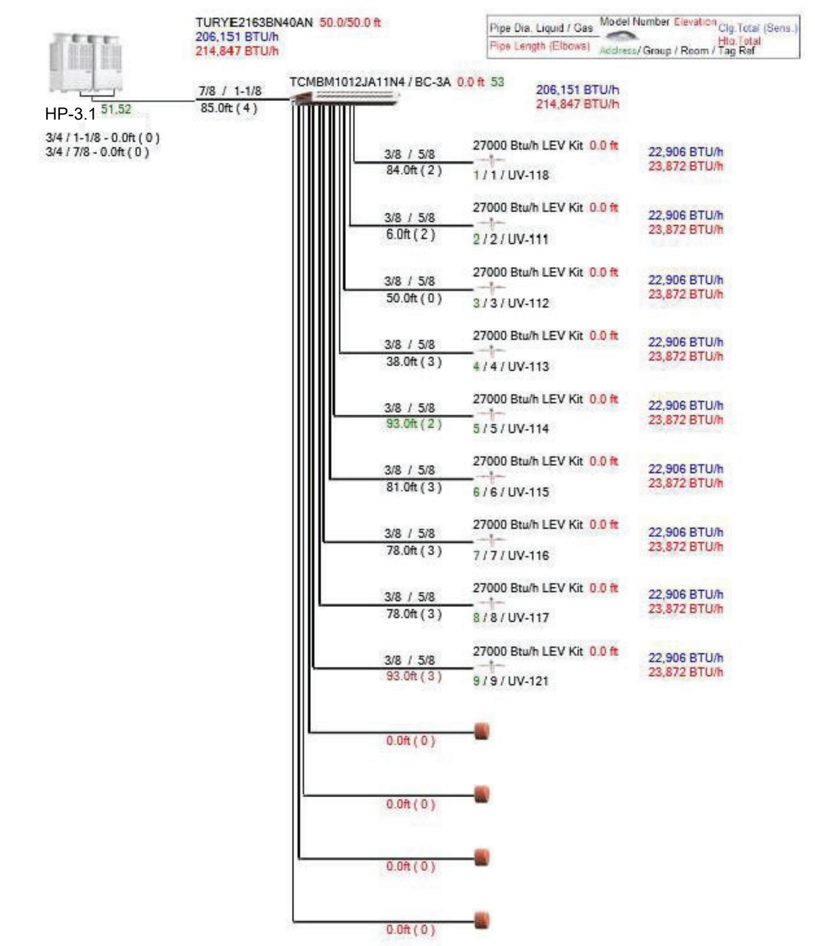
Drawing No.
FES-M-503



1 M-504 HP-1 REFRIGERANT PIPING DIAGRAM
SCALE: NONE



2 M-504 HP-2 REFRIGERANT PIPING DIAGRAM
SCALE: NONE



3 M-504 HP-3.1 REFRIGERANT PIPING DIAGRAM
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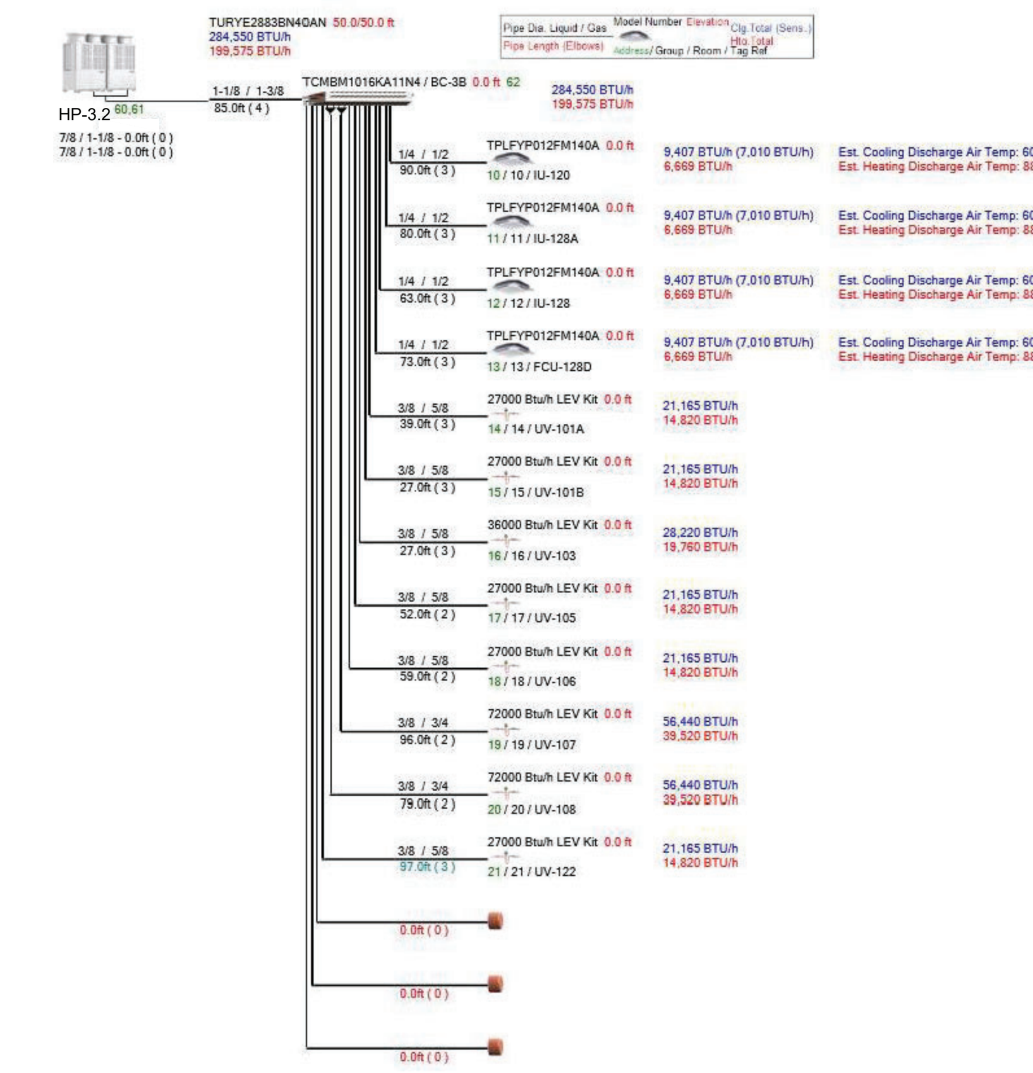
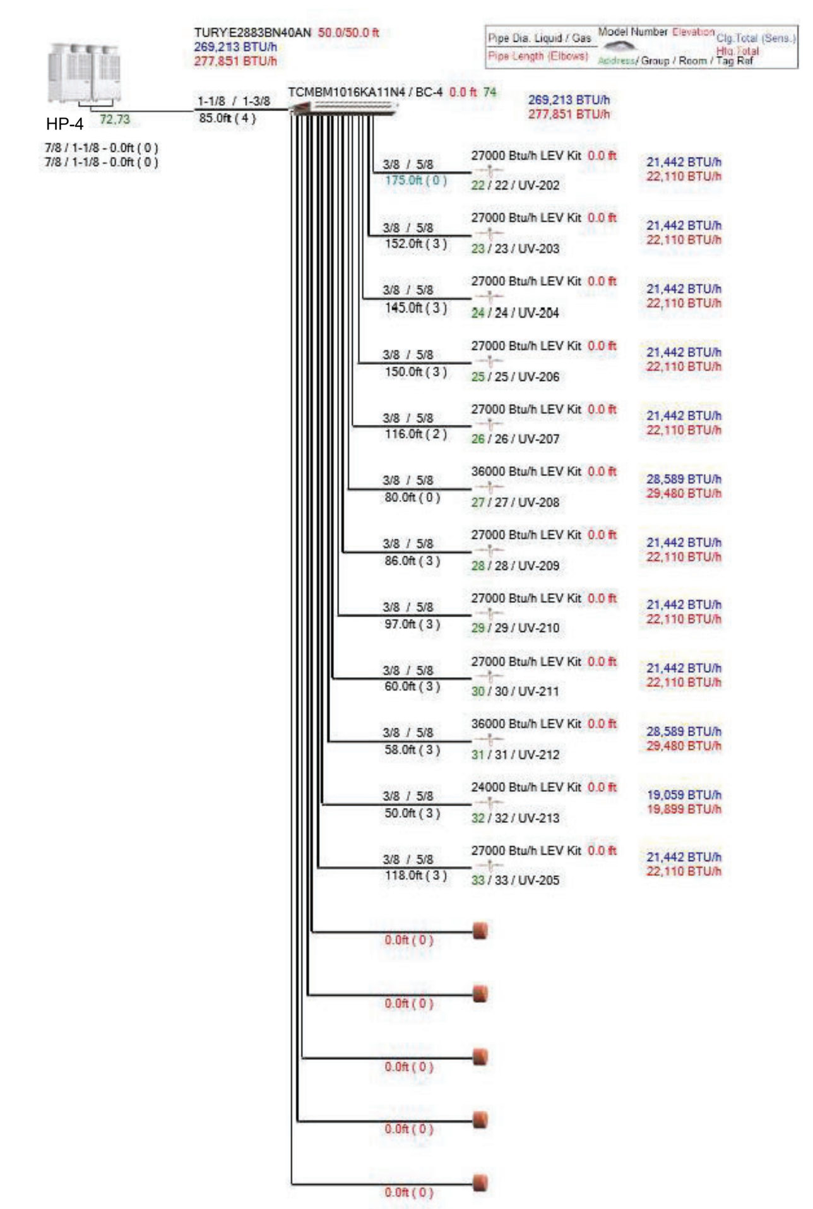


4 M-504 HP-3.2 REFRIGERANT PIPING DIAGRAM
SCALE: NONE



5 M-504 HP-4 REFRIGERANT PIPING DIAGRAM
SCALE: NONE

GENERAL NOTES:

1. MODEL DEPICTS GAS & LIQUID REFRIGERANT PIPING. LARGER PIPE SIZE IS GAS REFRIGERANT PIPING. SMALLER PIPE SIZE IS LIQUID REFRIGERANT PIPING.

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
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2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

Drawn by AMW
Checked by PV
Project No. 42052
Scale AS SHOWN
Date 7/29/22

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

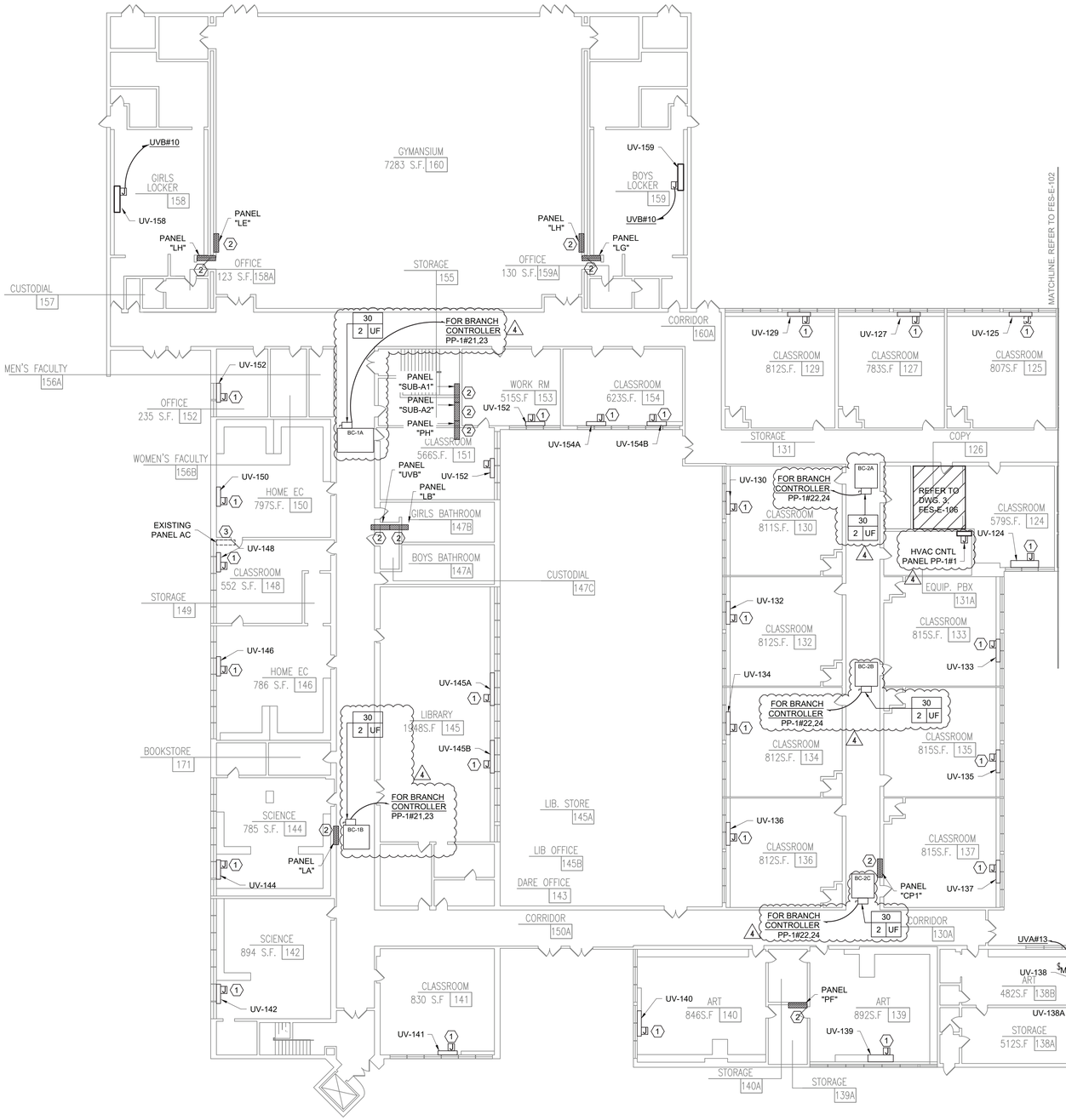
Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL
SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title HVAC REFRIGERANT PIPING DIAGRAMS

Drawing No. FES-M-504



1 ELECTRICAL FIRST FLOOR PLAN - 1

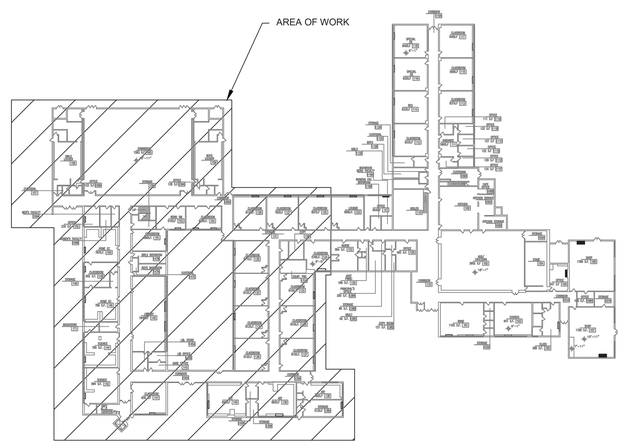
SCALE: 1/16" = 1' - 0"

PLAN NOTES:

1. REFER TO ADDITIONAL INSTALLATION NOTES ON DRAWING E-001.
2. ALL NEW BRANCH CIRCUIT SHALL BE RUN WITH MINIMUM OF 2#12+1#12G IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED. FOR LIGHTING AND POWER BRANCH CIRCUIT, MC CABLE SHALL BE INSTALLED FOR RECESSED INSTALLATION ONLY, EITHER IN NEW WALLS OR ABOVE HUNG CEILING WHERE POSSIBLE. REFER TO PANEL SCHEDULES IN DRAWING E-201 FOR ALL OTHER FEEDER AND BRANCH CIRCUIT SIZE INFORMATION.
3. PROVIDE LABELS ON ALL ELECTRICAL EQUIPMENT INDICATING CIRCUIT ORIGINATION.
4. UPDATE ALL EXISTING PANEL DIRECTORIES AFFECTED BY NEW WORK.
5. CONTRACTOR SHALL PERFORM AMP PROBE READINGS ON EXISTING SERVICE EQUIPMENT BEFORE AND AFTER WORK TO ENSURE EQUIPMENT WILL NOT BE LOADED BEYOND ITS MAX AMPACITY.
6. CONTRACTOR SHALL MAINTAIN CONTINUITY TO ALL EXISTING CIRCUITRY TO REMAIN WHICH ARE AFFECTED BY THE SCOPE OF WORK; CONTRACTOR SHALL FURNISH ALL NECESSARY JUNCTION BOXES, CONDUIT, AND WIRES AS REQUIRED TO KEEP CONTINUITY.
7. REFER TO MECHANICAL PLANS FOR EQUIPMENT TO BE SUPPLIED BY OTHER TRADES AND INSTALLED/WIRED UNDER THIS SECTION. COORDINATE LOCATION OF DEVICES WITH OTHER CONTRACTORS.
8. PROVIDE FIRESTOPPING FOR ALL PENETRATIONS TO MATCH EXISTING FIRE RATING WHERE APPLICABLE. ALL CORE DRILLS SHALL BE VERIFIED BY BUILDING REPRESENTATIVE PRIOR TO COMMENCING WORK. XRAY ALL FLOOR SLABS PRIOR TO ROUGH-INS FOR CORE DRILL WORK.
9. THE CONTRACTOR SHALL FIELD ROUTE FEEDER FOR NEW POWER PANELS. COORDINATE EXACT ROUTING PATH WITH OWNER. SUBMIT A PROPOSED ROUTING PATH TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO RUNNING ANY CONDUIT OR WIRE ASSOCIATED WITH THIS FEEDER.
10. DISCONNECT SWITCH FOR UNIT VENTILATORS IS PROVIDED BY HVAC CONTRACTOR. COORDINATE WITH HVAC CONTRACTOR.
11. ALL GROUNDING SHALL BE PROVIDED BY THE CONTRACTOR AS PER NEC 2017.
12. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENLARGE AND FUR OUT EXISTING OPENING FOR EXISTING PANELS AND WHERE REQUIRED. ACCOMMODATE THE NEW BACK BOXES AND HOUSING OF THE NEW RECESSED MOUNTED PANELS TO BE INSTALLED. THE ELECTRICAL CONTRACTOR SHALL ALSO ENGAGE THE GC TO RESTORE AND FINISH THE WALLS TO MATCH THE SURROUNDING WALLS OF THE AREA.

KEYED NOTES:

1. RECONNECT EXISTING WIRING TO THE NEW UNIT VENTILATORS. EXTEND WIRING AND CONDUIT IF NECESSARY.
2. FURNISH AND INSTALL NEW PANEL TO MATCH EXISTING SIZE AND RATING. RUN NEW FEEDER TO MATCH EXISTING SIZE, IN EXISTING CONDUIT FROM SOURCE. RECONNECT ALL EXISTING BRANCH TO NEW PANEL. REFER TO PANEL SCHEDULE FOR MORE INFORMATION.
3. EXISTING AC PANEL SHALL BE RE-FEED TO MDB2. REFER TO RISER DIAGRAM FOR MORE INFORMATION.



2 ELECTRICAL FIRST FLOOR KEY PLAN

SCALE: 1/64" = 1' - 0"

PLAN NORTH

No.	Date	Revisions
1	12-28-22	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
4	11-09-23	ADDENDUM #1

Drawn by DK
Checked by SH
Project No. 42052
Scale AS NOTED
Date 7/29/22

GREENMAN PEDERSEN, INC
2 RESEARCH PLACE ROCKLAND
SUITE 302
SUFFERN, NY 10901

Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 RESEARCH PLACE ROCKLAND
SUITE 302
SUFFERN, NY 10901

Structural Engineer:

UNIVENT
REPLACEMENT AT
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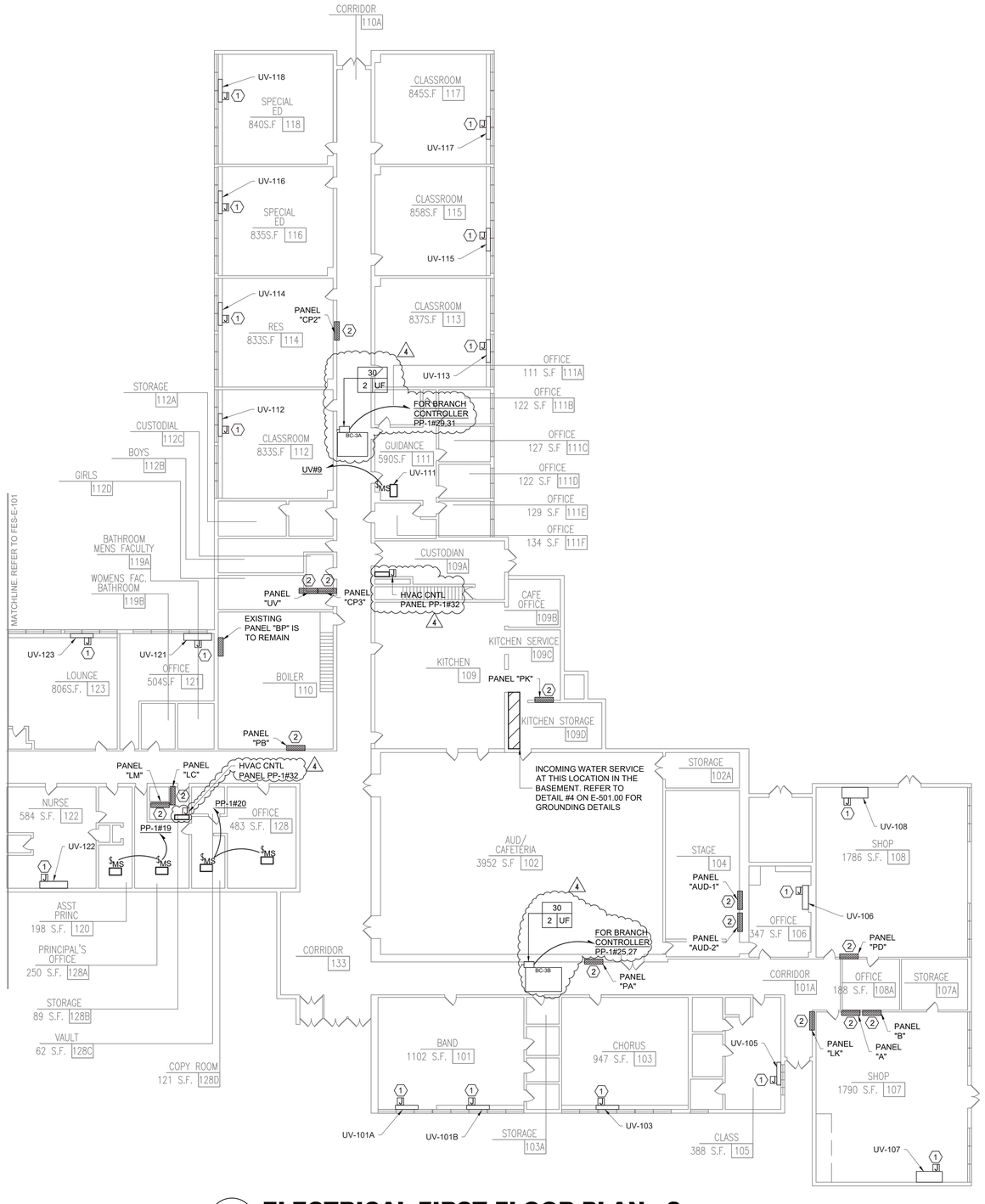
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL FIRST FLOOR PLAN - 1

Drawing No.
FES-E-101



1 ELECTRICAL FIRST FLOOR PLAN - 2

SCALE: 1/16" = 1' - 0"

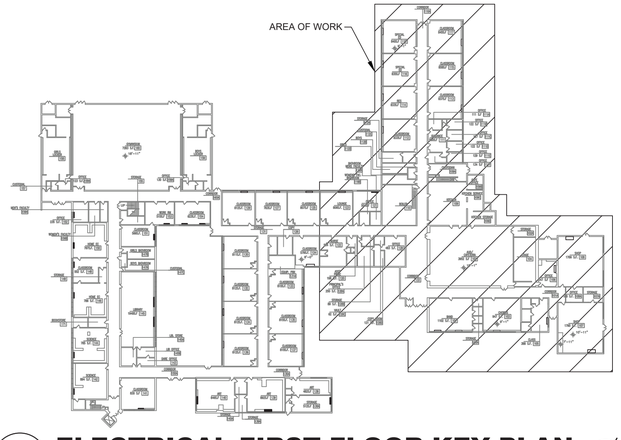
PLAN NOTES:

1. REFER TO ADDITIONAL INSTALLATION NOTES ON DRAWING E-001.
2. ALL NEW BRANCH CIRCUIT SHALL BE RUN WITH MINIMUM OF 2#12+1#12G IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED. FOR LIGHTING AND POWER BRANCH CIRCUIT, MC CABLE SHALL BE INSTALLED FOR RECESSED INSTALLATION ONLY, EITHER IN NEW WALLS OR ABOVE HUNG CEILING WHERE POSSIBLE. REFER TO PANEL SCHEDULES IN DRAWING E-201 FOR ALL OTHER FEEDER AND BRANCH CIRCUIT SIZE INFORMATION.
3. PROVIDE LABELS ON ALL ELECTRICAL EQUIPMENT INDICATING CIRCUIT ORIGINATION.
4. UPDATE ALL EXISTING PANEL DIRECTORIES AFFECTED BY NEW WORK.
5. CONTRACTOR SHALL PERFORM AMP PROBE READINGS ON EXISTING SERVICE EQUIPMENT BEFORE AND AFTER WORK TO ENSURE EQUIPMENT WILL NOT BE LOADED BEYOND ITS MAX AMPACITY.
6. CONTRACTOR SHALL MAINTAIN CONTINUITY TO ALL EXISTING CIRCUITRY TO REMAIN WHICH ARE AFFECTED BY THE SCOPE OF WORK; CONTRACTOR SHALL FURNISH ALL NECESSARY JUNCTION BOXES, CONDUIT, AND WIRES AS REQUIRED TO KEEP CONTINUITY.
7. PROVIDE FIRESTOPPING FOR ALL PENETRATIONS TO MATCH EXISTING FIRE RATING WHERE APPLICABLE. ALL CORE DRILLS SHALL BE VERIFIED BY BUILDING REPRESENTATIVE PRIOR TO COMMENCING WORK. XRAY ALL FLOOR SLABS PRIOR TO ROUGH-INS FOR CORE DRILL WORK.
8. THE CONTRACTOR SHALL FIELD ROUTE FEEDER FOR NEW POWER PANELS. COORDINATE EXACT ROUTING PATH WITH OWNER. SUBMIT A PROPOSED ROUTING PATH TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO RUNNING ANY CONDUIT OR WIRE ASSOCIATED WITH THIS FEEDER.
9. DISCONNECT SWITCH FOR UNIT VENTILATORS IS PROVIDED BY HVAC CONTRACTOR. COORDINATE WITH HVAC CONTRACTOR.
10. ALL GROUNDING SHALL BE PROVIDED BY THE CONTRACTOR AS PER NEC 2017.
11. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENLARGE AND FUR OUT EXISTING OPENING FOR EXISTING PANELS AND WHERE REQUIRED. ACCOMMODATE THE NEW BACK BOXES AND HOUSING OF THE NEW RECESSED MOUNTED PANELS TO BE INSTALLED. THE ELECTRICAL CONTRACTOR SHALL ALSO ENGAGE THE GC TO RESTORE AND FINISH THE WALLS TO MATCH THE SURROUNDING WALLS OF THE AREA.

KEYED NOTES:

(1) RECONNECT EXISTING WIRING TO THE NEW UNIT VENTILATORS. EXTEND WIRING AND CONDUIT IF NECESSARY.

(2) FURNISH AND INSTALL NEW PANEL TO MATCH EXISTING SIZE AND RATING. RUN NEW FEEDER TO MATCH EXISTING SIZE, IN EXISTING CONDUIT FROM SOURCE. RECONNECT ALL EXISTING BRANCH TO NEW PANEL. REFER TO PANEL SCHEDULE FOR MORE INFORMATION.



2 ELECTRICAL FIRST FLOOR KEY PLAN

SCALE: 1/64" = 1' - 0"

PLAN NORTH

No.	Date	Revisions
1	12-28-22	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
4	11-09-23	ADDENDUM #1

Drawn by DK
Checked by SH
Project No. 42052
Scale AS NOTED
Date 7/29/22

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2 EXECUTIVE BOULEVARD SUITE 302 SUFFERN, NY 10901
Mechanical & Electrical Engineer:

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Structural Engineer:

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SED # 50-02-01-06-0-003-011

COUNTY OF ROCKLAND

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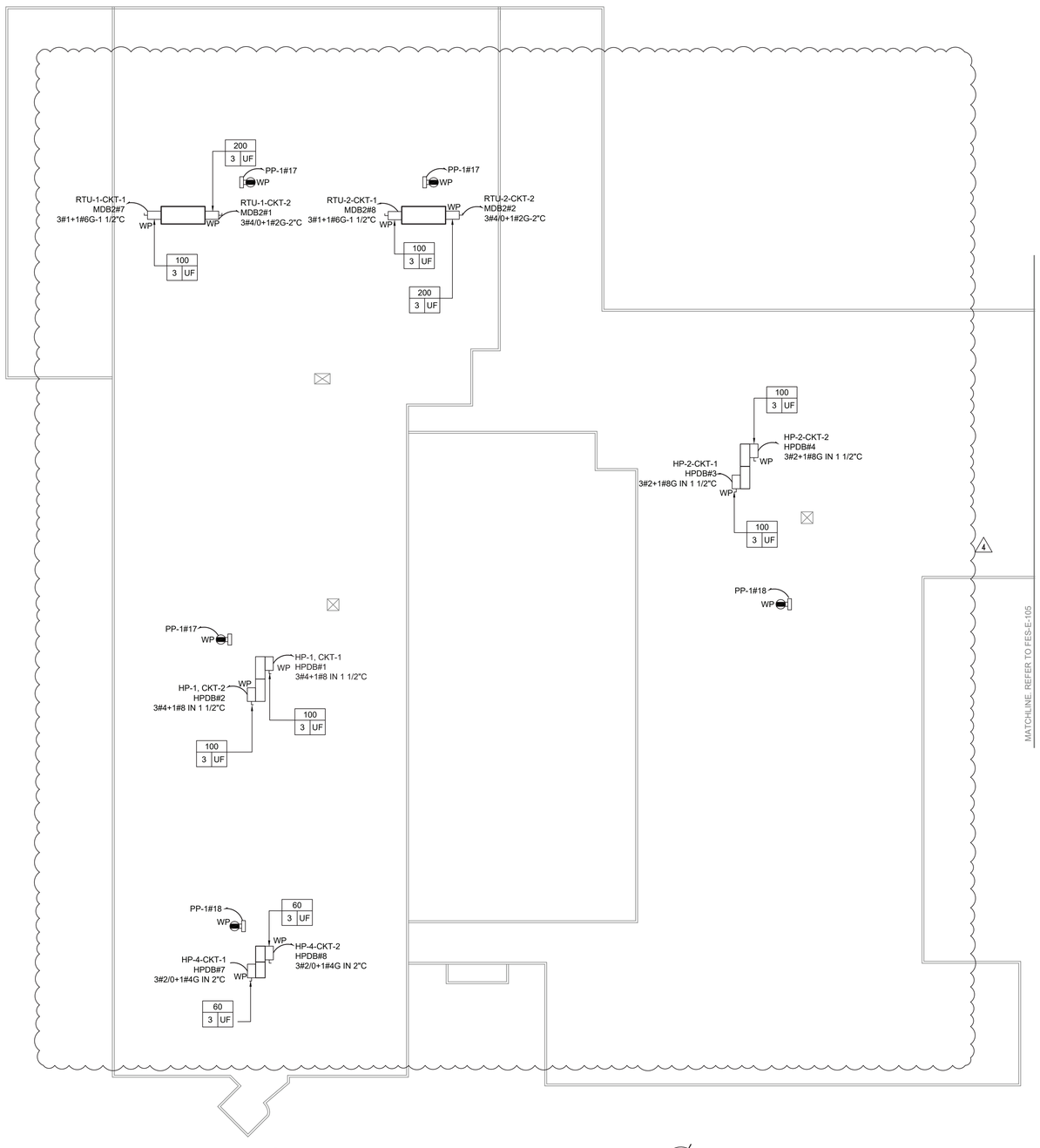
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-768-9200
www.shilale.com

Drawing Title
ELECTRICAL FIRST FLOOR PLAN - 2

Drawing No.
FES-E-102



1 ELECTRICAL ROOF PLAN - 1

SCALE: 1/16" = 1' - 0"

PLAN NORTH

PLAN NOTES:

1. REFER TO ADDITIONAL INSTALLATION NOTES ON DRAWING E-001.
2. ALL NEW BRANCH CIRCUIT SHALL BE RUN WITH MINIMUM OF 2#12+1#12G IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED. FOR LIGHTING AND POWER BRANCH CIRCUIT, MC CABLE SHALL BE INSTALLED FOR RECESSED INSTALLATION ONLY, EITHER IN NEW WALLS OR ABOVE HUNG CEILING WHERE POSSIBLE. REFER TO PANEL SCHEDULES IN DRAWING E-201 FOR ALL OTHER FEEDER AND BRANCH CIRCUIT SIZE INFORMATION.
3. PROVIDE LABELS ON ALL ELECTRICAL EQUIPMENT INDICATING CIRCUIT ORIGINATION.
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5. CONTRACTOR SHALL PERFORM AMP PROBE READINGS ON EXISTING SERVICE EQUIPMENT BEFORE AND AFTER WORK TO ENSURE EQUIPMENT WILL NOT BE LOADED BEYOND ITS MAX AMPACITY.
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7. REFER TO MECHANICAL PLANS FOR EQUIPMENT TO BE SUPPLIED BY OTHER TRADES AND INSTALLED/WIRED UNDER THIS SECTION. COORDINATE LOCATION OF DEVICES WITH OTHER CONTRACTORS.
8. PROVIDE FIRESTOPPING FOR ALL PENETRATIONS TO MATCH EXISTING FIRE RATING WHERE APPLICABLE. ALL CORE DRILLS SHALL BE VERIFIED BY BUILDING REPRESENTATIVE PRIOR TO COMMENCING WORK. XRAY ALL FLOOR SLABS PRIOR TO ROUGH-INS FOR CORE DRILL WORK.
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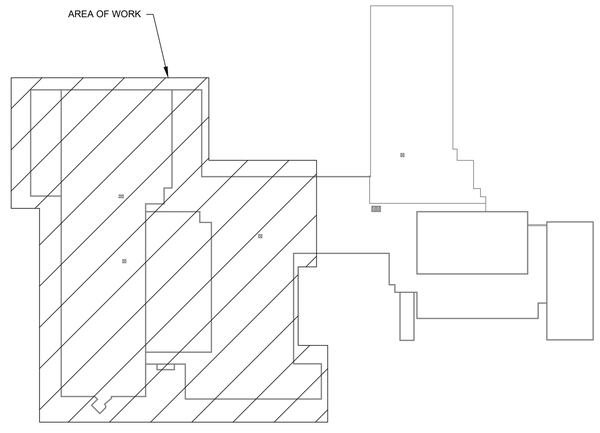
10. DISCONNECT SWITCH FOR UNIT VENTILATORS IS PROVIDED BY HVAC CONTRACTOR. COORDINATE WITH HVAC CONTRACTOR.
11. ALL GROUNDING SHALL BE PROVIDED BY THE CONTRACTOR AS PER NEC 2017.
12. ALL EXTERIOR CONDUITS SHALL BE RIGID GALVANIZED CONDUIT.



2 ELECTRICAL ROOF KEY PLAN

SCALE: 1/64" = 1' - 0"

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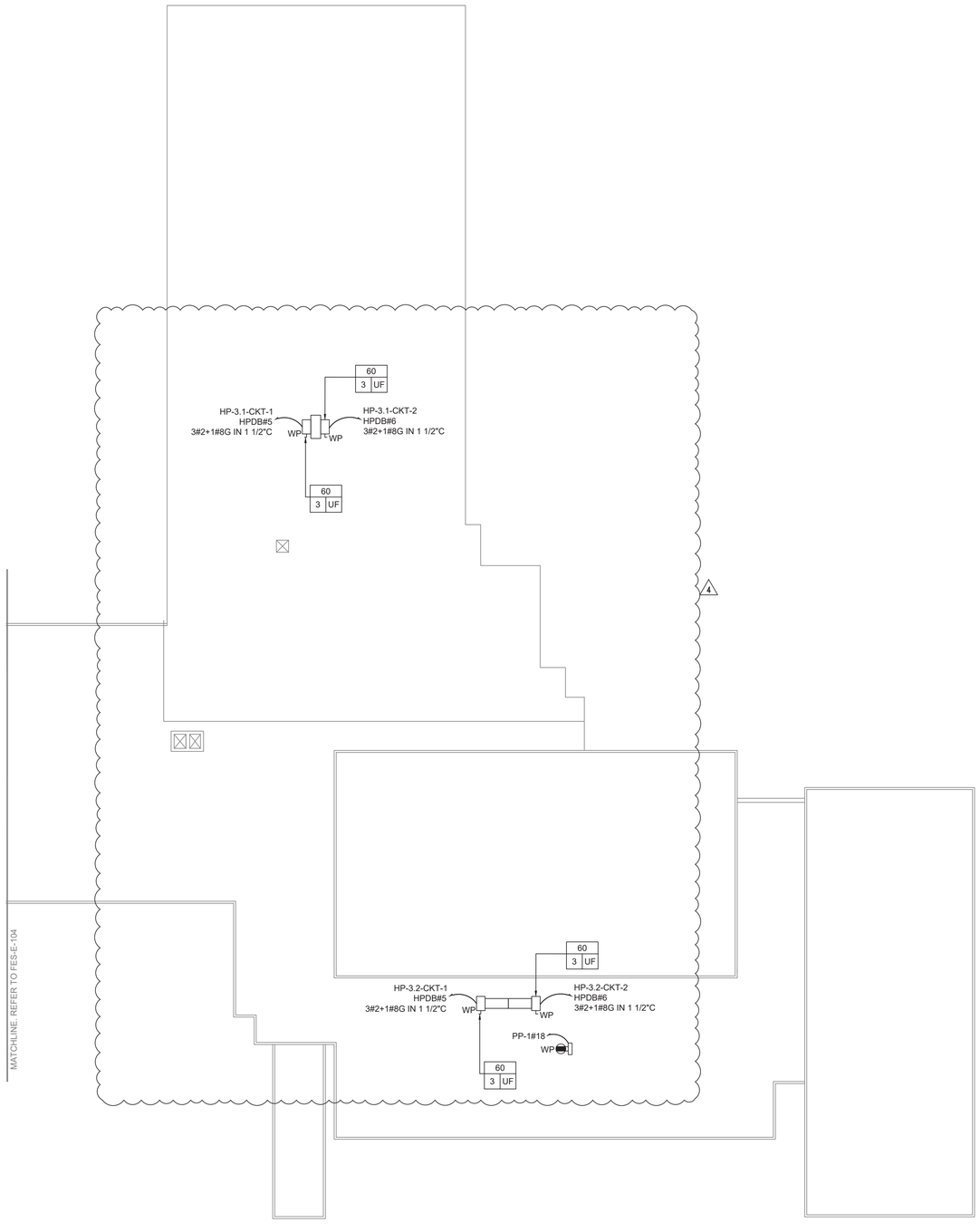
140 Park Avenue New City, NY 10956 Tel 845-708-8500
www.shilale.com

Drawing Title
ELECTRICAL ROOF PLAN - 1

Drawing No.
FES-E-104



1 ELECTRICAL ROOF PLAN - 2

SCALE: 1/16" = 1' - 0"

PLAN NOTES:

1. REFER TO ADDITIONAL INSTALLATION NOTES ON DRAWING E-001.
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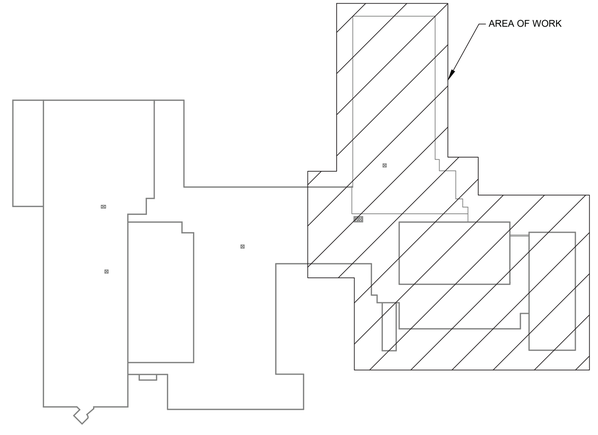
7. REFER TO MECHANICAL PLANS FOR EQUIPMENT TO BE SUPPLIED BY OTHER TRADES AND INSTALLED/WIRED UNDER THIS SECTION. COORDINATE LOCATION OF DEVICES WITH OTHER CONTRACTORS.
8. PROVIDE FIRESTOPPING FOR ALL PENETRATIONS TO MATCH EXISTING FIRE RATING WHERE APPLICABLE. ALL CORE DRILLS SHALL BE VERIFIED BY BUILDING REPRESENTATIVE PRIOR TO COMMENCING WORK. XRAY ALL FLOOR SLABS PRIOR TO ROUGH-INS FOR CORE DRILL WORK.
9. THE CONTRACTOR SHALL FIELD ROUTE FEEDER FOR NEW POWER PANELS. COORDINATE EXACT ROUTING PATH WITH OWNER. SUBMIT A PROPOSED ROUTING PATH TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO RUNNING ANY CONDUIT OR WIRE ASSOCIATED WITH THIS FEEDER.
10. DISCONNECT SWITCH FOR UNIT VENTILATORS IS PROVIDED BY HVAC CONTRACTOR. COORDINATE WITH HVAC CONTRACTOR.
11. ALL GROUNDING SHALL BE PROVIDED BY THE CONTRACTOR AS PER NEC 2017.
12. ALL EXTERIOR CONDUITS SHALL BE RIGID GALVANIZED CONDUITS.



2 ELECTRICAL ROOF KEY PLAN

SCALE: 1/64" = 1' - 0"

PLAN NORTH

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

Drawn by DK
Checked by SH
Project No. 42052
Scale AS NOTED
Date 7/29/22

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901

Structural Engineer:
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UNIVENT
REPLACEMENT AT
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SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND
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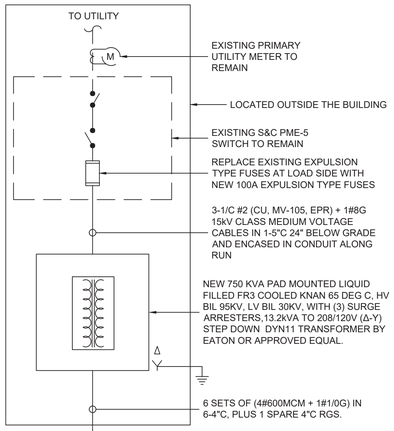
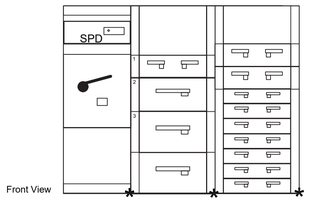
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-768-9200
www.shilale.com

Drawing Title
ELECTRICAL ROOF PLAN - 2

Drawing No.
FES-E-105



1 ELECTRICAL ONE LINE DIAGRAM
SCALE: NTS



2 EATON DISTRIBUTION BOARD ELEVATION
SCALE: NTS

PANEL NOTES:

1. PANEL BOARDS SHALL INCLUDE ALL APPLICALBE UL AND PORODUCT SAFETY LABELS AS REQUIRED BY NEMA PB1 AND UL LISTED STANDARDS.
2. ALL PRODUCTS WHICH ARE NOT VERIFIABLE TO BE UL LISTED WILL NOT BE ACCEPTED.
3. THE ELECTRICAL CONTRACTOR MUST FIELD VERIFY THE EXISTING FEED TO ALL EXISTING PANELS AND INFORM EATON OR APPROVED EQUAL HOW EACH EXISTING PANEL IS BEING FED (i.e. BOTTOM FED OR TOP FED). PRIOR TO ORDERING THE PANEL. SHOULD AN INCORRECTLY FED BE ORDERED THE ELECTRICAL CONTRACTOR SHALL REPLACE THE PANEL AT NO ADDITIONAL COST

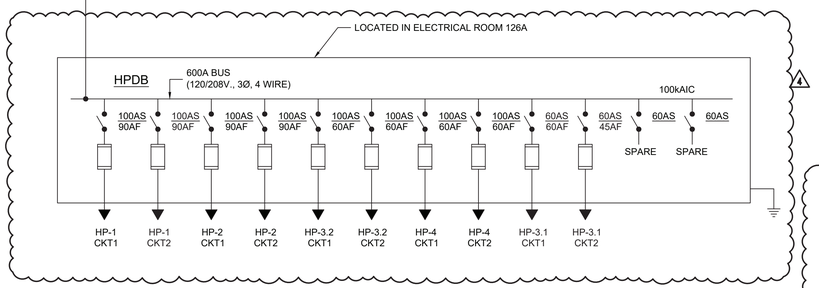
NOTES:

1. ALL CIRCUITS, FUSE DISCONNECT SWITCHES ARE THREE (3) POLE U.O.I.
2. FUSE RATING IN AMPS ARE DENOTED BY THE LETTERS "AF" SWITCH RATING IN AMPS ARE DENOTED BY THE LETTERS "AS".
3. FOR FEEDER SIZE TO PANELS AND DISTRIBUTION BOARDS REFER TO DWGS. E401 THRU E409.
4. COORDINATE SPECIFICS OF INCOMING SERVICE REQUIREMENTS WITH O&R IN THE FIELD.
5. ALL THE DESIGNS ARE AS PER EATON OR APPROVED EQUALS RECOMMENDATIONS. FOR EATON'S REP CONTACT - ADRIAN GUBBAY - 732-770-7686.
6. SPD SHALL BE INTEGRALLY MOUNTED IN THE SWITCHBOARD BY THE SAME MANUFACTURER AS THE SWITCHBOARD. SPD SHALL BE PART NUMBER FOR THE SPD SHALL BE EATON - SPD250208Y2C OR EQUAL.
7. PROJECT GOAL IS TO PROVIDE 12 CAL/CM2 FOR ALL VOLTAGES
8. MANUFACTURERS SELECTION OF PRIMARY TYPE OF FUSE SHALL ENSURE COORDINATION WITH TRANSFORMER IN RUSH CURRENT. IF MIS-COORDINATION IS IDENTIFIED THE MANUFACTURER SHALL REPLACE THE DEVICE THAT WILL PROPERLY COORDINATE AT NO ADDITIONAL COST.
9. THE CONTRACTOR SHALL PROVIDE SHORT CIRCUIT AND ARC FLASH STUDIES TO THE EOR PRIOR TO RELEASING THE ELECTRICAL GEAR. THIS INCLUDES THE THE MV AND LV EQUIPMENT.

ABBREVIATIONS

MDB	MAIN DISTRIBUTION BOARD
AS	AMPERE SWITCH
AF	AMPERE FUSE
SW	SWITCH
EX.	EXISTING

FOR ALL OTHER ABBREVIATIONS REFER DWG E001



DIST. BOARD: MDB1 VOLT: 120/208v, 3Ø, 4W. LOC. ELEC RM.
MOUNTING: FLOOR AMP RATING 2500A MAIN: M.L.O
NEW LOAD(A): 1250 AIC RATING 200KA TYPE: NEW
*INDICATES ESTIMATED CONNECTED LOAD OF CKT

CIRCUIT No.	LOAD SVD	POLES	SWITCH	FUSE	LOAD	FEEDERS
1*	EX. SUB DISTR.A&B	3	600	600	420	INSTALL NEW CABLES IN EXISTING CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE
2	HPDB	3	600	600	500	2 SETS OF (4#400MCM+1#1/0G) IN 2 (4"C)
3*	EX.PC-PD-LK AREA C	3	400	225	150	INSTALL NEW CABLES IN EXISTING CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE
4*	EX.ELEVATOR FEED	3	200	125	90	INSTALL NEW CABLES IN EXISTING CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE
5*	EX. ROOF PANEL	3	200	125	90	INSTALL NEW CABLES IN EXISTING CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE

DIST. BOARD: HPDB VOLT: 120/208v, 3Ø, 4W. LOC. ELEC RM.
MOUNTING: FLOOR AMP RATING 600A MAIN: M.L.O
DESIGN AMP: 560 AIC RATING 100KA TYPE: NEW

CIRCUIT No.	LOAD SVD	POLES	SWITCH	FUSE	LOAD	FEEDERS
1	HP-1,CKT-1	3	100	90	73	3#1+1#8G-1 1/2"C
2	HP-1,CKT-2	3	100	90	73	3#1+1#8G-1 1/2"C
3	HP-2,CKT-1	3	100	90	73	3#2+1#8G-1 1/2"C
4	HP-2,CKT-2	3	100	90	73	3#2+1#8G-1 1/2"C
5	HP-3.2,CKT-1	3	100	60	49	3#2+1#8G-1 1/2"C
6	HP-3.2,CKT-2	3	100	60	49	3#2+1#8G-1 1/2"C
7	HP-4,CKT-1	3	100	60	49	3#2+1#8G-1 1/2"C
8	HP-4,CKT-2	3	100	60	49	3#2+1#8G-1 1/2"C
9	HP-3.1,CKT-1	3	60	60	41	3#4+1#8G-1 1/2"C
10	HP-3.1,CKT-2	3	60	45	31	3#4+1#8G-1 1/2"C
11	SPARE	3	60			
12	SPARE	3	60			

DIST. BOARD: MDB2 VOLT: 120/208v, 3Ø, 4W. LOC. ELEC. RM.
MOUNTING: FLOOR AMP RATING 2500A MAIN: M.L.O
DESIGN AMP: 983 AIC RATING 200KA TYPE: NEW
*INDICATES ESTIMATED CONNECTED LOAD OF CKT

CIRCUIT No.	LOAD SVD	POLES	SWITCH	FUSE	LOAD	FEEDERS
1	RTU-1,CKT-2	3	200	175	167	5#4/0+1#2G-2"C
2	RTU-2,CKT-2	3	200	175	167	5#4/0+1#2G-2"C
3	SPARE	3	200			
4	SPARE	3	200			
5*	RTU-C-1	3	100	70	50	MATCH EXISITNG AND EXTEND FEEDER FROM EXISITNG PNL PP-RTU TO THIS CIRCUIT.
6*	RTU-D-2	3	100	70	50	MATCH EXISITNG AND EXTEND FEEDER FROM EXISITNG PNL PP-RTU TO THIS CIRCUIT.
7	RTU-1,CKT-1	3	100	80	67	5#1+1#6G-1 1/2"C
8	RTU-2,CKT-1	3	100	80	67	5#1+1#6G-1 1/2"C
9	SPARE	3	100			
10*	PNL UVA	3	100	70	50	4#2+1#8G-1 1/2"C
11*	PNL LD	3	100	70	50	4#2+1#8G-1 1/2"C
12*	EX. LOAD	3	100	70	50	INSTALL NEW CABLES IN EXISITNG CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE
13*	PNL LE (EX)	3	100	100	75	INSTALL NEW CABLES IN EXISITNG CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE
14*	EX. LOAD	3	100	70	50	INSTALL NEW CABLES IN EXISITNG CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE
15*	PNL LC, LM (EX)	3	100	70	50	INSTALL NEW CABLES IN EXISITNG CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE
16*	EX. LOAD	3	100	70	50	INSTALL NEW CABLES IN EXISITNG CONDUIT MATCH EXISITNG FEEDER AND GROUND WIRE SIZE
17*	PNL PP-1 + ELP	3	100	100	40	4#2+1#8G-1 1/2"C
18	SPARE	3	100			

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Drawn by DK
Checked by SH
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COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
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Drawing Title
ELECTRICAL ONE LINE DIAGRAM, DISTRIBUTION BOARD SCHEDULE

Drawing No.
FES-E-400

PANEL SCHEDULE

PANEL NAME:	New Panel "PP-1"	LOCATION:	Elec. Service 126A	MOUNTING:	Surface
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	100A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#3+1#8G-1 1/2"C	FEEDING SOURCE:	MDB2
MAIN BREAKER TYPE	MLO	MAIN BREAKER RATING (A):	MLO	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	Phase Load in VA AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
HVAC CONTROL PANEL	2#12+1#12G-3/4"C	20	1	200			2	20	2#12+1#12G-3/4"C	RECPT AT 126A
(EXISTING MDB CKT#1) FAN#7	MATCH EXISTING	20	3				4	20	(EXISTING MDB CKT#2)MATCH EXISTING	FAN#4
			5				6			
			7				8			
(EXISTING MDB CKT#3) EXISTING FAN#3	MATCH EXISTING	20	9				10	20	MATCH EXISTING	(CKT#4) FROM EXIST. MDB. ELEC. CONTRACTOR TO TRACE CIRCUIT AND UPDATE CIRCUIT INFO.
			11				12			
			13				14			
EXIST. CKT FROM PP-RTU	2#12+1#12G-3/4"C	20	15				16	20	2#12+1#12G-3/4"C	EXIST. CKT FROM PP-RTU
STANCION RECEPTACLES	2#10+1#10G-1"C	20	17			360	18	20	2#10+1#10G-1"C	STANCION RECEPTACLES
FOR CEILING CASSETTE	2#12+1#12G-3/4"C	20	19	480		180	20	20	2#12+1#12G-3/4"C	FOR CEILING CASSETTE
				480						
BRANCH CONTROLLER	2#12+1#12G-3/4"C	20	21		100		22	20	2#12+1#12G-3/4"C	BRANCH CONTROLLER
			23		100		24			
						100				
BRANCH CONTROLLER	2#12+1#12G-3/4"C	20	25	100			26	20	2#12+1#12G-3/4"C	BRANCH CONTROLLER
			27	100			28			
				100						
BRANCH CONTROLLER	2#12+1#12G-3/4"C	20	29			100	30	20	2#12+1#12G-3/4"C	LTG @ 158A, 159A
			31	100			32	20	2#12+1#12G-3/4"C	HVAC CONTROL PANEL
				100						
SPARE		20	33				34	20		SPARE
SPARE		20	35				36	20		SPARE
SPARE		20	37				38			
SPARE		20	39				40	40	4#6+1#8-1 1/4"C	PANEL "LP1"
SPARE		20	41				42			
CONNECTED LOAD PER PHASE IN VA				1560	400	840			PANEL TYPE: NEMA 1	MOUNTING: SURFACE
TOTAL CONNECTED LOAD IN KVA				2.8					COPPER BUS, EQUIP. GROUND BAR	
TOTAL DEMAND LOAD IN AMPS				7.77					DOOR: INDOOR TYPE	

4

PANEL SCHEDULE

PANEL NAME:	New Panel "LD2"	LOCATION:	Custodial 200C	MOUNTING:	Recessed on Wall
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	225A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#2+1#6G-2"C	FEEDING SOURCE:	
MAIN BREAKER TYPE	MCB	MAIN BREAKER RATING (A):	70A	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	Phase Load in VA AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
CORRIDOR LGTS.	EXISTING TO REMAIN	20	1				2	20	EXISTING TO REMAIN	CORRIDOR LGTS.
CEIL. RM. 203	EXISTING TO REMAIN	20	3				4	20	EXISTING TO REMAIN	CEIL. RM. 203
CEIL. RM. 203	EXISTING TO REMAIN	20	5				6	20	EXISTING TO REMAIN	OVERHEAD AND TOILET LIGHTS
CEILING LIGHTS RM. 210	EXISTING TO REMAIN	20	7				8	20	EXISTING TO REMAIN	CEIL. LGTS 206
CEIL. LGTS 206	EXISTING TO REMAIN	20	9				10	20	EXISTING TO REMAIN	CEIL. LGTS 206
CEIL. RM. 203	EXISTING TO REMAIN	20	11				12	20	EXISTING TO REMAIN	CEIL. RM. 203
CEIL. RM. 203	EXISTING TO REMAIN	20	13				14	20	EXISTING TO REMAIN	CEIL. RM. 202
CEIL. RM. 202	EXISTING TO REMAIN	20	15				16	20	EXISTING TO REMAIN	CEIL. RM. 202
RECP. TO RM 203-203	EXISTING TO REMAIN	20	17				18	20	EXISTING TO REMAIN	RECP. TO RM 203-206
REC. ON DEPT. 210	EXISTING TO REMAIN	20	19				20	20	EXISTING TO REMAIN	REC. IN CORRIDOR
CEIL. LGTS 211	EXISTING TO REMAIN	20	21				22	20	EXISTING TO REMAIN	CEIL. LGTS 211
CEIL. LGTS 211	EXISTING TO REMAIN	20	23				24	20	EXISTING TO REMAIN	CEIL. LGTS FAN ROOM
EXISTING LOAD	EXISTING TO REMAIN	20	25				26	20	EXISTING TO REMAIN	REC. IN FAN RM & 204
ROOM 111 LIGHTING	EXISTING TO REMAIN	20	27				28	20	EXISTING TO REMAIN	EXISTING LOAD
EXISTING LOAD	EXISTING TO REMAIN	20	29				30	20	EXISTING TO REMAIN	COMPUTER RECEP.
			31				32	20	EXISTING TO REMAIN	COMPUTER RECEP.
SPARE		20	33				34	20		SPARE
SPARE		20	35				36	20		SPARE
SPARE		20	37				38	20		SPARE
SPARE		20	39				40	20		SPARE
SPARE		20	41				42	20		SPARE
CONNECTED LOAD PER PHASE IN VA				0	0	0			PANEL TYPE: NEMA 1	MOUNTING: RECESSED
TOTAL CONNECTED LOAD IN KVA				0					COPPER BUS, EQUIP. GROUND BAR	
TOTAL DEMAND LOAD IN AMPS				0.00					DOOR: INDOOR TYPE	

PANEL SCHEDULE

PANEL NAME:	New Panel "UVC"	LOCATION:	Custodial 200C	MOUNTING:	Recessed on Wall
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	100A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#4+1#6G-1 1/2"C	FEEDING SOURCE:	
MAIN BREAKER TYPE	MCB	MAIN BREAKER RATING (A):	40A	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	Phase Load in VA AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
UNIVENTS RM. 212	MATCH EXISTING	20	1				2	20	MATCH EXISTING	UNIVENTS RM. 214-216
UNIVENTS RM. 217	MATCH EXISTING	20	3				4	20	MATCH EXISTING	UNIVENTS RM. 202-203
UNIVENT RM. 206	MATCH EXISTING	20	5				6	20	MATCH EXISTING	UNIVENTS RM. 204
EXISTING LOAD	MATCH EXISTING	20	7				8	20	MATCH EXISTING	EXISTING LOAD
EXISTING LOAD	MATCH EXISTING	20	9				10	20		SPARE
SPARE		20	11				12	20		SPARE
SPARE		20	13				14	20		SPARE
SPARE		20	15				16	20		SPARE
SPARE		20	17				18	20		SPARE
CONNECTED LOAD PER PHASE IN VA				0	0	0			PANEL TYPE: NEMA 1	MOUNTING: RECESSED
TOTAL CONNECTED LOAD IN KVA				0					COPPER BUS, EQUIP. GROUND BAR	
TOTAL DEMAND LOAD IN AMPS				0.00					DOOR: INDOOR TYPE	
									PANEL SHALL BE IN A NEMA-3R ENCLOSURE	

PANEL SCHEDULE

PANEL NAME:	NEW PANEL "LP1"	LOCATION:	Elec. Service 126A	MOUNTING:	Surface
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	100A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#6+1#8G-1 1/4"C	FEEDING SOURCE:	PANEL PP-1
MAIN BREAKER TYPE	MLO	MAIN BREAKER RATING (A):	MLO	BRANCH C.B TYPE	MCB

Load Designation	Wiring	C/B (A)	CT NO	Phase Load in VA AØ	BØ	CØ	CT NO	C/B (A)	Wiring	Load Designation
GYM, LABEL, KITCHEN & NORTH CORRIDORS	EXISTING TO REMAIN	20	1				2	20	EXISTING TO REMAIN	CORR. SOUTH BLDGS
CORR. NEAR ROOM 152	EXISTING TO REMAIN	20	3				4	20	EXISTING TO REMAIN	EXISTING LOAD
CORRIDOR	2#10+1#12G-3/4"C	20	5			400	6	20	2#10+1#12G-3/4"C	CORRIDOR
CORRIDOR	2#10+1#12G-3/4"C	20	7	400		400	8	20	2#10+1#12G-3/4"C	CORRIDOR
CORRIDOR	2#10+1#12G-3/4"C	20	9	400			10	20	2#10+1#12G-3/4"C	CORRIDOR
CORRIDOR	2#10+1#12G-3/4"C	20	11			400	12	20	2#12+1#12G-3/4"C	ELECTRICAL ROOM
EXIT LIGHT	2#10+1#12G-3/4"C	20	13	30			14	20		SPARE
EXIT LIGHT	2#10+1#12G-3/4"C	20	15		30		16	20		SPARE
SPARE		20	17				18	20		SPARE
SPARE		20	19				20	20		SPARE
SPARE		20	21				22	20		SPARE
SPARE		20	23				24	20		SPARE
SPARE		20	25				26	20		SPARE
SPARE		20	27				28	20		SPARE
SPARE		20	29				30	20		SPARE
CONNECTED LOAD PER PHASE IN VA				830	830	1360			PANEL TYPE: NEMA 1	MOUNTING: SURFACE
TOTAL CONNECTED LOAD IN KVA				3.02					COPPER BUS, EQUIP. GROUND BAR	
TOTAL DEMAND LOAD IN AMPS				8.38					DOOR: INDOOR TYPE	

PANEL NOTES:

1. PANEL BOARDS SHALL INCLUDE ALL APPLICALBE UL AND PORODUCT SAFETY LABELS AS REQUIRED BY NEMA PB1 AND UL LISTED STANDARDS.
2. ALL PRODUCTS WHICH ARE NOT VERIFIABLE TO BE UL LISTED WILL NOT BE ACCEPTED.
3. THE ELECTRICAL CONTRACTOR MUST FIELD VERIFY THE EXISTING FEED TO ALL EXISITNG PANELS AND INFORM EATON OR APPROVED EQUAL HOW EACH EXISTING PANEL IS FED (i.e. BOTTOM FED OR TOP FED). PRIOR TO ORDERING THE PANEL. SHOULD AN INCORRECTLY FED BE ORDERED THE ELECTRICAL CONTRACTOR SHALL REPLACE THE PANEL AT NO ADDITIONAL COST

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Checked by SH
Project No. 42052
Scale AS NOTED
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2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901
Structural Engineer:

UNIVENT REPLACEMENT AT FARLEY ELEMENTARY SCHOOL
SED # 50-02-01-06-0-003-011
COUNTY OF ROCKLAND

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www.shilale.com

Drawing Title
ELECTRICAL PANEL SCHEDULES #8

Drawing No.
FES-E-408

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL

WILLOW GROVE ELEMENTARY SCHOOL
153 STORRS ROAD
THIELLS, NY 10984
SED# 50-02-01-06-0-030-016

OWNER:
NORTH ROCKLAND CENTRAL SCHOOL DISTRICT
65 Chapel Street
Garnerville, NY 10923

ARCHITECT:
MICHAEL SHILALE ARCHITECTS, LLP
140 Park Avenue
New City, NY 10956

PME ENGINEER:
GREENMAN-PEDERSON, INC.
400 Rella Boulevard, Suite 207
Montabello, NY 10901

GENERAL NOTES

1. ALL PLAN DIMENSIONS ARE NOMINAL U.O.N. DIMENSIONS TO THE FINISHED FACE OF AN ELEMENT OR WALL WILL BE DESIGNATED WITH AN "f" AS SHOWN.

2. G.C. TO VERIFY ALL DIMENSIONS IN THE FIELD AND IS TO NOTIFY ARCHITECT IF THERE ARE ANY DISCREPANCIES.

UNIT PRICES

UNIT PRICE NO. 200:
PROVIDE A PRICE TO REPLACE 10 LINEAR FEET OF EXISTING HEAT OR CHILLED WATER PIPE. (THIS AMOUNT WILL ADD OR REDUCE ALLOWANCE NO. 200).

ALTERNATES

BASE BID: REUSE EXISTING UV'S SPECIFIED FOR REPLACEMENT AS PER ALT. NO. 200. REMOVE EXISTING COIL, FLIP AND CONNECT HEAT & CHILLER LINES TO PROPER COILS. ALL OTHER EXISTING UV'S TO BE REPLACED WITH NEW.

ALT. NO. 200: REPLACE EXISTING UV'S IN LOCATION SPECIFIED ON DRAWINGS WGES-A-100 AND WGES-A-101. SEE PLANS FOR LOCATIONS. INCLUDE AN ALLOWANCE TO REPLACE EXISTING HEAT SUPPLY & RETURN PIPING AND INSULATION FOR 20 LINEAR FEET PER EACH UNIT VENTILATOR TO BE REPLACED.

ALT. NO. 201: REMOVE AND REPLACE CAFETERIA UNIT, SEE MECHANICAL DWGS.

ALT. NO. 202: REFURBISH EXISTING PLENUM MOUNTED HVAC UNIT AND PROVIDE NEW ACCESS PANELS AND MAINTENANCE PLATFORMS FOR AHU-1 AND AHU-2.

ALT. NO. 203: REMOVE EXISTING GLASS BLOCK AND INSTALL NEW WINDOWS.

4

ALT. NO. 204: CONTRACTOR TO INSTALL ONE SWING SET AND TWO ADD A SWING KITS WITH LOCATION TO BE DETERMINED IN THE FIELD BY OWNER. SWING SET TO BE ADA GAMETIME - POWERSCAPE SWING MODEL # 81598. ADD A BAY TO BE ADA GAMETIME - POWERSCAPE SWING ADD A BAY MODEL # 81599. SWING SET AND ADD A BAYS WILL BE PROVIDED TO THE CONTRACTOR BY THE OWNER.

ALT NO. 205: PROVIDE 1/4" THICK SOLID SURFACE MATERIAL AT ALL UV'S BUILT INTO CASE WORK.

ALT NO. 206: PROVIDE INSTALLATION FOR NEW CANOPY. CANOPY TO BE PROVIDED TO THE CONTRACTOR BY THE OWNER. CANOPY MODEL NUMBER RC201810IN. ATTACHED CUT SHEETS HAVE BEEN PROVIDED FOR THE CONTRACTOR'S REFERENCE. G.C. SHALL INCLUDE NYS P.E. SIGNED AND SEALED DRAWINGS FOR FOOTING DESIGN.

ALLOWANCES

4

ALLOWANCE NO. 200: REPLACE EXISTING HEAT & CHILLED WATER SUPPLY & RETURN PIPING AND INSULATION FOR 40 LINEAR FEET PER EACH UNIT VENTILATOR TO BE REPLACED.

MATERIALS LEGEND

- CONCRETE MASONRY UNIT
- BRICK
- RIGID INSULATION
- CONCRETE
- GRAVEL OR STONE
- EARTH
- EIFS
- ASPHALT PAVING
- SAND/MORTAR/GYPSUM BOARD
- STEEL
- ACT
- ROUGH WOOD
- BRONZE

SYMBOLS LEGEND

- (1) DOOR NUMBER
- <1> KEY NOTE
- <1> PARTITION TYPE
- <1> REVISION NUMBER
- [1] WINDOW TYPE
- (1) MECHANICAL EQUIPMENT
- EXISTING PARTITION
- EXISTING PARTITION TO BE REMOVED
- NEW PARTITION (SEE PARTITION LEGEND A-101)
- NEW DOOR
- EXISTING DOOR
- EXISTING DOOR TO BE REMOVED
- EXISTING WINDOW
- NEW WINDOW
- OFFICE / 100 SF / 101 — ROOM NAME / NUMBER IDENTIFICATION; ROOM NAME; ROOM NUMBER; ROOM AREA
- 1 / A-100 — DRAWING NUMBER; WALL SECTION/ELEVATION REFERENCE; SHEET NUMBER
- 1 / A-100 — DETAIL NUMBER; DETAIL REFERENCE; SHEET NUMBER
- 1 — COLUMN LINE DESIGNATION

LIST OF DRAWINGS

DRAWING No.	DRAWING TITLE	DATE
WGES-A-000	COVER SHEET	11-09-23 (4)
WGES-B-100	CODE ANALYSIS	09-14-23
WGES-S-001	STRUCTURAL GENERAL NOTES	11-09-23 (4)
WGES-S-070	STRUCTURAL ROOF DEMOLITION	09-14-23
WGES-S-101	STRUCTURAL ROOF CONSTRUCTION	09-14-23
WGES-S-102	STRUCTURAL GROUND CONSTRUCTION	11-09-23 (4)
WGES-D-101	MAIN LEVEL DEMO PLAN	09-14-23
WGES-D-102	LOWER LEVEL DEMO PLAN	09-14-23
WGES-D-103	ROOF DEMO PLAN	09-14-23
WGES-D-610	WINDOW DEMO ELEVATIONS	09-14-23
WGES-A-101	MAIN LEVEL FLOOR PLAN	09-14-23
WGES-A-102	LOWER LEVEL FLOOR PLAN	09-14-23
WGES-A-103	ROOF PLAN	09-14-23
WGES-A-401	MAIN LEVEL REFLECTED CEILING PLAN	09-14-23
WGES-A-402	LOWER LEVEL REFLECTED CEILING PLAN	09-14-23
WGES-A-500	ROOF DETAILS	09-14-23
WGES-A-510	WINDOW ELEVATIONS	09-14-23
WGES-A-511	WINDOW DETAILS	09-14-23 (4)
WGES-A-600	UNIT ELEVATIONS	11-09-23 (4)
WGES-A-601	UNIT ELEVATIONS	09-14-23 (4)
WGES-A-610	INTERIOR DETAILS	11-09-23 (4)
WGES-M-001	MECHANICAL GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS	09-14-23 (4)
WGES-M-002	MECHANICAL SCHEDULES - 1	11-09-23
WGES-M-003	MECHANICAL SCHEDULES - 2	11-09-23
WGES-M-004	MECHANICAL SCHEDULES - 3	09-14-23
WGES-M-005	MECHANICAL SCHEDULES - 4	09-14-23
WGES-M-061	MECHANICAL LOWER LEVEL DEMOLITION - 1	09-14-23
WGES-M-062	MECHANICAL LOWER LEVEL DEMOLITION - 2	09-14-23
WGES-M-063	MECHANICAL LOWER LEVEL DEMOLITION - 3	09-14-23
WGES-M-064	MECHANICAL MAIN LEVEL DEMOLITION - 1	09-14-23
WGES-M-065	MECHANICAL MAIN LEVEL DEMOLITION - 2	09-14-23
WGES-M-066	MECHANICAL MAIN LEVEL DEMOLITION - 3	09-14-23
WGES-M-067	MECHANICAL MAIN LEVEL DEMOLITION - 4	09-14-23
WGES-M-068	MECHANICAL MAIN LEVEL DEMOLITION - 5	09-14-23
WGES-M-069	MECHANICAL UPPER LEVEL DEMOLITION	09-14-23
WGES-M-070	MECHANICAL ROOF PLAN DEMOLITION - 1	09-14-23
WGES-M-071	MECHANICAL ROOF PLAN DEMOLITION - 2	09-14-23
WGES-M-101	MECHANICAL LOWER LEVEL INSTALLATION PLAN - 1	09-14-23
WGES-M-102	MECHANICAL LOWER LEVEL INSTALLATION PLAN - 2	09-14-23
WGES-M-103	MECHANICAL LOWER LEVEL INSTALLATION PLAN - 3	09-14-23
WGES-M-104	MECHANICAL MAIN LEVEL INSTALLATION PLAN - 1	09-14-23
WGES-M-105	MECHANICAL MAIN LEVEL INSTALLATION PLAN - 2	09-14-23
WGES-M-106	MECHANICAL MAIN LEVEL INSTALLATION PLAN - 3	09-14-23
WGES-M-107	MECHANICAL MAIN LEVEL INSTALLATION PLAN - 4	09-14-23
WGES-M-108	MECHANICAL MAIN LEVEL INSTALLATION PLAN - 5	09-14-23
WGES-M-109	MECHANICAL UPPER LEVEL INSTALLATION PLAN	09-14-23
WGES-M-110	MECHANICAL ROOF INSTALLATION PLAN - 1	09-14-23
WGES-M-111	MECHANICAL ROOF INSTALLATION PLAN - 2	09-14-23
WGES-M-112	MECHANICAL CRAWLSPACE INSTALLATION PLAN - 1	09-14-23
WGES-M-113	MECHANICAL CRAWLSPACE INSTALLATION PLAN - 2	09-14-23
WGES-M-201	MECHANICAL ENLARGED INSTALLATION PLANS	09-14-23
WGES-M-301	HVAC PIPING DIAGRAM - DEMOLITION	09-14-23
WGES-M-302	HVAC PIPING DIAGRAM - INSTALLATION	09-14-23
WGES-M-303	CHILLER PIPING DIAGRAMS	09-14-23
WGES-M-304	REFRIGERANT PIPING DIAGRAMS	09-14-23
WGES-M-401	CONTROL DIAGRAMS - 1	09-14-23
WGES-M-402	CONTROL DIAGRAMS - 2	09-14-23
WGES-M-403	CONTROL DIAGRAMS - 3	09-14-23
WGES-M-404	CONTROL DIAGRAMS - 4	09-14-23
WGES-M-501	MECHANICAL DETAILS - 1	09-14-23
WGES-M-502	MECHANICAL DETAILS - 2	09-14-23
WGES-M-503	MECHANICAL DETAILS - 3	09-14-23
WGES-E-001	ELECTRICAL NOTES & SCHEDULES	09-14-23
WGES-E-061	ELECTRICAL LOWER LEVEL DEMO PLAN	09-14-23
WGES-E-062	ELECTRICAL MAIN LEVEL DEMO PLAN - 1	09-14-23
WGES-E-063	ELECTRICAL MAIN LEVEL DEMO PLAN - 2	09-14-23
WGES-E-101	ELECTRICAL LOWER LEVEL PLAN	09-14-23
WGES-E-102	ELECTRICAL MAIN LEVEL PLAN - 1	09-14-23
WGES-E-103	ELECTRICAL MAIN LEVEL PLAN - 2	09-14-23
WGES-E-104	ELECTRICAL ROOF PLAN - 1	09-14-23
WGES-E-105	ELECTRICAL ROOF PLAN - 2	11-09-23 (4)
WGES-E-400	ELECTRICAL SCHEDULES & RISERS	11-09-23
WGES-E-500	ELECTRICAL DETAILS - 1	09-14-23
WGES-E-501	ELECTRICAL DETAILS - 2	09-14-23

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	ITR	INDIVIDUAL TREATMENT ROOM
A.F.F.	ABOVE FINISH FLOOR	JT	JOINT
ASPH	ASPHALT	LAM	LAMINATE
BLK	BLOCK	LAV	LAVATORY
BLK'G	BLOCKING	LF	LINEAR FEET
BUR	BUILT UP ROOFING	LP	LOW POINT
CLG	CEILING	MAX	MAXIMUM
CONC	CONCRETE	MFR	MANUFACTURER
CONT	CONTINUOUS	MTL	METAL
C.J.	CONTROL JOINT	MIN	MINIMUM
DN	DOWN	MO	MASONRY OPENING
DIA	DIAMETER	N.I.C.	NOT IN CONTRACT
DWG	DRAWING	NO.	NUMBER
E.F.	EACH FACE	OC	ON CENTER
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	OPN'G	OPENING
E.W.	EACH WAY	PBC	PLUMBING CONTRACTOR
E.W.C.	ELECTRICAL WATER COOLER	PLAS.LAM.	PLASTIC LAMINATE
EL	ELEVATION	PL	PLATE
ELC	ELECTRICAL CONTRACTOR	PLY'D	PLYWOOD
EXIST	EXISTING	RAD	RADIUS
EXP	EXPANSION	REF.CLG.	REFLECTED CEILING
EXT'G	EXISTING	REQ'D	REQUIRED
EXTR	EXTERIOR	RO	ROUGH OPENING
FP	FIREPROOF	SIM	SIMILAR
FIN.	FINISH(ED)	STL	STEEL
GA	GAUGE	SUSP.CLG.	SUSPENDED CEILING
GC	GENERAL CONTRACTOR	T.O.M.	TOP OF MASONRY
GALV	GALVANIZED	T.O.S.	TOP OF STEEL
GL	GLASS	TYP	TYPICAL
GWB	GYPSUM WALL BOARD	U.O.N.	UNLESS OTHERWISE NOTED
HM	HOLLOW METAL	V.I.F.	VERIFY IN FIELD
H.P.	HIGH POINT	VCT	VINYL COMPOSITE TILE
HAC	HEATING & A/C CONTRACTOR	W/	WITH
		WD	WOOD

IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE
0 1/2 1

No.	Date	Revisions
4	11-09-23	ADDENDUM NO. 1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM 1
1	01-18-23	BIDDING DOCUMENTS

REG. EXP DATE: 06-30-24

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT TO ALTER AN ITEM IN ANY WAY.

Drawn by MAL
Checked by MS/JC
Project No. 42054
Scale AS NOTED
Date 07-29-22

GREENMAN PEDERSEN, INC
400 RELLA BOULEVARD
MONTEBELLO, NY 10901

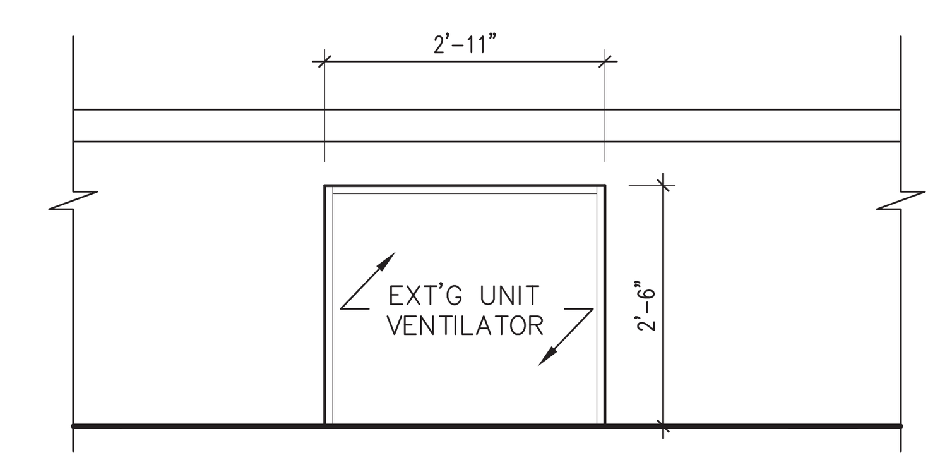
Mechanical & Electrical Engineer:
Structural Engineer:

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
SED# 50-02-01-06-0-030-016
COUNTY OF ROCKLAND
153 STORRS ROAD
THIELLS, NY 10984

MICHAEL SHILALE ARCHITECTS, LLP.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: COVER SHEET

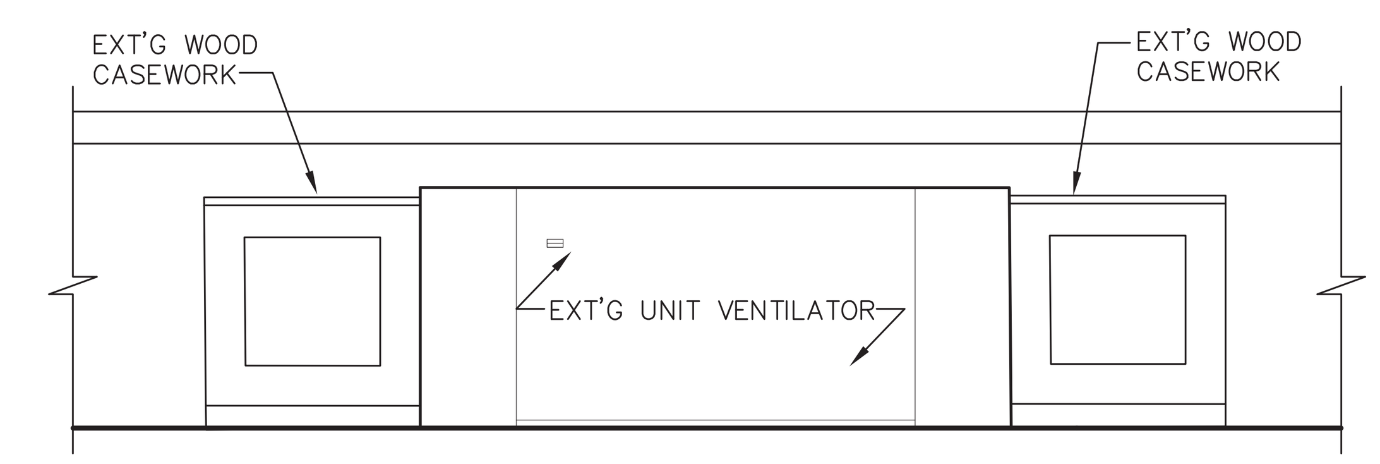
Drawing No. WGES-A-000



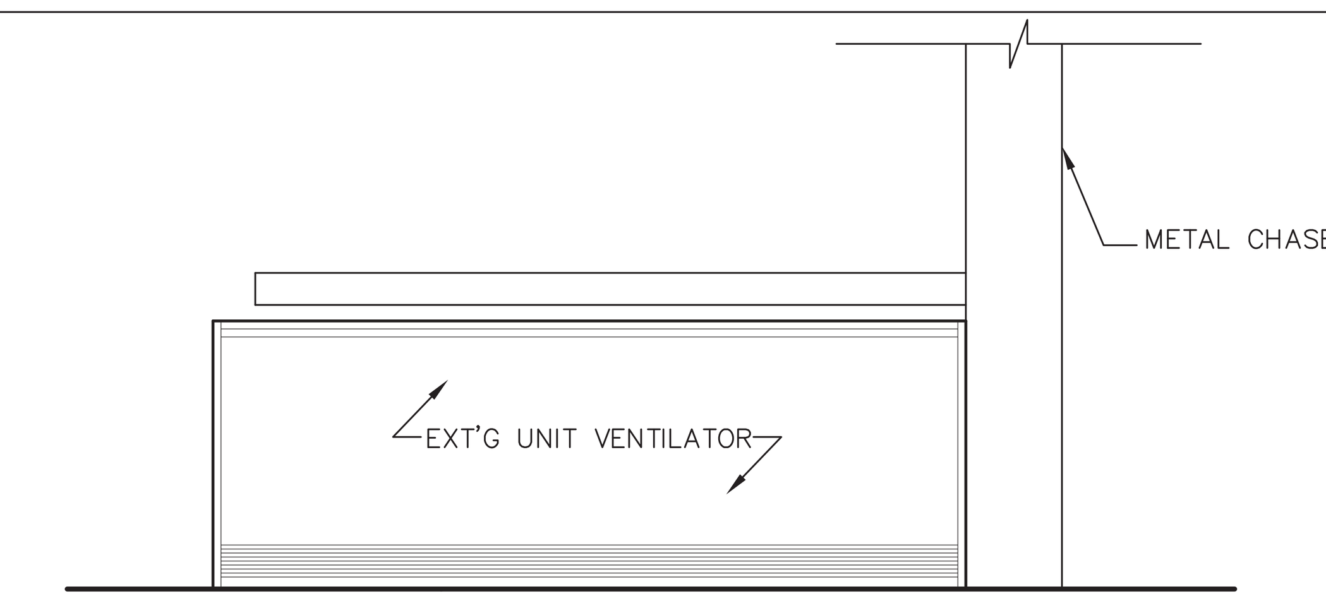
4 EXISTING UNIVENT ELEVATION (TYP.)
SCALE: 1/2" = 1'-0"

1. BASE BID INCLUDES REUSING UV. NO MODIFICATIONS REQUIRED FOR CASEWORK.
2. ALT 200 INCLUDES REPLACEMENT OF EXISTING UV WITH NEW UV. CASEMENT MODIFICATION REQ'D FOR NEW UV'S

4



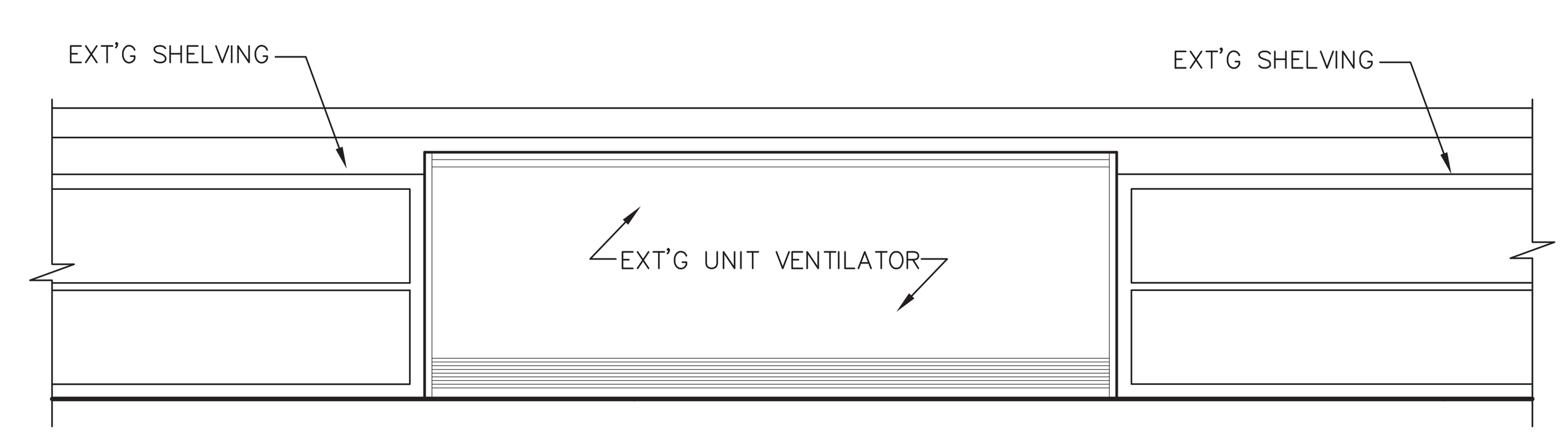
3 EXISTING UNIVENT ELEVATION (W/CASEWORK BOTH SIDES)
SCALE: 1/2" = 1'-0"



2 EXISTING UNIVENT ELEVATION (W/METAL CHASE ONE SIDE)
SCALE: 1/2" = 1'-0"

1. BASE BID INCLUDES REUSING UV. NO MODIFICATIONS REQUIRED FOR CASEWORK.
2. ALT 200 INCLUDES REPLACEMENT OF EXISTING UV WITH NEW UV. CASEMENT MODIFICATION REQ'D FOR NEW UV'S

4



1 EXISTING UNIVENT ELEVATION (W/SHELVING BOTH SIDES)
SCALE: 1/2" = 1'-0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
4	11-07-23	ADDENDUM NO. 1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM 1
1	01-18-23	BIDDING DOCUMENTS

REG. EXP DATE: 06-30-24

Drawn by	SP
Checked by	MS/JC
Project No.	42054
Scale	AS NOTED
Date	08-30-21

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
400 RELLA BOULEVARD
MONTEBELLO, NY 10901

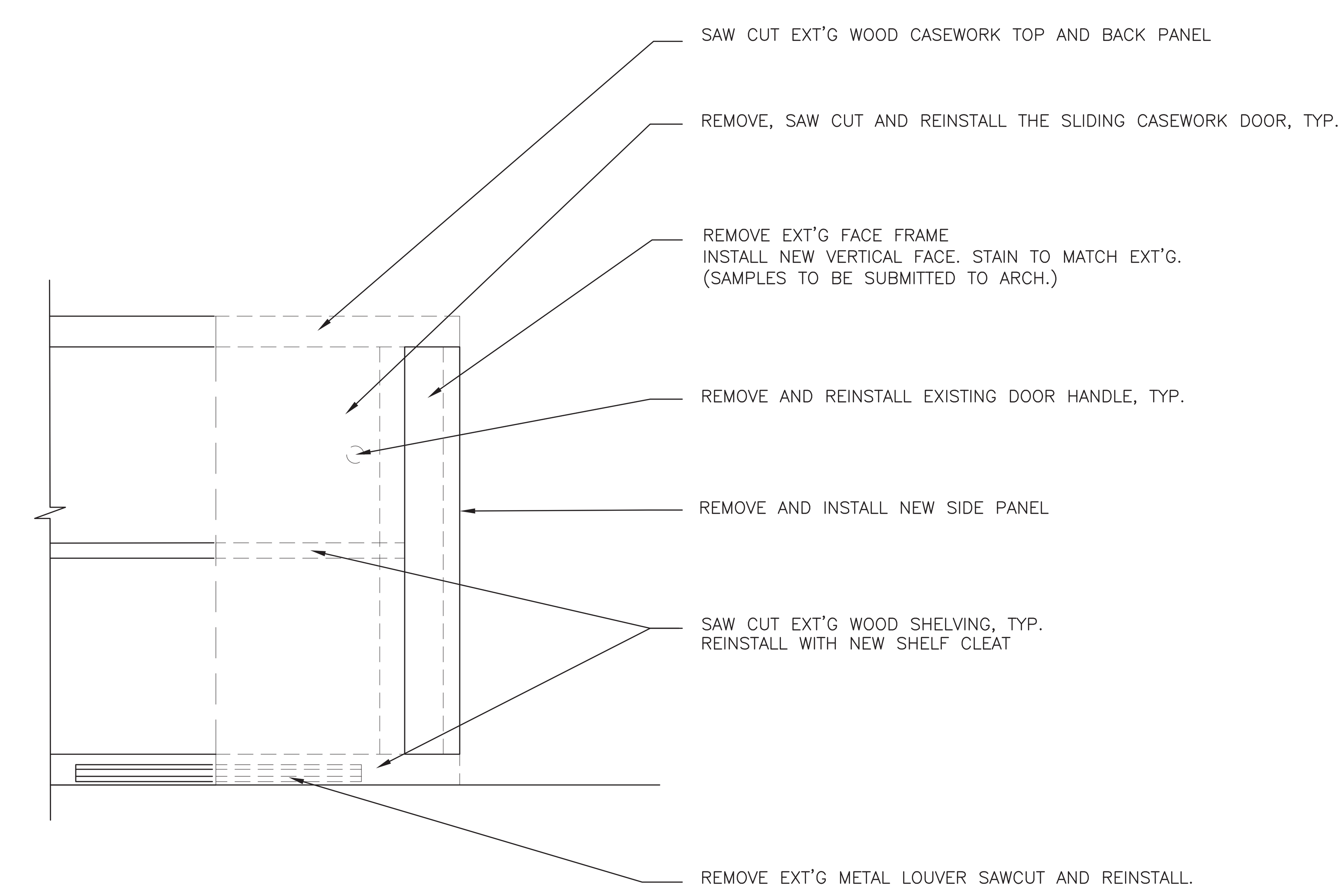
Structural Engineer:

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
SED# 50-02-01-06-0-030-016
153 STORRS ROAD
THIELLS, NY 10984
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

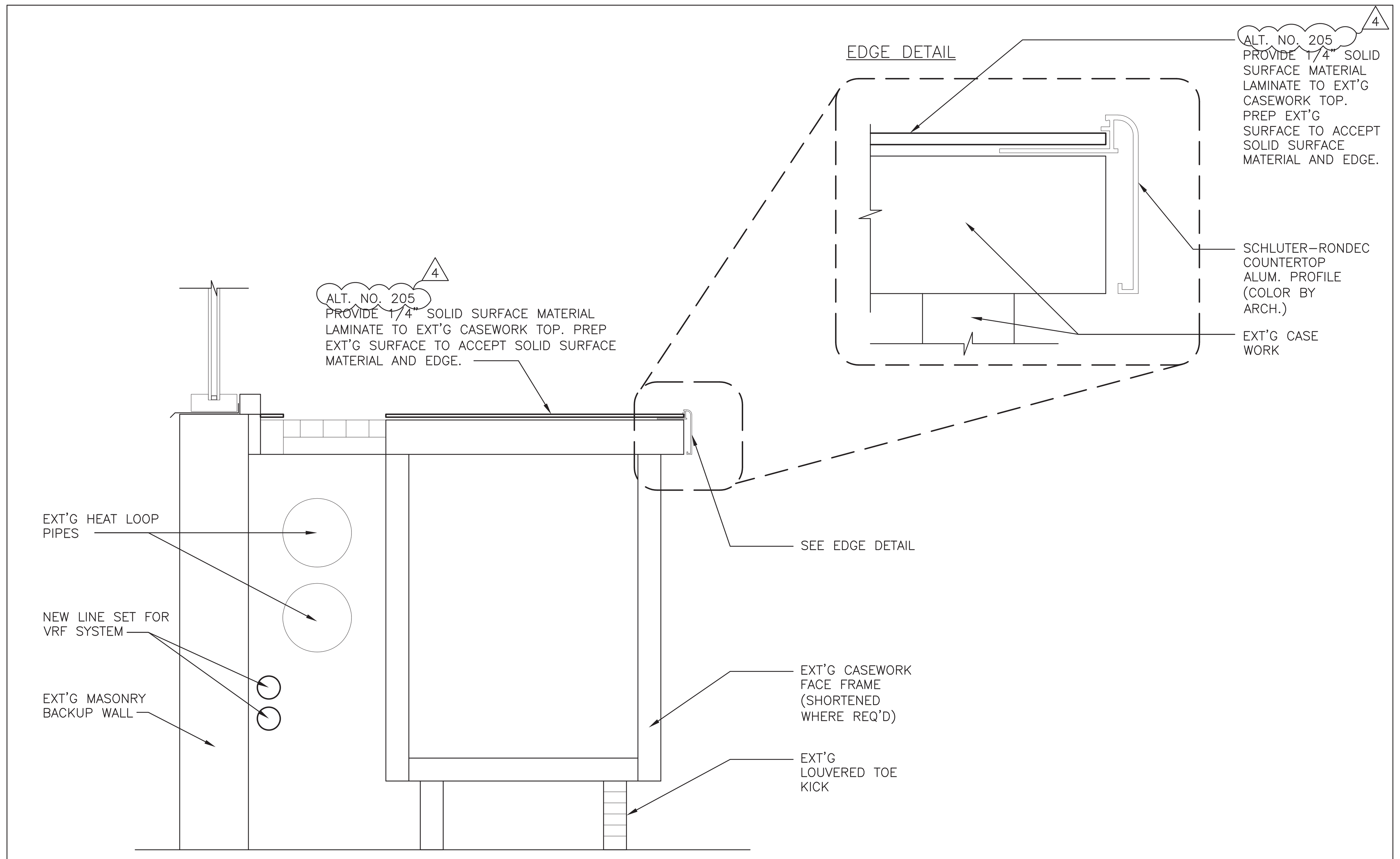
Drawing Title
UV ELEVATIONS

Drawing No.
WGES-A-600



2 EXISTING CASEWORK MODIFICATION DETAIL TYP.

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

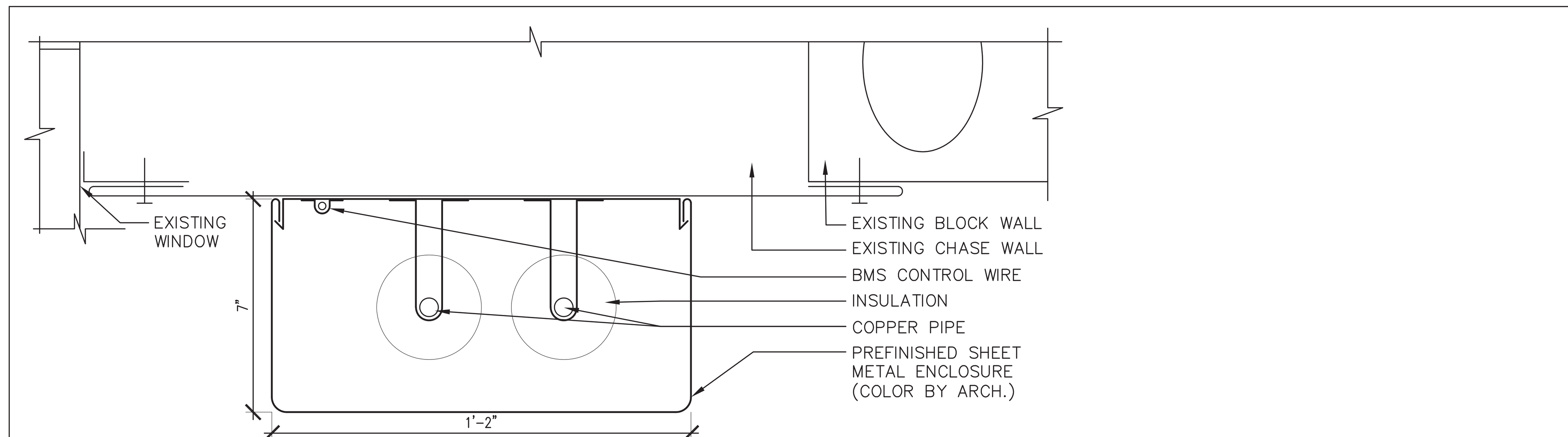


3 EXISTING CASEWORK SECTION

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

CODE	MATERIAL	MANUFACTURER	PRODUCT	CATALOG NO.	FINISH	COLOR	REMARKS
PT1	LATEX FINISH	BENJAMIN MOORE	REGAL AQUA PEARL	310	EGGSHELL	BY ARCH	(1) COAT PT4, (2) COATS PT1
PT4	LATEX PRIMER	BENJAMIN MOORE	LATEX PRIMER	273	FLAT	BY ARCH	
PT5	LATEX FINISH	BENJAMIN MOORE	DTM ACRYLIC	M29	SEMI-GLOSS	BY ARCH	(3) COAT PT6

FINISH MATERIAL SCHEDULE



NOTE: PROVIDE PT1 AT ALL DISTURBED AREAS. COLOR TO MATCH EXISTING. ALL NEW SURFACES TO RECEIVE PT1.

1 LINE SET ENCLOSURE

SCALE: 3" = 1'-0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
4	11-09-23	ADDENDUM NO. 1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM 1
1	01-18-23	BIDDING DOCUMENTS

REG. EXP DATE: 06-30-24

Drawn by JR
Checked by MS/JC
Project No. 42054
Scale AS NOTED
Date 11-30-22

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
400 STELLA BOULEVARD
MONTEBELLO, NY 10901

Structural Engineer:

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
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THIELLS, NY 10984
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MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
INTERIOR DETAILS

Drawing No.
WGES-A-610

WATER PUMP SCHEDULE

UNIT #	SERVICE	LOCATION	TYPE	FLUID	PUMP DATA									MOTOR					SPEED CONTROL	BASE DIMENSIONS (LxW, IN)	OPERATING WEIGHT (LBS)	BASIS OF DESIGN	
					IMPELLER DIA. (IN)	CAPACITY (GPM)	TOTAL HEAD (FT H2O)	DUTY POINT POWER (HP)	NPSHr (FT H2O)	PART LOAD EFF. (PLEVv)	DUTY POINT EFF.	MAX. WWP (PSIG)	WATER TEMP. (°F)	TYPE	ENCLOSURE TYPE	HP	RPM	V/PH/Hz				MANUFACTURER	MODEL #
CHWP-1	CHILLED WATER	OUTDOORS	BASE MOUNTED, END SUCTION	30% PROPYLENE GLYCOL	8.625	320	50	6.13	9.2	70.3	67.5	175	44	NEMA PREMIUM, VFD READY	TEFC	7.5	1800	208/3/60	VARIABLE	34x14	367	BELL & GOSSETT	e-1510 2.5BB
CHWP-2	CHILLED WATER	OUTDOORS	BASE MOUNTED, END SUCTION	30% PROPYLENE GLYCOL	8.625	320	50	6.13	9.2	70.3	67.5	175	44	NEMA PREMIUM, VFD READY	TEFC	7.5	1800	208/3/60	VARIABLE	34x14	367	BELL & GOSSETT	e-1510 2.5BB
CHWP-3	CHILLED WATER	CHILLER ROOM	BASE MOUNTED, END SUCTION	30% PROPYLENE GLYCOL	5.25	320	80	9.12	11.8	70.9	72.4	175	44	NEMA PREMIUM, VFD READY	TEFC	10	1800	208/3/60	VARIABLE	34x14	328	BELL & GOSSETT	e-1510 2.5AC
CHWP-4	CHILLED WATER	CHILLER ROOM	BASE MOUNTED, END SUCTION	30% PROPYLENE GLYCOL	5.25	320	80	9.12	11.8	70.9	72.4	175	44	NEMA PREMIUM, VFD READY	TEFC	10	1800	208/3/60	VARIABLE	34x14	328	BELL & GOSSETT	e-1510 2.5AC

NOTES:
1. PROVIDE OPERATIONS AND MAINTENANCE MANUALS.
2. PROVIDE VARIABLE FREQUENCY DRIVE WITH HOA CONTROL.
3. PROVIDE INTERNALLY SELF-FLUSHING MECHANICAL SEALS.

CONDENSATE DRAIN PIPE SIZING SCHEDULE

SIZE (IN)	MAXIMUM CONNECTED COOLING CAPACITY (TONS)
3/4	20
1	40
1 1/4	90
1 1/2	125
2	250

NOTES:
1. SIZE CONDENSATE DRAIN PIPING PER THIS SCHEDULE WHERE NOT OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.

COOLING COIL SCHEDULE

TAG	SERVICE	REFRIGERANT	TOTAL COOLING CAPACITY (BTU/H)	SENSIBLE COOLING CAPACITY (BTU/H)	SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	PRESS. DROP (IN WC)	EAT (°F DB)	EAT (°F WB)	LAT (°F DB)	LAT (°F WB)	MAX. FACE VELOCITY (FPM)	ROWS	OVERALL DIMENSIONS (WxH)(IN)	BASIS OF DESIGN
CC-3	AHU-3	R-410A	83430	52630	2000	1000	0.5	79.0	67.0	55.0	54.0	550	4	44x29	TRANE CSAA004
CC-4	AHU-4	R-410A	246610	153490	7000	1360	0.5	75.0	65.0	55.0	54.0	550	4	72x41.5	TRANE CSAA014
CC-5	AHU-5	R-410A	246610	153490	7000	1360	0.5	75.0	65.0	55.0	54.0	551	5	72x41.5	TRANE CSAA014
CC-7	AHU-7	R-410A	83430	52630	2000	1000	0.5	79.0	67.0	55.0	54.0	550	4	44x29	TRANE CSAA004
CC-8	AHU-8	R-410A	83430	52630	2000	1000	0.5	79.0	67.0	55.0	54.0	550	4	44x29	TRANE CSAA004

NOTES:
1. THE COILS SHALL BE FACTORY INSTALLED WITHIN A DOUBLE-WALLED, INSULATED HOUSING COMPLETE WITH ACCESS DOORS AND DRAIN PLAN.
2. PROVIDE LINEAR EXPANSION VALVE KITS FOR EACH COIL. THE EXPANSION VALVES SHALL BE A PRODUCT OF THE VRF SYSTEM MANUFACTURER (REFER TO THE SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE).
3. PROVIDE WITH INTEGRAL BASE FRAME.
4. PROVIDE AE-200 CONTROLLER OR APPROVED EQUAL.

AIR COOLED WATER CHILLER SCHEDULE

CHILLER TAG		CH-1 AND CH-2
LOCATION		OUTDOORS
DIMENSIONS	LENGTH x WIDTH x HEIGHT (IN)	251 x 89 x 94
	HEIGHT (IN)	94
	OPERATING WEIGHT (LBS)	10691
REFRIGERATION CAPACITY (EACH CHILLER)(TONS)		116.81
COMPRESSORS (EACH MODULE)	QUANTITY	2
	CAPACITY CONTROL	VARIABLE
	RLA EACH	98
EVAPORATOR (TOTAL)	TEMP. ENT F.	54
	TEMP. LVG F.	44
	GPM	320
	MAX. P.D.-FT.	11.6
	FOULING FACTOR	0.0001
	WORKING FLUID	30% GLYCOL
CONDENSER (EACH MODULE)	AMBIENT AIR TEMP. °F	95
	FANS QUANTITY	10
	FANS FLA EACH	2.5
	FAN TYPE	VARIABLE SPEED
ELECTRICAL	VOLTS/PH/HZ	208/3/60
	MCA (A) CIRCUIT #1	310.72
	MOP (A) CIRCUIT #1	500
	MCA (A) CIRCUIT #2	298.56
	MOP (A) CIRCUIT #2	500
REFRIGERANT DATA	REFRIGERANT	R-513A
	REFRIGERANT CHARGE CKT #1 (LB)	86.6
	REFRIGERANT CHARGE CKT #2 (LB)	84.9
	REFRIGERANT SAFETY CLASS	A1
A-WEIGHTED SOUND POWER (DBA AT 30 FEET FULL LOAD)		100
TOTAL SYSTEM EER, FULL LOAD, AHRI (BTU/W)		9.931
TOTAL SYSTEM EER, IPLV (BTU/W)		16.10

REMARKS:
1. PROVIDE OPERATIONS AND MAINTENANCE MANUALS.
2. PROVIDE MANUFACTURER'S STANDARD FREEZE PROTECTION PACKAGE AND SEPARATE 115V POWER SOURCE.
3. PROVIDE CONVENIENCE OUTLET WITH SEPARATE 115V POWER SOURCE.
4. THE POWER CONNECTIONS FOR EACH CIRCUIT SHALL BE PROVIDED IN TWO SEPARATE ENCLOSURES.
5. REFER TO THE CHILLER ACOUSTIC ACCESSORIES SCHEDULE BELOW FOR SOUND ATTENUATION TO BE PROVIDED UNDER THIS CONTRACT.
6. THE CHILLERS HAVE BE PRE-ORDERED (TRANE RTAF130EUAH) BY THE OWNER. INSTALL THE CHILLERS UNDER THIS CONTRACT.

WATER PIPE SIZING SCHEDULE

SIZE (IN)	MATERIAL	MAXIMUM FLOW (GPM)
3/4	TYPE L COPPER	3.5
1	TYPE L COPPER	7.4
1 1/4	TYPE L COPPER	13.2
1 1/2	TYPE L COPPER	21
2	TYPE L COPPER	44
2 1/2	TYPE L COPPER	79
3	SCHEDULE 40 STEEL	131
4	SCHEDULE 40 STEEL	270
6	SCHEDULE 40 STEEL	360
8	SCHEDULE 40 STEEL	620

NOTES:
1. SIZE HOT AND CHILLED WATER PIPING PER THIS SCHEDULE WHERE NOT OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.

SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE

UNIT #	LOCATION	TOTAL COOLING CAPACITY (MBH)	EER	IEER	REFRIGERANT	CONDENSER	COMPRESSOR	ELECTRICAL					UNIT WEIGHT (LBS)	BASIS OF DESIGN	
						EA DB °F (COOLING/ HEATING)	TYPE	VOLTS	PHASE	Hz	MOCP (A)	MCA (A)		MANUFACTURER	MODEL #
AC-3	GRADE	96000	14.7	30.35	R410A	95/0	SCROLL	208	3	60	45	31	622	TRANE	TUHYE0963AN40AN
AC-4	GRADE	240,000	10.6	20.4	R410A	95/0	SCROLL	208	3	60	100	79	874	TRANE	TUHYE2403AN40AN
AC-5	GRADE	240,000	10.6	20.4	R410A	95/0	SCROLL	208	3	60	100	79	874	TRANE	TUHYE2403AN40AN
AC-7	GRADE	96000	14.7	30.35	R410A	95/0	SCROLL	208	3	60	45	31	622	TRANE	TUHYE0963AN40AN
AC-8	GRADE	96000	14.7	30.35	R410A	95/0	SCROLL	208	3	60	45	31	622	TRANE	TUHYE0963AN40AN

NOTES:
1. PROVIDE DISCONNECT SWITCH.
2. PROVIDE LINEAR EXPANSION VALVE KIT FOR CONNECTION TO THE COOLING COILS (PAC-LV OR EQUAL).
3. PROVIDE AHU CONTROLLER (PAC0AH001-1 OR EQUAL).
4. PROVIDE TWINNING KIT WHERE REQUIRED BY THE MANUFACTURER.
5. PROVIDE FILTER DRIER KIT (PAC-SPRFCS OR EQUAL).

CHILLER ACOUSTIC ACCESSORIES

CHILLER TAG #	COMPRESSOR ACOUSTIC BLANKETS		CHILLER NOISE REDUCTION SYSTEM		
	QUANTITY	BASIS OF DESIGN	BASIS OF DESIGN	DIMENSIONS (LxWxH)(IN)	WEIGHT (LBS)
CH-1	2	BRD HUSH COVER	HUSHCORE UNITARY SM-SB	242x98	300
CH-2	2	BRD HUSH COVER	NOT APPLICABLE		

NOTES:
1. THE CHILLERS HAVE BEEN PRE-ORDERED WITHOUT THE ACOUSTIC ACCESSORIES SPECIFIED IN THIS SCHEDULE. COORDINATE WITH THE CHILLER MANUFACTURER AND PROVIDE THE ITEMS LISTED IN THIS SCHEDULE UNDER THIS CONTRACT.
2. PAINT EXPOSED METAL TO MATCH THE CHILLER FINISH.

GLYCOL MAKEUP UNIT

UNIT #	LOCATION	FLOW RATE (GPM)	MAX. PRESS. (PSIG)	TANK SIZE (GAL)	ELECTRICAL					OVERALL DIMENSIONS (LxWxH, IN)	UNIT WEIGHT (LBS)	BASIS OF DESIGN	
					VOLTS	PHASE	Hz	MOP (A)	MCA (A)			MANUFACTURER	MODEL #
MU-1	CHILLER RM	1.4	85	100	115	1	60	15	0.9	33x33x60	900	AXIOM INDUSTRIES	SF-100-PRV-HP-L

NOTES:
1. PROVIDE A PACKAGED MAKE-UP UNIT WHICH SHALL BE CAPABLE OF MAINTAINING THE SYSTEM FILL PRESSURE AT 30 PSIG. PROVIDE A POLYETHYLENE TANK WITH REMOVABLE LID, STRAINER, ISOLATION VALVES, PUMP, CHECK/BALANCING VALVE, EXPANSION TANK, DISCHARGE PRESSURE GAUGE, STEEL PIPING, LOW LEVEL CUT-OUT, AND CONTROL/ALARM PANEL WITH INDICATOR LIGHTS IN A NEMA 4 ENCLOSURE.
2. PROVIDE WITH DUAL PRVS AND CONTROLS CAPABLE OF SUPPLYING TWO SEPARATE SYSTEMS.

CHEMICAL SHOT FEEDER SCHEDULE

UNIT #	SERVICE	LOCATION	TYPE	SIZE (GAL)	MAX. PRESS. (PSIG)	WEIGHT (LBS)	BASIS OF DESIGN	
							MANUFACTURER	MODEL #
CF-1	CHW	OUTDOORS	VERTICAL BY-PASS	5	300	38	NEPTUNE	DBF-5HP
CF-2	CHW	CHILLER RM	VERTICAL BY-PASS	5	300	38	NEPTUNE	DBF-5HP

EXPANSION TANK SCHEDULE

UNIT #	LOCATION	SYSTEM	APPROX. SYSTEM VOLUME (GAL)	SYSTEM TEMP. RANGE		INITIAL TANK PRESS (PSIG)	MIN. VOLUME (GAL)	MIN. ACCEPT-ANCE VOLUME (GAL)	PIPE SIZE TO TANK (IN)	UNIT WEIGHT WHEN FULL (LBS)	BASIS OF DESIGN	
				MIN. (°F)	MAX (°F)						MANUFACTURER	MODEL #
ET-1	OUTDOORS	CHW	2000	40	100	12	50	25	1	700	BELL & GOSSETT	200-L
ET-2	CHILLER RM	CHW	2000	40	100	12	50	25	1	700	BELL & GOSSETT	200-L

NOTES:
1. PROVIDE VERTICAL ASME BLADDER EXPANSION TANK.

VAV BOX SCHEDULE

TAG	SERVICE	INLET SIZE	CFM		MAX NC LEVEL	DESIGN BASIS	REMARKS
			MAX	MIN		TRANE	
V-01	CLASSROOM	12	1520	460	20	VCCF	SEE NOTES
V-02	CLASSROOM	10	1220	365	20	VCCF	SEE NOTES
V-03	CLASSROOM	10	1220	365	20	VCCF	SEE NOTES
V-04	CLASSROOM	10	1220	365	20	VCCF	SEE NOTES
V-05	CLASSROOM	10	1200	360	20	VCCF	SEE NOTES
V-06	CLASSROOM	10	1200	360	20	VCCF	SEE NOTES
V-07	CLASSROOM	10	1200	360	20	VCCF	SEE NOTES
V-08	CLASSROOM	10	1040	315	20	VCCF	SEE NOTES
V-09	CLASSROOM	10	1200	360	20	VCCF	SEE NOTES
V-10	CLASSROOM	10	1340	400	20	VCCF	SEE NOTES
V-11	CLASSROOM	14	2000	600	20	VCCF	SEE NOTES
V-12	CLASSROOM	10	950	285	20	VCCF	SEE NOTES
V-13	CLASSROOM	10	950	285	20	VCCF	SEE NOTES
V-14	CLASSROOM	12	1500	450	20	VCCF	SEE NOTES
V-15	CLASSROOM	10	1140	340	20	VCCF	SEE NOTES
V-16	CLASSROOM	8	400	120	20	VCCF	SEE NOTES
V-21	KITCHEN	14	1990	600	20	VCCF	SEE NOTES
V-21D	FAC ROOM	10	1230	365	20	VCCF	SEE NOTES

NOTES:
1. PROVIDE CONTROLS CABINET WITH CONTROL TRANSFORMER AND 120V TO CONTROL VOLTAGE.
2. PROVIDE REMOVABLE FLOW SENSOR.
3. PROVIDE HANGER BRACKET SUPPORTS, SIDE ACCESS DOOR, FIBER-FREE LINER.

AIR SEPARATOR SCHEDULE

UNIT #	SERVICE	LOCATION	TYPE	AIR SEPARATOR			OPERATING WEIGHT (LBS)	BASIS OF DESIGN	
				SIZE (IN)	FLOW (GPM)	PRESS. DROP (FT H20)		MANUFACTURER	MODEL #
AS-1	CHW	BASEMENT	COALESCING AIR & DIRT	6	320	0.81	366	BELL & GOSSETT	CRSN-6F
AS-2	CHW	BASEMENT	COALESCING AIR & DIRT	6	320	0.81	366	BELL & GOSSETT	CRSN-6F

WATER FILTER SCHEDULE

UNIT #	SERVICE	LOCATION	TYPE	SIZE (IN)	FLOW (GPM)	FILTER MEDIA (MICRON)	BASIS OF DESIGN	
							MANUFACTURER	MODEL #
WF-1	CHW	OUTDOORS	SIDE STREAM	1	10	5	AXIOM INDUSTRIES	SFP-10
WF-2	CHW	CHILLER RM	SIDE STREAM	1	10	5	AXIOM INDUSTRIES	SFP-10

WATER FILTER SCHEDULE NOTES:
1. PROVIDE WITH 304SS FILTER HOUSING WITH BRASS HEAD, SIGHT GLASS, BALL VALVES, BALANCING VALVE, BRASS DRAIN VALVE, AND BRASS NIPPLES. FILTER MEDIA SHALL BE COTTON WOUND WITH TIN CORE (25 MICRON).
2. REPLACE THE FILTER MEDIA WITH A NEW 25 MICRON CARTRIDGE AFTER SYSTEM START-UP AND BALANCING. PROVIDE ATTIC STOCK OF TWO 25 MICRON AND TWO 5 MICRON FILTERS.

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

Drawn by MEP | Checked by PV | Project No. 42054 | Scale NTS | Date 09-14-23

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Structural Engineer:

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
SED# 50-02-01-06-0-030-016
COUNTY OF ROCKLAND
181 STORMS RD
THIELLS, NY 10984

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
MECHANICAL SCHEDULES - 1

Drawing No.
WGES-M-002

UNIT VENTILATOR SCHEDULE

UNIT TAG	LOCATION	CONFIGUR-ATION	TOTAL SUPPLY AIRFLOW (CFM)	MINIMUM OUTSIDE AIRFLOW: COOLING	MINIMUM OUTSIDE AIRFLOW: HEATING	MAXIMUM OUTSIDE AIRFLOW (CFM)	COOLING: EADB (°F)	COOLING: EAWB (°F)	COOLING: LADB (°F)	COOLING: LAWB (°F)	COOLING: EWT	COOLING: LWT	COOLING: WATER FLOW (GPM)	COOLING: WATER PRESS-URE DROP FT H2O	COOLING: MIN TOTAL CAPACITY (BTU/H)	HEATING: EADB (°F)	HEATING: LADB (°F)	HEATING: EWT	HEATING: LWT	HEATING: WATER FLOW (GPM)	HEATING: WATER PRESS-URE DROP FT H2O	HEATING: REQUIRED TOTAL CAPACITY (BTU/H)	FILTER: MERV	ELECTRICAL: MCA	ELECTRICAL: MAX FUSE SIZE	ELECTRICAL: V/PH/HZ	UNIT WEIGHT LBS	UNIT DIMENSIONS (LxH, IN) (V.I.F.)	UNIT DEPTH (IN)	BASIS OF DESIGN	BASE BID: REPLACE THE COILS FOR THE EXISTING UNIT VENTILATOR IN NORTH WING AS INDICATED BELOW, EXISTING UNIT VENTILATOR TO REMAIN. ALL OTHER UNIT VENTILATORS TO BE REPLACED. HANDING OF EX. COIL	HANDING OF NEW COIL	EX. UNIT VENTILATOR MODEL NUMBER (TRANE)	ALTERNATE NO. 200 REPLACE UNIT VENTILATORS IN NORTH WING
UV-101	RM 101	VERTICAL	1250	390	390	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	52.3	90	180	160	5.08	4.0	50,800	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-102	RM 102	VERTICAL	1250	390	390	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	52.3	90	180	160	5.08	4.0	50,800	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-103	RM 103	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-104	RM 104	HORIZONTAL	1500	460	460	1500	80.6	69.3	55	54	44	54	8.92	7.0	44,600	52.7	90	180	160	6.05	4.0	60,500	13	12	15	115/1/60	500	106.25x39	21.25	TRANE HUVC150	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-105	RM 105	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-106	RM 106	VERTICAL	1250	400	400	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	51.8	90	180	160	5.15	4.0	51,500	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-107	RM 107	HORIZONTAL	1500	450	450	1500	80.6	69.2	55	54	44	54	8.92	7.0	44,600	53.1	90	180	160	5.98	4.0	59,800	13	12	15	115/1/60	500	106.25x39	21.25	TRANE HUVC150	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-108	RM 108	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-109	RM 109	VERTICAL	1250	405	405	1500	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-110	RM 110	HORIZONTAL	1500	415	415	1250	80.4	69.1	55	54	44	54	8.92	7.0	44,600	54.6	90	180	160	5.74	4.0	57,400	13	12	15	115/1/60	500	106.25x39	21.25	TRANE HUVC150	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-111	RM 111	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-112	RM 112	VERTICAL	1250	390	390	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	52.3	90	180	160	5.08	4.0	50,800	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-113	RM 113	VERTICAL	1250	390	390	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	52.3	90	180	160	5.08	4.0	50,800	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-114A	RM 114	VERTICAL	1250	365	365	1250	80.5	69.2	55	54	44	54	7.42	7.0	37,100	53.6	90	180	160	4.91	4.0	49,100	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-114B	RM 115	VERTICAL	1250	365	365	1250	80.5	69.2	55	54	44	54	7.42	7.0	37,100	53.6	90	180	160	4.91	4.0	49,100	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-117A	RM 117	HORIZONTAL	1250	280	280	1250	79.9	68.9	55	54	44	54	7.42	7.0	37,100	57.9	90	180	160	4.34	4.0	43,400	13	12	15	115/1/60	435	94.25x38	21.25	TRANE HUVC125	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-117B	RM 117	HORIZONTAL	1250	280	280	1250	79.9	68.9	55	54	44	54	7.42	7.0	37,100	57.9	90	180	160	4.34	4.0	43,400	13	12	15	115/1/60	435	94.25x38	21.25	TRANE HUVC125	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-118	RM 118	HORIZONTAL	750	90	90	750	79.0	68.5	55	54	44	54	4.46	7.0	22,300	64.4	90	180	160	2.07	4.0	20,700	13	12	15	115/1/60	340	70.25x36	21.25	TRANE HUVC075	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-119	RM 119	HORIZONTAL	750	195	195	750	80.2	69.1	55	54	44	54	4.46	7.0	22,300	55.6	90	180	160	2.78	4.0	27,800	13	12	15	115/1/60	340	70.25x36	21.25	TRANE HUVC075	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-LL19	RM LL19	VERTICAL	1500	450	450	1250	80.6	69.2	55	54	44	54	8.92	7.0	44,600	53.1	90	180	160	5.98	4.0	59,800	13	8.75	15	115/1/60	470	105x30	21.25	TRANE VUVE150	REPLACE UNIT VENTILATOR			NOT APPLICABLE
UV-LL21A	RM LL21	VERTICAL	1500	325	325	1500	79.8	68.9	55	54	44	54	8.92	7.0	44,600	58.4	90	180	160	5.13	4.0	51,300	13	8.75	15	115/1/60	470	105x30	21.25	TRANE VUVE150	REPLACE UNIT VENTILATOR			NOT APPLICABLE
UV-LL21B	RM LL21	VERTICAL	1500	325	325	1500	79.8	68.9	55	54	44	54	8.92	7.0	44,600	58.4	90	180	160	5.13	5.0	51,300	14	8.75	15	115/1/60	470	105x30	21.25	TRANE VUVE150	REPLACE UNIT VENTILATOR			NOT APPLICABLE
UV-200	RM 200	VERTICAL	750	75	75	750	78.9	68.4	55	54	44	54	4.46	7.0	22,300	65.7	90	180	160	1.97	6.0	19,700	15	4.38	15	115/1/60	320	69x30	21.25	TRANE VUVE075	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-201	RM 201	VERTICAL	1250	390	390	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	52.3	90	180	160	5.08	4.0	50,800	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-202	RM 202	VERTICAL	1250	390	390	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	52.3	90	180	160	5.08	4.0	50,800	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-203	RM 203	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-204	RM 204	HORIZONTAL	1500	460	460	1500	80.6	69.3	55	54	44	54	8.92	7.0	44,600	52.7	90	180	160	6.05	4.0	60,500	13	12	15	115/1/60	500	106.25x39	21.25	TRANE HUVC150	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-205	RM 205	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-206	RM 206	VERTICAL	1250	400	400	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	51.8	90	180	160	5.15	4.0	51,500	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-207	RM 207	HORIZONTAL	1500	450	450	1500	80.6	69.2	55	54	44	54	8.92	7.0	44,600	53.1	90	180	160	5.98	4.0	59,800	13	12	15	115/1/60	500	106.25x39	21.25	TRANE HUVC150	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-208	RM 208	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-209	RM 209	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-210	RM 210	HORIZONTAL	1500	450	450	1500	80.6	69.2	55	54	44	54	8.92	7.0	44,600	53.1	90	180	160	5.98	4.0	59,800	13	12	15	115/1/60	500	106.25x39	21.25	TRANE HUVC150	VIF	VIF	HUV_150	REPLACE UNIT VENTILATOR
UV-211	RM 211	VERTICAL	1250	405	405	1250	80.8	69.3	55	54	44	54	7.42	7.0	37,100	51.6	90	180	160	5.19	4.0	51,900	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-212	RM 212	VERTICAL	1250	390	390	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	52.3	90	180	160	5.08	4.0	50,800	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-213	RM 213	VERTICAL	1250	390	390	1250	80.7	69.3	55	54	44	54	7.42	7.0	37,100	52.3	90	180	160	5.08	4.0	50,800	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-213A	RM 213A	VERTICAL	750	105	105	750	79.2	68.6	55	54	44	54	4.46	7.0	22,300	63.2	90	180	160	2.17	4.0	21,700	13	4.38	15	115/1/60	320	69x30	21.25	TRANE VUVE075	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-214A	RM 214	VERTICAL	1250	325	325	1250	80.2	69.1	55	54	44	54	7.42	7.0	37,100	55.6	90	180	160	4.64	4.0	46,400	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-214B	RM 214	VERTICAL	1250	280	280	1250	79.9	68.9	55	54	44	54	7.42	7.0	37,100	57.9	90	180	160	4.34	4.0	43,400	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-217A	RM 217	VERTICAL	1250	240	240	1250	79.6	68.8	55	54	44	54	7.42	7.0	37,100	59.9	90	180	160	4.06	4.0	40,600	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-217B	RM 217	VERTICAL	1250	240	240	1250	79.6	68.8	55	54	44	54	7.42	7.0	37,100	59.9	90	180	160	4.06	4.0	40,600	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-218	RM 218	VERTICAL	750	90	90	750	79.0	68.5	55	54	44	54	4.46	7.0	22,300	64.4	90	180	160	2.07	4.0	20,700	13	4.38	15	115/1/60	320	69x30	21.25	TRANE VUVE075	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-219	RM-219	VERTICAL	750	150	150	750	79.7	68.8	55	54	44	54	4.46	7.0	22,300	59.4	90	180	160	2.48	4.0	24,800	13	4.38	15	115/1/60	320	69x30	21.25	TRANE VUVE075	RH COOLING/LH HEATING	LH COOLING/RH HEATING	VUVB12510G0DAD0000011CG100001510	REPLACE UNIT VENTILATOR
UV-17A	RM 17	VERTICAL	1250	270	270	1250	79.8	68.9	55	54	44	54	7.42	7.0	37,100	58.4	90	180	160	4.27	4.0	42,700	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	REPLACE UNIT VENTILATOR			NOT APPLICABLE
UV-17B	RM 17	VERTICAL	1250	270	270	1250	79.8	68.9	55	54	44	54	7.42	7.0	37,100	58.4	90	180	160	4.27	4.0	42,700	13	8.75	15	115/1/60	450	93x30	21.25	TRANE VUVE125	REPLACE UNIT VENTILATOR			NOT APPLICABLE
UV-18A	RM 18	VERTICAL	1000	180	180	1000	79.5	68.7	55	54	44	54	5.94	7.0	29,700	60.7	90	180	160	3.17	4.0	31,700	13	4.38	15	115/1/60	405	81x30	21.25	TRANE VUVE100	REPLACE UNIT VENTILATOR			NOT APPLICABLE
UV-18B	RM 18	VERTICAL	1000	180	180	1000	79.5	68.7	55	54	44	54	5.94	7.0	29,700	60.7	90	180	160	3.17	4.0	31,700	13	4.38	15	115/1/60	405	81x30	21.25	TRANE VUVE100	REPLACE UNIT VENTILATOR			NOT APPLICABLE
UV-23	RM 23	VERTICAL	1500	300	300	1250	79.7	68.8	55	54	44	54	8.92	7.0	44,600	59.4	90	180	160	4.96	4.0	49,600	13	8.75	15	115/1/60	470	105x30	21.25	TRANE VUVE150	REPLACE UNIT VENTILATOR			NOT APPLICABLE
UV-24	RM 24	VERTICAL	1500	165	165	1250	78.9	68.5	55	54	44	54	8.92	7.0	44,600	65.1	90	180	160	4.04	4.0	40,400	13	8.75	15	115/1/60	470	105x30	21.25	TRANE VUVE150	REPLACE UNIT VENTILATOR			NOT APPLICABLE

NOTES:
1. PROVIDE 4-PIPE COIL. VERFIY COIL HANDING IN FIELD FOR EACH UNIT PRIOR TO FABRICATION. INCLUDE COIL HANDING IN THE UNIT VENTILATOR SUBMITTAL.
2. PROVIDE ECM FAN MOTOR AND SZVAV CONTROL.
3. PROVIDE A 3-WAY MODULATING CONTROL VALVE FOR HOT WATER AND A 2-WAY MODULATING CONTROL VALVE FOR CHILLED WATER FOR ALL UNIT VENTILATORS, EXISTING AND NEW.
4. PROVIDE LOW-LEAKGE OUTSIDE AIR DAMPER.
5. PROVIDE ECONOMIZER WITH FAULT DETECTION DIAGNOSIS.
6. UNIT VENTILATORS SHALL BE SELECTED TO MATCH THE FOOTPRINT OF THE EXISTING UNIT VENTILATOR WHEREVER POSSIBLE. VERFIY IN FIELD THE PHYSICAL DIMENSIONS OF ALL EXISTING UNIT VENTILATORS AND SUBMIT FOR APPROVAL PRIOR TO FABRICATION.
7. INCLUDE THE REPLACEMENT OF THE COILS IN THE EXISTING UNIT VENTILATORS AS SCHEDULED ABOVE IN THE BASE BID. PROVIDE AN ALTERNATE PRICE FOR THE REPLACEMENT OF THE UNIT VENTILATOR AS INDICATED IN THE SCHEDULE.
8. PROVIDE WITH SIEMENS CONTROLS.
9. PROVIDE WITH AN INTERNAL DISCONNECT SWITCH.

AIR HANDLING UNIT SCHEDULE

UNIT #	LOCATION / AREA SERVED	SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	OA DCV MIN (CFM)	SUPPLY FAN: EXTERNAL STATIC PRESSURE (IN WC)	SUPPLY FAN: MOTOR HP	SUPPLY FAN: SPEED CONTROL	SUPPLY FAN: DRIVE TYPE	SUPPLY FAN: HOUSING TYPE	HOT WATER PREHEAT COIL: FACE VELOCITY (FPM)	HOT WATER PREHEAT COIL: PRESSURE DROP (IN WC)	HOT WATER PREHEAT COIL: MINIMUM CAPACITY (BTU/H)	HOT WATER PREHEAT COIL: WATER FLOW RATE (GPM)	HOT WATER PREHEAT COIL: WATER PRESS DROP (FT)	HOT WATER PREHEAT COIL: EWT (°F)	HOT WATER PREHEAT COIL: LWT (°F)	HOT WATER PREHEAT COIL: EAT DB (°F)	HOT WATER PREHEAT COIL: LAT DB (°F)	CHILLED WATER COOLING COIL: FACE VELOCITY (FPM)	CHILLED WATER COOLING COIL: PRESSURE DROP (IN WC)	CHILLED WATER COOLING COIL: MINIMUM CAPACITY (BTU/H)	CHILLED WATER COOLING COIL: WATER FLOW RATE (GPM)	CHILLED WATER COOLING COIL: WATER PRESS DROP (FT)	CHILLED WATER COOLING COIL: EWT (°F)	CHILLED WATER COOLING COIL: LWT (°F)	CHILLED WATER COOLING COIL: EAT DB (°F)	CHILLED WATER COOLING COIL: EAT WB (°F)	CHILLED WATER COOLING COIL: LAT DB (°F)	CHILLED WATER COOLING COIL: LAT WB (°F)	FILTER: MERV	FILTER: TYPE	FILTER: PRESSURE DROP, CLEAN (IN WC)	FILTER: PRESSURE DROP, MID-LIFE (IN WC)	FILTER: PRESSURE DROP, DIRTY (IN WC)	ELECTRICAL: MCA	ELECTRICAL: MAX FUSE SIZE	ELECTRICAL: VOLT/PH/HZ	UNIT WEIGHT (LBS)	BASIS OF DESIGN
AHU-20	CAFETERIA	11,000	2,990	180	2.0	2X10	VARIABLE	DIRECT	PLENUM	500	1.0	376,600	37.7	5	180	160	58.3	90	500	1.0	363,000	72.6	10	54	44	76	65	55	55	13	12" CARTRIDGE	0.14	0.57	1.00	31.5	45	208/3/60	3500	TRANE CSAA, SIZE 25

ALT. NO. 201

AIR HANDLING UNIT SCHEDULE NOTES:
1. PROVIDE A VARIABLE FREQUENCY DRIVE FOR SUPPLY FAN CONTROL, DISCONNECT SWITCH, AND CONTROLS.
2. PROVIDE BASE RAIL AND MOUNTING HARDWARE AS REQUIRED FOR MOUNTING ON VIBRATION ISOLATORS.
3. EACH SECTION SHALL BE PROVIDED WITH AN ACCESS DOOR. VERIFY ACCESS DOOR LOCATIONS AND CONFIGURATIONS IN FIELD AND SUBMIT FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
4. AHUS SHALL BE CUSTOM FABRICATED AND SHIPPED KNOCKED DOWN TO FIT THROUGH EXISTING BUILDING OPENINGS (36" WIDE x 80" HIGH EXISTING DOORWAYS TO BE VIF).
5. PROVIDE WITH THE FOLLOWING SECTIONS AT A MINIMUM: MIXING SECTION, FILTER SECTION, PREHEAT COIL, ACCESS SECTION, COOLING COIL, ACCESS SECTION, FAN SECTION.
6. PROVIDE SCHEDULED OCCUPANCY DEMAND CONTROLLED VENTILATION.
7. REPLACE AHU-20 PER THE SCHEDULE UNDER ALTERNATE NO. 201. RETROFIT CONTROLS AND PIPING TO THE COILS UNDER THE BASE BID.

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

Drawn by MEP
Checked by PV
Project No. 42054
Scale NTS
Date 09-14-23

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

Structural Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

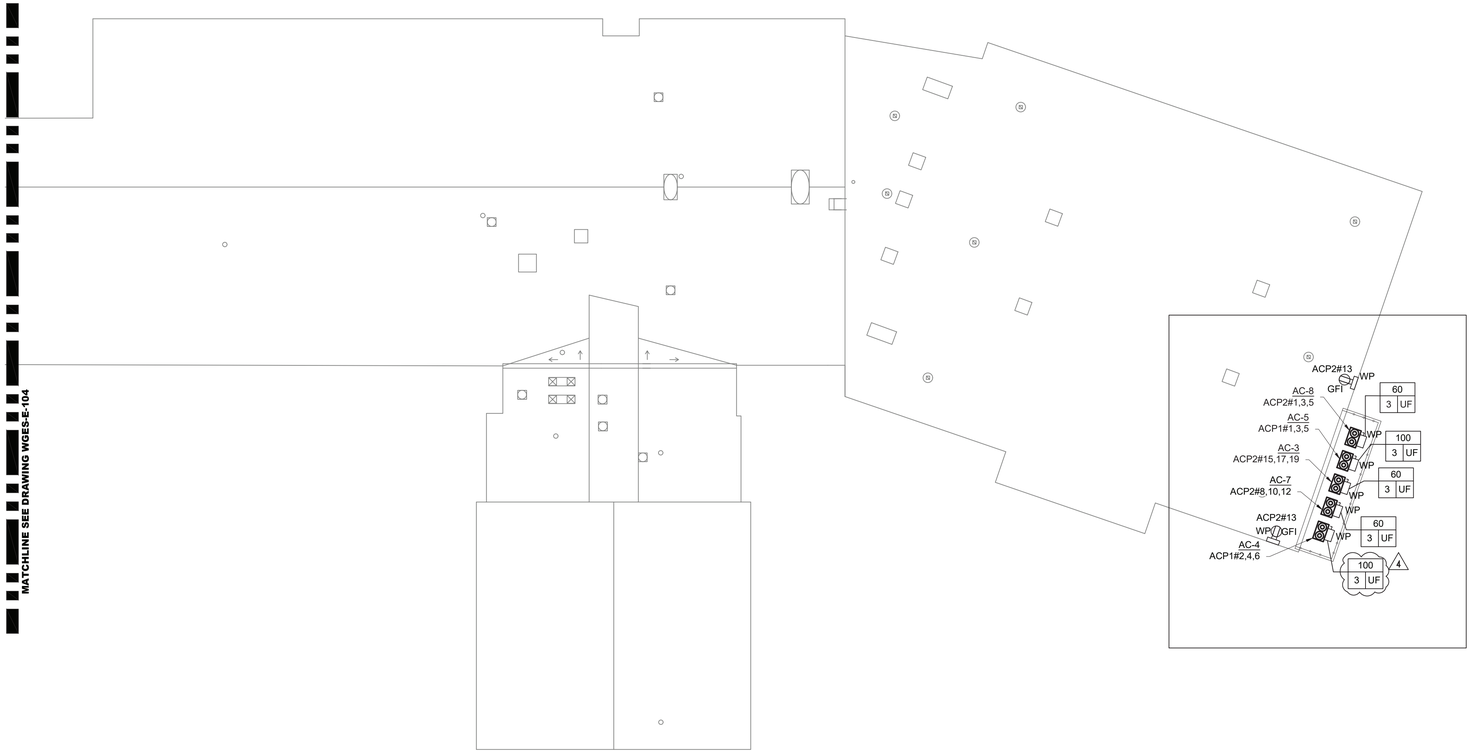
UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
SED# 50-02-01-06-0-030-016
153 STORRS RD
THIELLS, NY 10984
COUNTY OF ROCKLAND

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
MECHANICAL SCHEDULES - 2

Drawing No.
WGES-M-003

MATCHLINE SEE DRAWING WGES-E-104

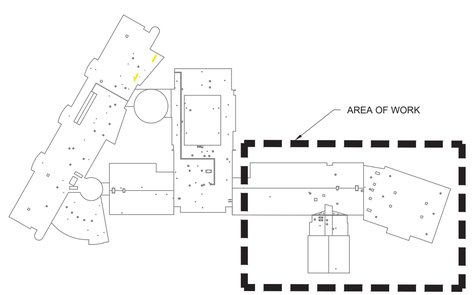


1 ELECTRICAL ROOF PLAN - 2

SCALE: 1/16" = 1' - 0"

PLAN NOTES:

1. REFER TO ADDITIONAL INSTALLATION NOTES ON DRAWING E-001.
2. ALL NEW BRANCH CIRCUIT SHALL BE RUN WITH MINIMUM OF 2#12+1#12G IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED. FOR LIGHTING AND POWER BRANCH CIRCUIT, MC CABLE SHALL BE INSTALLED FOR RECESSED INSTALLATION ONLY, EITHER IN NEW WALLS OR ABOVE HUNG CEILING WHERE POSSIBLE. REFER TO PANEL SCHEDULES IN DRAWING E-201 FOR ALL OTHER FEEDER AND BRANCH CIRCUIT SIZE INFORMATION.
3. PROVIDE LABELS ON ALL ELECTRICAL EQUIPMENT INDICATING CIRCUIT ORIGINATION.
4. INVESTIGATE ALL EXISTING BRANCH CIRCUITS AND UPDATE ALL EXISTING PANEL DIRECTORIES AFFECTED BY NEW WORK.
5. CONTRACTOR SHALL PERFORM AMP PROBE READINGS ON EXISTING SERVICE EQUIPMENT BEFORE AND AFTER WORK TO ENSURE EQUIPMENT WILL NOT BE LOADED BEYOND ITS MAX AMPACITY.
6. CONTRACTOR SHALL MAINTAIN CONTINUITY TO ALL EXISTING CIRCUITRY TO REMAIN WHICH ARE AFFECTED BY THE SCOPE OF WORK; CONTRACTOR SHALL FURNISH ALL NECESSARY JUNCTION BOXES, CONDUIT, AND WIRES AS REQUIRED TO KEEP CONTINUITY.
7. REFER TO MECHANICAL PLANS FOR EQUIPMENT TO BE SUPPLIED BY OTHER TRADES AND INSTALLED/WIRED UNDER THIS SECTION. COORDINATE LOCATION OF DEVICES WITH OTHER CONTRACTORS.
8. PROVIDE FIRESTOPPING FOR ALL PENETRATIONS TO MATCH EXISTING FIRE RATING WHERE APPLICABLE. ALL CORE DRILLS SHALL BE VERIFIED BY BUILDING REPRESENTATIVE PRIOR TO COMMENCING WORK. XRAY ALL FLOOR SLABS PRIOR TO ROUGH-INS FOR CORE DRILL WORK.
9. THE CONTRACTOR SHALL FIELD ROUTE FEEDER FOR NEW POWER PANELS. COORDINATE EXACT ROUTING PATH WITH OWNER. SUBMIT A PROPOSED ROUTING PATH TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO RUNNING ANY CONDUIT OR WIRE ASSOCIATED WITH THIS FEEDER.
10. DISCONNECT SWITCH FOR UNIT VENTILATORS IS PROVIDED BY HVAC CONTRACTOR. COORDINATE WITH HVAC CONTRACTOR.
11. ALL GROUNDING SHALL BE PROVIDED BY THE CONTRACTOR AS PER NEC 2017.



2 ROOF KEY PLAN

SCALE: NTS

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

REG. EXP. DATE: 04-30-24

Drawn by DK
Checked by SH
Project No. 42054
Scale
Date 09-14-23

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901

Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901

Structural Engineer:

UNIVENT
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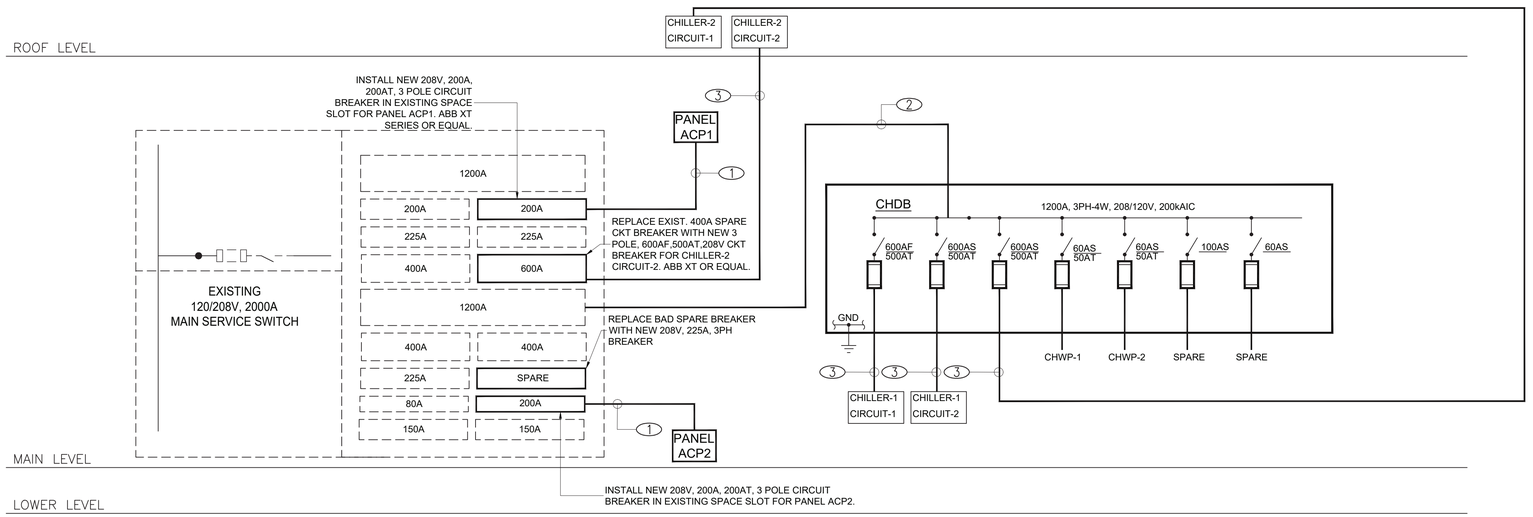
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9500
www.shilale.com

Drawing Title
ELECTRICAL ROOF PLAN - 2

Drawing No.
WGES-E-105



1 ELECTRICAL POWER RISER DIAGRAM

SCALE: N.T.S.

NOTES:

1. ALL EXTERIOR WIRING SHALL BE INSTALLED WITHIN RIGID GALVANIZED STEEL CONDUIT.
2. ALL NEW EQUIPMENT LOCATED OUTDOORS SHALL BE IN NEMA 3R ENCLOSURES.
3. PROVIDE AND INSTALL ALL PULL/JUNCTION BOXES FOR A CODE COMPLIANT INSTALLATION IN A NEAT AND WORKMANLIKE MANNER. ALL BOXES SHALL BE PROPERLY SIZED AS REQUIRED BY NEC.
4. PROVIDE TEMPORARY POWER AS REQUIRED TO MINIMIZE DISRUPTION AND ANY DOWNTIME FOR THE FACILITY OPERATION.
5. RUN ALL WIRING IN CONDUITS TERMINATED WITH BUSHINGS.

WIRE SIZE LEGEND:

(1)	4#300MCM, 1#2G IN 3" C
(2)	3 SETS OF 4#600MCM, 1#2/0G IN EXISTING (3) 4" C
(3)	2 SETS OF 3#350MCM, 1#1/0G IN (2) 3" C

LEGEND:

- - - - - EXISTING TO REMAIN

——— NEW

PANEL SCHEDULE

PANEL NAME:	ACP1	LOCATION:	STORAGE	MOUNTING:	SURFACE
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	200A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#300MCM + 1#2G IN 3"C	FEEDING SOURCE:	EXISTING SWITCHBOARD - NEW 200A CIRCUIT BREAKER
MAIN BREAKER TYPE	MLO	MAIN BREAKER RATING (A):	MLO	BRANCH C.B TYPE	MCB

Load Designation	Wiring & Conduit	C/B (A)	CT NO	Phase Load in VA AØ	Phase Load in VA BØ	Phase Load in VA CØ	CT NO	C/B (A)	Wiring & Conduit	Load Designation
AC-5	3#2+1#8G-1 1/2"RGC	100	1	9480			2			
			3		9480		4	100	3#2+1#8G-1 1/2"RGC	AC-4
			5			9480	6			
SPARE		80	7	3864			8			
			9		3864		10	60	3#3+1#8G-1 1/4"EMT	CHWP-4
			11			3864	12			
SPARE		60	13				14	20		SPARE
			15				16	20		SPARE
			17				18	20		SPARE
SPARE		20	19				20	20		SPARE
SPARE		20	21				22	20		SPARE
SPARE		20	23				24	20		SPARE
SPACE			25				26			SPACE
SPACE			27				28			SPACE
SPACE			29				30			SPACE
CONNECTED LOAD PER PHASE IN VA				22824	22824	22824				
TOTAL CONNECTED LOAD IN KVA				68.472						
TOTAL CONNECTED LOAD IN AMPS				190.06						

PANEL TYPE: NEMA 1 MOUNTING: SURFACE
COPPER BUS, EQUIP. GROUND BAR
DOOR: INDOOR TYPE

PANEL SCHEDULE

PANEL NAME:	ACP2	LOCATION:	STORAGE	MOUNTING:	SURFACE
VOLTAGE/PHASE:	120/208V, 3 Phase, 4W & G	PANEL (AMP)	200A	FREQUENCY:	60 Hz
PANEL SHORT CIRCUIT RATING(KA):	22 KA	FEEDER SIZE	4#300MCM + 1 # 2G IN 3"C	FEEDING SOURCE:	EXISITNG MAIN SWITCHBOARD - NEW 200A CIRCUIT BREAKER
MAIN BREAKER TYPE	MLO	MAIN BREAKER RATING (A):	MLO	BRANCH C.B TYPE	MCB

Load Designation	Wiring & Conduit	C/B (A)	CT NO	Phase Load in VA AØ	Phase Load in VA BØ	Phase Load in VA CØ	CT NO	C/B (A)	Wiring & Conduit	Load Designation
AC-8	3#6+1#8G-1"RGC	45	1	3720			2			
			3	3780			4	45	3#2+1#8G-1 1/4"EMT	AHU-20
			5		3720		6			
CHWP-3	3#3+1#8G-1 1/4" EMT	60	7	3780	3720		8			
			9	3864			10	45	3#6+1#8G-1"RGC	AC-7
			11	3720		3864	12			
MAINT. REC	2#12+1#12G-3/4"C	20	13	540		3720	14			
AC-3	3#6+1#8G-1"RGC	45	15		3720		16	60		SPARE
			17		3720		18			
			19	3720			20			
SPARE		20	21				22	45		SPARE
SPARE		20	23				24			
SPACE			25				26			SPACE
SPACE			27				28			SPACE
SPACE			29				30			SPACE
CONNECTED LOAD PER PHASE IN VA				19344	18804	18804				
TOTAL CONNECTED LOAD IN KVA				56.952						
TOTAL CONNECTED LOAD IN AMPS				158.09						

PANEL TYPE: NEMA 1 MOUNTING: SURFACE
COPPER BUS, EQUIP. GROUND BAR
DOOR: INDOOR TYPE

4

DIST. BOARD: CHDB VOLT: 120/208v, 3Ø, 4W. LOC. EX. MECH RM.

MOUNTING: FLOOR AMP RATING: 1200 MAIN: M.L.O

DESIGN AMP: 969 AIC RATING: 65kA TYPE: NEW

CIRCUIT No.	LOAD SVD	POLES	FRAME (A)	TRIP (A)	LOAD (A)	FEEDERS
1	CHILLER-1 CIRCUIT 1	3	600	500	310	2 SETS OF (3#350MCM+1#1/0G) IN 2-3"C
2	CHILLER-1 CIRCUIT 2	3	600	500	298	2 SETS OF (3#350MCM+1#1/0G) IN 2-3"C
3	CHILLER-2 CIRCUIT-1	3	600	500	310	2 SETS OF (3#350MCM+1#1/0G) IN 2-3"C
4	CHWP-1	3	60	50	25	3#2+1#8G IN 1 1/4"C
5	CHWP-2	3	60	50	25	3#2+1#8G IN 1 1/4"C
6	SPARE	3	100			
7	SPARE	3	60			

2 ELECTRICAL PANEL SCHEDULES

SCALE: N.T.S.

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MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ELECTRICAL SCHEDULES & RISER

Drawing No.
WGES-E-400

GENERAL NOTES:

1. THE STRUCTURES HAVE BEEN DESIGNED IN COMPLIANCE WITH THE REQUIREMENTS OF 2020 BUILDING CODE OF NEW YORK STATE AND ASCE/SEI 7-16 "MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES".
2. CONTRACTOR AND SUBCONTRACTOR SHALL BE LICENSED BY NEW YORK STATE WHERE REQUIRED TO PERFORM THE SPECIFIED WORK. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO ERECT / INSTALL ALL STRUCTURES AND ACCESSORIES AS REQUIRED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
3. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, REGULATIONS, AND ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE PERFORMANCE OF THE WORK INDICATED IN THE CONTRACT DOCUMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS, APPROVALS, AS WELL AS THEIR ASSOCIATED FEES, EXCEPT WHERE SPECIFIED AND AGREED UPON ELSEWHERE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING HOISTING FACILITIES FOR HANDLING MATERIALS AND REMOVAL OF DEBRIS.
6. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH CONDITIONS THEREON AND TO DETERMINE THE EXTENT OF ALL FACILITIES AND SERVICES REQUIRED TO PERFORM THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH OTHER CONSTRUCTION DOCUMENTS. STRUCTURAL WORK SHALL BE COORDINATED WITH OTHER TRADES. ANY DISCREPANCIES IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR ENGINEER FOR CLARIFICATION BEFORE COMMENCING THE WORK.
8. THE CONTRACTOR SHALL MAINTAIN ONE COPY OF THE LATEST CONTRACT DOCUMENTS INCLUDING ALL CHANGES AT THE JOB SITE FOR THE USE OF THE ARCHITECT & ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACTS AND OMISSIONS OF ALL THEIR EMPLOYEES AND ALL SUBCONTRACTORS, THEIR AGENTS AND EMPLOYEES, AND ALL OTHER PERSONS PERFORMING ANY OF THE WORK FOR THE CONTRACTOR.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED ANYWHERE WITHIN THE BOUNDARIES OF THE PROPERTY, AND ANY DAMAGE SHALL BE PROMPTLY REPAIRED TO ORIGINAL CONDITION TO THE SATISFACTION OF THE CLIENT'S REPRESENTATIVE AND/OR ARCHITECT AT NO COST TO THE CLIENT.
11. DURING THE COURSE OF THE WORK, THE CONTRACTOR SHALL REGULARLY REMOVE ALL UNUSED MATERIAL, RUBBISH AND DEBRIS FROM THE PROPERTY AND BROOM CLEAN DAILY. THE SITE AND PREMISES SHALL BE KEPT REASONABLY CLEAN, NEAT AND ORDERLY.
12. THE CONTRACTOR SHALL CONTROL CLEANING OPERATIONS TO PREVENT DIRT OR DUST FROM LEAVING THE JOB SITE AND INFILTRATING AREAS NOT INVOLVED IN THE PROJECT.
13. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO SUBMITTING BIDS AND SHOP DRAWINGS AND/OR FABRICATION AND SHALL REPORT ANY DEVIATIONS OF DIMENSIONS, DISCREPANCIES AND/OR CONDITIONS WHICH WOULD INTERFERE WITH THE COMPLETION OF THE WORK TO THE ARCHITECT AND/OR ENGINEER OF RECORD FOR RESOLUTION AND BEFORE PERFORMING THE WORK. COMMENCEMENT OF THE WORK SHALL SIGNIFY ACCEPTANCE OF ANY AND ALL JOB SITE CONDITIONS.
14. WHEN "APPROVED EQUAL", "EQUAL TO", "APPROVED ALTERNATE", OR WHERE OTHER QUALIFYING TERMS ARE USED, SUBSTITUTIONS SHALL BE BASED SOLELY UPON THE REVIEW AND APPROVAL OF THE ARCHITECT AND/OR ENGINEER. THE BURDEN OF PROOF THAT A PRODUCT OR SYSTEM MEETS OR EXCEEDS THAT WHICH WAS SPECIFIED LIES ENTIRELY ON THE CONTRACTOR.
15. NOTATIONS ON ANY PLAN, ELEVATION, SECTION, OR DETAIL ARE APPLICABLE TO ALL PLANS, ELEVATIONS, SECTIONS, AND DETAILS. IF A CONFLICT ARISES ENGINEER AND/OR ARCHITECT OF RECORD SHALL BE INFORMED TO CLARIFY.
16. DO NOT SCALE DRAWINGS, USE DIMENSIONAL NOTATION ONLY.
17. LARGE SCALE DRAWINGS (I.E. SECTIONS, DETAILS, ETC.) TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS. TYPICAL SECTIONS AND DETAILS SHOWN ON THE DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE & STABILITY OF ALL STRUCTURES UNDER RENOVATION/CONSTRUCTION FOR THE WHOLE DURATION OF CONSTRUCTION.

CONCRETE NOTES:

1. DESIGN OF REINFORCED CONCRETE MEMBERS ARE IN ACCORDANCE WITH THE PROVISIONS OF THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14), AND THE NEW YORK STATE BUILDING CODE 2020 EDITION SECTIONS BC 1901 AND 1906.
2. ALL EXTERIOR CONCRETE PADS SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS, AND WITH A MAXIMUM WATER TO CEMENT RATIO OF 0.40. MAXIMUM CONCRETE SLUMP SHALL BE 4".
3. ALL EXPOSED CONCRETE SHALL BE AIR ENTRAINED, 5% TO 7% BY VOLUME.
4. PROPORTION, BATCH, AND MIX CONCRETE IN ACCORDANCE WITH SECTION BC 1903 OF THE 2020 NYS BUILDING CODE. MIXES SHALL HAVE INCLUDED ALL ADMIXTURES THAT WILL BE USED DURING THIS CONSTRUCTION.
5. ROUGHENED SURFACE AT INTERFACE OF SEPARATE CONCRETE POURS (JOINTS) SHALL BE PREPARED AS FOLLOWS:
   a. ROUGHEN SURFACE TO A FULL AMPLITUDE OF APPROXIMATELY ¼" WITH STIFF BROOM AFTER INITIAL SET.
   b. BEFORE PLACING FRESH CONCRETE, CLEAN SURFACE AND REMOVE LAITANCE WITH WIRE BRUSH.
   c. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, WET SURFACE AND REMOVE STANDING WATER.
6. ALL EMBEDDED STEEL SHALL BE ASTM A36. ALUMINUM INSERTS ARE NOT PERMITTED.

CONCRETE REINFORCEMENT NOTES:

1. ALL REINFORCING SHALL BE WELDED WIRE FABRIC AND CONFIRM TO ASTM A1064.
2. PROVIDE WIRE FABRIC MESH IN FLAT SHEETS NOT ROLLS.
3. WIRE FABRIC REINFORCING SHALL LAP 6" MINIMUM AND BE SECURELY WIRED AT EACH SIDE AND END.
4. PROVIDE CHAIRS FOR SUPPORT OF ALL REINFORCEMENT. LIFTING OF BARS OR MESH DURING PLACEMENT OF CONCRETE IS NOT PERMITTED.
5. PLACE WIRE FABRIC MESH 2" FROM TOP OF SLAB ELEVATION.
6. REINFORCED CONCRETE STRUCTURES SHALL MEET ALL THE REQUIREMENTS OF 2020 NYS BUILDING CODE CHAPTER 19 RELATED TO STRUCTURAL INTEGRITY.

FOUNDATION CONSTRUCTION NOTES:

1. FOUNDATIONS FOR THIS PROJECT CONSIST OF SPREAD FOOTINGS DESIGNED TO BEAR ON STRUCTURALLY ENGINEERED COMPACTED FILL PLACED OVER UNDISTURBED VIRGIN SOIL HAVING A PRESUMED ALLOWABLE BEARING CAPACITY OF 1 TON PER SQUARE FOOT. A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF NEW YORK SHALL INSPECT AND VERIFY CAPACITY OF FOOTING SUBGRADE PRIOR TO PLACING FOOTING.
2. DESIGN, FURNISH, AND PLACE ALL TEMPORARY OR PERMANENT SUPPORTS, WHETHER SHORING, SHEETING, OR BRACING, SO THAT NO HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OCCURS TO EXISTING STRUCTURES, STREETS, OR UTILITIES ADJACENT TO PROJECT SITE.
3. CONTROL SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SO THAT FOUNDATION WORK WILL BE PERFORMED IN DRY CONDITIONS AND ON UNDISTURBED SOIL.
4. EXCAVATIONS FOR FOUNDATIONS SHALL BE FINISHED BY HAND.
5. FOUNDATION CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
6. ALL STRUCTURAL COMPACTED FILL SHALL CONSIST OF CLEAN, WELL- GRADED GRANULAR MATERIAL CONTAINING NO MORE THAN 12% NOR LESS THAN 5% BY WEIGHT OF MATERIAL PASSING THE #200 SIEVE. MATERIAL SHALL BE FREE FROM CLAY LUMPS, ORGANICS AND DELETERIOUS MATERIAL. EXISTING ON SITE FILL/EXCAVATED MATERIAL MAY BE USED FOR BACKFILLING PROVIDED IT IS INSPECTED BY THE SOILS ENGINEER AND MEETS THE CRITERIA ABOVE.
7. ALL STRUCTURAL COMPACTED FILL AND BACKFILL SHALL BE PLACED IN 12" MAXIMUM LOOSE LIFTS AND COMPACTED WITH A HEAVY VIBRATORY COMPACTOR TO AT LEAST 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY AS PER ASTM D-1557 UNDER THE SUPERVISION OF A LICENSED SOILS ENGINEER.
8. ALL FILL AND BACKFILL SHALL BE PLACED ON VIRGIN SOIL THAT DOES NOT CONTAIN ANY ORGANIC MATERIAL. STRIP ALL TOP SOIL AS REQUIRED. PRIOR TO PLACING FILL OR BACKFILL, PROOF-COMPACT SUBGRADE WITH A HEAVY VIBRATORY COMPACTOR TO AT LEAST 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY AS PER ASTM D-1557 UNDER THE SUPERVISION OF A LICENSED SOILS ENGINEER.
9. CRUSHED STONE SHALL HAVE A GRADATION CONFORMING TO ASTM C33 NO. 57 STONE. CRUSHED STONE SHALL CONTAIN NO CLAY, SILT, OR ORGANIC MATERIAL.
10. NO FOOTINGS SHALL BE PLACED ABOVE 1 VERTICAL ON 2 HORIZONTAL SLOPE EXTENDED FROM THE CLOSEST EDGE OF ANY UNDISTURBED SOIL OR OTHER FOUNDATION STRUCTURE.

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MISCELLANEOUS STRUCTURAL STEEL:

1. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION, ANSI/AISC 360-16 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND ANSI/AISC 303-16 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
2. MATERIALS SHALL CONFORM TO THE STANDARDS LISTED:
   a. W-SHAPES: ASTM A992
   b. PLATES, ANGLES AND CHANNELS: ASTM A36
   c. COLD-FORMED HSS: ASTM A500 GRADE B
   d. ANCHOR RODS: ASTM F1554, GRADE 36
   e. STRUCTURAL BOLTS: ASTM A325
3. WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.1. ELECTRODES FOR SHOP AND FIELD WELDS SHALL CONFORM TO AWS, CLASS E70XX, LOW HYDROGEN.
4. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE EoR AS FOR LOCATION, TYPE OF SPLICE AND CONNECTION TO BE MADE.
5. THE CONTRACTOR SHALL NOTIFY EoR OF ANY MISFABRICATED STRUCTURAL STEEL OR JOISTS PRIOR TO ERECTION OF SAME.
6. PENETRATIONS SHALL NOT BE CUT IN STRUCTURAL STEEL MEMBERS UNLESS SO INDICATED IN THE DRAWINGS OR AS APPROVED BY THE ENGINEER OF RECORD.
7. FILLET WELDS SHALL BE A MINIMUM OF 3/16".
8. ALL STEEL MEMBERS AND CONNECTIONS EXPOSED TO THE WEATHER SHALL BE HOT DIP GALVANIZED. STEEL MEMBERS, FABRICATIONS AND ASSEMBLIES INDICATED ON THE DRAWINGS TO BE GALVANIZED SHALL BE GALVANIZED AFTER FABRICATION BY HOT DIP PROCESS IN ACCORDANCE WITH ASTM A123. WEIGHT OF ZINC COATING TO CONFORM TO THE REQUIREMENTS SPECIFIED UNDER "WEIGHT OF COATING" IN ASTM A123 OR ASTM A386, AS APPLICABLE.
9. USE 3/8" MINIMUM GUSSET PLATE THICKNESS, UNLESS OTHERWISE NOTED.

STRUCTURAL STABILITY NOTE:

THE STRUCTURES SHALL BE ADEQUATELY GUYED AND BRACED TO MAINTAIN SAFETY AND ALIGNMENT DURING ALL PHASES OF CONSTRUCTION. SUCH GUYING AND BRACING SHALL REMAIN IN PLACE UNTIL THE STRUCTURE HAS REACHED ADEQUATE STRENGTH AND/OR ALL PERMANENT BRACING IS IN PLACE. ENSURE THAT CONSTRUCTION OPERATIONS AND PROCEDURES IMPOSE NO LOADING GREATER THAN THE DESIGN LOADS ON ANY MEMBER.

SUBMITTALS REQUIRED:

1. THE FOLLOWING ITEMS REQUIRE SUBMITTAL OF SHOP AND ERECTION DRAWINGS FOR REVIEW:
   a. STRUCTURAL STEEL
   b. CONCRETE MIX DESIGN
   c. REINFORCING LAYOUT

SPECIAL AND PROGRESS INSPECTIONS:

SPECIAL & PROGRESS INSPECTIONS REQUIRED BY THE 2020 BUILDING CODE OF NEW YORK STATE SHALL BE PERFORMED BY A TESTING AGENCY ENGAGED BY THE CONSTRUCTION MANAGER AT THEIR EXPENSE (NOT TO BE PERFORMED BY THE ENGINEER OF RECORD, EXCEPT FINAL INSPECTION) FOR THE FOLLOWING ITEMS:

INSPECTION	REF. STANDARD	BC REF.
STEEL CONSTRUCTION:		
• HIGH-STRENGTH BOLTS, NUTS, AND WASHERS MATERIAL VERIFICATION	ANSI/AISC 360-16: Table N5.6-1	1705.2.1
• HIGH-STRENGTH BOLTING	ANSI/AISC 360-16: Table N5.6-2 & Table N5.6-3	
• **MATERIAL VERIFICATION OF STRUCTURAL STEEL**	ANSI/AISC 360-16: N5.1, N5.2	
• MATERIAL VERIFICATION OF WELD FILLER MATERIALS	ANSI/AISC 360-16: Table N5.4-1	
• INSPECTION OF WELDING	ANSI/AISC 360-16: Table N5.4-2 & Table N5.4-3	
• WELDER QUALIFICATION/CERTIFICATION AND WELDING PROCEDURES VERIFICATION	ANSI/AISC 360-16: Table N5.4-1	
CONCRETE CONSTRUCTION:		
• INSPECTION OF REINFORCING STEEL AND PLACEMENT VERIFICATION	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1905, Table 1705.3 and 1908.4
• INSPECTION OF ANCHORS CAST IN CONCRETE	ACI 318: 17.8.2	Table 1705.3
• INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	ACI 318: 17.8.2.4 ACI 381: 17.8.2	Table 1705.3
• VERIFYING USE OF REQUIRED DESIGN MIX	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1 1904.2 1908.2, 1908.3 Table 1705.3
• PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TEST, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMP. OF THE CONCRETE	ASTM C172, ASTM C31, ACI 318: 26.4, 26.12	1908.10 Table 1705.3
• INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	ACI 318: 26.5	1908.6 1908.7 1908.8, Table 1705.3
• VERIFICATION OF THE MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	ACI 318: 26.5.3 - 26.5.5	1908.9, Table 1705.3
• FORMWORK INSPECTION FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	ACI 318: Ch. 26.11.1.2(b)	Table 1705.3
SOILS:		
• VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE DESIGN BEARING CAPACITY		1705.6 Table 1705.6
• VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH ANDHAVE REACHED PROPER MATERIAL		
FINAL INSPECTION:		

GENERAL LEGEND & ABBREVIATIONS:

W6x20	NEW STEEL MEMBER DESIGNATION (ON FRAMING PLANS & ELEVATIONS ONLY)
W10x22	EXISTING STEEL MEMBER DESIGNATION (ON FRAMING PLANS & ELEVATIONS ONLY)
———	NEW STRUCTURAL STEEL
– – – – – –	EXISTING STRUCTURAL STEEL
B.O.S.	BOTTOM OF STEEL
T.O.C.	TOP OF CONCRETE
T.O.G.	TOP OF GRATING
T.O.R.	TOP OF RAIL
T.O.S.	TOP OF STEEL
EL.	ELEVATION
E.S.	EACH SIDE
F.S.	FAR SIDE
N.S.	NEAR SIDE
(E)	EXISTING
(N)	NEW
℄	CENTERLINE
PL.	PLATE
DN	DOWN
EQ	EQUAL
OPP	OPPOSITE HAND
SIM	SIMILAR
TYP	TYPICAL
V.I.F.	VERIFY IN FIELD

DESIGN LOADS

1. RISK CATEGORY — III
2. ROOF LIVE LOAD — 20 PSF
3. WIND LOAD PARAMETERS:
   a. BASIC WIND SPEED — 122 MPH
   b. EXPOSURE CATEGORY — C
4. SEISMIC LOAD PARAMETERS:
   a. Ss — 0.261
   b. S1 — 0.061
   c. SDS — 0.300
   d. SD1 — 0.097
   e. SITE CLASS — D
   f. IMPORTANCE FACTOR — 1.25
   g. SEISMIC DESIGN CATEGORY — B
5. SNOW LOAD PARAMETERS:
   a. GROUND SNOW LOAD — 30 PSF
   b. IMPORTANCE FACTOR — 1.1
   c. EXPOSURE FACTOR — 1.0
   d. TEMPERATURE FACTOR — 1.2
   e. ROOF SLOPE FACTOR — 1.0

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
4	11-09-23	ADDENDUM #1
3	09-14-23	BIDDING DOCUMENTS
2	06-09-23	SED ADDENDUM #1
1	12-28-22	BIDDING DOCUMENTS

STATE OF NEW YORK
RONALD ALAN BROKENSHIRE
104873
LICENSED PROFESS IONAL ENGINEER
RONALD A. BROKENSHIRE, P.E.
NY LIC 104873
REG. EXP. DATE: 04-30-24

Drawn by	AN
Checked by	RAB
Project No.	42054
Scale	AS NOTED
Date	09-14-23

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Structural Engineer:

UNIVENT REPLACEMENT AT WILLOW GROVE ELEMENTARY SCHOOL
SED# 50-02-01-06-0-030-016
153 STORMS RD
TOMKINS, NY 10984
COUNTY OF ROCKLAND

MSA
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
STRUCTURAL GENERAL NOTES

Drawing No.
WGES-S-001