# SYMBOL LIST POINT OF CONNECTION SINGLE LINE DUCTWORK, PIPING OR EQUIP. \_\_\_\_\_\_ (EXISTING) POINT OF DISCONNECTION SINGLE LINE DUCTWORK, PIPING AND EQUIPT. TO BE REMOVED PIPE DROP SINGLE LINE DUCTWORK OR EQUIP. (NEW) PIPE RISE DUCT UNDER POSITIVE PRESSURE (SUPPLY AIR OR FAN DISCHARGE) **GATE VALVE** DUCT UNDER NEGATIVE PRESSURE AUTOMATIC CONTROL VALVE (RETURN, EXHAUST OR OUTSIDE AIR) REFRIGERANT LIQUID LINE **VOLUME DAMPER** REFRIGERANT SUCTION LINE FIRE DAMPER AND ACCESS DOOR BACK DRAFT DAMPER AUTOMATIC DAMPER (ELECTRIC) COMBINATION FIRE & SMOKE OR DAMPER WITH ACCESS DOOR (ELECTRIC) (WITH OR WITHOUT TEXT) RISE IN DUCTWORK (AIR FLOW DIRECTION) DROP IN DUCTWORK (AIR FLOW DIRECTION) AUTOMATIC DAMPER (ELECTRIC) ∮ OR CFM CUBIC FEET PER MINUTE CD-A 400 € TYPE A CEILING DIFFUSER 400 CFM SUPPLY AIR 10x8 CR(CG) 300 § 10" BY 8" CEILING REGISTER (CEILING GRILLE) 300 CFM RETURN AIR VANED ELBOW (SEE DETAIL) VANED ELBOW (SEE DETAIL) OR RADIUS ELBOW RADIUS ELBOW VERTICAL DUCT DROP (IN DIRECTION OF AIRFLOW) VERTICAL DUCT RISE (IN DIRECTION OF AIRFLOW) SMOKE DETECTOR / SD DUCT SMOKE DETECTOR

# ABBREVIATIONS LIST

| וטטר   | CEVIATIONS LIST              |      |                              |      |                                     |
|--------|------------------------------|------|------------------------------|------|-------------------------------------|
| A      | AMPERES                      | FT   | FEET                         | RM   | ROOM                                |
| AC     | AIR CONDITIONING             | GPH  | GALLONS PER HOUR             | RPM  | REVOLUTIONS PER MINUTE              |
| ACC    | AIR COOLED CONDENSER         | GPM  | GALLONS PER MINUTE           | SA   | SUPPLY AIR                          |
| ACCU   | AIR COOLED CONDENSING UNIT   | HF   | HUMIDIFIER                   | SD   | SMOKE DAMPER                        |
| ACH    | AIR CHANGES PER HOUR         | HC   | HEATING COIL                 | SEER | SEASONAL ENERGY EFFICIENCY RATIO    |
| AD     | ACCESS DOOR                  | HD   | HEAD                         | SF   | SUPPLY FAN                          |
| AFF    | ABOVE FINISHED FLOOR         | HT   | HEIGHT                       | SP   | STATIC PRESSURE                     |
| AS     | AIR SEPARATOR                | HZ   | FREQUENCY                    | SPEC | SPECIFICATION                       |
| BHP    | BRAKE HORSEPOWER             | IAT  | INDOOR AIR TEMPERATURE       | TEMP | TEMPERATURE                         |
| BMS    | BUILDING MANAGEMENT SYSTEM   | IN   | INCH OR INCHES               | TG   | TOP GRILLE                          |
| BTU    | BRITISH THERMAL UNIT         |      |                              | TYP  | TYPICAL                             |
| BTUH   | BTU PER HOUR                 | KW   | KILOWATT                     | UON  | UNLESS OTHERWISE NOTED              |
| °C     | DEGREES CENTIGRADE (CELSIUS) | L    | LENGTH                       | V    | VOLTS                               |
| CD     | CEILING DIFFUSER             | LAT  | LEAVING AIR TEMPERATURE      | VA   | VENTILATION AIR                     |
| CD     | CONDENSATE DRAIN             | LBS  | POUNDS                       | VFD  | VARIABLE FREQUENCY DRIVE            |
| CFM    | CUBIC FEET PER MINUTE        | LD   | LINEAR DIFFUSER              | VIF  | VERIFY IN FIELD                     |
| CG     | CEILING GRILLE               | LR   | LINEAR RETURN                | W    | WIDTH                               |
| CLG    | CEILING                      | LWT  | LEAVING WATER TEMPERATURE    | W/   | WITH                                |
| CO     | CLEAN OUT                    | MAX  | MAXIMUM                      | W/O  | WITHOUT                             |
| COMPR  | COMPRESSOR                   | MBH  | THOUSAND BTU PER HOUR        | WB   | WET BULB                            |
| COND   | CONDENSATE                   | MCA  | MINIMUM CIRCUIT AMPACITY     | WMS  | 1/2" WIRE MESH SCREEN (BIRD SCREEN) |
| CR     | CEILING REGISTER             | MIN  | MINIMUM                      |      | ,                                   |
| CU FT  | CUBIC FEET                   | MOCP | MAXIMUM OVER CURRENT PROTECT | TION |                                     |
| CU IN  | CUBIC INCHES                 | NIC  | NOT IN CONTRACT              |      |                                     |
| DB     | DRY BULB                     | NO.  | NUMBER                       |      |                                     |
| DIAM   | DIAMETER                     | NYS  | NEW YORK STATE               |      |                                     |
| DMPR   |                              | O.C. | OFF CENTER                   |      |                                     |
| חואורע | DAMPER                       |      | OLITOIDE AID                 |      |                                     |

OUTSIDE AIR

OUTSIDE AIR INTAKE

PRESSURE DROP

PUMP DISCHARGE

PREFILTER

PSI ABSOLUTE

**PSI GAUGE** 

RETURN AIR

RETURN FAN

RELATIVE HUMIDITY

RUNNING LOAD AMPS

RISE

PHASE

OUTSIDE AIR TEMPERATURE

PRESSURE REDUCING VALVE

POUNDS PER SQUARE INCH

24V POWER DISTRIBUTION ENCLOSURE

## SCOPE OF WORK

DIRECT DIGITAL CONTROL

ENTERING AIR TEMPERATURE

EXTERNAL STATIC PRESSURE

DEGREES FAHRENHEIT

ENTERING WATER TEMPERATURE

DRAWING

EXHAUST AIR

**EXHAUST FAN** 

**ELEVATION** 

ELECTRIC

**ELEVATOR** 

**EQUAL** 

**EXHAUST** 

**FILTER** 

FIRE DAMPER

FINISHED FLOOR

FINS PER INCH

FEET PER MINUTE

FEET PER SECOND

FIRE SMOKE DAMPER

FULL LOAD AMPERES

EF

ELEC

**ELEV** 

EQ

EXH

FD

FLA

FPI

FIN FL

- REMOVE EXISTING EXHAUST FAN SERVING ELEVATOR MACHINE ROOM.
- PROVIDE NEW EXHAUST FAN WHERE SHOWN TO SERVE ELEVATOR MACHINE ROOM.
- PROVIDE MOTORIZED DAMPER FOR OUTDOOR AIR DUCT.
- PROVIDE SPLIT DX AC SYSTEM TO SERVE ELEVATOR ROOM. CONNECT SUPPLY FAN, EXHAUST FAN, AND SPLIT AC SYSTEM TO EXISTING BMS.

CERTIFICATION: "TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, ALL PLANS AND APPLICATIONS ARE IN COMPLIANCE WITH THE NYSECC - NEW YORK STATE ENERGY CONSERVATION CODE 2020.



CONSULTANTS:

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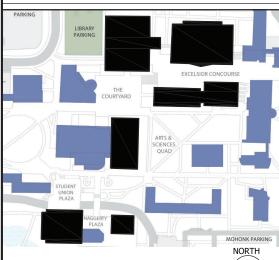
### 10/03/2022 | ISSUED FOR BID

SUNY NEW PALTZ **Building Address:** 1 HAWK DRIVE, NEW PALTZ, NY 12561

**Building:** SOJOURNER TRUTH LIBRARY, LECTURE CENTER, COYKENDALL SCIENCE BUILDING,

SMILEY ARTS BUILDING, HAGGERTY ADMINISTRATION BUILDING, STUDENT UNION

County of: ULSTER



Project No.:

081058-00

**Contract Title: UPGRADE ELEVATORS CAMPUS WIDE -**SOJOURNER TRUTH LIBRARY, LECTURE CENTER, COYKENDALL SCIENCE BUILDING, SMILEY ARTS BUILDING, HAGGERTY ADMINISTRATION BUILDING, AND STUDENT UNION

**Key/Location Plan** 

**Project No.:** 081058-00

Drawing Title: HVAC - SYMBOLS LIST & ABBREVIATION



S. WONG / P. MAN Drawn By: Checked By: SAI BARADE P.E. SEPTEMBER 15, 2022 Scale: AS NOTED Drawing No.:

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## GENERAL NOTES (APPLICABLE TO ALL DRAWINGS)

- THE TERM "CONTRACTOR", "THIS CONTRACTOR" OR ANY TEXT AND DRAWINGS INCLUDED IN THIS CONTRACT DOCUMENT (WHICH INCLUDES DRAWINGS AND SPECIFICATIONS) SHALL BE MEANT AND DIRECTED TO THE CONTRACTOR WORKING IN THIS PROJECT.
- 2. THE ARCHTIECT/ENGINEER FOR THE PROJECT WHO WILL ALSO BE REFERRED TO AS THE ARCHTIECT/ENGINNEER OF RECORD WILL BE THE FIRM WHOSE NAME AND ADDRESS IS LISTED IN THE TITLE BLOCK OF THE DESIGN DOCUMENT
- ALL WORK SHOWN IN THE CONTRACT DRAWINGS AND INCLUDED IN THE SPECIFICATIONS SHALL BE CONSIDERED AS NEW WORK TO BE PROVIDED (DEFINED AS FURNISHED AND INSTALLED) BY THE CONTRACTOR. ONLY ITEM SPECIFICALLY INDICATED AS "EXISTING" OR "EXISTING TO REMAIN" AND WITHOUT ANY RELATED REPAIR, RESTORATION OR REPLACEMENT WORK SHOWN SHALL BE EXCLUDED FROM THE WORK PROVIDED BY THE CONTRACTOR. SYMBOL LIST SHOWING DIFFERENT LINE THICKNESS FOR EXISTING AND NEW COMPONENTS ARE MEANT ONLY FOR CLARITY. UNLESS SPECIFICALLY INDICATED AS "EXISTING" ALL COMPONENTS SHALL BE CONSIDERED TO BE NEW TO BE PROVIDED BY THE CONTRACTOR.
- THE SCOPE OF WORK TO BE PROVIDED BY THE CONTRACTOR SHALL INCLUDE SCOPE OF WORK AS INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS SHALL INCLUDE CONTRACT DRAWINGS, CONTRACT SPECIFICATIONS, CONTRACT ADDENDUMS. PROVIDED BY THE ARHCITECT/ENGINEER OF RECORD FOR THE PROJECT TAKEN TOGETHER. IN THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL INCLUDE ALL WORK INDICATED IN INCLUDING BUT NOT LIMITED TO THE LEGENDS, SYMBOLS, ABBREVIATIONS, SPECIFIC AND GENERAL NOTES, INDEXES, FLOOR PLANS, SECTIONS AND ELEVATIONS, SCHEMATIC DIAGRAMS, RISER DIAGRAMS, FLOW DIAGRAMS, CONTROL DIAGRAMS, ONE LINE DIAGRAMS, SCHEDULE SHEETS, DETAILS, DRAWINGS SPECIFICATION SHEETS, PHASING PLANS, ETC. TAKEN TOGETHER. SEE SUCF AGREEMENT SECTION 1.06(2).
- 5. IT SHALL BE EXPRESSEDLY UNDERSTOOD THAT ALL ITEMS INCLUDED IN THE CONTRACT DOCUMENTS ISSUED BY THE ARCHTIECTS/ENGINEERS SHALL BE INCLUDED IN THE BID PRICE OF THE CONTRACTOR UNLESS OTHERWISE, SPECIFIC ADD ALTERNATES ARE LISTED BY THE ARCHTIECT/ENGINEER IN THE DOCUMENTS.
- ALL WORK SHOWN ON THE CONTRACT PLANS INCLUDING SCALED DRAWINGS ARE SCHEMATIC AND ARE INTENDED TO CONVEY GENERAL INFORMATION ON THE MAGNITUDE OF WORK AND TO PROVIDE GENERAL ARRANGEMENT OF EQUIPMENT THE CONTRACT DRAWINGS ARE NOT MEANT TO CONVEY ALL THE FIELD CONDITIONS, ALL BENDS, OFFSETS, ELEVATIONS ACCURATELY AND SHALL NOT BE USED AS THE BASIS TO ESTIMATE THE QUANTITY OF HVAC WORK. THE CONTRACTOR MAY MAKE MINOR CHANGES IN THE FORM OF SHOP DRAWINGS IF AND WHEN APPROVED IN WRITING BY THE ARCHITECT/ENGINEER AT NO ADDITIONAL COST TO THE OWNER, SEE SUCF AGREEMENT 2.19(2).
- THE CONTRACTOR SHALL SEEK WRITTEN CLARIFICATIONS TO SCOPE OF WORK. CONTRACTOR IS STRONGLY ENCOURAGED AND FOR THE BENEFIT OF THE CONTRACTOR TO VISIT AND CAREFULLY EXAMINE THE SITE OF THE PROPOSED WORK SO AS TO FAMILIARIZE HIMSELF OR HERSELF WITH EXISTING FIELD CONDITIONS, TO VERIFY DIMENSIONS AND TO VERIFY DIFFICULTIES THAT WILL BE ENCOUNTERED DURING THE EXECUTION OF THE WORK AND TO VERIFY EXACT EXTENT OF WORK REQUIRED, PRIOR TO SUBMITTING HIS PROPOSAL.
- NEITHER ACCURACY NOR COMPLETION OF SERVICES AND UTILITY LOCATIONS SHOWN ON DRAWINGS IS GUARANTEED. DETERMINE EXACT LOCATIONS OF EXISTING SERVICES AND UTILITIES IN FIELD, WHETHER OR NOT SHOWN ON DRAWINGS, EXERCISE CAUTION AND IDENTIFY LOCATIONS OF UNMARKED UTILITY LINES AS NECESSARY TO PERFORM WORK OF THIS SECTION.
- GENERAL NOTES, SYMBOL LIST AND DETAILS ARE APPLICABLE TO ALL HVAC/MECHANICAL DRAWINGS.
- 10. DIMENSIONS SHOWN ON PLAN ARE HORIZONTAL. DIMENSIONS SHOWN IN ELEVATION ARE VERTICAL EXCEPT IN WAY OF STRUCTURAL STEEL, DIMENSIONS ARE MEASURED PERPENDICULAR TO FLANGE.
- 11. WHEREVER THE REQUIREMENTS AND REGULATIONS OF FEDERAL OR MUNICIPAL AUTHORITIES ARE MORE STRINGENT THAN THE REQUIREMENTS INDICATED ON THE DRAWINGS OR SPECIFICATIONS. THEN THESE MORE STRINGENT REQUIREMENTS SHALL TAKE PRECEDENCE OVER THE DRAWINGS OR SPECIFICATIONS AND SHALL BE MADE PART OF THE CONTRACT AT NO ADDITIONAL COST TO THE OWNER. HOWEVER. WHERE THE DRAWING OR SPECIFICATIONS ARE MORE STRINGENT THAN FEDERAL OF LOCAL AUTHORITY REQUIREMENTS AND REGULATIONS, THE MORE STRINGENT SHALL APPLY AND THE WORK SHALL BE INCLUDED IN THE CONTRACT.
- 12. THE CONTRACTOR SHALL PROVIDE PROTECTION FOR THE GENERAL PUBLIC AND CONSTRUCTION WORKERS IN AND AROUND THE CONSTRUCTION AREA. ADEQUATE BARRIERS SHALL BE PROVIDED TO EXERCISE CONTROL OF SAFE INGRESS AND EGRESS OF PREMISES. FIRE EXITS SHALL AT NO TIME BE BLOCKED.
- 13. ALL EXISTING CONSTRUCTION AND EQUIPMENT SHALL BE PROTECTED BY CONTRACTOR DURING THE ENTIRE PERFORMANCE OF THEIR WORK. EXISTING AREAS DISTURBED OR DAMAGED BY CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 14. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS TO AVOID CONFLICTS.
- 15. SCHEDULE WORK OF THIS SECTION TO AVOID INTERFERING WITH EXISTING OPERATIONS IN THE FACILITY.
- 16. ALL UNUSED MATERIALS AND DEBRIS SHALL BE LEGALLY DISPOSED OF AWAY FROM THE PREMISES.
- 17. ALL COMPONENTS SHALL BE RUN AS HIGH AS POSSIBLE & AS CLOSE AS POSSIBLE TO EXISTING ROOF/ FLOOR STRUCTURE TO MAINTAIN EXISTING CEILING HEIGHTS SHOWN ON ARCHITECTURAL DRAWINGS AND TO MAINTAIN A MINIMUM OF 7'-6" HEADROOM IN ALL MECHANICAL EQUIPMENT ROOMS.

- 18. EQUIPMENT SIZE ARE BASED ON PRELIMINARY INFORMATION FROM THE SCHEDULED MANUFACTURER'S EQUIPMENT, VERIFICATION OF THIS SIZES WITH APPROVED SHOP DRAWINGS PRIOR TO INFORMING THE CONTRACTOR OF THE FINAL PENETRATION SIZES AND BEFORE FABRICATING DUCTS.
- 19. HOUSEKEEPING PAD AND SPACE ALLOCATIONS FOR MECHANICAL EQUIPMENT ARE BASED ON THE SCHEDULED MANUFACTURER'S PHYSICAL EQUIPMENT SIZES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ANY SUBSTITUTED EQUIPMENT SIZES FROM CERTIFIED MANUFACTURER'S DRAWINGS AND SHALL MAKE MODIFICATIONS AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL COORDINATE EQUIPMENT.
- 20. ELECTRICAL POWER PROVISIONS FOR MECHANICAL EQUIPMENT ARE BASED ON PRELIMINARY INFORMATION FROM THE SCHEDULED MANUFACTURER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ELECTRICAL RATING FROM APPROVED SHOP DRAWINGS & SHALL MAKE ANY CIRCUIT DISTRIBUTION MODIFICATION REQUIRED WITHOUT ANY ADDITIONAL COST TO THE OWNER FOR SUBSTITUTED EQUIPMENT. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF SUCH CHANGE FOR ACCEPTANCE BY THE ENGINEER. ALL ACCEPTED CHANGES SHALL BE RECORDED ON "AS-BUILTS" DRAWINGS.
- 21. HVAC AND MECHANICAL SYSTEMS/SERVICES SHALL BE MAINTAINED FULLY OPERATIONAL IN AREAS/SPACES OUTSIDE OF AREA OF WORK DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY COOLING, HEATING AND VENTILATION REQUIRED TO KEEP AREAS/SPACES IN OPERATION.
- 22. COORDINATE ACCESS DOOR LOCATIONS IN HUNG CEILINGS AND WALLS WITH THE OTHER TRADES. SEE ARCHITECTURAL DRAWINGS OR MECHANICAL SPECIFICATIONS FOR LOCATIONS REQUIRING FIRE RATED ACCESS IN SUCH PROVIDE 2 HR. RATED DOORS WITH MINIMUM 2" THICK FIRE RATED INSULATION.
- 23. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS TO AVOID CONFLICTS.
- 24. SCHEDULE WORK OF THIS SECTION TO AVOID INTERFERING WITH EXISTING OPERATIONS IN THE FACILITY.
- 25. PROVIDE 36" CLEARANCE IN FRONT OF ALL 208V OR LOWER ELECTRIC CONTROL AND POWER PANELS PER N.E.C. AND 42" CLEARANCE IN FRONT OF ALL 460V OR HIGHER ELECTRIC CONTROL AND POWER PANELS PER N.E.C. AND MANUFACTURER REQUIREMENTS
- 26. MANUFACTURERS MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.
- 27. CONTRACTOR SHALL SUBMIT SEQUENCE OF INSTALLATION FOR EQUIPMENT THAT WAS REMOVED AND TO BE REINSTALLED.
- 28. CONTRACTOR SHALL SUBMIT FUNCTIONAL TESTING OF AC. ACCU AND FANS AS PER SPECIFICATIONS.
- CONTRACTOR SHALL ENSURE PROTECTION TO EXISTING INTERIOR DUCTWORK FROM DUST AND DEBRIS DUE TO CONSTRUCTION.

# **PHASING**

SEE ARCHITECTURAL DRAWINGS FOR PHASING.

## SUSPENSION AND VIBRATION ISOLATION NOTES

- 1. ALL COMPONENTS INSTALLED IN THIS PROJECT SHALL BE PROVIDED WITH HANGERS AND SUPPORTS TO THE BUILDING STRUCTURE EITHER IN COMPLIANCE WITH THE TECHNICAL SPECIFICATIONS /DETAILS INCLUDED ELSEWHERE IN THE CONTRACT DOCUMENTS OR AS PER MANUFACTURER RECOMMENDATIONS OR AS PER CODES AND STANDARDS REQUIREMENTS, SUCH AS NATIONAL PROFESSIONAL ENTITIES INCLUDING BUT NOT LIMITED TO SMACNA, OSHA, ASHRAE, NFPA, ETC., WHICHEVER IS MORE STRINGENT.
- 2. PROVIDE VIBRATION ISOLATORS SUCH AS FLEXIBLE CONNECTIONS, FLEXIBLE CONNECTORS, ETC. TO ISOLATE ALL MOVING COMPONENTS FROM REST OF THE SYSTEM COMPONENTS AS WELL AS THE BUILDING STRUCTURE.

## EQUIPMENT AND COMPONENTS PROTECTION NOTES

- 1. FOR ANY EQUIPMENT TO BE TEMPORARILY REMOVED AND REINSTALLED, CONTRACTOR SHALL REMOVE EXISTING EQUIPMENT OR TRADE COMPONENTS CAREFULLY AND SAFELY AND STORE THE EQUIPMENT AT A WEATHERPROOF AND SECURE LOCATION OFF SITE TILI SUCH TIME AS TO BE REINSTALLED.
- 2. THE CONTRACTOR WILL DO REINSTALLATION WORK CAREFULLY AND SAFELY WITHOUT ANY DAMAGE TO THE EQUIPMENT OR TRADE COMPONENT.
- 3. THE CONTRACTOR WILL THEN TEST THE OPERATIONAL CONDITION OF THE EQUIPMENT OR TRADE COMPONENT TO ITS ORIGINAL WORKING CONDITION AND DEMONSTRATE TO THE OWNER THE SAME
- 4. CONTRACTOR WILL SUBMIT THE TESTING AND OPERATIONAL CONDITION RECORD TO THEIR RECORDS. WHERE WORK INVOLVES EXISTING DUCTWORK, CONTRACTOR SHALL INSPECT EXISTING DUCTWORK THAT ARE
- REMAINING AT DISCONNECTION POINT. REMOVE ANY EXISTING DEBRIS THAT CAN BE VISIBLE FROM DISCONNECTION POINT PRIOR TO TEMPORARILY CAPPING DUCTWORK.
- CONTRACTOR SHALL REPAIR, FIX AND/OR REPLACE ANY ANY EQUIPMENT OR COMPONENTS WHICH BECOME DAMAGED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION AT NO COST TO THE OWNER.

## SEISMIC NOTES

- 1. .ALL COMPONENTS INSTALLED IN THIS PROJECT SHALL BE SUBJECT TO THE SEISMIC REQUIREMENTS OF THE RELEVANT CITY, COUNTY, STATE CODES AS APPLICABLE TO THE LOCATION OF THE PROJECT
- ANY SEISMIC SUPPORT DETAILS PROVIDED IN THE CONTRACT DOCUMENTS ARE FOR CONTRACTOR'S GENERAL INFORMATION ONLY. IT WILL BE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE CODE COMPLIANT SEISMIC SUPPORTS.
- 3. THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A LICENSED PROFESSIONAL ENGINEER TO ANALYZE AND CONFIRM THE SEISMIC CODE COMPLIANCE OF THE PROJECT COMPONENT INSTALLATION AND AND SUBMIT DOCUMENTATION OF SUCH COMPLIANCE TO THE ARCHTIECT/ENGINEER IN THE FORM OF SHOP DRAWINGS. CERTIFICATIONS, DETAILS ETC.
- 4. UNLESS OTHERWISE DETERMINED BY THE CONTRACTORS LICENSED SEISMIC ENGINEER, ALL COMPONENTS SHALL BE DESIGNED WITH A MINIMUM COMPONENT IMPORTANCE FACTOR OF 1.5.
- 5. UNLESS OTHERWISE PRACTICAL, ALL SUSPENDED COMPONENTS SHALL BE PROVIDED SUSPENDED NOT MORE THAN 11.5" FROM THE STRUCTURAL SLABS. UNDER ALL CIRCUMSTANCES. THE CONTRACTOR SHALL COMPLY WITH THE CODE REQUIREMENTS FOR HANGER LENGTHS, WEIGHTS OF ITEMS SUPPORTED, SIZE OF ITEMS SUSPENDED AND OTHER PARAMETERS TO DETERMINE THE SEISMIC SUPPORTS.

BY THE CONTRACTOR

SYSTEMS.

NOT USED.

12.

ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVER TIME,

IF REQUIRED, TO ASSURE THAT SYSTEMS WILL BE SHUT

DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO

MAKE THE NECESSARY CONNECTIONS TO THE EXISTING

THE SHUTDOWN OF EXISTING BUILDING HVAC SERVICES

SHALL BE COORDINATED WITH WITH THE OWNER.

CONSULTANTS:

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AQ SYSTEMS INC, CONSULTING 555 8th AVENUE, SUITE 1502 NEW YORK, NY 10018



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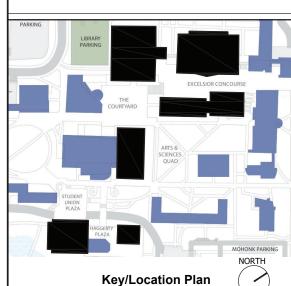
### 10/03/2022 ISSUED FOR BID

**SUNY NEW PALTZ** 

**Building Address:** 1 HAWK DRIVE, NEW PALTZ, NY 12561 SOJOURNER TRUTH LIBRARY.

LECTURE CENTER, COYKENDALL SCIENCE BUILDING, SMILEY ARTS BUILDING, HAGGERTY ADMINISTRATION BUILDING, STUDENT UNION

County of: Project No.: **ULSTER** 081058-00



Contract Title: **UPGRADE ELEVATORS CAMPUS WIDE -**SOJOURNER TRUTH LIBRARY, LECTURE CENTER, COYKENDALL SCIENCE **BUILDING, SMILEY ARTS BUILDING,** HAGGERTY ADMINISTRATION BUILDING AND STUDENT UNION

Project No.: 081058-00

HVAC - GENERAL NOTES SHEET 1 OF 2

Seal &rSignature

S. WONG / P. MAN Drawn By: SAI BARADE P.E. Checked By: SEPTEMBER 15, 2022 Scale: AS NOTED Drawing No.

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# GENERAL NOTES (APPLICABLE TO ALL DRAWINGS)

## **DEMOLITION NOTES**

UTILITY INTERRUPTION.

- ALL PIPING AND DUCTS IN WALLS AND FLOORS NOT TO BE REUSED SHALL BE PLUGGED OR CAPPED AND CUTTING AND PATCHING SHALL BE PERFORMED TO RESTORE SURFACE TO ORIGINAL CONDITION BY CONTRACTOR.
- ALL PIPING AND DUCTS IN WALLS AND FLOORS DISCONNECTED IN PORTIONS FOR FUTURE USE SHALL BE PROVIDED WITH TEMPORARY WEATHER TIGHT CAPS TILL SUCH TIME AS THEY ARE RECONNECTED AND REUSED.
- ALL WALL, ROOF, FLOOR OPENINGS CREATED DUE TO DEMOLITION WORK BY THIS TRADE SHALL BE PROVIDED WITH EITHER TEMPORARY WEATHER-TIGHT CAPS, WHERE SUCH OPENINGS ARE REUSED, OR PERMANENT WEATHER-TIGHT CAPS WHERE THE OPENS ARE NOT REUSED.

UTILITY TEMPORARY INTERRUPTION NOTES

1. ANY UTILITY INTERRUPTION OF HVAC SYSTEM, ELECTRICAL SYSTEM, FIRE ALARM

2. CONTRACTOR SHALL NOTIFY SUCF AND REQUEST APPROVAL PRIOR TO ANY

SYSTEM ETC. DUE TO ANY WORK SHALL BE KEPT TO A MINIMUM.

- NO OPENINGS CREATED BY THIS DEMOLITION SHALL REMAIN UNCAPPED AT ANY TIME.
- THE CONTRACTOR SHALL PERFORM DEMOLITION AND REMOVAL WORK WITH MINIMUM INTERFERENCE WITH FUNCTIONING HVAC SYSTEMS.
- ALL AFFECTED SYSTEMS SHALL BE RECONNECTED AND RESTORED. DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
- THE CONTRACTOR SHALL REMOVE ALL DUCT & PIPING SUPPORTS, ETC. FROM PARTITIONS THAT ARE TO BE REMOVED. WHERE THE REMOVAL OF THESE ITEMS

- DISRUPTS EXISTING PIPING AND/OR DUCTWORK THAT IS TO REMAIN, THE CONTRACTOR SHALL INSTALL AND PROVIDE BYPASS CONNECTIONS NECESSARY.
- PORTIONS OF PIPING AND/OR DUCTWORK TO BE REMOVED OR ABANDONED AS A RESULT OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ACTIVE, SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS.
- ALL EXISTING MATERIAL AND EQUIPMENT, WHICH IS TO BE REMOVED UNDER THIS CONTRACT, SHALL BE DISPOSED OF

|               | SPLIT AIR COOLED CONDENSING UNIT SCHEDULE BASE OF DESIGN: MITSUBISHI |         |                 |                     |             |       |       |                    |      |                 |             |                |          |                        |           |
|---------------|--|---------|-----------------|---------------------|-------------|-------|-------|--------------------|------|-----------------|-------------|----------------|----------|------------------------|-----------|
|               |  |         |                 | NOMINAL             | TOTAL No.   | OF OF |       | REFRIGERANT        |      | ELECTRICAL DATA |             |                | SEER     |                        |           |
| SYSTEM<br>NO. | LOCATION   | SERVICE | NOMINAL<br>TONS | COOLING<br>CAPACITY | OF<br>COMP. |       |       | CHARGE<br>TYPE LBS |      | MOCP            | VOLTS/Ph/Hz | WEIGHT<br>(LB) | @<br>ARI | MANUFACTURER MODEL NO. | NOTES     |
|               |  |         |                 | BTUH                |             |       |       |                    |      |                 |             |                |          |                        |           |
| ACCU-A        | CSB ROOF   | AC-A    | 1.5             | 18,000              | 1           | 1     | R410A | 4                  | 11.0 | 28.0            | 208/1/60    | 99             | 19.8     | TRUYA0181KA70NA        | SEE NOTES |
| ACCU-B        | SAB ROOF   | AC-B    | 2.5             | 30,000              | 1           | 1     | R410A | 7                  | 19.0 | 26.0            | 208/1/60    | 151            | 19.8     | TRUYA0301HA70NA        | SEE NOTES |
| ACCU-C        | HAB ROOF   | AC-C    | 1.0             | 12,000              | 1           | 1     | R410A | 4                  | 11.0 | 28.0            | 208/1/60    | 92             | 21.0     | TRUYA0121KA70NA        | SEE NOTES |
| ACCU-D        | LC ROOF  | AC-D    | 1.5             | 18,000              | 1           | 1     | R410A | 4                  | 11.0 | 28.0            | 208/1/60    | 99             | 19.8     | TRUYA0181KA70NA        | SEE NOTES |
| ACCU-E-1      | STL ROOF   | AC-E-1  | 1.0             | 12,000              | 1           | 1     | R410A | 4                  | 11.0 | 28.0            | 208/1/60    | 92             | 21.0     | TRUYA0121KA70NA        | SEE NOTES |
| ACCU-E-2      | STL ROOF   | AC-E-2  | 2.0             | 24,000              | 1           | 1     | R410A | 7                  | 11.0 | 26.0            | 208/1/60    | 151            | 21.4     | TRUYA0241HA70NA        | SEE NOTES |
| ACCU-E-3      | STL ROOF   | AC-E-3  | 2.0             | 24,000              | 1           | 1     | R410A | 7                  | 11.0 | 26.0            | 208/1/60    | 151            | 21.4     | TRUYA0241HA70NA        | SEE NOTES |
| ACCU-F        | SUB ROOF   | AC-F    | 4.0             | 48,000              | 1           | 1     | R410A | 10                 | 29.0 | 40.0            | 208/1/60    | 271            | 23.0     | NTXMSM48A182AA         | SEE NOTES |

### NOTES:

- PROVIDE COMPRESSORS SOUND WRAPPING, 2" DEFLECTION SPRING ISOLATORS COIL GUARD, AND LOW AMBIENT CONTROL.
- THE DESIGN CONDITION IS BASED ON 95 DEG F OUTDDOR AND 75 DEG F / 50 DEG F INDOOR TEMPERATURE.
- PROVIDE REFRIGERANT PIPING INCLUDING, FITTINGS, ACCESSORIES AND SIZES PER MANUFACTURER REQUIREMENTS.
- ROOF MOUNTED UNIT TO BE MOUNTED ON EQUIPMENT SUPPORTS WITH NEOPRENE RUBBER VIBRATION ISOLATION PADS.
- PROVIDE VIBRATION ISOLATION FOR WALL MOUNTED UNIT.
- PROVIDE FUSED DISCONNECT SWITCH FOR EACH CONDENSER MODULE.
- 7. PROVIDE THE FOLLOWING:
- A. LIMITED 6 YEAR COMPRESSOR WARRANTY.
- B. LIMITED 2 YEAR PARTS WARRANTY.
- 7. PROVIDE CONDENSER WITH LOW AMBIANT BAFFLE KIT AS REQUIRED.

|                | SPLIT AC UNIT EVAPORATOR SCHEDULE BASE OF DESIGN: MITSUE |                |                 |                          |    |          |                          |          |             |          |    | BASE OF DESIGN: MITSUBISHI |                           |  |
|----------------|--|----------------|-----------------|--------------------------|----|----------|--------------------------|----------|-------------|----------|----|----------------------------|---------------------------|--|
|                |  |                |                 | COOLING CAPACITY         |    |          | FAN DATA                 | FAN DATA |             | LECTRIC/ | AL |                            |                           |  |
| UNIT<br>DESIG. | LOCATION   | AREA<br>SERVED | NOMINAL<br>TONS | TOTAL<br>COOLING<br>BTUH | DB | AT<br>WB | VOL. FA<br>FLOW Q<br>CFM |          | VOLTS/PH/Hz | MCA MOCP |    | MANUFACTURER<br>/MODEL NO. | NOTES                     |  |
|                | COYKENDALL ELEVATOR                                      |                |                 | 21011                    | °F | °F       | 0                        |          |             |          |    |                            |                           |  |
| AC-A           | MACHINE ROOM (EMR)                                       | EMR            | 1.5             | 18,000                   | 80 | 67       | 455                      | 1        | 208/1/60    | 1        | -  | TPKA0A0181LA00A            | SEE NOTES 1 THRU 7.       |  |
| AC-B           | SMILEY ARTS BUILDING<br>EMR                              | EMR            | 2.5             | 30,000                   | 80 | 67       | 775                      | 1        | 208/1/60    | 1        | -  | TPKA0A0301KA70A            | SEE NOTES 1 THRU 7.       |  |
| AC-C           | HAGGEERTY ADMIN<br>BUILDING EMR                          | EMR            | 1.0             | 12,000                   | 80 | 67       | 455                      | 1        | 208/1/60    | 1        | -  | TPKA0A0121LA00A            | SEE NOTES 1 THRU 7.       |  |
| AC-D           | LECTURE CENTER PENTHOUSE EMR                             | EMR            | 1.5             | 18,000                   | 80 | 67       | 455                      | 1        | 208/1/60    | 1        | -  | TPKA0A0181LA00A            | SEE NOTES 1 THRU 7.       |  |
| AC-E-1         | SOJOURNER EMR 1  | EMR            | 1.0             | 12,000                   | 80 | 67       | 455                      | 1        | 208/1/60    | 1        | -  | TPKA0A0121LA00A            | SEE NOTES 1 THRU 7.       |  |
| AC-E-2         | SOJOURNER EMR 2  | EMR            | 2.0             | 24,000                   | 80 | 67       | 775                      | 1        | 208/1/60    | 1        | -  | TPKA0A0241KA70A            | SEE NOTES 1 THRU 7 AND 9. |  |
| AC-E-3         | SOJOURNER EMR 3  | EMR            | 2.0             | 24,000                   | 80 | 67       | 775                      | 1        | 208/1/60    | 1        | -  | TPKA0A0241KA70A            | SEE NOTES 1 THRU 8.       |  |
| AC-F-1         | STUDENT UNION EMR  | EMR            | 2.0             | 24,000                   | 80 | 67       | 920                      | 1        | 208/1/60    | 0.63     | 15 | TPKFY024KM142A             | SEE NOTES 1 THRU 7.       |  |
| AC-F-2         | STUDENT UNION EMR  | EMR            | 2.0             | 24,000                   | 80 | 67       | 920                      | 1        | 208/1/60    | 0.63     | 15 | TPKFY024KM142A             | A SEE NOTES 1 THRU 7.     |  |

## NOTES:

- 1. CONTRACTOR TO FURNISH AND INSTALL ELECTRICAL DISCONNECT FOR ALL FAN COILS, CONDENSING UNITS
- 2. PROVIDE NEOPRENE VIBRATION ISOLATORS FOR EVAPORATOR UNITS.
- PROVIDE 7-DAY PROGRAMMABLE BACK-LIT CONTROLLER.
- ALL CONTROL WIRING TO BE DONE AS PER DIVISION 23, UNLESS OTHERWISE NOTED BY CONSTRUCTION MANAGEMENT.
- EQUIPMENT STARTUP TO BE SUPERVISED BY FACTORY SERVICE PERSONNEL.
- CONTRACTOR TO PROVIDE PRIMARY DRAIN PAN LEAK SENSOR WITH CONTROL ACCESSORIES PER MANUFACTURER STANDARD.
- CONNECT SPLIT AC SYSTEM TO EXISTING BMS IN EACH BUILDING.
- PROVIDE INTERNAL CONDENSATE PUMP.
- 9. PROVIDE EXTERNAL CONDENSATE PUMP, LITTLE GIANT MODEL VCCA-20ULS, 10 GPH, 18 FT. TOTAL DYNAMIC HEAD, 115V, 1 PHASE, 60 HZ, 1.5 AMP.

|         | FAN SCHEDULE BASE OF DESIGN: GREENHECK  |               |                                 |             |             |             |        |            |    |      |    |      |        |                  |
|---------|---|---------------|---------------------------------|-------------|-------------|-------------|--------|------------|----|------|----|------|--------|------------------|
|         |   |               | PERFORMANCE DATA SELECTION DATA |             |             |             |        | MOTOR DATA |    |      |    |      |        |                  |
| TAG NO. | LOCATION                                | SYSTEM SERVED | CFM                             | TOTAL<br>SP | TYPE        | MODEL       | DRIVE  | VOLT       | PH | BHP  | HP | RPM  | WEIGHT | REMARKS          |
|         |   |               |                                 |             |             |             |        |            |    |      |    |      |        |                  |
| EF-E-2  | SOJOURNER TRUTH<br>LIBRARY GROUND FLOOR | ELEVATOR ROOM | 200                             | 0.5         | INLINE      | CSP-A390-VG | DIRECT | 120        | 1  | 0.05 | -  | 1241 | -      | SEE NOTES 1 TO 4 |
| EF-E-3  | SOJOURNER TRUTH<br>LIBRARY CONCOURSE    | ELEVATOR ROOM | 150                             | 0.7         | CEILING FAN | SP-A390-VG  | DIRECT | 120        | 1  | 0.05 | -  | 1423 | -      | SEE NOTES 1 TO 4 |
|         |   |               |                                 |             |             |             |        |            |    |      |    |      |        |                  |

- NOTES:
  1. PROVIDE DISCONNECT SWITCH.
- 2. CONNECT FAN TO EXISTING BMS IN THE BUILDING, SEE PLANS FOR BMS PANEL LOCATION.



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### |10/03/2022 | ISSUED FOR BID

Facility: SUNY NEW PALTZ **Building Address:** 1 HAWK DRIVE, NEW PALTZ, NY 12561 **Building:** SOJOURNER TRUTH LIBRARY, LECTURE CENTER, COYKENDALL SCIENCE BUILDING, SMILEY ARTS BUILDING, HAGGERTY ADMINISTRATION BUILDING, STUDENT UNION County of: Project No.:

ULSTER

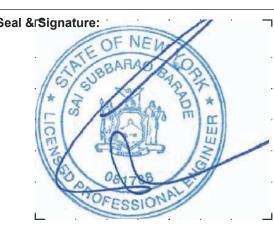


081058-00

**Contract Title: UPGRADE ELEVATORS CAMPUS WIDE -**SOJOURNER TRUTH LIBRARY, LECTURE CENTER, COYKENDALL SCIENCE BUILDING, SMILEY ARTS BUILDING, HAGGERTY ADMINISTRATION BUILDING, AND STUDENT UNION

Project No.: 081058-00

Drawing Title: HVAC - GENERAL NOTES SHEET 2 OF 2



| Drawn By:    | S. WONG / P. MAN   |
|--------------|--------------------|
| Checked By:  | SAI BARADE P.E.    |
| Date:        | SEPTEMBER 15, 2022 |
| Scale:       | AS NOTED           |
| Drawing No.: |                    |

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