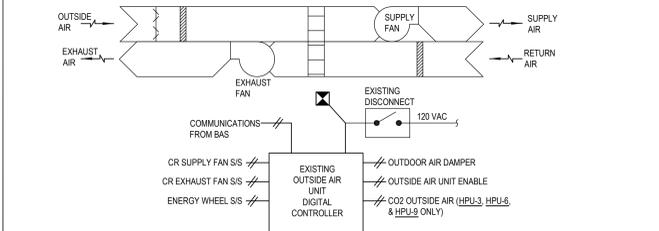
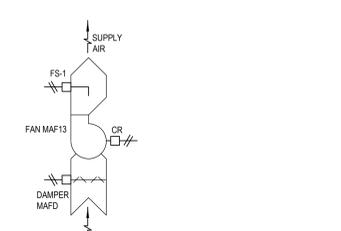


WATER SOURCE HEAT PUMP SYSTEM LOOP
SCHEMATIC

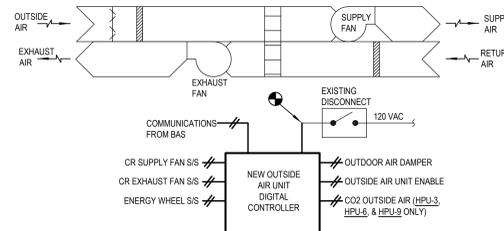
WATER SOURCE HEAT PUMP SYSTEM LOOP
SCHEMATIC



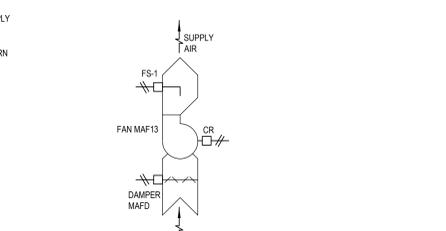
OUTSIDE AIR UNIT (OA)
SCHEMATIC TYPICAL FOR HPU1 THRU HPU11



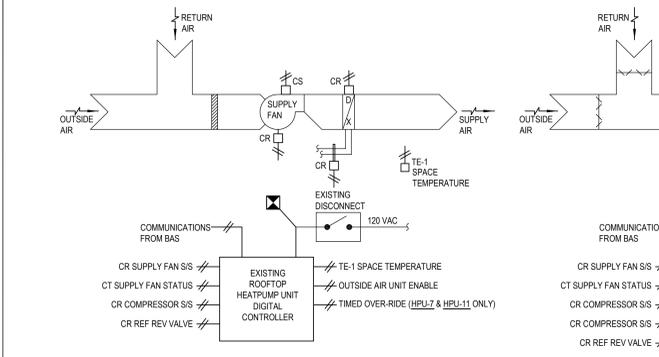
EXHAUST FANS
SCHEMATIC



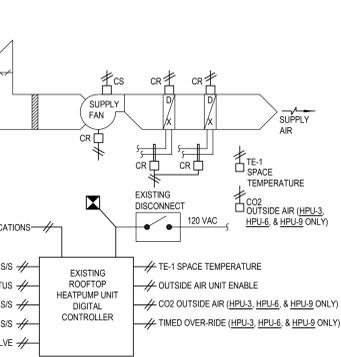
OUTSIDE AIR UNIT (OA)
SCHEMATIC TYPICAL FOR HPU1 THRU HPU11



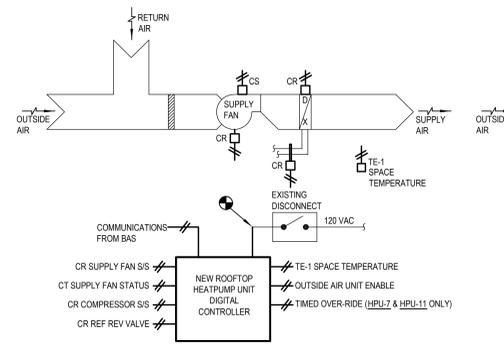
EXHAUST FANS
SCHEMATIC



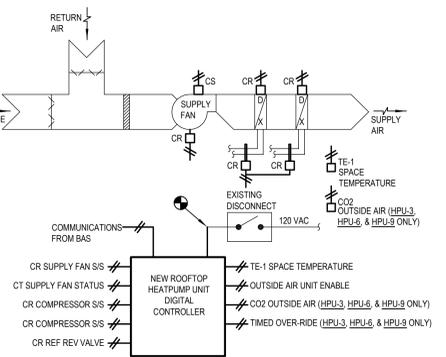
ROOFTOP HEAT PUMP UNIT (HP)
SCHEMATIC TYPICAL FOR HP1, HP2, HP7 & HP11



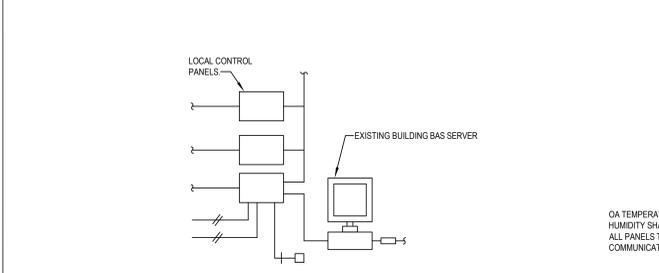
ROOFTOP HEAT PUMP UNIT (HP)
SCHEMATIC TYPICAL FOR HP3, HP4, HP5, HP6, HP8, HP9 & HP10



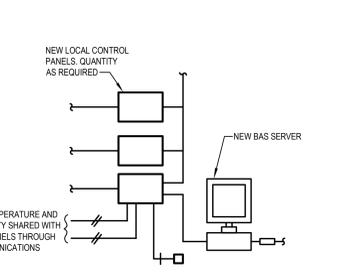
ROOFTOP HEAT PUMP UNIT (HP)
SCHEMATIC TYPICAL FOR HP4, HP5, HP6, HP8, HP9 & HP10



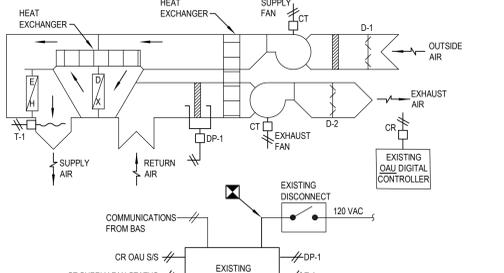
ROOFTOP HEAT PUMP UNIT (HP)
SCHEMATIC TYPICAL FOR HP3, HP4, HP5, HP6, HP8, HP9 & HP10



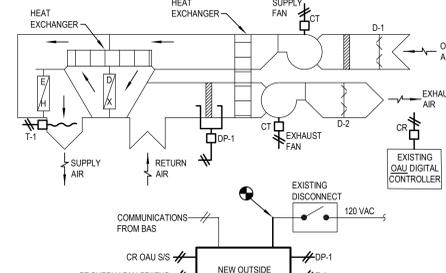
EXISTING NETWORK COMMUNICATIONS
SCHEMATIC



NETWORK COMMUNICATIONS
SCHEMATIC



ROOFTOP OUTSIDE AIR HANDLING UNIT
SCHEMATIC TYPICAL FOR OAU1, OAU2 & OAU3



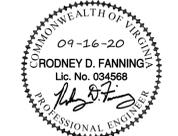
ROOFTOP OUTSIDE AIR HANDLING UNIT
SCHEMATIC TYPICAL FOR OAU1, OAU2 & OAU3

GENERAL NOTES:

- TEMPORARY AND/OR PERMANENT ALTERATIONS TO EXISTING MECHANICAL AND ELECTRICAL SYSTEMS MAY BE NECESSARY FOR INSTALLATION OF NEW SYSTEMS.
- ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
- MATERIALS AND INSTALLATION SHALL COMPLY WITH LOCAL CODES, APPLICABLE PROVISIONS OF LATEST EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION, LOCAL UTILITY REGULATIONS AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.
- CONTRACTOR SHALL SEAL AND FLASH ALL PENETRATIONS.
- VERIFY THE LOCATION OF ALL THERMOSTATS, TEMPERATURE SENSORS, PANELS AND CONTROL INSTRUMENTS WITH THE OWNER PRIOR TO ROUGH-IN.
- VERIFY LOCATIONS OF NEW AND EXISTING EQUIPMENT AND ROUTE OF DUCTWORK AND PIPES WITH EXISTING CONDITIONS.
- NEW PIPING, DUCTWORK AND DUCT AND PIPE INSULATION SHALL MATCH EXISTING. EXISTING DUCT AND PIPE INSULATION THAT IS DAMAGED OR REMOVED FOR NEW WORK SHALL BE REPLACED, REPAIRED AND SEALED TO NO LESS THAN THE ORIGINAL CONDITION. IF DAMAGE IS BEYOND REPAIR, INSULATION SHALL BE AS SPECIFIED FOR NEW WORK.
- ALL REMOTE MOUNTED TEMPERATURE CONTROL DEVICES AND TEMPERATURE CONTROL WIRING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
- ALL CUTTING AND PATCHING FOR THE INSTALLATION OF NEW WORK IN THE EXISTING BUILDING SHALL BE DONE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE SCOPE OF THIS WORK AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS.
- PRIOR TO FINAL ACCEPTANCE OF THE PROJECT BY OWNER, THE CONTRACTOR SHALL DEMONSTRATE ACCESS TO ALL EQUIPMENT AND VALVES IN THE PRESENCE OF THE OWNER'S MAINTENANCE FORCES. ALL STRAINERS IN PIPING SYSTEMS SHALL BE CLEANED. SUBMIT IN WRITING THAT THIS TASK HAS BEEN ACCOMPLISHED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL INSTRUCT THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF THE MECHANICAL AND CONTROL SYSTEMS UNTIL THE OWNER IS FULLY PREPARED TO OPERATE AND MAINTAIN THE MECHANICAL AND CONTROL SYSTEMS. HOWEVER, LENGTH OF INSTRUCTION SHALL BE LIMITED TO ONE FULL DAY.
- SYSTEMS SHALL OPERATE UNDER CONDITIONS OF LOAD WITHOUT UNUSUAL OR EXCESSIVE NOISE OR VIBRATION. UNUSUAL NOISE OR VIBRATION SHALL BE CORRECTED.
- EQUIPMENT, MATERIALS, AND LABOR REQUIRED BY THESE CONTROL DOCUMENTS SHALL BE GUARANTEED TO BE FREE FROM DEFECTIVE MATERIALS OR WORKMANSHIP FOR ONE YEAR AFTER FINAL ACCEPTANCE OF THE PROJECT UNLESS SPECIFIED OTHERWISE. DEFECTIVE MATERIALS OR WORKMANSHIP OCCURRING DURING THIS PERIOD SHALL BE CORRECTED AT NO ADDITIONAL COST.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COVERING AND PROTECTING ALL EXISTING EQUIPMENT DURING DEMOLITION AND CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE CONTROLS CONNECTION AND INTEGRATION WITH ALL ORIGINAL EQUIPMENT MANUFACTURERS (OEM'S) PRIOR TO CONNECTION TO EXISTING UNIT CONTROL PANELS TO VERIFY COMPATIBILITY AND INTEROPERABILITY. PROVIDE ALL HARDWARE AND SOFTWARE REQUIRED FOR FULLY INTEGRATED, SEAMLESS CONTROLS OPERATION OF EXISTING EQUIPMENT FROM BY THE NEW CONTROL SYSTEM.

GENERAL DEMOLITION NOTES:

- THE EXISTING WATER SOURCE HEAT PUMP SYSTEM (BOILERS, PUMPS, CLOSED CIRCUIT COOLER, 12 ROOFTOP HEAT PUMP UNITS, 3 OUTSIDE AIR HEAT PUMP UNITS, AND ROOFTOP EXHAUST FANS ARE TO HAVE THEIR CONTROLS REPLACED. THE EXISTING GENERATOR STATUS AND ALARM AND THE EXISTING DOMESTIC HOT WATER RETURN TEMPERATURE WILL BE ADDED TO THE CONTROLS SYSTEM.
- THE CONTRACTOR SHALL REMOVE OR ALTER AS NECESSARY ALL EXISTING CONTROLS, ELECTRICAL COMPONENTS, AND APPURTENANCES THAT ARE NOT REQUIRED FOR THE EXISTING SYSTEMS TO REMAIN. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE SCOPE OF THIS WORK AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS.
- THE CONTRACTOR SHALL REMOVE ALL HVAC CONTROLS, CONTROL PANELS, SENSORS, AND ACTUATORS AS INDICATED. VERIFY WITH THE OWNER WHICH ITEMS MAY NEED TO BE RETAINED BY THE OWNER AND PROTECTED DURING REMOVAL.
- EXISTING EQUIPMENT AND MATERIALS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PREMISES UNLESS DIRECTED OTHERWISE BY THE OWNER. THE OWNER MAY DIRECT THE CONTRACTOR TO TURN OVER PARTICULAR EQUIPMENT TO THE OWNER AND LOCATE AS DIRECTED BY THE OWNER.
- PROTECT ALL EXISTING ITEMS TO REMAIN FROM DAMAGE DURING DEMOLITION. EXISTING ITEMS THAT ARE DAMAGED OR MISTAKENLY REMOVED DURING DEMOLITION SHALL BE REPAIRED OR REPLACED.
- BUILDING SURFACES WHICH ARE AFFECTED BY HVAC DEMOLITION SHALL BE PATCHED AND REPAIRED AND OR PAINTED TO MATCH THE EXISTING ADJACENT SURFACES.
- THE EXISTING SYSTEMS AND CONTROLS INDICATED ARE FROM CONSTRUCTION DOCUMENTS DATED APRIL 6, 1999 AND RECORD CONTROLS DRAWINGS (AS BUILTS) DATED APRIL 9, 2006. ADDITIONAL INFORMATION IS FROM SITE VISITS. THE CONTRACTOR IS CAUTIONED THAT THE EXISTING HVAC SYSTEM LAYOUTS ARE INDICATED AS ONLY AN APPROXIMATION OF EXISTING CONDITIONS. THE CONTRACTOR SHALL VERIFY ACTUAL SYSTEM CONFIGURATIONS IN THE FIELD AND SHALL COORDINATE ACCORDINGLY.
- INSULATION AND OTHER FINISHES ON EXISTING PIPING, DUCTWORK, AND EQUIPMENT THAT IS DAMAGED OR REMOVED DUE TO THE DEMOLITION WORK SHALL BE REPLACED AND SEALED WITH MATCHING MATERIAL AS REQUIRED.
- DEMOLITION ACTIVITIES SHALL BE CLOSELY COORDINATED WITH THE SCHOOL SYSTEM TO MAINTAIN ACTIVE STATUS OF EXISTING SYSTEMS UNTIL SUCH TIME THE PLANNED DEMOLITION CAN BE EXECUTED.



REVISION	DATE

DESIGNED	MEH	DRAWN	MEH
CHECKED		APPROVED	LPA
COMM. NO.	18109	DATE	09-16-20
SHEET	M-1		