WASHINGTON STATE UNIVERSITY
HAMILTON HALL HVAC MODIFICATIONS
PROSSER, WA

MECHANICAL GENERAL NOTES

HVC Abbreviations

PIPE LEGEND

Piping Notations:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), INTERNATIONAL FIRE CODE (IFC), INTERNATIONAL PLUMBING CODE (IPC) AND ELECTRICAL CODE. THE WASHINGTON STATE ENGINEER CODE COMPLIES WITH THE UNIVERSITY CODE.

2. ALL WORK SHALL BE PERFORMED IN A MANNER AND MANNER AS TO COMPLY WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE AND SATISFACTORY INSTALLATION TO DESIRE SIGNED SHALL BE FURNISHED TO CONTRACTOR. PROVIDE, AT NO ADDITIONAL COST, INCLUDING RETURN, PERMANENT OR NON-REFUNDABLE WORK ADDITIONAL WORK REJECTED FOR TOTAL COMPLETION OF WORK.

3. CONSTRUCTION IS PROHIBITED FOR VISIBILITY OF THE CONTRACTOR. INSTALLATION IS REQUIRED AND NOT LIMIT CONSTRUCTION CONSIDERATION IS TO SPECIFY AN ADDITIONAL WORK FOR EXHAUST OR NON-CONSTRUCTION OR CONSTRUCTION OR INSTALLATION CONSIDERATION IS TO SPECIFY AN ADDITIONAL WORK FOR EXHAUST OR NON-CONSTRUCTION OR INSTALLATION CONSIDERATION IS TO SPECIFY AN ADDITIONAL WORK FOR EXHAUST OR NON-CONSTRUCTION.

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1. Existing control station to remain.
2. Install new controls front and work station at this location.
3. Existing chiller.
4. Cut new control, butterfly dampers up stream of mixing box.
5. Butterfly dampers shall be sized to match duct to unit as indicated on schedule in M601. The existing dampers in the dual duct constant volume boxes shall have the actuators removed and be locked in the fully opened position. Install required sensor and control equipment as indicated.
6. Verify all equipment locations prior to work.
7. Drawing created from existing drawings and field observations. Contractor to verify location of equipment, piping, and ductwork.
8. Connect existing chiller to controls system. Include this work in the following points shall be connected:
   1. Chiller enable/disable
   2. Chiller alarm

For general notes, legends, and abbreviations, see sheet M001.

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PROJECT #: 8358

CONSULTANTS

BASEMENT FLOOR PLAN

M101
1. VERIFY ALL EQUIPMENT LOCATIONS PRIOR TO WORK.

2. CONTRACTOR TO VERIFY LOCATION OF EQUIPMENT, PIPING, AND DUCTWORK.

3. DRAWN USING EXISTING SHEETS AND CIVIL DRAWINGS.

NOTES:

- Cut blinds and butterfly damper upper stream of mixing box. Butterfly dampers shall be sized to match existing duct to unit as indicated on schedule on M001. Duct constant volume box shall have the actuator removed and be locked in the fully opened position. Install required sensor and operation and M001. Include this work in BID ALTERNATIVE 3.

- Cut blinds and butterfly damper upper stream of mixing box. Butterfly dampers shall be sized to match existing duct to unit as indicated on schedule on M001. Duct constant volume box shall have the actuator removed and be locked in the fully opened position. Install required sensor and operation and M001. Include this work in BID ALTERNATIVE 5.

- FOR GENERAL NOTES, LEGENDS, AND ABBREVIATIONS, SEE SHEET M001.

- VERIFY ALL EQUIPMENT LOCATIONS PRIOR TO WORK.

- DRAWN USING EXISTING SHEETS AND CIVIL DRAWINGS.
1. Review all equipment locations prior to work.

2. Verify all equipment locations. Prior to work.

3. Drawings created from existing drawings and on field observations, contractor to verify location of equipment. Final punch out.

4. Project No. 8358

5. Plot date: 2/7/19

6. Construction Documents 02/07/19

NOTES

- Cut and install butterfly dampers up stream of mixing boxes. Butterfly dampers shall be sized to match existing duct to unit as indicated on schedule on M601. The existing dampers in the dual duct constant volume box shall have the actuator removed and be locked in the fully opened position. Install required sensor and zone control devices per the requirements of the sequence of operation and M501. Include this work in alternative 1.

- AHA and steam boiler located in the fan room.

- Replace existing damper actuators on AHUs and control via actuator for the fan coil unit. Include this work in alternative 4.

- Cut and install butterfly dampers up stream of mixing boxes. Butterfly dampers shall be sized to match existing duct to unit as indicated on schedule on M601. The existing dampers in the dual duct constant volume box shall have the actuator removed and be locked in the fully opened position. Install required sensor and zone control devices per the requirements of the sequence of operation and M501. Include this work in alternative 5.

- Connect existing steam boiler to controls system. Include this work in alternative 4. The following points shall be connected:
  1. Boiler enable/disable
  2. Boiler runtime
  3. Steam pressure
  4. Boiler alarm

- For general notes, legends, and abbreviations, see sheet M001.

- Verify all equipment locations prior to work.

- Drawing created from existing drawings and field observations. Contractor to verify location of equipment, piping, and ductwork.
### Constant Volume Mixing Unit Schedule

| SYMBOL | TOTAL (CFM) | MAXIMUM (CFM) | MINIMUM (CFM) | VOLUME (HOUR) | TRAIL (HOUR) | AIRFLOW | SIZE | SYMBOL | TOTAL (CFM) | MAXIMUM (CFM) | MINIMUM (CFM) | VOLUME (HOUR) | TRAIL (HOUR) | AIRFLOW | SIZE | SYMBOL | TOTAL (CFM) | MAXIMUM (CFM) | MINIMUM (CFM) | VOLUME (HOUR) | TRAIL (HOUR) | AIRFLOW | SIZE |
|--------|-------------|---------------|---------------|---------------|--------------|----------|------|--------|-------------|---------------|---------------|---------------|---------------|--------------|----------|------|--------|-------------|---------------|---------------|---------------|--------------|--------------|----------|------|
| CV-1   | 1024        | 1024          | 11            | 10            | ELECTRIC/PNEUMATIC |         |      |        | CV-2         | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |
| CV-2   | 1270        | 1765          |               |               |              |         |      |        | CV-3         | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |
| CV-3   | 1270        | 1765          |               |               |              |         |      |        | CV-4         | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |
| CV-4   | 1270        | 1765          |               |               |              |         |      |        | CV-5         | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |
| CV-5   | 1270        | 1765          |               |               |              |         |      |        | CV-6         | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |
| CV-6   | 1270        | 1765          |               |               |              |         |      |        | CV-7         | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |
| CV-7   | 1270        | 1765          |               |               |              |         |      |        | CV-8         | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |
| CV-8   | 1270        | 1765          |               |               |              |         |      |        | CV-9         | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |
| CV-9   | 1270        | 1765          |               |               |              |         |      |        | CV-10        | 1270          | 1765          |               |               |              |      |      |        |             |               |               |               |              |              |      |      |

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### Accessory/Remainder

- **CV-1**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-2**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-3**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-4**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-5**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-6**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-7**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-8**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-9**: A temporary with valve updated to Electric/Pneumatic connection unit.
- **CV-10**: A temporary with valve updated to Electric/Pneumatic connection unit.

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**Legend:**
- **(E)** Controls
- **(H)** Damper
- **(C)** Butterfly
- **(M)** Constant Volume Mixing Unit

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**Notes:**
- All items listed are for each box. Not all boxes listed on schedule may exist. Some numbers may lack symbols, such as "CV-2".