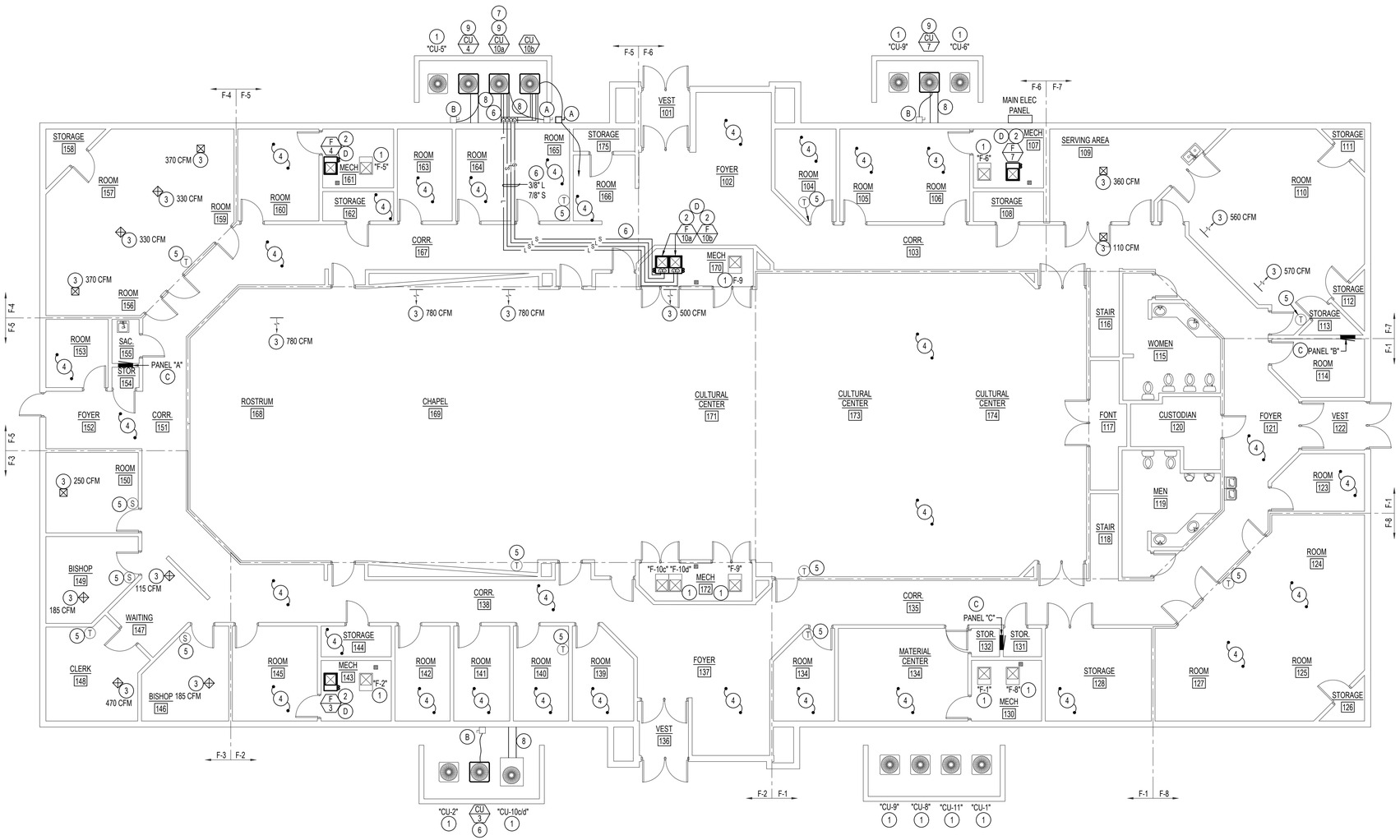
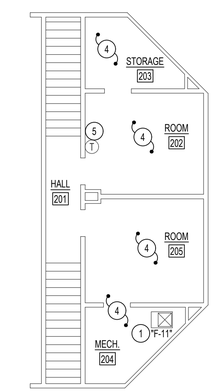



## MECHANICAL/ELECTRICAL FLOOR PLAN

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

North




## UPPER MECHANICAL/ELECTRICAL FLOOR PLAN

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

North

## PLAN NOTES:

1. EXISTING FURNACE AND CORRESPONDING CONDENSING UNIT TO REMAIN. PROTECT DURING CONSTRUCTION.
2. EXISTING 80% EFFICIENT FURNACE TO BE REPLACED WITH NEW 95% EFFICIENT FURNACE. CAP AND ABANDON EXISTING FLUE IN MECHANICAL ROOM AS HIGH AS POSSIBLE. PROVIDE AND INSTALL NEW CONCENTRIC VENT THRU ROOF AS INDICATED ON DETAILS. DISCONNECT AND RE-CONNECT EXISTING GAS, CONDENSATE DRAIN, DUCTWORK, AND WIRING FOR NEW INSTALL. FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. MAINTAIN OUTSIDE AIR DAMPER OPENING. IF APPLICABLE, SEE CONTRACTOR OPTION ON THIS SHEET.
3. BALANCE DIFFUSER/REGISTER TO CFM INDICATED ON PLANS.
4. NO WORK TO BE DONE IN THIS ROOM. PROTECT DURING CONSTRUCTION.
5. EXISTING THERMOSTAT/SENSOR TO REMAIN. PROTECT DURING CONSTRUCTION.
6. REMOVE EXITING 7.5 TON REFRIGERANT PIPING AND REPLACE WITH NEW REFRIGERANT LINES. RISE NEW REFRIGERANT LINES UP THRU SOFFIT AND ROUTE IN ATTIC SPACE. CONTRACTOR TO SIZE REFRIGERANT LINE SIZE BASED ON MANUFACTURER INSTRUCTIONS AND ACTUAL INSTALL CONDITIONS. RE-USE EXISTING REFRIGERANT COVERS AS MUCH AS POSSIBLE. SEE DETAILS ON SHEET ME-2.
7. REMOVE AND DISPOSE OF EXISTING REFRIGERANT LINES FOR THIS EXISTING CONDENSING UNIT IN PREPARATION OF RUNNING NEW.
8. REPLACE EXISTING REFRIGERANT PIPE COVERS WITH NEW TO MATCH EXISTING. SEE DETAIL ON SHEET ME-2.
9. THIS CONDENSING UNIT TO BE REMOVED AND REPLACED WITH NEW. PROVIDE AND INSTALL UNIT ON NEW 1" VIBRATION ISOLATION PADS. SEE CONTRACTOR OPTION ON THIS PLAN. RE-USE EXISTING REFRIGERANT COVERS AS MUCH AS POSSIBLE.

## ELEC. NOTES:

- (A) INSTALL NEW 20A 3P DISCONNECT FOR NEW CONDENSING UNITS. LABEL PANEL INDEX FOR NEW LOADS.
- (B) EXISTING 30A 3P DISCONNECT TO REMAIN FOR NEW CONDENSING UNIT. REPLACE FUSES FOR COMPRESSOR NAMEPLATE AMPS. LABEL PANEL INDEX FOR NEW LOADS.
- (C) RE-INDEX PANEL WITH ANY CHANGED LOADS.
- (D) DISCONNECT EXISTING FURNACE TO BE REMOVED BY MECH. EXISTING DISCONNECT SWITCH TO REMAIN. RE-CONNECT TO NEW FURNACE INSTALLED.

## CONTRACTOR OPTION:

CONTRACTOR TO VERIFY EXISTING CONDITION OF REFRIGERANT PIPING. IF PIPING IS FOUND TO BE IN GOOD CONDITION WITH NO LEAKS, CONTRACTOR CAN RE-USE EXISTING PIPING INSTEAD OF INSTALLING NEW PIPING. IF EXISTING PIPING IS RE-USED, CONTRACTOR MUST CLEAN AND PURGE LINES USING RX-11 CLEANING KIT BEFORE NEW R410A REFRIGERANT IS INSTALLED AND NEW CONDENSING UNITS AND COILS CONNECTED. EXISTING LINES MUST HOLD PRESSURE AND DEMONSTRATE INTEGRITY THROUGH-OUT SYSTEM.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PROJECT:

**HVAC IMPROVEMENTS FOR:**
**LDS SHAWNEE WARD**
**W. 5001 SHAWNEE AVE, SPOKANE WA**

PROPERTY # 525-8391

SHEET TITLE: MECHANICAL/ELECTRICAL FLOOR PLAN

DWAYNE C. SUDWEEKS STATE OF WASHINGTON 56857 REGISTERED PROFESSIONAL ENGINEER
May 08, 2023

| DRWN. BY: | CKD. BY: |
|---|---|
| TCD | DCS |
| JOB NO. | DATE: |
| 22155 | 05/08/23 |

SHEET: ME-1
OF: 2

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## AIR COOLED CONDENSING UNIT SCHEDULE

| MARK (3) | MIN. NOMINAL SIZE (TONS) (2) | MINIMUM CIRCUIT AMPACITY | MCOP | CHAR. (5) (6) | REMARKS (1) (4) |
|---|---|---|---|---|---|
| CU 3 | 3 | 14.2 | 20 | 208/60/3 | WITH 0°F LOW AMBIENT HARD START KIT |
| CU 4 | 3 1/2 | 18.6 | 30 | 208/60/3 | WITH 0°F LOW AMBIENT HARD START KIT |
| CU 7 | 4 | 18.8 | 30 | 208/60/3 | WITH 0°F LOW AMBIENT HARD START KIT |
| CU 10a | 4 | 18.8 | 30 | 208/60/3 | WITH 0°F LOW AMBIENT HARD START KIT |
| CU 10b | 4 | 18.8 | 30 | 208/60/3 | WITH 0°F LOW AMBIENT HARD START KIT |

(1) REFRIGERANT = R-410a
(2) AT DESIGN CONDITIONS AND 95 Deg. F ENTERING AIR TEMPERATURE TO CONDENSER.
(3) COIL MARKS CORRESPOND WITH COOLING COIL AND FURNACE MARKS.
(4) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS. 14.0 SEER MINIMUM.
(5) ELECTRICAL CHARACTERISTICS - COMPRESS: 208V / 3 PHASE / 60 HZ
(6) COORDINATE ACTUAL ELECTRICAL RATINGS OF UNIT SUPPLIED WITH DIVISION 26.

## COOLING COIL SCHEDULE (1) (2)

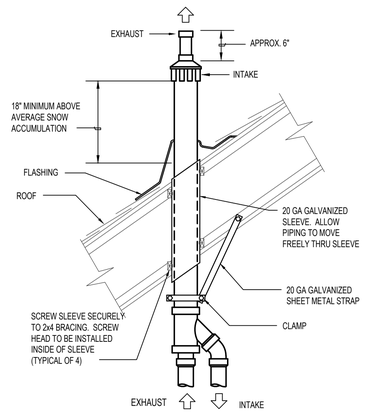
| MARK | MIN. REQ'D. CAP. TOT.MBH | MIN. REQ'D. CAP. SEN.MBH | COND.ENT.EVAP. DB° F | COND.ENT.EVAP. WB° F | S.C.F.M. | MAX. PR. DR. IN.W.G. (3) | POSITION | REMARKS (4) (6) |
|---|---|---|---|---|---|---|---|---|
| CC 3 | 36.0 | 32.4 | 79 | 66 | 1200 | 0.22 | VERTICAL | 3 TON NOMINAL, R410A REFRIGERANT (5) |
| CC 4 | 42.0 | 35.2 | 79 | 66 | 1400 | 0.29 | VERTICAL | 3 1/2 TON NOMINAL, R410A REFRIGERANT (5) |
| CC 7 | 49.2 | 40.4 | 79 | 66 | 1600 | 0.22 | VERTICAL | 4 TON NOMINAL, R410A REFRIGERANT (5) |
| CC 10a | 49.2 | 40.4 | 79 | 66 | 1600 | 0.22 | VERTICAL | 4 TON NOMINAL, R410A REFRIGERANT (5) |
| CC 10b | 49.2 | 40.4 | 79 | 66 | 1600 | 0.22 | VERTICAL | 4 TON NOMINAL, R410A REFRIGERANT (5) |

(1) COIL MARKS CORRESPOND WITH CONDENSING UNIT AND FURNACE MARKS.
(2) COMPLETE WITH FACTORY COIL BOX AND COIL.
(3) WET COIL
(4) USE NEXT LARGE SIZE COIL IF NECESSARY TO MEET MAX. PRESSURE DROP REQUIREMENTS.
(5) UP-FLOW COIL.
(6) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.

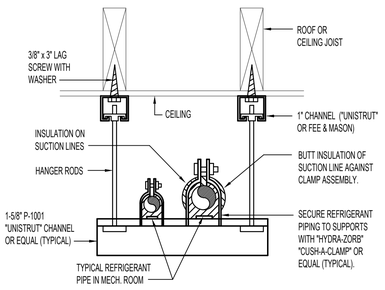
## FURNACE SCHEDULE (2) (8)

| MARK | MIN.REQ'D OUTPUT BTU/HR (1) | MINIMUM A.C.F.M. | EXT. S.P. IN.W.G. | MOTOR (3) MIN. H.P. | MOTOR (3) SPEED (5) | REMARKS |
|---|---|---|---|---|---|---|
| F 3 | 68,000 | 1200 | 0.60 | 1/3 | MED. HIGH (4) | 88,000 BTU INPUT (6) |
| F 4 | 93,000 | 1400 | 0.60 | 1/2 | MED. HIGH (4) | 88,000 BTU INPUT (6) |
| F 7 | 93,000 | 1600 | 0.60 | 1/2 | MED. HIGH (4) | 110,000 BTU INPUT (6) |
| F 10a | 93,000 | 1600 | 0.60 | 1/2 | MED. HIGH (4) | 110,000 BTU INPUT (6) (7) |
| F 10b | 93,000 | 1600 | 0.60 | 1/2 | MED. HIGH (4) | 110,000 BTU INPUT (6) (7) |

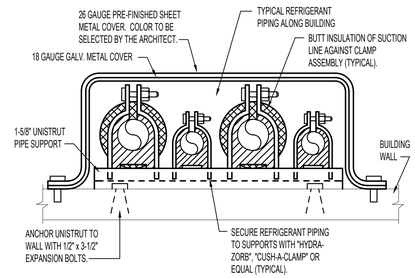
(1) BTU/HR OUTPUT AT SEA LEVEL RATING
(2) FURNACE MARKS CORRESPOND WITH CONDENSING UNIT AND COOLING COIL MARKS.
(3) ELECTRICAL CHARACTERISTICS - MOTOR: 120V / 1 PHASE / 60 HZ
(4) MAY VARY ACCORDING TO MANUFACTURER. INSTALL NECESSARY JUMPERS SO THAT FAN OPERATES ONLY AT COOLING SPEED WHENEVER THE FAN CIRCUIT IS ENERGIZED.
(5) SET FAN MOTOR SPEED TAP TO LOWEST POSSIBLE SETTING TO ACHIEVE DESIGN AIR FLOW.
(6) UP-FLOW UNIT WITH 14" HIGH PLENUM BASE.
(7) PROVIDE AND INSTALL WITH TWINNING KIT.
(8) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS. - 92% MINIMUM AFUE.



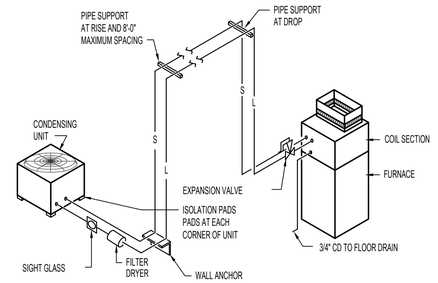

### CONCENTRIC VENT TERMINATION DETAIL
NO SCALE



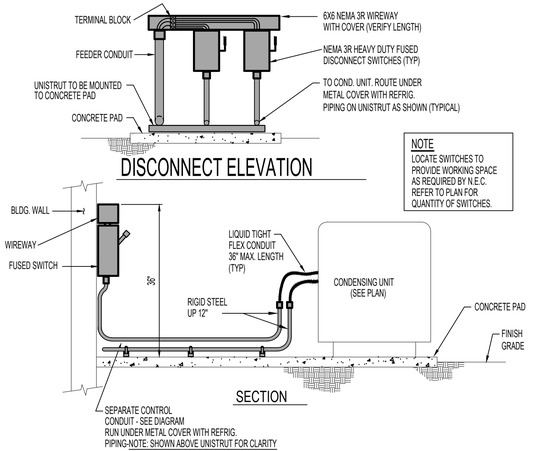

### SUSPENDED PIPE SUPPORT
NO SCALE




### PIPE SUPPORT ALONG BUILDING
NO SCALE




### REFRIGERANT PIPING DIAGRAM
NO SCALE



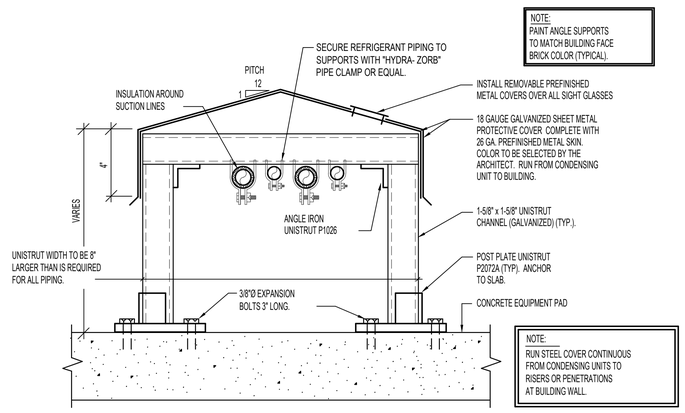

### DISCONNECT ELEVATION

NOTE
LOCATE SWITCHES TO PROVIDE WORKING SPACE AS REQUIRED BY N.E.C. REFER TO PLAN FOR QUANTITY OF SWITCHES.

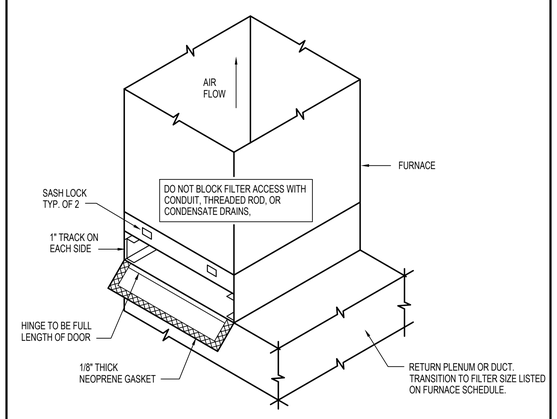



### SECTION

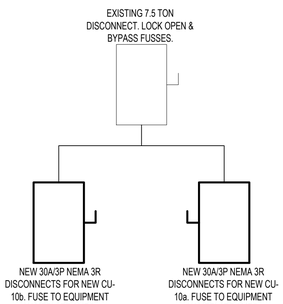
### CONDENSING UNIT - CONDUIT DIAGRAM
NO SCALE (ABOVE SLAB)




### REFRIGERANT PIPE SUPPORT DETAIL
NO SCALE




### EXTERNAL FILTER SECTION DETAIL
NO SCALE — UP-FLOW CONFIGURATION




### DISCONNECTS FOR CU-10A/10B
NO SCALE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LDS SHAWNEE WARD
W. 5001 SHAWNEE AVE, SPOKANE WA
PROPERTY # 525-8391

SHEET TITLE:
MECHANICAL DETAILS AND SCHEDULES

WAYNE C. SUDWEEKS STATE OF WASHINGTON 56857 REGISTERED PROFESSIONAL ENGINEER
May 08, 2023

| DRWN. BY: | CKD. BY: |
|---|---|
| TCD | DCS |
| JOB NO. | DATE: |
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SHEET: ME-2
OF: 2

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