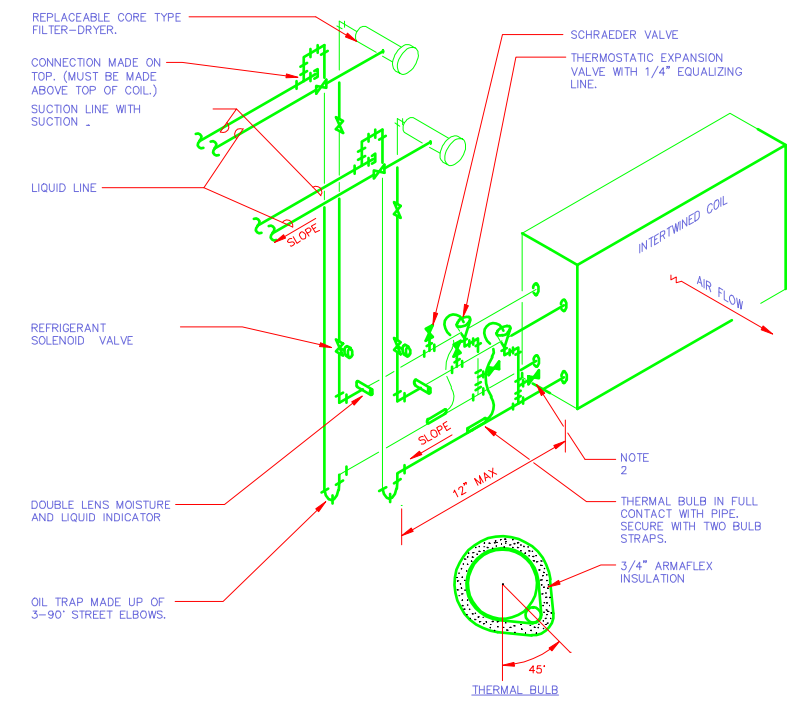


FIRST FLOOR-AREA 'F'-HVAC PLAN 1
SCALE: 1/8"=1'-0" V108



- KEYNOTES**
- (V1) AIR HANDLING UNIT CONCRETE PAD. SEE ARCHITECTURAL DRAWINGS.
 - (V2) ROUTE 16x10 EXHAUST DUCT DOWN TO LOW REGISTER.
 - (V3) 4" EXHAUST AIR DOWN TO VENTILATED CABINET. BALANCE TO 100 CFM.
 - (V4) SEE ARCHITECTURAL DRAWINGS FOR DUCT PENETRATION THROUGH EXTERIOR WALL DETAIL.
 - (V5) FIRE/SMOKE DAMPER IS TO BE FRONT ACCESS. TYPICAL. (RUSKIN FSD 80FA OR EQUAL).
 - (V6) COORDINATE OPENING WITH CONCRETE MASONRY UNIT.
 - (V7) DUCTWORK DOWNSTREAM OF THIS POINT SHALL BE STAINLESS STEEL. (SEE LAB EXHAUST DUCTWORK SPECIFICATION). DUCTWORK UPSTREAM MAY BE GALVANIZED. (SEE GENERAL EXHAUST DUCTWORK SPECIFICATION). SEE 1/1003 FOR CONNECTION OF TWO DISSIMILAR DUCT MATERIALS.
 - (V8) DUCT STATIC PRESSURE SENSOR FOR AHU-4. SEE SPECIFICATIONS.
 - (V9) DUC™ 5" A/C PRESSURE SENSOR FOR EF-13A AND B. 5" SPECIFICATIONS.
 - (V10) 4" SUPPLY AIR DOWN TO ENVIRONMENTAL ROOM. COORDINATE LOCATION AND CONNECTION REQUIRED WITH MANUFACTURER. BALANCE TO 50 CFM.
 - (V11) 4" EXHAUST AIR DOWN TO ENVIRONMENTAL ROOM. COORDINATE LOCATION AND CONNECTION REQUIRED WITH MANUFACTURER. 8" A HSET TO 50 CFM.
 - (V12) INSTALL DOUBLE WALL DUCTWORK FROM AHU-4 TO HERE. SEE SPECIFICATIONS.
 - (V13) SEE 2/1002 FOR ROOF MOUNTED EXHAUST FAN DETAIL.
 - (V14) CONDENSING UNIT CONCRETE PAD. SEE ARCHITECTURAL DRAWINGS.
 - (V15) SEE 2/1008 FOR REFRIGERANT PIPING DETAIL.
 - (V16) HUMIDISTAT FOR CONTROL OF H-4.
 - (V17) SEE 7/1002 FOR FIRE/SMOKE DAMPER INSTALLATION DETAIL. TYPICAL FOR ALL FIRE/SMOKE DAMPERS.
 - (V18) SEE 8/1002 FOR TERMINAL AIR BOX DETAIL. TYPICAL FOR ALL TERMINAL AIR BOXES.
 - (V19) SEE 8/1002 FOR FLEX DUCT CONNECTOR WITH BALANCING DAMPER DETAIL. TYPICAL.
 - (V20) 10" EXHAUST DUCT DOWN THROUGH CEILING. TRANSITION TO 6"x10" FOR CONNECTION TO FUME HOOD.
 - (V21) 4" AL29-4C VENT PIPE. ROUTE DOWN FOR CONNECTION TO BOILER.
 - (V22) 3" AL29-4C VENT PIPE. ROUTE DOWN FOR CONNECTION TO BOILER.
 - (V23) 7" AL29-4C VENT PIPE. ROUTE DOWN FOR CONNECTION TO STEAM GENERATOR.
 - (V24) TERMINATE VENT PER MANUFACTURER'S REQUIREMENTS.
 - (V25) 3" SUPPLY AIR. CONNECT TO BOILER.
 - (V26) 4" SUPPLY AIR. CONNECT TO BOILER.
 - (V27) TERMINATE SUPPLY AIR PER MANUFACTURER'S REQUIREMENTS.
 - (V28) INSTALL HUMIDIFIER SO THAT BOTTOM IS 48" A.F.F.
 - (V29) HUMIDISTAT FOR CONTROL OF H-F105.
 - (V30) HUMIDISTAT FOR CONTROL OF H-F115.
 - (V31) INSTALL 22 GAUGE STAINLESS STEEL LINER INSIDE SUPPLY DUCT 12" UPSTREAM AND 48" DOWNSTREAM OF H-4 MANIFOLD.
 - (V32) 4" PVC SUPPLY AIR PIPE. INSTALL PER MANUFACTURER'S REQUIREMENTS.
 - (V33) ROUTE 8x8 EXHAUST DUCT DOWN TO EG-2.

- AHU-4 COMPONENTS**
1. INLET HOOD
 2. FILTER/WASHING BOX
 3. DX COOLING COIL
 4. SUPPLY FAN
 5. GAS BURNER

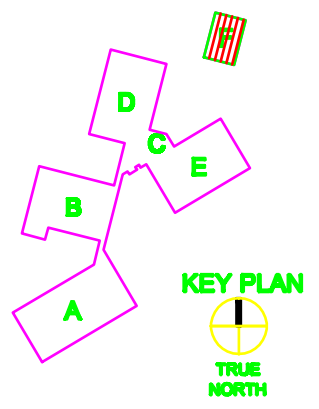


REFRIGERANT PIPING DETAIL 2
NO SCALE V108

- NOTES**
1. THIS DIAGRAM IS SCHEMATIC IN NATURE. UNIT MFR. SHALL SUBMIT DETAILED PIPING DIAGRAM SHOWING RECOMMENDED PIPING ARRANGEMENT IF DIFFERENT FROM ABOVE.
 2. INSTALL 1/4" SCHRAEDER VALVES TO MEASURE REFRIGERANT PRESSURE WITH REFRIGERANT GAUGES.
 3. PIPE SIZES, IF SHOWN ON DRAWINGS, ARE ONLY FOR THE CONVENIENCE OF THE BIDDERS. ACTUAL NUMBERS AND SIZES OF PIPES AND ANY ACCESSORIES SUCH AS ACCUMULATORS, RECEIVERS, SEPARATORS AND HEAT TRACING SHALL BE DETERMINED BY THE COIL SUPPLIER AND SUBMITTED AS SHOP DRAWINGS. NO COMPENSATION WILL BE MADE IF ACTUAL NUMBER OR SIZES OF PIPES EXCEED WHAT IS SHOWN.

MARK	DATE	DESCRIPTION
2	02.20.03	ADDENDUM #3
1	01.20.03	ISSUED FOR CONST.

PROJ. NUMBER	PROJ. MANAGER	PROJ. COORD	STRUCTURAL	MECHANICAL	ELECTRICAL	PROCESS PIPE	INTERIORS	EQUIPMENT
92001-006-032	DUEKER/STOBART	CRANDLE DAVIS	BRETT HART	KJWW	KJWW	N/A	JOHN NIESEN	EARL WALLS



FIRST FLOOR AREA 'F' HVAC PLAN

SCALE 1/8"=1'-0"

V108

FILENAME V108.DWG

Iowa Laboratories Facility
HDR / KJWW / Shive-Hattery
A Joint Venture

