3. WHERE INDICATED PROVIDE SPLIT SYSTEMS WITH A ZONE/BYPASS DAMPER TEMPERATURE CONTROL SYSTEM. SEE SECTION 230931 OF THE PROJECT MANUAL & DETAIL 2/M2.1 FOR REQUIREMENTS.

4. COORDINATE CONTROL OF EXHAUST FANS W ELECTRICAL. TOILET ROOM EXHAUST FANS TO BE CONTROLLED W ROOM LIGHTING.

5. JANITOR ROOM EXHAUST FANS TO BE CONTROLLED WY SEPARATE WALL SWITCH.

COORDINATE WITH ELECTRICAL. 6. AT THE COMMUNITY SPLIT SYSTEM, OPEN MOTORIZED OUTSIDE AIR INTAKE DAMPER WHEN THE ROOM CO2 LEVEL EXCEEDS 1200 PPM. CLOSE OUTSIDE AIR DAMPER

RELATIVE HUMIDITY RISES TO OVER 55% RH, CLOSE THE OUTSIDE AIR DAMPER. 1. SEE SECTION 230900 OF THE PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

WHEN THE ROOM CO2 LEVEL FALLS TO 800 PPM OR BELOW. IN THE EVENT THE ROOM

SEISMIC NOTES

I. THIS BUILDING IS OF THE TYPE AND LOCATED IN A GEOGRAPHIC AREA WHERE THE MECHANICAL SYSTEMS SHALL BE PROTECTED FROM DAMAGE DUE TO EARTHQUAKES

A. OCCUPANCY CATEGORY II B. SEISMIC IMPORTANCE FACTOR IP = 1.0

C. 55 = 1.488 D. SI = 0.517

E. 5DS = 0.992F. SDI = 0.517

G. SITE CLASS D H. SEISMIC DESIGN CATEGORY D

2. SEISMIC RESTRAINTS SHALL BE PROVIDED WHERE REQUIRED BY THE LATEST INTERNATIONAL BUILDING CODE.

3. BASED ON THESE DRAWINGS, THE CONTRACTOR SHALL PROVIDE A SEISMIC DESIGN FOR APPROVAL COMPLETE WITH JOB SPECIFIC SHOP DRAWINGS, CALCULATIONS, AND SEISMIC COMPONENT CUT SHEETS. THE CONTRACTOR SHALL FURNISH AND INSTALL THE SEISMIC COMPONENTS IN STRICT COMPLIANCE WITH THE APPROVED SUBMITTAL AND IN ACCORDANCE WITH CODES.

4. THE SUBMITTAL SHALL BE PREPARED BY THE MASON INDUSTRIES COMPANY OR EQUAL. CONTACT FLUID SOLUTIONS, INC. OF LITTLE ROCK, AR, TELEPHONE 501-663-8886. JOB SPECIFIC CALCULATIONS SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE BUILDING'S LOCATION.

5. DUCTWORK EXCLUSIONS

A. RECTANGULAR AND SQUARE AND DUCTS THAT ARE LESS THAN 6 SQUARE FEET IN CROSS SECTIONAL AREA.

B. OVAL DUCTS THAT ARE LESS THAN 6 SQUARE FEET IN CROSS SECTIONAL AREA BASED ON NOMINAL SIZE.

C. ROUND DUCT LESS THAN 28" IN DIAMETER.

D. ALL TRAPEZED DUCTWORK WHERE THE DISTANCE FROM THE STRUCTURAL

SUSPENSION POINT TO THE TRAPEZE MEMBER IS 12" OR LESS.

E. DUCTWORK HUNG WITH STRAPS WHERE THE TOP OF THE DUCT IS 12" OR LESS FROM THE STRUCTURAL SUSPENSION POINT AND THE STRAP HAS 2 #10 SHEET METAL SCREWS WITHIN 2" OF THE TOP OF THE DUCT.

F. IF ANY STRUCTURAL SUSPENSION LOCATION IN THE RUN EXCEEDS 12", THE ENTIRE RUN MUST BE SEISMICALLY BRACED.

6. PIPE EXCLUSIONS

A. PIPING IN BOILER AND MECHANICAL ROOMS LESS THAN 14" INSIDE DIAMETER.

B. ALL OTHER PIPING LESS THAN 21/2" INSIDE DIAMETER.

C. ALL PIPING SUSPENDED BY CLEVIS HANGERS WHERE THE DISTANCE FROM THE TOP OF THE PIPE TO THE STRUCTURAL SUSPENSION POINT IS 12" OR LESS.

D. ALL TRAPEZED PIPING WHERE THE DISTANCE FROM THE STRUCTURAL SUSPENSION POINT TO THE TRAPEZE MEMBER IS 12" OR LESS.

E. IF ANY STRUCTURAL SUSPENSION LOCATION IN THE RUN EXCEEDS 12", THE ENTIRE RUN MUST BE SEISMICALLY BRACED.

<u>LEGEND</u>

KEYED NOTE

CONNECT TO EXISTING AT THIS POINT

CEILING SUPPLY DIFFUSER

CEILING RETURN OR EXHAUST GRILLE

RECTANGULAR DUCT WITH TURNING VANES SUPPLY DUCT, ELBOW UP

SUPPLY DUCT, ELBOW DOWN

RETURN OR EXHAUST DUCT, ELBOW UP

RETURN OR EXHAUST DUCT, ELBOW DOWN

RECTANGULAR DUCT TO ROUND DUCT TRANSITION

ROOM WALL THERMOSTAT MOUNTED @ 48" AFF.

MANUAL SPEED CONTROL ABOVE ACCESSIBLE CEILING

HUMIDITY SENSOR IMMEDIATELY ABOVE THERMOSTAT

CO2 SENSOR IMMEDIATELY ABOVE HUMIDITY SENSOR BALANCE DAMPER WITH LOCKING MANUAL HANDLE OPERATOR

IN-DUCT, TEMPERATURE CONTROL ZONE OR BYPASS DAMPER

CONDENSATE DRAIN LINE

ACCESS DOOR

ABOVE FINISH FLOOR

I. ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE "ARKANSAS MECHANICAL CODE". INSTALLATION TO ALSO COMPLY W CITY REQUIREMENTS.

2. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR

3. VISIT SITE & REVIEW EXISTING CONDITIONS BEFORE BIDDING.

4. DUCTWORK TO BE COORDINATED WITH STRUCTURAL, ELECTRICAL, AND GENERAL CONSTRUCTION, BEFORE FABRICATING DUCTWORK VISIT BUILDING & MAKE FIELD MEASUREMENTS. PROVIDE OFF-SETS, TRANSITIONS & CHANGE DUCT SHAPE WHERE REQUIRED TO FIT IN AVAILABLE SPACE. REVISED DUCT SHAPES SHALL HAVE EQUAL FRICTION PRESSURE LOSS.

5. UNLESS OTHERWISE INDICATED, ALL ROUND SUPPLY, RETURN & OUTSIDE DUCTS SHALL BE UNLINED EXTERNALLY WRAP WITH 2" FIBERGLASS INSULATION WITH FOIL-SCRIM-KRAFT VAPOR BARRIER.

6. UNLESS OTHERWISE INDICATED, ALL RECTANGULAR DUCT SHALL BE I" LINED WITHOUT DUCT WRAP. INSIDE, CLEAR DIMENSIONS ARE INDICATED. SHEET METAL DIMENSIONS ARE LARGER DUE TO LINER THICKNESS.

7. MAINTAIN 10'-0" MINIMUM CLEARANCE BETWEEN OSA INTAKES AND ALL EXHAUST FANS, FLUES, PLUMBING VENTS, AND OTHER ODOR SOURCES.

8. ALL BRANCH DUCTS CONNECTED TO AN AIR DEVICE SHALL HAVE A LOCKING QUADRANT MANUAL BALANCING DAMPER.

4. ABOVE ACCESSIBLE CEILING FLEXIBLE DUCT MAY BE USED AT AIR DEVICE CONNECTIONS. LENGTH NOT TO EXCEED 6'-O".

10. INTERIOR WALLS EXTEND THRU THE CEILING & TERMINATE @ THE STRUCTURE ABOVE. DUCT PENETRATIONS SHALL BE PERFORMED WITH CLOSE TOLERANCE. CRACKAGE @ DUCT PENETRATION SHALL BE CAULKED FOR ACCUSTICAL (NOISE TRANSFER

II. REFER TO THE PROJECT MANUAL FOR ALL REQUIREMENTS.

KEYED NOTES

(I) SUPPORT GRAVITY DRAIN & REFRIGERANT LINES ABOVE & OFF MEZZANINE FLOOR. SEE DETAIL II/M2.I.

2) LOCATE • ± 6" ABOVE OFFICE CEILING.

(3) ROUTE BELOW MEZZANINE FLOOR.

(4) DIRECT AIR INTO VAULT DOOR OPENING.

(5) LOCATE • ± 2' ABOVE MEZZANINE FLOOR.

(6) PUMPED CONDENSATE UP.

SLAB. SIZE AS INDICATED. SLOPE FOR DRAINAGE AWAY FROM BUILDING. REINFORCE WITH #4 REBAR @ 12" O.C. BOTH WAYS.

(8) LOCATE NEAR MEZZANINE FLOOR. (4) AIR DEVICE IN GYPBOARD CEILING 'CLOUD'. SEE ARCHITECTURAL.

1 TYPICAL CONCRETE PAD. 6" THICK, FORMED 3000 PSI CONCRETE

ALSO SEE DETAIL 3/M2.I. (10) STUB DRAIN OUT WALL @ ± 6" ABOVE GRADE.

(II) 9"0, BALANCE TO 150 CFM 05A WHEN DAMPER OPEN. BALANCE TO O CFM OSA WHEN DAMPER CLOSED.

(2) REFRIGERANT LINE SET UP TO MEZZANINE, TYPICAL.

(3) OPERATE CONTROL DAMPER AS REQUIRED BY DETAIL 9/M2.I. (4) GRILLE UP HIGH IN ATTIC. SEE DETAIL 5/M2.I.

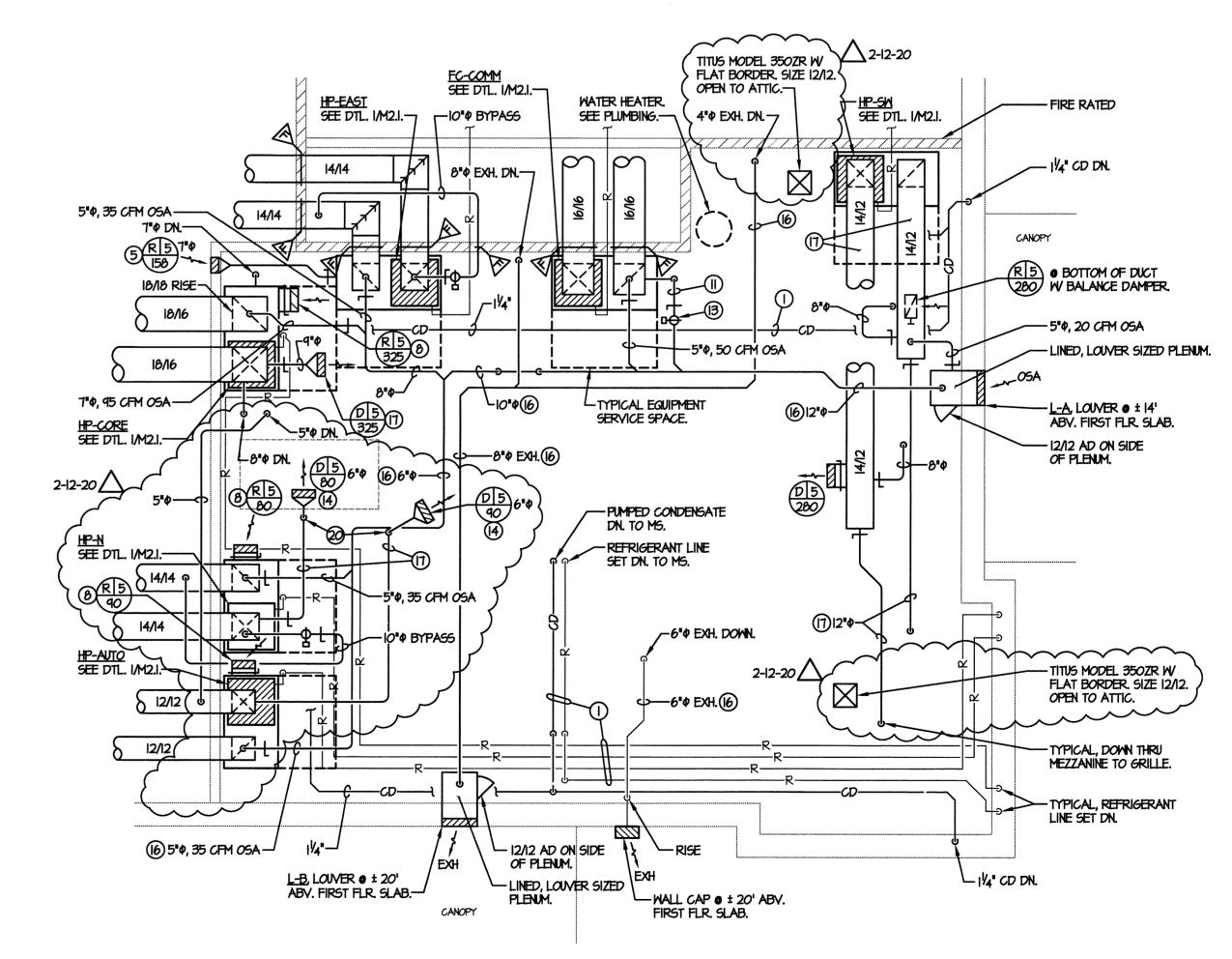
(15) LOCATE IMMEDIATELY ABOVE LAY-IN CEILING. (6) LOCATE UP HIGH, CLOSE TO ROOF STRUCTURE.

(1) LOCATE • ± 8' MINIMUM ABOVE MEZZANINE FLOOR.

(18) PIPE SUPPORT. SEE DETAIL II/M2.I.

2-12-20 PENETRATE MEZZANINE CEILING. ~~~~~

----- MEZZANINE ABOVE. SEE DTL. IMI.I.



DRAWINGS, WRITTEN MATERIAL, AND DESIGN CONCEPTS SHALL NOT BE USED OR REPRODUCED IN WHOLE OR PART IN ANY FORM WITHOUT PRIOR CONSENT OF ROARK PERKINS PERRY CONSULTING ENGINEERS, INCORPORATED

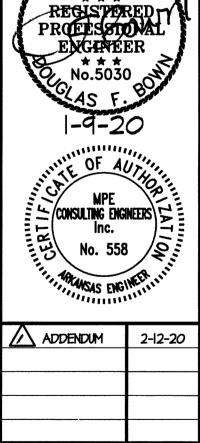
**S SHACKLEFORD PLAZA, SUITE 200, LITTLE ROCK, ARKANSAS, 122II
(50I) 2271-8181, TELEPHONE (50I) 2271-8353, FAX

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REVISIONS DATE **HVAC PLAN**

1/9/20 DATE JOB NO. SHEET