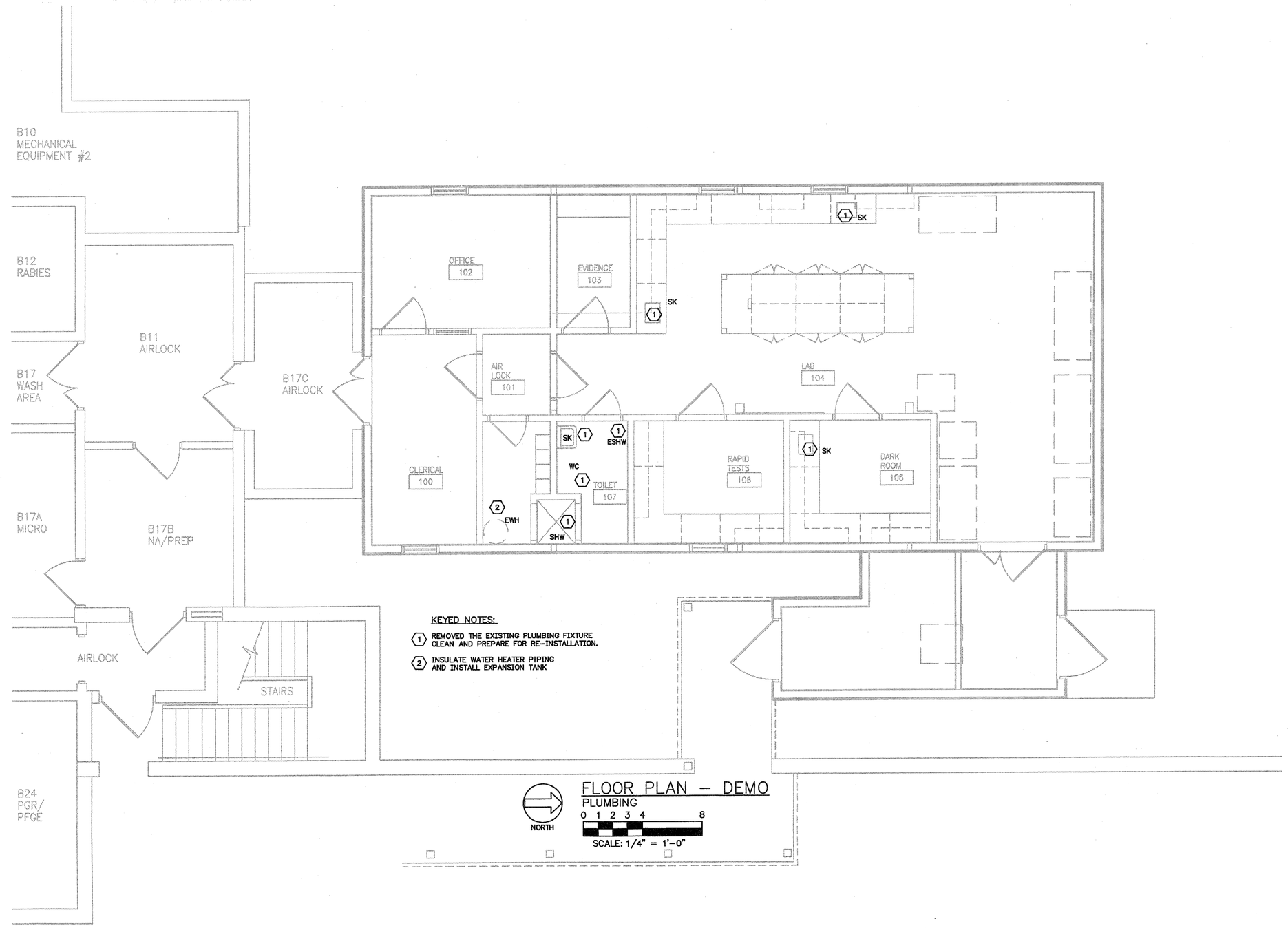

VERIFY EXISTING CONDITIONS IN FIELD PRIOR TO BEGINNING WORK.

OBTAIN PERMITS AND NOTIFY AUTHORITIES FOR INSPECTIONS.

PROVIDE 1 YEAR WARRANTY ON ALL WORK.

PROVIDE RECORD "AS-BUILT" PRINTS TO THE OWNER.

INSTALL FIRE-STOPPING FOR PENETRATIONS OF ALL RATED WALLS AND FLOORS.

REPAIR ALL AREAS DAMAGED BY PERFORMING OR REMOVING WORK UNDER THIS CONTRACT.

CAULK ALL PIPING PENETRATIONS TO AIR TIGHT CONDITON WITH SILICON SEALANT.

PERFORM WORK ACCORDING TO:
A. INTERNATIONAL MECHANICAL CODE (IMC)
B. INTERNATIONAL PLUMBING CODE (IPC)
C. SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA)
D. MANUFACTURER'S STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY, INC. (MSS)
E. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 90A)

PLUMBING PIPING:

DOMESTIC WATER PIPING
1. WATER PIPING TYPE "L" HARD TEMPER, ASTM B-88.
2. FITTINGS SHALL BE WROUGHT COPPER, SOLDER TYPE, ASTM B-75, ANSI B16.22.

SANITARY, WASTE AND VENT PIPING
1. SANITARY WASTE AND VENT PIPING ABOVE GROUND SHALL BE NO-HUB SOIL PIPE, CISPI STANDARD 301 WITH COUPLING ASSEMBLY CISPI STANDARD 310. HORIZONTAL PIPING FOR FIXTURE ROUGH-INS MAY BE DWV COPPER, ASTM B-306.
2. FITTINGS ABOVE GROUND SHALL BE NO-HUB CAST IRON SOIL PIPE FITTINGS WITH COUPLING ASSEMBLY CISPI STANDARD 310.

VALVES
1. TO BE MANUFACTURED TO THE FOLLOWING SPECIFICATIONS:

a. BRONZE:

(1) GATE, GLOBE, ANGLE & CHECK – MSS-SP-80
(2) BALL – MSS-SP-110

b. IRON:

(1) GATE – MSS-SP-80
(2) GLOBE – MSS-SP-85
(3) CHECK – MSS-SP-71

2. APPROVED DOMESTIC MANUFACTURERS: HAMMOND, NIBCO, APOLLO, MILWAUKEE, OR APPROVED EQUAL.

TESTING
1. DOMESTIC WATER PIPING SYSTEM SHALL BE TESTED WITH POTABLE WATER AT A PRESSURE OF 125 PSIG OR 25 PSIG ABOVE DESIGN WORKING PRESSURE, WHICHEVER IS GREATER FOR 12 HOURS. TEST SHALL BE CONDUCTED WITH PLUMBING INSPECTOR UNLESS APPROVED OTHERWISE IN WRITING.
2. WATER DISTRIBUTION PIPING SHALL BE DISINFECTED PRIOR TO SYSTEM START-UP WITH A CHLORINE SOLUTION 50 PPM. ALLOW SYSTEM TO STAND FOR SIX HOURS MINIMUM, THEN EXERCISE ALL VALVES TO ENSURE TREATMENT OF ALL BRANCHES AND COMPONENTS. SYSTEM SHALL BE FLUSHED WITH POTABLE WATER AFTER DISINFECTION AND PRIOR TO PLACEMENT INTO SERVICE.
3. SANITARY WASTE AND VENT PIPING SHALL BE TESTED IN ACCORDANCE WITH WATER AND AIR TESTS AS SPECIFIED IN THE SBCCI STANDARD PLUMBING CODE, IN ADDITION TO ANY TESTS REQUIRED BY THE LOCAL PLUMBING OFFICIAL. (10 FEET OF HEAD WITH NO APPARENT LEAKS. HOLD FOR 30 MINUTES MINIMUM). FLUSH ALL GRAVITY PIPING INCLUDING FLOOR DRAINS PRIOR TO TURNING OVER TO THE OWNER.

NATURAL GAS PIPING:

PIPING AND FITINGS: SCHEDULE 40 BLACK STEEL PIPE ASTM A53, GRADE A, B OR TYPE F CONTINUOUS WELD, ELECTRIC WELD OR SEAMLESS WITH MALLEABLE IRON CLASS 150 FITTINGS ANSI B16.3 ON 2 INCHES AND SMALLER AND CARBON STEEL BUTT WELDED FITTINGS ASTM-A-234 ON 2-1/2 INCHES AND LARGER. MAKE SCREW JOINTS USING TEFLON TAPE. UNDERGROUND PIPING SHALL BE COATED WITH X-TRU-COAT OR PRIOR APPROVED EQUAL INCLUDING JOINTS AND FITTINGS. USE SOCKET WELD FITTINGS ON UNDERGROUND ASTM-A-105 WITH DIMENSIONS TO ASME B16.11, MSS-SP79, ON 2 INCHES AND SMALLER

UNIONS (DIELECTRIC): CLASS 250 MALLEABLE, SCREWED ASTM-A-197.

VALVES: CLASS 125 CAST IRON, SCREWED ANSI B16.33 FULL PORT FOR GAS SERVICE, CSA LISTED, HOMESTEAD FIGURE 601 FOR 2 INCHES AND SMALLER, AND HOMESTEAD FIGURE 602 FOR 2-1/2 INCH AND LARGER; RESUN OR APPROVED EQUAL. BALL VALVES MAY BE USED FOR 2 INCH AND SMALLER, FULL PORT BALL VALVE, 2 PIECE FORGED BRASS BODY, SOLID CHROME PLATED BALL, BLOW OUT PROOF STEM, PTFE SEATS, UL 125/842 LISTED FOR FLAMMABLE LIQUIDS AND LP GAS, CSA LISTED FOR GAS SERVICE EQUAL TO HAMMOND 8901, OR APPROVED EQUAL. VALVE SHOULD HAVE FOLLOWING CERTIFICATIONS; CGA 9.1 M9.7 APPLIANCE VALVES, ISA U.S. NO. 3-88 HOUSE PIPING SYSTEMS, CR91-002 INDOOR GAS USE, CGA-3.16-M88, APPLIANCE & EQUIPMENT VALVES FOR NATURAL GAS & LIQUEFIED PETROLEUM, ASME 16.33 GAS PIPING SYSTEMS, VALVES MUST HAVE CSA AND UL MARKINGS ON VALVE BODY.

PRESSURE REGULATING VALVES: CAST IRON OR ALUMINUM BODY AND SPRING CASE WITH STAINLESS STEEL VALVE STEM, SEAT RING AND VALVE PLUG, PLATED STEEL SPRINGS, NEOPRENE DIAPHRAGM AND GASKETS AND TFE DISC. REGULATING VALVES SHALL BE SIZED FOR THE FLOW INDICATED AND FOR INLET AND OUTLET PRESSURES INDICATED. OUTLET PRESSURE SHALL BE MAINTAINED UNDER THE DESIGN FLOW CONDITION AND AT NO FLOW. REGULATING VALVES OVER TWO PSI SHALL BE VENTED FULL SIZE TO OUTSIDE OF THE BUILDING. OTHER REGULATING VALVES REQUIRING ACCESS TO THE ATMOSPHERE SHALL BE EQUIPPED WITH VENT PIPING LEADING TO OUTSIDE. PROVIDE A PRESSURE RELIEF VALVE IF THE REGULATOR CONNECTION SIZE EXCEEDS TWO-INCHES. REGULATING VALVES SHALL BE FISHER, MAXITROL OR PRIOR APPROVED EQUAL MEETING ANSI Z21.18

UNDERGROUND PIPING: PERFORM WORK IN ACCORD WITH APPLICABLE C.S.A, STATE AND LOCAL CODES. INSTALL GAS TOP VALVE AND DIELECTRIC UNION WHERE GAS PIPING ENTERS BUILDING.

INTERIOR PIPING: CONNECT TO ENTERING LINE AND DISTRIBUTE GAS TO EQUIPMENT ITEMS REQUIRING GAS AND AS INDICATED. PERFORM WORK IN ACCORD WITH APPLICABLE C.S.A., N.F.P.A 54, STATE AND LOCAL CODES. INSTALL GAS STOP VALVES AND DRIP LEGS AT EACH EQUIPMENT ITEM. PIPING SHALL BE ADEQUATELY DRAINED WITH A MINIMUM SLOPE OF 1/4 INCH PER 15 FEET AND DRIP LEGS (FULL SIZE OF PIPE) INSTALLED AT ADDITIONAL POINTS WHERE CONDENSATE MAY COLLECT. INSTALL GAS SHUT OFF VALVE AND PRESSURE GAGE INSIDE BUILDING AT GAS ENTRY. INSTALL PRESSURE REDUCING VALVES AS REQUIRED TO PROVIDE PRESSURE WITHIN EQUIPMENT MANUFACTURER=S REQUIREMENTS.

ACCESS PANELS: PROVIDE ACCESS PANELS FOR VALVES AND OTHER ITEMS REQUIRING MAINTENANCE IN ENCLOSED SPACES. AVOID INSTALLING GAS APPURTENANCES IN ENCLOSED SPACES WHERE POSSIBLE. INSTALL IN ENCLOSED SPACES ONLY AS ALLOWED BY APPLICABLE CODES.

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Plot Date:1/29/09-08:13

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1/29/09

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STATE LABORATORY FOR THE ALABAMA PUBLIC HEALTHCARE AUTHORITY
MONTGOMERY, ALABAMA

KARLSBERGER PROJECT NO.
60-0007AA-000

ISSUE DATE

SHEET INFORMATION

CURRENT DATE
01/28/09

REVISIONS

SHEET TITLE
DEMO
PLUMBING

SCALE

SHEET NO.
P1
01