

## LEGEND & ABBREVIATIONS

ABBREVIATION	SYMBOL	DESCRIPTION
W, S, D		SANITARY WASTE, SOIL & DRAIN
V		VENT - SANITARY
CW		DOMESTIC COLD WATER
HW		DOMESTIC HOT WATER
GV		GATE VALVE
CO		CLEANOUT
FCO		FLOOR CLEANOUT
GCO		GRADE CLEANOUT
FD		FLOOR DRAIN 'TYPE'

ABBREVIATION	DESCRIPTION
AB	ABOVE
A/C	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
B/F	BELOW FLOOR
CONN	CONNECTION
CONT	CONTINUATION
DN	DOWN
DWGS	DRAWINGS
EXIST	EXISTING TO REMAIN
EXP	EXISTING
ETR	EXPANSION
SAN	SANITARY
S	SOIL
TYP	TYPICAL
U/G	UNDERGROUND
VTR	VENT THRU ROOF
W	WASTE

### GENERAL NOTES:

- ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. VERIFY EXACT LOCATION AND INVERT ELEVATION IN FIELD BEFORE BEGINNING WORK.
- COORDINATE ALL WORK WITH OTHER TRADES.

## PLUMBING FIXTURES

SPEC. TYPE	FIXTURE	MINIMUM INDIVIDUAL CONNECTION				REMARKS
		COLD	HOT	VENT	WASTE	
P-1	WATER CLOSET	1/2"	---	---	4"	18" TO RIM ①
P-3	LAVATORY	1/2"	1/2"	---	1-1/4"	COUNTERTOP ①

① FIXTURE, TRIM AND INSTALLATION SHALL REQUIRE TO ADA REQUIREMENTS FOR JUVENILE HEIGHTS.

### PLUMBING SPECIFICATIONS

#### CODES

- A. THE PLUMBING INSTALLATION AND EQUIPMENT SHALL CONFORM TO THE FOLLOWING:
- INTERNATIONAL PLUMBING CODE, 2012 EDITION, WITH GEORGIA AMENDMENTS.

#### TESTING PIPE SYSTEMS

- A. GENERAL. CONCEALED PIPING AND INSULATED PIPING SHALL BE TESTED IN PLACE BEFORE CONCEALING OR COVERING. TEST SHALL BE CONDUCTED IN THE PRESENCE OF THE ARCHITECT OR HIS DESIGNATED REPRESENTATIVE. PIPING LOCATED UNDERGROUND SHALL BE TESTED BEFORE BACKFILLING. EQUIPMENT, MATERIALS AND INSTRUMENTS FOR TESTING SHALL BE FURNISHED BY THE CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.

#### B. PLUMBING SYSTEMS

- SANITARY WASTE AND VENT PIPING. THE PIPING SHALL BE TESTED WITH WATER BEFORE INSTALLING FIXTURES. WATER TESTS SHALL BE APPLIED TO THE SYSTEM EITHER IN ITS ENTIRETY OR IN SECTIONS. IF THE TEST IS APPLIED TO THE ENTIRE SYSTEM, ALL OPENINGS IN THE PIPING SHALL BE CLOSED EXCEPT THE HIGHEST OPENING, AND THE SYSTEM SHALL BE FILLED WITH WATER AND TESTED WITH AT LEAST A 10 FT. HEAD OF WATER. IN TESTING SUCCESSIVE SECTIONS, AT LEAST THE UPPER 10 FT. OF THE NEXT PRECEDING SECTION SHALL BE TESTED SO THAT EACH JOINT OR PIPE IN THE BUILDING EXCEPT THE UPPERMOST 10 FT. OF THE SYSTEM HAS BEEN SUBMITTED TO A TEST OF AT LEAST 10 FT. HEAD OF WATER. THE WATER SHALL BE KEPT IN THE SYSTEM, OR IN THE PORTION UNDER TEST FOR AT LEAST 2 HOURS BEFORE THE INSPECTION STARTS. THE SYSTEM SHALL BE TIGHT AT ALL JOINTS.
- WATER PIPING. UPON COMPLETION OF THE ROUGH-IN AND BEFORE SETTING FIXTURES, THE ENTIRE DOMESTIC COLD WATER, HOT WATER, AND HOT WATER CIRCULATION PIPING SYSTEMS SHALL BE TESTED AT HYDROSTATIC PRESSURE OF 100 PSIG AND PROVED TIGHT AT THIS PRESSURE FOR A PERIOD OF NOT LESS THAN 2 HOURS IN ORDER TO PERMIT INSPECTION OF ALL JOINTS. WHERE A PORTION OF THE WATER PIPING SYSTEM IS TO BE CONCEALED BEFORE COMPLETION, THIS PORTION SHALL BE TESTED SEPARATELY IN A MANNER DESCRIBED FOR THE ENTIRE SYSTEM.

#### DOMESTIC WATER SYSTEM

- A. PROVIDE COMPLETE SYSTEMS OF COLD AND HOT WATER PIPING AND ACCESSORIES SO THAT EVERY FIXTURE AND PIECE OF WATER USING EQUIPMENT IN THIS AREA OF THE BUILDING WILL BE FURNISHED WITH A WATER SUPPLY.
- B. EXTEND THE DOMESTIC COLD AND HOT WATER PIPING AND CONNECT TO THE EXISTING PIPING, AS SHOWN ON THE DRAWINGS.
- C. PIPING FITTINGS AND JOINTS
- PIPE AND FITTINGS SHALL BE AS LISTED HEREIN AND SHALL BE USED ON THE SERVICES INDICATED.
  - TYPE "L" HARD COPPER TUBING, FED. SPEC. NO. WW-T-799, WITH SOLDERED JOINTS AND WROUGHT COPPER SOCKET FITTINGS FOR ALL WATER PIPING.
  - SOLDER JOINTS (FOR TYPE "L" COPPER TUBING) SHALL BE MADE USING A 95-5 TIN-ANTIMONY SOLDER WITH A COMPATIBLE FLUX.
- D. DISINFECTION
- ALL DOMESTIC WATER SERVICE AND SUPPLY PIPING INSTALLED UNDER THIS DIVISION SHALL BE DISINFECTED WITH CHLORINE BEFORE IT IS PLACED INTO OPERATION. THE CHLORINATING MATERIAL SHALL BE LIQUID CHLORINE CONFORMING TO FEDERAL SPECIFICATION BB-C-120 AND SHALL BE INTRODUCED TO THE SYSTEM BY EXPERIENCED OPERATORS ONLY. THE CHLORINE SOLUTION APPLIED TO THE PIPING SECTIONS OR SYSTEM SHALL CONTAIN AT LEAST FIFTY PARTS PER MILLION OF AVAILABLE CHLORINE AND SHALL REMAIN IN THE SECTIONS OR SYSTEM FOR A PERIOD OF NOT LESS THAN SIXTEEN (16) HOURS. DURING THE DISINFECTION PERIOD ALL VALVES SHALL BE OPENED AND CLOSED AT LEAST FOUR TIMES. AFTER THE DISINFECTION PERIOD THE CHLORINATED WATER SHALL BE FLUSHED FROM THE SYSTEM WITH CLEAR WATER UNTIL THE RESIDUAL CHLORINE CONTENT IS NOT GREATER THAN TWO-TENTHS (0.2) PARTS PER MILLION. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT CERTIFICATION THAT THE SYSTEM WAS DISINFECTED.

#### SANITARY, WASTE, VENT AND STORM DRAINAGE SYSTEM

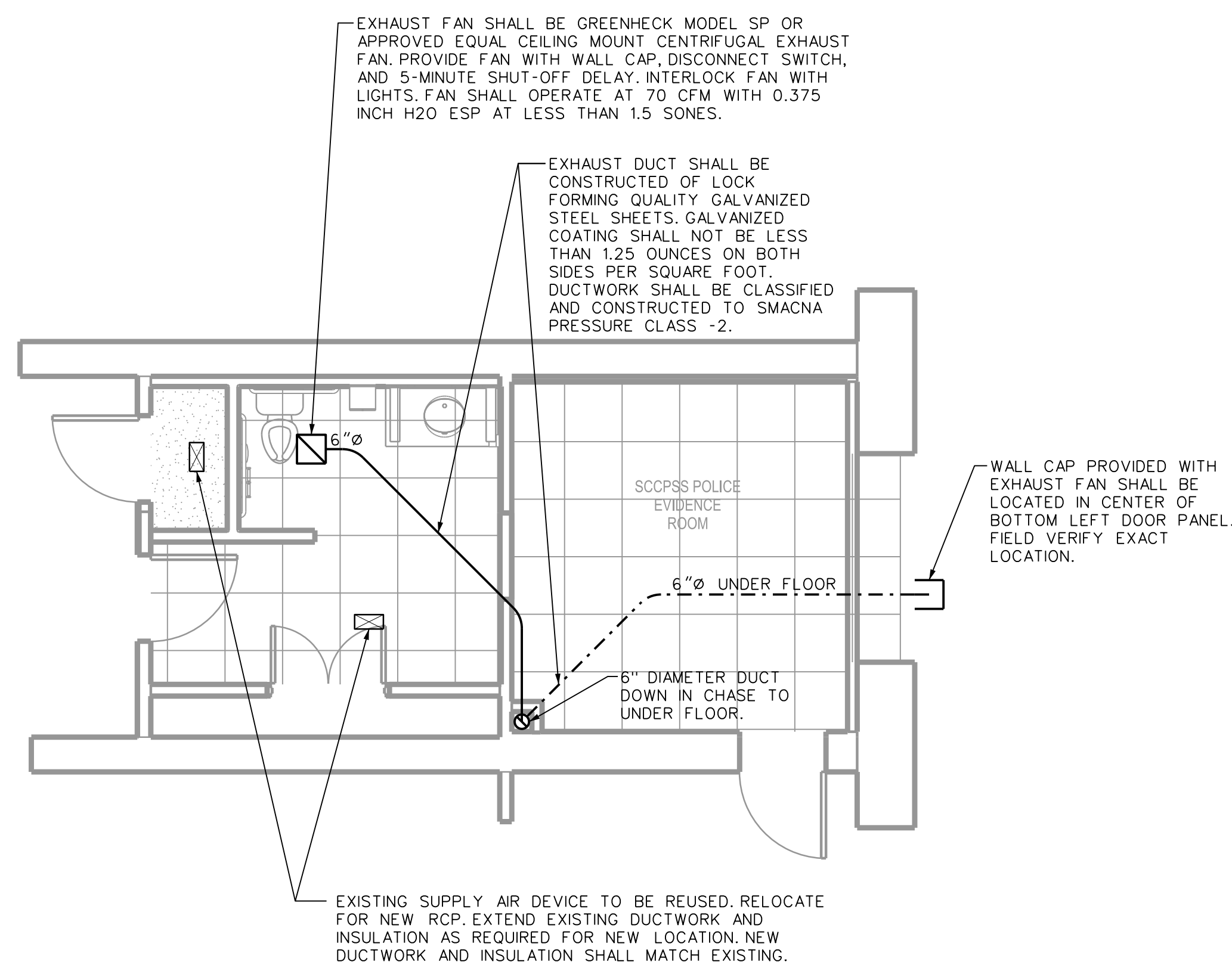
- A. PROVIDE A COMPLETE SYSTEM OF SANITARY, WASTE, VENT AND STORM DRAINAGE PIPING AS SHOWN ON THE DRAWINGS.
- B. PIPE FITTINGS AND JOINTS
- PIPE FITTINGS SHALL BE AS LISTED HEREIN AND SHALL BE USED FOR THE SERVICES INDICATED.
  - SCHEDULE 40 SOLID CORE PVC PIPE WITH SOLVENT GLUED DWV FITTINGS FOR ALL SANITARY WASTE AND VENT PIPING.
- C. INSTALLATION
- HORIZONTAL SOIL AND WASTE PIPING 2-1/2 INCHES IN SIZE AND SMALLER SHALL BE SLOPED AT A MINIMUM OF 1/4 INCH PER FOOT. HORIZONTAL SOIL AND WASTE PIPING 3 INCHES IN SIZE AND LARGER SHALL BE SLOPED AT A MINIMUM OF 1/8 INCH PER FOOT.
  - HORIZONTAL VENT BRANCHES SHALL BE KEPT ABOVE THE HIGHEST FIXTURE SERVED BY THE VENT BRANCH IN ORDER TO PRECLUDE THE POSSIBILITY OF VENTS BEING USED AS WASTE PIPES. HORIZONTAL VENT BRANCHES SHALL BE SLOPED TO PREVENT THE ACCUMULATION OF WATER OR SCALE THEREIN.
  - ON SOIL, WASTE AND VENT PIPING CHANGES IN PIPE SIZE SHALL BE MADE WITH REDUCING FITTINGS AND CHANGES IN PIPE DIRECTION SHALL BE MADE WITH FITTINGS. NO BUSHINGS WILL BE ALLOWED.
  - DURING CONSTRUCTION ALL PIPE OPENINGS, NOT BEING WORKED ON, SHALL BE PLUGGED OR CAPPED TO PREVENT FOREIGN OBJECTS FROM ENTERING SYSTEM.
- D. INSULATION
- A. ALL DOMESTIC WATER PIPING SHALL BE INSULATED WITH FIBERGLASS JACKETED PIPE INSULATION.

#### PLUMBING FIXTURES

- A. WATER CLOSET P-1  
 FIXTURE KOHLER K-3658  
 SUPPLIES/VALVE BRASSCRAFT  
 SEAT BENEKE 527 SS/CH-HPSS
- B. LAVATORY P-3  
 FIXTURE SEE ARCHITECTURAL DRAWINGS  
 FAUCET KOHLER K-15598-F-CP  
 P-TRAP MCGUIRE 8872  
 DRAIN MCGUIRE 155A  
 SUPPLIES BRASSCRAFT  
 FAUCET SHALL HAVE A 0.5 GPM AERATOR
- C. WATER HEATER WH-1  
 WATER HEATER WH-1 SHALL BE A CHRONOMITE SR-20L/240 OR EQUAL.
- D. AMERICAN STANDARD, ELJER, ZURN AND SLOAN ARE APPROVED MANUFACTURERS FOR P-1 AND P-3 FIXTURES AND TRIM.

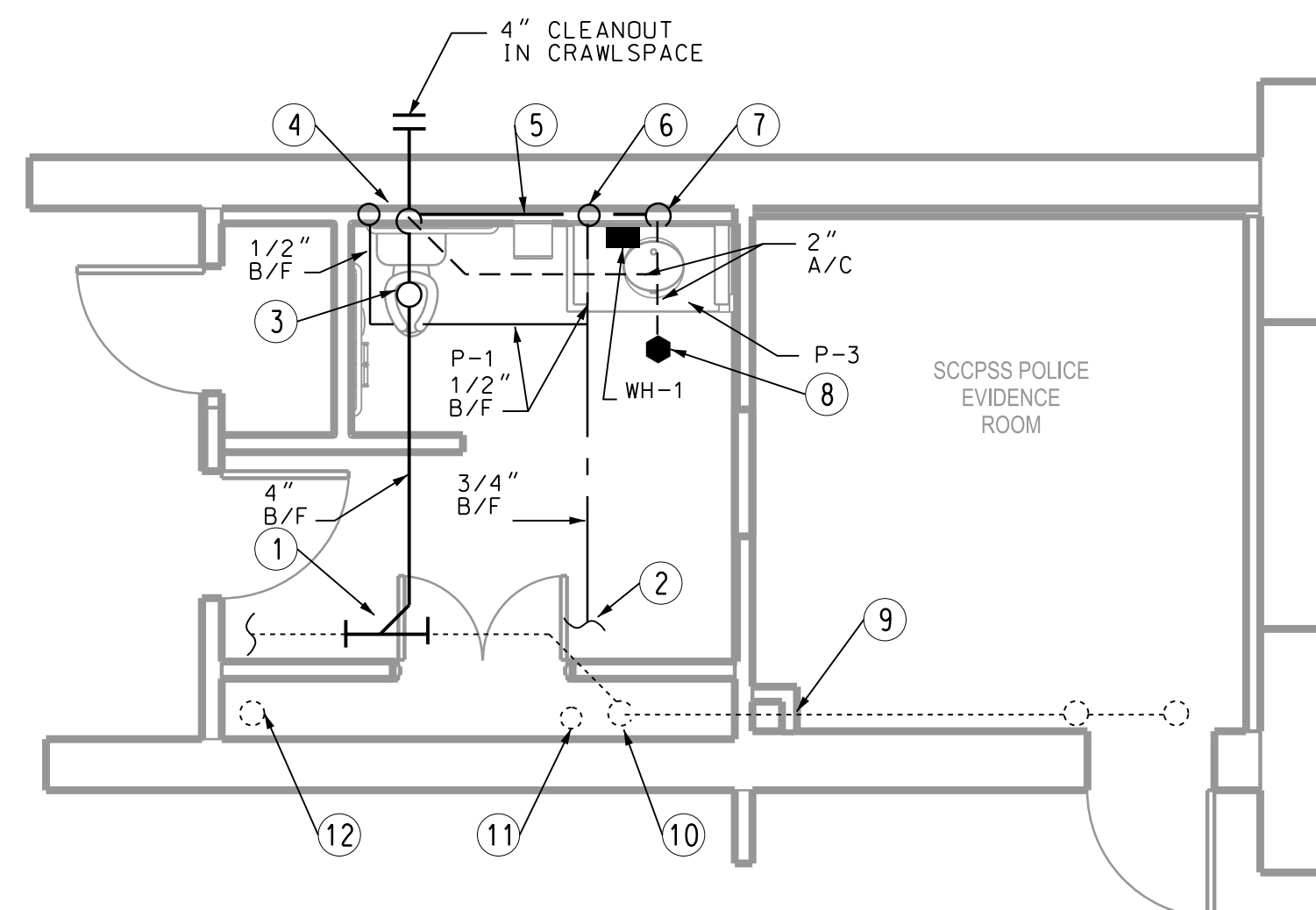
## 3 LEGENDS AND SPECIFICATIONS

P1.00 NONE



## 1 HVAC PARTIAL FLOOR PLAN

MP1.00 1/4" = 1'-0"



## 2 PLUMBING PARTIAL FLOOR PLAN

MP1.00 1/4" = 1'-0"

### NOTES:

- CONNECT TO THE EXISTING 4" SAN B/F IN CRAWL SPACE.
- EXTEND AND CONNECT TO THE EXISTING CW PIPING IN CRAWL SPACE.
- 4" SAN. DN.
- 2" V DN., 1/2" CW UP FROM CRAWL SPACE.
- 2" WASTE LOCATED ABOVE FLOOR IN CHASE WALL.
- 1/2" CW UP FROM B/F IN CRAWL SPACE. EXTEND 1/2" CW TO P-3. EXTEND 1/2" CW TO WATER HEATER WH-1. EXTEND 1/2" HW FROM WH-1 TO P-3.
- 2" V. DN.
- AUTOMATIC VENT VALVE A/C.
- OFFSET VISTING 2" SANITARY PIPING A/C AS REQUIRED FOR NEW HVAC DUCT A/C.
- EXISTING 4" SANITARY STACK.
- EXISTING CW VALVE AND CAPPED ABOVE FLOOR. REMOVE TO BELOW FLOOR AND CAP AS REQUIRED. COORDINATE FLOOR REPAIRS WITH ARCHITECT.
- EXISTING 4" FLOOR FLANGE. REMOVE TO BELOW FLOOR AND CAP. COORDINATE FLOOR REPAIRS WITH ARCHITECTURAL PLANS.

**208 BULL STREET RESTROOM CONVERSION**

208 BULL STREET  
SAVANNAH, GEORGIA  
BID NO. C17-12  
100% CONSTRUCTION DOCUMENTS





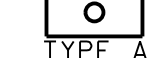
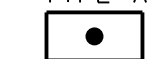








**SHEET TITLE:**  
**FLOOR PLANS AND SPECIFICATIONS- PLUMBING AND MECHANICAL**

REVISION SCHEDULE	
DATE	DESCRIPTION

**PROJECT NO:** 1601  
**DATE:** SEPTEMBER, 2016  
**DRAWN BY:** JPG  
**SCALE:** 1/4" = 1'-0"  
**FTE:** 1150

**SHEET: MP1.00**

**LEGEND:**

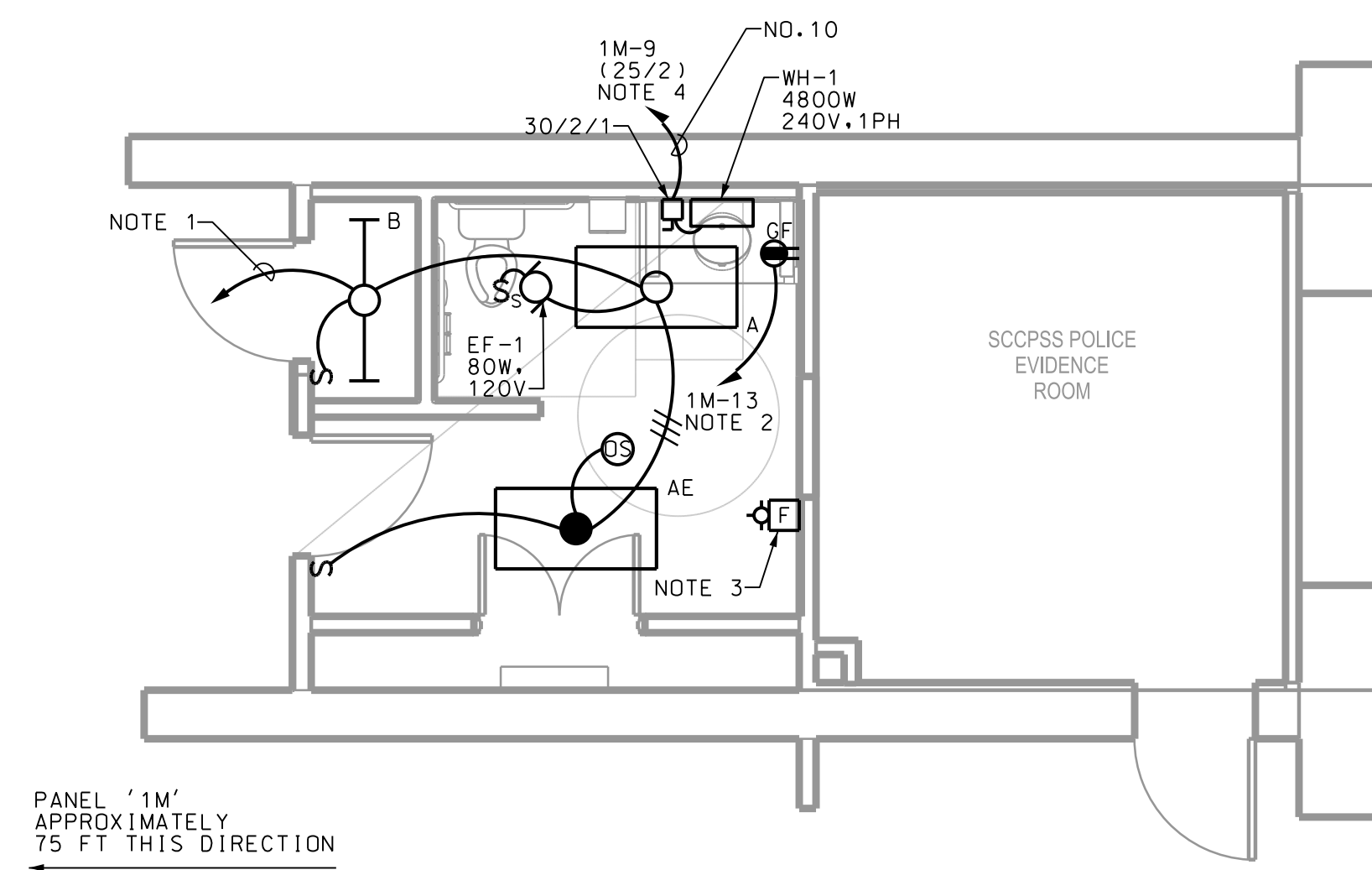
-  HOMERUN
-  CONCEALED CIRCUIT
-  2'x4' RECESSED LED FIXTURE - HUBBELL LCAT24-40VWG-EU-C388
-  2'x4' RECESSED LED FIXTURE - HUBBELL LCAT24-40VWG-EU-ELL14-C388 (EMERGENCY)
-  4' LED STRIP FIXTURE - HUBBELL SIL-1X4-XL-F-UL-40K- OR EQUAL
-  20A, 125V DUPLEX RECEPTACLE - HUBBELL 53621 OR EQUAL, MT 42" AFF
-  SINGLE POLE SWITCH, MT 48" AFF
-  SWITCH WITH OVERLOAD PROTECTION
-  DISCONNECT SWITCH - RATING/POLES/ENCLOSURE INDICATED
-  CEILING MOUNTED OCCUPANCY SENSOR - WATTSTOPPER DT-305 OR EQUAL, PROVIDE 5 YEAR WARRANTY
-  FIRE ALARM STROBE - SEE ELECTRICAL SPECS SECTION F.1.
-  GF GROUND FAULT

**ELECTRICAL SPECIFICATIONS**

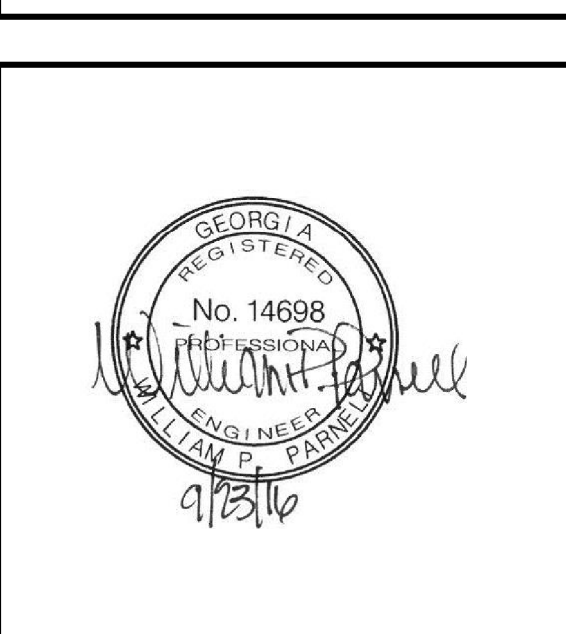
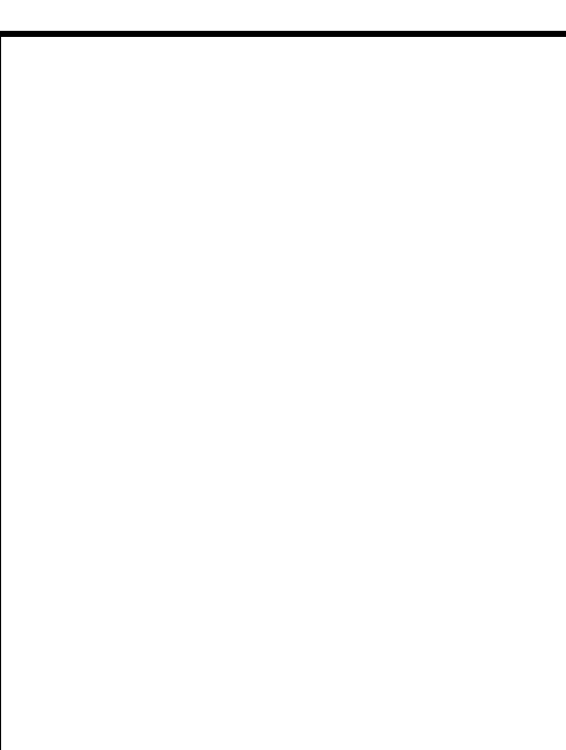
- A. GENERAL**
  1. FURNISH LABOR, MATERIAL AND EQUIPMENT NECESSARY TO INSTALL COMPLETE AND MAKE OPERABLE, THE ITEM OR SYSTEMS SPECIFIED.
  2. MATERIALS, DEVICES, ETC., SHALL BE NEW AND CONFORM TO THE SPECIFICATIONS AND SHALL BE U.L. LABELED.
  3. INSTALLATION SHALL CONFORM WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (2014), LIFE SAFETY CODE (2012), INTERNATIONAL BUILDING CODE (2012), GEORGIA AMENDMENTS AND ALL LOCAL ORDINANCES.
  4. COORDINATE WITH ALL OTHER TRADES TO AVOID INTERFERENCES AND CONDITIONS WHICH WILL NOT ALLOW THE INSTALLATION OF DEVICES, ETC., AS INDICATED.
  5. PROVIDE ALL CUTTING AND PATCHING TO EXISTING WALLS, FLOORS, ETC., REQUIRED FOR THE INSTALLATION OF ELECTRICAL WORK.
  6. VISIT SITE TO VERIFY EXISTING CONDITIONS PRIOR TO BID.
  7. PROVIDE ADDITIONS AND ALTERATIONS TO EXISTING WORK REQUIRED TO PROVIDE A COMPLETE OPERATING ELECTRICAL SYSTEM INSTALLATION.
- B. CONDUIT SYSTEMS**
  1. ALL CONDUIT ABOVE GRADE SHALL BE RIGID GALVANIZED OUTSIDE AND EMT WITH COMPRESSION FITTINGS INSIDE.
  2. CONDUIT SYSTEMS SHALL BE COMPLETE WITH BOXES, FITTINGS AND SUPPORTS. INSTALL PULL WIRE IN EMPTY CONDUIT SYSTEMS.
  3. SUPPORT CONDUIT SYSTEM IN ACCORDANCE WITH N.E.C.
  4. FLEXIBLE CONDUIT SHALL BE USED FOR CONNECTION FROM JUNCTION BOX TO CORRESPONDING FLUSH MOUNTED LIGHTING FIXTURES. FLEX CONNECTIONS TO FLUSH MOUNTED LIGHTING FIXTURES SHALL NOT EXCEED SIX FEET IN LENGTH.  $\frac{3}{4}$ " FLEXIBLE CONDUIT MAY BE USED FOR CONNECTION TO LIGHTING FIXTURES. ALL OTHER FLEX CONNECTIONS SHALL NOT BE LESS THAN  $\frac{1}{2}$ ". CONNECTORS SHALL BE INSULATED THROUGH TYPE. FLEX CONNECTIONS TO MECHANICAL EQUIPMENT SHALL BE SEALTITE AND SHALL NOT EXCEED 18" IN LENGTH.
  5. SEAL ALL CONDUIT PENETRATIONS THROUGH RATED WALLS TO MAINTAIN INTEGRITY OF WALL RATING.
- C. OUTLET BOXES**
  1. PROVIDE OUTLET BOXES FOR EACH LIGHT FIXTURE AND DEVICE.
  2. OUTLET BOXES FOR SURFACE MOUNTED LIGHTING FIXTURES SHALL BE 4" OCTAGON BOXES.
  3. OUTLET BOXES FOR FLUSH MOUNTED LIGHTING FIXTURES SHALL BE 4 $\frac{1}{16}$ " SQUARE, 2- $\frac{1}{8}$ " DEEP WITH COVER INSTALLED ADJACENT TO FIXTURE.
  4. OUTLET BOXES FOR DEVICES SHALL BE 4 $\frac{1}{16}$ " SQUARE, 2- $\frac{1}{8}$ " DEEP WITH TILE TYPE COVERS WITH APPROPRIATE DEVICE PLATES TO MATCH DEVICE UTILIZED.
- D. CONDUCTORS - 600 VOLTS**
  1. CONDUCTORS SHALL BE SOLID COPPER (FOR NO.10 SMALLER) OR STRANDED (FOR NO.8 & LARGER) 90 DEGREES C TYPE THHN/THWN OR XHHN WITH COLOR CODED INSULATION ACCORDING TO NEC 2014.
  2. NOT MORE THAN TWO BRANCH CIRCUITS OF OPPOSITE PHASES, SHALL BE INSTALLED IN ANY ONE CONDUIT UNLESS NOTED OTHERWISE ON PLAN SHEETS.
  3. CONNECTIONS BETWEEN FIXTURE JUNCTION BOX AND FIXTURE SHALL BE MADE WITH NO.16 AWG TYPE TFFN (90 DEGREES C).
- E. GROUNDING**
  1. GROUND ALL NONCURRENT CARRYING PARTS OF ELECTRICAL SYSTEM, I.E. RACEWAY, EQUIPMENT ENCLOSURES, JUNCTION AND OUTLET BOXES.
  2. INSTALL A GREEN INSULATED GROUNDING CONDUCTOR IN ALL RACEWAY SYSTEMS.
  3. GROUND DEVICES AND ASSOCIATED OUTLET BOXES TO GROUNDING CONDUCTORS.
- F. DEVICES**
  1. WALL SWITCHES SHALL BE SPECIFICATION GRADE, QUIET MECHANICAL, A.C. TYPE WITH SCREW TYPE CONNECTIONS AND TOGGLE OPERATOR. PROVIDE TYPE WITH GROUND SCREW TERMINAL.
  2. RECEPTACLES SHALL BE SPECIFICATION GRADE WITH SCREW TYPE CONNECTIONS. PROVIDE SEPARATE GROUND SCREW TERMINAL.
  3. ALL DEVICE FINISHES SHALL BE SELECTED BY ARCHITECT/OWNER.
  4. DEVICE PLATE FINISHES SHALL BE STAINLESS STEEL.
- G. LIGHTING FIXTURES**
  1. PROVIDE ALL LIGHTING FIXTURES AS SPECIFIED. REFER TO ARCHITECTURAL PLAN FOR EXACT MOUNTING HEIGHTS AND RCP.
- F. FIRE ALARM**
  1. MODIFY EXISTING SIMPLEX FIRE ALARM SYSTEM IN BUILDING. PROVIDE ALL FIRE ALARM EQUIPMENT AS NEEDED BY SIMPLEX. FURNISH AND INSTALL PER NFPA 72. ALL WIRING SHALL BE CONDUIT AND AS RECOMMENDED BY SIMPLEX. INTERCONNECT FIRE ALARM DEVICES TO EXISTING SYSTEM EQUIPMENT. CERTIFY SYSTEM OPERATION.

**NOTES:**

1. CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT IN AREA.
2. EXTEND BRANCH CIRCUIT TO AVAILABLE SPARE 20A/1P BREAKER IN PANEL '1M' AS SHOWN ON DRAWING. VERIFY EXACT BRANCH CIRCUIT BREAKER IN FIELD.
3. PROVIDE NEW FIRE ALARM STROBE AND CONNECT TO EXISTING SYSTEM IN BUILDING.
4. FURNISH AND INSTALL IN AVAILABLE SPACE A 25A/2P BREAKER IN PANEL '1M'.



**208 BULL STREET RESTROOM CONVERSION**  
 208 BULL STREET  
 SAVANNAH, GEORGIA  
 BID NO. C17-12  
 100% CONSTRUCTION DOCUMENTS



**SHEET TITLE:**  
**FIRST FLOOR - ELECTRICAL PLAN**

REVISION SCHEDULE	
DATE	DESCRIPTION

**PROJECT NO:** 1601  
**DATE:** SEPTEMBER, 2016  
**DRAWN BY:** BPM  
**SCALE:** 1150  
**SHEET:** **E1.00**