

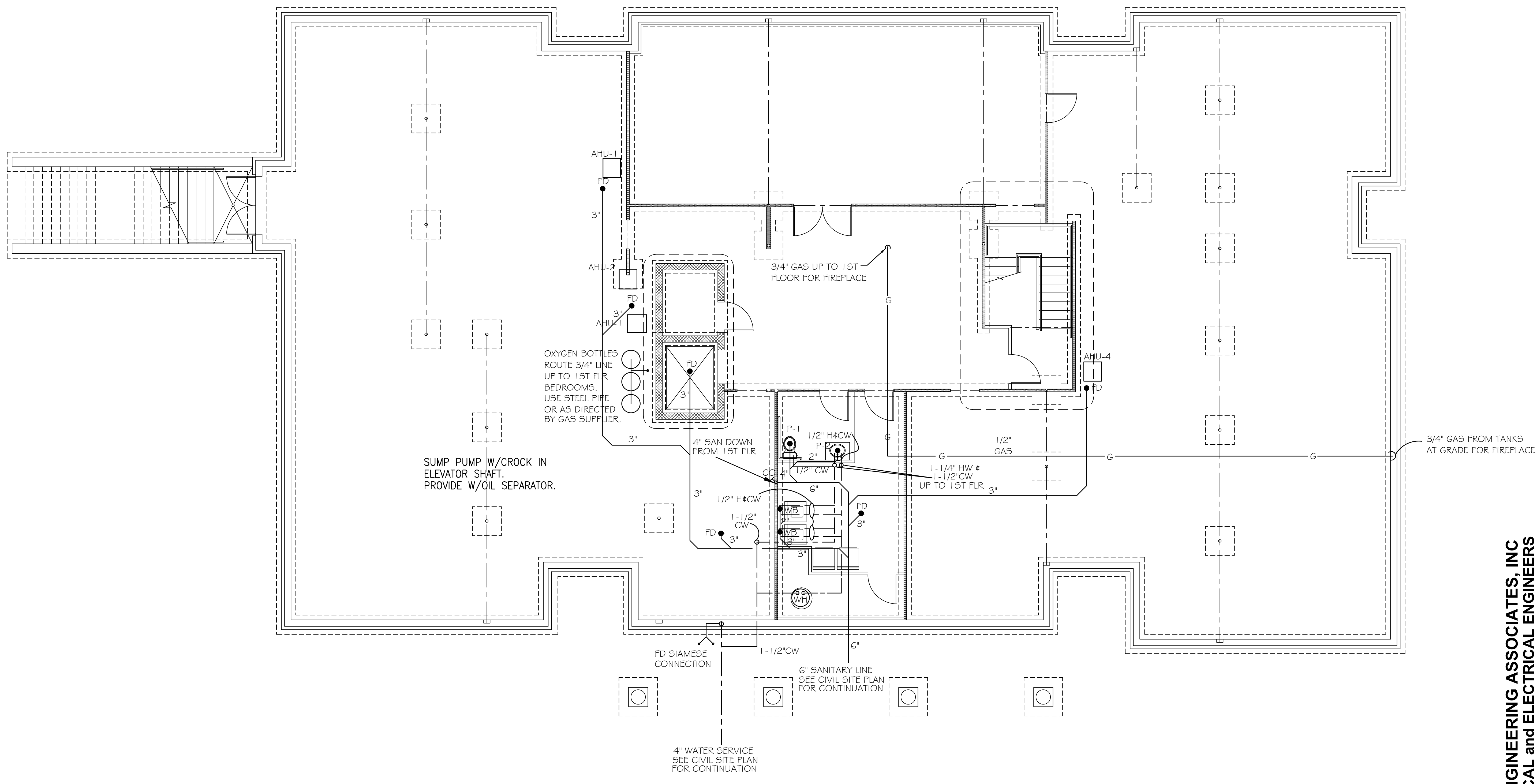
Revisions

HOSPICE HOUSE OF CHARLES COUNTY
CHARLES COUNTY, MARYLAND

LEWIS ENGINEERING ASSOCIATES, INC
MECHANICAL and ELECTRICAL ENGINEERS
28841 RIVERWATCH DRIVE, MECHANICSVILLE, MD 20659
PHONE (301) 884-3370 FAX (301) 884-2654 EMAIL lewiseng.net

R.L. LITTEN & ASSOCIATES, ARCHITECTS, LLC
300 CHARLES STREET, SUITE 4
P.O. BOX 1920, LAPLATA, MD 20646 (301) 934-1471

RS
RL
2/26/10
08-
P1

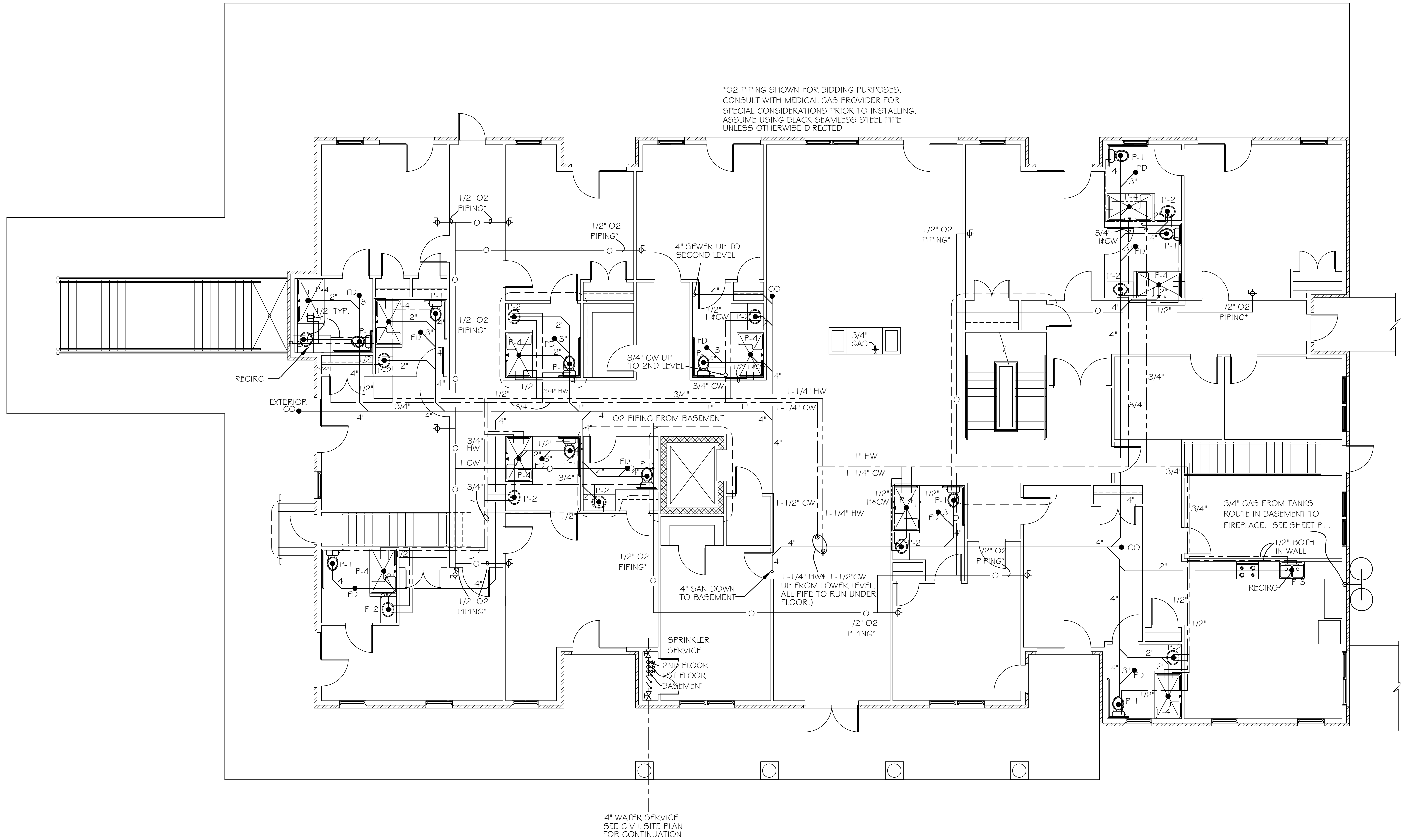


⑥ 3" STEEL COLUMN ON
30x30x15 CONC. FTG., TYP.

① BASEMENT PLUMBING PLAN
SCALE: 3/16" = 1'-0"

ENGINEER'S CERTIFICATION STATEMENT
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16927, EXPIRATION DATE MAY 12, 2010.

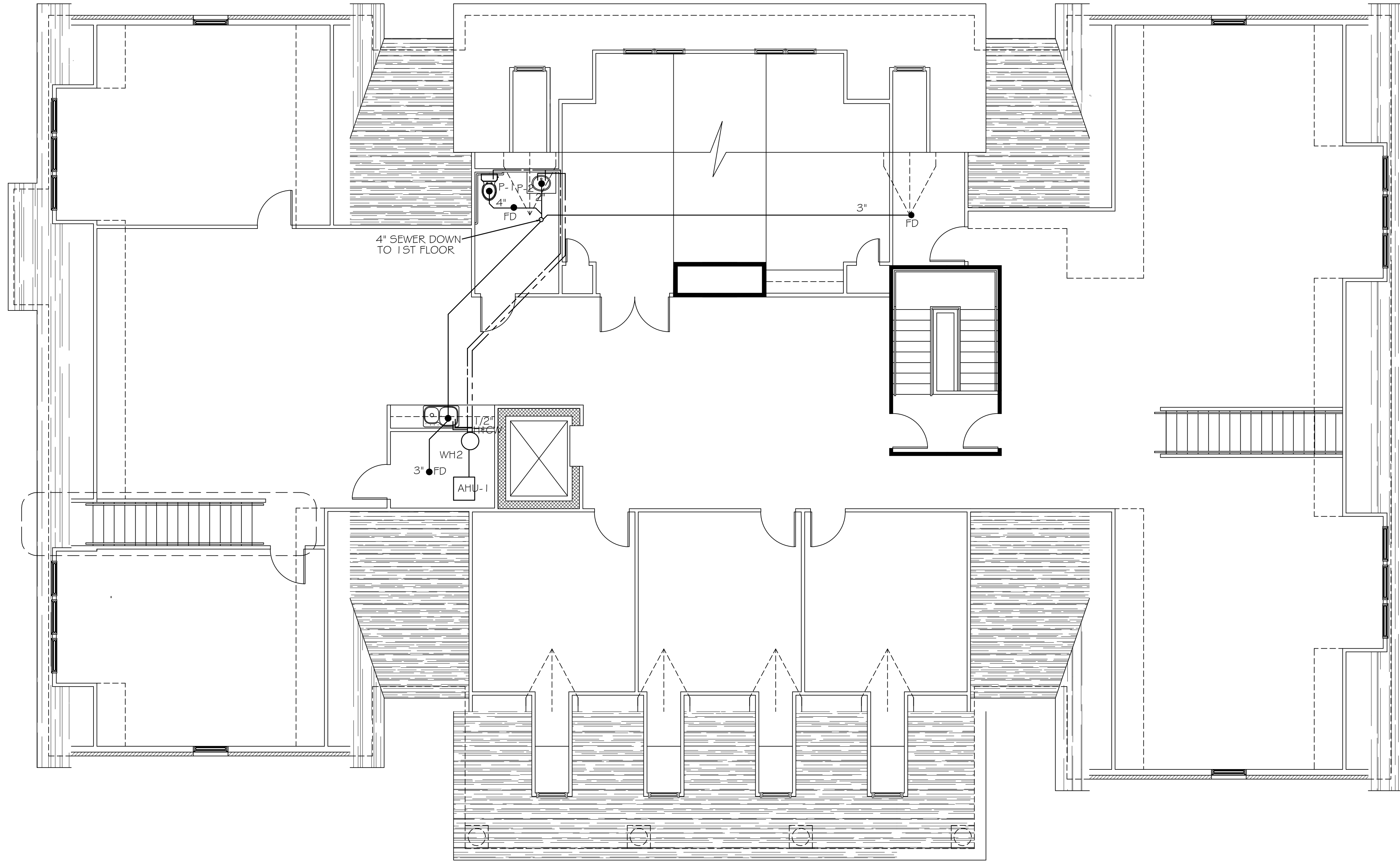
*O2 PIPING SHOWN FOR BIDDING PURPOSES.
CONSULT WITH MEDICAL GAS PROVIDER FOR
SPECIAL CONSIDERATIONS PRIOR TO INSTALLING.
ASSUME USING BLACK SEAMLESS STEEL PIPE
UNLESS OTHERWISE DIRECTED



LEWIS ENGINEERING ASSOCIATES, INC
MECHANICAL and ELECTRICAL ENGINEERS
28841 RIVERWATCH DRIVE, MECHANICSVILLE, MD 20659
PHONE (301) 884-3370 FAX (301) 884-2654 EMAIL lewiseng.net

1 FIRST FLOOR PLUMBING PLAN
SCALE: 3/16" = 1'-0"

ENGINEER'S CERTIFICATION STATEMENT
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR
APPROVED BY ME, AND THAT I AM A DULY LICENSED
ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 16927, EXPIRATION DATE MAY 12, 2010.



1 SECOND FLOOR PLUMBING PLAN
SCALE: 3/16" = 1'-0"

LEWIS ENGINEERING ASSOCIATES, INC
MECHANICAL and ELECTRICAL ENGINEERS
 28841 RIVERWATCH DRIVE, MECHANICSVILLE, MD 20659
 PHONE (301) 884-3370 FAX (301) 884-2654 EMAIL lewiseng.net

R.L. LITTEN & ASSOCIATES, ARCHITECTS, LLC
 300 CHARLES STREET, SUITE 4
 P.O. BOX 1920, LAPLATA, MD 20646 (301) 934-1471

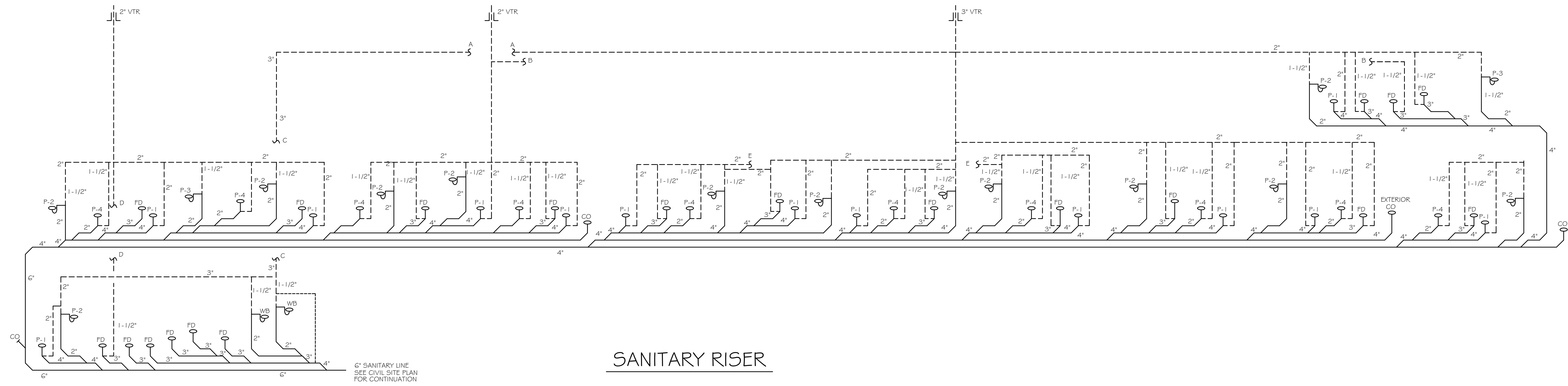
Revisions

HOSPICE HOUSE OF CHARLES COUNTY
 CHARLES COUNTY, MARYLAND

RS
RL
2/26/10
08-

P3

ENGINEER'S CERTIFICATION STATEMENT
 I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16927. EXPIRATION DATE MAY 12, 2010.

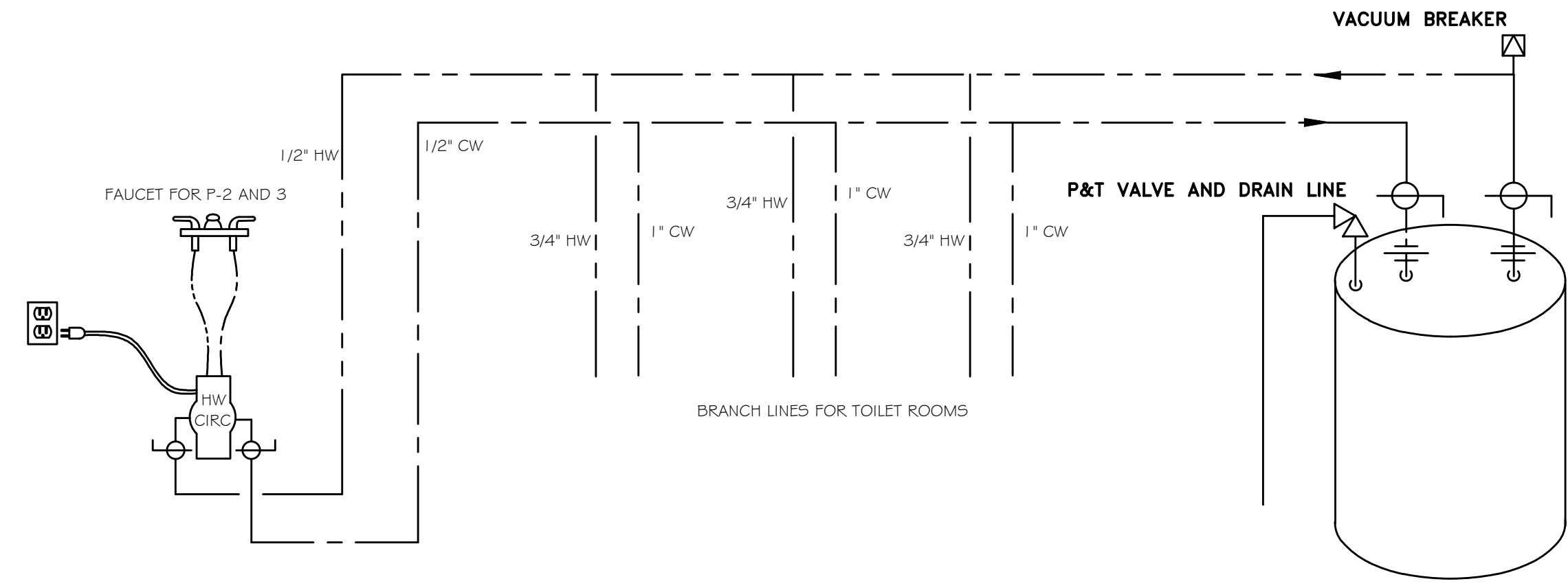


SANITARY RISER

6" SANITARY LINE
SEE CIVIL SITE PLAN
FOR CONTINUATION

LEGEND

- COLD WATER
- HOT WATER
- VENT
- SANITARY
- OXYGEN
- GAS
- BALL VALVE
- UNION
- GATE VALVE
- VALVE IN RISE
- CHECK VALVE



WATER HEATER & CIRCULATOR CONNECTION DETAIL
NO SCALE

PLUMBING FIXTURE SCHEDULE

ITEM NO.	DESCRIPTION	PIPE SIZES				MANUFACTURER & MODEL NUMBER*
		COLD	HOT	WASTE	VENT	
P-1	Water closet, handicap, pressure assist	1/2"	-	4"	2"	Kohler #K-3493 w/K-4650 Seat
P-2	Lavatory, self-rim, 20"x17"	1/2"	1/2"	1 1/4"	1 1/2"	Kohler #K-2196-4 w/K-10270-4 Faucet
P-3	Kitchen sink, double bowl, 33"x22"	1/2"	1/2"	1-1/2"	1 1/2"	Kohler #K-3310-3 w/#K-10413 Faucet & Spray
P-4	Shower w/seat 52" x 37"	1/2"	1/2"	1-1/2"	1 1/2"	Kohler #K-12111-C w/#K-T14641-4/K-304-K Valve**
FD	Floor Drain	---	---	3"	**	Jay R. Smith 2005-B-D w/PPS Trap Primer
CO	Clean Out	---	---	Line	--	Jay R. Smith 4040 Series w/Square Top
WB	Clothes Washer Wash Box	---	---	2"	1 1/2"	Spec Grade
WH1	Water Heater, 200 gal; 24 KW, 208/3Ø	1-1/2"	1-1/2"	---	---	A. O Smith DVE-200 w/24KW 3 phase heater+
WH2	Water Heater, 10 gal; Indirect heat	3/4"	3/4"	--	--	Amrtrol WH-26; Heat from 2nd GEO-HP-6 desuperheater.

*or suitable equivalent
** provide K-1631 & K-1632 (left & right seat respectively) w/same
+ this water heater will be piped to the 5 ton geothermal heat pump desuperheater to provide pre-heating of water.

PLUMBING NOTES

- HOLD TOP OF FLOOR DRAINS FLUSH WITH FINISHED FLOOR.
- WATER PIPING ABOVE SLAB SHALL BE TYPE L HARD TEMPER COPPER OR CPVC AT OWNER'S DIRECTION. PIPING UNDER SLAB SHALL BE TYPE K SOFT TEMPER COPPER.
- WASTE AND VENT PIPING MAY BE SCHEDULE 40, TYPE 1 GRADE 1 PVC.
- ENSURE VENT PIPING PASSING THROUGH ROOF IS COMPATIBLE WITH STRUCTURE AND CORRECTLY FLASHED TO PREVENT ROOF LEAKAGE. TERMINATE AT 12" ABOVE ROOF LINE.
- PROVIDE 1" INSULATION FOR COLD AND HOT WATER ABOVE SLAB AND RUNNING IN WALLS.
- PROVIDE TRAP PRIMERS FOR FLOOR DRAINS OR OTHER FIXTURES WHERE INDICATED OR REQUIRED.
- PROVIDE WATER HAMMER ARRESTORS CONFORMING TO ASME A112.26.1 OR ASSE 1010 AT EACH BATHROOM GROUP WHERE INDICATED OR REQUIRED BY MANUFACTURER.
- VERIFY SERVICE CONNECTIONS AND METERING LOCATIONS WITH LOCAL UTILITIES. VERIFY SEWER INVERT AT CONNECTION POINT TO DETERMINE DEPTH OF HIGHEST PLUMBING FIXTURE. PITCH OF DRAINAGE AND VENT PIPING TO BE 1/8" PER FT. MINIMUM.
- EQUIPMENT ROUGH-IN LOCATIONS ARE ACCURATE TO THE BEST OF KNOWLEDGE AVAILABLE AT THE TIME OF DESIGN. IN THE EVENT OF SUBSTITUTION OF EQUIPMENT OR DEVIATION FROM THESE PLANS, THE CONTRACTOR SHALL ENSURE THE PROPOSED CHANGE PROVIDES A COMPLETE, WORKING SYSTEM.
- CLEANOUTS TO BE INSTALLED NO LESS THAN EVERY 50' FOR LINES SMALLER THAN 4". INSTALL CLEANOUT AT CONNECTION OF BUILDING DRAIN AND SEWER WHERE SHOWN. INSTALL CLEANOUTS AT THE BASE OF STACKS AND CHANGES OF DIRECTION IN AN ACCESSIBLE LOCATION.
- PROVIDE SHUTOFF VALVES AT EACH PLUMBING FIXTURE AND AT THE POINT OF INCOMING SERVICE TO THE BUILDING. ENSURE THE WATER HEATER BEARS THE LABEL OF AN APPROVED AGENCY. T&P VALVE TO BE TESTED IAW ANSI Z21.22. BACKFLOW PREVENTER TO BE IN COMPLIANCE WITH ASSE 1012. PROVIDE PIPE SUPPORTS IAW TABLE 308.5 OF THE IPC. PROTECT PENETRATIONS THROUGH RATED WALLS TO BE IAW BOCA REQUIREMENTS.
- GAS PIPING SHALL BE INSTALLED IN COMPLIANCE WITH THE GAS COMPANY'S REQUIREMENTS. PIPE SHALL BE SCHEDULE 40 BLACK STEEL, ASTM SPEC. A-120. JOINTS IN PIPE 2" AND UNDER SHALL BE THREADED. USE 150 PSI MALLEABLE IRON FITTINGS.
- ALL PLUMBING WORK SHALL MEET APPLICABLE STATE AND LOCAL CODES.

LEWIS ENGINEERING ASSOCIATES, INC
MECHANICAL AND ELECTRICAL ENGINEERS
28841 RIVERWATCH DRIVE, MECHANICSVILLE, MD 20659
PHONE (301) 884-3370 FAX (301) 884-2654 EMAIL lewiseng.net

R.L. LITTEN & ASSOCIATES, ARCHITECTS, LLC
300 CHARLES STREET, SUITE 4
P.O. BOX 1920, LAPLATA, MD 20646 (301) 934-1471

ENGINEER'S CERTIFICATION STATEMENT
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16927, EXPIRATION DATE MAY 12, 2010.