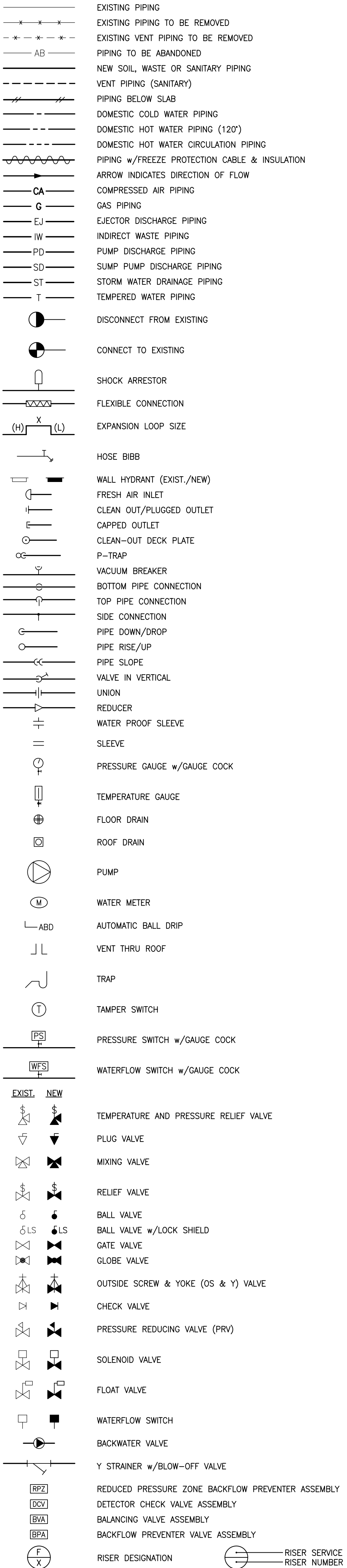


**PLUMBING BASIC SYMBOLS**

(NOT ALL SYMBOLS ARE NECESSARILY USED ON THIS PROJECT)



**PLUMBING ABBREVIATIONS**

(NOT ALL ABBREV. ARE NECESSARILY USED ON THIS PROJECT)

AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
BLDG	BUILDING
BOP	BOTTOM OF PIPE
CO	CLEANOUT
COOP	CLEANOUT DECK PLATE
CM	COFFEE MAKER
CV	CHECK VALVE
CVO	CAPPED AND VALVED OUTLET
CW	COLD WATER
CLG	CEILING
CONN	CONNECT
CONT	CONTINUATION
DIA	DIAMETER
DN	DOWN (PENETRATES FLOOR SLAB)
DR	DRAIN
DWG	DRAWING
(E)	EXISTING
(ER)	EXISTING TO BE REMOVED
(ERR)	EXISTING TO BE REMOVED & RELOCATED
EJ DIS	EJECTOR DISCHARGE
EL	ELEVATION
EWC	ELECTRIC WATER COOLER
FAI	FRESH AIR INLET
FD	FLOOR DRAIN
FU	FIXTURE UNIT
FL	FLOOR
FL H	FLOOR HYDRANT
FT	FEET
GC	GENERAL CONTRACTOR
GAL	GALLONS
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HCLG	HUNG CEILING
HW	HOT WATER
HWR	HOT WATER RETURN
ID	INSIDE DIAMETER
IW	INDIRECT WASTE
IN	INCH
JS	JANITOR'S SINK
LAV	LAVATORY
MAP	MEDICAL GAS ALARM PANEL
MAX	MAXIMUM
MIN	MINIMUM
MR	MOP RECEPTOR
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN THIS CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
PC	PLUMBING CONTRACTOR
PD	PUMP DISCHARGE
PO	PLUGGED OUTLET
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH (GAUGE)
RD	ROOF DRAIN
(RE)	RELOCATED EXISTING
(RRO)	EXISTING TO BE REMOVED AND RETURN TO OWNER
SA	SHOCK ABSORBER
SAN	SANITARY
SD	SUMP PUMP DISCHARGE
SH	SHOWER
SK	SINK
SQ FT	SQUARE FOOT
ST	STORM
TYP	TYPICAL
UN	UNLESS OTHERWISE NOTED
UP	UP (PENETRATES FLOOR SLAB)
UR	URINAL
V	VENT
VB	VACUUM BREAKER
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT
ZCVB	ZONE CONTROL VALVE BOX

**PLUMBING GENERAL NOTES**

- GENERAL NOTES, SYMBOLS LIST AND DETAILS ARE APPLICABLE TO ALL DRAWINGS MARKED P.
- DRAWINGS ARE DIAGRAMMATIC. DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.
- WORK OF THIS SECTION IS SPECIFIED IN SECTION 15400.
- NEITHER ACCURACY NOR COMPLETION OF UTILITY LOCATIONS SHOWN ON DRAWINGS IS GUARANTEED. DETERMINE EXACT LOCATIONS OF EXISTING UTILITY IN FIELD, WHETHER OR NOT SHOWN ON DRAWINGS. EXERCISE CAUTION AND IDENTIFY LOCATIONS OF UNMARKED UTILITY LINES AS NECESSARY TO PERFORM WORK OF THIS SECTION.
- ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE CURRENT PLUMBING CODE AND ALL APPLICABLE LOCAL CODES AND DRAWINGS.
- IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES, INCLUDING (BUT NOT LIMITED TO), ELECTRICAL, HVAC, PROCESS PIPING, SPRINKLER, PLUMBING STRUCTURAL AND GENERAL ARCHITECTURE.
- ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND THE OWNER'S REPRESENTATIVE, AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF THE WORK INVOLVED.
- NO WORK SHALL BE INSTALLED IN VIOLATION OF ANY GOVERNING CODES. ANY WORK SHOWN ON THE DRAWINGS WHICH IS IN VIOLATION OF SUCH CODES SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND THE OWNER'S REPRESENTATIVE AND SHALL BE RESOLVED PRIOR TO THE INSTALLATION OF THE WORK INVOLVED.
- ALL PIPING PENETRATING CEILING AND WALLS SHALL BE INSTALLED WITH CHROME (STAINLESS WHERE NOTED) PLATED ESCUTCHEONS AT THE PENETRATION. ALL PIPING PENETRATING EXTERIOR WALLS AND ROOFS SHALL BE FLASHED IN AN APPROVED MANNER AND SHALL BE SEALED WEATHER TIGHT. PIPING PENETRATING RATED PARTITIONS SHALL BE PROTECTED AS REQUIRED BY LOCAL CODE AUTHORITY. (SEE DETAILS)
- MANUFACTURER'S MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.
- PRODUCTION INSTALLATION SHALL ADHERE TO MANUFACTURERS' RECOMMENDATIONS.
- PROVIDE ACCESS PANELS FOR EQUIPMENT THAT REQUIRES PERIODIC SERVICE.
- TOPS OF ALL FLOOR DRAINS SHALL BE SET FLUSH WITH FINISHED FLOOR. ALL PIPING ABOVE GRADE SHALL BE PROPERLY SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE.
- CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL DRAWINGS AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN HEREIN.
- PROVIDE SHUTOFF VALVES ON ALL BRANCH PIPING AND ON ALL SUPPLIES TO INDIVIDUAL FIXTURES AND EQUIPMENT. PROVIDE BALL VALVES ON ALL WATER MAIN BRANCHES IN CORRIDORS AND WHERE INDICATED ON DRAWINGS. ALL VALVES SHALL BE ACCESSIBLE.
- ALL SLEEVES THROUGH CONCRETE FLOORS AND ALL CORE DRILLING OF CONCRETE FLOORS AND WALLS SHALL BE BY THIS CONTRACTOR.
- CONCRETE PADS AND PLATFORMS FOR WORK OF THIS SECTION WILL BE PROVIDED BY GENERAL CONTRACTOR. PROVIDE INFORMATION AND HARDWARE AS NECESSARY TO COORDINATE WORK.
- SCHEDULE WORK OF THIS SECTION TO AVOID INTERFERE WITH FIRE-PROOFING WORK.
- COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS.
- RUN PIPING CONCEALED, UNLESS SPECIFIED OTHERWISE, AND CLEAR OF CEILING INSERTS.
- STRUCTURAL WELDING SHALL BE 1/4-INCH FILLET UNLESS REQUIRED OTHERWISE.
- PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
- PROVIDE BALANCING VALVES AT SYSTEM LOOP RETURNS AND AT RETURN RISERS. PROVIDE SHUT-OFF VALVES AT SYSTEM LOOP SUPPLIES AND SUPPLY RISERS.
- PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS.
- PROVIDE GAUGE FITTINGS AND THERMOMETER WELLS AT HOT WATER SUPPLY AND RETURN BRANCHES AND AT PUMP INLETS AND OUTLETS.
- VERIFY EXACT SIZES, LOCATIONS, INVERTS AND ELEVATIONS PRIOR TO RUNNING ANY PIPING. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL FIXTURES AND EQUIPMENT.
- ALL GAS PIPING TO COMPLY WITH LOCAL AND STATE CODES.
- GAS PIPING AND SAFETY DEVICES SHALL CONFORM TO THE REQUIREMENTS OF NFPA 54 AND SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE STATE REGULATOR BOARD.
- GAS PIPING SHALL BE TESTED ACCORDING TO THE STATE FUEL GAS CODE AND NATIONAL CODE PROVISIONS OF THE LOCAL PLUMBING INSPECTOR. IF INSPECTION OF THE TEST SHOWS DEFECTS, SUCH DETECTIVE WORK AND MATERIAL SHALL BE REPLACED AND INSPECTION AND TEST SHALL BE REDONE.
- PLUMBING SUBCONTRACTOR IS RESPONSIBLE FOR EXTENDING ALL REGULATOR VENTS TO ATMOSPHERE. REGULATORS ARE PART OF EQUIPMENT GAS TRAIN.
- WATER HEATERS SHALL BE INSTALLED WITH DRAIN PANS UNDER HEATERS. ROUTE PAN DRAINS TO NEAREST FLOOR DRAIN OR SAFE DRAIN.
- PIPING SHALL NOT RUN OVER ELECTRICAL PANELS AND SHALL BE COORDINATED WITH WORK OF OTHER TRADES.

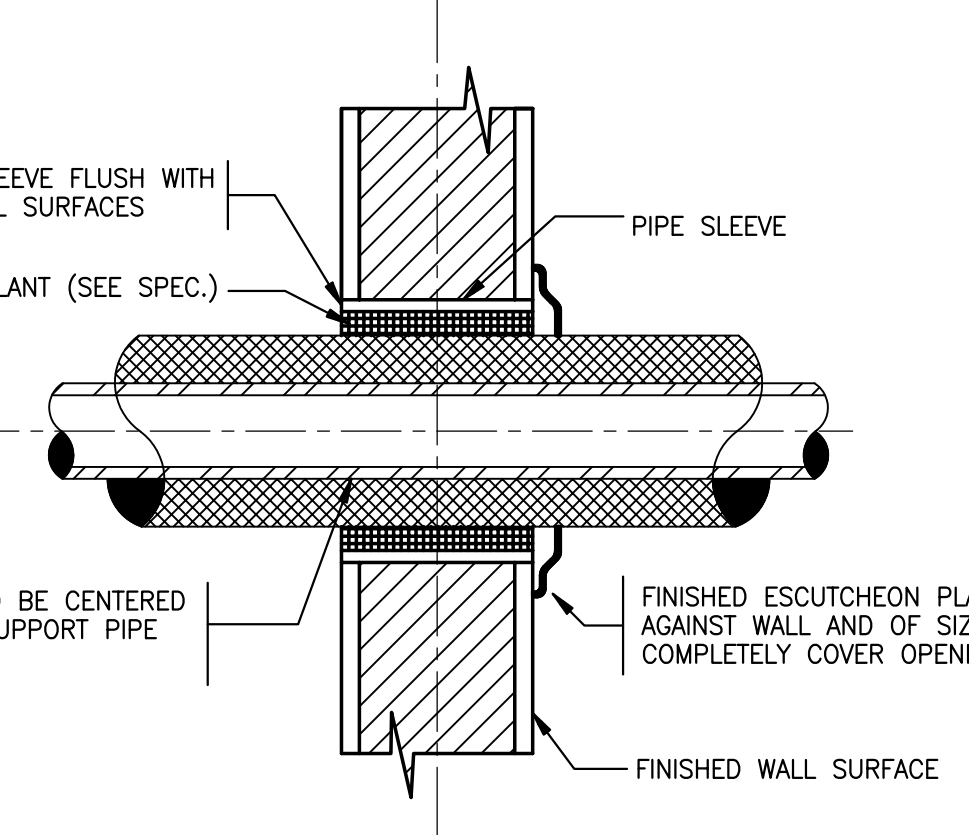
**PLUMBING FIXTURE SCHEDULE**

FIXTURES	FIXTURE #	SERVICE CONNECTION					MANUFACTURER AND EQUIPMENT	MODEL NO.	REMARKS	
		S	W	V	CW	HW				
WATER CLOSET	WC-1						AMERICAN STANDARD CADET OLSONITE OPEN FRONT SEAT LESS COVER	2377.100 95		
FLUSH TANK (BOTTOM OUTLET)		4"	2"	1/2"						
LAVATORIES	L-1 L-2 L-3									
PUBIC			1/2"	1/2"	1/2"	1/2"	SK: ELKAY FAUCET: ELKAY DRAIN: ELKAY	051-2101 3571062 883-0530		
PRIVATE			1/2"	1/2"	1/2"	1/2"	SK: ELKAY FAUCET: ELKAY DRAIN: ELKAY	051-2101 3571002 POP-UP	FURNISH OFFSET TRAP, VALVE STOPS, RISERS AND INSULATION KIT.	
SLOP SINKS	MB-1									
RECEPTOR			3"	2"	3/4"	3/4"	BASIN HOSE HOLDER MOP HANGER BUMPER GUARD	MSB-2424 832-AA 889-CC E-77-AA		
E.W.C.	EDF-1EDF-2EDF-3									
TWO-LEVEL			1/2"	1/2"	1/2"		ELKAY WHEELCHAIR ACCESS MODEL	EZTL8C		
SHOWERS										
SHOWER			2"	1/2"	3/4"	3/4"	SHOWER: LASCO BATHWARE FAUCET INCLUDED	1363BFSC	PROVIDE GRAB BAR, CUSHIONED SEAT, HAND-HELD SHOWER HEAD, PRESSURE BALANCING MIXING VALVE, CURTAIN ROD AND SHOWER CURTAIN	
TRAP	PT-1 PT-2									
PLASTER				1/2"			TRAP: ZURN	Z1181		
SINKS	S-1 S-2 S-3 S-4 S-5									
EXAM			2"	1/2"	3/4"	3/4"	SK: ELKAY FAUCET: ELKAY DRAIN: ELKAY	BCR-15 LK411ABH4 LK36		
PANTRY			2"	1/2"	3/4"	3/4"	SK: ELKAY FAUCET: ELKAY DRAIN: ELKAY HOT WATER DISPENSER: INSIKERATOR	CR-3321 LK4380FCR (2)LK35L HGT1		
LABORATORY			2"	1/2"	3/4"	3/4"	SK: ELKAY FAUCET: ELKAY DRAIN: ELKAY	CR-2521 LK411ABH4 LK35		
PROCEDURE				2"	1/2"	3/4"	3/4"	SK: ELKAY FAUCET: ELKAY DRAIN: ELKAY	DLR-2522 LK411ABH4 LK35	12" DEEP
SINK			2"	1/2"	3/4"	3/4"	SK: ELKAY FAUCET: ELKAY DRAIN: ELKAY	DLR-3122-12 LK411ABH4 LK35		12" DEEP
FLUSH RIM SINK	FRS-1									
FLUSH RIM SINK			4"	2"	1/2"	3/4"	SK: AMERICAN STANDARD FAUCET: AMERICAN STANDARD S.S RIM GUARDS: AMERICAN STANDARD	9504.010 8345.110 7832-017 (3)		

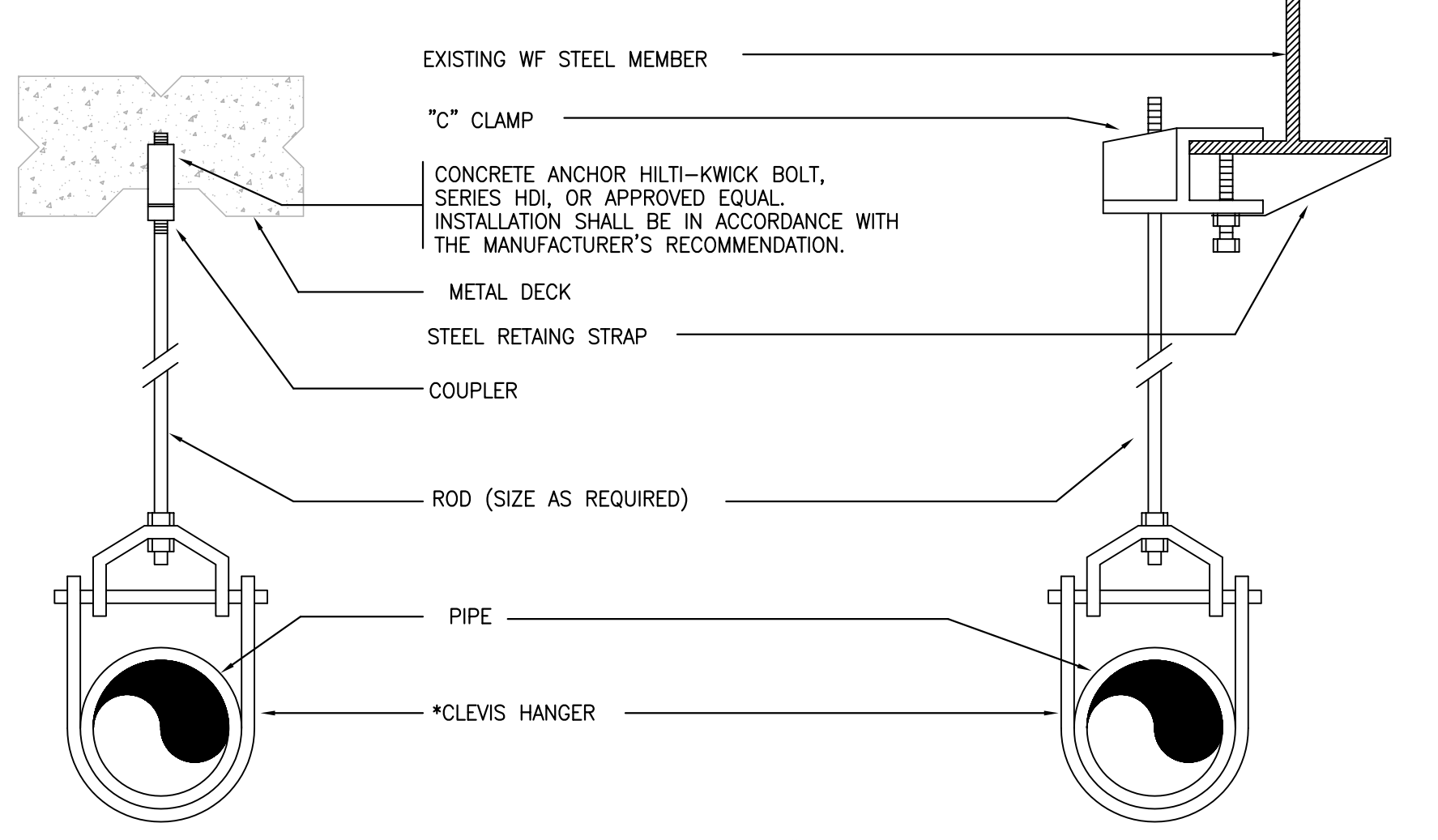
- NOTES:**
- THE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES SHALL BE AS PER THE ARCHITECTURAL DRAWINGS.
  - ALL SINKS AND LAVATORIES THAT ARE HANDICAPPED ACCESSIBLE SHALL BE PROVIDED WITH THERMAL AND IMPACT INSULATION/SHIELDING KITS ON SUPPLIES, TRAPS, TAILPIECES AND WASTE OUTLETS.
  - ALL FLUSH VALVES SHALL BE PROVIDED WITH SHOCK ARRESTORS.

**PLUMBING EQUIPMENT SCHEDULE**

EQUIPMENT	ITEM No.	SERVICE CONNECTION					MANUFACTURER AND EQUIPMENT	MODEL No.	REMARKS
		T	W	V	CW	HW			
SHOCK ARRESTOR	SA				1"		J.R. SMITH	SERIES 5000	
EMERGENCY DYE WASH	EW-1				1/2"		HAWS	7613	
BACKFLOW PREVENTER	BPA-1				1/2"		WATTS	SERIES 7	
WASHING MACHINE SUPPLY BOX	SB-1		2"		1/2"	1/2"	ACORN	8186	



**PIPE SLEEVE THRU INTERIOR WALL**



**TYPICAL HANGER DETAIL**

\*CLEVIS HANGERS REQUIRED ON PIPING LARGER 1". GENERAL PURPOSE HANGERS MAY BE USED ON PIPING 1" OR SMALLER.

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- Revisions**
- 07-18-07 DESIGN DEVELOPMENT
  - 08-23-07 CONSTRUCTION DOCUMENTS
  - 09-25-07 ADDENDUM #1

Sheet  
**PLUMBING COVER SHEET**

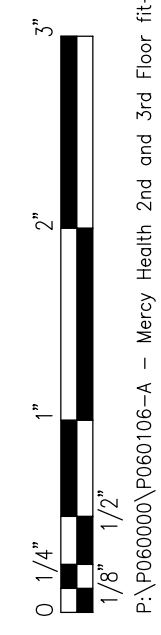
Project  
**Landmark Healthcare Pavillion**  
 Portland, Maine

Date  
**August 23, 2007**

Project No.  
**07-5198**

Sheet No.  
**P-1.0**

Frank Lorenz  
 PROFESSIONAL ENGINEER  
 NO. WA 7907



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Sheet  
**PLUMBING  
SECOND FLOOR PLAN**

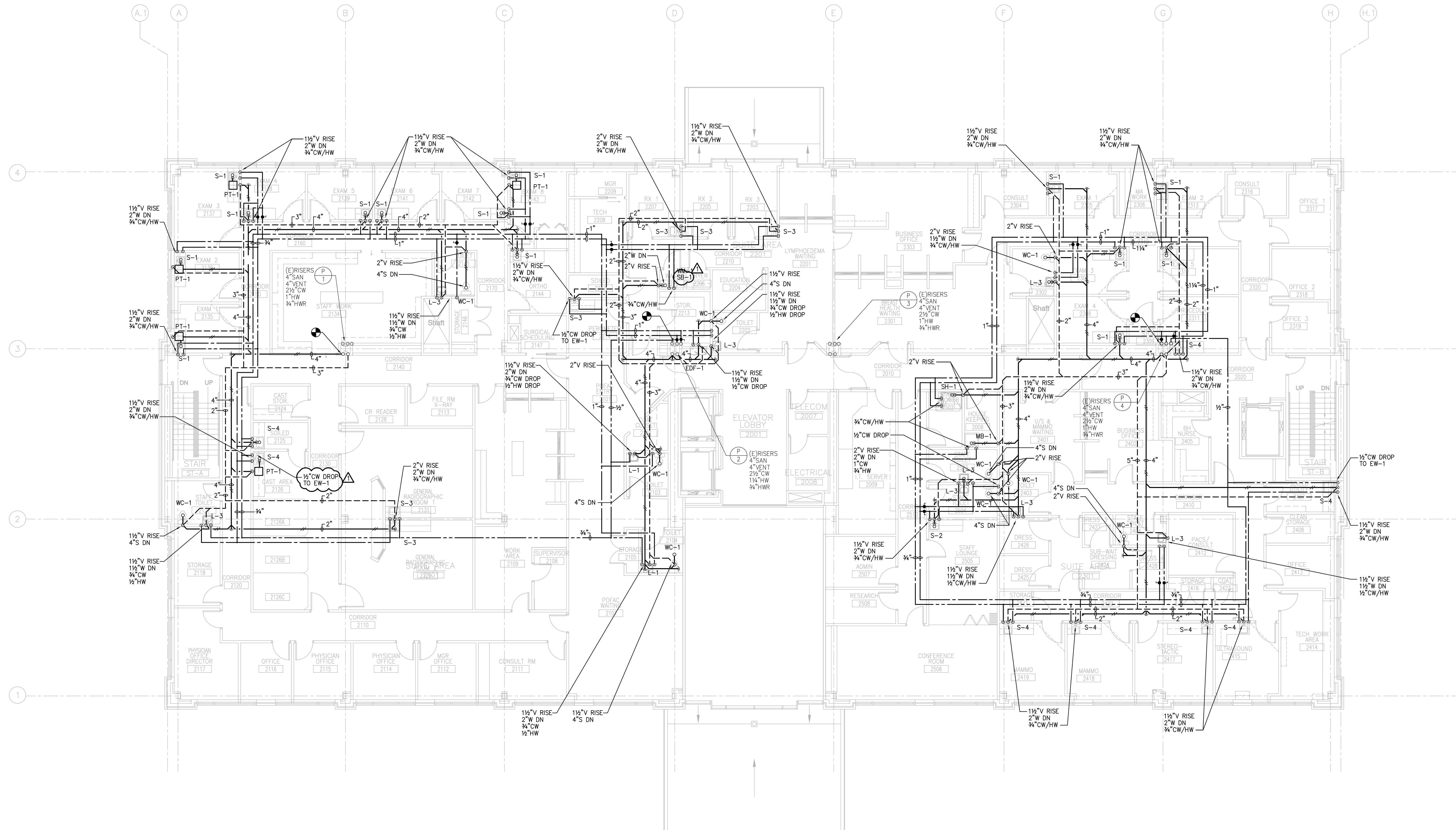
Project  
Landmark Healthcare  
Facilities LLC  
  
Fore River Medical  
Pavillon  
Portland, Maine

Date  
**August 23, 2007**

Project No.  
**07-5198**

Sheet No.  
**P-2.0**

Frank Lorenz  
PROFESSIONAL ENGINEER  
NO. WA 7907



**1 SECOND FLOOR PLAN**  
SCALE: 1/8"=1'-0"

0 1/4" 1/8" 1/4" 3/8" 1/2" 3/4" 1" 1 1/4" 1 1/2" 1 3/4" 2" 2 1/4" 2 1/2" 2 3/4" 3" 3 1/4" 3 1/2" 3 3/4" 4" 4 1/4" 4 1/2" 4 3/4" 5"



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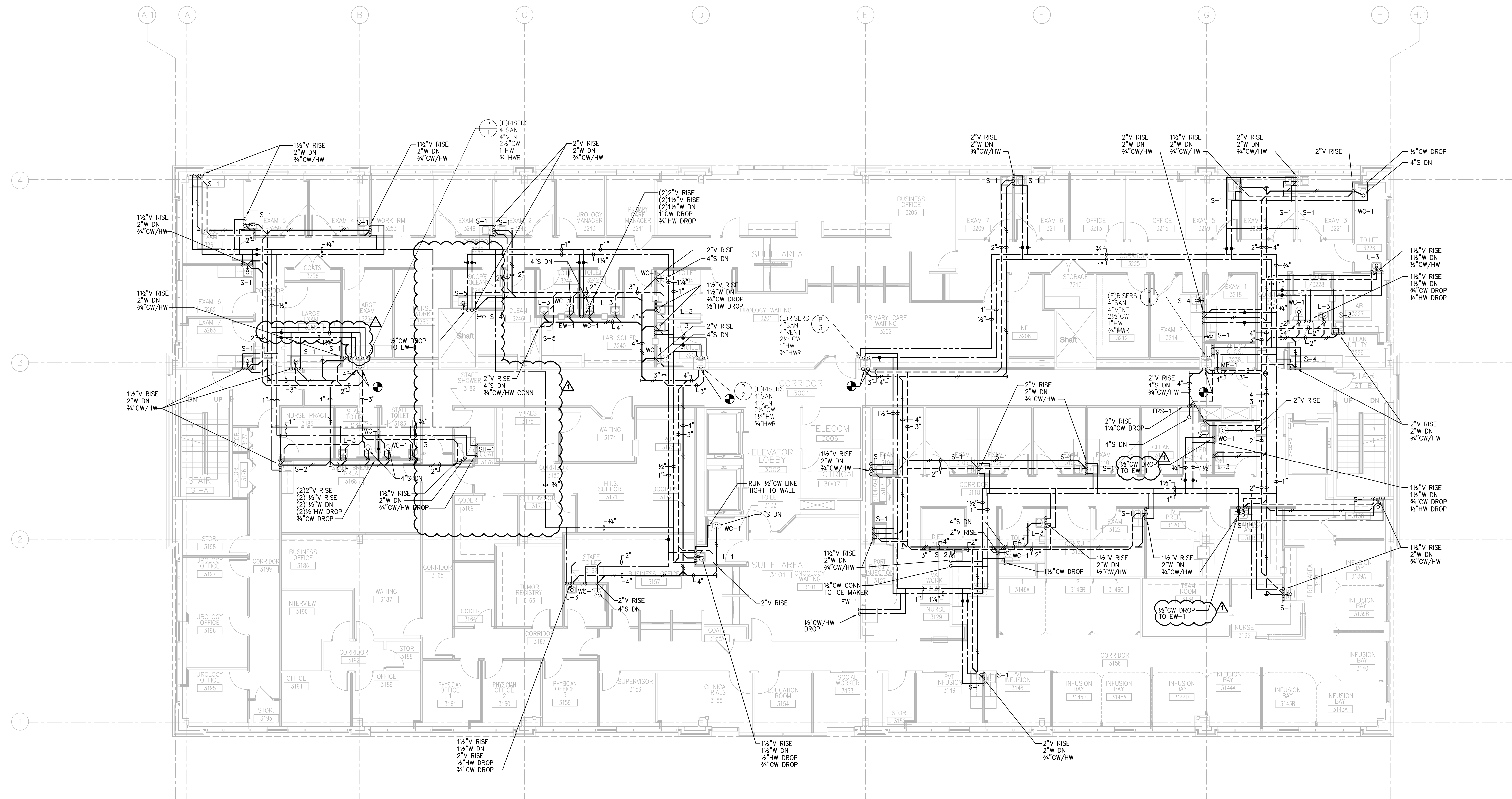
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**1 THIRD FLOOR PLAN**  
SCALE: 1/8"=1'-0"

Sheet  
**PLUMBING**  
**THIRD FLOOR PLAN**

Project  
Landmark Healthcare  
Facilities LLC  
  
Fore River Medical  
Pavillon  
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**07-5198**

Sheet No.  
**P-2.1**

Frank Lorenz  
PROFESSIONAL ENGINEER  
NO. WA 7907

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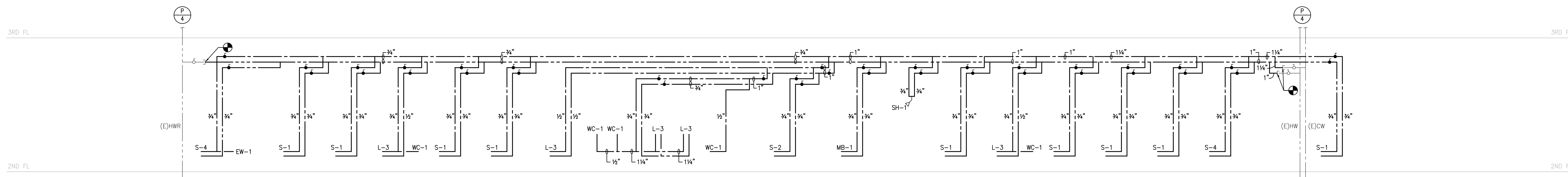
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Cauffman  
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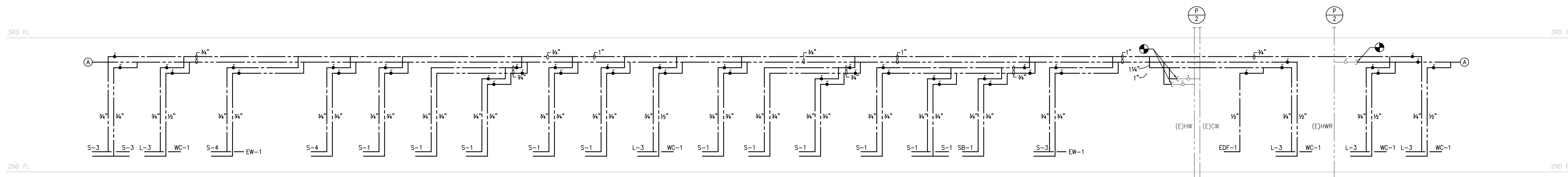
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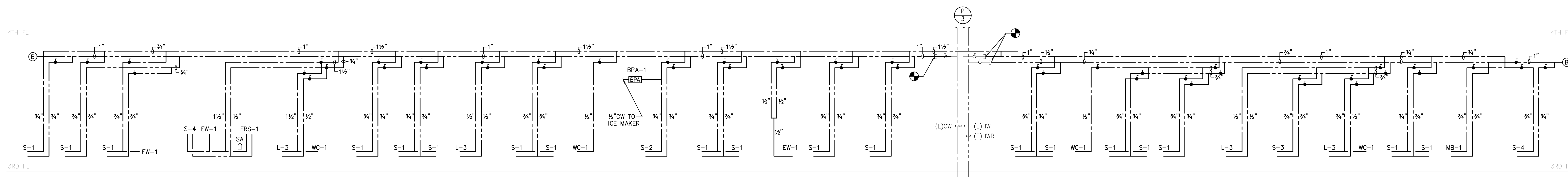
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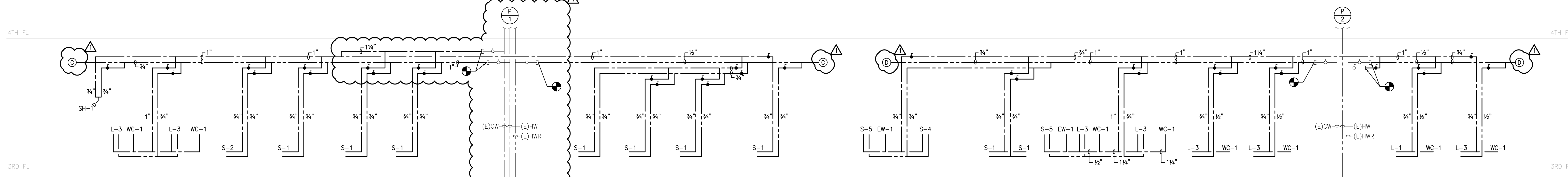
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SCALE: NTS



**2 SECOND FLOOR DOMESTIC WATER RISER DIAGRAM**  
SCALE: NTS



**3 THIRD FLOOR DOMESTIC WATER RISER DIAGRAM**  
SCALE: NTS



**4 THIRD FLOOR DOMESTIC WATER RISER DIAGRAM**  
SCALE: NTS

Sheet  
**PLUMBING**  
**RISER DIAGRAMS**

Project  
Landmark Healthcare  
Facilities LLC  
Fore River Medical  
Pavillon  
Portland, Maine

Date  
**August 23, 2007**

Project No.  
**07-5198**

Sheet No.  
**P-3.0**

Frank Lorenz  
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0 1/4" 1/8" 1/4" 1/2" 3/4" 1" 2" 3" 5"

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**PLUMBING  
RISER DIAGRAMS**

Project  
**Landmark Healthcare  
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Fore River Medical  
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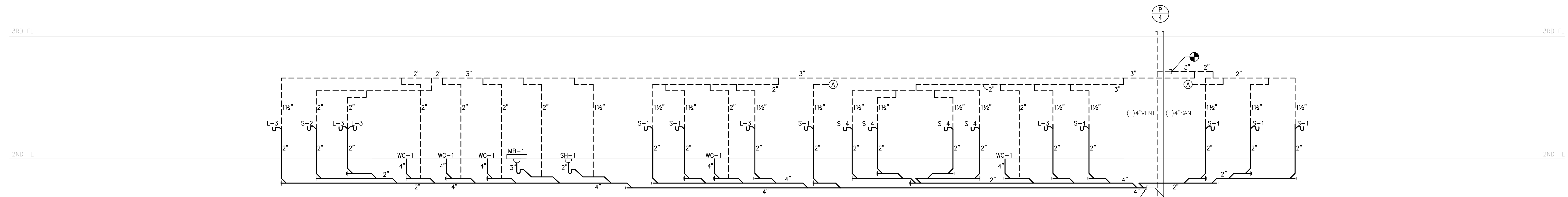
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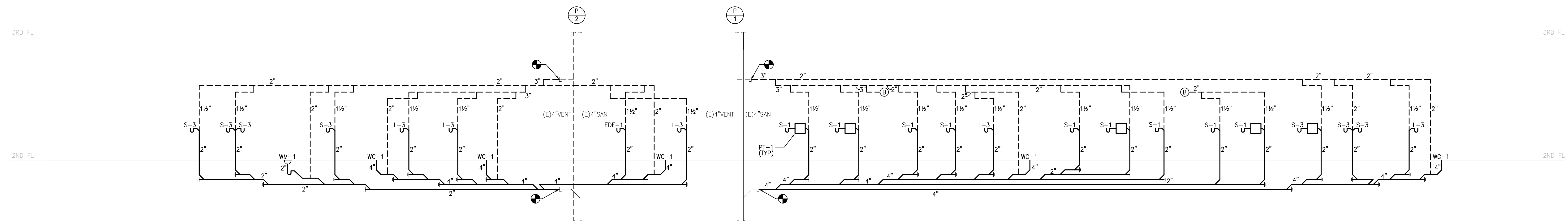
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**P-3.1**

Frank Lorenz

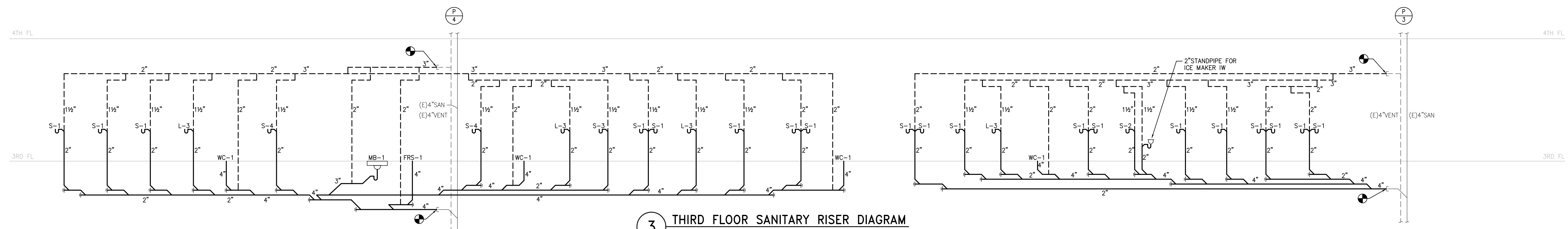
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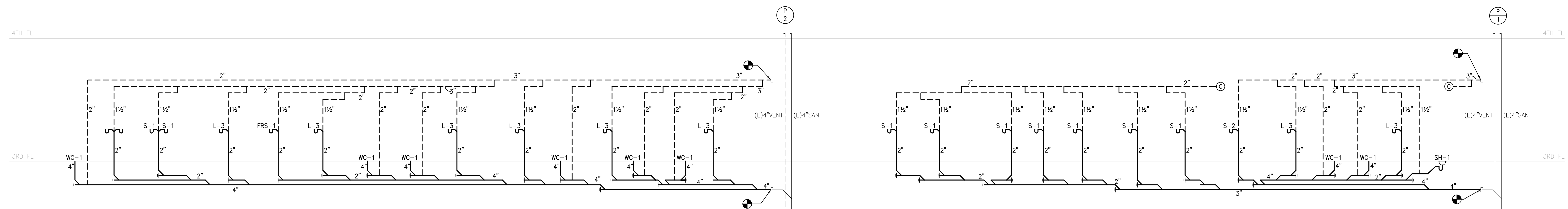
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SCALE: NTS



**2 SECOND FLOOR SANITARY RISER DIAGRAM**  
SCALE: NTS



**3 THIRD FLOOR SANITARY RISER DIAGRAM**  
SCALE: NTS



**4 THIRD FLOOR SANITARY RISER DIAGRAM**  
SCALE: NTS

0 1/4" 1/8" 1/4" 3/8" 1/2" 3/4" 1" 1 1/4" 1 1/2" 2" 3" 4" 6" 8" 10" 12" 15" 20" 24" 30" 36" 48" 60" 72" 96" 120"