

**CODE ANALYSIS:**

**Applicable Codes:**

OSHA 29 CFR 1910.151(c) - Medical Services and First Aid

ANSI standard Z358.1-2004 - Emergency Eyewash and Shower Equipment

Utah Title R614-1-5-E-12. Labor Commission, Occupational Safety and Health.

2006 International Plumbing Code

Emergency shower and eyewash stations are provided per national and local codes and standards at approximately 10 second travel time or less from hazardous material locations. ANSI Z358.1-2004 compliant fixtures have been specified.

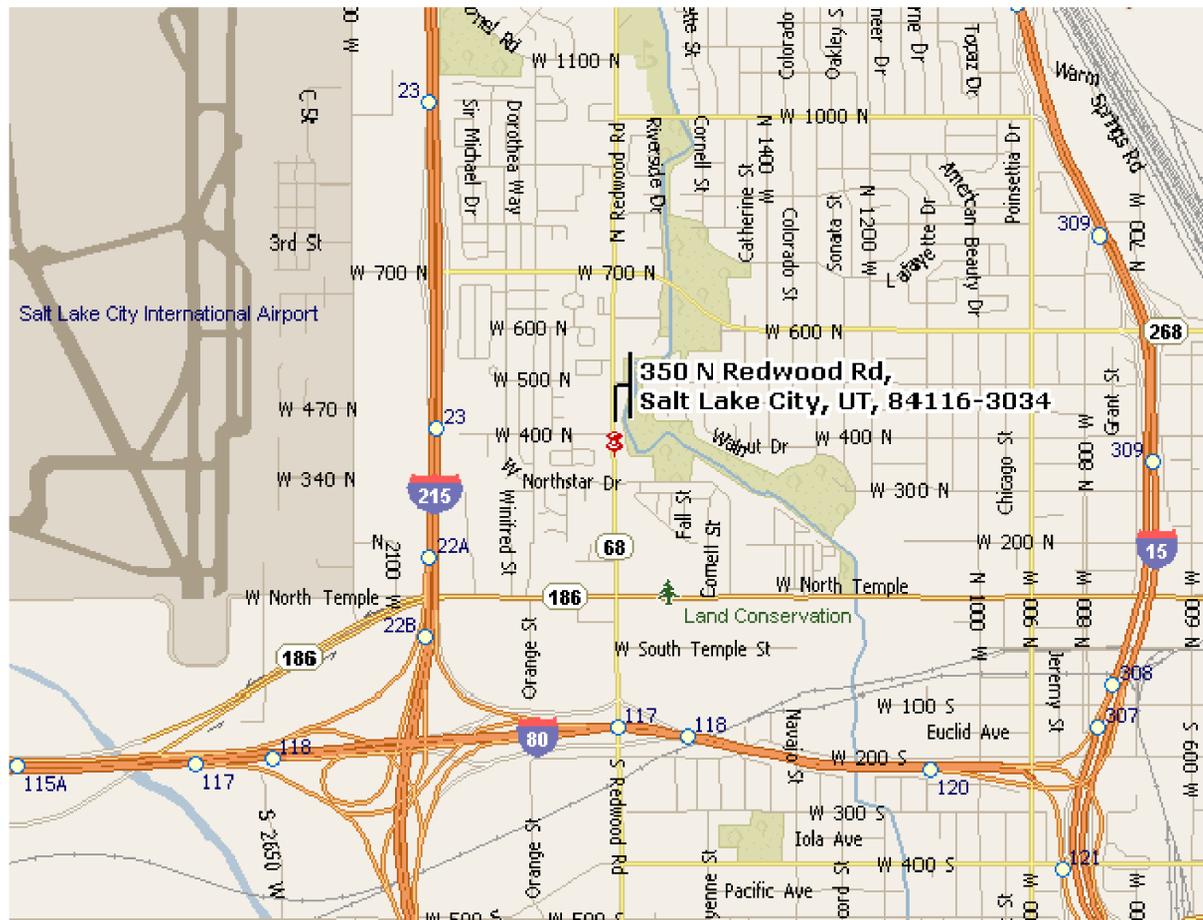
**DEPARTMENT OF  
AGRICULTURE AND FOOD**

**350 North Redwood Road**

**PLUMBING IMPROVEMENTS**

**DFCM PROJECT NO: 06177010**


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**CONSULTANTS**



**DEPT. OF  
AGRICULTURE  
AND FOOD**

STATE PROPERTY NO:  
06177010

**PLUMBING  
IMPROVEMENTS**

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MARK	DATE	DESCRIPTION
		ISSUE: CONSTRUCTION DOCUMENTS
		DATE: MARCH 07, 2007
		DFCM PROJECT NO: 06177010
		PROJECT NO: 20070075
		DRAWN BY: ARA
		CHECKED BY: JJJ
		DESIGNED BY:
		RECORD DRAWING DATE:
		SIGNATURE:

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**SHEET TITLE**

**TITLE SHEET**

**PE001**

SHEET OF

MECHANICAL SPECIFICATIONS

15055 - BASIC PIPING MATERIALS AND METHODS

- 1. CORE CUT ALL PIPE PENETRATION OF EXISTING MASONRY OR CONCRETE WALLS AND FLOORS. SLEEVE ALL PENETRATIONS THROUGH NEW WALLS AND FLOORS. SEAL ALL PENETRATIONS WATER TIGHT WITH SILICONE SEALANT. USE FIRE RATED SEALANT (3M "FIRE BARRIER" OR EQUAL ) FOR 1 HOUR OR 2 HOUR PENETRATIONS.
2. CAULK AROUND ALL PIPING THAT PASSES THROUGH FIRE-RATED PARTITIONS WITH A NON-HARDENING CAULKING SIMILAR TO 3M "FIRE BARRIER".
3. SEAL ALL PIPING THROUGH WALLS AIR TIGHT.

15100 - VALVES

- 1. PROVIDE VALVES OF THE TYPE AND QUANTITY SHOWN ON THE DRAWINGS. VALVES OF THE SAME TYPE TO BE BY ONE MANUFACTURER.

15190 - MECHANICAL IDENTIFICATION

- 1. PIPE MARKERS: PLASTIC TAPE: PROVIDE MANUFACTURER'S STANDARD COLOR-CODED PRESSURE-SENSITIVE (SELF ADHESIVE) VINYL TAPE, NOT LESS THAN 3 MILS THICK. 1-1/2" WIDE TAPE MARKERS ON PIPES WITH OUTSIDE DIAMETERS LESS THAN 6" (INCLUDING INSULATION, IF ANY); 2-1/2" WIDE TAPE FOR LARGER PIPES.
2. COLOR: COMPLY WITH ANSI A13.1
3. LETTERING: MANUFACTURER'S STANDARD PRE-PRINTED NOMENCLATURE WHICH BEST DESCRIBES PIPING OR DUCT SYSTEM IN EACH INSTANCE OR AS SELECTED BY ARCHITECT OR ENGINEER IN CASES OF VARIANCE WITH NAMES AS SHOWN.
4. ARROWS: PRINT EACH MARKER WITH ARROWS INDICATING DIRECTION OF FLOW.
5. VALVE TAGS: PROVIDE PLASTIC LAMINATE VALVE TAGS: MANUFACTURER'S STANDARD 3/32" THICK ENGRAVED TAGS WITH PIPING SYSTEM ABBREVIATION IN 1/4" HIGH LETTERS AND SEQUENCED VALVE NUMBERS 1/2" HIGH, WITH 5/32" HOLE FOR FASTENER. PROVIDE 1-1/2" SQUARE BLACK TAGS WITH WHITE LETTERING.
6. VALVE TAG FASTENERS: PROVIDE MANUFACTURER'S STANDARD SOLID BRASS CHAIN (WIRE LINK OR BEADED TYPE), OR SOLID BRASS S-HOOKS OF THE SIZED REQUIRED FOR PROPER ATTACHMENT OF TAGS TO VALVES, AND MANUFACTURED SPECIFICALLY FOR THAT PURPOSE.

15242 - VIBRATION ISOLATION AND SEISMIC

- 1. ALL PLUMBING EQUIPMENT AND PIPING MUST BE VIBRATION ISOLATED AND SEISMICALLY BRACED FOR THE SITE SPECIFIC SEISMIC DESIGN CATEGORY AND SEISMIC USE GROUP, IN ACCORDANCE WITH THE LATEST ADOPTED EDITIONS OF THE BUILDING CODES AND ASHRAE. PROVIDE SEISMIC PRODUCTS BY AMBER-BOOTH OR MASON INDUSTRIES.
2. IN GENERAL, PROVIDE SPRING MOUNTS TO ATTENUATE LOW FREQUENCY SOUND AND VIBRATION. PROVIDE NEOPRENE PADS TO ATTENUATE HIGH FREQUENCY SOUND
3. VIBRATION: SEISMIC BRACING/MOUNTING CAN BE COMBINED WITH VIBRATION ISOLATION AS APPLICABLE.
4. CONTRACTOR MANUFACTURED SEISMIC BRACING/RESTRAINT METHODS ARE NOT ACCEPTABLE.
5. PROVIDE A SIGNED AND STAMPED LETTER FROM A PROFESSIONAL ENGINEER CERTIFYING THAT THE SUPPLIED PRODUCTS ARE CORRECT FOR THE APPLICATION AND THAT THE INSTALLATION IS IN COMPLIANCE WITH ALL APPLICABLE CODES.

15250 - INSULATION

- 1. PIPE INSULATION: SNAP-ON GLASS FIBER TYPE WITH VAPOR JACKET. SEAL ALL ENDS AND JOINTS TO PROVIDE A COMPLETELY SEALED SYSTEM. ALTERNATIVELY, FOR INTERIOR WATER PIPING, USE FLEXIBLE UNICELLULAR ASTM 534 TYPE 1 INSULATION. USE 1" THICKNESS FOR PIPE UP TO 2" AND 1-1/2" FOR PIPE OVER 2"

15411 - WATER DISTRIBUTION PIPING

- 1. NO TYPE "M" OR "DWV" COPPER IS TO BE USED IN THIS PROJECT.
2. ALL ABOVE GROUND HOT AND COLD WATER PIPING: ASTM B 88 TYPE "L" COPPER, WITH WROUGHT COPPER FITTINGS AND SOLDERED WITH 95-5 TIN-ANTIMONY SOLDER.
3. INSTALL PIPE HANGERS WITH THE FOLLOWING MINIMUM ROD SIZES AND MAXIMUM SPACING. UPON COMPLETION OF HANGER INSTALLATION, ALL ADJUSTMENTS HAVING THE POSSIBILITY OF TURNING SHALL BE LOCKED SECURELY IN PLACE BY DOUBLE NUTTING AT THE HANGER ROD ATTACHMENT TO THE STRUCTURE, AND AT THE PIPE HANGER.

Table with 3 columns: NOM. PIPE SIZE-INCHES, MAX SPAN-FT., MIN. ROD SIZE-INCHES. Rows for 1, 1-1/2, 2, 3, 4, 6 inch pipes.

- 4. ALL PIPE HANGERS AND EQUIPMENT SUPPORTS SHALL BE LOCATED A MINIMUM DISTANCE OF 2" FROM ANY REFRIGERANT PIPE.

MECHANICAL SPECIFICATIONS

15420 - DRAINAGE AND VENT SYSTEMS

- 1. UNDERGROUND BUILDING DRAIN PIPE AND FITTINGS:
A. NO HUB ABS OR PVC PLASTIC PIPE AND FITTINGS PER ASTM D2661 WITH ASTM D2235 SOLVENT OR
B. ASTM A74 SERVICE WEIGHT, HUB AND SPIGOT CAST IRON SOIL PIPE, OR ASTM A888 (OR CISPI 301) HUBLESS CAST IRON SOIL PIPE WITH ASTM C564 HEAVY DUTY SHIELDED STAINLESS STEEL COUPLINGS.
C. NO ASTM D2729 PIPE SHALL USED UNDERGROUND.
2. ABOVE GROUND SANITARY DRAINAGE AND VENT PIPING, IN ALL AREAS EXCEPT AIR PLENUMS AND EXCEPT IN A FIRE RATED BUILDING, SHALL BE SERVICE WEIGHT, NO HUB CAST IRON COUPLED PIPE AND FITTINGS WITH COMPRESSION TYPE NEOPRENE GASKETS AND STAINLESS STEEL BANDS.
3. ALL SANITARY DRAINAGE AND VENT PIPING INSIDE AIR PLENUMS AND ANYWHERE IN A FIRE RATED BUILDING SHALL BE SERVICE WEIGHT CAST IRON COUPLED PIPE AND FITTINGS WITH COMPRESSION TYPE NEOPRENE GASKETS AND STAINLESS STEEL BANDS. ASTM B306 COPPER PIPE MAY BE USED WITH SOLDERED JOINTS FOR PIPE 3" AND SMALLER.
4. INSTALL SANITARY DRAIN LINES 2-1/2" AND LESS WITH A SLOPE OF 2%. INSTALL SANITARY DRAIN LINES 3"-6" WITH A SLOPE OF NOT LESS THAN 1%.
5. CLEANOUTS
A. FINISHED WALL CLEANOUTS: SMITH FIGURE 4472 COMPLETE WITH CAST BRONZE TAPER THREADED PLUG, STAINLESS STEEL COVER AND SCREW.
B. FLOOR CLEANOUTS (UNFINISHED AREAS): SMITH FIGURE 4223 DUCO CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED CAST IRON TOP, TAPER THREADED BRONZE PLUG AND SPIGOT OUTLET.
C. FINISHED FLOOR CLEANOUTS (CONCRETE FLOORS): SMITH FIGURE 4023 DUCO CAST IRON CLEANOUT WITH ADJUSTABLE SCORIATED SECURED NICKEL BRONZE TOP, TAPER THREADED CAST BRONZE PLUG AND SPIGOT OUTLET.
D. FINISHED FLOOR CLEANOUTS (CARPETED FLOORS): SMITH FIGURE 4023-Y SAME AS CONCRETE FLOORS WITH CARPET MARKER.
E. FINISHED FLOOR CLEANOUTS (TILE FLOORS): SMITH FIGURE 4163 DUCO CAST IRON CLEANOUT WITH SQUARE ADJUSTABLE SECURED NICKEL BRONZE TOP WITH 1/8" RECESS, TAPER THREADED BRONZE PLUG AND SPIGOT OUTLET.
F. EXTERIOR CLEANOUTS (CLEANOUT TO GRADE): SMITH FIGURE 4253 DUCO CAST IRON CLEANOUT AND DOUBLE FLANGED HOUSING WITH HEAVY DUTY SECURED SCORIATED CAST IRON COVER WITH LIFTING DEVICE, TAPER THREADED BRONZE PLUG AND SPIGOT OUTLET.
6. FLOOR DRAINS:
FD-1 FLOOR DRAIN: SMITH FIGURE 2010-BP CAST IRON BODY AND FLASHING COLLAR WITH PROTECTIVE CAP AND SQUARE NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED SQUARE HOLE GRATE, AND TRAP PRIMER CONNECTION.

15440 - PLUMBING FIXTURES

- 1. PROVIDE AND INSTALL CARRIERS AS REQUIRED FOR FLOOR OR WALL MOUNTED PLUMBING FIXTURES. INSTALL ALL FIXTURES WITH ACCESSORIES AS REQUIRED TO PROVIDE A COMPLETE, WORKABLE INSTALLATION.
2. PLUMBING FIXTURES SHALL INCLUDE COMPRESSION STOPS ABOVE FLOOR IN SUPPLIES TO ALL FIXTURES AND A MINIMUM 17 GAUGE P-TRAP.
3. ALL LAVATORIES AND HAND SINKS WILL HAVE A COMBINATION FAUCET OR PREMIXING FAUCET CAPABLE OF SUPPLYING WARM WATER FOR A MINIMUM OF 10 SECONDS.
4. FLOOR DRAINS AND FLOOR SINKS ARE SHOWN IN THE APPROXIMATE LOCATION. COORDINATE FINAL LOCATION WITH EQUIPMENT AND DRAINAGE REQUIREMENTS.
5. FIXTURES:
S-1 LAB SINK: ELKAY LRAD1722 STAINLESS STEEL SINK; SELF RIMMING; (2) FAUCET HOLES AT QUARTER POINTS; LK-372 STRAINER; CHICAGO NO. 930 COMBINATION SINK FITTING WITH NO. GN-2B-VB-E7 RIGID GOOSENECK SPOUT WITH VACUUM BREAKER AND NO. E7 SERRATED NOZZLE; ORION WHITELINE DEIONIZED WATER DECK MOUNT POLYPROPYLENE GOOSENECK FAUCET FOR REVERSE OSMOSIS WATER; ACID RESISTANT "P" TRAP.
S-2 LAB SINK: ELKAY DLRS332210 STAINLESS STEEL SINK; SELF RIMMING; (2) FAUCET HOLES AT QUARTER POINTS; LK-372 STRAINER; CHICAGO NO. 930 COMBINATION SINK FITTING WITH NO. GN-2B-VB-E7 RIGID GOOSENECK SPOUT WITH VACUUM BREAKER AND NO. E7 SERRATED NOZZLE; ORION WHITELINE DEIONIZED WATER DECK MOUNT POLYPROPYLENE GOOSENECK FAUCET FOR REVERSE OSMOSIS WATER; ACID RESISTANT "P" TRAP.
S-3 LAB SINK: ELKAY DLR222212 STAINLESS STEEL SINK; SELF RIMMING; (2) FAUCET HOLES AT QUARTER POINTS; LK-372 STRAINER; CHICAGO NO. 930 COMBINATION SINK FITTING WITH NO. GN-2B-VB-E7 RIGID GOOSENECK SPOUT WITH VACUUM BREAKER AND NO. E7 SERRATED NOZZLE; ORION WHITELINE DEIONIZED WATER DECK MOUNT POLYPROPYLENE GOOSENECK FAUCET FOR REVERSE OSMOSIS WATER; ACID RESISTANT "P" TRAP.
S-4 LAB SINK: ELKAY LRAD2022 STAINLESS STEEL SINK; SELF RIMMING; (2) FAUCET HOLES AT QUARTER POINTS; LK-372 STRAINER; CHICAGO NO. 930 COMBINATION SINK FITTING WITH NO. GN-2B-VB-E7 RIGID GOOSENECK SPOUT WITH VACUUM BREAKER AND NO. E7 SERRATED NOZZLE; ORION WHITELINE DEIONIZED WATER DECK MOUNT POLYPROPYLENE GOOSENECK FAUCET FOR REVERSE OSMOSIS WATER; ACID RESISTANT "P" TRAP.
S-5 LAB SINK: ELKAY LRAD2521 STAINLESS STEEL SINK; SELF RIMMING; (2) FAUCET HOLES AT QUARTER POINTS; LK-372 STRAINER; CHICAGO NO. 930 COMBINATION SINK FITTING WITH NO. GN-2B-VB-E7 RIGID GOOSENECK SPOUT WITH VACUUM BREAKER AND NO. E7 SERRATED NOZZLE; ORION WHITELINE DEIONIZED WATER DECK MOUNT POLYPROPYLENE GOOSENECK FAUCET FOR REVERSE OSMOSIS WATER; ACID RESISTANT "P" TRAP.

MECHANICAL SPECIFICATIONS

15440 - PLUMBING FIXTURES (CONT.)

- S-6 LAB SINK: ELKAY DLR252212 STAINLESS STEEL SINK; SELF RIMMING; (2) FAUCET HOLES AT QUARTER POINTS; LK-372 STRAINER; CHICAGO NO. 930 COMBINATION SINK FITTING WITH NO. GN-2B-VB-E7 RIGID GOOSENECK SPOUT WITH VACUUM BREAKER AND NO. E7 SERRATED NOZZLE; ORION WHITELINE DEIONIZED WATER DECK MOUNT POLYPROPYLENE GOOSENECK FAUCET FOR REVERSE OSMOSIS WATER; ACID RESISTANT "P" TRAP.
S-7 LAB SINK: ELKAY SS8248LR STAINLESS STEEL SINK; (4) FAUCET HOLES AT QUARTER POINTS; LK-372 STRAINER; CHICAGO 540-LDLSFC WALL MOUNTED FAUCET WITH L9 SWING SPOUT, E3 SOFTFLO AERATOR, NO. 369 LEVER HANDLES, QUATURN OPERATING CARTRIDGE, G ADJUSTABLE SUPPLY ARMS, 1/2" NPT FEMALE INLETS, PRESSURE COMPENSATING 2.2GPM (8.3 L/MIN.) WITH VACUUM BREAKER; CHICAGO CF9831P10SLC WALL MOUNTED PRE-RINSE FAUCET WITH 80-L WATER CONSERVING SPRAY VALVE, NO. 369 LEVER HANDLES, QUATURN OPERATING CARTRIDGE, G ADJUSTABLE SUPPLY ARMS WITH INTEGRAL CHECKS, 44" FLEXIBLE STAINLESS STEEL HOSE WITH INSULATED HANDLE, 1/2" NPT FEMALE INLETS; ACID RESISTANT "P" TRAP.
CS CUP SINK: JUST MODEL A-41962 18 GA. TYPE 316 STAINLESS STEEL CUP SINK; 3" X 9" OVAL X 5" DEEP; SELF RIMMING; CHICAGO NO. 928 SINGLE SINK FITTING WITH NO. GN-2B-VB-E7 RIGID GOOSENECK SPOUT, VACUUM BREAKER AND SERRATED NOZZLE, STRAIGHTWAY STOP WITH SUPPLY; 1 1/2" POLYPROPYLENE "P" TRAP.
ES EMERGENCY SHOWER AND FACE/EYE WASH: GUARDIAN EQUIPMENT MODEL #8BF2150 BARRIER FREE COMBINATION EMERGENCY SHOWER AND SWING-DOWN EYE/FACE WASH WITH DRAINPAN AND RECESSED 16 GAUGE STAINLESS STEEL CABINET; STAY OPEN BALL VALVE; STAINLESS PULL BAR; STAINLESS STEEL SHOWER HEAD; GUARDIAN MODEL 3807 THERMOSTATIC MIXING VALVE AND RECESSED CABINET.

SYMBOL LEGEND

Table with 2 columns: SYMBOL, DESCRIPTION. Includes plumbing symbols for cleanout to grade, floor cleanout, wall cleanout, and plumbing piping (CWV, AW, RAW, HW, etc.).

PLUMBING PIPING

Table with 2 columns: SYMBOL, DESCRIPTION. Lists various piping types like combination waste and vent, soil/waste above/below grade, acid vent, acid waste, cold water, raw water, hot water, hot water circulate, vent thru roof, existing pipe, and pure water supply/return.

VALVES, METERS, AND GAUGES

Table with 2 columns: SYMBOL, DESCRIPTION. Lists symbols for shut off valve, check valve, ball valve, pressure reducing valve, flow setter, gas cock, 90 degree elbows, tees, unions, and capped pipes.

GENERAL MECHANICAL NOTES (CONT.)

- 28. DO NOT ROUTE DUCTS AND PIPES ABOVE ELECTRICAL PANELS. ALL ELECTRICAL PANELS MUST HAVE CLEAR ACCESS SPACE IN FRONT OF PANEL 4'-0" DEEP AND 6'-6" HIGH. DO NOT ROUTE DUCT AND PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.
29. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
30. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC. ARE LOCATED ABOVE INACCESSIBLE CEILINGS.
31. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL SINK SIZES AND COMPATIBILITY WITH EXISTING COUNTERTOPS.

SYMBOL LEGEND

Table with 2 columns: SYMBOL, DESCRIPTION. Includes symbols for detail indicator, room or space number, keynote indicator, revision indicator, equipment indicator, plumbing fixture indicator, break (straight/round), match line, and hidden features/contract limit lines.

MECHANICAL SHEET INDEX

Table with 2 columns: SHEET NO, SHEET TITLE. Lists sheets PE001 through PL103 including title sheet, specifications, details, parking level plumbing demolition plans, and various floor plumbing plans.

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.
INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS.
DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", "AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.
APPROVE: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.
FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

GENERAL MECHANICAL NOTES

- 1. PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT A COMPLETE OPERATIONAL PLUMBING SYSTEM FOR THE ENTIRE PROJECT AS SHOWN ON THESE DRAWINGS, INCLUDING ALL NECESSARY FEES AND PERMITS.
2. THE ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY ADOPTED BUILDING CODE, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, AND ALL OTHER APPLICABLE CITY, COUNTY, SCHOOL DISTRICT, STATE, AND FEDERAL CODES AND REGULATIONS IN EFFECT AT THE DATE OF THE BID. CONFORM TO ANY CODES, RULES, REGULATIONS AND REQUIREMENTS THAT THE PROJECT OWNER HAS.
3. THE DRAWINGS SHOW THE GENERAL DESIGN, ARRANGEMENTS AND THE EXTENT OF THE SYSTEM. IT SHALL BE THE WORK OF THE CONTRACTOR TO MAKE SUCH SLIGHT ALTERATIONS AS MAY BE NECESSARY TO MAKE THE SYSTEM COMPLETE AND OPERATIONAL IN ACCORDANCE WITH THE DESIGN INTENT. MAJOR DEVIATIONS SUCH AS CHANGES IN COMPONENT SIZES, WEIGHTS, QUANTITIES, OR MATERIAL REQUIRE PRIOR APPROVAL BY THE CONSULTING ENGINEER.
4. THE WORKING DRAWINGS ARE DIAGRAMMATIC. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED.
5. DETAILS: THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND USE WHERE APPROPRIATE ALL OF THE PLUMBING DETAILS SHOWN ON THE DRAWINGS. DETAILS MAY OR MAY NOT BE CALLED OUT ON THE DRAWINGS WITH SYMBOLS OR KEYED NOTES. ANY CHANGES RESULTING FROM FAILURE TO INSTALL THE PLUMBING SYSTEM WITHOUT USING THE INCLUDED DETAILS IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. PIPING SCHEMATICS: THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE PIPING SCHEMATICS INCLUDED WITH THE DRAWINGS FOR PIPING CONNECTIONS TO ALL PLUMBING EQUIPMENT. THE PIPING SCHEMATICS SHOW DETAILED CONNECTIONS INCLUDING NECESSARY VALVES, FITTINGS, PRESSURE AND TEMPERATURE GAUGES, ETC., THAT ARE NOT SHOWN ON THE PIPING PLANS. ANY CHANGES RESULTING FROM FAILURE TO INSTALL THE PLUMBING SYSTEM WITHOUT USING THE INCLUDED PIPING SCHEMATICS IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH THE ITEMS SHOWN ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN BOTH.
8. ANY PART OF THIS INSTALLATION THAT FAILS, IS UNFIT, OR BECOMES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. EQUIPMENT MODEL NUMBERS IN SCHEDULES ARE SHOWN TO ESTABLISH THE TYPE OF PRODUCT THAT HAS TO BE USED. THE SELECTED PRODUCT MUST MEET THE SCHEDULED PERFORMANCE DATA. THIS MAY REQUIRE A DIFFERENT MODEL NUMBER TO THAT SCHEDULED.
10. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, VALVES, AND OTHER DEVICES AND ACCESSORIES REQUIRED FOR A COMPLETE, WORKABLE INSTALLATION.
11. EXISTING INTERIOR PIPING AND EQUIPMENT HAS BEEN LOCATED IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL VERIFY LOCATIONS AND POINTS OF CONNECTION AND PIPE ROUTING THROUGH EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
12. THE CONTRACTOR SHALL PERFORM THE WORK IN A MANNER THAT WILL CAUSE A MINIMUM DISRUPTION TO BUILDING TENANT USE AND SHALL COORDINATE THE WORK WITH THE BUILDING OWNER'S REPRESENTATIVE.
13. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PLUMBING EQUIPMENT CHECK-IN, SAFEKEEPING, AND DAMAGE.
14. ALL VENT FITTINGS FOR WASTE SYSTEMS BELOW OVERFLOWS OF FIXTURES SHALL BE DRAINAGE TYPE.
15. CONTRACTOR TO COMPLY WITH THE LATEST ADOPTED PLUMBING CODES WHEN SIZING TRAP ARMS ON COMBINATION WASTE AND VENT SYSTEMS. THE DRAWINGS INDICATE THE WASTE LINE SIZE AND THE SIZE OF THE TRAP REQUIRED.
16. SEE "PLUMBING FIXTURE SCHEDULE" FOR FIXTURE MAKE AND TYPE, AND SIZE OF INDIVIDUAL WASTE, VENT, AND DOMESTIC WATER PIPING TO FIXTURES.
17. ALL PLUMBING EQUIPMENT SHALL BE LISTED AND LABELED BY AN APPROVED TESTING AGENCY.
18. EQUIPMENT AND INSTALLATION SHALL MEET NATIONAL SANITATION FOUNDATION (NSF) STANDARDS, OR EQUIVALENT.
19. PROVIDE PROPER PROVISIONS FOR EXPANSION OR MOVEMENT OF ALL PIPING.
20. ALL PIPE SHALL BE SECURED BY DOUBLE NUTTING AT THE HANGER ROD ATTACHMENT TO THE STRUCTURE, AND AT THE PIPE HANGER.
21. PROVIDE WATER HAMMER ARRESTORS (SHOCK ABSORBERS) AT ALL PIPE LOCATIONS WHERE VALVE CLOSURES MAY CAUSE WATER HAMMER OR RESULT IN EXCESSIVE PIPE VIBRATION OR MOVEMENT.
22. PREPARE 6 COPIES OF SUBMITTALS IN AN INDEXED, LABELED FOLDER CONTAINING FULL PERFORMANCE, MATERIAL AND INSTALLATION INFORMATION ABOUT ALL EQUIPMENT, PIPING, COMPONENTS AND ACCESSORIES TO BE USED. SUBMITTALS WILL BE CHECKED AT MOST TWICE. TIME SPENT ON SUBSEQUENT SUBMITTALS WILL BE BILLED TO THE CONTRACTOR BY THE ENGINEER AT ITS CURRENT HOURLY RATES.
23. TWO OPERATING AND MAINTENANCE MANUALS SHALL BE PROVIDED IN HARD BACK LOOSE LEAF BINDERS. MANUALS SHALL CONTAIN PRODUCT CUT SHEETS AND OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL EQUIPMENT, ACCESSORIES, FIXTURES, VALVES, ETC., PROVIDED FOR THE PROJECT.
24. UPON COMPLETION OF THE WORK, REMOVE ALL SURPLUS MATERIALS AND RUBBISH. MAKE ALL REQUIRED PATCHING AND REPAIRS OF OTHER TRADES' WORK DAMAGED BY THE PLUMBING CONTRACTOR, AND LEAVE THE PREMISES IN A CLEAN, ORDERLY CONDITION.
25. THE PLUMBING CONTRACTOR SHALL OPERATE THE SYSTEM AND DEMONSTRATE ALL ASPECTS TO THE ENGINEER AND/OR OWNER, TO PROVE ITS OPERATION.
26. THE PLUMBING CONTRACTOR SHALL GUARANTEE THE PLUMBING SYSTEM FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
27. THE PLUMBING CONTRACTOR SHALL, DURING CONSTRUCTION, MAINTAIN A SET OF AS-BUILT REDLINED RECORD DRAWINGS AT THE PROJECT SITE. ALL CHANGES IN LAYOUT, ROUTING, EQUIPMENT, COMPONENTS, AND ACCESSORIES SHALL BE RECORDED. THESE REDLINES SHALL BE GIVEN TO THE ARCHITECT/ENGINEER AFTER THE FINAL INSPECTION.



CONSULTANTS



DEPT. OF AGRICULTURE AND FOOD STATE PROPERTY NO. 06177010 PLUMBING IMPROVEMENTS

Table with 3 columns: MARK, DATE, DESCRIPTION. Contains a grid for tracking changes or issues.

ISSUE: CONSTRUCTION DOCUMENTS DATE: MARCH 07, 2007 DFCM PROJECT NO: 06177010 PROJECT NO: 20070075 DRAWN BY: ARA CHECKED BY: JJJ DESIGNED BY: RECORD DRAWING DATE

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PE002 OF SHEET

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### PLUMBING FIXTURE SCHEDULE

FIX NO.	FIXTURE	WASTE	TRAP	VENT	HW	CW
S-1	LAB SINK	2	1 1/2	1 1/2	1/2	1/2
S-2	LAB SINK	2	1 1/2	1 1/2	S	1/2
S-3	LAB SINK	2	1 1/2	1 1/2	1/2	1/2
S-4	LAB SINK	2	1 1/2	1 1/2	1/2	1/2
S-5	LAB SINK	2	1 1/2	1 1/2	1/2	1/2
S-6	LAB SINK	2	1 1/2	1 1/2	1/2	1/2
S-7	LAB SINK	2	1 1/2	1 1/2	1/2	1/2
CS	CUP SINK	2	1 1/2	1 1/2	1/2	1/2
ES	EMERGENCY SHOWER AND FACE/EYEWASH	2	1 1/2	1 1/2	1	1

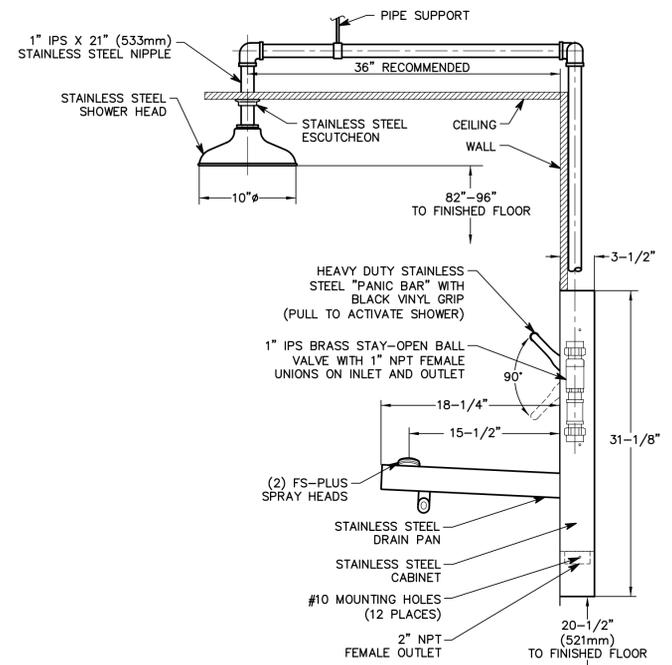


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**DEPT. OF AGRICULTURE AND FOOD**  
 STATE PROPERTY NO: 06177010  
**PLUMBING IMPROVEMENTS**



- NOTES:**
- EACH FS-PLUS SPRAY HEAD HAS AN INTERNAL FLOW CONTROL AND FILTER TO REMOVE IMPURITIES FROM THE WATER FLOW.
  - UNIT IS FURNISHED WITH IN-LINE STRAINER TO PROTECT SPRAY HEADS AND VALVE COMPONENTS FROM DEBRIS IN WATER LINE.

**1 RECESSED SAFETY STATION DETAIL**  
 SCALE: NOT TO SCALE

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MARK	DATE	DESCRIPTION
		ISSUE: CONSTRUCTION DOCUMENTS
		DATE: MARCH 07, 2007
		DFCM PROJECT NO: 06177010
		PROJECT NO: 20070075
		DRAWN BY: ARA
		CHECKED BY: JTJ
		DESIGNED BY:
		RECORD DRAWING DATE:
		SIGNATURE:

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**SHEET TITLE**  
**PLUMBING SCHEDULES & DETAILS**

**PE501**  
 SHEET OF

File Name: P:\2007\20070075\Drawings\Sheet\75PE501.dwg Last Plotted: 2007/03/07 @ 12:32 PM By: ara

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GENERAL SHEET NOTE

1. FIRST FLOOR NOT IN SCOPE OF WORK.

SHEET KEYNOTES

1. REMOVE SINK AND CAP ASSOCIATED PLUMBING. LEAVE ROUGHED IN FOR NEW SINK.



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STATE PROPERTY NO: 06177010  
PLUMBING IMPROVEMENTS

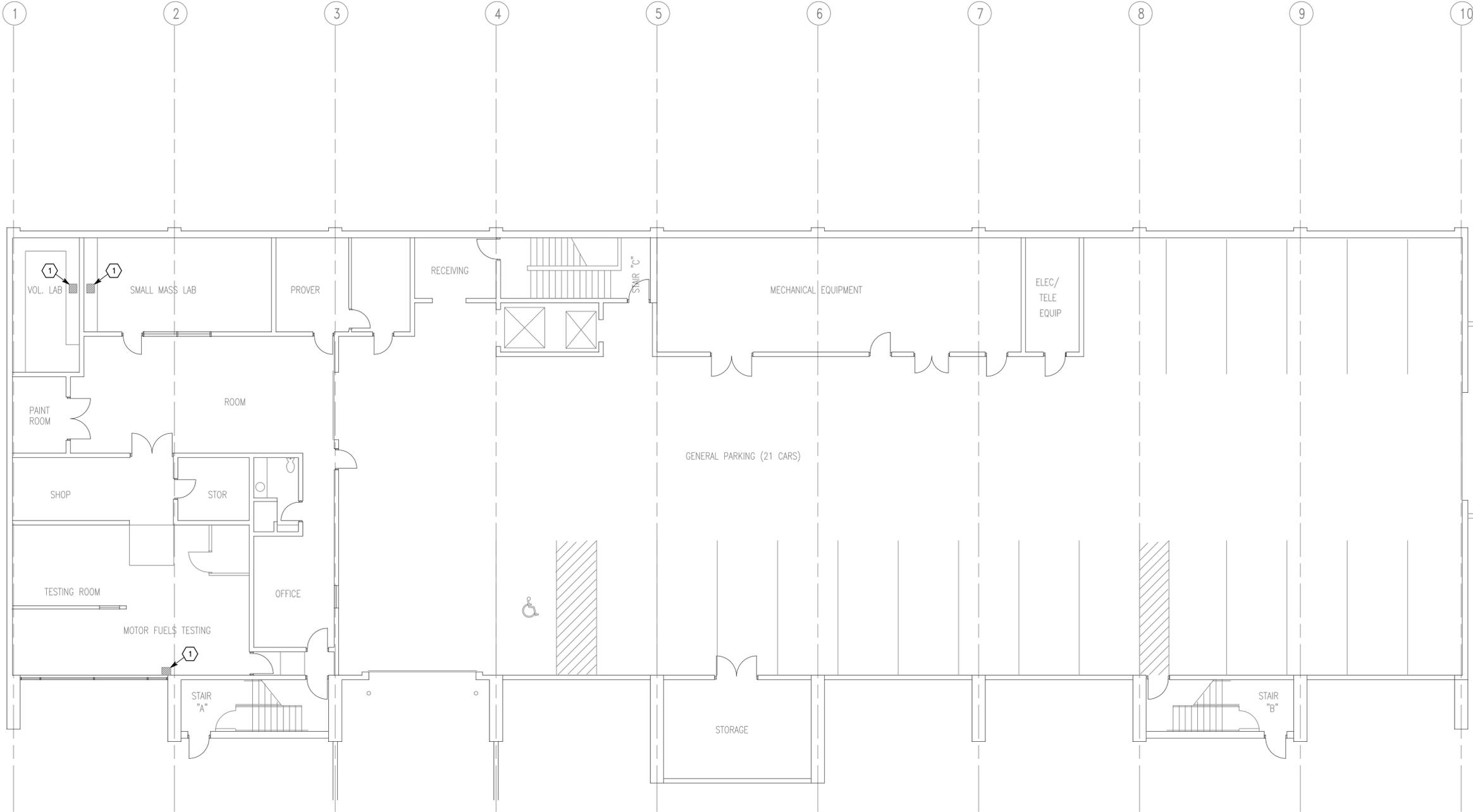
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DATE: MARCH 07, 2007		
DFCM PROJECT NO: 06177010		
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SHEET TITLE  
PARKING LEVEL DEMOLITION PLUMBING PLAN

PD101

SHEET OF



PARKING LEVEL PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

File Name: P:\2007\20070075\1Drawings\Sheet\75PD101.dwg Last Plotted: 2007/03/07 @ 12:32 PM By: ara

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GENERAL SHEET NOTE

1. FIRST FLOOR NOT IN SCOPE OF WORK.

SHEET KEYNOTES

- 1. FURNISH NEW SINK. CONNECT TO ROUGHED IN PLUMBING.
- 2. NEW EMERGENCY SAFETY SHOWER. CONNECT TO ADJACENT PLUMBING AND FURNISH WITH EMERGENCY RATED THERMOSTATIC MIXING VALVE.
- 3. FURNISH NEW FLOOR DRAIN AND RUN AND CONNECT TO ADJACENT WASTE. CENTER FLOOR DRAIN DIRECTLY BELOW AND IN LINE WITH SHOWERHEAD. IN CARPETED AREAS, FURNISH NEW NON ABSORBENT FLOOR SURFACE TO REPLACE CARPET, 36"x 36" CENTERED ON DRAIN.
- 4. CONNECT TO EXISTING WASTE.
- 5. CONNECT TO EXISTING VENT.
- 6. CONNECT TO EXISTING HOT WATER.
- 7. CONNECT TO EXISTING COLD WATER.



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DEPT. OF AGRICULTURE AND FOOD  
STATE PROPERTY NO: 06177010  
PLUMBING IMPROVEMENTS

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DFCM PROJECT NO: 06177010

PROJECT NO: 20070075

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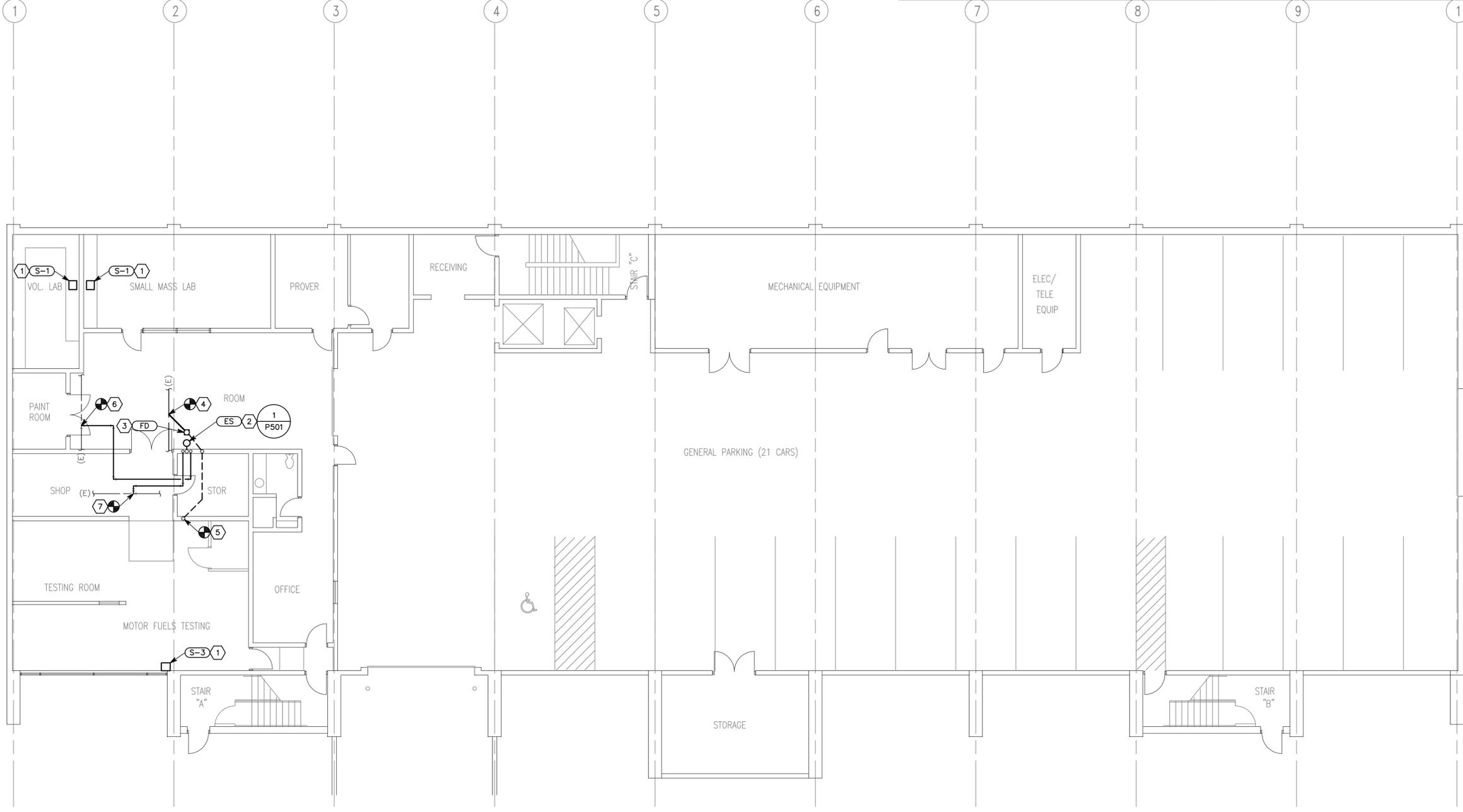
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SHEET TITLE

PARKING LEVEL PLUMBING PLAN

PL101

SHEET OF



PARKING LEVEL PLUMBING PLAN

1/8" = 1'-0"

File Name: P:\2007\20070075\1Drawings\Sheet\75PL101.dwg Last Plotted: 2007/03/07 @ 12:33 PM By: ara

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<b>GENERAL SHEET NOTE</b> 1. FIRST FLOOR NOT IN SCOPE OF WORK.	<b>SHEET KEYNOTES</b> 1. EXISTING SINK TO REMAIN.
---	--



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**PLUMBING IMPROVEMENTS**

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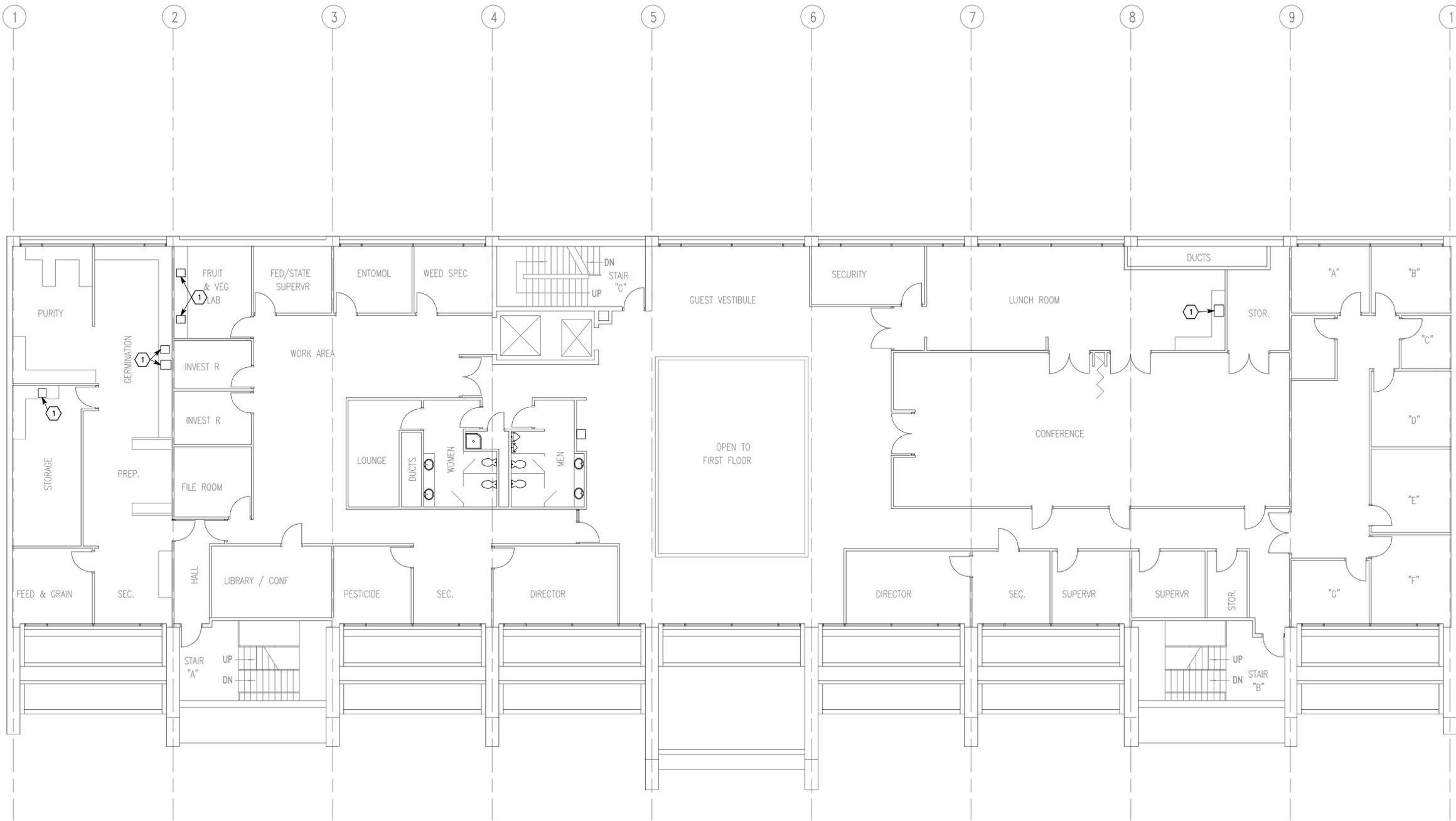
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PROJECT NO:	20070075	
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SHEET TITLE  
**SECOND FLOOR DEMOLITION PLUMBING PLAN**

**PD102**  
SHEET OF



**SECOND FLOOR PLUMBING DEMOLITION PLAN**  
1/8" = 1'-0"

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- SHEET KEYNOTES**
1. REMOVE SINK AND CAP ASSOCIATED PLUMBING. LEAVE ROUGHED IN FOR NEW SINK.
  2. EXISTING SINK TO REMAIN.
  3. REMOVE EXISTING EYEWASH AND ASSOCIATED PLUMBING BACK TO ACTIVE MAINS AND CAP.
  4. REMOVE EXISTING SAFETY SHOWER AND ASSOCIATED PLUMBING BACK TO ACTIVE MAINS AND CAP.



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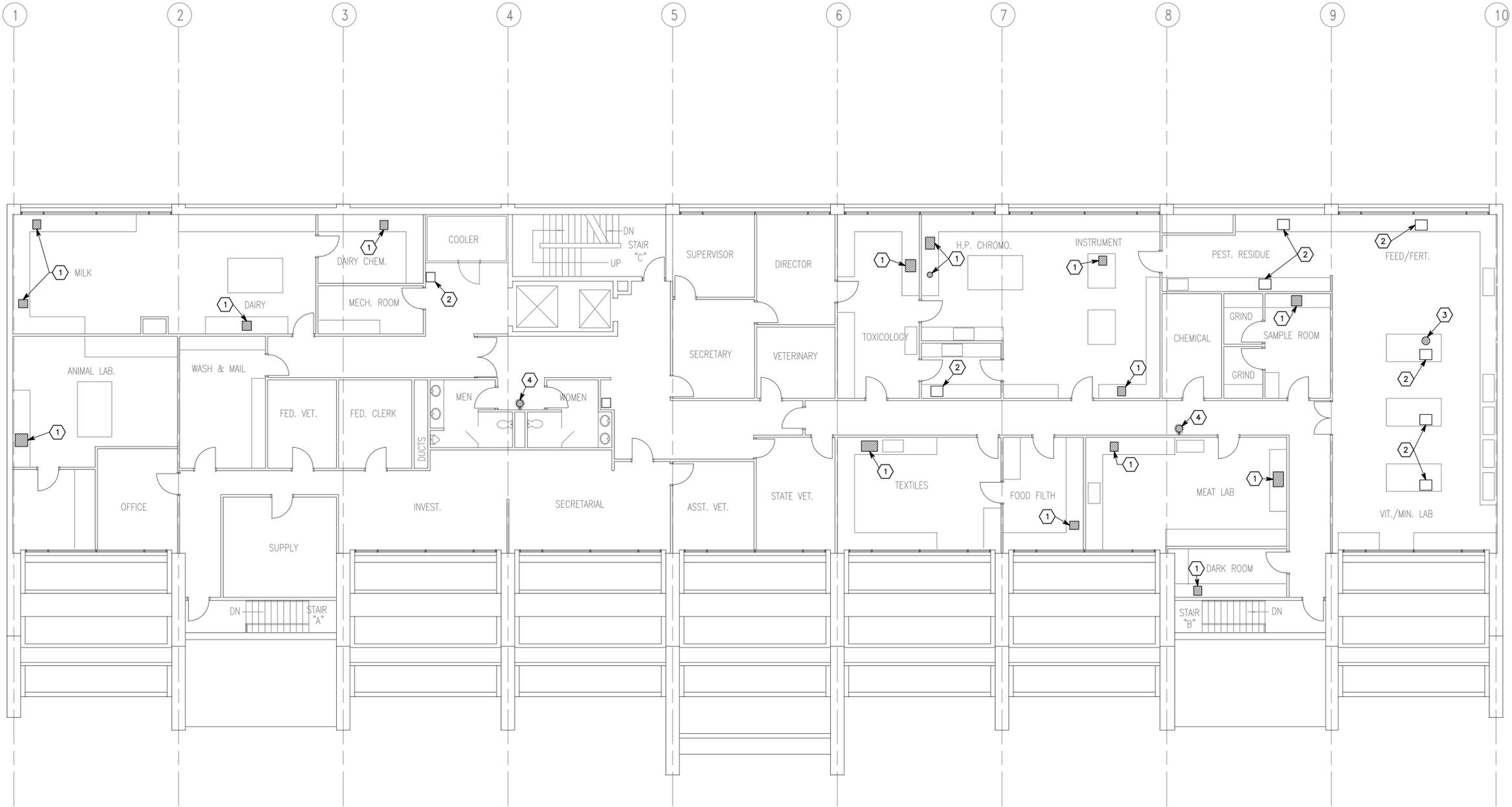
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 STATE PROPERTY NO: 06177010  
**PLUMBING IMPROVEMENTS**

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 PROJECT NO: 20070075  
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 CHECKED BY: JTJ  
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SHEET TITLE  
**THIRD FLOOR DEMOLITION PLUMBING PLAN**  
**PD103**  
 SHEET OF



**THIRD FLOOR DEMOLITION PLUMBING PLAN**  
 1/8" = 1'-0"

File Name: P:\2007\20070075\1Drawings\Sheet\75PD103.dwg Last Plotted: 2007/03/07 @ 12:33 PM By: ara

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### GENERAL SHEET NOTE

1. FIRST FLOOR NOT IN SCOPE OF WORK.

### SHEET KEYNOTES

1. EXISTING SINK TO REMAIN.
2. NEW EMERGENCY SAFETY SHOWER. CONNECT TO ADJACENT PLUMBING AND FURNISH WITH EMERGENCY RATED THERMOSTATIC MIXING VALVE.
3. FURNISH NEW FLOOR DRAIN AND RUN AND CONNECT TO ADJACENT WASTE. CENTER FLOOR DRAIN DIRECTLY BELOW AND IN LINE WITH SHOWERHEAD. IN CARPETED AREAS, FURNISH NEW NON ABSORBENT FLOOR SURFACE TO REPLACE CARPET, 36"x 36" CENTERED ON DRAIN.
4. FURNISH JR SMITH FIGURE 2699 TRAP PRIMER AND CONNECT TO FLOOR DRAIN WITH 1/2" COPPER LINE.
5. CONNECT TO EXISTING WASTE AND VENT.
6. CONNECT TO EXISTING HOT AND COLD WATER.



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**PLUMBING IMPROVEMENTS**

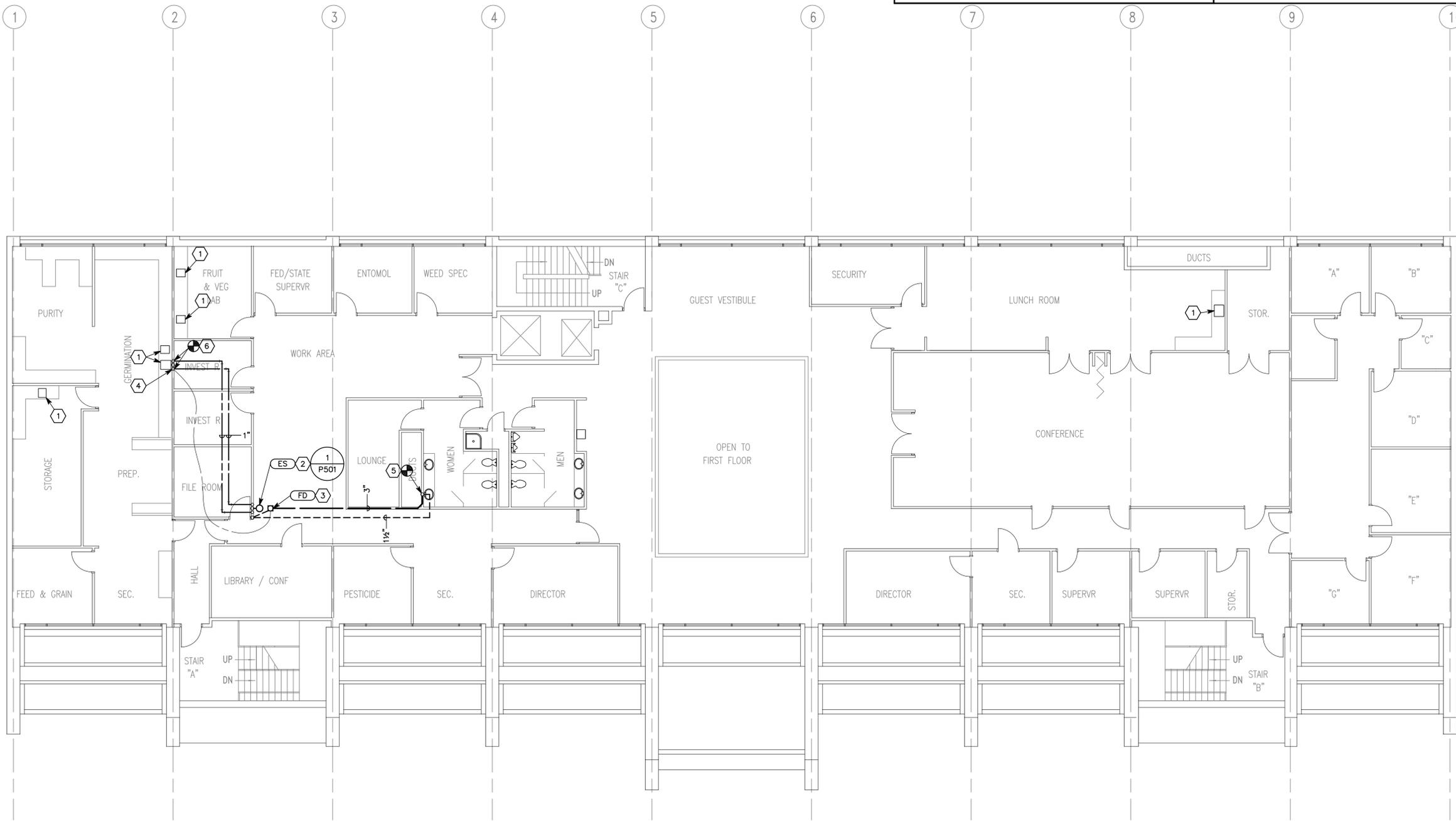
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SHEET TITLE  
**SECOND FLOOR PLUMBING PLAN**

**PL102**  
 SHEET OF



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

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SHEET KEYNOTES (CONT.)

- 9. CONNECT TO EXISTING HOT WATER.
- 10. CONNECT TO EXISTING COLD WATER.
- 11. FURNISH JR SMITH FIGURE 2699 TRAP PRIMER AND CONNECT TO FLOOR DRAIN WITH 1/2" COPPER LINE.

SHEET KEYNOTES

- 1. FURNISH NEW SINK. CONNECT TO ROUGHED IN PLUMBING.
- 2. SLOP SINK TO REMAIN.
- 3. FURNISH NEW CUP SINK AND CONNECT TO ROUGHED IN PLUMBING.
- 4. NEW EMERGENCY SAFETY SHOWER. CONNECT TO ADJACENT PLUMBING AND FURNISH WITH EMERGENCY RATED THERMOSTATIC MIXING VALVE.
- 5. FURNISH NEW FLOOR DRAIN AND RUN AND CONNECT TO ADJACENT WASTE. CENTER FLOOR DRAIN DIRECTLY BELOW AND IN LINE WITH SHOWERHEAD. IN CARPETED AREAS, FURNISH NEW NON ABSORBENT FLOOR SURFACE TO REPLACE CARPET, 36" x 36" CENTERED ON DRAIN.
- 6. EXISTING SINK TO REMAIN.
- 7. CONNECT TO EXISTING VENT.
- 8. CONNECT TO EXISTING WASTE.



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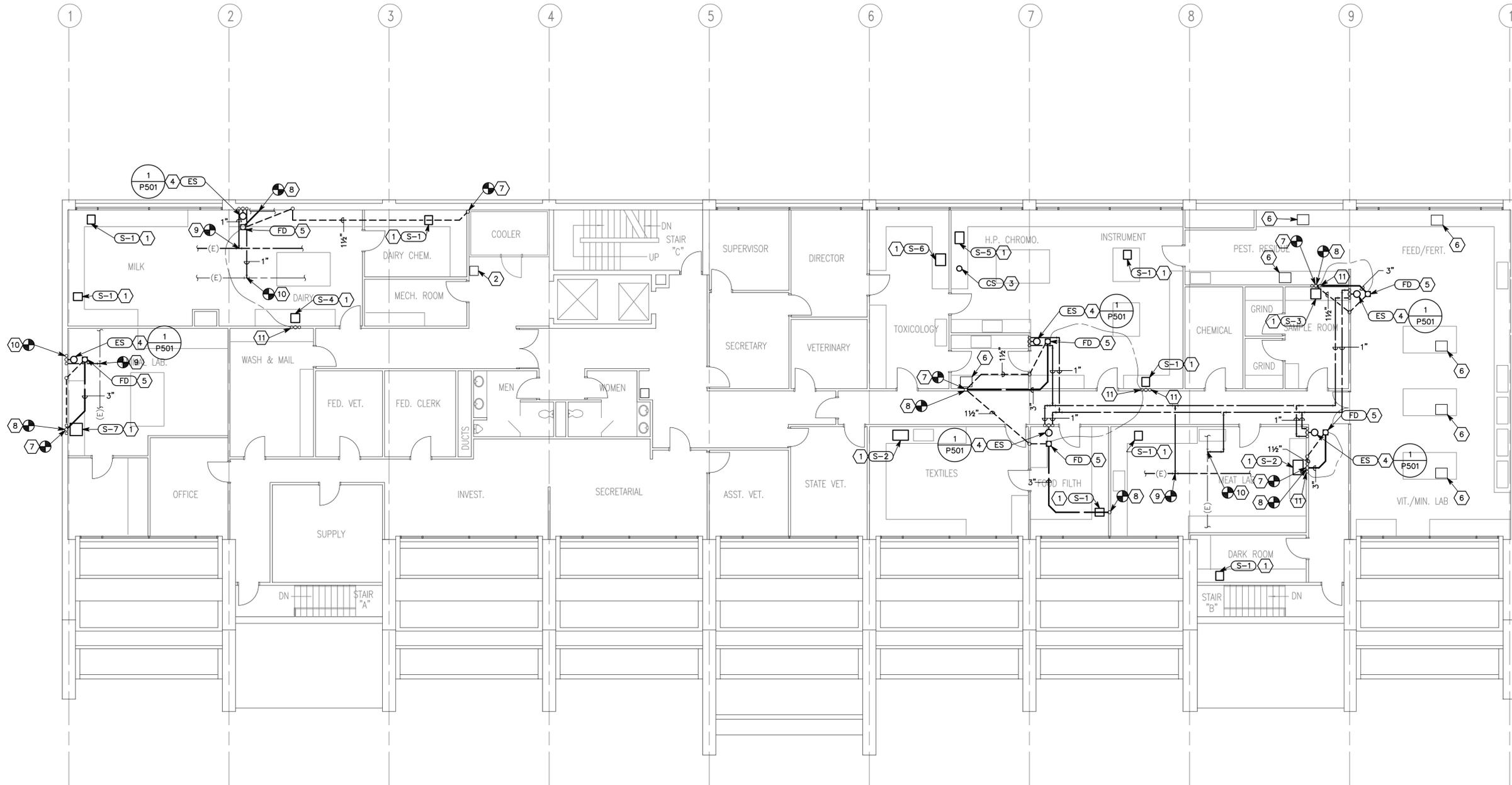
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SHEET TITLE

THIRD FLOOR PLUMBING PLAN

PL103

SHEET OF



THIRD FLOOR PLUMBING PLAN

1/8" = 1'-0"

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