



State of Utah

GARY R. HERBERT
Governor

GREGORY S. BELL
Lt. Governor

Department of Administrative Services

KIMBERLY K. HOOD
Executive Director

Division of Facilities Construction and Management

DAVID G. BUXTON
Director

ADDENDUM NO. 3

Date: June 16, 2010

To: Contractors

From: Darrell Hunting-- Project Manager

Reference: North and South Tenant Improvements
Department of Environmental Quality – Salt Lake City, Utah
DFCM Project No. 09254310

Subject: **Addendum No. 3**

Pages	Addendum Cover Sheet	1 page
	<u>Architect's Addendum</u>	<u>35 pages</u>
	Total	36 pages

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

While we contend that SB220 should only be potentially applicable to a contract issued after the effective date of said bill, this is to clarify that for purposes of this contract, regardless of the execution or effective dates of this contract, the status of Utah Law and remedies available to the State of Utah and DFCM, as it relates to any matter referred to or affected by said SB220, shall be the Utah law in effect at the time of the issuance of this Addendum.

3.1 SCHEDULE CHANGES: There are no Project Schedule changes

3.2 GENERAL ITEMS: See attached Architect's Addendum dated June 16, 2010.

Department of Environmental Quality - North and South Tenant Improvements
Building Remodel and Tenant Finish (2 Buildings)
150 North 1950 West and 168 North 1950 West
Salt Lake City, Utah
Addendum A01

Addendum No. A01

Issued Wednesday, June 16, 2010

PROJECT

Department of Environmental Quality - North and South Tenant Improvements
Building Remodel and Tenant Finish (2 Buildings)
150 North 1950 West and 168 North 1950 West
Salt Lake City, Utah
DFCM Project No. 09254310

ARCHITECT

Frank N Murdock Jr Architect & Associates
975 East 100 South
Salt Lake City, Utah 84102
(801) 532-4441

The original Contract Documents issued for the above noted project are amended as noted in this Addendum. It shall be the sole responsibility of the bidder to appropriately disseminate this data to all concerned, prior to the assigned bid time and date.

Receipt of this Addendum shall be acknowledged by inserting its number and date in the appropriate space provided on the bid form. This Addendum consists of one (23) 8 1/2 x 11 Addendum Sheets and twelve (12) 30" x 42" Drawing Sheets in PDF format.

This document identifies changes made to the construction documents and may not be all-inclusive of the changes. Please refer to new drawings accompanying this Addendum.

ARCHITECTURAL

CLARIFICATION:

1. **INSPECTIONS AND TESTING:** The Owner shall designate a testing company and special inspector and shall be responsible for the cost of all testing and inspections. The Contractor shall be responsible for scheduling inspections and testing.
2. **AUTOMATIC FIRE SPRINKLING SYSTEM:** The Contractor shall provide and install a complete Automatic Fire Sprinkling System per Specification Section 13900 in the North Building. An Automatic Fire Sprinkling System is not required in the South Building.
3. **SALES TAX:** Sales Tax is required for this Project.
4. **EXISTING SECURITY SYSTEMS:** The Building Security Systems are existing and are to be reused and re-secured in their existing locations.

ARCHITECTURAL DRAWINGS:

1. **SOUTH BUILDING SHEET A402:** This sheet was erroneously included in the South Building Drawing Set. Delete Workforce Services South Building Sheet A-402.

2. **SHEETS A601 & A602**
QUESTION: There is a window frame type (W-5) listed on sheets A601, A602, and A601 which clearly has a door accompanying the window unit, yet because it is listed in the Window Schedule instead of the Door Schedule, it doesn't list a door type or a hardware group. Please clarify.
RESPONSE: The Door #s and Window # are noted on the Floor Plans. See Floor Plan for the Door # to be found in the frame with the window.
Examples: Door #122 is located in "integral door and window frame" with window #104.
Door #205 is located in "integral door and window frame" with window #201.
Door #206 is located in "integral door and window frame" with window #202.

2. **SHEETS PE502 & E501:**
QUESTION: Sheets PE502 and E501 were listed in the drawing Schedule but were not included in the North and South Building Plans, Please Clarify.
RESPONSE: Delete reference to Sheets PE502 and E501

3. **PLUMBING SHEETS:**
QUESTION: 1) In both sets of plans the plumbing drawings are the same, therefore missing plumbing drawings for South Building. Please Clarify?
RESPONSE: The Plumbing sheets were mixed between the two buildings. The Plumbing Sheets have been revised and reissued. See Attached Drawings.

ARCHITECTURAL SPECIFICATIONS:

SPECIFICATIONS SECTION 08100

DOOR FRAMES

QUESTION: In the spec book on pages 08100-1 and 08100-2 under 2.1 Door Frames, it lists metal door frames to be welded and it lists drywall frames (which are knocked-down), but doesn't specify which one they want to use. It also specs the frames as 14 gage, which seems a bit overkill for a wood door, in lieu of the usual 16 gage frames. There are no hollow-metal doors on the project and 16 gage is sufficient. In addition to that, 14 gage frames are considerably more money than a 16 gage frame. Please clarify.

RESPONSE: The hollow metal door frames are to be welded 16 gauge frames.

SPECIFICATIONS SECTION 08211

DOOR VENEER AND TYPE

QUESTION: On page 08211-1 under Wood Doors, it lists the veneer as Natural Oak. This could be either Red or White and there is a cost difference (Red being less because it is common in this part of the country). Please clarify.

RESPONSE: The solid core wood doors are to be plain sliced red oak veneer. Delete Specification Section 08211 and replace with attached revised Specification Section 08211 (Revised).

QUESTION: The wood door spec does not address whether the doors are 7-ply or 5-ply with matching veneer edges or a 3-ply with soft-wood pine edges. Please clarify.

RESPONSE: The doors are to be 5-ply. Delete Specification Section 08211 and replace with attached revised Specification Section 08211 (Revised).

SPECIFICATIONS SECTION 08710

KEY PAD LOCKSETS

QUESTION: Keypads

1. I had an addition question on the DEQ project. In section 08710 hardware group 4 , Key pads. We requested more information in an earlier question. Also, If these are tied to a hardwired building access system, then these are typically provided by a security integrator as part of an "Access control" section. I don't see any such section. We need more clarification on this. - Thanks

2. In spec. section 08710-5, hardware group 4 calls for a "Key Pad
"with a description of Match existing keypad units (24Volt)" We need more information on what is required here. Are these some type of lockset? Are the hardwired? If so, some type of electric hinge or power transfer is required or it will not work.

3. In the Hardware Groups on page 08710-5, it lists Key Pad (match existing...). From a pricing standpoint, a model number is necessary. Please clarify.

RESPONSE: The new key pads and magnetic strikes are to be Owner Provided and Contractor installed. In addition to the new locations indicated, the Contractor is to install new replacement keypads at all existing exterior doors.

SPECIFICATIONS SECTION 08710

KEYED LOCKSETS

QUESTION: Hardware Group 6 Function

1. Hardware group 6 calls for a “keyed lockset”, 6-pin, C-key, interchangeable core. What function of lock is desired here? Also, a C-key is a Schlage lock keyway. Are you trying to match an existing Schlage lock key system?

RESPONSE: The lockset is to be a Schlage AL-Series Keyed Lever Lock “Office” function. Yes, the intent is to match an existing Schlage lock key system.

QUESTION: Lockset Keyway

1. Relating some to the previous question, spec section 08710-3, 1.7, C calls for high security cylinders. High security cylinders are typically not available with Interchangeable-core cylinders. Do you want Interchangeable core or High security? It can’t be set up for both. Again, we need clarification on what key system you are trying to match.

2. On page 08710-3 of the spec book under Finish Hardware, it refers to high security cylinders to be used on the project. It lists the cylinder as a C-keyway as well, which is Schlage’s standard. When the architect refers to “high security” is he asking for an Everest restricted keyway or just the standard interchangeable core C-keyway?

3. It is also noted that Grade 1 locks and cylinders are to be used, yet the AL series Schlage listed in the hardware groups is a Grade 2 lock. Please clarify.

RESPONSE: Lock sets are to be provided with Schlage standard interchangeable core C-keyway. High security keyway is not required.

SPECIFICATIONS SECTION 09250

GAUGE OF METAL STUDS

QUESTION: The wall types in the plans, ie A103, list the metal framing as 22 GA. The specs, section 09250 2.3.A.1 indicate 20 GA. Please advise as to which is correct.

RESPONSE: Metal framing studs are to be 22 GA.

Spec’s section 09250 1.9 Environmental Requirements: A.1.a indicates the need to prepare scrap gypsum for soil amendment use. Spec refers to a non-existent Section 02480. Does this “Environmental Requirements” apply to this project? If so, please provide the missing section referenced.

RESPONSE: Delete Spec Section 09250.1.9 Environmental Requirements: A.1. which indicates the need to prepare scrap gypsum for soil amendment use and reference to Section 02480 .

SPECIFICATIONS SECTION 09650

RESILIENT FLOORING

SECTION 09650.2.1.1.A. Materials may be obtained from the following:

DELETE SECTION 09650.2.1.1.A. Materials may be obtained from the following:

Department of Environmental Quality - North and South Tenant Improvements
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150 North 1950 West and 168 North 1950 West
Salt Lake City, Utah
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SPECIFICATIONS SECTION 09681

CARPET TILE

QUESTION: Spec Section Flooring, DFCM usually single sources this to Wall 2 Wall, is this still applicable to this project or can we use different subcontractor?

North Building: Carpet shall be purchased off of the State of Utah contract #MA2097–Wall 2 Wall Flooring.

South Building: Shaw Carpet Tile style Venture Capital color 89506 Cool Carpet shall be purchased off State Contract MA2097 –Wall 2 Wall Flooring.

Note: See Drawings for additional requirements.

SPECIFICATIONS SECTION 10650

ACCORDION PARTITIONS

QUESTION: Spec Sections listed in index but not included in spec book: 10650 Accordion Partitions

RESPONSE: Specification Section 10650 has been added. See Attached.

SPECIFICATIONS SECTION 13900

FIRE SUPPRESSION

QUESTION: Spec Sections listed in index but not included in spec book: 13900 Fire Suppression

RESPONSE: Specification Section 13900 has been added. See Attached.

ARCHITECTURAL PRODUCT APPROVALS

Norton Door Controls closer Model 8500 w/Cover Plate is approved. .

END OF ARCHITECTURAL ADDENDUM

SEE MECHANICAL AND ELECTRICAL ADDENDUMS AND ATTACHMENTS WHICH FOLLOW

ADDENDUM

Project Name: DEQ Building Remodel

Addendum No.: 1

WHW Project # 10027

Date: June 15, 2010

From: WHW Engineering Inc
8619 Sandy Parkway Suite 101
Sandy, Utah 84070
Phone (801) 466-4021 Fax (801) 466-8536

To: Frank Murdock

This Addendum forms and becomes a part of the Contract Documents and modifies the original Bidding Documents dated 06/08/10 as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of 2 pages.

I - CHANGES/CLARIFICATIONS TO DRAWINGS:

Item I-1. – Please replace the bid set plumbing sheets with the attached.

North Building:

PG001
PD101
PE101
PE102
PE501
PE601

South Building:

PG001
PD101
PE101
PE102
PE501
PE601

PRIOR APPROVALS

THE FOLLOWING ITEMS, AS SUBMITTED, ARE CONSIDERED, IN GENERAL AND IN NAME ONLY, AS EQUAL TO THOSE ITEMS SPECIFIED. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OR SUPPLIER OF THE RESPONSIBILITY OF CONFORMING TO THE DRAWINGS AND SPECIFICATIONS, NOR DOES IT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS FOR COORDINATION WITH OTHER TRADES. ALL DIMENSIONS SHALL BE CONFIRMED AND CORRELATED AT THE JOBSITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS AND THE SUITABILITY OF "EQUAL" PRODUCTS FOR THE SPECIFIED APPLICATION.

Description

Manufacturer

Split System AC Units
Volume Dampers
Backdraft Dampers
Fire Smoke Dampers
Exhaust Fans
Positive Pressure Boiler Stacks

Daikin AC, Samsung
Greenheck, Portorff
Portorff
Portorff
Twin City
Van Packer

Workforce Services Redwood Eligibility Center

Electrical Addendum #1

Sheet E001

Item #1 Delete Sheet E501 from the Sheet Index this Sheet is not part of the contract documents.

Sheet E201

Item #1 Panels P1 and P2 are to be recessed located in north wall of the Conference room just east of the Men's Toilet room and to be facing the open office area.

Item #2 All of the duplex outlets and voice/data outlets shown in the systems furniture to be provided with the furniture. Electrical contractor to make final connections via conduit whips to the systems furniture. Coordinate the wiring connections with the owner furnished systems furniture

Sheet E202

Item #1 Panels DP1 and Panel B are located in the existing electrical room.

Item #2 All of the duplex outlets and voice/data outlets shown in the systems furniture to be provided with the furniture. Electrical contractor to make final connections via conduit whips to the systems furniture. Coordinate the wiring connections with the owner furnished systems furniture

Sheet E301

Item #1 The exit lights shown are to be replaced with new exit signs with battery back-up. Exits to be as manufactured by Sure-Lites # LPX70G-WH
Rewire exit sign on existing circuit as shown

Sheet E302

Item #1 The exit lights shown are to be replaced with new exit signs with battery back-up. Exits to be as manufactured by Sure-Lites # LPX70G-WH. Rewire exit sign on existing circuit as shown

Sheet E401

Item #1 Panels P1 , P2, P3 and P4 are to be recessed type, in lieu of surface shown on the Panel Schedule.

Item #2 The feeder between Panel DP1 and Panel P3 is also to be 4A-4.

DEQ North Building Remodel and Tenant Finish

Electrical Addendum #1

Sheet E001

Item #1 Delete Sheet E501 from the Sheet Index this Sheet is not part of the contract documents.

Sheet E201

Item #1 Provide a 208volt 20amp circuit with disconnect switch to an electric water heater WH2 located at the north end of the building in the small toilet rooms along grid #8. Wire to a 2P-20amp breaker in Panel P3. Water heater was added by the mechanical addendum see mechanical drawings for exact location.

Sheet E202

Item #1 Provide a 208volt 20amp circuit with disconnect switch to electric water heaters WH2 located at the Laundry Area, Sterilization Area and the Staff restrooms. Wire each of the three WH2 water heaters to a 2P-20amp breaker in Panel P6. Also wire two WH1 water heaters located at the Patient restroom and the sink just outside of the Patient restroom to a 2P-30amp breaker with #10 wires to Panel P6. Water heaters were added by the mechanical addendum see mechanical drawings for exact location.

Sheet E301

Item #1 All of the lighting fixtures shown are existing. The fixtures are currently suspended from the structure because the T-Bar grid has been removed. The existing fixtures are to be installed in the locations shown and wiring of the fixtures modified and wired to the existing 277volt circuit. Architectural plans call for 40 additional light fixtures to be uses where existing fixtures are inadequate or not functioning. Electrical contractor to install new fixtures as needed to maintain layout shown.

Item #2 The lighting fixtures shown in the stairways are existing and are to remain in service. Contractor to protect fixtures during construction.

Item #3 The exit lights shown are to be replaced with new exit signs with battery back-up. Exits to be as manufactured by Sure-Lites # LPX70G-WH

Sheet E302

Item #1 All of the lighting fixtures shown are existing. The fixtures are currently suspended from the structure because the T-Bar grid has been removed. The existing fixtures are to be installed in the locations shown and wiring of the fixtures modified and wired to the existing 277volt circuit. Architectural plans call for 40 additional light fixtures to be uses where existing fixtures are inadequate or not functioning. Electrical contractor to install new fixtures as needed to maintain layout shown.

Item #2 The lighting fixtures shown in the stairways are existing and are to remain in service. Contractor to protect fixtures during construction.

Item #3 The exit lights shown are to be replaced with new exit signs with battery back-up. Exits to be as manufactured by Sure-Lites # LPX70G-WH

Item #4 Provide Occupancy sensor switches in all Exam Rooms and Operatories.

Item #5 Provide single pole switches in Medical Assistant office.

Item #6 Provide three-way switching in each of two waiting areas and staff area corridor.

Sheet E401

Item #1 One Line Diagram all equipment and wiring is new. Only existing items are the existing Panels L1 & L2.

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ATTACHMENTS

SPECIFICATIONS:

SECTION 10650 ACCORDION PARTITIONS
SECTION 13900 FIRE SUPPRESSION

DRAWING SHEETS:

NORTH BUILDING

PG001
PD101
PE101
PE102
PE501
PE601

SOUTH BUILDING

PG001
PD101
PE101
PE102
PE501
PE601

**STATE OF UTAH
BUILDING REMODEL AND TENANT FINISH**

SECTION 08211 - FLUSH WOOD DOORS (Revised)

PART 1 GENERAL

1.01 Summary

A. Section Includes:

1. Solid core veneer-faced doors
2. Factory finishing

1.2 RELATED SECTIONS

- A. Section 08 70 00 - Finish hardware

1.3 REFERENCES AND REGULATORY REQUIREMENTS

A. Quality Standards:

1. AWS Edition 1-2009
2. ANSI A115. W Series, Wood Door Hardware Standards.

1.4 SUBMITTALS

- A. Shop drawings: Illustrate door opening criteria, elevations, sizes, types, swings, undercuts, special beveling, hardware blocking in fire-resistant composite core doors, identify cutouts.
- B. Product Data: Indicate door core materials, thickness, construction, veneer species (veneer color selection required in Ash, Birch and Maple). See WDMA "A Specifiers Guide to Door Face Veneers" for cut and matching requirements, factory machining and factory finishing criteria.
- C. Construction samples: Submit one or more of manufacturer's standard samples demonstrating door construction.
- D. Manufacturer's warranty
- E. Glass size, type, pattern and thickness for factory glazed doors.

1.5 QUALITY ASSURANCE

- A. Meet or exceed WDMA I.S.1-A Premium Grade

1.6 DELIVERY STORAGE AND HANDLING AND SITE CONDITIONS

- A. Deliver, store, protect and handle products under provisions of WDMA and AWS, and manufacturer's care and handling instructions.

1.7 COORDINATION

- A. Coordinate the work with door opening construction, door frame and door hardware installation with a pre-installation conference.

1.8 WARRANTY

A. Provide manufacturer's warranty to the following term:

1. Interior Solid Core Doors: "Full Life of Original Installation" including hanging and finishing if door(s) do not comply with warranty tolerance standards.
2. Coverage for delamination, warping, bow, cup and telegraphing of core construction as outlined in the WDMA and AWS Standards.

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PART 2 PRODUCTS

2.1 MANUFACTURER

- A. APPROVED MANUFACTURERS
 - 1. Marshfield DoorSystems, Inc.
 - 2. Algoma Hardwoods, Inc.
 - 3. VT Industries Wood Doors
 - 4. Eggers Industries, Architectural Door Division.
 - 5. Oshkosh Architectural Door Company.

- B. Substitutions allowed only if approved by the architect prior to bid date.

2.2 MATERIALS

- A. WORKMANSHIP
 - 1. Comply with WDMA workmanship for veneer faces, vertical edges, crossbands, horizontal edges and dimensional tolerances.

- B. DOOR CONSTRUCTION GRADE
 - 1. Except as otherwise shown on the drawings fabricate the work of this section to WDMA Premium Grade.
 - 2. Standard 5 ply construction minimum 1 3/4" thick solid PC core doors.

- C. WOOD DOOR FACING
 - 1. Wood Veneer: Plain Slice Red Oak

- G. GLAZING OF FLUSH WOOD DOORS
 - 1. Glazing shall be by the wood door manufacturer
 - a. Glass as selected by architect from manufacturers standard offerings
 - b. PyroEdge-20 Fire and Safety Rated Glass. (An excellent replacement for wire glass in educational facilities)
 - c. Specialty glass

2.3 FABRICATION

- A. DOOR CORE CONSTRUCTION
 - 1. Non-rated Solid Core
 - a. Heavy Duty Wood based Particleboard, PC

- B. VERTICAL EDGES (STILES)
 - 1. Non-rated and 20-minute rated
 - a. Edges to match face veneer.

- C. HORIZONTAL EDGES (RAILS)
 - 1. Manufacturer's standard. (MDF top and bottom rails not permitted)

2.4 ACCESSORIES

- A. GLAZING STOPS
 - 1. Non-Rated and 20 minute
 - a. Wood, of the same species/compatible with door species (or)
 - b. Manufacturers Standard Metal Vision Frames.

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- C. GLASS & GLAZING IN WOOD DOORS
 - 1. Glass and glazing provided by the wood door manufacturer Category B (frame mounted intumescent) doors. (Select one)

2.5 FACTORY FINISH

- A. Doors to be factory finished to meet or exceed WDMA I.S. 1A TR-6.
- B. Stained
- C. Stain color to be selected from Manufacturers standard offerings.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Notify Architect of any conditions that would adversely affect the installation or subsequent use of the doors. Do not begin installation until all conditions are acceptable.
- B. Do not install doors in frame openings that are not plumb or are out of tolerance for size or alignment.
- C. Verify that opening sizes and tolerances are acceptable and ready to receive this work.

3.2 INSTALLATION

- A. Install fire-rated and non-rated doors in accordance with NFPA 80, manufacturers' instructions and to ITS-WH/UL requirements.
- B. Trim non-rated door width by cutting equally on both jamb edges.
- C. Trim door height by cutting bottom edges to a maximum 3/4 inch (19-mm).
- F. Pilot drill screw and bolt holes using templates provided by hardware manufacturer. [Use threaded through bolts for half surface hinges].
- H. Coordinate installation of doors with installation of frames and hardware
- I. Manufacturer shall install glass in wood doors
- J. Reseal or refinish any doors that required site alteration.

3.3 WARRANTY TOLERANCES

- A. Conform to WDMA standards and testing methods for warp, cup, bow and telegraphing.

3.4 ADJUSTING

- A. Adjust doors for smooth and balanced door movement.

3.5 CLEANING

- A. Clean doors immediately after installation in accordance with manufacturers Care and Handling Instructions.

END OF SECTION 08211

**STATE OF UTAH
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SECTION 10650 - ACCORDION PARTITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Special Provisions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes accordion partitions and all hardware, tracks, channels, locks, keys, trim and miscellaneous equipment and parts for a complete installation.

1.3 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
 - 1. Product data in form of manufacturer's technical data and installation instructions for each type of accordion partitions assembly, including setting drawings, templates, instructions, and directions for installation of anchorage devices.
 - a. Include complete schedule, including types, general locations, sizes, wall and ceiling construction details, finishes, latching or locking provisions, and other data pertinent to installation.
 - 2. Shop drawings showing fabrication and installation of accordion partitions and frames, including details of each frame type, elevations of door design types, anchorage and accessory items.
 - 3. Samples, 3 inches by 5 inches minimum size, of each panel face material showing factory-finished color and texture.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Partition shall be supplied by the following manufacturer or approved equal:

Modernfold, Inc.
215 West New Road
Greenfield, Indiana 46140
Phone: 800-869-9685
Fax: 866-410-5016

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2..2 PRODUCT DESCRIPTION

- A. See drawings for size and quantities of accordion partitions.

2..3 MATERIALS AND FABRICATION

- A. Provide Modernfold Partition: Soundmaster Model SM8
- B. Operation shall be manual.
- C. Frame Construction shall consist of steel hinge plates welded to .187" (5 mm) diameter vertical steel rods. Single row at bottom, intermediate rows approximately 42" (1067 mm) on center, single row at top (over 10'-0" (3048 mm) high, double-truss row at top). Trolley pin of high tensile alloy steel to be encased in structural hinge plate channel.
- D. Sound Insulation: Provide units with noise reduction coefficient (NRC) of no less than .55, in accordance with ASTM C-423. 24 gauge V-grooved steel panels and heavy-duty flame resistant acoustical membrane. Each panel attaches to frame with steel leaf fasteners.
- E. Finish: Outer covering shall be Modernfold symphony foam and polyester knit laminate backed fabric. Color as selected by Architect.
- F. Suspension system: Partition shall be supported by a 4-wheel nylon-tired steel ball bearing trolley assembly at lead post and be adjustable to facilitate alignment. Intermediate carriers shall be 2-wheel nylon-tired steel ball bearing trolley assembly spaced 18" on center. Track shall be as specified by manufacturer for best performance as governed by overall size and weight of partition.
- G. Sound Seals shall be pairs of three-layer flexible sweep strips at top and bottom. Vertical female sound channel polyurethane foam lined.
- H. Provide wide flange channel based on manufacturer's recommended track type.

2..4 WARRANTY

- A. Warranty: Accordion partition shall be guaranteed against defects in materials and workmanship for a period of 1 (one) year from date of installation and acceptance for beneficial use. In addition, the pantographs, trolleys and tracks shall be guaranteed for 10 (ten) years from date of installation and acceptance for beneficial use.

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PART 3 - EXECUTION

3.1 INSTALLATION

- A. Installation shall be by an authorized Modernfold factory trained installer.
- B. Install in accordance to manufacturer's recommended installation instructions.

3.2 ADJUST AND CLEAN

- A. Align and adjust partition and hardware for smooth and trouble-free operation.
- B. Repair any damage caused to adjacent surfaces during the course of installation and adjustment to the satisfaction of the Architect.

END OF SECTION 10650

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SECTION 13900 - FIRE SUPPRESSION

1..1 GENERAL CONDITIONS

- A. The requirements of Division 15 Sections shall govern the work of this Section, where applicable, and where not in conflict with governing codes and ordinances. Division 1 is a part of this and all other sections of these specifications.

1..2 SCOPE

- A. The work required includes the designing, hydraulically calculating pipe sizes, flows, and pressure, furnishing and installation of fire protection systems in accordance with the specifications, latest standards and codes for complete systems for the building.
- B. The work specified in this section shall be installed by none other than a recognized fire sprinkler contractor. All fire protection system piping shall be hydraulically calculated. All systems shall be subject to the inspection and approval of the local fire authority or his representative for compliance of applicable standards.
- C. All work shall be coordinated with other subcontractors.
- D. The sprinkler system shall consist of the required number of sprinkler heads, piping, hangers, drains, test pipes, alarms, valves, gauges, fire department connections, and all other parts to assure a complete system to meet the requirements of the owner's insurance underwriter, local authority having jurisdiction, and in accordance with nationally recognized standards.
- E. Cold exposure areas shall be covered by either an anti-freeze or dry system sprinkler system, at the contractor's option.

1..3 CODES AND STANDARDS

- A. Water Supply: National Fire Code #24 - Uniform Building Code.
- B. Wet Sprinkler System & Combined Systems: N.F.C. #13 & #14 - U.B.C.
- C. Alarm Equipment: N.F.C. #70 & 72A.
- D. Standpipe & Hose Systems: (Applicable for high-rise construction only) N.F.C. #14 - U.B.C.
- E. Supervision: N.F.C. #13 & #14 - U.B.C.
- F. Temporary Fire Protection: N.F.C. #14 - U.B.C.
- G. Sprinkler Heads: N.F.C. #13.
- H. Sleeves and Location: N.F.C. #13.
- I. Underground Mains: NA.

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1..4 WORK INCLUDED ELSEWHERE

- A. Fire Hydrants - by Plumbing Contractor.
- B. Concrete Work - by General Contractor.
- C. Access Doors - by General Contractor.
- D. Painting of sprinkler piping - By Mechanical and/or Painting Contractor.
- E. Color coding or pipe identification - By Mechanical Contractor.
- F. Wiring of flow switches and gate valve supervisory switches - By Electrical Contractor.

1..5 WORK BY FIRE PROTECTION CONTRACTOR

- A. This contractor shall furnish and install all labor, material, and equipment to make a complete and working fire protection system fully tested and approved in accordance with the drawings, standards of this specification for the new building.
- B. Contractor shall perform flow test at site.

1..6 UNDERGROUND WATER SUPPLY

- A. Connect fire sprinkler mains to connections provided by others as shown on the drawings. Test and flush this portion of main in accordance with N.F.C. #24 and furnish test certificates to the Owner's representative.
- B. The fire sprinkler contractor is responsible for the main connection, detector check valve, post indicator valve. The fire main into the building has been provided and installed by others.
- C. Available water supply is to be measured by a fire hydrant test.

1..7 EXCAVATION & BACKFILL

- A. Excavation and backfill has been completed by others.

1..8 SPRINKLER SYSTEM

- A. This system shall conform to N.F.C. #13 and U.B.C. Riser may be calculated, but shall not be smaller than 6". Sprinkler systems are to be light, ordinary, or extra hazard, as required by NFC-13 and the local fire authority.
- B. System shall be hydraulically calculated. Sprinkler system shall be light hazard, except for casual ordinary and extra hazard group 1 in service areas. Density for light hazard areas shall be 0.10 gpm per sq. ft. over 1500 sq. ft. Remote area with a maximum head spacing of 225 sq. ft. Service area shall be density of 0.15 over 2000 sq. ft. with maximum spacing of 130 sq. ft.

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1..9 QUALIFICATION OF DESIGNER

- A. Designer shall be an engineering technician or Senior Engineering Technician (Level III or Level IV), NICET certification for fire sprinkler system design.

1.10 QUALIFICATION OF INSTALLER

- A. It is intended that the system be designed and installed by a firm regularly engaged in the design and installation business of Fire Sprinkler contracting. The Owner's representative may require evidence to support the ability of the contractor to perform work in the scope and volume as specified. A contractor who cannot verify such experience, may be found not suitable to perform the work.

PART 2 - PRODUCTS

2..1 HANGERS

- A. All hangers to be in accordance with NFPA Pamphlet No. 13.
- B. Special drilled inserts required at all post-tensioned concrete floor slabs.
 - 1. Drill hole in bottom of post-tensioned concrete slab. Coordinate diameter with insert used. **IMPACT HAMMER/DRILL IS NOT ALLOWED.**
 - 2. Insert: "1/4" diameter x l-1/4" "tie-wire spike" (#3759), or mushroom head spike (#5523) by Powers Rawl 914-235-6300, or approved equal.
 - 3. Use these (or similar) inserts to attach anything to the bottom surface of the post-tensioned concrete slab. Installer to provide anchors as required by local jurisdictions, which are compatible with the post-tensioned concrete slab.

2..2 RISERS

- A. The riser shall be at the locations shown and shall include a U.L. approved control valve, check valve, flow switch, pressure gauges, water motor gong, or electric bell, standard fire department connection, gate valve supervisory switch, test connections, and drains as required.

2..3 SPRINKLER HEADS

- A. Sprinkler heads shall be U.L. approved. "K" factors shall be the same on each system and/or floor. In all other ceiling areas, chrome-plated recessed type heads with white canopies similar and equal to that manufactured by Reliable.
- B. Sprinklers shall be of the proper temperature rating. Location of sprinkler head wherever reasonably possible shall be symmetrical and coordinated with the ceiling pattern.
- C. Number and location of sprinkler heads shown on the drawings are schematic. Exact number and location of heads shall be determined by the system design, and architectural

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coordination.

- D. Provide dry pendent heads in areas subject to freezing, only where wet piping can be run in heated space. Otherwise, provide antifreeze loops.
- E. Provide sparehead cabinets in accordance with NFPA No. 13 and equip same with at least ten (10) chrome heads, six (6) brass heads, and appropriate wrenches.
- F. Provide head guards in all areas where heads are subject to physical abuse.

2..4 VALVES

- A. All valves and fittings shall be listed by Underwriters Laboratories or approved by Factory Mutual for fire protection duty and shall be installed in accordance with their listing and/or approval. Control valve shall have alarm supervisory switches with two sets of contacts and normally open/normally closed.
- B. All indicating valves will be of the listed and/or approved type with an electric tamper switch approved for use with that valve.
- C. Water hammer arrestors shall be provided ahead of all automatic valves to eliminate water hammer and shall be installed vertically in an accessible location.
- D. Hose valves off standpipes shall be U.L. approved. All valves shall be 2-1/2" with 2-1/2" x 1-1/2" reducer and cap with chains. Valves shall be polished brass and chrome-plated.

2..5 PIPING

- A. All piping above ground shall be Schedule 40 domestic steel pipe and fittings.
- B. Thinwall and foreign-made pipe will not be permitted on this project.

2..6 EARTHQUAKE BRACING

- A. Install earthquake bracing in accordance with NFPA #13 Standards and local Fire Marshall's Office.

2..7 SLEEVES

- A. Sleeves shall be furnished, together with their location and elevations to the construction manager, timely with required schedule or concrete pours. If sleeves are missed by this contractor, he shall be responsible for core drilling through concrete at this own expense, and he shall be responsible for his cutting and patching. Sleeves shall be of the size, type, and length required by NFPA codes. See Section 15050 for "Sleeves".

PART 3 - EXECUTION

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3..1 TEMPORARY FIRE PROTECTION DURING COURSE OF CONSTRUCTION

- A. This contractor shall provide fire protection as required by N.F.C. #14 - Chapter 8, and shall be coordinated with the local City Fire Department.

3..2 SHOP DRAWINGS

- A. Show drawings, submittals, and hydraulic calculations, as necessary and required, shall be submitted to the Owner's representative for approval prior to incorporating materials or equipment into the work. Shop drawings shall be complete and in accordance with N.F.C. #13, #14, #20, and all applicable standards, submittals, and equipment, valves, flow switches, controls, and other important items shall be complete, showing details, description, and characteristics; hydraulic calculations shall show flows, pressures, velocities, pipe size, and equivalent lengths as required for the system.
- B. Calculations shall be arranged in an orderly manner with sufficient reference points for the approving authority to review and approve.
- C. Testing shall be accomplished by this contractor for all required systems, equipment, and appurtenances, as required by the various standards and codes. The Owner's representative shall witness and sign off each item required. This contractor shall furnish required forms.

3..3 TESTS

- A. Install all test pipes and valves as required by NFPA No. 13. Locate inspector's test valves and auxiliary drain valves above ceilings in areas approved by the Architect and provide hose bibb connections. Conduct all tests as required by NFPA Standards and Insurance Services Office and submit copies of completed test forms to the Owner.
- B. All fire sprinkler related tests requiring the witnessing by local authorities will be the responsibility of this contractor. If tests are not run or do not have the proper witness or documentation, then they will be run late and all damage caused by the system, or caused in uncovering the system for such tests, will be borne by this contractor.
- C. The local city Fire Marshall shall be notified (in writing) at least three days in advance of the following:
 - 1. Hydrostatic test and final inspection of the underground, prior to backfilling.
 - 2. Flushing of underground prior to connection to overhead.
 - 3. Hydrostatic test and final inspection of overhead, prior to the installation of the ceilings.

3..4 GENERAL REQUIREMENTS

- A. This contractor shall submit complete drawings, hydraulic calculations, and proper documentation to the local authority having jurisdiction and receive their approval before submitting such material to the Owner's representative for final approval. The contractor will be required to show proof of submittal to the Owner's insurance underwriter and local building authorities before installation may begin.

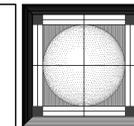
**STATE OF UTAH
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- B. All work of this contractor will be coordinated with other trades to insure minimal changes to the sprinkler system from the designs. Careful coordination of mechanical and electrical ducts, pipe and conduit shall be required. The ceiling cavity must be carefully reviewed and coordinated with all trades. In the event of conflict the installation of the mechanical equipment and piping shall be in the following order: plumbing waste, rainwater, and soil lines' supply, return, and exhaust ductwork; water piping; fire protection piping; and pneumatic control piping.
- C. Every effort shall be required to insure that the heads form a symmetrical pattern in the ceiling with the ceiling grid, the lights, and diffusers and grilles and as shown on the Architect's reflected ceiling plan. Offsets shall be made in piping to accommodate ductwork in ceiling. Heads should be symmetrical and all piping run parallel or perpendicular to building lines. In no case shall sprinkler heads be installed closer than 6" from ceiling grids or closer than approved distances from ceiling obstructions.
- D. All sprinkler piping shall be run concealed unless approved by the Owner's representative. All lines will be run as high as possible so as to not interfere with future changes to ceiling heights or other mechanical equipment. **NOTE: Due to the locations of existing Mechanical, Electrical and Structural elements, it may be necessary to locate new main and secondary lines in between or through the webs of existing steel joist.** This contractor will be responsible for all sleeves, core drills, and sealing of penetrations in walls, floors, and structural members to facilitate the installation of the system; however, no holes in, or attachments to structural members will be allowed unless approved by the Owner's representative.
- E. All required drains and test pipes will be installed and finished in a workmanlike manner, terminating at a proper location to accommodate the required outflow without damaging the building or landscaping. Drain and test pipe locations shall be approved by the Owner's representative.
- F. All piping and heads located in un-heated spaces shall be installed with a glycol loop system. Coordinate location with the Owner's representative. Indicating valves with tamper switches shall be installed and wired as required by code. Coordinate with electrical contractor.
- G. No piping or valve assemblies shall be run exposed in a finished area without the prior approval of the Owner's representative.

3.5 JOB CLOSEOUT

- A. This contractor shall assure that all placards, signs, and instruction manuals are in place, and all tests are run before any consideration for final payment will be considered. This includes maintenance manuals, hydraulic calculations placards, spare head cabinets and the proper number of spare heads, and instruction to on-site personnel.

END OF SECTION 13900



PLUMBING LEGEND			
MEANING	SYMBOL OR ABBREVIATION	MEANING	SYMBOL OR ABBREVIATION
HOT WATER LINE	—————	WALL CLEANOUT	WCO
COLD WATER LINE	—————	CLEANOUT	CO
HOT WATER RECIRCULATING LINE	—————	CLEANOUT TO GRADE	COTG
VENT LINE	—————	FLOOR CLEANOUT	FCO
WASTE LINE	-----	BALL VALVE	⊕
GAS LINE	—————	UNION	— — —
VENT THRU ROOF	VTR	CONNECTION TO EXISTING PIPING	⊙
UNDER FLOOR	UF	REGULATOR	Ⓜ
SANITARY SEWER	--- SS ---	SOFT WATER	SW
PRIMARY ROOF DRAIN (PRD)	—— PD ——	SECONDARY ROOF DRAIN (SRD)	SD

PLUMBING CONSTRUCTION NOTES:

- G-1 ALL PLUMBING SHALL BE INSTALLED AND CONFORM TO THE 2006 EDITION OF THE INTERNATIONAL PLUMBING CODE (IPC) WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.
- G-2 ALL PIPING MATERIALS SHALL MEET ALL REQUIREMENTS OF IPC AND LOCAL AUTHORITY. PLASTIC PIPING SHALL BE ALLOWED ONLY WHERE ALLOWED BY CODE. PLASTIC PIPING SHALL NOT BE ROUTED THROUGH RETURN AIR PLENUMS OR OTHER AREAS PROHIBITED BY THE IMC, IPC OR NFPA CODES OR BY LOCAL AUTHORITY
- G-3 GAS PIPING INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH GAS COMPANY REGULATIONS, NFPA CODE REQUIREMENTS, AND LOCAL AUTHORITY.
- G-4 ALL MATERIALS SHALL BE NEW AND SHALL BE DOMESTIC MADE UNLESS SPECIFICALLY APPROVED OTHERWISE IN WRITING BY ARCHITECT OR OWNER.
- G-5 HOT AND COLD WATER PIPE SHALL BE TYPE L HARD DRAWN COPPER PIPING WITH WROUGHT COPPER FITTINGS. OUTSIDE PIPING MAY BE COPPER OR PVC PLASTIC CONFORMING TO AWWA STANDARDS WHERE ALLOWED BY LOCAL CODE. TYPE K UNDERGROUND WITH NO JOINTS WITHIN BUILDING. METER SHALL BE AS REQUIRED BY LOCAL UTILITY CO. ALL PIPING AND FITTINGS SHALL BE DOMESTIC MADE. PIPING SHALL BE TESTED AT 125 PSI MINIMUM FOR 6 HOURS AND SHOW NO LEAKS.
- G-6 PROVIDE VACUUM BREAKERS AND BACK FLOW PREVENTERS WHERE REQUIRED BY CODE OR WHERE THERE MAY BE ANY POSSIBLE CHANCE FOR CROSS CONTAMINATION. PREVENTERS SHALL BE INSTALLED IN ACCORDANCE WITH UTAH CODE.
- G-7 SOIL, WASTE AND VENT PIPING SHALL BE CAST IRON SERVICE WEIGHT HUB AND SPIGOT CONFORMING TO FEDERAL SPECIFICATION WW-P-401, ASTM A-74, OR ANSI A112.5-1 VENT PIPING AND ABOVE GRADE WASTE PIPING 2-1/2" OR LESS MAY BE GALVANIZED STEEL WITH SCREWED DURHAM TARRIED DRAINAGE FITTINGS, HOWEVER, GALVANIZED STEEL VENT PIPES SHALL NOT BE USED FOR UNDER OR WITHIN 6" OF THE GROUND AS PER CODE. JOINTS FOR CAST IRON PIPE SHALL BE TYSEAL, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. ABOVE GRADE CAST IRON PIPING SHALL BE SERVICE WEIGHT NO-HUB WITH STAINLESS STEEL CINCH BANDS. ALL PIPING AND FITTINGS SHALL BE DOMESTIC MADE. ALL WASTE AND VENT PIPING SHALL BE TESTED BY FILLING SYSTEM TO TOP OF THE VENT PIPE (20 FEET OF HEAD MINIMUM) AND SHOW NO LEAKS FOR 6 HOURS.
- G-8 GAS PIPING FROM METER TO EQUIPMENT SHALL BE ASTM A 120-79 SCHEDULE 40 BLACK CARBON STEEL. FITTINGS SHALL BE ASTM A 234-79 WELDED STEEL FITTINGS OR STANDARD WEIGHT MALLEABLE IRON SCREWED FITTINGS. DO NOT USE FLEX PIPING UNLESS REQUIRED BY LOCAL CODE, THEN USE GAS COMPANY APPROVED PIPING INSTALLED BY GAS COMPANY APPROVED INSTALLERS. PIPING CONCEALED IN WALLS OR LARGER THAN 2-1/2" SHALL BE WELDED. ALL PIPING SHALL BE TESTED TO MINIMUM OF 60 PSI AS PER CODE. GAS VALVES SHALL BE UL LISTED BALL VALVES. PIPING AND FITTING MATERIALS SHALL BE AS RECOMMENDED AND ALLOWED BY LOCAL AUTHORITY AND CODES. GAS PIPING WITHIN THE BUILDING SHALL NOT BE ROUTED UNDER FLOOR SLAB. ALL PIPING AND FITTINGS SHALL BE DOMESTIC MADE.
- G-9 ALL PLUMBING INFORMATION IS NOT LIMITED TO THE PLUMBING DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING SPECIFICATIONS, ARCHITECTURAL DRAWING, STRUCTURAL DRAWINGS, MECHANICAL DRAWINGS, AND ELECTRICAL DRAWINGS.
- G-10 THE WORKING DRAWINGS ARE DIAGRAMMATIC. BECAUSE OF THE SMALL SCALE OF THE DRAWING, THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL PIPING SHALL BE CHECKED AND COORDINATED WITH THE SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- G-11 COORDINATE ALL PIPING AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AND/OR CONTRACTORS PRIOR TO INSTALLATION.
- G-12 ANY AND ALL ALTERATION TO THE SYSTEM SHOWN SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR AND ARCHITECT/ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO CHANGES.
- G-13 GAS LINE FITTINGS SHALL BE STANDARD WELD FITTINGS WITH TAPERED REDUCERS. DO NOT USE VALVES, UNIONS, OR AUTO CONTROLS IN GAS LINES ROUTED IN INACCESSIBLE CONCEALED SPACES.

PLUMBING CONSTRUCTION NOTES CONTINUED:

- G-14 CLEANING AND DISINFECTING: ALL PIPING SHALL BE FLUSHED CLEAN BEFORE CONNECTION TO EQUIPMENT. DOMESTIC WATER LINES SHALL BE THOROUGHLY FLUSHED OUT WITH AN ALKALINE DETERGENT SOLUTION TO REMOVE PIPE DOPE, OIL, LOOSE MILL SCALE, AND OTHER EXTRANEIOUS MATERIALS. AFTER THE WATER SYSTEM HAS BEEN FLUSHED CLEAN, THE SHUTOFF VALVE TO THE WATER MAIN SHALL BE CLOSED. ALL FIXTURE OUTLETS SHALL BE OPENED SLIGHTLY. A SOLUTION OF SODIUM HYPO CHLORITE AND CLEAN WATER SHALL BE INTRODUCED AT THE NEW TIE-IN TO THE EXISTING WATER PIPES DOWNSTREAM OF NEW VALVE, UNTIL RESIDUAL CHLORINE IS DETECTED AT ALL WATER FAUCETS, OUTLETS, ETC. THE SOLUTION SHALL CONSIST OF 1 GALLON OF 5% SODIUM HYPO CHLORITE (CLOROX OR PUREX) TO 200 GALLONS OF WATER. THE SOLUTION SHALL BE FLUSHED AND ALL AERATORS AND STRAINERS SHALL BE REMOVED, CLEANED AND REPLACED. CARE SHALL BE TAKEN TO NOT ALLOW SOLUTION TO ENTER EXISTING PIPING. AFTER STERILIZATION, FLUSH SOLUTION FROM SYSTEM WITH CLEAN WATER UNTIL RESIDUAL CHLORINE CONTENT IS LESS THAN 0.2 PARTS PER MILLION. WATER SYSTEM WILL NOT BE ACCEPTED UNTIL A NEGATIVE BACTERIOLOGICAL TEST IS MADE ON WATER TAKEN FROM SYSTEM. CHLORINE DOSING SHALL BE REPEATED AS NECESSARY UNTIL SUCH NEGATIVE TEST IS ACCOMPLISHED WHEN CONNECTION INTO EXISTING WATER LINES. CONTRACTOR SHALL PROPERLY PROTECT AND CAP THE EXISTING PIPING OR CONTRACTOR SHALL STAND THE COST OF CLEANING AND DISINFECTING THE EXISTING PIPING SYSTEM TO OWNER'S SATISFACTION. CONTRACTOR SHALL FURNISH TO OWNER AND ARCHITECT A WRITTEN REPORT CERTIFYING THAT PIPE CLEANING AND DISINFECTION HAS BEEN COMPLETED AND ACCEPTED.
 - G-15 ALL WATER SYSTEMS SHALL MEET THE REQUIREMENTS OF ANS/NSF STANDARD 61 SECTION 9 (1998), CONCERNING METAL CONTAMINANTS IN THE WATER SYSTEM.
 - G-16 WATER PIPING SHALL NOT BE ROUTED IN OUTSIDE WALLS OR ON EXTERIOR SIDE OF BUILDING INSULATION ENVELOPE.
 - G-17 WATER HAMMER ARRESTORS SHALL BE INSTALLED IN ALL WATER LINES WITH QUICK OPEN OR QUICK CLOSE VALVES.
- WATER HAMMER ARRESTOR SCHEDULE:**
 TYPE A 1-1/1 FIXTURE UNITS
 TYPE B 12-32 FIXTURE UNITS
 TYPE C 33-60 FIXTURE UNITS
 TYPE D 61-113 FIXTURE UNITS

DEQ BUILDING REMODEL AND TENANT FINISH

PLUMBING GENERAL NOTES AND LEGEND

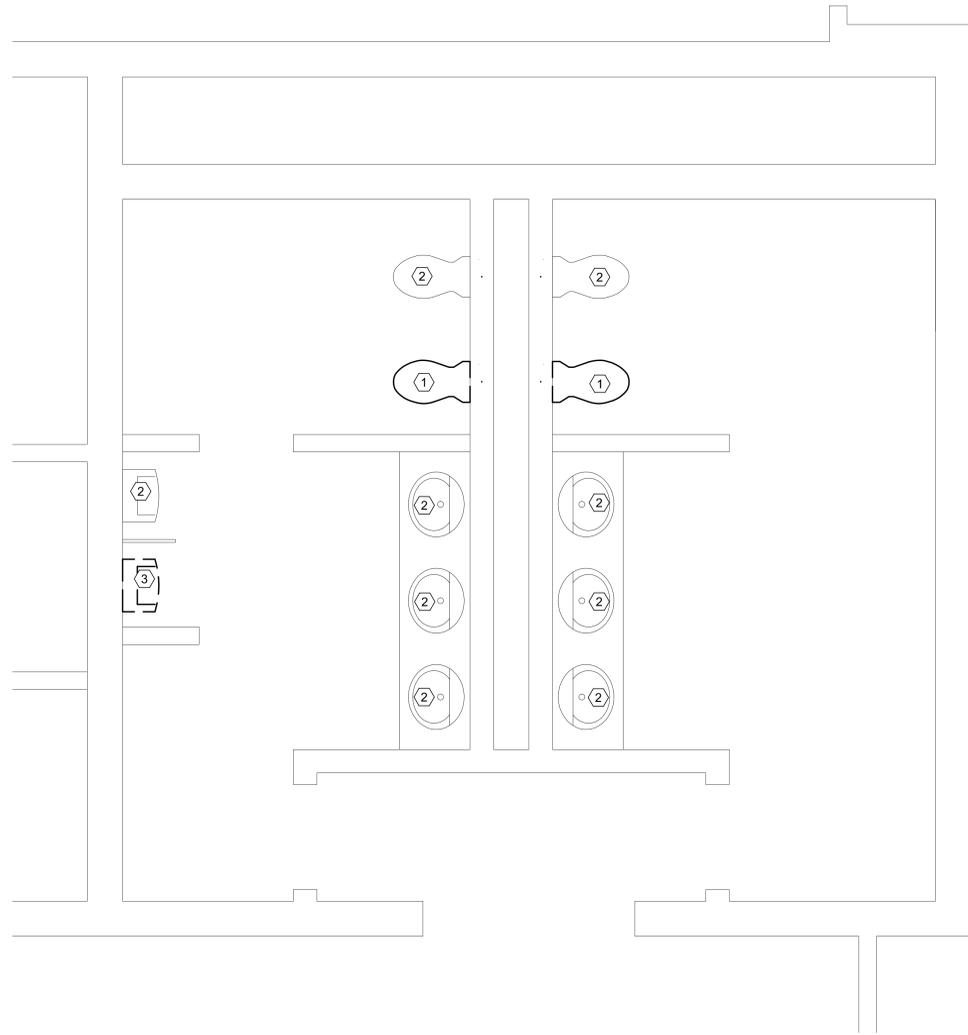
FRANK N MURDOCK JR ■ Architect & Associates
 168 NORTH 1950 WEST
 SALT LAKE CITY, UTAH
 975 East 100 South Suite 100, Salt Lake City, Utah 84102
 TEL: (801) 532-4441 FAX: (801) 532-4220

REVISION # DATE
 △ 6-15-10

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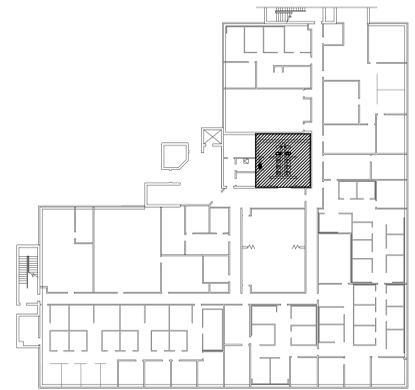
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 DATE: APRIL 2010

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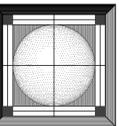


← NORTH BLDG. UPPER LEVEL PLUMBING DEMOLITION FLOOR PLAN
 SCALE: 1/2" = 1'-0"

- SHEET NOTES:**
- ① REMOVE EXISTING WATER CLOSET. REMOVE ASSOCIATED WATER & VENT PIPING BACK TO MAIN AND CAP. REMOVE WASTE PIPING BACK TO WALL AND PROVIDE NEW WALL CLEANOUT. PATCH AND REPAIR FLOOR AND WALLS TO MATCH EXISTING.
 - ② EXISTING FIXTURE TO REMAIN.
 - ③ REMOVE EXISTING FIXTURE. PROTECT EXISTING PIPING FOR NEW FIXTURE CONNECTIONS. PATCH AND REPAIR EXISTING WALL AND FLOOR TO MATCH EXISTING.



KEY PLAN



DEQ BUILDING REMODEL AND TENANT FINISH
 168 NORTH 1950 WEST
 SALT LAKE CITY, UTAH

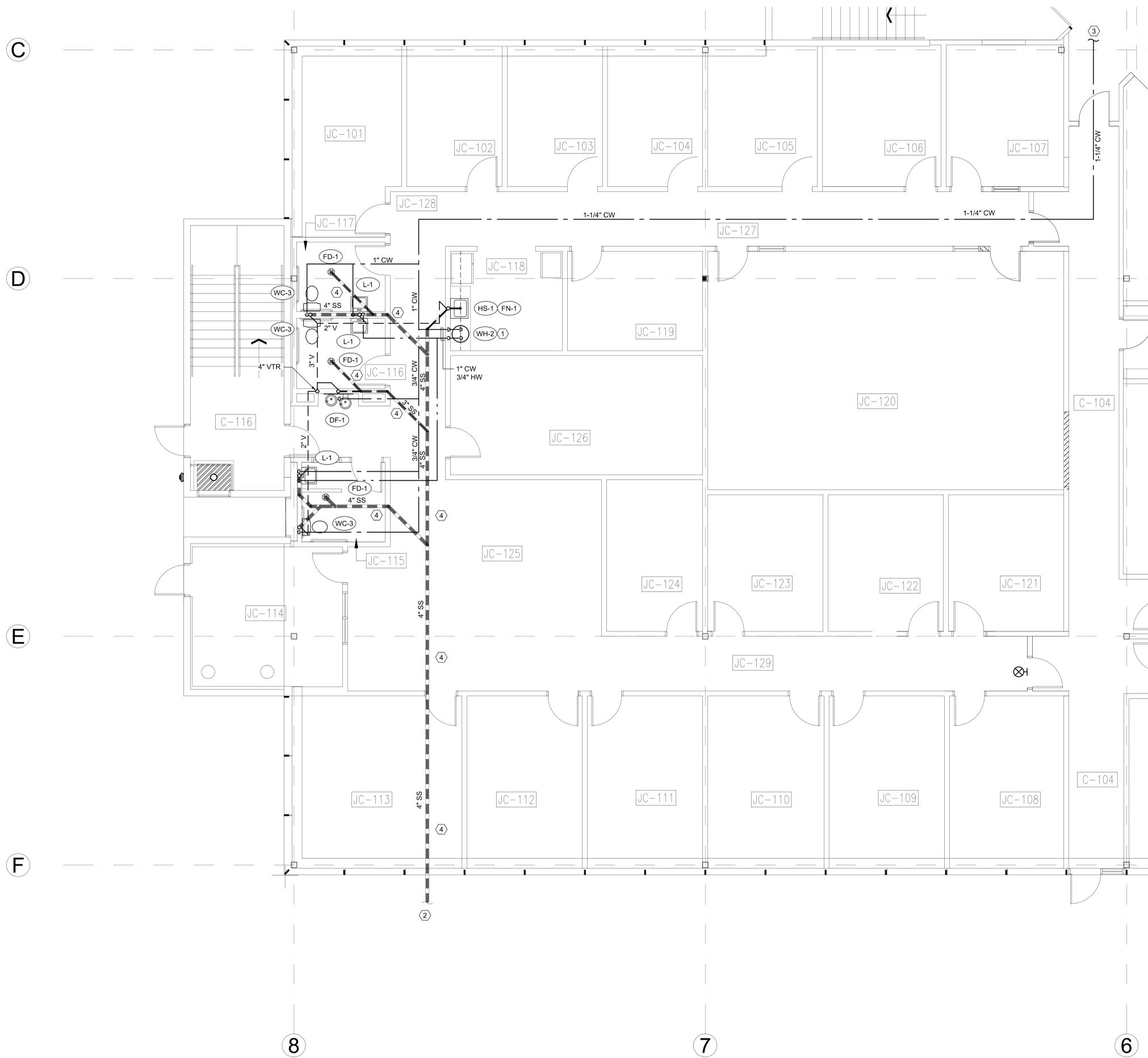
NORTH BLDG. PLUMBING DEMOLITION PLAN

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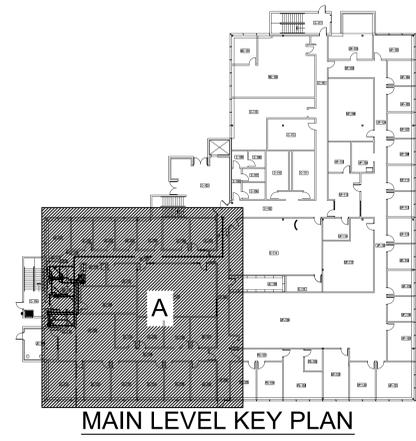
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 FILE NAME: DEQ2
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 CHECKED BY: WP
 DATE: APRIL 2010

**PD
 101**



- SHEET NOTES:**
- ① WATER HEATER TO BE INSTALLED IN CABINET NEXT TO SINK. SEE DETAIL. PROVIDE FUNNEL DRAIN UNDER SINK. COORDINATE WITH ARCHITECT TO ENSURE ADEQUATE SPACE IN CABINET.
 - ② SEWER LINE TO EXTEND TO 5' OUTSIDE OF BUILDING IN THIS APPROXIMATE LOCATION. SEE ARCHITECT'S PLAN FOR CONTINUATION. ALL ELEVATIONS SHALL BE COORDINATED WITH SITE CONDITIONS, FOOTINGS, SITE PLAN, ETC. VERIFY ADEQUATE SLOPE PRIOR TO ORDERING OR INSTALLING.
 - ③ CONNECT NEW WATER LINE INTO EXISTING WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY EXACT LOCATION AND CONDITION OF EXISTING PIPING.
 - ④ SAW CUT FLOOR FOR NEW SEWER LINE.



DEQ BUILDING REMODEL AND TENANT FINISH

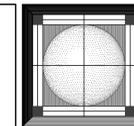
NORTH BLDG. PLUMBING WASTE AND VENT PLANS

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REVISION #	DATE
①	6-15-10
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CONST. DOC. FILE NAME: DEQ2	
PLOT SCALE: 1/8"	
DRAWN BY: STAFF	
CHECKED BY: WP	
DATE: APRIL 2010	

PE 101

NORTH BLDG. PLUMBING REMODEL PLAN AREA "A"
 SCALE: 1/4" = 1'-0"



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NORTH BLDG. PLUMBING DOMESTIC WATER PIPING PLANS

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REVISION # DATE
6-15-10

DCM PROJECT NO.
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CHECKED BY: AP
DATE: APRIL 2010

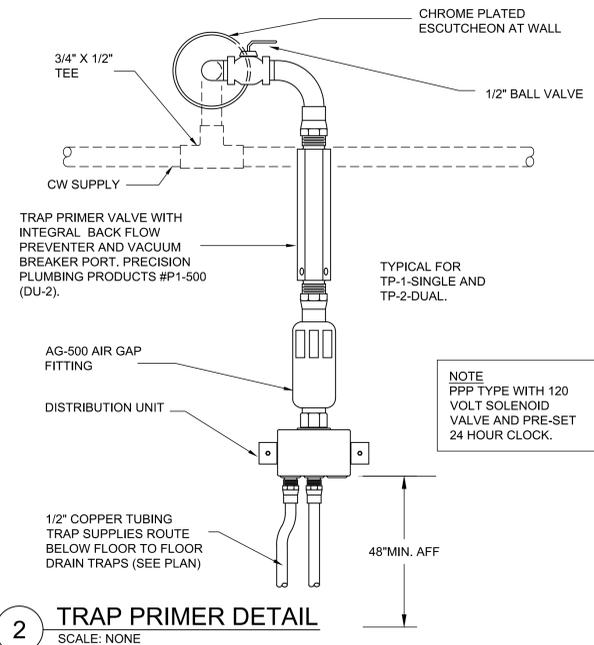
PE 102

SHEET NOTES:

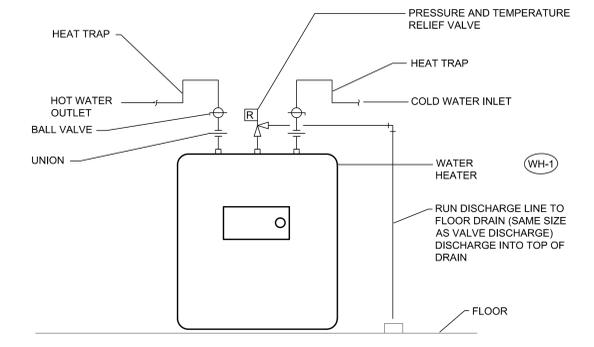
- 1 WATER HEATER TO BE INSTALLED IN CABINET NEXT TO SINK. SEE DETAIL. PROVIDE FUNNEL DRAIN UNDER SINK. COORDINATE WITH ARCHITECT TO ENSURE ADEQUATE SPACE IN CABINET.
- 2 CONNECT NEW SEWER LINE INTO EXISTING SEWER LINE OF EQUAL OR GREATER SIZE. CONNECT INTO EXISTING SEWER LINE IN THE DIRECTION OF FLOW. FIELD VERIFY EXACT LOCATION AND CONDITION OF EXISTING PIPING.
- 3 CONNECT NEW WATER LINE INTO EXISTING WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY EXACT LOCATION AND CONDITION OF EXISTING PIPING.
- 4 CONNECT NEW FIXTURE TO EXISTING WASTE, VENT, & WATER PIPING. PROVIDE NEW CARRIER FOR FIXTURE.
- 5 1-1/4" MEDICAL VACUUM LINE IN CEILING ABOVE
3/4" FILTERED WATER LINE IN CEILING ABOVE
3/4" COMPRESSED AIR LINE IN CEILING ABOVE
- 6 1-1/4" MEDICAL VACUUM LINE IN CEILING ABOVE
1/2" FILTERED WATER LINE IN CEILING ABOVE
3/4" COMPRESSED AIR LINE IN CEILING ABOVE
- 7 3/4" MEDICAL VACUUM LINE IN CEILING ABOVE
1/2" FILTERED WATER LINE IN CEILING ABOVE
1/2" COMPRESSED AIR LINE IN CEILING ABOVE
- 8 3/4" MEDICAL VACUUM LINE BELOW FLOOR
1/2" FILTERED WATER LINE BELOW FLOOR
1/2" COMPRESSED AIR LINE BELOW FLOOR
- 9 1-1/4" MEDICAL VACUUM LINE, 3/4" FILTERED WATER LINE, & 3/4" COMPRESSED AIR LINE STUB IN'S TO UTILITY ROOM WITH BALL VALVES.
- 10 PROVIDE ACCESSIBLE BALL VALVES IN VERTICAL SECTION OF VACUUM, AIR, & WATER LINES IN CABINET.



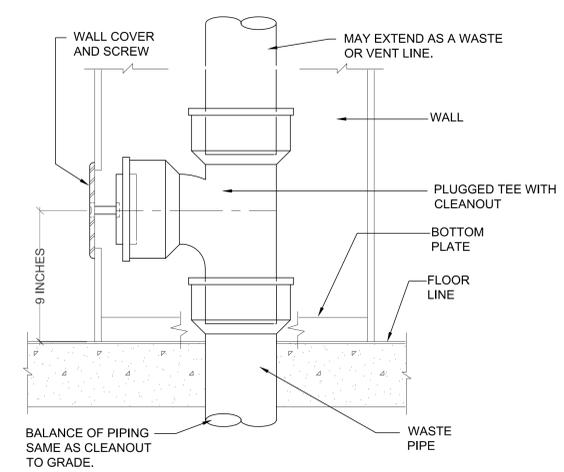
NORTH BLDG. PLUMBING REMODEL PLAN AREA "A"
 SCALE: 1/8" = 1'-0"
 0 1 2 3 4 5 6



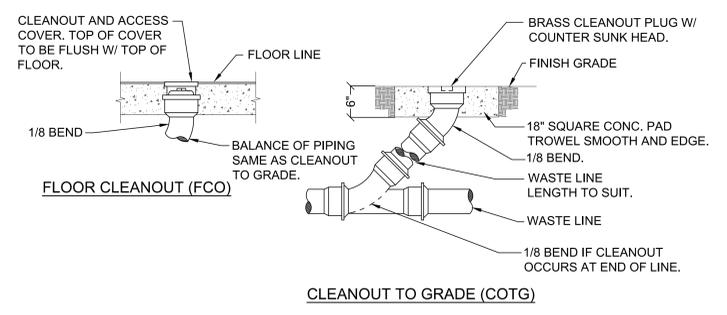
2 TRAP PRIMER DETAIL
SCALE: NONE



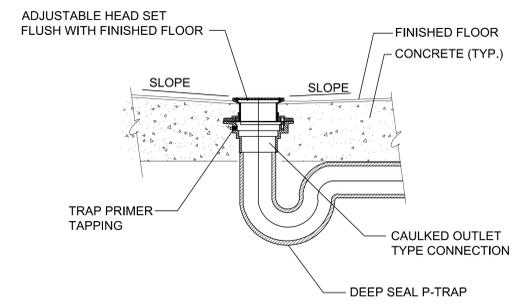
1 POINT OF USE ELECTRIC WATER HEATER DETAIL
SCALE: NONE



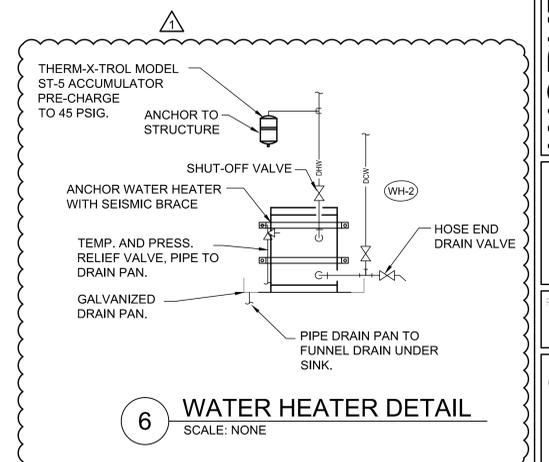
4 WALL CLEAN-OUT DETAIL
SCALE: NONE



3 CLEAN-OUT DETAILS
SCALE: NONE



5 FLOOR DRAIN DETAIL
SCALE: NONE



6 WATER HEATER DETAIL
SCALE: NONE

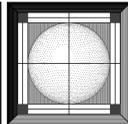
WORKFORCE SERVICES REDWOOD ELIGIBILITY CENTER
DEQ SOUTH BUILDING - REMODEL AND TENANT FINISH
168 N 1950 W, SALT LAKE CITY, UT

PLUMBING DETAILS

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REVISION # DATE
6-15-10
PROJECT NO: 09254310
CONCEPT FILE NAME: WFS-REC 10
PLOT SCALE: 1/8\"/>

PE 501



PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	INDIVIDUAL LINE SIZES					REMARKS
		TRAP	WASTE	VENT	COLD WATER	HOT WATER	
BS-1	BREAK SINK	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	TWO COMPARTMENT, COUNTER MOUNTED. PROVIDE WITH THERMOSTATIC AND PRESSURE MIXING VALVE
FD-1	FLOOR DRAIN	3"	3"	2"	-	-	PROVIDE WITH TRAP PRIMER
FN-1	FUNNEL DRAIN	3"	3"	2"	-	-	PROVIDE WITH TRAP PRIMER
HS-1	HAND SINK	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	COUNTER MOUNTED. PROVIDE WITH THERMOSTATIC AND PRESSURE MIXING VALVE.
IB-1	ICE MAKER OUTLET BOX	-	-	-	1/2"	-	WATER TITE W9700 OR EQUAL.
L-1	LAVATORY	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	SELF SUPPORTING PROVIDE WITH THERMOSTATIC AND PRESSURE MIXING VALVE.
U-1	URINAL	3"	3"	2"	3/4"	-	WALL MOUNTED, FLUSH VALVE ADA COMPLIANT
WB-1	WASHING MACHINE SUPPLY AND DRAIN BOX	1-1/2"	2"	1-1/2"	1/2"	1/2"	GUY GRAY MODEL B150
WC-1	WATER CLOSET	INT	4"	2"	1"	-	WALL MOUNTED, FLUSH VALVE
WC-2	WATER CLOSET	INT	4"	2"	1"	-	WALL MOUNTED, FLUSH VALVE, ADA COMPLIANT
WC-3	WATER CLOSET	INT	4"	2"	1"	-	FLOOR MOUNTED, FLUSH TANK, ADA COMPLIANT

TANKLESS WATER HEATER SCHEDULE

SYMBOL	INPUT (kW)	CURRENT AMPS	TEMPERATURE RISE AT 0.5 GPM	V - Ø - Hz	COMMENTS
WH-1	3.0	14.4 A	41°	208/1/60	EEMAX SINGLE POINT MODEL SF3208

WATER HEATER SCHEDULE

SYMBOL	INPUT (kW)	GPH RECOVERY 90°F	STORAGE CAPACITY	RELIEF VALVE		V - Ø - Hz	COMMENTS
				BTU RATING	PRESSURE		
WH-2	3	14	20 GALLONS	PER MANUFACTURERS RECOMMENDATIONS		208/1/60	AO SMITH DEL 20 OR EQUAL

DEQ BUILDING REMODEL AND TENANT FINISH
 168 NORTH 1950 WEST
 SALT LAKE CITY, UTAH

PLUMBING SCHEDULES

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REVISION # DATE:
 6-15-10

DFCM PROJECT NO.:

CONST. DOC.
 FILE NAME: DEQ2
 PLOT SCALE: 1/8" = 1'-0"
 DRAWN BY: STAFF
 CHECKED BY: WP
 DATE: APRIL 2010

PE
601

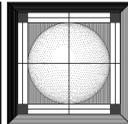
PLUMBING LEGEND			
MEANING	SYMBOL OR ABBREVIATION	MEANING	SYMBOL OR ABBREVIATION
HOT WATER LINE	—————	WALL CLEANOUT	WCO
COLD WATER LINE	—————	CLEANOUT	CO
HOT WATER RECIRCULATING LINE	—————	CLEANOUT TO GRADE	COTG
VENT LINE	—————	FLOOR CLEANOUT	FCO
WASTE LINE	-----	BALL VALVE	⊕
GAS LINE	—————	UNION	— — —
VENT THRU ROOF	VTR	CONNECTION TO EXISTING PIPING	⊕
UNDER FLOOR	UF	REGULATOR	Ⓜ
SANITARY SEWER	--- SS ---	SOFT WATER	SW
PRIMARY ROOF DRAIN (PRD)	————— PD	SECONDARY ROOF DRAIN (SRD)	————— SD

PLUMBING CONSTRUCTION NOTES:

- G-1 ALL PLUMBING SHALL BE INSTALLED AND CONFORM TO THE 2006 EDITION OF THE INTERNATIONAL PLUMBING CODE (IPC) WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.
- G-2 ALL PIPING MATERIALS SHALL MEET ALL REQUIREMENTS OF IPC AND LOCAL AUTHORITY. PLASTIC PIPING SHALL BE ALLOWED ONLY WHERE ALLOWED BY CODE. PLASTIC PIPING SHALL NOT BE ROUTED THROUGH RETURN AIR PLENUMS OR OTHER AREAS PROHIBITED BY THE IMC, IPC OR NFPA CODES OR BY LOCAL AUTHORITY
- G-3 GAS PIPING INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH GAS COMPANY REGULATIONS, NFPA CODE REQUIREMENTS, AND LOCAL AUTHORITY.
- G-4 ALL MATERIALS SHALL BE NEW AND SHALL BE DOMESTIC MADE UNLESS SPECIFICALLY APPROVED OTHERWISE IN WRITING BY ARCHITECT OR OWNER.
- G-5 HOT AND COLD WATER PIPE SHALL BE TYPE L HARD DRAWN COPPER PIPING WITH WROUGHT COPPER FITTINGS. OUTSIDE PIPING MAY BE COPPER OR PVC PLASTIC CONFORMING TO AWWA STANDARDS WHERE ALLOWED BY LOCAL CODE. TYPE K UNDERGROUND WITH NO JOINTS WITHIN BUILDING. METER SHALL BE AS REQUIRED BY LOCAL UTILITY CO. ALL PIPING AND FITTINGS SHALL BE DOMESTIC MADE. PIPING SHALL BE TESTED AT 125 PSI MINIMUM FOR 6 HOURS AND SHOW NO LEAKS.
- G-6 PROVIDE VACUUM BREAKERS AND BACK FLOW PREVENTERS WHERE REQUIRED BY CODE OR WHERE THERE MAY BE ANY POSSIBLE CHANCE FOR CROSS CONTAMINATION. PREVENTERS SHALL BE INSTALLED IN ACCORDANCE WITH UTAH CODE.
- G-7 SOIL, WASTE AND VENT PIPING SHALL BE CAST IRON SERVICE WEIGHT HUB AND SPIGOT CONFORMING TO FEDERAL SPECIFICATION WW-P-401, ASTM A-74, OR ANSI A112.5-1 VENT PIPING AND ABOVE GRADE WASTE PIPING 2-1/2" OR LESS MAY BE GALVANIZED STEEL WITH SCREWED DURHAM TARRED DRAINAGE FITTINGS, HOWEVER, GALVANIZED STEEL VENT PIPES SHALL NOT BE USED FOR UNDER OR WITHIN 6" OF THE GROUND AS PER CODE. JOINTS FOR CAST IRON PIPE SHALL BE TYSEAL, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. ABOVE GRADE CAST IRON PIPING SHALL BE SERVICE WEIGHT NO-HUB WITH STAINLESS STEEL CINCH BANDS. ALL PIPING AND FITTINGS SHALL BE DOMESTIC MADE. ALL WASTE AND VENT PIPING SHALL BE TESTED BY FILLING SYSTEM TO TOP OF THE VENT PIPE (20 FEET OF HEAD MINIMUM) AND SHOW NO LEAKS FOR 6 HOURS.
- G-8 GAS PIPING FROM METER TO EQUIPMENT SHALL BE ASTM A 120-79 SCHEDULE 40 BLACK CARBON STEEL. FITTINGS SHALL BE ASTM A 234-79 WELDED STEEL FITTINGS OR STANDARD WEIGHT MALLEABLE IRON SCREWED FITTINGS. DO NOT USE FLEX PIPING UNLESS REQUIRED BY LOCAL CODE. THEN USE GAS COMPANY APPROVED PIPING INSTALLED BY GAS COMPANY APPROVED INSTALLERS. PIPING CONCEALED IN WALLS OR LARGER THAN 2-1/2" SHALL BE WELDED. ALL PIPING SHALL BE TESTED TO MINIMUM OF 60 PSI AS PER CODE. GAS VALVES SHALL BE UL LISTED BALL VALVES. PIPING AND FITTING MATERIALS SHALL BE AS RECOMMENDED AND ALLOWED BY LOCAL AUTHORITY AND CODES. GAS PIPING WITHIN THE BUILDING SHALL NOT BE ROUTED UNDER FLOOR SLAB. ALL PIPING AND FITTINGS SHALL BE DOMESTIC MADE.
- G-9 ALL PLUMBING INFORMATION IS NOT LIMITED TO THE PLUMBING DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING SPECIFICATIONS, ARCHITECTURAL DRAWING, STRUCTURAL DRAWINGS, MECHANICAL DRAWINGS, AND ELECTRICAL DRAWINGS.
- G-10 THE WORKING DRAWINGS ARE DIAGRAMMATIC. BECAUSE OF THE SMALL SCALE OF THE DRAWING, THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL PIPING SHALL BE CHECKED AND COORDINATED WITH THE SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- G-11 COORDINATE ALL PIPING AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AND/OR CONTRACTORS PRIOR TO INSTALLATION.
- G-12 ANY AND ALL ALTERATION TO THE SYSTEM SHOWN SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR AND ARCHITECT/ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO CHANGES.
- G-13 GAS LINE FITTINGS SHALL BE STANDARD WELD FITTINGS WITH TAPERED REDUCERS. DO NOT USE VALVES, UNIONS, OR AUTO CONTROLS IN GAS LINES ROUTED IN INACCESSIBLE CONCEALED SPACES.

PLUMBING CONSTRUCTION NOTES CONTINUED:

- G-14 CLEANING AND DISINFECTING: ALL PIPING SHALL BE FLUSHED CLEAN BEFORE CONNECTION TO EQUIPMENT. DOMESTIC WATER LINES SHALL BE THOROUGHLY FLUSHED OUT WITH AN ALKALINE DETERGENT SOLUTION TO REMOVE PIPE DOPE, OIL, LOOSE MILL SCALE, AND OTHER EXTRANEOUS MATERIALS. AFTER THE WATER SYSTEM HAS BEEN FLUSHED CLEAN, THE SHUTOFF VALVE TO THE WATER MAIN SHALL BE CLOSED. ALL FIXTURE OUTLETS SHALL BE OPENED SLIGHTLY. A SOLUTION OF SODIUM HYPO CHLORITE AND CLEAN WATER SHALL BE INTRODUCED AT THE NEW TIE-IN TO THE EXISTING WATER PIPES DOWNSTREAM OF NEW VALVE, UNTIL RESIDUAL CHLORINE IS DETECTED AT ALL WATER FAUCETS, OUTLETS, ETC. THE SOLUTION SHALL CONSIST OF 1 GALLON OF 5% SODIUM HYPO CHLORITE (CLOROX OR PUREX) TO 200 GALLONS OF WATER. THE SOLUTION SHALL BE FLUSHED AND ALL AERATORS AND STRAINERS SHALL BE REMOVED, CLEANED AND REPLACED. CARE SHALL BE TAKEN TO NOT ALLOW SOLUTION TO ENTER EXISTING PIPING. AFTER STERILIZATION, FLUSH SOLUTION FROM SYSTEM WITH CLEAN WATER UNTIL RESIDUAL CHLORINE CONTENT IS LESS THAN 0.2 PARTS PER MILLION. WATER SYSTEM WILL NOT BE ACCEPTED UNTIL A NEGATIVE BACTERIOLOGICAL TEST IS MADE ON WATER TAKEN FROM SYSTEM. CHLORINE DOSING SHALL BE REPEATED AS NECESSARY UNTIL SUCH NEGATIVE TEST IS ACCOMPLISHED WHEN CONNECTION INTO EXISTING WATER LINES, CONTRACTOR SHALL PROPERLY PROTECT AND CAP THE EXISTING PIPING OR CONTRACTOR SHALL STAND THE COST OF CLEANING AND DISINFECTING THE EXISTING PIPING SYSTEM TO OWNER'S SATISFACTION. CONTRACTOR SHALL FURNISH TO OWNER AND ARCHITECT A WRITTEN REPORT CERTIFYING THAT PIPE CLEANING AND DISINFECTION HAS BEEN COMPLETED AND ACCEPTED.
 - G-15 ALL WATER SYSTEMS SHALL MEET THE REQUIREMENTS OF ANS/NSF STANDARD 61 SECTION 9 (1998), CONCERNING METAL CONTAMINANTS IN THE WATER SYSTEM.
 - G-16 WATER PIPING SHALL NOT BE ROUTED IN OUTSIDE WALLS OR ON EXTERIOR SIDE OF BUILDING INSULATION ENVELOPE.
 - G-17 WATER HAMMER ARRESTORS SHALL BE INSTALLED IN ALL WATER LINES WITH QUICK OPEN OR QUICK CLOSE VALVES.
- WATER HAMMER ARRESTOR SCHEDULE:**
- | | |
|--------|----------------------|
| TYPE A | 1-11 FIXTURE UNITS |
| TYPE B | 12-32 FIXTURE UNITS |
| TYPE C | 33-60 FIXTURE UNITS |
| TYPE D | 61-113 FIXTURE UNITS |



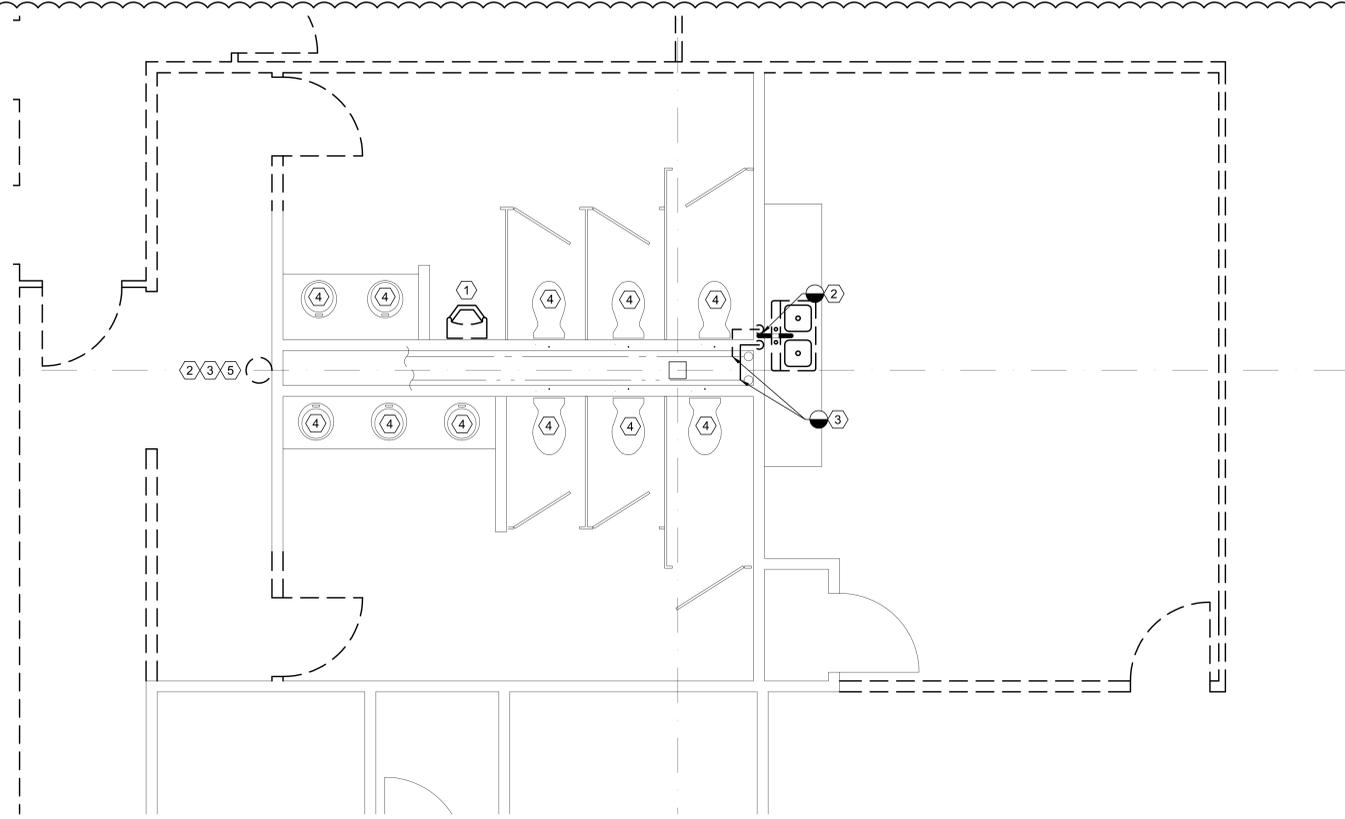
WORKFORCE SERVICES REDWOOD ELIGIBILITY CENTER
 DEQ SOUTH BUILDING - REMODEL AND TENANT FINISH
 168 N 1950 W, SALT LAKE CITY, UT
FRANK N MURDOCK JR ■ Architect & Associates
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PLUMBING GENERAL NOTES AND LEGEND

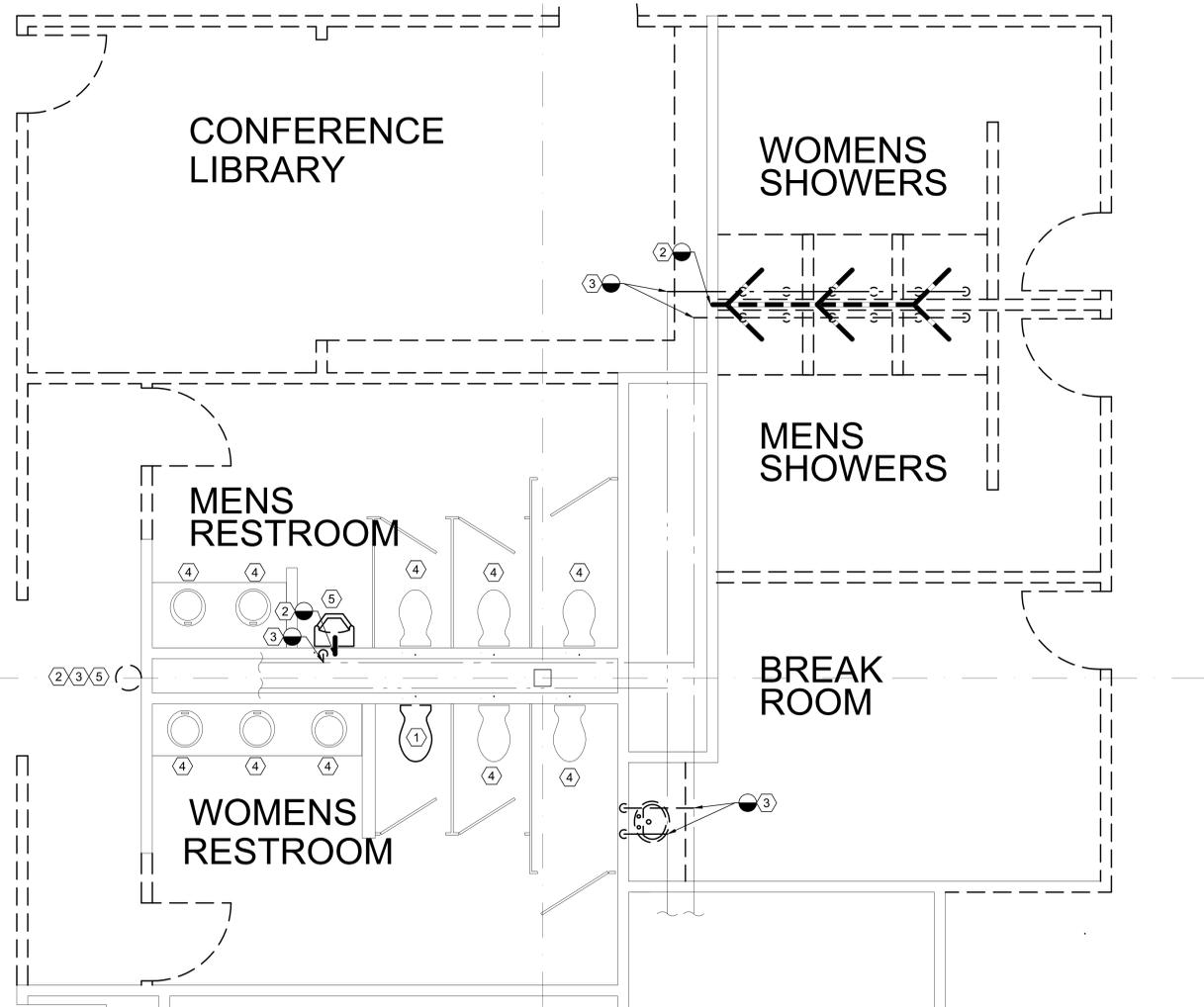
REVISION # DATE
 △ 6-15-10

PROJECT PROVIDED NO. **09254310**
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 DRAWN BY: STAFF
 CHECKED BY: WMP
 DATE: MAY 10 2010

PG 001

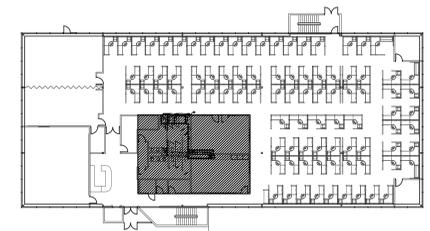


SOUTH BLDG. MAIN LEVEL PLUMBING DEMOLITION PLAN
 SCALE: 3/8" = 1'-0"

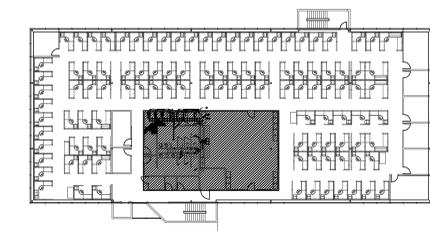


SOUTH BLDG. UPPER LEVEL PLUMBING DEMOLITION PLAN
 SCALE: 3/8" = 1'-0"

- SHEET NOTES:**
- ① REMOVE EXISTING FIXTURE. PROTECT EXISTING PIPING FOR NEW FIXTURE CONNECTIONS. PATCH AND REPAIR EXISTING WALL AND FLOOR TO MATCH EXISTING.
 - ② REMOVE WASTE PIPING BACK TO WALL AND PROVIDE NEW WALL CLEAN OUT. REMOVE VENT PIPING BACK TO MAIN AND CAP.
 - ③ REMOVE WATER PIPING BACK TO MAIN AND CAP. FIELD VERIFY EXACT LOCATIONS.
 - ④ EXISTING FIXTURE TO REMAIN.
 - ⑤ REMOVE EXISTING FIXTURE. PATCH AND REPAIR EXISTING WALL AND FLOOR TO MATCH EXISTING.



MAIN LEVEL KEY PLAN



UPPER LEVEL KEY PLAN

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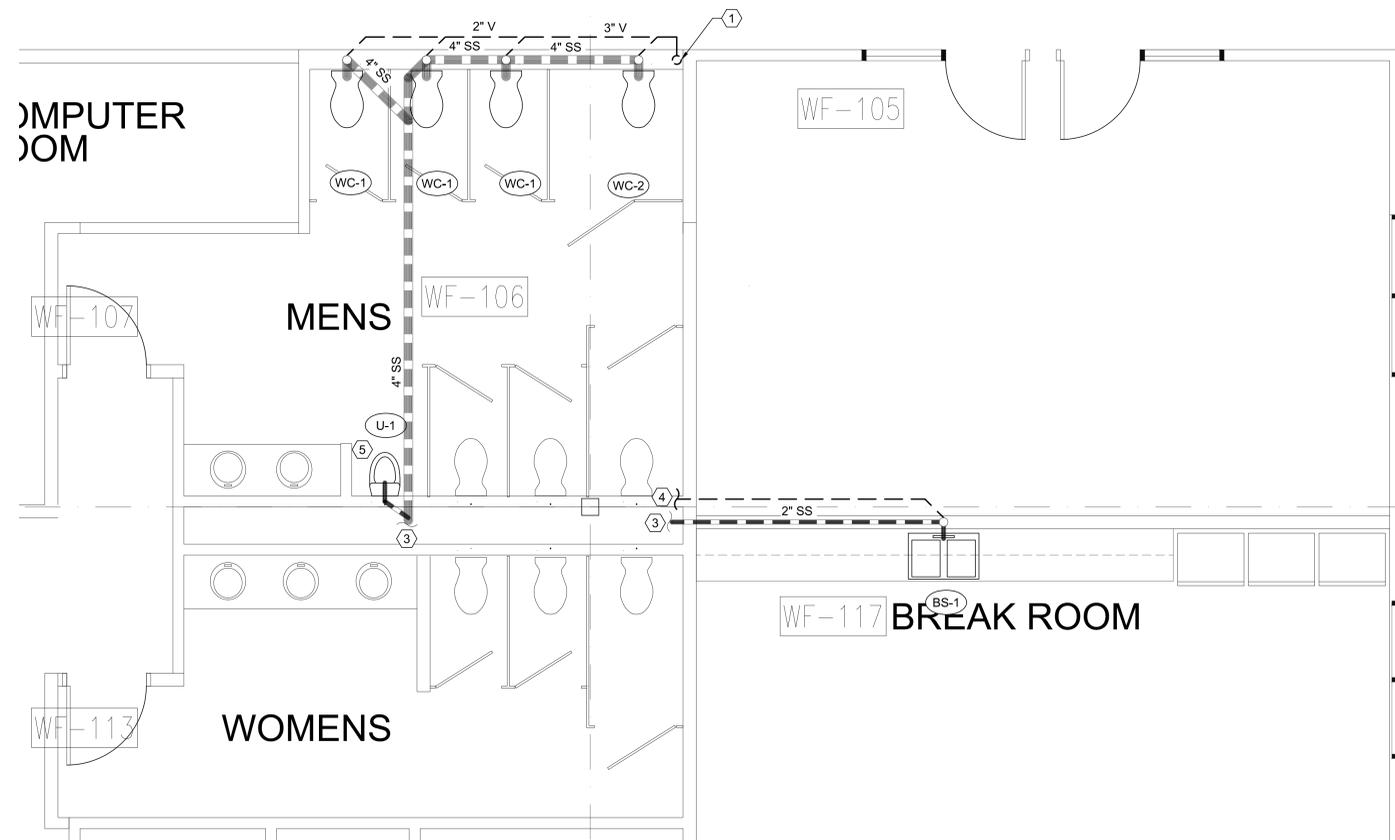
SOUTH BLDG. PLUMBING DEMOLITION PLAN

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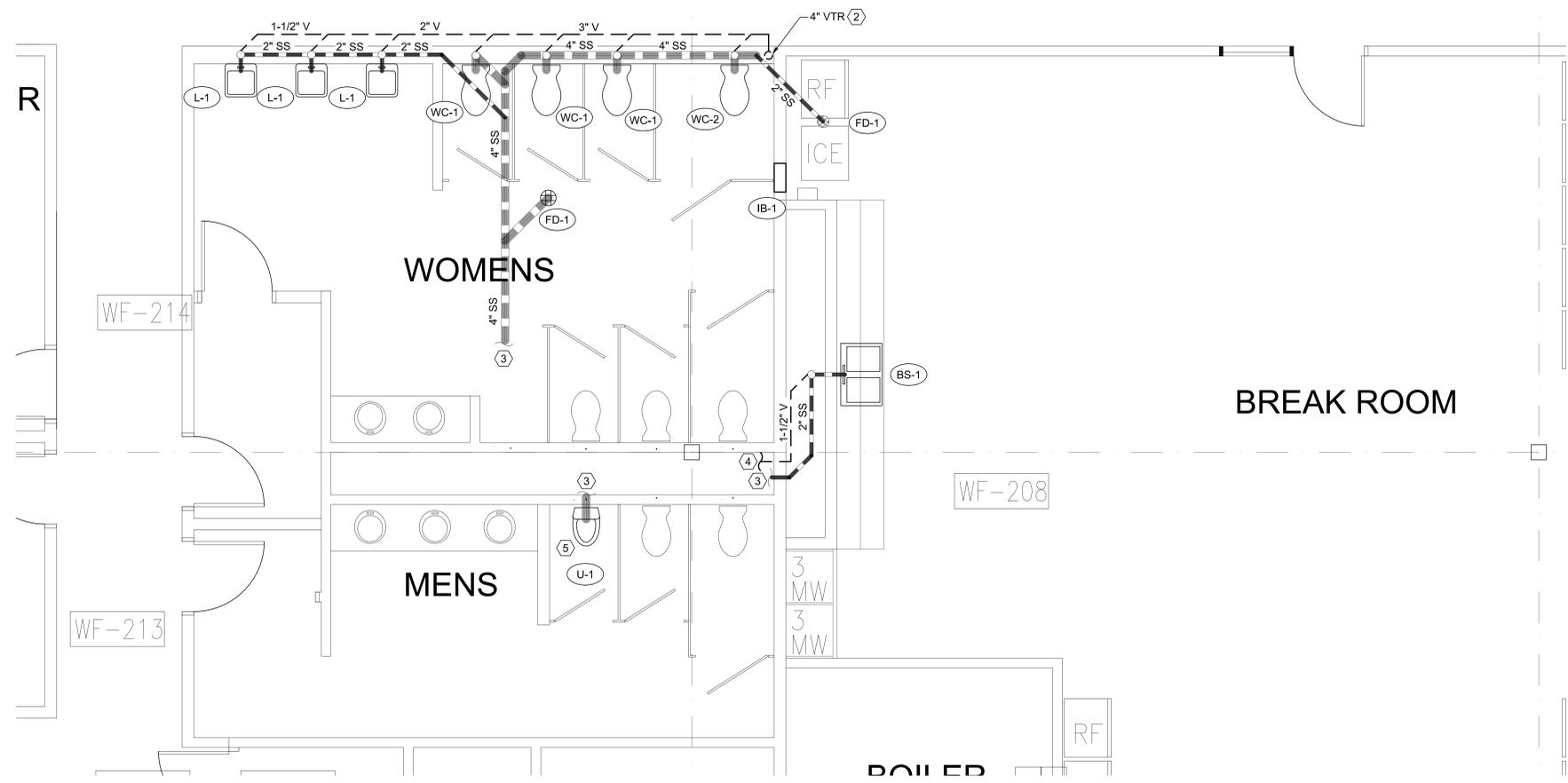
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PROJECT NUMBER: 09254310
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PD 101

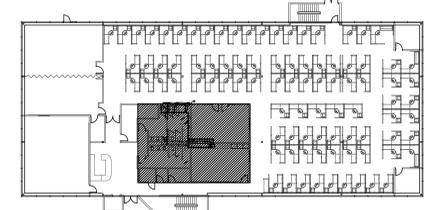


SOUTH BLDG. MAIN LEVEL WASTE AND VENT PLAN
SCALE: 3/8" = 1'-0"

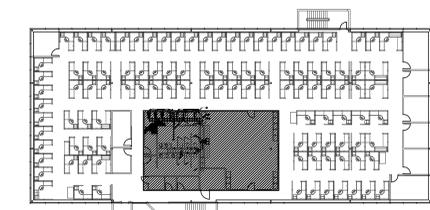


SOUTH BLDG. UPPER LEVEL WASTE AND VENT PLAN
SCALE: 3/8" = 1'-0"

- SHEET NOTES:**
- ① 3" VENT UP TO NEXT LEVEL.
 - ② 3" VENT FROM BELOW, 4" VENT THROUGH ROOF.
 - ③ CONNECT NEW SEWER LINE INTO EXISTING SEWER LINE OF EQUAL OR GREATER SIZE. CONNECT INTO EXISTING SEWER LINE IN THE DIRECTION OF FLOW. FIELD VERIFY EXACT LOCATION AND CONDITION OF EXISTING PIPING.
 - ④ CONNECT NEW VENT LINE INTO EXISTING VENT LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY EXACT LOCATION AND CONDITION OF EXISTING PIPING.
 - ⑤ CONNECT NEW FIXTURE TO EXISTING WASTE AND VENT PIPING. PROVIDE NEW CARRIER FOR FIXTURE.



MAIN LEVEL KEY PLAN



UPPER LEVEL KEY PLAN

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SOUTH BLDG. WASTE AND VENT PLANS

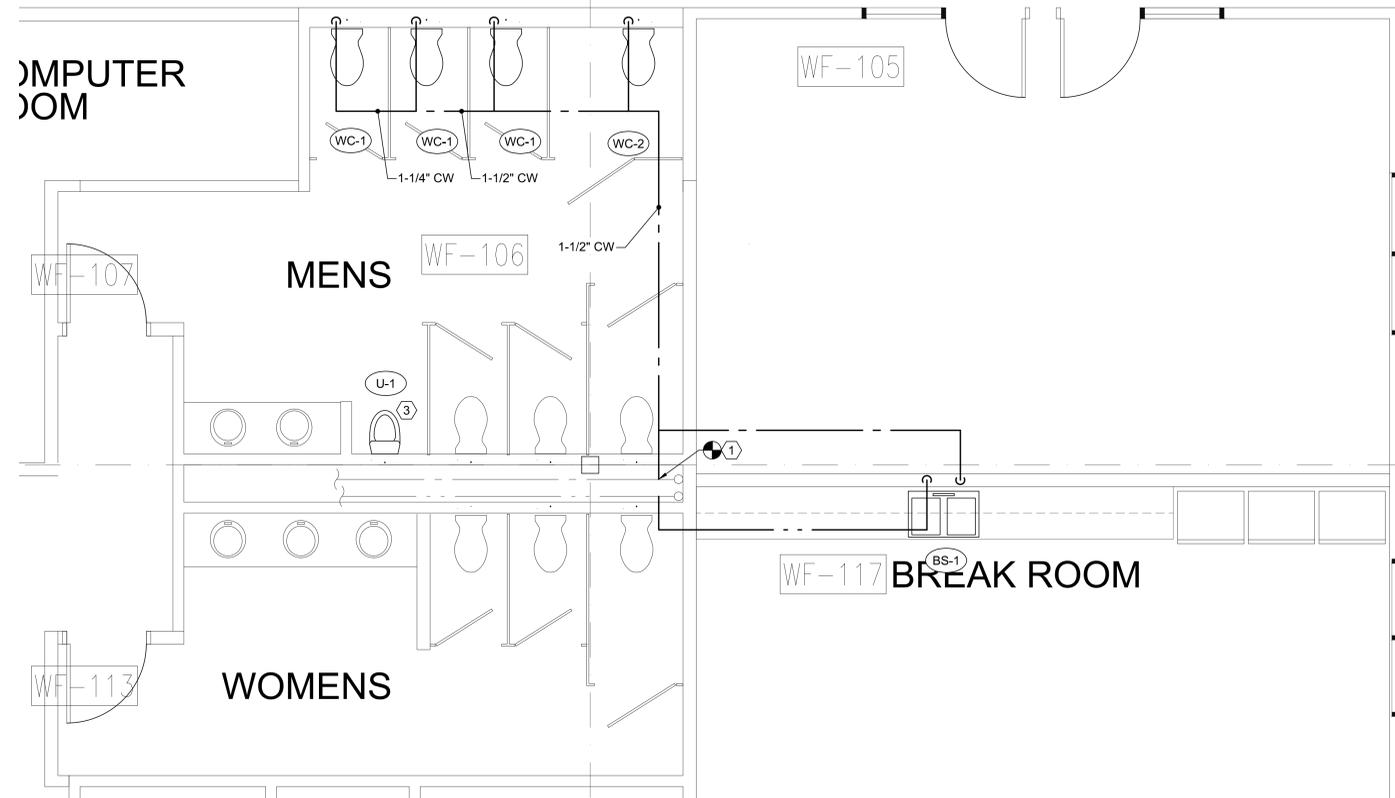
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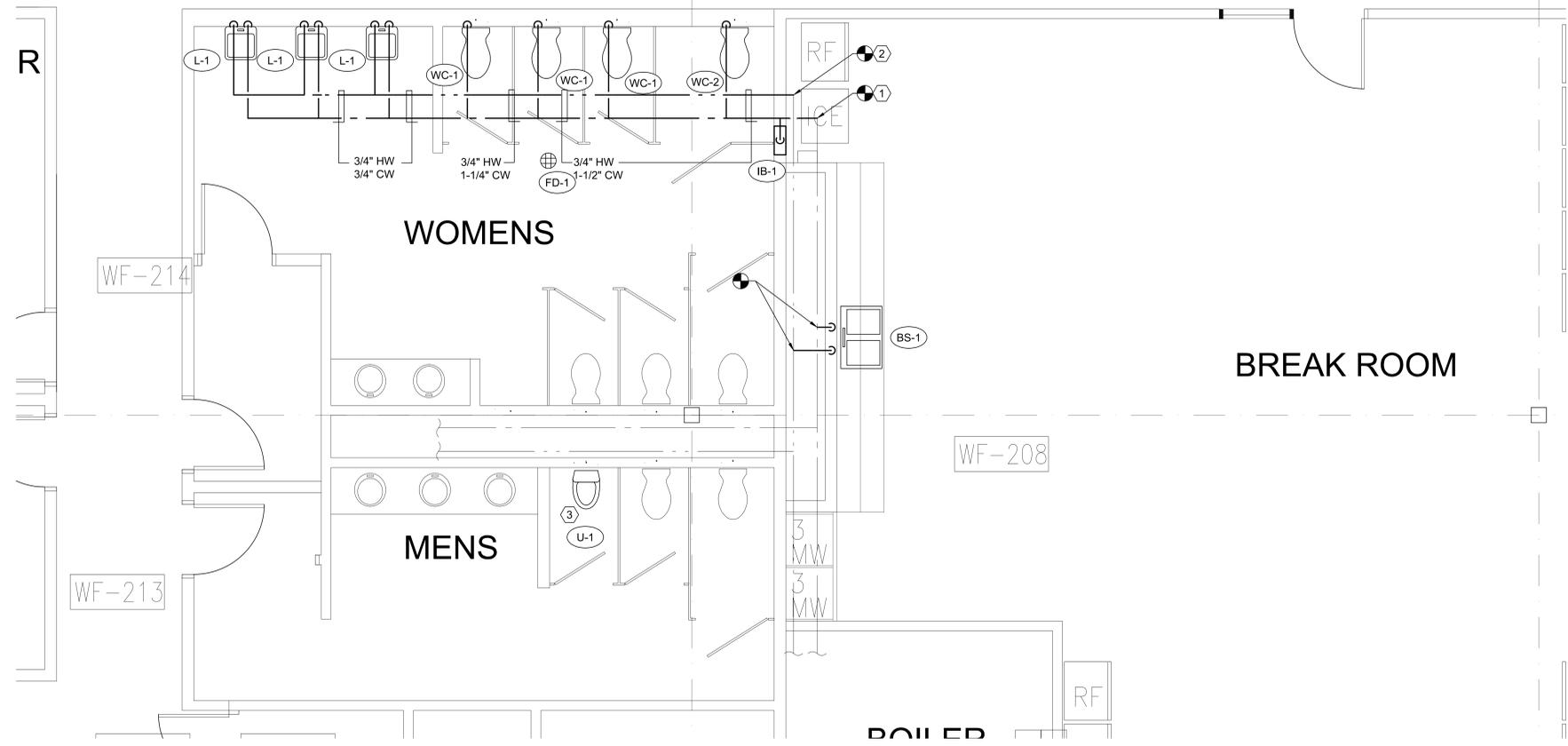
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09254310

CONCEPT
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PLOT SCALE: 1/8"
DRAWN BY: STAFF
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PE 101

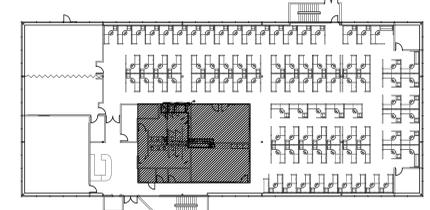


← SOUTH BLDG. MAIN LEVEL WATER PIPING PLAN
SCALE: 3/8" = 1'-0"

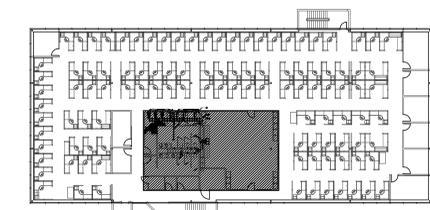


← SOUTH BLDG. UPPER LEVEL WATER PIPING PLAN
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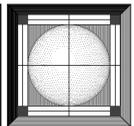
- SHEET NOTES:
- ① CONNECT NEW 1-1/2" CW PIPING TO EXISTING CW PIPING 1-1/2" IN SIZE OR GREATER. FIELD VERIFY SIZE AND EXACT LOCATION.
 - ② CONNECT 3/4" HW PIPING TO EXISTING HW PIPING 3/4" IN SIZE OR GREATER. FIELD VERIFY SIZE AND EXACT LOCATION.
 - ③ CONNECT NEW FIXTURE TO EXISTING WATER PIPING.



MAIN LEVEL KEY PLAN



UPPER LEVEL KEY PLAN



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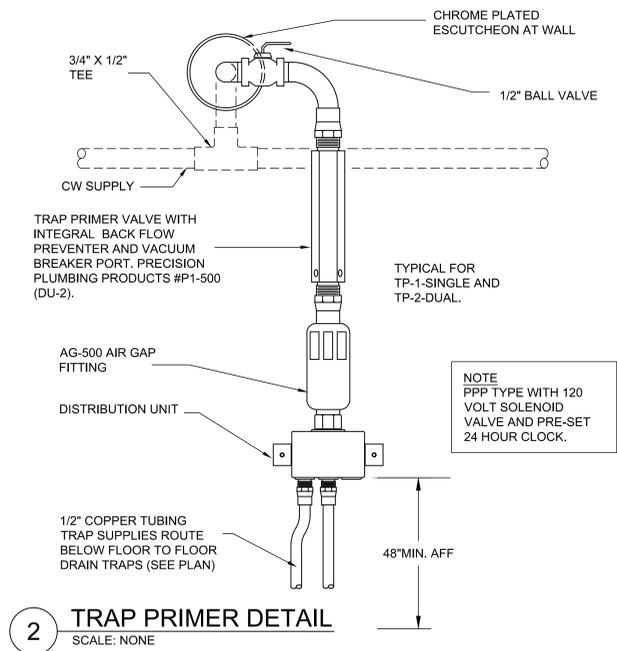
SOUTH BLDG. DOMESTIC WATER PIPING PLANS

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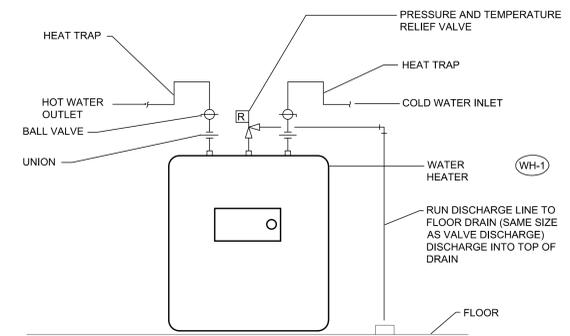
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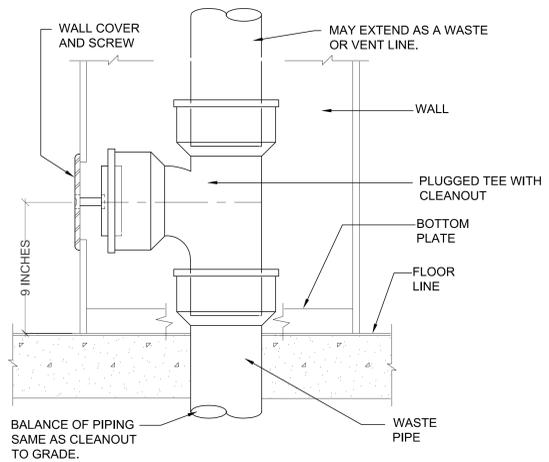
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102



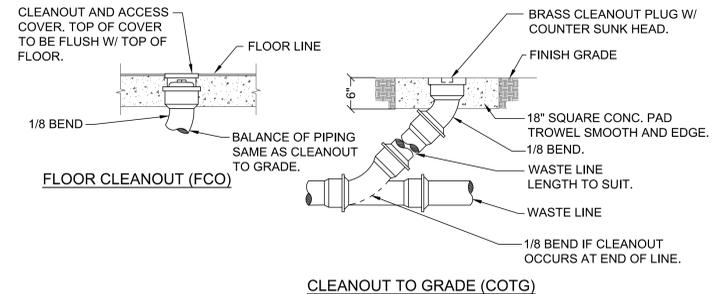
2 TRAP PRIMER DETAIL
SCALE: NONE



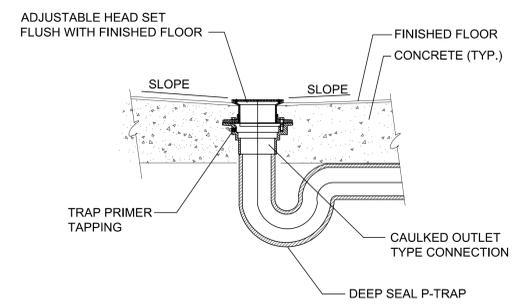
1 POINT OF USE ELECTRIC WATER HEATER DETAIL
SCALE: NONE



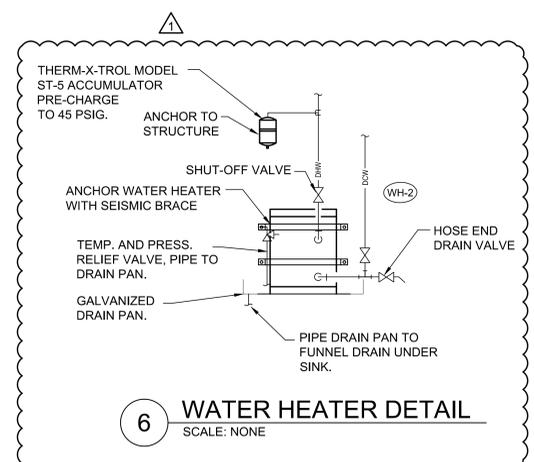
4 WALL CLEAN-OUT DETAIL
SCALE: NONE



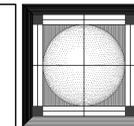
3 CLEAN-OUT DETAILS
SCALE: NONE



5 FLOOR DRAIN DETAIL
SCALE: NONE



6 WATER HEATER DETAIL
SCALE: NONE



PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	INDIVIDUAL LINE SIZES					REMARKS
		TRAP	WASTE	VENT	COLD WATER	HOT WATER	
BS-1	BREAK SINK	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	TWO COMPARTMENT. COUNTER MOUNTED. PROVIDE WITH THERMOSTATIC AND PRESSURE MIXING VALVE
FD-1	FLOOR DRAIN	3"	3"	2"	-	-	PROVIDE WITH TRAP PRIMER
FN-1	FUNNEL DRAIN	3"	3"	2"	-	-	PROVIDE WITH TRAP PRIMER
HS-1	HAND SINK	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	COUNTER MOUNTED. PROVIDE WITH THERMOSTATIC AND PRESSURE MIXING VALVE.
IB-1	ICE MAKER OUTLET BOX	-	-	-	1/2"	-	WATER TITE W9700 OR EQUAL.
L-1	LAVATORY	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	SELF SUPPORTING PROVIDE WITH THERMOSTATIC AND PRESSURE MIXING VALVE.
U-1	URINAL	3"	3"	2"	3/4"	-	WALL MOUNTED, FLUSH VALVE ADA COMPLIANT
WB-1	WASHING MACHINE SUPPLY AND DRAIN BOX	1-1/2"	2"	1-1/2"	1/2"	1/2"	GUY GRAY MODEL B150
WC-1	WATER CLOSET	INT	4"	2"	1"	-	WALL MOUNTED, FLUSH VALVE
WC-2	WATER CLOSET	INT	4"	2"	1"	-	WALL MOUNTED, FLUSH VALVE, ADA COMPLIANT
WC-3	WATER CLOSET	INT	4"	2"	1"	-	FLOOR MOUNTED, FLUSH TANK, ADA COMPLIANT

TANKLESS WATER HEATER SCHEDULE

SYMBOL	INPUT (kW)	CURRENT AMPS	TEMPERATURE RISE AT 0.5 GPM	V - Ø - Hz	COMMENTS
WH-1	3.0	14.4 A	41°	208/1/60	EEMAX SINGLE POINT MODEL SF3208

WATER HEATER SCHEDULE

SYMBOL	INPUT (kW)	GPH RECOVERY 90°F	STORAGE CAPACITY	RELIEF VALVE		V - Ø - Hz	COMMENTS
				BTU RATING	PRESSURE		
WH-2	3	14	20 GALLONS	PER MANUFACTURERS RECOMMENDATIONS		208/1/60	AO SMITH DEL 20 OR EQUAL



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PLUMBING SCHEDULES

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PE 601